

**HISTORIC URBAN FABRIC:
SOURCE OF INSPIRATION
FOR
CONTEMPORARY CITY FORM**

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*To my husband, Tayfun,
without whose continuous
support and love
it would have been
impossible to complete
this study.*

ABSTRACT

Our approach to the crises in the contemporary city is architectural understanding: the 'essence' of the historic urban fabric as a determinant, an inspiration-source for design and future city form. The aim of this study is to give a new perspective to the question of design in the contemporary context of the historic city with reference to Istanbul and especially its suburb, Eyup (Holy Shrine).

In relatively recent times, the historical symbiosis between man and his environment; both natural and built, has been disregarded in the process of city making, which has caused catastrophic environmental problems in varying degrees in different countries. We discuss that, among many problems, the degradation of architectural quality and vision accompanied by the dilemma of cultural identity is one of the major aspects of historic Turkish cities, like many others in the developing world, and apparently will continue into the future. This phenomenon is investigated in Istanbul, the principal city of Turkey.

The study argues that one of the most important reasons for the sad failure of the contemporary city are the radical changes in the selection of design motives. This definition gives the problem an architectural dimension which determines the study's nature and scope: an architectural inquiry into the task of urban design in the post-modern era, particularly in the historic city.

Following our analysis to clarify and identify determinants of urban form, the historic city's core is argued to be one of the most formative parameters, and therefore a potential source of design inspiration. The approach to this source, however, is crucial.

We review the current 'understanding' of the historic urban fabric as formal, stylistic and superficial. We assert there is a need to understand its true architectural values and inherent qualities, to avoid both possible imitations of past forms and further destruction, and allow self-determination to achieve a functional, meaningful and identifiable urban environment.

Finally we propose a workable procedure for 'reading' and 'understanding' the historic urban fabric based on the exploration of space and spatial relationships of its urban system, based on the particular case of Eyup.

To accept the historic urban fabric as a determinant and emphasise local values is not only an architectural decision but largely an ideological and political choice for any society. Architects, having the task, and therefore the authority to create cities can influence this choice through their designs. We know that the future of our cities cannot evolve from the present confusion without improving our communication, understanding and consciousness of our traditional architectural assets. We must first 'own' and 'sense' our inherited past and see its merits if we are to give the next generation a more independent perspective.

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*Home is where one starts from. As we grow older
The World becomes stranger, the pattern more complicated
Of dead and living. Not the intense moment
Isolated, with no before and after,
But a lifetime burning in every moment
And not the lifetime of one man only
But of old stones that cannot be deciphered.
There is a time for the evening under starlight,
A time for the evening under lamplight
(The evening with the photograph album).
Love is most nearly itself
When here and now cease to matter.
Old men ought to be explorers
Here or there does not matter
We must be still and still moving
Into another intensity
For a further union, a deeper communion
Through the dark cold and the empty desolation,
The wave cry, the wind cry, the vast waters
Of the petrel and the porpoise. In my end is my beginning.*

(Eliot, T.S. 1974: 203)

INTRODUCTION

Definition of The Problem

The tangible and intangible relationships between man and his environment, both natural and built, are an historical phenomena in human civilisation. They are evident in the historic urban settlements where the reciprocating relationship between man and nature is reflected in distinctive and responsive environments, and is related to human needs.

In relatively recent times, this historical symbiosis was disregarded in the process of city making, which has caused catastrophic environmental problems in varying degrees according to the country. In the cities of many 'developing' countries the situation is worsening each year. Their contemporary city panorama is characterised by dilapidating historic urban settlements, 'modern' pieces inserted into the urban fabric and unhygienic squatter areas; as is reflected in the present image of many Turkish cities, such as Istanbul. It seems that an already existing dilemma in the built environment is likely to become more problematic in the future. The common and ubiquitous problems of those cities can be stated as the pressure of immigration and resulting squatter settlements; the administrative and functional insufficiency of local government; speculative land developments; the degeneration of the built environment, an ill-treated urban landscape, all types of pollution and lack of architectural quality.

The ever increasing environmental difficulties of Turkish cities, particularly Istanbul, accompanied by the economic, social and political conditions of the entire country, lead the observer to question the reasons and circumstances of this tragic state of affairs. Being aware of the complexity of the city and the difficulties in examining all its different characteristics within the scope of a doctoral study, emphasis will be given to one major aspect that is defined here as being the most crucial: namely the degradation of architectural quality and vision. When this is accompanied with a cultural identity problem, as in many Turkish cities, it becomes a problem worthy of study.

Accompanying increasing problems in the city, there has been much criticism that our contemporary built environment has failed to provide an adequate quality of living environment, physically, psychologically and aesthetically; this is especially the case in comparison with many classic pre-industrial cities. In turn this has led to a growing appreciation of historic urban forms, which has recently generated intense conservation movements and strongly influenced new urban design approaches. However, it appears to this author that our present 'understanding' of historic urban fabric is both formal and superficial. In regard to its applications, though conservation has a crucial role to play in the reestablishment of historical and architectural relationships, it accepts the historic urban form as an object. Initially this appears to contradict the nature of the city as an ever changing entity. On the other hand, many recent urban design approaches understand the historic urban fabric as a 'model' or a 'setting' for new designs, most of which include formal recall of historic styles. Therefore, in the view of this author, all these approaches will remain largely unresponsive, and will lack a proper understanding of true architectural values and inherent qualities of historic urban fabric.

Thus the dilemma is a part of the greater problem: that is urban design in the context of contemporary cities, most of which have an historic urban core. The question of design is, however, inseparable from its parameters or determinants which are its *raison d'être* and a potential source of creative inspiration. To sum up so far:

The major problem, at first, appears to be the definition of inspirational sources of design which at present lack coherent delineation in relation to conditions in the country concerned. But more fundamentally, the problem lies in the *approach* to these sources.

We maintain therefore that the problem of urban design in the contemporary context of historic cities cannot be tackled by merely restoring surviving pieces of historic urban fabric, as is the current tendency. Our contention is that the historic urban fabric should be a source of inspiration, rather than an 'object', a 'model' or a 'setting' for any intervention in its fabric. This would revive the long established historical relationship between man and his environment in the city context; the urban environment.

One of the underlying reasons of the problem stated above, appears to be the disruption of this relationship rooted in the neglect for, and a lack of 'understanding' of, architectural, particularly urban design determinants. Therefore, there is a need to clarify and identify these determinants. This dissertation aims to reveal these

determinants and to demonstrate how they can be applied to our contemporary city planning activities, hopefully with the resulting improvement of the urban space in the future.

Main Hypothesis of the Study

The (historic) urban fabric is considered here as the materialised form of an urban system through its architectural elements that combine to create functional, meaningful and identifiable spaces in relation to the society, the time and the place. From the view of the historic urban fabric as a living entity comes the realisation that 'the process' and 'network of relationships between the formative elements' are the major stimulants for dynamic urban forms in each unique historic city. This suggests that the historic urban fabric is not a repository of old codes and forms of bygone times but is an architectural product of its society. This inner-logic of the historic city needs to be continued for the integrity, and harmony of structure. Clues and parameters for integration of new designs are provided by the fabric itself. It is the essential *source of inspiration*, not only for the present problem of urban design, but also for its future.

A simplistic imitation of forms and styles, merely using historic urban fabric as a 'model' must be avoided. Therefore grasping its 'essence' is crucial. We argue that this essence is initially the 'architecture' of the urban fabric. Essence is taken here to mean not the forms, masses, voids or social and cultural motives but the *blended result of all these elements*. We maintain that the essence of a structure or a system (and historic urban fabric represents a system) lies in the 'relationships' among its elements. This is because the elements, their form and content, can be changed in accordance with the changing parameters of the time, but its value, its soul, its architecture can only be deciphered from those relationships.

An entity becomes a structure, a system, not due to its various components but due to the *relatedness* among each element which thus forms a network. The 'essence' of an urban fabric is not immediately visible and evident to us, as it had been to people who lived in the same system creating that fabric; because of the severe break in our historical process caused by industrialisation. But the essence can be felt, or understood as an *intangible dimension*. This should be grasped through careful analysis of structure, and the relationships between the different elements of that structure. Thus the 'essence' becomes the 'understanding' of a particular historic urban fabric.

The hypothesis leads to another idea: that this 'understanding' can be a source of inspiration for new developments in the urban fabric, while at the same time, avoiding the formal, stylistic imitations and eclectic posturing. It is possible to make this understanding a comprehensive 'resource', a stimulant, whilst at the same time preventing it becoming a 'model'. The process of formation which creates its essence, allows us to propose that understanding this essence is the initial step for any new design. Therefore, this study will initiate an attempt to establish such a method, in order to grasp this understanding.

Aim and Objectives

The primary aim and focus of this study is to develop a new approach, a new perspective in the contemporary context of the historic city, for the design problem now and into the future. The initial objective is to examine the factors underlying this problem, giving emphasis to the contextual differentiation between the so called 'developed' and 'developing' countries, with special reference to the Turkish city of Istanbul.

In relation to the definition of the problem and investigation into its underlying reasons, the major determinants of urban form will be examined from a historical perspective. It will be proposed that historic urban fabric is one of the major determinants, and therefore, the inspirational source, of design for any future city form. In addition it will be discussed that it is crucial to understand the 'essence' that lies in the spatial relationships of its structure. As one objective of this study is to suggest a procedure for understanding the historic urban fabric as a determinant. This will be undertaken by critically analysing recent urban design approaches.

The proposition of the thesis will be further argued by analysing the essential characteristics of the historic urban fabric. Our major concern, we will attempt to establish a method to understand the 'essence' through historical and architectural analysis based on the exploration of spatial relationships, with special reference to the particular area known as Eyup, a suburb of Istanbul.

We aim to stimulate an awareness and outline, a method of approach that takes into consideration: the indigenous architectural, social, environmental, cultural qualities and values; that is the entire local system. This system is derived from the historical

experience of man in the making of the city. We intend to claim these innate qualities should be the prior determinants for contemporary designs.

Perspective of the Study

It is commonly acknowledged that our contemporary cities have largely failed to provide a satisfactory built environment for modern society, physically, psychologically and aesthetically. The new urban phenomenon, as the consequence of the new industrial era, has introduced major and urgent environmental, social and cultural problems. The phenomenon, in this case of the *city*, can be studied and understood from different points of view according to the proposition attached to each particular theme. Karl Popper (1963: 46) states that "*Observation is always selective. It needs a chosen object, a definite task, an interest, a point of view, a problem*". The city, accordingly, has been studied from two main points of view. One of these accepts it as a political, social and economic system and analyses it from this perspective. The other view accepts it as a spatial structure and emphasises its architectural characteristics. These points of view cannot give a wholly complete picture of the city, but can provide a partial perspective. Thus, we seek on behalf of architecture, to explain the city from its point of view stressing the total urban phenomena.

Focusing on the economic aspect of the city, Henry Pirenne (1990) argued through his work on the revival of Medieval cities of the Mediterranean after the Roman Empire, that the economy was the motive force behind the revival, and one which retains a powerful hold on us all up to the present day. Nevertheless, the city, from this perspective of modern society, is the spatial representative of the relations within the theme of modern capitalism, which has become increasingly the product of economic processes, rather than solely political ones (Gottdiener 1984: 201). And for Castells "*...the urban (context) is a spatial unit of the reproduction of Labour Power*" (In Gottdiener 1984: 205).

For Max Weber (1966), the formation of a city cannot be realized only by its economic function; there also has to be a political function to form a city. In this way different political and economic systems generate different forms of city. As the city is a complex process of different facilitating motives, it cannot be explained merely by one or two of them. Rather, they present different aspects of a city. So another important factor affecting the form of the city is the social system, the organisation of people themselves. The group, a simple form of social system, can be defined, within the place generated

by the group, as a space that can be said to represent the built environment according to their needs and priorities (Rossi 1983: 30).

Braudel gave great emphasis to the social character of the city. He argues that the city small or great is more than the total sum of its houses, monuments and streets; and as such, it is not merely a centre of economy, trade or industry, but it is a spatial projection of social relations (Braudel 1990: 125). For him, it is a space where all these social relations intersect but, at the same time, inevitably form its structure. A similar attitude towards the city derives from Behme, who states that, "*Form appeared with the setting up of human relationships, so form is par excellence a fact of society*" (In Huet 1984: 15).

However, the failure of the contemporary industrial city to provide the environmental and social qualities of the past, or to improve on them, has generated discussions that tend to concentrate on spatial and social values (Carter 1981; Fisher 1976). It is now realized that it is not sufficient to define the city's formation as an end product or a process merely by means of information about its geography, economy, social or cultural systems. Indeed, it can be accepted that the study of the city concerning these issues is to analyze **how** formation of the city happens. This may now be considered as the subject of architecture itself. Therefore, the city needs to be analyzed on its spatial formation *and* the architectural quality of its form, if we are to be able to criticise its present and suggest its future form. In this context, as architecture is the creation of man's attempt to meet his needs for a comfortable life with aesthetic values, the city, as a physical construction, has been formed by architecture over a long time span (Rossi 1991).

The task of architecture, on the other hand, is not to respond to the questions of *what* to design which are issues of social, economic, cultural concerns, but it **is** to respond to question of *how* to design. Thus, the physical form of the city becomes the core subject of architecture. With this understanding of the man-made environment, cities manifest themselves not only in an economic, social, or cultural manner but also as architectural entities. Thus, it is essential to study the city within the architectural sphere in order to analyze the crucial aspects of its environmental and cultural qualities.

The city is accepted here as an artifact, a man-made object. There are other studies which approach the city in the same manner. Spiro Kostof (1991), for example, investigates the universal experience of urban form seen from an historical perspective. His analysis provides a timeless picture of urban form as a matter of architecture, although it considers time, place and social parameters as inseparable parts of the same urban form. Aldo Rossi (1991) in *Architecture of the City*, (his influential study to establish a theory of the city), defines the city as a man-made object characterised by urban artifacts. He maintains that the city is essentially an architectural product in terms of its construction over time. He argues that all the great manifestations of social life are artifacts, works of art, and the city is one of them. Therefore, he states that the city "*...is an object of nature and a subject of culture*" (Rossi 1991: 33).

Seeing the city as an artifact inevitably involves its *making* which encompasses three major motives: the users, the process and the makers. Each of these motivators would no doubt generate different studies of the city: *users* involves the social implications of urban form and human behaviour and the *process* involves the people, institutions and the motives which all together forms the city. The *makers*, however, indicates the designers who design cities; architects, city planners or as Kostof (1991: 11-12) informs us, military engineers, ships' gunners, administrators, state officials, lords, religious orders, reformers, paternalistic industrialists and the legion of surveyors who can all be named as designers.

However, the central concern of this study is the city's urban form. In other words, the *made*. It is not understood as a completed, finished thing but it is an ever changing and living entity. Rossi (1991: 21) argues that this 'made' is the city and essentially an architectural creation which is "*...inseparable from civilized life and society in which it is manifested*". He argues that "*Architecture came into being along with the first traces of the city; it is deeply rooted in the formation of civilization and is a permanent, universal, and necessary artifact*" (Rossi 1991: 21).

From this understanding of architecture and the city one can grasp that they are inseparable entities. Therefore, if one speaks about a city as a concrete form, the theme of the argument is already within the realm of architecture. Architecture encompasses not only the production of the city, which is a complex form of the built environment, but its task is to 'design' man's environment. A statement by Sir William Holford (1965: 6)

supports this argument, "*The central operation in the spectrum of activities that create the built environment can be broadly described as architectural: i.e. it consists of the organisation of a number of constructional and developmental techniques; to a brief that is defined or definable, in such a way as to produce unity and significance*". For him, the architect is more concerned, particularly today, "...with the design of environments than with the design of monuments" and he performs the function of an artist "...helping to change that neutral thing 'the environs' into something with character and personality - an environment" (Holford 1965: 1).

This argument suggests that 'design' (being the subject of architecture which is distinctly human), is the intrinsic motive for the production of man-made environments, particularly the city. It is an integral part of the production process and cannot be added afterwards, like decoration (Holford 1965: 7). It is the very essence of this process in which a thing becomes identifiable by 'design'. Architectural design, Holford (1965: 7) argues, "...involves calculations, forecasting, and planning; and the planning is more than co-ordination of structure for the use and enclosure of space. It consists of dozens or hundreds of intuitive choices of forms, symbols, colours, textures, and proportions, made at the same time as the process of calculation and combination is going on". Thus it is dependent on the condition of man's intellect, as well as his manual skills.

The above argument implies that the city, in the sense of its urban form, is produced by architectural design. In some cases, this is according to a pre-conceived plan, in a deductive manner such as the ancient Greek city, Miletus; the 16th century Italian city, Palmanova; or the 20th century American city, Manhattan, all of which were established according to a regular plan. Their total shape is determined according to a master plan, at one particular moment. Therefore, their realisation is not evolutionary. In some cases the city grows in irregular patterns; in an inductive manner. This illustrates what is called a 'spontaneous' or 'organic' city (Kostof 1991: 43). This category is well represented by the Islamic and Medieval European towns such as Tunis and Siena. However, as Kostof (1991: 52) argues, a seemingly arbitrary form of the city does not prove that they were not planned. But the design was processional, rather than immediate and totalistic, and, therefore, the time parameter is one of the main motivators of its form.

Studies of the urban form, within the historical experience of man to produce his space, (Mumford 1966; Gutkind 1964; Broadbent 1990; Kostof 1991; Morris 1994) exposes that

design, in the sense of urban form, encompasses many factors and it is not an independent activity. It is bound up with and determined by time, place and social parameters. The use of space according to conditions such as climate, sound, vision and movement; its services and structure; its relations to the external environment, buildings and landscape, are on one side of the design process. On the other, economic and social determinants need to be taken into consideration in the process of producing not only a physically, but an aesthetically satisfactory environment. At this point, the problem of design and the form of urban environment and its sufficiency becomes a crucial phenomenon.

Thus, making designs which appears to have different qualities needs to be analysed. We argue that this is an abstract function of intellect in terms of its process, but it is a concrete function of man's ability in terms of inputs and outcome. The combination of inputs, according to *man's will*, determines the outcome that is, in a broad sense, the urban environment. Design is, therefore, essentially, a subjective matter. Our argument is supported by Holford's (1965: 6) statement that, "*The motivations behind any man-made environment are, of course, human and social*" however, "*...its new elements are due to design and invention*". This statement is important in two respects and describes the key point of this study, indicating that both motivation factors and principles of design are to be considered in the creation of the *new*. But, at the same time, it indicates the significance of design as *the* major factor in forming the urban environment.

Thus, the major issue in this study of urban design is an attempt to identify the determinants of urban design, that is the priorities and preferences to be considered in designing the urban environment leading to the future city form. We agree with Holford (1965: 16) that "*...**design** is a process of **selection** among a host of variables, so as to produce unity, impact, symbolic significance, and permanent cultural value*"¹. The combination of the selections as historical experiences exhibit are evident in the urban form.

This study argues that one of the major reasons for the failure of the modern city to provide a satisfactory built environment is the inadequacy of much urban design. This has occurred because of the radical change in the selection of motives to design with,

¹The emphasis is added by the author.

and the lack of inspirational sources for making design. This definition makes the problem an architectural phenomenon, that in turn, determines the nature of this study *an architectural inquiry into the problem of urban design in the post-modern era.*

Although the problem is a general one, the inquiry will be, according to the limits of a doctoral study, related to a defined scope. There is a need to distinguish contemporary cities which differ, according to their formation process and time, with the industrial modern cities with overlapping pre-industrial and industrial experiences. While the former are entirely founded by the conditions of the industrial era, the latter already had an uniform, identifiable urban form which was disrupted and destroyed by the overwhelming applications of the modern era. This condition is a significant factor in determining the core of our concern. Thus, although the question of urban design is seen as common to both cases the nature of investigation differs according to each phenomenon.

This study, therefore, will examine the latter case: that is, the problem of design in cities with historic urban origins. It will attempt to expose the reasons for the disruption and destruction of the historic urban form and suggest a different perspective for design in the planning of these cities in the future.

Topics of the Study

The present collision between modernity and pre-modernity is explicit world wide in the social and cultural spheres. This is also reflected in the city's physical structure. While the modern city has failed to provide adequate built environments, the old ones are sinking under overcrowding, lack of services and neglect, mostly as a result of the overwhelming impact of modernisation. Modern society has generally failed to produce equivalent or better ones. On the contrary, historic cities, each with its unique images, architectural and environmental qualities are being neglected, and in many cases vigorously destroyed. As a result, a *duality* has occurred in the urban fabric which appears as both historic and modern fabric. This confusion has disrupted the uniform and continuous character of the pre-industrial city: its system, the network of relationships among its varying formative elements, has been fragmented or even destroyed. The new elements, designs for the modern conditions, could not integrate with the 'old' system, and some were explicitly aimed at forming a totally new system. The design considerations for this new system were based on current economic and

political preferences, creating a new vocabulary for architecture as a whole. The received wisdom is that the so called rational and universal rules of 'new' design could be realised by ever advancing technology, and could be applied everywhere. Thus genuine local characteristics have been neglected and a global and uniform city image has been created by the insertion of modern architecture according to the needs of modern society.

The already existing (what is now called historic) urban structure was to be replaced by the 'new', which declared its authority over the 'old' through destruction and irresponsible applications. The first hypothesis of this study arises from the phenomenon that:

new concepts and forms alien to the already established system and network of relationships between formative elements of urban structure; they have disrupted its patterns and in turn caused the destruction of the inherited built and natural environmental qualities.

Since the second half of the 20th century, criticism of modern planning applications has increased as they have come to overwhelm the existing environmental qualities of the city. This criticism generated an appreciation of the old city as it represents the societal, collective agreement of a life style and forms a coherent and identifiable structure. The main scale of its form was, evidently, man; in contrast to today's scale which is the car. Chermayeff and Alexander (1963) pointed out one of the important differences between historic towns and modern ones: it is that the hierarchical organisation of space in historic towns, from private to public, is clearly expressed in its physical form. In the modern city, spatial organisation mostly represents confusion and lacks clarity. The historic urban fabric, therefore presents an integrated structure in contrast to the fragmented structure of the modern city.

Criticism was not pointed only towards the physical results of the modern era but to its ideology as well. Thus, criticism of the modern city was accompanied by the philosophy underlying its sources, authority and validity for all. As a result, the end of this century has witnessed a great loss of faith in modernity. In parallel with this thinking appreciation for, and recognition of, the past has become the core of post-modern discussion not only in philosophy but also in architecture. The historic urban fabric is now considered as a representative of the cultural identity of a society, vital to it, and therefore in need of study and preservation. This helped to start the conservation movement, initially in Europe, aimed at saving the historic urban fabric; a movement that

has spread all over the world. Meanwhile, a search was carried out in the architectural field in order to find responses to contemporary design problems which have been generated by various theories and applications such as high-tech, deconstruction and historicism. This author feels these attempts failed to create a coherent argument on architectural issues, but instead resorted to the battle of the 'styles'.

Conservation led to intense discussion of its philosophy and principles. Appleyard (1979: 21) indicates this had "...*healthy and ...neurotic aspects*". Its applications became, mostly, surface restoration and conservation areas became isolated sites and refurbished pockets of contemporary cities mostly with the new tourist trade in mind. The historic urban environment turned into a 'commodity' due to this economic potential. Many conservation applications may be criticised since they are often used to produce a sort of 'museum' environment; however in the sense of its 'essence', conservation of the legacy of the past is vital to the formation of future city planning. In this study, conservation of historic urban fabric is considered not just the activity of repairing and restoring the old buildings, but *designing*, as Linstrum (1991) suggests, *designing with existing*. This definition seems to imply that conservation deals only with the existing, but not with the new.

If one accepts the city as a living, ever changing entity, conservation thinking alone, clearly becomes insufficient for its cycle of reproduction. The actual state of the urban form, is in transition from one phase to another. It does not stay in a fixed condition, but is continually transformed. In this sense, while the conservation approach accepts the urban form as an *object*, the property of it being transformed suggests it is a *process*. Therefore, any new approaches aimed at finding solutions to the present dilemma of urban design in the historic city, need to take this characteristic into account.

The core question in designing new in the historic urban environment appear to be *how* to design within a given structure that is also fragmented and disrupted; *how* to generate the future form of a city that has adequate architectural and environmental qualities, and cultural identity. The most hopeful response to these questions suggests that, at first, careful observation of the present state of a city accompanied by an in-depth investigation of current planning practices is required. This must be set in the context of a comprehensive insight into the historical discourse on architectural design, with special reference to the city. These matters help to define the major topics of this study.

Approach of the Study

This study, as a whole, is aimed at addressing the design problem in the production of the contemporary built environment in the 'age of urbanisation'. Cities with an historic urban nucleus will be the focus of our research. It is argued above that the historic urban fabric can be a source of inspiration for new designs that will, it is hoped, be more in keeping with the dynamic character of the city. Any new designs will be expected to represent their time in terms of formal, stylistic, technical and functional phenomena, as Gottfried Semper indicated, "...each architect must work within his own culture" (Anderson 1982: 114), so that, "...they will not come back as history and memory, but elements of design" (Rossi 1983: 21).

New life must be introduced or the urban area will become a museum to visit. The revitalisation of the spatial and architectural quality, gained through experiencing the historical value of a place, is an essential factor aiding the formation of the future city. This cannot be achieved merely by repairing the formal appearance, but the old spatial core can be the reference for new structures. There are, today, no other references, such as traditional social and economic relations or decision-making process in construction, to design with. By accepting the historical urban fabric as the main reference for new designs a better unity can hopefully be achieved. Therefore, we should build new structures in and around an historic urban fabric according to its 'essence', with conciliation rather than with criticism.

Scope of the Study

Although the urban design problem in the historic urban fabric is a common dilemma, the case of the 'developing' countries differs dramatically. The present crises of the built environment originated in Europe, in parallel with the industrialisation process. The modern city's form and concept was alien to the historic urban fabric because of its ideology which prized the 'new' and neglected the 'old'. It was opposed to nature and previous cultures, with the claim of creating everything from the beginning according to rational rules. Modern ideology was the outcome of the historical process, according to the subjective conditions of its societies. In the case of 'developing' countries however, it was a sudden strike and dominance, rather than a self-constructed process of those societies. Since the historical process could not be repeated over again, its ultimate consequences had to be accepted. As a result, the contemporary cities of those countries became hideous imitations of modern, Western cities regardless of their local

qualities or conditions. So, the concepts and forms of the modern city were alien to the urban structure of these cities, not only because of its ideology, but also because of the nature of its realisation process.

Therefore, the definition of the scope is important in order to frame the domain of the subject. Thus the major context of this study will be the case of cities with an historic nucleus in developing countries. This covers a vast area, and those countries differ dramatically in respect to their historical backgrounds, cultural and social structures, the degree of economic development and the process of experiencing the modern industrial era. This diversity suggests the study should concentrate on a specific case, in order to make more detailed investigations and more persuasive evaluations, and reach worthwhile conclusions.

The city of Istanbul, therefore, is selected for such analysis due to the collision between its historical importance, great architectural values and its present horrific problems that desperately need 'solutions'. Contemporary Istanbul has had its architectural and environmental qualities almost destroyed by the lack of coherent approach to its modernisation over the last 150 years. Thus, the historic urban fabric of Istanbul will be the 'place' of our enquiry, to 'test' the hypothesis of this study.

Method of the Study

This study is essentially the construction of an argument towards a solution for making new designs in historic cities, which may provide helpful answers in identifying the design determinants of those cities. This research has been largely carried out by an investigation of library sources related to these issues in both Britain and Turkey. The development of the argument has led to, and formed, the structure of the study. The research process has been greatly supported by attending conferences and organising workshops in which the approaches, the arguments and findings have been developed over the last four years.

One of the major issues of this study is that new architectural and planning concepts, forms alien to the already established city system, have unnecessarily and negligently disrupted its continuity, causing the relatively rapid destruction of the city's built and natural environmental qualities painstakingly established over 2000 years. This has been examined through the detailed investigation of the transformation of Istanbul, a

process beginning in the 18th century. Therefore, primary sources such as traveller's accounts and municipality reports have been explored, along with the numerous studies that have been undertaken of the transformation in the Ottoman society and its cities. The information and evidence related to the urban structure of historic Istanbul in these secondary sources, (both in English and Turkish), have been analysed and evaluated from the point of view of this study.

A framework for understanding the historic urban form has been proposed. Instead of basing our approach on abstract concepts and assumptions detached from parameters of time, society and place, our method is directed toward a certain 'place'; Eyup, once just outside the old wall of Istanbul. Despite this a rather abstract procedural mode may have resulted, even after several studies were tried out, in spite of the best efforts of the author.

Historical research related to Eyup's built environment was undertaken. Although Eyup has been one of the primary conservation sites in Istanbul due to its historical, architectural and social significance, there have not been enough studies that relate to its historic built environment. Investigations of many primary sources have been very useful to this research. Numerous libraries were consulted, as were institutions and scholars who might provide information about Eyup in Britain, Turkey and Greece; these are summarised in Chapter 8, and more detailed information about the research is presented in the Appendices.

Structure of the Study

The study is divided into three main themes. The first theme is the identification of the problem in the contemporary city, with special reference to the case of Istanbul. The second theme is the investigation and understanding of historic urban form and its role as a determinant for contemporary urban design approaches. The third theme will discuss and justify the main arguments of the study and attempt to establish a method of analyzing historic urban form, and its role as a generator of future design/planning thinking.

Chapter One examines the urban problems in the contemporary context of the historic city from an architectural point of view, with a special emphasis on the determinants of urban form. The accurate definition of a problem requires careful observation, research

and critical assessments of the phenomenon in which the dilemma occurs. A well defined problem, from which research questions are derived, is deemed as the prerequisite for a promising result. Therefore, this chapter discusses the difficulties of urban design in the contemporary city, considering its reasons and changing nature according to the context. The roots of the problem, found in the ideology of the era described as Modernity, are discussed in relation to the developed world, from which the ideology emerged, and the 'developing' world which hideously imitated its consequences. Although the focus of the study is on the latter situation, an inquiry into the origins of the ideology, the images and concepts of the modern city is necessary to provide an insight into the conflicts in the 'developing' world. A particular emphasis will be given to the example of Turkish cities, with special reference to the case of Istanbul. This chapter will indicate that new concepts, institutions and forms alien to the already established system of urban environment caused the destruction to its various indigenous qualities. This is considered to be the major reason of present day problems in the contemporary city. However, this point of view needs to be clarified and tested through a profound analysis which, in this study, will focus on the transformation process of Istanbul.

Chapter Two will examine the first phase of the metamorphosis of Istanbul's historic urban fabric from being a 'splendid' city with its Turkish - Islamic character to a modern 'urban hell'. It will illuminate the reasons for the transformation, which is called Westernisation (from 1700s until 1839). The impact of this process on the urban fabric, both on the buildings and urban scale, will be exposed to find answers to the questions *why* and *how* was the transformation carried out.

Chapter Three will continue to examine the transformation process from 1839 until the present. Special emphasis is given to the 19th century conditions of the Ottoman Empire, which greatly affected the changes in the urban structure of the city. Alterations, in the urban fabric are investigated at two levels; building and urban. The former consists of an exploration of new building types in the urban fabric, transitions in architectural vocabulary, influence of foreign architects, changes in residential buildings and finally the search for architectural identity and the parallel quest for a national identity, deriving from radical upheavals in the social and political structures of the Ottoman society. The latter consists of the introduction of modern urban planning concepts and their initial applications in the fire hazard areas; changes in urban administration, pretentious urban design projects and the introduction of modern

transport systems. The investigation will be carried out into the present state of the city. However, a special emphasis is given to the initial conditions and the consequences of the developments that are, we believe, the genuine roots of today's problems. These two chapters will illuminate the reason and the realisation of today's predicaments, which are a lack of architectural and environmental quality in Istanbul's urban fabric compared not only to its past, but to the requirements of an adequate environment today. This chapter, together with the previous one, will demonstrate that neglect and lack of understanding of the determinants of urban form, particularly that of the historic urban fabric, are the major reasons for the situation in the late 20th century.

We will indicate that one of the causes of the present situation in many contemporary cities, like Istanbul, lies in the shift in the determinants of the urban form. Chapter Four, identifies the determinants of urban form which shaped the pre-industrial city. A special emphasis is given to architecture which is defined as the *determinative* factor rather than determinant. The existing historic urban fabric is proposed as an important motivator to lead new designs in the gradual development of the urban structure. It is proposed here, that, in regard to the scene of the contemporary city, the historic urban fabric should be the determinant of new designs and thus inspire the future city form. And in an historic city they be the source of new interventions and insertions into the urban fabric. This is the main hypothesis of this study.

Accepting the historic urban fabric as a source of inspiration rather than as an object, a model or a setting, expresses the importance of the attitude towards this source. Chapter Five therefore discusses the recent approaches in urban design in response to the problems of the historic city. Conservation will also be investigated for two reasons. Firstly, it deals with the historic urban fabric in terms of its repair and restoration. Secondly, it is, as Linstrum (1991) describes, a design approach that is designing with the existing. This chapter will argue for these approaches, in relation to their capability to solve contemporary urban design problems in historic cities. Special emphasis will be placed on the sources and motivations of a number of urban design proposals, analysing how the historic urban fabric is perceived and in what sense.

Chapter Six will argue the hypothesis of the study, questioning *why* the historic urban fabric should be a design source. The discussion will be carried out by analyzing the basic notions of the hypothesis summarised by these key words: the past, system,

continuity, identity and creativity. This chapter concludes that understanding the 'essence' of a historic urban fabric is a necessary step before designing any *new* or conserving the *old* in a historic city: the intention of this is to avoid imitations of its formal architectural vocabulary which may cause another era of eclectic historicism.

Chapter Seven deals with the question of how to grasp the 'essence' of historic urban form. Initially, the method of reading a city, which has been developed by numerous studies, will be examined. These current studies on the analysis of urban form will be assessed critically, which will generate the proposal of this study to scrutinise and analyse the architectural and spatial structures of historic urban form. It will argue that each historic urban fabric is a unique case. Therefore the method of reading and understanding its 'essence' needs to derive from the subjective conditions of the city itself.

The discussion carried out in Chapter Eight will propose a workable framework for a method of comprehending the historic urban fabric based on the exploration of space and spatial relationships of its urban system. As each city is unique, the method needs to derive from the subjective conditions of the city itself. However, a framework for this method can still be defined and supported by conceptual discussion. The method will not be applied as it goes beyond the scope of this doctoral study but will be formulated and illustrated with special reference to the town of Eyup. However, it needs further development through other studies. This chapter will conclude by asking how to use this understanding in new designs. How can it be a source, a stimuli for new design thinking that can represent the future but at the same time be integrated with the existing urban fabric? These questions can be answered by further studies, but also by the actual design approaches of practising architects, who are responsible for finding responses to the question of *how* to design, if not 'what' to design.

Chapter Nine will summarise the issues discussed in the study and will highlight the major points and remarks that have emerged out of the argument. The introduction of historic urban fabric as a vital resource for future designs, into the domain of architecture, will be suggested on two levels, educational and professional. The role of architects will be emphasised in regaining the autonomy of cities.

CHAPTER ONE

Crises in the Contemporary Urban Form

1.0. INTRODUCTION

In research it is deemed necessary that an accurate definition of a problem requires careful observations, analysis and critical assessment of the phenomenon in which the problem occurs. A well defined problem is understood as the prerequisite of any proposal for a promising result. We will therefore concentrate on the common problems of the built environment shared by many contemporary cities, and thus attempt to identify the major concerns of this study. Secondly, special emphasis will be given to the differentiation between so called 'developed' and 'developing' countries' circumstances and problems. Thirdly, this study will focus on the cities in Turkey, particularly the distinguished, ancient, influential and historic city of Istanbul. The principal questions that will inform the search will arise in this chapter.

1.1. **URBANISATION: THE MAJOR PHENOMENON OF THE PRESENT *and* FUTURE**

The urban phenomenon is one of the most striking features of contemporary civilization, and seemingly will be one of the future. However, urbanism is not entirely 'new' to man who has the urban experience, according to available evidence, since 7000 B.C. with the earliest known city, Jericho, near the River Jordan (Broadbent 1990: 3). Fisher (1976: 5) indicates that from the earliest cities to the metropolises of the modern day "...*cities and ideas about city life have endured as part of the human experience*". However, the massive urbanisation¹ of humankind that occurred in the 18th century caused fundamental changes to human life. The present situation is similarly stated in a UN report that, "*The most conspicuous feature of today's accelerated world population growth is its even greater rapidity of urbanisation but the tempo and dimensions of recent years have never been equalled*" (In Carter 1981: 21). It is estimated by Kingsley Davis,

¹"The urban growth reached about 23 per cent per decade between 1850 and 1900, it achieved over 40 per cent between 1960 and 1970" (Carter 1981: 25).

a demographer, that by the year 2000 about 25 per cent of the people in the world will live in cities of over one million people (In Fisher 1976: 243).

The dominance of urbanisation, associated with industrialisation, in the spatial organisation of the world's demographic structure is evident not only in the Western but also in the developing world (Carter 1981). Current urbanisation in the latter is, in some respects, like the experience of Western cities between 1880-1920. However, in other ways it is critically different. "*For one, urbanisation in the Third World is outrunning the development of an economic base for it; instead of rural workers being attracted to the city by vacant jobs, they are coming to cities with high rates of unemployment. Secondly, urban growth in developing nations is happening at a much more rapid pace than it did in the West. Third,...most of the urban growth in these nations is a result not of migration but of the general population explosion*" (Fisher 1976: 247). The present urban phenomenon, finally, is defined as the *crises of the contemporary city* (Fisher 1976).

Following identification of the phenomenon, the causes for it were examined (Fisher 1976; Carter 1981). Accordingly Carter (1981) suggests three groups of causes which accelerated urbanisation. The first was basically economic development, generated by the radical change of mode of production from agricultural to industrial. The second he defines as the agglomeration of economies, that is to say that economic growth is cumulative and cyclical in urban areas. The third cause is the political and social change which is, Leonard Reissman argues, one of the main reasons *why* the industrial city is a radical break from earlier urban history (In Carter 1981: 29). He argues that the process and content of urbanisation differs according to countries. Some countries begin with industrialism but others, the developing countries, experience city growth first. His study stresses the importance of political and social change which has generated an urbanisation without industrialisation (In Carter 1981: 30). Manuel Castells, on the other hand, indicates the mutual relation between the present urbanisation process and the capitalist economy (In Carter 1981: 418).

These analyses of the present urban phenomenon point to the dominant trio of the current culture of Man; *industry* as its principal mode of production, *capitalism* as its economic institution and the *present urban environment* as its space. Thus, the present urban phenomenon, it can be argued, is not a thing in itself, but is inseparable from the conditions of man's present civilisation: that is, namely, *modernisation*.

The industrial era prolonged from the Enlightenment period of Europe introduced new formations, institutions, relationships and life styles to man causing dramatic changes in his spiritual, material and social life². In spite of feverish support at the beginning the new era, since the second half of the 20th century, is considered to have created disruption and destruction in pre-civilised (pre-industrial) societies. Therefore civilisation (in the new era) has extended itself over the whole world and "...*pre-civilized societies exist only in rapidly declining pockets*"³. As a result catastrophic problems have occurred in the urban areas from several viewpoints. For instance, the urban geographer Harold Carter (1981) summarised these problems from the point of view of the quality of life. According to him alienation is one of the characteristic problems of the present urban areas creating superficiality in social relationships. Poverty is another problem which is evident in "...*the decaying inner city areas of western cities*" and "...*the peripheral slums of cities of the developing world*" (Carter 1981: 33). Transport systems, he argues, provide diurnal mobility: this in turn creates the modern large city. Pollution of air and water is another crucial problem to be faced in many areas.

These, and many other problems, threaten the vital qualities of the natural environment as well as the built environment. The resulting threat to the ecological balance of the life cycle is in turn the destruction of man's habitat: the world. This threat to the natural environment has vital consequences for mankind's future. However, the major concern of this study will be the crises in the *built* environment, particularly the city.

1.2. PROBLEMS IN THE CONTEMPORARY CITY

Much criticism has been generated, mainly in the second half of the 20th century, that our contemporary cities have failed to provide an adequate environment for the human being, physically, psychologically and aesthetically. The most pressing major environmental problems facing urban areas today, are stated in the O.E.C.D.⁴ Report of 1990 and are: *air and water pollution; waste from cities, noise generation, pressure*

²This issue is analyzed extensively by Fisher in his study on Urban Experience (1976) in which he concludes that urbanism produces social disorganisation.

³K.E. Boulding; Conference on the City in History, Harvard, 1961 (Quoted in Chermayeff & Alexander 1963: 25).

⁴The Organisation for Economic Co-operation and Development (O.E.C.D.) was established in 30th September 1961, basically to promote economic growth of both member and non-member countries (O.E.C.D. 1990). The original Member countries are mostly industrialised countries such as Germany, U.K., U.S.A., France, Italy and Japan. However some industrialising countries such as Spain, Greece, Portugal and Turkey are also members.

on land for urban development and therefore land contamination; deterioration of the quality of urban life; degradation of urban landscapes. All are truly valid for many cities in the world including Turkish ones. According to the above report, an analysis of these problems demonstrates that industrial development, (both private and public) and related consequences such as traffic, noise and pollution, are the main causes of an inadequate built environment today.

Questioning of this phenomenon demonstrates that many fundamental transformations have taken place in the world of epistemology, as well as in economic, political and social spheres, mainly in Europe following the period of the Enlightenment. City space as the platform of man's economic, social and cultural activities has reflected these changes. Therefore, old cities, just like their societies, have experienced radical changes in their structures and identities since the 19th century, known as the industrial era. The economic base of this era, the industrial mode of production, introduced new relationships and overwhelming formations to society and to the built environment. The industrial revolution can be accepted as one of the most significant turning points of mankind. During this, working conditions, life styles, notions of urban design and the production process of the built environment drastically changed; and are still changing at an ever increasing rate. Modernity is accepted as the ideology of the new era; its applications have affected greatly the cultural entities of human kind world wide. Isar (1986) argues that all development of societies towards and within modernity came through industrialisation and mechanisation. One of the consequences was the spread of urbanisation which became the characteristic feature of the civilisation of modern times. The urban fabric and landscape, particularly, have suffered deeply from the attitude of the new era in the name of 'progress' and 'civilisation'. However, 'progress' itself has apparently caused the destruction of much of our natural and built environment.

At this stage there is a need to point out that the reason, the process, and therefore the results of these new developments differ dramatically in developed and developing countries. Therefore before examining the problems of the contemporary city in both cases it is necessary to clarify the notions of 'developed' and 'developing'. There are various systems of classification to define countries according to their level of development within their material advances. One of them is the division of the world according to political and economic advances (Buchanan 1967: 14). Accordingly the term *Third World* is applied to the block of emergent nations which are mainly former

colonial dependencies. On the other hand, the *First World* is represented by the industrialised nations of Euro-America, while the Second World was applied to the former communist countries such as the U.S.S.R. and those in Eastern Europe. However this division is no longer valid as the communist bloc has been scattered.

There is also a two-category division; *developed* and *underdeveloped*. While the developed world is represented by the Western industrialised nations, countries of the underdeveloped world, as suggested by Hoffman, are characterized by poverty, lack of industrial growth accompanied by inadequate supplies of power and light, a low level of literacy, insufficient number of hospitals and lack of higher education, poor banking systems and raw materials as major export goods (Buchanan 1967: 18). This generalized description was only applicable to countries on the eve of their independence. Therefore a new term, to replace the word of 'underdevelopment' is suggested by French geographer, J. Chesneaux, that is *pre-developed* (Buchanan 1967: 21). Accordingly it is maintained that pre-developed societies had attained a high degree of cultural, economic and political development long before Western Europe attained them. Therefore their backwardness which is measured in material terms, such as the standard of living or the degree of economic diversification, is in essence relative. And besides, this 'backwardness' is because their indigenous development was cut short by Colonialism imposed on them by Europe in the 18th and 19th centuries.

Another attempt to distinguish countries was made by describing them as the *West* and the *Other* (Gledhill 1989; Portugal 1989). The term West basically refers to the European part of the World (capitalist or socialist) that created the new set of values towards nature, the ideology of industrialisation and concepts of development. In this sense the 'Other' simply indicates the non-Western world. Alternative classifications, similar in their meaning but different in their focus, include *industrialised* and *industrialising* countries, *Occident* and *Orient* or *West* and *East*.

It can be argued that the basic distinction between the two worlds derives from differentiation in the process and the origin of industrialisation accompanied by modern ideology and the capitalist economic mode. Hence the definitions of *developed*, *First World* or *West* or the counter terms are actually *determined by their historical backgrounds*. Accordingly, the development of the West derives from its historical process in which the Enlightenment and the industrial periods have been shaped,

initiated and conducted by those societies. However, the underdeveloped side of the world had to accept its imposed results, admitting them as the only possible way to civilisation. The main distinction arises here, that because in the West the phenomenon was a spontaneous transformation process with its own subjective circumstances, both material and spiritual culture of those societies were shaped accordingly. On the other hand, the imposition of those cultural structures on the *Other* parts of the world disrupted their ongoing processes and did not generate a new and better one. As a result, the injected new structures remained alien, degrading their cultural entity and identity. Finally, while the contemporary Western culture to some extent presents a uniform character, the *Other* has duality which causes collision and confusion in its cultural body: this in turn is reflected explicitly in the built environment.

In order to understand the reasons and nature behind this conflict, the concept of modernity as the major ideology of all changes needs to be clarified. Therefore, first modernity, and then the question of the contemporary built environment will be explored within their original context, that is to say, where they were initiated and formed through the historical process. Subsequently their imposition and hideous imitation by the developing countries will be examined, as will the links with environmental and architectural problems and effects on cultural identity. The case of the city of Istanbul in the context of Turkish culture and history, will be presented as the paradigm of this process.

1.2.1. The Ideological Basis of the New Era: Modernity

The word 'modern', in its Latin form 'modernus' was used for the first time in the late 5th century to differentiate the present, which had become officially Christian, from the Roman and pagan past. Therefore the term modern, with varying content, expresses the consciousness of an epoch that relates itself to past of antiquity, in order to view itself as the result of a transition from the old to the new world (Habermas 1981: 3). From this definition we grasp that the literal meaning of *modern* does not indicate *better*, since it does not have the meaning of *quality*. It refers to *time*. Therefore it represents the *new*.

The approach of modernity towards past is an underlying characteristic, expressed explicitly by its most prominent contemporary scholar, J. Habermas that it "...*revolts*

against the normalizing functions of tradition; modernity lives on the experience of rebelling against all that is normative" (Habermas 1981: 5). Accordingly,

"The modern, avant-garde spirit has sought, instead to use the past in a different way; it disposes over those pasts which have been made available by the objectifying scholarship of historicism, but it opposes at the same time a neutralized history, which is locked up in the museum of historicism"
(Habermas 1981: 5).

Modernity as defined by Habermas is *"...the project...formulated in the 18th century by the philosophers of Enlightenment, consisted in their efforts to develop objective science, universal morality and law, and autonomous art, according to their inner logic"* (Habermas 1981: 9). Therefore *"The Enlightenment philosophers wanted to utilize this accumulation of specialized culture for the enrichment of everyday life, that is to say, for the rational organisation of everyday social life"* (Habermas 1981: 9). Enlightenment thought embraced the idea of progress and a break with history and tradition (Harvey 1989: 12). Thus, the new ideal age, established early in the 19th century:

"...radicalized consciousness of modernity which freed itself from all specific historical ties. This most recent modernism simply makes an abstract opposition between tradition and the present; and we are, in a way, still the contemporaries of that kind of aesthetic modernity which first appeared in the midst of the 19th century. Since then, the distinguishing mark of works, which count as modern, is the 'new'"
(Habermas 1981: 4).

In the period of the Enlightenment, any question required only one possible answer which was to be sought through the rational way. This understanding led to the idea that *"...the world could be controlled and rationally ordered if we would only picture and represent it rightly"* (Harvey 1989: 27). By this thought, it was assumed that there is *"...a single correct mode of representation"* (Harvey 1989: 27). Accordingly, modernity has created its own world, its own system, but in doing so, it destroyed the existing one since there was no longer any need for it. However after the revolution of 1848 this idea began to break down (Harvey 1989: 28). Developments in art and science, most influential of which was Einstein's theory of relativity, accelerated this break. Together with this shift in modernism's tone, it *"...had to recognize the impossibility of representing the world in a single language. Understanding had to be constructed through the*

exploration of multiple perspective" (Harvey 1989: 30). It was further criticised in terms of aims and results.

Although the aim of Enlightenment was "*...to liberate human beings from their chains*" by the desacralization of knowledge and reliance on scientific knowledge, the cruel experience of the Second World War caused a serious doubt in the validity of this assumption. Horkheimer and Adorno in their *The Dialectic of Enlightenment* criticise the logic hidden behind Enlightenment rationality, arguing that it is in fact "*...a logic of domination and oppression*" (In Harvey 1989: 13). Similarly Bradbury and McFarlane argued that beneath the surface of modern life, dominated by knowledge and science, the real content is wild, primitive and merciless (In Harvey 1989: 15). The basic principle of modernity, in fact, is its attitude towards the past. Harvey (1989: 11) indicates that:

"...modernity can have no respect even for its own past, let alone that of any pre-modern social order".

It has changed the norms of life in every field. Daniel Bell, the American neo-conservatist, pointed out that "*Modernist culture has come to penetrate the values of everyday life; the life-world is infected by modernism*" (Quoted in Habermas 1981: 6). Accordingly as British Historian, Eric Hobsbawm indicates, *traditions* of the new system were invented during the process (In Celik 1986: xvi). Rationality, individualism, materialism and developmentalism, as the basic principles of modernity, formed a new way of life which has also been embodied in the cities. As the result of these aspects of modernity, nature and culture were opposed for the cultivation of the new (Friedman 1989).

The new culture of mankind, modernity, with its ongoing form has been increasingly criticised since the end of 1960s, both by modernists (Habermas 1981 & 1989) and their opponents (Lyotard 1990; Feyerabend 1991; Kuhn 1991). Habermas, the most prominent advocate of modernity, has been extremely critical of the development trajectory of modernity as an empirical social formation. But he argues that "*...the project of modernity has not yet been fulfilled*" and he adds "*The project aims at a differentiated relinking of modern culture with an everyday praxis that still depends on vital heritages, but would be impoverished through mere traditionalism*" (Habermas 1981: 12-13). On the other hand, the intensified discussion on modernity and its opposition were differentiated by Habermas into three main categories (Habermas 1981). One is the old

conservatism which longs for a return to premodern forms of life. Secondly there are the young conservatives that he associates with post-modernism. He claims that this trend presents a modernist attitude in their way, and led by M. Foucault and J. Derrida. Finally, there are the neoconservatives who "*...welcome the development of modern science, as long as this only goes beyond its sphere to carry forward technical progress, capitalist growth and rational administration*" (Habermas 1981: 13).

Questioning modernity has led to discussions not only of its reasons and results, but also its sources. Lyotard (1990) discussed the epistemologic source of the modern era; the knowledge, questioning its authority, validity and quality of being universal. Similarly Kuhn (1991) investigated the process of scientific discoveries and presented doubts on the absolute objectivity of scientific knowledge because of the influence of social factors on scientists. In the same manner Feyerabend denies that "*There is a scientific method, it helps us to discover what the world look like and how we can change it to fit our needs*" (Feyerabend 1991: 9). He tries to show that scientific discoveries clash with basic standards of rationality and familiar methodological prescriptions. Accordingly, for him, science did not progress in a rational way and could not have progressed in this manner. Therefore First-World science that was established by the Enlightenment project, cannot be the only acceptable source of knowledge because, it "*...contains ideas that arose from particular historical conditions and therefore lack universal validity*" (Feyerabend 1991: 9). He further argues that non-western sciences were eliminated in many places not because they failed but that First-World science had the greater military power. Therefore First World science was accepted not because it produced better understanding or a better life for all but because it produced better guns. He concludes his ideas by suggesting that:

"Every culture, every nation can build a science that fits its own particular needs. But to do so it will first have to eliminate, or at least tame the political and economic powers that continue to impose the less subtle ideas and the belligerent and destructive practices of the First-World"
(Feyerabend 1991: 11).

Criticism of modernity has increased, in particular, since the 1970s with "*...an implosive loss of faith in the progress of civilisation*" (Friedman 1989: 246). Two major ideological discourses have been generated from the discussion about modernism. One of them is post-modernism (Harvey 1989), represented by Lyotard, Foucault and Deleuze &

Ghuttari; and the other is cultural traditionalism, "...search for roots in the past" (Friedman 1989: 248). Whilst the major concern of the former is the criticism of modernity in the developed world for its authority and validity to explain and form the *life* for all, the latter deals with the developing world in relation to radical difference between nature and the background of modernity in each case. Critics of the former focuses on the analysis of modernity in relation to its sources, authority for all and the future. Those of the latter denies modernity for its devastating impact on their cultural systems and focus on rediscovering *the past as the model of the future* which generates a collision between modernity and tradition. One of the major aims of this doctoral study is to suggest a new perspective for understanding the past, especially the urban fabric, to counter trends which accept the past as a 'model'.

1.2.2. The Impacts of Modernity in the Contemporary Urban Form

One of the consequences of the modern era was the evolution of the urban form and landscape which have been profoundly transformed during the last three centuries. The merciless attitude of modernity towards the past, nature, and traditional culture in the name of progress and liberty, demanded that the 'old' had to be removed in order to open a way for new 'creations' based on rationalist, scientific, secular and materialist principles. Although the degree and nature of change that has occurred in the cities of the world varies, the common characteristic was the replacement of the old system in order to meet the needs that emerged as socio-economic facts of the industrial epoch of mankind.

Cities were subjected to massive immigration due to great changes in the mode of production, which initially took place in England at the beginning of the 18th century. They grew at an increasing rate with the help of new transport systems and ever expanding commercial activity (Benevolo 1967: 8). The pressure upon the old towns prevented their indigenous growth. Contrarily, the technical and economic motives accompanied by new political ideologies and social structures began to shape and transform the industrial town. As a result of these, new needs, relationships and new formation emerged. Modern town planning was one of the latter, emerging as a result of the impact of change and the need for intervention in the towns. However, it was applied as a remedy, always after the event (Benevolo 1967: xi)

Early planning schemes were implemented in European cities: for example, several projects such as the Place de la Concorde, under Louis XIV and Louis XV in Paris, were undertaken between 1685 and 1763 (Benevolo 1967: 13-14). Subsequently, in the early years of the 19th century the Rue de Rivoli, in the late baroque manner, was built under Napoleon I who commissioned Percier and Fontaine, the founders of the Empire style (Giedion 1967: 714).

Similar schemes were also undertaken in England in the 18th century. Early attempts at rational planning had been already proposed by Christopher Wren for the general rebuilding of London subsequent to the great fire of 1666 (Giedion 1967: 717). The plan was rejected by Charles II at the time but became the paradigm for later applications. The Circus and Royal Crescent in Bath, designed by J. Wood between 1764 and 1769, the square of Bloomsbury (1775-1827) and later Regent's Park by J. Nash in 1812 were typical examples of the period, imposing a uniform architecture with symmetry and unity of perspective (Benevolo 1967: 14).

Meanwhile industrial growth developed with ever increasing social problems, causing the workers' revolt in 1848, in France (Benevolo 1967: 106-107). Subsequently a new era with its scientific and international manner started (Benevolo 1967: 107). The immediate results were to encourage a purely technical viewpoint which was put into practice by a new class of planners and civil servants. Consequently large scale planning operations were undertaken in the major European cities, such as the *grands travaux* of Haussmann in Paris between 1853 and 1869, the building of the Ringstrasse in Vienna in 1857 and new developments in Brussels, Barcelona, Florence and London (Benevolo 1967).

The situation in the Paris of Napoleon III can be stated as the paradigm of the transformation of the European city into the metropolis of the industrial era (Giedion 1967: 739). The major element of urban planning schemes prepared by Napoleon III's prefect Haussmann was the wide, straight streets, the *boulevard* which developed out of the baroque avenue, cutting through the dense fabric of the houses in the center of the city. Giedion (1967: 745-747) states that one of the fundamental aims of this scheme was the fear of increasing social unrest in the city. Haussmann stated explicitly that this was "...to assure the public peace by the creation of large boulevards which will permit the circulation not only of air and light but also of troops" (Quoted in Giedon 1966: 746). Another significant principle of his operations was to enhance the city's economic

life, as he states "...to facilitate circulation to and from railway stations by means of penetrating lines which will lead travellers straight to the centres of commerce and pleasure" (Quoted in Giedion 1967: 746). According to Giedion (1967: 762-775) he understood the city as a technical problem, and therefore he coordinated the technicians in its operations. Architects, for him, were not capable of the new and practical problems of town planning. Accordingly an engineer, Jean Alphand, was commissioned to undertake the transformation of the old leisure grounds in Paris; the architect was his subordinate. Haussmann's influence was great in the other industrialising countries where the transformation of Paris was mostly imitated.

These planning applications were criticised since they destroyed the beautiful old towns and created problematic industrial cities which were to be made worse in the following years. In 1889, Camillio Sitte (1965) criticised the attitude of the previous period that saw the city as a merely technical phenomenon. He therefore suggested that the solution was to return to the methods of the Medieval period when, he believed, the city developed according to artistic principles. One of the critics, Patrick Geddes analyzed the problems of industrial towns and urged "*Alike in Europe and in America the problems of the city have to come to the front, and are increasingly calling for interpretation and for treatment*" (Geddes 1968: 1). So, early planning efforts did not solve problems in cities which were becoming unpleasant due to the lack of architectural and environmental qualities of pre-industrial towns.

Modernity posed itself against *continuity* as Gertrude Stein writes in 1938, "*As everything destroys itself in the twentieth century nothing continues so then the twentieth century has a splendour which is its own*" (In Harvey 1989: 17). This is called 'creative destruction'; an essential condition of modernity. The modern artist had a special position within this modernist project, with a creative role to play in defining the essence of humanity (Harvey 1989: 18-19). In the thinking of modernity, as naturalism and realism were proved inadequate and the ties between past and traditional cultures were broken; "*...the artist, architect, and writer had to find some special way to represent it*" (Harvey 1989: 20). Thus one striking impact of the modern era occurred in the role and duties of architects, a process which contributed to the birth of the architect as a universal professional city builder. The *new* task of architecture, with its transcended and revolutionary character, was superimposed on ancient cities as a *new* formation of the city, distinguishing itself from the *past* for the creation of *eternal, permanent* and

universal. The great city visionary Le Corbusier argued that the new era has the ability to create *new* saying that:

"In the field of industry, new problems have presented themselves and new tools have been created capable of resolving them"
(Le Corbusier 1946: 250).

Walter Gropius, the confirmed German modernist, supported this attitude, being strenuously against allowing the study of traditional architecture to influence the theory of modern design (Collins 1965: 35). He asserted that the study of the history of architecture makes no contribution towards the evolution of a contemporary theory of architecture. He also stated that, "*When the innocent beginner is introduced to the great achievements of the past, he may too easily be discouraged from trying to create for himself*" (Collins 1965b: 2).

This approach towards history was generated within the Bauhaus, the foremost institution for the development of modern architecture at the beginning of the 20th century. Following the complete break with all historicism, which turned out to be mere styles, the history of art and architecture was dropped from the educational curriculum (Schulz 1963: 18). As everything should be invented anew, a free experimenting with materials and forms was introduced (Schulz 1963: 18). However, the purpose, as claimed, was not to create a new style, but to establish a 'free' approach to the tasks according to the new contact with reality (Schulz 1963: 19). These ideas combined with the birth of industrial production resulted in techniques and materials being proposed and promoted in order to invent new architectural forms to serve the ever developing industrial culture. Therefore, since the city can be defined as the material expression of the social, economic, political and cultural structures of a society, it is possible to suggest that the new thinking established a *new system "...of dealing with the physical environment"* (Anderson 1982: 109).

This new thinking⁵ came to be called the Modern Movement. It was exposed to and became the expression of the pressure of capitalist development in which economic and political motives and criteria for design dominated the urban fabric. The city, as well as the house, in that brief period was perceived as a machine in terms of its organisation.

⁵This can be the subject of another individual study within its approach to architecture and the built environment with its failures and successes.

Different social and commercial functions had to be organised and land parcelled out into zones, with the aim of supposedly more efficient working (Le Corbusier 1971). In the 1930s Le Corbusier, one of the main movers in the International Congress of Modern Architecture (CIAM) proposed that the city was a "*Business and residential centre*" (Le Corbusier 1971: 162). He defined the city population according to its relation to work. This became the major criterion in urban planning which is now believed, sixty years on, had disastrous consequences. The city was separated into zones which, according to the CIAM were for dwelling, recreation, workplace and transport⁶.

This analysis was later applied to a number of existing towns, causing devastation to their urban fabric (Frampton 1992; Rykwert 1989: 2). Several large scale urban projects were built in accordance with this new understanding of the role of the city during the Nineteen- Forties, Fifties and Sixties, in which segregation of the integrity of the city was meant to be achieved⁷. The identity and the structure of the city, being planned for the production-distribution-consumption cycle, was relegated to a commercial one (Tafari 1980). All these were reflected in the plan of the city as well as in its third dimension, which has provided one of the main visual elements in our perception of a city. The New York skyline, it was pointed out by Montgomery Schuyler, the American architectural critic in the nineteenth century, "*...was not an architectural vision but it does, most tremendously, look like business*" (Quoted in Rykwert 1989: 4). Thus, the main emphasis on the functional needs of the city, together with the displacement of mankind and his social relationships as the focal point of architecture has disconnected man's direct relationship with his environment. This has resulted in the individualised and fragmented structure of many modern cities, as well as the estrangement of the human being from his built environment as a maker, user and beholder.

Furthermore, the abstract formal order of the modern object, initiated by rational and geometrical rules, realised by advanced technological equipment and inspired from function, introduced a new vocabulary. The Modern vocabulary consists of sets of elements which are white, minimalist and abstract. Modern architecture replaced the

⁶ For Le Corbusier the city dwellers are divided into three categories. Firstly, citizens of the city are those who work and live in it. Secondly, suburban dwellers are those who work in the outer industrial zone and who do not come into the city; they live in the garden city. Thirdly, the mixed sort are those who work in business parts of the city but bring up their families in garden cities (Le Corbusier 1971: 162).

⁷This had an impact mostly on the dwelling zones which were stacked into high-rise buildings, while other functions remained on the ground and therefore, dwellings were isolated from the public space (Rykwert 1989: 2).

tradition of the symmetrical composition of the previous period, with abstract, formal compositions that were self-contained and interlocking (Harvard Architecture Review 1984: 8). Being complete within itself, it became detached from its maker and user. They were not a part of this experience of man, whose position in relation to his architecture was assumed to be relative rather than absolute (Harvard Architecture Review 1984: 10). This debasement of man from the central position of the production process of his environment caused the negation of an important property of the city.

In addition, dependency on local sources and conditions has changed due to technological progress. This has helped to cause a somewhat deceptive freedom in relation to the global city structure. Indeed, while culture was the main determinant of the form of the pre-industrial city⁸, the manifestation of technology has become the main factor in shaping the city of the industrial era. This, we believe, has resulted in a decline of a *sense of place*; with the disappearance of a *sense of time* previously provided by a strong local culture⁹, has helped to give a sense of an increasingly flattened present; without depth, continuity and plasticity of our sense of time (Pallasma 1991).

The seeming absence of these senses in contemporary cities may be seen as a prerequisite of the industrial era, as the beginning of a new epoch, rather than a continuation of the past. Perhaps the intention of the Modern Movement was actually to interrupt the continuity of the past, which was seen as totally inadequate and even unnecessary to the production of cities for the new era (Le Corbusier 1946).

Another main criticism of the architectural quality of the modern city focuses on fundamental changes in building typology. This criticism was asserted by Argan (1963) and later by Rossi (1991) and Panerai (1980) indicating the mutual relationship between building typology and urban morphology. Argan, opposing the deterministic thinking of the modern era which gave emphasis to the functional aspects of the city, states that,

⁸Argan's definition of the historical city as the pre-industrial city will be accepted in this work because as Argan argues, "*Radical changes in scale, structure, function and social composition of the city took place with industrialisation, therefore, it is evident that what is meant by historic centre is the urban entity that existed prior to the industrial age*" (Argan 1975: 18).

⁹With Pallasma, culture is "*An entity of facts and beliefs, history and present, material realities and mental conditions*". And "*It proceeds unconsciously and cannot be manipulated from outside*" (Pallasma 1991: 110).

"In the historic city, buildings have been formed more for their morphological configurations than for their functional uses"
(In Bandini 1984: 75).

Accordingly, Rossi attempted, in his work *Architecture of the City*, to show how, "...function alone is insufficient to explain the continuity of urban artifacts" (Rossi 1991: 60). Panerai shared a similar approach. For him, throughout the 19th century the existence of the pre-industrial types and the emergence of new types are seen as a simultaneous phenomenon¹⁰. The new buildings were a necessary aspect of the intended means of production. Buildings of previous periods were indirect, implicit design products. New industrial buildings were ideological and supported directly the means to form the new built environment within the context of industrialized society. They caused radical changes in the typology level, and thus gradually in the city as a whole, changing the function of the city to a place of work. Therefore, the present crisis of the modern city as seen by Panerai, is rooted in the severe break between building types and urban morphology (Panerai 1979).

Consequently, the negligence shown towards the cultural past, the natural and also the built environment of existing urban fabric, which actually means the negligence of time and place, has resulted in a decline of the city's entirety and gradually its identity. The disrupted character of the city is seen, by this study, as one of the most important reasons for the crises in the built environment, emerging not only as a lack of architectural quality and vision, but also as a lack of a sense of time and place.

However, one of the important problems in the contemporary city, for architects today and in the future, appears as a *design problem*. This is basically because of the severe break between the old traditions of city making and the failure of contemporary society to provide positive and responsive motives to design with. The collision between the previous experience of the city (represented by the remaining parts of historic centres with their sensitive designs accommodating the qualities of nature, of man and the already existing urban environment but not responsive to modern, capitalist conditions) and the modern city, with all its previously stated problems, becomes the current scene

¹⁰For example, in England, starting from 1820, the mode of land ownership was changed radically as a result of industrialisation. This led to the scale of projects becoming much bigger. Accordingly the scale of finance, design and construction activities concentrated on terrace housing or streets, rather than single houses or a building. Standardised houses joined to the organisation of the terrace or other rows which formed the urban parts of another typology, within the new urban scale (Panerai 1979).

in the contemporary city. To design in this scene becomes a crucial problem for architects which needs to be examined.

1.3. THE CASE OF THE 'DEVELOPING' WORLD

Although the environmental problem is common to all contemporary cities that have experienced pre-industrial and industrial periods, it differs strikingly for the countries in which the models of the industrialisation process were imported. The cities of the developing world were shaped by alien concepts, institutions, technology and forms. In this regard, problems in the cities of developing countries (whether colonized or not), are more exaggerated than those in countries which have experienced industrial development in accordance with their epistemological, socio-economic, political and cultural evolution through the historical process.

While the cities of developed countries became expressions of this process which can be criticised within their own terms, the cities of the developing world are subjected to pressures of misguided development by alien concepts, institutions and technology in every sphere. Since those societies did not experience the transformation through their historical background, they accepted without question its outcome as the definitive image of development. They were the followers of this phenomenon but did not contribute to it. This has caused radical and dramatic changes not only in their socio-economic, political and cultural structures but also in their built environment.

The impact of all these changes has ensured that those countries have experienced accelerated and uncontrolled urbanisation. This in turn has caused acute housing problems, both of quantity and quality, leading in turn to vast areas of slums in their major cities. The result has been to devastate the old fabric of those cities, such as Istanbul, Tehran¹¹ and Cairo¹². Malik (1989: 195) draws a typical present day picture of these cities, with special reference to the Muslim world, which is a reflection of their contemporary society:

¹¹A new plan for Tehran was drawn up in 1871 and based on the concept of an Ideal Renaissance city. This was followed by other plans which introduce alien concepts and forms to the city such as boulevards. In 1937 the city was completely transformed into a transportation network according to another plan. The original nucleus had undergone complete modification. Old neighbourhoods were disintegrated and new ones created simultaneously (Khaddemi 1979: 9-13)

¹²The modern city first emerged in Cairo in 1860s when the Suez Canal was opened. Then the city was divided into two halves; the traditional settlement, densely crowded *medina*, and a new French-inspired western section (Kohl 1989: 43).

"The built environment of Muslim countries is twofold: a few selected areas designed by few experts trained almost anywhere, in any language, culture and history except their own; and in marked contrast, vast unplanned areas of physical and environmental decay built anyhow, anywhere, by anyone. There are 'old' cities' dotted all over the Muslim world - deemed outdated, irrelevant and abandoned to their fate - repositories, nonetheless, of the accumulated urban experience of many generations. There are scattered monuments of the past as evidence of the once creative and artistic self-confidence. There are the better built and better serviced 'modern' quarters of these cities - a legacy of their recent past - where decisions are made and scarce resources allocated which ultimately affect the life of every citizen. And then there are the vast post-independence 'independent' self-help slums surrounding every major town and city, where rural poverty is exchanged for urban deprivation".

In conclusion, the major problems in those cities can be summarised as having a duality in their urban fabric, as represented by their pre-industrial and industrial periods; dilapidation of their historic buildings; and extensive pollution. What is not often recognised is that the architectural quality that was once magnificent and utilitarian at the same time, has been replaced by alien places, buildings and culture. Therefore one of the major problems in these cities is:

the degeneration of architectural quality by the introduction of modern buildings of poor design which totally disregard and disfigure the existing values of the historic urban fabric.

Besides, the loss of cultural identity due to the pressure of alleged commercial and industrial development leads to a perpetual dependency on alien architectural concepts, forms, materials and techniques. This cultural and physical disruption can be observed not only in the urban fabric, but also in the accumulated experience and knowledge, through history, of the ways and means of the production of the cities. Thus, the problem of identity becomes the crucial phenomenon for the future of those societies as their *past* was not only destroyed, but also replaced by the *incompatible*. The major problem of identity encompasses many others including 'design' in these societies. Therefore it will be discussed according to its relationship to modernity.

1.3.1. Identity versus Modernity

Rationality and developmentalism are the dominant principles in the structure of modernism, which understands modernity as the cultivation of the *new*. Its culture is based on individual liberty and contrasts to traditional society that is deemed to be dominated by its past (Friedman 1989: 252). These ideas have had very destructive impacts on societies' cultural traditions. As a result of the overwhelming effects of the so called new era, there has been a search, in the Western¹³ and non-western worlds, to overcome the destructive results of modernism and rehabilitate, even reconstruct, lost cultural identities. However, the nature of this search differs in the needs and reasons of the two worlds. While the search in the Western world where, "*...there is an exponential increase of cultural identity*", is for what has been lost; in the 'Other', the search is to regain their cultural autonomy (Friedman 1989: 258).

Although the necessity, significance and function of the search are important for both sides, the degree, form and consequences of this search differ dramatically, due to the diversity of historical discontinuity between the present and the 'cultural' past for each. While the discontinuity emerged in the West between pre-industrial and industrial systems prolonged from the Enlightenment process, in the 'Other' it was as a result of dominance, rather than any self-constructed process of those societies. The major difference between the nature of the discontinuity is evidently reflected in their cities.

However, the 'modern' side of the world, as well as the 'Other' have experienced "*...an implosive loss of faith in the progress of 'civilization', and a corresponding explosion of new cultural movement, from cults and religious revival to primitivism, a new traditionalism, a striving for the reestablishment of a new culturally defined identity*" which in turn led to an ever increasing "*...national and ethnic fragmentation*" and "*...an exponential increase in cultural-based political movements*" (Friedman 1989: 246).

A major shift in focus occurred from the developmentalism and materialism of 1950s and 1960s to an increasing culturalism and primitivism in the 1970s onwards (Friedman 1989). Therefore the major themes of the present time (the 1990s) emerged in the form

¹³"...West means the set of values which were created by the European part of the world...Strictly, it lacks, geographical significance, for 'westernized' people, wherever they may be, are part of that oppressing identity, nor does it have a precise political-economic meaning, i.e. capitalist or socialist, but rather alludes to set values shared by both systems; for example, their attitudes towards nature, the ideology of industrialisation and their similar concepts of the development" (Portugal 1989: 288).

of culture as text, culture and identity, ideo-logics, culture and history which are mostly supported by a relativistic point of view (Friedman 1989: 247). Thus the critical discussion about modernism has generated two major ideological discourses; post-modernism represented by Lyotard, Foucault and Deleuze & Guattari; and cultural traditionalism as "...search for roots in the past or for models from the periphery" (Friedman 1989: 248). They both criticised modernism because it is opposed to nature and culture which in turn caused Man's self-conscious "...to destroy his past and control his future" (Friedman 1989: 247). However as a result of this attitude continuity is broken, and as Marris stated, without it "...we cannot interpret what events mean to us, nor explore new kinds of experience with confidence" (Quoted in Appleyard 1979: 19). Therefore the past is not an old and discarded situation but is embodied in our present as the form of being that is *identity*. Shankland expresses this as the:

"...magical power of the past does not lie only in the intrinsic beauty of what is being preserved, survivals of an age when towns were made by artisans, but above all in the identity they confer. This sense of continuity seems today more important than ever, as national groups and ethnic minorities battle for identity and survival in an age of multi-national economic groupings, uniform machine-made products, and supra-national political settlements"
(Quoted in Appleyard 1979: 19).

In parallel with the cultural identity problem, one of the most neglected problems in cities today is, as we have suggested, the degradation of their architectural quality. This phenomenon may not occur in the Western world; but it can be seen in the cities of Muslim countries, such as Istanbul, Cairo and many others, due to the radically different historical process of the *new* era which has been demonstrated above. This invites us to look at the problems of Muslim cities and seek for the answers from a different perspective. Kuban draws attention to the differentiation of the historical process for those types of society. He states that:

"...in the Muslim and other non-western countries, modernism was bought at the expense of historical; a handy axiom was that the more conservative people are, the more of the historical environment they will destroy, because only through this sacrificial rite can they prove themselves worthy initiates of the modern world"
(Kuban 1983: 35).

This phenomenon is reflected in the physical features of those cities of Muslim countries, like Istanbul, which are persistently becoming hideous imitations of Western cities. However "*...we must ask ourselves whether it is even possible to resist the hegemony of modern industry and communication and have a true Islamic image in a city and its architecture, as we were able to do in bygone centuries*" (Kuban 1983: 32). Facing up to Kuban's statement and looking at the future, the initial question that arises, is the following: *How can one achieve the mutual understanding of new development that surrounds us and meanwhile preserve and restore the cultural identity as well as the cities?* The question refers to the major dilemma of our future. Kuban asks:

"...will any historical culture, be it Islamic, Indian or Chinese, or any other, manage to survive as an entity distinct from the fabric of a uniform modern civilisation? Or will they all be consumed by the monopolising pressure of modern industry and mass communication? Is it conceivable to have Turkish houses or Muslim towns and at the same time to drive imported automobiles on bridges built over the Bosphorus by foreigners, to construct according to universal standards, to utilize universal electrical devices, to broadcast and to receive worldwide television programmes, and to promote tourism? How can one suppose that the maintenance of cultural symbols can withstand the onslaught of cost accounting and efficiency standards and yet be keenly aware of the fact that all nations are being used as arenas for opposing ideologies, that all markets are under the strangling influence of international corporations, and that all developing countries are subjected to the arm-twisting of international politics?"
(Kuban 1983: 32).

This contradictory situation for those societies within the real world leads us to ask questions, through which a discussion may be generated to find out answers. Provided that the other question, which accompanies the previous one is: *How can we resist development desires inspired by alien precedents and meanwhile try to keep the originality of cultural identity and shape the future accordingly?* Is it possible to shape an original cultural identity by using the means which are ideologically incompatible? How can one claim that society can start again to produce according to its original, genuine culture while being subjected to alien effects for a long time (for example in the case of Turkish society for more than 250 years) and meanwhile be able to, if not lead, follow the rest of the world into the 21st century? Why is there an increasing tendency

in those countries to oppose the hegemony of Western values, institutions, objects, way of life, and meanwhile sympathise with, or believe strongly in cultural values? Is it a reaction in order to regain the lost societal confidence necessary to face the future with equanimity; *and* draw confidence from the past when there was a significant personality to society? However, did not our cultural identity change during Westernisation? Can we really go back to the past and start from where we left off, denying later periods? What is this particular starting point? Then, should we be afraid of new changes and order which are going on in the world; or should we oppose any change aggressively, which is another way of being afraid and distrustful? Can we stand confidently, and decide by ourselves for ourselves, according to our needs, taste and values; evaluate, distil and recreate; act like a filter.

Malik (1989: 209) indicates the correlated relationship between Society and Urban form and asks "*Can the questions of the form and function of the Muslim cities, their architecture, and the quality of human life be separated from the essential questions which relate to the position of all those who live in them?*" He continues by asking "*Are these really the problems of the city and city-making- to be solved by building just a few beautiful buildings and paving just a few streets?*" (Malik 1989: 209). He argues that people are the reason for cities to exist therefore the conditions of Muslim cities are bound to conditions of Muslim societies. He maintains that "*The sources of the modernity of the future Muslim city will lie in the re-building of Muslim communities*" and "*...it will be based upon a critical understanding of its own traditions*" (Malik 1989: 216). This argument, regaining confidence from which a genuine cultural identity may be generated, appears to be as an important ideological achievement. However, another question that follows is, *How can we reach a genuine cultural identity that is not mere imitation of past?*

In this case, can our built environment (as much as has remained of it), help to rebuild the confidence and cultural identity according to its 'understanding' at the present, but, at the same time, avoid formal recreation of its own past? Is it really possible to restore the cultural displacement of our society? Can it be said that the process of repairing the historical, cultural built environment is, in turn, also the reparation of our cultural identity, since every culture needs a '*place*' to be reflected upon and material form from which to be defined? In this regard, the question of design for the built environment of the 'developing countries' becomes identical with the question of their cultural identity, which

in turn is also vital for making the future of their built environment. It is a conundrum that we will continue to address in this study.

1.3.2. The Case of Turkey

The cities of modern Turkey clearly demonstrate this dilemma proceeding into the future. It is a country with a long historical tradition of architecture and city making. However, the severe break between its cultural past and present that occurred during the modern era has created catastrophic problems not only in its social, cultural, economic and political structures but in its cities as well.

There are strong indications that urbanisation in Turkey will continue in the next decade at an increasing rate (Keles 1990: 457). At the beginning of the 21st century, half of the population, i.e. approximately forty million, will be living in the cities, some of which will have populations of over five million. This phenomenon appears to be one of the major problems that the country will have to face in the future. The pressure of immigration, squatter settlements, the administrative and functional insufficiency of local government, speculative land developments, degeneration of the built environment and urban landscape, pollution, and the lack of architectural quality in the urban space can be stated as the common problems of all those cities. Seemingly, as 'modernisation' spreads and grows, an already existing dilemma in the built environment is likely to become worse and even more problematic.

The ever increasing environmental problems of Turkish cities, accompanied by ever changing economic, social and political conditions of the entire country, lead the observer to inquire into the actual reasons and circumstances of this phenomenon. However, being aware of the complexity of a city and also the difficulty of examining all its aspects within the scope of a doctoral study, an emphasis will be given to the architectural aspect which this study deems to be the most crucial. We argue that the degradation of architectural quality and vision is one of the major problems of Turkish cities at present and apparently will be in the future, also. This evident phenomenon, is in fact, an outcome of a greater problem, that of 'design', particularly urban design and definition of its determinants in the making of these cities. We will be examining this throughout this study.

1.3.3. The Case of Istanbul

The previously mentioned problems have caused a deterioration of the built environment, which in turn caused the duality of the urban fabric, and, in the case of Turkish cities, the inherited form from the Ottoman period. However, most Ottoman cities did not experience radical changes in their urban fabric until the 19th century. At this time Istanbul was the Ottoman capital, and had been the principal city of great civilisations for more than two thousand years leading to designation of its historic areas as a World Cultural Heritage site by UNESCO, in 1985 (Fielden & Jokilehto 1993). During the 19th century a concerted effort was made to transform Istanbul into a western-style capital. All these activities have resulted in the disintegration of its traditional urban fabric and struck by the new type of development, summarised as:

"More than a place of marvels, more than a symbol, Constantinople has always represented the city itself. The protector for a thousand years of the Christian civilization. The city which, for centuries, draws the eye of Islam. This city which, for all of 465 years, will embody the genius and the impotence of the Ottoman Empire. The golden years of Suleyman's rule past, the Empire will enter on an interminable decadence. At its bedside, for almost a hundred years, the Capital watches over its decomposition"
(Barey 1980: 26).

This decomposition occurred simultaneously with the dramatic economic and political events, when the government led transformations known as Modernisation (or rather Westernisation). Istanbul was increasingly exposed after 1839 to a conscious break with its Turkish-Islamic character. Westernisation of Ottoman society began as a 'necessity', mainly as the result of its military and economic handicap from the 18th century. Therefore, at the beginning, only the institutions required for the functional needs of the military, administration and economy, generally were imported. But an original contribution to the new vocabulary was, however, generated in painting, music and architecture (Ortayli 1987). Only later, did it evolve into an imitation, after which the loss of identity in culture and architecture was accelerated in the cities.

Paralleling these westernisation efforts, traditional urban policies were replaced by new urban administrations, institutions and organisations, which adopted European precedents. New building types conforming to the requirements of a modern life style were introduced into the urban fabric. In the second half of nineteenth century new

capitals were flourishing in Europe¹⁴ and the Ottoman rulers sought to emulate these, (Celik 1986) since Istanbul was the capital city that represented the authority of the state. This involved the improvement of the capital's urban image; the models used were European capitals, this was stated in the Tanzimat Council, *Meclis-i Tanzimat*, in an 1839 report that, said:

"If some artful embellishment is added to the natural beauty of Istanbul, which is unique in the world, there is no doubt it will become the most beautiful of the most beautiful cities of Europe"
(Celik 1986: 159).

Thus Istanbul, aimed to dress itself with a contemporary facade and structure, which was meant to symbolize the modernisation of the Empire. Following the Tanzimat reforms, major institutional reforms were established and new urban design concepts were introduced. The conversion of the built fabric from wood to *kargir* (stone or brick) in an effort to avoid the fires which had devastated the city through the centuries, was presented as the main goal. A German engineer, Helmut Von Moltke, was invited to make a detailed plan of Istanbul and to improve the street network of the city and his plan was the first development plan of the City¹⁵. Later major planning applications took place to transform its structure from the *old* to the *new*, a process which took place in three stages (Celik 1986). Firstly new building types and styles from Europe; secondly urban design principles, such as the street network and monumental public squares; and thirdly laws and legislation concerned with city planning issues were introduced to the urban fabric. However, bringing Istanbul up to European standards only produced a piecemeal regularisation of the urban fabric. While the city lost the integrity of its Turkish-Islamic character, it did not achieve a uniformly Western quality either. Thus the efforts to plant the changes into the existing structure of the city resulted in the destruction and duality of the urban form.

Although Istanbul differed from colonial cities, the changes that took place in its urban form resulted in a patchy and eclectic pattern (Celik 1986). However, following the Tanzimat period in which Istanbul municipality was established in 1858, the practice of

¹⁴In this period, the rebuilding of Paris under Napoleon III and his prefect Eugene Haussmann (1853-1872); the Viennese Ringtrasse development of the 1860s and the reorganisation of Rome in the 1880s according to Alessandro Viviani's plan of 1882 were realised (Celik 1986: xvi).

¹⁵Although Von Moltke's proposal was not implemented, its principles formed the essence of the new building codes (Celik 1986: 51).

appealing to Western expertise was relentlessly pursued. A similar approach continued during the Republic and many European specialists were invited to modernize Istanbul. Among them, A. Agache, H. Elgotz, H. Lambert and M. Wagner prepared proposals which were not implemented but survived as reports. On the other hand, the French architect Henry Prost, who was in Istanbul from 1939-1951, played an important role. He made the 'Master Plan of Istanbul' and parts of this plan were implemented. In the 1950's, H. Högg, a German planner, who focused on the importance of zoning, and L. Piccinato, an Italian planner whose proposals were appreciated, were also invited to pursue the planning programme of the city (Duranay 1972).

In the following years, the transformation, or rather deterioration, of the city was accelerated by economic development factors as well as political aspirations. The functional needs of Istanbul became dominant factors in influencing the built environment. The city was heavily subjected to industrial development which led to the construction of new building types, industrial and commercial buildings and roads, devastating the old fabric. The need for housing increased in accordance with the rapid urbanisation. Therefore, squatter settlements and apartment blocks flourished without any respect for previous city fabric and its urban quality. New transportation applications were introduced regardless of the organic urban pattern which destroyed its sense of wholeness and human scale.

While this was the case for the city as a whole, industrial development had a particularly devastating impact on the Golden Horn. At one time this was a magnificent natural harbour with a unique silhouette. Factories replaced the palaces and residential quarters situated on the shore of the Golden Horn. Housing demand increased as the population grew and squatter settlements and high rise apartment blocks replaced the previous wooden houses. As a result the area was heavily polluted by the presence of factories and increased pressure of the population around them.

This situation provides ample evidence that environmental and architectural qualities were not considered in the formation of the city. Enthusiastic planning attempts to control and lead the transformation and expansion of the city had evidently failed. Ironically planning schemes followed the random growth and in turn became the means to legitimize these changes. Consequently, contemporary Istanbul has failed to provide an adequate urban environment for its inhabitants, not only according to its quality in the

past but also according to the acknowledged basic needs of mankind in a built up urban environment.

1.4. CONCLUSION

Observation of the contemporary urban phenomenon in relation to its ideological roots, its form of realisation, and the consequences in the West and the 'Other' countries reveal several major factors. One of them is the more general criticism which can be applied to both cases the West and the 'Other' countries: that of 'design', particularly urban design. This on the other hand, has been addressed by numerous studies in the West.

The concept of 'design' encompasses many motives in its meaning, that simply stated as the *designer*, *design*, the *process* of implementation. However, we argue that there is a hierarchy among the motives for design that, in other words, are the crucial factors to be considered when designing, which in turn affect the urban environment. Pre-industrial cities, in general, demonstrate that the fundamental scale was that of man and the spaces surrounding him were organised according to his dimensions. Accordingly not only the qualities of his material world, but also his spiritual world were considered in the design of settlements. The movements of people are shaped according to their economic, social, and cultural activities. The local culture of the group was the major determinant of 'spaces', not technology as in the case of modern city design. The natural environment was considered as the first given for a place to dwell in. Thus, these two were the basic determinants of urban form in pre-industrial cities. However, concerning the city itself, once it gained an identity and with it an authority, it became the reference for further design input. In this sense it was ever-changing and establishing new relationships among its elements, slowly but consistently.

On the other hand, the modern civic design approach tended to neglect all these relationships, motives and forms of city making and started to establish new sets of relationships, according to the new life styles of human kind. All the previous principal values were challenged; nature, culture and continuity with the past. The basis was not derived from years of experience and knowledge, but from scientific and rational rules and technologically based needs. However, the failure of the modern city has been two fold: in its urban environment and its social life, leading to dislocation between a severe break between the cultural past and the technological present. This has created a huge gap which prevents us from simply returning to the past forms. On the other hand the

doctrine of modernism, its applied form, has exposed itself, through two centuries, as insufficient and ultimately destructive. This scenario leads us to ask a number of crucial questions: How can one design for the contemporary city, particularly in the context of an existing historic nucleus? What are the major motives to be inspired from and to design with? What are the references for civic design if we reject modern ones as well as the imitation of old ones? What are the sources of our contemporary design? This is not simply a question of style, it is more than that. It is more a question of making an adequate urban environment through the practice of high quality architecture. These will be the major questions for this study to examine.

In the first step of this investigation we argue that concepts and forms alien to an existing system of urban environment disrupt its integrity and in turn cause a dual and fragmented city structure. This is seen as one of the major reasons behind architectural and environmental degradation in the contemporary city. However the term 'alien' indicates the different situations in the case of Western cities and the Other countries. 'Alien', in the West, may indicate the imposition of the industrial era on a pre-industrial setting, but it is essentially the result of *its own historical process* as initiated, conducted and accordingly formed by them. Thus, the alien factor was the product of that society. In the case of the 'Other' countries, the alien element was suddenly imposed upon an ongoing system, as Feyerabend expressed it, not because it produced a better life or understanding but because it had the *power* to do so. Besides, its concepts, forms, institutions and laws were totally imported with little attempt to adjust them to the local structure and culture. The inevitable result was the introduction of an essentiality destructive force that became responsible for the present problems in those cities.

The reason, we claim, was, on the one hand the gross neglect and total lack of understanding of historical determinants of urban form; and on the other a lack of clear definition and understanding of the current determinants shaping our cities. There is therefore an urgent need to understand and identify the determinants in our contemporary context, and they also need to be clarified. This hypothesis will be tested through a study of history and development of 'modern' Istanbul, in order to establish a coherent argument and make progress towards new and more appropriate proposal for the 21st century.

CHAPTER TWO

Development of Underdevelopment¹

2.0. INTRODUCTION

The hypothesis which has developed from our initial observation of the crisis in the contemporary built environment needs to be tested. Istanbul, with its unique historical background and importance provides an opportunity for clarification of the claim. This will be the main concern of this and next chapters. Westernisation appears to be the main goal of all the radical changes that have occurred in the physical structure of Istanbul since the beginning of the 18th century. Clearly, the transformation of Istanbul's physical structure and the westernisation process of the Ottoman Empire and later the Turkish Republic are inseparable phenomena. Therefore, to be able to understand the changes that have occurred in the city's structure and its identity, one needs to investigate the social, economic, political and cultural changes that took place in Ottoman society, and which caused the displacement of our cultural identity. However, this intricate process will be examined focusing on architecture and the urban fabric of Istanbul. The socio-political history of the city in the period with which this and the following chapters are concerned, will be investigated in relation to its effect in transforming the city.

2.1. ISTANBUL THE BEAUTIFUL

The city with its distinctive environmental qualities, accommodated great civilisations. Various travellers commented that the harmonious interaction of place and society through time created the city's unique appearance, shaped initially by its geographic location and topographic characteristics. A French traveller, Theophile Gautier who visited the city in 1852 expressed it that:

¹The phrase belongs to one of the pioneers of dependency theory, Andre Gunder Frank (1970) "The Development of Underdevelopment", Monthly Review Press, New York.

*"One cannot imagine any other piece of land
between the sky and the sea that rises so beautifully"*
(Gautier 1971: 97).

It was the *grandeur joint* between the Occident and the Orient which is reflected in its architecture. Accordingly, it has represented the Orient for the Westerner and has been the symbol of the Occident for an eastern eye (Barey 1980: 26). It represented the meaning of City for centuries. It is described by Thomas Gainsford as "*Constantinople, otherwise called Stamboule the beautiful*" (Meats 1980: 39).

Varying local characteristics, as well as ethnic and religious differences, are reflected in Istanbul's urban fabric. This property, accompanied by the topographic partition, formed a decentralized city with, in turn, sub-units of smaller towns in the greater one. This did not cause a duality; rather, it became the reason for its distinctiveness. Thus, a harmony in and between the spatial and social structures occurred and, in turn, was embodied in the physical environment, to be appreciated by numerous travellers who have visited the city throughout history. Before starting the discussion on the destruction of its architectural and environmental qualities in the 18th century, it is necessary to present a comparison between two different pictures of the city to fully grasp the degree of what has been lost.

Although the city like the Ottoman Empire, was already in decline in 1838, (the eve of the fundamental changes in the city as well as the country), it was still described as beautiful by visitors at that time. One of them was Charles Fellows who was present in the city in 1838. He compares Istanbul to other European and Eastern cities that he visited and states that:

*"...I have never seen a city so picturesque, viewed
from every point around"*
(Fellows 1838: 100-101).

He points out that there is;

*"...no capital which covers so many and such steep
hills, and to this peculiar character it owes the whole
of its beauty"*
(Fellows 1838: 100).

A similar statement is found in Robert Walsh's accounts of 1839 in which he says that

*"The approach to this magnificent city, from the Sea
of Marmara, is more beautiful perhaps, than that of
any other city in the world"*
(Walsh 1839: 1).

Miss Pardoe was another traveller who produced valuable descriptions of different parts of the city in 1838. She agrees with the previous observations and describes the city as having "...*extraordinary magnificence*" (Pardoe 1838: 39). She further describes the Golden Horn as:

"...one of the most picturesque scenes in the world; while above the bright landscape and the glittering sea, spreads a sky of such intense and vivid blue, as invests object with a tint a distinctness from which it derives a new and peculiar beauty"
(Pardoe 1839: 83).

Similar statements were still valid in the year 1847 when John Gadsby, Biblical and Oriental lecturer, visited the city. He gives his impressions of the incomparable beauty of the city and the Golden Horn with enthusiasm, describing the city as follows:

"...the Bosphorus, the most picturesque strait perhaps, in the known world, was on my right running between Asia and Europe;...each side of the Golden Horn and the Bosphorus are rising hills, and on these hills, beginning at the very water's edge, stand the perspective towns; so that the whole, or nearly so, present themselves at once. Scores and scores of minarets, domes, cupolas, monuments, towers, and gilt spires, with marble palaces, and mausoleums, and baths, lovely groves, verdant trees, gardens,...are, therefore, within the eye's range. As the sun shines upon the city, it looks like one flame of gold. Then the shipping in the harbour, with thousands of gaudily ornamented boats, or caiques, myriads of birds, and picturesquely-dressed people numerous as locusts, all tend to give effect to the scene. Surely there is nothing, there can be nothing, in the world to surpass it...no pen possibly describe. I stood almost motionless, nay, breathless, with admiration, my eyes being firmly fixed on the expanding scene"²
(Gadsby 1873: 99).

Lamartine, who was in the city in 1833; Gautier, who visited the city in 1852 and Amicis, who provided valuable observations of the city in 1874, all agreed on the picturesqueness and beauty of the city which demonstrates a genuinely established relationship between the man-made and natural environments.

In the late 20th Century, a contemporary observer of Istanbul, however, very much contradicts the pictures given above. Andre Barey states that:

²It is interesting to stress here that he, at the end of his admiring description, questions that "*That such a country should be in the hands of a semi-barbarous people like Turks*" (Gadsby 1873: 99).

"Subjected to pressure on every level, Istanbul cracks in every part: the old structures are broken up and the corrupt administration fills the gaps at random, sacrificing the most basic human dignity to the machine...Istanbul is transformed into a veritable urban hell where daily life perpetuates the absolute triumph of the absurd"

(Barey 1980: 26).

Unfortunately his observations summarise the present state of the city. A comparison of these observations on its state in different times lead us to question the reasons as to *how* and *why* the city has been so sadly transformed. It is necessary to examine these questions in order to be able to understand the present problems and propose any solutions for the future. Inquiry into the present day problems points to the westernisation process as the main cause of the changes in the city. This, and the following chapters, will attempt to illuminate this process.

2.2. THE NATURE OF WESTERNISATION

Enlightenment in Europe was followed by Industrialisation, which in turn caused fundamental changes in the cultural, social and political spheres of those societies. The common belief held by Europeans at the end of the 18th century was that civilisation was derived from the Near East via Europe to the entire world (Larsen 1989: 232-234). However, in the search for a *past*, the Greek and Roman worlds were accepted by Europeans as the real ancestors of their civilisation (Larsen 1989). As a result, the *Orient* became *alien*, the symbol of 'other' for the Europe in the 19th and early 20th century (Larsen 1989: 234). This fundamental idea was followed by agreeing that if, *"...Orient represents stagnation and backwardness, and that model for progress and evolution is the West, then modern Asia faces an uphill struggle in trying to catch up"* (Larsen 1989: 234).

Therefore, in the process, the ideology of modernisation via industrialisation presented in Europe changed its nature, and thus became the so called westernisation for the 'Other' countries. The attitude of the industrialised countries towards nature and culture provoked the industrialisation and production of the 'new'; at the same time repression of traditional structures caused a discontinuity from the 'cultural past' in the West, and also eventually in all the 'Other' countries. The consequences of this process led to discussions about the validity, value and future of modernity in those countries. However, this process left its mark on the 'Others' more dramatically, becoming reflected in their

cities, as in the case of Istanbul, which evolved into an 'urban hell' from being a 'splendid' city.

2.3. THE OTTOMAN EXPERIENCE OF WESTERNISATION

The impact of westernisation began to be visible in Ottoman society from the 18th century onwards. It was accelerated by the announcement of the Tanzimat (reforms) Decree in 1839 by the Grand Vizier Mustafa Resid Pasha. However, the Tanzimat Era, as well as the subsequent Republican Period, may be accepted as jumps in a long term process. Following the reforms, the substructure and superstructure of society were transformed gradually and permanently. Rosenthal (1980) draws attention to the initiative and role of the foreign powers in affecting the process. He argues that both the explicit and implicit policies of the European powers inhibited reform by creating political conditions of dependency (Rosenthal 1980: xxiv). He supports the argument by stating that after the Crimean War (1853 - 1856) between Russia and the Ottoman Empire, *"...the French and British never tired of lecturing the Ottomans that administrative reform was crucial to the survival of the empire and that such reform begins in the capital"* (Rosenthal 1980: xxiv). He adds *"...traditional culture often does impede rapid social change and the attractiveness of this concept to self-righteous western ideologies has served to obscure and downplay the role of western penetration in creating the obstacles"* (Rosenthal 1980: xvii).

On the other hand, the attempted annexation of the Ottoman economy to the world increased the international trade of the Empire, introducing new products and tastes in response to the priorities of internal interests (Rosenthal 1980). Therefore *"...cultural values exported by advanced countries do not necessarily lead to modernisation by providing technology and the idea of progress. Rather, the introduction of new products and the encouragement of new tastes and standards of living serve to create a client class whose desire to imitate modern styles of life renders it dependent on the modernized patron societies and alienated from its own society"* (Rosenthal 1980: xxii). The non-Muslim components of the society had controlled the commercial life, due to the tolerance of Islam and the social division of the traditional society. They, therefore formed the initial bourgeois class of the Ottoman society; they had good knowledge of European Languages because of intimate contacts with Europe and familiarity with Western culture. Thus, according to Rosenthal's definition, the first social class influenced by Western values was the non-Muslim population of Ottoman society.

As a result, one of their demands was that the Capital be furnished with the institutions, services and amenities of a modern European city. The first efforts at municipal reform, (by which ongoing changes in the architecture of the city were legitimized), were restricted to the Sixth Municipal District, (Galata), inhabited primarily by foreigners and Ottoman Christians. The reason for beginning the reforms in the *European* section of the city was clearly stated by the Government, showing the era's attitude: that to begin in any the other district such as Istanbul (historical peninsula), Uskudar or Eyup with a majority of Muslims "...*would be sophistry and unworthy, since the Sixth District contains much valuable real estate and many fine buildings, and since the majority of those owning property or residing there have seen such things in other countries and understand their value, the reform program will be inaugurated in the Sixth District*" (Rosenthal 1980: 51). The statement clearly demonstrates increasing Westernisation, and also the withdrawal from traditional values, now viewed as backward.

The same attitude was shown, later, in other parts of the city. The impact of Westernisation was reflected in the physical entity of the city, as a result of the mutual relationship between the city's physical structure and the socio-economic, political and cultural structures. Before clarifying the radical changes which occurred in the urban fabric of Istanbul, one needs to examine the circumstances and the environment on which the changes were based. It is necessary, however, to understand the early conditions, aims and applications in order to understand the whole process which led Turkey in this direction.

The process fell into two periods. The first was from the beginning of the 18th century until the Tanzimat era in 1839, when Westernisation was actually legitimized. The second starts in 1839, followed by the foundation of the Republic which, to some extent, was a continuation, that developed in accordance with the political discussion on the future of the country. Yet again, the period after 1950 saw even further acceleration of the whole Westernisation process. The content of the political discussions and orientations of the country are important to the understanding of the problems in the built environment of Istanbul. The investigation which will be presented subsequently demonstrates that the urban form of Istanbul was transformed by political and economic motives, whose rules were superimposed from above and that the city became an object to be shaped according to a format which was that of a modern European city. Istanbul

therefore, became a tool for the expression of political choices. This claim will be verified through an analysis of the historical and architectural evidence.

2.4. REASONS FOR TRANSFORMATION

The failure of the second siege of Vienna in 1683 marked the end of an epoch and the beginning of the irreversible decline of the Ottoman Empire³. At the same time it indicated the beginning of the Westernisation of Turkey. The reasons underlying decline were formed by a complex interaction of internal and external factors. The military and economic handicaps of the Empire, when compared with Europe, can be seen as the major reasons for trying to solve this imbalance. They led to implementation of replanning, which had a gradual but direct impact on the urban fabric of its Capital.

After the failure of the second siege of Vienna, there were successive peace treaties: Carlowitz in 1699 and Passarovitz in 1718, which weakened the authority of the central government over its provinces (Lewis 1968: 37). Repeated military defeats of the Empire by European countries encouraged the Sultans to reorganize the army, with the cooperation of European officers. The French were responsible for ordering and implementing the project, and therefore had the most influence at that time.

Meanwhile at the beginning of the 18th century Ottoman ambassadors were sent to different European countries with instructions to "...*make a thorough study of the means of civilization and education, and report on those capable of application in Turkey*"⁴. These exchanges with Europe began to have an impact on cultural and social life. This was called the Tulip Period (1718-1730) as the tulip was then the favourite flower of the Ottoman court and was a symbol of the era known as *joie de vivre*. It was ended in 1730 by the revolt of the Janissary Corps and the deposing of Sultan Ahmed III (1708-1730).

At the time of Mahmud I (1730-1754) a memorandum was presented to the Sultan by Ibrahim Mutefferika, Press Director, pointing out the importance of a well-ordered system of government and giving examples of the different regimes from other countries (Lewis

³See S. Shaw (1976) "History of the Ottoman Empire and Modern Turkey" Vol. 1, pp.169-260, and also B. Lewis (1968) "The Emergency of Modern Turkey".

⁴Quoted in Lewis, 1968: 45-46, from Karal, *Tanzimat*, p.19 and from Mehmed Said Efendi's report on his embassy (Sefaretname) was several times printed in Istanbul.

1968: 47). The second major point in the memorandum was the importance of scientific geography which would help the provincial military administration; and the third point examined the structure of the various Christian armies in relation to their training, organisation, discipline and regulations. It concluded that the Frankish armies were superior and were the most important for the Ottomans to imitate⁵. Subsequently, Selim III (1789-1807) set up new military and naval schools aimed at the modernisation of the armed forces⁶.

These efforts to modernize the military in parallel with the centralisation of administration continued during successive periods. The reforms also introduced new institutions: a Medical School was established to train army doctors (Lewis 1968: 85); and the School of Military Engineering and Geography was founded (Ortayli 1987). Finally, this spread out to other fields such as the legal system. Thus, deliberate attempts made to Westernise policy in the 18th century, to imitate and adapt certain European precedents, may be seen as a pragmatic attitude resulting from political need rather than mere admiration. This did not prevent the gradual dilution of Turkish culture and the slow destruction of the centuries old capital through introduction of new building types that served the new institutions.

With industrial production in Europe greatly increasing, after the 18th century, the Ottoman Empire became an important source of raw materials and a potential market, particularly for Britain (Ozsoy 1980: 71). The Ottomans were unable from the start to integrate themselves into the European dominated world economy on their own terms, which meant they were repeatedly forced to grant more and more trade concessions (capitulations). Accordingly, a trade agreement was signed with England in 1838 which was followed by agreements with other European countries. By these, one sided privileges were given to Europe which later led to the devastation of our traditional manufacturing capability (Ozsoy 1980). This dramatic situation was described by the Austrian Consul in Istanbul, "*Now a Belgian merchant pays 5% on goods sold in Turkey;*

⁵Accordingly in 1734 a School of Geometry *Hendesehane* in Uskudar under the command of the Count de Bonneval, and a new school of mathematics for the navy by the Baron de Tott in 1773 were opened (Lewis 1968: 47-48).

⁶These schools, according to Toderini, were well equipped with European maps and appliances, and with a library of European books, some with Turkish translations (Lewis 1968: 49). For these efforts the main guidance was provided by France, which was later replaced by British and German influence and tradition (Lewis 1968: 81-82). Besides educating the young officers in western manner, some students were sent to Europe for education (Lewis 1968: 83). All these efforts resulted in a creation of young army and naval officers as a new social class of the society familiar with some aspects of western civilization and therefore they, later, became important initiators of the westernisation movement.

a Turkish merchant pays 12% to export or even to transport from one Ottoman state to the other" (Celik 1986: 33). In this way, the Ottoman domains became an open market where the superior competition of European merchants was evident. This superiority of industrial production caused the devastation of many traditional manufacturing branches in a short period of time⁷.

As a counter-measure Ottoman statesmen initiated new industrial production to modernise the army rather than for commercial purposes⁸. The number of industrial plants increased during the 19th century with a wider range of products. They were constructed with great effort and foreign engineers and skilled workers were employed to manage them resulting in a significant quantity of raw materials being imported. A Belgian worker expressed the situation, "...you could not call it Turkish cloth- it is only cloth made in Turkey by European machinery, out of European materials , and by good European hands" (Quoted in Celik 1986: 35). All this industrial effort did not ensure a commercial transformation: this was mainly due to the lack of capital and the inexperience of the local businessmen; the commercial privileges given to European countries; the lack of compatibility with the traditional industries, and the political circumstances and situation of Ottoman society at that time (Ozsoy 1980). This gradually resulted in the acceptance of domination by the East in every field, from the way of dressing⁹ to architecture. The effort to industrialise profoundly left its mark on the city fabric and became one of the major reasons for its deterioration.

When one looks at how and by which factors Westernisation penetrated Ottoman society, especially in Istanbul, we can see that besides the direct influence of Europe on the military and the economy, exchanging ambassadors was also significant.

⁷For example, in Aleppo, 300 traditional cotton manufacturers were reduced to 150 in 1846 and foreign cotton fabric made in Manchester dominated the market. In Bursa, which was the most important textile centre of the Empire, 1000 silk manufacturers declined to 75 in 1850. Silk items made in Milan and Lyon replaced the local products. In Istanbul too, the number of cotton textile manufacturers decreased from 2750 to 25 and silk manufacturers from 350 to 4 (Ozsoy 1980: 72).

⁸The major plants established by the state were; shoes in Beykoz in 1827, Feshane in Eyup in 1833, wool thread in Islimiye in 1843, textile plants in Hereke in 1843 and in Izmit in 1845 (Ozsoy 1980: 72). In 1856 at the Paris Industry Exhibition, the Empire was represented by the products of factories based in and around Istanbul (Kucukerman 1988: 72).

⁹For example the Turban was banned and the wearing of European trousers became obligatory for officials in 1827 (Barey 1980: 22). The clothing reform was extended to civilians, in 1829. In general, the robe and turban were permitted only to the *ulama* (Lewis 1968: 102).

Prior to 1792, the Ottoman court did not have an embassy abroad; the first permanent residency was established in 1835. This contrasts with European countries who had established embassies in Istanbul since the 15th century¹⁰. Ambassadors tended to be sent abroad only when there was a specific need, such as for peace negotiations. Their main task, apart from the political mission, was to report on administrative and military institutions, the social life, culture and education of the places they were visiting (Denel 1982: 8).

Yirmisekiz Mehmed Celebi was the first among many others to go to Paris between 1720 and 1721 and provided descriptions concerning the royal palaces and gardens. He was followed in 1731, by his son Mehmed Sait Efendi who conveyed his impressions about Stockholm and its surroundings. In addition Mustafa Hatti Efendi who was in Vienna in 1748, apart from describing the royal palaces and gardens also reported back on the opera, the theatre and the observatory. Sehdî Osman Efendi was present in Petersburg in 1758 and Ahmed Resmi Efendi, in 1764, described Berlin and its surroundings as well as its theatres. Vasif Efendi described, in 1788, similarly reported these from Spain. Mustafa Rasih Pascha who was in Petersburg in 1792, described a way of life: the court balls, ways of dressing and the interiors of the grand palaces. Besides that, he also stated his impressions about the city and its houses with considerable architectural detail. In 1838 Mehmed Sadik Rifat Pasha provided detailed descriptions of the physical environment of Milan comparing it to Istanbul.

Thus, the initial impressions of European cities and life styles were provided by the Ottoman ambassadors. They are important not for their impressions of 'progress' but also in proposing a 'model' for the Ottoman court for the future development of the country. One can grasp from the changing content of the observations, in parallel with the chronological order of those *Sefaretname* (embassy-accounts), that the interests modified according to the level of need and influence. While at the beginning royal palaces were the centre of the interest, later, cultural bodies such as the theatre, life styles and technology became the focus. This interest intensified more on the social aspects of Western civilisation by the end of the 18th century. Therefore, cities and their

¹⁰Venice in 1454, Poland in 1475, Russia in 1497, France in 1525, Austria in 1528 and England in 1583 already had established their embassies in Istanbul to protect and improve their interests (Denel 1982: 6). Amongst them France had the most privileges and therefore influence on political decisions at the Ottoman court (Denel 1982:6).

architectural characteristics were described in a great detail such as Mustafa Rasih Pascha in St. Petersburg and Sadik Rifat Pascha in Milan¹¹.

2.5. TRANSFORMATION OF THE CITY

Although the effects of Westernisation may be seen in the buildings from the end of 17th century, it accelerated during the 'Tulip Period', the explosion of *joie de vivre* and of luxury, (1718- 1730). Observations by Yirmisekiz Celebi Mehmet Efendi led to important results. Firstly, the printing press was introduced to the country's Muslim society¹², an important means of introducing epistemological and political discussions of modernisation. Secondly, all these reports greatly affected building activity by introducing new styles, mainly in Istanbul. Another underlying reason for the influence on buildings may not only have been the descriptions of royal palaces and gardens of France, but also the drawings and plans of those buildings he brought back (Aktepe 1958: 48-50). They were important because these sources provided the precise image of the *new* and *progress* for Ottoman dynasty.

2.5.1. First Attempts at the *New*

The major impact was reflected through the buildings, in an attempt to introduce new types and styles. The main aspect of change in the architecture of the city occurred in the scale of buildings, and more specifically, in an experiment with the new tastes. The influence of French architecture emerged, initially, in royal buildings such as palaces, gardens, kiosks and pavilions built extensively in Bosphorus and Kagithane. In parallel to changes which emerged in the social and power structures and status of the ruling class; the Sultans' mothers and sisters (called female sultans), initiated many individual residential palaces on the shores of Bosphorus and the Golden Horn, accompanied by Ottoman courtiers (Artan 1993). These intensive construction activities of private residential dwellings created opportunities to embody all these new styles, mainly in the facades of buildings.

¹¹Another major factor was the role and influence of non-Muslims on Ottoman society in Istanbul on the Westernisation process, especially given the importance and geographical location of the city.

¹²The ban on printing in Turkish and Arabic for religious reasons remained effective until the early 18th century. However, non-Muslims had the right to print in their language but not in Turkish or Arabic. Thus, as early as 1493 the first Jewish press was established in Istanbul by refugees from Spain. It was followed by Armenians who established their press in 1567. The Greek community press was established in 1627 by N. Metaxas with machinery and type imported from England (Lewis 1968: 41-51).

The influences did not only appear on the residential buildings but also in those of religious foundations (Vakf). The Nur-u Osmaniye Mosque and complex (1748-1755) reflects a major change, both in decoration and design and can be claimed as the first considerable baroque achievement in Istanbul. It also proves the changing attitude of the ruling class towards their traditions when Mahmud I (1730-1754) commissioned the architect Simeon Kalfa to build a mosque in the Western manner (Goodwin 1987: 383-386). This was followed by the Laleli Mosque and complex (1759-1763) which also reflected these influences. In accordance with the increasing population and importance of the Bosphorus, new mosques were built along its shores reflecting similar characteristics. Examples are, the Beylerbeyi Mosque built by Abdulhamid I (1774-1789); the Selimiye Mosque in Haydarpasa built by Selim III (1789-1807), and the Nusretiye Mosque in Tophane built in 1826 by Mahmud II (1808-1839). The degree of change was manifest in the increasing divergence of the architectural vocabulary between traditional buildings and new ones. The direction of this transformation may be clearly seen by comparing the Nur-u Osmaniye Mosque (1756), in which there was an attempt to amalgamate the old and the alien forms to form a new vocabulary, and the Nusretiye Mosque (1826), which clearly imitated European precedents.

Following the dissolution of the ministerial form of the office of architect of the Empire in 1831, the dominance of non-Muslim architects became conspicuous in the city. The Armenian Balyan family was the most influential of them, constructing numerous buildings from mosques to palaces. Nine successive members of the family served as Imperial architects under six Ottoman Sultans in the 18th and 19th centuries (Tuglaci 1990: vii). Following his father Bali Kalfa, Kirkor Balyan (1764-1831) was appointed as imperial architect by Selim III. He served successive Sultans until 1807 and built several palaces, pavilions, mosques, churches, military barracks and many other buildings. Among these, the important ones were, the Aynalikavak Kasri in Golden Horn, the Besiktas Palace on the Bosphorus, the Nusretiye Mosque in Tophane, the Sadabad Kasr in Kagithane, and the Military barracks in Taksim (Tuglaci 1990: 5-6).

The foreign influence on the urban environment of Istanbul was clear, not only in royal palaces and mosques, but also including various building types such as schools, libraries, tombs and extensively in water buildings such as fountains (*cesme* and *sebil*). The complex of Nevsehirlı Damat Ibrahim Pascha, known as the main initiator of Tulip period, was built in 1720, at Sarachane; the Mihrisah Sultan complex built in Eyup, in

1795; the Sah Sultan complex again in Eyup in 1800; the Naksidil Sultan complex at Fatih in 1818; these are some of the remaining examples of the period including imitations of European styles such as baroque, rococo, empire in the embellishment of their facades. Further significant typological and spatial changes were to come in the next period.

2.5.2. Impacts on the Urban Fabric

The first signs of the radical changes in the city's urban fabric derived from three major applications: the presumptuous landscape arrangements in Kagithane; several military barracks with their grand scale, and public squares with fountains.

Kagithane, at the northern end of the Golden Horn at the apex of Eyup, had been an important excursion spot for Istanbul since Beyazid II's period (1481-1512), and continued to be so until the end of 19th century (Eyice 1986). However, it gained more importance during the reign of Ahmed III (1703-1730). As mentioned before, Yirmisekiz Mehmed Celebi Efendi, the ambassador in Paris had brought back the layouts of royal palaces and gardens in France such as Versailles, Fontaineablaud and Marly palaces and parks. Marquis de Bonnac, the French ambassador in Istanbul, provided more drawings and plans of these buildings and sites (Eyice 1986: 31). Construction according to this plan of a royal site began in Kagithane, in 1721. It is regarded as the first significant attempt to create an aristocratic park in the Western manner (Kuban 1988). A mosque called *Hayrabad* and a *kasr* (countryside pavilion) named *Sadabad* (dwelling of happiness) were initially built at the site (Eyice 1986: 31). The river waters were regulated by an ornamental canal two kilometres long, called *Cedvel-i Sim* (Eyice 1986: 31). Sixty kiosks were built by the members of the court in the vicinity (Cerasi 1985: 38). Additionally the Sultan gave plots of land to wealthy men who built one hundred and seventy kiosks and *kasrs* nearby (Eyice 1986: 33). The situation was well expressed by Cerasi (1985: 38), "...it is the instrument of a policy of transformation of the Court circles which wish to introduce Western technology and art to increasingly wide circles".

Although the Ottoman gardens until that time had the main characteristics of being functional, organic and non-geometrical open spaces (Cerasi 1985 & Eldem 1973), with the construction of the *Sadabad* at Kagithane, large meadows, buildings water systems were for the first time included in the design (Cerasi 1985 & 1986). It was, according to Cerasi (1986: 22), not a mere Western imitation, since there was, "...none of the

'grandeur' and sense for representation and monumentality of the French parks, none of the plastic perspective schemes which link their spatial units and buildings; there are no statues or monuments on which the axis of perspective can converge or pivot". Therefore he further suggests that the foreign influence on designing the site was exaggerated and it may possibly be influenced by Persian and Mughal Indian precedents. However, it may be asked why this influence did not take place before on Ottoman soil, in spite of the close contacts with the latter. It was also argued that in Kagithane, the new elements of European architecture were understood according to the custom of Ottoman architecture and therefore it cannot be called 'Westernisation' (Denel 1982: 19- 20).

On the other hand, this landscape arrangement is accepted by Kuban (1988) as the first sign of Western influence at the urban planning level against the traditional Ottoman city system through imposing a new spatial order and formal vocabulary on the urban fabric. It can be argued that the Kagithane experiment indicates the changes did not appear only in tastes and styles but also affected the way of life and introduced a new perception of open space. Unfortunately, due to the popular riots in 1730 against the reformist and 'Westernising' policy of the Sultan and his Grand Vizier, none of the buildings and gardens have remained (Eyice 1986: 33). Nevertheless, the site kept its significance in successive periods as the Palace Court and also for the public until the beginning of the 20th century. The site is an exemplary case of the changes which occurred later in Istanbul. It was rebuilt in the second half of the 18th century, from which we have the best documented example of the modification in the Ottoman taste and spatial conception of open space. The site was rebuilt successively by following Sultans.

Another indicator of the inception of the radical transformations in the city's urban fabric were the construction of monumental fountains which were built in the *meydans* (squares) of Istanbul during the 18th century. Seven grand fountains were built by the Sultans between 1728 and 1732 and epitomized the Tulip period (Blair & Bloom 1994: 228). The first was built by Sultan Ahmed III near the main entrance to Topkapi Palace in 1728. It was a square structure with rounded corners projecting slightly from the facade. The marble walls were decorated with naturalistic floral motifs in low relief and elegant calligraphic panels with verses of Koran. Both walls and iron grilles were

highlighted with colour and gilding. This example was followed by other similar fountains built in Azapkapi, Tophane and Uskudar Quay squares.

Although decorative aspects of these fountains representing both Islamic taste and Western influence may be the subject of another study, they, in relation to our subject, represent Western influence not only on buildings, but also at the scale of urban space. They show the changes when compared to the classic period in which fountains were built according to need, on a comparatively much smaller scale, and simple in decoration. In addition, they were generally placed on the surface of a wall on one facade or possibly at a corner. The new fountains had a monumental scale, with attempts at elegance and grandeur. They were probably built to enrich the image of the power and status of the Sultans, since they could not afford large scale foundations as their ancestors did. Moreover, they introduced a new spatial concept to the urban fabric being located in squares, a natural gathering point for people. They also introduced a new form: a 'designed square' which was not an urban element of an Ottoman city (Tanyeli 1986: 164-171).

Another major change occurred with a new type of construction which introduced a grander scale of secular building. As a result of modernisation and centralisation reforms in the army, several military barracks were erected¹³. They stimulated further changes with their massive size, which in turn inevitably affected the physiognomy of the city (Kuban 1993: 23). Principally, most of these barracks were built on the sites of the existing royal palaces and gardens of the Classical period which were thus destroyed¹⁴.

The changes discussed above imply a diminution in the Ottoman way of life and architecture. In the 18th century, the change was reflected mostly at the building scale with the introduction of new styles in decoration; signs of more radical changes in the urban fabric emerged in the Kagithane project, military barracks and monumental square fountains. Thus the changes began to impose a new spatial life on Ottoman society in which the hegemony of alien values began to be felt. During successive periods the

¹³Firstly, Canon Barrack in Taksim built in 1780. This was followed by Kalyoncu Military Barrack built by Abdulhamid I in 1782; Humbarhane Barrack in Halicioglu, and two more at Selimiye and Tophane built by Selim III. Later Kuleli and Ayaaga Barracks were added to them.

¹⁴For example the Kavak Saray was destroyed to build a military barrack (Cansever 1993). The new complex called Selimiye Barracks, consisted of a barrack and in its vicinity, shop dwellings, a bath and printing house (Denel 1982: 28).

values of the industrialized West further penetrated Ottoman society, not only as images but also in the legal system, machine technology and new types of institutions; and all those became the 'stimuli' for radical and irreversible change.

2.6. CHARACTERISTICS OF WESTERNISATION IN THE 18TH CENTURY

Observation of the phenomena shows that the initiators of Westernisation were mainly two elements from within Ottoman society. One group, the palace courtiers including Sultans, (except the Ulema group), showed great enthusiasm for the modernisation which was considered a necessity for the recovery of the Empire. The others were non-Muslim groups, impressed by the new developments in Europe, perhaps because of their dominant trade relations with European countries. So it emerges that both groups (the former administrative, and the latter becoming the economic core of the state) had direct relationships with European powers. Consequently, they were the first elements of society to be affected and in turn to affect the historical process¹⁵.

As the representatives of the highest status of the Ottoman Empire, the Sultans themselves mounted an attack on traditions and opened up to the outside, despite the impetuous opposition from the *Ulemas* (Muslim doctors of religious law) and the Janissary Corps (traditional army forces of the Empire) (Barey 1980). Commonly, Westernisation was presented as a 'necessary' way to industrialisation by its defenders (Portugal 1989: 288) which, in other words, meant 'modernisation'. The statement by one of the courtiers of Mahmud II's demonstrates this attitude, when he said "*I am completely convinced that if we do not make haste to imitate Europe, we must resign ourselves to fading away in Asia*" (Barey 1980: 21).

As a result, the ultimate goal of Westernisation was desired by the high officials and the Sultans themselves. Therefore, there was no mass movement from within society or a decision as a result of a historical process. Just as when a fountain was built by Ahmet III, in the Baroque manner, in front of the main entrance of the Topkapi Palace, architects and citizens reacted against it claiming that, "*...the taste of the Istanbul public*

¹⁵At this point, one may ask the question if it was the religious and ethnic differentiation of the Muslim and non-Muslim elements that was really the main factor in the move to Westernisation. Although one cannot deny this fact, we will claim that the main factor was infact their status, as the main merchant class in the society. Therefore they naturally formed the new merchant class as an extension of their existing elitists positions.

was offended by this construction" (Cansever 1993: 48)¹⁶. Similarly, when the *Kavak Saray* (the palace of Suleyman I, 1520-1566, built by the architect Sinan), was demolished to build the Selimiye Military Barracks, architects and the public demonstrated against the change, but this action was described as 'reactionary', by the Court (Cansever 1993: 48).

If one defines Westernisation as a 'change', it was actually the intervention of indigenous change, which evolved according to conditions within society and its changing place in history. But the imposed change from above prevented an evolutionary development through the internal dynamics of the society. As a result the previous homogeneity of society began to dissolve due to its detachment from the social initiative. This caused a lack of confidence in society which helped to accelerate the military and economic weakness of the State. The changes did not really come from within but simply mere imitation. As a result the West gradually began to establish permanent hegemony on trade, institutions and values.

Thus, the relationship between the West and the Ottoman Empire¹⁷ which had always existed basically due to its geographic location changed in character after 18th century. Before the 18th century there was a mutual relationship of respect and dignity, but later this turned in to a more one sided affair, of imitation, or rather the concept of imitation as a *necessity* for the Empire's recovery. This can still be seen in the efforts and desire to create a physical environment according to the European image, which was also perceived as an image of development and progress. It is a phenomenon which continues to show itself both in the will to build modern skyscrapers, and or in the attempt to preserve Istanbul's city walls.

¹⁶All the quotes which are from Turkish references are translated into English by the author.

¹⁷"...the Ottomans have from early stage in their history been in contact with Europe longer and more closely than any other Islamic state...The Empire included important European territories, in which it absorbed European peoples and institutions. It also maintained contact with the west through trade, diplomacy, war, and...immigration" (Lewis 1968: 6).

CHAPTER THREE

Istanbul: Westernisation Paradigm

3.1. ACCELERATION OF WESTERNISATION

Westernisation of the Empire accelerated and spread out to different spheres of the society beginning during the first half of the 19th century. The initial reforms of the 18th century, which focused on the needs of the army and the palace, were not sufficient measurements for extensive modernisation. The Ottoman statesman who believed in the necessity of the comprehensive reforms announced the official principles of modernisation in 1839, the Tanzimat Decree, which was strengthened in 1856 by the *Islahat* Decree. Thus, in the second phase of the process, institutions, laws, rules and also urban and architectural forms were introduced and imposed on society. While the acceptance and assimilation of Western forms by the administrative class was the major motive of the first phase of the process, in the second phase the reforms were to be of a social nature. Therefore, in the former period, changes were reflected through architecture and the city, through the military and related buildings and also through the buildings and sites which belonged to the royal family. However, the latter period witnessed changes not only in the increased scale of buildings but more radically on the urban form and life.

In this Section, the formative reasons of the second phase will be discussed in order to see the nature of the changes which took place to Istanbul's fabric. Observation of the process demonstrates that architectural and urban changes in the capital were commonly based on political and economic choices rather than environmental and cultural concerns. The result has been destructive for its physical structure, although the main goal was to improve the city to the standards of European capitals.

3.1.1. Foreign Influences

During the process, Rosenthal (1980) demonstrates, that the effort of European embassies in Istanbul try to promote and advance the reforms, is undeniable. His analysis exposes that they actually shaped and led the changes. Similarly Ortayli (1987:

88) claims that in preparation of the Tanzimat Decree, the influence and provocation of foreign powers was evident. Shaw (1977, Vol.2: 70) highlights the methods of this influence that in the, "...*clash of policy and ambition, party and individual rivalries, the foreign embassies often played decisive roles, intervening with money and political pressure, supporting one politician or another to secure their own aims in both Ottoman domestic and foreign policy*". Although the statesman who initiated the Tanzimat Reforms, hoped to achieve certain goals which were, "...*to reform and strengthen the Ottoman state; ...to restore popular confidence in the government; and to satisfy the European powers who had increasingly interfered in the domestic affairs of the empire*" (Rosenthal 1980: 33); "*The Tanzimat was, in essence, an attempt to transplant alien institutions onto Ottoman soil, institutions whose modernity and European origin were thought to be sufficient guarantees of their future success*" (Rosenthal 1980: 34). However, because of the absence of a social and cultural basis, the decree remained an official decision and was not yet adopted. But, the reforms affected the municipal administration of Istanbul. Subsequently, some superficial changes in the municipal organisation were implemented and a fundamental reorganisation was introduced during the Crimean War. The new ministry, called the *Sehir Emaneti*, was based on the French prefecture system¹.

One of the important results of the Tanzimat, which was strengthened later by the *Islahat* Decree of 1856, was to assure the safety of life and property of Sultan's subjects and to abolish the tax on farming, and to bring all Ottoman subjects regardless of their religion, within the scope of law (Ortayli 1987: 74). The Decree was prepared under strong pressure from the British ambassador and his French and Austrian colleagues to reaffirm the principles of the 1839 declaration. Thus, many institutional reforms took place under strong political and cultural pressure from Europe² (Lewis 1968: 116).

Furthermore, in 1867, a note was presented to Sultan Abdulaziz by the French government, supported by England and Austria, urging a more active policy of reform (Lewis 1968: 121). Although Sultan Abdulaziz "*...was violently opposed to the idea*" (Lewis 1968: 121; Ortayli 1987: 91), foreigners were granted the right to own property

¹The reason why the Ottomans chose the French system was explained by Rosenthal that the Ottomans regarded France as the highest expression of western civilisation in the late 18th century (Rosenthal 1980: 36).

²Ortayli informs us that the content of the rescript was guaranteed by powers as stated by Lord Palmerston (Ortayli 1987: 91).

within the Empire in 1867 (Rosenthal 1980: 34). The same year a French-language *Lycee* was founded at the old Imperial Palace in Galatasaray to give secondary education a modern and Western curriculum³. During the 19th century, a new civilian elite was educated in the emergent secular schools (Shaw 1977, Vol.2: 106-113). A new administrative class, therefore, began to be formed by the non-military constituents of the society, in contrast to the previous period in which the same class was formed mainly by graduates of the Military schools. As a result, the old ruling class of the Ottomans who were literally the slaves of Sultan, was replaced by a new class of bureaucrats, whose position was assured by the Tanzimat laws (Shaw 1977, Vol.2: 105). The result of these foundations was to lead to a certain goal, which is stated by Lewis:

"By 1871 the reform had already gone far enough to make a simple policy of reversion to the past impracticable. The destruction of the old order had been too thorough for any restoration to be possible; for better or worse, only one path lay before Turkey, that of Modernisation and Westernisation. She could move fast or slowly, straight or deviously; she could not go back"
(Lewis 1968: 128).

3.1.2. Industrial Enterprise and Abdulhamid II

In the meantime, the Anglo-Turkish Commercial Treaty of 1838 had a striking impact on traditional Ottoman industries. In this agreement, which was followed by other European countries, local products were taxed even when only circulating within the Empire. Foreign products, however, were only taxed upon entry and exit from Ottoman territories (Celik 1986: 33). This was followed by the development of transportation system, particularly railroads, which were begun soon after the Crimean War (1853-56) (Shaw 1977, Vol.2: 226). This facilitated the penetration of European goods into all corners of the Empire by opening the market to foreign traders and changed the balance of trade increasingly in favour of European merchants⁴. As a result local manufacturing capacity

³After the Lycee, an American Institution called Robert College was founded by C. Hamlin and began instruction in 1871 (Goodwin 1980:36). The school located beside the great fortress of Rumeli Hisar on the Bosphorus, was the nucleus of the present University of the Bosphorus. However, the Galatasaray Lycee was the first attempt by a muslim government to provide modern education at secondary level in a western language. This school influenced the rise of 'modern' Turkey enormously. It educated the required administrators, diplomats and others with a western education and the capacity to handle western administrative implications. Its graduates played an significant role in the politics of the Ottoman Empire and later of the Turkish Republic (Lewis 1968: 122). Therefore it became a crucial institution in providing 'human resources' for the westernisation.

⁴After the agreement, while the Ottoman Empire applied a 5% customs tax on imported European goods, for example England charged 60% customs tax for the goods imported from the Ottoman Empire (Ozsoy 1980: 71).

was threatened. The incompatibility of the traditional Ottoman industry, in terms of its production methods and scale of operation, was recognized by the statesmen as a major impediment to Westernisation. They soon attempted to modernise the country's industrial base (Ozsoy 1980: 73). Consequently, the Capital city was subjected to rampant industrial development which began the deterioration of both the city as a whole and Eyup in particular. As stated before, the initial support for this industrial expansion was to serve the needs of the military. Therefore, the location of the new plants was an important decision based on defence requirements. This was especially the case with the Golden Horn, with its natural harbour, safe against attacks and protected from the natural elements. Gradually Istanbul and its environs were subjected to excessive industrialisation with total disregard for the environmental qualities of the city.

A new era of industrialisation began during the reign of Abdulhamid II⁵. He also pursued a programme of the modernisation with enthusiasm. New reforms and institutions were introduced in varying fields. Education was enriched by the establishment of secular secondary and higher technical schools, which improved literacy rates⁶. Moreover, the expansion of printing and the emphasis on education helped to promote a popular approach to educating the masses (Shaw 1977, Vol.2: 252). The construction of railroads, paved roads, steamship lines and harbour works, postal and telegraph services were accelerated (Shaw 1977 Vol.2: 226-234). Industrial development was also encouraged. At the end of Abdulhamid's reign Istanbul had private sector factories making bricks, cotton, cloth, tiles, glass and leather goods⁷.

⁵Abdulhamid II came to throne in 1876 promising to support constitutionalism, however, the internal and external crisis led him to adopt a very restricted, personal and autocratic administration (Shaw 1977: 211). He dismissed the parliament and sent the leading bureaucrats into exile and attempted to restore the declining Empire through his autocracy.

⁶Among many others, the Civil Service School graduated 620 students between 1878 and 1897; the Imperial Law School, 502 between 1885 and 1897; the Imperial Medical School, 882 from 1874 to 1897; the Industrial Arts School, 352 during the same period. In addition to these schools the Imperial Veterinary School and the Halkali Agricultural School were founded after 1891 (Shaw 1977, Vol. 2: 249).

⁷Industrial buildings were generally built in and around Istanbul until Abdulhamid II initiated construction of new factories in other parts of the Empire. The practical reason for choosing Istanbul as the area of industrial development in the early years may be found by comparing the initial needs of the state, which appear to have met the needs of the military and the palace and those private factories which mostly responded to commercial demands. The major change in this era was in the intention for industrialisation. In Abdulhamid's reign the target of industrialisation was diverted to produce great variety for consumer goods. Therefore one can see that the location of these plants were spread out to different parts of the Ottoman domains: leather factories in Mosul and Diyarbakir; rug factories in Urfa, Gordes and Usak; silk factories in Bursa, Izmit, Aleppo and Edirne. Meanwhile Salonica had tile, beer, brick and cotton cloth factories. Izmit had paper and cloth factories. There were about 1500 smaller plants of various kinds around the Empire. But these were on a small-scale and not capable of competing with European manufacturers either in quality or cost. At the same time foreign powers opposed Ottoman attempts to protect infant industries by increasing tariffs on imports and raising the cost of raw materials. As a result of these complex interrelationships industry remained underdeveloped which lead the Empire to completely rely on Europe for manufactured goods (Shaw 1977, Vol. 2: 236)

Urban life changed remarkably during the Abdulhamid's reign in all major cities such as Istanbul, Izmir, Edirne and Salonica (Shaw 1977, Vol.2: 241). Horse-drawn public streetcars were introduced. Commerce and trade dominated the urban function. Transport was expanded by the railways and steamships, and communication by postal and telegraph services. Istanbul was the privileged city among all the others and began to profoundly reflect the modernisation on its physical structure.

Although the reign of Abdulhamid II was marked by repressive political policies, by extensive censorship and the heavy use of the police force, it was also the period of an educational explosion which produced numerous bureaucrats and professionals (Shaw 1977 Vol.2: 255). Abdulhamid's reign forms an important phase of this process by his dual character in his approach towards Westernisation. On the one hand his activities suggests that he was an enthusiastic reformer who introduced more and more popular reforms compared to any previous period. On the other hand, he presented a more conservative approach in both cultural and social spheres. He recalled the fundamental values and traditions of Islamic civilisation and later stressed Turkish traditions in the context of Ottoman culture. It may have been a reaction to the Tanzimat period which was accused of undermining the *ulema* and abandoning the basic ideals, traditions, and institutions of Islam by imitating European ways too much (Shaw 1977, Vol.2: 259).

3.1.3. Ideological Conflict

As the result of developments in education with a European curriculum, the new elite formed different groups. Many were opposed to Abdulhamid II and they gradually came together throughout Europe and formed a coalition called the Young Turks⁸ (Shaw 1977, Vol.2: 255). Although their period of influence (1908-1918) was quite short their impact on the future of the country was enormous. As the Empire slowly began to lose territories and disintegrate following the Russo-Turkish War (1877-1878), an ideological discussion was started on *how to save the Empire*. Pan-Ottomanism, pan-Islamism and nationalism were proposed in turn. The Western-educated Ottoman middle class, the

⁸Although the name refers to the Turkish nation, the members of the opposition group came from different backgrounds in terms of education and ethnic origin. For example, some of its founders, such as Ibrahim Temo was an Albanian, Mehmed Resid, a Circassian, Abdullah Cevdet and Ishak Sukuti were Kurds and Huseyinzade Ali was from Azerbaijan (Lewis 1968: 197). To express their ideas Khalil Ghanim (Halil Ganim), a Lebanese Maronite and former deputy to Parliament in 1877, published a journal called *La Jeune Turquie*, in Paris (Shaw, 1977, Vol.2: 255). The same members of the Young Turks formed a group named as the Ottoman Society of Union and Progress (*Osmanli Ittihat ve Terakki Cemiyeti*). They called for a programme of constitutionalism, Ottomanism and freedom (Shaw, 1977, Vol.2: 256). The movement was disrupted by the Sultan at the end of 1897. However it was revived in 1901 with the support of Damat Mahmut Pasha (1853-1903), husband of the Sultan's sister and later by his son Prince Sabahaddin (1877-1948).

Young Turks, supported the nationalist ideology most probably as a reaction against the formation of the nation states in the Balkans and similar movements in the other territories of the Empire. The Young Turks put much stress on cultural and linguistic unity rather than on religious; their programme, in fact, became the blueprint for the Turkish Republic established in 1923.

They rejected the basic premise of the Tanzimat, as proposed by Abdulhamit, that modernisation could only be imposed by an elite class from the top. They argued that urbanisation and industrialisation needed to be accompanied by fundamental political and social reforms. Therefore, when they came to power after overthrowing Abdulhamit II in 1908, they proceeded to introduce a radical programme aimed at saving and improving the modern Turkish State and society (Shaw 1977, Vol.2: 273). This was also a period of feverish discussions that searched for a core ideology that would help to determine the future of the country in the 20th century. The conflict between the conservatives and modernists sharpened in this era and continues until today in varying degrees. The conservatives suggested that Islam should be adapted to meet the demands of a modern age, with only the technology of West being needed. On the other hand, the modernists, some of whom advocated fully imitation of the West, proposed to be more selective and introduce change according to the needs of Islam and the Ottoman community (Shaw 1977, Vol.2: 278-279).

One can clearly see that the arguments debated by both sides were actually based on the limits of adaptation to a Western system rather than an ideology for real change. So the supposed superiority of the West as a model representative of the modern age was already *accepted by both groups*. *However, technology cannot be separated from the culture which produces it*. To take or, as they claimed, to borrow only the achievements of technology would not generate sufficient stimuli to improve Ottoman society in the long term. On the other hand, the modernists argued that industrialised western civilisation was the model of the modern age which was being followed by many other nations. Therefore this model must be applied if any society hopes to reach the standards set by of modern precedents. But modernisation which emerged in Europe as a whole was the *result of a certain cultural background, geographical condition and specific political circumstances which were developed in the West* (Feyerabend 1991; Whitehead 1953). The Western world initiated the industrial era of mankind from within certain conditions which cannot be easily replicated. The new formations and qualities

of industrialized Western culture were the product of their history. Therefore any integration of those alien elements into the Ottoman system, by any means, was not possible as our experience has demonstrated to us over the remainder of the 20th century.

Consequently, it is not logically possible to apply an alien culture and it is even worse if one attempts to adjust and modify it according to ones own needs. At best the culture will remain foreign and cause a duality in the society. At worst it can lead to chaos and disorder by dissolving any previous structures. Therefore it follows that this discussion suggests that our *own* system must be the source of any change, supported with our epistemological assets and historical background. Our epistemological world, with its sources and objectives of knowledge may be the major determining cultural factor, as suggested Feyerabend (1991: 11) when he said that, "*Every culture, every notion, can build a science that fits its own particular needs*".

Thus, the search for an ideological orientation during this new phase of Ottoman society did not respond to our needs for change not only practically but also theoretically, due to the failure of its inner logic. Since no system is superior to an other, there is no common parameter for evaluation. Wittgenstein argues that, one cannot criticise any system by means of an alien system (In Brand 1979). Although there are interactions among different cultures, each one has different parameters by which to judge any new inputs.

3.1.4. Political Views

However, one can see that this was the time when many different opinions, to save the State, were proposed and enthusiastically discussed. The Committee of Union and Progress (CUP) (Ittihat ve Terakki Cemiyeti) was not an actual party but the major political group of the period, that had grown out from the Young Turks movement. Talat and Enver Pashas were major figures of CUP and played important roles during the First World War. CUP⁹ members campaigned in support of modernisation, but with some differences as to the means. The basic programme included political reform, democratic

⁹The main opposition to CUP was from the Ottoman Liberal Union Party (Osmanli Ahrar Firkasi) which was formed by Prince Sabahaddin with the campaign for the decentralisation of the state and full equality for minorities (Shaw 1977, VI.2: 276). Representatives of Islamic views supported by Sultan Abdulhamit II did not form a group but they express their thoughts that as Islam is the basis of the state it was essential to retain Islam (Shaw 1977, Vol.2: 276).

freedom, strengthened national sovereignty and unity, agricultural and industrial development, and a just taxation system (Shaw 1977, Vol.2: 276).

However, in 1909, students of religion, as well as many artisans and labourers came under the influence of orthodox and mystic religious leaders, who were discontent about the modernisation efforts and demanded that *Seriat* (Religious Law) be reintroduced. Hafiz Dervis Vahdeti, a leading member of the Bektasi Order, expressed strong opposition to the secularisation and the increasing influence of foreign representatives and the demands of minorities. He formed the Society of Islamic Unity (Ittihad-i Muhammedi Cemiyeti) aiming to replace the current Constitution with the Seriat and use Islam to rescue the Empire (Shaw 1977, Vol.2: 280). In 1909, he led a counter-revolution attempt that was suppressed by the Army, causing the deposition of Abdulhamid II in favour of his brother, Mehmed Resat (Shaw 1977, Vol.2: 281-282). Following the revolution, the CUP emerged as the main civilian party¹⁰. Its programme reflected strongly the secularist and modernist policies of the intellectuals.

The CUP continued to lead the internal and external affairs of the Empire's last years¹¹. The intellectual discussions continued; Ziya Gokalp, who was a sociologist and known as the theoretical founder of Turkish Nationalism, became the most charismatic figure in the continuing attempt to find the right answer to the dilemma in Ottoman society. He gave emphasis to the national character of the society, for him, "*...a nation must preserve its culture*" because it is defined by its culture. However, he rejected racism and blind attachment to the past. He argued that, "*The past, traditions, and the Islamic background could provide the Turks with a stable base for participation in contemporary Western civilization*", and therefore that, "*...Turkification, Islamicization, and*

¹⁰By the events of 1909, the opposition groups, the Liberal Party and the Islamic Unity had dissolved leaving only the Ottoman Democratic Party (Shaw 1977, Vol.2: 283). However, the members of the CUP, gradually dispersed and formed new groups, in the parliament of 1910 such as the People's Party (Ahali Firkasi); the Ottoman Committee of Alliance (Hayet-i Mutefferika-i Osmaniye); the Liberal Moderates (Mutedil Liberaller) were later joined in the Freedom and Acord Party (Hurriyet ve Itilaf Firkasi). And there were also two radical underground groups, the Ottoman Radical Reform Party (Islahat-i Esasaiye-i Osmaniye Firkasi), formed in Paris in 1909 and the Ottoman Socialist Party (Osmanli Sosyalist Firkasi) formed in Istanbul in 1910 (Shaw 1977, Vol.2: 283). The CUP still continued to be the nucleus of these different parties. Accordingly several groups split off from the CUP in 1911 and formed the Hizb-i Cedit (New Party), which demanded that the government support the Caliphate and Sultanate. A more liberal group, the Hizb- Terakki (Progress Party) was formed in the same year (Shaw 1977, Vol.2: 290). Meanwhile the struggle in different parts of the Empire, particularly in the Balkans, continued.

¹¹The most eminent figures of CUP were Talat Pasha (1874-1921), Cemil Pasha (1872-1922) and Enver Pasha (1881-1922), all with military backgrounds. They introduced the programmes of varying aspects of governmental issues, one of which was the need to reorganize and systematize the government. Also secular and modern measurements and arrangements were made (Shaw 1977, Vol.2: 300).

Contemporarization" could join together to strengthen the State and society¹². In the following years the conflict in the ideological discussion to save the State was sharpened. On the one hand, Islamicist accused the Young Turks of being secularist and atheists and therefore, the Islamicist argued they had to be overthrown¹³. One of the most influential figures was Mehmed Akif Ersoy, who believed argued that Islam should take only the science and technology of the West, and reject the elements of government that would weaken the Islamic community. In summary he emphasised that, "...the road of islamic world was not that of the West" (Shaw 1977, Vol.2: 305). In contrast Abdullah Cevdet (1869-1932), one of the founders of CUP, suggested the radical view that the *old* had to be destroyed and replaced by European civilization which would make the Ottoman Empire part of the West (Shaw 1977, Vol.2: 305). His ideas together with those of Ziya Gokalp's provided the basis for the reforms during the early years of Republic (Shaw 1977, Vol.2: 305).

In spite of intense discussion on an ideological level, the real power was in the hands of the CUP. In 1913 they began to put into effect a programme of secularisation and modernisation¹⁴. Parallel with these applications, Istanbul's municipality was

¹²Moreover he supported the adoption of Western models and technique without abandoning elements of national culture and identity. His concept of culture was based on folk tradition and feeling. Aesthetics, arts and crafts, literature, music, and ethics drew their inspiration from the people. Therefore the people were the core of our new national strength. Accordingly, the complex Ottoman language, with its Arabic and Persian elements, had to be replaced by the simple Turkish Language and grammar of the people (Shaw 1977, Vol.2: 302-303). In addition he criticized the Tanzimat for having failed to develop the cultural base of the nation. It had automatically borrowed from Europe without attempting to distinguish what was really needed and what could be taken from Turkish traditions. This resulted in a duality. Gokalp's approach to the religion of Islam was an attempt to keep what was essential and discard those elements that prevented the progress of Turkish society. Thus he developed a rational approach to religion. To him, Islam was most important as a source of ethics and it was fully capable of being modified to meet the needs of the time. For him, Islam had to be Turkified and even the Koran and prays and rituals of Islam had to be in Turkish (Shaw 1977, Vol.2: 304).

¹³A group of religious reactionaries called "Followers of Light" (Nurcu) led by Sait Nursi (1867-1960) fought for the reestablishment of religious autocracy until the Republican period. Another group called the Society of Islamic Learning (Cemiyet-i İlmîye-i İslamiye) was led by Mustafa Sabri. Another Islamicist group was led by the poet Mehmed Akif (1870-1936). For him Western civilisation had corrupted Islamic ethics, therefore, Muslims would have to return to their old values and unity if they were to be rescued from Imperialism. However Islam should take the science and technology of the West and reject the other elements (Shaw 1977, Vol.2: 304).

¹⁴Governmental institutions were reorganized for the first time since the Tanzimat period. A New Financial Reform and a New Provincial Administration Law were prepared. This was followed by radical developments reforms in the educational and social fields. These reforms such as use of solar calendar system instead of the Islamic lunar one, gave emphasis to the Turkish language, womens rights, western dress and measuring systems replaced the old ones. At the same time, following the Balkan War, modernisation of the army was on the agenda again. A German military mission came to help the government. General L. von Sanders was appointed as commanders of the First Army in Istanbul, in 1913. With German help, the Ottoman army was rapidly modernized and reorganized. Germans played an important role in Ottoman military affairs during the First World War. At the same time a British naval mission (Admiral A. H. Limpus) was appointed to modernize the Ottoman navy. Although the Young Turks tried not to allow any single power to dominate the Empire following a carefully balanced policy between Germany, Britain, and France, those countries were already effecting the political and economic spheres of the Empire. Demand for a Turkish nationality increased as a result of complex internal and external affairs. As all the ethnic groups were believed to have their national character, such as Arab national movement, the basis of Islamic unity was torn apart. In 1914, the Ottoman Empire and Germany were allied

reorganised and modernised. An extensive programme of public services and buildings was carried out to catch up with the standards of major European cities. However, the end of the First World War, in which the alliance of the Ottoman Empire with Germany was defeated by allied forces, brought to an end the Young Turk's period of political power. The defeat was followed by the sharing of Ottoman domains. This resulted in the War of Independence which led to the succession of Mustafa Kemal, who brought together the emerging elements of resistance. (Shaw 1977, Vol.2: 306-340).

3.1.5. Republican Period

After the long and hard struggle from the end of war until 1923 when the Turkish Republic was announced as an independent country, a new struggle began for economic development¹⁵. The new-nation state was based on six principles; Republicanism, Nationalism, Populism, Revolutionism, Secularism, Statism. Although complete independence was the main ideological goal of the newly founded country, our dependence on Western institutions and laws continued and were integrated into our old cultural system.

However, although Westernisation was the essence of the development programme, the nation's benefit was an important criterion in determining internal and external policies. Despite adopting Western structures such as legal systems, commercial institutions and urban forms, the use and development of indigenous resources was also encouraged and promoted. By the end of Second World War a new process had begun to laid down the foundations for today's society. By then, the enthusiasm for purely national interests had decreased. Military and economic necessities of the new administration caused new relationships with industrialized countries and this time more particularly with the United States. However, the West continued to be the dominant model for the goals of the country. The complex relationships with industrialised countries led to economic and political dependence which in turn reflected on our cultural system. Cities, particularly Istanbul, are explicit examples of the impact of these new relationships on Turkish society. The time from the 1980s was a particularly important period of the Republic in

against Britain, France and Russia. This war enhanced the German influence (Shaw 1977, Vol.2: 307-310).

¹⁵At the beginning, the scene was disastrous. Nearly 2.5 million Turks had died during the war therefore the population had dropped to 13m (Shaw 1977, Vol. 2: 373).

which radical changes took place in the economic and politic structures of the country. These changes in turn caused major alterations in our social and cultural entities.

We argue that, to grasp these disruptive processes it is important to gain knowledge about the direction of ideological development which is portrayed in the material existence of our cities. Therefore, in the following Section these reflections on the 'physiognomy' of the city will be examined with the aim of demonstrating that all our endeavours to change to a Western manner of life has not brought into being any real modernisation over the last 200 years. On the contrary so called modernisation interrupted our indigenous progress from our historical past and thus compounded our cultural and social disintegration.

Inevitably this transformation became the reason for Turkey's immediate problems. Thus the environmental difficulties of Istanbul, together with the 'architectural pollution' and the cluster of problems catalogued above need to be examined. Certainly, any attempt to solve these dilemmas requires interdisciplinary coordination. The claim in this study, from an architect's point of view, is to propose an approach to help the architectural problems of the city. In the following Section, special emphasis will be given to architectural aspects of the process in which political struggle was reflected on the urban environmental.

3.2. IMPACTS ON THE URBAN FORM

By the Tanzimat Decree, proclaimed in 1839, a fundamental reorganisation of the Empire aiming at modernisation was legitimized. The reformers granted equality to all subject, under law, changed the structure of the administration, and established a new judicial process. In the wake of these changes, during a period of socialisation, European music, painting and furniture were introduced into the homes (Yavuz & Ozkan 1984: 34-35). Modernisation became a country-wide phenomenon in the 19th century. These new manifestations of materialism were mirrored in the built environment on an urban scale. In the following major alterations took place in building scale will be examined regarding function, typology, design considerations and architectural vocabulary. Observations of the urban scale will deal with urban administration and the planning efforts to modernise the city.

3.2.1. Changes in Building Scale

The new urban image was formed by two major components; new building types and a new architectural vocabulary, generated mainly by non-Muslim architects.

The ultimate aim of modernisation was to transform society, economically, socially and militarily. This caused a need for buildings to be designed which could match the scale of those vastly extended functions. For example, from European precedents huge barracks were built regardless of the site and the city as a whole. Those erected in Istanbul at Taksim, Gumussuyu and Macka in the 1860s, became conspicuous landmarks shaping the new city image with their overscaled structures scarring the bare hills of the Bosphorus.

In the same way, the increasing trade relations with European countries created a need for new types of buildings to serve these commercial activities. New transport network became an important facilitator for growing economic interests. New roads, quays capable of serving steamships, railway stations, warehouses and post offices were constructed. Accelerating foreign trade further introduced new building types such as banks, insurance buildings and business centres all of which primarily clustered around Galata. Thus, the Grand Bazaar and its historic surroundings was no longer the central business area. Embassy buildings, designed by foreign architects¹⁶, built in the same district competed with each other and determined the neoclassical character of the quarter. Transformations took place with the emergence of new economic functions, the formation of social institutions and changes in the class structure¹⁷.

All contributed to the development of a new life style. Newly erected theatres, hotels, cafes, night clubs, restaurants, shops for luxury goods and amusement places were concentrated in Galata. Construction of multi-storey apartment buildings cleared out the wooden houses in Pera (Celik 1986: 134). The transformation was encouraged by the State from the middle of the 19th century onwards. As a Tanzimat statesman, Sadik

¹⁶The neo-renaissance Russian Embassy by the Swiss Fossati brothers in 1839, the French Embassy in 1838, the British Embassy in 1845 designed by Sir Charles Barry and W.J. Smith and the Dutch Embassy in 1855 designed by the Fossati brothers are some of the outstanding examples (Celik 1986: 133).

¹⁷The population of the city grew at an increasing rate in the 19th century mainly due to migration to the city because of wars. Variation and diversity in the new fields of work led to radical changes in the layers of the population. This led to one of the major changes in the Ottoman social structure which had been previously differentiated in relation to religious and ethnic variances. Now rank was distinguished by economic parameters (criteria) and both situations were reflected in the urban fabric.

Rifat Pasha announced; permission should be given to citizens if they want to build an house, pavilion, factory or other building in any material and scale they wish (Denel 1982: 33).

One of the major characteristics of architectural activity in Istanbul during this period derived from the search for a new style. Before the 1840s, the main monuments of the capital - the kulliyes, the mosques, the bazaars, and the places - were concentrated on the Istanbul side. Galata was still a minor suburb with not many buildings of outstanding size or importance. By the end of the 18th century the situation had changed in parallel with the increasing economic importance of the district. Thus, construction of new buildings provided an opportunity to introduce contemporary architectural trends of Europe to Istanbul. Although different parts of the city experienced the new styles, mainly the facades of buildings, Galata was the principle part to be filled with by this new architecture. Robert Walsh informs us about the situation of Pera in 1839 stating that;

"The Town of Pera occupies the elevated ridge of a high promontory between the harbour and the Bosphorus. On the spine of this eminence the European natives have established their residence. The merchants, whose stores and offices are below, have their dwelling-houses on this lofty and healthful elevation, to which they are seen climbing in groups every evening, when the business of the day is over. Their habitations form a strong contrast to those of the Turks. They are lofty, solid, and convenient, and from their height command a magnificent view of circumjacent seas, with all their bays and islands. Here also the ambassadors of the different powers of Europe have their palaces"
(Walsh 1839: 2).

The new architectural vocabulary adapted from European originals such as neo-classical style, was applied to the buildings constructed in different parts of the city: military buildings, mosques, palaces, railway stations, post offices, apartment blocks being some of them. The establishment of this new architectural vocabulary was a phenomenon inseparable from its producers.

One of the important aspects of this period was the overwhelming influence of non-Muslim architects in the architectural field. They determined the style, taste and design of the buildings erected. The effect of the new trend became one of the primary reasons for the dispersal of the traditional Ottoman architectural institution. Members of the Imperial Guild of Ottoman architects, "...lost their jobs to foreign and minority architects

who, with their European training, were better equipped to cope with the complex spatial demands of the reforming Sultans" (Yavuz & Ozkan, 1984: 35). Following the dispersal of our traditional institutions, court architects were chosen from the non-Muslim community, commonly being Armenians or directly recruited from Europe (Yavuz & Ozkan 1984: 35). In 1801 the effects of the dispersal were intensified by the initial attempts at training young Ottoman architects and builders in the techniques of European architecture at the new Imperial College of Military Engineering (Muhendishane-i Berr-i Humayun)¹⁸ (Cezzar 1971: 62-63). However, a full curriculum of architectural education was only established with the opening of the School of Fine Arts (Mekteb-i Sanayi-i Nefise), in 1882 (Yavuz & Ozkan 1984: 35), when *the Ecole Nationale des Beaux Arts* of Paris was taken as the model for its curriculum. The school consisting of foreign instructors from France, became the centre of art and architecture in Istanbul.

Thus the face of Istanbul began to be shaped by European and non-Muslim architects. *The Darulfunun* building was an example of this period, with its grand scale, regardless of the surrounding urban scale. Work was commenced in 1846 by an Italian architect, Fossati. Kuban indicates that the building was not merely an example of neo-Greek style but by its great mass demonstrated of a total lack of harmony in relation to its vicinity (Denel 1982: 33). *The Hirka-i Serif* Mosque and the adjacent complex built in 1846-1851, is an other example of the eclectic manner of the period. But, despite these mixed styles and lack of feeling about the use of the site, the well-defined spaces of classical Ottoman architecture were not yet fundamentally affected (Denel 1982: 33).

The Balyan family, the Armenian palace architects, were the most prominent. They served the Court for several generations as the Imperial architects and designed many of the public buildings in Istanbul, as well as royal palaces and mosques. They applied decorative European motifs in an eclectic manner as a blend of different styles. Dolmabahce Palace, built by Garabet Balyan for Sultan Abdulmecid (1839-1861), is a typical example (Fig.3.1). The mausoleum and fountain of Mahmud II on Divan Yolu were built by Garabet Balyan in 1840 (Denel 1980: 33). Although the mausoleum has the common characteristics of an Ottoman mausoleum (octagonal building with grilled

¹⁸The School of Civil Engineering (Hendes-i Mulkiye Mektebi) was organized in 1884 as an extension of the Imperial College of Military Engineering which was influenced by a German curriculum due to its instructors being recruited from Germany and Austria (Yavuz & Ozkan 1984: 35-36).

windows attached to the wall that forms a screen between the road and the cemetery), its oversized scale and proportions of different elements along with the incoherent application of varying embellishments, makes it an example of non-Ottoman architecture. His architecture proves this judgment once more with the Ortakoy Mosque built 1864, although similar in type to previous mosques, the sense of space of the classical period was lost and again neoclassical elements adorn the building. Although it is elegant in terms of ornaments, it does not have the simple dignity of Ottoman classical mosques. Similar manner was expressed by the construction of the, "*1873 Pertevniyal Valide Mosque in Aksaray and 1886 Hamidiye Mosque adjacent to the Yildiz Palace were considered as representative of Gothic revivalism, accompanied by Islamic forms and classical Ottoman scape*" (Celik 1986: 144). Some of the members of the family studied in Paris, for example Nigogos Balyan, who designed various prominent buildings, started his career by erecting a 'European style' library for Sultan Abdulmecid (Tuglaci 1993).

But, during the reign of Abdulhamid II (1876- 1909), the eclectic style was derived from Ottoman and Islamic examples reflecting the political debate in the country. While the former period exhibited mere imitation of European models, the new period led by Abdulhamid II recalled our traditional values, though the nature of the style, eclecticism, altered very little. For instance, the French architect, Antoine Vallaury, the chief instructor at the School of Fine Arts and the Imperial architect for the Palace (Yavuz & Ozkan 1984: 38) built the *Duyun-i Umumiye Idaresi* (Public Depts Administration) building in 1899 in such a manner.

A similar attitude is seen in the Sirkeci Railroad Terminal (Fig.3.2) built in 1890 designed by the German architect Jachmund¹⁹ (Tekeli 1984: 11), who used a selection of architectural elements from Ottoman and Islamic architecture. Jachmund also designed Deutsche Orient Bank, "*...in a ponderous central European style*" (Yavuz & Ozkan 1984: 36). Another related example by him was the Imperial College of Military Medicine (Mektebi-i Sahane-i Tibbiye) in Haydarpasa, on the Anatolian side of the Bosphorus, completed in 1903. This building, with its immense scale, was also treated in an

¹⁹He also built the Archaeological Museum, located on the Topkapi Palace grounds opposite to a 15th century pavilion, *Cinili Kiosk*. In this building, apparently, he prefers the neoclassical style, probably thinking about the archaeological exhibition inside. However, by disregarding the surroundings of the unique Cinili Kiosk and vast palace beyond he showed little or no sensitivity towards his task (Ozkan & Yavuz 1984: 40). He also designed in the 1890s the Banque Ottomane, the most imposing structure and the largest building of Galata, the business district (Celik 1986: 129). However, he designed a highly ornate neo-renaissance facade on this building in accordance with the new trends of classical revivalism in Europe. This was the favourite style for many buildings in Galata (Celik 1986: 133).

orientally eclectic style using arches and minarets like clock towers. In contrast, the interior was lavishly decorated in the Baroque manner.

Both architects, in Europe, were designing buildings in the neoclassical tradition, with eclectic characteristics. They probably employed the same understanding but borrowed elements this time from Ottoman architecture in an attempt to reach what they assumed would be in harmony with the context. That this 'Islamic revivalism' was undertaken, in Istanbul, by European architects, illustrates their poor understanding of Ottoman architecture perhaps of architecture itself.

Raimondo d'Aronco, an Italian was one of the most influential among the others²⁰ working in Istanbul at the end of 19th century. He was invited by Abdulhamid II to design the 1893 Industrial and Agricultural Exposition and then served as the chief architect to the Imperial Court between 1896 and 1908 (Celik 1986: 147-148). He introduced the Art Nouveau style to Istanbul by building several pavilions for the new Yildiz Palace along with numerous private timber houses on the Bosphorus (Yavuz & Ozkan 1984: 40). But, among them all it was Vallaurty and Jachmund who, "...set the tone for the new imperial architecture of the capital" (Yavuz & Ozkan 1984: 40). They gained significant influence because of both their work and high academic status. Through their aesthetic and architectural understanding they affected many young Turkish architects.

Change was irreversible when the new styles moved from royal buildings to domestic residential homes. European type multi-storey apartments constructed from the second half of the 19th century, built for Muslim and non-Muslim small merchants, tradesmen, artisans and petty bureaucrats, differed greatly from the traditional timber Istanbul houses. Among the most interesting examples are the Akaretler Apartments in Besiktas, designed by the Balyan family in 1870 for palace personnel by Sultan Abdulaziz and the Taksim Surp Agop houses were built in 1890 (Sey 1984). Though Galata had a residential fabric of timber structures until the mid 19th century, new apartments were to replace them, constructed in stone, as required by the legal restrictions regarding fire prevention (Celik 1986: 135). As a result, the main arteries of Beyoglu, Taksim, Pangalti

²⁰Among many others, P. Bello, O. Ritter and H. Cuno who built the impressive Bavarian style Haydarpasa Railroad Terminal in 1908, were the most effective ones.

were lined with luxury apartments (Celik 1986: 137). The most significant low income housing project of the Ottoman period was undertaken only a few years before the proclamation of the Republic. The first high rise (six storey) and reinforced concrete housing blocks called Fire Victims Apartments (Harikzedegan) (Fig.3.3) were built by Kemalettin Bey on the historical peninsula, opposite the baroque Laleli Mosque. This complex consisting of four blocks, as one of Kemalettin Bey's most noteworthy works, attributed to the First National Architectural Movement (Sey 1984: 153-155). When the apartments were completed in 1922, they became very popular among the Turkish elite to mark the changing life styles among the rising middle classes (Yavuz & Ozkan 1984: 49).

Celik (1986: 137-138) points out that the upper-class Muslim residential architecture also underwent a transformation after the mid-19th century. This was evident in using Western style facades on traditional interiors. The architectural features adopted from contemporary European styles, especially from classicism were extensively used in the new Konaks (large mansions) built in Kargir. However, the interiors followed the traditional Turkish house. These new Konaks on both sides of the Golden Horn, often integrated into the existing fabric. But on the northern side the newly opened straight wide streets were lined with them. Consequently they helped create a new city scape with their new spatial relationships and features. On the whole the historical peninsula was little affected by the introduction of new architecture in comparison to Galata and its extensions. The neoclassical structures were concentrated near the southern end of the Galata Bridge, around Eminonu and Sirkeci. This reveals a significant phenomenon since this area is the first point in the historical peninsula to connect with Karakoy and Galata, the new business centre of the city with its European character (Fig.3.4).

3.2.2. Search for Architectural Identity

This confused architectural pluralism in Istanbul helped to create an awareness among Turkish intellectuals to agree that Ottoman architecture was a matter of pride and the developments of the 19th and 20th century should be considered as degenerate (Celik 1986: 148). This led to their seeking a solution to save Ottoman architecture in parallel with the same tendency in the political sphere, that we discussed earlier. Ironically, the attempts made by the Ottoman intelligentsia, to explain the values and principles of Ottoman architecture, took the same previous Western studies on architecture as models. The work called *Usul-u Mimari-i Osmani* (Ottoman Architecture) aimed at

bringing light to the qualities of Ottoman architecture, was prepared by Montani Efendi and Boghos Efendi, in 1873, by an Imperial Command (Celik 1986: 148). The work criticised the massive foreign influence in architecture by seeing it as destructive, as exemplified by the Nuruosmaniye and Laleli mosques (Fig.3.5) (Celik 1986: 149). Furthermore, the nineteenth century architects of the capital were accused of "...*experimenting with every known style*" (Celik 1986: 149). Their attempts were denounced being a confusion of styles, paying little or no regard to the city. It was stated that "...*they produce nothing but monstrous and dull designs*" (Celik 1986: 149). The report strongly warns that "*If Ottoman architecture continued to imitate the European styles, it would soon terminate its own existence*" (Celik 1986: 149).

This study was similarly followed by the Turkish art historian Celal Esat Arseven's views to retrieve the legacy of Ottoman architecture from extinction and to revive it in contemporary practice (Celik 1986: 150). They both analyzed the characteristics of Ottoman architecture more from a formal point of view. Montani Bey used the model of the 1st century Roman architect Vitruvius, to classify the architectural elements and suggested how to apply them to contemporary buildings (Celik 1986: 149). Arseven also attempted to apply the ideas of Viollet-le-Duc, a 19th century French architectural authority, to the revival of Ottoman architecture. He argued that the underlying rules of Ottoman architecture must be rediscovered to improve it. He, therefore, suggested that careful measurements of major monuments should be taken to record them precisely (Celik 1986: 150). He heavily criticised recent buildings, such as the Nur-u- Osmaniye, Laleli and Valide mosques and residential architecture using the French style (Celik 1986: 151). Tekeli (1984: 9-10) indicates the search of identity by stating;

"Transformation as a determinant of change in architectural practice should be understood as a phenomenon within all peripheral countries, and not of Turkey alone. A peripheral country, when integrated into the capitalist system becomes, on the one hand, a component of international values; and on the other, confronts the problem of creating a national identity required by the ideology of nationalism which is, to a large extent, also imported from the West"

Although the initial French influence was evident to the students, the newly emerging Turkish nationalism in the political and ideological spheres affected them, and they gradually became opponents of European domination in the architectural field. At the beginning of the 20th century, a genuine attempt, at the formation of a neo-Ottoman style

was made by some Turkish architects. The eminent leaders of the new search, known as the First National Style, were Vedat Tek and Kemalettin Bey.

The former was educated in France from the secondary school level until he completed the Ecole Nationale des Beaux Arts in 1897. When he returned to Istanbul, he became the first Turk to teach in the School of Fine Arts in 1900 (Yavuz & Ozkan 1984: 41). However, he sought for a new style rather than imitating the French architecture he was taught. He attempted to generate a national architecture in response to the new building types necessary to modernisation. His works such as Central Post Office in Sirkeci, erected in 1909 are seen as the first major example of a national tendency in architecture (Yavuz & Ozkan 1984: 41).

In this author's view, the influence of his education is clear in the design of the building. The Imperial offices of the Land Registry (Defter-i Hakani) shows a more mature solution to the question (Fig.3.6). However, the attempts to revitalize Turkish architecture did not change the essence of architectural activity which remained as eclectic as ever. The proportion and relationship of the different elements in the composition of the massing of the buildings and their relationship to their surroundings that was the essence of Ottoman architecture, were still missing.

Kemalettin Bey²¹ who is the second representative of National Movement completed his German based education in 1909. He was appointed as the Chief Architect of the Ministry of Pious Foundations (Evkaf Nezareti) (Yavuz & Ozkan 1984: 44). In the new post he had the task of restoring the historical monuments of Istanbul, which gave him the opportunity to analyze the principles of Ottoman Architecture, from which he was able to generate his own architectural style. He designed numerous buildings²² in which he had the opportunity to reflect his ideas.

Among many of them, the Bebek mosque (Fig.3.7) on the banks of Bosphorus is important in demonstrating his revivalist approach. However, buildings by Kemalettin Bey, as well as Vedat Bey, really reflect the continuing confusions and dilemmas in the

²¹He was trained at the School of Civil Engineering. At the same place, following his graduation, he did postgraduate studies, at the Charlottenburg Technische Hochschule. On his return he was appointed as Chief Architect of the Ministry of War and simultaneously continued to teach at the School of Civil Engineering (Yavuz & Ozkan 1984: 44).

²²He built approximately fourteen new mosques, nine mausoleums, ten large office buildings, about forty schools and other buildings such as prisons, hospitals and train stations (Yavuz & Ozkan 1984: 44).

ideologic and cultural spheres facing the country. For example, one of the Kemaleddin Bey's designs, the *Kamer Hatun* mosque (Fig.3.8) built 1912 in Pera, behind the British Embassy is a good example of this confusion. At that time the Pera (Beyoglu) district had been developed as the commercial and recreational centre due to its proximity to Galata. The site was rebuilt according to new regulations soon after the fire of 1870 in which the urban fabric and architecture were transformed from a traditional to a modern one (Yavuz & Ozkan 1984: 46). This small scale mosque was completely overshadowed by the many multi-storey buildings in the area. Although it may be a successful building for its individual properties, however, it is not integrated with the site, so it has contradictory characteristics.

The most well known building of his, is the Fourth Vakif Han (Fig.3.9, 3.9a) built in 1912-1926, located in the business centre, Bahcekapi in Eminonu. Although it is generally considered as his masterpiece, we would argue that this building with its immense scale, multi-storey structure and majestic front elevation do not integrate with its surroundings and presents only an elegant but at the same time eclectic architectural vocabulary, mainly of the 16th century.

Early Republican architecture as the continuation of the neo-Ottoman style, was continuing to be produced by European architects who also taught in the schools of architecture. E. Egli, C. Holzmeister and B. Taut were the most eminent among them. They were representative of modern European functionalism (Kuban 1985: 67). They built numerous buildings, the majority of which were located in the new capital, Ankara (Batur 1984). Thus modern Turkish architecture was based on the German model and the influence of Bauhaus was evident in the designs of the early Republican period (Kuban 1985).

During the Second World War years, international tendencies gave way their place to a national one. The decade between 1940-1950 was shaped under the slogan of a national style, which was called the Second National Movement in modern Turkish architecture (Alsac 1984). S. H. Eldem and E. Onat were the pioneers who built numerous buildings reflecting their ideas. Monumentalism and the new Classicism of Turkish themes and motives were the characteristics of the style, which can be seen in large scale examples such as the Faculties of Sciences and Literature of Istanbul University (Fig.3.10) built in 1944, or the small scale example such as the Oriental Cafe

(Fig.3.11), both built by Eldem (Alsac 1984). But this style was short-lived due to the political and economic supremacy of the postwar United States, and of the new Western cultural trends (Kuban 1985: 67). Kuban (1985: 67) points out that:

"The enthusiasm for a rapid postwar development and the efforts to transform the country from an agricultural to an industrialized one started with the bold economic liberalisation of the Democratic Party"

In parallel to the economic and political trends, the 1950s, "...were years of total surrender to Western ideas, forms and technology" (Kuban 1985: 67). Accordingly, pioneers of modern European architecture such as Le Corbusier, Mies Van Der Rohe, Alvar Aalto were idolized, and the image of our architecture and cities were massively brought in from the the West (Kuban 1985: 68). The problem of architectural identity was again disregarded in our attempts to follow the modern International style (Fig.3.12). Architecture since 1960 is defined by Kuban, "...*simply as a failure*" (Kuban 1985: 68).

There have been individual attempts in the search for a contemporary Turkish architecture as a synthesis of the traditional and the modern. Some successful examples of this search were designed by T. Cansever and S. Hadi (Yucel 1984). Such attempts form a very small sample of the understanding of traditional architecture, while at the same time avoiding imitating it. Yet, they were not enough to establish a language of contemporary Turkish architecture which has been subjected again to new international tendencies because of international capitalist developments, particularly from 1980 onwards. Consequently our cities and their architecture still lack a determined identity and exhibit the ideological chaos of the country in their physiognomy; Istanbul is a paradigm of this phenomenon.

So in spite of all these changes in the scale, the buildings were not wholly sufficient to transform Istanbul into a European capital as was the wish of the majority of the decision makers. Besides, the changes in the facades and types, although they affected the fabric and silhouette, were only effective as individual examples. It was soon realized that the European 'look' was not enough to achieve the standard of European cities. Thus, a more organized and programmed set of initiatives has taken place to transform the city's urban fabric. This has taken place at two levels as the 'new' concepts for the still essentially Ottoman city; the introduction of municipal administration and city planning.

3.2.3. Urban Administration

It was always understood by the Ottomans that municipal institutions play an important role in the making of the cities of Europe. Developing economic relationships caused by the increasing world trade, in which port cities played an active role, convinced the government to apply a Western urban administrative system to Istanbul (Ortayli 1985: 111). Accordingly the institutional organisations of Europe's cities were further adopted in the Capital and began as early as Sultan Mahmud II's reign (1808-1839). He attempted to concentrate power in his own hands and the Westernizing reforms of the early Tanzimat period brought about some change in the traditional system of municipal administration (Rosenthal 1980: 33; Shaw 1977, Vol.2: 46-47). In 1826, some of the duties of the *Kadis'* (the principle local administrators of the classical Ottoman period) such as the supervision of markets, the formation and control of guilds and the control of prices were given to the new administration, controlled by the *Ihtisab Naziri* (a governmental official). Later, most of the *Kadis'* power to regulate public morals was transferred to the *Zaptiye* (Police) Ministry. Most significantly, all of the *Kadis'* judicial functions, with the exception of those concerned with marriage and inheritance, gradually passed to the new secular ministries with the promulgation of new European style legal codes (Rosenthal 1980: 34).

Construction activities in the cities, in the domains of the Empire, were controlled by *Sehir Mimari* (City Architect) who was part of the larger institution called *Hassa Mimarlari Ocagi* (Institution of Royal Architects) (Orhonlu 1981; Turan 1963: 178). Another post in the production of the built environment was *Sehremeni*, who was responsible for administrative and financial aspects of the development activities as a helper to *the Mimarbasi* (Chief Architect) (Ortayli 1985: 120). However, in 1831, duties of *Hassa Mimarlari Ocagi* and *Sehremeni* were united, by an order of Sultan Mahmud II, under a new administrative organ called *Ebniye-i Hassa Mudurlugu* (Council of Public Works). This was established under the jurisdiction of the Ministry of Public Works (Turan 1963: 178). The office of the *Ihtisab Agasi*, which had persisted even after the *Kadis* had been relieved of most of their commercial functions, was transferred to the newly created *Zaptiye* Ministry in 1851 (Rosenthal 1980: 35). The first fundamental attempt to reorganise the administrative system of Istanbul occurred during the Crimean War. Accordingly the *Ihtisab Nezareti* was abolished and replaced by a new ministry, the *Sehir Emaneti* which was largely based on the French prefecture system (Ortayli 1985: 120).

The new municipal council consisted of the *Sehir Emini*, the head of the new ministry, his two assistants, and twelve members chosen from among the notables of the guilds, *millets*, and merchants representing all classes of the city (Rosenthal 1980: 37). This vastly increased the tasks and responsibilities of the municipal administration, but the new system gave the *Sehir Emini* only a little more independent power than had been vested in the traditional post of the city administrator. "*Nevertheless, the creation of the Sehir Emaneti, with its explicit recognition of governmental responsibilities for the provision municipal services and amenities and its rudimentary recognition of the principle of municipal representation, was the first attempt to confine the government of Istanbul to an administration that was semi-European in orientation as well as in form*" (Rosenthal 1980: 38).

The first application of a new municipal organisation based on European model was introduced to the city in Galata named the Municipality of the Sixth District²³. This was supported by the non-Muslim bourgeois of the Capital demanding, "*...that Istanbul be furnished with the institutions, services and amenities of a modern European city*" (Rosenthal 1980: xxiii). The members of the Municipal Council were largely Ottoman Greeks, Armenians and Jews (Rosenthal 1980: xxiii).

Thus "*The foundation of the municipality of Galata provided the opportunity for the non-Muslim bourgeoisie to extend their private patterns of consumption of European culture to the areas of public works and administration without regard for the benefits to the rest of the population*" (Rosenthal 1980: xxvi). However, this attitude led to its bankruptcy in 1863. Consequently, the municipality was reorganized by the government, replacing the non-Muslim members by Muslim-Turkish administrators (Rosenthal 1980: xxvi). In contrast to the previous one, the new council initiated a programme of public works for the benefit of all classes and nationalities within the district²⁴. A new advisory body called the *Intizam-i Sehir Komisyonu* (Commission for the Regulation of the City) was

²³It is possibly named because of the Sixth Arrondissement in Paris which was believed to be the most advanced of that city (Lewis 1968: 397 & Ortayli 1985:131).

²⁴Rosenthal claims that the relative success of the Muslim administrators is because they were not dependent on an alien culture as were their non-Muslim predecessors (Rosenthal 1980: xxvi). It could also be said that administrators had a more holistic perspective than their non-Muslim counterparts. But also any success in this experiment would promote the application of the new organisation to the whole city. Therefore, for the former, the main objective was to consider the entire city and the modernisation of the Empire, as well, while for latter the individual or ethnic interest was much more important.

organized²⁵. Its memorandum states that "...in (other) countries the state of the capital is a model...", but "...in Istanbul the state of buildings, lighting and cleanliness of the city is in second rate" (Rosenthal 1980: 39). Therefore, "...it has been decided to make use of the knowledge of the Ottoman and foreign families long resident in the city and familiarity with foreign ways to form a municipal commission" (Rosenthal 1980: 39-40). He states that, "...the new commission was predominantly made up of foreigners resident in Istanbul and subjects of the Porte, who enjoyed the protection of the various legations. It was precisely this class that had helped bring about and was the principal beneficiary of European political and commercial penetration into the Empire"²⁶.

Initially the commission suggested a set of rules to facilitate the passage through Istanbul's narrow and crowded streets and attempted to ascertain the condition of most of the important streets in the city and determine priorities of repair. New methods of paving, recently imported from Europe were conducted by a French engineer (Rosenthal 1980: 41). The costs of these applications were paid by loans and grants provided by the central government (Rosenthal 1980: 161). By the 1855 the paving was completed in Pera and the lighting of the roads was next (Rosenthal 1980: 42). By the 1862, The *High Council of Reform* decided to initiate street cleaning, road widening and providing other amenities in Galata. In the same year the government announced that it planned to pave the whole city of Istanbul. In 1864 the provision of street names and house numbers was extended to Istanbul²⁷.

The administrative reform was the first of the priorities conceived by the statesmen as the principle goal to strengthen the Ottoman state; municipal administration was one of

²⁵Its initiator was Emin Muhlis Efendi who was trained in the French language, and entered the Ottoman translation office. He was appointed to Vienna in 1837 where he observed the European municipal institutions. On his return, in 1854 he became an enthusiastic partisan of administrative reform (Rosenthal 1980: 39).

²⁶The most prominent and influential member of the Commission was Antoine Alleon, a member of a wealthy French family...he...owned a number of banks and often performed financial services for Sultan, especially the negotiation of loans and currency exchange. He appears to have been a favourite of the Sultan and at the same time to have 'performed missions for the French Embassy'. Other members of the Commission were Avram Camondo, a Jewish banker, Grand Vizier Resid Pasa, General Stein an Austrian who was an adviser to the Ottoman army, Franko efendi , an Ottoman subject and member of mercantile class and translator in the port, Ohaness Migerdich, an Armenian banker, David Revelaki, a Greek who previously served on the British Dept Commission (Rosenthal 1980: 40).

²⁷Meanwhile municipalities other than Galata were established in Buyukada and Tarabya. The municipal councils were adapted directly from the Sixth District (Rosenthal 1980: 165).

the first subjects of the reform²⁸. The material innovations, first introduced in Galata, and the political evolution of the Sixth District exercised a profound influence on subsequent municipal reform, not only in Istanbul, but also in other cities of the Empire²⁹.

In 1867, the Ottoman government decided to apply the municipal administration of Galata to the rest of the city³⁰ (Rosenthal 1980: 167). One of the reasons of this decision may be the remarkable success of the commission of *Islahat-i Turuk* to reconstruct the Hoca Pasa district, devastated by a great fire of 1864, in which one third of Istanbul was burnt (Rosenthal 1980: 171). The commission was very successful in encouraging people of the devastated areas to rebuild their houses in stone or brick and to accept street widening. Accordingly, the *Sehir Emini* (Prefect) was given responsibilities analogous to the President of the Sixth District for street widening, provision of sewers, lighting, and the introduction of a tramway system (Rosenthal 1980: 168). The most significant project of the prefecture was the inauguration of the Istanbul tramway system (horse-drawn carriages), which was begun in 1870³¹. However, the 1867 regulations had failed to reform the administrative system of Istanbul and the municipal concepts embodied in the creation of the district of Galata reached fruition in Istanbul only after the Young Turk Revolution (Rosenthal 1980: 200).

²⁸The traditional urban administration did not have a specific municipal organisation. "A city was conceived merely as a place where there was a market, a public bath for ritual ablutions, and a Friday mosque" (Rosenthal 1980: 29). Istanbul was under control of the grand vizier. "Although in practical terms the Grand Vizier delegated many of his powers within the city, the submergence of the Capital's administration within that of the empire as a whole resulted in a diffusion of responsibility, a lack of administrative specialisation, and a general imprecision in the definition of tasks and the division of labour (Rosenthal 1980: 29; Lewis 1968: 393-394). For many municipal services there were no clear lines of jurisdiction or responsibility (Rosenthal 1980: 30). The local administration of Istanbul was in the hands of the *Kadis* (Religious Judges) who was responsible mainly not only criminal and civil cases involving Muslims but also inspecting markets, setting prices, regulating the craft and merchant guilds of Istanbul (Rosenthal 1980: 30). So "The traditional administration of Istanbul, which persisted until the mid-nineteenth century, was based not on the rights and duties of citizenship, but on a social system of disconnected, self-contained, and largely self-administrated groups" (Rosenthal 1980: 33).

²⁹It is not surprising that the most immediate manifestation..of the ..impact of the Galata municipality by the early 1860 occurred not in Istanbul, but in Izmir which was the second port in the Empire, with commercial links to Europe and the growth of a non-Muslim merchant class (Rosenthal 1980: 161-162).

³⁰However, the extension of the new municipal system to the whole of the Capital was discouraged by the hostility of the Muslim upper classes and conservative Ottomans, who viewed the municipality as yet another facet of foreign domination that had been inaugurated by the Tanzimat (Rosenthal 1980: 172). Similar view were shared among the common people whose hostility to foreign domination was even greater (Rosenthal 1980: 174).

³¹In 1872 the first tramway line between Azapkapı and Karakoy was extended up to Besiktas along the Golden Horn. The second line ran between Galata Bridge to Aksaray on the other side of the Golden Horn (Rosenthal 1980: 176).

After the 1908 revolution, the 1876 law was restored to introduce more democratic municipal institutions. In spite of many difficulties that the Empire faced, the Young Turks made some progress in improving the amenities of Istanbul, such as drainage, rubbish disposal, fire prevention (Lewis 1968: 399). Istanbul's municipality was reorganised and modernised, with a *Sehir Emaneti Encumeni* (City Council) provided to help the mayor; councils of law, health, accounting, and police were introduced to provide the necessary technical advice and direction to municipal operations (Shaw 1977, Vol.2: 306). Again a vast programme of public works was initiated; paving streets and side walks, installing electric lights and a new sewage and drainage system, and reorganizing the police and fire departments. The major communication services, the telephone, trams, the tunnel between Beyoglu and Galata, the electric, water and gas services were modernized and extended. The Municipality also worked to solve the city's population problem. The refugees who had crowded in since 1908 and the new refugees arriving after the Balkan wars were resettled outside Istanbul as rapidly as possible. But new problems occurred following the consequences of the dislocations of the First World War (1914-1918) (Shaw 1977, Vol.2: 306).

During the Republican era, in 1930, a new Municipality law was passed and the previous name for prefecture, *Sehir Emaneti*, was replaced by *Belediye* (Lewis 1968: 400). This law is still the current one operated by the Municipal Organisation of Istanbul. Yet, the Metropolitan Municipality and the local governments maintain that this law is insufficient to cope with the contemporary problems.

3.2.4. Urban Planning

Between 1839 and 1908, Istanbul had undergone major interventions which have been sustained until today. Changing forms and elements in the building scale resulted in the gradual dissolving of the classical Ottoman-Islamic image of the city. However, it was still far from being a European city with much of its urban fabric intact, as well as its old street network, transport and traditional building materials. Thus, the ultimate goal of Westernisation of the city could be achieved not only by appearance but in its 'working' systems.

Therefore, the transformation of the urban fabric in accordance with the European models was vigorously pursued through various means. Firstly, the initial urban plan aimed to shape the city according to 'modern' city standards. Secondly, the sites of the

great fires during the 19th century, provided many places for such applications. Thirdly, in accordance with the goal of beautification major projects such as the introduction of public squares were carried out by foreign architects. Although some of these projects were not implemented due to financial constraints, it is interesting to see the level of desire for change. Fourthly, the means of transport such as steamboats, railways, trams, subways had significant consequences for the urban fabric's transformation. All the changes were piecemeal and pragmatic until the Republican period. By then city planning was accepted as a major tool for its transformation.

As we have said before, Mustafa Resit Pasa, the main initiator of the Tanzimat Charter (1839), wanted Istanbul to meet the standards of European capitals such as Paris, Vienna and London. Therefore, he proposed a 'scientific' approach to planning, including regularising the street network according to geometrical rules by cutting straight and wide arteries through the existing organic network (Celik 1986: 49). He also proposed the conversion of the built fabric from wood to *kargir* (stone or brick) to help prevent further devastating fires.

Soon after, a German engineer, Helmut von Moltke was commissioned by Sultan Mahmud II, in 1839, to draw a detailed map of Istanbul and to propose a plan to improve the street network (Celik 1986: 50). His plan which referred only to the historical peninsula, again suggested opening up new straight wide arteries and the gradual conversion of the wooden residential buildings to *kargir* (Tekeli 1993: 27). Happily this plan was not implemented, though his policies did form the basis for new building codes. In 1848, the first planning regulation was prepared called *Ebniye Nizamnamesi* (Building Regulations) by *Meclis-i Ebniye* (Building Council) (Tekeli 1993: 27). These regulations³², similar to those of Moltke's, were first applied in Pangalti when it was opened up as a new settlement area in 1848 (Tekeli 1993: 27).

The threat of fire increased parallel with the growth of the population³³ and led to

³²This regulation proposed three categories of street: main avenues (min. 7.60 m), ordinary avenues (min. 6.00m and other streets (4.50m) wide. In 1863, two more were added to this classification and the widest avenue was to be 11.50m. All regulations also emphasised the elimination of dead ends (Celik 1986: 51). It also strongly proposed that construction must be in *kargir* rather than wood, which it was argued as the main reason of great fires (Celik 1986: 52).

³³While 109 extensive fires took place in between 1633-1839 in Istanbul and Galata, the number increased greatly to 229 between 1853 and 1906 (Celik 1986: 52-53). Charles Fellows (1838: 101) states this situation in 1838 that, "...few persons remain a week in this city without witnessing a fire; one broke out yesterday, but before I could reach the spot it was subdued. The largest houses are frequently burnt down in the space of ten minutes, being entirely constructed of

renewed concern for more radical solutions to prevent them. Ironically, the measures for prevention of one kind of devastation in turn led to another form of destruction of the urban fabric. Three major fires between 1856-1870 played major role in the transformation of urban fabric. The 1857 Aksaray fire and in 1864 the Hocapasa fire took place in the historical peninsula. Following the former, which devastated approximately 650 buildings, a systematic survey of the site and an urban plan were prepared and carried out by an Italian engineer, Luigi Storari (Celik 1986: 53).

The organic street pattern was regularized with wider and straighter streets. At the intersection Valide Cesme Street and Aksaray Street, a sort of square was made, a new concept for Istanbul. The emergency of a new urban pattern, thus marked the beginning of a process in which the existing pattern (which we can call historical) was disregarded and an alien pattern was imposed on the urban fabric (Fig.3.13, 3.13a, 3.13b, 3.13c, 3.13d, 3.13e). At the time, this imitation of the straight, wide arteries of Paris in Aksaray was criticised by the architect, Mazhar Bey who accused the Tanzimat of being hypocritical and unnationalist (Celik 1986: 55). However, this criticism did not prevent similar applications being carried out.

In 1864, Istanbul witnessed one of the most destructive fires in its history, known as the 'Hocapasa Fire' which destroyed about one third of the buildings in the historical peninsula, devastating 3500 of them from Sirkeci to Kumkapi (Tekeli 1993: 27). Once more there was an opportunity to employ the new western patterns when the area was rebuilt³⁴. A commission named *Islah-i Turuk Komisyonu* (Commission for Road Improvement) was charged with developing an extensive urban plan and construction programme that was pursued successfully until 1869 (Tekeli 1993: 27). According to this Master Plan the new streets were classified into three categories: the widest part of Divanyolu, the main artery, was 19.00m; secondary arteries were to be 15.20m, and the third classification ranged between 11.50m to 6.00m (Celik 1986: 57-58). Modern service infrastructure was also planned and implemented (Tekeli 1993: 28). Besides all this the Commission promoted and helped the residents to rebuild their houses and shops in brick (Celik 1986: 58 ;Tekeli 1993: 28).

a very inflammable wood. The fire-engines are numerous but, having to be transported on men's shoulders, they are small" (Fellows 1838: 101).

³⁴Similar attitude had been presented in England, and a regular plan for the general rebuilding of London was prepared by C. Wren following the great fire of 1666 (Giedion 1967: 717).

After the Commission accomplished this work successfully, it was given many new planning projects. The next step was to clear the immediate surroundings of the cities monuments, and in doing that many wooden houses were destroyed (Celik 1986: 59). The idea probably was taken from Hausmann who claimed that monuments were glorified by isolation (Saalman 1971). As a result, some of the finest examples of Ottoman architecture surrounding Constantine's Column (Cemberlitas) were torn down, so as to offer an undisturbed view. Other applications disregarded the existing values, which were defended by Grand Vizier Fuat Pasa, "*...to bring modernisation at all costs*" (Celik 1986: 62). Similar applications were pursued in Galata. Tekeli (1993: 28) suggests that the destruction of city walls of Vienna so as to open the Ring Strasse must have influenced the Ottoman administration's decision.

In 1870, another great fire, this time in Pera, destroyed three thousand buildings. An allegedly prestigious project for rebuilding the district was proposed, with large squares, wide boulevards and contemporary buildings. Luckily it was not completed due to financial constraints, only the principal streets, recommended by the residents, were rebuilt (Celik 1986: 64).

Comparable plans in the city continued with the introduction of new urban forms and concepts to Istanbul, such as the Taksim public park designed according to Beaux-Arts principles (Celik 1986: 69). In 1900, during the Abdulmecid period, impressive grand schemes were presented to the Sultan. One of them was prepared by Arnodin, a French engineer, suggesting new roads and bridges for the city to link Europe and Asia (Celik 1986: 107). This was on a regional planning scale with peripheral rail roads and styled bridges referring to some Islamic forms, such as the one that was planned for the Bosphorus. Although it was not implemented, this particular project is worth mentioning, because it displays the enthusiasm for and scale of the projects envisaged, especially after the extended transport network was established.

Another project was prepared by J. Antoine Bouvard, an influential French architect at the turn of the 20th century. By the order of Sultan Abdulhamid II, the Ottoman Ambassador for Paris asked Bouvard to prepare another Master Plan for Istanbul. Although he did not visit Istanbul, he prepared avant-garde projects (not a true master plan) mainly for new squares in Beyazit, Eminonu and Sultanahmet (Fig.3.15, 3.15a, 3.16, 3.16a) by inspecting photographs of these places (Celik 1986: 111). These plans

conspicuously show that the local conditions, urban texture, culture and understanding of urban life were not considered. As a result the French gardens (in the Beaux Arts manner) were proposed without giving due attention to the patterns of the existing fabric. Celik (1986: 124) informs us that these abstract projects were favoured by the Ottoman high bureaucracy, and imperial orders were given to search for funds to realise them. Thanks to the Empire's lack of financial resources they were not accomplished. This illustrates the blind decision making and determination to modernise at all cost. Another important point is the strange contradiction between this project and the conservative ideology of Sultan Abdulhamid II, who at the same time, promoted the revival of traditional and Islamic values.

Transport was also an important means of altering the city. Istanbul is surrounded by sea on three sides, so water transport has always been vital to the city; this, too, was transformed in the 19th century. Miss Pardoe describes the intensive use of the waterways;

"...the crowds of sea-fowl sporting among the shipping, and diving under the oars of every boat-the light bridge, flung like a fairy-wand across the port"
(Pardoe 1838: 83).

It was a convenient and pleasant way of providing pretty scenery for the residents (Celik 1986: 73). The ever increasing population and growing settlements along the Bosphorus and Marmara Sea³⁵ encouraged the authorities to try to find a better solution. Consequently the *Sirket-i Hayriye*, the Ottoman steamboat corporation³⁶ was established in 1851, to overcome the problem by providing regular and rapid transport from the city centre to different points along the Bosphorus, eventually replacing the traditional rowing boats (Shaw 1977, Vol.2: 91). With the introduction of the railways both became major public services in the 19th century.

These new developments had a destructive effect on the city's unique relationship with the sea, which was described by Gautier when he visited the city in 1852,

"There is no quay in Istanbul, as London. The City, from every side, puts her feet in to the sea"
(Gautier 1971: 97).

³⁵Traditional row boats numbered 19,000 in 1844 an increase from 3,996 in 1802 (Celik 1986: 83).

³⁶The boats were manufactured in England and foreign engineers maintained them (Celik 1986: 86).

This was stressed by numerous other travellers. Charles Fellows wrote in 1838:

"The activity among the people, both on land and water, is amusing...The boats completely speckle the water, and as I have watched them at a distance, they appeared to me stationary; but hundreds succeed to hundreds, moving in all directions"
(Fellows 1839: 101).

The Sea was more than merely a way to travel as noted by Celik;

"It acts as a recreational park"
(Celik 1986: 73).

However, the waterfront had to be cleared and modernised for three main reasons: firstly, as sea traffic was a vital means of trading with world, port cities had to play an important role in this trade. Foreign shipping companies, through their embassies in Istanbul, often put pressure on the city administration to rebuild the docks (Derya 1982). Secondly, the unsanitary conditions had to be ameliorated; and finally, the city's urban image required improvement. The waterfront was far too chaotic, too dirty, and thus the docks were an embarrassment to the order-conscious Ottoman elite, for whom "... *beauty had come to mean regularity*" (Celik 1986: 73).

Construction of rail roads along the seashores on both the European and Asian sides, became another factor in destruction of city's littoral. In 1874, with the construction of the first railroad, Istanbul and Sofia were connected, and gradually with the rest of Europe. The same railroad, it was suggested, should be extended to the port of Sirkeci, in the historical peninsula, cutting through the gardens of the Topkapi Palace and demolishing some of the finest palaces, such as *Incili Kiosk* (Fig.3.17) on the shore of the Marmara Sea³⁷. Although the idea was opposed by the members of the palace court, Sultan Abdulmecid supported the project, enthusiastically stating that "...*the trains must come to Istanbul, even if they have to pass over his own back*" (Celik 1986: 100). Consequently the railroad passed through the quarters along the Sea of Marmara.

As a result the suburbs beyond the Theodosian walls were connected to the city centre, which opened the way for the globalisation of the city and later encouraged massive migration. A similar situation was repeated on the Asian side, in 1873, by completing the railroad from Haydarpassa to Izmit on the shores of the Marmara sea (Celik 1986:

³⁷The project was proposed by a company owned by a Belgian banker, Baron Hirsh (Celik 1986: 99).

107). Thus, for the first time in its history, the city was linked from Kucukcekmece to Izmit by rail roads running along the coast.

Although the steamboats and rail roads improved communication remarkably, especially along the coast, the inner city parts were still detached. Horse-drawn trams were the major means of public transport, introduced by the Istanbul Tramway Company, which was also responsible for widening the roads to a minimum of 11.50m., as well as paving the surfaces and repairing the damaged water, sewage and gas lines (Celik 1986). All this construction work was to apply current technological knowledge and standards used in France (Celik 1986: 93). Following several proposals, the first route was constructed in the Sixth District, Galata, in 1872 between Azapkapi and Besiktas, followed by another line between Eminonu and Aksaray in the same year (Celik 1986: 93).

The subway, constructed in 1876 by a French company led by engineer E. H. Gavand, the first and only underground road until the 1990s, was between Karakoy and Beyoglu, in Galata (Erinc 1968). The success of the tunnel led to several subway proposals. However, none of them were implemented (Celik 1986: 98-99). Apparently, Istanbul's European community (foreign and non-Muslim) enjoyed and supported these symbols of 'progress and civilisation' (Celik 1986: 97). Unification of city's parts was enriched by the bridges across the Golden Horn, increasing both the importance of Galata as a commercial centre and its population; the ultimate goal of uniting Istanbul and Galata has succeeded. The first bridge between Galata and Eminonu was constructed in 1845 of timber and had to be rebuilt several times until it was finally replaced by an iron construction in 1912 by a German company. This bridge existed until 1990s when it was replaced by a concrete one. Another bridge was located between Azapkapi and Unkapani.

Thus the city underwent radical changes in its character as well as its fabric through three major interventions. Firstly, the majority of the old streets were 'regularized' through widening and straightening, along with clearing the waterfronts and opening wide embankments. Secondly, there was the transformation of the urban fabric from wood to *kargir*; and thirdly, the development of new means of transport physically connecting and administratively dividing the different parts of the capital. This transition was also affected by the changing economic functions within the city, especially in Galata. The most extensive works, in this sense, were undertaken between the 1850s and 1870s

under the *Islahat-i Turuk Komisyonu*. Not all the streets were regularised at once; they were done on a piecemeal basis.

Istanbul, during the Young Turks period until the Republic, experienced further radical and political transformation, through war, invasion and decrease of its population. Although it was a period of crisis it was at this time that the first serious steps were taken to produce a more extensive city plan. The popularist and nationalistic ideology of the Young Turks affected the activities of the Municipality. This was a time of a vast programme of public works: street improvements, improvement of the infrastructure: electricity supply, new sewage and drainage systems, water and gas services, the telephone and electric trams; all these were extended to reach most parts of the city, rather than just Galata and its environs, as in the previous administrations (Shaw 1977, Vol.2: 306). Their main contribution was the serious introduction of the concept of master planning to the city.

In 1908, A. Bouvard was once more invited to Istanbul. This time he visited the city and suggested that a detailed map was necessary to propose any overall planning scheme (Tekeli 1993: 29). Therefore, making a map of Istanbul became a major issue which continued until 1940³⁸. One of the important figures of this period was the Mayor, Cemil Pasha, who supported extensive development schemes (Tekeli 1993: 30), by initiating programmes such as widening the roads and opening new public parks, which creating the first conflict between developers and conservationists.

During the Republican period there was a similar attitude towards improving the city. Between 1924-1928 the first publications about local government and city administration were issued and some books on urbanisation were translated³⁹. The routine of consulting European experts continued during the Republican period⁴⁰. During the first half of the 1930s, all the laws and regulations about improvements and administration

³⁸A French man called Auric, who was an engineer of Lyon Municipality, was employed as the Director of the Technical Commission of Istanbul Municipality (Istanbul Sehiremaneti Fen Heyeti Muduru) and asked to prepare a Master Plan of Istanbul (which is lost today).

³⁹Emin Bey translated "Urbanism" written by Joilland and Celal Esad Arseven translated Camillo Sitte's "City Architecture" (Tekeli 1993: 30).

⁴⁰Mayor Emin Bey established a Commission to undertake and direct the future of Istanbul. Two German experts Grossman and Bau Rahtree were invited by the Commission (Tekeli 1993: 30).

of the city (which dated back to Ottoman period) were changed by the introduction of new municipality laws: according to them a Master Plan was obligatory for each municipality (Tekeli 1993: 30). Istanbul Municipality organised a master plan competition that was to control and direct its development. Four famous urbanists were invited, the German, H. Elgotz, and Frenchmen, A. Agache, as well as J.H. Lambert and H. Prost (Duranay 1972:67), but their proposals were not implemented and remained as reports (Duranay 1972: 73). Later another German urbanist, Martin Wagner, was invited to prepare another Master Plan for the city in 1936; however, his plans met cool reception (Duranay 1972: 73).

The same year, Henry Prost, the French urbanist, was invited to Istanbul again. He conducted the preparation of *Nazim Plan* (Regulating Plan) of the Historical Peninsula and Galata to a scale of 1/5000, which was approved in 1939. This was followed by a plan for the Asian side of the city (Uskudar, Camlica, Kadikoy) to the same scale. According to his plan, the Golden Horn became an industrial zone and a special emphasis was given to the building of new highways. Surprisingly the city walls on the shores of the Golden Horn were to be preserved, if they did not hinder the proposed new roads (Duranay 1972: 77).

The main principles of his plan, as stated by his assistant Aron Angel, were to protect the historical silhouette of Istanbul and to make its major monuments visible from a long distance (Angel 1987: 35). He proposed that the archaeological properties of the monuments should be excavated and the natural environment of the city should be enhanced. He also suggested numerous new streets that would cut through the existing urban fabric to provide 'deep space vision'; perspectives of the historic areas (Angel 1987: 36). He was one of the first to propose legislation for the preservation of historic buildings, and work towards implementing it. He emphasised the value of the historic monuments but not the ordinary fabric itself which, he believed, should be rearranged according to contemporary requirements, determined by capitalist economic relationships (Angel 1987: 36). What he did not understand was that the monuments of Istanbul are vital the elements of the urban fabric; they can not be isolated from it. Once they are isolated they become sculpture; the fabric and the monuments have a mutually supporting relationship and only have meaning when they keep this relatedness. By articulating of different parts of the city he aimed to create a greater metropolitan city. He suggested a coastal road along the shore of Bosphorus up to Sariyer. This idea was

taken and exaggerated by successive municipalities who constructed roads along almost all the sea shores of Istanbul, which helped to destroy one of its most genuine characteristics. Although there were not many cars at that time, apparently his plan was based on the increased use of motor transport. He stated that the plan would benefit from the city's topography and thus cause by little demolition of the existing fabric, as the coastal roads would use tunnels, bridges, viaducts (Tekeli 1993: 31-32). His plans were widely implemented by the Mayor Lutfi Kirdar, and supported financially by the national government (Tekeli 1993). Numerous squares were built such as Taksim and Eminonu. Ataturk Boulevard was constructed cutting through the urban fabric from British Consulate in Beyoglu through Unkapani to Yenikapi. Two urban parks in Macka and Taksim were introduced to the city. During the period of Lutfi Kirdar (1938-1948), 1148 buildings were destroyed for these 'improvements'.

Following 1950, a new political, economic and social era began (Cem 1979; Yerasimos 1986). As a result the city faced the rapid growth of urbanisation growth which had been about 3% per annum since 1927: this increased to 9% after 1950s (Tapan 1984: 106). Consequently, Prost's plan was inadequate to meet the new demands of the city. Rapid urbanisation accelerated with greatly increased industrialisation, as the increased demand for housing resulted in many emergency squatter settlements and speculative land developments. All these problems led the authorities to seek appropriate solutions.

In 1951, another Commission was established to revive Prost's plan (Duranay 1972: 81). The Commission concluded that his plan has mainly intended to beautify the city and they criticised it because it did not consider transport, housing, and mounting socio-economic problems. (Tekeli 1993: 33). Later, yet another Commission, called the 'Advisory Commission' (Musavirler Heyeti) was appointed and worked between 1952 and 1956 (Duranay 1972: 82-83). A major new plan was proposed emphasising the city's promising potential for industrial growth, spreading from Kucukcekmece on the western coast of the Marmara Sea to Tuzla, on the eastern coast. The Golden Horn, once more, was designated as an industrial zone, this time penetrating the area outside the city's land walls (Tekeli 1993: 33; Duranay 1972: 82-83).

From 1956 onwards, the city was subjected to a flood of destructive interventions, mainly as a result of political manipulations and priorities. Although Istanbul was not the capital it was still the most prestigious city of the country and suffered from numerous politically

motivated interventions in the name of 'improvement'. The so called 'development operations' were initiated by the Prime Minister, Adnan Menderes, who announced the principal aims of the operation at a press conference, in which political intentions were explicitly expressed (Boysan 1993: 84). Apparently the operation was based on both Prost's plan and the 'Advisory Commission Plan' but with even less concern for the environment.

These operations were not really aimed at solving the city's problems but unfortunately, they were used for party political gain; streets and junctions were widened by extensive demolition, destroying both the historic and the natural environments. This attitude is evident from the statement of M. Ulusahin, the motorway specialist when he announced that "*...this city is a hump, let's level it*" (Boysan 1985: 85). The politicians were proud of their activities as expressed in an official report dated 1957, published by the Istanbul Governorship; expropriations for widening roads and making squares were applauded stating that "*...even a diamond is not a diamond if it is not chipped*" (Istanbul Governorship 1957: 7). According to the same report, construction of new roads cutting through the urban fabric or leading to a new settlement increased. The city was proud to announce that it was the largest industrial centre in the country which brought with it an increasing labour force (Istanbul Governorship 1957: 155-156).

And also authorities wished to beautify the city. Apparently this was understood as the cleaning of buildings which surrounded the monuments and squares, but some 7,289 buildings were actually demolished during this 'cleaning' operation. The endeavour of designing Beyazit square, to modern norms and models, is an example which demonstrates that imposed foreign concepts and space forms could not integrate successfully into the city, unless its own values and historical culture were understood first (Ozaslan 1990). Consequently, Beyazid Square is certainly not a well 'designed square', nor, despite numerous urban design competitions, are many others in the city, down to the present day.

The third aim was the restoration of religious buildings; again, this was due to political motives. These restoration works were used to counter criticism of the destruction of so much historic fabric, and also to gain the support of the conservative groups in both the city, the country (Tekeli 1993: 33). For example, 85 mosques were repaired in 1957, in contrast to 7 in 1945 (Istanbul Governorship 1957: 128). Restoration of the city walls

commenced, but while constructing a 50 meters wide road, the Millet Caddesi, some of the city walls were eventually pulled down, although the towers on either side of the new road were restored (Istanbul Governorship 1957: 17). The nature of these development operations shows that they were done according to random and short term decisions, shaped by political and economic considerations that were widely criticised, particularly by the Chamber of Architects (Duranay 1972). The government invited a German city planner H.Hogg to conduct the 'development' operations and suggest a plan (Duranay 1972: 84). Ironically, he was invited to *plan* them after the operations had started. It is clear that he was invited to legitimize the operations rather than propose new ones.

From 1958 onwards, the increasing importance of Istanbul in the country's economy led to numerous planning schemes to emphasise its regional and national role in the development of the country. The city was, and still is, the most important of all Turkey's cities; the junction between Europe and Asia, the industrial centre, the main harbour and a centre for arts, culture and tourism. Following the new trend to plan Istanbul within a regional framework, the Istanbul Development and Planning Directory was established in 1958 (Duranay 1972: 87).

This time, an Italian urban planner, L. Piccinato, was invited to prepare the Istanbul Metropolitan Plan. Piccinato's plan emphasised the regional importance of the city. The plan specifically suggested the preservation of the city's heritage including the shores of the Bosphorus and the Golden Horn and the Kagithane valley up to the Belgrad Forests as a tourist resource. The same planner announced that the expropriation of Istanbul was much easier than was the case of Rome, because so many of its buildings were made of wood, and he stressed that that was why Istanbul was so *lucky* (Boysan 1993: 85). One of his important suggestions was the expansion towards the west into Bakirkoy and Florya and towards the north of Galata i.e. to the Levent. His reasoning was that because of the increasing density in the historical peninsula and Galata which slowly being destroyed and therefore it was necessary to distribute this high density outside the main historical areas. Until that time centralisation of the city had been the main aim; this time decentralisation was proposed. A new backbone road was planned to serve those new settlements. A peripheral road was to run through the European and Asian parts of the city, crossing the Bosphorus by a suspension bridge (Duranay 1972: 91-93). Although this plan was not applied immediately, due to the military coup of 1960, it affected later planning schemes.

According to an evaluation of planning schemes done for the city, there were already 360 approved plans in the archives by the year of 1961 (Tekeli 1993: 34). Planning efforts to catch up with the increasing problems of the city continued. Istanbul Metropolitan City was planned within a new East Marmara Regional Plan. In 1964, another plan was prepared for the historical peninsula. This plan allowed for raising the height limit on buildings, which helped to promote inappropriate speculative constructions. This also caused the destruction of many old buildings, and worse, the construction of new ones at an increasing rate, has effectively ruined the historic fabric (Tekeli 1993: 34). Also in 1964, the Regional Planning Office prepared the Istanbul Industrial Regulating Plan, with the will of the National Security Council (Milli Guvenlik Kurulu) (Tekeli 1993: 35), in which new industrial areas were suggested.

In 1966, Piccinato was invited again to carry out a city planning scheme. His main proposal this time concerned additional motorways and harbour facilities (Tekeli 1993: 35). This new plan of 1967-68 proposed a bridge over the Bosphorus, which was strongly objected to by the Chamber of Architects (Tekeli 1993: 35), who considered it would cause a further expansion of the city, and thus encourage the construction of successive bridges over the Bosphorus to serve growing private car traffic (Tekeli 1993: 36). In spite of these criticisms, the first Bridge was constructed and opened in 1973, causing the problems articulated by the Chamber. As a result of similar applications, the main transport means in Istanbul became roads. Consequently, according to the 1993 official records, although the city was surrounded by the sea, the proportion of waterway transportation dwindled to only 5%, in contrast to 89.4% by road, and 5.6% by railway (Istanbul Municipality 1994: 13).

Yet again, a new planning scheme, issued in 1971, proposed secondary centres for the city (Tekeli 1993: 36). Initial suggestions were north of the Zeytinburnu and Mecidiyekoy- Zincirlikuyu axis. Other centres were suggested: Bakirkoy and Kucukcekmece on the Marmara side, and Kartal or Pendik on the Izmit side, and Esenler on the north of historical peninsula. The aim was to decrease the function of the main historical centre and reduce the population density. In 1976, as predicted, a second Bosphorus Bridge was already on the agenda, commissioned by the national government. Though attempts to plan Istanbul have continued for almost one hundred and fifty years the result seems to demonstrate that the many plans tended to follow needs rather than anticipating them.

Increasing industrial investment, together with mechanisation of agricultural production began with the Marshall Aid Plan after the Second World War and helped to create irreversible social and economic changes in the country. In turn, this was reflected in the changing fabric of the city, for instance in the numerous industrial establishments in and around Istanbul. The factories attracted people from rural areas and as a result the city was flooded with new immigrants, who established themselves by building what became known as 'Gecekondu' (literally, 'built over night'), wherever there was vacant land in a Turkish city. Istanbul suffered the most from this phenomenon. The existing housing shortage caused these squatter settlements to spring up around the industrial areas. Many *Gecekondu* areas flourished in Zeytinburnu, Kagithane, Pasabahce, Beykoz, Buyukdere, Kucukkoy and elsewhere (Cansever 1974: 37). Especially after 1965, they were the only response to an ever increasing housing demand.

The original *gecekondu*s were individual houses, built mostly on state-owned land, by peasants who had recently moved to the city. Although at the beginning they were demolished, gradually they became part of the urban fabric. The Istanbul Municipality (1960) informs us that the title-deeds of *Gecekondu*s were distributed to their owners in 1959. For example 891 house in Zeytinburnu, and 800 houses in Taslitarla, just on the northern hills of Eyup, were given ownership rights. Again in Taslitarla, 2,535 houses were measured up and their plans registered, in an effort to legalise them. The number of squatter houses continued to rise until in 1974 when 45% of Istanbul's population was living in the *gecekondu*s (Oz 1978: 51). Subsequently the construction of squatter housing became more organised. As a result, the demand for increased housing activity by local authorities caused the creation of 34 new local government districts by 1980, separate from the Istanbul Municipality (Tekeli 1993: 35). Squatter settlements had by this time become a legal and inseparable part of Istanbul's urban fabric, as well as the social life of the city. Their impact became even more evident when they began to change from being single storey vernacular houses to multi-storey apartments. They presented 'architecture without architects'. Gradually they became widely accepted by officials, mostly for political reasons: their occupants were a powerful lobby⁴¹. It seems

⁴¹"...as the number of squatters have multiplied, the market mechanism began to operate and migrants from rural areas fell into the hands of organised speculators. Squatter house production was started by gangs who would sell a shared real-estate deed to the new settlers. The area would be divided into tiny lots, roads levelled and the topography ironed out" (Kuban 1985: 74).

they will continue to be a major supply for an ever increasing housing demand as migration continues⁴².

By 1980, the new socio-economic and political era of the Republic had begun (Sonmez 1985; Kepenek 1987). Until 1980, the master plans for Istanbul at least attempted to give some control to the development of the city, though they were often behind the realities of its period. In the 1980s, planning controls were neglected, and speculative and random development occurred everywhere (Keskin 1993). Permission was given for illegal buildings, which in turn encouraged the invasion of state-owned lands. Individual benefit became the major preoccupation, and those in positions of power fully exploited the new situation. The most glorious feature of Istanbul, the Bosphorus was greatly affected by this attitude. Whilst this area was somewhat protected before, a new Development Law for the Bosphorus was passed by the Parliament (Keles 1990: 445) which caused much destruction, not only of its architectural and urban qualities but also its natural environment. Thus, Istanbul was once more severely shaped by political influences and motives.

One of the major developments of the time was the project to clean up the Golden Horn approved in 1984: this had in effect become a huge sewer, heavily polluted and a serious health hazard⁴³. All the factories⁴⁴ around it were moved out and the coast line was flattened, including all but a few of the historic buildings⁴⁵. A new sewage system was begun which aimed to serve the approximately 3 million inhabitants of the Golden Horn area (Istanbul Municipality 1988: 37). Demolished and cleaned up areas were replaced by parks. Seemingly, the concept of 'improvement' was perceived as creating public open space, even though there were few people around to take advantage of this.

⁴² According to records of Istanbul Municipality (1991: 111), the population of the city increased by approx. 350.000 people per year between 1985-1990.

⁴³The proportion of sulphur dioxide in the air was 67% in Eyup and 62% in Silahdar (Istanbul Municipality 1988: 27).

⁴⁴Approximately 696 industrial buildings (Istanbul Municipality 1988: 27).

⁴⁵20 historical buildings were measured and some of them restored (Istanbul Municipality 1988: 27) and reused as a library and post office. However, the remainder of the city sea walls were demolished.

Following this speculative period, a new Municipal government, with a different political view, was elected for five years in 1989. The new administration prepared conservation and development plans for the historical peninsula (Ozdes 1993; Yildiz 1991). According to the principles of the plan, the urban function would be altered from being a business centre⁴⁶ to a historical, cultural, touristic, commercial and recreational area. Therefore, the coast line of Golden Horn, Marmara Sea and the city walls and their surroundings were to develop according to these new functions. To prevent the historical peninsula becoming a museum city, existing settlers would be allowed to remain but the density reduced. The plan was heavily criticised by the Chamber of Architects and also by city planners (Ozbeyoglu 1993; Izberk 1993). Critics focused on the new transport networks and the proposal for the silhouette of the peninsula, stating that these suggestions would be destructive to the city. In 1993, another plan was prepared for the whole city (Gokdag 1993). This plan emphasises the development of new settlements that were originally squatter settlements (such as Alibeykoy, Ikitelli and Firuzkoy) giving them determined and specialized functions. For example, Mahmutbey would be an area of office skyscrapers, providing a business centre. As the new attraction, the coastline of the Black Sea⁴⁷ would be opened up to developers. The historical parts of the city, both on the European and Asian side, (Beyoglu, Kagithane and Eyup), were to be devoted to tourism and commercial activities. Industrial and residential functions are to be intensified in the new development areas. However this would again encourage increased migration, bringing more growth to a city already too big.

Although none of these plans have yet been completely implemented, they demonstrate the attitudes towards the built environment. Observation of the whole process shows that since political and economic factors have become paramount in determining urban growth and form, there is an increasing neglect of the unique character of Istanbul and its distinctive environment.

3.3. CONCLUSION

The reasons for, and process of, the deterioration in Istanbul's urban fabric within the context of the country as a whole has been analysed, with major emphasis on

⁴⁶In 1991, population of Eminonu is 83,230 during the night and approx. 2 million during the day (Yildiz 1991).

⁴⁷The area between Belgrad Forest and the Black Sea was dug out to mine coal. Therefore its topographical and environmental degradation is irreversible, almost an 'environmental genocide'.

diminishing architectural quality. Several concluding remarks can be inferred from the analysis of this transformation process, called Westernisation. These differences are profoundly reflected in the urban fabric of the city. The city was the battle ground of political and economic changes throughout the process, which, we claim, is the major reason for its sad situation today. First of all, nature of the transformation in the first phase (1700 - 1839), is significantly different from that of the second phase (1839-present).

The first phase represents a transition process where the changes only affected the Ottoman elite and court members. These changes were specifically brought about for military purposes. In addition, the royal palaces of European emperors, probably due to their military power, became models (or fashions) for the representatives of power of the Ottoman dynasty. The city was a place to express these new directions. The models were scattered cross the urban fabric through new building types, styles and some urban scale applications. The reforms introduced into the armed forces related to institutions, including technology and education, which can be accepted as two major agents of scientific knowledge, which, according to Feyerabend, (1991) are the basic source of Western civilisation. Therefore, these alien systems penetrated the Ottoman world both in terms of appearance and knowledge. This knowledge, as Feyerabend (1991: 9) argues, was "*...accepted because it produced better guns, not because it produced better understanding or a better life for all*". However, the idea that the West provided a superior model for development was gradually accepted by the Ottoman statesmen during this intricate process.

During the second phase the application of these efforts to Westernise were multiplied through laws and the replacement of old institutions by new ones. Changes were also applied to the urban fabric. New municipal administrative bodies replaced the traditional institutions which had been responsible for the production and control of the built environment. Urban planning concepts prevailed, and piecemeal schemes were carried out to shape the city accordingly. These applications were often only randomly implemented, nevertheless the integrity of the urban fabric was irreversibly ruined. As a result, urban form began to change more rapidly in its pattern and texture.

During this process, an ideological discussion about the modernisation of the country sharpened and has been sustained until now in varying degrees. A new era was started

by the first Ottoman elite with European education, the Young Turks, who believed in modernisation as the only way for the survival of the Empire. Modernisation had a national character and became a national claim. Extensive projects on urban administration, modern amenities and city planning were undertaken. Parallel to the ideological discussion and the policies of the government, a national movement to search for a Turkish identity began in architecture. As the need for a new identity grew, so it was recognised there was a new social and cultural order in the making. Consequently the buildings reflected this tendency.

The era's ideology continued into the early years of the Republic. At that time, in spite of hurried modernisation efforts, the political and economic independence of the new country, and the emphasis on Turkishness, instead of the Islamic character of the society, were crucial to the formation of modern Turkey. Industrialisation, meanwhile, was greatly encouraged, and had a major impact on Istanbul. A desire for modernisation also influenced the architecture. The adoption of the functionalist movement from European architecture was seen as a response to the political priorities of the time. Another aspect of the era can be seen in urban planning efforts reflected in different developments of the city such as in the construction of boulevards and the making of public squares.

From 1950s onwards, the country underwent further major political and economic changes which deeply affected social and cultural entities. Intense development schemes were commenced with little consideration for long term results and costs to the country. In architecture, the International Style was dominant; great architects of the modern movement were idolized. The consequences of the new approach was evident in building activities all over the city. However, the most striking impact of 1950s was the destruction of the historic urban fabric of Istanbul. 'Development Operations' rudely destroyed the city's fabric and vital character, and thus much of its identity. In the 1960s and 1970s the city continued to be subjected to haphazard 'development' efforts. Architectural work displayed dichotomy of international tendencies and also a continuing search for national identity. Although there were individual successes these were not enough to create a Turkish language in architecture, largely because of the socio-political environment of the country. Following the 1950s, a devastating definite socio-economic phenomenon occurred. The intense 'modernisation' and urban investment programmes brought massive migration to the cities by people in search of employment.

Thus as demand for housing outstripped supply, new-comers built their own houses clustering around the industrial areas. Squatter settlements, as in many other developing economies, became a dominant feature of Istanbul where almost half the city's population lived.

Another new era in the development of Turkey began in the 1980s, but the economic and political turmoil of previous times continued. In accordance with the new economic and political ideology, the Istanbul Municipality mounted almost an attack on the city in the name of 'Development'. Property speculation and individual gain were the real beneficiaries. Further demolition of the historic fabric and more new roads inserted on a grand scale, swept all before them. The Bosphorus was plundered by 'villa' contractors. New luxury hotels, business centre skyscrapers, multi-storey shopping centres, which were symbols of the so called liberal economy; were built without regard for the city's past, present or future. At the same time, industrial buildings began to move out from the historical part of the city, and the Golden Horn was cleared of old factories. Successive local governments differed in political views, but maintained similar attitudes to the historic urban fabric. In 1990s, the shores of Marmara Sea were cleared of industrial establishments and replaced by parks, indicating the function of the historical peninsula had changed to one of tourism. Initial signs show that the newly elected municipality of Istanbul, albeit with a different political view, still puts political considerations uppermost. For example, the proposed construction of a mosque in Taksim Park, Galata (the heart of the commercial and business centre of the modern city) can be seen to be an attempt to enhance the Islamic character of the city.

All these factors demonstrate that the city, throughout 18th, 19th and 20th centuries, was transformed according to political preferences which had an underlying desire to join the Western world. Istanbul became a platform of economic and political interventions. This study, in the light of this analysis, proposes that integrity cannot be achieved by destroying the 'old' to replace it with the 'new', or merely by selecting architectural forms and recomposing them in an eclectic manner. Architecture is not only the composition of different elements; it is the understanding of the relatedness of elements and the uniting of different entities, functions and materials as well as social, cultural and environmental values. Therefore, as we - the people - lost our relationship with the city, the need arose to reestablish this relationship. This can only be realized by 'understanding' the 'essence' of the city through historical and architectural analysis. We

must realise that the historic urban fabric in all our cities can be a determinant for the future, a reference source. However, this claim needs to be examined. Therefore, the investigation will next concentrate on clarifying and identifying the determinants of urban form, in the past and in the contemporary context of the historic city.

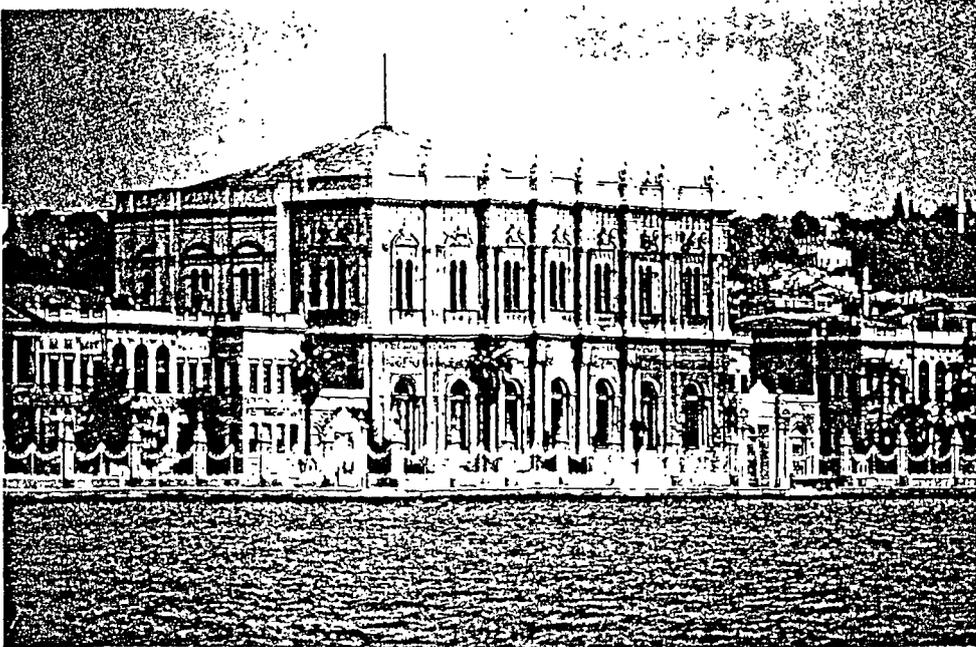


Fig.3.1 Dolmabahçe Palace (1853) built by G. Balyan.

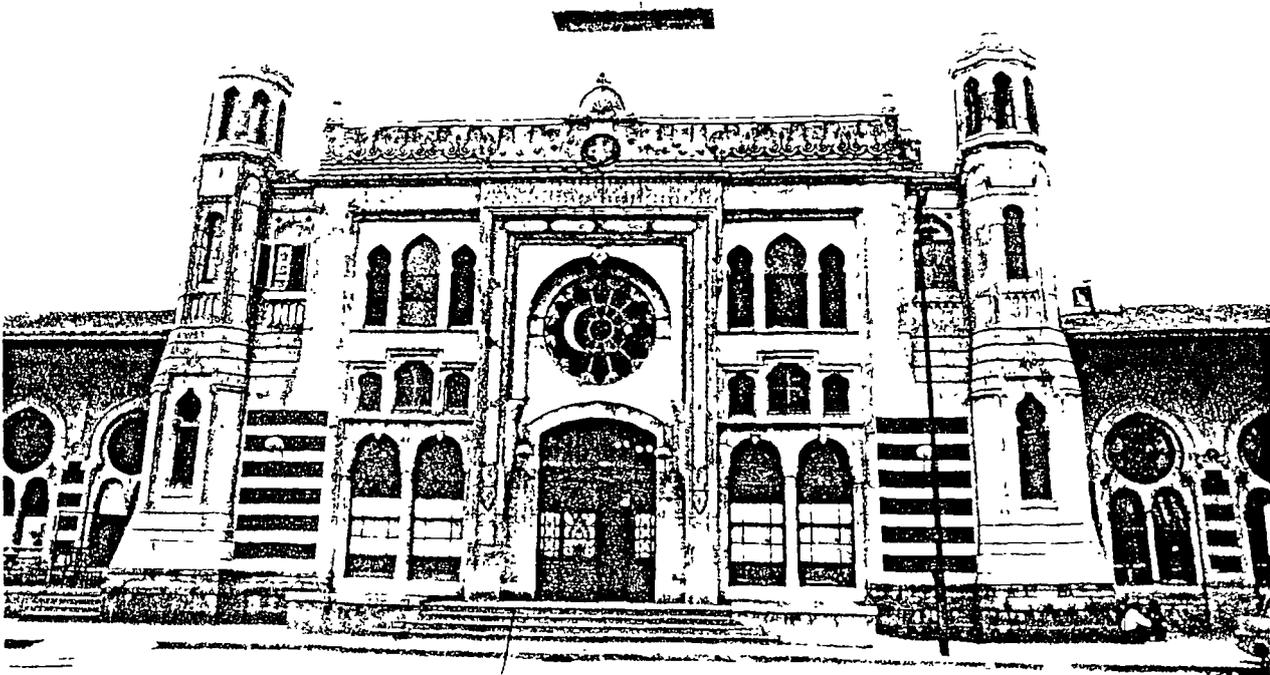


Fig.3.2 Sirkeci Railroad Terminal (1890) built by Jachmund.



Fig.3.3 Harikzedegan (Fire Victims) Apartments (1919 -1922) designed by Kemalettin Bey.

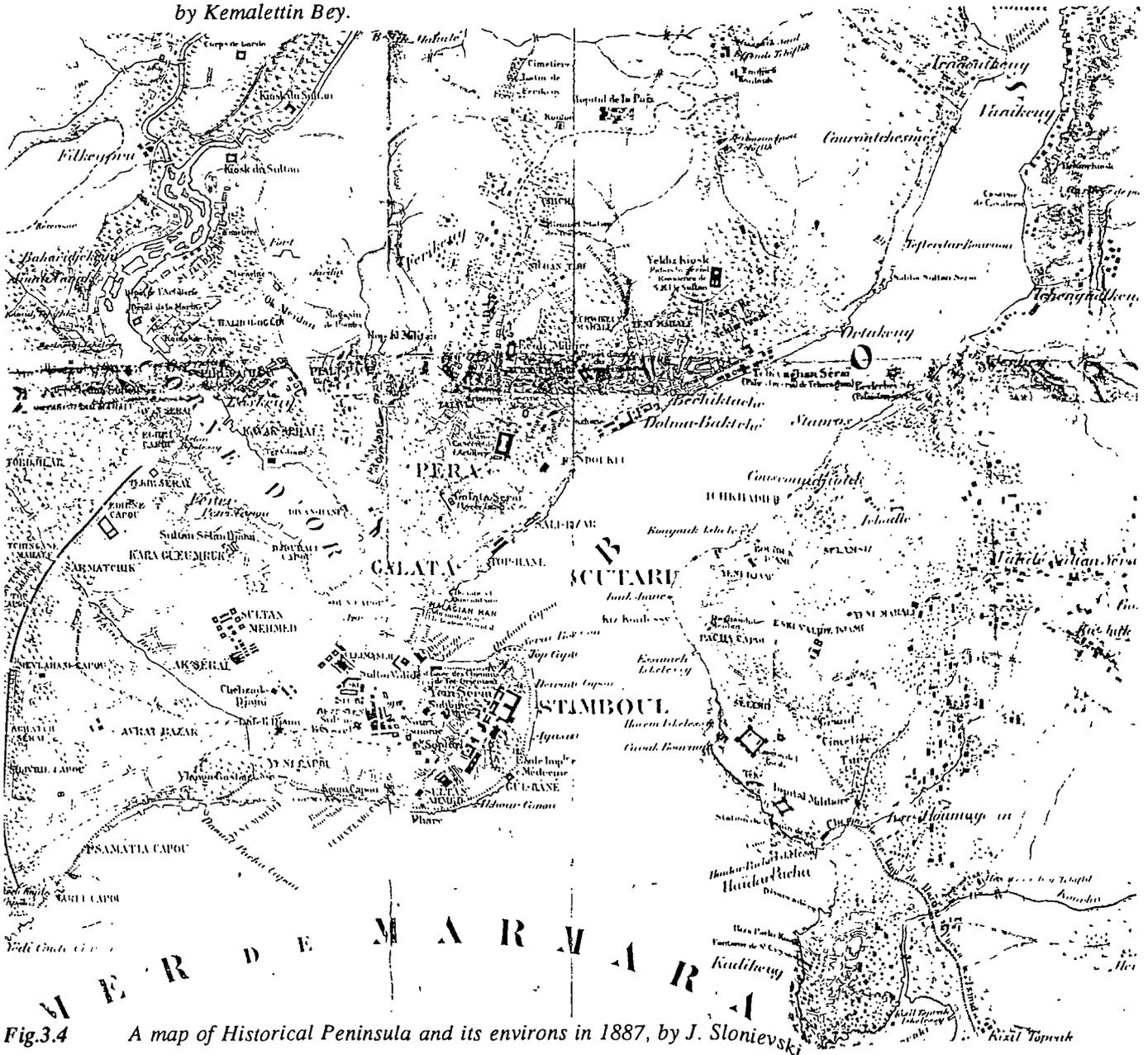


Fig.3.4 A map of Historical Peninsula and its environs in 1887, by J. Sloniewski

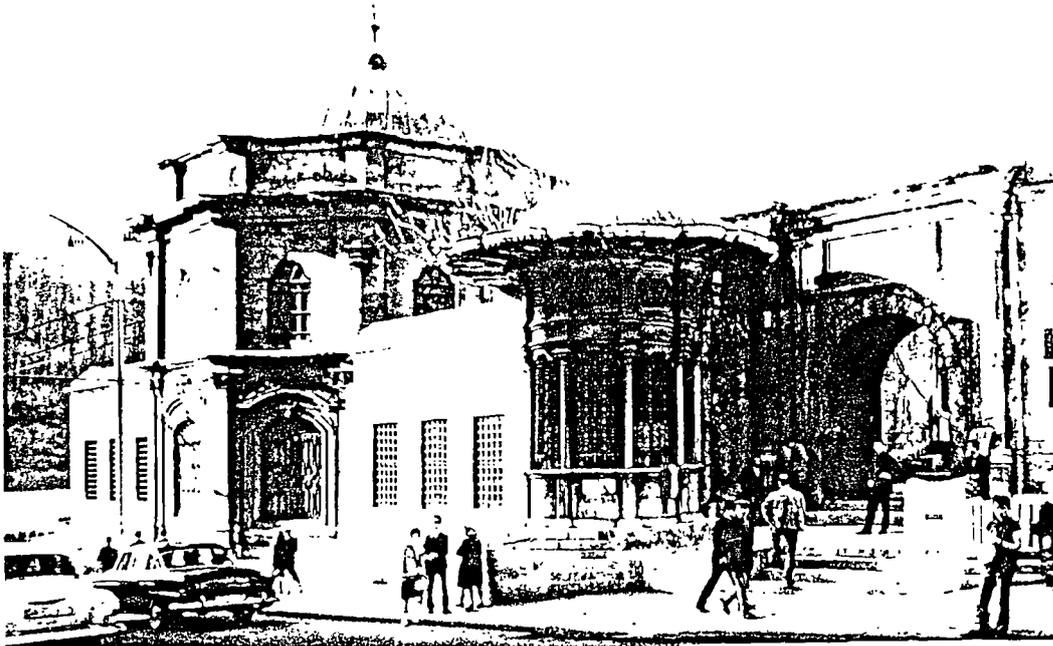


Fig.3.5 The Laleli Complex.

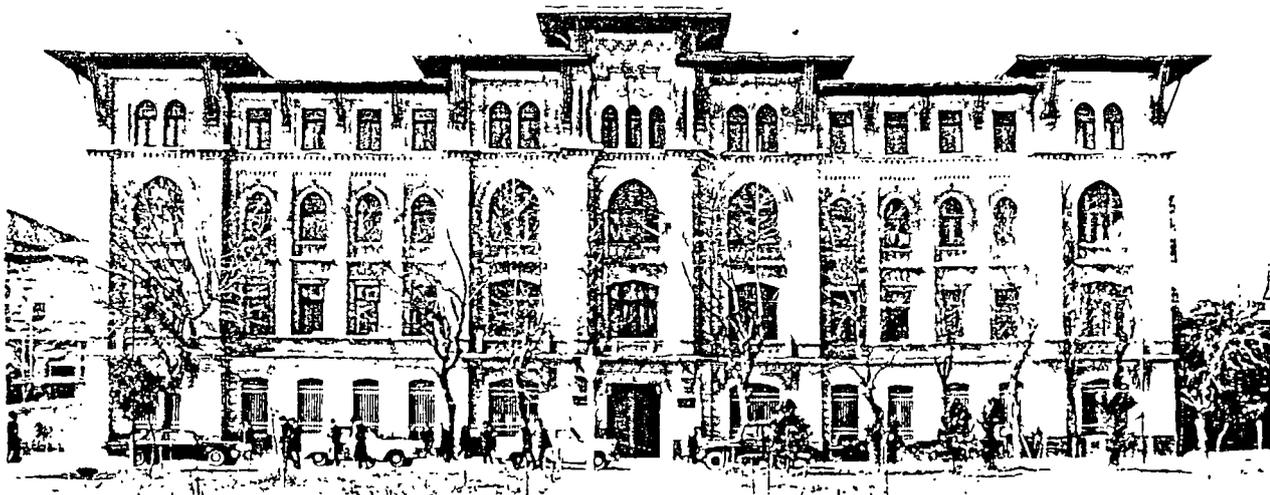


Fig.3.6 Imperial offices of Land Registry (Defter-i Hakani) in Sultanahmet.

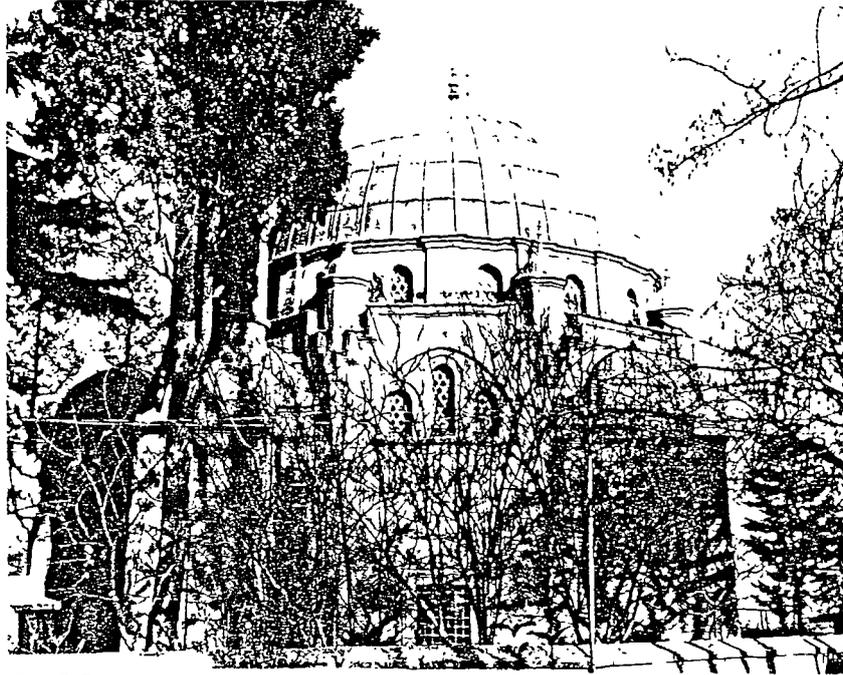


Fig.3.7 Bebek Mosque (1913).

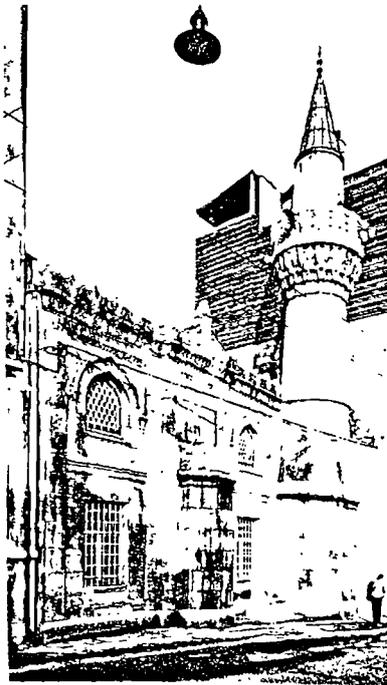
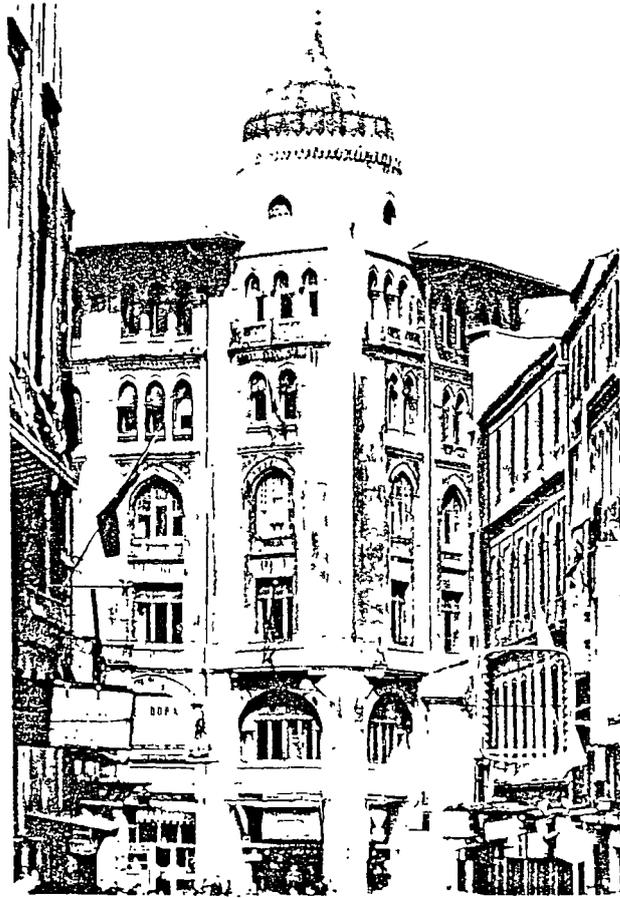
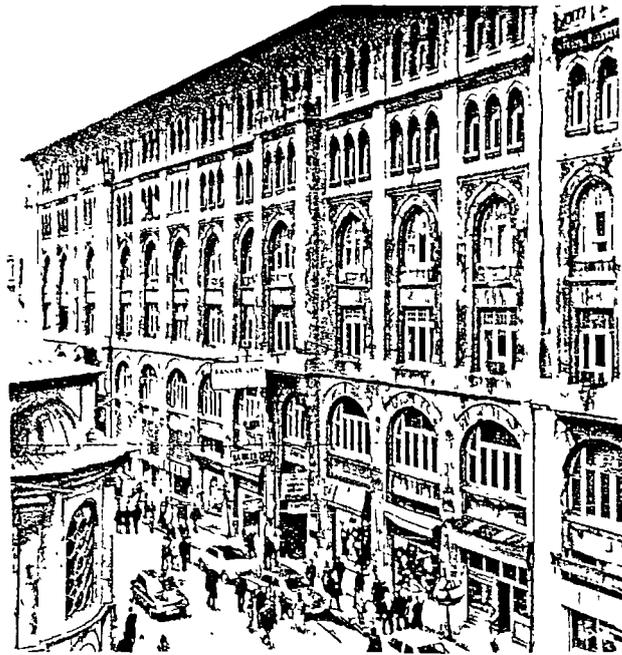


Fig.3.8 Kamer Hatun Mosque (1912).



*Fig.3.9 Fourth Vakif Hani (1912-26).
A view of southeast corner.*



*Fig.3.9a Fourth Vakif Hani.
A view from the southwest.*

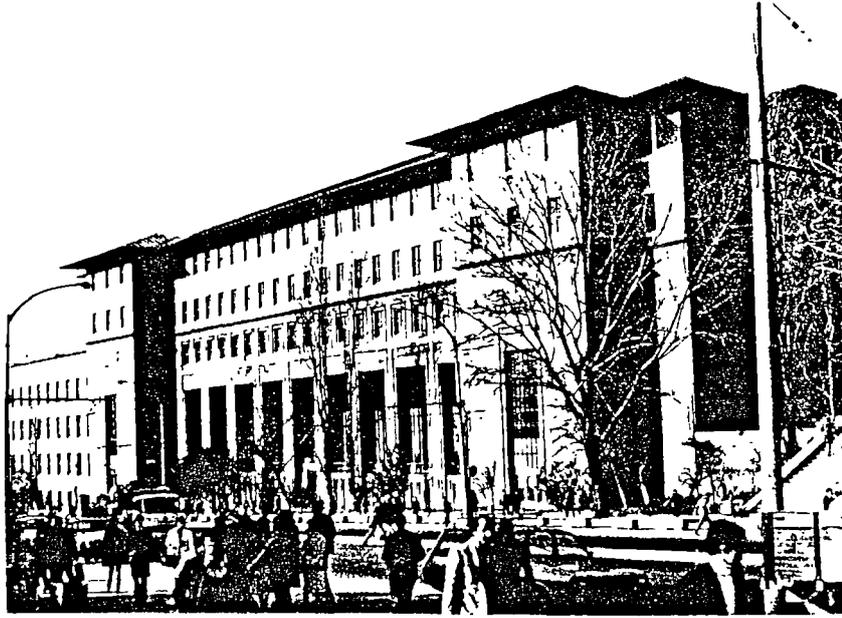


Fig.3.10 *Faculties of Sciences and Letters (1944).*



Fig.3.11 *Oriental Cafe (Sark Kahvesi) (1948-50), Taslik.*

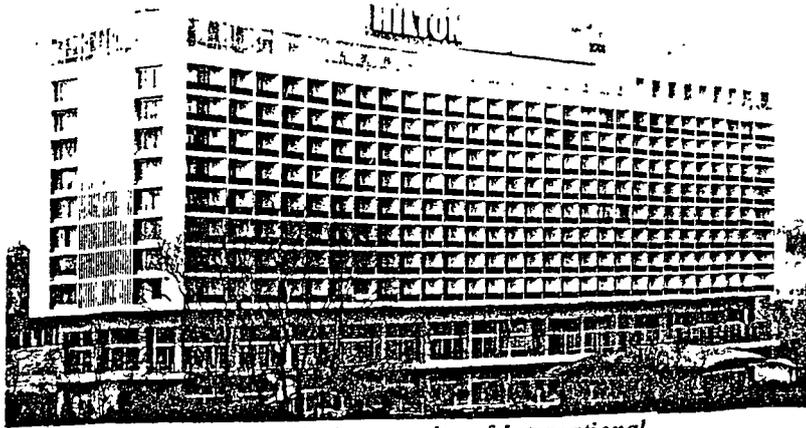


Fig.3.12 One of the Early examples of International Style in Istanbul: Hilton Hotel.



Fig.3.13 Plan of Aksaray, circa 1850.

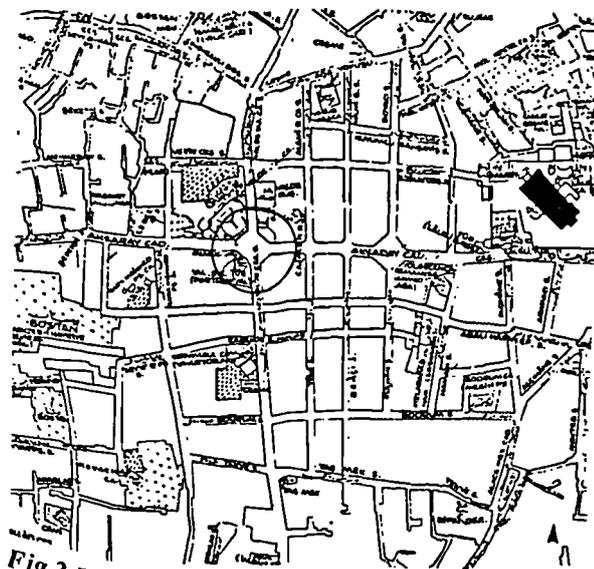


Fig.3.13a Plan of Aksaray, circa 1870.

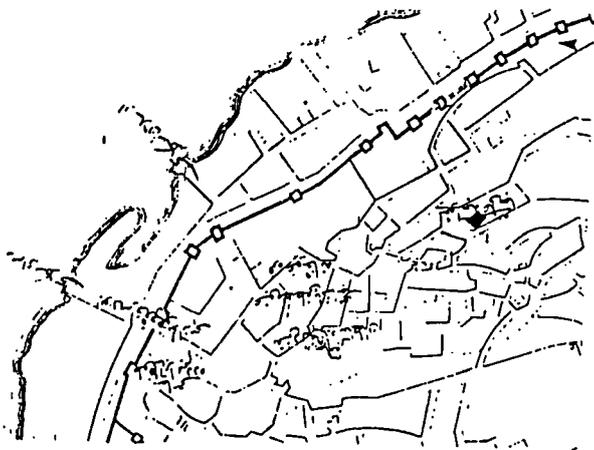


Fig.3.13b Plan of Ayvansaray, circa 1850.

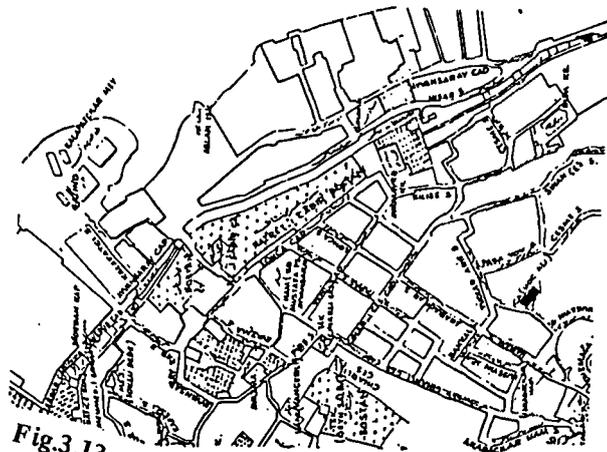


Fig.3.13c Plan of Ayvansaray, circa 1870.

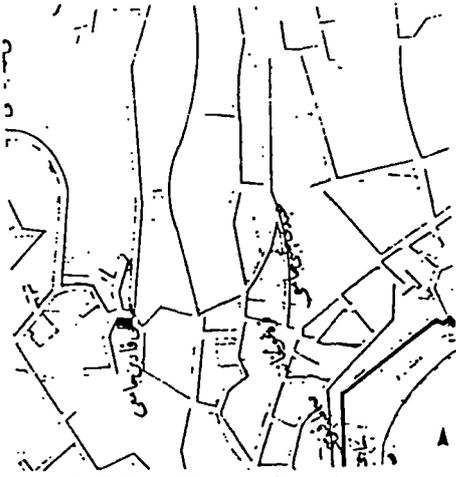


Fig.3.13d Plan of Samatya, circa 1850.

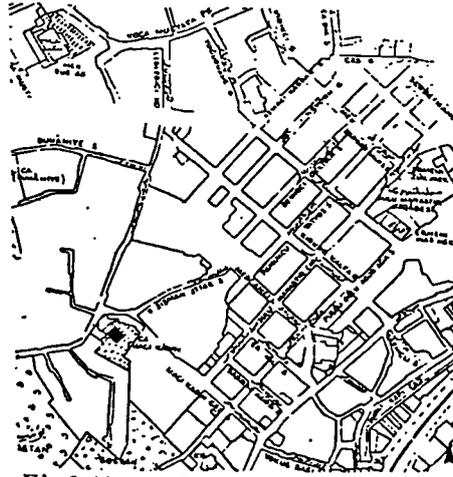


Fig.3.13e Plan of Samatya, circa 1870.

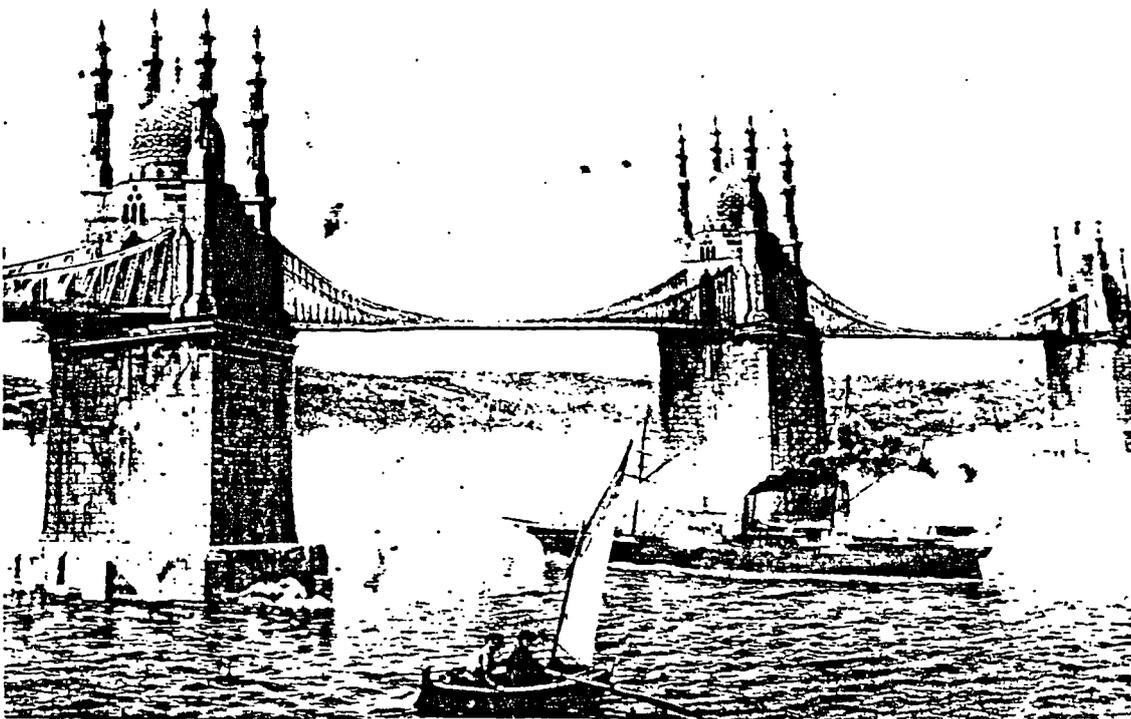


Fig.3.14 Arnodin's proposal for the Kandilli-Rumelihisar Bridge (1900).

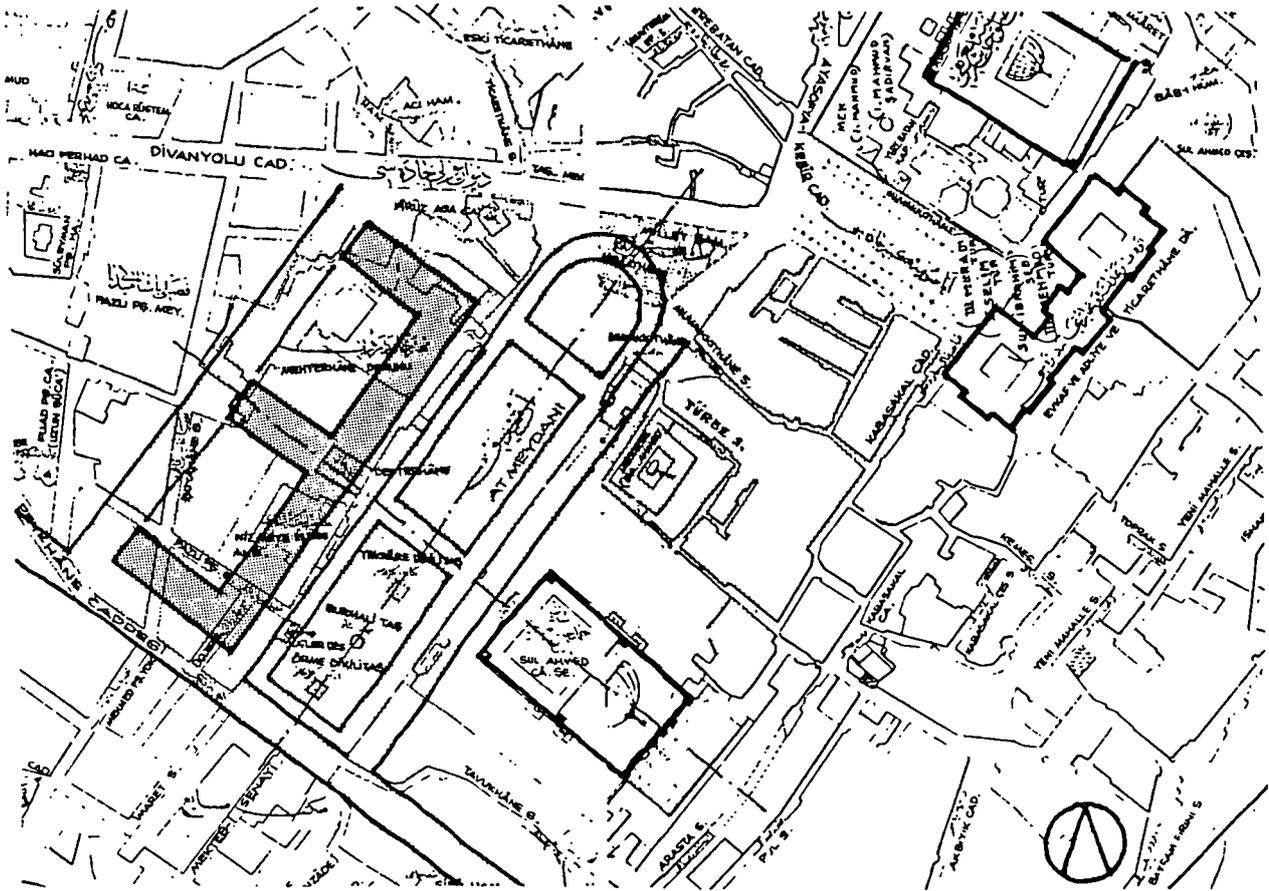


Fig.3.15 The plan of Bouvard's proposal for the Hippodrome.

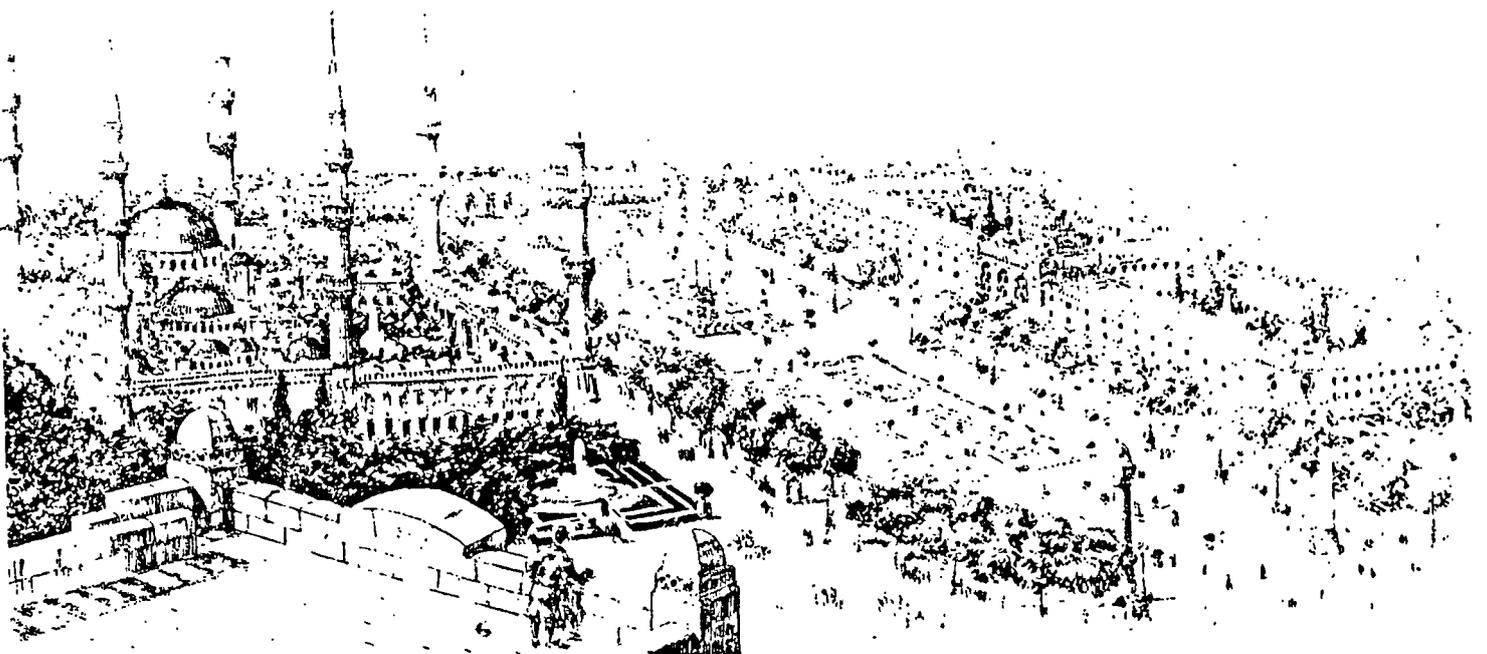


Fig.3.15a The perspective of Bouvard's proposal for the Hippodrome.

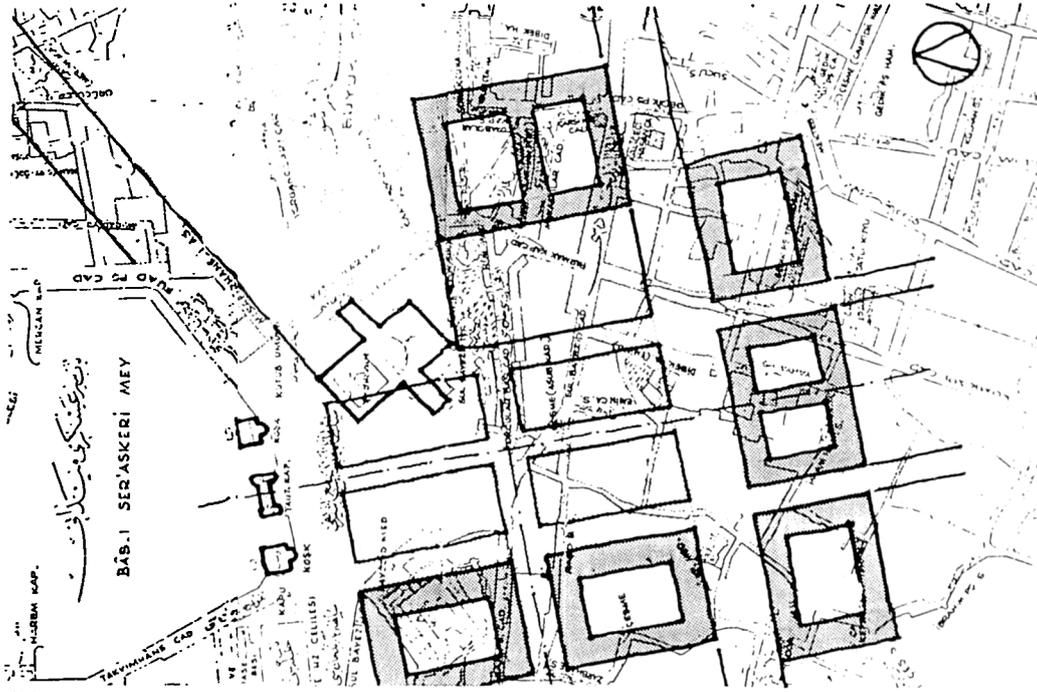


Fig.3.16 The plan of Bouvard's proposal for Beyazit Square.

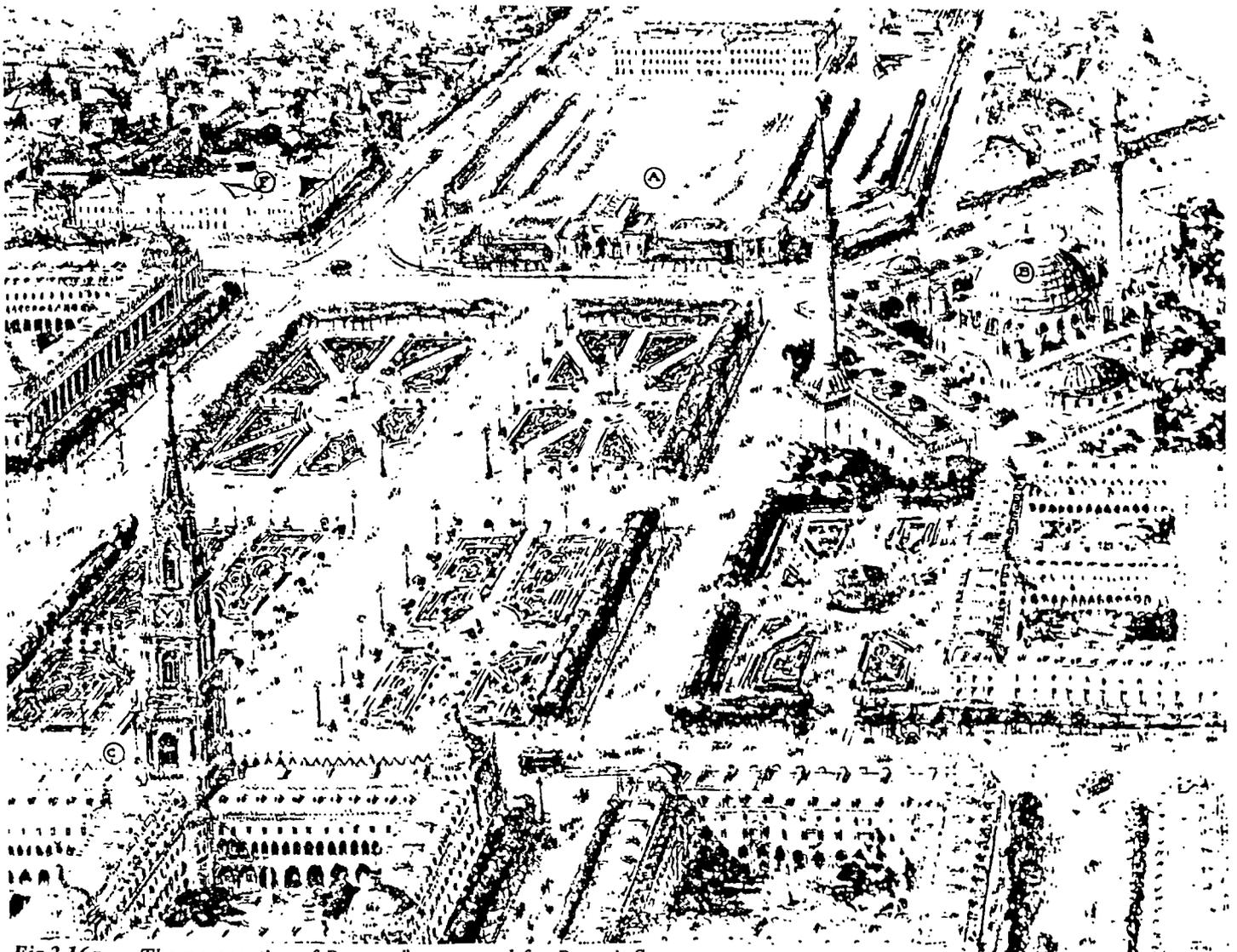
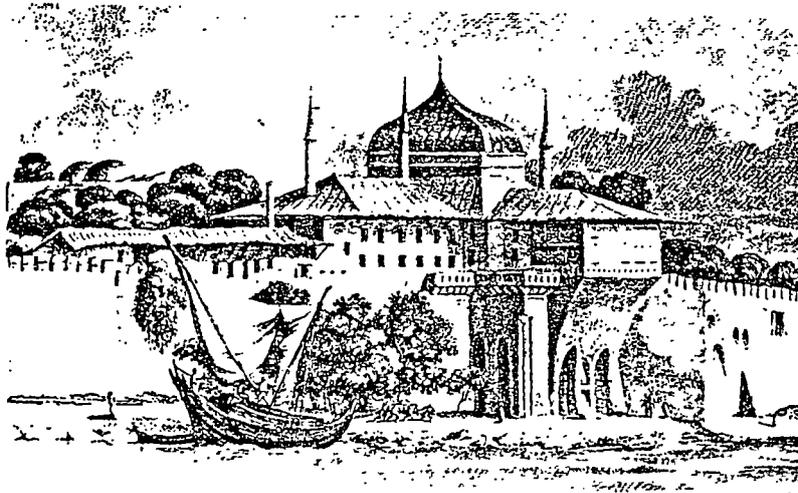


Fig.3.16a The perspective of Bouvard's proposal for Beyazit Square.



*Fig.3.17 Incili Kiosk, drawing
by C.H. Gauffier, 18th C.*

CHAPTER FOUR

Determinants of Urban Form

4.0. INTRODUCTION

The previous chapters tried to demonstrate and question the new scene of the urban environment in the post-modern era, in both the West and the 'Other' countries. Evidently this new feature of urban form is radically different from that of the pre-industrial city's urban form. One of the important reasons for this difference, this study argues, lies in the difference of the determinants of their urban form. Analysis of the transformation process of the historic urban fabric of Istanbul demonstrates this claim. It clarifies that major determinants of its urban form during the process were economic and political motives and preferences, which were concretised through technology. Its local system, which is an intricate network of relationships among formative elements such as place and society, was totally disregarded. Consequently, the existing (today's historic) urban fabric was neglected and, moreover, intended to be replaced by the 'modern'. This has caused catastrophic results on its natural and urban environment which are prolonged into the present day. Any attempt to tackle the current environmental problems of Istanbul, and many other Turkish cities, requires first to define the parameters of urban design in its contemporary context. Therefore this chapter will identify and examine the changes to the determinants of urban form within the context of contemporary city.

We argue that the role and significance of various determinants derives from historical experience that has changed over time in shaping of the modern city. In contrast with the pre-industrial cities which expose the reciprocal relationship between man and his environment, industrial cities lack this quality. This is an important reason responsible for the failure of contemporary cities. As is analyzed in previous chapters, the major determinants of urban form such as nature and culture, the conditions of place and society, were disregarded in accordance with the ideology of the new era. Rather, the urban form of the industrial city was shaped by the dominance of economic, political and

technological motives. This analysis have attempted to show that the new urban environment, erected by new design motives, did not generate a better environment whilst destroying the old one. As a result, in many cities, like Istanbul, the panorama of the contemporary city contains two different urban forms and structures. On one side, there are the remaining parts of the pre-industrial urban fabric, now in a state of dereliction; on the other there is the modern city which also has a dichotomy within itself, namely the 'modern' city and the new slum areas. This is the case not only for Istanbul but almost the current, actual image of the so called 'global city', found mostly in developing countries and proceeding to the 21st century with ever increasing problems.

This scene of the present urban environment indicates one of its crucial problems: that is, how to design new urban structures in this scene, particularly in the historic cities which are widely and heavily fragmented. The 'design' problem, today, especially for the developing countries, needs to be considered not only for their architectural and environmental concerns but also because of their 'identity' problem. Therefore, simply to suggest that the new design principles and approaches should consider the two basic and historical determinants of urban form, nature and man, is not sufficient in the context of the scene of the contemporary city stated above.

We argue that the post-industrial scene of the city allows us to suggest that there is a third determinant to be considered in future designs, that derives from their historic urban fabric itself. Therefore any intervention in these cities, such as Istanbul, needs to consider the three determinants of urban form to achieve adequate environmental and architectural qualities of urban fabric and to have a genuine identity. This argument will be clarified through analyzing the major determinants of the historic urban fabric itself that are, we suggest, man, nature and architecture as the determinative factor. Therefore, following the initial understanding of urban form and its formative factors, special emphasis will be given to architecture in the analysis of changing determinants of design, through an historical discourse of architecture in relation to its task and domain.

4.1. ORIGIN OF URBAN FORM

The urban phenomenon appears to be one of the most important features of man's civilisation throughout history. Although contemporary civilisation faces a higher level

of urbanisation¹ than previously known, the phenomenon of the city always had an important place in man's civilisation. Broadbent (1990: 3) indicates the significant correlation between the origin of the word 'city' and 'civilisation'. City derives from the Latin 'civilis' meaning 'befitting a citizen' and also underlines the civilising process which takes place in cities. Civilisation, for Kenneth Clark, is "...evidence that humankind had extended itself to the utmost, mentally and spiritually" (In Broadbent 1990: 3). Probably, therefore, by today's understanding, civilisation has been mostly associated with the great cities, such as those of Roman Empire.

The earliest known cities can be dated back as early as 7000 B.C.; Jericho, an oasis, near the River Jordan and Catal Huyuk in Central Anatolia date back to 6500 B.C and were both dependent on agriculture (Broadbent 1990: 3). Apparently the agricultural mode of production determines the location of these earlier cities which were basically established along the river banks, since this made irrigation more possible. Accordingly ancient cities such as Uruk (3500 B.C.); Ur (3100 B.C.) were situated in between the Tigris and the Euphrates (Mesopotamia); Faiyum (4440 B.C.), Memphis (3100 B.C.) and Thebes (2080 B.C.) in the estuary of the Nile; and Mohenjo-daro (2400 B.C.) in the valley of the Indus (Broadbent 1990: 4). It is maintained by Kenyon that successful irrigation practice requires an elaborate control system which in turn requires "...communal organisation and the beginnings of a code of laws which the organisation enforces" (In Broadbent 1990: 4). The need of such organisation, perhaps, is the very first origin of planning activities in man's civilisation which was, to some extent, reflected in the nature of the foundation of their cities.

Broadbent (1990: 4-5) defines the prominent motives of these earlier cities as; firstly, the separation of the built-up area from the surrounding natural environment possibly by defensive walls; secondly, the development of irrigation systems; thirdly, the development of a power structure in relation to the control of irrigation systems and other aspects of urban life; and finally the development of craft-specialities to serve both the urban population and trade relations. Kostof (1991: 33-34) maintains, on the other hand, there is no single factor responsible for the origin of cities. There are many factors which are relevant to clarify the genesis of cities, such as, "*A positive ecological base; a site*

¹Growth of urban population, increased 175.4 per cent between 1800-1850; 192 per cent between 1850-1900; 228 per cent between 1900-1950 (Beaujen-Garnier 1967: 2).

favourable to trade; an advanced technology that would include large-scale irrigation works, metallurgy, animal husbandry and the like; a complex social organisation; a strong political structure". He adds that, one or more major motives may generate a spawn of towns according to the purpose that the settlement is intended to serve.

However, most likely, the art of designing cities began simultaneously with their foundation, as they were the places of 'organised' society. The city's physical structure was conceptualised by the word, *Urbs*, in Latin, indicating the way in which the city was made physically, ritually and legally (Rykwert 1989: 6). Thus, the design of the urban aspect of a city, in other words, its physical realisation according to multi-dimensional parameters and determinants such as social, economic and cultural life of its society, became one of the crucial activities of man's civilisation.

4.2. TYPES OF URBAN FORM

Studies of urban form (Kostof 1991; Morris 1994) agree that there are two kinds of cities; planned (or regular) and unplanned (or irregular) cities². This applies to the nature of their layout and also the realisation process. The planned cities, in this sense, are set down at one moment according to a determined pattern which is commonly a geometric diagram: this can be named the 'deductive' manner. The pattern can be a grid structure like Miletus or Pirene of ancient Greece or Manhattan in 20th century America; a circle as in Baghdad in the 8th century; or a polygon, like Palmanova in the 16th century Italy. On the other hand, the 'unplanned' cities developed not according to a master plan but through time and in parallel with changes in society which can be named as the 'inductive' manner. Many pre-industrial Muslim and Medieval European towns are examples of this form. They expand piece by piece, therefore with each addition the actual state of the urban form is changed. The city, in this sense, acts like a live entity, not in terms of an organism, but in terms of the development of its structure. This manner of growth results in a irregular urban pattern where the hierarchy among the buildings, streets, open spaces and the preferences of many other variables become the major motives of the 'planning' process. These types of cities were not planned totally before their setting out, but they were 'planned' according to the complex interaction of

²Alexander's (1972: 402) terminology to distinguish two kinds of urban form, as 'artificial' and 'natural' cities derives from the analysis of 'unplanned' pre-industrial cities and the modern urban design applications such as Chandigarh or Brasilia. So it is a classification for critical comparison between these two urban forms but not in the same manner with Kostof and Morris.

their determinants. One would argue that the distinctiveness between these two urban types is not in their form or their character of being planned or unplanned but, initially, in the process of their design and the determinants to be considered.

Kostof (1991: 99) argues, for example, that the grid (the commonest kind of planned city) was applied where the major concern was defense, agricultural development or trade. It appears that it was a practical way to plan new cities which were the means of colonising newly conquered lands, as in the case of Greek colony cities. It served the need of 'fast' city making and was also applied to the reconstruction of the damaged cities. Kostof (1991) points out that the grid was also a result of political motives, used in the case of the most absolutist governments of China and Japan. The grid system was, also, a plan of a proposed political system in ancient Greece, Aristotle informs us this was invented by Hippodamus of Miletus in the 5th century B.C., as a rational method of urban planning (Broadbent 1990: 5; Kostof 1991: 105). In the early Greek colonies the grid was not a democratic device to provide equal properties for the citizens but "*...was the means of perpetuating the privileges of the property-owning class descended from the original settlers, and bolstering a territorial aristocracy*" (Kostof 1991: 99).

The grid, according to Kostof (1991: 102) served two basic purposes, firstly to facilitate orderly settlements in a colonised area, secondly as a means of modernisation, such as the new extensions of many European cities; and it was used for development of urban areas destroyed by fires in Istanbul in the 19th century. A parallel between *rationality* and the *will* to design cities in regular forms, mostly in grid patterns, appears as a striking relationship between man's intellect and his form of life. This would be an interesting subject for a separate study, to see if this relationship is in conflict (as it appears to be), or is in fact the condition of man's nature.

The 'unplanned' urban form of a city, on the other hand, was compared to an organism in the sense of its growth process, its structural logic, its pathogeny and its destiny being subjected to sickness and decay (Kostof 1991: 53). However, Kevin Lynch rightly argues that, "*Cities are not organisms...They do not grow or change of themselves, or reproduce or repair themselves*" (In Kostof 1991: 53). Their growth patterns, indeed, develop according to certain determinants in which man's conditions and desires play an important role. This is to say, their growth and urban qualities are dependent on man, therefore they are not 'spontaneous' but conscious products of man. While the 'planned'

urban form is the product of one particular time and a set of particular valid determinants, unplanned urban form is realised over time in accordance with changes in determinants. The final form is unpredictable and open. We argue that urban form of a city, through time, gains its identity and therefore its authority to lead to new structures. Its 'essence', which is embodied in its streets, houses, monuments and gardens is crucial, we argue; and this becomes one of the important design parameters and therefore determinants of this type of urban form.

4.3. DETERMINANTS OF URBAN FORM

The notion of urban form encompasses three significant components; the architectural elements; its formation process; and a set of determinants which is the *raison d'être* of a particular urban structure. These are the basics of any urban form: therefore any concern about the problems of contemporary urban design, such as a proposal for a positive solution from the analysis of urban issues, must come from the point of view of these determinants.

Observation of cities shows that the design principles of urban form derive from the cultural, economic, social, political structures of society and the conditions of the natural environment. However, hierarchical preferences among these determinants differ according to the state of man's civilisation and its ideology. The great differences that exist between the pre-industrial and industrial eras help to demonstrate this view.

Studies (Kostof 1991; Morris 1994) about the urban form indicate that there are, particularly for pre-industrial cities, two major determinants for both unplanned and planned cities. These are classified by Morris (1994) as the natural world and the man-made world. The natural world, (the conditions of 'place') are, basically, climate, topography and available construction materials. We would add to this classification the geographic location, which was often significant: for instance, Istanbul, due to its strategic location sustained its importance for trade but was also the capital city of successive empires. Being a prestigious and representative city of the empires resulted in the construction of major monumental buildings as the symbols of splendour and wealth which, taken together with its topographic characteristics, created the majestic silhouette of pre-industrial Istanbul.

The man-made determinants refer to the form of the society and the individual. They consist of commercial, administrative and religious structures, pre-urban cadastre, defence, aggrandizement, the planning system, urban transport, city legislation, urban infrastructure, aesthetic considerations, social, religious and ethnic groups.

The impact of man in forming the city can be seen clearly in Istanbul's urban history. Different cultures, having diverse understandings of urban environment, shaped its urban form accordingly. During the Roman Empire the city had classical urban elements of a Roman city such as a hippodrome and forums. Following the conquest, the city was gradually transformed into a Islamic-Turkish city which is strongly embodied in its urban vision and form. On the other hand, its multi-ethnic social structure was reflected on its urban fabric with identifiable quarters of various ethnic groups such as Muslim, Greek, Armenian, Jew and Latin.

Variety in the urban forms as seen in the historical perspective suggests that in each unique case some of the determinants have a primary importance and role. And the design decisions therefore, derive from a selection of these determinants. Holford (1965: 16) supports this argument when he says that:

"...design is a process of selection among a host of variables, so as to produce unity, impact, symbolic significance, and permanent cultural value".

This, in turn, suggests that there is a hierarchy among these elements and a varying combination of them helps to create original urban form. For instance, the Mesopotamian cities, analyzed by Morris (1994: 21) demonstrate the roles played by the climate, the pre-urban cadastre and urban mobility. In this region, the distinctive urban element was the courtyard, which combines climate with social, cultural structures and is still evident today, in spite of major shifts in religious and social structures.

Another example to support our argument can be derived from ancient Greek cities in which Man is claimed to be the measure of everything, in contrast to today's perception of city which is almost made up of the fabric of buildings transformed by roads and squares. It is meaningful to convey the word of Nicias to the Athenian soldiers on the beach at Syracuse;

"You are yourself the town, wherever you choose to settle...it is man that makes the city, not the walls and ships without them"
(Quoted in Rykwert 1989: 23; Kostof 1991: 37).

The superiority of man, as the individual and society as a community as opposed to the material world created by him, is evident in the above words. This suggests that people are the major determinants of their cities. A similar suggestion was presented, in another example by Protagoras stating that,

*"Man is the measure of all things
of the existence of the things that are
and the nonexistence of the things are not"*
(Quoted in Doxiadis 1972: 2).

The unity of man and his environment is presented, once more, by the Doxiadis' analysis on *Architectural Space in Ancient Greece* (1972). From the results of his investigation, he suggests that the ancient Greeks arranged their cities according to principles of human cognition by which uniform system was employed in order to dispose of buildings in the available space. He claims that this system was actually "...a theory of city planning" (Doxiadis 1972: 3). However, the system was unknown to them, as the layouts of buildings were not designed on a drawing board (Doxiadis 1972: 4). In fact, he argues, they were "...developed on a site in an existing landscape, which was not subject to the laws of axial coordinates" (Doxiadis 1972: 4). Therefore, in the erection of ancient Greek cities the determining factor of urban design was the human viewpoint (Doxiadis 1972: 5) which he attempted to prove through the spatial analysis of several ancient Greek cities. Apparently, the other determining factor was the existing environment since the layout of buildings were developed on a site in an existing landscape.

Another study focusing on the urban form of ancient cities that attempted to understand the original reasons and motives of city form is presented by Joseph Rykwert (1989), on the urban form of Rome and the ancient world. In his extensive and detailed analysis, he concludes that the ancient towns were symbolic patterns conceived in mythical and ritual terms. The city was organised according to divine laws. In evidence he states that;

"It is difficult to imagine a situation when the formal order of the universe could be reduced to a diagram of two inter-secting coordinates in one plane. Yet this is exactly what did happened in antiquity: The Roman who walked along the cardo knew that his walk was an axis round which the sun turned, and that if he followed the decumanus, he was following the sun's course. The whole universe and its

*meaning could be spelt out of his civic institutions -
so he was at home in it"*
(Rykwert 1989: 202).

Hence the myth, as the major determinant of their urban form, was in a way a 'reminder' of the city that is now a pattern or texture in the contemporary city. This can be interpreted as a means of 'reading' the city; to be known to its citizens as a 'legible' one that shows that they, the made, and the maker were in the same 'system'. These analyses of ancient cities indicate the correlation between man and nature which shaped the cities throughout history. However these determinants are the factors which provide the indications of *what* and *why* to build rather than *how*. The latter concern, however, signifies the *agent* that has to respond this question. This will be the subject of the following discussion.

4.3.1. Determinative Factor of Urban Form: Architecture

The inevitable relationship between man and his environment is an historical phenomenon in the process of civilisation. This relationship between nature and man becomes evident to us as the relations between the natural and the man-made environments. Schulz (1980: 17) defines this relationship in three major ways. Firstly, man wants to make the natural structure more precise in order to visualise his 'understanding' of nature in what he builds. Secondly, he complements the given situation by adding what is 'lacking'. Finally, he symbolises his interpretation of nature through the forms of another medium and it becomes a 'cultural object'. Therefore, man:

*"...is an integral part of the environment, and that it
can only lead to human alienation and environmental
disruption if he forgets that. To belong to a place
means to have an existential foothold, in a concrete
everyday sense"*
(Schulz 1980: 23).

This 'relationship' is evident to us through tangible and intangible forms of culture in which architecture plays a crucial role. With Heidegger, we understand architecture as a manifestation of man's being-in-the world, and therefore "*...it is not a series of arbitrary 'codes', but an existential foundation*" (Schulz 1991: 99). In other words *architecture is the name of man's endeavour to engrave his existence in the universe*. Thus, any man-made environment which already relates to man and nature, becomes 'identifiable' through architecture. In this sense, architecture brings into being overlapping entities; the results of man's existence through social, economic and political means according

to parameters of time and space. It embodies them in the physical, man-made environment as the 'cultural manifestation' of society. Thus, architecture 'links' these entities and provides for them a 'place' to act in during the process. In other words, the relationship is concretised through architecture.

This discussion leads us to accept that there are not only two, as Morris (1994) suggested, but three determinants of urban form: man, nature and architecture. Rossi rightly pointed out this fact that "...*architecture becomes a determining factor in the constitution of urban facts when...it can be judged as style...so style becomes the major determinant of urban form*" (In Broadbent 1990: 169). We argue, however, that architecture is a more appropriate term than style to define the significant formative factor of urban structure. Also, architecture may be included in the man-made determinants, since it is the result of man's condition of existence. But here it will be mentioned as the third determinant in order to emphasise the characteristic of being the 'joint' between man and nature.

In fact, this property of being 'joint' suggests that architecture is the agent of determination, or formation: it is a *determinative factor*. This can be explicitly seen in the transformation process of Istanbul's urban fabric. The changes which occurred in the political, economic, social, cultural spheres of the country were reflected on the city's urban form by the changes in the architecture through new styles, types and open spaces. Thus architecture was not a determinant affecting the built environment, but was the *means* to transform it.

The correlated relationship between these three motives is embodied evidently in the historic urban settlements where they have formed a distinctive, adequate and responsive environment with architectural qualities. However, the argument about the authority of architecture as a determinative factor of urban form needs profound investigation which will be undertaken below.

4.3.2. Inquiry for the Authority of Architecture as Determinative Motive

We have argued that architecture is the determinative factor which shapes the urban form. This property provides an authority for architecture to form the man-made environment according to certain determinants and their combinations. It is pertinent to ask why architecture has this authority. We would suggest firstly, because it is a form

of expression serving physical, psychological, aesthetic needs of human beings. This argument suggests that its most significant properties are its aesthetic and social aspects. These features were discussed in the historical discourse on architecture. We will attempt here to draw out an essential understanding of the task of architecture that defines its authority to be the most important determinative factor.

The dual quality of architecture between its technique and artistic characteristics led to a discussion in which its property as an art form focused on suggesting that this is the first parameter to be considered in order to describe architecture. In this sense, John Ruskin described architecture as:

"...(where) there are but two conquerors of the forgetfulness of men, Poetry and Architecture; and the latter in some sort includes the former, and is mightier in its reality"
(Ruskin 1899: 324).

His idea can be supported by Martin Heidegger's argument on poetry and architecture. He states that "*Poetry speaks in images*", and, he continues, "*...the nature of the image is to let something be seen*" (In Schulz 1991: 98). In this sense poetry serves life, and "*...enables man to realize the scope of his being-in-the world: to 'dwell poetically'*" (Schulz 1991: 98). However, the art of poetry can only bring truth 'to word' but truth also has to be 'set-into-work' (Schulz 1991: 98-99). This, according to Heidegger, is the task of architecture which, as an art, is the means to make human life between earth and sky 'visible' (Schulz 1991: 99). Heidegger expresses that:

"The buildings bring the inhabited landscape close to man and at the same time places the nearness of neighbourly dwelling under the expanse of the sky"
(In Schulz 1991: 99).

Similarly Bruce Allsopp (1952) describes architecture as a form of art and art is the only way to express emotions. He bases his ideas on the work, *The Principles of Art*, written by R.G. Collingwood who maintains that art is essentially a language stating that:

"The aesthetic experience, or artistic activity, is the experience of expressing one's emotions; and that which express them is the total imaginative activity called indifferently language or art"
(In Jarvinen 1992: 10).

Allsopp argues that the artist expresses everything in relation to himself (Allsopp 1952: 10). "*The architect is concerned with his feelings about the shapes of things, solidity and*

strength and structure, with the way men work and eat and sleep and play, and with the colour of things" (Allsopp 1952: 10). The works of architecture then become the representation of these expressions.

Le Corbusier (1946), one of the pioneers of modern architecture, describes architecture as the art above all others which achieves a state of platonic grandeur, mathematical order, speculation, the perception of harmony, that lie in emotional relationships. For him this is the aim of architecture. He argues:

*"...when a thing responds to a need, it is not beautiful
but it satisfies only one part of our mind without
which richer satisfaction is not possible"*
(Le Corbusier 1946: 102).

He distinguishes the purpose of construction which is to make things hold together, and the purpose of architecture which is to *move us* (Le Corbusier 1946: 23). He declares that architecture is a 'thing of art', a 'phenomenon of the emotions', a 'matter of harmonies' and a 'pure creation of the spirit' (Le Corbusier 1946: 23). Since architecture is a 'matter of plastic emotion' for Le Corbusier, it should use those elements that are capable of affecting our senses, and of rewarding the desire of our eyes, and should dispose them in *such a way* that the sight of them affects us immediately by their delicacy or their brutality, their riot or their serenity, their indifference or their interest (Le Corbusier 1946: 20). He supports his conceptual argument by examples, that are agreed worldwide and by himself, as architectural master pieces, such as the Towers of Babylon, the Parthenon, St. Sophia and the Mosques of Istanbul (Le Corbusier 1946: 32).

However, he actually declares architecture through his definition as an autonomous and self-thing, *"...a thing which in itself produces happy peoples"* (Le Corbusier 1946: 19). For him, *harmony* is an essential property (constituent compound) of 'happy town' that derives from natural law and the engineer, who proceeds by knowledge and holds the truth, and can produce it through mathematical calculation (Le Corbusier 1946: 19-20). At this point, architectural skills differ from engineering skills that focus on function, material, technique and construction. Architecture differs even from arts which are already necessary compounds of architecture. Then it becomes a matter of plastic emotion which should move our sensations (Le Corbusier 1946). He states:

*"Architectural emotion exists when the work rings
within us in tune with a universe whose law we obey,*

recognize and respect. When certain harmonies have been attained, the work captures us"
(Le Corbusier 1946: 23).

The understanding of architecture by Ludwig Wittgenstein, philosopher and architect, recalls Le Corbusier's expressions stressing the special task and ability of architecture. For him,

"...architecture immortalizes and glorifies something, hence there can be no architecture where there is nothing to glorify"
(Wittgenstein 1980: 69).

Architecture is a gesture among the purposive movement similar to the human body, and therefore *"...no more is every building designed for a purpose of architecture"* (Wittgenstein 1980: 42). He further emphasises its artistic character, not in terms of an art object but the process of its creation. He likens it to philosophy stating that *"Working in philosophy - like work in architecture in many respects - is really more a working on oneself. On one's interpretation. On one's way of seeing things"* (Wittgenstein 1980: 16). Therefore *"...the impression one gets from good architecture, that expresses a thought"* (Wittgenstein 1980: 22).

Seeing architecture as an art stresses one of its qualities as being a subjective creation to fulfil the aesthetic expectations of human kind. This discussion suggests a way of seeing architecture as a form of art, which is simply an expression that can be interpreted as identifying the spiritual world of human nature. While, for example, music employs its indigenous means and vocabulary to fulfil aesthetic expectations in the sound world, architecture is entitled to employ its own means and methods for another *identifiable form of expression*. Its character of being *identifiable* is the crucial aspect of its definition. Although an architectural product, to some extent, is a subjective and individual creation of an architect, it becomes *meaningful* only when it can be identified by the society. Then the individual and artistic activity becomes actual and collective.

At this point Semper (In Anderson 1982) introduced a multi-dimensional and more complex understanding of architecture, and argued against the reduction of its significance to a mere formal quality. He emphasised social need as an important determinant of form. Thus he indicated that architecture is a product of social agreement rather than a private enterprise or individual pleasure. By emphasising the reciprocity between the maker, the object and society, he also indicated the subjective quality of the

object in its production and evaluation process. From his argument, one can derive a new meaning of *beauty* (or aesthetic) which is the *formal agreement of society about their artificial and natural surroundings according to varying parameters such as place and religion*. And this agreement is not only expressed in the built environment but in every sphere of culture in which artifacts are accordingly formed.

Following Semper's interpretation of architecture which avoids formalism, Adolf Loos, one of pioneers of modern architecture, sees beauty as an honest relationship between form and construction. For him architecture "*...is a building and only a small part of architecture belongs to art*" which are monuments and tombs (In Mack 1984: 18). As a similar approach to Semper, for Loos architecture is silent, serves collective and social needs, and must, above all, relate to comfortableness (Mack 1984: 18). He further emphasised the social character of architecture comparing it to an individual property of art. A similar attitude was presented by Heinrich Tessenow who stated if a building is finished and you don't recognize the architect in it, then it is right: the goal is to make the architect superfluous (Mack 1984: 18). Thus one of the basic properties of architecture, its social aspect, was also pointed out. Indeed, architecture can also be understood as the *mediator* of collective agreement of a society in response to a way of life.

In the Age of Reason, the discourse to define the origin of architecture focused on the primitive hut, perceiving this as the first structure from which architecture has flourished. Unlike other theorists, Gottfried Semper interprets the primitive hut from a different perspective, with an anthropological approach (Anderson 1982: 117). He proposed that the hut consisted of four elements, the hearth, the platform, the roof and the enclosure, which were the four basic elements of architecture. However, these four elements were not taken as mere physical entities or as a model for a single true architecture by Semper, whose perception of the hut, unlike Laugier, is a use-type, in the service of man physically and spiritually, as a bearer of social meaning (Anderson 1982: 113). Giving a social dimension to the hut and therefore to architecture, he interprets it as:

"...a reference demonstrating the principle that architecture serves human needs with materials having specific characteristics. These needs, materials and techniques exist in a social and historical context and are constantly changing"
(Anderson 1982: 114).

Thus for Semper, the hut is neither a fascinating remote object nor an ideal model from which to derive rules about specific forms (Anderson 1982: 114). Each work is a representation of the basic type tied to *human need and making*. According to Semper, the art form does not merely express the reality that is formed through the medium of materials and material needs, but there is a reciprocity between the maker, the made and the society of which they are parts (Anderson 1982: 116). They interpret original types according to their own conventions. In this regard, for Semper, an object can be and must be read and interpreted as a text, keeping in mind the changes. It is declared by Semper that:

"...all artifacts are documents"
(Anderson 1982: 16).

It can be seen that Semper's view, unlike the former discussion on architecture, focused on the actual work in its contexts of history and convention. In this theory, the primitive hut, the representative of use-type was a normative reference rather than a source of authority seen through the complex cultural screen of a later time.

Hence the objective and measurable parameters such as properties belonging to construction, the need, condition of the place, historical background and experiences of the society, social, economic and political factors, cultural values and preferences are the main factors that determine the realization of the architectural product for a society. Accordingly, architecture can be seen as being an expression of the unique blending of these factors. These multi-dimensional inputs are merged in order to create architecture. However, the question of *how* to merge is simply the subject of architecture. Thus architecture, in our understanding, is a *skill* which not only involves the formal language and composition of individual products but also the spatial order of the product and the environment. Although architecture is not merely an art, as supported by Le Corbusier or disclaimed by Loos, it includes art. Aldo Rossi (1983: 17) stated that:

"Architecture is a creation inseparable from life and society" and its basics "...lie in the creation of a space for comfortable life, together with aesthetic intentions".

Architecture and its purpose cannot be defined by other disciplines or merely the combination of them. The combination of determinants should be distilled or refined through a discipline and be able to produce a consistent structure. At this point, architecture declares its autonomy although *"...it was born out of need"* (Rossi 1983: 25). It is engaged with all the disciplines relevant to the built environment but at the same

time it is detached. It becomes a conscious, abstract means that is *skill*. This simply stated by an Ottoman chronicle of 16th century, Sai Mustafa Celebi, in his book on Mimar Sinan,

*"Cihan tamirine olmasa mimar,
Yapılmaz yaliniz tas ile divar"*
(In Sonmez 1988: 80).

Translated, this means that if there is no architect to build (or repair) the world, one cannot build a wall merely of stone that declares the authority of architect, therefore architecture is invented to form man's environment.

In this way architecture gains the authority to organise the relationship between man and existence both physically and spiritually. It forms a system itself. It is universal in its essence; it is the common ground of all man-made physical environments. Schulz (1980: 4) supports this argument by stating that:

*"There are not different kinds of architecture, but only
different situations which require different solutions in
order to satisfy man's physical and psychic need".*

Its quality does not depend on individual architects who actually represent the skill of their time and culture, but the collective consciousness of society and collective knowledge of architecture formed over a long time span, the *architectural culture*. It is the seam between nature and man's nature. It is the result, rather than reason for man's nature. Therefore, its main task is to constitute a common language in society; an agreement. Hence architecture can only be defined in the sense of its 'task' rather than its 'aim'. While the term 'task' indicates its universal role and responsibility in shaping the 'place' for man, the term 'aim' has a relative and subjective character. In our understanding the task of architecture is to fulfil one of man's needs, that is to have a 'place' in the universal space that has a quality of time. This definition suggests that man is the focal point of architecture not as a consumer or a figure but as the scale, a physical and psychological entity. Hence, the understanding of architecture is very much dependent on the characteristics of man. With Wittgenstein:

*"...the beast lives only in the present, man lives in
time but only man can grasp that space and time are
no more than his consciousness and thus reach the
notion of the whole given world in time and space"*
(In Griffiths 1973: 99).

Here, man can be defined according to his conception of time and space which becomes 'place' for man through architecture. Heidegger understands architecture as a manifestation of man's being-in-the-world, and therefore *"...it is not a series of arbitrary*

'codes', but an existential foundation" (Schulz 1991: 99). In other words, architecture, is the other name of *man's endeavour to engrave his existence in the universe*. In this way architecture has the authority to form the 'joint' between man and nature. This relationship comes through in an identifiable form by architecture. In this sense it is not determinant but it is rather the *determinative* factor of urban form.

4.4. TRANSFORMATION OF DETERMINANTS

The above argument suggested that architecture links man and nature and its main task is to create 'place' for man through its understanding of this correlated relationship. However, the modern era witnessed that this link was disrupted in regard to its essential meaning. Architecture of the modern era detached itself from nature, traditional culture and the past and therefore from the already existing urban environment, as discussed in previous chapters. New determinants of design derived from the new conditions of man's civilisation and economic, political preferences that became major motives to generate design. In this section we will try to provide an insight into the transformation of these design parameters through a historical discourse on architecture. This will enhance our previously stated arguments that architecture, as a determinative factor of urban form indicating changing ideas and approaches in defining the parameters of design, has resulted in changes in the qualities of the urban environment.

4.4.1. Parameters in Early Architectural Design Theories

It is possible to state that architecture is one of the oldest activities of man in the time he has dwelt on the earth. There is not enough evidence to demonstrate the earliest thoughts and understanding of the parameters of architecture but the oldest known 'theory' dates back to antiquity conveyed by Vitruvius (Schulz 1963: 91). From his writings, Schulz (1963:91) maintains that "*...we encounter the idea that harmony presupposes the repetition of a module, in such a way that all the parts of a building are brought into simple numerical relations with each other*". Indeed, Vitruvius (1962, Vol.1: 159) implies that Greek temples were planned according to a symmetry that arises from proportion. Obviously the human body was the source of this proportional system in which:

"Proportion consists in taking a fixed module, in each case, both for the parts of a building and for the whole, by which the method of symmetry is put into practice"
(Vitruvius 1962, Vol.1: 159).

Without symmetry and proportion, temples could not have a regular plan "...that is, it must have an exact proportion worked out after the fashion of the numbers of a finely-shaped human body" (Vitruvius 1962, Vol.1: 159). The numbers were helpful to define the architectural order but were not important by themselves and, "*The numerical relations became meaningful as manifestation of the order inherent in nature, as known from the study of the human figure and the celestial bodies*" (Schulz 1963: 91). Thus the first known 'architectural theory' accepts its 'scale' as the human body and adopts an order from it. Ironically, thousands of years later, this study suggests that the principal scale of architecture needs to be derived from the size of human body. This is not to recall past splendour, but a logical and rational result of negative experiences of the Modern Era through which human nature was overwhelmed by its material achievements.

The first known treatise on architecture clarifying its task and parameters was written by the Roman architect and engineer, Vitruvius³, namely *De Architectura*. He presents us with the earliest description and understanding of architecture. For him, architecture consists of order which, "*...is the balanced adjustment of the details...the arrangement of the proportion with a view to a symmetrical result*" (Vitruvius 1962: 25). He divided his work into ten books dealing with varying subjects, from general requirements for towns and buildings, to techniques of construction and hydraulic engineering. His major concern was to focus on the individual building and he attempted to grasp the essence of their success through a technical approach. He states in his historic books that the architect should be equipped with various skills. First of all he should be able to use his hands, that is craftsmanship; he should have good knowledge of technology and also he should be a man of culture without which he cannot gain prestige solely by manual skills (Vitruvius 1962, Vol.1: 7). He further gives details of the skills that architects should have:

"...both a natural gift and also readiness to learn. (For neither talent without instruction nor instruction without talent can produce the perfect craftsmen.) He should be a man of letters, a skilful draughtsman, a mathematician, familiar with historical studies, a diligent student of philosophy, acquainted with music;

³The treatise was probably written before 27 BC., and during the first century AD. it seems already to have been a standard work. It was rediscovered after 1414 by Poggio Bracciolini, an antiquarian, in the library of the Monastery of Montecassino, in the vicinity of Rome. The text was reprinted in Rome between 1483 and followed by numerous editions (Jokilehto 1986: 13).

not ignorant of medicine, learned in the responses of Jurisconsult, familiar with astronomy and astronomical calculations"
(Vitruvius 1962, Vol.2: 7-9).

Thus, architects, for him, should be equipped with many *skills* as well as *knowledge*. His description suggests that an architect should be aware and able to comprehend almost all the knowledge that is related to the production of the built environment. The multi-dimensional character of architecture thus finds its roots in earlier times and this supports our argument that architecture links man and nature through a comprehensive understanding of both entities.

The *Ten Books on Architecture*⁴ by Leon Battista Alberti (1404 - 1472), being the first treatise on architecture after Vitruvius, contains the first major theoretical statement of the autonomy of architecture. Alberti, before starting his discussion, describes the architect, and therefore architecture, distinguishing him from the craftsmen and stresses his multi-dimensional duty. He states that an architect,

"...who by sure and wonderful reason and method, knows both how to devise through his own mind and energy, and to realize by construction, whatever can be most beautifully fitted out for the noble needs of man, by the movement of weights and the joining and massing of bodies. To do this he must have an understanding and knowledge of all the highest and most noble disciplines. This then is the architect"
(Alberti 1989: 3).

He argues for the autonomy of architecture at the beginning of the book, where he proclaims the independence of architectural form:

"All the intent and purpose of lineaments lies in finding the correct, infallible way of joining and fitting together those lines and angles which define and enclose the surfaces of the building. It is the function and duty of lineaments, then to prescribe an appropriate place...Nor do lineaments have anything to do with material, but they are of such a nature that we may recognize the same lineaments in several different buildings that share one and the same form, that is, when the parts, as well as the siting an order, correspond with one another in their every line and angle"
(Alberti 1989: 7).

⁴The book was written in Latin between 1443 and 1452, but published after his death, in 1485. The first Italian edition dates from 1550. He used other authors such as Vitruvius, Plato, Aristotle and Thucydides. Besides he travelled in central Europe and Italy, especially in Rome (Jokilehto 1986, Vol.1: 15).

He had expressed earlier the idea of building as a representative of cultural values as well as an urban generator (Argan 1969: 26). For Alberti, architecture should fulfil three main requirements: function, structure and aesthetics. To him, architectural forms are seen as products of formal norms whose ultimate warranty is the pleasure of the viewer. In the treatise, there is a compromise between the utilitarian and aesthetic norms. While it states the strong utilitarian point of view that is represented in buildings, it also states that the solution must be "*...as elegant as it is practical*" (Alberti 1989: 28). It also states the aesthetic concerns, as well as historical references that, "*...work would be not only appropriate to its use and structurally sound, but also delightful in appearance*" (Alberti 1989: 25). He continues, "*...we admire the beauty we see, rather than the utility that we recognize*" (Alberti 1989: 155). He further describes beauty:

"...is that reasoned harmony of all the parts within a body, so that nothing may be added, taken away, or altered, but for the worse. It is a great and holy matter; all our resources of skill and ingenuity will be taxed in achieving it" (Alberti 1989: 156).

He therefore declares that the ultimate achievement of architecture should contain aesthetic values, then the production could be named as architecture.

A comparison between the two approaches reveals a diversity in their sources for understanding of architecture. Vitruvius examined and codified buildings and theories of the preceding periods of the Hellenistic architects of Asia Minor and the Greek mainland (Rykwert 1989: ix). He ordered the elements of the design of columns. His examples for this analysis were actual, as they could be seen in Rome and in the colonies of the Empire (Rykwert 1989: x). However, Alberti's theory, except for a surviving few examples of antique buildings, was derived from ancient literary sources or from places difficult to access or already in ruins (Rykwert 1989: x). Thus, their difference of sources resulted in fundamentally different theories between Alberti and Vitruvius. While Vitruvius tells one how to admire the buildings which were built, Alberti provides prescriptions for the future designs of buildings, based on *reconstruction* of earlier experiences. His ideas may be counted as the first architectural theory. In this one can clearly see that the basic parameters of architectural design are defined according to the condition of man and his environment.

4.4.2. Rationalisation of Architectural Design

Following Alberti, in the 18th century, in France, the teachers at the Ecole des Beaux Arts attempted to define Architecture in the new age, the Age of Reason, from when the roots of rational architecture can be traced. Claude Perrault (1613 - 1688) a mathematician and architect was concerned with the definition and implementation of architectural theory (Perrault 1993). Perrault asserted, as opposed to Vitruvius and Alberti, that proportions are barely perceptible, and therefore in his theory, architectural beauty had two constituting elements; *positive beauty* and *arbitrary beauty*. While positive beauty derived from size, magnificence, symmetry and fine materials, arbitrary beauty was derived from social agreement about beauty and depended on proportion derived from custom; and they both were absolutely essential for excellent architecture. It is the latter which is the architects' main task; this distinguishes the ability of an architect from others. This idea was supported by Hume who states that,

"Beauty is no quality in things themselves: it exists merely in the mind which contemplates them; and each mind perceives a different beauty"
(Quoted in Schulz 1963: 92).

Although Perrault pointed to the relativity of architectural propositions, the examples of 'good architecture' with their 'good proposition' derived from prototypes of Imperial Rome. For him, grand modern architecture had to recover these qualities of ancient buildings.

In 1752, Francois Blondel, a mathematician and architect, stated that *"...good architecture was inseparable from reason"* and redefined architecture in terms of construction rather than decoration (In Mack 1984: 16). The purpose of architecture was:

"...to construct solid edifices by employing exact quantities of selected materials and setting them into position with skill and economy"
(In Collins 1965: 204).

He believed that the existence of natural beauty was derived from mathematical or geometrical propositions. Therefore, harmony established by proportional agreements was the source of the true pleasure and meaning in architecture and the classical Greek order was a return to an idealized past, where pure order prevailed (Mack 1984: 17). Blondel, at this point, disagreed with Perrault who argued that beauty might be ultimately the result of custom. On the contrary, for Blondel, geometry and mathematics assured beauty. In opposition to Blondel's unconcern of the subject (man), Pierre Nicole, in his attempt to define architecture, argued that beauty is dependent on the relationship

between object and subject because beauty belongs to the *nature of things* and also to the nature of man; that it was not *mutable* and *transient* but rather appropriate to the taste of all epochs (In Perrault 1993). He stated that, "...*there is nothing so bad as to be to one's taste, and nothing so perfect as to be to everyone's taste*" (In Perrault 1993: 32). Seemingly, the discussion on architecture concentrated on one of its motives; that is beauty, the aesthetic aspect of the architectural product.

Another idea for the rational understanding of architecture was put forward by Marc-Antoine Laugier, who criticised the classical orders and proposed a return to the 'primitive hut' from which the origin of the architecture can be grasped (Anderson 1982: 111). It would provide a structural prototype from which structural tradition, as a pure response to the laws of nature, would be grasped. For him, beauty relied on the essentials of the hut which are: the column, the entablature and the pediment and any addition to those essentials was a diminution of beauty. For Laugier, the only road to beauty was keeping these essentials simple and natural. The hut was a device for teaching the fundamental principles of architecture (Anderson 1982: 111). His hut, as the essence of a building, was a symbol of architecture that contained the principles on which architecture should be founded: symmetry, balance and structural honesty (Mack 1984: 17). However his ideal hut, which does not have a floor, roof or enclosure did not constitute a real hut. It is a projection backward in time of the classical temple front. His suggestion reveals his understanding of architecture as a 'decorative' or formal one rather than 'spatial'.

The figure of the hut, the pure, primitive form of architecture sustained to be an influential motive in the thinking of Quatremere de Quincy, as well. Yet his understanding and presentation of the hut diverged from Laugier. His conceptualised idea of the hut was merely a symbol of purity and truth as the basics of architecture. He divided the hut into two main concepts; type and model. While, for him, model was an 'object' which should be repeated as it is, on the contrary the type is an object after which each (artist) can conceive works of art that may have no resemblance (Anderson 1982: 112). Thus, by understanding the forms of various buildings in the history of architecture through science and philosophy, their type and their common origin can be discovered (Anderson 1982: 112). Quatremere, being committed to Greek Classicism argued that the hut was the 'type' of the Greeks. However, for the first time in the rational discourse of architecture, he spreads the sphere of interest by suggesting that the type of hut, and

its variants, was the origin and primitive cause of architecture of many cultures, including non-western ones.

Viollet-le-Duc, who was also another influential architectural theorist with a rationalist approach, addressed the issue of the origin of architecture (Viollet-le-Duc 1990: 24-25). For him, the hut demonstrates the beginning of architecture when rational planning and process were applied to fulfil the need for shelter. His fictional hut, initially, had an enclosure and a floor which endorses the very basic elements of an identified human space in the natural environment.

All these attempts, mainly in the Enlightenment period of Western culture, to determine the principles of architecture were not only an attempt to understand and to define the discipline, taking references from its products of the past, but also an attempt to define and assure the future forms of architecture according to qualities and principles of the 'idealized past' of the Classic Greek and Roman periods. At this point, it is possible to assert that this is the outcome of subjective and relative choices within a very narrow frame of the world as well as within a chosen section of time, given the varieties in the world throughout history. In addition, these thoughts emphasised merely the form of architecture, seeing the products as independent objects isolated from their surroundings, their formation conditions, their determinants such as social, economic, political and cultural structures, and the place. Thus the changes in the determinants of architecture and gradually the urban form are rooted in this discourse, which is developed further by Viollet-le-Duc in the 19th century when radical changes occurred in the all the structures of man's civilisation.

4.4.3. New Parameters of Architectural Design

As mentioned, one of the significant figures in the discourse of architectural design was Eugene Viollet-le-Duc (1814-1879), whose name has also been linked with the restoration theory of the 19th century. He published his historical essays and continued to write others, which were collected and published in 1863, known in English as *Discourses on Architecture*. He discerned, in the history of architecture, three important models; the Greek doric temple, the complex structures of Romans, and the Gothic cathedrals of medieval France. Once more, a new theory of architecture was to flourish from the analysis of previous, (but selected), experiences. However his intention in knowing about the architecture of the past was not to imitate forms but to learn

principles. Following the analysis of earlier experiences, he generated his theory of architecture in which new determining factors of architectural design emerged and led to the forthcoming era's discussion on the priorities of design. Underlying principles of his theory were the rational method of design and the importance of function. For him, there are two distinct elements, in architectural art to be considered;

"...necessity, to which we must submit, and the work of the artist's imagination"
(Viollet-le-Duc 1990: 197).

These words can be seen as the nucleus of modern architecture. Although he stresses the artist's imagination, the design of building, for him, must be the result of a rational method rather than the realisation of a preconceived image and the arrangement of spaces should fulfil the programme (Viollet-le-Duc 1990: 12). This procedure must start with the plan and continue with the structural and material responses and end with the facade. Thus, the aesthetic elaboration is to be determined by functional necessities.

He also reconsidered the elements of design. He announced, much before Le Corbusier (1971) that:

"Geometry is part of everything, and is met everywhere, and is the great mistress of nature: Therefore one must learn it, if one wishes to observe and comprehend the works of creation"
(Viollet-le-Duc 1990: 134).

He also disagrees with the idea of harmony underlying the proportional appropriateness of elements and argues that it is, "*...the exact agreement of form with function, and it is in this that science necessarily cooperates with art*" (Viollet-le-Duc 1990: 137). He maintains that a beautiful building is necessarily rational and harmonious, therefore, symmetry is no longer necessary and in fact it, "*...is one of these unhappy ideas to which we sacrifice our well-being*" (Viollet-le-Duc 1990: 196).

Evidently, his ideas became the pervading beliefs of modern architecture. Many of the founders of art nouveau, such as A. Gaudi and V. Horta, and early modernists like A. Perret, Le Corbusier, L. Sullivan and F.L. Wright were influenced by his ideas. These architects and others were inspired by his ideas in many ways. For example, F.L. Wright emphasises the organic nature of his designs, while Le Corbusier based his designs on Viollet-le-Duc's metaphor of machine, which ended up as the slogan of the early modern architects; *a house is a machine for living in* (Viollet-le-Duc 1990: 14). He also influenced the contemporary conservation movement which became so important later

in the post-modern era. Thus his ideas, ironically, inspired both the applications to destroy the past heritage in the favour of the 'new', and also the later movement to protect them.

The historical discourse on architecture exposes that design parameters of varying theories and approaches originated from their determinants. For example, Man was so important in making the built environment in the ancient world, basic design principles such as proportion, harmony, symmetry were identified according to the human body. On the other hand, the new parameters such as geometry and function were introduced to architecture to be the primary concern of design in accordance with the spirit of the 19th century in Europe. The new parameters of architectural design eventually influenced the urban design approaches and transformed its determinants and inspiration sources accordingly.

4.5. PARAMETERS OF MODERN URBAN DESIGN

The radical change from the pre-industrial state to the industrial one in civilisation introduced new relations and formations to society. The industrial era required an urban environment according to its own conditions. Together with the transformation in architectural design initiated principally by Viollet le Duc, a search was carried out to establish a 'new' set of rules to determine the industrial city. The planning applications in most European cities, such as Paris, initiated the destruction according to the authority of recent determinants in making the 'modern city'. Observation of these applications proves that political and economic preferences were dominant factors regardless of the existing built environment. Thus the degradation of the adequate urban environment became visible, at first by the destruction of the existing built environment, which, we argue, is one of the major determinants of urban form.

New developments were objected to as early as 1889 by Camillo Sitte (1965) who criticised modern city planning for becoming an almost purely technical concern, and urged the reestablishment of urban design as an artistic enterprise. Alternatively, in 1898, Ebenezer Howard (1965) suggested a more compromising solution to the increasing problems of the industrial city: the Garden City, allowing the industrial development in the city within limited borders, but also providing a pleasant surrounding built environment. He attempted to establish the principal outline of new towns, aiming at the improvement of their environmental qualities. He suggested the integration of

industrial towns into their surrounding natural environment, as called by English architect J.B. Papwarth, "...*rural towns*" (Quoted in Giedion 1967: 784). The idea was, also, to limit the growth of towns by a 'green belt' as the greatest outside circle of the set of concentric circles of a town (Howard 1965). However, the idea, at best, resulted in the creation of new suburban settlements, mainly by Cooperative Societies (Giedion 1967: 784).

Search for an adequate response to the need to accommodate the industrial life in the city increased. Following Howard's idea of the Garden City, Tony Garnier prepared a general layout for an ideal industrial town, in 1901-1904 (Giedion 1967: 787). In Garnier's *Une Cite Industrielle*, first published in 1917, various functions of the city are separated from each other by location and circulation patterns (Wiebenson 1969). He segregated the major functions in the city (work, residence, leisure and transport) by a system known as 'zoning'. Industry was also separated from the town by a green belt. The city was divided clearly into two major parts: public and residential areas. And further, each of these areas was also divided into several areas according to function. The old town was almost completely detached from new developments and isolated from the new town in terms of scale, fabric and location. In accordance with the tendency of the era, as well as the technical advances, urban planning was concerned more with the technical and functional aspects of the city, such as hygienic improvements, clean water supply, organised public transport, planting, parks, open spaces, and wide streets.

In contrast to Howard's proposal for a static population and therefore limited expansion, Garnier's *Cite* is designed for expansion. However, while Garnier's proposal seems technically practical, Howard's proposal was economically and sociologically sophisticated (Wiebenson 1969). Garnier proposed ferroconcrete as the primary material of that city, assuming that it would be more appropriate than any other material to provide a frame for industry, public services and dwellings for the average family (Giedion 1967: 789). His ideas were displayed in detailed drawings that became the basis of the city planning in the following years. Separation of functions, the requirements of circulation and the emphasis on industry and social housing became the major considerations in modern planning.

Similarly Saarinen (1966), although he analyzed the architectural qualities of old towns with great appreciation indicating their determinants as man and nature, urged the need for the establishment of *new rules* for the modern era. For him:

"...past methods of town building are not valid any more, and that present and future methods must be based on entirely new premises"
(Saarinen 1966: 143).

Le Corbusier, one of the pioneers of modern architecture and urban planning, was involved with finding appropriate responses to the increasing problems in the industrial modern city. He suggested that the new principles be based on geometrical rules stating that:

"The age in which we live is ...essentially a geometrical one"
(Le Corbusier 1971: 1).

Universal rules of geometry would also lead to a more generalised attitude towards planning. Thus, such fundamental principles, *"...can serve as the skeleton of any system of modern planning"* which can be applied everywhere, *"...whether it be Paris, London, Berlin, New York or some small town"* (Le Corbusier 1971: 160). He suggests the universal outline of an urban form in preference to local and historical characteristics of place. As his examples of cities are from the industrialised countries, one may argue that his suggestion for universality is the result of new economic thinking shared commonly by these countries. His universal principles are responses to the needs of this particular system, but applied to *all*. His proposal begins with the analysis of old cities and architecture. He agreed with C. Sitte's ideas, *"...having absorbed the romanticism of the past"* (Le Corbusier 1971: 5). But:

"...a modern city lives by the straight line, inevitably for the construction of buildings, sewers and tunnels, highways, pavements. The circulation of the traffic demands the straight line; it is the proper thing for the heart of the city. The curve is ruinous...is a paralysing thing"
(Le Corbusier 1971: 16).

Therefore *"A city made for speed is made for success"* (Le Corbusier 1971: 179).

In this way, changing parameters of architectural design affected the parameters of urban design in response to newly emerging conditions. The new era initiated a new set of determinants for designing the urban form of modern city (as discussed in Chapter One). As a result of developments in this era the qualities and conditions of place

associated with society, our established basic determinants of urban form were disregarded - man, nature and the existing (today's historic) urban fabric itself. In the following Chapters we will discuss the historic urban fabric as one of the determinants of the contemporary urban form.

4.6. CONCLUSION

This chapter argues that a shift in the determinants of urban form was one of the important reasons for the transformation of our urban environment from the pre-industrial state to the contemporary city. We argue that there are three major determinants that form urban space. Two of them were stated by Morris (1994) as Man and Nature. Kostof (1991) analyzed some of the important determinants in similar way. Rossi (1991), on the other hand, indicated that Architecture is one of the determining factors of urban form. In this Chapter we have discussed the authority of architecture as the *determinative* factor of urban form rather than being a determinant. This was carried out in two stages. Firstly, the authority of architecture as the determinative factor, in relation to its task and parameters was discussed. Secondly, the relationship between the determinants of urban form and the parameters of architectural design were investigated. This has resulted in suggesting that the authority of architecture in forming the urban environment can be understood from the phenomenon in which changing ideas in defining parameters of design have resulted in changes in the forms and qualities of the urban environment.

This study suggests that, in the contemporary city context, there is another significant motive to determine the urban form: that is the historic urban fabric itself. This is because the existing built environment of pre-industrial cities was determinant, a factor to be considered during construction activities, and because the urban form of a city, through time, gains its identity and therefore its authority to conduct the further developments in a city. The architectural quality in the pre-industrial city is hidden in the urban fabric where architecture not only forms the city but is also formed by the city. Therefore, the mutual relationship between the city and the architectural language demands that the design principles (in the production process of the built environment) need to be taken from the pre-industrial fabric which is the architectural product of that place, time and society with its own spatial, environmental and aesthetic values. Accordingly, one of the reasons for the inadequate built environment today is the neglect of historic existing built environment as a design factor of new developments.

This hypothesis will be argued in the following Chapters. Accordingly next Chapter will attempt to examine the prominent contemporary urban design approaches in relation to their understanding of historic urban fabric and discern whether they perceive it as one of the major determinants of contemporary urban form. The major focus, in during this investigation, will be on their *approach* towards this, as we call it, the *source*.

CHAPTER FIVE

Perception of Historic City by Contemporary Urban Design Approaches

5.0. INTRODUCTION

There is much evidence for the effort to solve the design problems in the modern era which are due to the collision of values and determinants of the pre-industrial and industrial era, reflected in the contemporary urban form. Therefore, there is much current literature on how to design cities. Camillio Sitte in 1889, Ebenezer Howard in 1898, Patrick Geddes in 1915, Tony Garnier in 1917, Le Corbusier in 1929, Eliel Saarinen in 1943, Kevin Lynch in 1960 and 1962, Gordon Cullen in 1961, Christopher Alexander in 1987 and Rob and Leon Krier in the 1970s and onwards, all expressed their ideas about the issue. However, they differ in their approach to the city. While, for example Sitte's main focus was the artistic quality of a built environment, for Howard and Geddes the intention was to provide a pleasant place to live but also efficient centres for modern industry. The main concern in this Chapter is to review these approaches in relation to their attitude towards *historic* urban fabric, particularly to ascertain if it is accepted as a major determinant in shaping future urban form in these approaches¹.

Conservation, on the other hand, will be discussed in relation to the concerns of this study, due to the major part it plays in the historic urban context today. However, it is not the aim, here, to cover all the issues of conservation but only to understand it as a 'design method'. Linstrum (1991) defines it as *designing with the existing*. It is, to some extent, a design approach which directly deals with the existing built environment, something which most ancient cities possess.

¹Since the main focus in this study is the case of the 'developing' world and particularly Istanbul, one may ask the reason of studying the design approaches produced in the western context. The response is, we hope, already given by the case study of Istanbul, where one can clearly see that there is no design approach that originated in that context; on the contrary planning applications continued to be based on the imported design approaches based on the western context.

5.1. EARLY ATTEMPTS

At the turn of the century, modern planning applications, exemplified by Hausmann's design for Paris, resulted in the destruction of much of the pre-industrial urban fabric and helped to create problematic industrial settlements which were to become worse in the following years. This policy eventually generated two major European planning styles. On the one hand, there are the attempts at informal planning with an appreciation of old cities, as suggested by Sitte. On the other, formal planning aiming at forming the urban structure of the industrial era, as proposed by Garnier.

Camillo Sitte, in an early attempt at such a study, called *City Planning According to Artistic Principles* in 1889, aims to reestablish urban design as an artistic enterprise, thus by implication criticising the modern city (Sitte 1965). His search was for laws on the construction of the city that were not limited to purely technical considerations but mostly artistic ones. In his work, he refers to the Aristotelian planning concept, which represents the very early thoughts of city planning and defines the main goal, that city planning must attempt to make its people at once *secure* and *happy* (Sitte 1965: 3). He criticised modern city planning for becoming an almost purely technical concern, and he argued that the achievement of all the beauties of art and attainments of the past, could be had through the careful organisation of urban spaces following certain principles derived from careful observation of Ancient, Medieval, Renaissance and Baroque examples. Thus he suggests that it is necessary to analyze the experience of old cities whose social quality is generally acknowledged as being good.

Though he called attention to artistic values, (we will interpret these as architectural properties) of urban space (which are generally considered to be lacking in the modern city), his models for the analysis of an old town's quality are single streets or a specific square. Yet, Sitte's views contain a misconception, in that they reduce the city to a work of art having one artistic period that is more or less legible, rather than to a concrete, overall experience. He therefore emphasises the parts rather than the whole, though he does concede that design motives of urban form (according to his proposal) are initially derived from the historic urban fabric. However, his suggestions encompass only one aspect of this fabric: that is, its aesthetic quality. In this understanding, the elements of urban form were seen more as objects or formal expressions, which in turn, neglected the urban form as a spatial entity within its interdependent relational structure. His work sustains its value for future studies on urban form, as being one of the earliest examples

that gives emphasis to the *architecture* of the city and the role of architects in understanding and using it.

Patrick Geddes' work *Cities in Evolution* (1968) is another example concerned with the pre-industrial urban fabric. He announces that,

"...to decipher the origins of cities in the past, and to unravel their life-process in the present, are not only legitimate and attractive inquiries, but indispensable ones for every student of civics"
(Geddes 1968: 4).

His emphasis is on the importance of the past as the seed for the present and the future, pointing out that history is not a collection of periods but "*...the world is ever beginning anew, each continuity with it, each town and quarter* (Geddes 1968: 373). He indicates the spontaneous growth of old towns pointing out that:

"Towns must now cease to spread like expanding ink-stains"
(Geddes 1968: 97).

He also suggests the need of an utopian view in town planning which "*...enables us to measure and to criticise the city of the present, and to make provision for its betterment, its essential renewal*" (Geddes 1968: 87). He gives analogous examples from other sciences for the necessity of an ideal city. He compares it with ideal concepts of the mathematicians' zero and infinity; unrealisable but vitally important concepts (Geddes 1968: 87). However, it can be argued that this thought, in essence, is contradictory, because an ideal form is not an actual but a determined and enclosed form. In this sense, the notion of an ideal city may become a model which contradicts the idea of spontaneous growth and therefore, differs from the ideal concepts of mathematics. Perhaps, with similar thoughts in mind, he does not suggest a conceptual layout for an ideal city but emphasises its actuality. He proposes that:

"Eutopia, then, lies in the city around us; and it must be planned and realized ...by its citizens- each a citizen of both the actual and the ideal city seem increasingly as one"
(Geddes 1968: xxvii).

Thus, he attempted a deeper understanding of the nature of cities and at the end of his analysis asked, *how can one continue the past tradition into the opening future?* (Geddes 1968: 373). He presented Chelsea as a case with a social and interdisciplinary approach, as a proposed answer to the question. But it is under explored. In his approach to existing historic urban fabric, he did not actually suggest it as the

determinant of future urban form, in the sense that the new insertions needed to be designed according to the spatial structure of their immediate surroundings, as well as identity of the city as a whole. But his suggestion is rather to grasp the principles of the past tradition of city making and apply them in making the urban form of the new industrial city.

5.2. DESIGN APPROACHES BASED ON ANALYSIS OF URBAN FORM

Following the destructive of Second World War, many European cities needed rebuilding. Thus modern planning approaches generated mainly by Garnier and later followed by Corbusier and the CIAM's group meetings were not 'theories' or 'approaches' any more but had an opportunity to be applied. However, the negative aspects of these applications urged urban designers to produce better solutions to the increasing problems of urban form and its basic design principles. Therefore, special emphasis is given to our analysis of these properties as exemplified by two major figures, Lynch and Alexander. Their works are significant for this study due to their methods of analysis of urban form.

A major contribution to urban studies was presented by K. Lynch. For him, the city was;

"A construction in space, but one of vast scale, a thing perceived only in the course of long spans of time"

(Lynch 1960: 1).

Hence he understands the city as a complex physical entity not only produced over time but also perceived in time. He argued that the perception of a city which creates its image in people's minds needs to be considered, rather than just accepting it as a thing in itself (Lynch 1960: 3). He therefore indicates the mutual and perpetual relationship between man and his environment. In giving emphasis to the perception of a city by its inhabitants, he suggests that instead of examining the city as mere a physical form, people's perception of the city should be examined. He deduced the imagery of the city through a 'reading' of it by, for instance, the citizens of Boston. He suggests that we should analyze the environmental image of a city from three points of view: identity, structure and meaning. These components are more to analyze it as an entire composition, while he divides the content of the city's image into physical forms such as paths, landmarks, edges, nodes and districts, which are analyzed according to their visual properties and interrelations between each other. Lynch's analysis does provide an understanding of the significance of the subject; man as a *perceiver* of the built

environment. The characteristics of the built environment were evaluated through this image which is a combination of man's tactile, optical and physical sensations. His main focus is not the concrete product itself but rather its reflection in people's minds. But to be able to perceive a thing there should be an object, and this has to be created. The perception of a city as series of mental images is a passive reaction to the production of a city. It clarifies the identity of the city according to the views of a certain section of society, at a certain time, but does not explain the articulation of the spaces and therefore their production. Besides, this perception is not the major determinant of urban form on which to base the new design proposals for an historic city in the contemporary context which lacks a coherent urban structure and therefore image.

Another significant contribution to city planning was made by C. Alexander. His point of departure was also to criticise the contemporary city for its inadequacies. As a result of his appreciation of old cities he undertook and promoted the analysis of them. In his analysis, he divides cities into two main categories. Firstly, those that have evolved more or less spontaneously over many years he calls 'natural cities', like Siena. Secondly, those cities that have been deliberately created by designers and planners are called 'artificial cities', like Chandigarh or Brasilia (Alexander 1972: 402). In regard to this observation, he states that it is vital to discover the property of old towns which gave them life and somehow to re-introduce that our artificial cities (Alexander 1972: 402). He is aware that we cannot do this just by 'remaking' these cities but we need to search "*...for the abstract ordering principles which the towns of the past happened to have, and which our modern conceptions of the city have not yet found*" (Alexander 1972: 402).

Yet we argue, that the claimed the ordering principles claimed may not necessarily be abstract, but they are the underlying relationships and correlation *between* formative elements of an urban form which should be grasped. One may argue that there are no such principles on their own but architectural considerations are the actual forming laws. For him, there is some essential ingredient missing from new (artificial) cities and his emphasis is to search for this ingredient. He concludes his inquiry with the issue that a natural city has the organisation of 'a semi-lettuce', which means the city grows by overlapping. An 'artificial' city has the organisation of a 'tree', where no overlap occurs. His ultimate conclusion is that this 'overlap' is a vital generator of structure. Besides this main principal, he points out that cities of the past have a 'wholeness', which is often lacking from the modern city and can be created only within a process, without which

"...*there is no hope at all*" (Alexander 1987: 3). His work dealt with trying to understand the laws that produced wholeness in the city. He further experimented to produce a built environment consisting of two substantial properties of past cities; wholeness and process. Following that analysis, he concluded that:

"An urban process can only generate wholeness, when the structure of the city comes from the individual building projects and the life they contain, rather than being imposed from above"
(Alexander 1987: 249).

Although he rightly suggests that wholeness can be achieved through the process in which individual buildings gradually come to form the urban structure, he does not make clear the determinants and motives of this process. On the other hand, Alexander's major concern is to provide a design approach for the production of 'new' settlements according to the principles learned from historic cities, but not in the sense of suggesting the historic urban fabric itself as the determinant of future city form.

Consequently Lynch and Alexander have presented different parameters for urban studies and design. Lynch emphasised the visual impact of the built environment on the perceiver and suggested this as the data base for the city's identity, to provide the basic parameter for the judgement of the urban quality and therefore of further design. Thus the image of the city, the very end product of the production process, is accepted by Lynch as factual data and the motive for future designs. Indeed, by analysis of this image, it is possible to decipher the society's demands and judgements of the city as 'place'. Alexander, on the other hand, gave emphasis to the process of the production of the built environment. Following his analysis of urban form, he concluded that the process and the wholeness are the essential rules of a good city, in which the city structure comes from the collection of individual buildings. However, they did not suggest the historic urban nucleus of a city as one of the major determinants for its future development.

5.3. THE NEW-RATIONALIST APPROACH IN URBAN DESIGN

Criticism of modern architecture has emphasised the loss of meaning and the displacement of man as the focal point of architecture. These shared criticisms of the 'post-modern era' has led to two particularly influential approaches: the Neo-realists and Neo-rationalists. Although both groups embraced the idea of 'a return to history' the way

of the return differs radically. While history is understood by the Neo-realists as a repository of fragmented images; the Neo-rationalists propose a 'return to the discipline', that is to say a proposition for a continuum of guiding rules and principles of architecture, which are also moulded were through history. According to the approach of this study towards the past and historic cities, the Neo-rationalist approach rather than neo-realist, will be analyzed. Broadbent (1990) informs us that the Neo-rationalist attitude emerged in the 1950s and 60s in Italy. The architectural magazine called *Casabella* was the platform for the discussions generated by a group of young architectural theorists, among whom Aldo Rossi became the most prominent. The group was later based at the School of Architecture in Venice and called *Tendenza* began to be known internationally in 1973, as the result of an exhibition at the Milan Triennale.

According to a Neo-rationalist, the essence of architecture is a set of rules or formal relationships that, although invoked by the architect, precede him. The work has an identity independent of the designer. Therefore, by virtue of this disciplinary independence, the work asserts its autonomy (Harvard Architecture Review 1984: 6). The idea that architecture is an autonomous discipline has been rediscovered² recently and represented by the works of architects such as Aldo Rossi, O. M. Ungers, Mario Botto, Peter Eisenmann and Leon Krier. Autonomous architecture refers to the notion that architecture has a particular quality which distinguishes it from the other arts. "*It is regarded as a separate endeavour, a discipline, complete with principles and norms internal to itself*" (Harvard Architecture Review 1984: 94).

The essence of architecture resides in the formal relationship of the elements of one building to another. The form, which is generated from strictly formal considerations, may not appear to have been determined by the usual factors that relate architecture to man and context, such as function, scale, site and symbol (Harvard Architecture Review 1984: 94). As a result, architecture becomes independent, complete within itself, autonomous. "*Thus the autonomy of the architecture is a result of a method of production that places primary importance on the consistent formal structure of the design*" (Harvard Architecture Review 1984: 94). A search for the determination of the norms, conventions, and traditions that are part of architecture requires an analysis of

²Autonomy of architecture has been one of the major concerns of architectural discourse since the 15th century when Alberti introduced his ideas on the issue.

the history of architecture. The aim of this analysis is not to find sources for a new eclecticism but certain fundamental principles and a continuity which underlines the mass of facts contained within the history of architecture (Harvard Architecture Review 1984: 95). The idea of the abstraction of basic principles from history led to the formation of a theory and methodology for the analysis called *typology*. It became a major 'tool' in the analysis of urban form and was applied in numerous studies, among which Rossi's and Rob & Leon Krier's works are the outstanding ones. Therefore the notion and the 'tool' of typology will be examined here. Followingly that, two major approaches that represent the Neo-rationalist attitude will be examined in order to see their discussion on the determinants of urban form and also their attitude towards historic urban fabric.

One of the significant outcomes of the Neo-rationalist discussion was Aldo Rossi's most influential work *The Architecture of the City*, first published in 1966. He initiates a theory of architecture but also of urban design, for which he proposes a method to analyse an urban form. His work was followed by Rob and Leon Krier from the 1970s and onwards. Criticism of the modern city and an appreciation of the historic cities of Europe was the main theme of their design approach. The typology was also deemed a useful methodology. Firstly, however the basic method of typology, used as a tool for analyzing urban form for new design approaches, will be examined.

5.3.1. Typology

Typology is a methodology originating from the idea of type, and established by Quatremere de Quincy in 1788 as a critical discipline, where type served as the ultimate reference (Anderson 1982: 112). He believed that:

"...we could understand various and seemingly unrelated forms in the history of architecture by discovering, through science and philosophy, their type, their common origin and primitive cause" (In Anderson 1982: 112).

Accordingly, he gave a precise definition of an architectural type saying that the type does not present an image of a thing to be copied or imitated,

"...the 'type' on the other hand is something in relation to which different people may conceive works of art having no obvious resemblance to each other" (In Argan 1963: 564).

Thus the type for Quincy is an 'object' but 'vague' or indistinct; it is not a definite form or a schema (Argan 1963: 565).

The idea of type was developed and became one of the major concerns for the Neo-rationalist view. For Rossi the type is not a mere form but also has content because it is developed according to the needs and aspirations to *beauty*. He claims that type is, ultimately, the very idea of architecture (Rossi 1991: 41). It is the form of a building in which can it can be rooted and referred to; an abstract, *a priori* idea of form known as the building type (Harvard Architectural Review 1984: 95). The type is general and constant. Therefore it is possible to categorize buildings according to their reference to a particular type (Harvard Architectural Review 1984: 95). It is understood that the type transcends the particular and the temporal, and typology is a means of ordering history. However, there are two facts in the formative process of making typology. Firstly, *"...typological series do not arise only in relation to the physical functions of buildings but are tied to their configuration"* and secondly, *"...formal architectural typologies will always fall into three main categories, the first concerned with complete configuration of buildings, the second with major structural elements and the third with decorative elements"* (Argan 1963: 565).

It was also used to criticise the present crisis of the modern city, as well as to attempt the reading of an historic urban fabric. Accordingly Panerai (1979) argues that the radical changes in the built environment, during the transformation process of 19th century cities, indicate that the present crisis has been rooted in the radical rupture between the relationship of building types and urban morphology.

Subsequently, typology, in the first approach, is used as a means of 'reading' a city, employed extensively by the Venice School of Architecture and some of French urbanists, which will be discussed later. It is said that it is a useful methodology in clarifying the process of the transformation of cities (Bandini 1984: 74). It allows urban phenomena to be perceived both diachronically and synchronically, because *"...it links the morphological nature of the urban fabric with its social, political and demographic aspects"* (Bandini 1984: 74). Its second approach is a method for discussing architecture in stylistic and cultural terms (Bandini 1984: 74). However, in the third approach, typology is understood as a basis for generating new work (Harvard Architecture Review 1984: 95) and thus is used as a theoretical tool for the production of architecture such as Rossi, L. & R. Krier and Ungers' works (Bandini 1984: 75). Similarly Carlo Aymonino, one of the pioneers of the typology, stated that:

"...morphology and typology are often used as design instruments and not classification methods"
(Aymonino 1985: 97).

He suggests the extension of the application field of the method, from the classification of historical centres to find the laws of growth, to expansion areas of the modern city, as modes of new urban representation (Aymonino 1985: 97).

Bandini (1984: 81), however, criticises this approach, since he regards the, *"...typology as only a convenient repository of authoritative imagery waiting to be transformed by personal creativity"*. He simply defines it as a reductionist process and:

"The pragmatic and empirical cultural climate in which we live seems to favour studies which regard typology as a collection of easily appropriated icons"
(Bandini 1984: 81).

He continues;

"While at its outset typological research showed few signs of formalist escapism and contributed a broader spectrum of references for architecture, the latest phase of the debate has shown a dangerous shift towards reductionism. Instead of being a 'progressive programme of research', typology has become a 'degenerative' one"
(Bandini 1984: 81).

He points out that one of the reasons of this degeneration was the monetary pressures of the architectural market place:

"...where ideas are uprooted from their original cultural context and speedily passed on in their most popular and superficial form. Although typology is only small part of this phenomenon, its role as a form of a convention is paradoxically strengthened by the empty rhetoric of some of the most fashionable and consumable examples of current architecture"
(Bandini 1984: 81).

Consequently typology is not only used as a major method of analysis of urban form but also a method for producing a 'formal catalogue'. However, seemingly the usage of typology reduces the elements of the urban fabric to mere forms, by the abstraction of their basic geometric forms, lacking the 'actuality', like so much modern architecture.

5.3.2. The Urban Architecture

Our investigation into the conceptual discourse on the city and architecture suggests that the urban form, the material entity of a city, is produced by architecture whose main task is the production of the man-made environment. The profound correlation between the two suggests the notion which encompasses both meaning that is the urban architecture, and the architecture of the city, is the central topic of Rossi's ideas. He maintains that the city is a man-made architectural product and therefore the analysis of the city requires it to be in the field of architecture. He argued that the form is permanent but that function is modifiable. Therefore, the analysis of the city should focus on its form. In this sense, he suggests that the analysis of the relationship between building typology and urban morphology is the essential methodology, not only to understand its past, but also to form the future.

Accordingly a comprehensive elucidation of a method to analyze the urban form was carried out by Aldo Rossi in his influential work *Architecture of City* (1991). He presents a different approach towards the understanding of the city in an attempt to establish an urban theory. He applies rationalist and scientific methods for his analysis, which he calls urban science. His primary concern is to analyze the architecture that constructs the city, and therefore can be grasped from the city. Thus he points out the reciprocating relationship between the city and architecture, and emphasises the definition of key notions, such as city and urban artifact³. For him, the city is "*...a man-made object, as a work of architecture...that grows over time*" (Rossi 1991: 34). In other words, the city, the urban artifact, is a great and comprehensive representation of the human condition (Rossi 1991: 34). In this representation architecture's profound value:

"...shapes reality and adapts material according to an aesthetic conception. It is in this sense not only the place of the human condition, but itself a part of that condition, and is represented in the city and its monuments, in districts, dwellings, and all urban artifacts that emerge from inhabited space"
(Rossi 1991: 34).

However the city "*...can be only defined by precise reference to space and time*" (Rossi 1991: 139). He further classifies urban artifacts which lead the discussion to typology,

³*In his work urban form does not mean only a physical thing but all of city's history, geography, structure and connection with the general life of the city" (Rossi 1991: 22). Besides, Broadbent (1990: 166) indicates that in the original edition of the book the word is the Italian fatti which means facts, actions, deeds...achievements.*

which he describes as "*...a logical geography of any city*" (Rossi 1991: 33). This is, for him, a universal method for the analysis of any urban form.

He argues that mere function is not sufficient to explain the continuity of urban artifacts, though the very origin of the types of urban artifacts is function (Rossi: 1991: 60). He argues that, "*A function must always be defined in time and society*" and therefore it is not a significant factor for the survival of an urban artifact (Rossi 1991: 60). But their value is sustained in their form, "*...which is integral to the general form of the city*" (Rossi 1991: 60). Hence, he indicates the determinants of urban form in relation to their role in the process of city making. Although he suggests that function is a much prized determinant of modern architecture and planning, the formal characteristics of buildings are the major factor determining the urban morphology of a city.

This perception of urban form differs radically from our approach towards it and its determinants. Rossi's definition for the determinants of city form inevitably leads his discussion to focus on form. Thus understanding of an urban form is intended to be grasped from the formal relationships of the city's physical entity. His analysis and the method, therefore, is based on examining the formal relationships between individual buildings and the whole structure. Here, type as the concept and typology as the tool become the major elements of his method. This understanding generates a discussion on the notion of *type*. Elements of urban form for Rossi are different building types which are the constant, unchanging property of all buildings represented by their forms. Therefore function for him is not permanent in the urban fabric and changes through time; but form is the permanent property of a urban structure. Seeing the relationship between type and form, he maintains that analysis to grasp the essence of buildings it is necessary to understand the essence of a particular urban fabric and its architecture.

Subsequently, he draws attention to the relationship between building typology and urban morphology, stating that, "*...the study of this relationship is extremely useful for understanding the structure of urban artifacts*" (Rossi 1991: 64). He suggests a methodology for such an analysis. First of all, the selection of the study area is an important decision. It can be a minimum portion of a city comparable to an overall urban area or the study area can be defined by historical elements. Another type of study area can be selected according to the relationship between spatial and social structures such as a residential district (Rossi 1991: 63). However, as these concepts are insufficient

to characterize the formation and evolution of the city alone, urban elements should be taken into account (Rossi 1991: 86). He divides the urban whole into three major components: housing, circulation and fixed activities, which means the nuclei of aggregation with monuments having an effective role in the dynamics of the city (Rossi 1991: 86). On the other hand, historical method is deemed as the necessary way to study the city, as "*...the soul of the city becomes the city's history*" (Rossi 1991: 130). This means that the city is the *locus* of the collective memory, which is the consciousness of the city.

These are two historical methods from different points of view. The first sees the city as a material artifact built over time, which is evident through the traces of time, "*...even if in a discontinuous way*" (Rossi 1991: 128). From this point of view, cities with their real structures become historical texts, which suggests that studying the urban phenomenon without the use of history is impossible. This idea can be interpreted as the city is the *form of motion*. With the second point he understands that "*...history is the study of the actual formation and structure of urban artifacts*". This is complementary to first point but with the idea that the, "*...city is a synthesis of a series of values*" (Rossi 1991: 128).

In his analysis of the evolution of urban artifacts, several formative factors of a city, in our understanding the determinants of its urban form, are highlighted (Rossi 1991: 139). The city, in this sense, is an area of various forces. Economics is one of the crucial factors which arises out of necessity. However, it fails to explain totally the structure of urban artifacts (Rossi 1991: 140). Therefore, he, as also Weber (1966), suggests that politics is the most crucial factor as it constitutes the decisive movement (Rossi 1991: 161). For example "*...Athens, Rome and Paris are the form of their politics*" (Rossi 1991: 162).

Later on he proposes the autonomous quality of the city and introduces the concept of *urban architecture* (Rossi 1991: 162). Thus, "*...the Italian piazzas of the Renaissance cannot be explained either in terms of their formation or by chance. Although these piazzas are the means in the formation of the city, such elements which originally start out as means tend to become ends; ultimately they are the city. Thus the city has its end itself alone, and there is nothing else to explain beyond the fact of its own presence in its own artifacts*" (Rossi 1991: 162). He points out the significance of city's material entity in any attempt to understand and analyze it. However, as the city cannot be free

of general conditions, no urban growth is spontaneous. Rather, it is through the natural tendencies of the many groups dispersed throughout the different parts of the city (Rossi 1991:162). On the other hand, urban artifacts are the founding principle of the constitution of the city. This approach of Rossi's denies and refutes the notion of urban design because:

"It seeks laws, reasons, and orders which arise not from a city's actual historical conditions, but from a plan, general projection of how things should be. Such projections are acceptable and realistic only when they address one "piece of city", or when they refer to the totality of buildings; but they have nothing useful to contribute relative to the formation of the city"
(Rossi 1991: 116).

This major work of architectural and urban theory, at the first hand, is a criticism of the modern movement and its functionalism. However, its value for this study is that it attempts to reestablish the architectural name and value of the city and identify the determinants of its urban form. This attempt can be seen throughout his work. According to the redefinition of the city within a complex unity of its formative factors, a method for the analysis of its form was also the major aim explained above. The main lines of this suggested analysis appear to be that the city is both an historical and an architectural phenomenon. Its historical quality involves economics, (mostly in the form of land ownership), politics and the people of the city as urban dynamics. Architectural quality, however, involves geography, the culture of people and concrete urban elements. Concrete urban elements as the factors of the architectural quality of the city may be interpreted as a proposal suggesting that the existing urban environment is an effective motive for future designs. However, this is not explicitly discussed in his work nor even mentioned.

Understanding the relationship between building typology and urban morphology appears as an important method emphasising the permanent character of the form, which leads to a discussion of *type* which is considered as an abstracted form of a particular function, not as a model but as a concept. Accordingly, the general characteristics of urban artifacts are individuality, locus, design and memory. Here, a contradiction appears, which is that while his emphasis is on the importance of the form and individuality of urban artifacts, he also maintains that the city is constituted as a totality, which is its *raison d'être*. If we understand the city as a total object, as

suggested by the history of studies on city, as well as observations, the analysis of urban artifacts solely as forms (buildings or streets) is not adequate to grasp this totality that is its personality, its soul, its essence.

One cannot disregard the relationships between all the formative factors of urban form. This relatedness between various elements is the essence of its system⁴. Besides, the findings from a suggested study area cannot be generalized as universal principles. Every city is bound up with its geographic and historical characteristics.

Consequently, questions of analysis should be derived from the subject city, which needs primary understanding. These questions, together with the chosen time and part of the city, will suggest the details of the analysis. The very basic principle for the analysis is the *approach*, the point of view or the vantage point for the observations and investigations. The approach, as the history of the study on the city suggests, may differ according to the theme of the questions, and they may explain the city from their point of view sufficiently and coherently. Accordingly, through this type of analysis, different sections of the city would be presented. However, no different point of view is adequate alone to explain and understand the city fully. Architecture should maintain its own way of looking at the city; it may not explain the urban phenomenon completely, but will help to explain its material entity. Therefore a method of analyzing its urban form and its architecture needs to be developed. This will be attempted by this study in Chapter 8.

5.3.3. Perception of Historic Urban Fabric as *Context*

Other prominent figures in the Neo-rationalist approach to urban design from the 1970s are represented by the Krier brothers (Broadbent 1990). Rob Krier has criticised new modern design approaches and appreciated the 'old' urban fabric. He initially analyzed different cities of Europe and created a 'catalogue' of their urban typology. He defines urban space as "*...comprising all types of space between buildings in towns and their localities*" (In Broadbent 1990: 192). In his work urban space is viewed in the form of streets, squares and other open spaces which essentially vary in forms. He further undertakes typologies of sections and elevations in those urban spaces, in an attempt to complete his typological analysis of urban form. Thus, type becomes the major tool for analysis of urban space. He urges that the principal determinant of architecture

⁴This idea will be explored in the next Chapter.

should be the size of the human body with its patterns of behaviour, perception and sensitivity, rather than technical, structural or economic considerations.

He also suggests that urban design approaches need to consider the existing fabric in order to achieve integrity in the urban structure. Therefore, he states that "*Any planning in a city should be such that it fits into the general order and offers a formal response to existing spatial patterns*" (Krier 1982: 5). He also suggests that the experience of past can be filtered from the historical heritage for the planning efforts of the future (Krier 1982: 5). Thus, although he draws attention to the value of existing historic urban fabric for future developments, his words manifest his approach: that an intervention into a existing spatial patterns should offer a *formal response*. This study, on the other hand, argues that to emphasise only the formal qualities of an urban form will inevitably cause a superficial understanding of its values, and imitations of forms. Therefore, the focus of understanding should be on *space* and *spatial relationships* of an urban form in which its essence is embodied.

Rob Krier's approach is criticised as being "*...historicism without historical consciousness*" that is, an accusation that "*...history is present in form but absent in context*" (Achleitner 1982: 7). It is also criticised as being a 'romantic' attitude to urban design (Achleitner 1982: 7). Seemingly he uses the products of history as material, "*...as the aesthetic deposits of unreflecting process, as a treasure-chest of unprocessed experience*" (Achleitner 1982: 8). Although his intention is to learn from history, his link with history lacks concrete ties to historical processes and relies merely on form. As a result, the urban form of the city is reduced to a repository of 'historical forms' that could provide a 'context' for new designs.

Leon Krier was also against industrialisation and modern planning applications. He criticised the plazas of Brasilia and Chandigarh as, "*The obsessive emptiness of modern urban spaces*" (Krier 1984: 20). His understanding of architectural history is not the history of monuments but the study of the urban fabric that is formed by, "*...anonymous buildings forming the flesh of the city and the skin of its spaces*" (Krier 1984: 21). He emphasises, therefore, that urban morphology is the principal argument against zoning and the design of urban space is a method of creating, "*...spatial and built continuity within the city*" (Krier 1984: 21). He rightly points out that the major modern determinant of designing, function, generated building types without taking the existing city into

account. Therefore buildings with new design principles were formed as isolated objects within the city as a whole. Here one may argue that the modern city type may not be the definitive functional type, since the essential determinants such as nature, culture and the built structure of the city were not considered.

He, through his projects, attempts to establish the dialectics of the built organism and the spaces in between: the solids and the voids (Krier 1984: 21). The scale of spaces and buildings is his main concern in this attempt. He urges contemporary architects to protest against the destruction of the cities, and to establish the authority of Architecture as Art, which is the only way to 'reconstruct' the city and its architecture (Krier 1984: 38). He maintains that "*...the social and cultural complexity of a city has necessarily to do with its physical and structural complexity and density*" and that urban blocks are the main elements of a complex urban pattern (Krier 1984: 43). For him urban design for him considers urban blocks should be small in scale and used to define the streets and squares providing multi-horizontal patterning of the urban space (Krier 1984: 43).

Thus the Neo-rationalist approach represented by its most prominent figures Rossi and the Krier brothers emphasises the existence of the city, unlike the Modern Movement. The design problem was, for them, the problem of intervention at two levels. Firstly, the insertion of new buildings into the fabric of an existing city; secondly, and more ambitiously, a whole complex of buildings in geometric and mostly symmetric composition inserted into the fabric of the city (Broadbent 1990: 183). However, this design approach, although giving strong emphasis to the significance of the existing built structure of the city, did not suggest that historic urban fabric was one of the major determinants of urban form for the repair and enhancement of the spatial consistency within and around the historic urban nucleus. On the contrary, the emphasis was given to its formal qualities which lead to the production of replicas of historic forms or the avoidance of this abstraction of forms, which generally resulted in pure geometric forms. Indeed, Colquhoun argues that in their design proposals:

"The elements are planted in the city like foreign bodies in an organism, exaggerating the discontinuity between the old and the new, texture and structure, ground and figure, context and meaning"
(In Broadbent 1990: 183).

Hence it appears that the historic fabric is understood by the Neo-rationalist as the context or rather the 'setting' for their self-contained new structures, but not as the

determining factor for their new structures. This study argues that urban form has 'actual' spatial quality, that is to say the urban elements of the historic city are not designed in search of 'form' or for the sake of form, but they are developed by numerous determinants, which have been previously discussed as man, nature and the existing built environment itself. Therefore form is not an independent result but its production and existence dependent on those determinants which make it an 'actual' and 'spatial' entity rather than just a two dimensional 'shape'.

5.4. CONSERVATION OF HISTORIC URBAN FABRIC

In parallel with growing industrialisation and urbanisation in the West, modern architecture tended to increasingly ignore the natural world and man's position in it, with all his social and cultural structures. Modern Architecture also ignored the existing urban fabric whose form was determined by these reciprocating relationships. However, predominance of western material culture suggested studies of pre-industrial societies where they began to be appreciated increasingly by the West in parallel with the ever-intensifying industrialisation of the West itself. The demand for action to save the remaining cultural heritage, mostly accumulated in the city fabric from the development of the industrial city, was urged. Subsequently, the conservation movement spread throughout Europe and gradually many non-European countries; and over the last three decades has become a major focus of discussion especially architecture and urban planning issues. As early as 1830, the systematic protection of individual buildings in French towns was applied by the Department of Historic Monuments (a governmental institution) which carried out a massive inventory of historic buildings (Kain 1981: 6). This was followed by the foundation of the Society for the Protection of Ancient Buildings (SPAB) in England in 1877 by William Morris, the beginning of a movement towards the eventual legal protection of listed buildings in the UK. (Kain 1981: 5).

While early attention was directed at historic buildings, mostly those defined as monumental, new developments in the second half of the 20th century drew attention not only to dilapidating monuments but also other material heritage. In the 1950s and 1960s more modern buildings and even whole cities were built. As a result more old cities were destroyed, leading to growing public opposition. Gradually the historic city as a whole became the major concern of conservation movement. The Venice Charter of 1964 gave a deeper meaning to the concept of a 'historic monument' stating that it is:

"...not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilisation, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing time" (ICOMOS 1990: xxxi).

So buildings, particularly monuments, are seen as an indispensable element of the entire urban fabric. This new understanding introduced a new concept and a significant shift in the conservation discussion towards the 'historic site' as defined in Venice Charter:

"...compact group of buildings which, by its homogeneity as well as by its architectural and aesthetic unity, is itself of historic, archaeological or artistic interest"
(Bailly 1975: 14).

Historic sites are split into groups that are: historic nucleus, fortified areas, groups of religious buildings, planned monumental sites and the rural village (Bailly 1975: 15-16). From this the conservation movement gained new dimensions not only in terms of its area of responsibility but also its principles.

Designation of conservation areas by local authorities was introduced, first in Europe, in United Kingdom in 1967 by the Civic Amenities Act (Worskett 1975: 17). The conservation of the historic physical environment is manifest now in virtually every part of the world⁵. In the case of the 'developing' world, with special reference to Muslim countries, the introduction of the Western philosophy of conservation was largely accepted with little questions a similar attitude towards accepting the introduction of modernisation. Warren (1976: 20) indicates that conservation ideas and legislation based on Western models have been introduced without critical analysis of their relevance to their social, economic and cultural contexts. Warren (1976: 21) brings into view this controversy and concludes that:

"...the conservation of the environmental heritage of the Islamic nations depends upon an understanding of the working and the spatial fabric of its communities. Any conservation which fails to respect the pattern of spaces and buildings as an agglomerate and as a working expression of a

⁵Early preservation efforts in Turkey mainly considered the archaeological sites since the Islamic culture continued to maintain religious and public buildings. The first systematic efforts to collect and document artifacts mainly archaeological sites began in 1846 (Leimenstoll 1990: 4). And the first Act, The Regulation of Antiquities was issued in 1869 which was revised in 1874 (Leimenstoll 1990: 9).

special style of community life must be particularly a failure".

On the other hand, the current tendency of conservation in the Muslim countries is seen as a cultural decision and the preservation of the cultural heritage as an insurance of the continuity of their cultural identity (Kuban 1983). This view declares that the conservation of the cultural past is a vital part of future urban design. This view needs to be critically analyzed for both its positive and negative aspects.

5.4.1. Prospects of Conservation in Contemporary Urban Design

One of the reasons for the increasing concern about conservation of the historic built environment was indicated by Appleyard, as the rapidity of change which "*...has been difficult for people to absorb*" (Appleyard 1979: 19). The impacts of the change threaten the individual's and society's cultural identity. As a result, continuity is broken and without it as Peter Marris states, "*...we cannot interpret what events mean to us, nor to explore new kinds of experience with confidence*" (Quoted in Appleyard 1979: 19). In other words, we began to lose not only our sources of form of being, that is identity, but also the sense of eternity of life, due to the break in continuity. We turn to the past as a repository for our sentiments and values (Appleyard 1979: 19).

Consequently the old towns become the core of interest in the re-establishment of our cultural identity. In spite of some material advantages of modern cities the old city did represent the human scale, showed care for the natural environment, promoted individuality within a coherent totality and a richness in terms of depth of meaning and culture. Attempts at resurrecting the past have led to historicism and nostalgia which has been criticised by Hewison. He analyses the case of England and questions the increasing trend to promote the past, in the 20th century, as a new kind of nostalgia (Hewison 1987: 28). For him, looking back in nostalgia:

"...has become an economic enterprise, as the commercial interests of manufacturers and advertising have recognised"
(Hewison 1987: 29).

He calls this new business *the Heritage Industry* which is an attempt to exploit the economic potential of culture. He argues that:

"The growth of a heritage culture has led not only to a distortion of the past, but to a stifling of the culture of the present"
(Hewison 1987: 10).

Similarly, Lowenthal criticised historicism, stating that "*We can use the past fruitfully only when we realize that to inherit is also to transform*", and continues:

"The past remains integral to us all, individually and collectively. We must concede the ancients their place ...But their place is not simply back there, in a separate and foreign country; it is assimilated in ourselves, and resurrected into an ever-changing present" (Lowenthal 1993: 412).

Thus, the increasing discussion about the past and subsequently its conservation shows that it has both, "*...healthy and ...neurotic aspects*" (Appleyard 1979: 21). Some major questions are: How do we deal with the past? What should be preserved? How much and in what ways? (Appleyard 1979: 23). The problems of physical conservation, concerned with its ideology, ethics, methods of repair and reuse, have raised much controversy. Mac Cannel states the dilemma as:

"...the final victory of modernity...is not the disappearance of the non-modern world, but its artificial preservation and reconstruction in modern society"
(Quoted in Appleyard 1979: 10).

This is evident in many conservation attempts that tend to be mere surface restoration, repairing the external appearance and the historic area but at the same time modernizing the interiors. Such examples can be seen in Warsaw, Rome and Norwich (Appleyard 1979: 24). However, the remarkable conservation work of an historic town was presented in Bologna, Italy. A profound conservation attempt to restore a historic urban environment, inside as well as outside was successfully applied using a scientific and detailed study of urban morphology, with the help of archaeologists (Nayir 1979; Cantacuzino 1980). Appleyard argues that the roots of this attempt was a political reaction to the State, as well as the threat of tourism to the picturesque values of Italian towns (Appleyard 1979: 24). He continues that the uncovering of historical form may be authentic but "*...the conversion to livable occupancy unavoidably coats those roots with a veneer of modernity*" (Appleyard 1979: 24), therefore conservation:

"...too often conserves the form but modernizes the surface"

as a result,

"The old becomes new".

Apart from the method of conservation, the selection of the object to be conserved is also a matter of conflict amongst the interest groups. The authenticity of the preserved object is another controversial discussion (Appleyard 1979: 25-28). An earlier approach concerning the ethics of restoration was presented by John Ruskin. Although he agreed to the preservation of our precious inheritance from the past, he maintained that restoration:

"...means to most total destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed"
(Ruskin 1899: 325).

He, therefore, argued that;

"...it is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture"
(Ruskin 1899: 353).

He suggests that the only message to take from these edifices of the past is the power of ancient architecture (Ruskin 1899: 360). But he warns that this influence should not be their formal expressions, such as squares or streets but the essence of their spatial qualities. Similarly, John Warren urges that authenticity of an ancient fabric once destroyed:

"...can never be re-created. It may be reproduced, but a reproduction is merely a reproduction"
(Warren 1980: 11).

The nature of conservation in the sense of a reproduction of the past contradicts its own argument about continuity since it perceives an historic urban form as an 'object' rather than a 'process'. The betterment of the contemporary environment cannot solely rely on conservation because it has inherent conflicts. One cannot deny the effect of ongoing time on the identity of a culture and accordingly on its products. However destructive a manner the modern era has on the values and products of the past, it is also evident that the city, as the material representative of history of its society, was greatly affected by this destruction. The role of modern architecture in this process is in parallel with the era's ideology, which denied the past and therefore denied the existing urban fabric. Consequently, each intervention, made by modern construction activities isolated from the whole, is stretched until the texture, the structure, of the city is destroyed.

Conservation alone, having the conflicts documented above, cannot be a sufficient response to the problem of urban design in a contemporary context of the historic city

which suffers an identity problem. These conflicts may be lessened if they are designed according to the local characteristics of the conservation subject. Conservation is clearly an intervention in the form of repair, replacement or reconstruction. Each of these interventions, we argue, needs to consider the existing object carefully, be it a monument, a cultural artefact or historic urban fabric. The principles of intervention need to be derived from the characteristics, or in a broader sense, from the 'essence' of the urban fabric, which in turn can only be grasped by careful analysis. However, the essential focus of this analysis is also an important issue since it determines the approach and understanding of historic urban fabric.

5.5. CONCLUSION

The inadequacy of the contemporary urban environment, together with the dilapidation of our historic urban heritage from neglect as well as from exploitation by tourism and over-commercialisation, is the common prospect of most of our present cities. There is also a neglect of good design in our architecture. The problem of design, particularly in our historic cities is rooted in the lack of the definition of its determinants.

Recent trends, have approached this issue either as a formal matter or merely a problem of style. The basic difference between these approaches lies in their attitude towards the past. There are two other major contemporary trends in terms of design approach; the *Late-Modernist* approach: encouraging the use of technology and advanced materials with its invention of new forms, presented by High-Tech and the Deconstructivists. On the other hand, there are the *Post-Modernist* tendencies in varying contexts and content. One form of Post-Modernism recalls past forms, as announced by Venturi that "*...the architect selects as much as he creates*" (Quoted in Schulz 1991: 101), with an eclectic manner. Another kind of Post-Modernism plays with the abstraction of historical forms, with a claim to grasp their formal essence and avoid simple imitations, represented by the works of its most eminent architect, Rossi.

In the Late-Modernist approach, technological advances and rationality in design are still the main source of reference for design, accompanied with political and economic pressures and preferences. In the Post-Modern approach, however, past heritage becomes only a 'model' for new creations but not necessarily the stimulus for new designs. On the other hand, conservation of our historic urban fabric is essential, but not sufficient motivation for the development of our future form of the city. Therefore

there is a need for a new approach which would generate successful designs to enhance the architectural and environmental qualities of our cities. Because of this the new approach sees both the Modernist and Post-Modernist attitudes as contradictory to the essence of the development of new urban fabric. In both cases, the design source is imposed from 'outside' the city system: in the former by the use of technological, economical and political motives; in the latter, by the use of past's forms as 'models' or 'setting'.

The study of architecture and city building suggests that these two notions are inseparable. Thus, the architectural correlation of city elements indicates that the urban form of a city as an architectural entity should be the source of good design. However, the fragmented structure of our contemporary city as a whole (with its historic, modern and slum sites) can fail to provide the necessary architectural references. Thus, the coherent structure and development process of our historical urban fabric in the pre-industrial town, should be an important determinant of the future form of a city. This hypothesis now requires profound elucidation with responses to questions of *why* and *how?* The following Chapters of this study, therefore, will attempt to explore these questions.

CHAPTER SIX

Historic Urban Fabric as Design Determinant of Future City Form

6.0. INTRODUCTION

This study argues that neglect and lack of 'understanding' of the determinants of urban form have caused catastrophic problems in contemporary cities. As we have demonstrated through the case of Istanbul, planning applications, the introduction of alien forms, concepts and institutions, while at the same time, disregarding the local conditions of 'place' and 'society' and also the existing urban fabric, have resulted in the sad deterioration of our urban environment and caused disharmony and duality within our cities. This has, in turn, caused a decline in the overall architectural quality and vision of the city along with its essential identity.

The pre-industrial urban fabric has been greatly disrupted and neglected in the industrial era in an attempt to establish a new system for the making of the city, with the application of new preferences determined by the circumstances of this era. Construction activities have concentrated on entirely modern design criteria both in and outside the historic urban fabric, destroying and replacing it. These new criteria represent alien influences that have not been integrated into the existing historic urban fabric. As a result it has become fragmented, isolated and neglected, largely detached from the city as a whole and thus deprived of its unique 'atmosphere' and qualities.

On the other hand, it was soon agreed that the modern city, lacked quality, being based on functional, economic and political preferences from 'outside'. Contemporary design approaches, although they may consider historic urban environment as the basis for their approach, have tended to focus on an 'abstraction' of the form of urban fabric and an abstraction of the 'hidden' rules which made the unique urban form. However, this attitude has lead to the city becoming a repository of historic forms; with little or no acknowledgement of its four dimensional spatial quality. It appears that the present problems of urban design are rooted in not correctly defining the determinants of contemporary urban form.

The investigation of current approaches demonstrates that the problem is not only a matter of definition of this determinant but that the **approach** to it is crucial. At this point we would suggest that any already existing **historic urban fabric** in our cities, with their much appreciated positive and responsive architectural and environmental qualities, can be one of the main determinants. It must be considered as the fundamental source of reference or **inspiration source** for new designs, especially in and around the historic city cores.

These historic cores and quarters represent the genuine culture of their societies as they were formed by the major historical determinants that are derived from local characteristics of place, social conditions and the environment itself. The architectural quality of the pre-industrial city, is often hidden in its fabric, where architecture not only forms the city but is also formed by the city. This mutual relationship between the city and its architectural language and production demands that the design principles (in the production process of built environment) need to be derived from the pre-industrial fabric; the architectural product of that place, time and society, with its own spatial and aesthetic values. On the other hand, it is the 'actual' source to enable designers to learn how these determinants are correlated in creating a unique urban form responsive to social, natural and consequent architectural values.

Therefore, we argue, that the historic urban fabric needs to be understood as the 'actual' structure, rather than the mere agglomeration of forms over time. It needs to be accepted as a major determinant rather than as an 'object' as conservation tends to understand it, or as new design approaches sees it as a 'model', 'setting' or a resource of *new forms* through abstraction. Only then can architectural integrity, which is necessary to ensure the identity of the city, be established. This would help enhance the local urban characteristics and identity against the pressures of the global city image. As a result it is hoped that every city would once more become 'unique', each with its essential values. Consequently this Chapter will discuss the question of why and how historic urban fabric can be such an important inspiration source for new designs through investigating its basic characteristics.

6.1. CITY AS SYSTEM

A city can be defined as a complex system consisting of different structures and relationships built up through an incremental process. Every one of these structures represents a sub-system such as social, economic, political or cultural. However,

architecture forms the life of the city and its image; that is its personality. Architecture brings into being all those overlapping sub-systems in relation to time, place and society, as the *determinative* factor in the process. It has the task of employing different parameters and embodying them in the physical, man-made environment as the *cultural manifestation* of a society. Architecture *links* these sub-systems and provides a *place* for human interaction during the city's gradual development. Architecture that contains these economic, political, cultural systems itself forms a structure, a system of relationships between time, place and society on which one can base an argument.

At this point, the concept and content of the system needs to be clarified in order to introduce the approach of this study. System, according to Wittgenstein, is something in which all the parts point towards one another, in which premises and conclusions mutually support one another. However, a system cannot be presented all at once (Brand 1979). Wittgenstein argues:

"All testing, all confirmation and disconfirmation of a hypothesis takes place already within a system...our knowing, our belief; form a system, a structure"
(In Brand 1979: 9).

Hence a system depends upon the principles on which it is based and it can therefore be criticised, analyzed and hopefully understood within the scope of those intrinsic principles. Therefore, it can be said, a system is implicit in every argument and there is no validity to arguments outside of a certain system (Brand 1979). In other words, if one speaks about an element or a factor belonging to a particular system, the invention and the language of this argument needs to belong to the same system. An individual thing, therefore, has values only within a system, where it is a constituent element of the whole. Similarly, for Tagore the truth of this world:

"...is not in the masses of substance, not in the number of things, but in their relatedness"
(Tagore 1926: 5).

Thus nothing can be defined by itself nor has a value of its own, but always in relation to the others and to the whole. Individuals, being related to each other, form a structure; a system where every element can be similarly defined.

Therefore, the very *essence of a system is the relatedness of the elements among themselves and to the whole*, that in turn helps to create continuity. This is apparent in our perception of the universe, which is:

"...a system of continuity in which there are two elements randomness and organisation, disorder and order...alternating with each other in such a fashion as to maintain continuity"

(Young in Chermayeff & Alexander 1963: 28).

Then continuity is both a structure and an inevitable phenomenon. Therefore its existence can be considered self-evident. Continuity in the historical process shows that previous structures were always the reference for creating contemporary ones, often as a reaction to existing structures by improving or opposing, but always *within* the relationship¹. This can strengthen continuity which also assists the initiation of a related structure. So that everything stands against a background of a totally relational system and is contained within it. However, this enclosedness is relative, since every sub-system has a role within the whole, as single elements in a sub-system. Thus, one can claim, though it may appear paradoxical, that the pre-industrial city and the industrial city are enclosed systems. But, a system can be classified not only according to chronological order but in relation to the theme of the system, which forms its content. So when one indicates that the problem of a city is the *architectural quality of its urban form*, the theme is already defined. As a result, in searching for the reasons for the deterioration of the identity of pre-industrial cities, the causes may be found in a *deficiency of architectural quality and conflict in the urban fabric of contemporary cities*.

This study suggests that new building designs should be related to existing (today's historic) ones and to the total urban fabric to enhance the architectural system rather than help to dissolve it. Thus continuity, which can be seen as the active memory of a city, will be sustained. This is crucial for identity and consistency of the urban fabric of a particular place. Only then can the endless re-creation of the city occur within a given time span. We argue that every application of new design is a single constituent element of the total system; the city. This single new element will be only meaningful and valid if its relationship to other factors is recognised. Therefore, design considerations need to follow the intrinsic principles of the city structure which can only be grasped from the existing fabric. Quaroni supports this argument that the past form of the city is not only the image of a more beautiful city, but also a reference for architecture (In Rossi 1983: 38). However, if the design principles are wholly external

¹For example Filippo Brunelleschi (1377 - 1446) designed the dome of *Santa Maria del Fiore* in Florence, Italy. From the point of view of technical construction, as a completely new thing, which later transformed the traditional methods of work. However, it is well known that before the construction of the dome he went to Rome to study the fabric and proportions of the ancient city walls (Argan 1969: 25).

and not related, as happened during the industrial era, the new designs will become detached from the old fabric. In order to avoid this collision and duality new designs must be able to integrate with the existing structures; the essence of the system; the architecture of the city.

6.2. CONTINUITY IN THE URBAN FABRIC

If we understand the city as a system of relationships then we perceive continuity in the historic urban fabric as the consequence of an unbreakable succession of its qualities. It is the essence of the system and lies in the relatedness of the elements amongst themselves and also to the whole within the system which creates continuity. This, in turn strengthens the continuity which is the main stimuli for the transformation of the urban form.

Thus continuity can be seen as the memory of the city but also the generator for new formations. This is crucial for identity and consistency of the urban fabric of a particular place, because then an endless re-creation of the city occurs. A fictional description of cities from Marco Polo's travels well expresses this idea;

"...the real Berenice is a temporal succession of different cities, alternately just and unjust. But what I wanted to warn you about is something else: all the future Berenices are already present in this instant, wrapped one within the other, confined, crammed, inextricable"

(Calvino 1974: 163).

Thus the existing historic urban fabric with its coherent structure at all times can be the reference source to inspire ideas for new designs, that are intended for fitting in and around the historic fabric. Designers should bear in mind that every single element will be only meaningful and valid if its relationship to other elements is recognised. Therefore design considerations need to follow the intrinsic principles of an urban system and integrate with the existing structures; the essence of the system; the architecture of the urban space. Then spatial, architectural continuity can be achieved. Rossi supports this argument by stating that the composition and design of the city and of the architecture have their foundation in their own principles and continuity. We argue that these principles and the continuity in them are engraved in the historic urban fabric which therefore is the major and *actual* source for the architectural system in the future. Thus we agree with Rossi who writes:

"...if we have to think in a new way about the design of the city, a city which would be sufficient to our needs, utterly different from those of the past, constructed by modern means used in a manner that expresses modern life normally while allowing us to live in a modern way, we must address ourselves suitably, to positive variety which cannot be understood all at once and which we can study and appreciate only in whatever remains from the city of the past"
(Rossi 1983: 38).

He emphasises the city's continuity, stating that, *"It is a collective process, slow and traceable over a length of time in which the whole of the city, society and humanity with all its different forms, plays a part"* (Rossi 1983: 18).

Thus, we maintain that historic urban fabric is a vital resource for the future of the city. First of all, it represents the progressive continuity of urban form, always beginning a new stage of its existence. This is the inevitable result of the time-factor reflected in the built environment. The process in which a city takes its shape cannot be understood and judged just by a linear perception of time but the relationships between past, present and future of its urban form that creates a unified understanding of this phenomenon. It is possible to argue that time, in the modern era, is perceived as a linear process. The value of an object is derived from its position relative to the present in the linear progress, represented by the expressions before and after, past and future or old and new. This understanding frequently prized the new and disregarded the old. Probably one of the reasons for this is the perception of the present as an ever advancing time line, reaching into the future and becoming always more distant from the past. Despite the ephemeral nature of the present, this particular notion of time dominates our view of future.

If we change this relative perception of time from being linear to an ever enlarging three dimensional process, the value of things cannot be related according to their quality of being before or after, or old and new but according to other parameters. Time, in this sense, as an ever expanding, progressing network of relationships, is transformed by each insertion of a new constituent. If we try to apply this argument to the historic urban fabric, its value will not be bound up with merely the time parameter. Nor will it be judged only by a state of being *old* or *new* but according to other parameters inherent in architectural, environmental, cultural, or social values. In this relative or spherical

concept of time, everything is associated with each other, creating a network of relationships that have more than a linear time quality. And, one may suggest that time is not a separate, isolated parameter of anything in our argument concerning the historic urban fabric but is the basis of its existence.

With this understanding, continuity is assured by the integration of every individual building or complex into the whole, rather than the superimposition of a planning layout, as experienced by modern planning applications. In the end the product is a continuous and harmonious spatial structure, creating 'architectural atmosphere' and providing a resource for successive integrations. Sadly, however this interrelationship has been savagely disrupted by the modern era, which has regarded the 'past' as 'old' and should be thrown away. The ample application of this attitude has been demonstrated in the previous Chapters by the investigation of the experience of Istanbul's urban environment. Over the last forty years architecture, in spite of large scale planning efforts, now called 'urban design', has lost its authority over the creation of the built environment. Therefore, the first step should be to regain this authority. One of the steps towards restoring its importance maybe in the politics of construction activity. Another way is to consider the context in which an individual design piece is to be located. Then the correlation between the architecture and the place is reestablished, which, in turn, offers the authority of the built environment to *architecture*. Thus, historic urban centres become the subject of architecture not exclusively of conservation. Then:

"...architecture can open new lines of research and give new answers to the question of the progressive city"
(Rossi 1983: 53).

Once the historic city centre is accepted as part of the domain of modern architectural action, which is the primary and ideological, as well as political step forward in the establishment of a new approach; the question of understanding its value, its essence and the method of this understanding becomes the next crucial step in this argument. The architecture of new buildings should not return to historical forms and past motifs, if architecture is a cultural fact as an ongoing representative of history. Therefore the urban fabric should evolve in conformity with the resources of its *own time*². But it

²Here, the concept of time refers to our previous discussion about time, in this Section. Thus the phrase 'own time' of a thing is employed not in the sense of a linear process and progress being before or after but in the sense of its expanded, developed network of relationships which is transformed by each insertion into the new form. Therefore, 'own

should also evolve with an awareness of the historical resources and make use of their underlying principles for its integration into the previous structure to reach the ultimate aim which is continuity within the system. This is because, only the evolving process can ever be reestablished, not the forms. This integration should be based on the *spatial continuities* of the fabric rather than on any formal surface arrangements. The integration of new buildings should not be considered a superficial act, as only effecting surfaces, but an action which effects the whole structure, as a process in the recreating of the fabric of the city. This idea is supported by Warren (1980: 11) who states that:

"In architectural terms it must always be remembered that the quality of a building derives not only from the physical structure of which it is made, but from the contained and defined space within it and the shapes and aspects of the spaces left between it and other buildings".

Thus continuity in the spatial structure of an urban fabric appears as a vital property of urban form which, too often, has been disrupted by the applications of the industrial era. Continuity in the spatial structure of an urban form creates a consistency that in turn ensures the reproduction of that urban form. It is an important quality of an adequate built environment formed by its major determinants, society and place through architecture that assists the creation of its distinctive identity. This is, in fact, the inseparable quality of man's civilisation as expressed by Kubler (1962: 2)

"Everything made now is either a replica or a variant of something made a little time ago and so on back without break to the first morning of human time".

6.3. IDENTITY

From this point of view, one may claim that a historical built environment, as well as other cultural artifacts, are a vital source of cultural identity for any society. It is, in fact, the paradigm of a cultural system. Anderson (1982: 109) supports this argument when he states that:

"The interpretation of artifacts is an intricate activity, inseparable both from the place of the artifacts in cultural systems and from our theories of culture..."

This artifact expresses a reciprocity among the makers, their products and the society of which they are a part (Anderson 1982: 114). In the contemporary context, particularly

time' of a thing refers to its 'phase' in this ever changing system.

in the case of the developing world, there is an increasing problem of identity due to recent developments that were discussed in Chapter One and analyzed in details in the following Chapters with special reference to Istanbul. Concern about our historic urban fabric is inevitably tied up with our concern for our cultural identity. The historic urban fabric and its preservation in those countries is seen as a definite necessity for their cultural survival and identity (Kuban 1983). Identity can not be created from the beginning, but once it exists it can be preserved, and enriched. The sources of enrichment derive from an 'historical sense' which according to T.S. Eliot "*...involves perception, not only of the pastness of the past, but of its presence*" (In Venturi 1977: 13). And thus it compels a man to produce (write or built) not merely in his time but with a feeling for the whole of the related culture. Historical sense, Eliot continues, "*...is a sense of the timeless as well as of the temporal and of the timeless and temporal together, (It) is what makes a writer traditional, and...at the same time what makes a writer most acutely conscious of his place in time, of his own contemporaneity*" (In Venturi 1977: 13). This, in turn, engenders perpetual evolution and metamorphosis of an identity. Thus, as Eliot expresses "*No poet, no artist of any kind, has his complete meaning alone*" (In Venturi 1977: 13) but within the identity of their cultural system.

The historic built environment can be understood as an already established part of that identity, especially of a particular city and therefore it to can be preserved and enriched. The city is the actual evidence of the experience of the past but also the 'base' of the present and therefore the future. Clearly it needs to be protected from further destruction. However conservation of historic urban fabric, if ever to be realised in those countries due the economic and politic situation, is not sufficient to create the 'place' of a cultural system. Conservation basically does not respond to the question of how to design the new buildings which is, in our view, the crucial problem of the present and also the future in those countries, where new design is accompanied by the notion of cultural identity.

Rossi (1983: 51) disagrees with the idea of the total conservation of an old centre seeing it as over ambitious. He asserts that historic urban centres have a great importance in the dynamics of the city but need to be considered within the realities of the modern world. Only in this way can architecture challenge history and become history, not through traditionalism and historic assumptions (Rossi 1983: 52). Therefore, he argues that analysis of historic urban fabric is more important than repairing it because, "*Even*

if much has been lost, correct analysis can still highlight whole districts which, left to their residential function, may be a positive element within the heart of historic centres" (Rossi 1983: 51).

The historic urban fabric is understood here as the actual representation of cultural identity because: firstly, it is a kind of text to discover and know for oneself. Secondly, it is the place where our cultural personality becomes significant and thirdly, it is the 'stimuli' for further designs. Therefore being aware of the dilemma, one can argue that every cultural body has a right to decide, to initiate and shape their own future according to their own need, will and ability. Taking this stance, they must evaluate their history and environment through their historical and cultural heritage. This work as whole is an attempt to generate an approach or a point of view towards the future of our built environment, regarding its present situation and its past as having been crudely disrupted. Therefore, it is not an attempt to respond to all the questions and solve all the problems related to this complex phenomenon of developing countries, but rather our study tries to answer *why and how is it possible to grasp the essence of an historic urban fabric* which in turn may become the inspirational source for new designs that can be expected to enrich our cultural identity.

6.4. THE PAST

Any concern dealing with the historic urban fabric leads us to explore, at first, the concepts of the past since historic urban fabric is the result of the past. The past is known to us in the form of its products, since time can only be known:

"...indirectly by what happens in it: by observing change and permanence; by marking the succession of events among stable settings; and by noting the contrast of varying rates of change"
(Kubler 1962: 13).

In this sense, time is embodied in matter and space which is represented by the man-made environment. Kubler (1962: 14) argues that, *"We depend for our extended knowledge of the human past mainly upon the visible products of man's industry"*. This pastness is one of the significant properties of any historical artifact, monument or historic urban fabric.

Wittgenstein describes 'the notion of the past' as a human response. Because

"The beast have no notion of the past or the future...Man on the other hand has an awareness of

past and future, and hence an awareness of past and future events"
(In Griffiths 1974: 99).

Therefore;

"The beasts live only in the present; man lives in time, but only man can grasp that space, and time are no more than the conditions of his consciousness"
(In Griffiths 1974: 99).

Thus our idea of the past can be understood as an outcome of the intrinsic and natural condition of human kind, particularly of our intelligence. Similarly Hewison indicates this relatedness between the notion of the past and the condition of man when he states that;

"The impulse to preserve the past is part of the impulse to preserve the self",

and furthermore;

"Without knowing where we have been, it is difficult to know where we are going"
(Hewison 1987: 47).

Consequently, the past provides a deep perspective, a mental view of humankind for the understanding of its own process of *being*. This perspective can be enriched by references to the cultural heritage of our past that can be verbal such as mythology, behavioral such as customs or actual and tangible such as archaeological and architectural heritage. Thus the heritage of the past, in varying forms, becomes a vital part of human life because as Shankland expresses:

"To any generation, an identifiable past offers a line of communication with others: between the living, the dead, and those still to be born. It provides a reference to previous experience; an illustration of how man went about creating a civilized environment; a reservoir and perpetual source of historical delight; a culture to be accepted, altered, rejected, re-interpreted or rediscovered"
(In Appleyard 1979: 19).

Thus the past moulds individuals and our collective identity (Hewison 1987: 47) that in turn is reflected by our culture. In this regard culture becomes assimilated, evaluated and accordingly the substantial form of the past. Therefore *"...objects from the past are the source of significance as cultural symbols"* (Hewison 1987: 47). From this assertion, one can suggest, that the past is evident to us in the present and from the point of view

of present circumstances. This opinion is supported by Giedion (1967: xlix) "*...the past is something not dead but an integral part of existence*". Therefore an understanding of the past is a subjective matter not only due to the parameter of time, but also due to human nature. Therefore, for example, as Jan Vansina states:

"The study of memory teaches us that all historical sources are suffused by subjectivity right from the start"

(In Lowenthal 1993: 210).

Anderson (1982: 109) supports this view when he states that:

"A society based on custom knows its past through the societal structure of the present. A society that adopts historical reconstructions, ironically, distances itself from the past, just as it comes to know that past".

Here the past appears in its present form, in people's mind according to their understanding. For Giedion (1967: xlix) "*...the past grows incessantly into the future*" and "*...it all depends on how one approaches the past*". Thus a particular portrayal of the past only becomes evident to us, according to our present time but it is necessarily never the whole truth about the past. Wittgenstein supports this argument by stating that:

"...the world is mere representation, a world of past and future real only to me in the present"

(In Griffiths 1974: 100).

Lowenthal (1993: 412) supports this argument by stating that:

"The past remains integral to us all, individually and collectively. We must concede the ancients their place,...But their place is not simply back there, in a separate and foreign country; it is assimilated in ourselves, and resurrected into an ever changing present".

Thus he emphasises the value and authority of the present in understanding the past when he states:

"The past is everywhere. All around us lie features which, like ourselves and our thoughts, have more or less recognizable antecedents. Relics, histories, memories suffuse human experience. Each particular trace of the past ultimately perishes, but collectively they are immortal. Whether it is celebrated or rejected, attended to or ignored, the past is omnipresent"

(Lowenthal 1993: xv).

Thus he indicates the subjectivity of our understanding of the past which is so dependent on present conditions. On the other hand, the past is not a separate part of civilisation but it is already embodied in our present form of life. The visible difference between past and present, then, is part of the human psyche. Time and space as the very basic components of the universe stimulates the continuing motion that is experienced by humankind. Popper's argument supports this idea when he states:

"...space and time themselves are neither things nor events: they cannot even be observed...They are a kind of framework for things and events...(they) are not part of the real empirical world of things and events, but rather part of our mental outfit, our apparatus for grasping this world" (Popper 1963: 179).

A Buddhist thinker Inoue Enryo (1858-1919) wrote:

"The realm of our experience is similar to a tapestry. Time is the wrap and the space is the wool; the myriad patterns appearing out of warp and wool are the metamorphoses of all things"
(In Grapard 1982: 196).

And time is known to us through these metamorphoses.

Consequently, it is important to distinguish our understanding of the past as a 'process' from seeing time as a collection of various 'states'. Our understanding of the past as a process helps to prevent the nostalgia and imitation of one of its selected 'states' and promotes the portrayal of the past as an established 'base' or foundation of the present; avoiding unnecessary new establishments. Thus this insight discourages the usage of the past as 'models', since as a process it cannot be reproduced and therefore cannot be objectified. Giedion (1967: xlv), in this sense, warns architects by stating that; "*The approach to the past only becomes creative when the architect is able to enter into its inner meaning and context. It degenerates into a dangerous pastime when one is merely hunting for forms: playboy architecture*". Thus it becomes crucial for us to perceive the historic urban fabric not as a repository of past forms but as the inspirational reference source for present day applications, if we are to avoid formal recalls.

6.5. GROWTH AND CHANGE

There are three major threats to the historic urban fabric at present. The first threat is it could be destroyed and replaced by modern design applications, second is that it could be just preserved due to its numerous qualities, such as its importance for cultural

identity, and being an example of environmental equilibrium and architectural values. And third is that new design approaches could use it as the 'setting' for formal repository of forms of new designs. This study suggests that a new perspective towards the historic urban fabric, is to accept it as a 'resource' for the future city form and therefore to understand its 'essence', and architecture through analysis of its urban structure.

Conservation of the historic fabric helps to prevent further destruction of its fabric, helping to maintain its integrated structure. Therefore we agree that the conservation of historic urban environments has a significant role to play in this realisation of an architectural context. However, its contradictory nature (Appleyard 1979), as well as its potential to be exploited for merely economic benefit's reduces its reliability and validity (Hewison 1987). Besides, the ever changing nature of the built environment tends to distort the conservation of many historic areas into sites of tourism where only surface restoration is accomplished. Therefore, the responses to the problems of today should both aid the prevention of further destruction in these sites and at the same time influence and control the transformations that occur; guided by the area's existent architectural qualities.

Here the question of *how one should transform these areas, by what architectural vocabulary* and *What are the motivators of new inventions* needs to be asked. We suggest that at first, the system of historic urban structures needs to be understood and any intervention of the fabric should show appreciation of its system. This approach will help sustain the continuity and harmony of a particular place and at the same time allow for its transformation. Such 'understanding' will stimulate the urban environment's potential for growth and change. The process of growth and change in an urban form follows several stages that will be described with the assistance of an analogy.

The argument about the historic urban fabric as a design source for the future form of the city may be explained by an analogy from Piaget's theory of development of cognitive structure, and therefore the development of an urban structure. His theory, although about the structure of the mind, will be clarified not by providing scientific proof for our discussion, but as an appropriate comparison to help explain clarify our argument about the city as living entity, just like the mind. However, not in terms of its biology but as an example of development and change in a structure.

He suggests that every human being has a *pattern* of behaviour or thinking to deal with objects in the world called *scheme* by Piaget (Slavin 1991: 26). This mechanism can be simple, as when a baby learns how to grasp an object, or complex, as when a high school student learns how to solve a mathematical problem. Schemes can be classified as behavioral, as driving a car, or cognitive as solving problems (Slavin 1991: 26). In to Piaget's theory, schema are the necessary base of learning and knowing. There are three basic mental activities in this process; *assimilation*, *accommodation* and *equilibration*. Piaget describes how a human being assimilates new experiences into a previously formed cognitive structure (Slavin 1991: 26-28). This is the action of incorporating a new object or event into an existing scheme. New experiences are interpreted in relation to already in-place patterns. Therefore incorporation involves "...*filtering or modification of input*" (Piaget Quoted in Slavin 1991: 26). The scheme is not in a frozen state, with each new input it responds as an ever changing and developing structure. This was conceptualised as *accommodation* by Piaget and used to describe the modification of an extant scheme to fit new objects.

He explains it with the example of a baby who learns how to bang small objects and then is given an egg. When she bangs the egg on the basis of her existing knowledge the egg is broken. As a consequence of this experience, the baby may change the scheme and in the future the baby may bang some objects hard and others softly. The third concept is *equilibrium* which is the phase of restoring the balance between present understanding and new experiences. In Piaget's theory, unexpected or unknown experiences create a state of imbalance between what is understood and what is encountered. People, naturally react to these imbalances, by focusing on the stimuli that caused the disequilibrium and develop new schemes, or adopt old ones until the balance is restored. Piaget argues that learning depends on this process because to resolve the emergent disharmony, a person must accommodate a new perspective and grow in understanding. But, this depends on the level of skill acquired that improves as a person's cognitive abilities develop.

The logic of this analogy is the concept of the 'scheme'. Piaget developed this term to explore how our learning and knowing depends on our previous cognitive structure. New inputs and the existing structure are mutually dependent. From his theory we recognise that, although 'equilibrium' in a system is the major goal, equilibrium is not a stable condition but is part of an ever growing and changing structure, in other words, an living

entity. As a metaphor, the 'existing', particularly the historic urban fabric can be explained as the 'scheme' of a city. Observation of cities demonstrates that they grow in time, passing through various stages to reach the actual, contemporary state, or using our analogy a state of 'equilibrium'. Each phase of this growth process becomes the resource, the base, in other words the 'scheme' of the next stage of development. Our comparison illustrates the existing urban fabric consists of formed patterns, the scheme. These schemes can be accepted as the ground for future developments.

The process of cognitive development as an analogy, is also helpful to clarify our argument on the development of the urban fabric, which takes place in three phases. First phase, is the integration of the new elements into previously formed spatial structures, resembling the *assimilation* process of learning. In this process a new component is incorporated into the existing fabric which involves interpretation and modification. Any new element or intervention into the existing urban fabric should be based on the present network of relations. But, the nature of this structure is ever changing, and thus it successively begins a new phase because every input creates new relations. The existing structure is modified diachronically and synchronically, similar to the *accommodation* process of learning. While in the first phase the recent input is adapted, the second phase shows that the input or new element, modifies the existing structure.

Thus the ever developing relationships between single elements and the whole are sustained. In the third phase, these activities between the present and the new formation could create a structural imbalance. (The present crisis of the built environment expresses this situation). The *disequilibrium* could be resolved by the application of a new perspective, but this is only possible through increased understanding. Thus our comparison between the growth of cognitive abilities and the development of the urban fabric strengthens our argument that the historic urban fabric can be the basis of new interventions. Similar to Piaget's theory for the acquisition of knowledge and development of new skills, where the mind works from a repertoire of mental schemata (Gelernter 1988: 47) or the structure of things that are already known and experienced, in the urban structure new interventions into the existing fabric should be based on the 'scheme' of the urban fabric. This inevitably leads us to suggest that the historic urban fabric is the 'scheme' for an urban form in which the new forms of a city are to be based.

6.6. CREATIVITY

Proposing the historic urban fabric as a 'resource' for new designs and yet avoiding the imitation of past forms requires us to understand the role and meaning of creativity in the process of designing for the 'contemporary'. 'Creativity', in psychology, is one of the trait names commonly used to describe behaviour which includes flexibility in thinking and fluency in the production of ideas. More than that, it is the originality of these ideas (Gage & Berliner 1991: 150-151). The nature and emergence of creativity is not mysterious, but is dependent on human characteristics which are stated by Gage and Berliner (1991: 62) as heredity (nature) and the environment (nurture) both being indispensable to human development.

Here, once more the inevitable relationship between man and nature explicitly appears. Human development becomes dependent on this relationship, which is expressed in cultural forms; and the urban fabric is one of the complex and major artifacts of man's culture. This argument is supported by Gage & Berliner's (1991: 540) definition of human behaviour, in which creativity is a distinguishing feature and is "*...culture bound*". Thus, cultural structure determines human behaviour, that in turn forms the cultural artifact. This understanding is crucial for our proposal for the historic urban fabric to act as the basis for new developments. Firstly it suggests that the already existing structure of culture is a stimulus for new 'inventions'. This can be related to the processes in the human mind that acquire new knowledge and develop new skills working "*...from a repertoire of mental schemata-programs of conception or action-which in the past have enabled the individual to negotiate problems successfully*" (Gelernter 1988: 47). So, when an individual faces a new situation, the solution arises from an existing mental repertoire, the 'scheme' that appears to be vital for new development.

Gelernter (1988) suggests designing, being essentially a mental activity, probably follows a similar procedure to that of any other mental activity. Therefore it is helpful to understand the basic principles of this mental procedure when attempting to clarify the nature of new designs. As already noted, according to Piaget there are three mental activities in the learning and knowing process: *assimilation*, *accommodation* and *equilibration*. These three activities are based on schema: existing patterns of behaviour and thinking. The most significant characteristics of these schema are that the process indicates the inevitable and mutual relationship between the existing structure and the

new input. This new input (experience or information) creates new relations which in turn causes the previous scheme to be renewed. Thus:

"Knowledge becomes meaningful and is retained for future use only when a cognitive schema has been developed with which to pigeonhole it, and the schema can only be developed while struggling to adjust old schemata to new problems"
(Gelernter 1988: 48).

This understanding is applied in the designing activity by Bill Hillier and his colleagues (Gelernter 1988: 48) who suggest that when a designer is faced with a problem, he selects a solution type, in other words, a cognitive schema, from his existing mental repertoire of design ideas to solve the problem.

Subsequently Gelernter (1988: 48) analyses this theory in the context of architectural education and argues that neglect of the existing repertoire, schema, by design students in their training "...ensures a mismatch between the 'knowledge' offered by the course and the student's ability to assimilate that knowledge". It is a designer's expertise to command a repertoire of solution types, however the designer, "...places new solution types organically grown from the application of old concepts to new problems", in turn revealing that, "...the development of this repertoire does not begin and end with the formal training in an architectural course" (Gelernter 1988: 49). But it is based on the surrounding world of built forms.

Therefore the development of the cognitive repertoire of a student of architecture is already formed by the existing built environment before he or she starts a formal course. From this point of view, one may immediately suggest that the quality of the existing built environment underpins the quality of future designs in historic urban fabric. In this way, the 'architectural atmosphere' of the built environment becomes a major source of initial experience for future designers, developing their cognitive abilities.

Gelernter's (1988: 51) theories about the instruction of abstract visual design teaching were developed by the Bauhaus and followed by many schools. Gelernter argues that the universal principles of visual design are unspecific and diagrammatic, encouraging the students to think in terms of minimalistic, abstract and diagrammatic architectural forms. The attempt to establish an universal teaching grammar independently of any particular application he argues, is like learning the grammar of a language without simultaneously learning its vocabulary in practical use. And he rightly asks if it is

possible to "...expect language students to learn a universal grammar underlying all spoken languages without first studying the grammar of a particular language?" (Gelernter 1988: 51-52). He argues that "An understanding of a universal grammar can only come at the end of this process, not at the beginning, and it starts in practical application, not in the study of abstract principles" (Gelernter 1988: 52). Here he points out the importance of a cultural system which can provide a particular 'language' familiar to both the design students and the society for which they will design.

Gelernter's argument on training students of architecture points out the importance of the existing built environment in this educational process. Firstly, it provides initial knowledge, image and understanding and secondly, it provides practical experiences, in design principles, in terms of rhythm, proportion, scale and balance in form and space; and also in technical, cultural, social and environmental aspects. According to Piaget's theory, invention of the new in an existing built environment, is only possible by understanding the already in-place system. In other words, to be able to invent one should understand the 'thing'. Thus creativity, although in its essence means originality, is already much determined by the existing structures. In this sense, the historic built environment can determine the design of future inventions thus expectantly ensuring a more coherent structure.

As a result of the severe break between our historic urban fabric and present day society (including designers), an understanding of the urban fabric becomes crucial for future 'inventions'. A method of understanding needs to be established: this requires an initial preparation, that is a *reading* of the fabric, in order to make it 'legible'. This is considered necessary because the system in which it was developed differs dramatically from the system in which we now live. With Wittgenstein (In Brand 1979: 9), if one speaks about an element or a fact belonging to a particular system, the invention and the language of this argument needs to belong to the same system. In this case the reader, in the present time, and the object to be read, belonging to a pre-industrial period exist in two different systems. It is a question of interpretation. Architecture, encompassing both industrial and pre-industrial contexts, can be applied and then reading becomes possible. Succeeding Chapters the methods of analysis of urban form will be discussed and clarified.

6.7. CONCLUSION

In this Chapter we have attempted to demonstrate that historic urban fabric, as one of the major determinants of urban form, can be an inspirational source of new designs and therefore, the future city form because of its significant characteristics. Discussion of the system theory showed that every single element needs to relate to its surroundings and to the whole, in turn creating an integrated and unified structure. Historic urban fabric contains this property, unlike so many of the modern urban spaces in which every unrelated building expresses its own individuality. This creates fragmented urban spaces, and that is one of the major reasons for the failure of our contemporary cities.

New insertions into the historic urban fabric should appreciate its already existing structures and relationships, and equally represent their period of time in terms of form, technique and material. Determining factors of this or that *time* are also important determinants of new designs. Continuity, crucial for the identity of the city, can be ensured by respecting the established network of relationships. Giving the emphasis to relationships in the urban fabric, the process and spaces in preference to forms becomes fundamental. An understanding of the determinants of historic urban form enriches the identity of new insertions.

The past in relation to the historic urban fabric is embodied in its existing physical structure, not as forms, but as 'actual' spatial structure. Therefore the past in the historic urban fabric cannot be separated and detached from the present. If the pre-industrial city is considered 'historic' in the present day, it is not because it belongs to the past. Instead, the major reasons are the disruption in the formation process and changes in determinants. If we understand determinants through the careful study of their spatial structure we may regain the essence engraved in the historic urban fabric.

The growth process and changes in the urban fabric, support the above arguments: that any new phase of a structure is based on the previous structure, through a relationship between the new, single elements and the whole. Creation or invention of the new, also depends on, or is determined by, the existing structures. Thus the historic urban fabric is the 'base' for continuity, identity and creativity in any future city form. However, it should be understood that before designing a new, or reviving the old, designers and others must make a thorough and careful analysis. A method for this will be discussed in the following Chapter.

CHAPTER SEVEN

Analysis of Historic Urban Form

7.0. INTRODUCTION

Our proposition which earlier suggested the 'essence' of an historic urban fabric of a city as one of the vital determinants for its future form raises two basic questions to be answered. The first consideration is *why* we need to know and understand 'essence' of an historic urban fabric; this was examined in the previous Chapter. The next question is *how*, in other words, what method should we apply to comprehend better the characteristics of the essence of any historic city. Here, urban fabric appears as a phenomenon to be analysed in order to explore the nature of its formation. From there the essence of its system can be grasped and applied to designing 'new' formations. Any new design maybe expected to represent its time in terms of stylistic, technical and functional phenomena, as Gottfried Semper indicated when he said "*...each architect must work within his own culture*" (Quoted in Anderson 1982: 114) so that "*...they will not come back as history and memory, but elements of design*" (Rossi 1983: 60). Therefore, the understanding of urban form becomes a necessary task for revitalisation and renovation as well as the repair of these cities. This task has led to several different approaches being made towards the future of our cities.

Comparisons between the urban form of pre-modern and modern cities draws our attention to the generally integrated, harmonious spatial structure of the former. This has led to numerous studies in an effort to understand the reasoning behind it being so. One of the most prominent among them was provided by Christopher Alexander (1972, 1987) who concluded that the *process* and its resulting *wholeness* are the basic principles of pre-modern urban fabric. He continues that this characteristic is lacking from most of our modern cities. We have already discussed his approach in Chapter 5. Much earlier, Eliel Saarinen pointed out several significant characteristics of the pre-modern city, which will be presented in this Chapter.

Following these early attempts to understand the underlying principles of historic urban fabric, a method of analysis, based on understanding the relationship between urban

morphology and building typology, was launched in 1950, in Italy. This has been taken up and developed by numerous scholars, such as Aymonino and Rossi, whose work and approach have already been presented. They are followed by two prominent French urbanists, Castex and Panerai, who established a method of reading cities based on the same principles, and further applied the method to the analysis of some case studies. On the other hand, Klaus Herdeg emphasised the importance of the formal structures of cities, maintaining that they are the 'text' to be read and understood when analyzing the urban form of a city.

This Chapter will examine and discuss these methods of analysis in relation to the aim of this study, which is to establish an appropriate method of analysis of urban form in order to understand its 'essence' and use it as the basic inspirational source for any future developments and interventions in that urban fabric.

7.1. AN EARLY ATTEMPT

Eliel Saarinen (1966) suggested learning from the Medieval cities for the future form of the modern city. He tried, from an architectural point of view, to discover why the towns of the Middle Ages took the shapes that they did (Saarinen 1966: 32). He found that they tended to decline because of the gradual loss of their main characteristics (Saarinen 1966: 75-78). He stressed that the town is not a two-dimensional plan, but "*...a three-dimensional embodiment of architectural proportions and masses*" (Saarinen 1966: 46). He further states that Medieval design, "*...was basically a spatial conception*" and that these towns "*...did not develop from a stylistically preconceived and fixed plan form, but more from a three dimensionally visualised picture of that particular town's organisation*", and that therefore it was a three-dimensional town design not town-planning, as a mere configuration of streets (Saarinen 1966: 49). During the process the master builder had an enormous task because the ultimate form of a structure came from his instinctive feelings and spatial conception. Moreover, Saarinen brings to light an important aspect of Medieval town form, which is the interrelationship of buildings. He uses nature as an example stating that:

"...just as in nature, where a landscape could not achieve its ultimate beauty by the mere growth of trees,...and plants into exquisite specimens, unless the individual and collective parts were conformed into proper interrelation"
(Saarinen 1966: 53).

For him, the beauty of the Medieval town did not derive from individual buildings but from a proper correlation of those buildings (Saarinen 1966: 53). The eventual loss of these

two major properties, form expression, and form correlation were the reason for the city's decline. They were often replaced by imitations that lacked that interrelatedness, such as the work carried out in the Late Renaissance period, leading to a much more 'stylistic' episode in town architecture (Saarinen 1966: 75-84). This, in turn tended to degrade the architecture into becoming ornamental and two dimensional, utilised only for the embellishment of the facades of palaces. Thus, the town:

"...instead of having been developed into a three-dimensional manifestation of human cultural aims, became a heterogenous display of all kinds of buildings...town design vanished from the field of architecture"
(Saarinen 1966: 86).

In contrast to modern towns, Medieval ones were much more integrated with their surroundings (Saarinen 1966: 64). Relatedness between people, individual buildings and the natural environment helped to create magnificent architectural ensembles and thus provided the 'architectural atmosphere' which Saarinen (1966: 64-72) considered to be well represented by the San Marco Plaza of Venice. It can be claimed that this atmosphere, with its producers and clients, was the main source and stimulus for its future development, providing a 'model' of its own.

Saarinen supported these significant observations on the Medieval urban form when he pointed out that the spatial conception of a place was the basic principle in the design process and that architects played a crucial role in this. He drew attention to the *relationship* between buildings, rather than the buildings as isolated objects. He maintained that town design was in the field of architecture, and that form expression and form correlation were the key motives towards making the 'architectural atmosphere' of a place.

However, Saarinen's proposal for the production of the future city was contradictory to his previous analysis and evaluation of old towns, but responsive to the ever increasing material needs of the period. For him the

"...past methods of town building are not valid any more, and that present and future methods must be based on entirely new premises"
(Saarinen 1966: 143).

7.2. READING THE HISTORIC URBAN FORM

Contemporary studies on the architectural analysis of urban form led to investigations of the relationship between buildings and their context. Although the discussion of 'type' and typology began earlier, the more recent works on urban morphology by Saverio Muratori at the Venice School of Architecture were not commenced until 1950 (Samuels 1983: 2). He saw the division between the historic city and the contemporary city, and rejected the idea of the Modern Movement which proposed the reinvention of the city. He criticised contemporary architecture for its neglect of the concepts of connection with the past and its gradual change, indicating that the crisis was thought of as from within the problem of the crisis in the contemporary city. Therefore, he suggested that the urban fabric and the evolution of the relationships between buildings and their context must be studied only through typological analysis (Panerai 1979).

For this work, a number of such analyses were undertaken, using a combination of direct observation and documentary evidence surveys (Samules 1983: 2). There were two very important findings. Firstly, a vital outcome was that a type can only be defined from its concrete example - the type does not exist before it is applied within the urban context. Secondly, an urban form can only be analysed and understood within its historical process, because only then can the growth be seen, and the transition and reaction of a structure from one state to another be followed. It can be said that the aim of his analysis was to discover the principle logic of historical development of urban form.

Typology was seen as the essential methodology of this analysis which was followed by his students, notably Paolo Maretto and Gianfranco Canigga (Samuels 1983: 3). Maretto's study of the typological analysis of one family dwelling became a model for such studies. Canigga's extensive writings explored Muratori's ideas. His work on Florence's historic centre has served as a vehicle for the careful and systematic development of typological studies. The essence of Canigga's ideas were, "*...the strict and continuing connection which should be maintained between each part of a city and the form of its 'first building'*" (Samuels 1983: 3). Any modification was obliged to follow the same rules, which were the ensemble of the aggregated buildings, spaces and access routes (Samules 1983: 3).

However, it is argued that there is a hierarchy in urban tissue classified into basic types, such as dwellings, and special types that make up the other buildings in the fabric

(Samuel 1983: 3). This classification is similar to Rossi's in which he divides the types into housing; and primary elements such as religious buildings and shops which are mainly public buildings (Rossi 1991). Canigga also introduced the notion of the 'leading type', which is a model according to which the mutation of fabric takes place. This leading type is defined by him:

"...as the concept of house where there is an optimum relationship between the building and the urban tissue i.e., the form of the house is not restricted by the tissue because their construction is synchronous"

(In Samuels 1983: 3).

So, the growth process also takes place at the same time. The analysis of this expansion becomes important in reading the city as a series of modifications over time. Accordingly, the latest urban expansion is modified according to the contemporary leading type, while any previous expansion was designed according to the previous leading types (Samuels 1983: 3).

The implications of this method are two fold. Firstly, it is useful to urban conservation both in order to repair the tissue, and also to determine design considerations of contemporary designs within a context that is compatible with its surroundings, in terms of form and use (Samules 1983: 4). Secondly, possible application of the method is in the case of reconstruction, particularly after an earthquake, bombing or even a poorly considered speculative development. The analysed continuity of the urban tissue of the other parts of the city would be the determining rule for planning the reconstruction. It is intended by this means to avoid making copies of previous buildings. Instead, the first building of the area would be the 'leading type' of the new buildings in order to control the reconstruction and design the *new* according to the existing tissue (Samuels 1983: 4). We would argue that in this case that the choice of the leading type, although it may be vital for redevelopment of the area, could be somewhat arbitrary. Therefore, the absolute leadership of the remaining types could be questionable.

Morphological analysis has become the common approach for conserving Italian cities over the last two decades (Samuels 1983: 4). The example of Bologna represents the most extensive conservation work which has applied this approach. It was criticised for the lack of adequate research in Bologna before starting the work, and for excessive preservation efforts (Samuels 1983: 5).

Muratori's ideas and approach were also followed by his colleagues, Aldo Rossi and Carlo Aymonino at the Venice School of Architecture (Samuels 1983: 5). Aymonino and Rossi expanded Muratori's ideas and developed a new direction for contemporary architectural design which was discussed earlier. The essence of Rossi's new approach to architecture is the form, since he believes in the permanent character of the form (Rossi 1991). Therefore, types become important for his way of designing, which rejects the idea of constantly reinventing form as maintained by Modern Movement. His emphasis is on the historical process and the experience of architecture, not only in terms of form, but also in its approach to problems. Subsequently two French urbanists, Jean Castex and Phillippe Panerai, based at the Unite Pedagogique d'Architecture No:3 at Versailles, were also influenced by Muratori's and Caniggia's ideas and studies (Samules 1983: 6). They developed a methodology to analyse urban form, which is considered the most comprehensive yet devised.

7.2.1. A Method for Reading the City

Castex and Panerai express their debt to the work of S. Muratori, C. Aymonino and A. Rossi in the formulation of their method (Castex 1979). Panerai stated that their main objective *"...is to work towards the understanding of the relationships between architecture and the city..over fashions and styles"* (In Castex 1979: 85). For them, the approach the history of architecture through typological analysis requires the same understanding of architecture, *"...to gauge their interactions and to perceive how one or the other contributes to the construction of towns"* (Castex & Panerai 1982: 94). They urge that each town draws on a special architectural history which should not be reduced into a general 'model'. Therefore, they criticise Leon Krier's deduction that European cities are in the same forms as all European towns. This can be seen as an abstraction in the same spirit of the Modern Movement. Castex and Panerai's definition of the town includes old centres, faubourgs, banlieus (outskirts) and recent suburbs. They ask the crucial question:

"How may the present situation be understood while study is limited to 'historic centres' (where does history stop?), but also how may present-day breaches with the past be comprehended without first apprehending its slow sedimentation?"
(Castex & Panerai 1982: 94).

In this context, progress means the recognition of different urban cultures which are expressed in each town by the organisation and distribution of buildings, their usage and their symbolism; and also the social life of its people.

Castex and Panerai (1971) suggest four main steps in analysing urban structure. Firstly, the typology of elements; secondly, analysis of growth, thirdly, articulation of urban space; and fourthly, legibility of urban space. The first step, the typological analysis of the elements, follows four phases. At first an inventory of types from the urban system is prepared in order to compare the formative elements to identify, classify and regroup the types. The elements that are the subject of the typological analysis are of two kinds: firstly the buildings, and secondly the unbuilt areas. The typology of the buildings requires several criteria for the analysis (Fig. 7.1, 7.1a, 7.1b):

- a) Their relation with the public spaces - direct or indirect,
- b) their associative qualities: that is between the elements (buildings and unbuilt areas) and to their surroundings; their characteristics as leading factors in the urban form; association of elements as linear or multidirectional form or as a configuration of both states,
- c) their distributive properties, and
- d) their composition of facades which can be classified according to their characteristics such as homogeneous / composite or symmetrical / unsymmetrical.

The typology of the unbuilt areas (*des spaces non bâtis*) concentrates on circulation spaces such as streets and their intersections and squares. The relation of a street within a street network, definition of space (Fig. 7.2) and surrounding constructions such as walls, will all help the analysis of the individual elements (Fig. 7.2a). Squares can be looked at according to their form, relation to streets, and their relation with any exceptional elements, for instance, a tower or a religious building (Fig. 7.2b). Lastly, there are major elements in the unbuilt spaces such as bridges, viaducts, ditches all of which break into the tissue (Fig. 7.2c).

The second phase of the method is suggested as the analysis of the growth (*croissance*), which follows certain rules which can be defined. There are two basic modes of growth: uni-directional (linear) and multi-directional (organic) (Fig. 7.3). These can be combined, and occasionally there are conflicts (Fig. 7.3a). In addition, there are limits to growth, which may be physical barriers such as rivers, forests, or protected areas; or another city, or internal barriers which define the phases of growth.

The typological inventory of urban elements, and the analysis of the growth process, can be seen as a preparation for reading complex relationships. The third phase looks at the articulation of urban space at two levels, hierarchical and superimposed (*imbrication*): the private, daily and urban levels. The private level concerns firstly, the individual, and subsequently the collective spaces such as houses, offices etc. The daily level concerns individual buildings but within collective life, a quarter. The urban level, however, concerns all the relationships and the structure of the space, including administrative bodies, monuments, boulevards and symbols. Besides superimposition is involved with the motives of articulation and collision of urban space.

The fourth phase is legibility, urban and monumental. The former considers visual characteristics: roads, arteries, junctions, identified sections, barriers and landmarks. In the latter, monuments are accepted as exceptional elements within the urban system, identified by their function and form. However, monuments are not isolated and can only be read within their urban context. The method of analysis of the monumental system follows three steps: firstly, the repertoire of monuments with their names, original function, creation date, transformation, spoliation, area of influence, area of reference and formal type; secondly, their influence in the urban structure, their axis and role. Thirdly, the identification of symbolic role of monuments, if a quarter is represented by a monument. Finally, their role in the city as a whole.

In conclusion, they stated that it is important to realize that this whole analysis is carried out simultaneously on several levels. In the four tables given there are a series of interactions proper to the material structure of urban space. These specific interactions develop a certain logic in space and their proposal is to develop a system equipped with regulation and transformation devices. The idea of growth is connected with this set of mechanisms, which designates at one and the same time a cohesive whole and an open system.

The method of analysis developed by Castex and Panerai outlined above, was applied to several cases. One of them was the town of Marcillac in France (Castex & Panerai 1972: 22-24). At the first stage, the site and history of Marcillac was clarified, explaining how the city took its shape. It was a small walled village at the junction of two rivers, a centre for local markets and also a home for craftsmen who were serving the countryside. Morphologic analysis follows this historical and geographical definition,

focusing on the urban fabric and the morphological divisions which appear from the plans (Fig. 7.4, 7.4a, 7.4b, 7.4c).

Subsequently its growth, morphology and typology were analyzed as follows. Marcillac has two distinctive zones where plot subdivision and use are quite different. They are separated by a boulevard which replaced the old village wall. The first outcome was to limit the expansion of the village and separate it from its outer fringes, imposing a *town/country distinction*. This resulted in an uneven growth pattern, in which the internal core tended to become over crowded, while the suburbs grew further out into the countryside. This destroyed the *embryonic structure* on which the village was based. Contrasting the varieties of fabric and building typologies would help to deduce the mechanics of how the spaces were taken over. There were great differences between the development of the centre and the periphery. For example, while the tissue of the centre tended to make enclosures, the periphery tended to be more open. In the centre the buildings are clustered as homogenous blocks, while further out the blocks tended not to be completely developed.

In the next phase, the particular typology of the elements of the central core were analyzed. The *usual* type had various characteristics which often included buildings enclosing three sides; as result of not having a complete courtyard, the buildings combined all their functions in one structure. In relation to the street the interior activities were expressed; the treatment of the facade varied between Medieval, Spontaneous and the Classical approach. There are other types in certain exceptional sites, such as large houses at street corners and large elements such as public buildings.

Subsequently the typology of the elements or types beyond the boulevard were analyzed. The boulevard is the line where the two different tissues meet and as a result there are different facadal compositions on either side. The latter was built in 1936 when zoning ideas in town planning worked against the revival and adaptation of the old centre. The dominant building types showed different characteristics to those in the centre. Here buildings touch each other only on either side. The areas behind the buildings allowed the internal arrangements and functions to be modified, which in turn has led to L-shaped plans. The middle class houses can be seen as a variety of dominant types showing their social status. The boulevard itself is mostly negative

space, causing a fundamental break between the two parts, though sometimes it acts as a positive space, more like a seam joining them together.

New building types, such as the post office and middle class housing, bring a new cultural code to the edges of the outer settlement. Avenues of trees and fountains introduce an element of countryside, just as the development and growth of the settlement tended to push the country side further away. But these changes also helped to bring the suburbs more into contact with the centre: the street network was modified to allow some opening-up of this. Thus whilst the boulevard has created a relatively new model for the structure of the town, the major result has been to cause depopulation of the old centre, which is now unable to revive itself, as it has too many empty, neglected or even demolished properties. Clearly this is a case where proper consideration of conservation *and* development issues have not been thoroughly taken into account.

Similar study was undertaken on the reading of the city of Versailles (Fig. 7.5), carried out by Castex & Panerai (1979). However, since Versailles had a particular history and formation process, the method of reading the urban form was modified according to its particular conditions, whilst retaining the importance of typological analysis. The urban history of Versailles is divided into four periods. One significant characteristic is that it was not an autonomous city, but was constructed as a garden city according to a comprehensive plan initiated by Louis XIV in 1600. It was an artificial and discontinuous city imposed upon the inhabitants. The actual typology is laid down from the start. The four types are: the hotel, the pavilion, rows of houses and the tradesmen's houses. The major type of its urban form is not an individual building but an agglomeration of buildings in the form of block. As the typology of buildings (individually) is no longer possible, a new typology is to be built up by classifying them plot by plot. These plots, called blocks, consist of two types: the deep type with the courtyard which have a depth of only 25-30m; and the type where the courtyard is treated as a space which, right from the start, must determine both the distribution and the arrangement of the buildings. The consequences of the closure of the block on to itself produced a contrast between the exterior (street) facade and the interior one. The grid layout was in sympathy with the straight streets of Versailles. The analysis of its urban fabric, in every phase, reveals its character of being a bourgeois town: this is particularly clear in the composition of facades of the buildings.

Another analysis was undertaken by Berardi (1971) on the Tunis Medina, an Islamic urban structure. He begins by stating that the making of a space depends on the needs of those who undertake it, and also on their cultural models and the articulation of instruments and institutions, without which this group would never have existed (Berardi 1971: 38). The space of the city appears as the definition of a series of increasingly complex operations of articulation, starting from a definite number of discrete elements. Any combination depends on all the operations which lead up to it. Firstly, it was discovered that the pattern of the city was established on the basis of five discrete elements: the simple cell, the passage or zigzag (*chicane*), the door, the courtyard and the path (Fig. 7.6, 7.6a, 7.6b, 7.6c). The groups are composed of these discrete elements to produce the market (*souk*), and the house.

a) The *cell* is formed by four walls like a 'container', a space (cell) isolated from the space which also contains it.

b) The *passage* or zigzag (La *chicane*): The same operation as in the case (a) has been performed on the basic element-wall- but a second door has been added; it has become at the same time container and passage. The passage is an ambiguous device, and represents the most common mode of access in the city.

c) The *door* is an omnipresent element linked to the very existence of constructed space and transforming the meaning of a given configuration.

d) The *courtyard* is formed by a network of four walls that are punctuated by doors and windows. Placed in the middle of an organism (house, medrese) it is isolated from the exterior by this organism itself.

e) The *path* is the element of linear direction; it enables one to cross the city, to reach an organism of constructed space. Around it, the discrete element and spatial organisms coordinate and organize themselves into the city fabric.

Secondly, these elements were grouped into: (a) the market (*souk*), formed by a series of cells in two lines, with doors at the two extremes; (b) the houses, a group which can also include mosques, *zaviyes*, *medreses* and *mescid*. They form a network of courtyards and cells or other elements to which a door and a passage can be added.

For the third phase, the articulation of these groups was analyzed in order to understand the formation of the urban fabric (Fig. 7.7). Initially, a simple articulation of these elements was undertaken; gradually, the more complicated forms and transformations between them were analysed. Consequently, a sense of direction occurs as a result of this articulation which defines the path network that spreads over the whole city. The

souks on either side of the path spread round the mosque hiding it completely (Fig. 7a). The *souk*, Berardi concludes, lets you pass by but somehow prevents you from entering the world of exchange. The stranger can go there but he can only pass through: the rest is hidden away, as in the housing areas. Here the city wears a closed secret face, not the affirmation of independence, only the privilege of being city-dweller. The whole city is a rational organisation of enclosures, composed on the basis of a hierarchy and a scrupulous separation of functions; everything is enclosed, the main thoroughfare as well as the dwellings. As a result, he names it a two-dimensional city. He further maintains that cross-sections of city could be studied but surely they would only reveal a series of hollow precincts.

7.2.2. Alternative Method for Reading the City

Another attempt to understand the architectural structure of the city was presented by Klaus Herdeg (1990) who was concerned with the Islamic architecture of Iran and Turkistan. He begins by criticising modern architecture and points out that although new social needs, coupled with new technological possibilities, make the architects and planners job difficult, it is not impossible, "*...if certain design principles are observed*" (Herdeg 1988: 98) from traditional architecture. Formal structure, for him,

"...is the underlying order and its effects on any natural or man-made object or phenomenon based on inherent formal properties such as symmetry (axiality), hierarchy (progression), climax, repetition and others, to which may be ascribed analogous functional and symbolic attributes and values" (Herdeg 1990: 11).

His reading of the urban fabric is through drawings accompanied with photographs rather than typologic analysis. For Herdeg:

"Every drawing is analytical because its making is the result of many decisions about what to show and in what fashion, and, more important, what to leave out" (Herdeg 1988: 99).

As an architect, he believes that the study of the formal structure helps us to understand and design the world around us. The images visualised in his drawings for him are 'texts' which can be read through. Therefore, visual discourse may be undertaken in parallel with the written or spoken language, though it is more difficult to decipher (Herdeg 1990: 6). He maintains that meaning, to be revealed to oneself and to others, especially beyond what is visible, requires a formulation. This purpose may be served

by composed photographs, various scale drawings, analytical diagrams and explanatory text, all of which represent a particular architectural condition inviting the viewer to continue the interpretations intended by the author. However, whilst formal properties are fixed through time, values are not. In other words "*...the term couples definitive formal givens with their latent interpretations and transformations realised through human instinct, imagination, knowledge and ingenuity, which, in turn, are often governed by tradition, time and place*" (Herdeg 1990: 11). But the *interpretation* is not possible without first 'recognizing' the "*...inherent formal properties and their interplay and effect on each other*" (Herdeg 1990: 11).

Thus, he makes a similar case to that of Rossi, emphasising that formal structures tend to mark the permanent identity of a city, because the use of buildings is always adjusted to new conditions, and perpetuated through the construction process. He maintains that:

"...there is a hierarchy of urban spatial components governed by the same planning and design principles" (Herdeg 1990: 11).

The Muslim courtyard and street are the most basic formal and functional elements on all levels. In this sense, the formal structure of a house is similar to a neighbourhood, and gradually to an entire city. He argues that a standard Western definition of urban form is not applicable to the Islamic cities of Iran and Turkistan, because the spatial elements there are forever repetitive, and also the whole city is an uninterrupted fabric of various buildings and places. Although there is a hierarchy among the buildings themselves, the city as a whole becomes itself another example of the same order. He indicates the importance of *vaqf*, the semi-religious institution that played such a major role in the formation of the pre industrial Islamic city.

His studies of Isfahan in Iran and the Maidan-i-Shah square in particular, make extensive use of drawings and photographs. He continually attempts to make the underlying urban structure 'legible' through the analysis of drawings and photographs. He interprets the important properties within a context of the entire city, rather than by isolating individual buildings or urban elements, as was the case of the reading method of Castex and Panerai. He does not attempt to abstract the form of elements in order to reach to a formal 'formula'. He analyses the growth of the city in relation to territory, history and geography. He presents their spatial order through analytical drawings and sketches so as to compare different urban structures of different cities, even though they may be

culturally and historically alien. Herdeg himself does not read these cities but he provides a 'visual text' for others to interpret.

Following this, we can attempt to interpret the striking features of the urban texture of cities of Iran such as Isfahan, Kerman and Yazd where the buildings appear not to have any freedom of individual expression. It could be said that the buildings or solid structures are not of themselves intended to express themselves, instead, they are *the means* to create and articulate spaces through time (Fig. 7.8, 7.8a). These spaces are thoroughfares (covered or open), the courtyards (private or public) are enclosed by surfaces which are decorated according to their hierarchy. Even the open space that is the Maidan-i-Shah, is a great enclosure and creates the largest 'room' of the city of Isfahan (Fig. 7.9). This point of view suggests that the dominance of space, open space in particular, determines the formation of the structure of the city and also its architectural quality. Space is so dominant that even a monumental building, such as the Al-Hakim mosque in Maidan-i Shah, is not perceived as a massive, independent structure but it is influential with its front door, and its courtyard as the largest whole in the continuous enclosure.

In this way, monuments are exceptional in the fabric in terms of their scale, function, formal composition and symbolic meaning, but not with independent volume. Instead, dissolve in the fabric and contribute to the compact structure of the city (Fig. 7.10). Similarly Herdeg interprets that "*When 'weaving' through the fabric, even a building as large as the Shah Mosque is experienced as part of the fabric. Just like the corridors of a house lead to a room, the streets of the city fabric led to the public courtyard*" (Herdeg 1990: 20). This wholeness and compactness gives an impression as if the city's land, at first, was covered by mud and the courtyards and passages were carved out according to need and desire (Fig. 7.11). In the entire urban structure, the walls, the facades, are so important that the formal arrangements give them emphasis. For example, primary importance was given to the front facade, especially the main entry door of a mosque or other public building. It, therefore, became the most effective feature of the building and it symbolised monumentality. Perhaps because of this, the decoration of buildings, in particular with tiles, became very advanced. Thus the perception of total space, rather than isolated buildings and the articulation of that space with priority given to courtyards, appear to be the main principle of their structures and therefore the major architectural consideration for their design.

The cities of Turkistan such as Samarkand, Bukhara and Khiva differ from Iranian precedents in terms of their urban fabric and the relationships between buildings and urban space as a whole¹. Buildings appear to be objects, independent within the tissue, especially public buildings. In the example of Samarkand: Tillya - Kari Madrasa is completely engaged in the fabric so that its facades became the street facade; Ulugh Beg Madrasa is engaged only on the western side. However, Shir-Dor Madrasa is completely independent. This is emphasised with its massive detachment from the city fabric, and by its vertical elements, the minarets, located on the four sides of this mass. With these three complexes one can perceive the massive quality of the buildings (Fig.7.12). So, unlike the Iranian examples, the central open space is determined by exceptional buildings which dominate the space. Another significant difference is the domination of vertical elements over the urban space. Minarets, unlike the Iranian examples, stand at the corners of the buildings and rise from the ground. They are identifiable, dominant urban elements.

These characteristics, in Bukhara and Khiva, are even more evident (Fig. 7.13). In Khiva, for example, the independent character of public buildings from the urban fabric is also strongly emphasised (Fig. 7.14, 7.14a, 7.14b). The integrity of the urban fabric is scattered, the courtyards and passages are not dominant. In this example, urban elements such as minarets and domes become even more important. However, the major urban element seems to be each individual building, and the urban spaces composed according to the relationships of their formal arrangements, scale and function. Each building gradually becomes a volumetric unit, and the arrangement of space between them becomes particularly important. This order of the urban structure creates an opportunity to see the buildings from a distance, which in turn affects design considerations, and gradually the city as a whole. Each building then re-creates the city, but the city also determines these forms. The major design consideration here appears to be the establishment of the relationships between relatively independent buildings. As a result, an open space requires identification and therefore design by massing the individual buildings. The strong emphasis on mass reveals a need for an articulating factor which could help to turn the cluster of buildings into an urban structure. Thus,

¹"The cities along the Silk Route had a multitude of different ethnic groups, including Mongols, Turks and Iranians. Most of these people had recent nomadic histories, except for Iranians who had a long history of city life. Yet inevitably, there was a continual cultural interchange. Therefore, an exact tracing of the intersecting lines is impossible. Turkistan and Central Asia in general contain a conglomeration of peoples, whose architecture includes nomadic as well as sedentary characteristics" (Herdeg 1990: 57).

these articulating or combining elements such as minaret, wall, junction and greenery becomes important urban elements. With this characteristic, cities of Turkistan differ from Iranian cities in which the continuous connection of open spaces weave their urban patterns and therefore the combining elements are weaker.

Herdeg's method of analysis can be helpful for understanding the architectural language of a city. However, this reading (or interpretation) very much depends on the person who is doing it. The subjectivity of the method leaves some doubt about its validity. It is comprehensive and totalistic, but also individual and relative.

7.3. CONCLUSION

Before moving to our proposal which will be suggested in the next Chapter, the presentation of the above methods need to be discussed in order to justify our proposition. Saarinen's analysis of the Medieval European town, although it brings to light some important aspects of its qualities, are the outcome of his subjective observations but not the result of a method. On the other hand, Herdeg's approach focuses on the formal structure that, for him, is the underlying order of a city. He emphasises the importance of visual data such as drawings, maps and photographs produced as analytical observations of the formal and spatial qualities of an urban environment. He presented these ideas in studies of the cities of Iran and Turkistan providing 'visual text' for others to interpret. His method can be helpful for overall understanding the architectural language of a city.

The method of analysis of an urban form presents increasing concern for the historic city generated by Italian architects since 1950s. It has gradually emerged that the most persuasive and informative method appears to be the analysis of the relationship between building typology and urban morphology initiated by Aymonino and Rossi, and later developed by Castex and Panerai. The major aim of this method is to grasp the abstracted rules of an urban structure by the analysis of relationships between buildings, understood as 'types', and the urban whole, understood as a 'formal entity'. This is based on the idea expressed by Argan that in the historic city, buildings have been formed for their morphological configurations (In Bandini 1984: 75). The idea, in its inner meaning, is a reaction to the Modern Movement, which strongly emphasised function as the major formative motive of design.

As a consequence of the emphasis given to type, Typology became the core method of this analysis. From this were derived the crucial concepts of the *type*, the *form* and the *relationships between building types and urban form*. Type is understood as the essence of various, seemingly unrelated forms in the history of architecture and can perhaps best be discovered through a study of science and philosophy (Quincy in Anderson 1982: 112). It is a *a priori* idea of form that can be abstracted from a building. The type is general and constant. This gives us an opportunity to categorise buildings according to various types. Type then becomes the abstraction of a form of a building into a simplified, summary form of a particular function-building. It is defined by two dimensions only, emptied from its actual content and disconnected from its relationships. Thus, it becomes an element of a 'formula' but not the representative of actual environment. To reduce buildings to simple geometric forms in order to 'analyze' and understand the urban form may be a helpful method but should not be the core aim and therefore not the main focus of the analysis.

Besides, the abstraction of building forms into certain types isolates them from their determinants, i.e. from their conditions of time and place that provides the content of the form. This thought contradicts Rossi's (1991: 40) argument that maintains the type is not merely a form, but it has content because it is developed according to social need and aspirations for beauty. However, we argue that urban elements need to be accepted in their 'actual' forms, rather than the reduction of their forms into types. This is an important diversity in an attempt to establish a method of analysis. For example, as we have already seen with reference to Herdeg's work, a courtyard is an important element of the spatial network of urban structure in many Iranian cities. It is the principal element of many mosques, medreses and houses. Although their form is a similar geometric form (rectangular or square), they vary in their scale, function and the degree of significance for the whole city structure. From this we can argue that all these courtyards cannot be reduced into one type, as in the case of the Tunis Medina studied by Berardi. The content of a courtyard is important; this includes its present and historical function, location and status (being private or public space); its significance for society which is reflected in the urban fabric, and its relationships to its surroundings. Content determines its role and importance within the entire urban fabric.

Form, on the other hand, is only 'actual' and significant within this content and has a meaning within the network of relationships which makes the 'space' that is, in turn,

contained within a form. Rossi (1991) maintained that the permanent character of a city is form.

However, we can argue that the coherent formal structure in the towns is not because of the permanent character of the form, but because of the continuous traditions, way of life, *architectural culture* and in particular, the continuing spatial relationships. This can be seen clearly in the contemporary context of historic cities where the spatial relationships were disrupted in parallel with the disruption in their culture. Therefore one would suggest that permanence in the city is in the *spatial relationships* which are to be established by architecture. The permanence of an urban fabric is the *architecture itself*, which takes care of existing and creates new phases of its ever changing structure, according to its own rules. It follows that architectural considerations are very important in making the city, which is itself embodied in its own historic urban fabric. An analysis based merely on form and type helps to see only the formal relationships, but not the spatial dimensions, which also involve function, plus social, cultural, economic and environmental factors and architectural culture to express them.

The relationship between building types and urban form also sees the city as a formal entity and denies its actuality. The suggested relationship is one of them, but not the only one because the city is a network of relationships, among many different elements. Therefore, a good working method to analyze the historic urban fabric needs to be based on *themes* which refer to a network of relationships. In detail, the method should focus on urban elements which involve not only architectural elements but also institutional ones that have a direct role in forming the city. In contrast, unlike the above discussed methods, we argue, that *combining* (or articulating) the elements can play a crucial role in the planning of urban space and therefore needs to be carefully examined. They are very crucial to this argument because they represent the tangible, the actual quality of the *relationship*. A method based on such an understanding will be elaborated and hopefully clarified in the following Chapter, with special reference to the town of Eyup, in Istanbul.

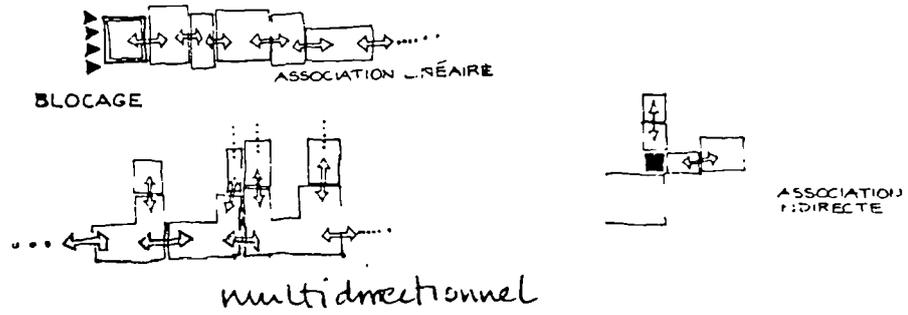


Fig.7.1 Association of elements as linear, multidirectional or configuration of both states.

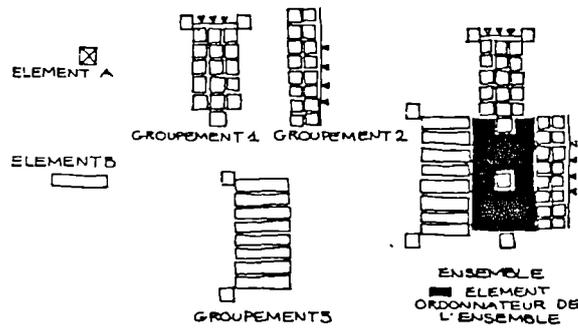


Fig.7.1a Distributive properties of elements.

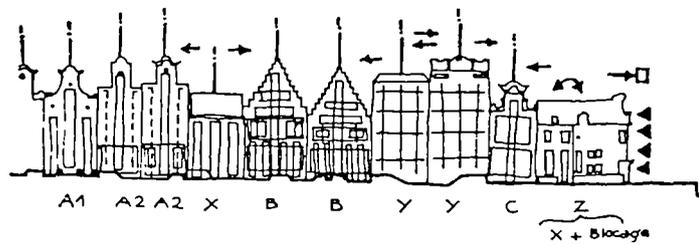


Fig.7.1b Composition of facades.

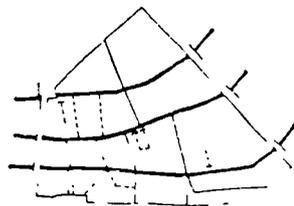


Fig.7.2 Definition of space.



Fig.7.2a Exceptional elements.

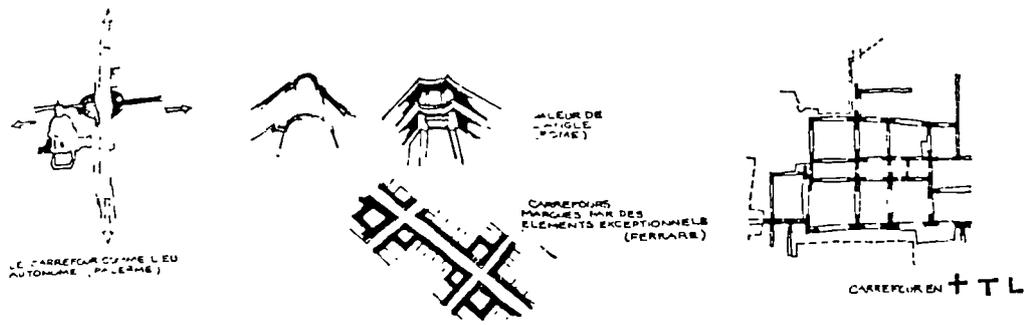


Fig. 7.2b Interaction of spaces.

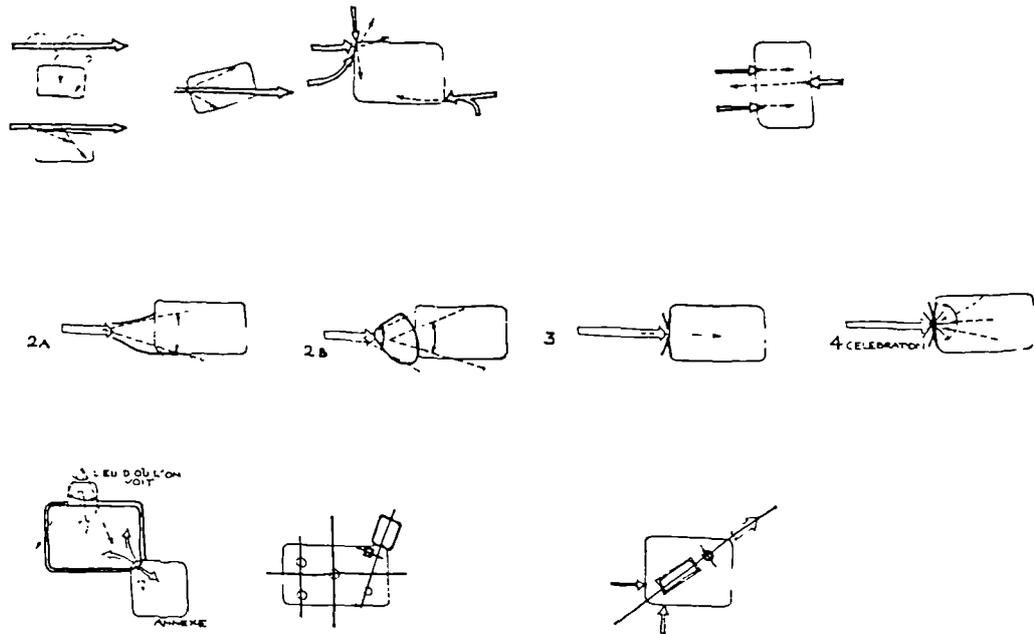


Fig. 7.2c Typology of spaces. The relationships between the (open) space and access to it and relationship between the space and exceptional elements.

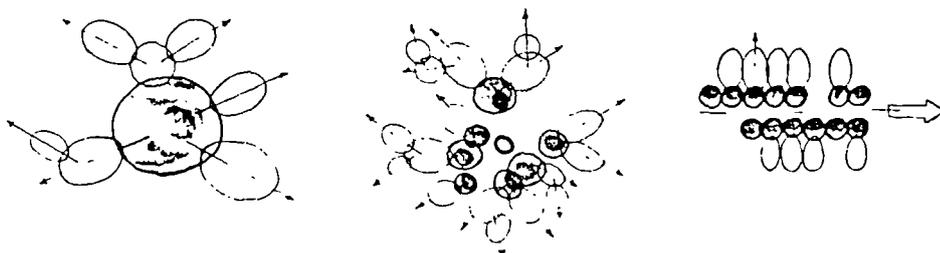


Fig. 7.3 The growth: multi-directional and linear.

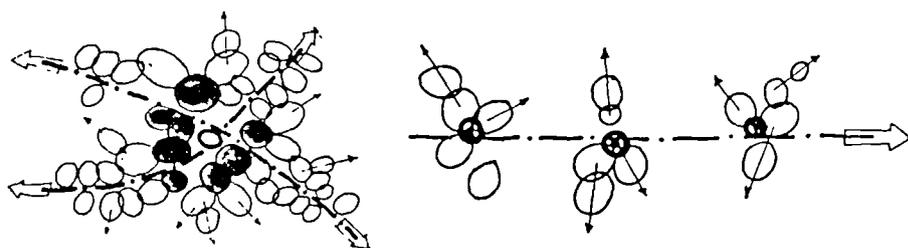


Fig. 7.3a Combinations and conflicts in the growth process.

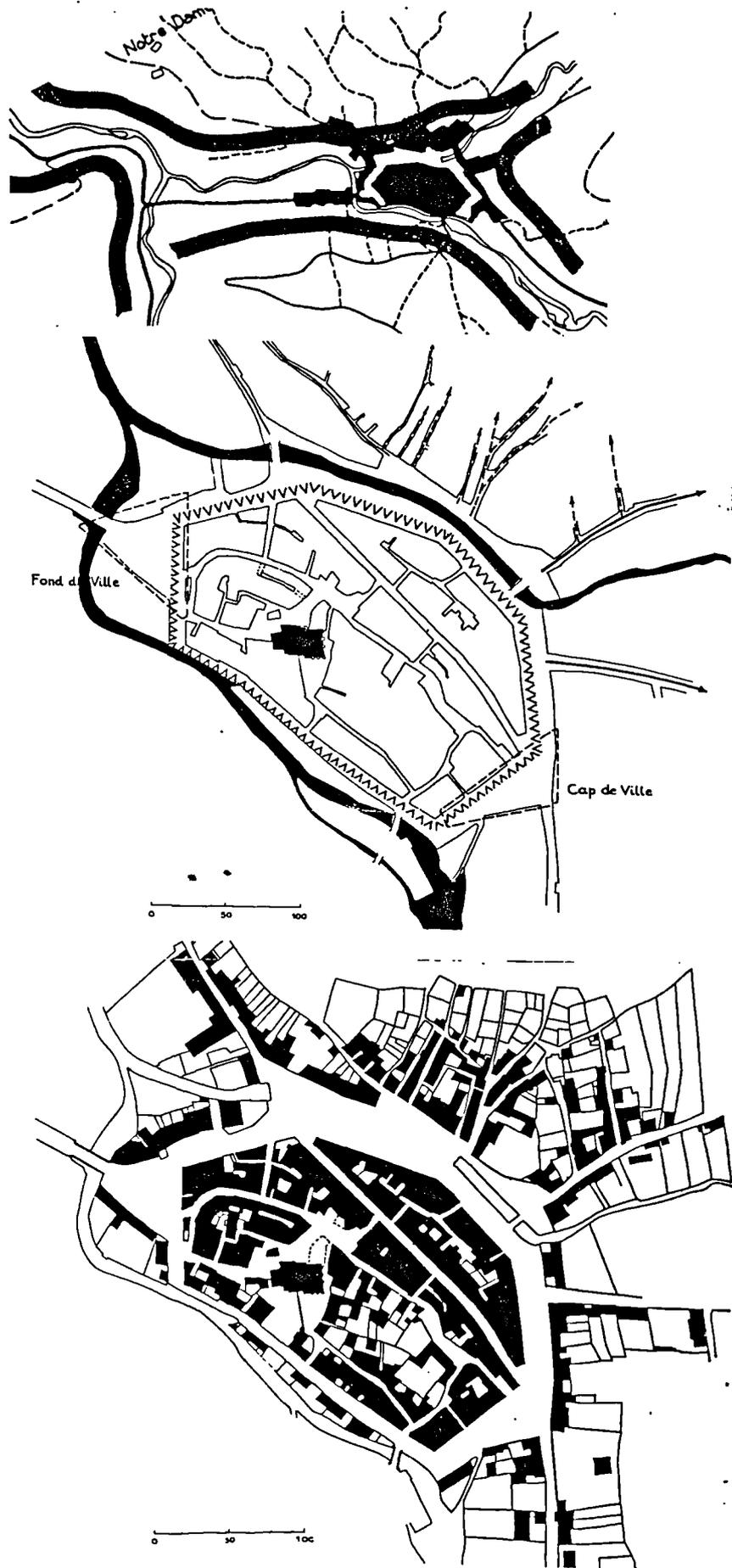


Fig.7.4 Analysis of Marcillac.

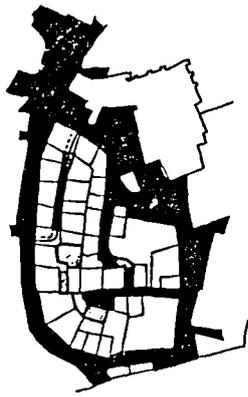


Fig.7.4a Typology of buildings in the old city.

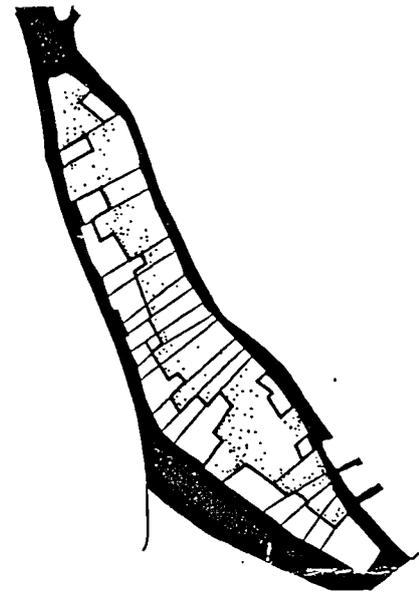
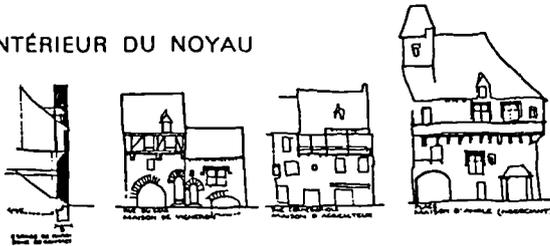


Fig.7.4b Typology of buildings in surroundings of old city (new parts).

MAISONS A L'INTÉRIEUR DU NOYAU



MAISONS EN PÉRIPHÉRIE DU NOYAU



Fig.7.4c The above drawings indicate the housing types in the old city. The second row indicate the housing types in the new areas beyond the boulevard.

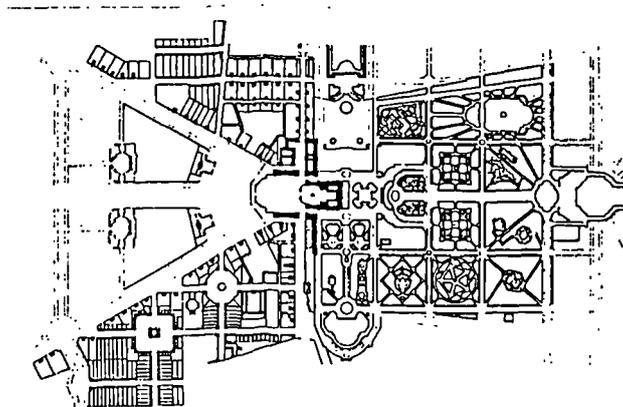


Fig.7.5 The plan of Versailles in 1670-1680.

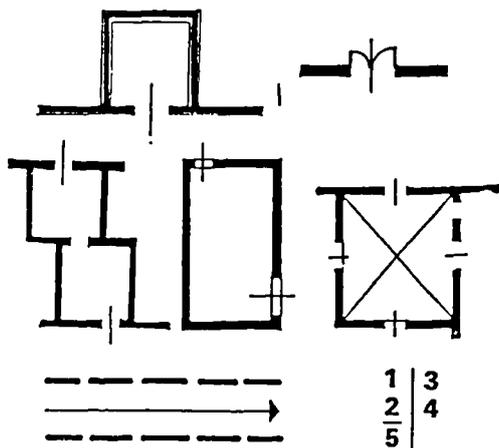


Fig.7.6 Discrete elements that are the base of urban form in Medina:
 1. cell, 2. passage, 3. door,
 3. courtyard, 4. path.

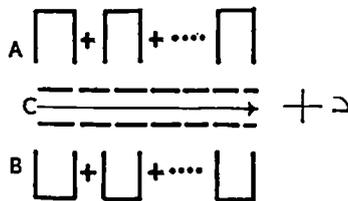


Fig.7.6a Grouping of elements: the souk (market).

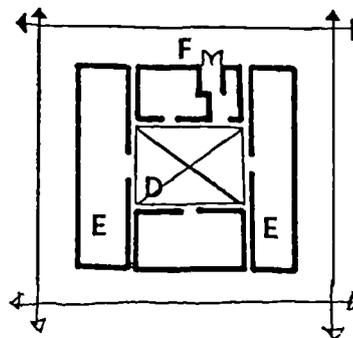


Fig.7.6b Grouping of elements: the house.

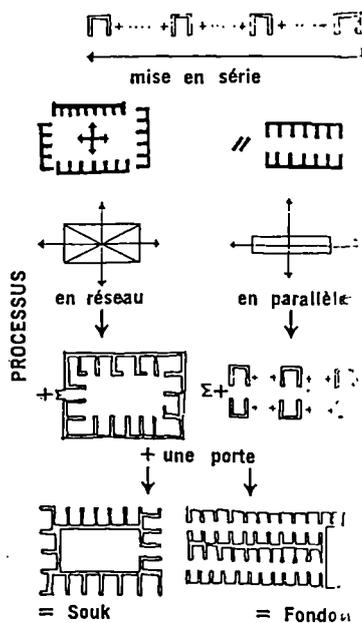


Fig.7.6c Grouping of souk.

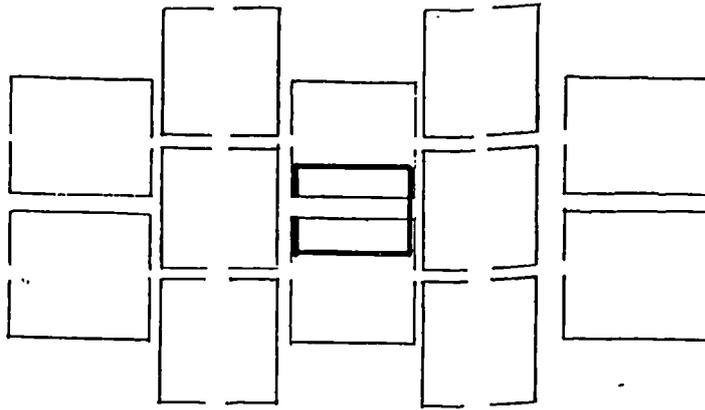


Fig.7.7 Simplified network of the city of Medina.

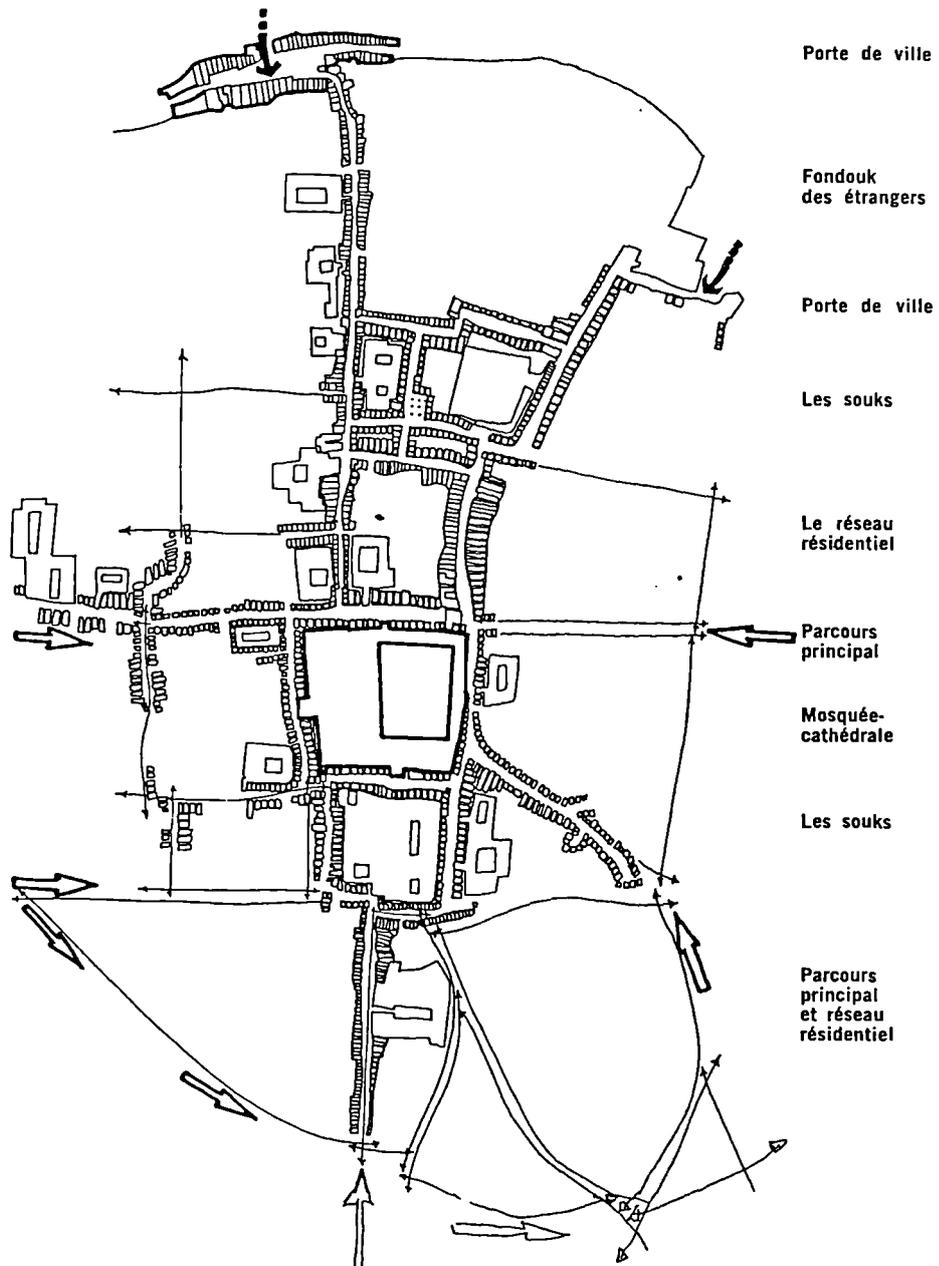


Fig.7.7a Articulation of elements and formation of the network.

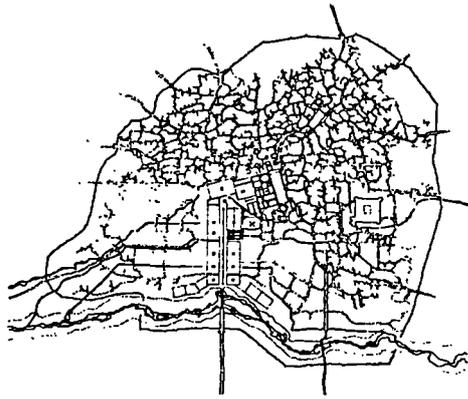


Fig.7.8 A plan of Isfahan, Iran.

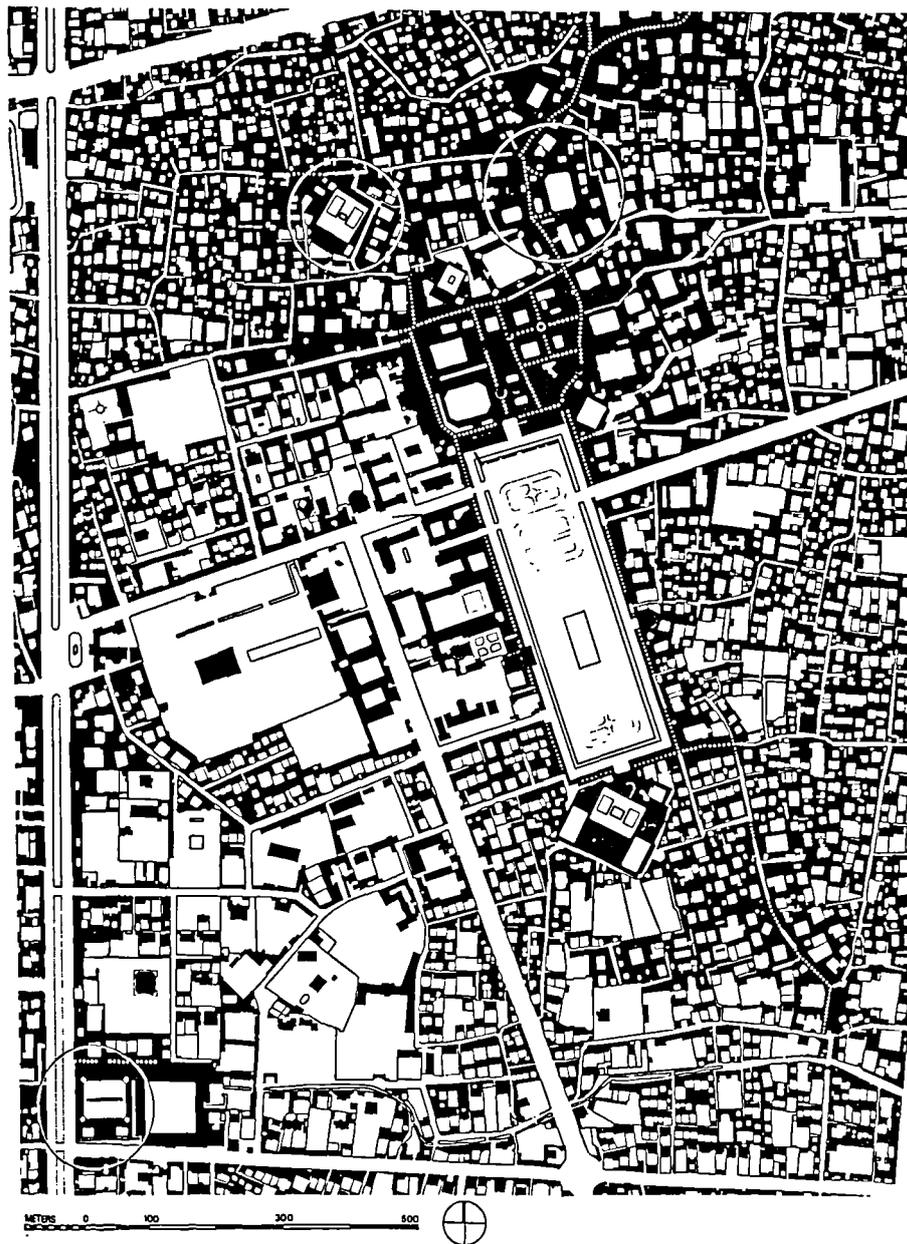


Fig.7.8a Site plan of the Maidan-i Shah and surrounding public buildings, as they exist today.

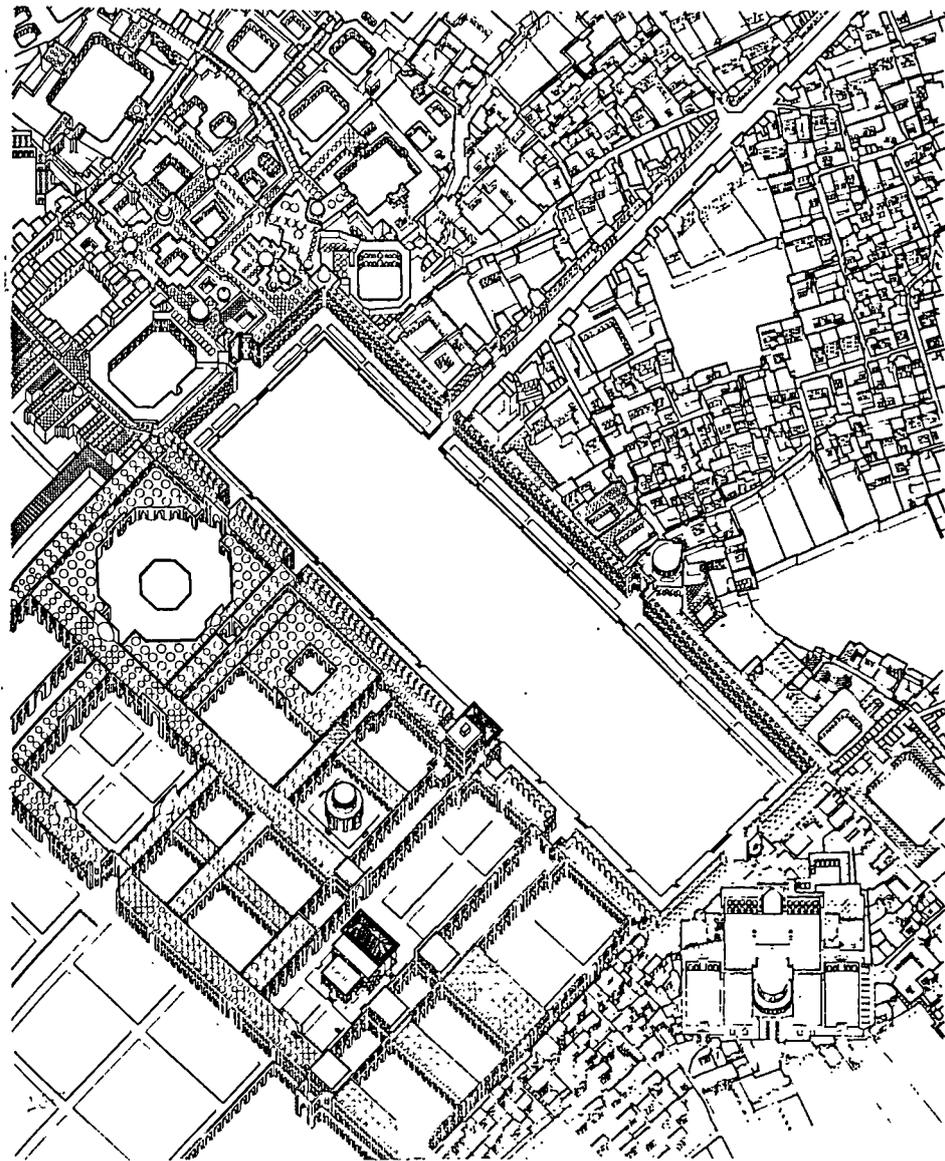


Fig.7.9 Axonometric reconstruction of the Maidan and the surrounding buildings.

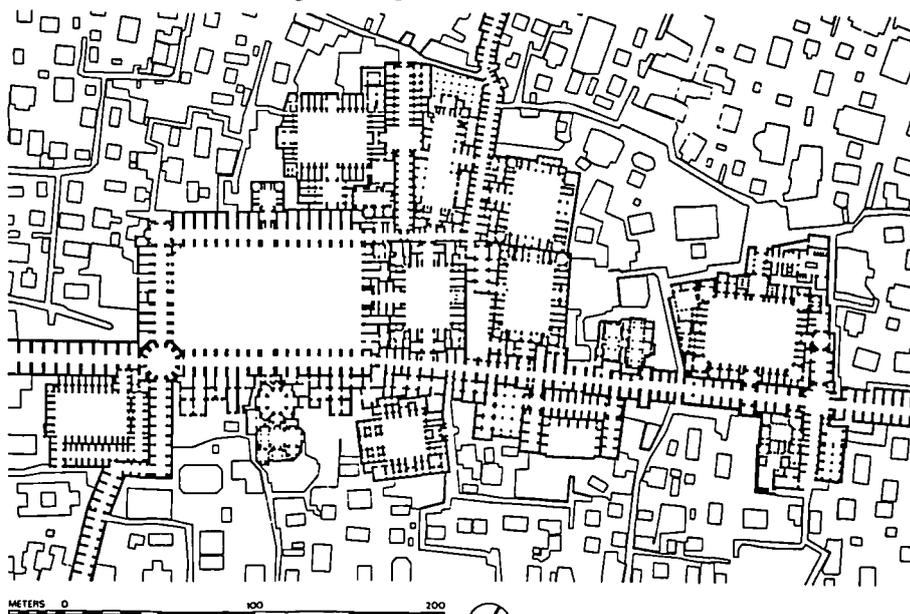


Fig.7.10 City of Kerman, Iran. Built structures are interwoven and open spaces are the dominating elements of its compact structure.

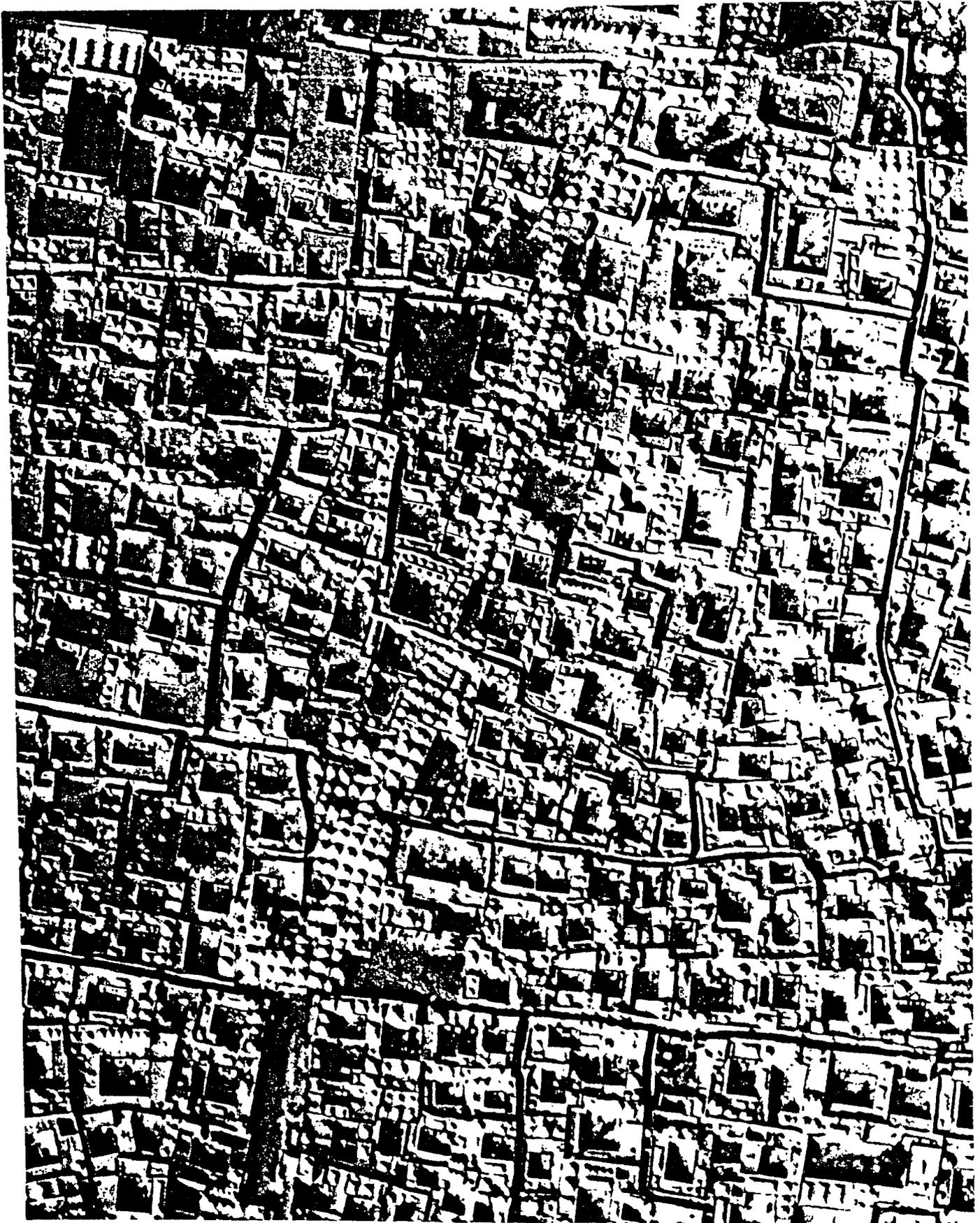


Fig.7.11 Aerial photograph showing the city fabric of Kerman, south of the main bazaar. Domination of open spaces in the urban structure is clear.

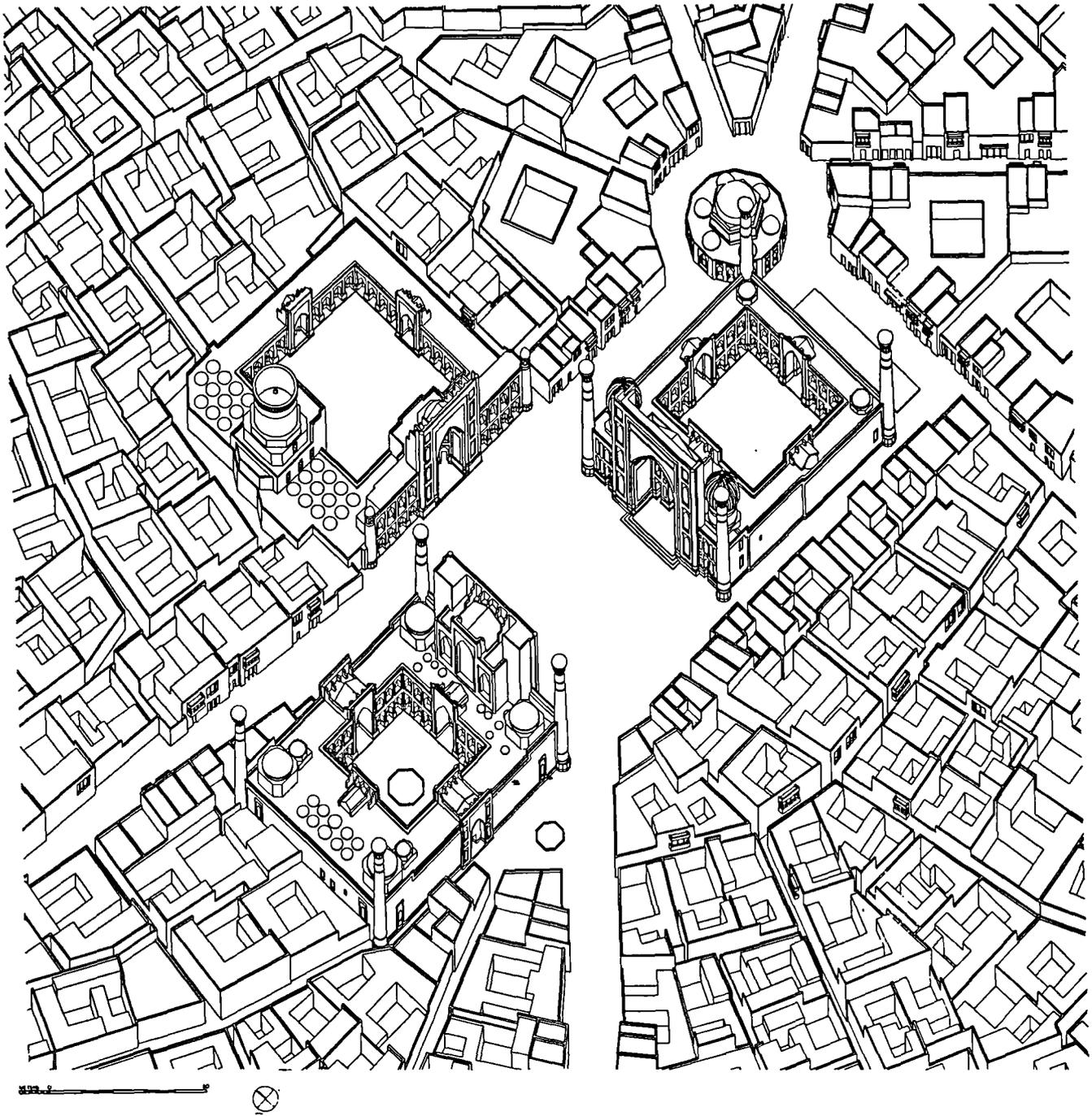


Fig.7.12 Samarkand. Axonometric looking from the southwest of a hypothetical reconstruction of the Registan in the late 19th century.

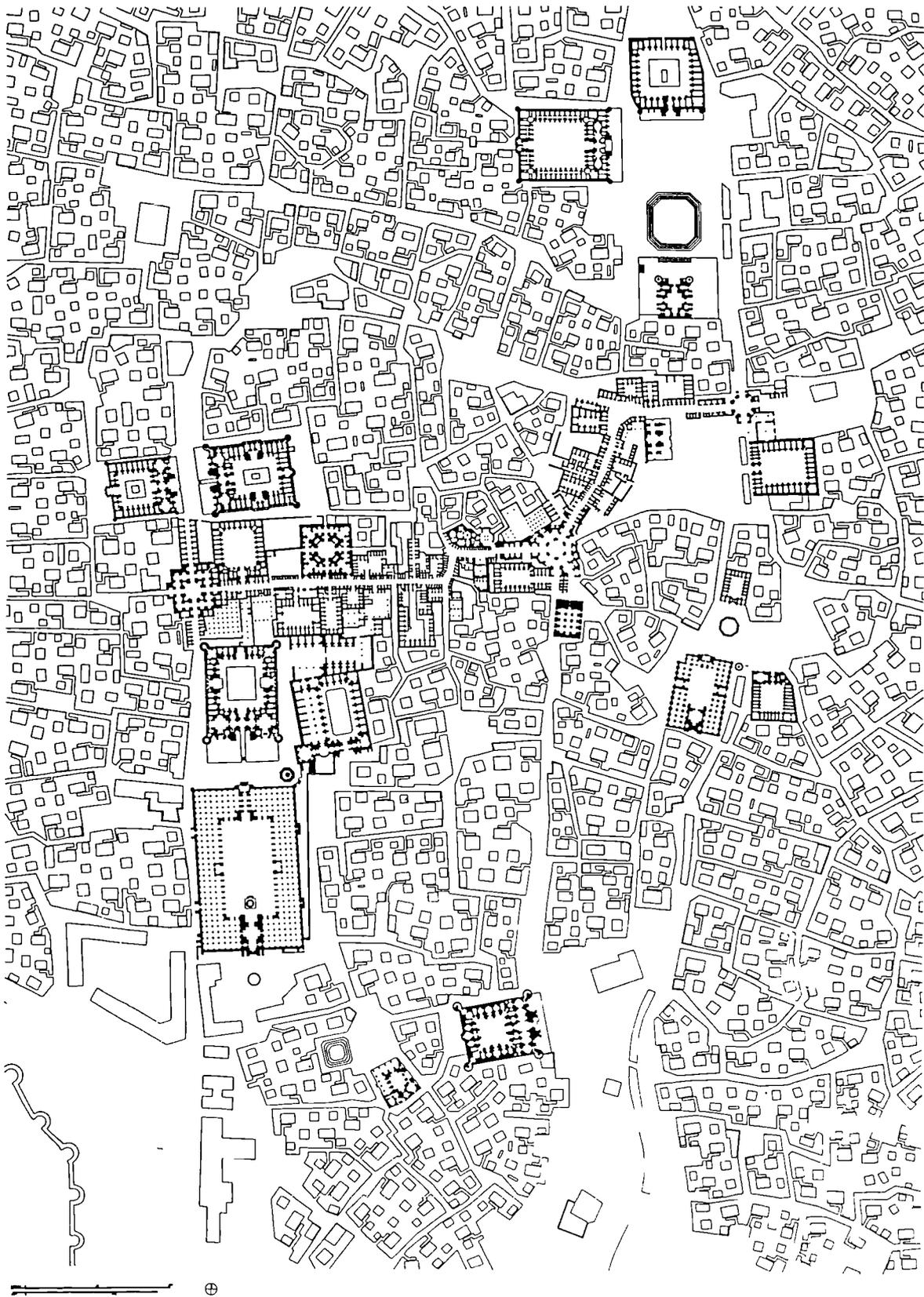


Fig.7.13 Reconstructed plan of the city center of Bukhara in the 17th century showing the bazaar and the adjacent commercial and religious buildings.

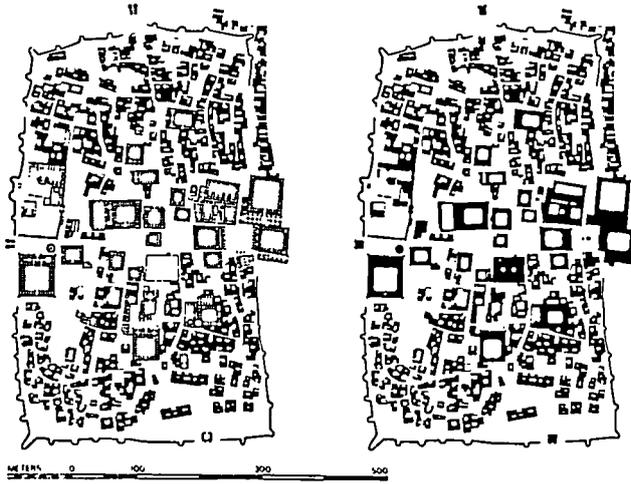


Fig.7.14 City of Khiva Turkistan.



Fig.7.14a Minarets are dominant elements.



Fig.7.14b The inner city of Khiva built from the 14th C. to 20th C.

CHAPTER EIGHT

A Proposal for Understanding Historic Urban Fabric

8.0. INTRODUCTION

Following the discussion on the methods of analysis of urban form, this Chapter will attempt to establish a conceptual framework and a practical method for grasping the essence of the nucleus of historic cities. The application of a method is not the subject of this study as it needs much wider and longer research. However, the main concepts and phases of our analysis will be discussed and illustrated with special reference to the historic urban fabric of Eyup, the holy shrine and suburb of Istanbul.

Initial inquiries were undertaken exploring the historical documents that conveyed information related to the built environment of Eyup. Various libraries, institutions and experts have been consulted in U.K., Turkey and Greece¹. Research concentrated on primary sources since there has not been a comprehensive study of the subject. New information has been explored, which could help to illuminate the urban history of Eyup. The research focused on investigation of historical data in its pre-Ottoman period (Byzantium Era) and the Ottoman period, as both have not been studied from the point of view of the built environment. The few recent studies (Haskan 1993; Kara 1994) about Eyup are not sufficient and give misleading information about the site during the pre-Ottoman period. It was, therefore, necessary to clarify this era by consulting various historical sources². A brief summary of these initial findings have been presented in Appendices I, and II.

Subsequently the inquiry focused on the Ottoman period of the town's development which began with the discovery of the tomb of Eyyub Ensari. A special emphasis has been given to the foundation of the town since it provided the reference point both in

¹See Appendix III.

²See Appendix IV.

terms of a built structure and a length of time. The reasons for, and significance of, the discovery have been examined, not only within the subjective context but also in comparison to similar examples of other holy shrine towns, such as Santiago de Compostela in northern Spain, Shah-i Zinde in Samarkand, Mazar-i Sharif in Afghanistan and the Mashad in Iran.

Research was commenced to clarify the urbanisation of Ottoman society with reference to its earlier experiences, such as cities of Bursa and Edirne as well as its major institutions such as vakif, kulliye and organisation of architects. This is followed by the exploration of the historical Ottoman sources which contained information about the town³. A number of Ottoman chronicles, travellers' accounts were investigated. As were visual sources such as maps, drawings and photographs⁴.

8.1. THE NEED FOR UNDERSTANDING HISTORIC URBAN FABRIC

It is stressed throughout this study that architecture is a skill and system that materialises man's physical, spiritual and social entities in relation to time and place, which in turn are embodied in the built environment. It has the task of creating the physical context, the 'place' for man. By accepting the authority and responsibility of architecture in creating the urban space, the remedy for some contemporary problems may be found again in architecture. This is a necessary task for all those who have responsibility for producing, maintaining and using the urban space, but architects, have a special task to understand the significance of the past, the needs of the present and to project a synthesis of the two to form the future city.

This perception of architecture states that any attempt to produce a positive response to the present crises in the contemporary context of historic city must consider the importance of studying the historic urban core with adequate architectural and environmental qualities, as well as a distinctive, autonomous cultural identity. Therefore we proposed that historic urban fabric, particularly regarding its 'essence' must be the

³See Appendix IV.

⁴A 16th century panorama by Lorich and a schematic map by Lokman are the essential sources among them. As Eyup is located outside the city walls of Istanbul, an exterior suburb, it was disregarded in most visual documents. More detailed maps as well as photographs derived from the 20th century when industrial development began to destroy it. However, these early photographs, mostly dated from, the 19th century (Photograph Albums of Abdullah Brothers, G. Berggen, J.P. Sebah-Joailer and V. Kargopulo), 1893 (Photograph Album of Sultan Abdulmid II), 1910 (a photograph of panoramic view of Eyup), and an aerial photo from 1937, are still important as they visualise some of the fundamental characteristics of the town with its wooden houses, seashore residential buildings, gardens and lush greenery which were later replaced by cheap housing developments, industrial buildings and recently by parks and roads.

source of inspiration for any intervention in its urban structure and thus one of the major determinants of design. To understand its structure, its *essence* is a condition for being creative, inventive, transformative within the historic urban fabric, while keeping with the requirements of the time.

The (historic) urban fabric is deemed to be here as the materialised form of an urban system by its architectural elements that are combined to create functional, meaningful and identifiable spaces according to the society, time and place. We maintain that the essence of a structure or a system (and historic urban fabric represents a system) lies in the **relationships** between its elements. An entity becomes a structure and a system because of the *relatedness* between different elements. This 'essence' may not be immediately visible or evident to us, but it was to people who lived in the same system. But it can be *felt*, or *understood* as an intangible dimension. This dimension, the 'essence', becomes the 'understanding' of a particular historic urban fabric which in turn becomes the stimulant of 'invention'.

Urban space, we argue, is 'total' and belongs only to the man who created his home in the form of a city in the 'bare nature'. The city is indoor space for man when compared to living in natural surroundings such as caves. This 'total' space, is subdivided into spaces according to a hierarchy, and in relation to function, formed through the needs, desires of society and the limitations and opportunities of environment. The creation of total space or subdivision of total space through the articulation of these spaces is the subject of architecture. Decisions over locating a building, its scale, its orientation, its form, its relation to the vicinity, or the position of a window, a door, their size and composition, all these and similar requirements are to be answered by architects according to a combination of determinants which are environmental, economic, social, cultural and technical. Architectural considerations are affected also by the urban milieu, the 'indoor' environment. It was just the same at the earliest inception of a settlement when the original natural surroundings determined the design decisions. This, necessary condition of being related refers to a network of elements, which are an inseparable property of urban structure. To establish and form these relationships is the task of architecture. Therefore architecture is not an esoteric activity but it has a function in creating a human 'indoor' environment.

But, in recent times, because of the break in the culture between pre-industrial and industrial periods (as well as in the urban fabric) the knowledge of our historic cities is unknown to us, just like the old method of making tiles or mortar is unknown. That is why its rules are 'hidden'. Therefore the initial step is to reestablish this connection between urban space and man, in order to reach the historical correlation between the object, its maker and the users.

Here we would like to draw attention to the fact that in other study methods, the object i.e. the physical entity of a city, judged as a formal entity, becomes the most important consideration and independent from its maker. But, we argue that the maker and user are more important because they have the knowledge (about how) to create the city. In this sense urban space is not independent; on the contrary, it is very much dependent on and bound up with the human condition. The first step, which is also a prerequisite of an adequate built environment, is to reestablish the connection and make the city once more dependent on a human scale (in its literal and wider sense). This connection can be reached, first of all, by careful definition in order to understand its totality, its 'knowledge', its 'essence'; followed by finding ways for reintegration with its system and at the same time reflecting the qualities of *time*. These requirements can be reached by fastidious historical and architectural research, and analysis, which are essential for studying the evolution of a town.

As our aim is to understand the 'essence' of the historic urban fabric in order to generate future designs, one may ask how 'inventions', the formation of the 'new', while avoiding historicism and kitsch designs, are possible from the 'old'. Piaget's theory of cognitive structure provides the answer, as he argues that in order to 'invent' one should first 'understand'. Thus the understanding of urban fabric becomes crucial in future 'inventions'. The method of understanding then becomes a primary procedure and must be developed.

Understanding, in the case of historic urban fabric requires an initial preparation: reading the city fabric, in order to make the city 'legible'. This is necessary because the system in which the historic urban fabric was developed differs dramatically from the system in which we are now. Wittgenstein argues that, "*All testing, all confirmation and disconfirmation of a hypothesis takes place already within a system*" (In Brand 1979: 9). So, if one speaks about an element or a fact belonging to a particular system, the

invention and the language of this argument needs to belong to the same system. In this case, the reader and the object to be read belong to different systems, which logically makes reading impossible. But, architecture as another system, provides a language encompassing both, and thus reading becomes possible. Since architecture is universal in its essence, it is the common ground of all man-made physical environments. Schulz supports this argument by stating that, "*There are not different kinds of architecture, but only different situations which require different solutions in order to satisfy man's physical and psychic needs*" (Schulz 1980: 4). Consequently our approach proposes two major phases in the analysis of the historic urban fabric; 'reading', and 'understanding'.

Each town draws on a special architectural history that should not be reduced to a general model (Castex & Panerai 1982: 94). In an attempt to understand the essence of an urban form it is necessary that the endeavour is based on the local conditions and resources which related to the production process of the built environment. It is argued in the field of archaeology that, "*...local knowledge can be gained from a real past, the excavation of which forms the only authentic path to cultural identity*" (Rowlands 1989: 37).

A similar attitude may be presented in the architectural field by the suggested methodology of reading the city to grasp its knowledge. Reading the urban fabric can be seen as a tool for "*...reactivation of local knowledge*" (Rowlands 1989: 37), which appears as an important means to resist the hegemony of 'outsider' form. Local culture and identity spring from "*...local knowledge as an authentic, i.e. true, source of creating a sense of difference*" (Rowlands 1989: 37).

At this point one may suggest that the centralized character of the urban form of a city can be converted to become once more decentralized, and this will support authenticity, by regaining local values⁵. Therefore, because of the significance of the rediscovery of genuine values, **being able to create again** should be the ultimate goal of any repressed culture. In this matter, the self-realisation of any cultural body would only come about by the application of freedom in the sense of, "*...being able to 'see through'*

⁵Centralized means here that, every city more or less has been given an identical appearance by the hegemony of developmental, capitalist economy. And decentralised, on the contrary, means not to have identical features.

and to challenge the conditions that divert living subjects from a real understanding of their interests and their conditions of existence"⁶. With this statement in mind, we suggest that the analysis of the historical urban fabric of a city may provide us with the rediscovery of its *architectural culture* from which its 'essence' may be grasped.

8.2. SOURCES AND MEANS OF THE 'UNDERSTANDING'

It is not sufficient to analyze only the functional organisation or the design of the city, it is necessary to analyze its elements which are not only architectural also institutional, which guided the production of built environment. Selection of only formal relations will mislead the analysis and, in turn, its results. The selection of urban elements which have the primary role in forming the city, needs firstly to respect local data, and secondly, it should include the institutional elements of a city. The selection of relationships and elements which are able to explain whole systems which differ individually, can only be realised by historical and architectural analysis. This research help to clarify the determinants of urban form in each case. Natural environment is taken as one of the major determinants, encompassing climate, topography, landscape and available construction materials. Man-made factors are the other major determinants, including cultural, economic, social and political aspects of the society.

The activity of **historical research** will tend to observe the conceptual unity due to, "...the interpretation of artifacts is an intricate activity, inseparable both from the place of artifacts in cultural systems and from our theories of culture of time and interpretation of the artifact in the context in which they are made" (Anderson 1982: 109). Thus one can see the production process in the context of time, preventing the reduction of the town to a material object, an agglomeration of forms.

Sources of historical research differ according to the each case. There are three major sources for the analysis of urban form;

- i. *Recorded history* which includes archival documents such as manuscripts, property deed records, engravings, drawings, maps, photographs, chronicles and travellers' accounts, secondary sources related to the urban past of the town.

⁶The definition of freedom was given by Miller, Rowlands an Tilley (1989: 13) as the outcome of a discussion generated by Marx, Taylor, Lukacs, Weber, Marcus, Adorno and Horkheimer.

ii. *Oral history* including ethnological evidence, such as folkloric data. These may not explain directly the material characteristics of its urban form but they can be useful for understanding the patterns of life style of its society and perception of the town by its citizens, in turn providing clues to understand social qualities of urban space.

iii. *Physical sources* which refers to existing structures of old urban texture with its buildings, open urban spaces, landscape. There are two kinds of physical sources: firstly the structures at ground level which are examined by architectural survey; and secondly, the remains at the underground level which is examined by archaeological research and if necessary, by excavations.

Architecture being determinative, is recognisable as the architectural culture of the society that includes general understanding of architecture; the role of the architect, the training process of architects, craftsmanship, and traditional technology. A blend of these determinants, each with different degrees of influence at different times, defines urban form. The real need is to discover the architecture that expressed all these parameters and resulted in an adequate and *identifiable* urban form. Although the determinants are important inputs, architecture has its own rules to understand and expresses them in material. Therefore to achieve architectural understanding applied in a particular urban structure (i.e. answering the question of *how* this environment has been produced rather than *what* has been made), a method should aim at recognising the architectural considerations that can only be grasped by the analysis of various relationships among urban elements. Architectural analysis strives to discover the essence of a historic urban fabric via the investigation of various relationships, cutting through sections of the urban form from different angles.

Our **architectural research** and analysis aim to clarify the process of articulation between different urban elements in order to understand the whole. It will mainly deal with the buildings and spaces between them and their architectural, spatial qualities, hopefully clarifying *how* they were designed. These analyses are not only in terms of style, technique and material (which are mainly representative of their time), but rather in terms of their place within the city, their relation to each other and their surroundings such as natural landscape, topography, orientation and positioning of a monument or the street pattern. This can only be made by the analysis of the town's growth process where the spatial relationships were set up according to the *architectural considerations*

in the formation of the built environment. These rules can be determined from the articulation of solids and voids which make up the city. The sources of architectural analysis are the information derived from historical data and research and the existing old urban elements themselves. However, these two kinds of research are not separated, on the contrary, architectural analysis is always accompanied by historical research.

8.3. A FRAMEWORK FOR A METHOD OF 'UNDERSTANDING'

Local data is important and as only architecture has the necessary universal quality, the selection of a particular place to apply this approach is essential. Therefore, our method consists of conceptual discourse shaped according to the chosen place. The criteria for this choice may be asked? We argue that it can be any place which contains pre-industrial urban fabric that has been disrupted by modern planning interventions. Since we have agreed, there is a different formation process for each built environment, the approach will be clarified in the context of chosen place. In this process, a physical urban formation can be explained together with its subjective conditions. This recognises that every town has uniqueness that every historic urban form is a singular example of such analysis.

Our subject is Eyup⁷, originally a holy shrine in Istanbul, just outside the land walls of the city (Fig.8.1). Eyup was established in 1453 during the conquest of Istanbul by the Ottomans. It is chosen to illustrate our method for analysis of urban form, because its characteristics provide positive criteria for such a study. The town evolved in harmony until the Westernisation efforts of the country; industrialisation in particular, nearly destroyed it. Although Eyup has been subjected to these very destructive interventions⁸ most of the pre-industrial public buildings (in the core of the town) are still in place (Fig.8.2, 2a). This density of historic buildings provides a greater wholeness of its original fabric than is apparent in other parts of Istanbul. Therefore, the town still has a potential to generate its future form from the principles derived from existing old urban fabric. This potential is strengthened by its significance as the country's major place of pilgrimage

⁷A summary of findings of the historical research on the historic urban fabric of Eyup is presented in the Appendix II.

⁸These are demonstrated in Appendix II.

for Muslims. In addition the natural borders of the town provide a focus appropriate to a doctoral study.

The analysis consists of three major stages which can be named as *Identification*, *Reading* and *Understanding*. While the identification will be explored mainly by historical analysis, the reading and understanding stages will be examined through architectural analysis.

8.3.1. Identification of Historic Urban Fabric

The first stage is to investigate the identity of the town, in order to provide the essential criteria which influenced its urban character. This is accomplished by exploring the characteristics of its place, the meaning of its name, its historical and architectural significance and its origins.

a) The Place

In the first step, the situation of the 'place' in the time span will be illuminated with available historical data. Therefore, the site of the town relating to its location within a greater whole will be described; this will involve clarification of its geographic, topographic and environmental characteristics. We think the place of a town is one of the crucial determinants in its character (as a town in a desert differs dramatically from a town on a mountain or by the seashore).

Eyup's urban form firstly is defined by its topography and landscape (Fig. 8.3). The core of the town is situated on a flat land surrounded to the north and east by the Golden Horn, to the south by the city walls and on the north and west by the undulating hills that command views of both shores of the Golden Horn. These boundaries shaped and defined the plain, giving a linear form to its urban patterns which were adjusted to this linear form. The centre of the town, therefore was developed along the coastline of the Golden Horn and can be dated from at least as early as 1559, from panoramic drawing by Melchior Lorichs (Fig.8.4).

As the site was surrounded by hills to the north and west, the city faced towards the east, the water side. The safe shores of the Golden Horn with its functional, scenic and environmental values became one of the main parameters of its urban form. Water was the major means of transport for the town sustaining until it became heavily polluted.

We are informed by the *Bostancibasi* records dating from 1815 that there were seven piers and ten boathouses between Ayvansaray and Bahariye Kasr-i Humayun, a distance of approximately 3 km. This demonstrates the importance of the town's access to the waterway.

The Golden Horn did not only have a functional role; it was also the principal recreation areas as far as to Kagithane, the royal excursion site (Fig. 8.5). The environmental and landscape values of the town were its most important characteristics; the mild climate combined with lush greenery. As a result a beautiful and picturesque settlement was created. This was evident as early as 1470s, 20 years after its foundation as expressed by Angiolello (In Yerasimos 1988). The land was suitable for the cultivation of vegetables, fruit and flowers. This resulted in the making of numerous gardens that were located in the urban structure, as well as in its surroundings (Fig. 8.6). These commercial gardens, *bostan*, created great openings to which the many buildings faced for the open and scenic view, as well as allowing good light, both of which were desirable qualities for an Ottoman settlement.

Another significant property of historic Eyup was its location on a safe bay outside the city walls of Istanbul. Perceived from the Golden Horn, Eyup has a dual quality of being connected to, but also separated from, the walled city. Its urban fabric is therefore enclosed and complete within itself, but also linked to the city by important arteries, such as the Golden Horn, the continuation of the coastline road, Defterdar Caddesi and the axis running from Beyazit Square to Edirnekapi over the western hills of Eyup. On this side of Istanbul, Eyup is the outermost urbanised settlement. These characteristics, together with its function as a place of pilgrimage (to be discussed later) makes it a stopping point (in the continuous urban structure of Istanbul) rather than a place to pass through. All this was disregarded during the industrial period when these vital qualities were progressively destroyed⁹.

b) The Name

The name of a place, like the special meaning of a word, needs to be explained. For example, a place may have a saint's name that refers to a religious function, such as Santiago de Compestela, the oldest and most famous pilgrimage centre of Spain.

⁹See Appendix II.

Similarly the name of the town of Seyyid Battal Ghazi, in Eskisehir, Turkey derives from the tomb-sanctuary dedicated to an Arab warrior who was killed in the 8th century.

The name of Eyup originated from the name of an Arab warrior, Abu Ayyub Al- Ansari, a friend of the prophet Mohammed. He is said to have been among the leaders of the siege of Constantinople, laid by the Arabs in 716-18. He was killed and buried somewhere outside the city walls (Saleem 1986). Some eight centuries later his grave was said to have been 'discovered' during the siege of Constantinople by the Ottomans, in 1453¹⁰. The 'discovery' of the grave of Ayyub Ansari drew political and symbolic parallels between the conquest and the memorial tomb. It legitimised Islam in the former Christian lands and sealed the Islamisation of ultimately Ottoman Istanbul. In relation to this historical significance, the town kept its importance as the religious focus of the city and the country and served as a main pilgrimage centre for centuries. This determined its principal function, which in turn deeply affected its urban form.

c) The Significance

The significance of the city needs to be deciphered by analyzing its historical and architectural importance, to understand its basic function and society's perception of it. The analysis of its architectural significance, on the other hand, will help illuminate the characteristics of its built environment.

For example, the *historical significance* of Eyup is rooted in the reason for its foundation, and relates to its function, one of the main factors defining its urban form. A radical change in its basic function, from being a visiting and recreational place into an industrial town, affected its urban and natural environment and caused a great loss of identity. The underlying reason for Eyup's foundation derives from Istanbul being a desirable place for various nations throughout history, due to its strategic location controlling the passage way between Asia and Europe and the Black Sea and the Mediterranean. Its strategic location contributed greatly to its prosperity and splendour. For that reason the city was continuously attacked by Persians, Bulgars, Goths, Avars, Arabs, Slavs, Magyars, Russians, Latins, and lately Ottoman Turks¹¹. The Ottoman's reason to capture the city was claimed to be a *Hadith* (a saying of the Prophet) which referred to

¹⁰See Appendix II.

¹¹See Appendix I.

the principle objective of Islam for centuries. However, though one can argue this, the real reason appears to have been more to do with politics.

In the 14th century the Ottoman State seized almost the whole of Asia Minor and the European lands of the Byzantium Empire after they had lost power. Thus the Byzantium Empire lost its character of being a Mediterranean Empire and became a rather small state dominating the Bosphorus and lands around Constantinople (Necipoglu 1991: 104). During the reign of Yildirim Beyazid (1389 - 1402) the need to capture the city was expressed by a *Beylerbeyi* (governor general) in the Ottoman court because of Constantinople represented an infidel bastion surrounded by their provinces (Islam Ansiklopedisi 1977: 1182). This view was also expressed by Sultan Mehmed II himself, who said that Constantinople was a source of support for the infidel in the middle of his lands (Islam Ansiklopedisi 1977: 1186). These statements show that the city was already perceived to be located within the territories of the Ottoman State and deemed as an unstabilising factor in the unity of the Ottoman state. This is evident from the speech of Sultan Mehmed II to his soldiers during the siege. He told them that, "...*the conquest of Istanbul will be an important achievement for the sublimity of Islam as it was directed by The Prophet himself*" (Hoca Sadeddin 1979: 27). Seemingly this speech was effective on his soldiers, who "...*fought for Allah (God) and Islam during the siege*" (Tursun Bey 1977: 50).

A similar attitude can be also seen in the discovery of the grave of Ayyub Ansari during the siege. Latifi, the 16th century Ottoman chronicler, tells us the early version of the 'discovery' when Sultan Mehmed II laid siege to the city; Aksemseddin (a religious scholar) found the body of the blessed saint which was covered with blood. He immediately informed the Sultan who built a mausoleum befitting the saint's dignity at the site (Latifi 1977: 63). Later, a similar but much extended narration was told by Evliya Celebi in the 17th century. However, contemporary historians of the siege, such as Tursun Bey and Asikpasaoglu, although they mentioned the construction of the tomb and the *Kulliye*, are quiet on the miraculous discovery of the body. However, the discovery of the tomb itself played two important roles. Firstly, it had a political significance, having a symbolic meaning in legitimizing the conquered lands as a Muslim country and therefore sealed the Islamicization of Istanbul. In other words, the first stage of the formation of the Islamic-Turkish character of the city. Secondly, it was a religious symbol marking a familiar and actual location in order to attract co-religious newcomers.

This basic religious function and importance generated several sub-functions. It was a holy shrine, and therefore a place for pilgrimage; a centre for religious tourism attracting people not only from Istanbul but also from other parts of the country. In relation to this function there were numerous shops in the market such as *Kaymakci* (shop selling a kind of cream) and *Kebabci* (shop selling kebab) and *Oyuncakci* (shop selling toys) which is the only one that remains. The town bears the footprints of those who lived and passed by, as well as those who lived and passed away. These qualities imbued its urban character, which were formed by concentric motifs of death, such as groves of cypress trees, turbaned tombs, graveyards, and life such as houses, market, recreation areas (Fig. 8.7, 8.8). In addition, it was the place where Ottoman Sultans paraded with swords (a royal ceremony equal to a coronation), giving political significance as well.

The *architectural significance* of the town derives from its distinctive urban form; there is harmony and unity among its architectural elements that are the major contributors to its spatial quality. Although its urban form exhibits different periods and styles, this quality was not destroyed until the industrial period expressed its overwhelming domination. Following a brief early stage, the majority of its buildings were erected during the classical period of Ottoman Architecture. The fundamental feature seems to be that buildings were erected according to distinct design considerations. For instance, built structures (such as mosques, tombs, houses) gave stress to the relationship of their mass and volume which gave them a monumental quality. This was enriched by structural and symbolic elements such as *minarets*, domes and arches (*revak*). The effectiveness of a building was ensured by its volumetric quality and the organisation of its parts rather than its ornamental elegance. Built structures (whether complex or single) were carefully designed according to the surrounding context. The concern for the functional and spatial relationships of buildings affected their design and resulted in very original solutions according to each particular location and function. Thus, although the buildings were discrete elements within the whole, the spatial relationships emerged from a concern for their environmental alignment which in turn, created a spatial harmony and integrity (Fig. 8.9, 8.10, 8.11, 8.12).

However, this system was disrupted by the applications of the new era of Westernisation¹². Accompanying the Westernisation efforts in Istanbul, Eyup

¹²See Appendix II.

experienced new architectural styles such as baroque, rococo and empire, from the early 18th century. *Hatice Sultan Fountain* (1735), *Haci Besir Aga Tomb* (1746), *Mihrisah Valide Sultan Kulliye* (1792-95) (Fig. 8.13), and *Sah Sultan Kulliye* (1800) (Fig. 8.14) were the outstanding examples of this era. The new styles also had an impact on the residential buildings, mostly palaces of the female sultans (the Sultans' mothers, sisters and daughters) none of which survive today. During this period, European styles of ornamentation became important ingredients, both in the exterior and interior decoration of those buildings. Although these changes were visible on the facades, the type, function and scale of the buildings were little changed. The first major impact, therefore, emerged on the *walls* which are simply the dominant element surrounding man's physical needs for shelter. The *wall*, in Ottoman architecture had a significant role that is also clear in Eyup and created the spatial relationships, being the junction between solid and void; it was usually modest and simple (see Fig. 8.45).

The new styles, however, did change the basic characteristics of the wall in the architecture of Eyup from being a multi-dimensional component to a two dimensional surface. While *tezyinat* (ornamentality) existed in the urban spatial order of the Ottoman city (Cansever 1993) rather than on facades, it was reduced to decoration of the surface. Elegance was attempted by the introduction of new baroque, rococo and empire styles rather than by spatial relationships, proportion, realism and the simplicity of different juxtaposed elements. As a result, the emphasis of Ottoman architecture on space, volume, hierarchy and proportion between space and mass and the relationship between the unit and the whole were replaced by forms imitated from an alien architectural culture. However, more radical changes affecting the spatial structure of the town, as well as its function, were to come during the destructive industrial period.

Eyup had the special trait, of being a necropolis. In relation to its religious eminence it was the place where many people wanted to be buried. As a result the core of the town was filled with graveyards and tombs (Fig. 8.15). Likewise, the steep hill rising behind the Eyup Mosque became one of the largest cemeteries of Istanbul. Amicis pictured this attribute of the town in 1874, that it was an extraordinarily quiet and noble district and, "...is a white, magnificent and beautiful necropolis" (Amicis 1981: 447). The town also had the reputation of being picturesque, illustrated by several travellers. One of them was Miss Pardoe, who described the town in 1838 as having;

"Smoothly rounded hills, feathered with trees varying in character, but all rich in beauty, form a background eminently scenic; the lofty maple and the leafy plane-tree, the fan like acacia and the rigid cypress, flourish side by side, and overshadow a wilderness of graves; while the suburb itself, unusually well-built and regular, circles a portion of the harbour with stately and pleasant dwellings" (Pardoe 1838: 9).

Its picturesqueness can be also seen in Bartlett's, Allom's and Melling's drawings (Fig. 8.16, 8.17, 8.18, 8.19, 8.20).

d) The Foundation

As the origin of a town provides the very first reference point in terms of form, scale and function, it is important to understand the state of its site before and during its foundation, to see the initial references which might have affected its beginning. These may be the natural environment or the remains from previous settlements. They supply the very first elements to which other components will be gradually related. In any attempt to understand an urban system, it becomes essential to discern its primary foundation, which also provides a starting point, and a time reference for the analysis of its growth process.

Any historical research exploring the foundation of Eyup reveals that the existing historic urban form of the town with its Islamic-Turkish character was developed after building the tomb of Eyup Ensari and the Eyup Kulliye. There is no clear information indicating an earlier settlement or even a single building¹³. There is some evidence about the site displaying the existence of a monastery dedicated to the names of two saints; Cosmas and Damian. However, the exact site is not clear in the historical documents. One may say with authority that the monastery was located on top of the steep hill rising just behind today's Eyup Mosque, probably on the site of the present Pierre Loti Coffee House. The latest information signifying a structure at the site derives from G. M. Angioiello who visited Istanbul in 1470s. He talks about a tower on the same hill described above, which may possibly be a remnant of this monastery.

A more accurate description of the site needs further historical research and also archaeological excavations. On the other hand, the existence of a significant settlement

¹³See Appendix II.

on the site of today's town centre does not seem possible because of the difficulty of defending it against the frequent attacks on Constantinople launched from this site (Fig.8.21). It appears that the first significant building on the site was built by Ottomans, the tomb which soon evolved into a Kulliye. An Ottoman historian Tursun Bey who was present during the siege informs us that Sultan Mehmed II, having respect to Eyyub Ensari, "...built a very beautiful mausoleum for martyr Ebu Eyyub ul-Ensari and also a medrese and a bath" (Tursun Bey 1977: 63). Another 15th century historian, Asikpasaoglu, similarly states that Sultan Mehmed II constructed a great tomb on Eyyub Ensari and also a medrese(school), an imaret(soup kitchen) and a mosque (Asikpasaoglu 1970: 159).

Hence, it is almost certain that Eyup Kulliye is the first architectural structure of the town. According to the earliest description of the Kulliye provided by its vakif records (Fatih Mehmet II Vakfiyeleri 1938) it consisted of a tomb, a mosque (which was rebuilt in 1800), a medrese, an imaret with a kitchen, cellar, bakery and firewood store. In the Eyup Vakfiye records and accounting notebooks, there is also a list of properties devoted to Eyup Kulliye for its maintenance. A significant source for the original form of the Kulliye derives from Evliya Celebi in the 17th century¹⁴. Consequently the Kulliye actualized the significance and function of the town, and also formed the nucleus of its further growth.

A second aspect of its foundation (apart from its religious and political motives) that is the previous urbanisation experiences of Ottoman society. The development of the Ottoman State, in its early eras, was achieved by capturing lands and moving Westwards. In this process, settlements of newcomers, mostly nomads in these newly conquered lands, were an important political, social and cultural concern. When a city was seized, its further development was an important issue for the State. Accordingly, the local population, which mostly occupied the walled city, were kept in their original place and any newcomers were settled outside the walled city, provided with lands and the basic infrastructures necessary for an urban settlement. This infrastructure or nucleus of the future settlement was generally a religious building or a kulliye made up of a mosque, medrese, and bath. Thus, the further spatial development of an Ottoman city was usually generated by the foundation of new nuclei outside the city walls (Akture

¹⁴See Appendix II.

1987: 31). An Ottoman city was developed by mutual expansion and a gradual articulation of these nuclei to the old city and to each other. This characteristic can clearly be seen in the Ottoman cities of Amasya, Bursa, Edirne, Erzurum, Kayseri, Konya, Kutahya and Tokat (Tanyeli 1986) (Fig. 8.21, 8.22). It is possible that a similar practice underlies the miraculous 'discovery' of the tomb of Eyyub Ensari, might possibly be applied to the foundation of Eyup.

e) The Society

As Man is a major determinant of urban form, emphasis must be given to makers and users; society itself. Although every town is unique, it also belongs to and is related with a greater system; the culture of a country or society. In particular it is an expression the urban system of that culture. Thus the urbanisation experience and process of society needs to be referred to in order to understand an urban form. This general proposition must be focused on the formative components of urban structure, which may help us to comprehend the characteristics of a specific case. Consequently, this type of analysis will help us to understand the architectural characteristics of the town and also help to bridge the *transition* from our major historical analysis to an architectural one, in other words from the *Identification* to the *Reading* stage.

In the case of Eyup, the general Ottoman urban culture needs to be clarified. This can be realised by the analysis of studies of other Ottoman cities, other urban experiences such as those of cities like Edirne, Bursa and components such as Kulliye, Vakif and the organisation of architects. In this sense the identification phase showed that Eyup's historic urban form was very much affected by three major determinants: conditions of place, society and function.

8.3.2. Reading of Historic Urban Fabric

The main focus of the analysis in its second phase (reading) will concentrate on the physical structure of the town. Firstly, its growth process will be examined. Secondly its urban elements will be explored. Before moving making clear these phases, we need to explain what we mean by 'reading'. It is a method that aims at deciphering the architectural system of the town's urban structure through an analysis of its formative elements. Accordingly, in the first phase, looking at how the town has grown will enable us to see the articulation of the different urban elements and its evolutionary processes.

Historical data dealing with time and place, such as archive documents, drawings, maps, photographs, historians' and travellers' accounts will be drawn on.

8.3.2.1. Growth Process

To determine the growth patterns of Eyup's urban fabric requires patient and careful research. As the town is located outside the walled city, many historical maps, drawings and travellers' accounts do not include Eyup in their contents. The fundamental sources with which to reconstruct its possible growth will largely have to be the existing historic urban fabric, archive documents, such as *Muhimme Defterleri* (Records containing Sultan's orders), *Vakfiye* (Vakif Records), *Tapu Defterleri* (Records of Property Deeds), *Maliyeden Mudevver Defterleri* (Circulated Finance Records), which include *Insaat Defterleri* (Construction Records), *Tamirat Defterleri* (Repair Records), *Kesif Defterleri* (Valuation Records), *Insaat Malzemesi Defterleri* (Construction Materials Records), *Insaat Masraflari Defterleri* (Construction Expenses Records), historians' accounts such as Naima, Latifi, Gilmani, Komurcuyan, travellers' accounts such as Evliya Celebi, visual documents such as the panorama of Istanbul by Lorich, the drawings of Bartlett, Allom and Melling, the map by Lokman, photographs from the 19th and the 20th centuries conveying valuable data about its state just before the irreversible destructions began.

Chronologically, according to the underlying historical events this process can be divided into four major periods; Early, Classical, Tulip and Tanzimat periods¹⁵. The Early period refers to the second half of the 15th century. The Classical period covers mainly the 16th and also 17th centuries, when the Islamic-Turkish character of the town was established. In parallel with the transformation having taken place in Istanbul, Eyup was also influenced. The building changes initially occurred as the new architectural styles were introduced. Similar to Istanbul's general destiny, radical changes which began in the 19th century, were accelerated after the proclamation of the Tanzimat Decree, in 1839. This period is to be investigated until the beginning of the 20th century when industrialisation dramatically affected its urban form in terms of its identity, and its built and natural environmental qualities.

Although the existing historic buildings provide essential clues they are not sufficient to have a complete understanding of its structure. The present old buildings are mostly

¹⁵See Appendix II.

official buildings such as mosque, kulliye, medrese, tombs, but the fundamental element of an urban form; the residential unit, (in the case of Eyup the wooden houses), have almost totally disappeared (very few examples remain) (Fig. 8.23, 8.24). But their patterns must be established to be able to grasp the essence of the spatial relationships. We will attempt to give an outline of, and major characteristics of the town's growth process that will help to express and illustrate our method, rather than provide a complete picture of the growth phases of Eyup, which would require further studies (see later in this Chapter).

Following the conquest of Istanbul in 1453, the development and repopulation of the city, the Capital of the Ottoman Empire, was one of the major concerns of Sultan Mehmed II¹⁶. He built extensively in the city; a royal palace (initially at the site of today's Istanbul University and later on the promontory of the historical peninsula, the Topkapi Palace), a royal mosque and kulliye (Fatih Mosque and Kulliye), a bedestan (in today's Grand Bazaar), a castle at the Golden Gate (Yedikule), and numerous caravanserais, baths, inns and the restorations of the old water supply system. Apart from his own endeavours, he ordered all the wealthy and most able persons to contribute to the repair works and new constructions in the city. Consequently more than a hundred churches and convents were renovated and converted into mosques by philanthropists. They also built new mosques, medreses, imarets, inns, market places, workshops to embellish the city. Furthermore, his contemporary historians, Tursun Bey, Asikpasaoglu, Kritovolous inform us that he sent orders everywhere in his realm, stating that as many inhabitants as possible should be transferred to the city, Muslims, Christians, and Jews. This must have enhanced the cosmopolitan character of the city. As a result, people from different parts of the country and from different ethnic and religious origins were brought and settled in different parts of Istanbul, which became one of the major attributes of its urban structure. This was observed by an Italian, Angiolello, as early as 1470s. He states that, "*...in all mahalle (neighbourhood) there are every kinds of craftsmen...every mahalle, has a worship and market place according to its own order and custom...every mahalle of Constantinople has a different language and custom because their inhabitants were brought from different countries*" (In Yerasimos 1988: 40).

Paralleling these developments a kulliye was built around the tomb of Eyyub Ensari. The kulliye became an attractive focus which generated later developments and the town was

¹⁶See Appendix I.

populated by Muslims brought from Bursa. The initial historical research shows that apart from the principal kulliye, other nucleuses (mosque, mescid) were also erected which resulted in five mahalle flourishing around a mosque or mescid, namely: *Silahsor Mehmed Bey Mosque*, *Cayirbasi Mescid* (no longer in existence), *Sofular Mescid*, *Defterdar Mescid* (no longer in existence) and *Kasim Cavus Mescid*. Other buildings such as mosques, mescids (*Arpaci Hayreddin*, *Balcik Tekkesi* (no longer in existence), *Mehmed Bey* (no longer in existence), *Yavedud Mosque*, tekkes, tombs, an imaret, baths, a fountain, a medrese, primary school and library were erected in different parts of the town. New houses, villas, were also built around these buildings and as a result, Tursun Bey (1977: 63) informs us that, "A very nice town was erected to which people who wish peace and rest came by both from the sea and by horses or on foot from the land, to socialise and pilgrimage". Angiolello indicates the religious significance of the town and the Eyup kulliye as the origin of its growth and adds that, "Many people live here and a number of houses, palaces have been built around the shrine so that a notable town has grown up there" (In Yerasimos 1988: 39). However, these descriptions only give a vague picture of its urban image and are far from being sufficient to redraw its 15th century urban structure.

Apparently, the town grew and developed in the 16th century much faster than in any other historical period, except the disastrous industrial era. An Ottoman historian Hoca Sadeddin (1536-1599) informs us that it was a well populated and prosperous town (Hoca Sadeddin 1979: 181). Some significant data about its urban form derives from Melchior Lorichs' panorama from the Golden Horn drawn in 1559 (see Fig. 8.4). One can observe some basic characteristics which were discussed earlier. The town developed along the Golden Horn spreading towards the hills. However, the dense urban fabric was obviously stretched along the flat land, in a linear form supported by the two major axes, with respect to the topographic boundaries. As the town was surrounded by natural boundaries, it faced towards the waterside, the Golden Horn. According to this panorama, domed mosques and minarets distinguished themselves as landmarks. It is also clear that Eyup Mosque is the dominating monument of its urban form. In today's Eyup, however, the Zal Mahmut Pasa Mosque designed by Mimar Sinan in 1577 plays an important role. Although the Eyup Mosque, in its rebuilt form, is still the focal point, of the urban structure in terms of its function, location, scale and its image, Zal Mahmut Pasa Mosque with its influential mass and volume, sets an equilibrium in this stretched urban form and acts as an alternative focal point. This, on

the one hand, breaks the repetitive, linear vision of the urban form and on the other, strengthens the command of the Eyup Mosque over the town by providing a reference point in terms of scale, form and location (See Fig. 8.2, 8.25).

Other significant data derives from Lokman who drew a rather schematic map of Istanbul in 1584-85, in which a part of Eyup is also shown (Fig. 8.26, 8.26a). Although the map is far from giving a clear idea about its urban structure, one can see that the town grew along the Golden Horn and began to expand towards the hills. It is conspicuous that the town was articulated with the urban structure of the walled city along the Golden Horn and formed a continuity in the urban vision of the entire city. However, there is a clear separation between the city walls and the rest of the town on the hill side, which is sustained until now. One of the important features of this map is the emphasis it gives to two aspects. One is the quadrangle structures, possibly indicating self-reliant and relatively large scale complexes, possibly buildings (houses, palaces) with gardens, located mostly on the slopes of the hills to the west. Second is the building along the flat land by the Golden Horn, which seems to have a relatively smaller scale with a majority of domed buildings, probably signifying numerous tombs, mosques. The dominant urban element is still the Eyup Mosque.

The considerable number of buildings serving different needs, were erected in the 16th century. Approximately twenty seven mosques and mescids were built in different parts of the town. Eleven of them became the nuclei of new mahalles. *Cezeri Kasim Pasa Mosque* (1515), *Defterdar Mosque* (1540) built by Mimar Sinan, *Nisancilar Mosque* (1567) built by Mimar Sinan, *Sah Sultan Mosque* (1556) built by Mimar Sinan and *Zal Mahmut Pasa Mosque* (1557) built by Mimar Sinan are the most prominent and standing examples of this era. Furthermore, numerous tekkes (9) and tombs (34) were built in relation to the town's religious importance. Among them the tombs of *Ayas Pasa* (1539), *Feridun Pasa* (1583), *Lala Mustafa Pasa* (1580), *Pertev Pasa* (1572), *Siyavus Pasa* (1582), *Sokollu Mehmet Pasa* (1568), and *Zal Mahmut Pasa* (1577), all built by Mimar Sinan, are the celebrated examples. Another important element of Eyup's structure were the many fountains (26) built during this century. The fountains of *Defterdar Nazli Mahmut Efendi* (1543), *Sadrizam Ali Pasa* (1558), *Sokullu Mehmet Pasa* (1568) and *Zal Mahmut Pasa* fountain (1577) are the salient examples among many others. Medreses, another formative element were built in great number (15). The medrese of *Sokullu Mehmed Pasa* (1568) and *Zal Mahmut Pasa* (1580), both designed by Mimar Sinan, are

the important ones. Seemingly, the 16th century buildings form the spine of Eyup's urban structure and identity that are still tangible in its present state.

In the 17th century, construction activities in the town were slowed down in accordance with the general decline of the Empire. The major historical data of this period are the traveller's and historians' accounts. The main source is the Evliya Celebi who provides detailed description of the town in terms of its buildings, their architecture, open spaces and the social, economic life in the town (Evliya Celebi 1834). He also indicates different functions of the town. Accordingly, the town was a resort place where people from other parts of Istanbul came for rest and relaxation. Thus, the town, together with its previous function becomes a place to visit and therefore one of early tourism. Perhaps, in relation to this function, the traditional industry for making jugs, pots, plates of clay was developed. He pointed out that town is also famous because of its *kaymak* (Cream) and *kebab* shops, which were located in the market near to the Eyup Mosque. Toys (made of wood and clay) were produced in Eyup and sold from approximately one hundred toy shops (Evliya Celebi 1834).

Apart from Evliya Celebi, Katip Celebi also describes the town as a favourite and beautiful excursion place which is completed by Kagithane, the principle excursion site of Istanbulers (Yurt Ansiklopedisi 1982). Its major characteristic of being in harmony with nature, creating a very pleasant place was continuously mentioned in traveller's accounts until the end of the 19th century¹⁷. An Ottoman historian Naima (1655-1716) says that the town was well known for royal parades by the Sultans, who used to visit the tomb of Eyup Ensari by coming in procession from Topkapi Palace (Naima 1967, Vol. II: 710).

Eremya Celebi Komurcuyan (1637-1695) reported on the density of greenery, parks and gardens, palaces and pavilions that belonged to the royal family. Similar to Evliya Celebi he gives details of the manufacturers of clay jugs and pots (called in Turkish *Comlekçiler*) and the numerous toy shops. He indicates the great number of mosques and mescids and states that it is a well populated Muslim town, with a smaller number of Bulgarians and Armenians (Komurcuyan 1988). Since visual historical records are almost nonexistent, The buildings and historical research on them has to be the major source of information about this period. Further analysis cannot be completed without

¹⁷See Appendix II.

access to archival survey data, which may provide information not only on official but also on residential buildings and gardens, which have mostly been replaced by later developments.

In the second major period of its growth covers most of the 18th century, where a similar research process can be followed. Recorded historical sources, as well as existing buildings, should be examined in order to have a clearer picture of the town at that time. The significance of this era, as stated earlier, was when the beginnings of the transformation in the town's urban structure took place. The town apparently continued to be a centre for tourism for religious and recreational purposes. New architectural styles were extensively used for the new buildings. The *Mihrisah Valide Sultan Kulliyeh* (near to the Eyup Mosque), built in 1792 by Mimar Arif Aga, is an outstanding example of Ottoman Baroque. Another fine example is the *Sah Sultan Kulliyeh* (near to Zal Mahmut Pasa Kulliyeh), built in 1800 with a mixed Empire and Baroque style. There were further numerous tombs (15) and fountains (28) built reflecting the manner of this era¹⁸.

The third period of the town's growth begins with proclamation of the Tanzimat Decree (1839) that marked the starting point of the radical changes in the Ottoman Empire. Paralleling the transformation taking place in Istanbul itself, the 19th century was the scene of fundamental changes in Eyup's function and urban character. The analysis of this process will therefore provide clues to understand the reason for the spatial disruption and degradation of its previous time architectural quality. In this era new industrial buildings began to be introduced into its urban fabric, the first factory called *Iplickhane* was built in 1827-29, to produce cotton clothing for the army (Fig. 8.27). This was followed by another factory, called *Feshane-i Amire*, built in 1835 also to service the army with cloth (Fig. 8.28, 8.28a). In order to built these factories, which were incompatible with the scale of the town many palaces, houses and gardens once standing along the coastline were destroyed. This drastically affected the town's hierarchical order and the relationships between the buildings and open spaces but also greatly damaged its environmental qualities. All this was also accompanied by socio-economic and cultural changes with the society as a whole. Further destruction along similar took place in the 20th century.

¹⁸See Appendix II.

Due to lack of sufficiently detailed maps, the standing buildings need to be measured and located for this analysis. Also the socio-economic situation and characteristics of the town must be examined to have a better picture of the town's life style. Furthermore, the function of the tomb of Eyup Ensari, as well as the town itself and relationship with Istanbul, throughout its historical background, can be examined through available historical data. From all these historical searches and site surveys, the growth patterns of the town can be evaluated and drawn and will provide the basic material for the next stage of the analysis.

8.3.2.2. Urban Elements

Our analysis will not just emphasis the urban form, by classifying the elements according to their type and form but rather according to their contents, relationships and their role within the urban form. Here we recognise two basic urban elements; *architectural* and *institutional*. Their classification will help us to understand the logic underlying the articulation of different elements by looking at the relationships between the built areas and the remaining open spaces. Accordingly, we argue that these relationships are represented by the combining elements that helps the articulation of spaces.

a) Architectural Elements

The architectural elements, in this sense, are divided into three main groups, *built structures* (solids), *spatial structures* (voids) and *the combining or articulating elements*.

i) Built structures

Built structures can be investigated according to different themes of classification, for example according to their *composition*, *status* and *function*. The former are grouped as a *complex* of buildings, such as a neighbourhood or market or a *single* building such as a tomb or house.

In Eyup's urban form there are three major complexes of buildings which are the *Kulliye*, *Mahalle* and *Market* area. A *Kulliye* is a planned cluster of buildings consisting of a mosque, medrese, imaret, bath, tomb, and fountain, which together act as a generator of growth. In this sense it can be interpreted as the means for planning. Due to its large scale, It can dominate the urban form in plan as well as in three dimensions. There are numbers of Kulliyes in Eyup, among which *Eyup* (Fig. 8.29, 8.29a), *Zal Mahmut Pasa* (Fig. 30, 30a), *Sokollu Mehmed Pasa*, *Sah Sultan*, *Mihrisah Valide Sultan*, *Cezeri Kasim*

Pasa and *Defterdar Nazli Mahmut* are the prominent ones. A *Mahalle* is basically a residential neighbourhood, usually developed around a mosque, mescid or a kulliyeh. The initial historical research carried out so far is not sufficient to delineate the old texture of these mahalles, further work is needed. The *market* area is where most of the commercial activity was concentrated. In Eyup the central market was around the Eyup Mosque, however only a small street (*Oyuncakcilar*) remains today. Here to further historical and archival research is necessary to reconstruct the market place and its environs.

The single buildings of Eyup can be clarified as follows; *Mosques* (Eyup, Zal Mahmut Pasa), *churches* (St. Mary, St. Elia, both Armenian), *mescids* (Silahi Mehmed Bey, Sacli Abdulkadir), *tombs* (Sokollu Mehmed Pasa, Ferhat Pasa (Fig. 8.31) Husrev Pasa (Fig. 8.32), Mihrisah Valide Sultan, Karabas Ahmet Efendi), *tekkes* (Karyagdi, Baba Haydar), *imarets* (Eyup, Mihrisah Valide Sultan), *baths* (Comlekçiler, Eski-Yeni), *libraries* (Eyup, Husrev Pasa, Zal Mahmut Pasa), *schools* (Mihrisah Valide Sultan, Sokollu Mehmet Pasa, Sah Sultan), *medrese* (Eyup, Cafer Pasa, Zal Mahmut Pasa, Sokollu Mehmed Pasa), *fountains* (Islambey, Kadi-zade, Husrev Bey, Sadrazam Ali Pasa), *sebils* (Mihrisah Valide Sultan, Sah Sultan), *houses* (mostly wooden structures), most have been destroyed and the remaining ones are in a very bad state. Monumental historic *trees* must be added to this list, as they contribute so much to the spaces where they are located, such as the tree in the inner courtyard of Eyup Mosque, in front of the tomb (Fig. 8.33).

Buildings can also be classified according to their status, such as *private buildings* (mainly houses) and *official buildings* (mainly religious and social). In Eyup this classification is clearly reflected in the urban texture. The houses are distinguished not only by their scale, form and function but also by their wooden construction making them short lived compared to official buildings made of stone. Official buildings, on the other hand, were erected mostly by the State or wealthy merchants through the *vakf* system. Both these types were set in a landscape of lush greenery that merged these disparate structures (Fig. 8.34).

Another classification can be undertaken according to the function of these buildings such as *social, religious, commercial, residential* and *infrastructural*. Religious buildings in Eyup are mosques, churches, *mescids*, *tekkes* and tombs; social buildings *imarets*, *medreses*, schools, libraries, baths, fountains and *sebils*; commercial buildings

bedestans, hans and shops; and residential buildings, which in turn can also be further classified as simple houses, *konaks* (mansions), *kosks* (pavillions), *yalis* (waterside residences) and palaces. Infrastructural buildings like water supply systems consisting of fountains, *sebils*, wells, cisterns should also be examined. All these built structures needs to be studied, measured and carefully recorded to produce an 'architectural map' of the historic urban form, from which 'understanding' can be grasped.

ii) Spatial Structures

Spatial structures are taken to mean here open spaces between buildings, which can be a street as a common public space or the garden of a house as a private open space. Therefore they can be classified according to their status of being common open spaces, where people meet for various reasons according to the function of the space (street, square, recreation sites - gardens, meadows) or a private open spaces, which symbolise a particular family or other group of users.

Spatial structures of Eyup's urban structure are basically, *streets* (primary roads or axis such as Comlekçiler and Defterdar streets, secondary roads and cul-de sacs, mainly in residential areas) (Fig. 8.35, 8.36, 8.37, 8.38), *courtyards* (of mosques, medrese, tekke, imaret), *gardens* (of houses), *vegetable gardens* for commercial purposes (bostan), *graveyards* (in the yards of religious buildings, outside the built up areas, such as the large cemetery on the steep hill rising just behind the Eyup Mosque), *recreation sites* (such as Aga Kirligi, Bulbul deresi, Can Kuyusu, Gumussuyu). Similar to the other Ottoman cities there are no designed public squares but rather junctions defined as *meydan* by the existence of a mosque, a fountain or a tree (Fig. 8.39), where the courtyards of mosques or market areas are the places for social gathering.

iii) Combining Elements

Combining elements have a crucial role in the urban space as articulating agents of the built and unbuilt spaces because they represent the tangible quality of the relationship between the two. They can be classified as *structural* (walls), *visual* and *spatial* (greenery), *social* (squares), *functional* (fountains), *visual* and *symbolic* (landmarks).

The combining elements in Eyup's urban structure have a special role, because buildings or, in our terms, built structures express themselves by their volume and massing qualities (Fig. 8.40), and can be perceived from four sides. Official buildings are

designed as independent structures located in a garden which is generally surrounded by a wall. Houses similarly express themselves by their extrovert features, such as bay windows, or being located in a garden (Fig. 8.41). Though the built structures stand individually at the same time they reflect that they are part of a whole system. The question then arises as to how these individual elements were built up, and by which means they were related to each other forming a greater unity and harmony. We argue that there are certain urban elements that create this relatedness, or in other words, help to organise and articulate the spaces between buildings that are combining elements. In Eyup, the role of these combining elements is evidently reflected in its urban form. There are four major elements which combine individual built structures, having different roles; a *wall*, in this sense, has a structural articulating role not only in terms of construction but also of spatial structure (Fig. 8.42). *Greenery* has the role to create visual and spatial integrity, enriching the environmental qualities of spaces (Fig. 8.43). A *minaret* forms a landmark that articulates that particular urban space visually and symbolically (Fig. 8.44). Being the dominating vertical element in urban settlements, it gives a clue about the limits of the town and also contributes to an almost intangible integrity. *Fountains* built at junctions (meydan) form help to articulate these open social spaces and in a way facilitate their use (Fig. 8.45).

b) Institutional Elements

To merely study the architectural elements, however, is not sufficient to understand the urban system, it is also necessary to examine the institutional elements. The significant ones are those involved with the economic and administrative aspects; the means (architecture and its organisation) by which these come about, together with their social and cultural purpose in the city need to be investigated.

Firstly, it is necessary to clarify the institution which affects the way land is used, as well as the business codes of building organisation. In Eyup, as we are within the Ottoman urban system, the *vakf* was the main institution through which official buildings were commissioned. The income from all the properties (han, shops, agricultural lands) was devoted to their keep up which helped them survive. *Secondly* the administration of the urban system and its production and maintenance is to be examined. This includes the decision making process in which administrator, client and architect are involved. The head administrator of Eyup was the *Kadi* who was responsible for any decision related to the town. *Thirdly* the institution responsible of making the city is necessary to be

investigated, In this regard, architects had a crucial role. In the Ottoman Empire there was a hierarchical organisation with the royal chief architect responsible for constructing projects in the Capital. There were other architects to help him who also built other official buildings. In the other Ottoman cities, there were city architects responsible not only as the designer but also to control the projects on site (Turan 1963; Orhonlu 1981). An investigation of the architectural organisation in Eyup would provide us with information on whether there were regulations to guide the construction of buildings and about the concerns and considerations of architects regarding social, economic, cultural but also the architectural aspects. Thus urban structure becomes 'legible' by these analyses for the stage of synthesis; *understanding*.

8.3.3. Understanding of Historic Urban Fabric

The last stage of the analysis is in its 'understanding' which means a synthesis of the whole architectural system of a town, to reestablish the original schemata (see Chapter 6). The main characteristics of the urban form of a town can be identified by analyzing the different relationships and situations on a broader scale.

Pursuing these hierarchical relationships, first through the macro urban system and then through the relationship between the urban form and its elements will help to understand the main architectural characteristics such as its scale and dominant features. Accordingly, the role of architectural elements can be classified by analyzing the complex elements, monuments, the prospect and aspect, the proportions and scale between various elements, the hierarchical order of the spaces, the massing of buildings and the role of the natural environment. The major aim of presenting this method was to suggest that the analysis of urban form needs to be shifted from its formal qualities as is the current tendency, (which has already been examined in Chapter 7) to its *spatial qualities*, in other words from their formal relationships to their *spatial relationships*, in short from form to *space*.

This method, it is hoped, will help to grasp the town's architectural essence in order to transform it according to its own system, by this means it is hoped to **generate creative new designs** rather than imitations. It is also hoped that by giving emphasis to the historic urban fabric, it will not be used as a 'model' but rather as an '**inspiration-source**' from which to plan future urban environments. The connection with the present and this 'past' architectural quality is necessary to achieve an autonomous, identifiable urban

form. Therefore we argue that only then we may be able to recreate integrated and harmonious cities again. And only then may architecture appear in the cities. The next question arises as how this understanding can become a design source and how architects and others can work with it. The response is to come from architects who work and design in these cities since the responsibility of making the city is with architecture. Hence the importance of architectural education becomes clear for the future of these cities. This study will present its suggestions on two levels; one considers future studies to develop the method of analysis and the second, aims to reinforce the necessity of conserving the historic urban fabric as a determinant of urban form and thus an inspiration of new designs in two directions: architecture in the *profession* and architecture as an *education*. The former will be presented below and the latter will be demonstrated by the recommendations of in the Concluding Chapter.

8.3.4. Suggestions for Future Studies

The author admits that the proposed framework for the method of reading and understanding urban form needs to be further developed through additional studies. However, these studies, particularly case studies, need to be undertaken through long term research and application due to the complexity and interrelatedness of an urban environment. The proposed research indicates the need for a multi-disciplinary group of architects, historians, art historians, archaeologists, ethnologists and social scientists. They may draw on other related disciplines. Eventually the group could evolve into a research institution for the study of our historic urban cities.

In the case of Eyup, since 1992, a Unit responsible for the Eyup Project, the Tarih Vakfi (History Foundation) had to record the existing situation and prepare restoration schemes (Tarih Vakfi 1994). Prof. Dogan Kuban explained the focus of the project in December 1993 during the Symposium on '*Eyup: Past/Present*' is to explore the historical documents and record the buildings and gardens before they are completely destroyed. While the latter is carried out by an architectural office, historians are working to explore the archival documents related to Eyup's built environment. So far only a small number of the documents have been read and translated from Ottoman to modern Turkish. However, these efforts are concentrated on *registering* historical data available in the archives and the standing historic built structures. This focus could be diverted into discovering the architectural essence of its urban form by the application of the proposed method of analysis. Thus, the activity of the Unit could be progressed from *recording*

to analysing this data and develop and apply the method proposed in this thesis in order to understand its architecture by which to initiate and control the further developments in the town. There are other historic cities with their distinctive qualities all over the Central and Middle East that are in urgent need of this work; we in Turkey could play a leading role.

8.4. CONCLUSION

This study has discussed the importance of the historic urban nucleus of a city for the shaping of its future form. It is proposed that this nucleus needs to be read and understood through a careful analysis based on *the exploration of its spatial qualities*. The framework of a method for such analysis has been suggested and illustrated by the example of Eyup.

Similar studies can be carried out for other historic cities of Turkey. Municipalities and other institutions should be invited to participate with the research process and learn how such studies can assist in the conservation and any new development plan for the city. A similar approach can be pursued for other parts of Istanbul such as *Galata, Fener, Zeyrek, Suleymaniye* which have still kept their identity, in spite of persistent and continuous destruction of their urban environment.

We would argue that these and similar studies could have a special importance for the whole of Istanbul's urban form if it is to keep its identity against overwhelming pressure of industrial and commercial development applications. Sadly these are mostly as a result of political desires and speculative economic developments. If Istanbul is to be *The City* again, we owe it to its citizens, to its great historical past and to its better future in the 21st century.

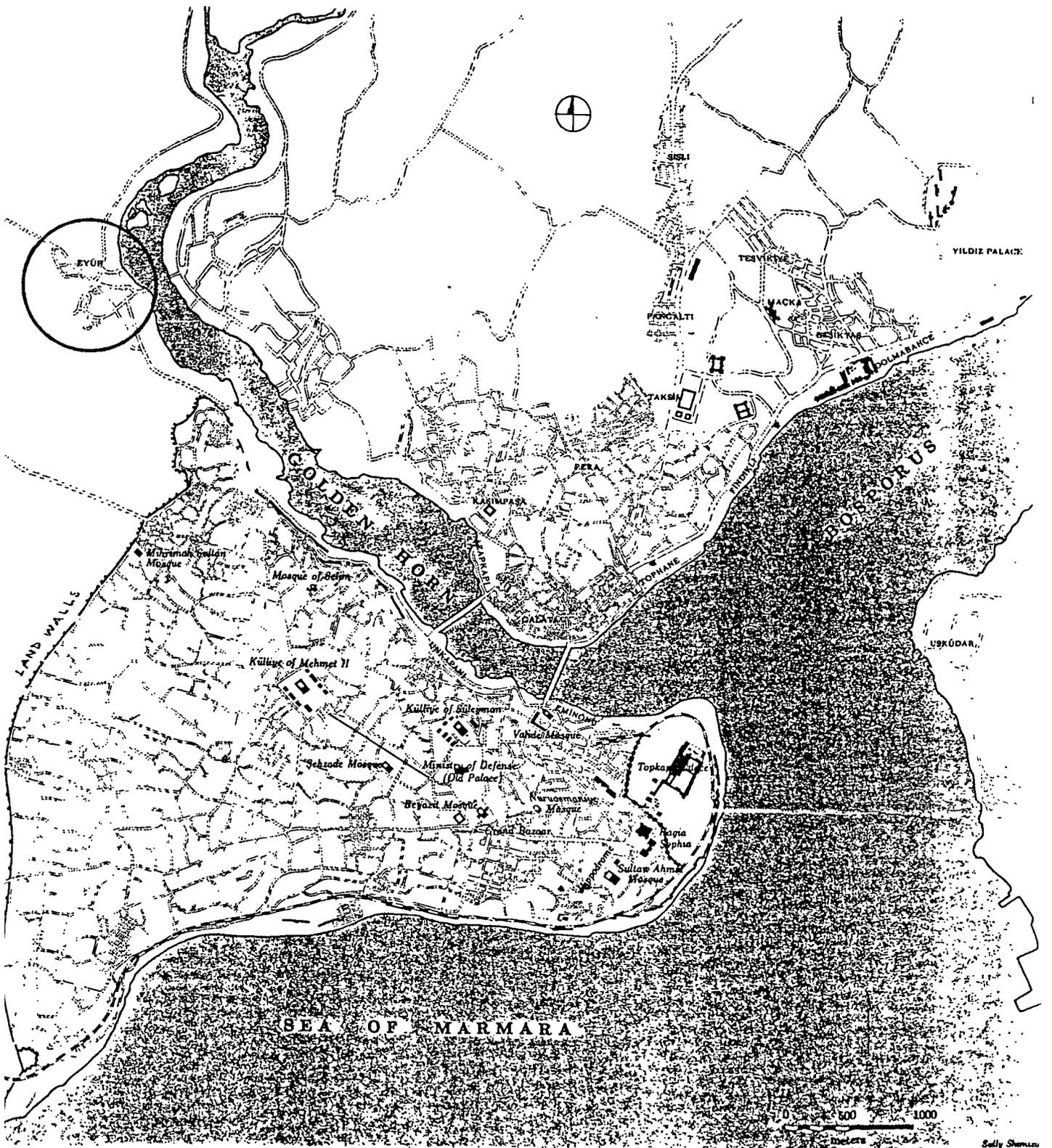


Fig.8.1 The location of Eyüp in Istanbul.

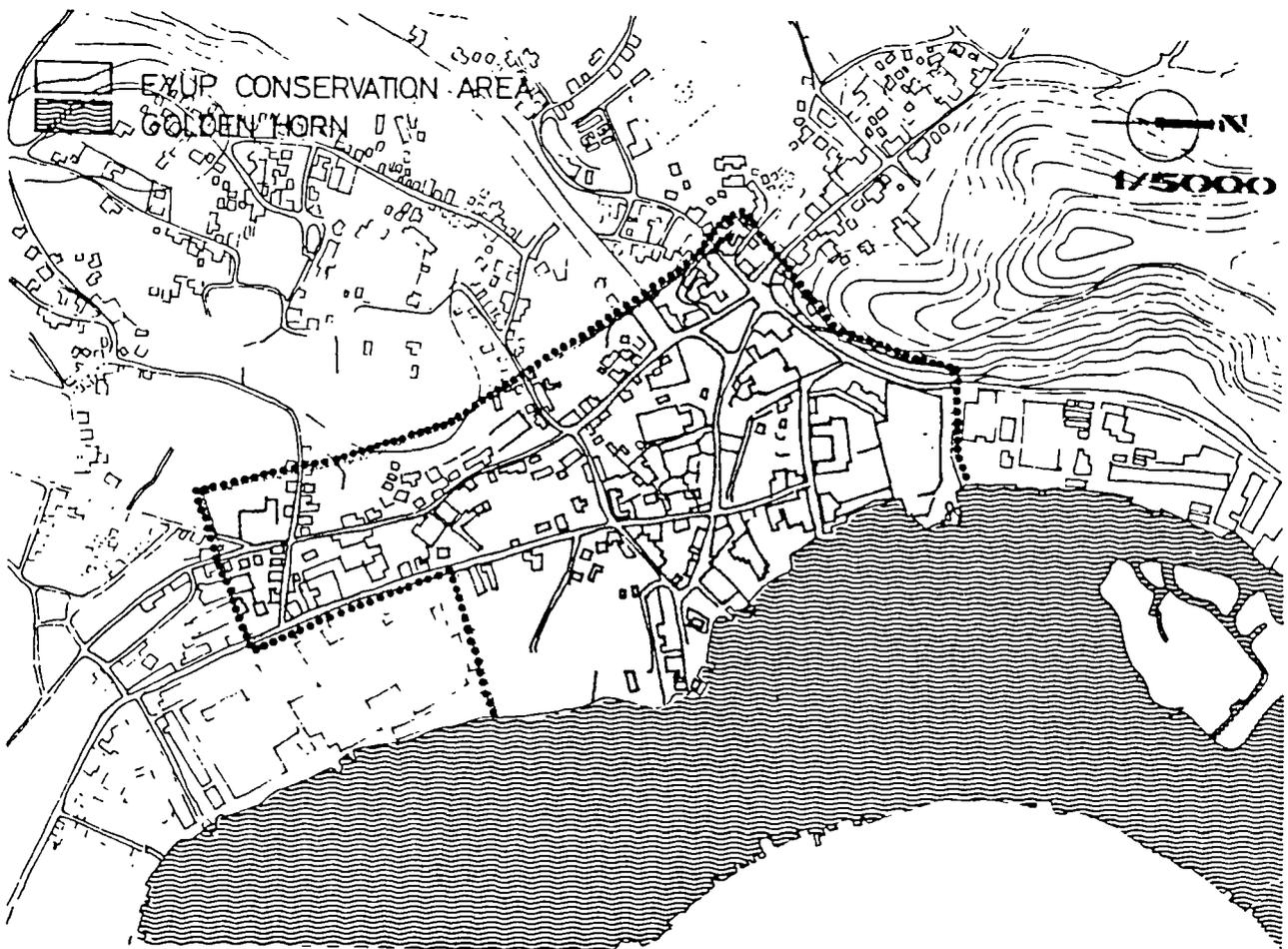
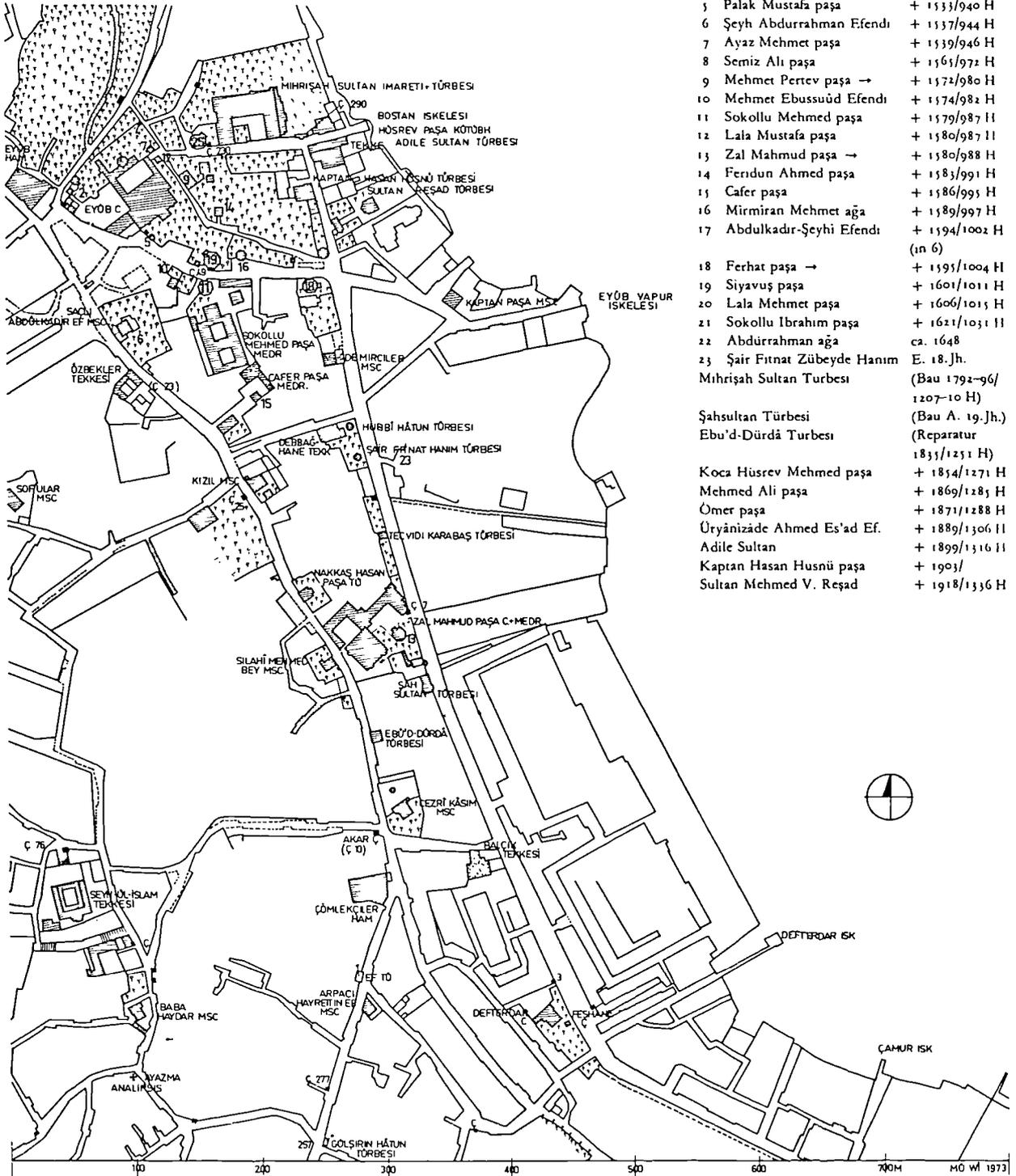


Fig.8.2 The core of Eyup is a conservation area since 1979.



- | | | |
|----|----------------------------|-----------------------------|
| 1 | Ebu Eyyüb il-Ensari | (Bau 1431) |
| 2 | Mustafa ağa | + 1436/860 H |
| 3 | Hoca Sinan paşa | + 1493/900 H |
| 4 | Hançerli Sultan | |
| 5 | Palak Mustafa paşa | + 1533/940 H |
| 6 | Şeyh Abdurrahman Efendi | + 1537/944 H |
| 7 | Ayaz Mehmet paşa | + 1539/946 H |
| 8 | Semiz Ali paşa | + 1561/972 H |
| 9 | Mehmet Pertev paşa → | + 1572/980 H |
| 10 | Mehmet Ebussuüd Efendi | + 1574/982 H |
| 11 | Sokollu Mehmed paşa | + 1579/987 H |
| 12 | Lala Mustafa paşa | + 1580/987 H |
| 13 | Zal Mahmud paşa → | + 1580/988 H |
| 14 | Feridun Ahmed paşa | + 1583/991 H |
| 15 | Cafer paşa | + 1586/995 H |
| 16 | Mirmiran Mehmet ağa | + 1589/997 H |
| 17 | Abdulkadir-Şeyhi Efendi: | + 1594/1002 H |
| | (in 6) | |
| 18 | Ferhat paşa → | + 1595/1004 H |
| 19 | Siyavuş paşa | + 1601/1011 H |
| 20 | Lala Mehmet paşa | + 1606/1015 H |
| 21 | Sokollu İbrahim paşa | + 1621/1031 H |
| 22 | Abdürrahman ağa | ca. 1648 |
| 23 | Şair Fitnat Zübeyde Hanım | E. 18.Jh. |
| | Mihrîşah Sultan Turbesi | (Bau 1792-96/
1207-10 H) |
| | Şahsultan Turbesi | (Bau A. 19.Jh.) |
| | Ebu'd-Dürdâ Turbesi | (Reparatur
1835/1251 H) |
| | Koca Hüseyin Mehmed paşa | + 1854/1271 H |
| | Mehmed Ali paşa | + 1869/1285 H |
| | Ömer paşa | + 1871/1288 H |
| | Üryanizâde Ahmed Es'ad Ef. | + 1889/1306 H |
| | Adile Sultan | + 1899/1316 H |
| | Kaptan Hasan Husnû paşa | + 1903/ |
| | Sultan Mehmed V. Reşad | + 1918/1336 H |

Fig.8.2a Standing Ottoman buildings which compose the core of Eyup.

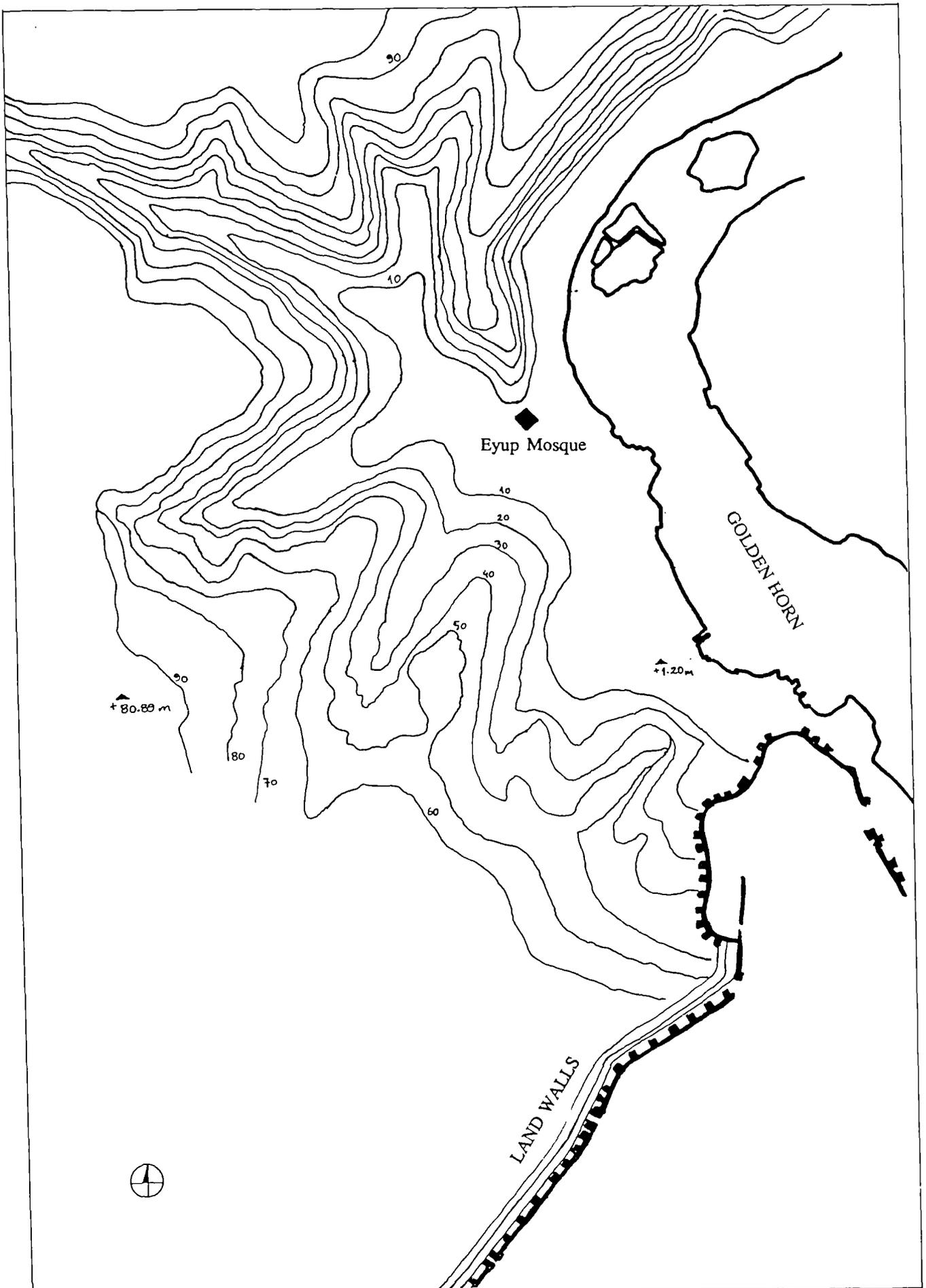


Fig.8.3 Topographic Map of Eyup.

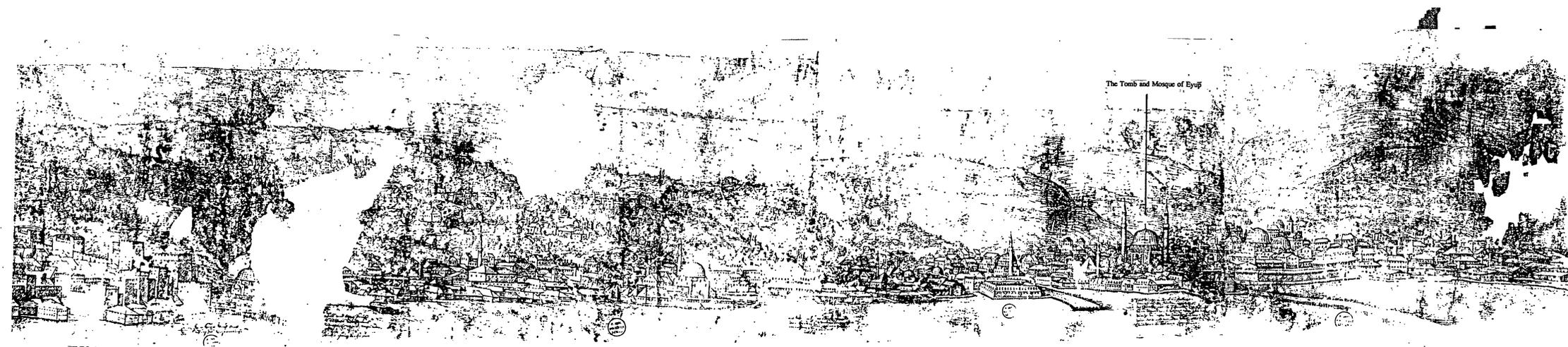


Fig.8.4 A panoramic view of Eyup from Golden Horn, drawn by Melchoir Lorichs, in 1559.

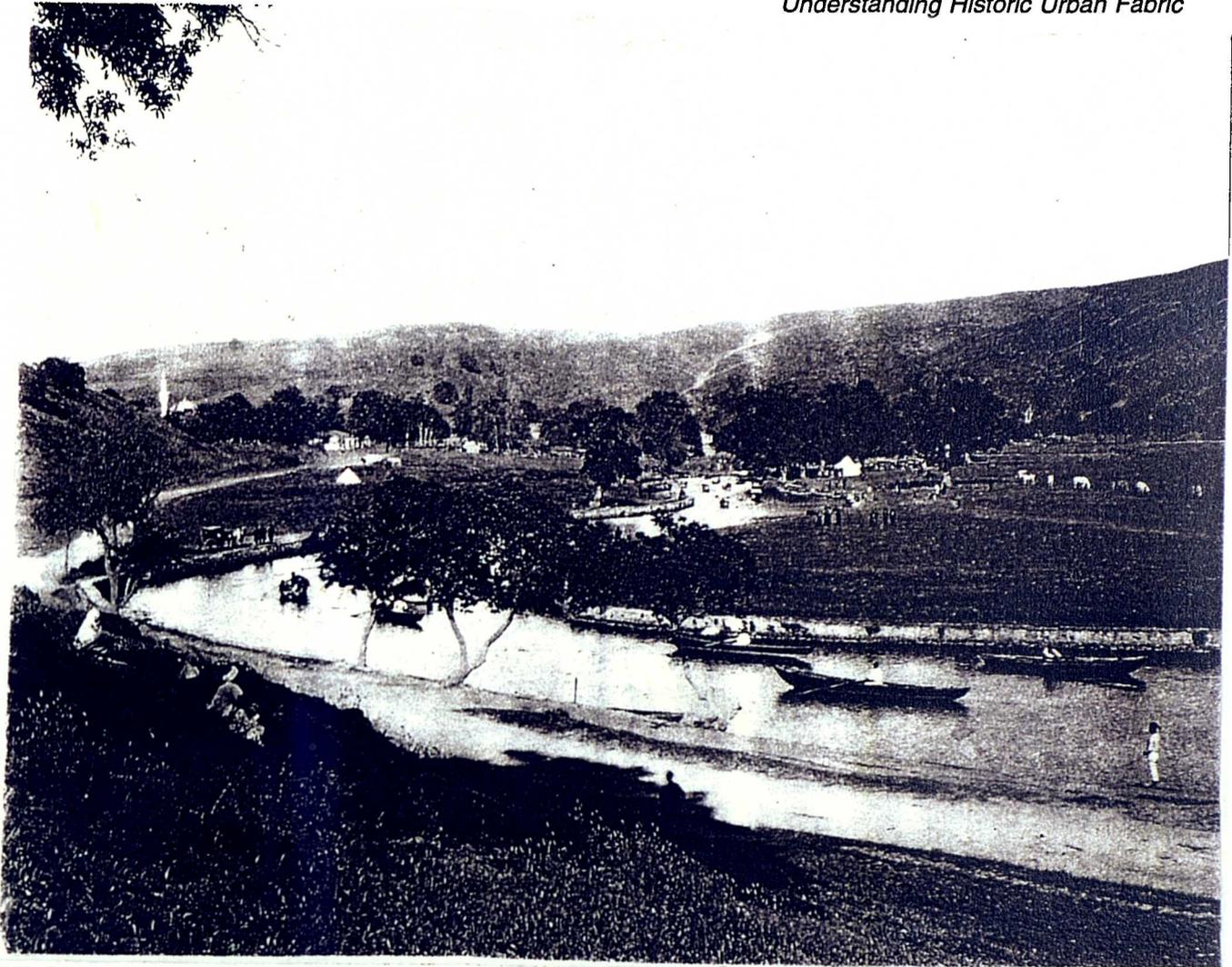


Fig.8.5 *A late 19th century view of the Sweet Waters of Europe (Kagithane).*

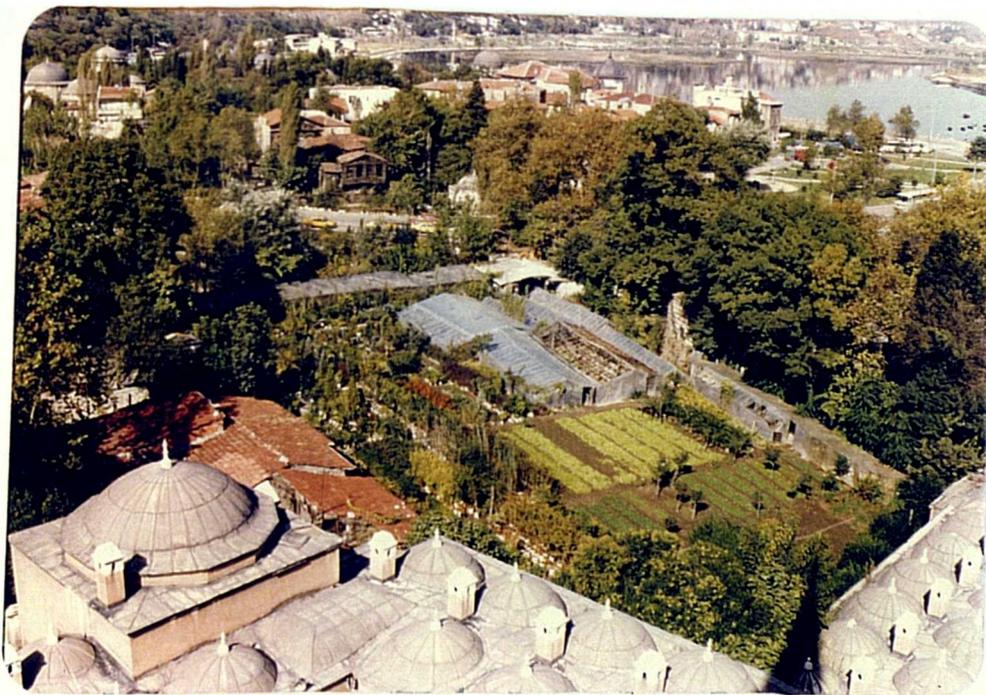


Fig.8.6 *A bostan (commercial vegetable garden), in Eyup, behind the Zal Mahmut Pasa Mosque.*



Fig.8.7 Eyup as a necropolis. A view of a road towards Eyup Mosque.



Fig.8.8 A view of Oyuncakcilar Street. One can see, at the distance on the left, the tomb of Sokollu Mehmed Pasa (1579); on the right the tomb of Siyavus Pasha (1601).

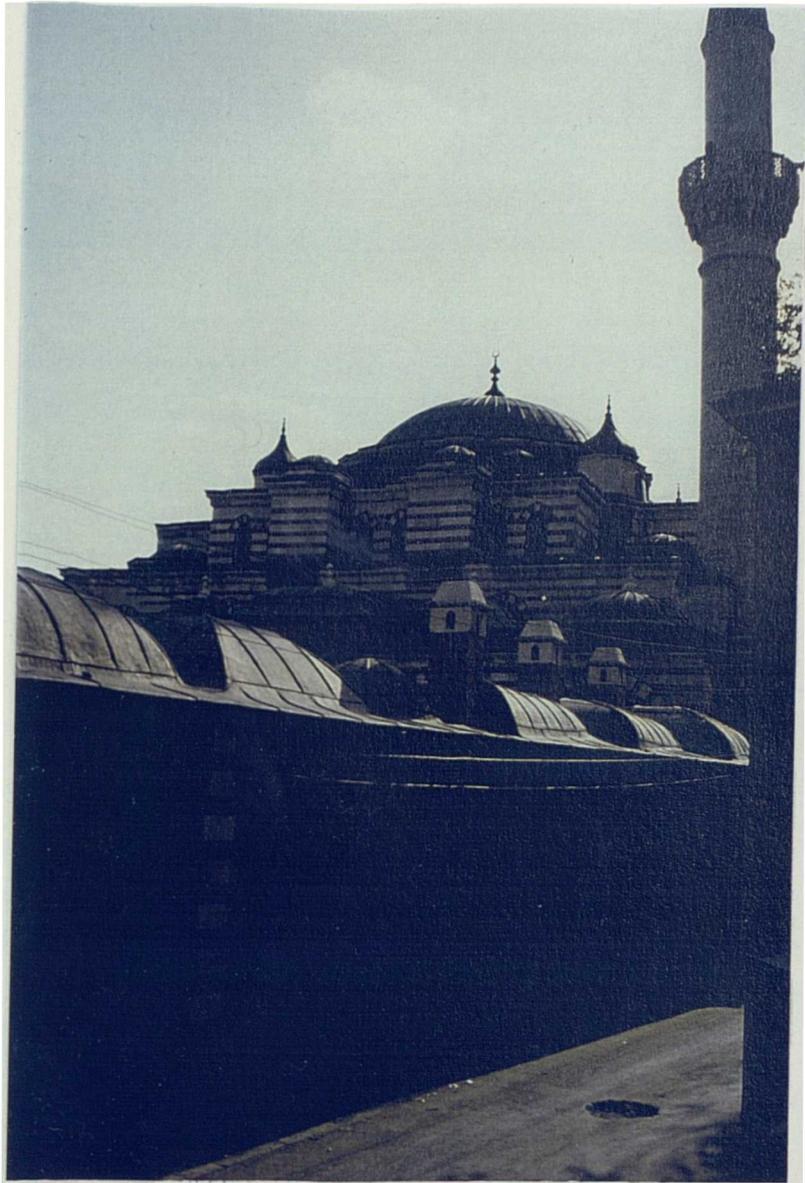


Fig.8.9 *A view of Zal Mahmut Pascha Mosque.*

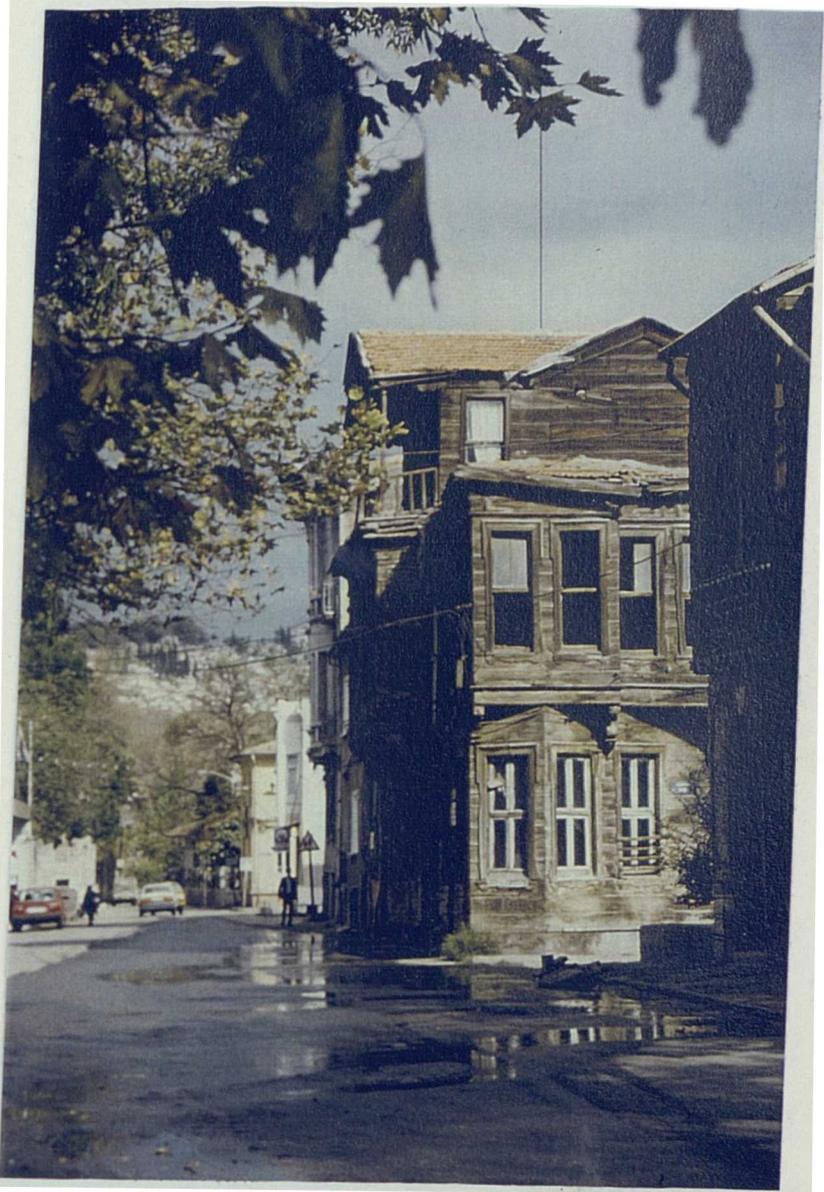


Fig.8.10 *Timber houses.*



Fig.8.11 *A view of Zal Mahmut Pascha Mosque from its Minaret.*

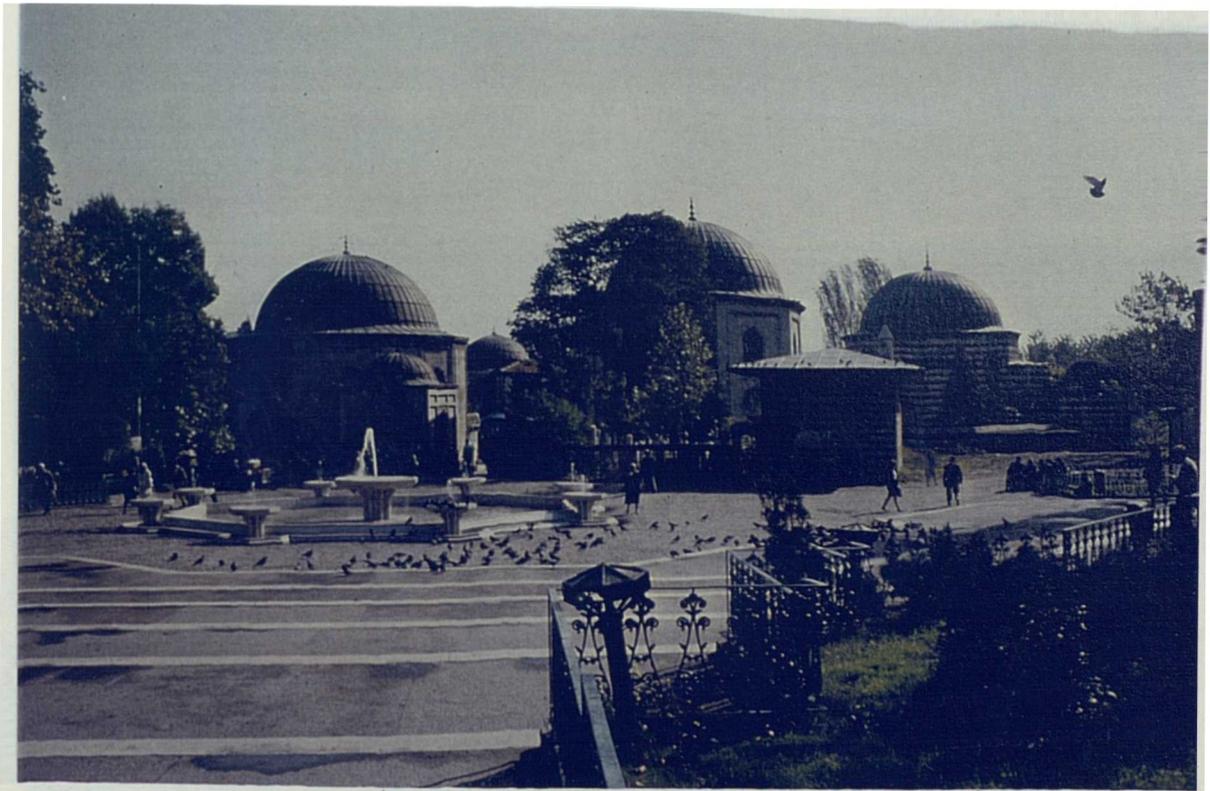


Fig.8.12 *Tombs in the Eyup Meydan.*

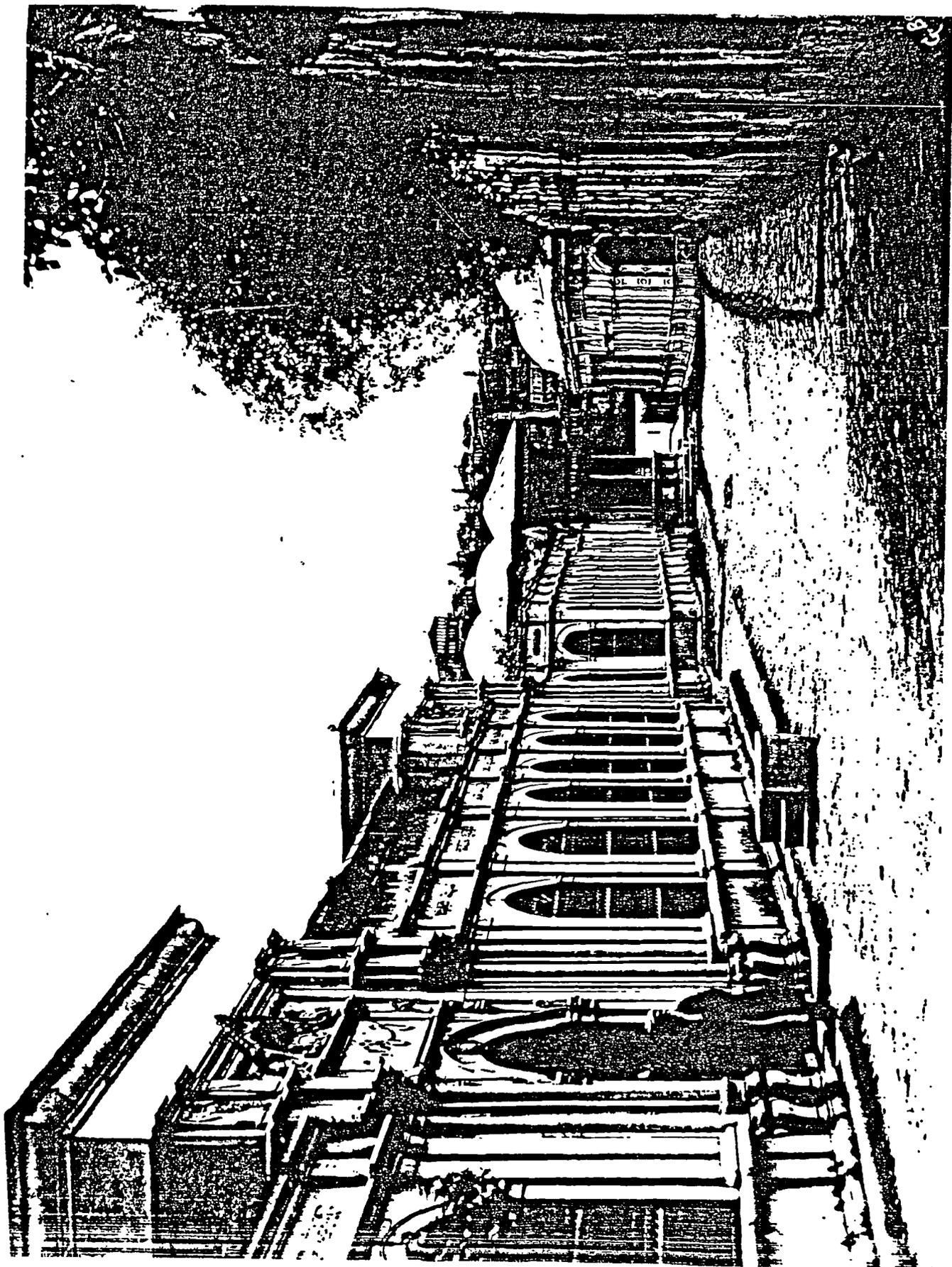


Fig.8.13 *Mihrisah Valide Sultan Kulliye (1792-95).*



Fig.8.14 *Sah Sultan Kulliye (1800).*

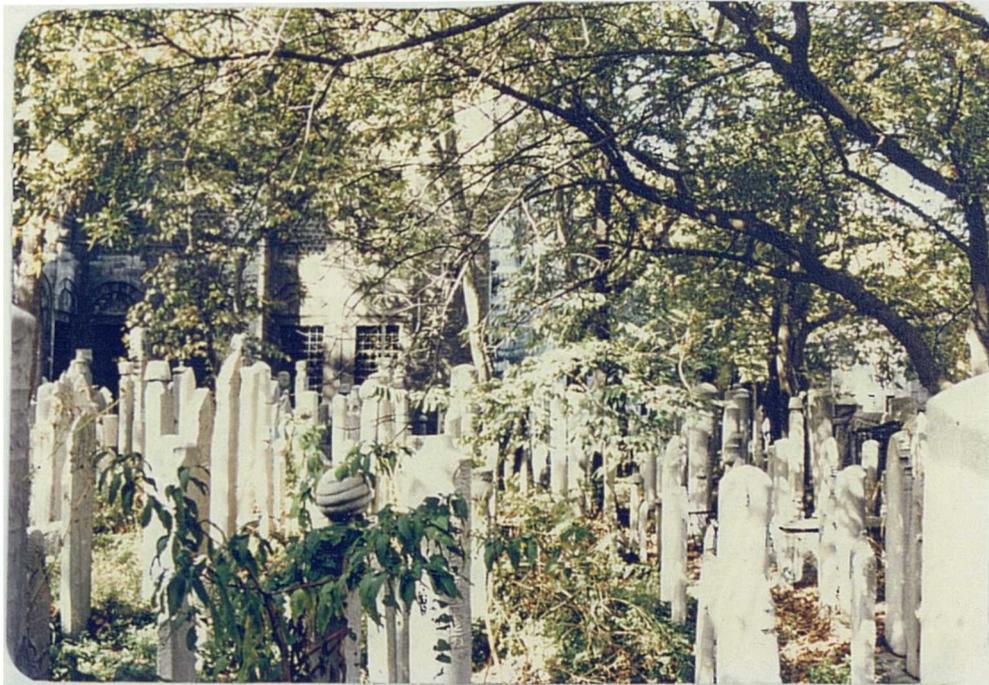


Fig.8.15 *A view of a graveyard behind the Eyup Mosque.*

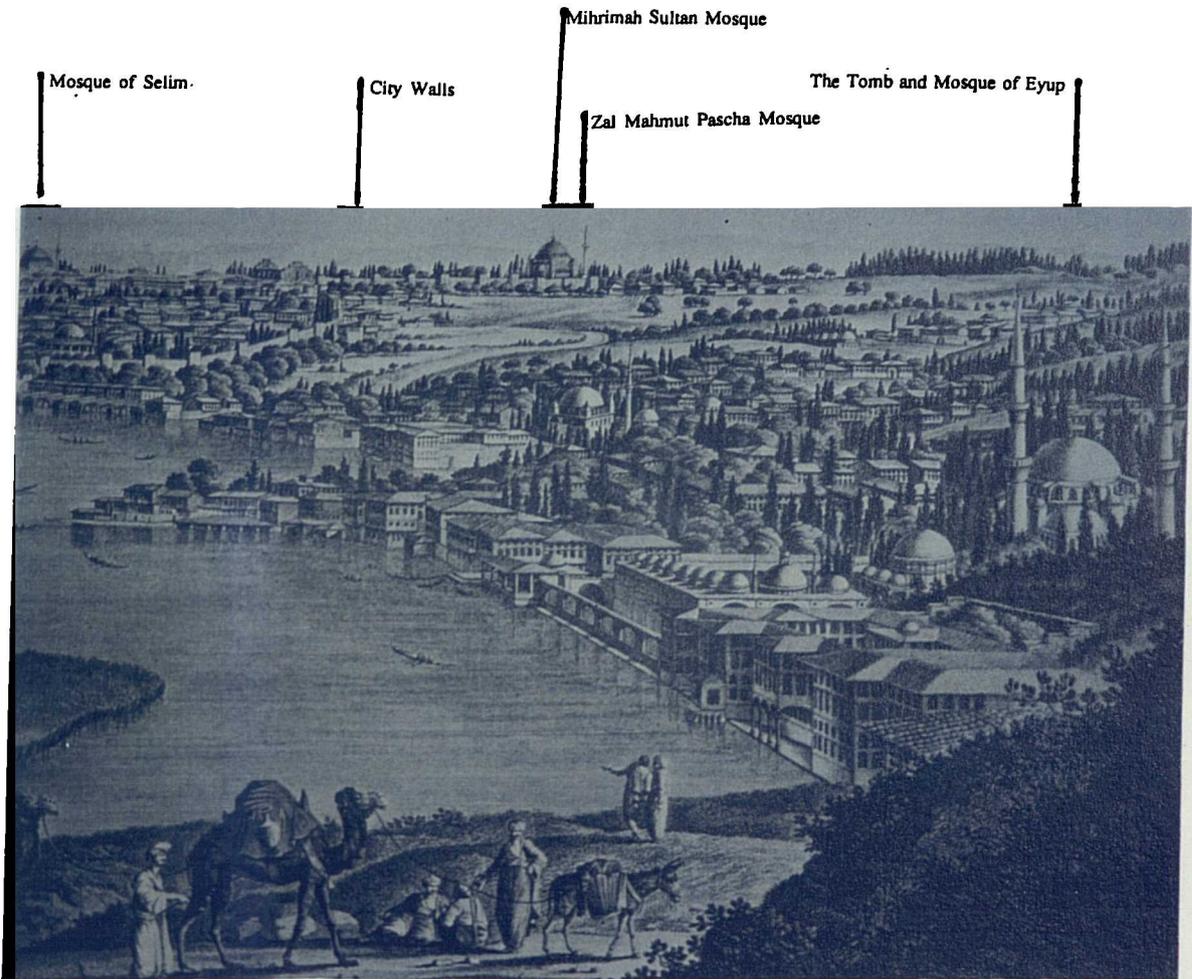


Fig.8.16 A view of Eyup from Pirre Loti Hill, 1819.

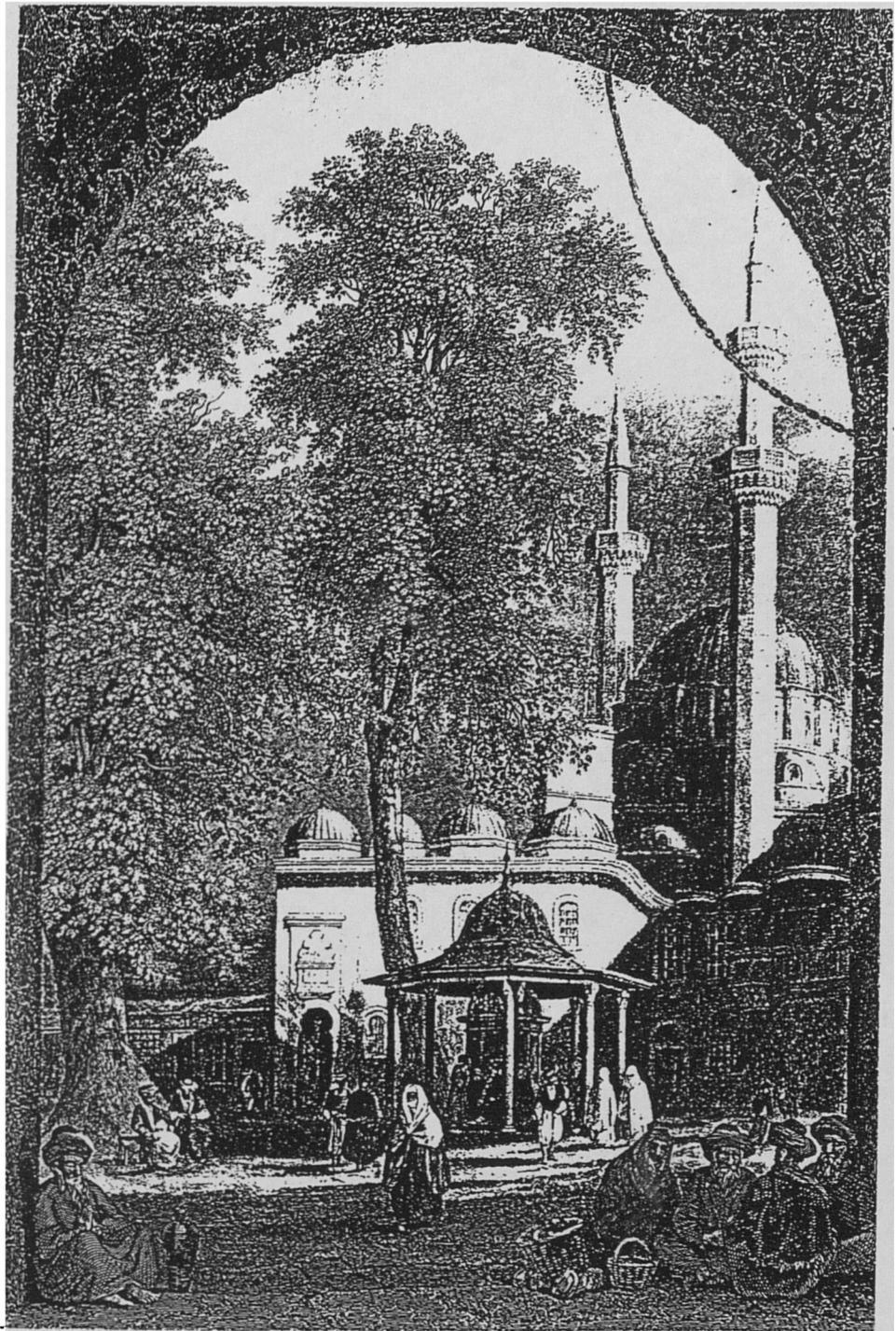


Fig.8.17 *Courtyard of the Eyup Mosque, 1838, drawing by Bartlett.*



Fig.8.18 A view of Golden Horn and Eyup from the hill behind the Eyup Mosque, 1838.

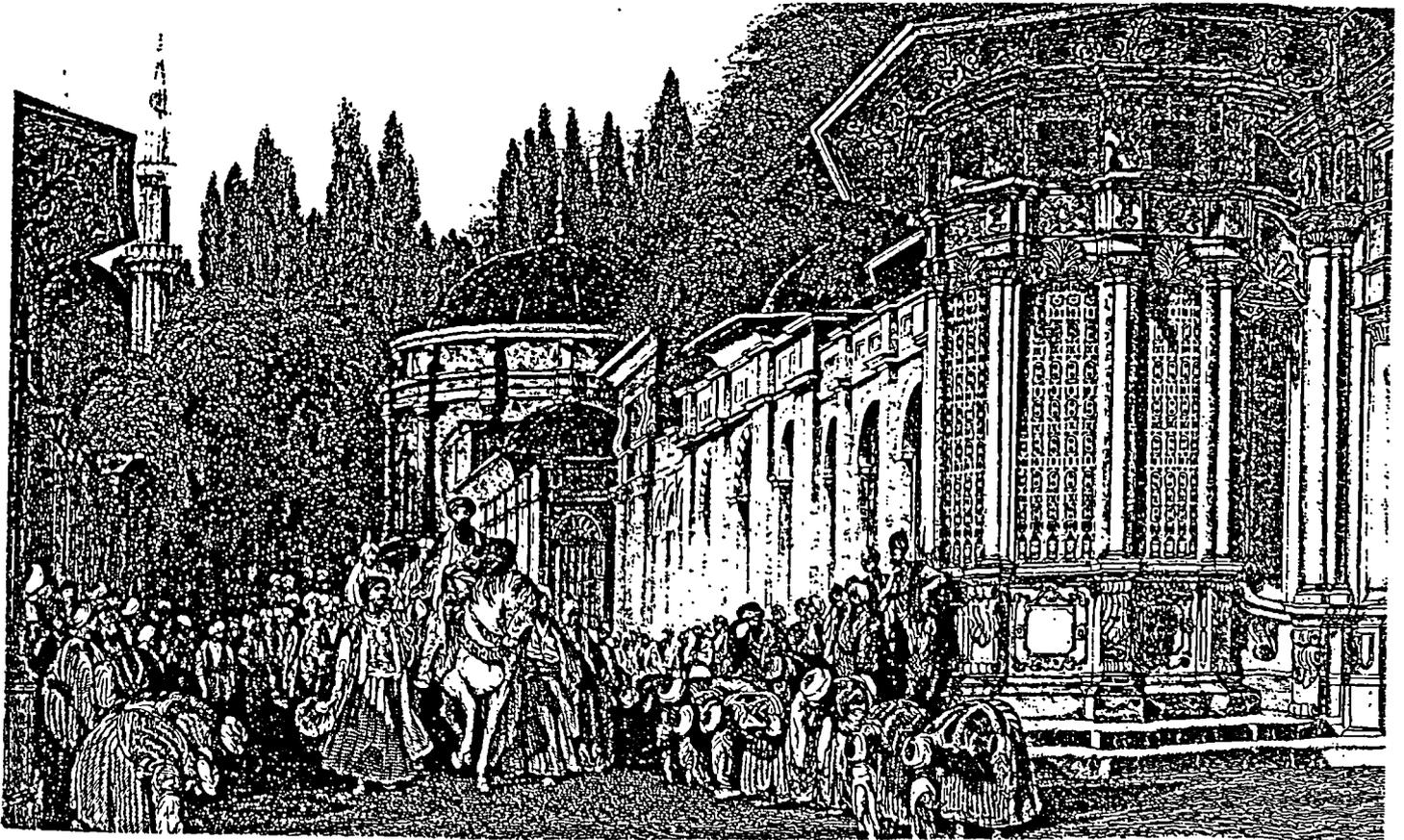


Fig.8.19 A view of the street leading from Bostan Iskelesi (Bostan Pier) to Eyup Mosque which had been used by Ottoman Sultan. On the right hand side the Mihrisah Valide Sultan Sebil, imaret and tomb stands, 1839c, drawing by Allom.



Fig.8.20 A view of Eyup Mosque and its surroundings, Bostan Pier, 19th century, drawing by Flandin.



Fig.8.22 Settlement patterns in Bursa, early 15th C.

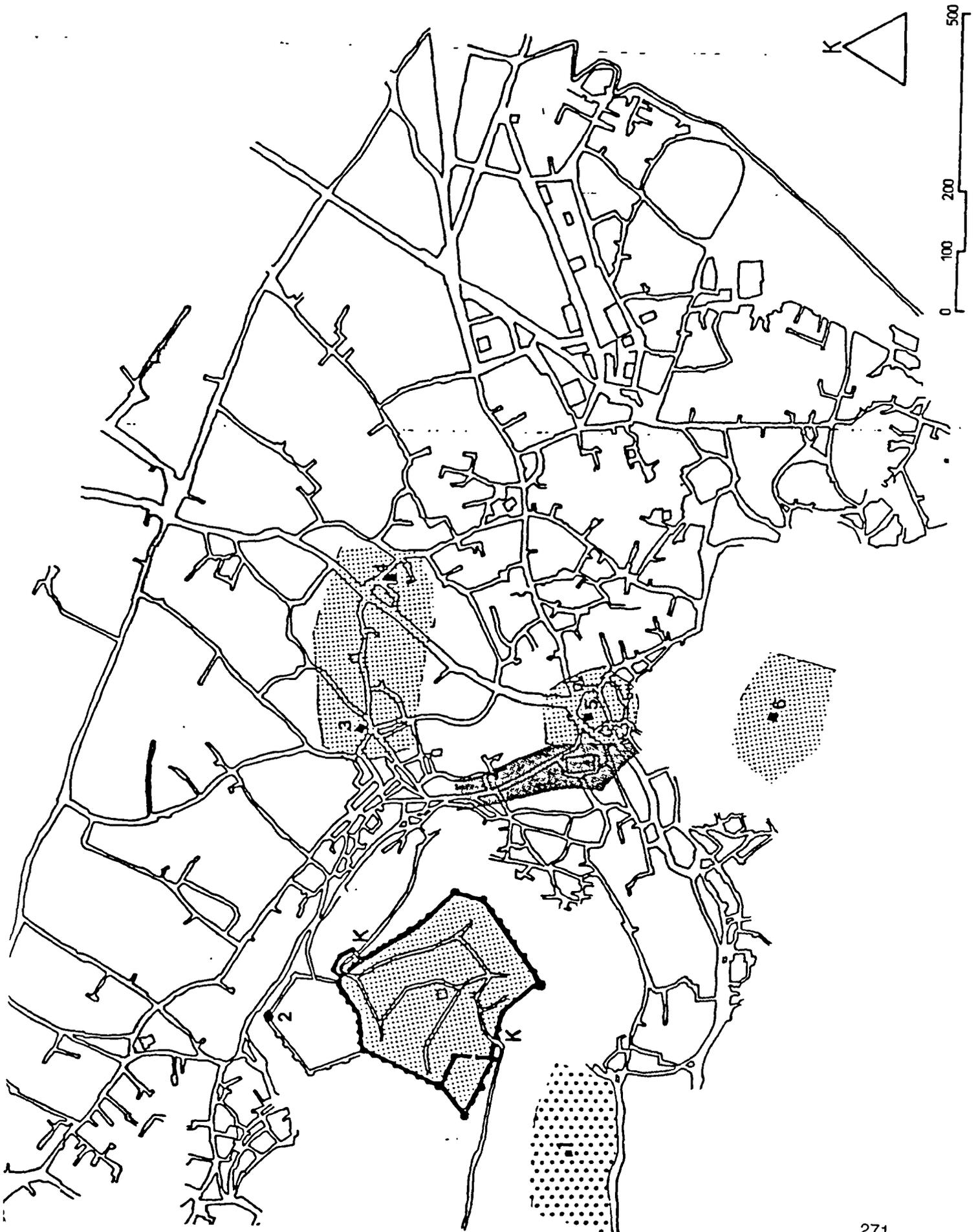


Fig.8.22a Settlements patterns in Kutahya, late 13th C.



Fig.8.23 *A timber house on the corner of Feshane and Kizil Mescit streets, in the vicinity of Eyup Mosque.*

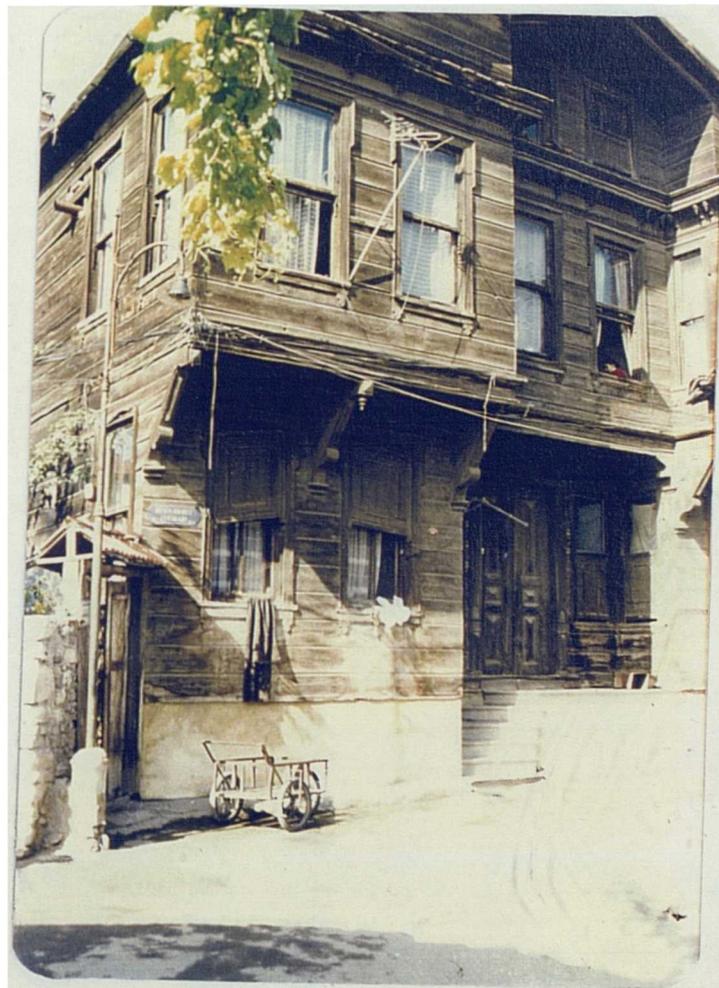


Fig.8.24 *A timber house at the Ruznameci cul-de-sac, in the vicinity of Eyup Mosque.*

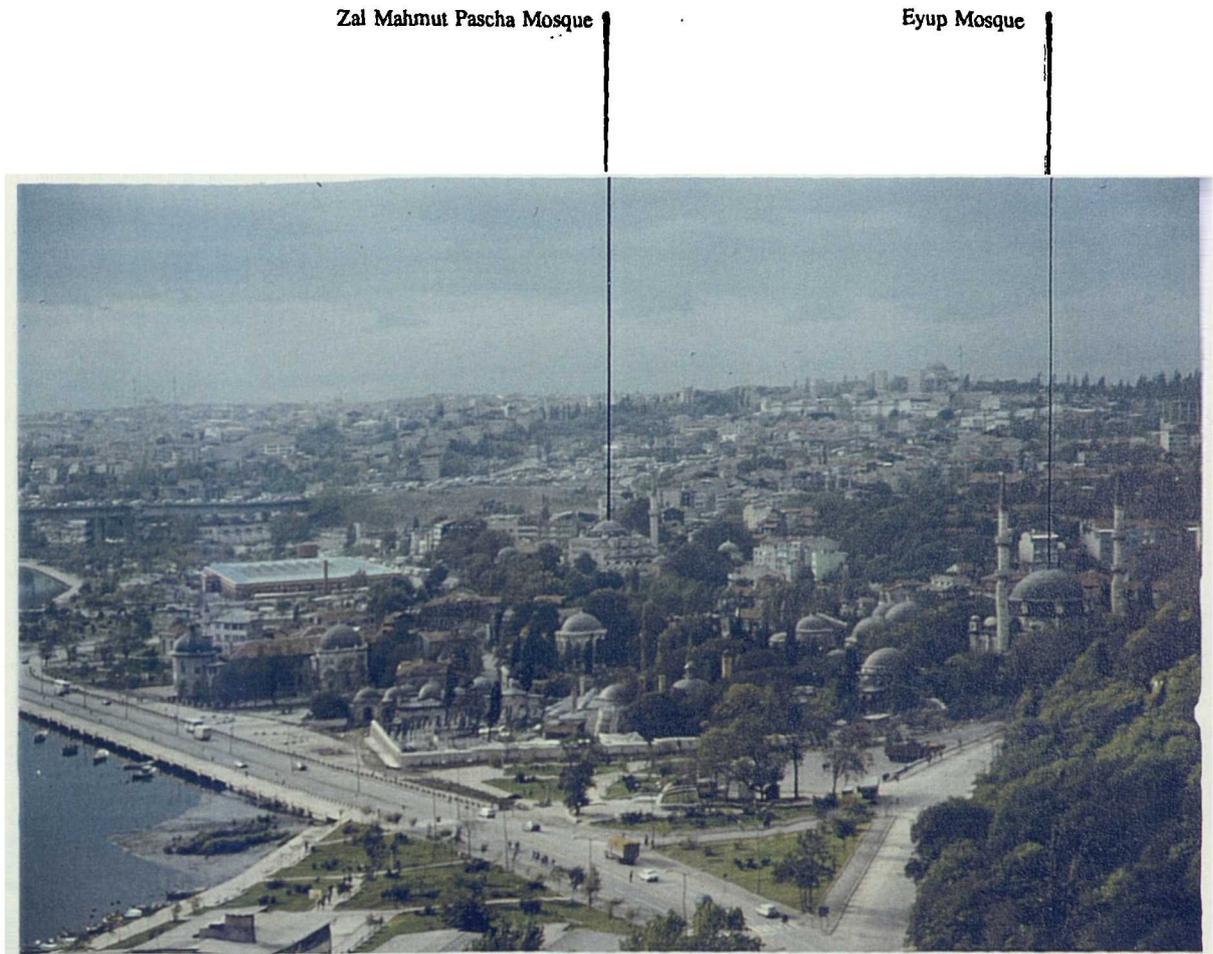


Fig.8.25 *The relationship between Eyup Mosque and Zal Mahmut Pascha Mosque.*

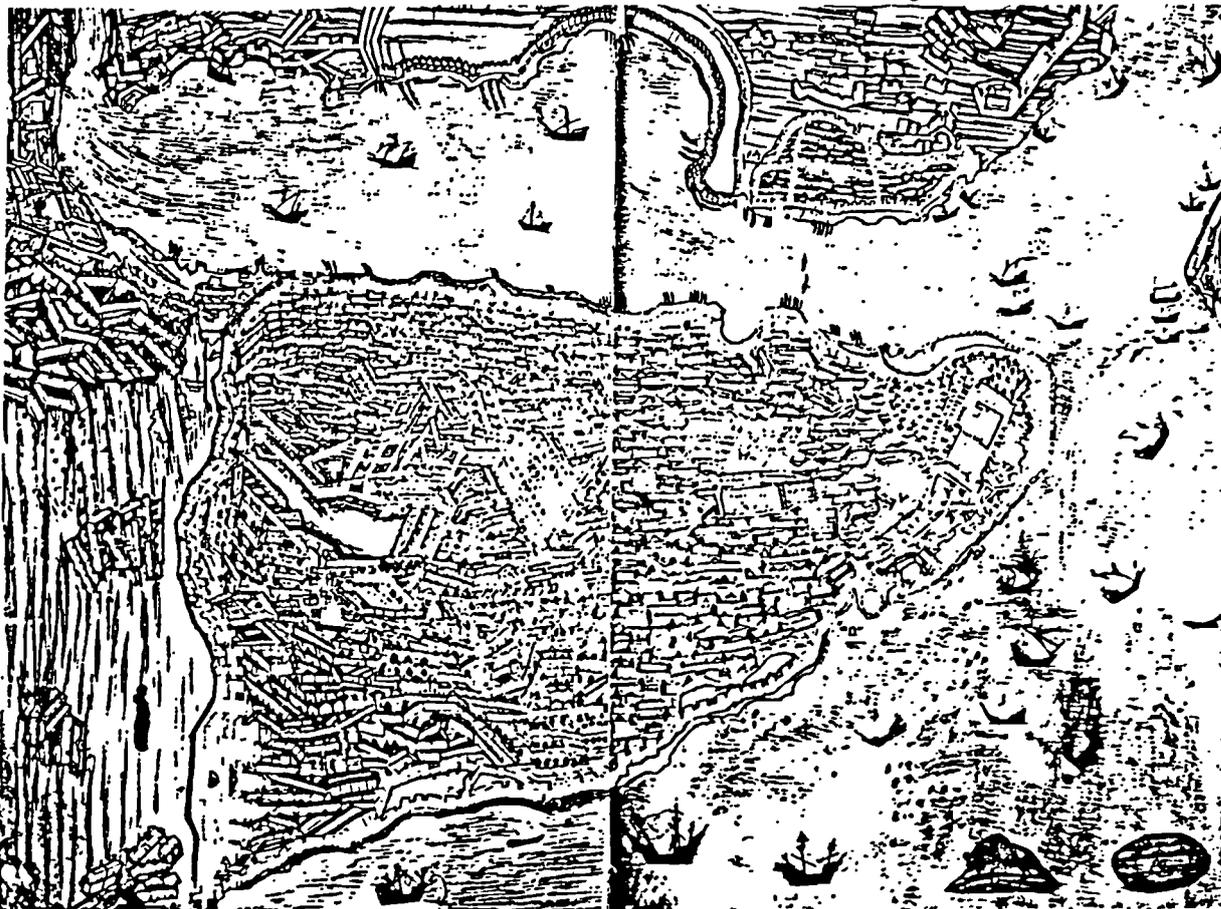


Fig.8.26 Map of Istanbul ca. 1584-84, from Lokman.

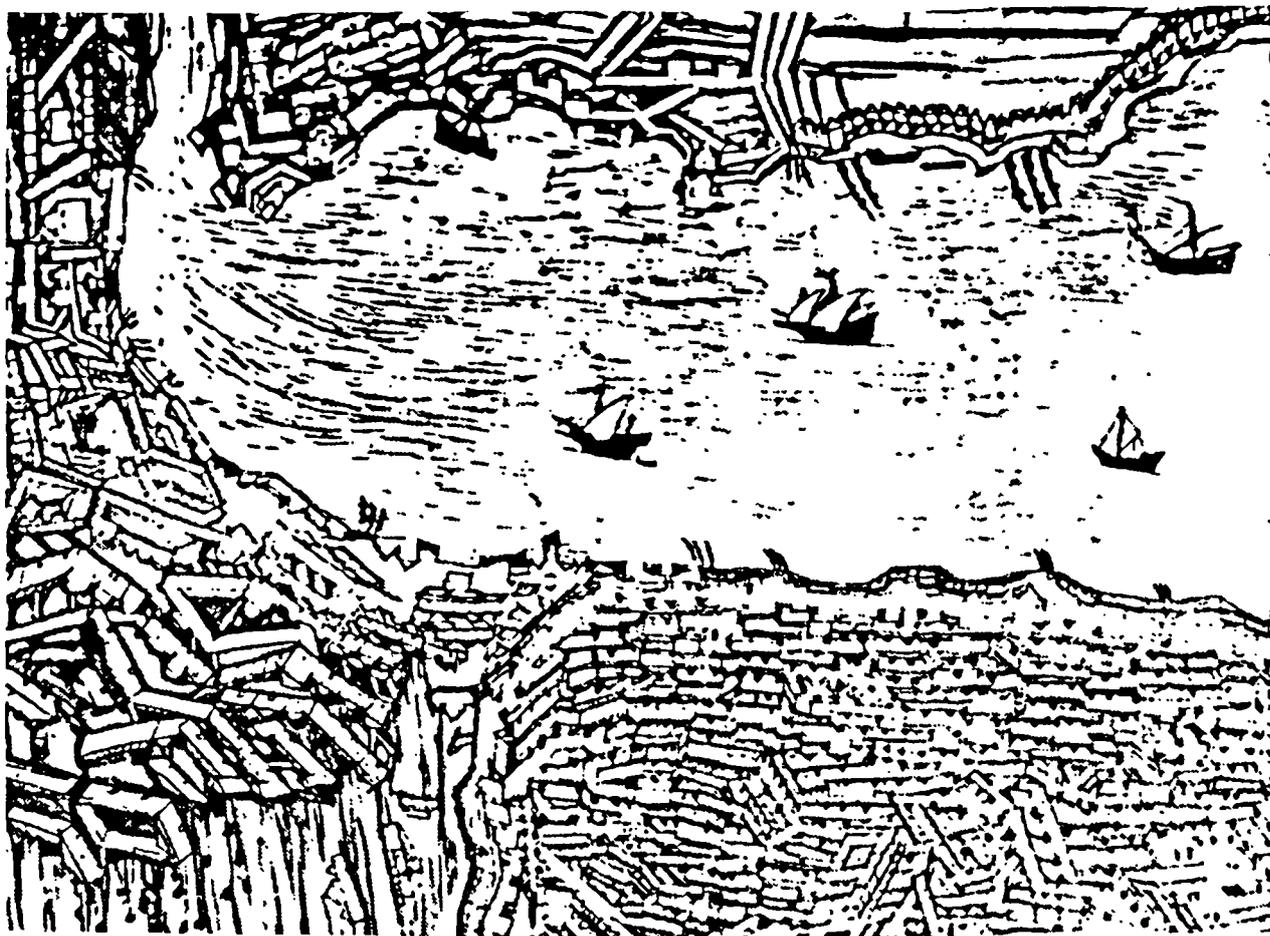


Fig.8.26a Detail of the map, showing Eyup.

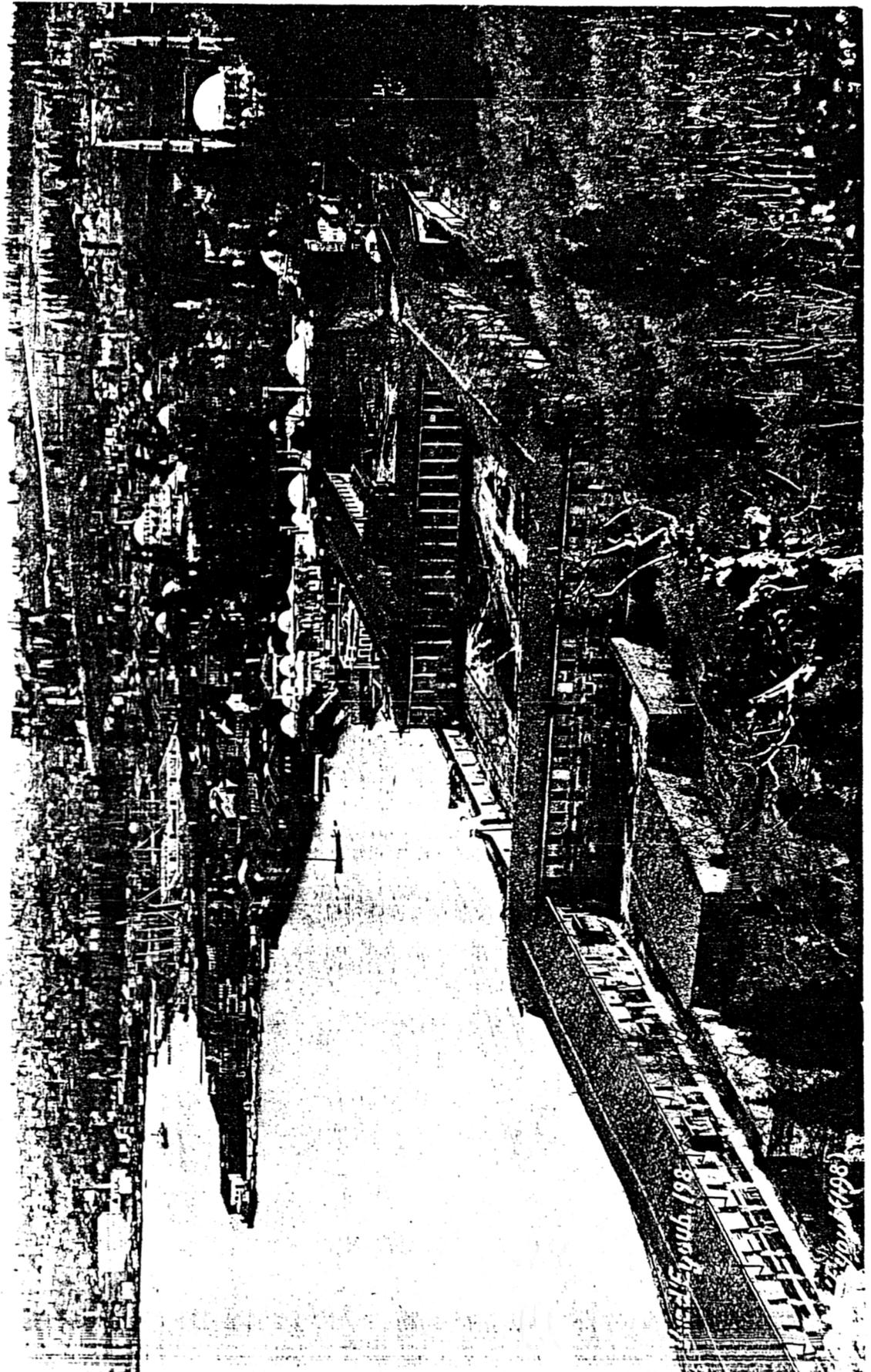
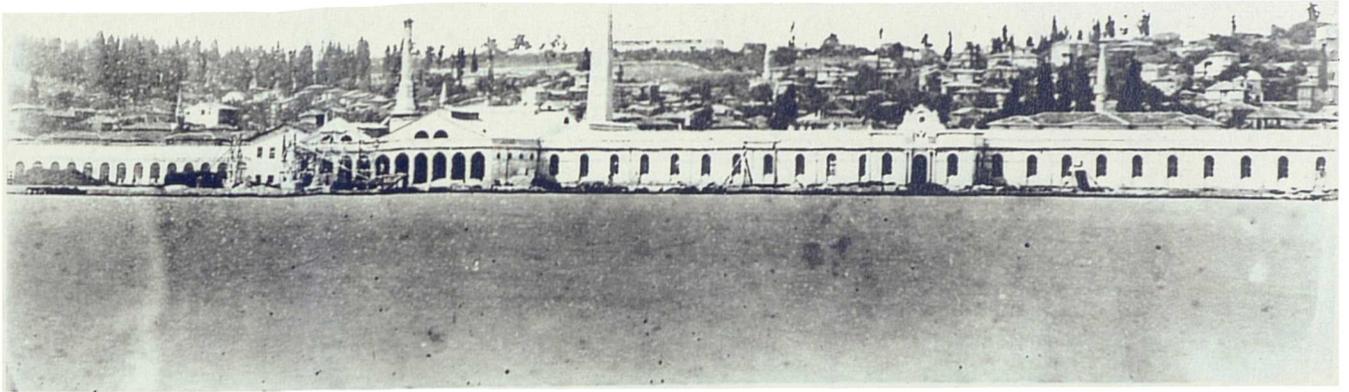


Fig.8.27 A view of Iplikhane (textil) factory built in 1827-29. It is replaced by parks and roads at the present.



سایه محرابی و جانیلو کارخانه انشا انظره دانه ای در قیامه ای و ماسکلیه تاریخچه انسا سنه بیست و نه برکه طهیر حسنه ختام اولدر ای ایغوسو سلیح

کارخانه فیشانه امیری
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اسا انظره دانه ای
نشی و نه
عمران

کارخانه فیشانه امیری
ایستون
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Fig.8.28 A view of Feshane-i Amire Factory built in 1835.



Fig.8.28a The central building of the factory remained and renovated as Museum of Modern Art (the building with the green roof) and the rest was demolished in 1984 and replaced by parks.

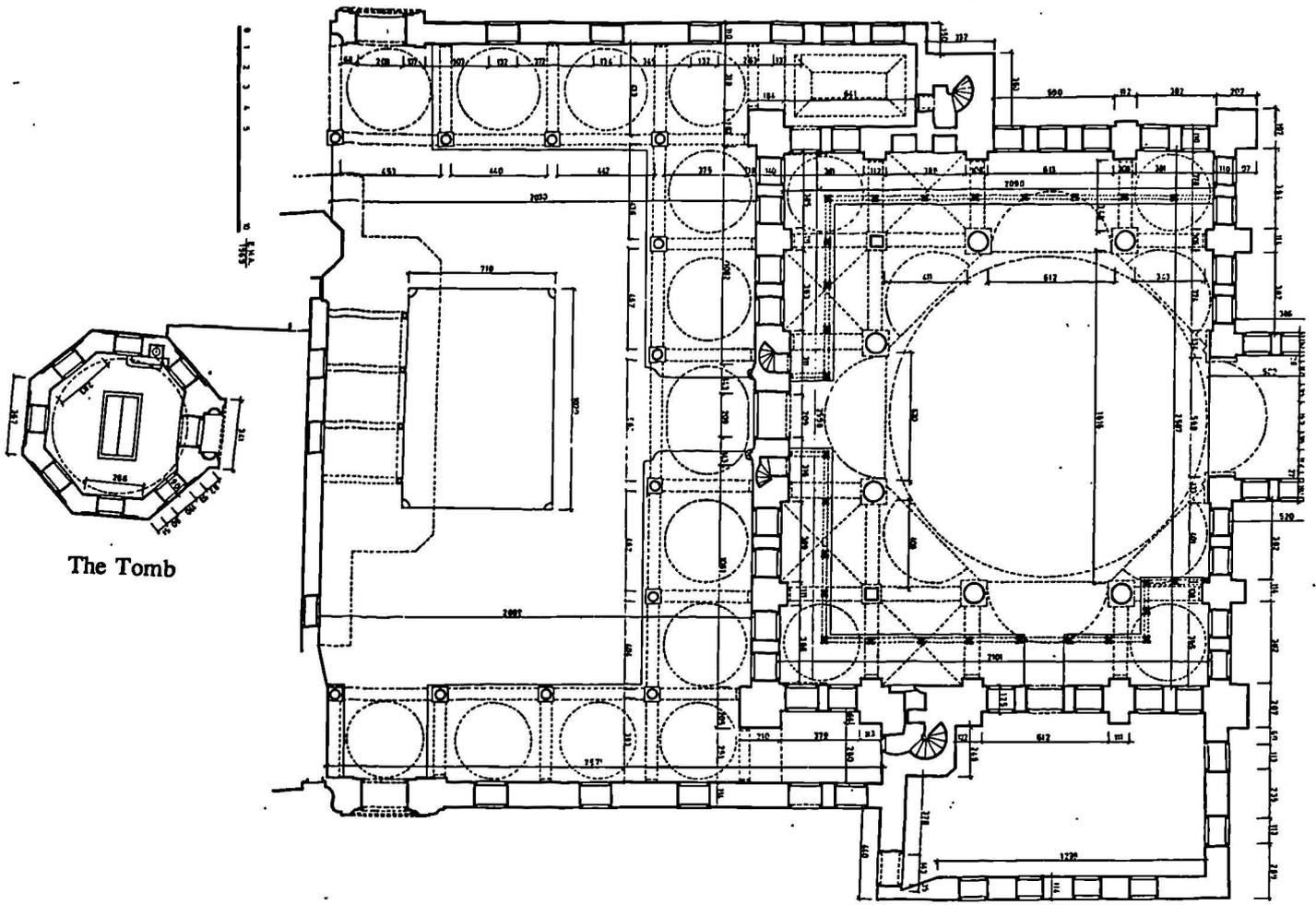


Fig.8.29 The plan of the Tomb and Mosque of Eyup.



Fig.8.29a A view of Eyup Mosque.

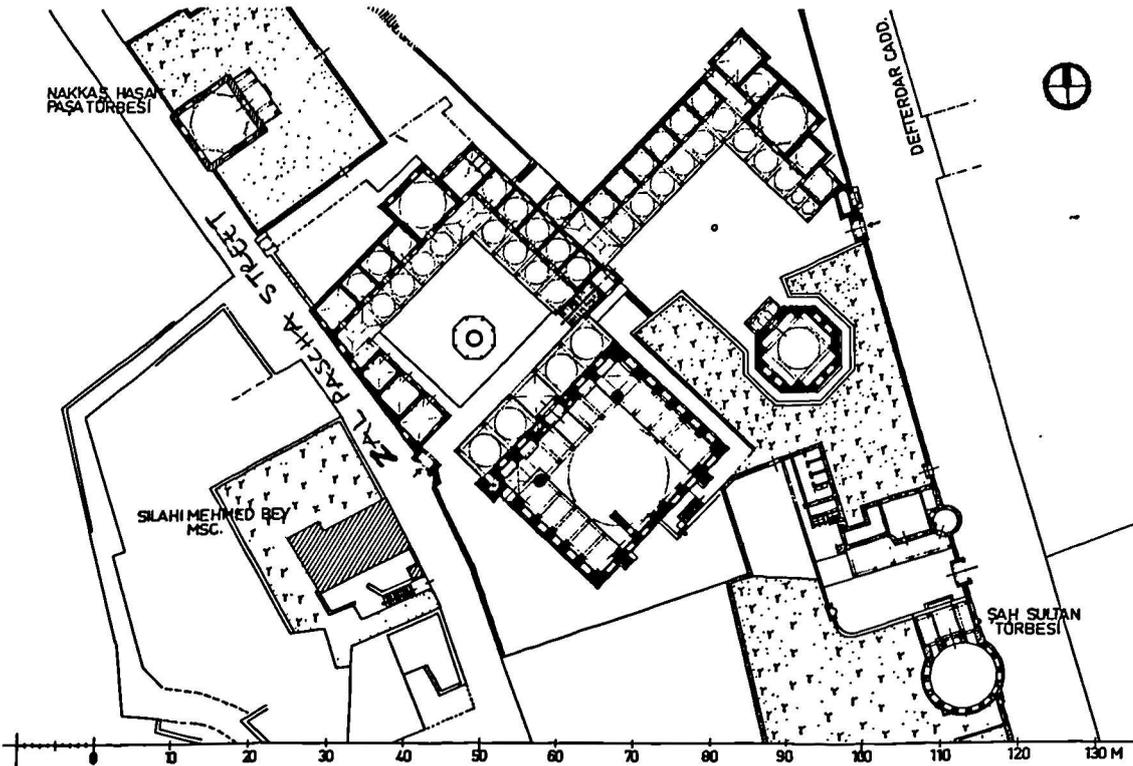


Fig.8.30 The plan of Zal Mahmut Pascha Kulliye.



Fig.8.30a A view of the Zal Mahmut Pascha Kulliye from the courtyard of the medrese.

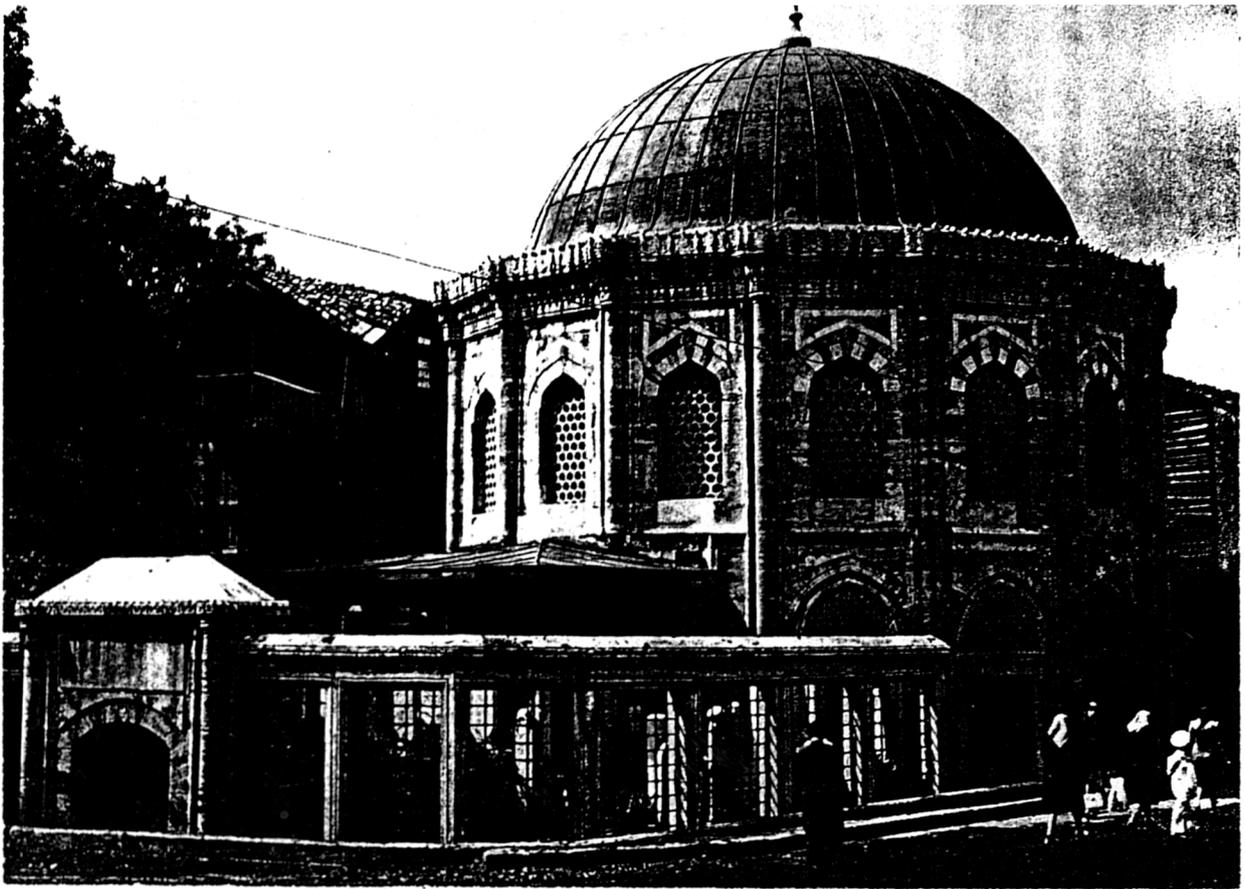


Fig.8.31 The tomb of Ferhat Pascha (1595) on the Camii Kebir Street.

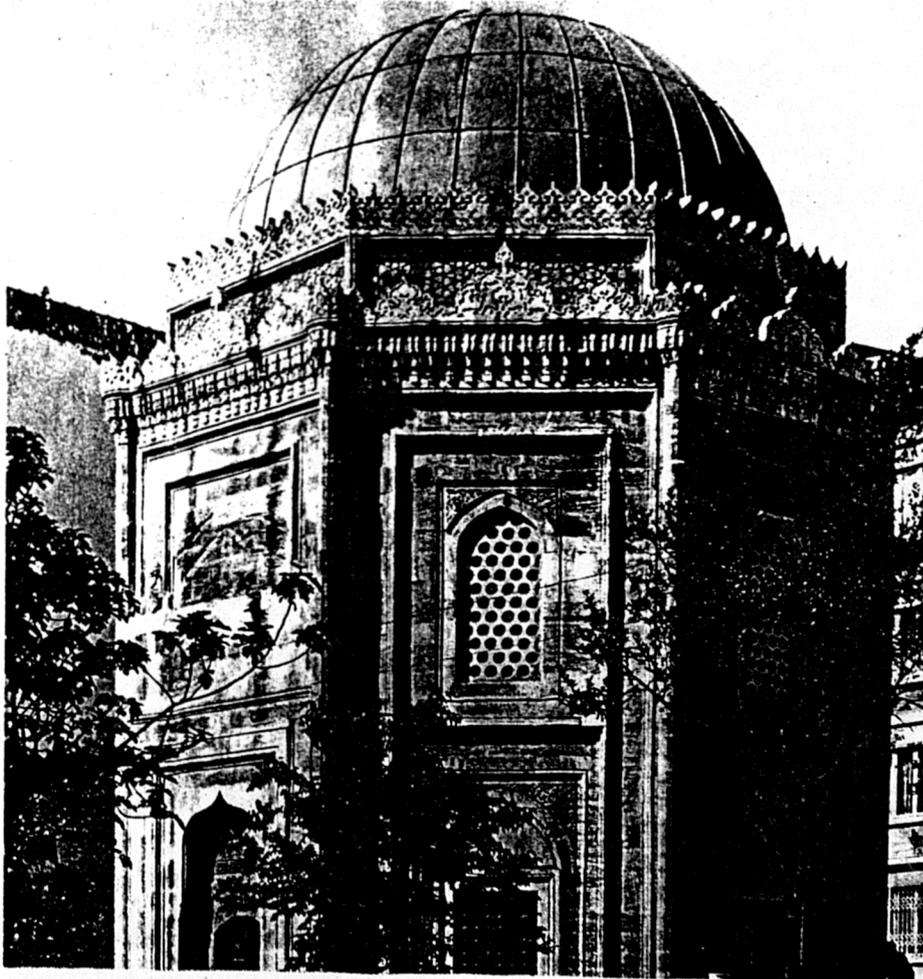


Fig.8.32 The tomb of Husrev Pascha (1545).



Fig.8.33 *Spatial contribution of the tree in the inner courtyard of the Eyup Mosque.*



Fig.8.34 *Combination of two different texture by greenery. At the distance the hill rising behind the Eyup Mosque is the cemetery.*

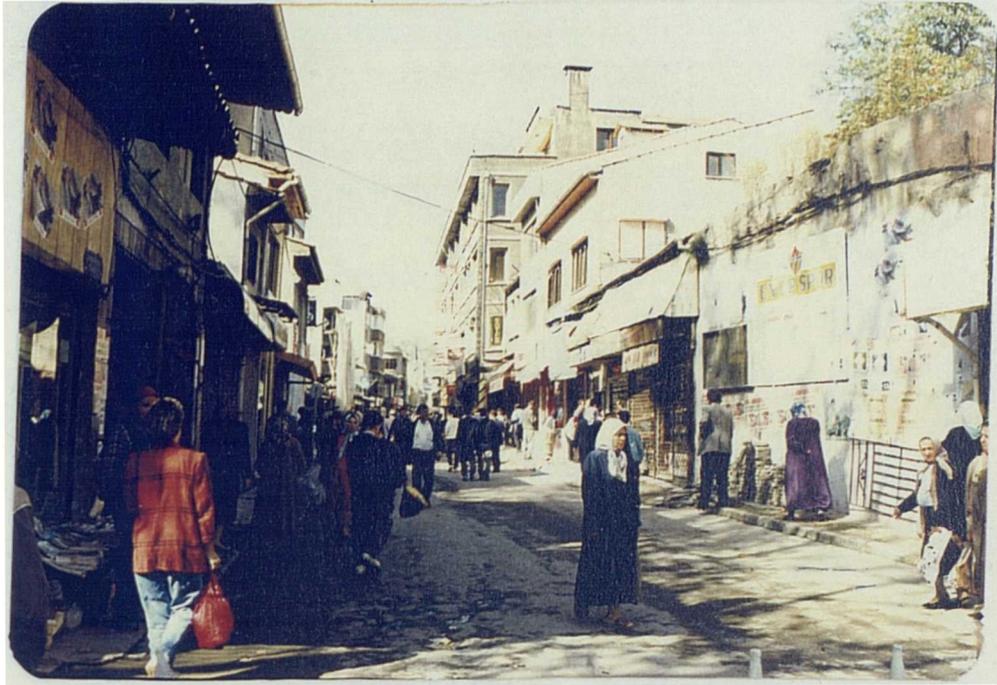


Fig.8.35 *A major street in the market area.*



Fig.8.36 *A secondary street in the residential area.*

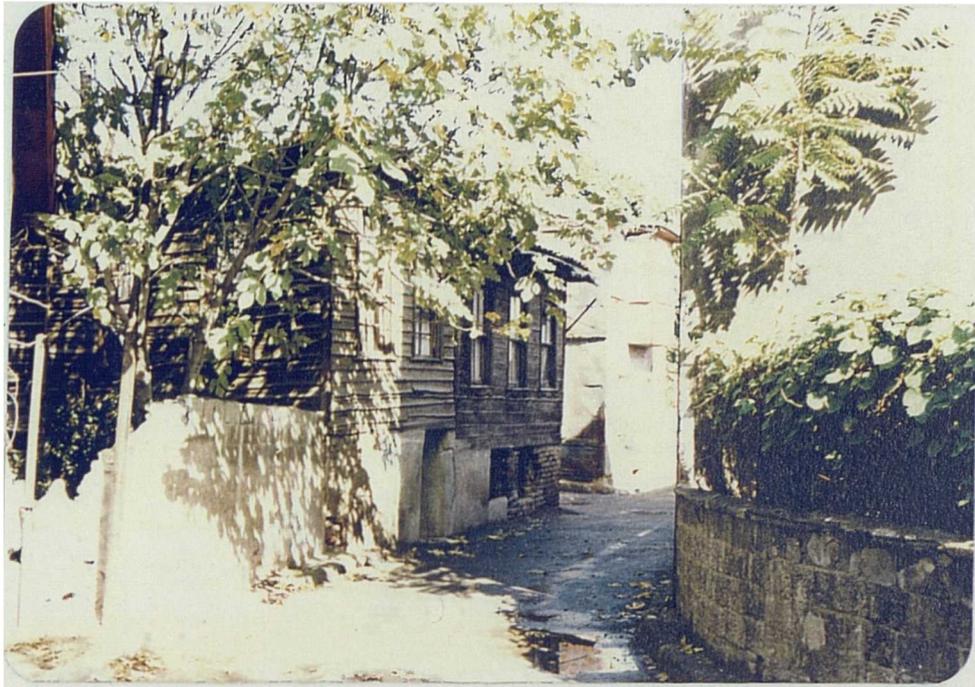


Fig.8.37 *A cul-de-sac in the residential area.*



Fig.8.38 *A pathway among graveyards leading to Eyup Mosque.*

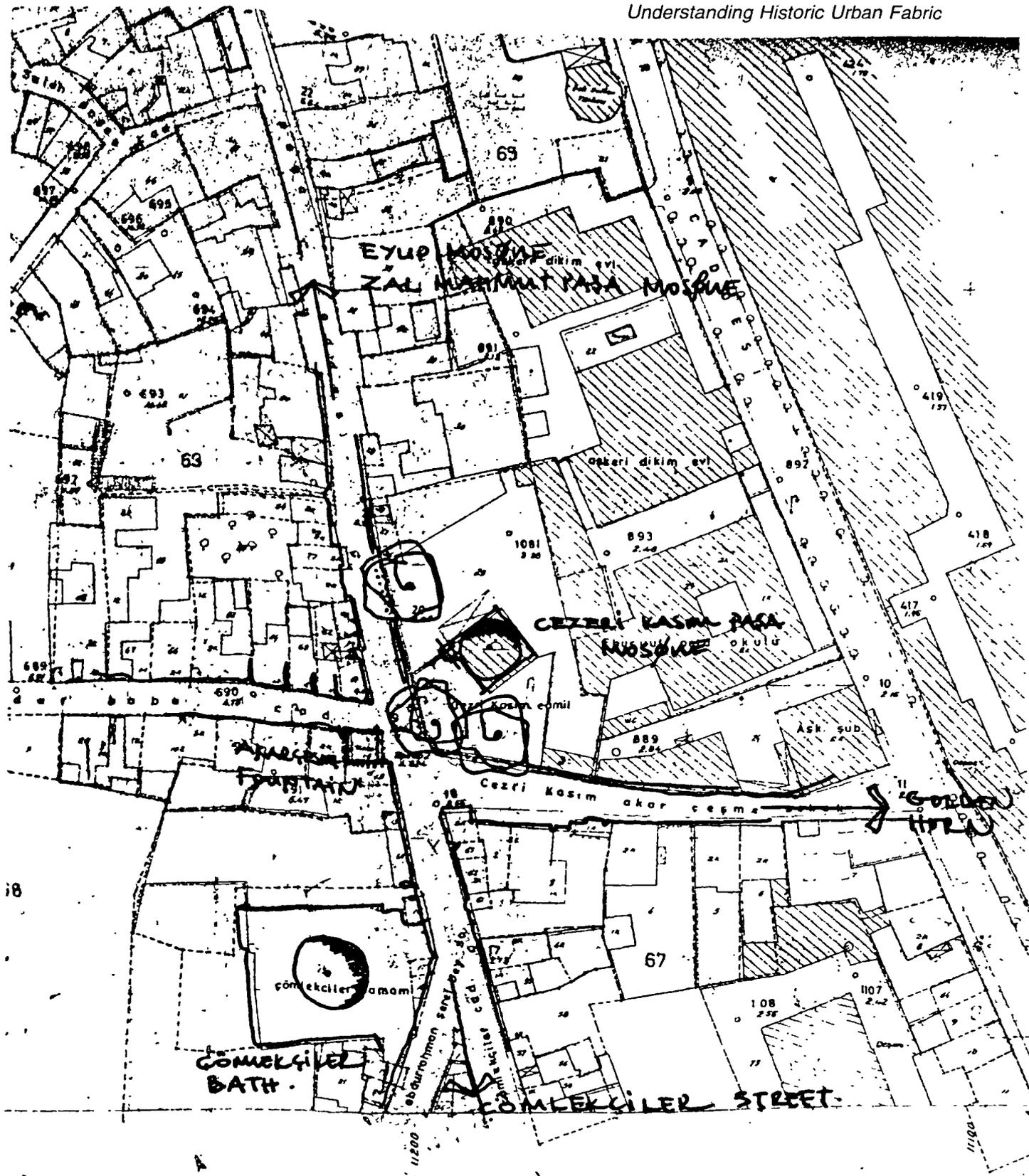


Fig.8.39 Akarcesme Meydan (square). It is rather a junction identified by existence of a fountain, a mosque and tree.



Fig.8.40 *Massive quality of Zal Mahmut Pascha Mosque.*



Fig.8.41 *Houses expresses a massive quality.*



Fig.8.42 *Wall, in Eyup, is one of the major elements that articulates built structures and forms the spatial relationships.*

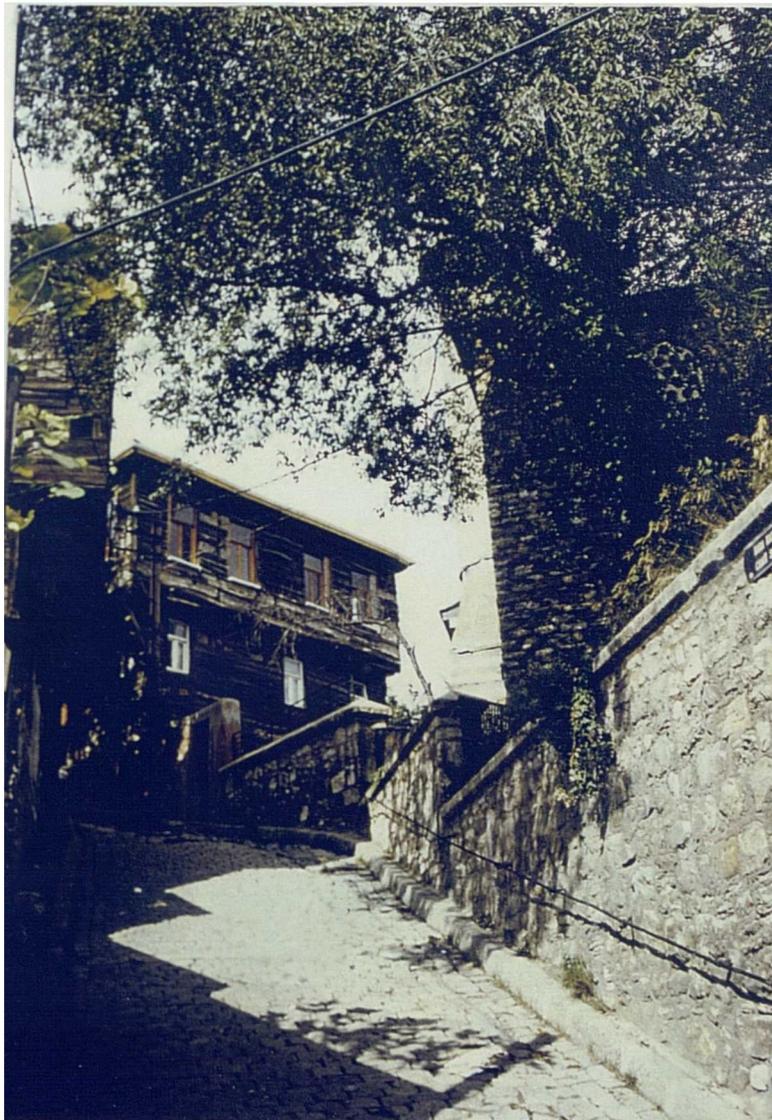


Fig.8.43 *Greenery helps ensuring a visual and spatial integrity.*

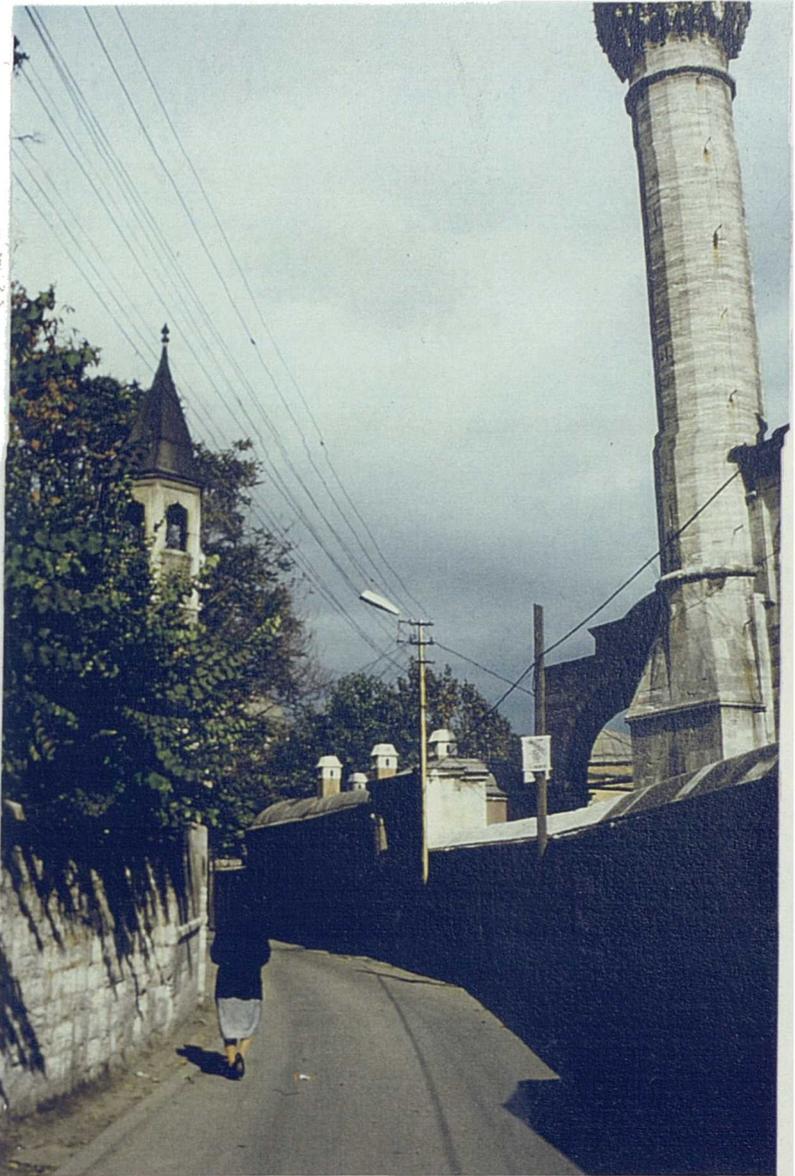


Fig.8.44 *A minaret is a landmark that articulates urban space visually and symbolically*

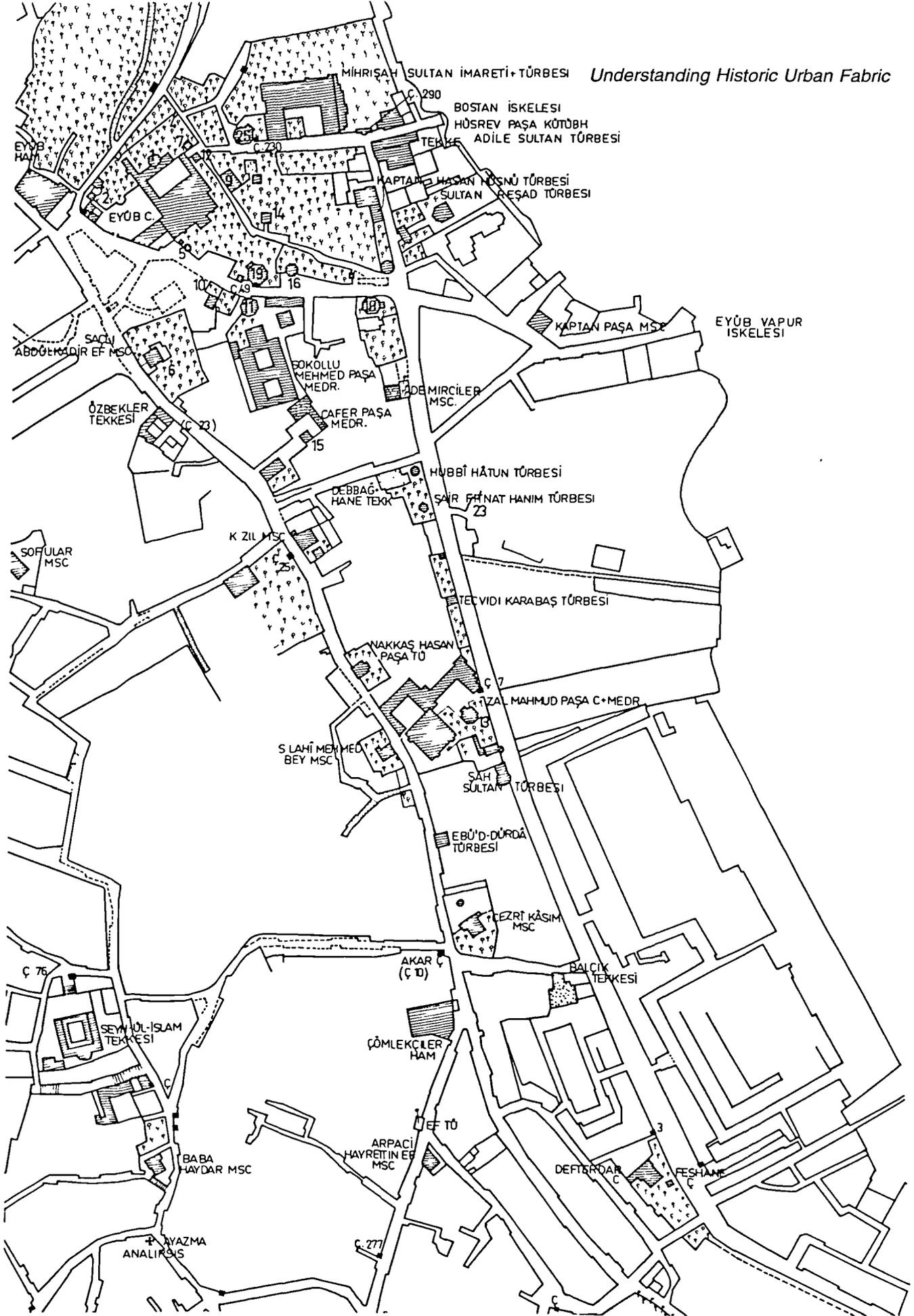
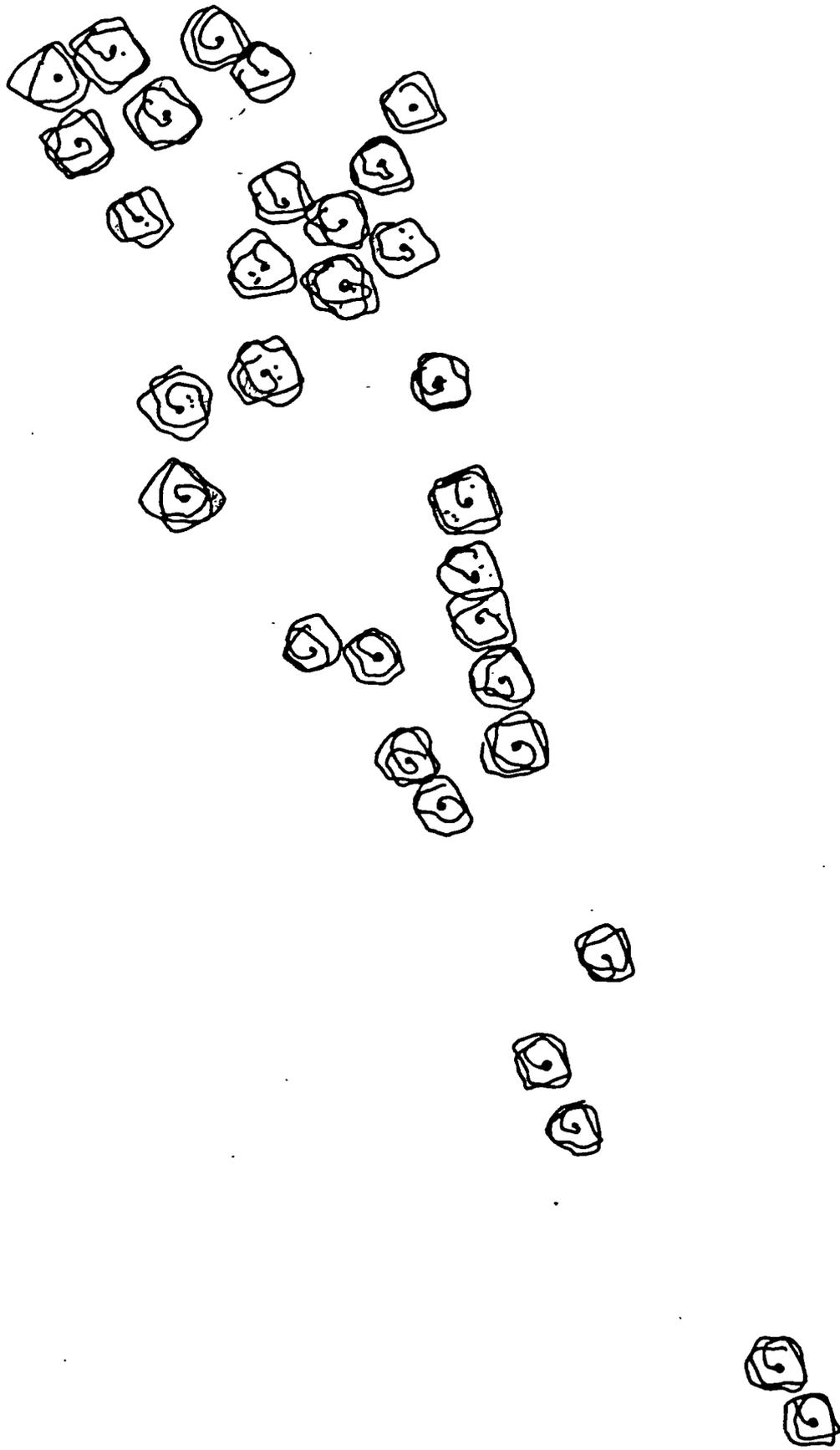
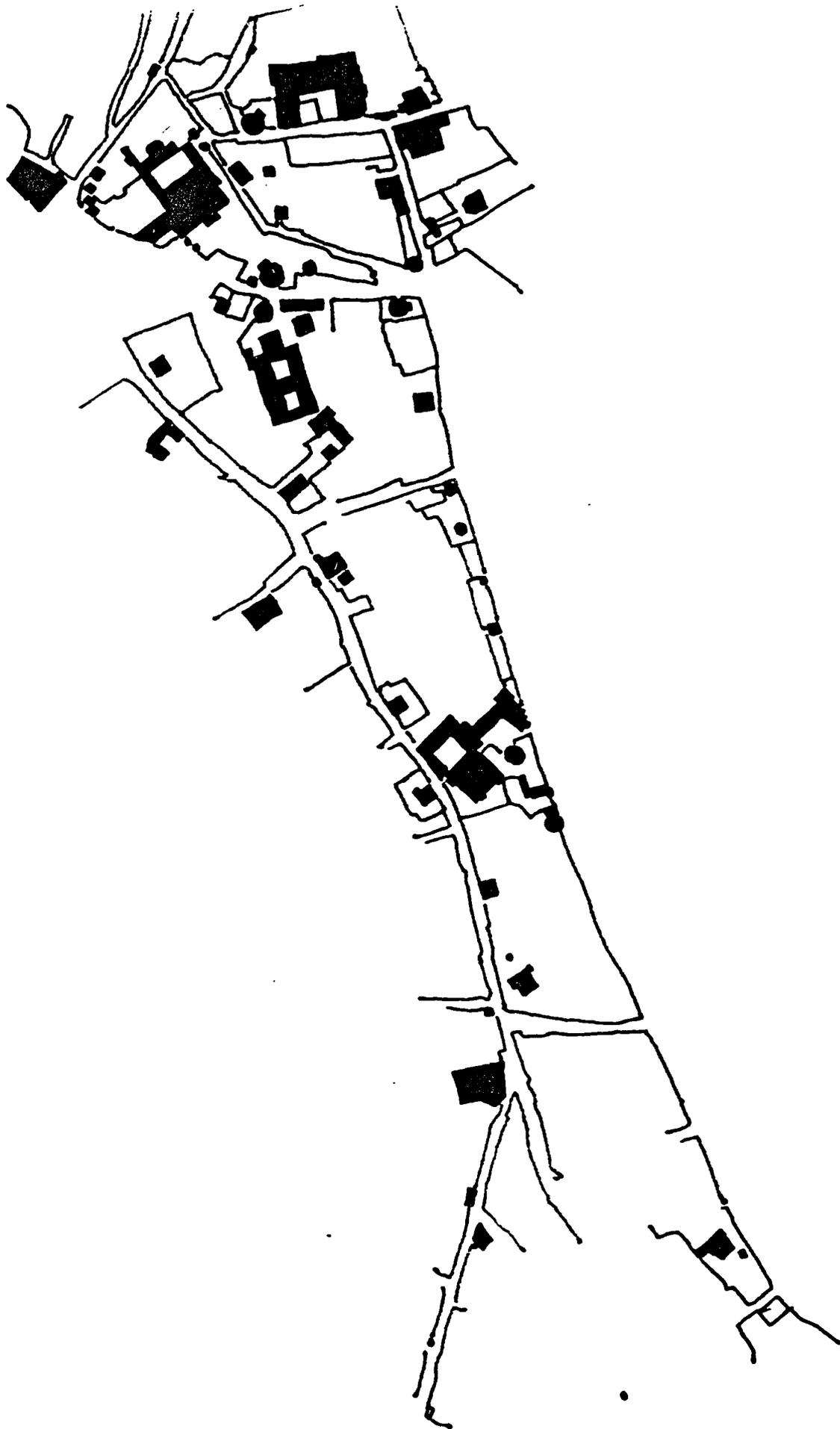
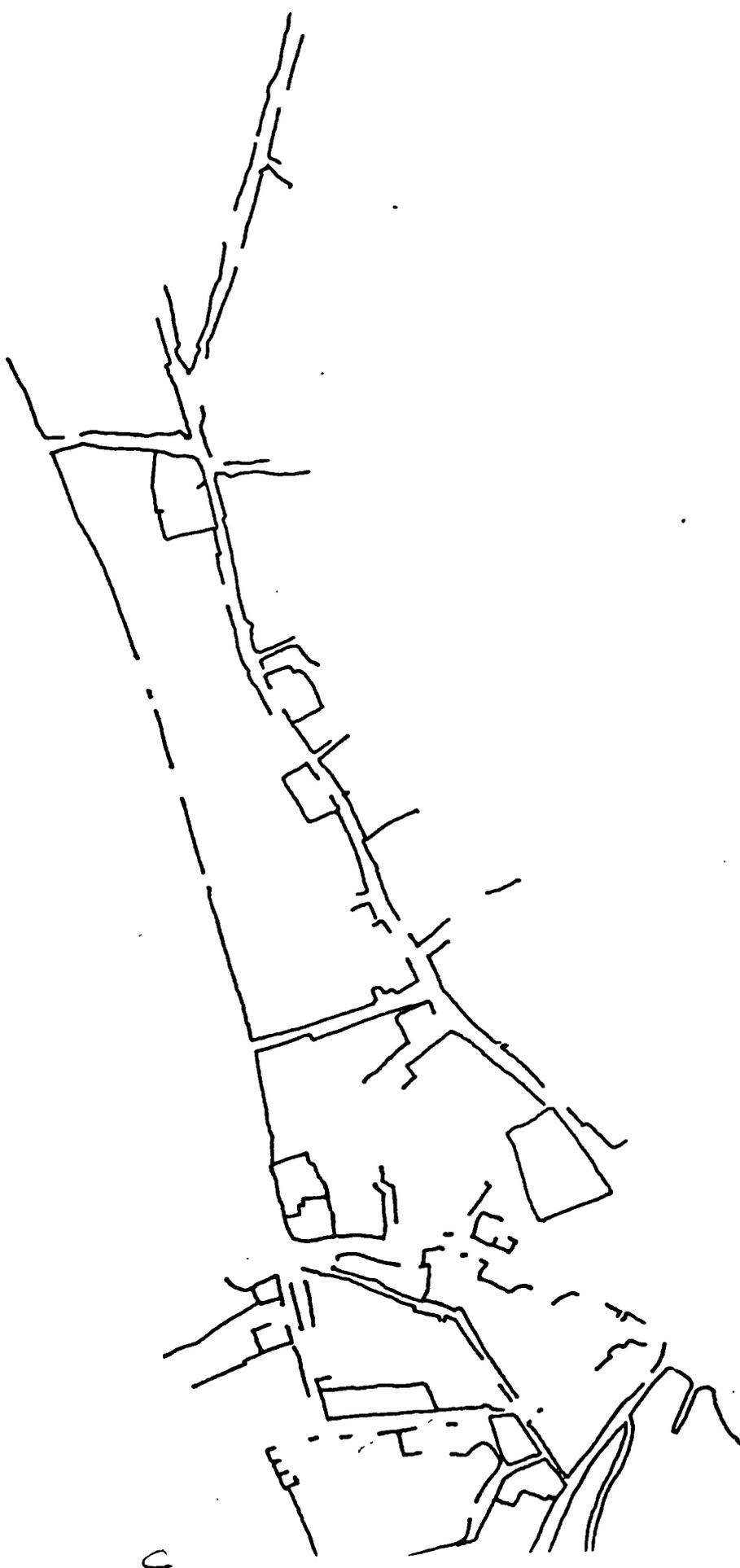


Fig.8.45 *The vital importance of Combining Elements in Eyüp's structure. 1st drawing shows the individualised character of built structure. They are, without the articulating elements floating on the space. 2nd drawing shows the essential tights between these structures. Spaces becomes meaningful and identifiable by the definition of spatial structures by the combining elements which is in this drawing particularly the wall. 3rd drawing shows this relationships clearly. 4th drawing shows the contribution of greenary as the major combining element of its urban space.*

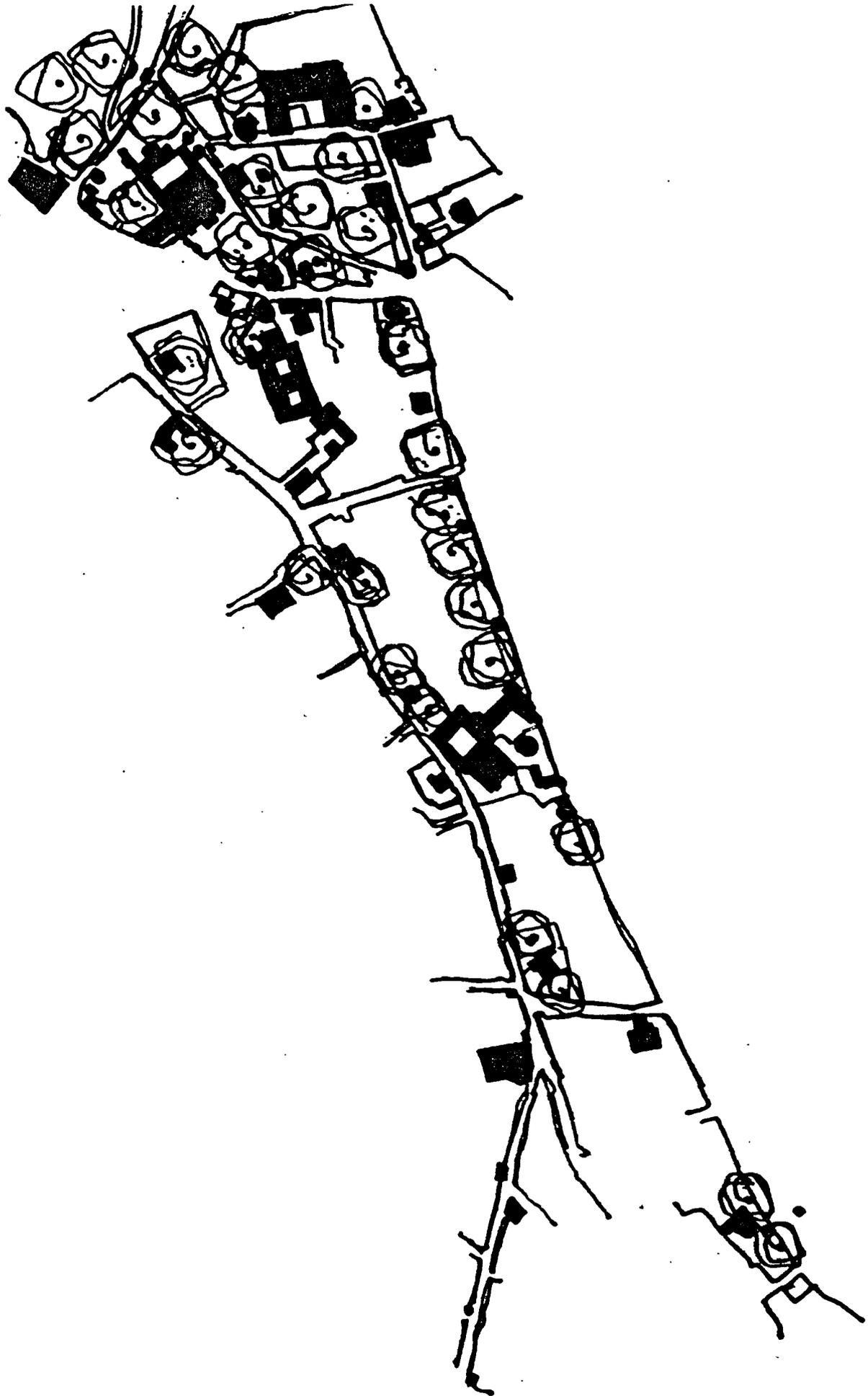






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CHAPTER NINE

Summary and Conclusion

9.0. INTRODUCTION

This research aimed to develop a new approach and find a positive answer to the problem of urban design in the contemporary context of historic cities with special reference to Istanbul. This statement which includes both the terms 'historic' and 'contemporary', reveals the present collision in the urban form which is the primary consideration of this study. The initial question was *how* the architect could design for the improvement of the city, particularly in the developing world, where development desires overwhelm both any attempt to deal with the quality of the urban environment and national cultural identity. In relation to this major concern the next crucial questions were: *what are the parameters of design which shape the modern urban environment and what should the parameters be that define the future city form*. In terms of overall environmental quality, the city can be said represent much of a nation's cultural identity and therefore in some measure, its autonomy and its ability to think and act for itself. Accordingly the research was carried out with the major focus on defining the determinants of urban form in the past, the present and the future.

Before explaining the achievements of this research in relations to the chapters above, we will present a complete picture of the study. It is divided into three major themes. In the first part, the present crises of the urban environment were discussed. The reasons, the processes of formation and outcomes according to the radically different situations of developed and developing worlds were examined and clarified with special reference to Istanbul. It appeared that one of the underlying reasons for the upheaval in so many of our urban structures was the radical change in their determinants. The second part of the study discussed and analysed the determinants of pre-industrial urban form and their transformation. It was claimed here that historic urban nucleus of cities should be one of the major determinants of their future form. It is also pointed out that the *approach* to this proposed determinant is crucial. In the third part of the study the

hypothesis was formulated to justify and explore two basic questions: *why* the past should be a determinant, and *how* an 'understanding' can be gained. Thus, the whole study emphasised the importance of historic urban fabric to form the future city, each with its unique identity and integrity, instead of taking the global image of the industrial era, which differs dramatically between the developed and developing worlds. As a result, this study is a proposal to support the autonomy of diverse local cultures against the dominance of alien values as reflected in their built environment.

9.1. SUMMARY AND REMARKS

The contemporary city panorama of many developing countries is characterised by dilapidating historic settlements, overwhelming growth of massive 'modern' pieces of urban fabric and vast unhygienic squatter settlements, all seen in the present image of various Turkish cities, particularly Istanbul. The pressure of urban immigration and its consequences, plus administrative and functional insufficiency of local government, speculative land developments, degeneration of the natural and built environment and therefore the urban landscape, pollution and the lack of architectural quality can be stated as the common problems of most cities. This study argued that amongst many problems the degradation of architectural quality and vision accompanied with the cultural identity problem is the most crucial one, and will apparently continue into the future. We stated that the underlying reason for this problem can be clearly observed and lies in the sources and parameters of design. The phenomenon has three levels of definition. Firstly, its essentially visible feature that is the reality of contemporary cities, particularly in the developing world. Secondly, the reason for this phenomenon that is the poor quality of design. Thirdly, the sources of inspiration for design are not understood. This study made clear, in a comparison of the different characteristics of pre-industrial and industrial city forms, that we must look at our past, conserve it and use it to the benefit of our city planning in the future. Accordingly, these determinants were identified. It was pointed out that identifying these determinants alone would not provide a positive answer to the question of this research, but the correct *approach* to these can ultimately define the urban form.

In the research process, an assessment is made of the phenomenon within which the problem occurs. Urbanisation, the phenomenon of the 20th century, and apparently the future too, was discussed in relation to the current culture of Man: in which industry is that culture's principle mode of production; capitalism, its economic institution, and the present urban environment, its space. Thus, it was pointed out that the current urban

phenomenon is inseparable from the conditions of man's present civilisation, named as Modernism, whose basic characteristic was examined to observe its ideological basis. The ideology of the new era was opposed to nature and the past, yet tradition and culture are based on rational and objective understanding of phenomena the which led to the development of capitalist material principles. As a result function and technology have become the major tools for creating the new world system. Modernism believed that any question can be answered if the solution is only sought through rational thinking. Therefore the world can be controlled and rationally ordered since there is a single correct mode of representation. Modernity has created its own world, its own system, destroying the existing one that was considered to be no longer relevant. Gradually, due to the economic and political pressures of capitalism individualism, developmentalism and materialism became the major themes of this ideology. Thus, one of the major determinants of urban form, Man's living conditions, began to be transformed through his institutions and ideology. Man's relative ability to dominate nature through technological advances resulted in the neglect of nature as a determinant of our urban environment. This attitude has been drastically reflected in much of the built environment in most cities around the world.

As a result of these new formations, new needs and relationships emerged. Modern town planning emerged as a result of the new era and the need for interventions in towns. Early planning schemes had been implemented in many European cities, among which Paris, under Napoleon III, was the paradigm for the transformation of the European city into a metropolis of the industrial era. Political and economic preferences were the major motives to influence these development applications; therefore they were determinants of urban form. Inevitably it seems, during the process environmental and architectural qualities of the pre-industrial city were neglected. European planners aimed to produce rationally designed, technologically advanced cities to serve the needs of industrial production, which in turn generated criticism against this attitude, as early as 1889 (Sitte 1965).

Another striking impact of the new era was the way it affected the role and duties of architects. The new task of architecture had become to create the new, eternal, permanent and universal city that distinguished itself from the past. Thus, architectural education emphasised a free experimenting with materials and forms, as everything should be newly invented. This was encouraged and applied on two levels: building

design and city planning. Gradually, modern architecture was exposed to the pressures of capitalist development, in which economic and political motives and criteria for design dominated the urban form. The city, like a house, was perceived as a machine. Planning was meant to arrange the city's functions in zones with the intention of organizing the city space more efficiently for working. Gradually the identity and the structure of the city, being planned for the production-distribution-consumption cycle, was relegated to a commercial one. As a result the city lost its sense of being a united spatial system formed not only by one or two, but by many and varied relationships within its society, and instead became the space of economic relationships and in turn a business centre. This was not only the case for newly established modern cities like New York (which are not the subject of this study), but also the case for historic cities like Paris and London.

A similar result was evident in architecture. Man was displaced from being the focal point. Thus architecture, whose task historically was to shape the relationship between man and his environment, lost its authority in making the city. This affected, at first, the nature and scale of the city and also resulted in the estrangement of human beings from their built environment as makers, users and beholders. The abstract formal order of the modern objective, initiated by rational and geometric rules, and realised by advanced technological equipment inspired from function, introduced a new vocabulary which was claimed to be applicable everywhere. In addition, the degree of dependency on local resources and conditions has changed due to technological progress. Thus while culture had been one of the main determinants forming the pre-industrial city, technology became the main factor shaping the industrial city. The decline of the sense of time, and sense of place, has helped to create the impression of a deceptive freedom in the construction of a global city structure. Additionally, the neglect shown towards the existing fabric, as well as the cultural past, has become a strong force motivating modern developments that has helped to cause the destruction of the city's identity and wholeness. As a result, a collision between the historic urban fabric and modern planning applications has occurred which has gradually led to the poor design quality in the contemporary city.

However, although this problem is common to all contemporary cities that have experienced pre-industrial and industrial periods, it differs radically in those countries where the models of the industrialisation process were imported. While the West

experienced these new formations through its historical development according to its subjective conditions, these changes were imposed on the Other, i.e. non-Western world. The consequences of this historical process were accepted by the Other without question, as necessary for progress and civilisation. The impact of this attitude was evident only in their socio-economic, political and cultural structures, and was reflected in their cities. They were shaped by alien forms, concepts, institutions and technology and became hideous imitations of the West. The situation in the Other world became more dramatic when they began to lose not only economic and political autonomy but also their genuine cultural identity. As a result, the typical panorama of the contemporary city in those countries consists of two extremely different structures which both degrade architectural quality and vision. One is the dilapidating historic nucleus, and the other modern urban pieces, accompanied with slums and squatter settlements. Thus, the disruption in the continuity between the cultural past and the present is engraved in the urban fabric of these cities, which explicitly reveals the design problem that exists today and is likely to remain into the future.

These analyses showed that new concepts and alien forms system have disrupted that past's system's momentum and caused the destruction of qualities in the built and natural environment. We have attempted to examine the determinants of urban form alienated from its local, unique sources and based on the externally imposed model of the modern city. This hypothesis was examined through the analysis of the transformation process of Istanbul, which can be viewed as a paradigm of this phenomenon.

Istanbul had been the place for successive cultures to express themselves through the remarkable communication with the natural environment a characteristics that was well expressed by several European travellers, who enthusiastically wrote about the image of the city on the eve of its radical transformation. The latter was based on a process known as modernisation in Europe; it grew out of the period of Enlightenment, spread, and became 'Westernisation' for the Other world, since the model of progress and evolution was represented by the West.

The first impact of this process began to be visible in Ottoman society from the 18th century onwards. The military, and therefore economic, weakness of the Empire encouraged the government to find a way to save the country. The development of

Europe offered what was thought to be a suitable model for the solution. Thus, Westernisation, by copying and adjusting its institutions, laws and gradually forms and customs, was applied in the country and particularly in the Capital. Istanbul became the platform of economic and political interventions for the goal of modernisation. The model of progress was to be applied in every sphere and our old world was seen as the representative of backwardness that had to be removed.

The changes took place in two major phases. The first phase (1700s - 1839) represents a transition process when the changes were specifically desired for military purposes. A new type of building was introduced to the city's urban fabric: military barracks which dramatically changed the physiognomy of the city. These alterations were initiated by the Court rather than the people, were applied firstly to royal buildings, gardens and open areas that became the agent to introduce further European living styles, building types and public urban spaces.

In the second phase the acceptance of the Western values, forms, institutions and concepts as a superior model for development and civilisation began to be applied in every sphere. These changes shifted from being influential at the building scale, they became important at the urban scale. The new administration system gradually replaced the traditional ways of production and control of the built environment. Urban planning concepts prevailed and piecemeal schemes were carried out to shape the city according to the standards of European cities. As these applications were randomly implemented, the integrity of the urban fabric was injured and the urban form began to change its pattern and texture.

Major changes in building scale were realised by the application of new building types to serve the new life style and the new architectural styles. This did not produce a coherent architectural vocabulary for the new era; on the contrary, it disrupted and prevented the development of traditional Ottoman architecture. Foreign architects played a crucial role in introducing new types and styles of European architecture into the city fabric. They took the initiative away from Ottoman architects. Traditional architectural training was abandoned and replaced by new schools based on European models and run by European teachers. Thus, one of the most important factors of the country's architecture was also affected by the ongoing process and transformation to meet the requirements of the Westernisation's desires. By this critical change not only was the

accumulated knowledge of architectural culture developed through centuries disrupted but also a dependence on the foreign architecture in terms of its knowledge, its forms and concepts, as well as its material and technology was pursued. The changes in life styles were reflected on the built environment by the construction of multi-storey apartments (in stone) which replaced traditional timber houses. While they indicated the changing life styles among the middle class, high-rise apartments were also one of the means by which the urban fabric was transformed. During the process, an ideological discussion on the modernisation of the country was echoed in the field of architecture in an attempt to create a national identity. Therefore the collision and confusion between Western values and traditional ones was reflected in the architecture of the era. The lack of an agreed and defined architectural vocabulary and identity, apparent in the built environment until now, was one of the crucial aspects affecting Turkish architecture, accompanied with the ideological dilemma of the entire country.

The changes that took place at the building scale mostly affected the facades and types but not the whole urban fabric. It was soon realised that the European look was not enough to achieve the standards of European cities. Thus, more radical changes were proposed. The first steps were undertaken in the administration of the city. Traditional institutions were abolished and a new system of administration with its laws, regulations and organisations was introduced. This was followed by urban planning applications. Firstly urban planning efforts were aimed at shaping the city to reflect modern city standards. The street network began to be regularized in agreement with geometric rules, cutting straight and wide arteries through the existing organic patterns. The sites destroyed by great fires gave the opportunity to apply new planning schemes and replace the organic fabric with regular layouts and built of stones. This has greatly affected the urban fabric in a three ways. Firstly, it changed the urban texture from being a blend of stone (mostly public buildings such as mosques, medreses, tombs) and wood (residential buildings) combined with a natural environment rich in variety of greenery, to one of just stone. This has affected Istanbul's character, which formerly reflected a harmony through contrasting elements, and a visual and sensational transition from soft texture to hard and from temporary to permanent. Secondly, it altered the urban fabric which had been formed through a process, based on needs, time and conditions of the place which referred both to the natural, and to the growing built environment itself. Thirdly, the piecemeal modern regular patterns injected into the organic structure disrupted its unity and dissolved the fabric.

Thus, the urban fabric of Istanbul was gradually destroyed not only by alien individual buildings, but now by plots of alien urban fabric. Transportation schemes connected the physically and administratively divided parts of the city. This affected its decentralised character. Once more the local characteristics of the city, society and nature were neglected and replaced by the economical, political choices to determine urban form.

Planning efforts were sustained during the Republican period. European urbanists were invited to prepare many Master plans for Istanbul. Thus another phase began in its history, but the leading idea for development was still the same. Many thousands of buildings were destroyed for the improvement of the city. It should be noted that in spite of feverish modernisation, there were remarkable efforts to maintain our independence, which was seen as crucial for the new state, with an emphasis on national identity rather than on religion. The conflict between the desire for Westernisation and the emphasis on national identity and independence was reflected in the new buildings and the urban form of Istanbul.

During the 1950s and onwards the country has undergone major political and economic changes, which deeply affected its social and cultural entities. The shift in political ideology by the new era was expressed in the urban fabric. Ironically, the new government, being conservative, used religion for political purposes as a means to react against the previous period. At the same time development desires accelerated and the city was subjected to more destructive interventions in parallel with political aims. Newly developed international relationships, particularly with the USA, caused major changes in the socio-economic spheres. As a result massive migration to the cities began to greatly increase housing demand which certainly could not be met by the State. Squatter settlements became part of Istanbul's urban fabric; almost half of the population still live in these. Thus three major kinds of texture in Istanbul's urban structure appeared. First is the dilapidating historic fabric; second is the modern building interventions, and third are the overwhelming squatter settlements. Besides, as industrial development was previously encouraged, many factories had been built in and around the city, along the coastline of Marmara Sea and the Golden Horn causing disastrous environmental problems.

By 1980 a new socio-economic and political era began in the country. In accordance with the economic and political view of the new administrative period, development was

carried out by speculative initiations which deeply mark the present urban form of the city. While on the one hand, environmental concerns were advertised in the name of saving the Golden Horn, the environmental and architectural characteristics of the Bosphorus were neglected and it was plundered by developers. New villas, luxury hotels owned by international companies and skyscrapers were the signs of a so called 'liberal' economy but also demonstrated a total disregard toward city's past, as well as its future. The pre-industrial city was formed by the determinants derived from local values of the city: its people and its natural and built environment were in turn formed by the architectural culture of its society. During the process of Westernisation there was a shift in these determinants. Economic and political preferences in accordance with the model of the modern city have been embodied in its urban form through the alien architectural culture. In spite of feverish efforts Istanbul was neither transformed in to another system (the modern city) nor was it able to keep its own inner-logic, (the Turkish-Islamic character). Modern developments caused the degradation in architectural quality and vision of Istanbul which was unique in the world. The conspicuous lack of character in the examples of modern designs and planning applications, has however, led to an enhanced appreciation of the city's historical urban fabric due and its inherited architectural and environmental values. This, in turn resulted in the recognition for the conservation of those World Heritage Site areas by UNESCO in 1985.

However, all the recent conservation efforts to save the historical heritage of the city did not change this ongoing process significantly. Instead, it focused on some inadequate conservation applications in tourist areas, such as Sultanahmet, Suleymaniye, Zeyrek and Eyup districts. Although these sites were announced as conservation sites, the scale of the conservation efforts did not develop further than listing and marking the buildings that stand there. Some of the conservation applications such as restoration of the City Walls, Sogukcesme Street, and Kariye Museum's surroundings were criticised in relation to the ethics and principles of conservation, questioning the loss of authenticity and originality of these structures. On the other hand, new buildings were mostly produced by commercially minded developers and are poor in design or based on Western forms, styles and techniques. Therefore they do not contribute to or enrich the city's identity and characteristics. Instead they ensure the collision and dissolution of its structure. Therefore there is a need to identify and clarify the determinants of urban form in the contemporary context of the historic city to create a better urban environment for the future city.

Due to the disruption in structure, the existing urban fabric of previous periods becomes the historic urban fabric of the present day. It is argued that this can be the source for inspiration for any intervention into its fabric, reviving the old and designing the new in the contemporary context of the historic city. It is emphasised that the approach to this source is crucial. The approach shows how the historic city is to be understood by architects. Our research demonstrated that it is perceived in different ways: as a model of satisfactory urban environment and therefore to be imitated; as a repository of old forms which can be copied in order to create environments related to each other through forms; as a setting in which new design attempts relate to its forms; as an object to be preserved and restored due to its historical, architectural, cultural and economic values, or as an example of an adequate environment that needs to be analysed to grasp its abstract hidden rules and apply them in any new design. All these different attitudes were analyzed critically, grouping them in two major lines. The first approach emphasised the valuable characteristic of the historic city and the possibility of application when designing the new. It was examined from different points of views, but was not alone a determinant, or real source for the future.

The second approach focused on the Neo-rationalist approach which emphasised the architecture and revived its tasks and qualities. The city is understood as an architectural product in terms of its morphological qualities and therefore as a form. Understanding the city as a formal entity led the method of analysis to focus on formal relationships in the urban structure. One basic relationship between building types and urban morphology became the major concern of the analysis. A methodology called, Typology, was subsequently developed. It was used as the major method of analysis of urban form; and also as a method for producing a formal catalogue. The approach was then applied to construct a relationship between the new insertions and the historic urban fabric by means of formal relationships. Although they emphasise the existence of the city, unlike the modern movement, their approach perceived the city as an agglomeration of forms, claiming that the form is the only permanent character of the city. This one-sided relationship resulted in understanding the historic urban fabric as a context or setting of new designs, but not the manifest determinant of new designs.

Conservation, (understanding it as a design action) deals with what already exists, was discussed. Acceptance of necessity for the preservation of historic urban fabric due to its undeniable values was examined. And the understanding of the historic urban fabric

by conservation was analysed. It was stated that many conservation applications tend to be surface restoration, only repairs of historic forms. Again, the stress was on form. This resulted in accepting the historic city as an object and disregarded the quality of it being a dynamic phenomenon. Apparently conservation failed to be a sufficient response to the problem of urban design in the contemporary context, having conflicts in numerous areas. It deals only with existing structures but not with new insertions. Conservation, however, clearly is an intervention in the form of repair, replacement or reconstruction. Each of these, we argued, needs to consider that which already exists carefully whether it is a monument, a cultural artifact or the historic urban fabric. It was stated that the principles of intervention in conservation or development need to be derived from the local characteristics or in a broader sense from the essence of the historic urban fabric. This can only be grasped by careful analysis of its structure.

Consequently, the analysis of urban design approaches and conservation of historic urban fabric exposes that any intervention such as designing new structures or reviving the old must be based on understanding the essence of the historic urban fabric. The design parameters should not be imposed from outside the city but should be recognised from within. It should be the source, not merely the setting. Forms should not be repeated by imitating or abstracting. But the essence should inform the growth of urban fabric. The emphasis should be on space, therefore on the spatial relationships rather than the formal relationships.

The hypothesis is subsequently illuminated by a discussion on the question of *why* the historic urban fabric can be a determinant for any intervention into its pattern. It was argued that to use the historic urban fabric as a basis for design would enhance the local characteristics and identity against the pressure of the global city image. As a result every city would once again be distinctive with its effective environmental qualities. The city here is discussed as a system in which each element can be defined and therefore always has a value in relation to each other. In turn, this relatedness creates the integrated structure and wholeness of urban form. The historic urban fabric contains this integrity unlike the most of the modern urban spaces where every building stands individually and not relating to each other, thus creating fragmented urban spaces. This is seen as the reason for the failure of contemporary cities.

It is maintained that the essence of a system is the relatedness between its elements and also its relationship to the whole; this in turn creates continuity. If there is no relationship between the elements there will not be an unity or a process. Continuity in the historical process shows that previous structures were always the reference for creating the contemporary ones. This was often a reaction to existing structures, improving or opposing them but always relating to what existed. This strengthens continuity and initiates the interrelated structure. Everything stands against a background of a totally interdependent system and is contained within it. As a result new insertions into the historic urban fabric should respect remaining structures and relationships, whilst representing *time* in terms of form, technique and material. Determining factors of this *time* are also important in designing what is new. One should bear in mind that all elements will only be meaningful and valid if their relationship to each other is recognised. Therefore design considerations need to follow the intrinsic principles of the urban system and integrate with the existing structure. Then spatial and architectural continuity can be achieved.

This is crucial for the identity and consistency of the urban fabric of a particular place. An historical built environment and other cultural artifacts are a vital source of cultural identity for a society. This is the paradigm of a cultural system. The preservation of historic urban fabric, therefore is a necessity for cultural survival and identity in developing countries. Identity can not be created from the beginning but can be restored and enriched. The historic urban fabric is an actual, real representative of cultural identity. The urban fabric represents the past, not as a repository of old forms, but illustrates the different stages or epochs of its history. It is the accumulated, assimilated and relevant form of the historical process. Thus, the past is not a separate part of civilisation but is already embodied in the present form of life and accordingly in the urban environment. One could argue that the present is temporary but the past is consistent, and always there to be referred to. On the other hand the future is unknown but can be formed according to our present understanding, which is moulded by the assets of the past. It is important to recognise the past as a evolutionary process, rather than a collection of various epochs of history. Only this understanding prevents nostalgia and imitation of one selected era, and promotes an awareness of the past as the established base for the future. This discourages the use of the past as a model because a process cannot be duplicated, and therefore cannot be objectified as a archetype.

The process of growth and change in urban fabric supports the idea that its formation is an ongoing phenomenon. We argued that the development in the urban fabric takes place in three basic phases. The first phase, is the integration of the new elements into previously formed spatial structures. This involves interpretation and modification of the new input. Since the nature of this structure is ever changing, a new phase begins with the addition of a new factor because every input creates new associations. In the second phase, therefore the existing structure is modified diachronically and synchronically. Thus, the always developing relationships between single elements and the whole, are sustained. In the third phase, these constantly moving activities between the present and the new may create a structural imbalance. This disequilibrium can only be resolved by application of a new perspective to the situation, which is only possible through greater understanding. Any new phase of a structure is based on the previous structure through a mutual relationship between the new, single elements and the whole. Creation, which is the basic requirement of the new, we argued, is determined by the already existing structure. In other words the future is defined by the past, since the present refers only to an ever moving and unbalanced state. It is also discussed that creativity, one of the most distinguished human attributes is still culture-bound. This indicates there is a correlation between new creations and the local cultural system which is embodied in the historic urban fabric. However, the invention of a new structure is only possible by understanding this already 'in-place' system.

In this sense the historic urban fabric is the base for continuity, identity and creativity for the future city form. Thus it is not a reference for copies but it can be an inspirational source for creation. Understanding the historic urban fabric becomes essential for future inventions, particularly because of the severe break between historic urban fabric and its present society. Understanding is necessary when undertaking the repair of these cities, as well as their revitalisation, or future construction. Accepting the necessity to know and understand the essence of the historic urban fabric lead us to question different methodologies. Thus, in this study, various methods analyzing an historic urban form were examined. Among them the most prevalent approach was based on the analysis of the relationship between building typology and urban morphology which is founded on the notions of type, form and relationship between the individual (building) and the whole (city).

In this method buildings were viewed as types, abstracted geometric figures and the urban fabric as a morphological entity. Typological analysis of the urban form is at the core of this method. This, however, leads to defining a building (or architectural structure) in a two-dimensional way: emptied of its actual content, and disconnected from its relationships. Thus it becomes an element in a 'formula' but not the representative of the existing environment. The emphasis on type generates discussion about form but not about space. On the other hand, the abstraction of buildings into types and classifying them by formal qualities isolates them from their essential quality which is their relationship with other buildings and urban elements. It is claimed, by this method, that the permanent character of a city is embodied in the form from which one can decipher the 'hidden rules'. However we argued that this, - in our terms the essence of a historic urban fabric - exists in the relationships among its elements. Therefore a method aiming at understanding the 'essence' of an urban fabric needs to be based on exploring these relationships. The emphasis on the historic urban fabric will draw attention to local sources, knowledge, conditions, historical background and to the architectural culture. In this sense it will be a vital source for the reestablishment of cultural identity and for the harmonious, responsive urban environment of the future city.

Following the discussion on the methods of analysis of urban form, an attempt was made to establish a conceptual and practical framework for a method based on exploring the qualities of space and spatial relationships of an urban fabric. The stress of this method has been on 'understanding' rather than mere 'reading' (which was the case in previously reviewed studies). Reading, in a sense analyzes a structure but does not necessarily provide a synthesis. However, for a comprehensive, total knowledge of a structure an analysis needs to be followed by synthesis, in our terms by 'understanding'. This is a prerequisite, especially for those of repressed cultures, to be able to create again. We have suggested that the analysis of the historical urban fabric of a city could assist us in the rediscovery of its architectural culture from which its 'essence' may be understood. This can be the stimulant and the source for transformation, motion, and help to prevent any possible imitations of past forms.

Means and sources of this understanding are suggested as historical and architectural research and analysis. The former is judged to provide a conceptual unity in order to see the production process in the context of time, preventing the reduction of the town into a mere material object as agglomeration of forms; the latter aims to clarify the

process of articulation between different urban elements in understanding the whole. However, these two kinds of research are not separate. On the contrary, architectural analysis is always accompanied with historical research. It was pointed out that a selection of a particular place is the necessary base to think with, since each place has its own unique development. Therefore the method is described, if not applied, to the example of Eyup, the holy shrine and suburb of Istanbul standing just outside the land walls.

The method consists of three major stages that are explained with special reference to Eyup, suburb of Istanbul, in Chapter 8. In the *Identification* stage, the identity of the town is explored by investigating the characteristic of its place, the meaning of its name, its historical and architectural significance, its origin and its society.

In the *Reading* stage, the physical structure of a town is the major concern. This requires two steps: firstly, its growth process is examined, and secondly its urban elements are explored. 'Reading' in our terms means to decipher the architectural system of the town's urban structure through analysis of its formative elements. In the first step, looking at how the town has grown enabled us to see the articulation of different urban elements and the evolutionary process. In the second step, the urban elements were investigated. They were classified into two major groups: architectural and institutional. Architectural elements represented the tangible physical components of an urban structure and were subdivided into three major groups: built structures; spatial structures; and *combining elements, which have a crucial role as being an* articulating agents of the built and unbuilt spaces. They are crucial in our argument because they represent the tangible, actual quality of relationships from which the 'essence' can be perceived. Institutional elements, on the other hand, are understood as essential factors of an urban form, being the intangible motives of its formation process.

In the *Understanding* stage, the aim is to reach to a synthesis, and a resulting comprehension of the whole architectural system of a town, in the light of previous stages. Here, the main characteristics of the urban form of a town can be identified by analyzing its various relationships and states, and in this case on a broader scale in relation to the town's surroundings.

This method is aimed at generating the essential inspiration source which in turn initiates new creative designs, rather than imitations of both alien, or past forms of its own culture. It is suggested that the above proposed method would be applied in Eyup initially by forming an institution to undertake such research. Similar studies could be carried out for other historic cities in Turkey as well as other historic parts of Istanbul such as Galata, Fener, Zeyrek, and Suleymaniye which still keep their identity and importance.

9.3. CONCLUSIONS

This research, on the whole, criticises the ongoing situation in many developing countries including Turkey, in which the global city form is overwhelming the unique characteristics of their historic cities, causing problems of environmental quality and loss of identity. Therefore, it argued that the local conditions, characteristics and opportunities should determine the urban form and its architecture. In this regard, the historic urban nucleus of those cities have an extreme importance for regaining their self-determining urban space, being a potential source of inspiration, a stimulant for their future growth. The approach to this source is critical. Therefore, we proposed that this nucleus needs to be '**read**' and '**understood**', helped by a careful analysis based on an exploration of its spatial qualities.

By giving the emphasis to the historic urban fabric, not as a 'model', but as an 'inspiration-source' having great architectural value that is meaningful to its society, the necessary connection between the past and future can be established, to achieve a unified, autonomous, adequate and identifiable contemporary urban form. Although historically, the built environment, has been a reflection of the culture of its society, we are in an epoch of history in which cultural structure itself has been disrupted and and confused needs to be redefined. As discussed in this study, an identity cannot be established from the beginning, or created all at once. Any surviving authentic cultural identity can only be restored or enriched. But *how*?

As we understand the city to be an architectural product, this conclusion inevitably refers to the phenomenon of architectural design and its parameters. The simple and basic question that this research has tried to deal with is the exploration of these parameters, whose redefinition is essential in the contemporary context of our cities and societies

which are both suffering from gradual loss of identity and autonomy against the arm-twisting of international politics.

Thus, related design questions, in this context, are not simply a matter of style or form but are a significant part of a broader ideological discussion about the future perspective of a nation (or cultural body). We, as architects, must attempt to be involved and have a say in such a vital discussion about our society. It is shown that the historic urban fabric of cities is the actual reference for an optimistic future and can be a remedy for our confused cultural identity. Therefore necessity to accept the historic urban fabric as a major determinant and give emphasis to local values is not just an architectural decision but a fundamental ideological and political choice. In this regard, we think firstly, there should be a new awareness and a request initiated by our society as a whole to understand its own values, rather than continuing to import alien doctrines. Our society should form its future, according to its own attributes and not only claim economic, political but cultural autonomy.

Architecture follows the political choices of its society unless it initiates and evokes its own polemics. Indeed, the major aim of our argument, is to provoke and evoke such a demand, specifically related to the built environment, in which architecture and architects play a much more critical role. Architects basically have an authority to define and demonstrate political choices through their designs, in all our settlements. However, they, at first, need to be aware of their authority over the built environment, and realise their historical and social responsibilities in creating 'places' for a better life.

This discussion aims to give authority for the making of the city back to architecture and architects. At this point, when arguing how to design the contemporary urban space, their education becomes a crucial consideration. In the light of this research, and in the author's role as a candidate for teaching architecture in Turkey, we would suggest some basic and strategic points, concerning the future of our built environment.

- Initially, architectural education, particularly in the developing countries (like Turkey) needs to be reviewed and revised according to the realities, necessities and resources of that country.
- A cultural autonomy cannot be achieved unless we eliminate the alien factors. In agreement with the proposition of this study, the traditional

architectural system of a country should be the core of an architectural curriculum in place of the present one, in which Western and more particularly modern architecture, including its current forms, is so dominant.

- Inventions, in other words the 'new'; the future, must be based on the understanding of inherited values of the local system, but reflecting their own period of time. However, the proper 'understanding' of local culture is crucial in order to avoid the simple recall of past forms. The inventions needs to be based on 'understanding' the 'essence' not the superficial approaches.
- One of the ways to achieve such understanding, we suggest, can be a careful historical and architectural analysis of the historic urban fabric. The other way, we would argue, is to awaken students of architecture to scrutinise their built environment and encourage them to 'communicate' and 'read' those buildings that form the physical context of their immediate environment. They should also be taught to perceive historic buildings, not in manner of shallow appreciation, but to see them as meaningful and identifiable 'spaces' which were created by their predecessors.
- They could reach (or form) a 'communication' not only with the buildings but with the architects who designed them, and attempt to comprehend the worries, wishes, skills, and possibilities, as architectural considerations of their own time.
- The connection with the 'past' through this 'architectural consciousness' provides the means of communication that could help the student to understand its often latent and intangible dimension.
- Design projects, for conservation or new structures, set in the historic urban fabric, would enable students to express their 'understanding' and capability to integrate their insight with the seemingly unavoidable conditions of their time.
- We believe this would encourage them to understand architecture not as a sphere for individual competition contained within its own era, but as an artistic, social and historical endeavour.

But, in order to achieve a sustainable authentic architectural culture, architecture needs to be reviewed on a professional and practical level as well.

- This study tries to avoid suggesting planning and design guidelines which could be misconceived as applicable to every city. Such guidelines could form a 'model' for invention and thus prevent the spontaneous growth that contradicts our argument to defend the autonomy of each city or settlement.
- Architects, before designing any new or repairing any old building or structure, must initiate an analysis of the surrounding historic urban context.
- Once this analysis is realised as an essential preparation for any and all new developments, the future city form may express a state of harmony, having regained its structural integrity and cultural identity.
- Inquiries should be undertaken in each town to investigate and decipher its unique characteristics. The schema of urban design should be defined in each place in relation to its own subjective circumstances.
- Chambers of Architects and Urban Designers must be the initiating institution to pursue these studies and control the building activities in each town.
- There should be an overall controlling body to coordinate on a country wide basis the work of these Chambers working at the city level. This organisation should not be subject to political influence or control. Its authority should not be modified and used by the desires of political powers. Its right to govern the construction activities should be supported by legislation and administrative power.

These suggestions could be seen as contradicting reality, since not only social, cultural but economic and political demands are part of the ongoing agenda of any society. We state that these inevitable ties, although defining what should be designed, should not formulate the design itself. Design should be based on the analysis of determinants outlined above rather than on those from 'outside', if its cultural identity is to be kept as one of the vital characteristics of the country.

We young Turkish architects, sharing the destiny of our developing country: teaching, practising, and demonstrating our ideas, must realise that our survival as a culturally autonomous nation depends on our present efforts and actions. The prevailing impact of Western concepts and practices in the formulation of our cultural values, demands of us to find effective responses to the chaotic and complex situation in our present day cities, which are a reflection of our society as a whole.

We can not deny that West's recent influences on our 'deep-rooted culture' are embodied in the physical context of our cities. Although we must start to see the consequences of this are disastrous, but at the same time a nostalgic appreciation of our heritage will in turn impoverish the intrinsic values of our past. These innate qualities still that exist as part of the historic urban cores of our cities should be recognised as an ever present motivator for all design projects. Therefore, our task for the future is to understand the significance of the interwoven nature of past and present. A fusion of current challenges and insights gained from the past is the only way to face the realities of the future. But we must first 'own' and 'sense' our inherited past and its merits.

We should know that the future of our cities can not emerge from the present confusion without an essential *communication, understanding and consciousness* of our architectural assets. We, to give our next generation a more autonomous perspective, must accept the 'responsibility' of **deeply understanding our past, through awareness of the present, to create a future.**

APPENDIX I

ISTANBUL

A.0. INTRODUCTION

The city, during the westernisation process, was constantly transformed by losing its identity until the present day. This process is examined thoroughly in the Second and Third Chapters, in relation to the objective of the study. Here, it is deemed necessary to present the uniqueness of Istanbul in terms of geographical, topographical characteristics as well as historical and architectural importance in order to aid in understanding the present dilemma. It is also necessary to provide a link between two different processes of its history and draw a whole picture of the city's past. But, the aim here is not to draw a detailed, completed picture of its past but provide main lines of its vast history. First, geographic and topographic characteristics will be presented. Secondly, the historical background will be reviewed until the beginning of the 19th century.

A.1. GEOGRAPHIC AND TOPOGRAPHIC CHARACTERISTICS OF ISTANBUL

Istanbul has been one of the most distinctive cities in the world throughout history. Thus, numerous studies mainly concerning its history and its built environment have been undertaken. Some of the major studies, particularly on its topography, (Eyice 1980, Weiner-Muller 1977, Islam Ansiklopedisi 1977, Van Millingen 1899, 1906 and 1974, Gilles 1988, Mantran 1986, Janin 1953 and Celik 1986) show that Istanbul is one of the cities in the world whose fortune is so interwoven with its geographical position and its urban form with its natural environment. One of the most striking aspects of Istanbul is that it is the only city in the world which stands upon two continents, and has had the great advantage of controlling the routes between Asia and Europe, and the Black Sea and the Mediterranean Sea. Topographic conditions accompany location with a habitable natural environment composed of sea shores, undulating hills with woods and meadows, all enhancing its natural beauty. Influence of geography upon the city's history is strikingly marked; the vitality of the city is rooted in a unique location. Different cultural structures responded to the natural environment of the city in their own way through two and half thousand years. This character is one of the main determinants of the city's urban form, without which one cannot understand the architecture or the history.

The city is set beautifully amid the sea (Marmara Sea, Bosphorus, the Golden Horn), which forms curving bays, contracts into narrow straits, and then spreads into the great sea. Thus, the sea surrounds the land which is divided into three main parts by the two straits, the Golden Horn and Bosphorus. The main part of the city is located at the southeastern tip of Europe. This is separated from its suburbs in Asia by the incomparable Bosphorus. The European city is divided into two parts by a narrow gulf named the *Golden Horn*, with the old imperial town of Istanbul on the right bank and the quarter of Galata on the left. The historical peninsula of the city itself forms roughly triangular promontory bounded on the north by the Golden Horn and on the south by the Sea of Marmara. At the apex of this promontory where the Topkapi Palace is located, the Bosphorus and the Golden Horn flow together into the Marmara Sea, forming a site of great beauty. At the northern extreme of the Golden Horn the two streams, Alibey and Kagithane run into the Golden Horn. The field at the confluence of these two streams, with the scenic values of the Golden Horn, regarded as the topographical treasure of the city, enabled citizens of all social distinctions, the possibility of outdoor recreational activities. During the Ottoman period these charming meadows between two streams were the site of royal gardens, palaces and pavilions and were a favourite holiday resort for city dwellers (Sumner-Boyd & Freely 1987: 406).

The dominant presence of water has a value which goes beyond scenic considerations and occupies a primary urban role around which the city develops. The topographic structure of the city, with its undulating grounds along the coasts, was the main reference point from which the distinctive urban silhouette evolved. The Golden Horn was a natural harbour of the successive Empires, the best protected on the sea route that lead from the straits of Gallipoli to the Black Sea. Topography defined the functional structure of the city as well as its urban fabric. The main commercial area was located around this protected harbour. Thus, it was the main traffic artery along whose shores various productive and commercial activities developed. Balcioglu (1988) regarded the Golden Horn was the *main street* on which various urban activities took place.

The road structure was laid out in accordance with the topography. For instance the main road¹ of the historical peninsula passes along the highest level of the hills starting from the front of the St. Sophia square (Forum Augustaeum) through Cemberlitas (Forum

¹This road was called *Mese* during the Byzantium period and *Divanyolu* at the Ottoman period and today.

Constantine) and the Beyazit square (Forum Tauri). After the Beyazit square the road divides into two main branches according to the triangular shape of the peninsula. One of them goes to Yedikule (the Golden Gate) parallel to the coast of the Marmara, along the hills, which had been used as an important ceremonial axis in Byzantium times. The other goes to Edirnekapi (the Adrianopolis Gate) parallel to the Golden Horn along the hills which was an important route during the Ottoman period.

This preliminary road structure of the imperial city has remained until today and serves as one of the main artery of the city. Istanbul intensifying mostly on this artery, has experienced diverse physical manifestation of different ages and different cultures. Hence, through the ages, the city had been formed and improved one on top of the other and the topographic circumstances were the main determinants of this formation, until the westernisation.

A.2. BRIEF HISTORY OF THE CITY

The distinctive geographical situation of the city together with its topographic characteristics and habitable natural environment made Istanbul a desirable place throughout history. It had several stages of prosperity and decline, and several occasions of siege and assaults from various nations. Its particular history is engraved in its urban fabric and unique silhouette as the expression of bygone times.

A.2.1. The Mythical Origins and Pre-history

Archaeological findings and researches show that people have chosen Istanbul and its environs to settle in since the prehistoric times, because of appropriate ecological conditions and habitable geographical formations (Ozdogan 1992). Although there are findings from the prehistoric past, these are insufficient to make a comment on the cultural and historical process of this period. The limited number of excavations show this process only as layers of settlements. Therefore they do not reflect the cultural past of the civilizations which may have flourished at the site before Byzantium, the first known settlement in Istanbul. Besides, these excavations usually have been done in the city's environs rather than in the city itself² (Esin 1992). Although the lack of proof does not

²The only archaeological excavations done in the city limits is in the Eminonu district which is carried out in the 1950s. According to the findings, the earliest settlement in the Istanbul peninsula date from the late third or early second millennium B.C. (Celik 1986: 11). However, this work has not been pursued so the data on the early settlements is very scarce and insufficient to picture a reconstructive image of the city.

allow us to connect the time-parts in order to see the whole process of its development, one might see that in such a location, cultural exchange and interaction are inevitable as well as migrations, invasions, and trade.

Information about the first settlements is derived from legend. Generally, ancient authors give 658 and 637 B.C., as the date of foundation of the city on the promontory of *Lygos*, today's Saray Burnu³. According to the legend the founder of the town of Byzantion was Byzas the Megarian from Greece who established a colony on the Saray Burnu⁴. There is another legend to explain the first settlement in the city according to which some of the ancient authors claimed the foundation of the first settlement was on the hill that is located on the confluence of the Sweet Waters of Europe in ancient⁵. Even though the latter may be true⁶ one might suggest that the probable settlement was not significant for the further growth of Istanbul, since the city developed on the promontory of the peninsula. Consequently, one can see that there is no certain proof to clarify the first foundation of the city.

A.2.2. Byzantion

It is known that the modern city began to grow from the Sarayburnu (*Lygos*). Eyice (1980) attempts to picture a possible structure of that city. The fortification of the first city encircled a small area on to the first of the seven hills, Saray Burnu where the

³Herodotus relates that it was founded seventeen years after the Chalcedon of Achias that is today Kadikoy. Ancient authors (Hesychius, Eusebius and Hieron) gives 686-684 as the date of the foundation of Chalcedeon that is 17 years before Byzantion the first known settlement in Istanbul. So the foundation of the latter is enveloped in legend which mask its real history (Mamboury 1953: 33).

⁴According to the legend (Sumner-Boyd & Freely 1987: 2) Byzas had consulted the Delphic oracle who advised him to settle "...opposite the land of the blind." The oracle was referring to the residents of Chalcedon, today's Kadikoy, located on the Asian side of the city just opposite the Saray Burnu. A greek colony which had been established some years before across the strait. The implication is that the Chalcedonians must have been blind not to have appreciated the much greater advantages of the site chosen by Byzas. Situated at the mouth of the Bosphorus, it was in a position to control all shipping from the Black Sea, the ancient Pontus, through to the Propontus and Aegean".

⁵According to this legend (Eyice 1975: 263) *Io*, the mistress of Zeus when prosecuted from land to land by Hera, his revengeful spouse found refuge for a brief season on its secluded banks. Here she gave birth to her child whom called *Keroessa* was looked after by the Nymphs of Water called *Semestra*. There was an altar on the hill, today is Silivritepesi, located on the confluence of two streams whose ancient names are *Cydaris* (Alibey) and *Barbyes* (Kagithane). On this altar the son of *Keroessa* named Byzas was looked after by the Nymphs Byzas. And Byzas founded the city of Byzantion here.

⁶There is not enough and certain proofs about the first settlement on the Golden Horn. However, on the northern extreme of the Golden Horn some ruins of a cellar and a grave belonging to the 2. B.C. were found. Also some ruins of a Roman building in the area were found (Eyice 1975: 265).

Topkapi Palace is located today⁷. At this peninsula's highest point there was the Acropolis as the centre of the colony. There stood the temples to Zeus, Apollo, Poseidon, Aphrodite and Artemis. It is alleged that the church of St. Sophia and St. Irene were built on the site of some of these temples. There was an agora surrounded by porticoes. There was possibly a great square, Thrakion, in the proximity of today's Hagia Sophia Square, and the Strategion in the city's centre. These squares were the two main open spaces and were used for public and military functions. The harbour called Neorion, the important urban structure of a trade based community was situated on the edge of the Sarayburnu. The necropolis was beyond the city walls, between today's Cemberlitas and Beyazit. Apparently the first city, according to these descriptions (Islam Ansiklopedisi 1977: 1145, Eyice 1980) was an antique Greek city having traditional urban elements which were to be replaced by later Roman structures. Byzantium was an important city for trade and commerce. It was a trade based colony, in a position to control all the shipping from the Black Sea, the ancient Pontus, to the Aegean and Mediterranean Seas.

In 512 B.C. the city was taken by Darius and remained under Persian control until 479 B.C. (Sumner-Boyd & Freely 1987: 3). The city changed hands constantly until 196 A.D., when the Roman Emperor Septimus Severus took it (Mamboury 1953: 34). The Emperor, at first, tore down the city walls and left the city into ruin (Celik 1986: 11). However, he soon realized the strategic importance of the site and enlarged the city by reconstructing the city walls further to the West including first and second hills as well as the ancient harbour. Inside these walls, urban landmarks of a Roman City were introduced, giving of the beginning of its essential skeleton: The Forum Tetrastion and the *embolos* which was the main avenue that connected Tetrastion to the new walls. This artery formed the first portion of the *mese* (today's Divanyolu), the middle street on the highest level of the hills, from the East to the West. Construction of the Hippodrome on the south was begun; the remains are still visible today. The baths of Zeuxippus were also constructed in the approximate site of today's St. Sophia (Celik 1986: 11).

⁷Dionysios of Byzantium stated that the perimeter of the city was about 35 stad i.e 6,300 metres (Islam Ansiklopedisi 1977: 1145).

A.2.3. Constantinople

Gradually the city achieved political and military importance because of its strategic situation within the Roman Empire. In the 4th century A.D. it was affected by the events taking place in the Roman Empire. The struggle between the Emperor of the West and the East was finally won by Constantine, the Emperor of the West. On the 11th May 330 A.D. he declared the city as *the New Rome*, the capital of the Empire, soon after to be called Constantinople (Eyice 1980: 94). Thus, its career of being a World city began having the central economic, cultural, administrative, political, and military functions of the Empire.

The Emperor Constantine, at the new centre of Christianity, set out to rebuild and enlarge the city to suit its imperial role. Seemingly the internal arrangements of the city were defined mainly by the configuration of its site and the main features of the S. Severus's city determined the basic layout of Constantine's capital. The city initially was enlarged further to the West by the new fortifications which included the third and fourth hills. However the exact location of the fortification is unknown. The emperor brought the monumental building types of Rome to the new capital. Numerous forums were built, and symbolic, memorial columns were erected in different parts of the city. The first structures of the Great Palace were built by Constantine in the vicinity of the Hippodrome. The original building of St. Sophia and the church of Holy Apostles were built. They had short life times but their sites became the focal points for the successive monumental buildings.

Although the city was equipped with architectural and urban elements from the late Roman period, Constantinople was different from Rome itself. This is clear particularly in the stretched-out street network of the city. Besides in contrast to the compressed form of Rome in which the forums were clustered in groups, in Constantinople, porticoed avenues connected the scattered forums, probably due to the topographic conditions of the city. The *mese*, the main porticoed avenue was the extension of Severus's *embolos*. At the main gate of the Severan walls, Constantine built an elliptical forum called Constantine Forum which had no formal precedents among its counterparts in Rome (Celik 1986: 14). The *mese* continued towards the west articulating the forums. After today's Beyazit square it divides into two branches each leading to a major gate in the city walls. Populating this large area was the important task of creating a great capital. The city, centre of the Empire, attracted people and grew steadily. By 380 A.D., the

population was 100,000 to 150,000, compared to the 20,000 to 30,000 inhabitants of the Severan city (Celik 1986: 13). As Constantinople was growing, Constantine divided the city into fourteen administrative regions, as with the city of Rome. According to his division, twelve regions were located within the city walls and two outside. One of them was *Sykae*, today's Galata, and the other was *Blacherna*, today's Ayvansaray, the latter was added to the city during the reign of Theodosius II, in the 5th century A.D. (Kuban 1970: 28).

The city continued to expand after Constantine. During the early decades of the fourth century, many mansions and middle-class dwellings were built in the suburbs outside Constantine's walls (Celik 1986: 14). As the population increased the limits of Constantinople became too constraining for its inhabitants and also for its world status. Because of its prosperity, it was the subject of attacks. For all these reasons the city needed more space and security. Thus, the Theodosian I fortifications were constructed enlarging the city further to the West. The city of Theodosian was built on seven hills (Sumner-Boyd & Freely 1987: 5). On the death of Theodosius II in 395 A.D., the Roman Empire was divided into two empires. After that, Constantinople became the capital of the Eastern Roman Empire, which soon evolved into a Byzantine Empire (Mamboury 1953: 35-36). The new walls were built in their present location between the eastern neck of the peninsula from the Golden Gate and the Marmara Sea to Blachernea on the south coast of the Golden Horn. The inner wall was erected by the prefect Anthemius in 413 A.D. and the outer was built by the prefect Constantine in 447 A.D. This strong wall, reinforced by a water filled moat, guaranteed the security of the fortified city until the 13th century.

Because of its glorious prosperity, as well as its strategic importance, Constantinople threatened with alternate attacks by Bulgars, Persians, Goths, Avars, Latins, Arabs, Magyars, Russians and Turks (Sumner-Boyd & Freely 1987: 7). For that reason the security and defence of the city was always an important issue. Thus, a long wall had been erected by the Emperor Anastasius I (491-518) to increase the security of the capital, and possibly to protect the suburbs, exposed to frequent attacks mainly from the west. The long wall crossed the neck of the larger of the two peninsulas from the Marmara Sea to Black Sea (Toynbee 1973: 217). However, because of the difficulties of maintaining the long wall and also providing soldiers, it failed to be useful for the

defence of the city⁸. As a result it did not withstand the assaults⁹, but a need for such a wall demonstrates the danger and the frequency of the attacks as well as a need to protect the suburbs. Neither the strong Theodosian triple land wall was passed by any nation, nor was the city captured until the Fourth Crusade who had attacked to the city earlier several times but failed until 1204 when the city came under the control of the Latins until 1261.

The Crusaders, during the siege of the city set fire to the buildings inside the walls, destroying the whole neighbourhood utterly and beginning the tragic ruin of the city (Hamilton 1956). The Latin conquest of 1204 was recognized as the genesis of a gradual decay for the Byzantine Empire (Hamilton 1956: 185). Even though there were other unforgettable sieges such as the siege by Avars in 626, by Arabs in 674-78 and also 717-18, the capture of the city by the Crusaders might be claimed as the turning point in the city's history. During the attack the works of art, buildings that had been accumulated for nine centuries were destroyed and plundered (Mc Neal 1962: 153-187). *"Everything of metal vanished. Statutes were melted down and the gold work of the churches seized to make coinage: sanctuaries were pillaged and almost everything in the nature of relic found its way to the West"* (Mamboury 1953: 43). So, the city was emptied for ever by the Crusaders from the West, and never again would the old Empire see years of grandeur and prosperity.

When the Byzantines took control in 1261, they made an effort to restore the city. This attempt to revitalize the city's splendour was begun by the Emperor Michael VIII Palaeologos in 1261. The destroyed churches, monasteries were to be repaired and restored. As a result, there was a remarkable recovery in Byzantine art during the last two centuries particularly on painting and new variations of traditional architecture (Krautheimer 1965: 293). However, Byzantium in the last centuries from 1261 to 1453 had incessant problems. The Empire, facing political, economic and military problems accelerated by the civil wars, could not recover again (Nicol 1972). Its territories were

⁸This long wall runs from Selymria (today's Silivri) on the Marmara to a point on the shore of the Black Sea between Podhima and Lake Therkos. The trace of this long wall still can be seen partly at the site. The Anastasian wall appears in history in connection with the attacks of the Avars, in the reign of Justinian the Great, Maurice and Heraclius. However, it is clear that it had not been much in service (Van Millingen 1899: 343).

⁹It is known from an anonymous chronicle of the 7th century, the long wall was already charged and entered during the assault of Avars in 626 A.D. (Chronicon Paschale 1989: 165).

seized by Ottoman Turks who had settled in the Anatolian coast of the city, Uskudar, across the Sarayburnu, a century before. Meanwhile the patriarchate and monasteries located in Constantinople suffered losses of revenues when the Turks occupied Anatolia (Vryonis 1971: 233). While the annual revenue of the Byzantine state in the early middle ages amounted about eight million *gold*, at the beginning of the 14th century it was only one million *gold* which carried only half of its original value (Ostrogorsky 1956: 432). The Empire was almost interned within the city walls which formed a very strong fortification around the city especially on the north, for centuries.

A.2.3.1. The City Before 1453 According to Travellers' Observations

Several travellers who visited the city at the beginning of the 15th century agreed that Constantinople was no longer in its days of prosperity and splendour (Clavijo 1928, Van Millingen 1906, Tafur 1926). The great disproportion between the large size of the city and the small population made a striking impression on the travellers. The sacred city of Christianity had been adorned by many churches and monasteries having holy relics through the history of Byzantium. According to Janin (1953) there were about 485 churches and 325 monasteries (for men and women) within and outside the city's walls. However, these did not survive until the conquest when there were about 100 churches and monasteries standing and usable (Eyice 1980: 112). In spite of the effort to restore the city, many churches, sanctuaries and palaces were in ruin which is witnessed by several travellers visiting Constantinople at the end of 14th C. and at the beginning of 15th C. For instance Boundelmonti of Florence who visited the city in 1422 states that materials of many ruined churches were used to construct buildings like the citadel, erected near the Golden Gate (Hamilton 1956: 185).

The main sources of the 15th century for Istanbul are travellers's descriptions and a Turkish source, *Fatih Vakif Records* which is a list showing the buildings belonging to the Sultan Mehmed II. The former consists mostly of accounts of travellers who visited the city in the last decades of the Byzantium Empire, the latter gives very crucial and useful information about the building stock in the city just after the conquest. It is crucial because, all standing and usable building stock was listed and became a personal property of the Sultan and important portion of this stock was assigned as an income source for the Sultan's vakif. Therefore almost every building was listed. From this information, organisation the order of settlements in Constantinople before 1453, to some degree, can be pictured.

One of the descriptions of the city is provided by Ibn Battuta, an Arabic envoy, who visited Constantinople during his travel covering many places between 1325- 1354. He states that within the wall there were about thirteen inhabited villages and there are many monasteries in the city. He also points out the characteristics the inhabitants stating that "*...most of the inhabitants of this city are monks, devotees and priests*" (Gibb 1962: 505-514). From his accounts, one cannot see clearly whether the thirteen villages could be distinguished by physical features from which he was able to recognise the villages, or if he was told the administrative division of the city. On the other hand, it appears the city kept its identity of being the holy city among the Christians.

Some of the travellers who visited the city at the end of the 14th C. were the Russian pilgrims for whom Constantinople was an important place for pilgrimage, since Jerusalem was in the hand of Muslims (Majeska 1984). By the 11th century Constantinople had become the most important depository of Christian relics in the medieval world. However, the sacking of Constantinople by the Fourth Crusade dissipated many of the major relics and the stock of relics spread around western Europe. Nevertheless, the city still had enough relics to be visited by pilgrims. These visits which took place between 1348-1422, provides a crucial understanding for the topography of Constantinople. However, the travellers visited mostly holy places, such as shrines, churches, monasteries in accordance with their purpose of pilgrimage. Therefore, a picture of the overall city does not appear in these descriptions.

The other travellers's descriptions of the city for the years between 1403-1437, agreed that Constantinople was not in the days of prosperity and splendour. Clavijo (1928: 88), the Spanish envoy who visited the city in 1403, noted that "*...through the circuit of the walls is thus very great and the area spacious, the city is not throughout very densely populated. There are within its compass many hills and valleys where corn fields and orchards are found and among the orchards land there are hamlets and suburbs which are all included within the city limits... everywhere throughout the city there are many great palaces, churches and monasteries, but most of them are now in ruin*". An other traveller, Boundelmonte of Florence who visited the city in 1422, points out the great disproportion between the size of the city and the number of the population. He mentions vineyards flourishing within the city bounds and writes "*There are innumerable churches and constructed with much labour and found in ruin*" (In Van Millingen 1906: 137). Another witness, La Brocquiere who was in Constantinople in 1433, states that

the open spaces in the city were more extensive than the territory occupied by buildings (Van Millingen 1906: 137). The last known observation of the city, before the conquest, is by Pero Tafur, a Spanish envoy, who was in Constantinople in 1437. According to the picture of Constantinople drawn in Tafur's description, the city is sparsely populated. The imperial palace was half ruined and the inhabitants were not well but clad and poor. Tafur also visited some churches and holy places, but without much enthusiasm (Tafur 1926).

However, one might suggest that the observation of travellers for the city to be spacious and not very densely populated might be misleading, because, it is not clear that if the urban fabric of Constantinople was compressed or dispersed. Constantinople was argued to be a multi-partial model of Byzantium city¹⁰ having several suburbs outside the city walls¹¹. It is possible to propose that the administrative regional divisions might have affected the city fabric, so that the fields and orchards placed between the settlements which occurs in the travellers descriptions rather to be hamlets and suburbs. Yet, the travellers' statements might indicate that the city's state was far from its previous splendour.

In addition to the travellers's observation of the city, a comparison of previous centuries between the population of the city shows the actual size and dispersed situation of the city. The population of Constantinople was estimated to be something between 500,000 and 800,000 during the five centuries upto 1204 (Toynbee 1973: 218). However, this decreased and just before the conquest of 1453, the population was estimated to be about 45,000 to 50,000 (Dirimtekin 1954). In 1480, the population was about 85,000 even though it was repopulated after the conquest in 1453 (Muller 1977: 29). It is more striking, if one compares these numbers with the population of the second half of the fifth century which was between 200,000 and 300,000 (Celik 1986: 19).

These references from the first half of the 15th C. show that the city fell into decay. Earthquakes and fires were also destructive factors in this decay, as well as the

¹⁰It is proposed by Tanyeli (1986) that the Byzantium city in Anatolia presents two main models. First is the multi-partial city model in which a city composed of more than a single unit of settlement dispersed on an antique area. The second is the fortress-city model which consists of only a 'castron' covering quite a limited area. Constantinople was proposed to present the first model.

¹¹Such as; Hebdomon (today's Bakirkoy); Galata and St. Mamas (today's Besiktas).

numerous assaults. Yet, the city apparently had sustained its wealth and grandeur, despite fluctuations, until the conquest of the Fourth Crusaders in 1204. After that the city was not able to recover from this destruction. Hence, the decay which had smitten the city made an impression on every visitor during the half century preceding the Turkish conquest after which there was an intensive construction effort to built the city to make the city a suitable capital for the Ottoman Empire.

A.2.3.2. The Reasons for the Conquest of Constantinople by the Ottomans

By the 14th century the Byzantine Empire had lost most of its lands and income; it had also lost the character of a Mediterranean Empire and become rather a small state dominating the Bosphorus and lands around Constantinople (Necipoğlu 1991: 104). During the reign of Yıldırım Beyazıd the need to seize the city was expressed by *Beylerbeyi* (governor general) in the Ottoman court that *Constantinople was an infidel located in their provinces* (İslam Ansiklopedisi 1977: 1182). This view of a statesman shows that the city was perceived to be located within Ottoman lands, and a disruptive factor for the unity of the Ottoman State. This is also expressed by Sultan Mehmed II himself that "*Constantinople is a source of infidel at the middle of his lands*" (İslam Ansiklopedisi 1977: 1186). Therefore, the capture of the city, for Sultan Mehmed II was indispensable to achieve the ultimate unity of the state and the certain domination of the Balkans which would be assured only by the capture of the city.

Together with this political reason the conquest of the city was determined for centuries on the basis of an *hadith* (saying of the Prophet) as the principal objective of Islam. Accordingly the Prophet Mohammed was said to state that "*They will conquer Konstantiniyya. Hail to the prince and the army to whom that good fortune will be given*" (Babinger 1978: 85). Although the ultimate consequence of the *hadith* would be an effective motive for the conquest, one would suggest the main reason for the desire to conquer the city was political. Located at the best strategic point both in terms of military and trade to control East and West it was a desirable goal, with consideration of its religious and symbolic significance for the future of Islam for Arabs, and later for the Ottomans¹².

¹²For this aim, Arabs besieged Constantinople in 678 AD. and 712 AD. but were not successful. The first siege of the city by Ottomans was in 1394 under Yıldırım Beyazıd. The second one was by Sultan Murad in 1422. However both sieges failed because of uprising problems in the other provinces (İslam Ansiklopedisi 1977: 1184).

Nevertheless it could be claimed that the religious factor, was used to achieve the factual aim and therefore to motivate soldiers to fight with courage against to infidel and to fulfil their faith. Accordingly Sultan Mehmed II, on his speech to the soldiers during the siege of the city told that "*...the conquest of Istanbul will be an important achievement for the sublimity of Islam as it was forcast by the Prophet himself*" (Hoca Saadeddin 1979: 27). Seemingly this speech was effective on soldiers who "*...fought for Allah, God, and Islam during the siege*" (Tursun Beg 1977: 50).

A.2.4. The First Stage of Ottoman Istanbul

A new era began in the history of the city with the conquest by Turks in 1453. Immediately after the conquest Sultan Mehmed II went through the city observing the streets of the newly conquered land and noting that it was beautiful and incomparable in topography and climate, although it was neglected (Tursun Beg 1977: 56-57). It was deemed worthy to be the capital city and the key position of the sea and land (Kritovoulos 1954: 83). Therefore the Sultan declared that "*Hereafter my throne is Istanbul*" (Tursun Beg 1977: 58).

Consequently, the new task confronting to Sultan Mehmed II was to restore the future capital of his empire "*...to make the city in every way the best supplied and strongest city, as it used to be long ago, in power and wealth, glory, learning and trades, and in all the professions and all sort of good things, as well as in public and private buildings and monuments*" (Kritovoulos 1954: 141). Consequently a special emphasis was given to its repair and development¹³ (Tursun Beg 1977: 58). Then "*...the Sultan appointed as regent of the city and its suburbs a most intelligent and useful man, Suleyman Bey...He put him in charge of everything, but in particular over the repopulating of the city and instructed him to be very zealous about this matter*" (Kritovoulos 1954: 85). His first care was to have the city repopulated as it had lost much of population in the last decades of the Byzantine Empire. Therefore he ordered that "*Whoever comes are welcomed to take houses and gardens as their own properties*" (Tursun Beg 1977: 58; Aşıkpaşaoğlu 1970: 157). "*For the city's repopulation Sultan deemed the prisoners of war to work for the constructions taken in the city for a high wage so that they could gain their independence within a very short time...He settled all the captives whom he had*

¹³It is argued that the reason why there are few buildings remaining from the Byzantine period was mainly because of the earthquake of 1507 known as the 'little doomsday', which devastated the city. Thereafter especially the houses were built in wood which caused devastating fires of successive centuries (Eyice 1987: 55).

taken as his portion, together with their wives and children along the shores of the city harbour, since they were sea-faring men whom they previously had called stenites. He gave them houses and freed them from taxes for a specified time. He also made a proclamation to all house who had paid their own ransom, or who promised to pay it to their masters within a limited time, that they might live in the city, and granted them, also, freedom from taxes, and gave them houses, either their own or those of others" (Kritovoulos 1954: 83). He sent orders everywhere through his domain in Asia and Europe that all who had left the city whether as captives or as emigrants, should return and settle there (Kritovoulos 1954: 148). He also sent orders to every part of his realm that as many inhabitants as possible be transferred to the city, Christians, Muslims and Hebrews (Kritovoulos 1954: 93). Seemingly this enhanced the cosmopolitan character of the city. Angiolello, accordingly, states that "*...in all mahalle (neighbourhoods) there are every kind of craftsmen. In Constantinople, every mahalle has a place of worship and market place according to its own order and custom. Because...every mahalle of Constantinople has a different language and custom because their inhabitants were brought from different countries"* (Yerasimos 1988: 40). So, "*...he gathered people in the city from all parts of Asia and Europe"* (Kritovoulos 1954: 105), and "*...they settled and worked in the city"* (Latifi 1977: xvi).

The neglected city was to be built and transformed by the new owners according to their urban notions with care for its existing structures. Accordingly an intensive construction effort was launched by Sultan Mehmed II. He laid down extensive constructions in the city including a royal palace, a royal mosque and the *Kulliye*, the *Bedestan*, the castle at the Golden Gate, caravanserais, baths, repair and improvement of old water system (Kritovoulos 1954: 105). Then he ordered all the wealthy and most able persons to contribute to the repair and build new constructions for the improvement of the city. Accordingly more than one hundred churches and convents were renovated and converted into mosques and sanctuaries by philanthropists (Hoca Sadeddin 1979: 293). They built *medreses*, mosques, *imarats*, inns, market places, workshops which adorn and embellish the city (Tursun Beg 1977: 63; Kritovoulos 1954: 140). From these accounts one can observe the two basic ways in which the city developed. One was the Sultan's concentrated initiative to renovate and adorn the city with great edifices. The other was to ensure that prosperous people spent their wealth for the city, in erecting fine and useful buildings. Therefore wealthy people including the statesmen, built mosques, *mescids*, as well as other buildings for civic functions in different parts of the

city and *mahalles* erected around a nucleus - commonly a religious building or a complex such as a mosque. Consequently during the reign of Sultan Mehmed II, one hundred eighty one *mahalle* was erected within the walled city. This number increased during the reign of Sultan Beyazıd II reaching two hundred sixty two *mahalle* in total. Eight of them were in Eyüp, sixty one in Galata, two were in Kasımpaşa, one hundred and eighty one were within the walled city and ten in Üsküdar and Bosphorus (Kunter 1977: 246).

The city soon became the political, economic, cultural, administrative and military centre of the Ottoman Empire. It was developed by successive Sultans in accordance with the Empire's splendour and wealth. The city walls were not significant for the defence of the City any more. Thus, it grew further beyond the city walls and along the coasts of the Bosphorus. *Kulliye*, as an architectural, and *Vakif*, as an institutional element, were the main elements to form the city. It was divided into four main administrative areas which were, Istanbul (inside the city walls), Galata (the former colony of Geneose), Uskudar and Eyup (Rosenthal 1980: 30). The two latter were developed in the Turkish era. Linear growth process formed the Turkish-Islamic character of the city until 19th C., which became the turning point of its urban history. Although the Westernisation efforts on socio political and socio cultural structures started in the 17th C. these efforts were accelerated in the 19th C. because of the political, economic and military decline of the Empire. The radical changes to its urban fabric took place regardless of its existing urban values.

APPENDIX II

EYUP

A.0. INTRODUCTION

The town of Eyup is taken as a case to clarify the methodology of reading a historic urban fabric due to its characteristics. Here, Eyup will be illuminated in order to provide a picture of the town and also a link for the proposal of the study.

A.1. GEOGRAPHIC AND TOPOGRAPHIC CHARACTERISTICS OF EYUP

Eyup is one of the significant components of greater Istanbul in terms of its location within the city, its history, its distinctive architecture and its symbolic meaning for society. The town is located on a safe bay, immediately after the northern extreme of the Golden Horn to the south and outside the city land walls of Istanbul. The core of the town is situated on the plain which is surrounded on the north and east side by the Golden Horn, on the south by the city land walls and on the other sides by the hills which command of both shores of the Golden Horn. From the north of Eyup, one can see the entire Golden Horn and Asia in the distance.

The Golden Horn was been badly polluted by the industrial development of 19th and 20th centuries, along the coastline. The royal gardens, palaces, pavillions, kiosks and houses which previously embellished the coastline, were replaced by industrial buildings which were removed in 1980s and replaced by parks. The present scene of the town contradicts the descriptions and drawings of the town related to the pre-industrial era. Examination of these illustrates how much the town has lost its vital characteristics as a result of a destructive process of 'development'.

Here, the physical growth of the town will be investigated from its foundation to the present day. The classical Ottoman period of the town, however, needs more detailed study, particularly use of archival material. Therefore the emphasis will be on the pre-Ottoman period and the transformation of the town.

A.2. PRE-OTTOMAN PERIOD OF EYUP

The positive ecological conditions of the town such as appropriate topographic structure, climate, access to water, and fertile lands provide a habitable environment where people

could live in the prehistoric times (Ozdogan 1992). However this idea will remain as a hypothesis until proof such as archeological remains are discovered¹.

The limited archaeological finds demonstrate the existence of some buildings, from the 2. century B.C. on the confluence of the streams (Sweet Waters of Europe) close to the site of Eyup. Gilles (1988: 194) notes, with reference to Dionysios of Byzantium that the Golden Horn, in ancient times, was a beautiful place with clean water, green slopes and inlets. It was a natural harbour protected from the sea and wind. In the vicinity of site of Eyup there was a steep place called Camara which was exposed to the wind and therefore often feels the roughness of the sea. Above this Thalassa stood; it was the boundary of the Ceratine Bay where the rivers emerge into the Golden Horn. After that, there was an area of marsh to which the two streams (Barbyzes and Cydaris which are now called Alibey Suyu and Kagithane Suyu) brought their muddy waters (Eyice 1975: 264-66). On the hill located on the confluence of two streams there was an altar dedicated to Semestra².

The information derived from the Byzantium Period (4th century A.D. - 1453) does not provide a clear picture of the site. The following is an attempt to clarify this period with available historical data and suggests a possible picture of the site before the Ottomans settled it. Initially, sites which are commonly associated with the site of Eyup will be examined. These are: Blachernae, which will be investigated due to its location; and St. Mamas, which will be clarified due to the assumption that the suburb was located at the site of Eyup.

Blachernae³ (today's Ayvansaray) is located at the northern corner of the walled city of Istanbul. Its foundation date is unknown. An information about its foundation derives from the accounts of Stratos (1968: 393) that Marcian and Pulcheria (450-53) built a house near the church of Our Lady of Blachernae. Later a palace was added. Van Millingen (1899: 129-130) informs that it was extended by the successive Emperors and

¹Since the level of ground has raised from 2m to 12m in the city, it seems it is also very difficult to find the trace of prehistoric settlements (Eyice 1980: 89).

²Semestra is the Nymphae of Water who it was believed, looked after Keroessa, the mother of Byzas. According to the legend Byzas is the founder of Byzantium (Eyice 1975: 263).

³According to Gilles (1988: 192) the name, Blachernae was a barbarous word.

became the permanent and principal residential palace of the Byzantine Emperors after the 12th century. It became a residence for the Byzantine Court in the 15th century. The palace derived much of its importance from its proximity to the venerated shrine of the Theotokos of Blachernae. There was also a monumental church dedicated to the name of Priskos and Nicolos (Procopius 1940). Eyice (1975: 266) maintains that some archeological finds discovered during the construction of the bridge (Halic Koprusu) may belong to this church. In the 4th century A.D. the Emperor Constantine I divided the city administration into fourteenth regions, one of which was Blachernae. An ancient author (Gilles 1988: 185) describes the site stating that "*The fourteen ward is looked upon as part of the city. Yet, because it is divided from the other wards by an intermediate area of land and enclosed with its own walls, it resembles a small city by itself*". Further significant information comes from Procopius (Gilles 1988: 192) who states that the church of Virgin Mary was built by the Emperor Justinian the Great in front of the city walls, in Blachernae which stood outside the walls. Although the former source suggests the site to be a self-fortified suburb remaining from the ancient times, the latter indicates the name for a wide area. There is further information to support the former case. Notitia (Van Millingen 1899: 119) states that "*...the fourteenth region of the city, which stood on the sixth hill, was defended by a wall of its own; so as to appear a distinct town*". Apart from this explicit statement about the site, another information is given by historians (Van Millingen 1899: 118-19) who described the devastating attack to the surrounding suburbs of the city during the siege of the city by Avars in 626 A.D. It is mentioned that the churches of SS. Cosmas and Damian, and St. Nicholas stood outside the wall, were attacked but there is no mention of any danger for the buildings of Blachernae, particularly the Palace. This might indicate the existence of the wall which possibly protected the palace. Van Millingen (1899: 120-21) uses the authority of all this evidence to argue that the western spur of the sixth hill had been already fortified when the emperor Theodosius II built the new land walls on their present location. Thus, the city land walls (Theodosian Walls) were completed by the simple expedient of uniting the new works with the old.

However the name Blachernae might have indicated a wider area including the site of Eyup which is in some sources mentioned as Cosmodion. For example an anonymous chronicle states that during the siege of Avars in 626-27, Avars entered the church of SS. Cosmas and Damian at Blachernae (Chronicon Paschale 1989: 165). Therefore one may assume that the suburb of Blacharnea might included the today's Aывansaray and

part of Eyup as the fourteenth administrative region of Constantinople. However, all these assumptions need further investigation to reach to more concrete evidence in the attempt to clarify the historical topography of the site.

The site of Eyup is also associated with the suburb of St. Mamas and monastery which is supposedly located somewhere between the palace of Blachernae and the church of SS. Cosmas and Damian (Van Millingen 1899: 89-90). However, St. Mamas is also said to be at the today's Besiktas, on the coast of Bosphorus (Vasiliev 1946). Therefore it is necessary to clarify its exact location. The information about the site of St. Mamas where a palace, a church, and an imperial hippodrome were situated, is not clear in Greek sources. It is said to be located in various places such as Blachernae, Propontis, and Euxine. However S.J. Pargoire's detailed study on St. Mamas clarifies its location. He suggests that "*The suburb of St. Mamas was situated on the European shore of the Bosphorus opposite to Scutari at the modern Besiktas*"⁴. More information about the site, supporting this claim, derives from a treaty signed between Byzantium Empire and Russians, at the beginning of the 10th century. According to the treaty, Russians who came to Constantinople were allowed to do trade freed from tax and also dwell in the St. Mamas quarter (Toynbee 1973: 62). Vasiliev (1946: 233) supports this arguing that "*...it is almost certain that this suburb of St. Mamas where the Russians traders and envoys were lodged and which was located on the European shore of the Bosphorus at the modern Besiktas*". One might see that the Russian traders would lodge more easily on the shore of the Bosphorus than at the edge of the Golden Horn. This would also be more secure location for the Byzantine Empire. Moreover the palace at St. Mamas on the north of the capital, on the European shore of the Bosphorus was the place where Empress Irene and Emperor Constantine took refuge (Treadgold 1988: 93). This evidence clarifies that St. Mamas was situated on the shore of the Bosphorus, most probably at the modern Besiktas but not on the site of today's Eyup.

The following investigation is an attempt to illuminate the pre-Ottoman period of the site. This is necessary, not only for this study but also to contribute to the knowledge about the site, which lacks both facts and their logical assesment in existing studies on Eyup's pre-Ottoman history (Arseven 1989; Haskan 1993; Kara 1994).

⁴Reference to S.J.Pargoire (1904), "Le Saint-Mamas de Constantinople", Transactions of the Russian Archaeological Institute in Constantinople, Vol. 9, Nos. 1-2; in Vasiliev A.A (1946).

Early information indicates the existence of a church dedicated to the two saints, SS. Cosmas and Damian, which was founded by Paulinus, the friend of Theodosius II (Van Millingen 1899: 170). The miracles attributed to these two saints, Sieber (1977: 170) states, cover a wide span of time from the sixth century onwards until the 11th century. These saints were 'dead' and had no need to be removed from immediate civil interference. They were, in contemporary terms, 'medical missionaries'. *"The site was sanctuary inside the city limits, administered by a full retinue of priests and attendants. The cult was important and the promise of healing and the fame of the site brought pilgrims and sight-seers from great distances"* (Seiber 1977: 5). The fortune of the monastery interacted with the changing fortunes of Constantinople⁵.

However the site of the monastery is not clear in the historical documents. The only description of the site is given by Procopius, the prefect of Constantinople during the reign of Justinian the Great in the 6th century. He states that *"...at the far end of the bay, on the ground which rises steeply in a sharp slope, stands a sanctuary dedicated from ancient times to saints Cosmos and Damian"* (Procopius 1940: 63). The Emperor in gratitude⁶, changed and remodelled the previous building which was not significant and not worthy of being dedicated to such powerful saints. He beautified and enlarged the church. Thus, when people are sick and despair they get into their flat-boats and sail across to 'the only hope' and when they embark *"...they enter its mouth, they straight-way see the shrine as on an acropolis"* (Procopius 1940: 63). From this statement one may understand that the church was situated on a sharp slope as on an *acropolis*. This description will strongly lead us to suggest that the location of church would be on the

⁵Here, it would be necessary to provide some information about the urban saint in the early Byzantine society with the authority of Seiber's study on this issue in order to improve comprehensiveness. The author claims that the place of an urban saint was integrated with the fortunes of the urban society. Also the fame of a saint was useful in the marginal economy of the city and its surrounding area.

The pillar site of a saint was usually located at some distance from the city, while at the same time providing a focal point for the saint as protector and overseer of the city's destiny from outside. The urban saint phenomenon is peculiar to Byzantium and to the early period. The main theme is that the activities of these saints were essential to the life and continuity of the cities in or outside which they functioned.

The growing establishments and the inmates they attracted necessitated the setting up of basic services. More regular sources were to be land-holding and cultivation such as vineyards, grain crops, herb gardens and orchards. However, other needs could only be served by regular and long-distance commercial supply for which monasteries employed their ships (Seiber 1977).

⁶Procopius states that when the Emperor once was seriously ill, almost dead, *"...these saints came to him in a vision, and saved him unexpectedly and contrary to all human reason and raised him up"*. Therefore, the Emperor was thankful to the saints (Procopius 1940: 63).

steep hill which rises behind the present Eyup Mosque but not at the present site of the mosque as it has been claimed by Eyice (1987).

This sanctuary appears as the only significant building at the site of Eyup. But in spite of having information about its presence; the actual site and size of the building is unclear. However it will be attempted to explore the situation of the site during its pre-Ottoman period, with the available historical sources. An early indication of the monastery of SS. Cosmas and Damian appears during the unforgettable siege by the Avars in 626 under Heraclius (610-641). An anonymous chronicle from the early 7th century speaks of the siege that "*The Chagan of the Avars approached the Long Wall with an innumerable throng... the men of Chagan of Avars charged and entered the long wall, they plundered all whom they found outside the city from the west as far as the Golden Gate...they entered SS. Cosmas and Damian at Blachernae*" (Chronicon Paschale 1989: 165). He says that in the vicinity of the wall (which must be the city land walls), they (Slavs) set fire to many suburbs and burnt both the church of SS. Cosmas and Damian and also the church of St. Nicholas (Chronicon Paschale 1989: 180).

An other crucial information about the monastery derives from the siege of Constantinople by Bulgars under Crum, in 813. Theophanes (1883: 503) informs that Emperor Leo V (813-820) proposed a personal meeting to Crum outside the city walls near Blachernae on the Golden Horn. During the meeting, however, a Byzantine delegate hit Crum's face. He, then began a systematic destruction of everything outside the walls from Hebdomon (today's Bakirkoy) to Pera (today's Beyoglu), such as palaces, churches, houses, men and beasts, and from there far up to the coast of Bosphorus (Jenkins 1966: 131). Similarly during the siege by Russians in 860 A.D. which left a deep effect on citizens, the city was encircled the city and raised a rampart along the land walls. "*At the same time a part of them (Russians) scattered in the defenseless suburbs and surroundings of Constantinople, with great savagery they set about dwellings, men and cattle, sparing no infants, no old men*" (Vasiliev 1946: 132).

It is clear that Constantinople was a target for capture by various nations throughout history⁷. Protection of the city and its suburbs was always an important issue.

⁷Some of the sieges of Constantinople are: Assault of Avars with the alliance of Slavs in 626 A.D.; the first siege of Arabs in 674-78; the second siege by Arabs in 717-18; the siege of Bulgars led by Khan Symeon in 896-97; The second siege of Bulgars under Symeon in 913 and 924; the assault of Magyars in 934, 943 and 961; the attack of Russians in 860, 907 and 941; the siege by First Crusaders in 1097, Fourth Crusaders in 1204, the siege of Ottoman State in 1394, by Yildirim Beyazid; the siege by Ottoman State in 1422 under Sultan Murad II.

Therefore, a long defence wall had been erected by the Emperor Anastasius I (491-518) to increase the security of the capital and possibly to protect the suburbs exposed to destruction due to frequent attacks. The long wall crossed the neck of the larger of the two peninsulas, from the Marmara Sea to Black Sea (Toynbee 1973: 217). However the wall failed to serve its purpose due to difficulties of maintaining it and also providing soldiers. It was already charged and entered during the Avars' assault in 626 A.D. (Chronicon Paschale 1989: 165). As a result, one can argue that the suburbs of Constantinople which failed to be protected were exposed to destruction and plunder. This most probably was the same for any possible settlement or a building at the site of Eyup. On the other hand, some historical data indicate that the site of Eyup provided an appropriate place and location to the assailants to camp on the plain ground being very close to the city walls and used a building, possible the monastery of SS. Cosmas and Damian, as a fortress. For example, the monastery was captured and used as a base during the siege of 626 by Avars (Chronicon Paschale 1989), during the civil war in 822 by the rebel Thomas (Van Millingen 1899: 170) and during the First Crusade in 1097 (Villeharduin 1938: 165). Van Millingen (1899: 171) informs that Crusaders encamped on the hills and plains at Cosmodion, in 1097. A band of Crusaders rushed from the camp and attempted to rescue their comrade and set fire to the Gate of Blachernae.

Another crucial piece of evidence about the site and monastery, indicating its location, derives from 1204, the Fourth Crusade. Villehardouin (1938: 165) informs that crusaders passed over the bridge which crossed over the Barbyses (Kagithane Suyu) and set up a camp on a hill crowned by an abbey named the Castle of Bohemond (*Chateau de Bohemond*) enclosed by walls. This abbey may possible be the monastery of SS. Cosmas and Damian which was granted to Bohemond by Alexius Comnenus during the First Crusade and consequently known as the Castle of Bohemond. The description of the site of this abbey matches with the description of the site of the monastery. Moreover, the description of the location of the camp which matches with the topographic conditions of the site today as well, supports this argument. Accordingly, the crusaders camp was settled down on the hill bordered on the north-east by the sea which is the Golden Horn and on the south-west by a plain ground which ended on the south with the city's land walls (Villehardouin 1938: 165). From this definition, one may be almost sure that the hill on which the camp was crowned, is the steep hill rising just behind today's Eyup Mosque. This claim can be supported by the description by Odon de Denil, one of the leaders of the Crusaders who pointed out that there is a wonderful view over the

harbour and over the city from top of this hill. He stated that "*It gives its inhabitants a threefold pleasure, for it looks over sea, meadow and city*" (Bradford 1967: 82). From the hill on which Pirre Loti Cafe House is located today, the same view can be seen and had been seen during the Ottoman period by several travellers⁸.

However, Van Millingen (1899: 170) informs with the reference of Pachymeres that, the Emperor Adronicus II Palaeologus (1282-1328) ordered the fortress (the abbey or monastery) to be dismantled, lest it should be used by the Catalans⁹. This information is significant in that it shows that there was a building (possibly the monastery) around the city land walls until the end of the 13th century, suitable to be used as a military base for the enemies of the Empire. Therefore it should be removed. However some parts of the building should have been remained to keep and display the relics such as the gold covered heads of the saints which were visited in the 14th century by numerous Russian pilgrims (Majeska 1984). One of the Russian pilgrim, Stephen of Novgorod, visited the monastery in 1348 or 1349 and stated that "*...we went further outside the city to a field near the sea, the large monastery (there) is in honour of Cosmas and Damian. There we kissed their heads very artfully covered in gold*" (Majeska 1984: 44). Another pilgrim, Alexander the Clerk who visited Constantinople between 1391-1397 and the Russian Anonymous also indicated the location of the monastery at Blachernae. The Russian Anonymous states that relics of the saints, their gold covered heads, were regularly displayed at their monastery at Cosmodion (Majeska 1984: 332). The latest indication about a structure at the site of the monastery derives from Angiolello who was in the city in 1470s (Yerasimos 1988). He mentions a tower, at the same site, which may possibly be a remnant from this monastery.

Consequently, these historical findings indicates three major points. Firstly, there is no indication of a particular settlement or a group of buildings in the site on which today the town of Eyup stands. Secondly, the settlements outside the city walls were initial targets of assailants who attacked the city frequently. Thirdly, the only building mentioned in

⁸J. Pardoe and R. Walsh who were in the city in 1830s stated the similar feeling about the view from this particular hill.

⁹The politic and economic problems of the Empire caused military weakness. The Emperor, Adronicus II Palaeologus, sought for help. The leader of the Catalan offered his services and they arrived in Constantinople in 1303. However, after some time, they became enemies to each other. The Catalans began to plunder the domain of Byzantium. In order to prevent them, the Emperor ordered that "*...all the country between Selymbria (Silivri) and Constantinople should be evacuated and the crops destroyed.*" As a result, refugees were coming into the capital from all sides and the suburbs of Constantinople had been turned into desert (Nicol 1972: 140-41).

various historical source appears to be the monastery of SS. Cosmas and Damian which was, with the authority of Procopius and Villehourduin, located on the steep hill behind the Eyup Mosque. However it is difficult to grasp the situation of the building and the site itself due to lack of historical as well as archeological evidence. The travelers who visited Constantinople in the first half of the 15th century do not provide any information about the place. However, it can be proposed that a significant settlement or a building would not have existed on the site because of the difficulty in defending it. Moreover the administrative division of the regions may show that when Theododsius II reconstructed the city walls further to the west the important and wealthy part of the city, Blachernae was inserted into the city. But the site of Eyup, in spite of its proximity to Blachernae was left outside the city walls. One of the reasons for that may be the site was not significant enough for the Byzantine Empire to protect. There may be some buildings such as houses which need further historical research, but not a settlement. Even if there was, it would not remain as whole until the Ottomans captured the city due to the frequent and successive attacks to the city. Accordingly one may argue that the first significant building at the site was built by the Ottomans; the tomb and the complex of Eyub Ensari.

A.3. DISCOVERY OF THE TOMB OF EYYUB ENSARI

During the siege of Constantinople laid by Arabs in 717-18, Abu Ayyub Al-Ansari, the friend of the prophet Muhammed is said to have been among the leaders and killed and buried somewhere outside the city walls (Saleem 1986). So some eight centuries later the grave of Eyub Ensari was said to have been 'discovered' during the siege of Constantinople in 1453 (Latifi 1977: 61; Evliya Çelebi 1975: 278). From a 16th century chronicle, Latifi (1977: 63) tells us that when Sultan Mehmed II laid siege to the city, Akşemseddin found the body of blessed saint which was covered with blood and informed the Sultan. Subsequently the Sultan built a mouseloum befitting the saint's dignity, at the site. A similar but much extended narrative was given by Evliya Çelebi (1975) of the 17th century. According to his accounts, in 1453 when Sultan Mehmed II was conquering İstanbul, "*...seventy seven attendant saints searched for the grave of Eba Eyüb. At last Akşemseddin exclaimed; good news my Prince, Eba Eyüb'ü Ensari is buried here*" (Evliya Çelebi 1975: 278). Then they dug up the ground and found a square stone of antique on which was written in *cufic* letters *This is the tomb of Eba Eyub-u Ensari* and then "*...they lifted up the stone, and, found below it the body of Eyyub wrapped up in a saffron-coloured shroud, with a brazen ball in his hand fresh and well*

preserved...", they replaced the stone and laid the foundation of the mausoleum amidst the prayers of the army (Evliya Çelebi 1975: 278).

However, contemporary historians of the siege such as Tursun Beg and Aşıkpaşaoğlu although they mention the construction of the tomb and the complex, are quiet on this miraculous discovery. Similarity between the narratives of Latifi and Evliya Celebi, on the other hand, appears to indicate that a legend about the discovery was made after the conquest since the first statements about it were written approximately seventy years later. Babinger (1978: 113) supports this argument that "*The fact that is that this pious fraud is not mentioned in any contemporary source and that the story was not thought up until much later. None of the missives sent by Mehmed II to the Muslim world, not even his letter to Mecca, contains one word about the prophet's companion-in-arms*".

A.3.1. The Significance of the Discovery

The meaning and the importance of the discovery would be enlightened by the comparative examples of such discoveries and also with its own historical reasons. The 'discovery' of the grave of Eyub Ensari would possibly indicate the political and symbolic significance of the correlation between the conquest and the memorial tomb. This can be observed not only in the case of Istanbul but also in the other Ottoman conquest such as Van, Cairo, Damascus and Bagdad¹⁰. Prior to Ottoman experiences the similar attitude can be seen during the Seljuk Period in Anatolia. A 'discovery' of the grave of an Arab warrior who came to Anatolia during the Arab raids in 8th and 9th centuries, although the authenticity of these graves is doubtful and fictitious, played an important role in legitimising Islam in these lands¹¹. The 'discovery' of these tombs, in fact, played two important roles, one being a religious symbol indicating a familiar and actual reference point for co-religious newcomers, and being a religious rather political reason to claim the conquered lands as cited by Hasluck "*...the motive for the 'discovery' of such tombs is consciously or subconsciously political. At the back of the mind of*

¹⁰At the siege of Bagdad under Suleiman the Magnificent, in 1534, the tomb of the orthodox (sunni) doctor Abu Hanifa was 'discovered' under the walls of the heretic (shia) town (Hasluck 1929: 716).

¹¹The most important of the tomb-sanctuaries where is the resting places of Arab warriors killed during the raids of 8th and 9th century is Seyyid Battal Ghazi which lies in a mausoleum attached to the convent bearing of his name, at the south of Eskisehir. The hero was the historical *Abd Allah Abu-'l Husain el Antaki, 'el Battal'*. He had taken a part in the Arab raids of 8th century and have been killed in battle at Afyon, many miles south from the tekke. Years later, at the beginning of 13th century, his grave was 'discovered' by a revelation to the mother of Seljuk Sultan Alaaddin, at today's site which was on the frontier. Then the tomb was erected for his name (Hasluck 1929: 702). As the site was located on the frontier, discovery of the tomb might have been related to the aims of the Seljuk State.

conquering race lies the idea of substantiating a prior claim to the conquered soil' (Hasluck 1929: 714). Therefore, although the authenticity of these graves, like similar examples in other places, is doubtful and fictitious since it played an important role in legitimising Islam in these lands.

After the 9th century, the veneration of tombs of holy persons became popular especially in eastern Islam although the worship of saints is blasphemy according to Islamic orthodoxy (Kuban 1985: 27-28). However, most of the towns which are situated from Central Asia to Anatolia had a corona of early Islamic saints, companions of the prophet and relatives of his family, who died in the service of Islam (Golombek 1988: 51). Consequently, 'discoveries' by revelation occurred throughout the muslim world and in many cases, such as Mazar-i Sharif in Afganistan, Masshad in Iran, Shah-i Zinde in Samarkand, the mausoloum of a great saint became the centre of a large shrine complex.

Although it does not represent a co-religious example of such development of a town, Santiago de Compostela, the oldest and most famous pilgrimage center of Spain as well as the principle venerable visiting pilgrimage place of Europe, presents similar case for the 'discovery' of a tomb of a saint by revelation (Gutkind 1967: 127). In the case of Santiago de Compostela which developed around the tomb of St. James, the role of the tomb, would be asserted, was to enhance the faith and solidarity among co-religious Christians against Muslims.

In spite of seemingly common grounds of such discoveries, one should hesitate to illuminate the case of Eyüp by similar examples since this pious fraud is not mentioned in any contemporary source and the story was told much later. In addition, none of the missives sent to the muslim world by Sultan Mehmed II contains any information about this discovery (Ates 1953). Therefore, the meaning (or singificance) of building a mausoloum on the grave of a holy saint would mean to legitimize the conquest but also to encourage people by a familiar structure both in terms of religious symbol and architectural structure, to settle here. The discovery of the grave of Abu Ayyub al-Ansari

as well as other sahabe graves¹² during the siege of İstanbul should have similar character to previous examples.

This religious reason to capture a city would be observed during the conquest of İstanbul in 1453. However, for centuries the conquest of the city was aimed on the basis of an *hadith* (saying of the prophet) as the principal objective of Islam (Babinger 1978: 84). The prophet was said to state that "*They will conquer Konstantiniyya. Hail to the prince and the army to whom that good fortune will be given*" (Babinger 1978: 85). Although the result of this *hadith* was religious supporting the religious war, *jihad*, one would assert the reason was more political. Since İstanbul presents almost the best strategic location, standing in between East and West with its wealth and splendour, was a desirable objective for the future of Islam, therefore for the Arabs and later for the Ottomans¹³. For this aim, Arab besieged the city in 674-78 and 717-18 AD, but were not successful¹⁴. It could be claimed that the reason to desire the city for the state and Sultan was, more political and economical than religious. Nevertheless religious factors were used to achieve to the ultimate aim and motivate the people and army to fight against *infidel* since the religion was effective combinative factor for stabilisation of a state. So, as it is the case of Seljuk period and other Ottoman conquest, the discovery has political significance with symbolic meaning in legitimizing the conquered lands as a Muslim country and therefore sealing the Islamisation of İstanbul.

Every society with its cultural codification as well as the understanding of built environment has an impact on the formation of the architecture of a city so that the great

¹²Alleged tombs of the Sahâbi who were cited to be 27, join to the siege when Ayyub Ansari also joined the army (Hocaoğlu 1987: 140), exits in İstanbul mainly located outside the city's land walls where sahabe were assumed to be killed. After the conquest of İstanbul in 1453, graves were 'discovered' and tombs were erected over them as the case of Ayyub Ansari, the patron saint. As one can see, from the existing tombs of sahabe in İstanbul especially in around Eyup, about 13 sahabe graves stand outside the city walls. Some of them was said to have connection to Ayyub Ansari. For example Ebū Şeybeti'l-Hudri was present during the siege of Constantinople under Muaviye, the commander of Arab army, together with Ayyub Ansari, his tomb was erected by Sultan Mehmed II, after the conquest. There are other important individuals, graves around it. It was an important pilgrimage place in İstanbul. Another sanctuary is the grave of Hamidullah el-Ensari, Ahmed-ul Ensari, were built in the reign of Sultan Mehmed II. Hz. Hafir, who was niece of Ayyub el Ansari. The tomb of Abu Derda who is certainly known that he died in Damascus in 652, but his tomb stands on Zalpasa Road in Eyup (These must be memorials rather than actual graves).

¹³İstanbul was a desirable city to have mainly because of its location which gives opportunity to control the passways and also being on the centre of main trade route. Therefore not only Muslims try to capture the city but also other nations, Avars, Russians, Bulgars, and Slavs throughout the centuries.

¹⁴During the siege of 678 AD. Abu Ayyub Al-Ansari, standard-bearer of prophet Mohammed, who was in the army was killed or died around the city's land walls. During these sieges, many *sahabe* (people who met and talked to prophet Muhammed) were told to be killed around the walls. Their graves was 'discovered' by Ottomans after the conquest of 1453 and tombs were erected for their memorial names (Ünver 1945).

imperial city of Byzantium with its glorious past and recent decay in the 15th century was to be transformed into the Ottoman capital. Seemingly the first stage was to legitimize the Islamic-Turkish character of the city. Therefore, Sultan Mehmed II, the first Friday following the conquest, prayed in St. Sophia and then ordered it to be restored and converted into a mosque¹⁵. Subsequently, in St. Sophia, an official prayer, *Khutba*, was said for the name of Sultan Mehmed II (Aşikpaşaoğlu 1970: 156). One would interpret it as the political and religious seal of the conquest at the beginning of transformation process.

A.4. THE FOUNDATION OF EYUP

The initial information about the foundation of the first buildings at the site derives from the accounts of siege. According to the one of the earliest sources, written by Tursun Bey who was present during the siege, "The sovereign of Islam had respect for *ehli-i Allah...therefore he built a tomb on the grave of Ebu Eyyub el-Ensari and also a medrese and a bath*" (Tursun Bey 1977: 63). An other 15th century historian states that Sultan Mehmed II, "...constructed a great tomb on Eyyub Ensari and also a medrese, imaret and mosque" (Aşikpaşaoğlu 1970: 159). Although these statements do not provide a sufficient understanding as to whether the grave was found during the siege or not, but they indicate that the tomb was one of the earliest buildings erected in the city. Kritovoulus (1954: 83) states that Sultan Mehmed II, soon after the conquest "...chose the most beautiful location in the center of the city for the erection of a royal palace"¹⁶. The site of the royal palace chosen soon after the conquest by Sultan himself had a view of the grave of Eyub Ensari. This indicates that the site had been already identified and named as Eyub.

One of the earliest sources indicating the foundation of the complex around the tomb of Eyup is provided by Tursun Bey who was present during the siege and after. He states "*Sovereign of Islam... built a very beautiful mausoleum on martyr Ebu Eyyub ūl Ensari and also a medrese and a bath in its vicinity*" (Tursun Bey 1977: 63). An other source from 15th century, Aşikpaşaoğlu also indicates that Sultan Mehmed II erected "...an

¹⁵As Hasluck indicates this was the normal custom of a Mohammedan sovereign, on conquering a town, either to build a mosque or convert an appropriate building into a mosque, which was frequently a church (Hasluck 1929: 6).

¹⁶Although Mehmed II ordered the construction of a palace on that site and found the palace brilliantly completed by 1455 (Kritovoulus 1954: 83), construction of this first palace probably went on until 1458 and soon after this palace was finished, Mehmed II decided to build a new one on the ancient site of acropolis of Byzantium calling it New Palace (Necipoglu 1986: 4).

imaret, a medrese, a mosque and a big mausoleum on Eyyub -i Ensari" (Asikpasaoglu 1970: 159).

An other earlier source derives from the description of İstanbul after the conquest by Giovan Maria Angiolello who was in the city in 1470s. He states that "*...at the head of the harbour towards the main lands there was another old, little church which had dome (fatta in vaulto) in which Turks hold the body of St. Giopo and the Grand Turc out of the devotion to this place has erected for the saint a nice [beautiful] temple [sanctuary] and has removed within the said church [et ha tolto dentro la detta chiesiola] and in this place he has religous people pray; here many people live and many houses and palaces have been erected around this cult so that a big and beautiful suburb[borgo] developed"* (In Yerasimos 1988: 36).

An other source is by Hoca Sadeddin (1536-1599). He states Sultan Mehmed II "*...built a beautiful tomb on the grave of Eyyub-i Ensari outside the İstanbul rampart and also a mosque with two minarets on its vicinity. The courtyard of this mosque was surrounded by classrooms and an imaret"* (Hoca Sadeddin 1979: 181).

For the foundation of the town another source is by Evliya Celebi, traveller of 17th century. He underlines the importance of Eyub Ensari in the history of Islam and describes the tomb and the complex built by Sultan Mehmed II in his name. This complex consisted of the tomb, the mosque, medrese, inn, bath, imaret, and bazaar. (Evliya Celebi 1975: 278-279).

With the authority of historical evidences, one can suggested that the first significant building at the site was, initially, the mausoleum of Eyub Ensari and later the mosque and other buildings composing an imaret. Since the complex did not keep its original form we need to see its former composition through descriptions derived from available historical sources of successive centuries.

The first construction at the site was the complex around the tomb. This section will clarify its form and architecture with historical data. Ayverdi (1953: 348) points out "*...the first domed selatin¹⁷ mosque is the Eyup Sultan Mosque. However, only the minarets*

¹⁷Selatin Mosque was built by a sultan, a sultan's wife, or a sultan's child.

are from earlier period while the mosque itself was rebuilt in 1800 by the order of Sultan Ahmed III... Only the mausoleum keeps its original form ".

Original information about the Eyub Sultan Kulliyeye derives from sources about *Vakfiye* dated in 1582; 1488-89 accounting notebook, and description provided by Evliya Celebi. In the *vakfiye* of 1582, which is revised edition of its original copy, it is stated that Sultan Mehmed II built a mosque, medrese with 16 rooms and an imaret composed of a kitchen, a cellar, bakery, firewood store behind the mosque to serve the pilgrimages to remember Eyub Ensari. There is also a list of property in the district of Eyub which are devoted to the Eyub Kulliyeye for its maintenance (Ayverdi 1953: 348). This *vakfiye* (1582) shows that, apart from the mosque and its servants, the mausoleum and its keepers, a medrese, a kitchen and imaret, a double bath and a single bath and the whole Eyub district with many villages and properties such as shops are devoted to the *Kulliyeye* (Ayverdi 1953: 348). Similar information is also provided by an accounting notebook of 1488-89 (Barkan 1963: 373-379).

A source for the original form of the Kulliyeye derives from Evliya Celebi of 17th century. He states that "*This fine mosque was built by Mohammed II in honour of Eyyub on the seashore...The great cupola, to which is attached a half arc on the side of the mihrab, has no columns within, but is alone supported by strong vaults. The mihrab and minber are destitute of ornament. On the right side is the place for the emperor. There are two gates; one the first are written in large gilt letters the words: 'God be praised, His house has been made habitable'. On the right, and on the left, is a minaret with a single gallery. The Courtyard, which is surrounded on three sides by the cloister of the college, has in the middle a high kiosk supported by marble columns; between the koshk and the tomb of Eyyub stand two immense plane trees...This courtyard has also two gates, the western one leading to another exterior courtyard planted with seven plane and a great number of mulberry trees; upon both sides are water-pipes for ablution"* (Evliya Celebi 1834: 33).

A.5. DEVELOPMENT OF EYUP

As it was stated initially the tomb and subsequently the mosque, a medrese, a bath, and imaret were built composing a complex which became the nucleus of further developments in the town. From its foundation, the town became a principal visiting place. The town was populated by people brought from Bursa, right after the conquest

(Dirimtekin 1953: 7). It was stated by Tursun Bey that "*Sultan Mehmed II with faith to believers of Allah, built a very fine tomb for Ebu Eyyub el Ensari outside the city walls, and a mederse and a bath. Owing to these people demanded to the site and built houses, villas around the tomb. A very nice town was erected to which people who wish peace and rest come from the sea, by horse or on foot from the land for both to chat and pilgrimage*" (Tursun Bey 1977: 63).

Hoca Sadeddin (1536-1599) similarly states that "*...(he)by building a fine mausoleum on the grave of Eyyub Ensari, and also on its vicinity a mosque with two minarets he made the town well populated and prosperous*" (Hoca Sadeddin 1979: 181). G. M. Angiolello draws a similar picture; "*...here many people live and many houses and palaces have been erected around this cult so that a big and beautiful suburb developed*" (In Yerasimos 1988: 36).

Following the conquest there were four administrative regions. One is the walled city; the others are Galata, Uskudar and Eyup which is named as *Havass-i Refia* or *Haslar Kadiligi* (Uzuncarsili 1957: 26). Eyup Kadiligi had administrated the region spanning between Yedikule and Ayvansaray outside the city walls including Silivri, Catalca and also seven hundreded villages and twenty six districts (Kocu 1971: 5458). The town developed gradually having religous, historical and architectural significance for the city of Istanbul. However its integrated urban structure amalgamated with the natural environment dissolved when radical transformations occured not only in Eyup's urban structure but in the whole of Istanbul. In the following section the process of transformation in the Eyup's urban fabric will be examined.

A.6. CHANGES IN EYUP

The first impacts of westernisation in Eyup are inseparable from changes which took place at the same time as the changes in Istanbul and in the Empire. In Eyup, too, characteristic changes in the 18th century until the Tanzimat era and in the 19th century present different features. One can perceive from observation of the process and its products that the former period exhibits a transition and preparation process for the latter's radical changes. Consequently the first impacts occurred in building scale mainly as a change of style in decoration. At the beginning of the 19th century in accordance with the industrialisation efforts of the Empire, a new function was inplanted which, later, became the main reason for deterioration of its fabric.

A.6.1. Impacts in the Building Scale

Buildings constructed in this era form elegant examples of the Ottoman Baroque and Rococo styles. This applies to different building types from a mosque to a fountain. Some of the standing examples of the period are: *Mihrisah Sultan Complex*, which consists of a tomb, soup-kitchen (imaret), a fountain and a graveyard. The complex was built in between 1792-1795 by the mother of Sultan Selim III. Another example of the period is the Shah Sultan Complex built in 1800, which consists of a tomb, a school, a *sebil* and a graveyard. Eyup Sultan Mosque was also rebuilt in 1800 by Selim III. Moreover many waterworks was erected in the same manner. Hatice Sultan fountain (1735), Kadizade fountain (1755), Alemdar Mustafa Pasha fountain (1808) and Karyagdi Street fountain (1813) are standing examples. Among many other *tekke* (dervish convents) built in 18th century, Seyh Murad Efendi Tekke (1715) and Seyh Kasgari Efendi Tekke (1745) are still standing examples. Many tombs built during the period also reflects the influences of stylistic changes of the era. Hacı Besir Ağa Tomb (1746), Ahmed Vusuli Efendi Tomb (1780), Mahmud Celaledin Efendi Tomb (1829) are some of them. These examples represent the impact of European-style ornament that was widely used in the Ottoman architecture.

European style ornamentations became important architectural elements both in the exterior and interior decoration of those buildings. Although the change was visible on facades, type, function and scale did not change much, yet. The first impact emerged in the *wall* which simply is the dominant element surrounding man's physical context as interior and outdoor. The wall, in Ottoman architecture had a significant role and created the spatial relationships being the *joint* of solid and void, modestly, simply and truly. The new styles did change the basic characteristic of wall in the ottoman architecture from being multi dimensional component to two dimensional surface. While *tezyinat* (Ornamentation) existed in the urban spatial order of the ottoman city (Cansever 1993) rather than merely on facades, it was reduced to decoration of the surface. Elegance was attempt to ensure by the new baroque, rococo and empire styles rather than by spatial relationships, proportion, realism and simplicity of different elements which were main characteristics of the ottoman architecture (Cansever 1993). As a result an intangible efficacy of space in ottoman architecture was replaced by decorative expression.

Another important aspect of the transformation in building activities appears as the construction of an increasing number of private residential buildings. Following the declining period, the power status transformed from single leadership to collective ruling. Thus, *"...the Sultan's increasing dependency upon elite circles, and from this rallying to the support of his allies by designating a particular role for them in the period's 'collective effervescence' left its mark on the architectural enterprise of the 18th C."* (Artan 1993: 53). *"...the convivial culture which also found expression, in this new period, in candle illuminations, tulip festivals and a new feeling of joie de vivre in poetry, spread from the Sultan's palaces to those of the court nobility, rather than to the houses of some newly rising and entirely autonomous wealthy class, court life was rapidly decentralized on the scale of the capital"* (Artan 1993: 58). In accordance with the new state in the power, Artan (1993: 58) informs us with the authority of the chronicler Subhi that *miri* (state owned) land along the shores of Kagithane was distributed to ottoman grandees and followingly numerous kiosks, pavilions, gardens, bridges, pools and fountains adorned the site. More information comes from Kucukcelebizade, 18th century chronicler that *"...around two hundred members of the ruling elite were given land and as well as permission to build on it"* (Artan 1993: 59). Hence, increasing efficiency of elite due to the Sultan's dependency on them effected the building enterprise of the 18th century. Besides ottoman princesses, mothers and sisters of sultans, came to lead quite separate lives with their own households in the new phase (Artan 1993: 62).

New residential buildings were mostly built along the Bosphorus and the Golden Horn. While the new dwellings including palaces on the Bosphorus had their grander facades decorated with European architectural styles, residential buildings and palaces on the coast of Eyup still had traditional architectural characteristics (Artan 1994: 112). The reason for this diversity is argued by Artan (1994: 112) that ottoman social structure was reflected prominently on the built environment of Bosphorus in the basis of individuals relationships to the state. Besides, the settlements along the Bosphorus were small villages of different ethnic groups such as Greek, Jews and Armenians. Therefore, facades of buildings had different characteristics according to the ethnic identity (Artan 1994: 112). Thus, shores of Bosphorus, from the 18th century onwards, became the scene of social hierarchy. Hence one can claim that prestigious of Sultans and the royal family as well as other dwellings, was an important factor in design. However Golden Horn and Eyup were far from being places of competition for power and authority. While Bosphorus accommodated men of higher rank of statesman such as grand vizier,

admiral, seyhulislam and also wealthy merchants such as Greek notables and Armenian bankers, on the coast of the Golden Horn and Eyup which is accommodated mostly by Muslim dwellers who were mostly artisans and retired statesman or representative of lower rank of statesman. Thus, sharpening diversity in the social hierarchy of the society reflected on the architecture of these sites. Therefore, the female members of the royal house were built according to this characteristic of the sites. For example palaces of Esma Sultan in Ortakoy, Bosphorus and in Defterdar, Eyup were different in terms of architectural style (Artan 1994: 111). Whilst in the former European architectural elements were applied, in the latter characteristics of the classical ottoman house were evident (Artan 1994: 112).

As early as the 16th century¹⁸, princesses built their splendid residential palaces on the coast of Eyup, particularly between Ayvansaray and Bahariye quays. Gradually they were replaced by new ones according to the taste of the period. According to *Bostancibasi* records dating from 1815 and also from the time of Mahmud II (1808-1839) changes in social status were reflected on Eyup's fabric (Haskan 1993: 62-63 & Kocu 1958). These records contain valuable information about the buildings lined up on the coast and whom they are belong to. From here we know that there were about five female sultan palace which formed two group between Ayvansaray quay and Bahariye Kasr-i Humayun. The first group, Beyhan Sultan and Esma Sultan palaces, were located next to the Defterdar quay. Second group the palaces of Hibetullah Sultan, Hatice Sultan and Hancerli Sultan palaces were placed next to Bostan quay on its right. Other buildings which are mainly residential, filled the coast line among these palaces. They belonged mainly to ottoman officials, tradesmen and artisans. However none of these buildings survived due to further developments in the town.

From these records we understand that there are seven quays and ten boathouses between Ayvansaray quay and Bahariye Kasr-i Humayun. Then, up to Alibey village, were empty fields. This shows the importance and function of access from water as a means of transport. However, there is little visual evidence left from this period since the structures were destroyed to make place for industrial buildings. Therefore it is difficult to examine any traces of modification in the civil architecture. Any conclusion

¹⁸In accordance with the enhanced role for the sultan's mother that emerged in the 16th century, their patronage of the monumental pious architecture was demonstrated (Artan 1993).

must await further study of the issue. However it can still be argued that there were no radical changes in the urban fabric until industrialisation.

A.6.2. Impacts on the Urban Fabric

As mentioned before, the principle urban function of Eyup derives from its being a pilgrimage site as well as an excursion site, due to environmental characteristics which gained more importance in the 18th century. However the beginning of the 19th century was the scene for the radical changes in the town's function and gradually in its vital characteristics.

Since the industrial plants were established primarily for the needs of army, the location of these plants was important in determining the site. The Golden Horn met this requirement since it historically had been a natural safe harbour. This made it important in terms of military terms. As industrialisation was initiated by the Sultan, the land and buildings on them belonging to the dynasty were assigned to industrial development. Accordingly, some of the first factories founded on the Golden Horn were located in Eyup.

One of them is the *Iplikhane* factory built in 1827-1829, to produce cotton fabric for the army and navy. It was located on the Bahariye water front, next to the Hibetullah Sultan palace. The front facade was 350 meters long (Haskan 1993: 73-74). As can be seen from the *Bostancibasi* documents, the coastline between the quays had been filled by buildings. Therefore in order to build a factory some of them had to be demolished, including the palaces of Hibetullah Sultan and Hancerli Sultan. During Abdulaziz period (1861-1876) this factory was moved out to the Arsenal; therefore the building became dilapidated. Later it was demolished completely and part of its area became the present park. Apart from that, in 1835, the *Feshane-i Amire* factory was established between Defterdar quay and Eyup *Debbaghane* (tannery) to meet the requirements of the army (Kucukerman 1988: 15). Two further, Hatice Sultan and Beyhan Sultan palaces were demolished and vegetable gardens included to create a site for the construction of the factory (Haskan 1993: 68-69). It was converted to the Sumerbank Defterdar factory in 1937. Most of the complex was demolished in 1984 when the project to clean up the Golden Horn was undertaken. The original building was preserved since it represented one of the first industrial buildings in the country. It was renovated and at present serves

as a modern art museum. The rest of the area is designed as a park like the whole shore of the Golden Horn.

Thus, these two buildings on the one hand introduce a new scale of size which did not exist previously in Eyup, and also they changed the main function from being a beautiful visiting place to an industrial town. In consequence socio-economic, cultural, environmental and architectural characteristics of the town began to change, devastating the town throughout the 19th and 20th centuries.

A.6.3. Transformation of Eyup's Urban Form

Changes occurring in Eyup's fabric in the 19th and 20th centuries are inseparable from changes in the city as a whole. Accordingly, investigation of the process of Istanbul's growth illuminates our understanding of Eyup. As in Istanbul, Eyup was described in 1838 as a picturesque and beautiful place in such a contrast its situation today with its dilapidating urban environment, both historic and modern, and with heavily polluted air and waterfront. Therefore a comparison between the two periods will demonstrate the striking difference between them. Robert Walsh described Eyup in 1838 in the following terms:

"The richness and fertility of the alluvial soil confer on this district a singular exuberance of vegetation. Nothing can exceed the luxuriance with which trees and fruits in their season blossom and mature in this place. Here flowers exhale the most delicious perfume, and the nightingale is heard to warble its sweetest notes, as if Allah had conferred upon the resting-place of a favourite all the richness of nature (Walsh 1839: 50).

Miss Pardoe presents an extensive description of Eyup. Like Walsh, she describes the town that has:

"Smoothly rounded hills, feathered with trees varying in character, but all rich in beauty, form a background eminently scenic; the lofty maple and the leafy plane-tree, the fan-like acacia and the rigid cypress, flourish side by side, and overshadow a wilderness of graves; while suburb itself, unusually well-built and regular circles a portion of the harbour with stately and pleasant dwellings" (Pardoe 1838: 9).

Similar views were shared by E. Amicis (1981), who stated that it was an extraordinarily quiet and noble district (Amicis 1981: 447). He stressed its image of religious character

stating that it "...is a white, magnificent and beautiful necropolis" with dense greenery (Amicis 1971; 447). He adds that it "...is a graveyard, a palace, a garden full of melancholy and elegance" (Amicis 1981: 448). The drawings of Eyup by W.H. Bartlett (Pardoe 1838) and T. Allom (Walsh 1839) support these views. It is also worth indicating that the hill rising just beyond the Eyup Mosque commands an excellent view of both sides of the Golden Horn. This is described 'magnificent' by several travellers such as P. Loti (Koman 1986) and E. Amicis (1981) and drawings of Melling (1969) encapsulate the descriptions of this splendid view. One can still see, in the distance, the city land walls and undulating hills adorned with Sultan's mosques. However, the view is no longer a pleasure.

The early industrial plants, Feshane in Defterdar and Iplikhane in Bahariye had been already established on Eyup's coast¹⁹. Gradually other industrial plants were constructed transforming Eyup to an industrial town. However until the Republican period the town was not in the focus of development. Changes appeared as styles altered as in the Hayreddin Pasha fountain of 1892 and Husrev Pascha Tomb of 1858, both built in neo-classical style (Haskan 1993). Apparently construction activities for pious foundation in Eyup were small by comparison with previous periods. The majority of new construction was small in scale such as *tekkes*, tombs and fountains. In 1864, a project proposed a tramway line from Eminonu up to Eyup running along the Golden Horn (Celik 1986: 92). However this line was never constructed. The main access to the town was by waterway. Consequently rowing boats were the traditional means of transport in Eyup, as in the other parts of the Golden Horn. Even following the foundation of the first steamship company, in 1851, the needs of Eyup were only partially met by the new boats (Celik 1986: 92). Therefore the use of rowing boats continued until the first half of the 20th century when the Golden Horn was polluted heavily and the town supplied with access by several land roads.

Following the construction of Rami Military Barracks in 1828-29, on one of the hills of town, governmental officials were settled around the barrack (Kara 1994: 248). Also Turkish migrants from Bulgaria who came to Istanbul between 1877-78 were settled in the same area. Photographs of Eyup dating back to 1910 show that the coastline was still lined with residential buildings rather than factories. According to an aerial photo of

¹⁹At the end of the century an electric power station was planted at the end of the Golden Horn, Kagithane.

the area from 1937, it appears that industrial buildings had not yet filled the coastline. However, this situation had changed dramatically according to the development plan of Istanbul prepared by Prost in 1936-37. His plan proposed the Golden Horn as industrial zone suggesting large scale industries to be located at the head of the Golden Horn (Duranay 1972: 77). Thus, following the industrial growth in the town, housing demand created squatter settlement nearly the town. Between 1940-50, new migrant groups from Bulgaria and Yugoslavia were settled in Rami, on the hills of Eyup (Cansever 1974: 37). In 1954, Eyup had a further peripheral impact. A new industrial zone was established in Topkapi area, just behind the city walls. This caused new squatter settlements in peripheral areas such as Zeytinburnu, Kagithane and Eyup (Cansever 1974: 37). Thus, after 1950 empty areas in the town such as vegetable gardens and graveyards were filled with the new settlements.

In 1956, in parallel with the development operations of Istanbul, the town was also shaped according to the modern needs (Istanbul Governorship 1957: 62-65). Accordingly, buildings in the vicinity of Eyup mosque and the tomb were demolished to bring the complex out but some of the surrounding tombs and fountains were repaired. Meanwhile a third bridge on the Golden Horn was proposed between Ayvansaray and Defterdar. This was built in 1973 with the connection of the major peripheral road leading from Europe to Asia. In accordance with the general approach about transport network in Istanbul, the access to town was modified from waterway to land by constructing new roads. Consequently a main road was constructed from Eminonu to Eyup running along the Golden Horn. Another main road, 20 meters wide, was constructed parallel to the city walls leading from Topkapi to Eyup through Ayvansaray. In addition, a new boulevard called Yeni Yol (new road) leading from Rami Kisma caddesi (street) to Eyup, was built by cutting through the fabric. Thus, Eyup was connected to the global city at any cost.

Between 1968 and 1972, infrastructural works such as the sewage system and concrete roads increased and cars could penetrate to every corner (Atabey 1973). The square in front of the mosque was rearranged 'to meet the modern look' (Atabey 1973: 9) and was opened with ceremony. The mayor of Istanbul at the time, F. Atabey (1968-1973) announced in his speech during the opening that Eyup Mosque square that Eyup has a special place for muslims as well as citizens of Istanbul with its religious importance and atmosphere (Atabey 1973: 6-9). Therefore it should not be neglected but should be

improved. It might be argued that despite good intentions the form and understanding had not brought the right response. The approach, therefore, should be changed and determined by the criteria of derives from the 'place'. But by contrast in order to built the new bridge and its secondary roads, in 1972, a quarter, Yavedud Mahallesi, with its houses, gardens, fountains was demolished. Only a mosque, fountain and a shrine remained under the bridge (Haskan 1993: 129-130). In the 1970s, industrial buildings lined the entire water front. As the population grew surrounding hills were occupied by apartments replacing the gardens and old houses. These cheap housing developments destroyed the existing residential area. As a consequence of overcrowding many of the original timber houses were destroyed to make way for new apartment buildings. Ironically, one of the major contractors for those buildings, O. Gulbakanoglu, was also the president of the Association for Beautification of Eyup (Eyup'u Guzellestirme Dernegi) (Atabay 1973: 11). Further, the hills between Bahariye and Alibeykoy were occupied completely by the squatter settlements.

In 1984, a new municipality of Istanbul undertook the project of cleaning up the Golden Horn. Consequently buildings along Eyup were removed and replanned by public parks and roads. The road, run through the town parallel to the Golden Horn was extended and rearranged. It was connected to the peripheral motorway of the second Bosphorus bridge. Accordingly, part of the road near to Bostan Iskelesi (quay) was extended on the water front and carried on piers to provide the continuity of the road. However existing streets and buildings were also demolished while constructing these road and demolishing the industrial buildings (Istanbul Municipality 1988). This period, therefore had a catastrophic impact on the fabric and character of the town. Before that the town had been a place to visit for various reasons. Access has, historically, been by water for this visit has been historically through waterway. Therefore the town facing toward the Golden Horn, was a stopping point rather than a place to pass through. Thus, the town's character was disturbed by creating this through traffic link. The highway also prevents the town having direct access to the water front, a fundamental aspect of the old town. In addition the created parks are not used by public, and they therefore are totally redundant area since the new road cut through its connection to the town. Recently another road was constructed by the local municipality to relieve the traffic flow in the central area. However, the new route has only succeeded in cutting through the main axis which was historically a pedestrian route, between Cezri Kasim Pasha and Eyup Mosque, destroying the surroundings.

Clearly, although Eyup was declared in 1979, as one of the conservation areas of Istanbul (Kamil 1979) because of its historic, religious and architectural importance, its urban fabric has been destroyed in the name of development. Almost every action taken has had a destructive effect, diminishing the former spatial and architectural qualities of the town.

APPENDIX III

The Institutions and Libraries Consulted for the Historical Research on Eyup

In U.K.

- British Museum Library and Map Library
- University of London Library, Senato House
- University of London, SOAS Library
- University of London, UCL / Bartlett School of Architecture Library
- University of Cambridge Library
- University of Oxford Library
- University of Birmingham Library
- University of Edinburgh Library
- University of Manchester Libraray
- University of Durham Library
- University of York and I.A.A.S. Libraries
- Library of York Minster
- An extract of Library Congress of USA provided by Prof. Ian Manners
- University of Keele, Air Photo Library
- English Heritage Photogrametic Unit, York
- Royal Commission and its Aerial Photo Unit, York
- York Archeological Trust, York

In Turkey

- Istanbul Metropolitan Municipality
- Eyup Municipality
- Ataturk Library, Istanbul
- Beyazit State Library, Istanbul
- International Research Center of Islamic Culture, Histroy & Art, Istanbul
- French Institute of Anatolian Researches, Istanbul
- German Institute of Archeology, Istanbul
- History Foundation and its Library, Istanbul
- Istanbul Museum of Archeology Library
- Istanbul Library, TURING

- Istanbul Technical University Libraries
- Istanbul University Central Library
- Istanbul University Library
- Istanbul University, Faculty of Literature (Edebiyat Fakultesi)
- Bosphorus University Library, Istanbul
- Mimar Sinan University Libraries, Istanbul
- Yildiz University Library, Istanbul
- Institution for Turkish History, Ankara

Persons Consulted in relation to the Subject

- Prof. Cyril Mango, Exeter College, Oxford
- Prof. I. Manners, Dept of Geography, University of Texas, USA
- Prof. S. Yerasimos, Paris (currently in Istanbul)
- Prof. N. C. Moutsopoulos, Aristotle University of Thessaloniki, Greece
- Prof. C. Bouras, National Technical University of Athens, Greece
- Prof. T. Cansever, Istanbul
- Prof. D. Kuban, Istanbul
- Assistant Prof. C. Kafadar, Harvard University, USA
- Dr. U. Tanyeli, Istanbul
- Dr. A. Koksal, Istanbul

APPENDIX IV

Major Sources Explored for Initial Historical Research on the Urban Form of Eyup

I. Pre-Ottoman Period

A search to investigate the situation of site before 1453 i.e. during the Byzantium Period was focused on the primary and secondary literal sources since there has not been an archeological excavation undertaken at the site. In the following the major literary sources explored during the research are listed briefly and in detail in the General Bibliography.

Primary Sources

- *Historians* (Malalas, Paschale, Procopius, Stratos, Simocatta, Theophanes, Villehardouin),
- *Travellers* (Al-Harawi, Ibn Battuta, Boundelmonti, Brocquiere, Clavijo, Tafur),
- *Maps* (Boundelmonti, Schedel)

Secondary Sources

- *On Istanbul Topography* (Esin, Eyice, Islam Ansiklopedisi, Janin, Gilles, Krautheimer, Kuban, Majeska, Mango, Mamboury, Ozdogan, Van Millingen, Weiner-Muller),
- *On Byzantine History* (Arseven, Bradford, Hamilton, Jenkins, Magdalino, Mc Neal, Runciman, Ostrogorsky, Seiber, Talbot, Toynbee, Treadgold, Vasiliev, Vryonis),

II. Ottoman Period

A Search to be able to reconstruct the growth patterns of Eyup during the Ottoman period stressed the primary sources since there is no comprehensive work concerning its built environment. A brief list of major sources that provides useful information is listed below. Details are in the General Bibliography.

Primary Sources

- *Eyup Vakfiye Records*
- *Historians* (Barbaro, Dukas, Kritovoulos, Tursun Bey, Asikpasaoglu, Latifi, Hoca Sadeddin, Naima, Selaniki, Samdanizade, Silahtar, Gilmani, Cafer Celebi, Komurcuyan, Inciciyan, Ayvansaray-i),

- *Travellers* (Angiolello, Gyllius, Evliya Celebi, Katip Celebi, Galland, Grelot, Dilich, Mundy, Pardoe, Walsh, Amicis, Lamartine, Gadsby, Gautier, Fellows),
- *Maps* (Vavassore, Matrakci, Lokman, Nedjib, Kauffer, German Syndicat),
- *Drawings and Photographs* (Drawings of Lorich, Bartlett, Allom, Melling; photograph albums from the 19th century such as Albums of Abdullah Brothers, G. Berggren, J. P. Sebah, V. Kargopoulo, Album of Sultan Abdulhamid II, a photograph of a panoramic view of Eyup in 1910, an aerial photograph from 1937),
- *Reports* (Istanbul Municipality Reports)

Secondary Sources

(Eyice, Kuban, Inalcik, Barkan, Ayverdi, Kuran, Goodwin, Uzuncarsili, Ortayli, Tekeli, Dirimtekin, Kocu, Yerasimos, Babinger, Necipoglu, Sevuk, Unver, Hasluck, Haskan, Kucukerman, Cansever, Kayra, Mantran, Artan, Tanyeli, Hocaoglu, Demiriz, Akakus, Gutkind, Barthold, Hrbas, Grabar, Golombek).

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