ASPECTS OF VISUAL STRUCTURING OF URBAN FORM IN ANKARA

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Ela ALANYALI

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Approval of the Graduate School of Natural and Applied Sciences

Prof. Dr. İsmail TOSUN
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

Prof. Dr. Vacit İMAMOĞLU
Chairman of Department

We certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science in Architecture.

Instr. Ali CENGİZKAN
Supervisor

Examining Comitee in Charge:

Instr. Ali CENGİZKAN

Dr. Selahattin ÖNÜR

Instr. Baykan GÜNAY

ABSTRACT

ASPECTS OF VISUAL STRUCTURING OF URBAN FORM IN ANKARA

ALANYALI, Ela
M.S. in Architecture
Supervisor: Instr. Ali CENGİZKAN
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In this study, urban form of Ankara is examined with its visual characteristics in order to clarify the determining elements and patterns that create its distinctive image. Within this scope, a critical model regarding the visual offerings of topographical forms and man-made urban elements is improved. Using the structure derived from this conceptual work, Ankara's visuality is discussed through its main urban formation types. The relationship of topography to man-made urban entity throughout history is put forward with its effects on the urban image. Apart from those, a section-view study for the Citadel is handled as an examplary model for urban visuality analysis.

Keywords: Urban Visuality, Visibility, Visual Structuring, Topography, Man-made Urban Elements, Silhouette, Urban Morphology.

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ÖZ

ANKARA KENT FORMUNUN GÖRSEL KURGUSU

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Tez Yöneticisi: Öğr. Gör. Ali CENGİZKAN
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Bu tezde Ankara kentsel formu görsel özellikleriyle incelendi. Amaç, kentin özgün imajını belirleyen elemanları ve oluşumları belirlemekti. Bu çerçevede, topoğrafik ve insan yapısı kentsel elemanların görsel potansiyelleri üzerine bir model geliştirildi. Bu çalışmanın sonucunda elde edilen yapısal çözümleme yöntemi kullanılarak Ankara'daki temel kentsel oluşum tipleri çerçevesinde şehrin görselliği tartışıldı. Topoğrafik ve insan yapısı kentsel oluşumların şehrin tarihi boyunca kurdukları ilişki, kentsel imaja etkileriyle incelendi. Bunların dışında, Ankara kalesini konu alan bir kesit-görüntü çalışması, kentsel görselliğin analizinde örnek bir model olarak yapıldı.

Anahtar kelimeler: Kentsel Görsellik, Görülebilirlik, Görsel Kurgu, Topoğrafya, İnsan Yapısı Kentsel Elemanlar, Silüet, Kentsel Yapı.

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This study has been the product of a tiresome period of organizing and expressing my thoughts and feelings about the city I have been living in since I was born. Within the limitations of the study, it was not possible to mention my excitement about the offerings of the site and how much we can do with this. I have the hope for future urban organizations in Ankara regarding the delicate topographical qualites.

I would like to thank people who supported and helped me during the study: My family as they always care for me, my supervisor Ali Cengizkan and the jury members Selahattin Önür and Baykan Günay for their valuable ideas, my friends Gamze, Elif and Necla for their helps in the writing process and Namık for the contributive discussions. Also I owe thanks to Levent Topaktaş and everybody in the computer room for their helps...

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CHAPTER I

INTRODUCTION

1.1 Scope and Objective

This study aims to examine the visual aspects of urban morphology in Ankara. In the choice of the subject as Ankara's visuality, richness of both the natural offerings of its topographical layout and of the visual patterns derived within the urban form throughout its history have been effective. Apart from the adventageous outputs of Ankara, urban visuality, in general, seem to be an important point in the formation of image in cities.

Cities constitute the most complex type of human settlements. A city, though comprising many different parts with different functions, has one distinctive image as a whole reflecting its character and structure. The image perceived may change from person to person to a certain extent, but how the city expresses its identity through its physical formation is mostly dominant as a means of communication between the city and its inhabitants.

Norberg-Schulz (1985:44) relates the expression of the character of a city to its built form which is reflected in elevational properties.

It is also possible to see examples of attitudes in history to build city images through the visible expression of urban elements (see App.A1, A2). It is rather difficult to apply such overall urban visuality desicions in the gigantic cities of today, but still the aspect of visuality is valid as a means of communication through image.

When the city is considered as a whole living entity shaped by many variables affecting its formation process, focusing on only the visuality of that form may seem insufficient. About the subject, Teymur (1981:94) states: "Appearance is not the whole of reality, and an understanding of that reality cannot be achieved at the level of appearances alone", and adds that the paradigms dealing only with the visibility aspects of architectural and urban problems may be speculative, insufficient and deceptive if they are not using concrete, scientific and resolving methods.

In this study, the appearance of the urban form is dealt with in an isolated way; without taking the complex formation of it into account. Yet, this attitude does not ignore the need for a multi-dimensional study in any intention for application of any urban visuality pattern.

While trying to examine aspects of visual structuring in Ankara, a conceptual study for the clarification of aspects of the urban visuality in general seemed necessary. Thus, a conceptual study was made in order to develop a critical model. The developped model basicly deals with the determinants of urban form, as visuality is

directly dependent on the physical qualities of objects. In this regard, topography and man-made urban elements constitute the two main determining aspects of urban form. It is possible to analyze them into groups regarding different types of formations and relationships within them. However, these two groups always behave together within the visual field and they constitute the overall image of the city as silhouette.

While dealing with the urban image, the visual reflection of the urban form is always considered in macro scale. This approach, though in a way disregards the visual richness created through the perception of different scales in the city, helps defining the frame of the study as the overall visual expression of urban form. In this respect, the perception of a visual unity in the city and the silhouette appear as important points to be dealt with.

The study has other limitations as well. The visual perception wile moving in the city -pedestrian and vehicle movement- is also one dimension which is not included within the scope of this study. This issue was mentioned partly in the percetion of the city silhouette through approach roads.

Another important dimension of the subject is time. Visibility and visuality of urban form change due to the changes in light and weather conditions throughout time. The view differs according to fog, rain, snow, angle of sun etc. Night view is also another case where different urban elements gain visibility due to artificial ligthning. For

practical reasons, in this study, an optimum sunny day is accepted as a standart condition in examining the urban form.

One other point is about the terminology used throuhout the thesis: The terms visuality and visibility are quite close to each other and sometimes they are used in place of one another. In general, visuality is used as a wider concept which embodies both the appearance and visibility qualities of objects, and visibility refers to the visual access to them.

1.2 Mediums of Presentation for Urban Visuality

When urban visuality is considered as a study subject, the mediums in presenting the mentioned visual aspects throughout the thesis gain importance. The presentation offered difficulties anyhow as the visual entity would be transferred into printed matter whereas the city was best percieved as viewed within. However, through the use of different materials, the city has been reflected as widely as possible within the limitations of this study.

The materials used for the study were mostly visual documents:

-Past and present views as photographs and drawings from various locations in the city,

-Plans in different scales, of the macroform and partial areas in the city,

-Plans/sections of the topographical layout.

-Computer outputs of topographical layout of the city.

As the visibility in the city is mainly expressed through the use of photographs, it would be convenient to see the advantages and disadvantages of this medium. Topçuoğlu(1978:19) claims that photography has fidelity and states:

> When we look at a photograph, ...we do not see it as an artifact produced by man as a result of concious effort, but react to it as if we are seeing the presented thing itself... Abstractions of colour, shape, reduction of size, its two-dimensionality etc. do not affect our perception of a life situation in it.

On the other hand, photograph is fragmental and it destroys the unity of relationsips perceived by the eye:

> The Gestalt idea of the organization of a part being determined by the greater context in which it is included can easily be disregarded by creating artificial boundaries around such a part so that it does not reveal its determining causes. A collection of such fragmentary photographs will picture the world as a series of unrelated, free-standing particles -and therefore conferring each, a sense of mystery (Topçuoğlu,1978:14).

So as Singer(cited by Topçuoğlu,1978:28) states photography changes the object by changing the way we see it and however faithful the reproduction may be, the object is not literally repeated in our experience.

For this reason, Topçuoğlu(1978:86) proposes that only for limited, well-defined,purposes and aspects can we think of using representations of environments which should also be specificially produced for the given purpose.

The photographs used in the thesis are selected as much as possible to show the relations that the eye perceives in the urban environment; so there is not a standard angle of vision in exposures.

Apart from the photography, a computer-aided study has been made where the topographical layout of a limited area in Ankara was examined. The outputs of the study comprised three-dimensional views of the natural surface of the area as seen in presentation of settlement areas throughout history (Fig. 8, 9, 10, 13), and sections taken for examining the visibility of the Citadel (see App.C).

CHAPTER II

THE NATURE OF VISIBILITY: CONCEPTS AND DIMENSIONS

Several studies have been made to understand the common properties of the cities which are supposed to enhance a satisfying communication with the inhabitants. Lynch's study (1960) which is widely accepted as reliable in the field, puts the basic property of successfully communicating cities as imageability. Lynch (1960:6) defines imageability as the quality in a physical object which gives it a high probability of evoking a strong image in any given observer. "Environmental image is a result of a two-way process between the observer and his environment" and imageablity/legibility of a city depends on how well-structured the system of components in relation to each other is.

Harrison and Howard (1980:173) grouped the possible qualities of imageability in four categories which they named as "components of imageability". The first two are physical components; Location and Appearance whereas the other two are cultural components; Meaning and Association. Among them, those related to what Lynch termed 'the look of cities' were concerned with the city's appearance as the first physical component and another group which were related more to the element's

position within the urban structure than to its physical appearance formed the other physical component; location.

The physical components are dependent on visual perception unlike cultural components which refer to function within the urban setting. Southworth (1969) states that visual perception, though not alone -as sound and smell also appear to be significant in the image formation- is dominant in forming our image of the city.

2.1 Visual Perception - Formation of Visual Image

According to Kepes(1951:13), the language of vision; optical communication is capable of disseminating knowledge more effectively than almost any other vehicle of communication. Visual language is universal and international. Vision is also a device of orientation both in physical spheres as a means to measure and organize spatial events, and in human spheres as the expression of a symbolic order of man's psychological and intellectual experiences.

Kepes(1951:14) states that the experience of an image is a creative act of integration. In this regard, the eye tends to unite the various light impacts reaching the retina into meaningful wholes. "The experiencing of every image is the result of an interaction between external physical forces and internal physical forces of individual as he assimilates, orders and molds external forces to his own measure"(Kepes, 1951:16). The external are light agents bombarding the eye and

producing changes in the retina whereas the internal forces are based upon the dynamic tendency of the individual to restore balance after each disturbance from outside.

After this process of ordering the physical impacts of the environment, the image as a unified, organic whole emerges. The basic property of this image is that its behaviour is not determined by that of its individual components, but the parts are themselves determined by the intristic nature of the whole (Kepes,1951:16). The same point is explained by Gestalt theory as the super-summative property of phenomenal unity (Köhler, 1967:38).

2.1.1. Figure and Ground in Visual Image

Kepes(1951:31) states:

> The dynamic tendency toward balance is not restricted to a biological level. Sight is more than sensation, for light rays reaching the eye have no intristic order as such. They are only a haphazard, chaotic panorama of mobile, independent light happenings. As soon as they reach the retina, the mind organizes and molds them into meaningful spatial units. We can not bear chaos -the disturbance of equilibrium in the field of experience. Consequently, we must immediately form light impacts into shapes and figures. Exposed to a visual field in its light quality is to the slightest degree of heterogeneous, one organizes that field at once into two opposing elements; into a figure against a background... A unified whole is thus created. Every image is based upon this dynamic dualism, the unity of opposites. Certain impulses are tied together in a stable visual whole, wile other

> impulses are left in their unorganized fluid state and serve only as a background and are perceived as intervals. This organization of figures and backgrounds is repeated progressively until the whole visual field is perceived as a formed, ordered unity -the plastic image.

Formation of figure on ground is another property of unity which is mentioned by Köhler(1967:38) as follows; "In particular do lively, close-knit areas ... segregate themselves as a rule from the mere ground of the visual field."

An important point about figure and ground is that they are not separate entities, but are of the same unity; 'figure' here does not mean a foreign element which appears on a neutral ground, but a visualization of potentially present foci (Schultz, 1980:175).

In this context, the forces of visual attraction - a point, a line, an area - exist in an optical background and can not be perceived as isolated entities, but only as relationships. Colour and texture qualities, sizes and shapes all express their visual qualities due to their respective frames of reference.

2.1.2. Domains in Visual Image

Domains constitute another characteristic formation within the unity of the visual image. They naturally emerge as the eye has certain limitations in perception: "The dynamic tendency to organize the optical forces into a unified whole acts within the psychological field

against a background of readiness to perceive - a field of attention. Attention, however, suffers from two limitations: first its limitation in the number of optical units it can encompass; and second, its limited duration in time of focus on one optical situation" (Kepes,1951:44).

So, only five or six optically distinct elements can be seen together in their individual characteristics and relationships. Kepes(1951:45) explains the formation of domains accordingly as:

> Confronted with a complex optical field, one will reduce it to basic relationships. Just as in nature there is a tendency to find the most economic surface unity in every formation, so in the visual organization there is a tendency to find the most economic spatial unity in the ordering of optical differences... instantly we organize and group these visible differences... some elements are seen together because they are similar in size, direction, shape...

Domains constitute a partial unity in the whole environment. Formation of domains is explained by Köhler (1967:38) as one of the principals of perceived unity; "within the field, there appear (without destroying its unity as a whole) subsidiary phenomenal unities limited in an area and relatively independent over against the remainder of the field".

Domain, in that context, may be understood in various ways in different environmental levels: a settlement in a natural environment, a district in a city and so on.

2.2. Aspects of Urban Visibility

Kreimer (1980:206) who dealt with building the imagery of cities, puts visibility as an ultimate factor for legibility, thus imageability: "A complete openness, allowing a multiplicity of views is considered optimum for the city. Visibility is related with legibility; the more one can find one's precise location in relation to the city's surroundings from different spots in the city, and the greater the possibility of achieving a structured 'reading' of the city, the better". In this context, Kreimer (1980:199) introduces 'views' which he presents on the group of 'valued elements' in the physical environment as a matter of primary importance. View of an object is related to both its visibility (thus location) and its appearance.

According to Kreimer(1980:207), components of visibility are; "Openness, Legibility, Visual Access, Transparence" whereas the components of the main opposition of visibility; Blockage are: "Encirclement, Enclosure, Hemmed-in space, Obstruction, Barrier to views".

Kepes(1951) states that looking at a landscape... or any single object, as the visual field has no definite boundaries, one can only make a spatial interpretation of the things he sees - their location, extention - based upon his own spatial position. He judges the position, direction and interval of things seen by relating them to himself. Thus, as Appleyard(1980:140) also mentions; visibility is "a measure dependent

on the location of a facility - the visual counterpart of its accessibility - and on the focus of city inhabitants' actions and vision".

In this context, Appleyard (1980:140) defines three component attributes by which the visibility is measured :

> "1. Viewpoint intensity, an estimate of numbers of people who might regularly see it from its commonly used viewpoint;
> 2. Viewpoint significance; its presence at important decision points or points of transition in the city's transition system; and
> 3. Immediacy; a measure of its distance and centrality in the line of view".

The viewpoints, as important determinants of visibility, can be considered in either of the five elements of city image; paths, edges, districts, nodes and landmarks as defined by Lynch(1960:41).Appleyard (1980:153) puts the elements as : "point, line, area".

The point elements, if considered, would be nodes and landmarks, the linear elements would be paths and edges, and the areal elements would be districts. So, in the city, the viewpoints are:

-points (nodes, landmarks)

-lines (paths, edges)

-areas (districts).

As location within the city is one determinant of urban visibility, difference between the appearances of urban elements is the other determinant which creates contrasting areas in the vision. This

contrast within the urban scene can be achieved in the following group of qualities of imageability concerned with the physical appearance as laid out by Harrison and Howard(1980:170-171): "-Age, Size, Colour, Design (style), Shape, Pattern, Form, Construction materials, Condition, Upkeep and landscaping, General visual appeal, Other factors (smell, noise etc.)".

CHAPTER III

A SEARCH FOR THE DISTINCTIVE ELEMENTS OF VISIBILITY IN THE CITY

3.1 Topographical Determinants of Visibility

As discussed in the previous chapter, the concept of visibility is directly related to the physical formation of a settlement. Topographical layout of a settlement area, being efficient in a coordinated way with the man-made entity, offers certain visual qualities. The original urban visuality pattern is created by the mutual influence of the natural and man-made physical formation; the way the settlement is located and structured.

Norberg-Schulz(1980:32), using the term topography as the surface relief, states that variations in it create directions and defined spaces:

> It is important to distinguish between the structure and the scale of the relief. The structure may be described in terms of nodes, paths and domains, that is, elements which centralize space such as isolated hills and mountains or circumscribed basins, elements which direct space such as valleys, rivers and wadis, and elements which define an extended spatial pattern, such as a relatively uniform cluster of fields or hills. Evidently the effect of such

elements is very different according to their dimensions.

A city form may or may not use the topographical inputs of visibility in a proper way. Man-made urban elements in this respect, may be used to emphasize the naturally inherent visual nodes, lines, and areas; or disregard them. If properly dealt with, these elements help ordering the natural environment as they provide means of reference in scale and structure. Thus topography and settlement are to exist in unity as seen in the examples through history, though modern cities rarely use topographical features deliberately.

In order to understand the role of topography in the formation of urban visibility patterns, it is necessary to see the visual characteristics of different topographical elements. In this context, a clear distinction can be made between flat lands and rugged lands which are comprised of areas with changing altitude. On the other hand, water as an element with a distinct character, is another aspect of visuality in cities.

3.1.1. Cities on Flat Lands

Cities on flat lands are those on plains and plateaus. The definition of flat land may be open to discussion according to the relative scale of irregularities: an area may have some surface movements and slope, but it may be called flat comparatively in the overall macroform area of the city.

Flat lands constitute good viewpoints for the rising elements - either natural or man-made - that exist on and around them. A high hill on the flat urban area, as in Rio, may appear as an impressing landmark for the city (Fig. 3.1). Even slightly rising hills within the flat urban land may contribute to the visual expression of the elements on them like in Konya (Fig. 3.2). High man-made elements in flat cities enhance visibility from wide areas as well. They comprise dominant elements in the city scene either singular as in Florence, or plural as grouped skyscrapers in American cities and as detached landmarks as in Moscow (Fig. 3.3, 3.4, 3.5).

In flat lands, the city structure with the high elements constitute the visuality patterns. The visual boundaries are not offered by topography, so man-made elements create the visual nodes, corridors and areas. In these circumstances, the configuration of open spaces and high buildings have great importance in the determinance of visible qualities. As the urban visibility is not interrupted by topographical barriers, urban elements are seen easily from distant viewpoints within the urban structure. This may lead to the formation of long, straight boulevards visually terminating with landmarks as in Paris (Fig. 3.6). Wide squares, in which it is possible to view the surrounding façades or the urban elements, as well appear as in St. Petersburg (Fig. 3.7).

3.1.2. Cities on Rugged Lands

Rugged lands are those comprised of areas having different altitudes. Thus, rugged lands offer a multiplicity of vistas and viewpoints and they have a potential of visual richness for cities. In these cities, topographical elements as well as man-made elements create visual boundaries. Visible areas and the possibility of viewing them from different heights and angles are efficient in the visual experience. The macro scaled irregularities in rugged lands are basically comprised of elevated and low-lying areas with sloppy transition areas between them. Hence, the basic categories when handling the visuality of the cities built on rugged lands are: pointed hills, valleys and mountain skirts (Onaran,1990:72).

3.1.2.1. Pointed Hills

Pointed hills often stand as natural landmarks on plain lands for they are visible from a wide area. In the past, many cities were built on pointed hills with their walls close to the summit for both defensive and representative qualities of the hills. Cities on pointed hills have an imposing look as they rise above the surrounding land.

It is rather difficult to find a modern metropolis built on one hilltop, for the settlement area is much larger. Rather pointed hills are included in the settlement area, still playing their roles as the natural landmarks in the city. Whatever situated on these hilltops is

highly visible. In some cities, the old part of the city usually in the castle walls is kept while the new part spreads out in the surrounding land. In Edinburgh, for example, the castle is dominant in the visual entity of the city, as it is built on a hilltop, though now the settlement area covers much wider land (Fig. 3.8).

In some cities the important landmarks are placed on hills to give an imposing image and to create a visual order, or hierarchy in the macroform. There may be an important building on a hilltop as a landmark for the city as in Prague, or a system with the set of landmarks placed on hilltops may be created as in İstanbul (Fig. 3.9, 3.10).

Hills also appear with their natural forms as, landmarks as in Afyon (Fig. 3.11). On the other hand, the city structure may also continue on hilltops without any special organization; and this may lead to recession in the landmark qualities of hilltops while increasing the visibility of city part on it (Fig. 3.12).

3.1.2.2. Valleys

Valleys usually provide a directed view as they create visual barriers on two opposite planes and openness on other two. The settlement form in valleys is usually elongated in relationship to the topographical formation. The linear ridges on both sides of the valley create visual boundaries and they define the sloped area between the

top and the bottom of the valley. In this frame, the city part on each side of the valley is highly visible from the other side. The linear surfaces of enclosing mountains gain visual importance in the cities placed on flanks of sharp valleys as in Amasya; whereas in the cities placed on smooth valleys like Erzincan, the mountains' ridges are more visible (Fig. 3.13, 3.14).

The valleys within the city also offer different visual patterns. The view may further be blockaded by buildings on tops of the flanks or it may be opening towards the wider and smoother areas at the end of the valley as in Gümüşhane (Fig. 3.15).

3.1.2.3. Mountain Skirts

Mountain skirts create large areas of considerable slope; so they provide planar barriers to the views ending with the line of the mountain ridge.

The cities founded on mountain skirts offer a figure-ground relationship as in Bursa (Fig. 3.16). The settlements on these planar inclinations are totally open to vision - not only as certain buildings and lines, as the whole area on the mountain skirts. So, the structure and the patterns of the man-made physical entity directly affects the visual characteristic of the city. As every element of the urban form is visible, it is very important if the city is comprised of small units which fit better to the inclination as in historical cities, or of huge

blocks. Also the composition of the buildings and open spaces is important in the appearance of the mountain skirts.

Mountain skirts enable various viewpoints though they are more restricted in direction when compared to pointed hills. Thus, this may lead to vista terraces and buildings where vista becomes a priori in the urban formation.

3.1.3. Cities by Water

Water element has a special role in creating the visibility qualities in a city. Water, apart from the topographical level differences on the land, attracts visual attention with its characteristic property of reflection.

Water is efficient in the determination of the city form not only for the way it is used, but also for its exciting vista possibilities. Water creates a physical barrier for the urban formation and this way it provides openness in vision along its banks. This is a linear openness with urban elements on two sides in river settlements where a visual corridor is created along the water. Many vistas emerge in such a circumstance, especially in cities founded on canals like Amsterdam and Venice, and on two sides of straits like İstanbul (Fig. 3.17, 3.18, 3.19). In cities by sea or lake, the openness is one-sided and the approach from water gains importance in the visual image of the city.

This approach may help to experience different effects of the urban formation as in NewYork (Fig. 3.20).

Bridges are important visual elements in riverine settlements. They create different vistas and viewpoints. The bridges on Arno river in Florence and bold spans of modern bridges may give an idea on different characters created by bridges (Fig. 3.21, 3.22).

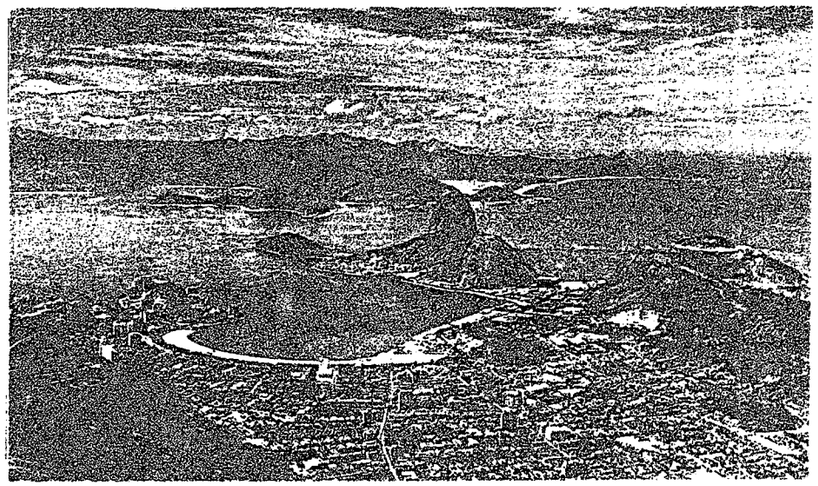


Figure 3.1 Rio
The Great Cities of the World, 489.

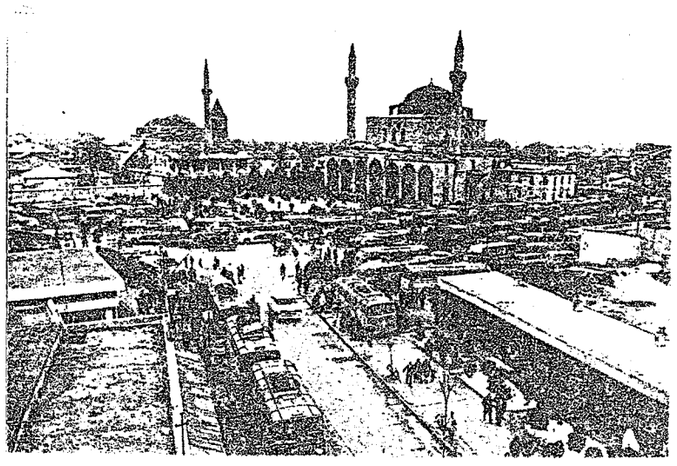


Figure 3.2 Konya
Türkiye Ansiklopedisi, 33.

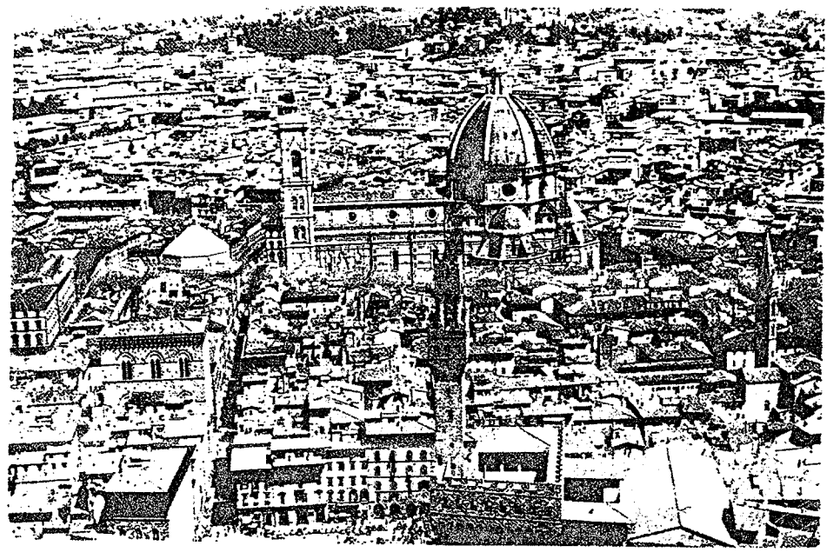


Figure 3.3 Florence
A History of Architecture, 384.

Figure 3.4 American city
The Language of Cities, 1.

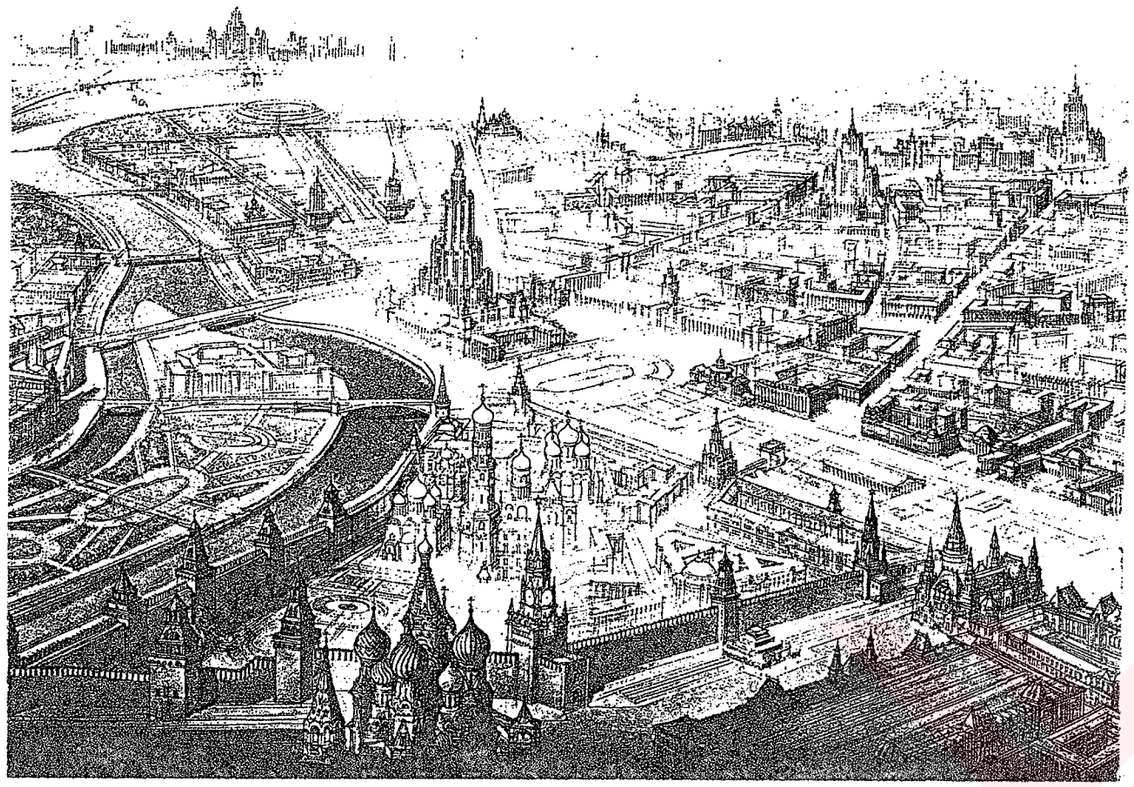


Figure 3.5 Moscow
The City Shaped, 316.

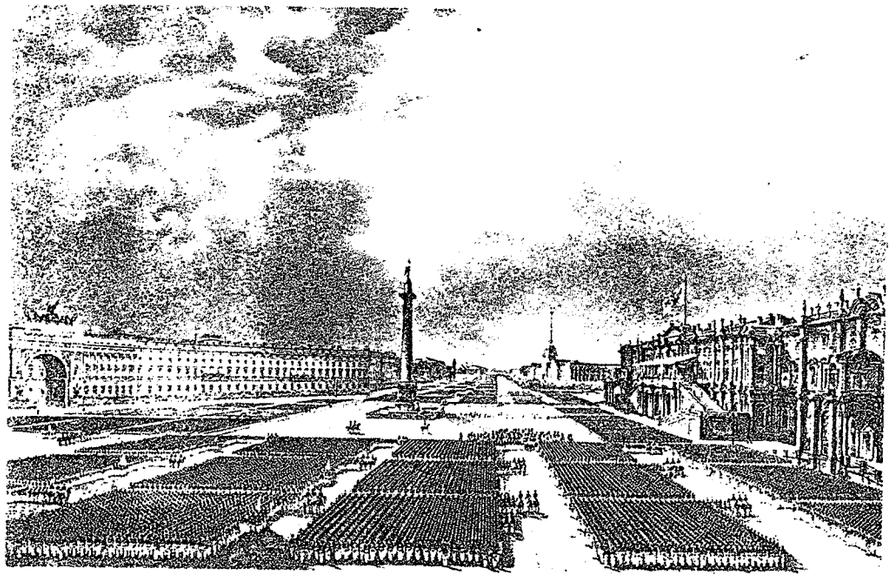


Figure 3.7 St. Petersburg
A History of Architecture, 585.

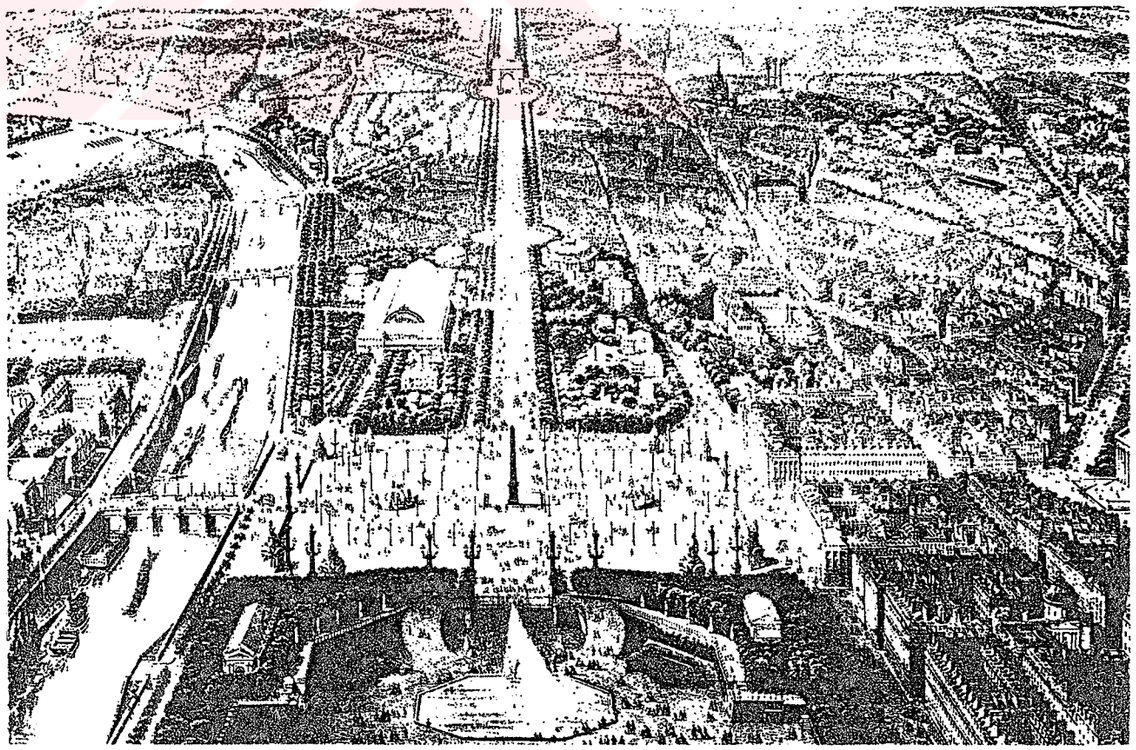


Figure 3.6 Paris
The City Shaped, 269.

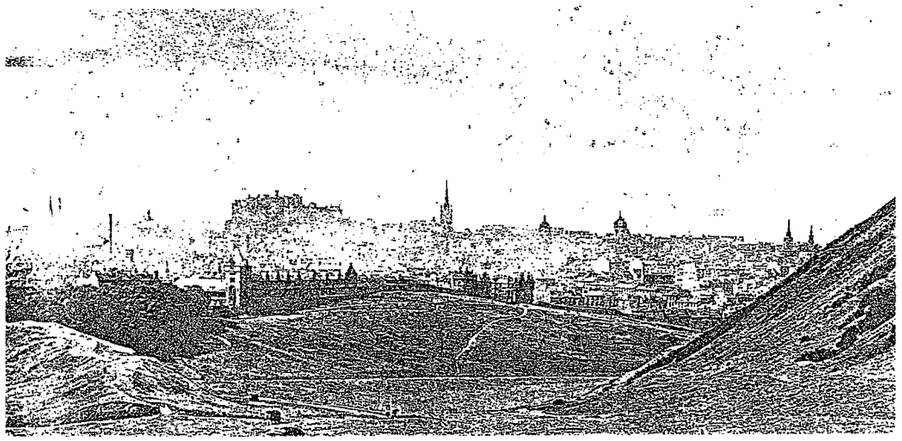


Figure 3.8 Edinburg
The City Shaped, 289.

Figure 3.10 İstanbul
A History of Architecture, 454.

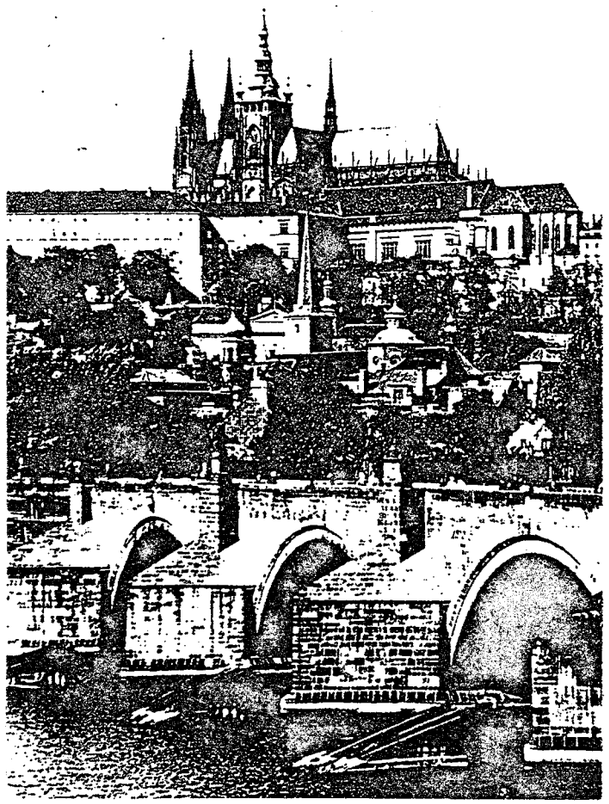


Figure 3.9 Prague
Genius Loci, 24.

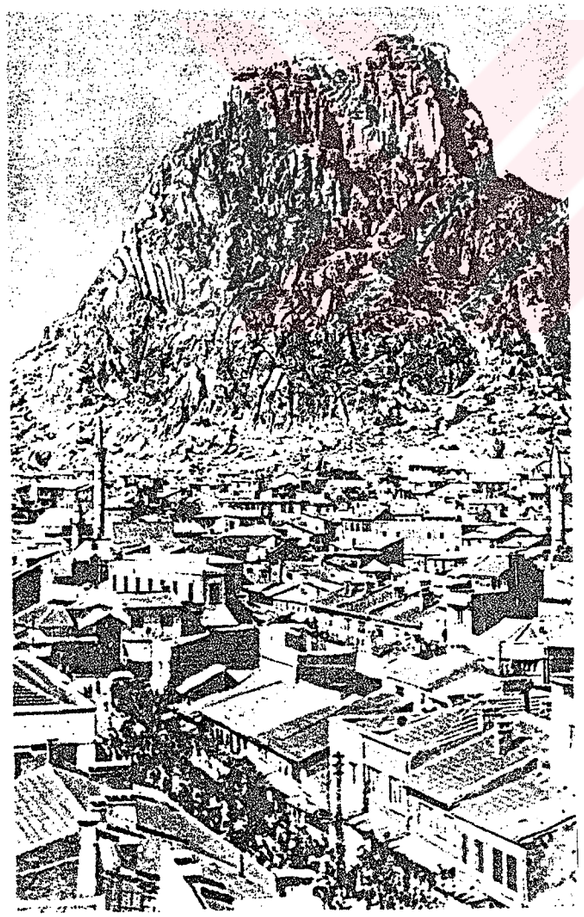


Figure 3.12 Tekirdağ
Türkiye Ansiklopedisi, 375.

Figure 3.11 Afyon
Türkiye Ansiklopedisi, 130.

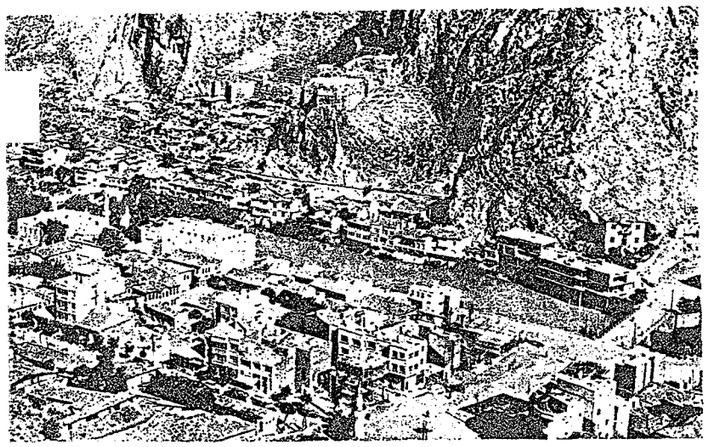


Figure 3.13 Amasya
Türkiye Ansiklopedisi, 318.

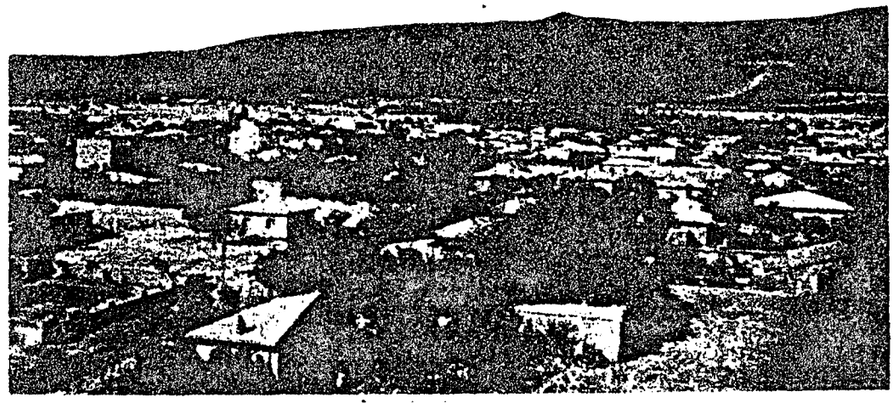


Figure 3.14 Erzincan
Türkiye Ansiklopedisi, 424.

Figure 3.15 Gümüşhane
Türkiye Ansiklopedisi, 504.

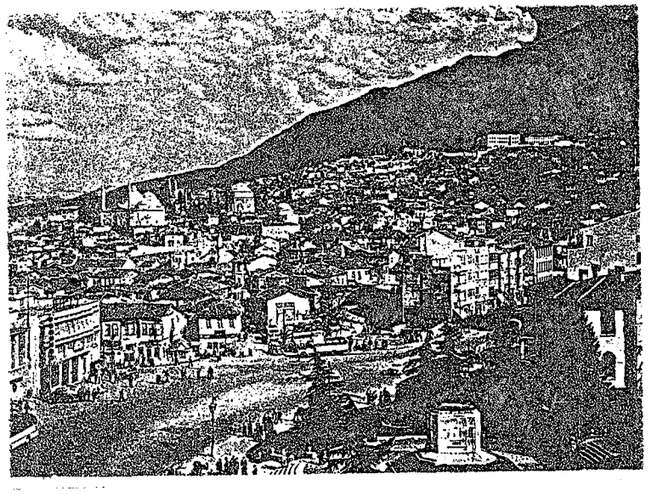


Figure 3.16 Bursa
Türkiye Ansiklopedisi, 177.

Figure 3.17 Amsterdam
A History of Architecture, 537.

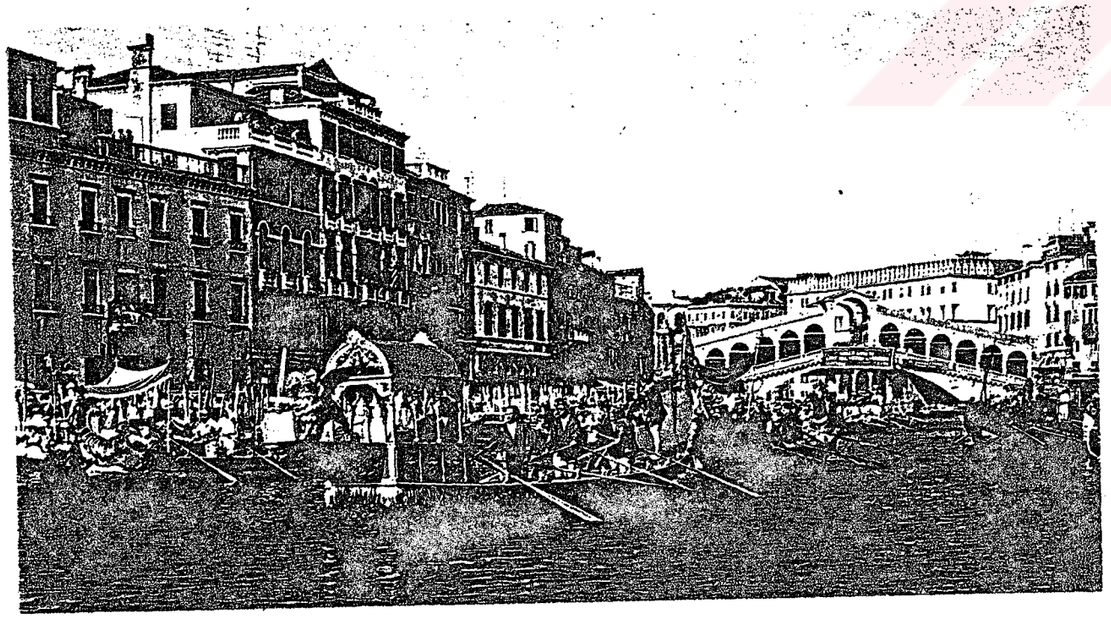


Figure 3.18 Venice
Wonderful Venice, 97.

Figure 3.19 İstanbul
İstanbul, 114.

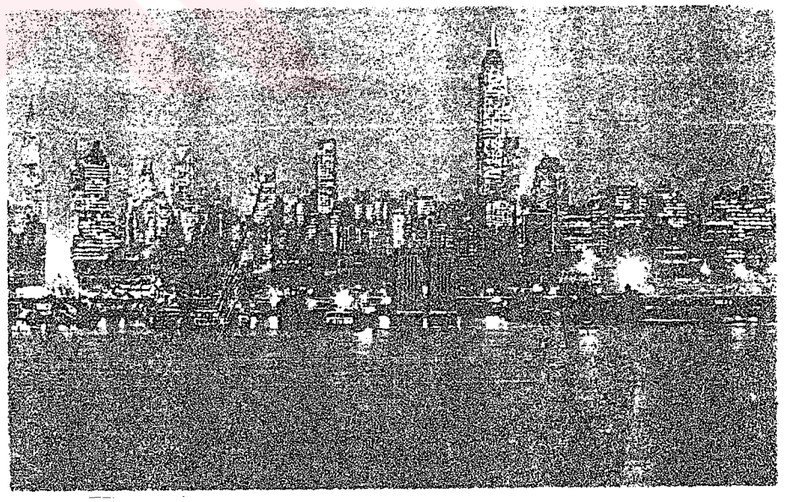


Fig 3.20 New York
The Great Cities..., 433.

Figure 3.21 Ponte Vecchio, Florence
The Language of Cities, 62.

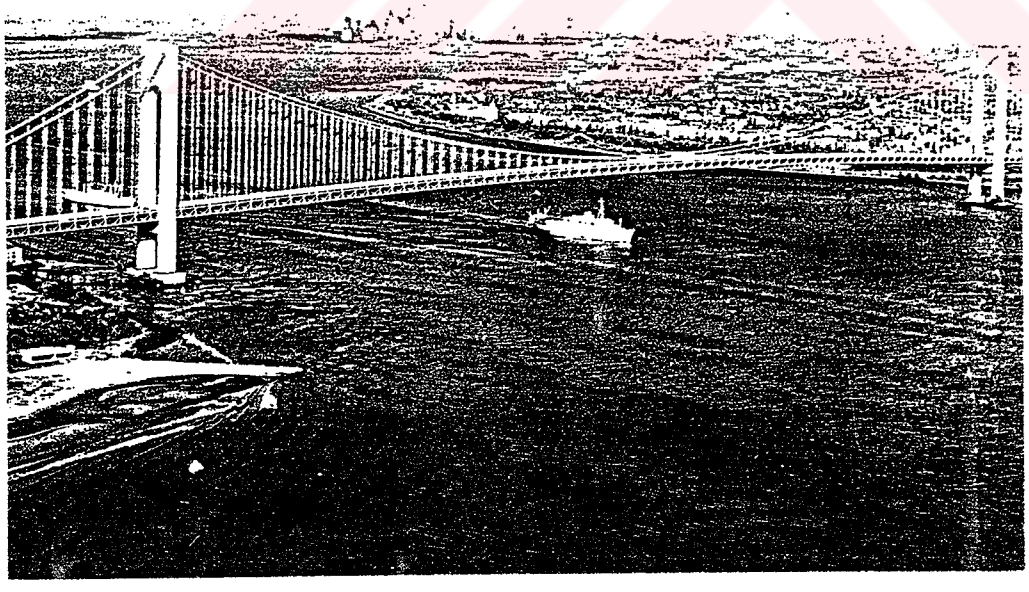


Figure 3.22 Modern Bridge
The Language of Cities, 63.

3.2. Effects of Urban Structure on Visuality

Visuality in the city is dependent on the urban structure; the physical formation of the man-made entity of the city as well as the topographical features. If we consider the built environment in terms of its visible character, it is mainly comprised of two entities; built forms and spatial forms (Curran, 1983). It may be said that built forms are external reference elements whereas spatial forms determine the visual frame through themselves.

Like topographical elements, elements of the urban structure offer their characteristic visuality patterns. these patterns exist through the interrelationships among urban man-made elements which are expressed in terms of different physical aspects like elevational and planar qualities. Norberg-Schulz(1985) claims that the qualities that are the figural properties of built form are spontaneously perceived whereas planar qualities which exist as spatial organization demand a closer acquaintance with the place. The two aspects are related this way: "the built form gives character to spatial elements, at the same time as the latter are constituted by the former." (Norberg-Schulz, 1985:44).

Urban structure, like topography, creates certain visual points, lines and areas by the organization of different built and spatial forms. Generally, the elements of built environment are more fragmental and clear in form than those of topography.

In the city, topographical and structural elements constitute the visuality patterns cooperatively. For practical reasons, the role of urban structure will be analyzed being isolated from topography. In this process, Lynch's elements of city image will be used in an abstracted way. The visual correspondents of "landmark", "node", "district", "edge" and "path" will be simply taken as pointual, linear and areal entities in the physical formation. Their role in enhancing the unity by their interrelationships is another aspect to be considered.

3.2.1. Built Forms

By the term "built forms", we will deal with the external form of the urban structure elements, that is the way the form of the object as an urban artifact is perceive. Built forms can be considered as singular or plural. Singular built forms which are widely visible in the city are landmarks. On the other hand, the plural expression of the built forms offers different visual patterns as they create domains of different textures.

3.2.1.1. Built Form as Landmark

Landmarks are distinguishable physical elements (which play figural role) in the city image. Built forms as well as natural forms can be landmarks in the city due to their visibility. The visibility of built form can be enhanced both with its both appearance properties

like size, shape, etc. and with its interrelationships with other built forms (Curran,1983:59).

Lynch (1960:78) states that a landmark should be identifiable and unique. This can be achieved through the representative qualities of forms. According to Curran (1983:60), the formal qualities of buildings function either related to expression perceived through the innate source of self or to symbolism which exists in the social and the cultural context.

Expressive qualities of built forms are mostly dependent on their shapes and sizes. Certain forms have certain meanings like high forms having expression of man's power against gravity and his reach toward a higher reality (Curran, 1983:62). In this respect, the Eiffel Tower in Paris and the statue of liberty in New York are examples of high-rise landmarks. Clear forms like obelisks in baroque cities and unique forms like Opera House in Sydney also have high expressive qualities in cities (Fig. 3.23, 3.24, 3.25).

On the other hand, the symbolic qualities of forms originate in the societies that create them. Arnheim suggests that " symbolism begins to come into play when a building's design uses shapes that carry a conventional meaning" (Curran,1983:62). Built forms like dome, bell tower, minaret are highly informative for people through their symbolic meanings. Family towers in Bologna comprise a more local, characteristic example of the case (Fig. 3.26).

3.2.1.2. Built Forms Creating Visual Texture in City

Built forms, when taken as plural, define different types of visual patterns coming together in different ways. The interrelationships among built forms create certain domains of certain visual textures.

The very basic examples of these textures are areas in the city where buildings, having similar form and height exist. Apart from the space that comes into being among the buildings, the group of them form a type of coming together as figures. The perception of this texture is dependent on viewing the area from a distance and from a different level than the ground level of the area. This is usually possible from the air or from high places in flat cities. In the cities spread on rugged lands, it is easier to examine the domains and the placement of figures.

The texture created by traditional dwelling units, low-rise and high-rise apartment blocks, clustered sky-scrapers are different from each other and may create a number different domains in the same city (Fig. 3.27, 3.28).

On the other hand, distribution of figural elements in the city vista is another means in the formation of a visual texture. The landmarks in a city, may be placed with a certain distance in between, having a certain relationship to the surrounding and they may create their own domains (Fig. 3.29).

3.2.2. Spatial Forms

Spatial forms in the city are those created through the organization of urban man-made elements. They are defined by the outer borders of built forms in relationship with each other. Curran(1983) defines the two basic categories of the spatial forms in relationship with each other. Curran (1983:62) defines the two basic categories of the spatial forms in public domain as linear spaces and cluster spaces.

Spatial forms are perceived by being viewed from inside. Linear spaces give direction and encourage movement along them whereas cluster spaces in the city structure is valid when there is a clear definition of outer space, unlike the floating space in some modern city approaches (Fig. 3.30, 3.31).

3.2.2.1. Linear Spatial Forms

Paths in cities are linear spatial forms. Lynch(1960:46) states that paths are predominant in the city image as people observe the city through them. How the paths are defined and what they coincide in their continuity are important points in the formation of urban visuality patterns.

The definition of two opposite sides of the linear spaces may vary from extremely solid to transparent or fragmented. Solid defining

elements like attached buildings or walls increase the directing role of the space towards the end of the path (Fig. 3.32). When buildings are detached, this role decreases and vistas between buildings are also perceived (Fig. 3.33). Colonnaded paths also have highly controlled and directed vista changing due to the intervals of columns. This was used in Roman cities to improve the imperial image of the city (Fig. 3.34). Trees can also be used like columns, with their upper part limiting the sky in addition (Fig. 3.35). The most limited vision is in tunnels which give possibility to view only the end of the path (Fig. 3.38). On the contrary, freely placed buildings and paths direct the view less.

The width of space and the height of the defining planes are also important aspects in the visibility through paths. The narrower and deeper the linear space gets, the more limited and directed its vista becomes (Fig. 3.37).

Where the path reaches visually is another important aspect. The end of the path may as well be limited or open like a huge building block and the sky as in climbing paths (Fig. 3.36). The end may be a frame giving pass to visual continuity as in Bradenburg Gate, Berlin; or enhancing the physical passing through itself as in Arc de Triumph, Paris (Fig. 3.39, 3.40). A characteristic visual end point for paths is landmarks, either monumental buildings or sculptural objects as in Rome.

The planar shape of the path is also effective in the determination of the sequences of vistas in the city. Strictly directed

boulevards have been used to prove the power of the ruler in the city as in Paris (Fig. 3.6). On the other hand, winding paths offer great possibilities to catch many different views. This is what Lynch calls "the shifting image" and it brings excitement and surprise to people viewing through.

3.2.2.2. Clustered Spatial Forms

Cluster spaces in the city are which have a rather static and gathering character, having mostly centralized form in changing proportions. Squares, plazas, some parks, stadiums etc. are cluster spatial forms in the urban structure.

Cluster spatial forms widen the visual frame in the city layout by creating large open areas. they give possibility to view the elements in or around them from a distance and from a range of different angles. These spaces, according to their placement in the city form, may also give rise to further vistas.

The direction where the view in a cluster space focuses is determined mostly by the relative shape and the size of the elements in and around the space. The view may be focused to an obelisk as in St. Peters Piazza, Vatican or to a column with a sculpture as in Dvortsavaia Square in St. Petersburg placed in the middle of the cluster space (Fig. 3.41, 3.7). There may also be not one, but a series

of urban elements in the square mostly in elongated ones like Piazza Navona (Fig. 3.42).

The visual focus, in some squares, is on one side. As in Red Square, Moscow; a building on one side of the square may be dominant visually with its different form (Fig. 3.43). The different size of the building is also effective in visibility in square as seen in Siena (Fig. 3.44).

The shape of the cluster space itself also directs the view. In Campidoglio, Rome, the openness on one side of the rectangular shaped plaza gives a certain vista of the city (Fig. 3.45). In Piazza del Popolo, Rome, and in Das Rondell, Berlin, the boulevards attached to the square extend the view through them and break the closed centralized shape of it (Fig 3.46, 3.47).

Urban elements like hippodrome, stadium and some parks due to the openness they create in the visuality structure, are also cluster spatial forms. Mostly hippodromes and stadiums are not visually related to nearby elements but give vista to certain parts of the city for the people gathered in them. In antique cities, the open theaters used to function this way and were placed accordingly (Fig. 3.48). Urban parks also create visual patterns in the city by giving vista to the buildings surrounding them or to the other parts of the city (Fig. 3.49).

3.3. Silhouette As an Overall Vision of Urban Form

The silhouette of a settlement has a special place among the numerous aspects of visuality offered by the physical formation. As Norberg-Schulz(1980:37) states, the general meaning of a settlement is revealed by its silhouette which is the most conspicuous overall property of it.

The silhouette may be considered as an outline of the settlement. In silhouette, the line where the settlement features- urban and natural elements together - meet the sky is highly visible whereas the details in the area under the skyline remain less attractive to the eye. Thus all the elements in vision appear as one unique figure with a background behind. The figure, in the silhouette, may merely be comprised of man-made elements in the city like towers, minarets, houses, domes etc. as in Vienna, or may be a combination of natural and man-made elements like a castle on a hill as in Edinburgh (Fig. 3.50, 3.8). The background, on the other hand, is mostly expected to be the sky which gives a more dramatic character to the appearing figure. The silhouette over sky offer different atmospheres changing due to the light through the day and the year (Fig. 3.51). Apart from the sky, topographical elements like mountain skirts or the other parts of the city may play the background role due to the light conditions and colour differences (Fig. 3.52). Usually the objects far behind appear quite lighter compared to those nearer and thus they form a background in the city silhouette.

3.3.1. Determinants of The Silhouette

The urban skyline is comprised of the highest points in vision which form a continuous line over the overlapping features. As the vision changes due to different view points, the silhouette also changes. On the hand, the elements which are dominant in the city scene by their size and shape usually play important roles in the silhouette though viewed from different points. So there are two main factors which determine the silhouette: the view point and the dominant urban features.

3.3.1.1. The Viewpoint

Kostof (1991:314) mentions the three important urban skyline views as those from approach roads by land, waterfront views along a river or the coast, and the views to be had from high vantage points within the city limits and the environs.

Views from approach roads by land are important as they give the first image of the city: "When we approach a settlement, the skyline is of decisive importance. What we perceive is a figure which rises from the ground towards the sky in a certain way. It is this standing and rising which determines our expectations and tells us where we are" (Norberg-Schulz, 1980:33) (Fig. 3.53). Regarding this, some cities have been designated to have different silhouettes from approaching roads in different directions as in Urbino (Fig. 3.54).

Views from the water elements like river or sea are also quite effective. Water enriches the vista with its specific character and gives rise to very strong images by reflecting the silhouette on it.

High vantage points in and around the city offer high degree of visibility over the whole urban formation. These may be natural platforms like Montmartre in Paris or summits of high buildings. View from high points give possibility to see the dominant figures in the city while disregarding lower features (Fig. 3.55).

3.3.1.2. Figural Elements in The Skyline

The urban elements should be dominant in their size and shape to be effective in the city shape. Usually, the highest elements in the city constitute the skyline. These may be towers, minarets, domes, castle on a high place or skyscrapers (Fig. 3.56). On the other hand, an urban form may be effective in the silhouette not only by its height, but by its bulk. It may cover a large area in the silhouette as in Assisi (Fig. 3.57). The special and unusual shapes also appear as important figures in the skyline. As in a vista comprised of house roofs of the same kind, a dome may come forth, though not very high and bulky (Fig. 3.58).

3.3.2. Silhouette as a Means of Image

As mentioned before, the skyline is a strong element in the expression of the city as a whole. In some cultures, silhouette has been considered vital for the city image through history:" The shape of the skyline matters to the residents. It is the familiar, fond icon of the city form, a vision to cherish and come home to; it is also their urban advertisement to the world, the front they represent to visitors, and a disseminative shorthand for a broader audience still" (Kostof, 1991:283). On the other hand, Kostof(1991:309) claims that an expressive skyline has not been a manifest need in all cultures and periods in urban history; as we experience in the flat, uneventful profiles of traditional Japanese/Chinese cities and ancient Roman cities (Fig. 3.59, 3.60).

The importance of the silhouette is related to its capability of giving a unique image of the city character. Norberg-Schulz (1980:47) mentions that an understood world is fixed in our memory as a unique image and he relates the success of the skylines in cities like Istanbul and Prague to the intimate rapport between built form and topography which appear unified in one unforgettable image (Fig. 3.61). Thus, there are two main entities in the formation of unity in skyline: Built form and topography. The relationship of these entities in themselves and with each other determine the strength of the image.

In the more wide-spread and complicated city forms of today, it is rather difficult to enhance a unique view of the whole urban area

(the overall image) as in the hill-top castle walled small settlements of the past (Fig. 3.62).

When the figural qualities of elements in the city scope, either natural or man-made, are considered; the way they are visually related to each other determines the characteristic image. In some cities, mostly in those preserving their historical skyline which reflect a certain power in the city, there is one most dominant figure rising above the whole settlement. The figure may be totally man-made as in Amiens where the cathedral is clearly differentiated with its height and shape from ordinary houses (Fig. 3.63). The figure may also be formed by the combination of topographical and man-made features as in Acropolis/Athens (Fig. 3.64).

Though one such figure over the city may have a very effective skyline, usually the nature of the skyline is not determined by one or more distinctive building shapes, but by the repetitive use of certain features. These features may be merely architectural disregarding the topography or they may use and reshape the profiles offered by the topography. Kostof(1991:288) mentions two basic relationships of the repeating figures in order to have visual purity, thus unity in the skyline as: hierarchy and reverberation.

Hierarchical skylines may be formed by use of man-made elements alone, which have different heights and sizes or different shapes. Kostof(1991:315) mentions some features may play an anchoring role in the vision like the New York's Statue of Liberty making a fair

signpost for the cityscape that is to open up behind it. In the old illustrations of Jerusalem, also it is possible to see a hierarchy among the man-made features. Though there are many features in the skyline like domes, tunnels and minarets, the Dome of the Rock is dominant in the expression of the unique character of the city (Fig. 3.65).

A hierarchical skyline may also be formed by the use of topographical elements. In Edinburgh, though there are other high urban elements in vision like towers; the castle built on the hill is dominant by its height and bulk (Fig. 3.8).

On the other hand, there is no one certain dominant element in reverberating skylines. The repetitive use of certain man-made features in a scattered way throughout the skyline; like family towers as in Bologna or minarets as in Bursa gives a certain character to the city scene (Fig. 3.26, 2.66).

The cities with a complicated topographical layout have the possibility of using the elements like hills to form a reverberating skyline. As in İstanbul, the rising profile may be emphasized by mosques having special properties in size and shape, and the repeated vista of them may create a strong, unique image expressing the character of the city (Fig. 3.61).

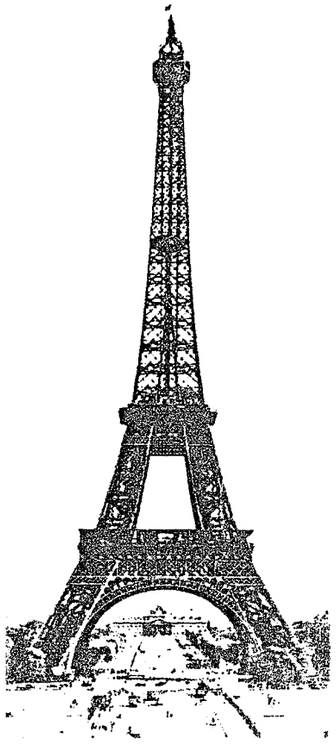


Figure 3.23 Eiffel tower
A Graphic Survey..., 273.

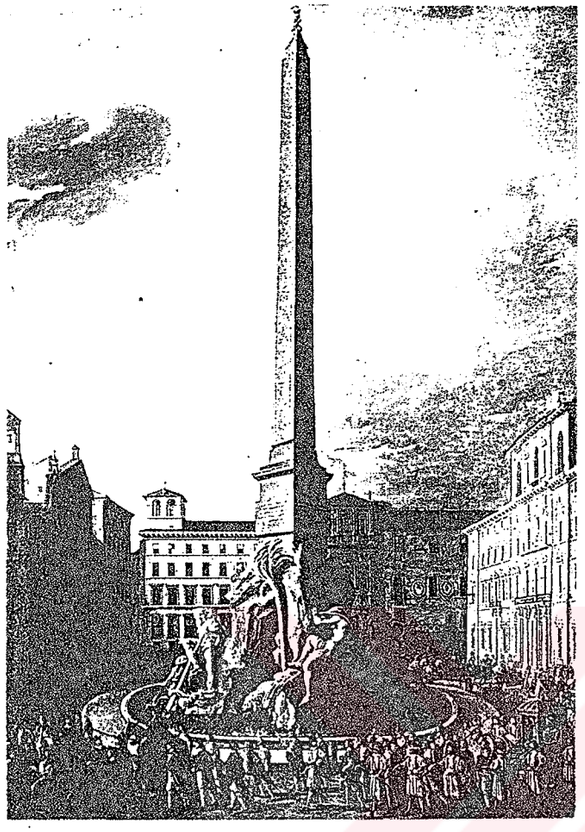


Figure 3.24 Obelisk in Rome
Cities and People, 137.

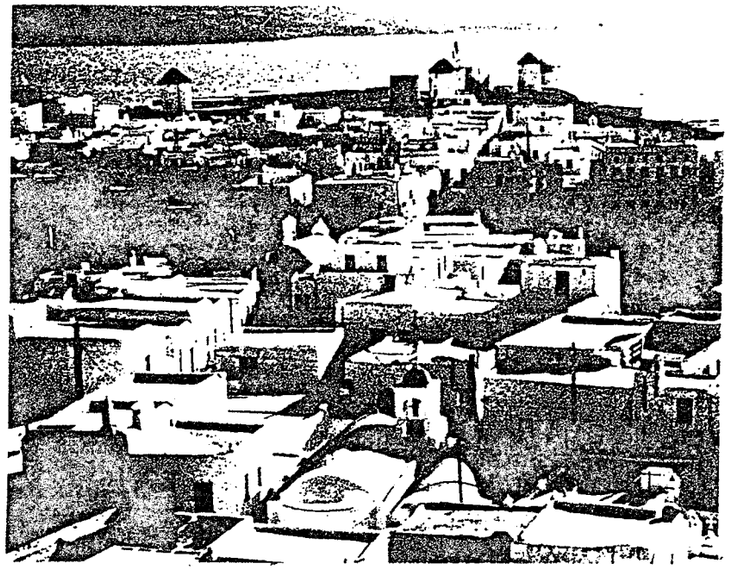


Figure 3.27 Traditional settlement
The Language of Cities, 40.

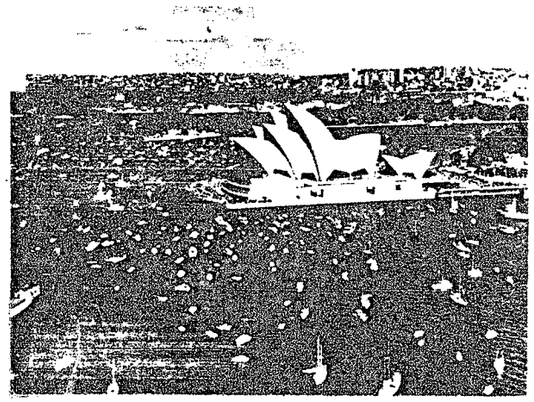


Figure 3.25 Sydney Opera House
A graphic Survey...,48.

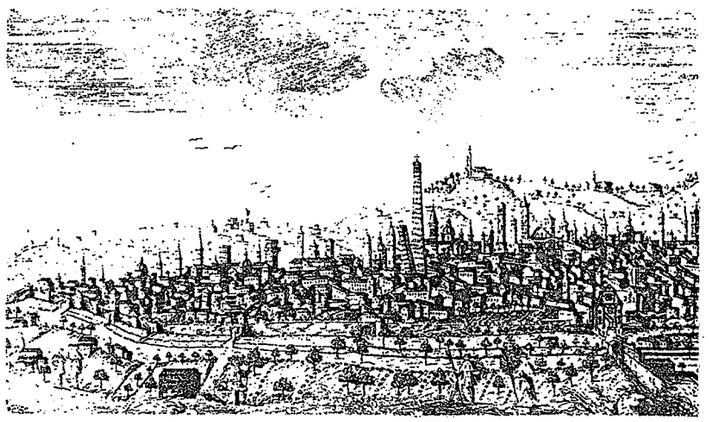


Figure 3.26 Family towers in Bologna
The City Shaped, 280.

Figure 3.28 American city
A History of Architecture, 714.

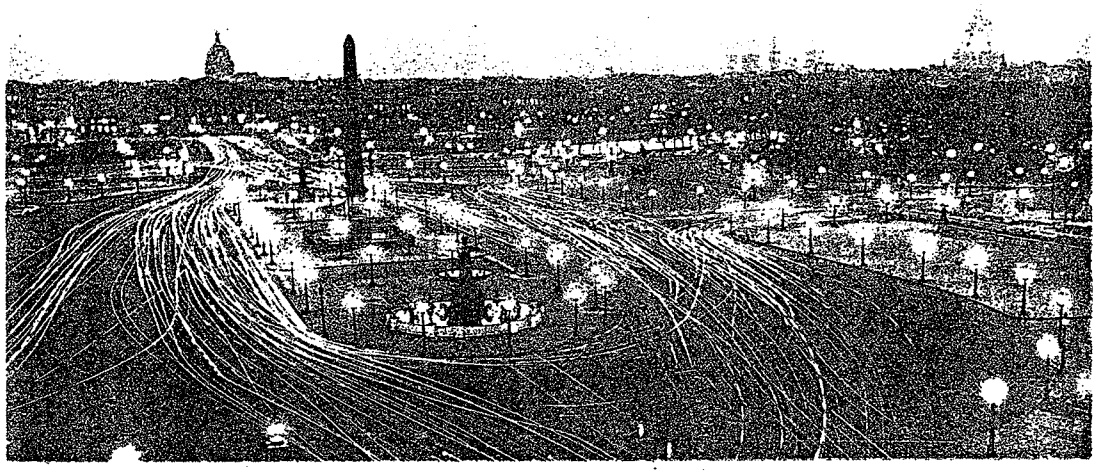


Figure 3.29 Paris
The City Square, 152.

Figure 3.30 Street in Florence
Cities and People, 121.

Figure 3.31 Green City by Le Corbusier
The Concept of Dwelling, 47.

Figure 3.32 Continuous buildings along street
A History of Architecture, 681.

Figure 3.33 Detached buildings along street
The City Shaped, 278.

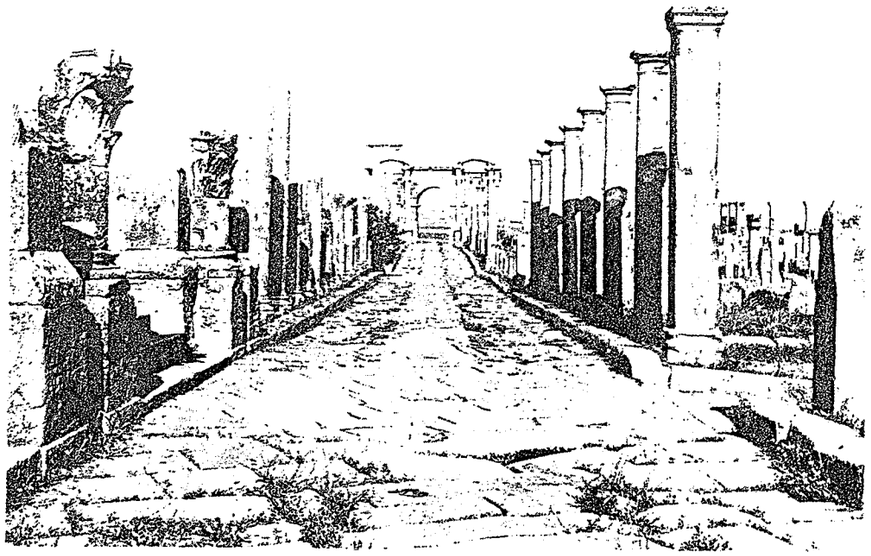


Figure 3.34 Timgad, colonnaded street
A History of Architecture, 286.

Figure 3.35 Trees along street
A History of Architecture, 681.

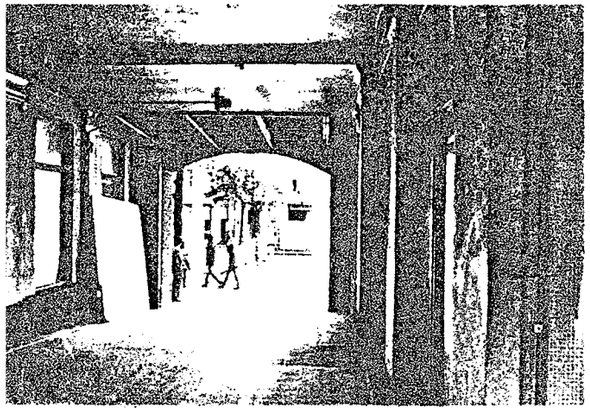


Figure 3.38 View through tunnel
A Graphic Survey..., 78.

Figure 3.39 Bradenburg Gate, Berlin
The City Shaped, 273.

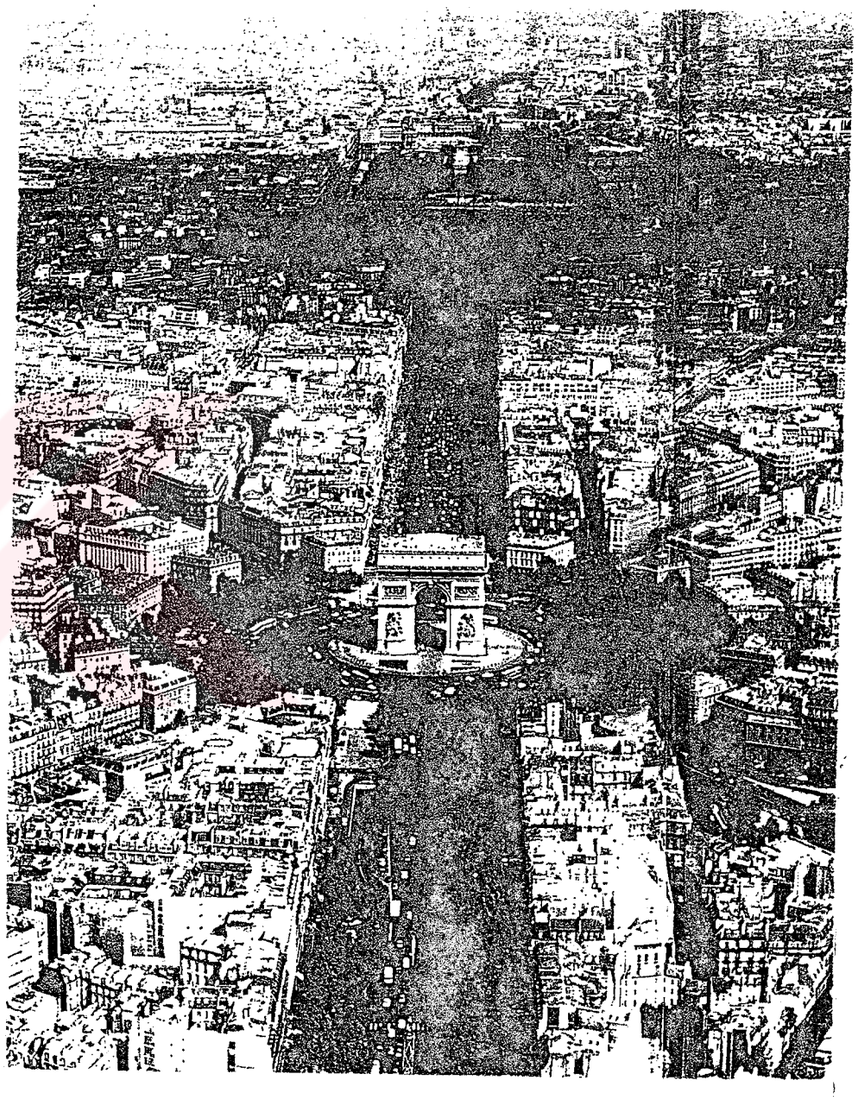


Figure 3.40 Arc de Triomphe, Paris
The City Shaped, 245.

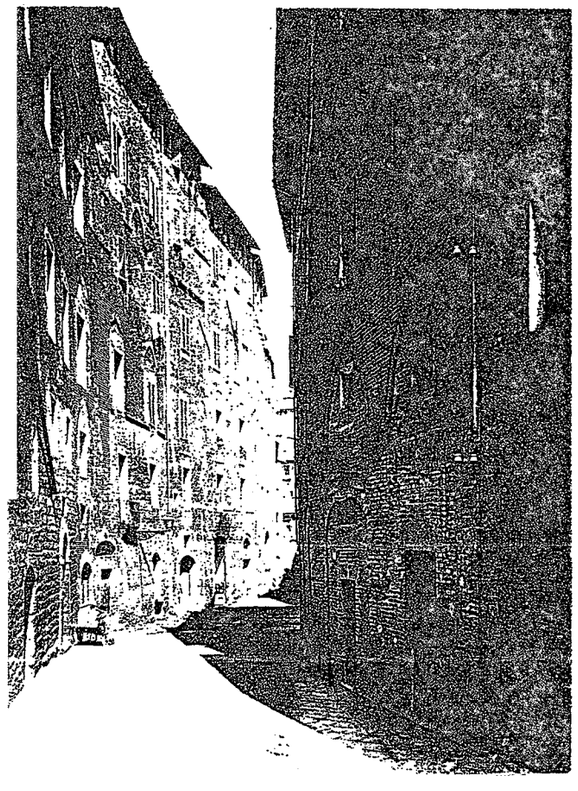


Figure 3.37 Street view in Siena
The City Shaped, 365.

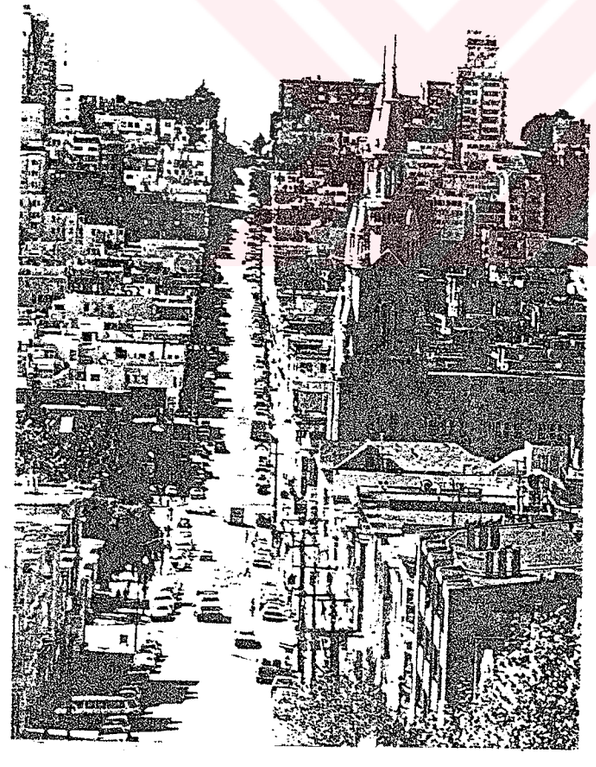


Figure 3.36 Street view ending with sky
A Graphic Survey..., 69.

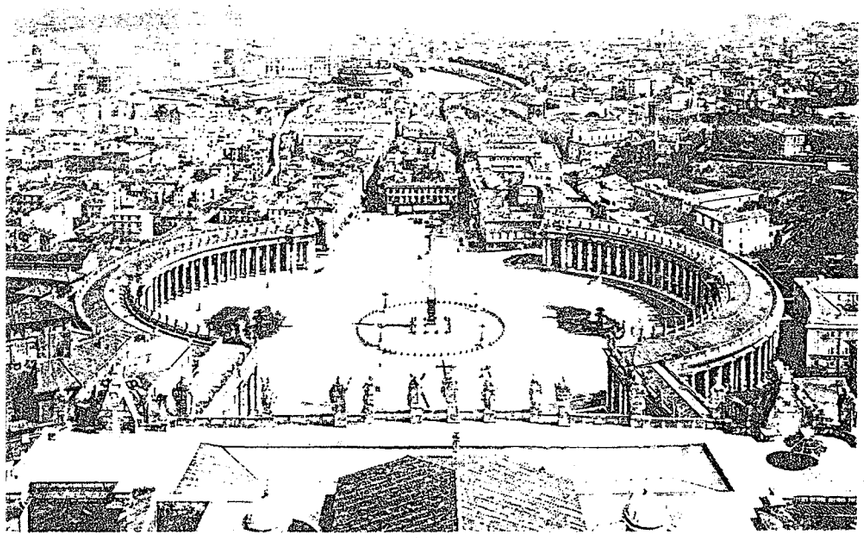


Figure 3.41 St. Peters square, Rome
A History of Architecture, 505.

Figure 3.42 Navona square, Rome
The Concept of Dwelling, 61.

Figure 3.43 Red square, Moscow

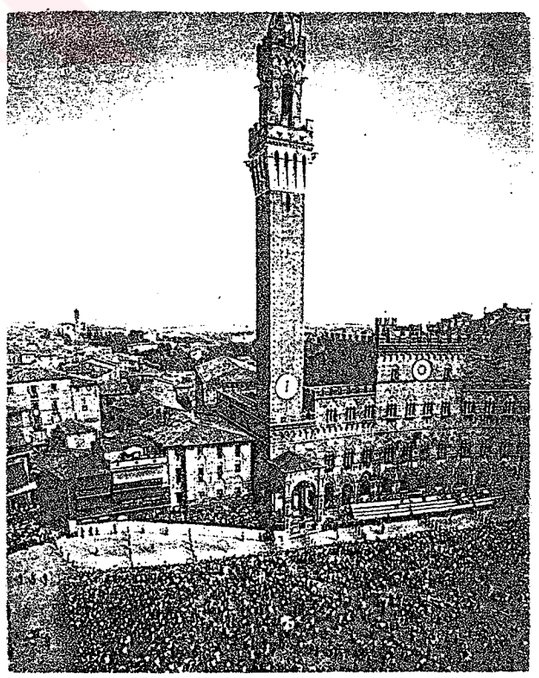


Figure 3.44 The Campo of Siena
The City Square, 35.

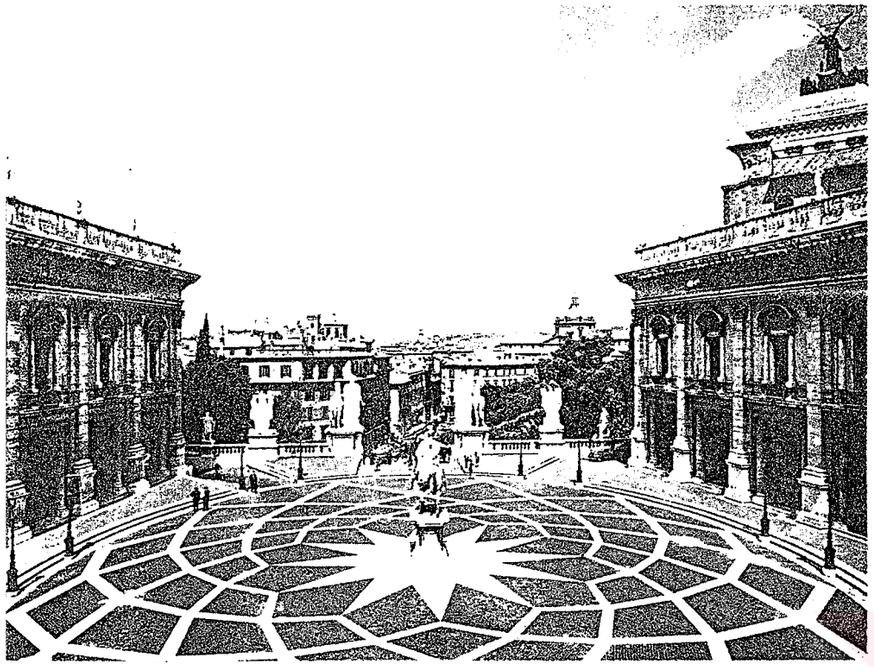


Figure 3.45 Campidoglio, Rome
A History of Architecture, 495.

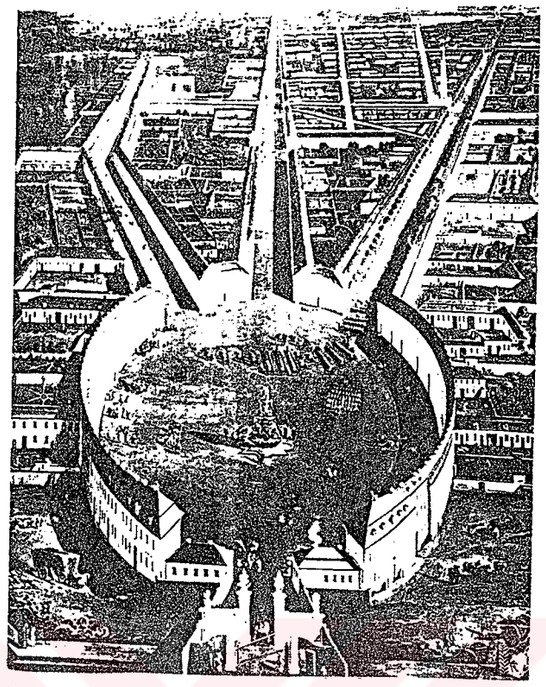


Figure 3.47 Das Rondell, Berlin
Cities and People, 228.

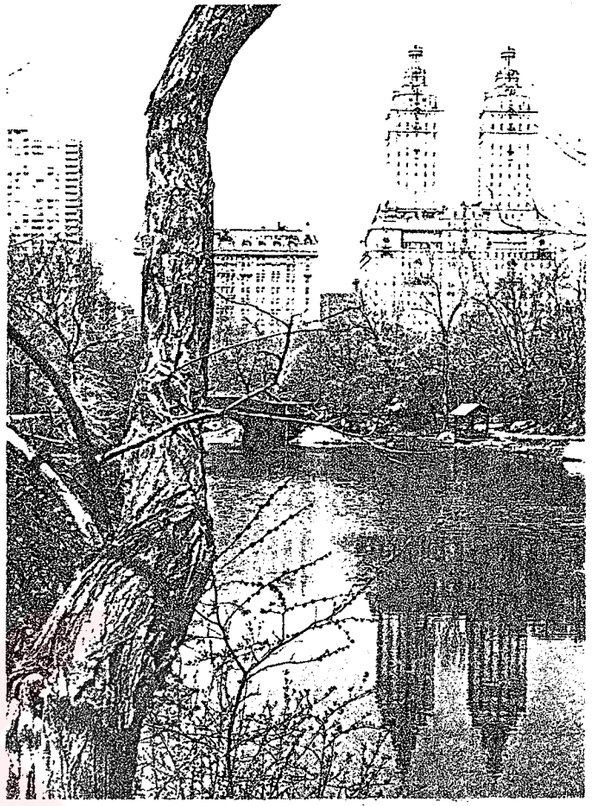


Figure 3.49 Central Park, New York
Cities and People, 301.

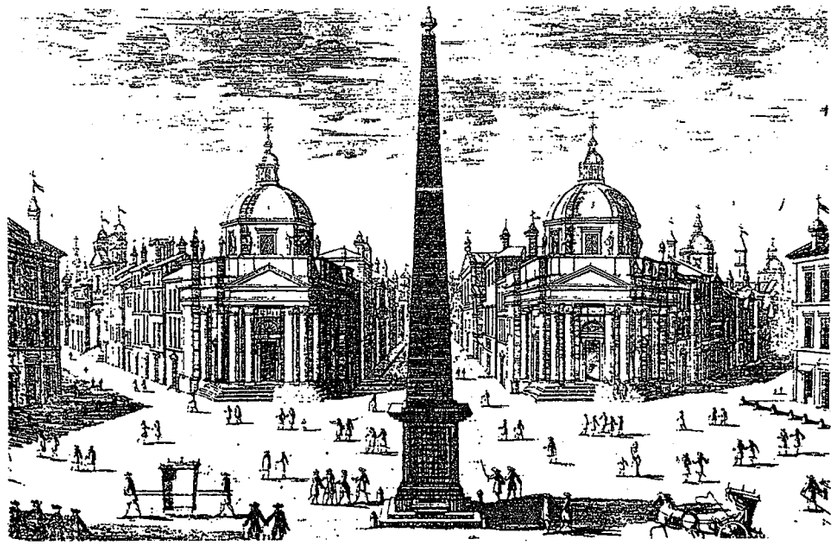


Figure 3.46 Piazza del Popolo, Rome
Design of Cities, 162.

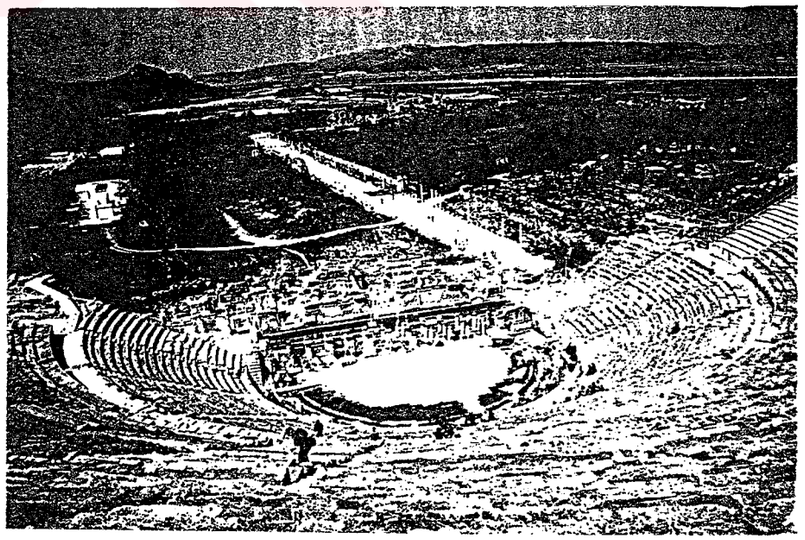


Figure 3.48 The theatre, Ephesus
Photo by Z. Aktüre.

Figure 3.50 Vienna
The Language of Cities, 36.

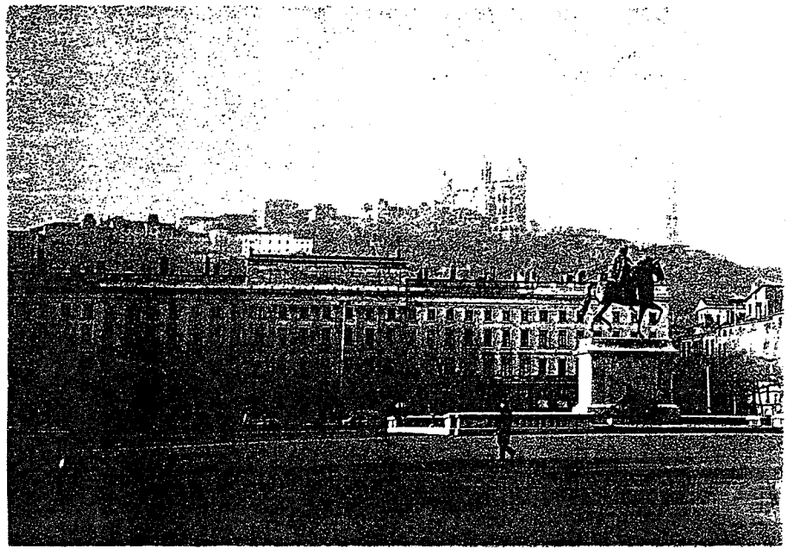


Figure 3.52 Lyon
The City Shaped, 327.

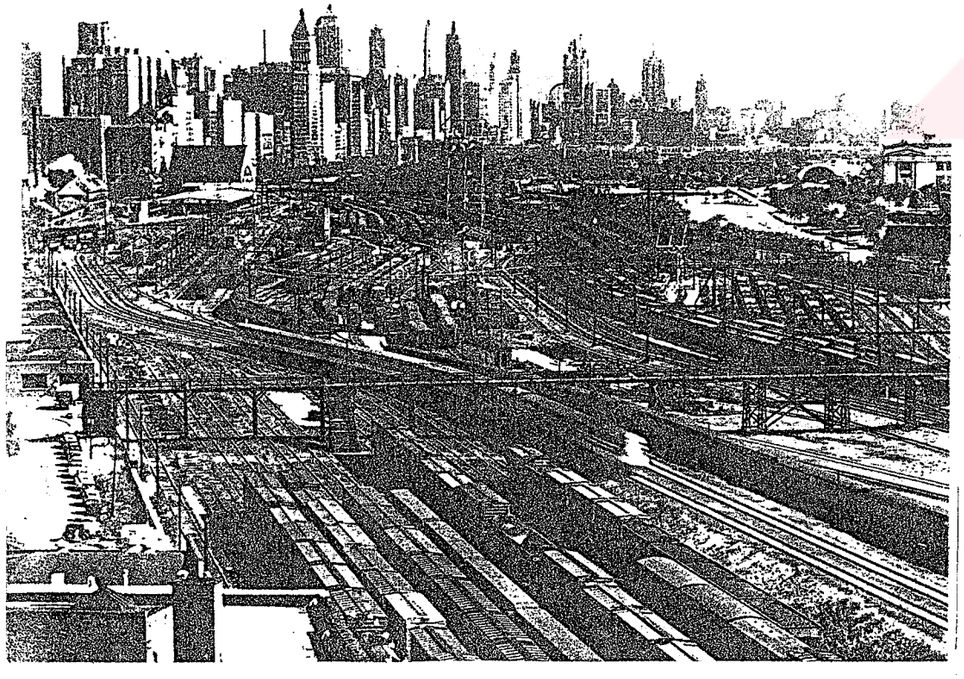


Figure 3.53 Chicago
Cities and People, 321.

Figure 3.51 Prague
The Concept of Dwelling, 24.

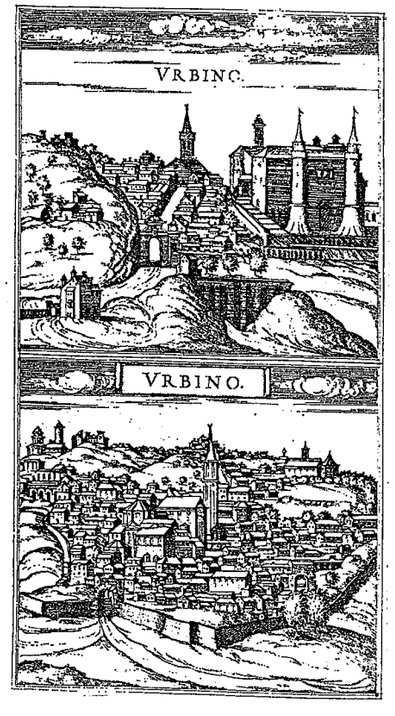


Figure 3.54 Urbino
The City Shaped, 314.

Figure 3.55 View from a high place
The Language of Cities, 106.

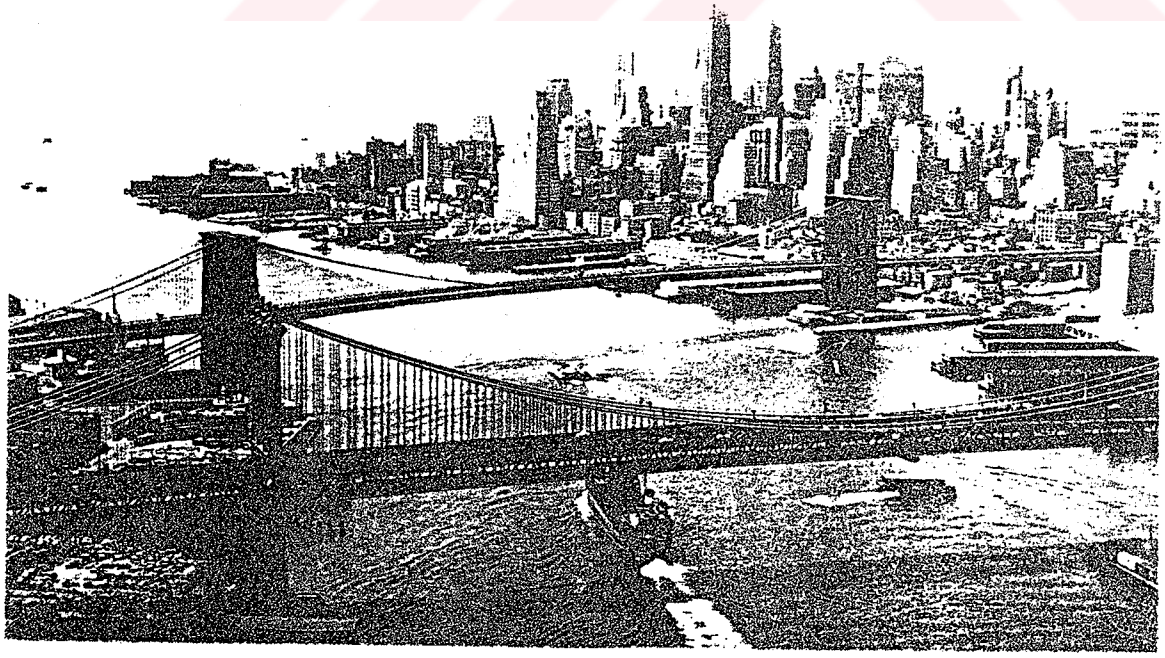


Figure 3.56 Manhattan, New York
Cities and People, 325.

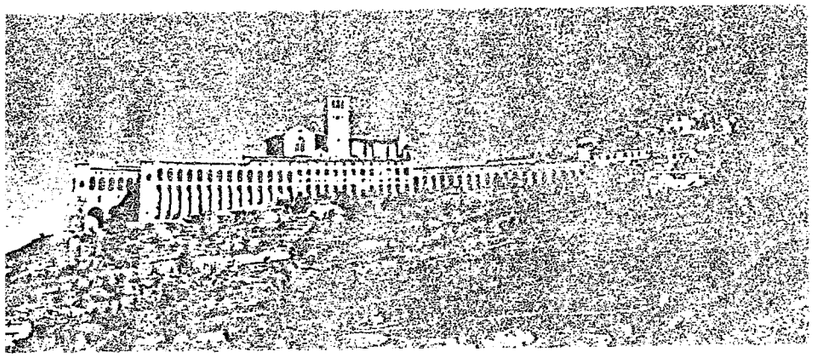


Figure 3.57 Assisi
The Concept of Dwelling, 35.

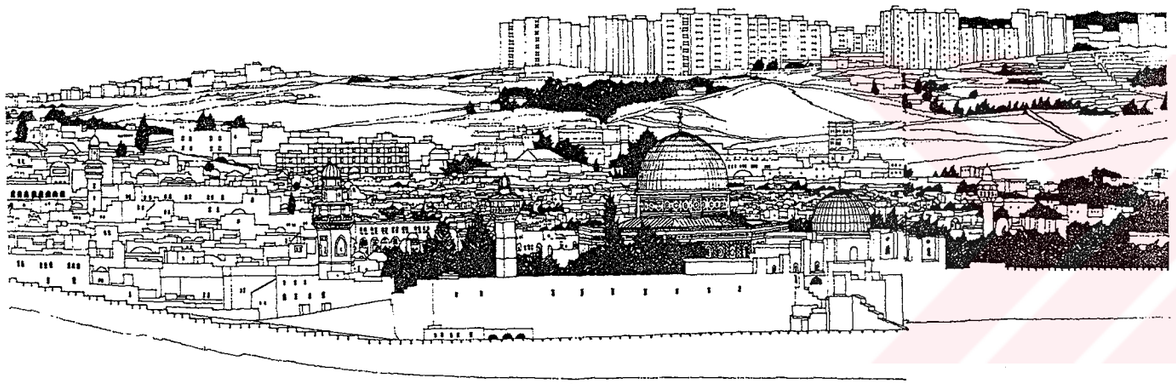


Figure 3.58 Jerusalem
The City Shaped, 310.

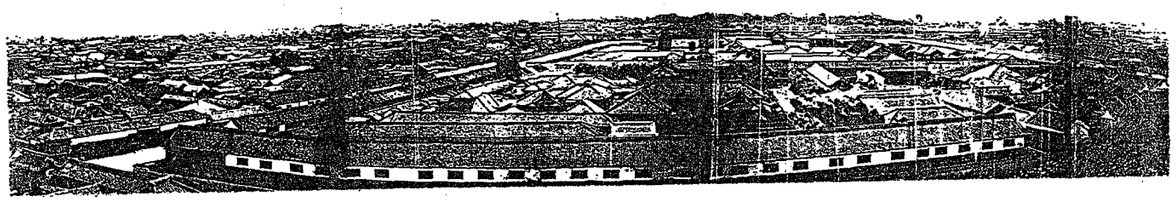


Figure 3.59 Tokyo
The City Shaped, 309.

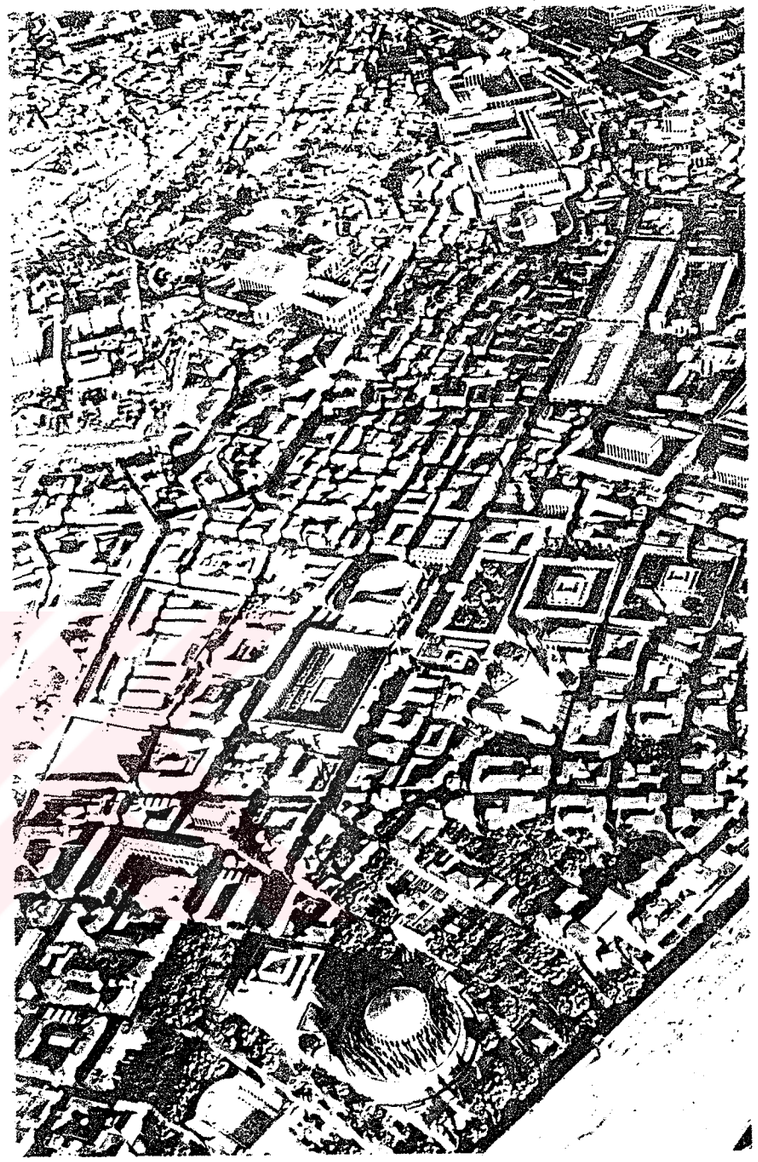


Figure 3.60 Ancient Rome, model
The Ancient City, 300.

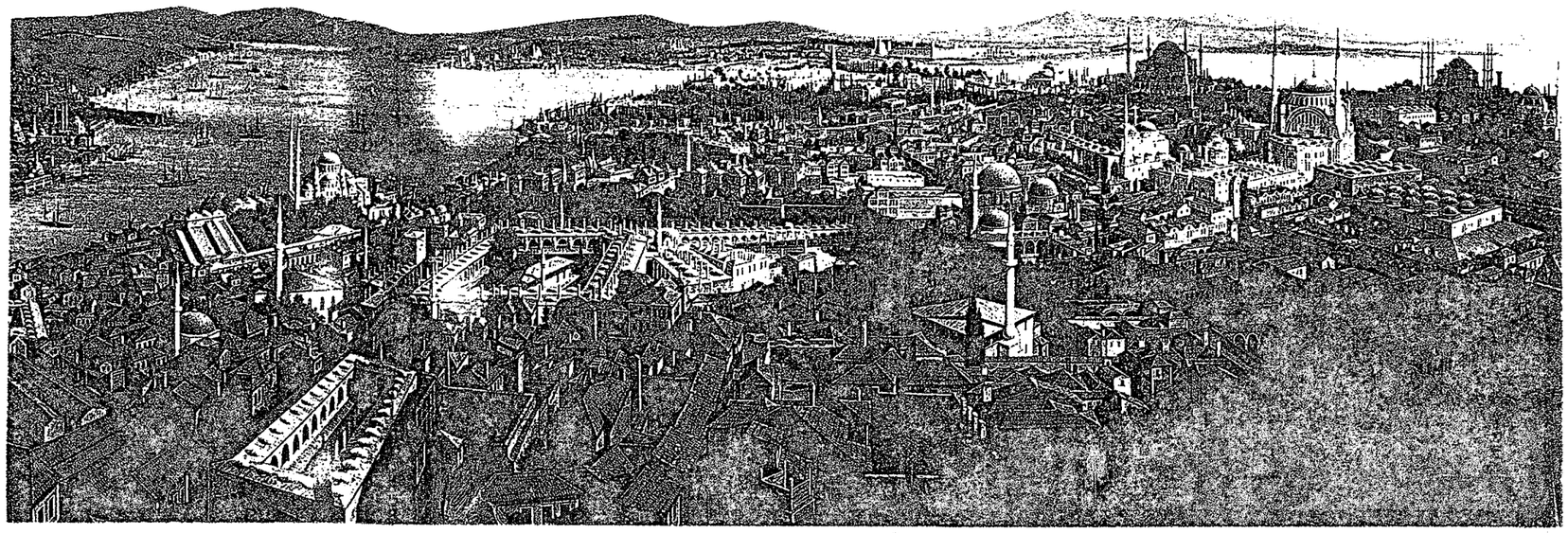


Figure 3.61 İstanbul
The City Shaped, 299.

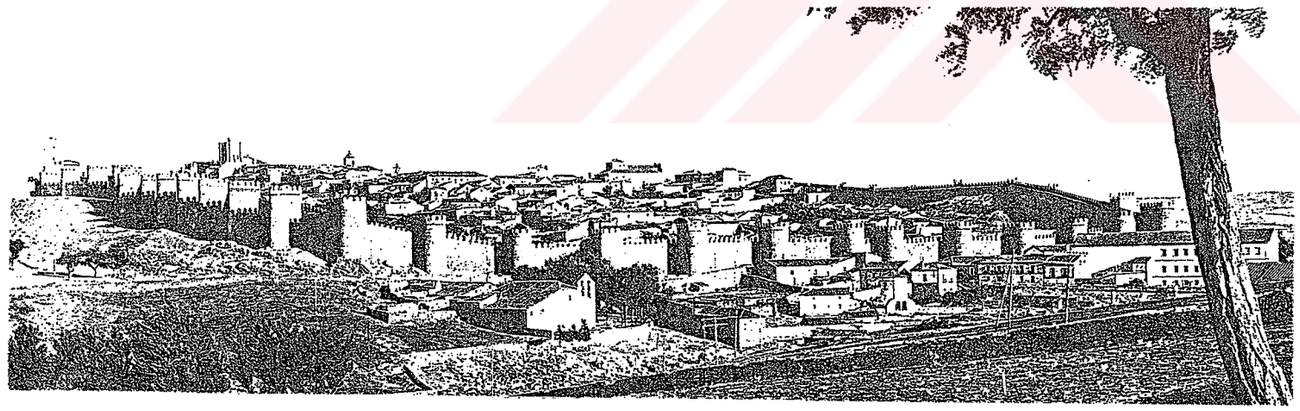


Figure 3.62 Avila, Spain
The City Shaped, 307.

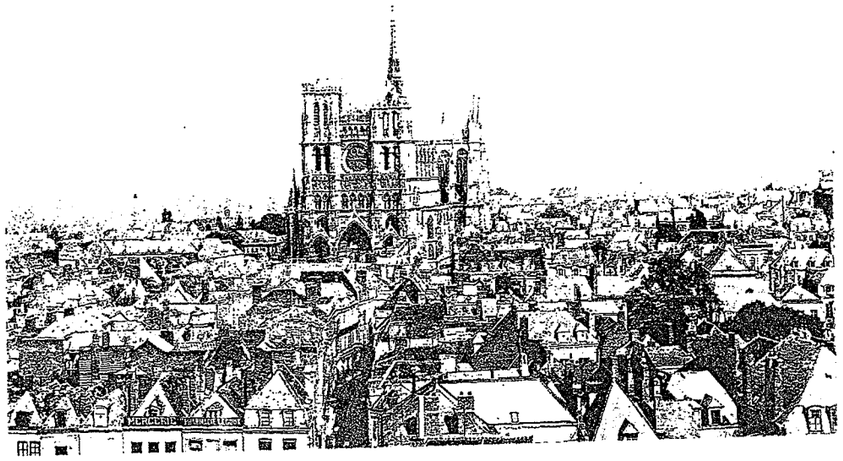


Figure 3.63 Amiens
The City Shaped, 288.

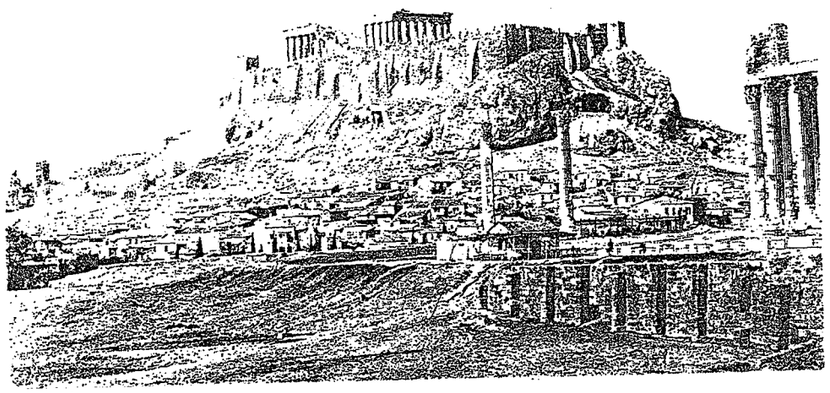


Figure 3.64 Acropol, Athens
The City Shaped, 289.

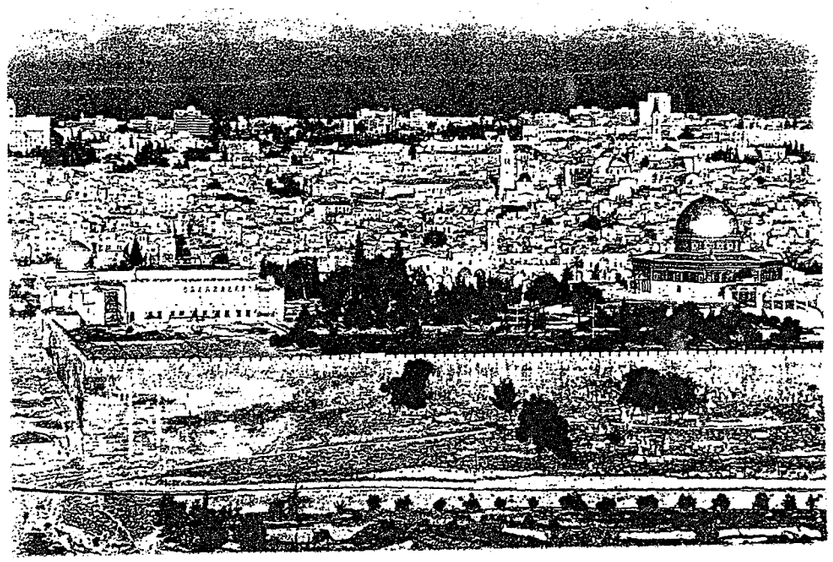


Figure 3.65 Jerusalem
The City Shaped, 288.

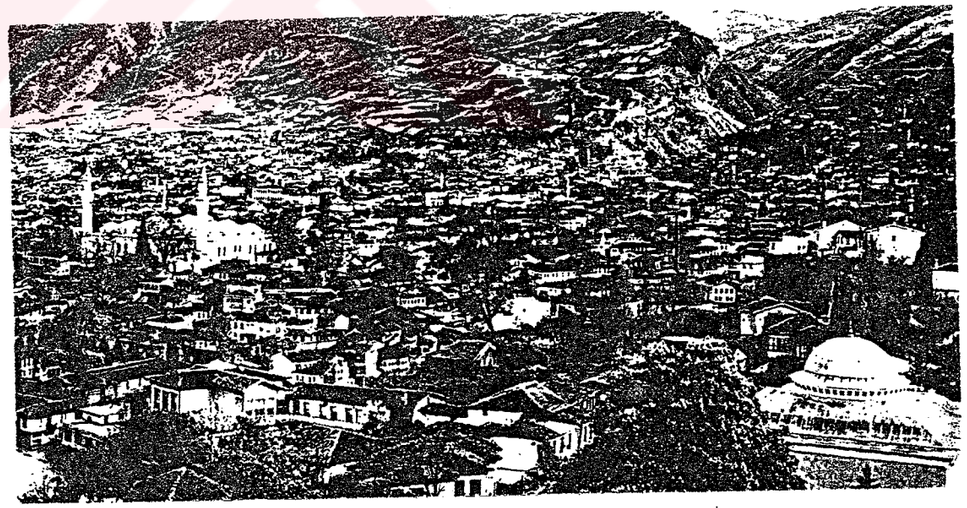


Figure 3.66 Bursa
Türkiye Ansiklopedisi, 179.

CHAPTER IV

A SURVEY ON ANKARA'S MORPHOLOGY IN TERMS OF URBAN VISIBILITY

4.1. Topography and the Urban Morphology

4.1.1. General Topographical Structure of Ankara Region

Ankara is placed in the north-west of Inner Anatolia region. Akçura (1971:9) mentions that the city exists in the transition area between the region and the mountain chains that seperates it from the sea and the other regions. This natural threshold is appropriate for settlements as it offers the adventages of both the mountains and the lower flat areas (Fig. 4.1).

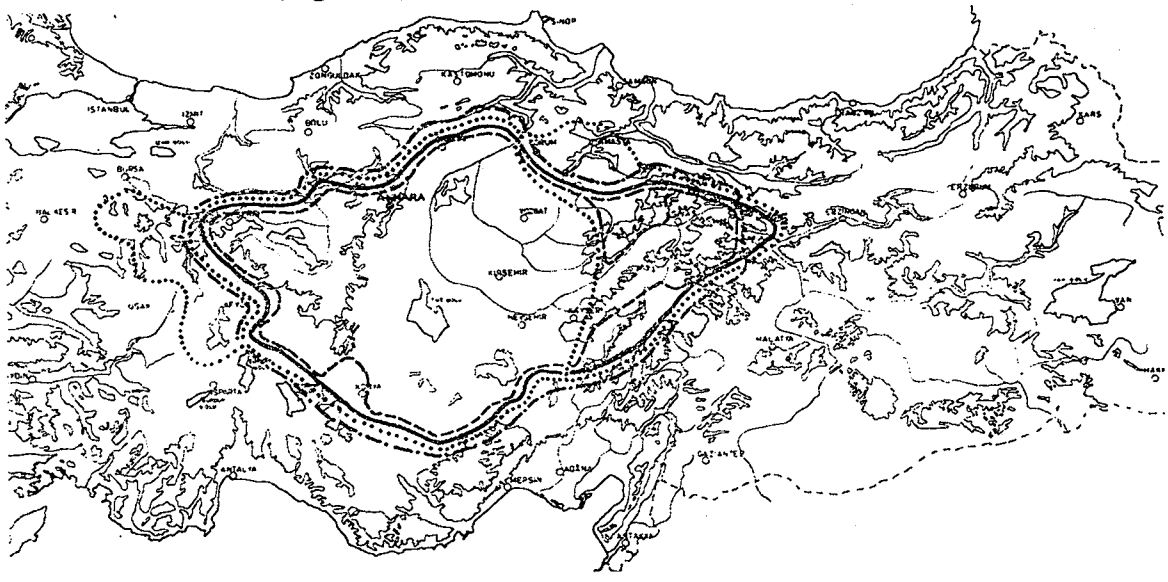


Figure 4.1 Boundaries of Inner Anatolia Region
Ankara: Türkiye Cumhuriyeti'nin..., 10.

The city is founded on the slopes in the eastern part of Engürü plain. This plain, having a hilly area on the western part of it, is surrounded by Karyağdı mountains (1200-1500 m) in the north, Meşe and Hacı mountains in the south; and Elmadağ of 1800 m. height in the south-east (Akçura, 1971:11). In the east, there exists Hüseyin Gazi (1415m.) mountain and in the farther north-east İdris mountain rises up to 1992 m. Engürü plain, lying in the east-west direction meets Mürted plain in the west, which lies in the north-south direction. The lower area between Karyağdı and Hüseyin Gazi - İdris mountains form Çubuk plain along the Çubuk stream in the north-east; then getting lower in the south (between Hacılar mountain and Elmadağ), it constitutes the flat areas opening to Gölbaşı area. (Ulus Tarihi Kent...:16) (Fig. 4.2).

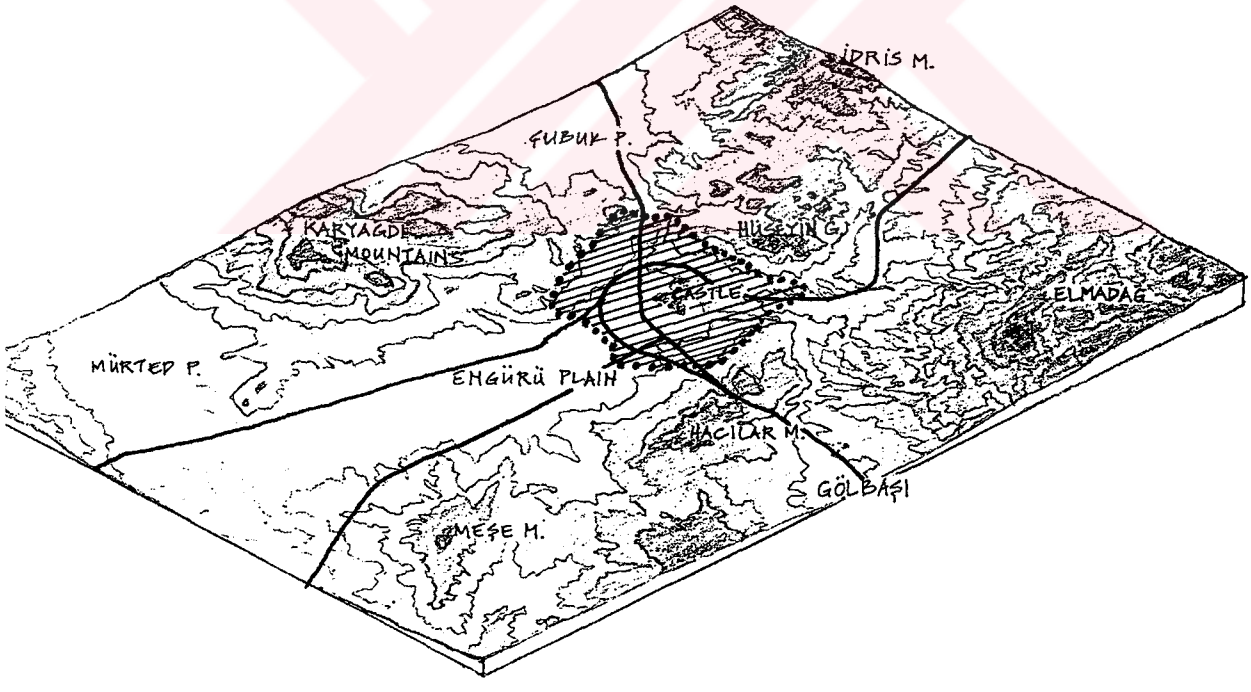


Figure 4.2 Ankara - geographical layout

The lower areas also determine the route of the water. Ankara stream, which flows from higher western part of Engürü plain to the lower areas in the east is created by three other streams: From the east, Hatip stream flowing through Hüseyin Gazi and Elmadağ, then passing between the castle hill and Altındağ, and from the south-east İncesu stream flowing through Hacılar and Elmadağ, meet close to the hilly (castle) area and form Ankara stream Çubuk stream, coming from the north-east through Karyağdı and Hüseyin Gazi mountains connects it later in the east (Fig. 4.3).

Consequently, the city is placed in a bowl-like topographical entity which has the shape of a horse-shoe facing east, and the altitude of the settlement area changes from 800m. to 1200m. (Altaban, 1986:7).

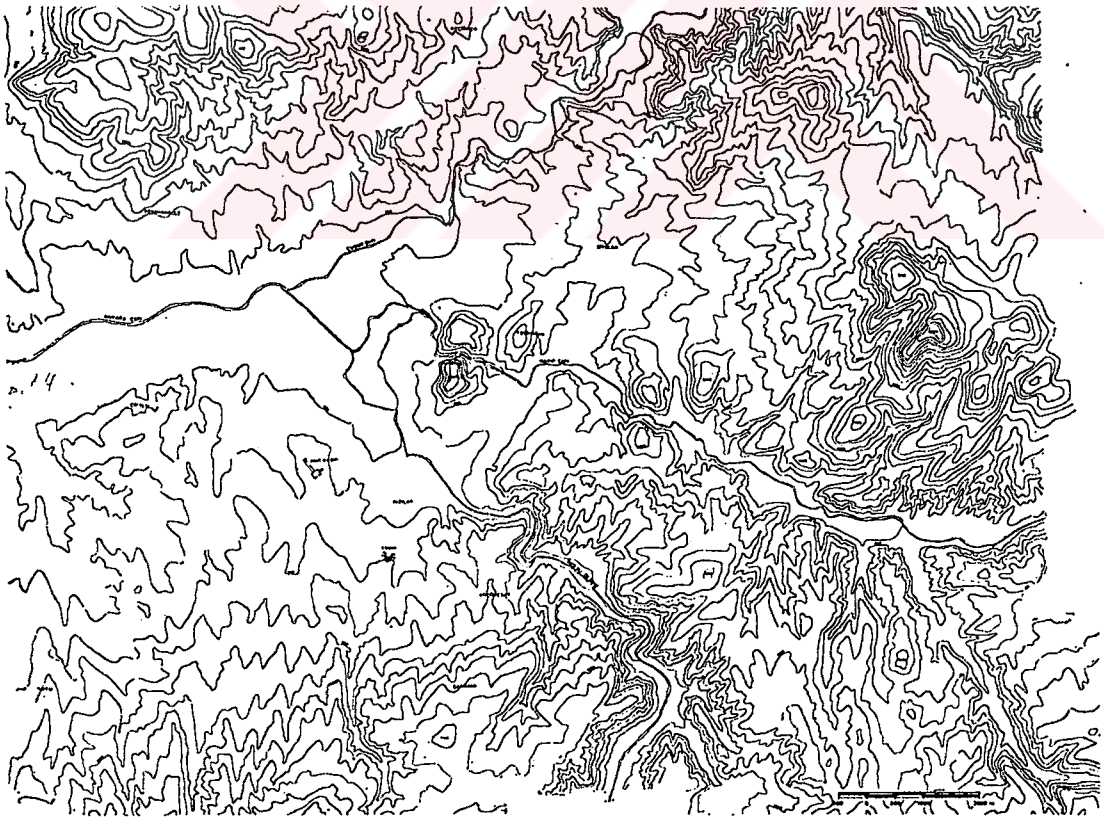


Figure 4.3 Ankara - streams within the geographical layout
Ankara: Türkiye Cumhuriyeti'nin..., 14.

4.1.2. Local Topographical Elements Creating Visibility Patterns

Though the general properties of the settlement area may be defined simply as a plain facing west surrounded by mountains on three sides, a closer acquiantance necessiates the analyzing of complex topographical formations. At this point, it gets rather difficult to simply define the natural forms as one topographical element for they create number of elements within themselves. For example, a mountain skirt may create valleys reaching the plain, or it may give rise to the formation of hilltops along itself. So, in order not to get things too complicated, the topographical elements may be taken as what they mainly are, and the other formations may be analyzed within them.

4.1.2.1. Plains

The main plain in the settlement area is Engürü plain. Engürü plain lies in the east-west direction. In the west, it reaches Mürted plain; in the east, after, passing the hilly area where the castle exists, it continues till the slopes of Hüseyin Gazi mountain. To the north, it is limited with the rising Etlik hills which are the extention of Karyağdı mountains Iying in east-west direction. In the south, slopes of Meşe and Hacı mountains limit the plain directing it to the north-west where it meets Mürted plain. Engürü plain has an altitude of 780 m. in its west end whereas it increases up to 850 m. altitude in the east end.

A wide visible area is offered by the plain. Looking from the plain; the main attractive elements to the eye are the hills on one of which the castle is placed. Surrounding mountains rather have an effect limiting the view on sides. On the other hand, when viewed from the high points on surrounding mountains, or from the castle hills, the plain is highly visible as a whole (Fig. 4.4).

4.1.2.2. Hilltops

There are a number of hills with different sizes and altitudes in the area. When Ergürü plain is considered, the dominant figure in it is the set of hills on the eastern part. Here, there are three main hills one of which have been the settlement area through the history. This hill, with the castle on it, is highly visible from the western plain; it rises from 850m. to about 980m. In the north of it, detached by the deep and steep valley of Hatip stream, lies Hıdırlık hill rising up to 1000m. height. A number of smaller hills are formed in the north-west skirts of Hıdırlık (like Hacıbayram hill). When viewed from west; the castle hill, Hıdırlık and smaller hills are seen together. On the other hand, there is one more hill rising to 980m. in the east of them-not visible from west. This hill comes into sight when viewed from eastern areas; rather blockaded by the other hills from west. Apart from being natural landmarks, these hills are ideal viewpoints to watch the plain in a great distance in different directions.

There are other hills which are placed on the plain, but

which are not that dominant with their size and altitude. Anıttepe, Hacettepe and Kocatepe are some of them. They rise about 50m. like Anıttepe which has an altitude of 900m. over the 850m. plain. Though they are not natural landmarks, they are visible from closer distances and they offer good viewpoints to watch certain areas.

Another important hilltop in Ankara's visibility structure is the Hüseyin Gazi mountain which is placed at the eastern end of the plain. Hüseyin Gazi, reaching over 1400 m. in the summit creates a strong image in the city silhouette viewed from western points. It may be called a natural landmark in the bigger scale.Though it may lose its visibility due to natural or man-made elements in some parts of the city, it is quite dominant in the city vista from far points (Fig. 4.5).

4.1.2.3. Mountain Skirts:

As Ankara is surrounded by mountains on three sides, mountain skirts occupy important place in visibility. The mountain skirts are linear on two sides of the plain: In the south, the slopes of Meşe and Hacı mountains, and in the north, the extentions of Karyağdı mountains (as Etlik hills) lie linearly in the east-west direction. The skirts of Hüseyin Gazi mountain, on the other hand may rather be called radial as they reach to a pointual summit in the east. The mountain skirts, either linearly or radially spreading, create visual barriers which usually appear as background for the figural elements in sight. Somehow, the linear mountain skirts limiting Engürü plain in the

north and in the south are visible from a wider area whereas the skirts of Hüseyin Gazi mountain is rather blockaded visually to an extent by the set of hills in the west. The linear mountain skirts also offer good viewpoints in a wide inclined area looking to the plain. The view from Hüseyin Gazi mountain's skirts are limited in a smaller area by the hills.

The way the mountain skirts rise and fall within their inclined surfaces is also an important point to be considered when analyzing their visual qualities. For example the southern mountain skirts of Çankaya reach the plain creating valleys and ridges among them. These valleys, higher in the south, getting lower as they approach the plain in south visually open to the plain. They offer a directed view to a wide area. When viewed from the plain, they rather get lost in the rising mountain skirt (E.g. Dikmen, Öveçler, Botanik P., Seğmenler P., Seyranbağları...). The mountain skirts may also form hilltops within themselves which change in scale. In the south again, the Çalı hill rises up to 1300 m. on the skirts of Hacı mountain. In the northern mountain skirts, many hilltops are formed like Etlik hill, Şentepe, TV. station... These hills are placed on the inclined area of about 1025-1165m. altitude. They offer good vistas of the plain due to their altitudes though usually they are not highly visible within the inclined surface of the mountain skirt. In the east, Hüseyin Gazi mountain also extends into the city creating hilltops like Gülveren, Fatih, like Elmadağ's extentions as Abidinpaşa, Aktepe, Topraklık hills (Fig. 4.6).

4.1.2.4. Valleys:

The main valleys within the area are those formed by the important streams passing through the area: Çubuk flowing to the north-east, Hatip flowing to the east and İncesu floating to the south-east. These valleys are mostly alike as they pass through hilly areas winding. They are mostly deep and have a limited view. The hills they go through usually create visual barriers in these deep valleys; thus there is a shifting image through the valley along the winding path of the stream. So, though having dynamic view through themselves, they offer the visibility of quite a narrow and closed area (Fig. 4.7).

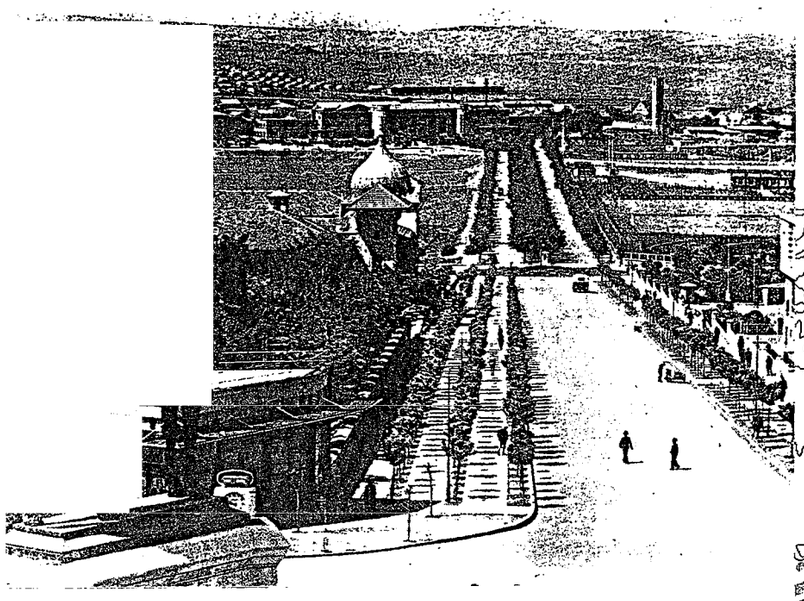


Figure 4.4a Engürü plain from Ulus, 1936
Ankara, 30.

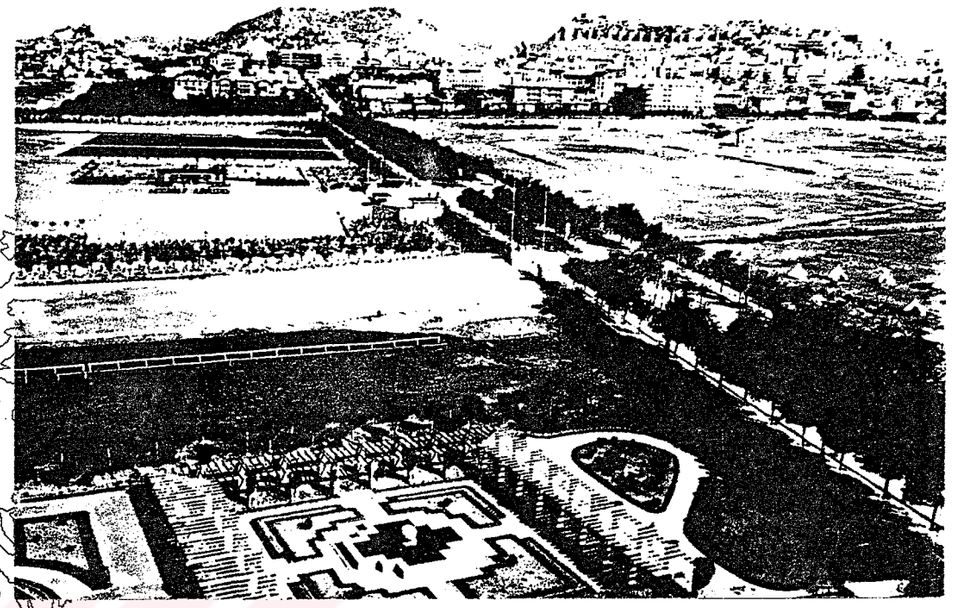


Figure 4.4b The Castle from the plain, 1934
Ankara, 32.

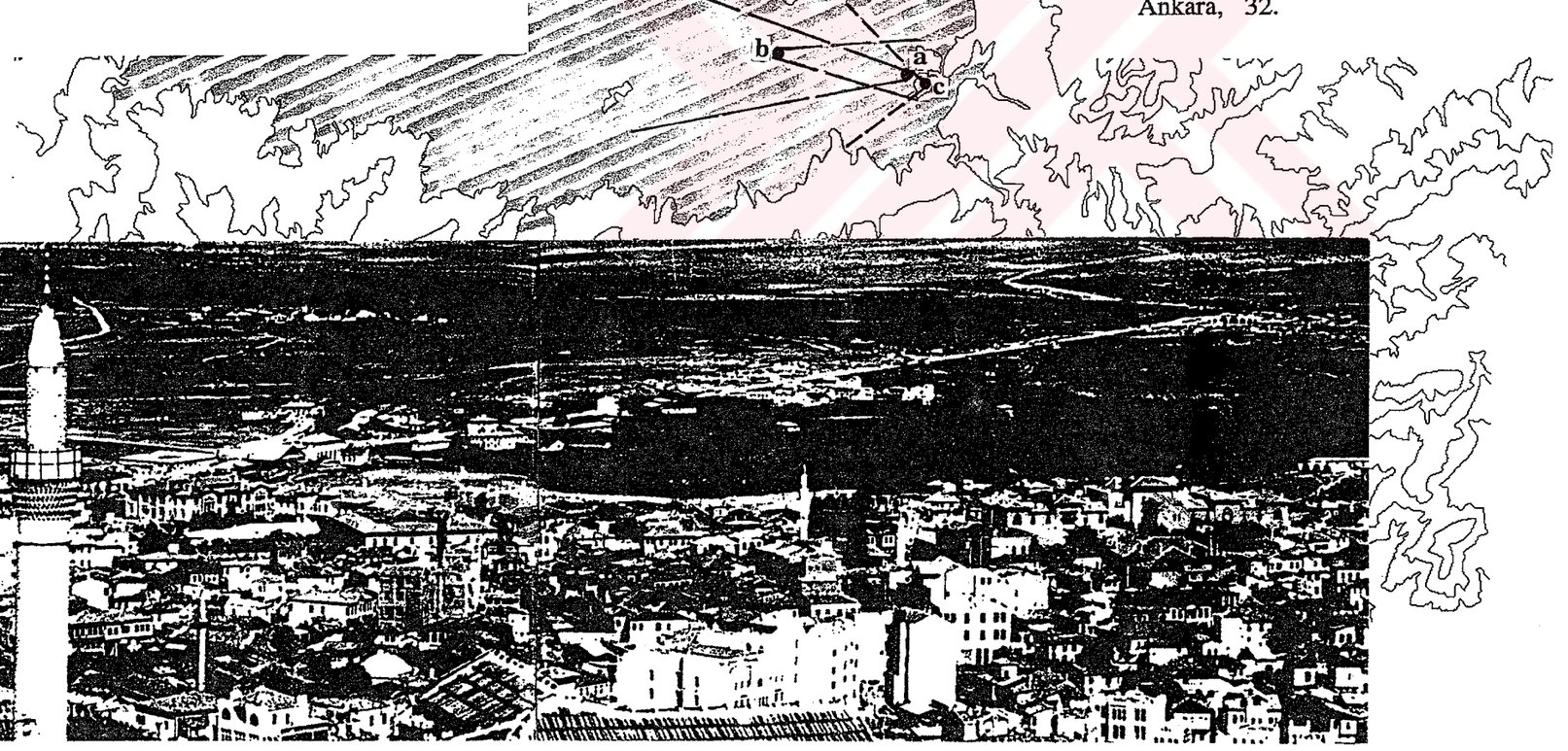


Figure 4.4c The plain from the Castle
Ankara, 38-39.

Figure 4.4 Plains

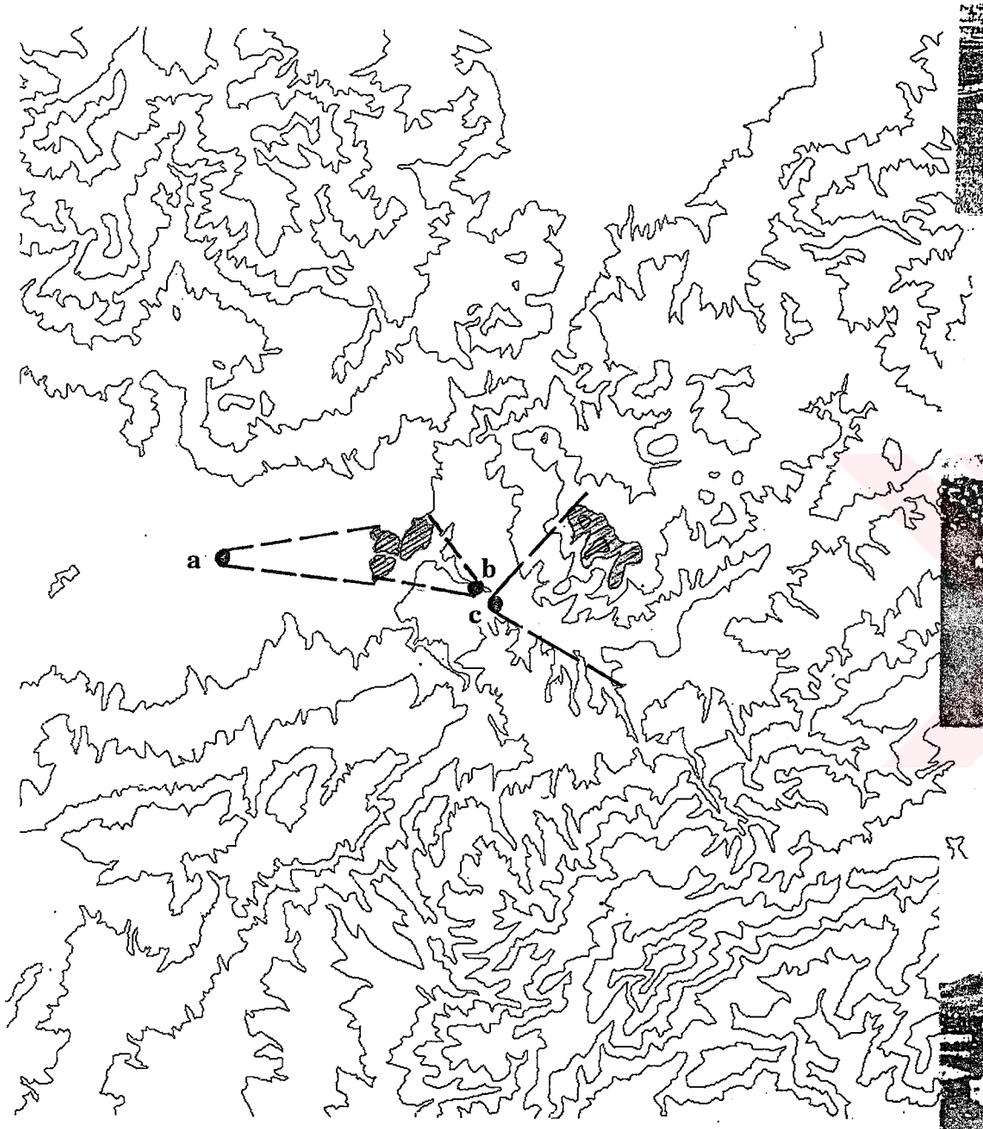


Figure 4.5 Hilltops

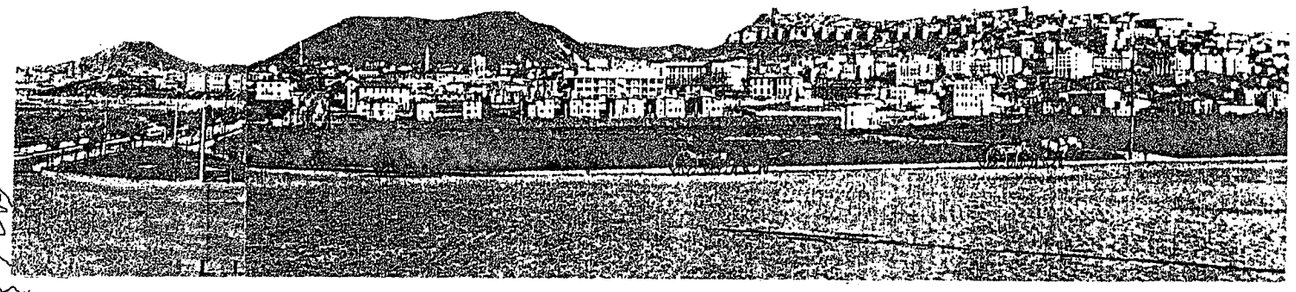


Figure 4.5a The Castle from Engürü plain
Bir Zamanlar Ankara, 28.

Figure 4.5b The Castle from Cebeci
Bir Zamanlar Ankara, 102.

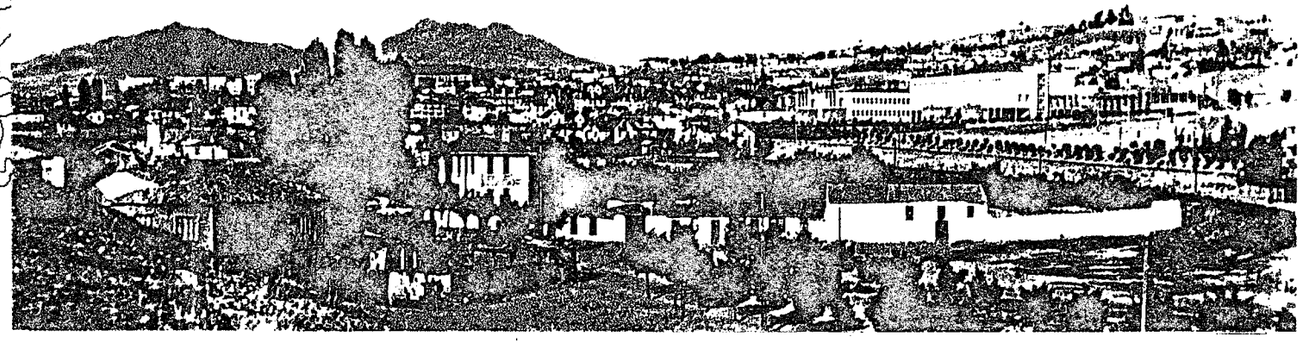


Figure 4.5c Hüseyin Gazi mountain from Cebeci
Bir Zamanlar Ankara, 102.

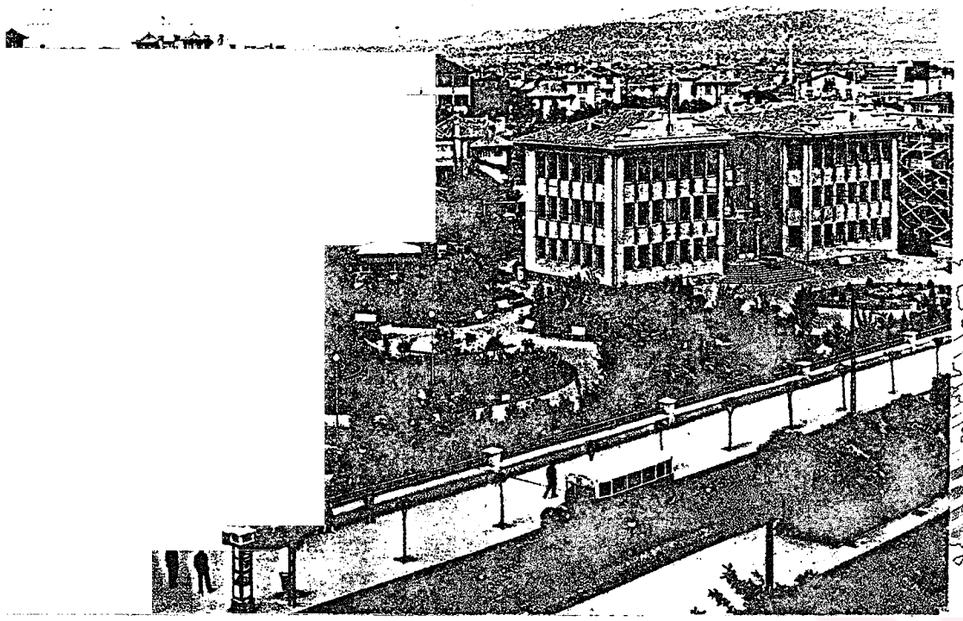


Figure 4.6a Northern mountain skirts from Kızılay, 1954
50 Yılın Türk Mimarisi, 174.

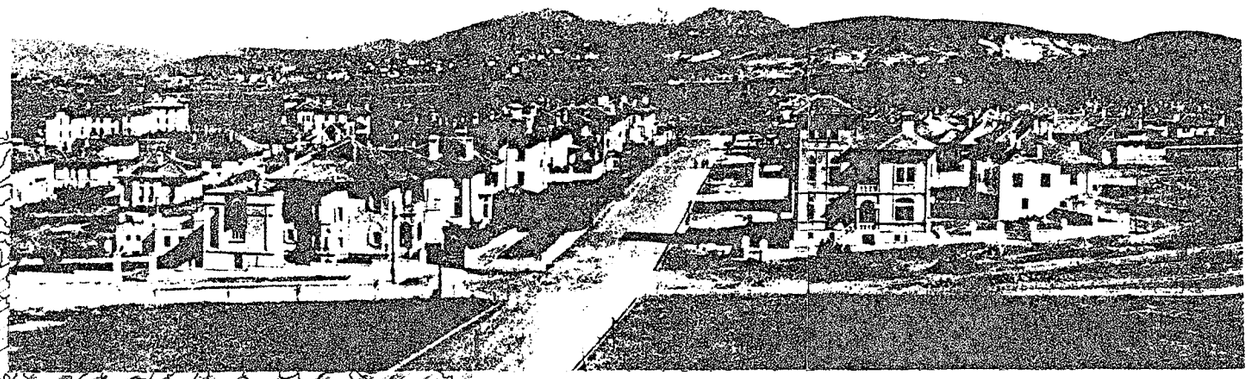
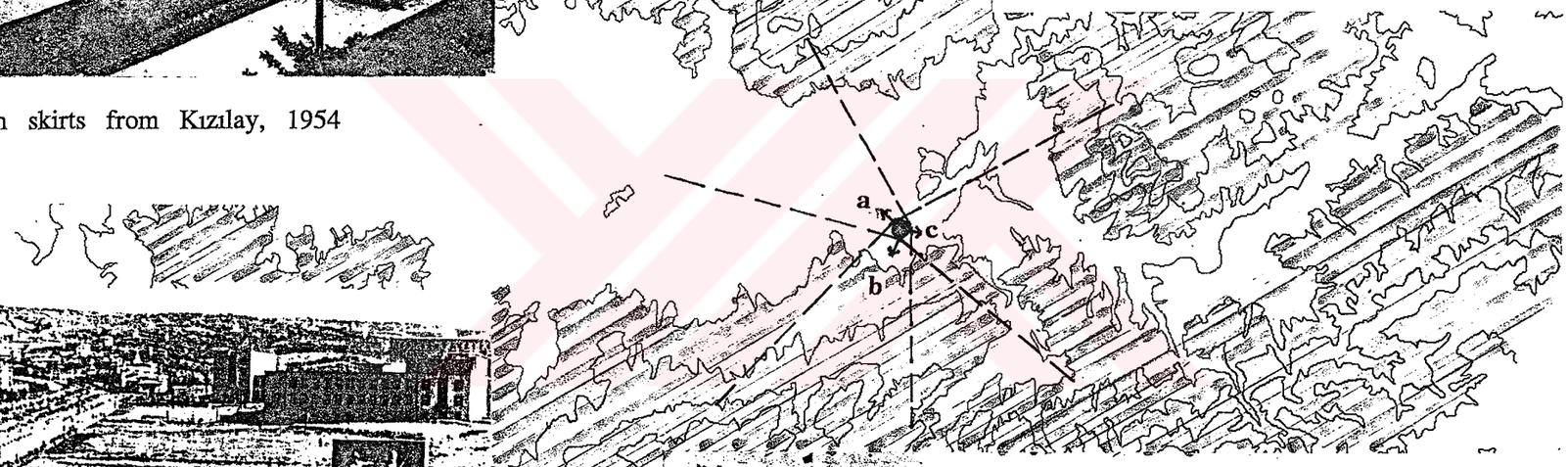


Figure 4.6c Eastern mountain skirts from Kızılay
50 Yılın Türk Mimarisi, 128-129.



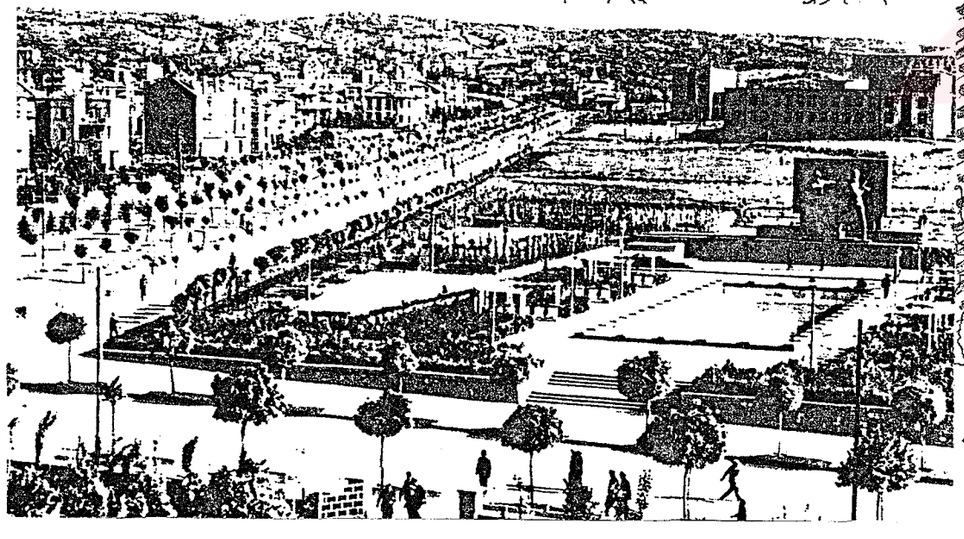


Figure 4.6b Southern mountain skirts from Kızılay
50 Yılın Türk Mimarisi, 174.

Figure 4.6 Mountain Skirts

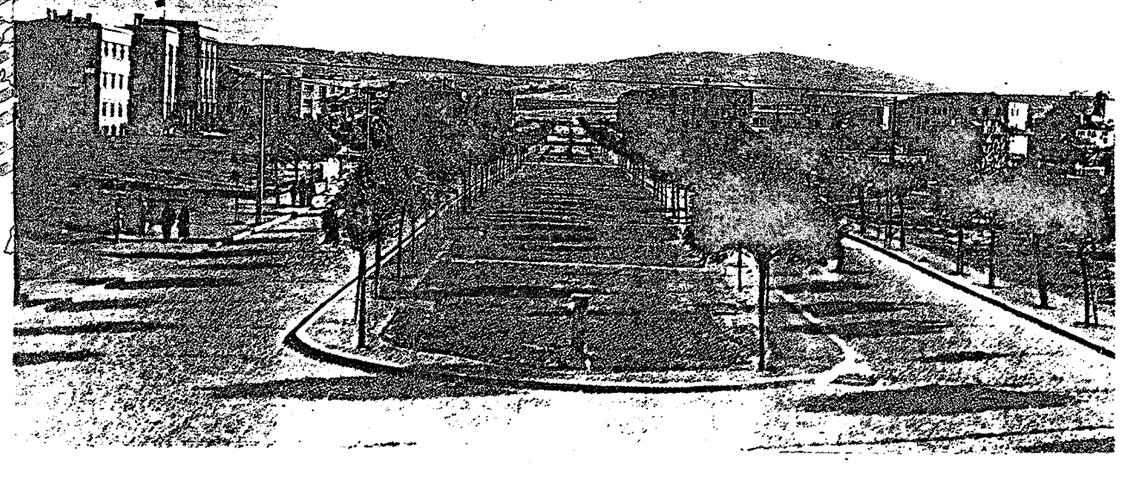


Figure 4.6d Southern (Çankaya) skirts from Sıhhiye, 1935
Ankara, 46.

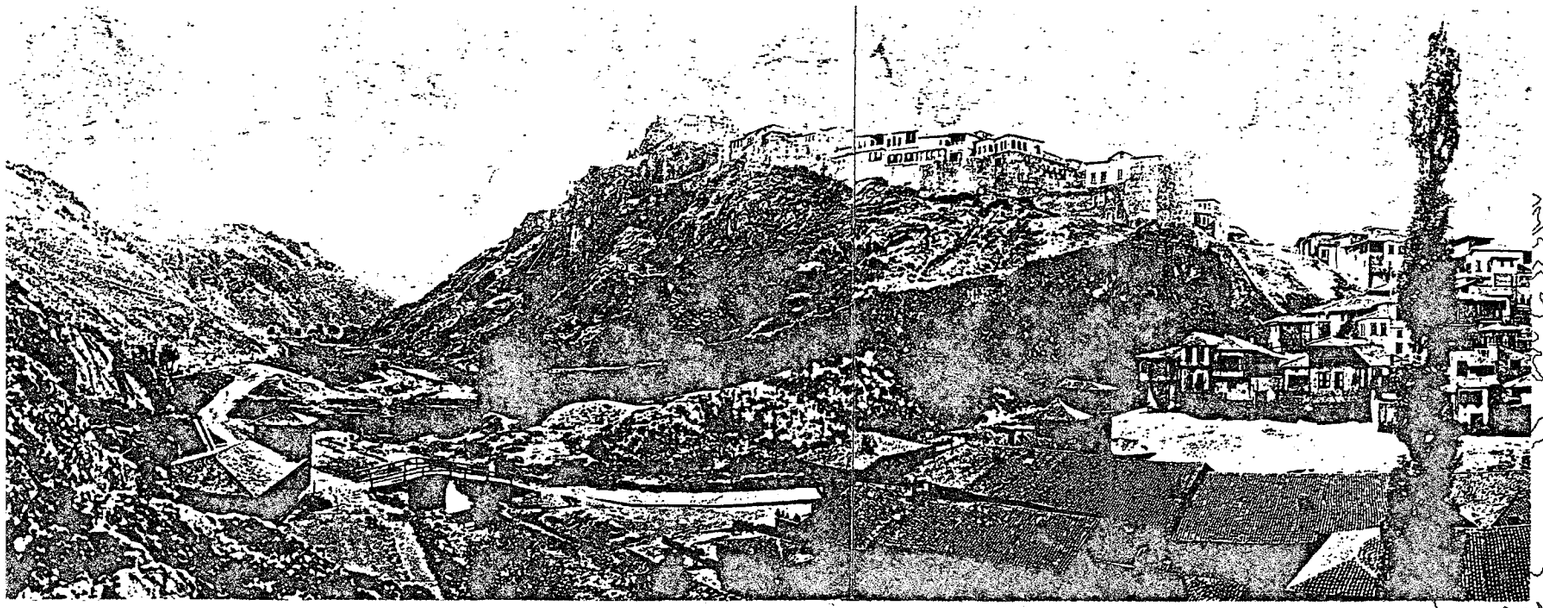


Figure 4.7a Valley between Altındağ and the Castle Bir Zamanlar Ankara, cover.

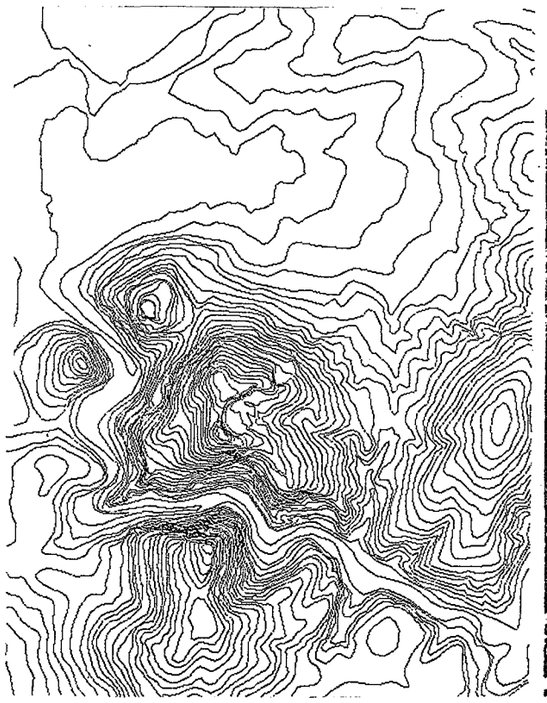


Figure 4.7c Plan of the Hatip valley

Figure 4.7b Hatip river in the valley Bir Zamanlar Ankara, 77.

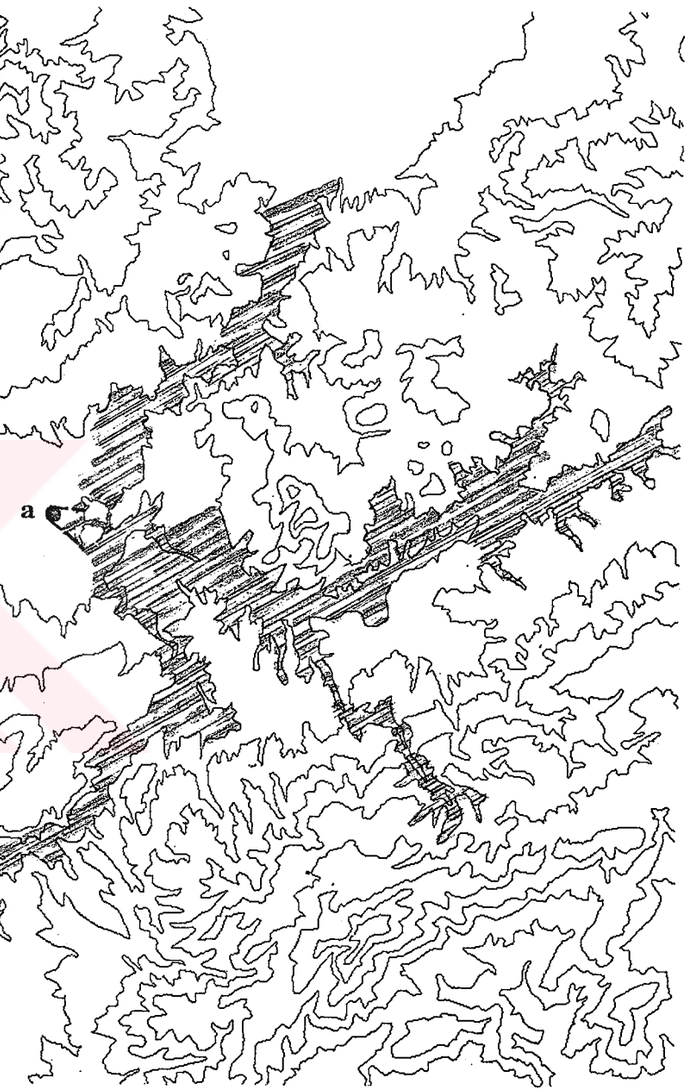


Figure 4.7 Valleys

4.2. Ankara: Settlement and Visual Frame Through History

4.2.1. First Settlements in Ankara

Ankara, with its geographical properties, is one of the cities which have been settled continuously through history. One of the important reasons that Ankara was chosen for settlement and kept its importance all through history, is the hill where the castle is placed (Akçura, 1971:13). This hill with the steep inclinations formed by Ankara stream on the northern side had high defensability. Signifying the military importance of Ankara tract, Akçura (1971:13) states that the city has used its castle continuously until the 19th century.

Information about the early periods of Ankara city is very limited. Erzen (1946:27) states that it is not possible to estimate that Ankara was founded in a certain period by a certain person or nation, according to the information and the sources in hand. But the archaeological explorations show that Ankara has been inhabited since Old Stone Age (Buluç,1991:13). (1) It was a settlement area in paleolithicum period; it slowly grew bigger and was most probably named close to its present name before Hittites. (Erzen,1946:27). The oldest part of the city; the castle, must have been used as a military garrison which controlled the road passing through the plain in the period when Hittites formed the first political unity in Anatolia (Aktüre, 1984:3). (2)

On the other hand, it is not possible to find any remains

from the period of Hittites who played an important role in the second thousand B.C.in Anatolia in and around the city (Buluç, 1991:14).

It is known that the most important settlement of Ankara in the antique period was Phrygian... (Akurgal, 1992:13). Aktüre(1984:4) states that after Great Hittite Empire collapsed in the 12th century B.C, Phrygians established the political authority again in Ankara about 8-7th century B.C.. Ankyra city was founded by Midas (Buluç, 1991:14) according to a legend in the 8th century B.C. (Buluç, 1991:16).

Archaeological findings prove that Ankara was a Phrygian city. Akurgal(1992:13) states that twenty artificial mounds (tumulus) in the city placed in a wide area especially around Anıtkabir remain from the Phrygian period and they are the proofs that Ankara was an important center between 750 and 500 B.C. Somehow, the city where this rich necropol was connected, is not found completely, but the archaeological excavations have shown that, in this period Ankara was placed outside the castle, on the skirts of the hill and on the flat area surrounding the hill (Erzen, 1946:29).

Ankara of the Phrygian period was supported by the possibilities offered by topography quite much. High hilltops were used for religious purposes: Buluç(1991) mentions that in Early Phrygian periods, people used to praise the main goddess on hilltops in the open air.Besides the use of natural inputs of the topography, Phrygians also created artificial mounts where important people were buried after

death. They were placed between Anıtkabir and the present State cemetary, and they were built on the edge of a natural ridges in order to create a magnificant view from the city. This situation, according to Buluç(1991:19), clarifies that the mounts were watched from the east direction where the Phrygian city existed (Fig. 4.8).

These twenty artificial hills, four of which are still remaining as original, are significant symbols of their period. According to Buluç (1991:21), their place in the silhouette of Ankara is as important as the castle or as a mosque, and they should be kept as original even after their excavation is finished.

After the Phrygians lost their power in the beginning of 7th century B .C., Lydians took over(Buluç,1991:15). Ankara gained importance after the migration of Galat (Kelt) tribes in the beginning of 3rd century B.C. when one of the sub-groups named Tecsotag settled in the city (Buluç, 1992:17). Aktüre (1984:5) states that it is evident from the inscriptions on the Roman period coins that the Tecsotags made Ankara their capital. Ankara remained capital until Emperor Augustus took Galatia under Roman direction in 25 B.C. (Akurgal, 1992:13).

The first castle is supposed to be built by Galatians in this period (Aktüre,1985:15). "The first construction date and the plan of the first portress is not known. However we know that in the beginning of the 2nd century B.C. during the Roman crusade to Galoi there was a fortress here in which Tecsotags took refuge. Later the city started

growing outside the walls and the fortress was neglected" (METU museum).

Aktüre(1984:5) mentions that this first Ankara castle had the same properties with the ones in Galatian cities in Western Europe, which were founded on defensible hills and steeply inclined ridges, and were surrounded by circular or oval walls made of large stone blocks.

It is also evident that the Galatian Ancyra was distinctively founded on principles of Hellenistic cities with its castle rising on a high hill. Wycherley(1993:5) mentions that the historical cores of many Hellenistic cities were very high and steep hills called 'acropol'. The remaining part of the city used to spread over the land around the acropol, mostly as expanding circles on one side.

The hill-city character of Ankara did not much alter in the proceeding centuries. Though the borders and the building types varied in different periods, the city was rising on the hill with its dominant figure as the fortress, and extending on the skirts of the hill.

4.2.2. Roman and Byzantine Periods

The most magnificent and the most famous period of Ankara begins with the becoming of the city the capital of the country organization of the Roman Empire government. Augustus, who noticed the importance of Ankara's strategical position, honored the city with

the title 'Sebaste'. After that, many military, religious and civil architectural works were established in the city. In this period, Ankara was a splendid imperial city having 100.000 population (Buluç, 1991:17).

Eyice(1992:19) states that Ankara improved much in the 1st century B.C.; it lived its most splendid period in the 2nd century A.D., but in the 3rd century the decline began.

Buluç(1991:21) states that in the Roman period, the Acropol and the castle of Ankara was Hacıbayram hill whereas the magnificent castle still existing today dates to a later period. In the 2nd century, when the city become richer, it moved down the hill, thus the houses of Antique period inhabitants were laying down on the skirts of this hill (Eyice, 1992:21).

Aktüre(1984:5) states that in the hundred-years' period between the 30 B.C.-14 A.D. and the beginning of 2nd century, the settlement area of the city was enlarged more than twice and the city was enriched with magrificient buildings. The settlement area, according to Akurgal(1992:13) included the Roman bath on Çankırı street, Roman theater down the hill and the castle in Hisar, whereas it continued further to Radyoevi in the south.

In the 2nd century, which was a very lively period of the city, Ankara was an open city which had no defense walls around it (Aktüre, 1984:6). In the 3rd century, paralel to the political and economical decline seen in the Roman Empire, the city lost its

balanced position. This affected also the physical formation of the city. In 270 A.D., it was surrounded by an outer wall in order to be protected from enemy attacks (Foss, 1977:60 ; cited by Aktüre, 1984:7).

Mambury (1933:79 cited by Eyice, 1972:101) claims that the outer third wall of Ottoman period castle was following the traces of the Roman wall. Aktüre (1984:7) also claims that the Roman wall existed right on the 17th century Ottoman wall which can be seen in von Vincke's plan; the Necropol was outside this wall and not all of the area surrounded by the wall was inhabited intensely (Fig. 4.9).

In the Byzantine period, Ankara city had a certain transformation due to the occupation of Iranian Sasanids: The peace period during three hundred years was over with the event that Iranian Sasanids, who came inside Anatolia, occupied Ankara in the middle of 7th century. It is obvious that the city was not surrounded by a strong wall by then (Wittelz, 1936:50; cited by Aktüre, 1984:9).

The city wall which was built in the end of the 3rd century had lost its function. Aktüre(1984:8) states that in the mid-7th century the city had a great transformation moving towards the hill which was protected by thick walls from the plain; in a way the Roman 'metropolis' changed into the Byzantine frontier city.

So, the most important contribution of the Byzantine period to the Ankara city is the castle on the hill which is still existing today. Though the original construction date of the castle is uncertain, it is

most probably about 630 (in Emperor Heraclius' period) that the castle is built and the exterior circuit must be added later in an indefinite date (Ankara:92 and 93). It is not only that the city's settlement on the topography changed in Byzantine period, but also the area it occupied got smaller (Aktüre,1984:9).

According to Vryronis, (1963:123, cited by Aktüre, 1987:11) the main elements of the city plan from 7th to 10th century are 'walls', 'agora' which served as a market place and the 'church'. On the other hand, Eyice(1992:24) states that some functional buildings were situated around the city: There was a monastry on the hill across the castle (assumed to be on Hıdırlık hill), and villa ruins have been found around Etiyokuşu (Fig. 4.10).

The city, though very limitedly, developed outside the walls in the end of the Byzantine period (Foss:84 cited by Aktüre, 1984:11). But this was stopped by the Seljukian Turks who entered Anatolia in the last quarter of the 11th century and occupied Ankara (Aktüre, 1984:11).

4.2.3. Seljukian and Ottoman Periods

Aktüre (1984:12) states that Ankara was invaded by Turks in 1073. Ankara was occupied by crusaders in 1101 and it became a Byzantine border castle once more (Wittek, 1936:83-84 cited by Aktüre, 1984:12). But in a few years, Seljukians got the city back and the

city remained as a Turkish city after that (Foss, 1977:83; cited by Aktüre, 1984:12).

Seljukian sultans fortified the Ankara castle in order to keep the city strong as a border city (Darkot:442 cited by Aktüre 1984:.13). Aktüre (1984:13) states that there was no important difference in spatial organization from the late Byzantian period of the city in the following century.

The city got out of the double-walled castle in the hundred years' period between late 14th century and late 15th century (Aktüre, 1992:34). Beginning from the early 14th century,Ankara changed into a trade city (Aktüre, 1934:15). And the population increased in 15th and 16th cesturies-the rising period of Ottoman Empire (Aktüre, 1992:34).

The earliest document about the physical appearance of Ankara is the sketch of Dernschaw made in 1555. Here, it is seen that it was an open city settled on the plain surrounding the hill where the castle was placed (Aktüre, 1992:34).

In the 17th century, the city scene changed as it was affected by Celali rebellion (Akçura, 1971:18). Another layer outside the city was added for protection. Polish traveler Simeon, who visited Ankara in 1618 (or 1619)mentions Ankara as a city surrounded by three different lines of walls (Eyice, 1972:71). The appearance of Ankara did not change in the 18th century, (Aktüre, 1984:99). Lucas, who visited Ankara in 1705, mentions that the city rised layer on layer like an amphitheater which had a wonderful appearance from a

distance and it gave the impression as if there are three seperate cities (Eyice, 1972:77). In this period, about 100.000 people lived in Ankara (Aktüre 1984:99).

Eyice (1972:117) finds the engraving of Pitton de Tournefort more important as a document reflecting Ankara, whereas the painting in Rijsksmuseum/Holland gives a more detailed information about the morphology Ankara in 17th or 18th century. In this period, the main elements of Ankara scene are seen as;

-the castle, with its outer wall which has square battlement partitions, rising on the wide rough ground,

-open air praying place on a small hill across one of the gates,

-the city in the outer wall with its mosques and houses (Fig. 4.11, 4.12).

Akçura(1971:18) states that beginning from the early 17th century, Ankara was affected by the political imbalance in the Ottoman Empire and lost its importance as a terminal for travelers.

Ankara began to expand outside the outer walls by 1850-60 mostly because of the new institutional government buildings, schools and barracks built inside and outside the wall (Turan, 1992:58-59). The city expanded İstanbulkapı in the south by 1892 when the railway reached Ankara, and it started to grow towards the station, thus towards the plain on the west (Ulus Tarihi Kent...:26).

There were also summer houses in the surrounding land were placed around Etlik and Keçiören or Kavaklıdere, Çankaya and Dikmen on the opposite side (Turan, 1992:89).

By the beginning of the 20th century, the population of the city was less than 30.000 and it decreased more because of wars and the 1917 fire. So, just before the Independence War, Ankara was a 20-25.000 populated, partly burnt down city with recession in its functions (Akçura, 1971:21) (Fig. 4.13).

4.2.4. Republican Period:

The situation and the importance of Ankara changed to a great extent since the beginning of the 1920's; as it became first the directing center of the Independence War against the Western invadors, and then the capital of Turkish Republic in 1923 (Bademli, 1985;10). A rapid transformation in the city form can be observed in the period following these political desicions on Ankara, due to both the increase in population and the attempts to enhance a suitable city image as a new capital.

In the beginning of 1920's, Ankara town was settled on the hill where the castle existed and on the inhabitable slopes getting lower in the south and the west (Fig. 4.14). The increase in population caused changes in the intensity within the old city macroform, thus new development areas began to evolve with the first extentions in

1925 towards the south of the railway across the İncesu stream. The population had reached to 75 thousand by 1927 (Altaban, 1986:126). The need for a development plan for this rapidly growing city was obvious; so the period of planned interventions to Ankara began. Though the implementation plans were made in order to control the city growth and to determine the urban form, mostly they were overruled either by the changes in laws or the squatter type of buildings seen in the uninhabitable areas around the city.

Günay (1988:24) mentions that Ankara lived three planning experiences and is about to start a fourth planning period. The three plans till now are:Jansen plan (1932),

Uybadin-Yücel plan (1957), and

Metropolitan Planning Office Plan (1970).

Günay(1988:24) states that the first two were typical master plans while the third had features of a structure plan. Among the three plans, Jansen's was the one which dealt most with the urban image and its expression through the visibility patterns in the city. Within these visibility patterns, it is possible to see that the urban structure is used together with topographical elements in the city area (see App. B.1 and B.2). Apart from the special attitudes of Jansen plan about urban visibility, the plans generally helped to determine the direction of urban growth forming the main axis and settlement areas. In this respect, it is possible to state that the basic contributions of each plan as:

Jansen plan; a macroform foreseeing a development in the north-south direction with a single artery connecting north to south, and a secondary artery parallel to the railroad for east-west extention of the new town (Günay, 1988:30) (Fig. 4.15).

Uybadin-Yücel plan; an extention of the Jansen plan which stressed on the north-south axis, both in north and south of the city, limits of development were pushed to higher altitudes, and a peripheral road, in the west of the city to which other arteries were connected as Konya-Samsun highway (Günay, 1988:34) (Fig. 4.16).

Metropolitan Planning Office Plan; development directed towards the Western corridor with the squatter prevention zones, new housing developments, industrial zones and so on (Bademli, 1986:110).

In the Republican period, Ankara grew rapidly and spread out over a wide area as never reached throughout its history. Thus, the city was no more situated on and around the hilly area where the castle existed, but it continued towards the limits of the bowl-like topographical entity; even to the unhabitable steep slopes of the hills and valleys around it with squatter zones in three directions, and further on the plain towards west with planned developments.

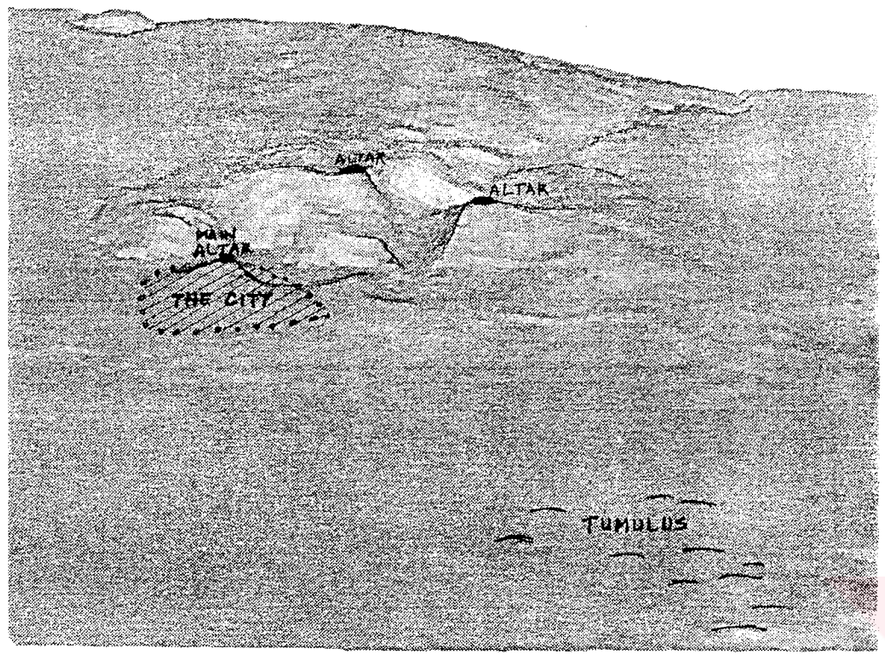


Figure 4.8 Phyrigian settlement

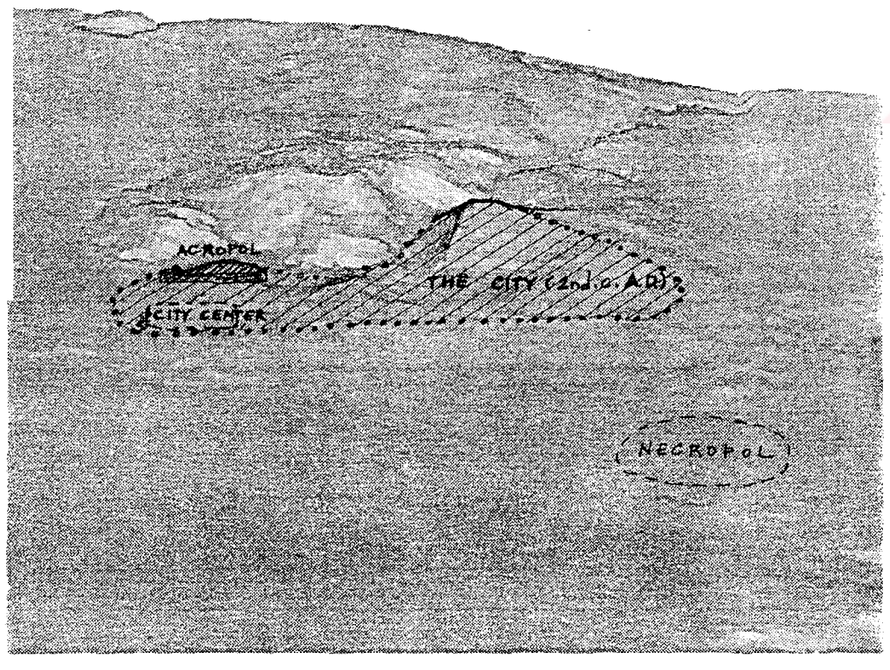


Figure 4.9 Roman settlement

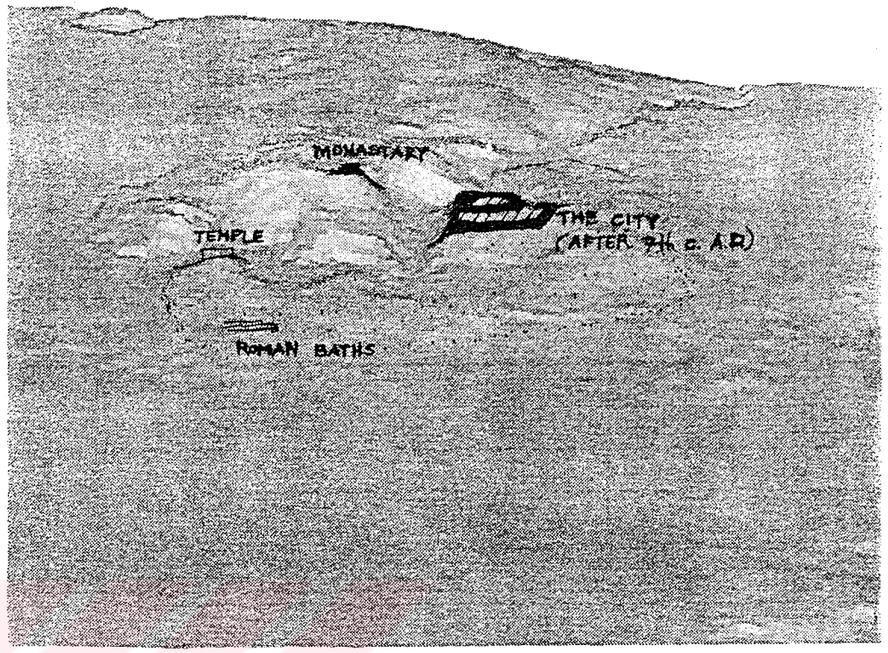


Figure 4.10 Byzantine settlement

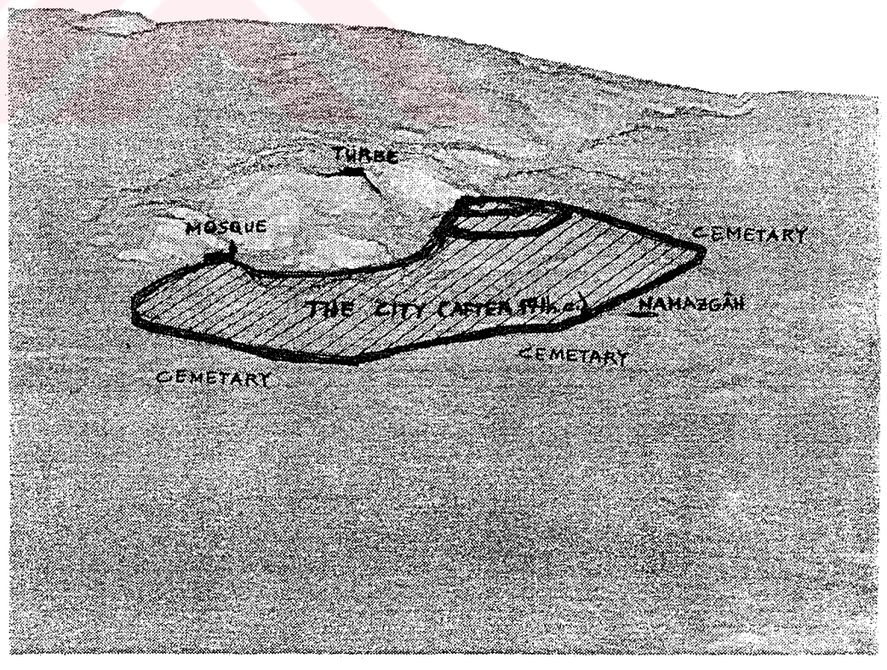


Figure 4.13 Ottoman settlement

Figure 4.11 Ankara sketch by Pitton de Tournefort
Ulus Tarihi Kent...:cover

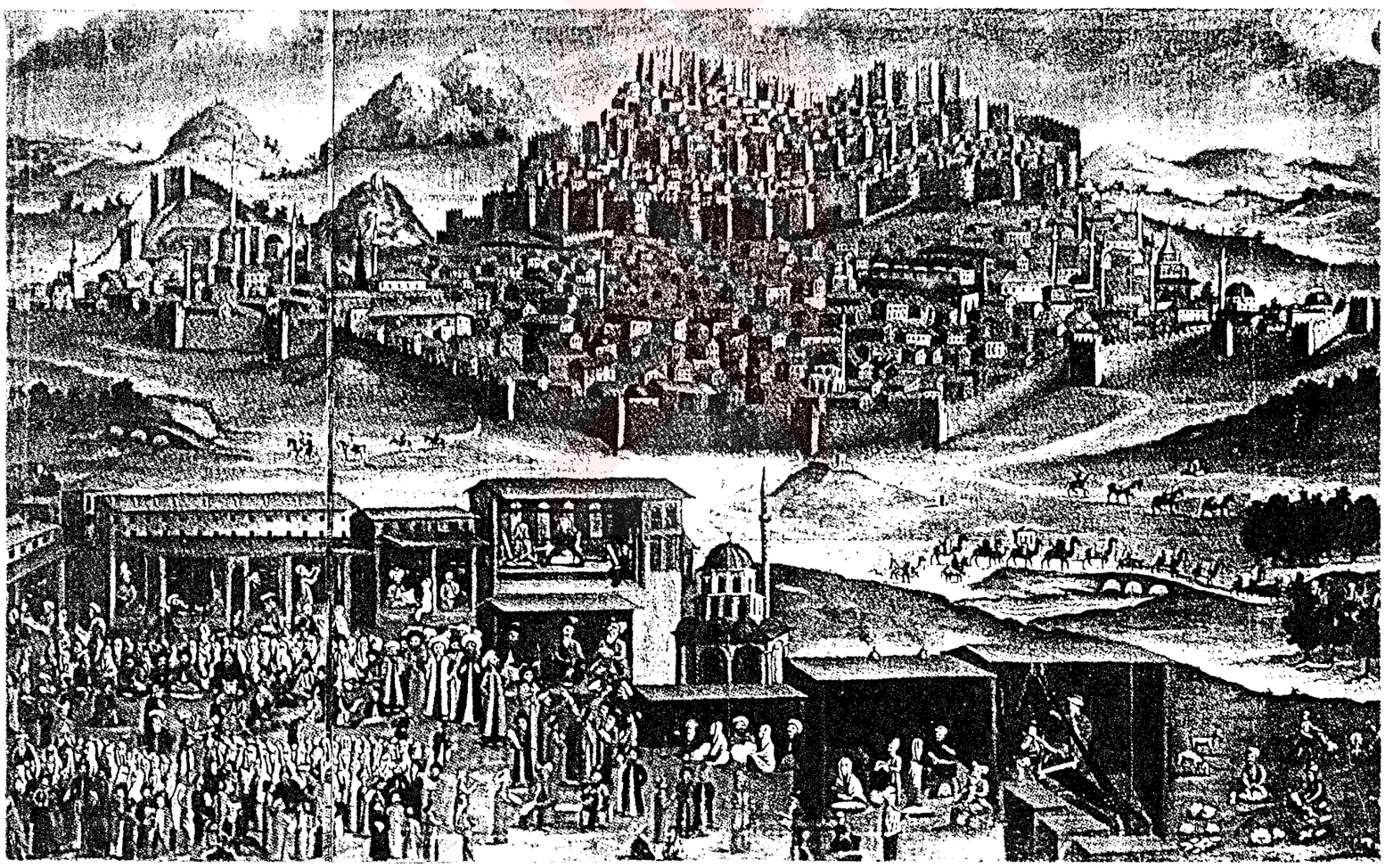


Figure 4.12 Ankara painting in Rijksmusuem, Holland
Ankara, 23.

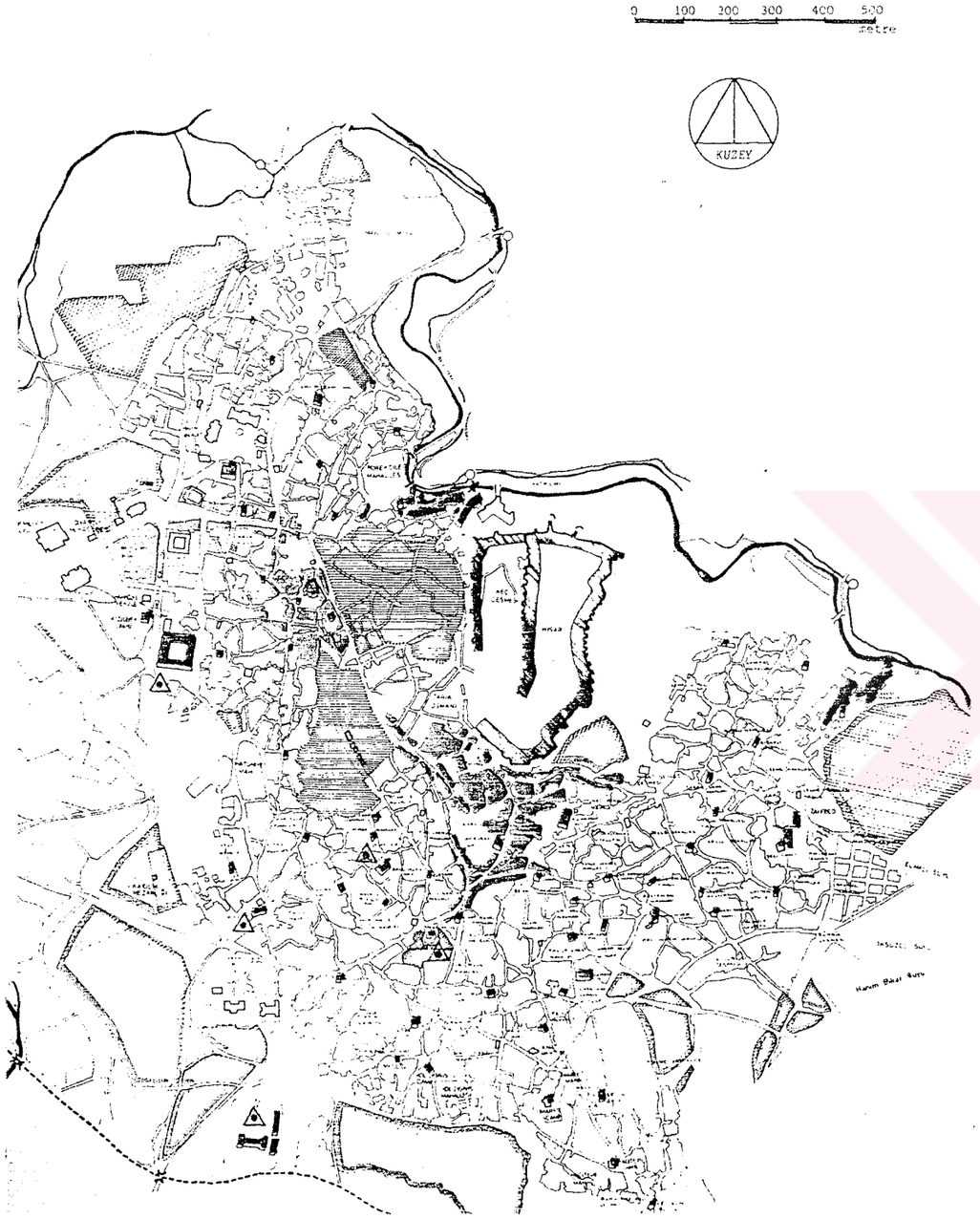


Figure 4.14 Ankara plan, 1924
Ulus Tarihi Kent...

Figure 4.15 Jansen Plan
Ankara 2015, 106.

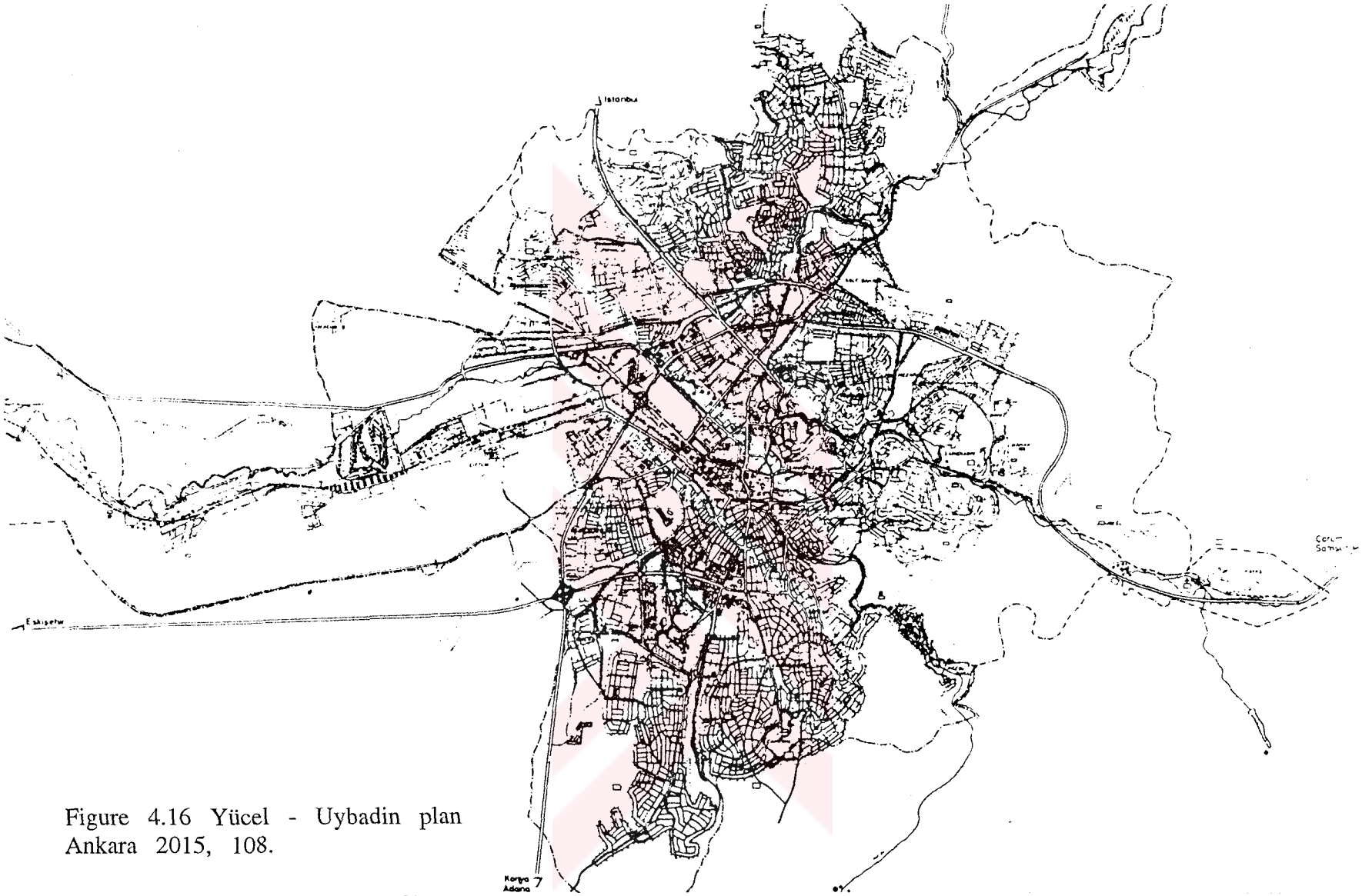


Figure 4.16 Yücel - Uybadin plan Ankara 2015, 108.

4.3. Visibility Examined in the Present Urban Morphology of Ankara

Ankara city, having a high rate of increase in its population, has become a city accommodating nearly three million people from a poor, 15-20 thousand populated city in the last 70 years (Bir Zamanlar Ankara, 1993:22). The reflection of this process is visible in the physical entity of the city. The settlement area has grown as many times as the urban land in the first years of the Republic; and within this area, different patterns of urban structure have come into sight with different elements constituting them. Thus, the visual expression of the city has undergone a great change not only as percieved through the elements within, but also as the general overall image it gives.

4.3.1. The Present Macroform

The present macroform of Ankara is rather irregularly shaped and compact though there exist linear extentions along the main approach roads to the city. The main part of the city, apart from the new linear development areas, is quite compact and does not show incontinuities. Akçura (1971:72) claims that the continuity in the urban area is enhanced by the connection of old detached districts to the city as in Etlik and mentions that though this urban continuity is relative, the breaks between the parts are ignorable in the metropolitan scale. He relates this compactness to the topography and the other natural properties of the settlement area which did not force the city to break and to spread around; still remarking that under different conditions the

steep inclinations where many squatter districts are placed could be natural barriers to urban growth.

As even the less suitable areas of the topographical formation were inhabited, the city spread continuously over the higher edges of the bowl-like entity and also exceeded outside the bowl to the valleys around it. Apart from this kind of growth in which the city extends along its boundaries in every direction; the linear growth along the main approaching roads to the city has come into existence in the last decades. In order to overcome the disadvantages of the centralized macroform, new planning strategies have directed the growth as arms along all connection routes of the city to the other cities; most densely in the western corridor along
İstanbul and Eskişehir highways (Fig. 4.17, 4.18).

Altaban (1986:12) defines the limits of the city macroform by the following districts on different altitudes:

In the north; Etlik and higher Keçiören on 1050 m. low and medium plateaus,

In the east; the skirts of Hüseyin Gazi mountain on 1150-1200 m. plateaus,

In the south; Yıldızevler, Dikmen and skints of Çaldağ on 1100- 1250 m. plateaus,

In the south-west; Eskişehir highway till 19.km. on the plain and the inclined areas about 970-1150 m.,

In the west; Atatürk Orman Çiftliği till 18. km,

In the north-west; İstanbul highway and the new developments,

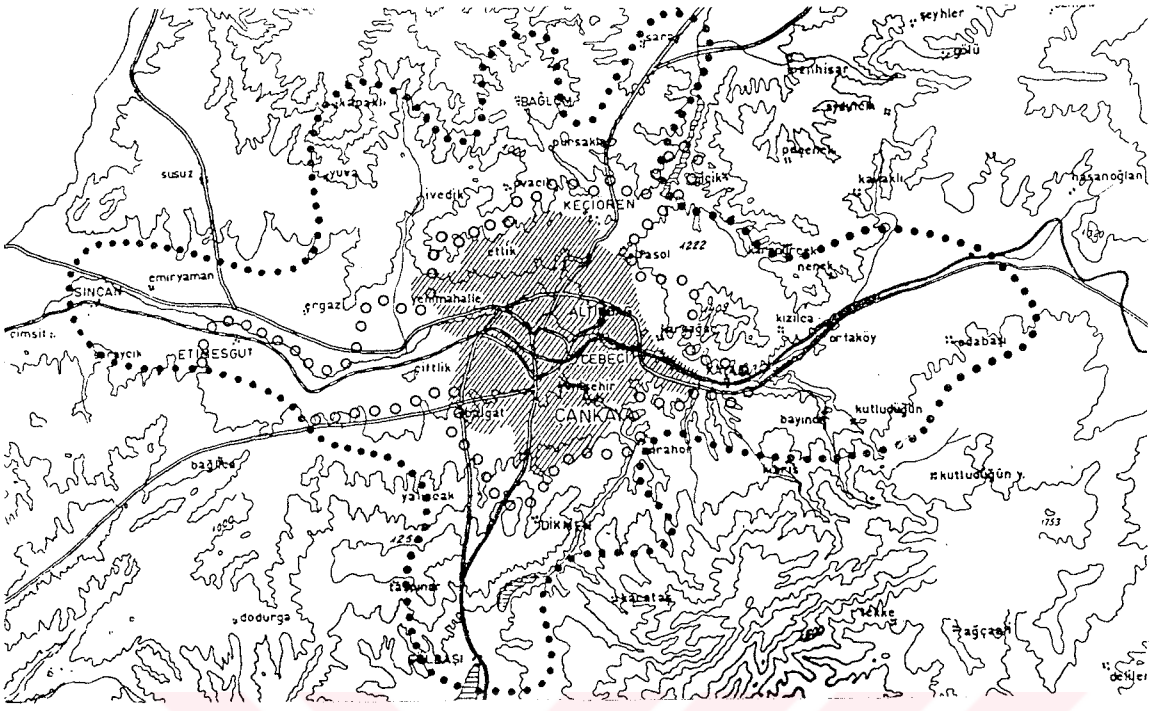


Figure 4.17 1971 Macroform
Ankara: Türkiye Cumhuriyeti'nin..., 71.

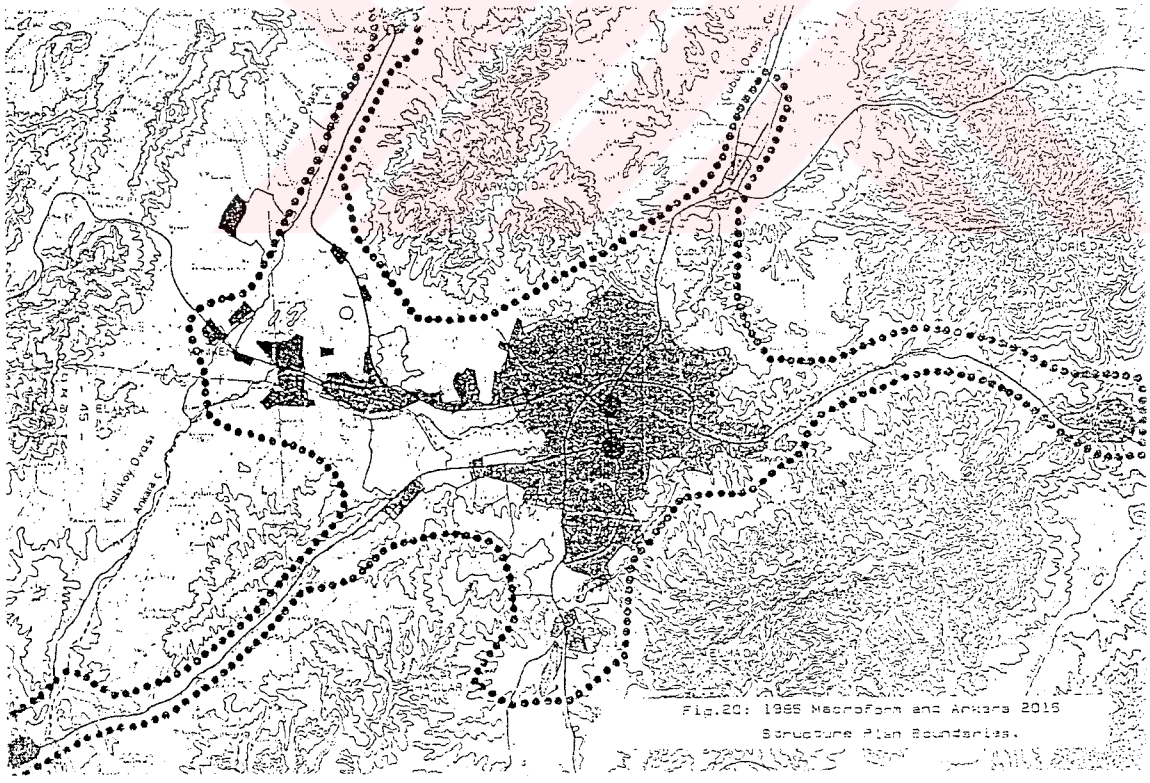


Figure 4.18 1985 Macroform
Our Generation of..., 45.

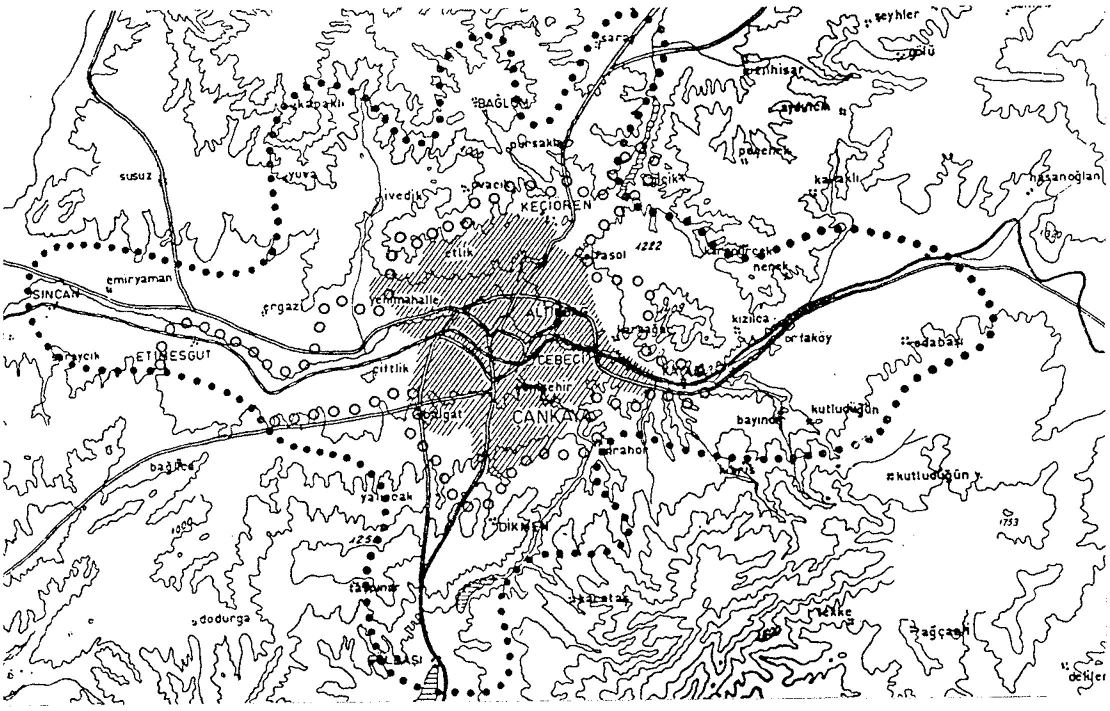


Fig. 4.17 1971 Macroform
Ankara: Türkiye Cumhuriyeti'nin..., 71.

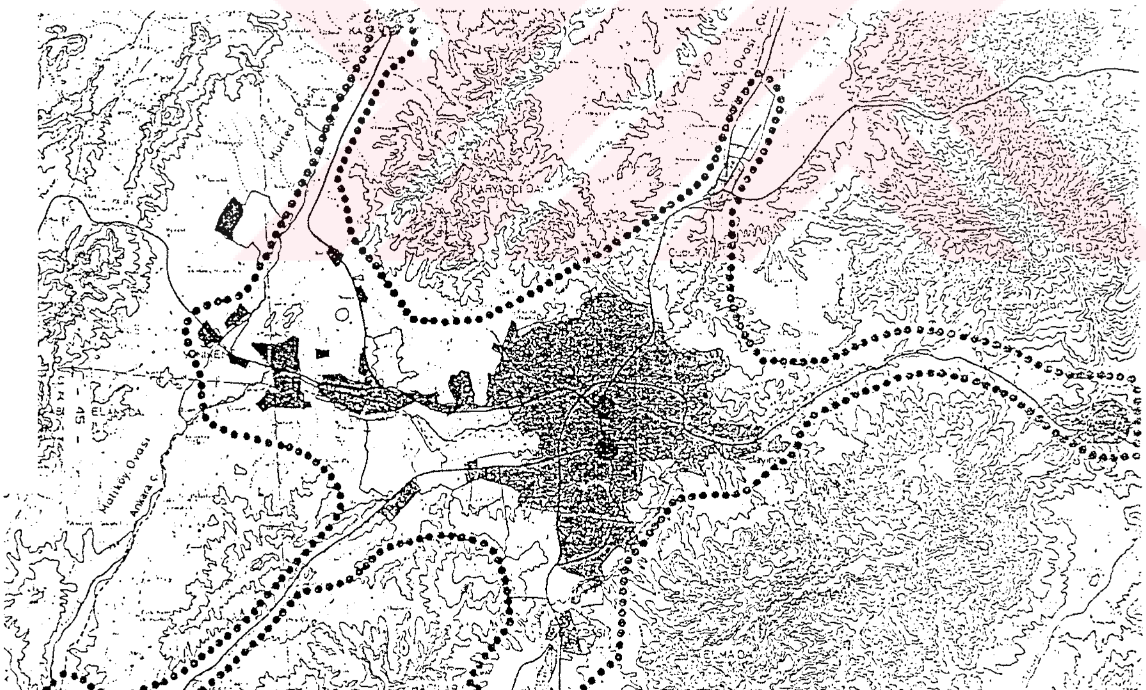


Fig. 4.18 1985 Macroform
Our Generation of..., 45.

Sanayi in the north of it,

Batıkent, further in the north on 860-950 m.,

OSTİM, further in the north on 950 m.,

Sincan Gecekondu Önleme Bölgesi in the west on 850-900 m.,

Housing and Industry zone between Sincan and Etimesgut on 900 m.

4.3.2. Main Areas of Distinct Characters in the City

"Within the limits of the city macroform, it is possible to examine areas which differentiate from each other due to many variables. Akçura (1971:74) attends to define the distinct areas in the city due to two criteria; landuse and the topography of the city area. On the other hand, for the purpose of this study, it would be more convenient to emphasize the visual reflections of these criteria on the urban morphology in order to determine different domains in the city. Thus, we will examine the domains determined by the physical/visual entity created by the different landuse patterns and the topographical formation on which they are placed.

4.3.2.1. Topographically Determined Areas of Urban Visibility

As mentioned before, the city is mainly situated in the bowl-like topographical formation surrounded by mountains on three sides and

opening as a plain towards the west. It may be said that this plain, which is shaped as a flat basin for Ankara stream, divides the settlement area of the city in two as northern and southern parts (Altaban, 1986:11). The linearly rising settlement areas in the north and south are rather continuous though they may have different topographical forms within themselves and they have a directed view towards the plain which lies down in the area between them.

This physical entity as the east-west directed flat area resting between rising mountain skirts on the north and the south, continues till the rising Hüseyin Gazi mountain in the east. And this topographical structure creates a visually well-defined area within itself. In the area, the main figure which is visible from the viewpoints in every direction, is the hilly area which rises on the rather eastern part of the plain. This set of hills, though not completely blockading the visual continuity in any direction, may be said to create domains of different visual character in the western and eastern sides of it. The eastern part is smaller and has a more closed visibility with a quite rough surface character. This area is limited in all directions and the two most dominant visual barriers are the hilly area in the west and Hüseyin Gazi mountain in the east of it. On the other hand, the western part is much wider and open in visibility as it is limited on the three sides only. The linear formation of the plain and the mountain skirts direct the visual attention to the east, towards the set of hills.

The figural quality of these set of hills with the castle on

one of them, is perceptible from many points in the settlement area. From closer viewpoints, this area is quite restrictive to the view with the steep inclinations (rising up more than 100 m.) and the deep valley of Hatip Stream flowing between Altındağ and the castle hill. From further viewpoints, it appears as a natural landmark with the mountain skirts far behind it which play the role of a background. It may be said to have a visually unifying effect in the visibility of the general topographical formation of the settlement area. This hilly area is important not only as a figural element in vision, but also has the widest angle as a viewpoint. The view from the summit of the hills is open in every direction till the main determining elements of the bowl. Besides the hills, the rising areas formed within northern and southern mountain skirts are good viewpoints that exist in the urbanized area.

Outside the bowl-like topographical entity which has a relative visual unity, the city also extends to the visually detached natural formations like valleys and hilly areas. Mainly; these are the valleys of Çubuk, Hatip and İncesu streams, and the rugged areas around them. These valleys have a very limited visual frame as the view within them is blockaded by the rising sides on the two sides of the stream. They may change in depth and width, but usually they give a shifting image along themselves which does not have a clear visual continuity reaching the bowl-like main settlement area (Fig. 4.19).

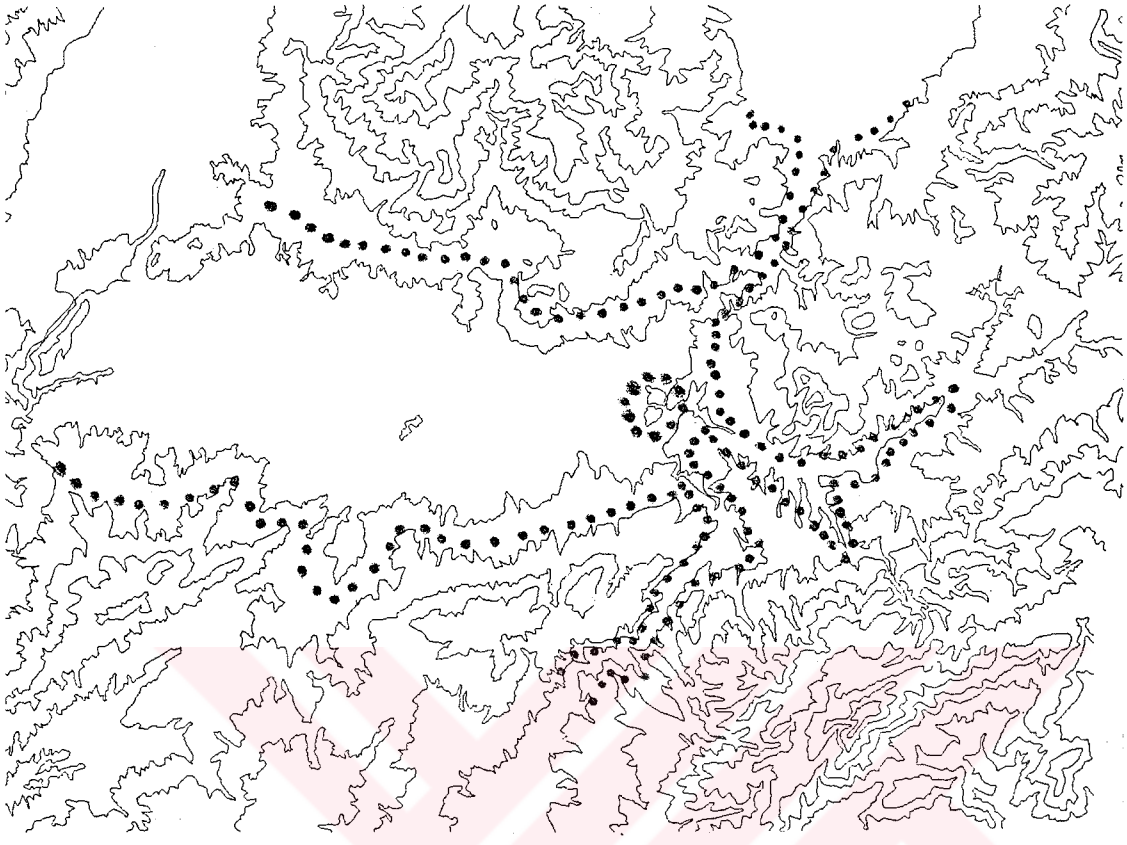


Figure 4.19 Topographically determined areas Tübitak "Urban Planning...

4.3.2.2. Visually Differentiated Areas due to Landuse Patterns

In Ankara, it is possible to distinguish certain areas of different physical formations, which are shaped upon certain landuse patterns. Though there is not a one to one correspondance between every landuse type and a visual expression, a general distinction of the main areas reflecting different landuse patterns can be made.

Günay and Selman (1982:26) mention the three main elements that constitute the urban vision in Ankara as; orderly building zones, squatters and public service buildings. Akçura claims that city center where many different functions and accommodation is placed, is an important element to be examined in order to understand the urban structure (1971:78). In Ankara, though not having a unique and distinct physical character, the center may still be distinguished by a rather denser and higher building pattern within the other licensed building areas.

The center of Ankara may be called dual as there are two main areas; Ulus and Kızılay along the main axis in the city (Atatürk bulvarı) lying in the north-south direction. This axis begins in the west of the Ankara castle, and continuing towards the south reaches the skirts of Çankaya hill where the new central functions tend to find place. In the center zones, the same building pattern as in the orderly residential building types; and the variety within them is enhanced by special buildings and public service buildings (Günay and Selman, 1982:25).

Akçura (1971:81) defines an inner line in the city, passing around the central areas Ulus and Kızılay; and states that the main urban structure is comprised of this central area, the other urbanized areas surrounding it in the noth, the east and the south, and A.O.Ç. green area in the west as a break to this built belt. This crescent shaped urban structure with the center in the middle may be said to repeat or reflect the topographical structure of the area which is mainly a plain surrounded on three sides by mountains having a central figure and opening towards the west
(Fig. 4.20).

Within the limits of what we called 'urbanized areas', it is possible to distinguish different landuse patterns. Public service areas stand as an important group in the landuse map and they form distinct entities in certain parts of the city. Akçura (1971:74) states that the main public service belt is the one which begins from Hacettepe and extends towards the west along the railroad. This belt divides the city-also the central zone into two as the north and the south, and with extensive use areas, reaches to A.O.Ç. in the west. Other important extensive public use areas are those in the north and in the south-east, placed along Konya-Samsun and Eskişehir highways. Apart from these zones, there are other public service areas especially around Ulus and Yenişehir. The building pattern in the public service areas may be said to have a variety in form and texture as they are constructed with a different understanding and order (Günay and Selman, 1982:26).

The remaining parts of the urban area are mostly comprised

of residential areas whether orderly or not. The orderly building zones are placed rather on inhabitable altitudes and topographical forms whereas squatters have been placed on steeply inclined rugged areas where no public or legal building is permitted. For the orderly building zones, Günay and Selman (1982:25) state that they are comprised of the same type of built and spatial forms offering a monotonous view, whether inhabited by high or low income groups.

The squatter districts have been formed mainly on the hilly area surrounding the city in the east, on the inclined surfaces along Hatip, İncesu and Çubuk streams; and on the figural hills of Altındağ and Yenidoğan near the castle though these hills were left as green areas in the city plan (Akçura, 1971:78) (Fig. 4.21). Squatters preserve the physical formation of countryside settlements as they inhabit new immigrants to the city (Günay and Selman, 1982:25). Yet, in some areas they may change into dense and high building patterns in time due to different variables.

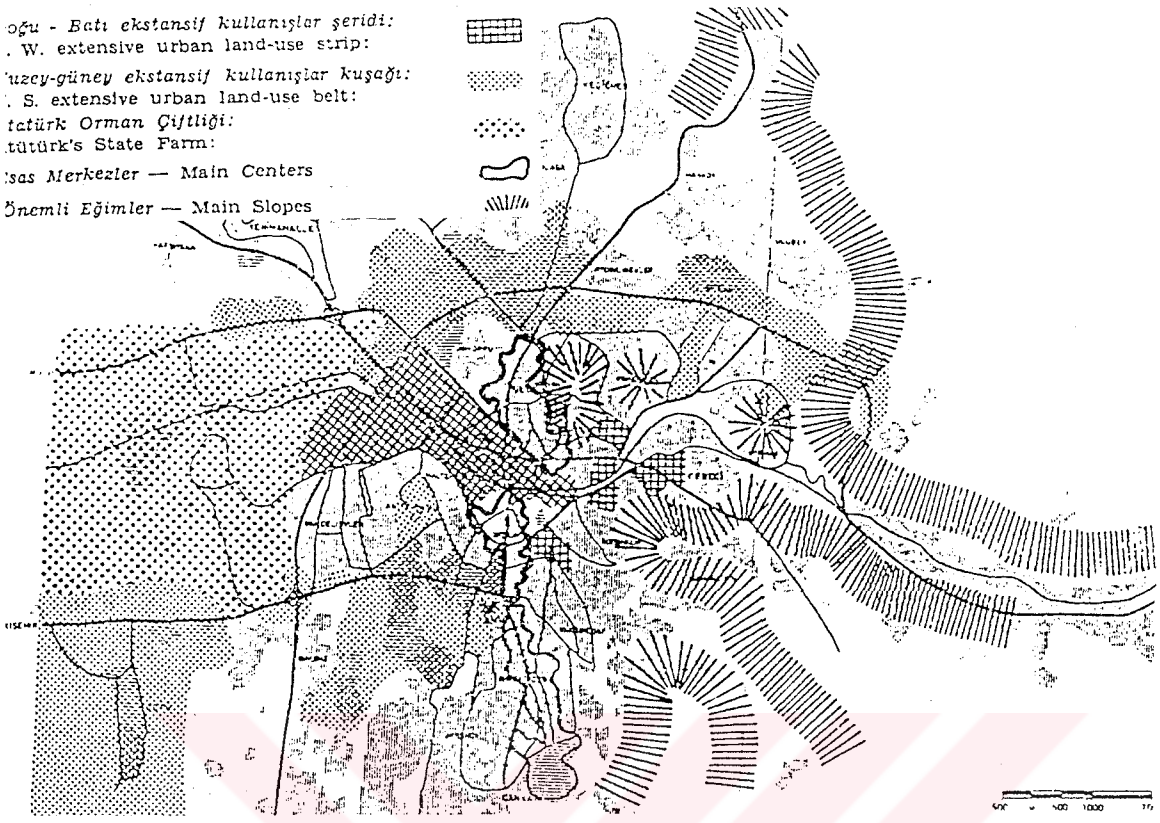


Figure 4.20 Areas determined by landuse patterns
Ankara: Türkiye Cumhuriyeti'nin..., 77.

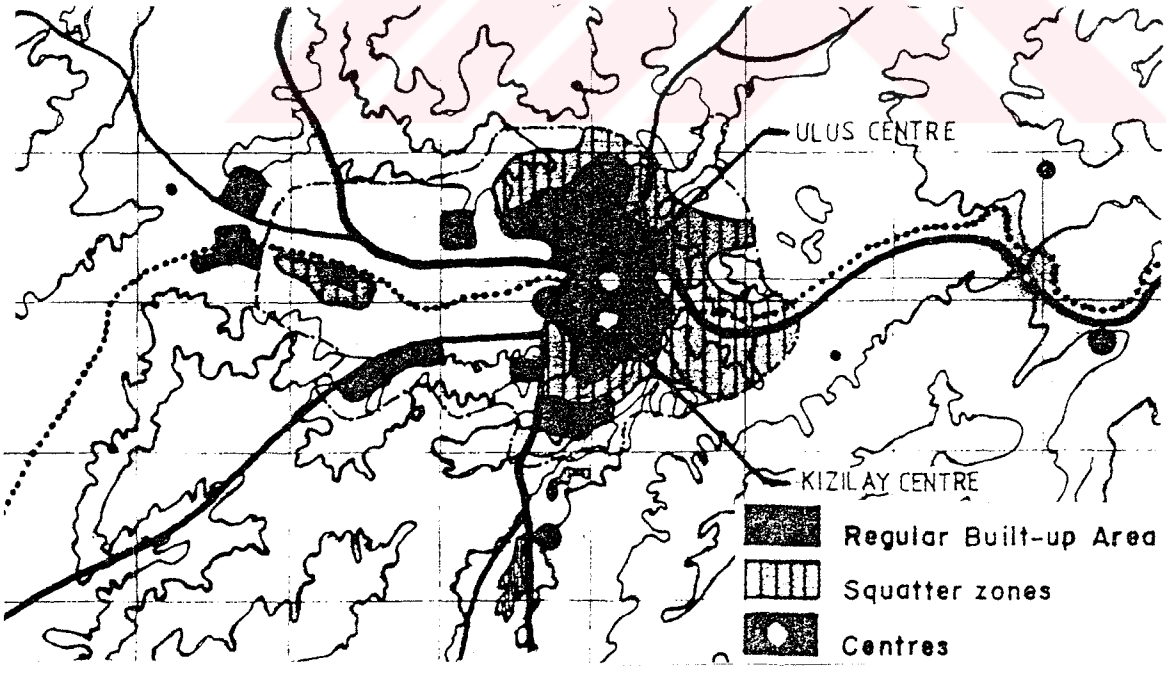


Figure 4.21 Built-up area
Fact Sheet: Ankara, 2.

4.3.3.Visuality Patterns Created by Different Urban Formation Types

As mentioned before, there are visually differentiated areas within the urbanized and in Ankara due to the topographical formation and landuse patterns. Apart from these generalized distinctions, it is possible to talk about the urban visuality patterns which affect the perception within the city a lot. These visuality patterns are created by different types of urban formation, depending not completely on landuse patterns or on topography; but rather comprising the physical appearances of urban entities affected by both of these factors. There are many different urban form examples in Ankara; yet, in this study the main formation types which may be accepted to be dominant in the overall urban morphology, will be examined.

4.3.3.1. Orderly Building Zones:

Orderly building zones consist mainly regular and collective housing zones. Günay (1988:48) states that the regular housing zones, comprising the basis of the city, are formed upon the building islands mostly rectangular in shape which are subdivided into parcels. The setback distances and heights are controlled. In this frame, regular housing zones are alike and monotonous though they may have variations in heights and parcel sizes. Collective housing, on the other hand, yet not so dominant, has become a visible part of the macroform mostly in the new decentralized parts. In collective housing

environments, it is possible to have a variety of space-mass typologies (as buildings are not dependent on small parcels with limitations in dimensions), but usually collective housing implementations prefer high-rise buildings of high densities (Günay, 1988:53).

The way the cubically shaped units of orderly building areas come together is mostly orthogonal; thus a regular and repeating texture is created (Fig. 4.23). These standart shaped units do not fit the inclined areas of topography; so they are easier to apply in flat lands as in Bahçelieveler or Cebeci. On mountain skirts and along valley sides, they usually form layers wall-like continuous entities rising in strips with the inclination, as in Çankaya and Etlik sides. On hilltops, they destroy the natural line of the hill and become dominant with their rectangular shape. They may create rather interesting visual entities in some collective housing zones with varying sizes (Fig. 4.35).

The street views within regular housing areas are quite restricted and monotonous. The units may be continuous along the street as in central districts like Kızılay, or they may be detached as in less dense outer districts. In collective housing areas, it is possible to find street views which are not strictly limited by freely placed buildings within larger yards. Usually the streets formed within licensed building areas are straight and meeting each other at right angles, or they may be slightly winding due to the topography. As the units do not have much variety in form and scale, the view is directed along the street, usually towards no specific urban element. It may be possible to speak about an intentional arrangement of sculptures as visual focuses only

along Atatürk bulvarı (Fig. 4.26).

4.3.3.2. Squatter Zones:

In Ankara, squatter zones occupy an area nearly equal to orderly building areas according to 1985 datas (Altaban, 1986:147). Squatter zones are mostly placed on inclined areas and high altitudes where no building is permitted legally. As unplanned environments, there is no legal parcellation nor size controls in squatter zones. Thus, the units are small, low (mostly one or two storeyed) and cubical shaped (Fig. 4.25).

Günay (1988:50) states that the squatters create their own environment with a natural growth pattern where both form and function develop spontaneously. The units come together in an irregular way, thus their view is not so monotonous. The small units fit well to the topographical entity they are placed on. They neither hinder the visual perception of the surface movements nor destroy the natural line of the topography when placed on hilltops. The vertically rising elements, within the environment of low and small squatters are poplar trees and minarets of local mosques (Fig. 4.27, 4.28, 4.31).

The streets formed within squatter zones are usually not straight, but winding according to the topographical movements on the surface. So, the view along them is shifting. As the units are low, small and detached, the street view is not strictly limited (Fig. 4.36).

4.3.3.3. Extensive Public Use Areas:

The public use areas consist of public institutions, international institutions, schools, health and social institutions, culture and entertainment centers, and open spaces and green areas including sportive activities (Altaban, 1986:147). Some of the public institutions may be placed in orderly building zones where they do not show any different visibility patterns, but mostly they create their own environmental entity within big areas. 'Extensive' public use areas, where large yards are used for public services with or without buildings on, offer different visual relations than those in housing areas (Fig. 4.32).

Institution buildings in extensive public use areas are often placed in parks, they have their own circulation systems and open spaces. It is rather difficult to mention a visual continuity between the city and these complexes. Yet, some of them offer nice city views due to their placement like Senatoryum. If not blockaded with the greeneries, the way the buildings in these complexes come together constitute rich and interesting views, because of the variety in forms, sizes and articulations (Fig. 4.33).

Mostly public service areas are placed along main avenues and access roads, like Eskişehir, Konya-Samsun roads and Atatürk boulevard; but they do not strictly frame the view along the roads as they are freely placed in their yards; not on parcellized strips on the sides.

Apart from institutions, open spaces like squares, parks and recreation areas better integrate with the city and offer view to greater numbers of people. The bigger parks and recreation areas like A.O.Ç. and Gençlik Parkı are placed on the plain. View in A.O.Ç. is not intentionally directed with the arrangements in it whereas Gençlik Parkı uses the castle as a visual reference point. (Fig. 4.37d). The valleys on the skirts of Çankaya hills are used as recreation areas, creating a pattern of green stripes viewing the city down on the plain (Fig. 4.37a). There are recreation areas on the northern mountain skirts as well, like Altınpark which again has the vista of the city this time from the opposite direction (Fig. 4.37b). There are very few green areas placed on hilltops (Topraklık) though the Jansen plan proposed hilltop parks as a visual pattern, handling the topographical entity of Ankara (see App. B). Ankara does not have a square tradition; yet the two main squares in Ulus and Kızılay may said to be restricted in view whereas the new Hacıbayram square is a better example where visibility is taken into consideration in design (Fig. 4.37c).

Stadiums and hippodromes have their own advantagous arrangements in visibility as they gather big numbers of people in a certain position. This advantage of them was used by Jansen to emphasize the Ankara castle in the first years of the republic (Fig. 4.43).

4.3.3.4. Landmarks

As mentioned before, landmarks are identifiable and unique elements which have high visibility in the city. Landmarks, as in Ankara, appear as natural and man-made elements enhancing figural character through their own physical characteristics as well as their interrelationships with the other built and spatial urban forms.

The castle, in this respect, is an important landmark in Ankara. It is built on a hill which has a natural landmark character in the topographical entity, and it has a unique symbolic meaning coming through the history. It is visible not only being high and monumental with its distinct form, but also by the arrangement of urban structure elements (see App. C). These arrangements contain its visibility through streets, from public open spaces like parks, stadium, hippodrome and from important points like the train station (see App. B2).

It is not possible to see such planned urban arrangements for the other landmarks in the city. They rather give strong images in the urban structure with their form, size, colour and placement. High buildings, for example, especially around Atatürk Bulvarı and Çankaya, appear as landmarks within the monotonous regular housing area (Fig. 4.38a, 4.38b, 4.38c). Atakule has a strong impression with its unusual height and form adding to the advantage of its place up the hill (Fig. 4.40a, 4.40b, 4.40c). İşbankası and Sheraton Hotel attract attention with their distinct forms rather than their placements (Fig.

4.42c). On the other hand, Kocatepe mosque is distinguishable with its bulk and its symbolic form (Fig. 4.41). Anıtkabir is another landmark in Ankara which has an important symbolic meaning; it creates its image through its form and placement on the green Anıttepe hill (Fig. 4.42a). There are other landmarks as well, which may be distinguished by their form and colour, though not so high; like AKM (Fig. 4.42b).

The interrelationships of these landmarks with the urban morphology may said to be rather coincidental. It is possible to view Kocatepe and Atakule at the end of important avenues in the city (Fig. 4.40d, 4.41b). Another visual pattern is that created by the set of high buildings beginning from Kızılay along Atatürk boulevard to Çankaya; where they are repeated with quite regular distances (Fig. 4.48c). The visibility of certain landmarks from topographically isolated areas of the city comprise an important way of relationship: landmarks like Atakule and Kocatepe mosque are visible from eastern valleys and hilly areas, thus they turn into the means of unity through visibility in the city (Fig. 4.41c).

Figure 4.22 Kızılay center
Photo by B. Günay

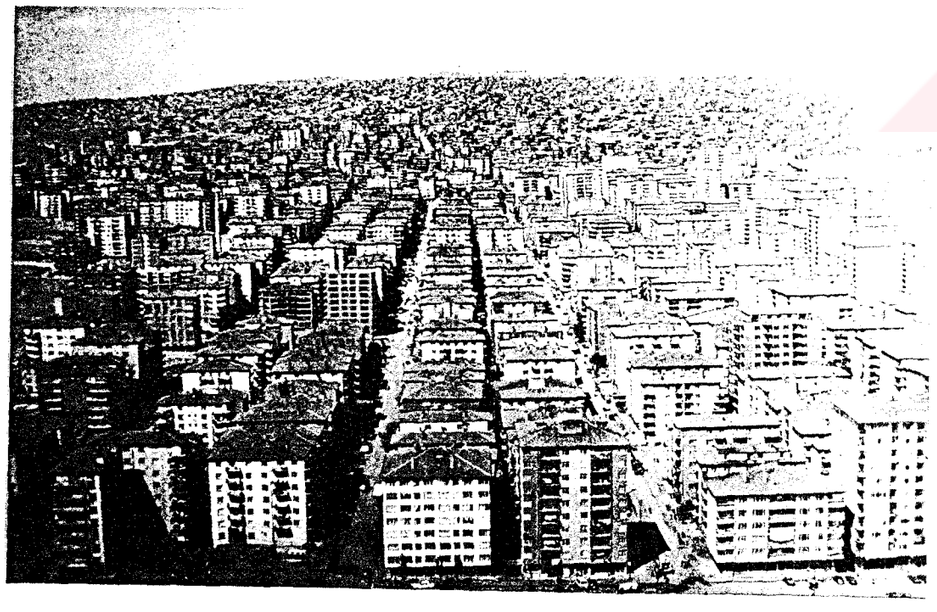


Figure 4.23 Orderly building zone
Photo by B. Günay

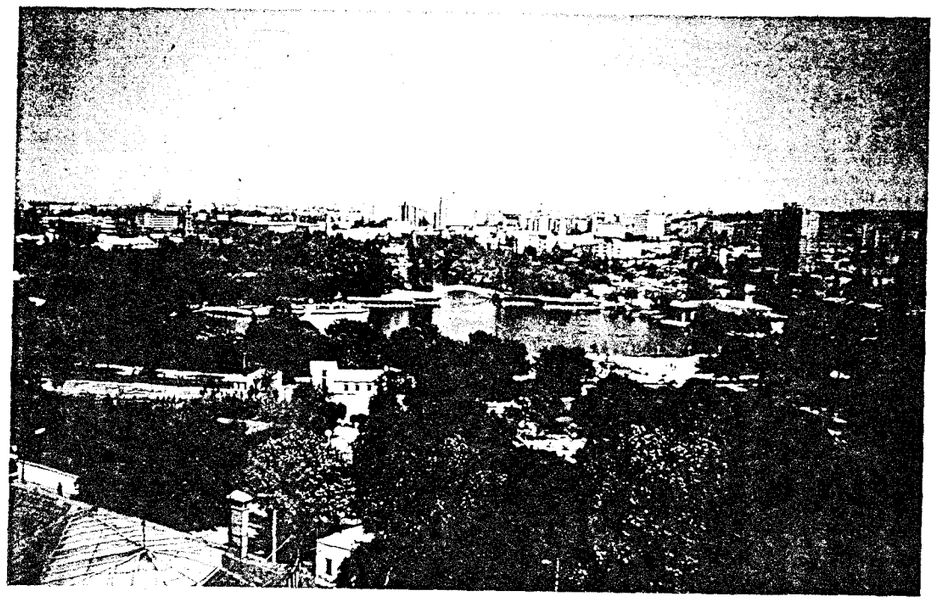


Figure 4.24 Extensive public use area
Photo by B. Günay

Figure 4.25 Squatter zone
Photo by B. Günay

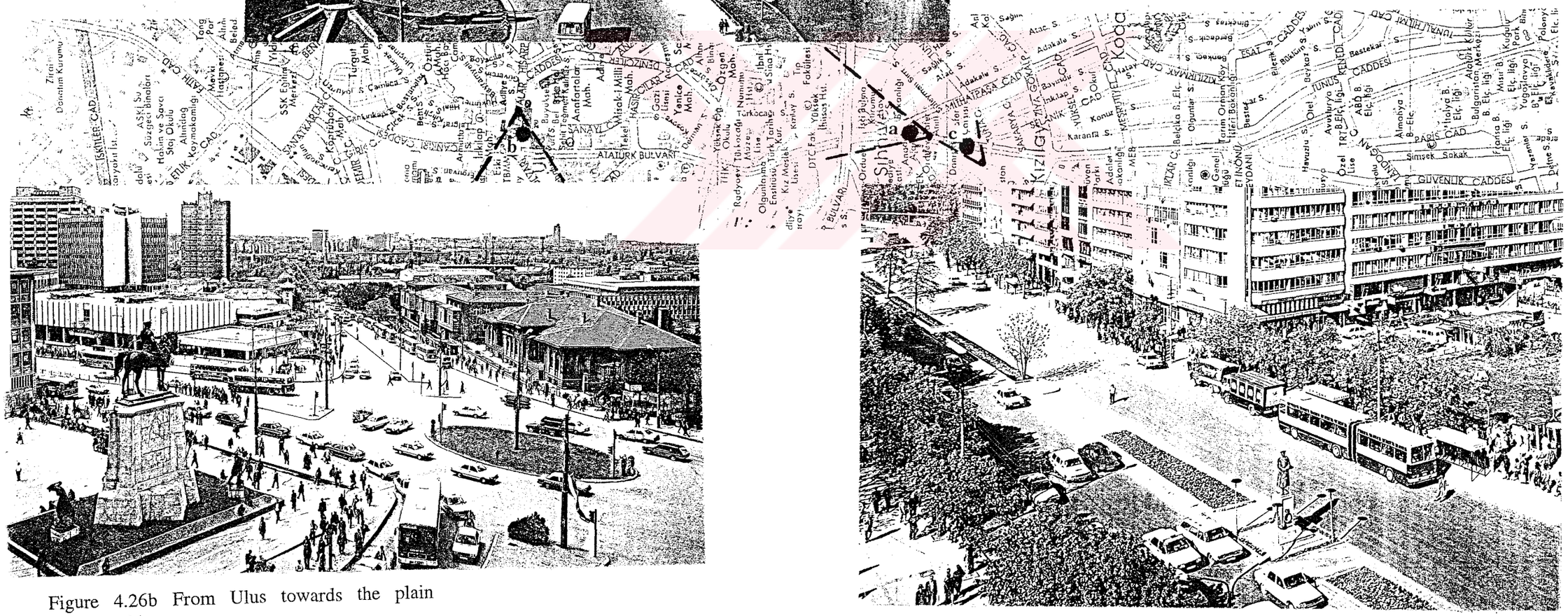


Figure 4.26 Views along Atatürk boulevard

Figure 4.26a From Sıhhiye towards Ulus
Ankara, 174.

Figure 4.26b From Ulus towards the plain
Ankara, 31.

Figure 4.26c Towards Sıhhiye
Ankara, 48.

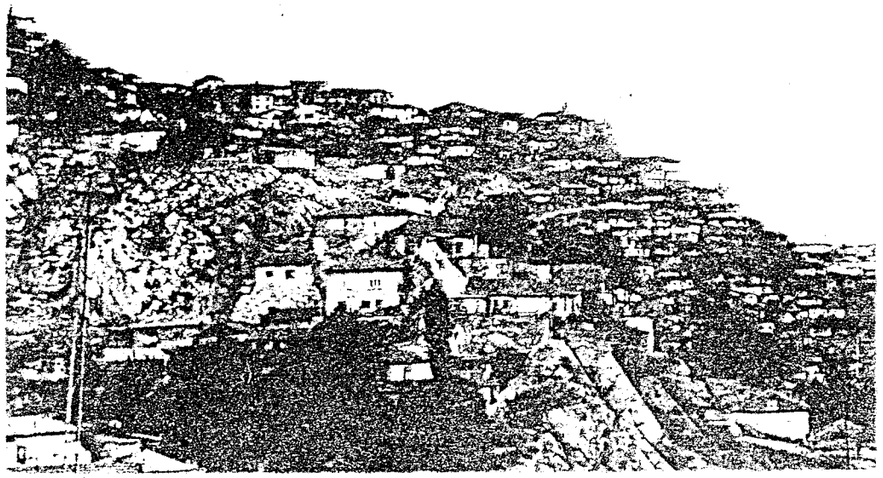


Figure 4.27 Squatters on hill -fitting to the natural slope
50 Yılın Türk..., 384.

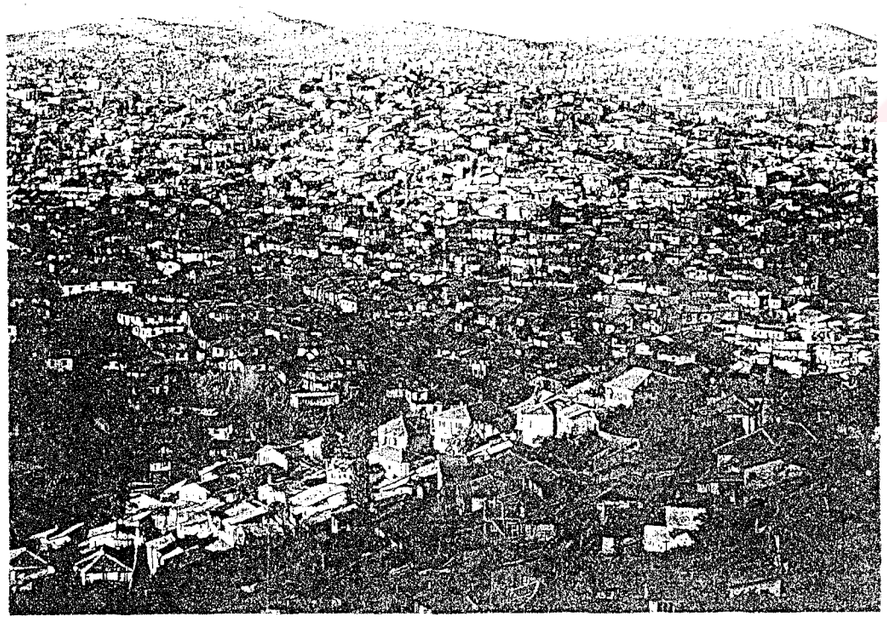


Figure 4.28 Squatter zone
Bir Zamanlar Ankara, 140.

Figure 4.29 Squatter zone - plan

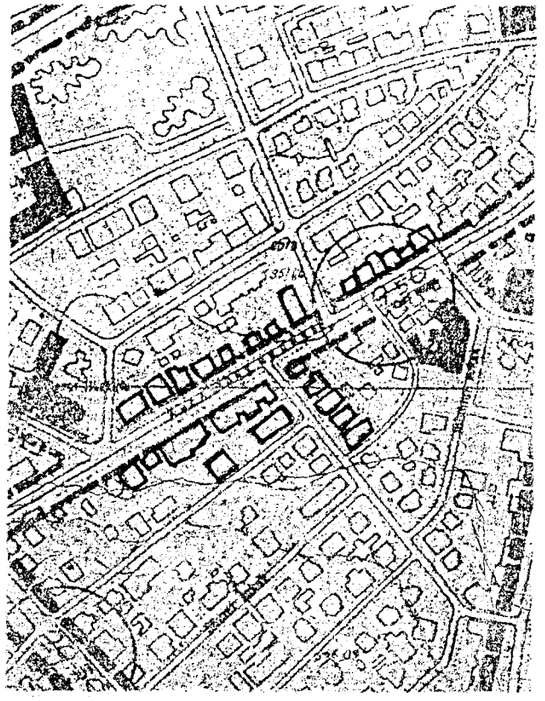


Figure 4.30 Orderly building zone - plan

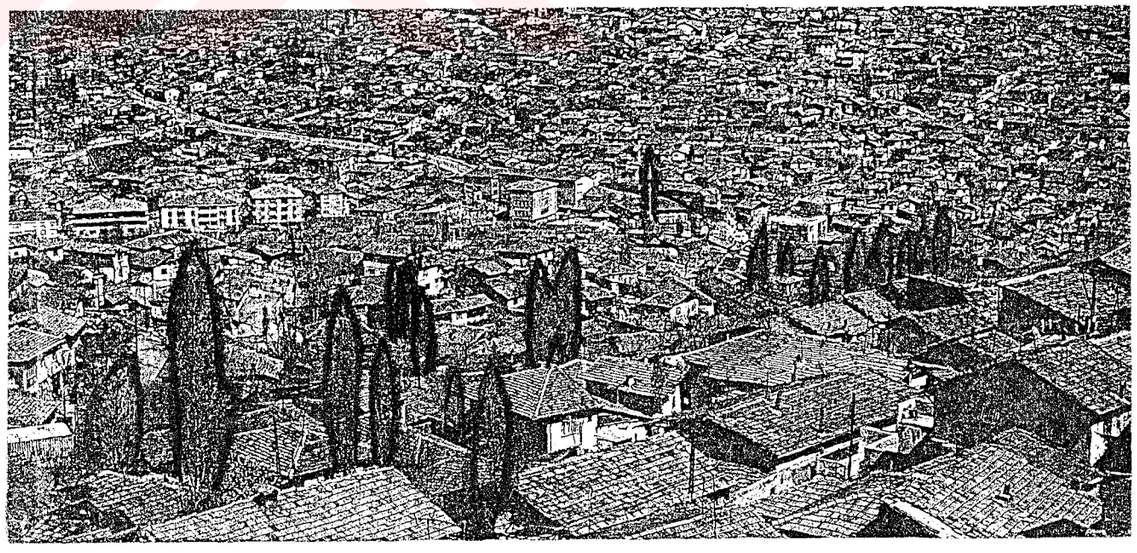


Figure 4.31 Squatter zone -poplar trees and minarets as vertical elements
Bir Zamanlar Ankara, 139.

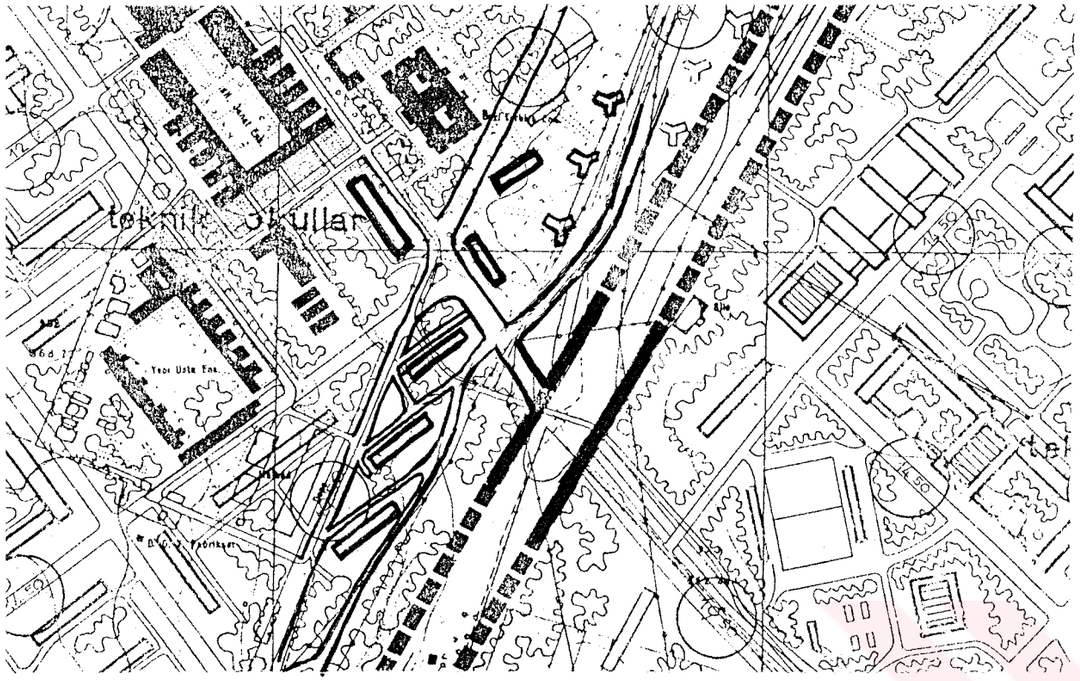


Figure 4.32 Extensive public use zone - plan

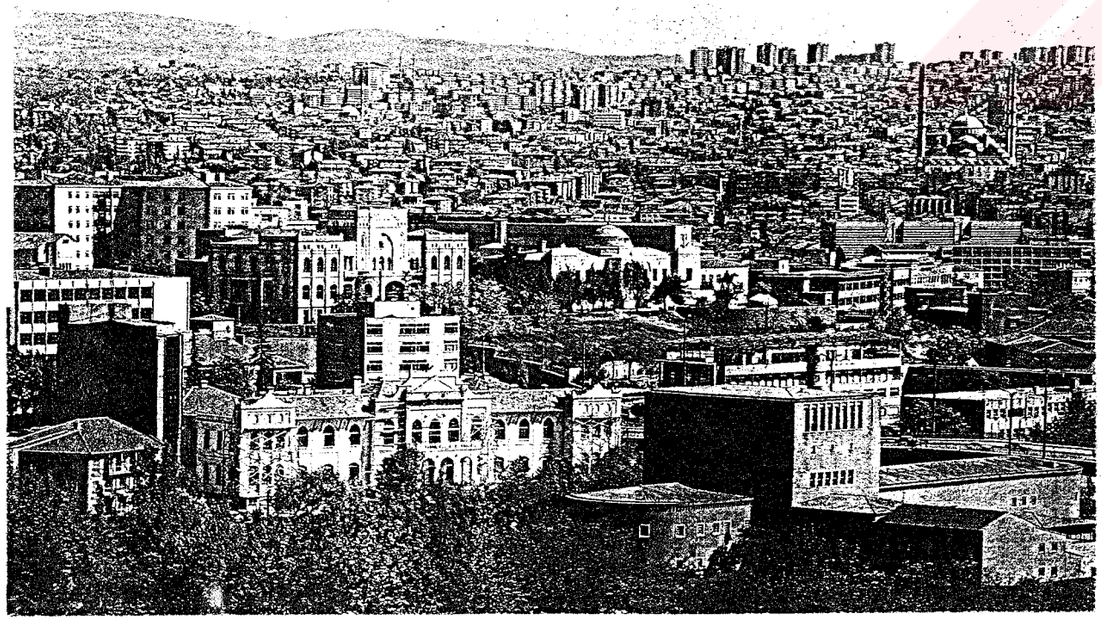


Figure 4.33 Extensive public use buildings
Ankara, 41.

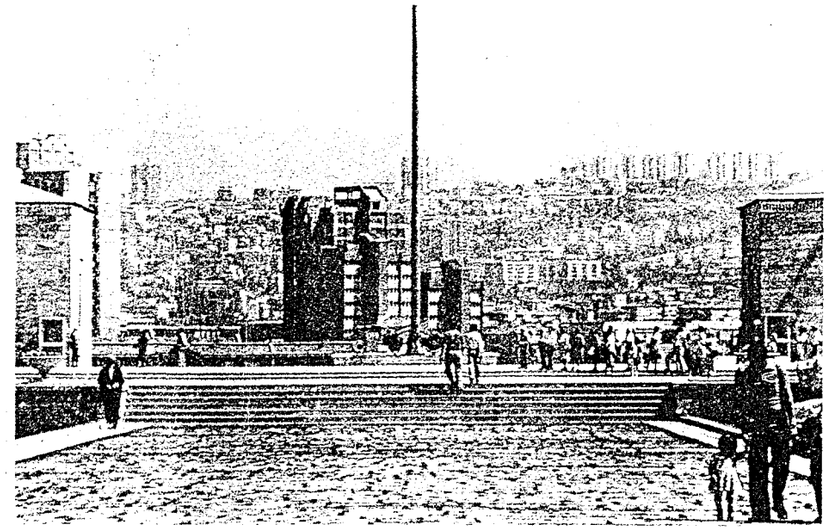


Figure 4.34 View from Anıtkabir
Kentsel Görüntü ve..., 307.

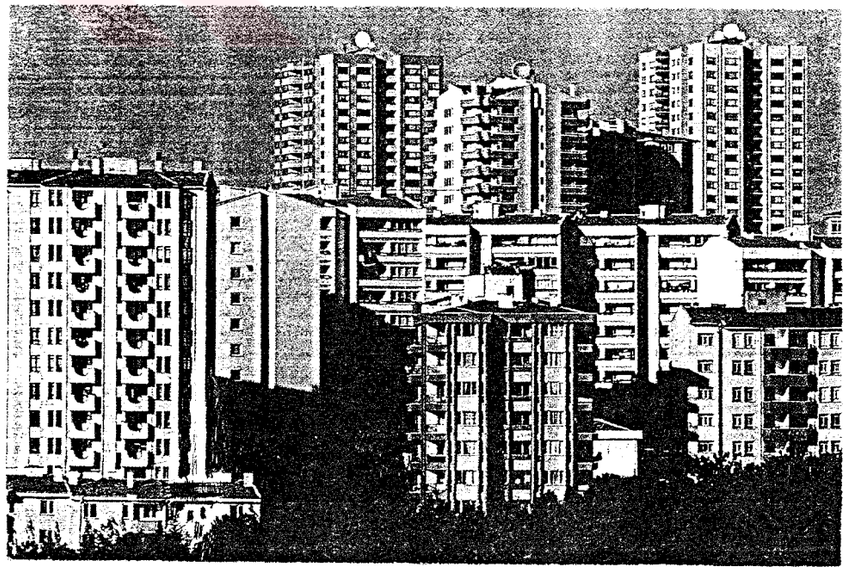


Figure 4.35 Collective housings
Ankara, 172.

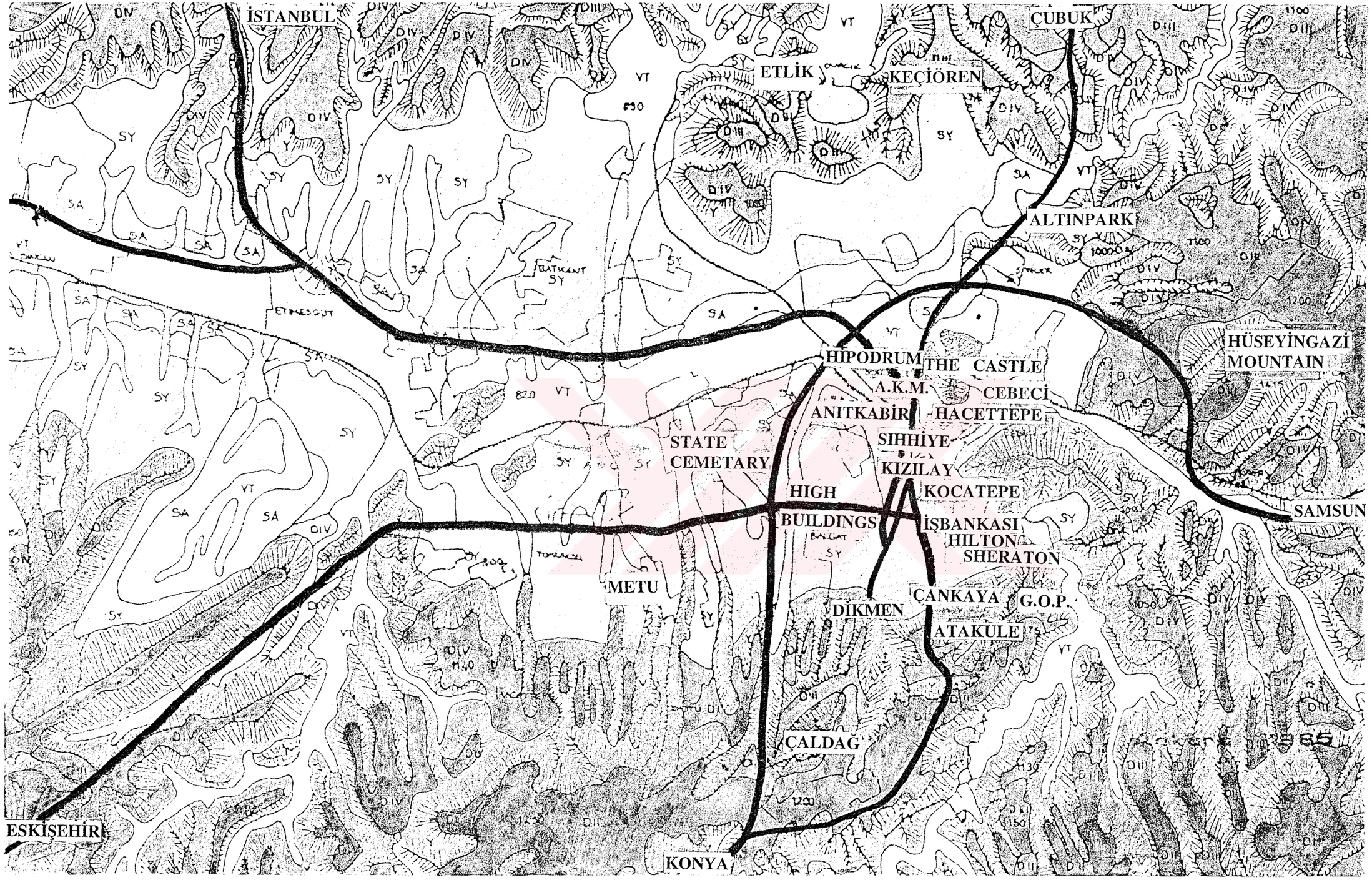


Figure 4.36 Landmarks and high buildings on topographical formations Ankara 2015, 139.

Figure 4.37 Views from extensive public use areas

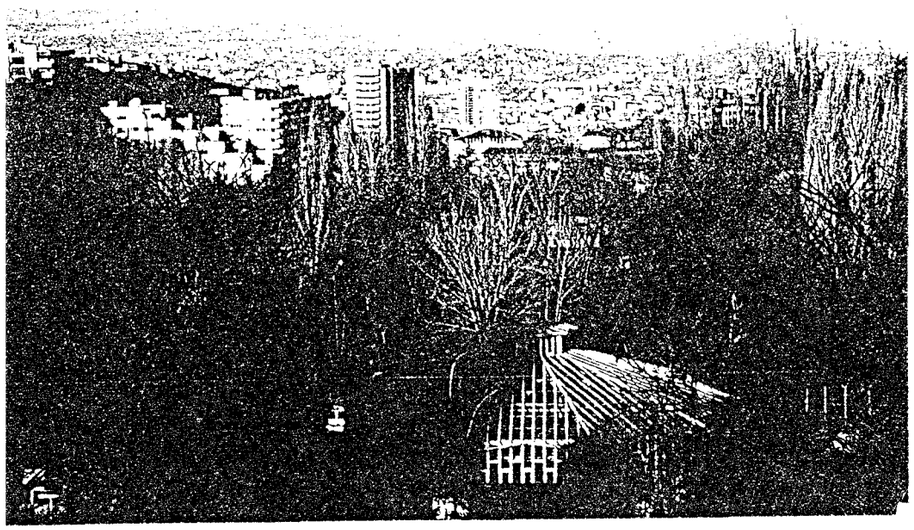
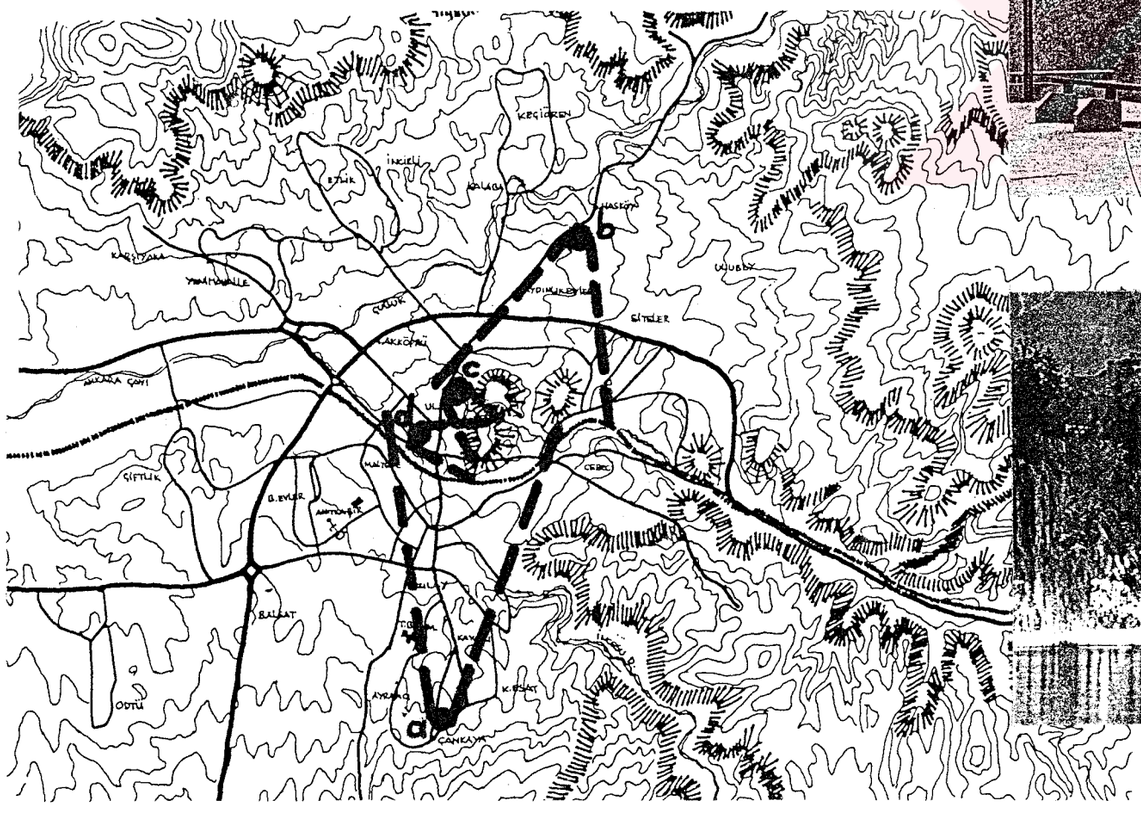


Figure 4.37a View from Botanik Park

Figure 4.37b View from Altınpark

Figure 4.37c View from Hacıbayram square Ankara Dergisi, 92/4, 79.



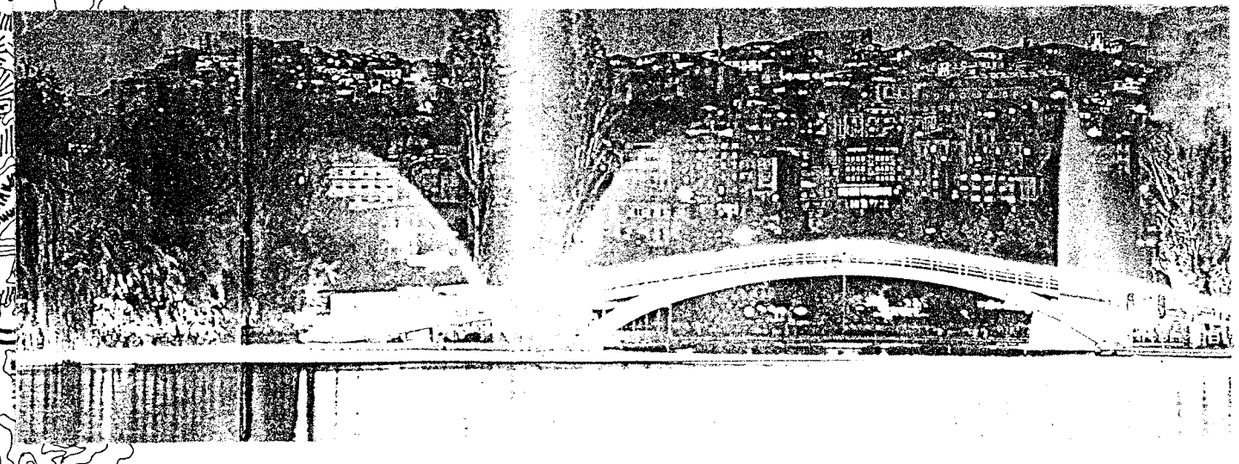


Figure 4.37d View from Gençlik Parkı Ankara, 173.

Figure 4.38 Southern mountain skirts - ÇankayaandGaziOsmanPaşa

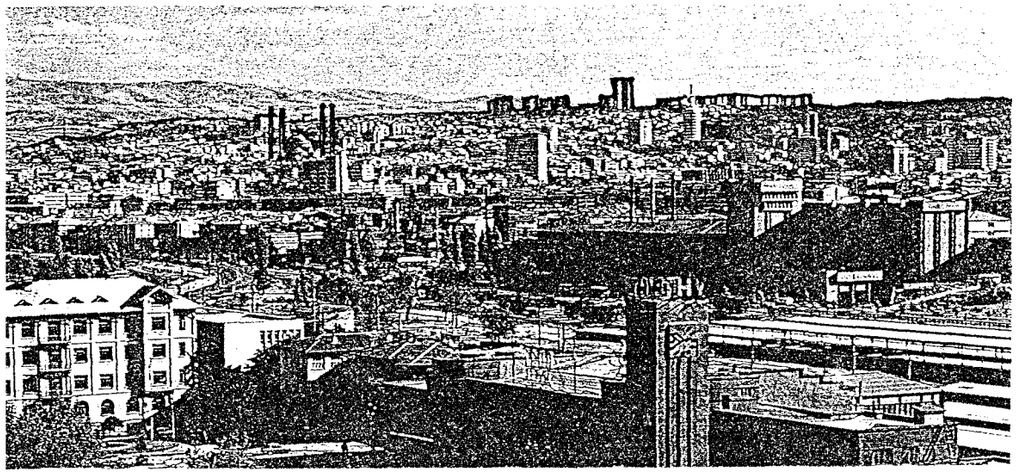


Figure 4.38a Silhouette over Gençlik P.- high buildings on the skyline Bir Zamanlar Ankara, 144.

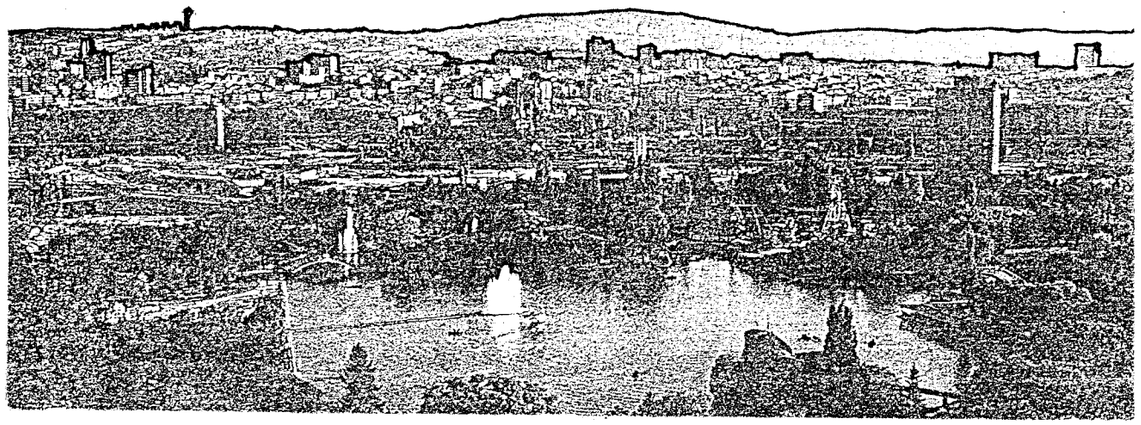
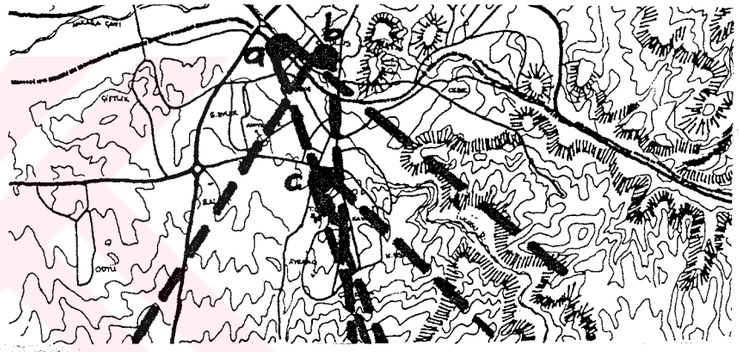


Figure 4.38b Silhouette -Atakule and Çaldağ over Gençlik Parkı



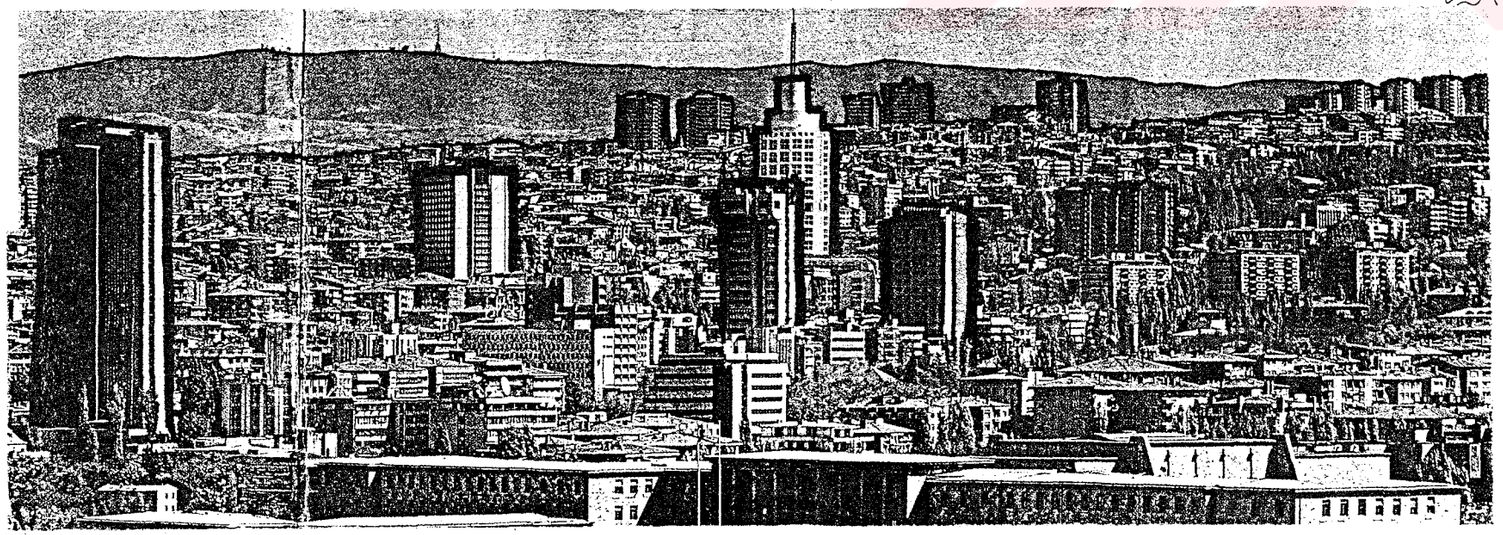
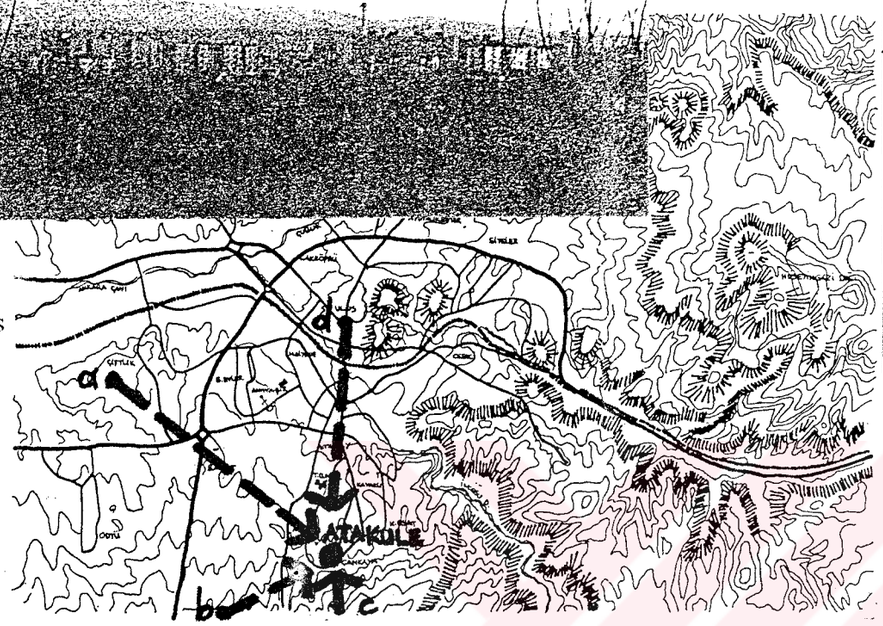


Figure 4.38c Çankaya skirts - high and low buildings as figures and ground Ankara, 7.

Figure 4.39 High buildings along Atatürk boulevard

Figure 4.40 Atakule from different locations in the city

Figure 4.40a Atakule from State Cemetary with southern mountain skirts



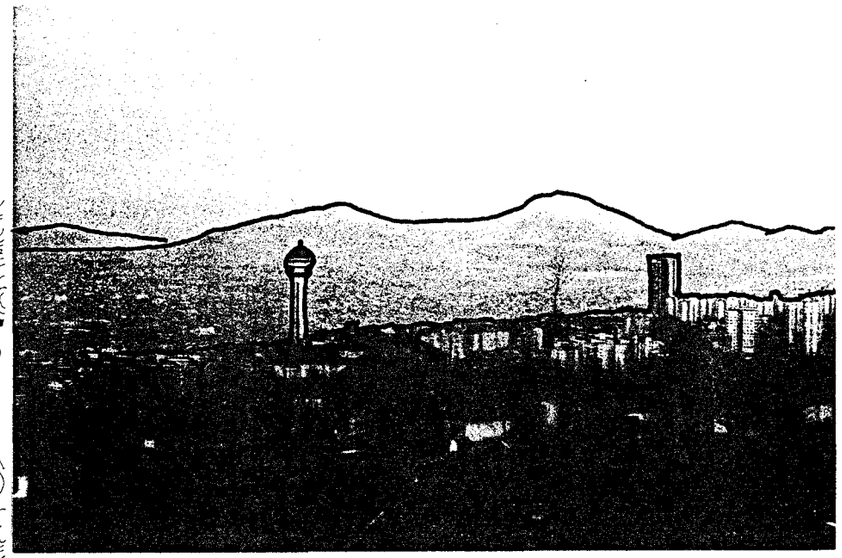


Figure 4.40c Atakule from Çaldağ with Hüseyin Gazi mountain as background

Figure 4.40b Atakule from south with high buildings and squatters Ankara, 68

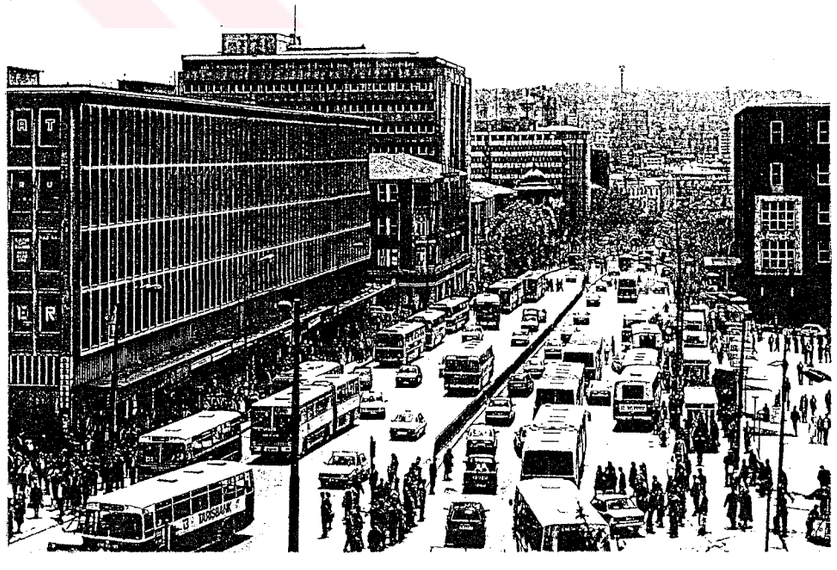
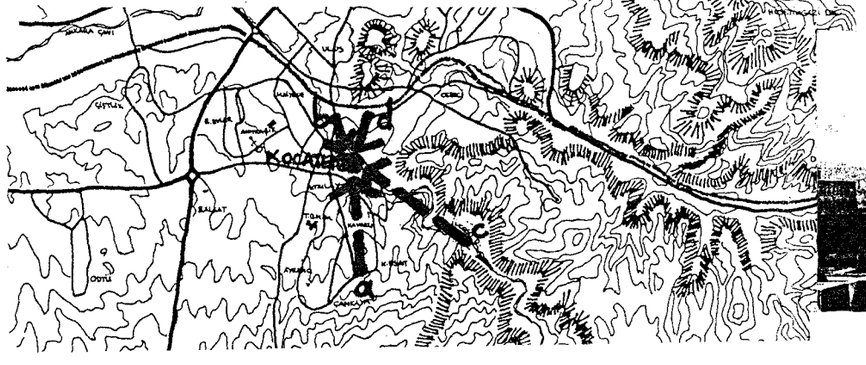


Figure 4.40d Atakule from Ulus at the end of Atatürk boulevard Ankara, 37

Figure 4.41 Kocatepe mosque from different locations in the city

Figure 4.41a Kocatepe mosque from Çankaya as a dominant figure within the orderly buildings

Bir Zamanlar Ankara, 152



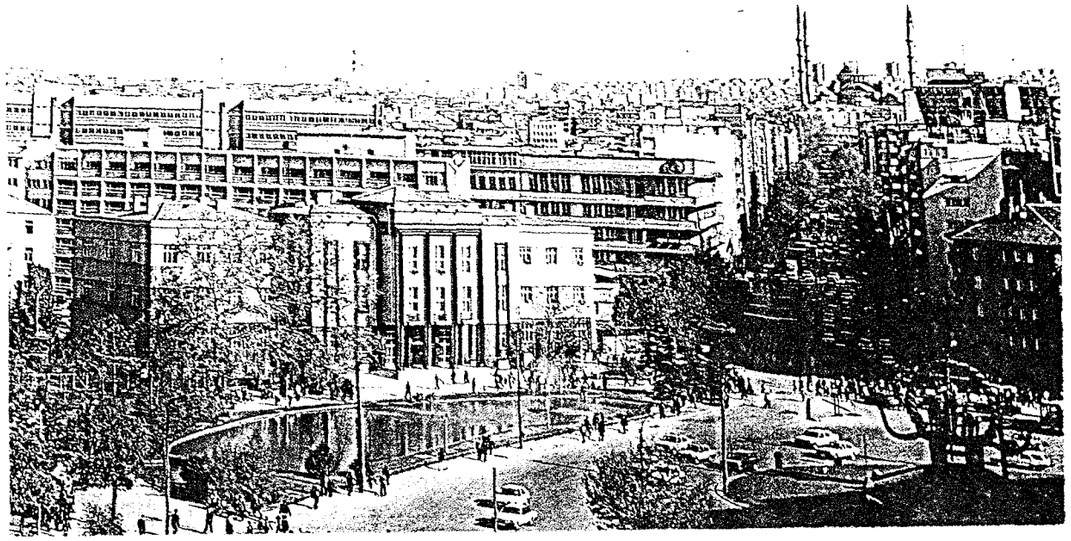


Figure 4.41b Kocatepe mosque from Sıhhiye at the end of boulevard Ankara, 47

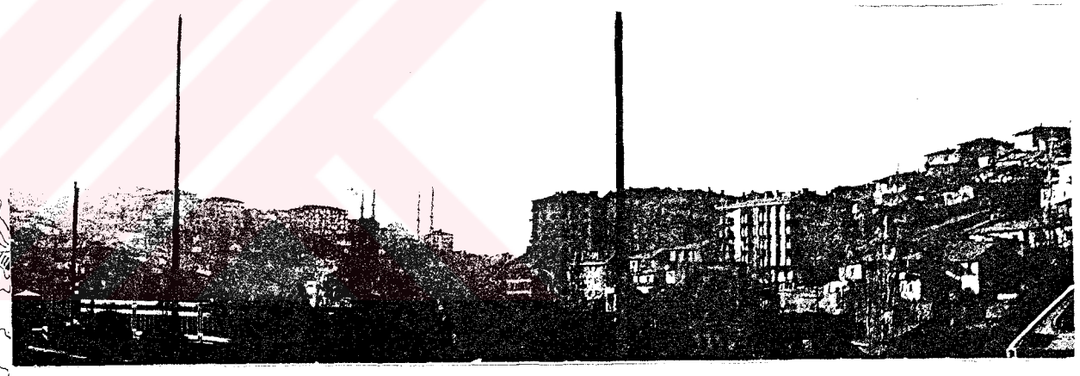


Figure 4.41c Kocatepe mosque from İncesu valley as a means of visual relationship between parts of the city

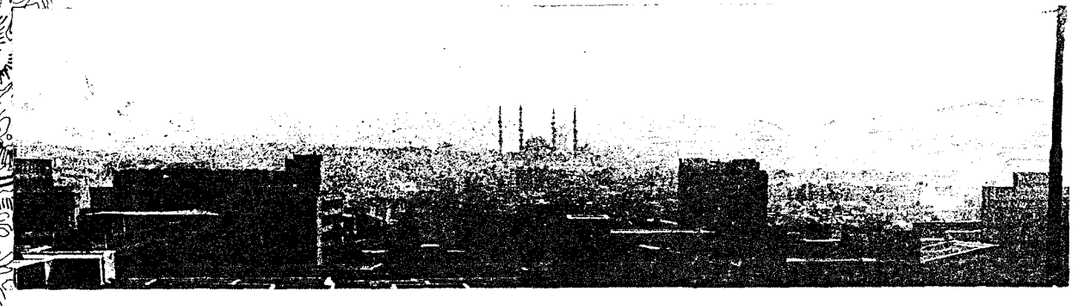


Figure 4.41d Kocatepe mosque from Hacettepe

Figure 4.42 landmarks with distinctive forms

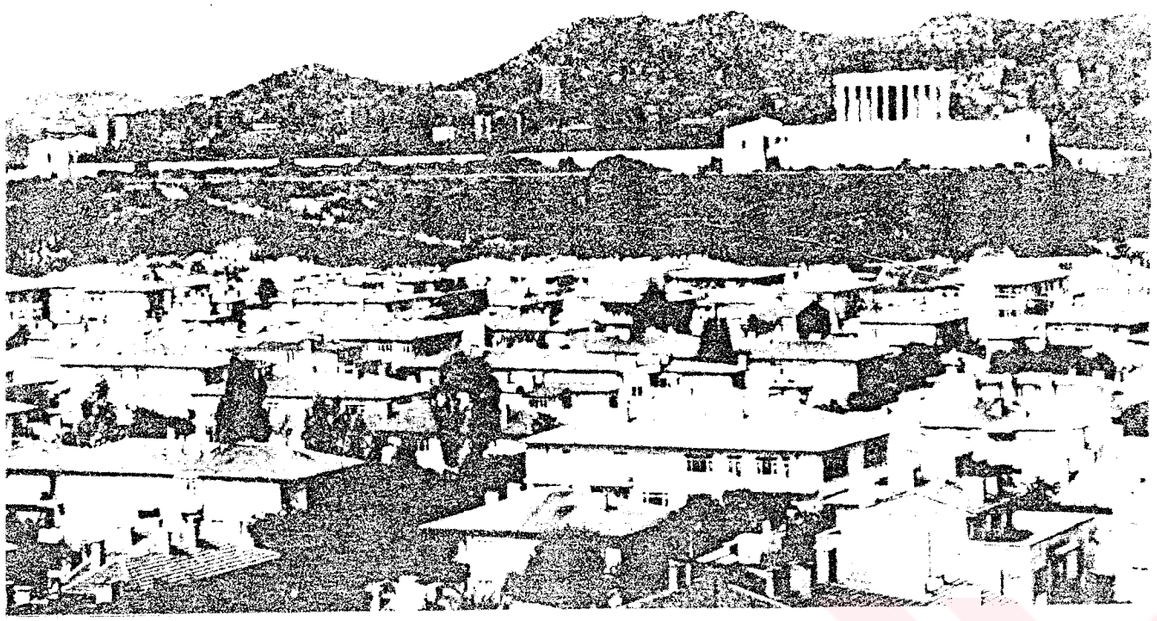


Figure 4.42a Anıtkabir -rising on Anıttepe with its characteristic form within orderly building area
50 Yılın Türk..., 252

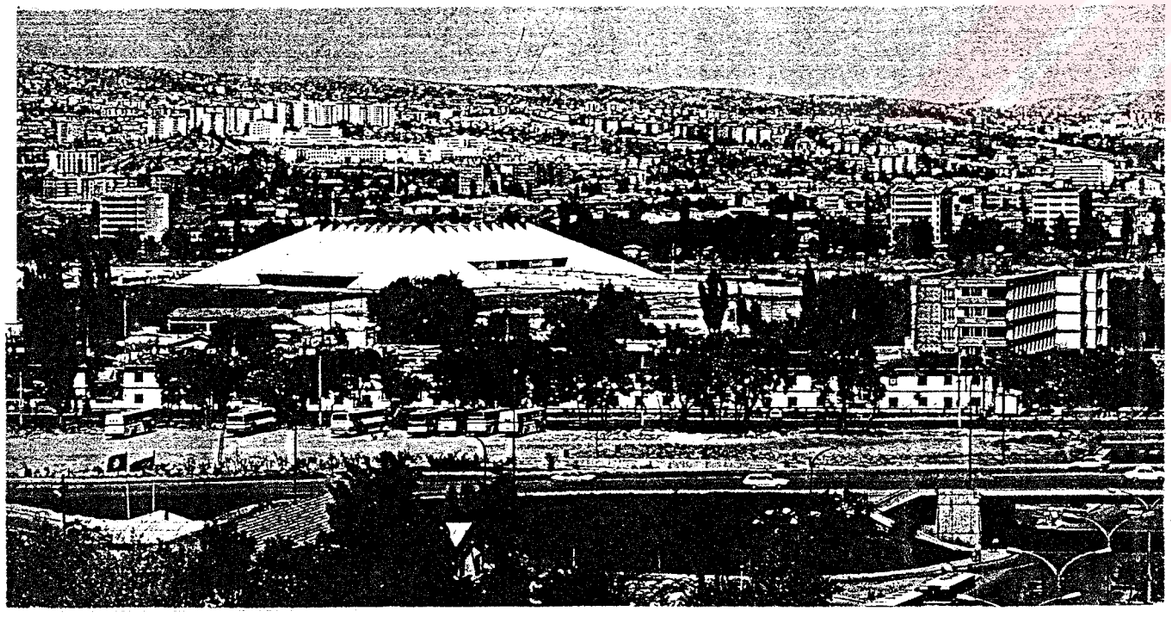


Figure 4.42b Atatürk Kültür Merkezi -a landmark with its form and colour
Ankara, 354

Figure 4.42c Sheraton Hotel -distinctive cylindrical form
Bir Zamanlar Ankara, 149

4.3.4. The City Silhouette

The city silhouette, as an overall image, brings together various types of urban formations within a composition. The scene as a whole, founded through these urban forms in the silhouette is strongly effective as the visual expression of the city. It has been mentioned that the figural elements and the viewpoint are the main determinants of the skyline, thus it would be convenient to examine Ankara's silhouette noticing the appearing figural elements from different viewpoints.

4.3.4.1. The Silhouette from the Main Approaches

As Ankara is surrounded by hilly areas, the approach roads coming through them are visually blockaded. They do not offer a general view of the urban form; but only fragmented scenes of the settlement pattern in those areas (Fig. 4.43c).

A general silhouette is observable from the western approach roads to Ankara, which lay along the Engürü plain. From İstanbul road, the main figure in the city silhouette is the castle and Altındağ hills, with Hüseyin Gazi mountain behind as a background. These comprise a meaningful silhouette of the city continuing towards south till Çankaya hills seen across the open area of A.O.Ç. Yet the castle figure is loosing its strength because of the high blocks built in front of it (Fig. 4.43a). From Eskişehir road, the view is rather directed to the summit of Hüseyin Gazi Mountain, which gives a characteristic image

to the city. The set of high buildings on two sides of the road appear as figures on the plain, and they define the city entrance in a meaningful way (Fig. 4.43b).

4.3.4.2. The Silhouette from the High Vantage Points

The high ventage points in the city are either natural elements like hilltops and mountain ridges or man-made elements as high buildings which rise above the others. When Ankara's topography is considered, the mountain skirts surrounding the city from the three sides and the hilly area where the castle is placed, appear as important viewpoints. In the west, the slightly rising areas on the plain, as well, offer wide perspectives of the city scene. On the other hand, the high buildings especially those on rising areas view the city as a whole (Fig. 4.45a, 4.45b).

Views from the high ventage points in the city offer a multiplicity of relationships founded among the urban elements appearing as figures and backgrounds. It is possible to differentiate areas of various formations creating domains with their distinctive textures (Fig. 4.44a).

When the overall silhouette of the city is considered, the main elements shaping it are as follows: H.Gazi mountain is dominant with its height and shape in the skyline whereas the linear ridges of Çankaya and Etlik hills continue less remarkably towards the west. The skyline of Çankaya hills are articulated by high buildings and some

points are stressed by the use of landmarks like Atakule and the new hotel construction (Fig. 4.38a, 4.40a). Skyline of H.Gazi mountain is natural whereas Etlik hills, though not so much articulated with high buildings as in Çankaya, form an urbanized skyline still reflecting the line of the ridges (Fig. 4.44b, 4.44c).

Within the area under the skyline defined by these elements, there appear other figural natural and man-made elements. The mountain skirts and domains of different textures in the urban morphology appear as backgrounds to these figures. The main figures in the silhouette are: The Castle/Altındağ hills; unique high buildings like Sabancı Kız Yurdu and Kocatepe mosque; buildings on top of hills like Anıtkabir and Devlet Mezarlığı; set of high buildings - detached like the ones along Atatürk boulevard towards Çankaya, or grouped like the buildings along Eskişehir road towards west.

On the other hand, background is generally defined by man-made elements creating different domains with their formation types. These textures created by orderly housing areas, squatters and extensive use areas remain as background for landmarks and are visible in various positions due to their places within the topographical formation. The silhouette appears as a whole reflection of these different elements in relation to each other (Fig. 4.46a, 4.46b, 4.46c).

Though the silhouette may change according to different viewpoints, the main elements are mostly visible with changing relationships among themselves and the overall urban form. It may be

said that the silhouette of Ankara is determined by a combination of natural and man-made elements, but it is rather coincidentally formed as there is no particular intention in the way the man-made elements are placed within the overall composition. The unity and uniqueness offered by the topographical formation is mostly destroyed by buildings which either blockade the view or create unrelated visual entities. High areas suitable for vista terraces -as in Etlik, K.Ören- are not handled deliberately for this purpose, so it is rather difficult to reach good viewpoints opening to the city silhouette.

About the general image of the city; the silhouette is no more dependent on one dominant symbolic element like the Castle as it was in history. The silhouette is rather chaotic, the relation among the urban elements and the importance of these elements in the image is questionable. The variety in the urban forms has brought a richness yet not handled deliberately and meaningfully.

4.4. The Attitudes for the Future Formation of Ankara

As the past and the present visibility attributes of Ankara has been handled, there remain the question how the urban formation may affect the city's visible qualities in the future. As the city grows related to other variables mostly like social and economical events, it is rather an unrealistic attitude to handle the urban morphology only to maintain an overall static set of visuality patterns. On the other hand, it is possible to examine the possibilities of creating a more meaningful

and unified visual expression of the city, considering the future growth areas and patterns.

4.4.1. Ankara-2015 Plan

After the three mentioned development plans of the Republican periods, Ankara has undergone a new plan called Ankara-2015, which concerns a period of 30 years beginning from 1985. In this plan, decentralization was determined as the primary aim for the future developments of Ankara as the compact form of the city was creating pollution. Günay (1988:44) states that the population estimations showed that the city (metropolitan area) would double in 30 years reaching a population of a 5 millions. It was no more feasible to concentrate this population in the compact macroform; furthermore the macroform was definitely limited geomorphically in the north, south and east; and by extensive public uses in the southwest and west. Thus, Günay(1988:46) states:

> The new macroform is based on six growth directions where geomorphically suitable western corridor is still the bulkiest. In between the growth directions, green belts are proposed in wedge shape forms. Another novelty of the plan has been the transport system. The basic structure of transportation of Ankara still depends on the network of 1957 plan which is losing its efficiency. Ankara 2015 proposes a parallel system to the existing road network to provide for a new hierarchy and functional discrimination at the same time.

In this context, the view from the six new growth directions and the new transportation system gains importance in enhancing a visual unity between these new developments and the city. Apart from new

developments, the existing urban structure is continuously being handled in various ways like extending the central zone towards; creating new cultural centers, parks, squares, etc. All of these movements in the city affect the urban visibility and may be considered to be opportunities to enhance new qualities in the city.

4.4.2. The Urban Visuality as Dimension of Ankara's Future Development

Within the planned and unplanned future developments of Ankara, it is rather difficult to estimate and determine the visual qualities that will come into being in time. On the other hand, it is possible to point out some objectives in the process of development and change in the city; regarding the topographical layout which is rather permanent, the attitudes to form visibility patterns which have been successful or unsuccessful till today, and the present visual relationships that evolve within the urban morphology.

In order to develop an idea on the possible ways of implementing visibility patterns in the city, it would be useful to examine past end present attitudes on the subject. It is possible to find numerous aspects of urban visibility in Jansen's plan for Ankara (see App. B.1. and B2). A landmark carrying a symbolic meaning in the image of the new capital -Ankara castle- was chosen, and its visibility was aimed to be dominant in the city through streets and from open spaces which were placed and formed accordingly. Another approach was

the use of topography deliberately as the hilltops were reserved for parks; the city was limited within the flat area where it was possible to view the castle, etc. Some of these proposals of Jansen plan were implemented and kept successfully whereas some were disregarded in the later development process of Ankara.

There are present attitudes as well, in the new development and restoration projects stressing on visibility in the city: The projects for valleys in Çankaya skirts like in Dikmen, placing landmarks like Atakule on high places to increase their visibility, arrangement of squares viewing landmarks (the Castle), and handling the city entrances in a way to direct the view to the city silhouette from proper points (Eskişehir Yolu Giriş Kapısı Yarışması). Apart from these attitudes which are directed by municipality, there are also private studies made by architects to remind the visual characteristics of certain sites coming through history, like the report about the competition of Altındağ Municipality building by Cengizkan et al.(1986).

Adding to the present attitudes, it is possible to develop other principles in the building process so as to increase openness in the city; especially preventing the visual barriers before natural and man-made landmarks, and arranging public viewpoints for the city silhouette.

For a visual unity in the city, the different textures and patterns created by different urban formation types should be used deliberately; the offerings of topographical entity should not be

disregarded and destroyed. As it is not possible to prevent the growth; the urban areas left outside the bowl-like topographical formation may be visually related to the whole city by use of landmarks placed to be viewed through the urban structure in these areas. This pattern is seen today in İncesu valley where Atakule and Kocatepe mosque appear as elements linking the valley visually to the city.

(2) First political unity of Hittites is old Kingdom -begins in 1660 B.C. (Akurgal, 1990:53)

(1) Old Stone Age is between 600.000 and 10.000 B.C. (Akurgal, 1990:21)

Figure 4.43 Ankara silhouette from approaches to the city

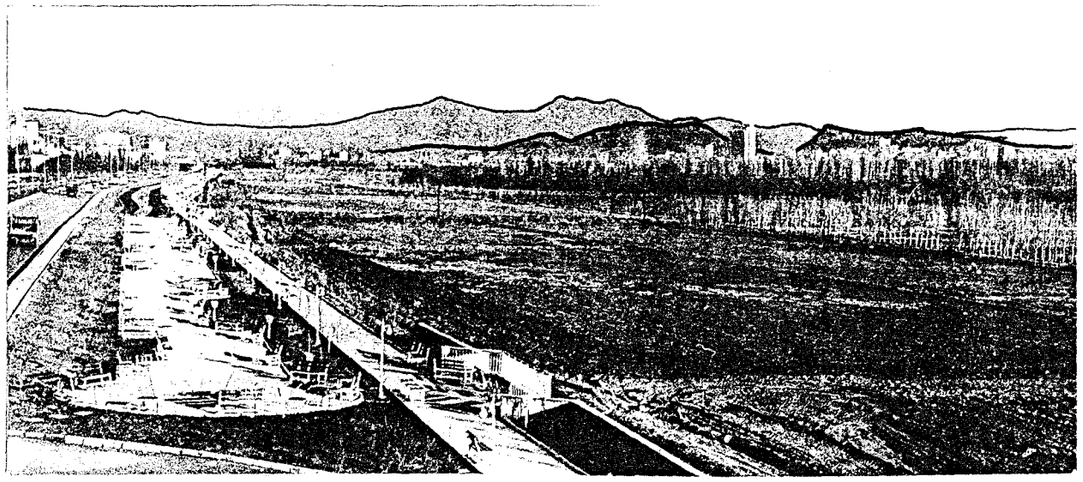
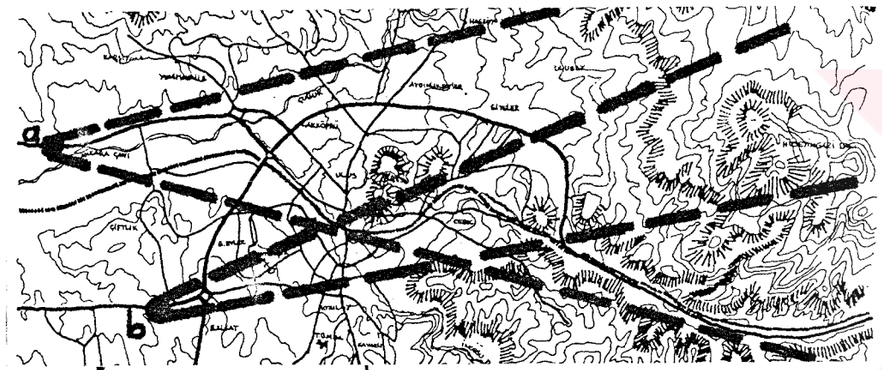


Figure 4.43a Ankara silhouette from İstanbul approach



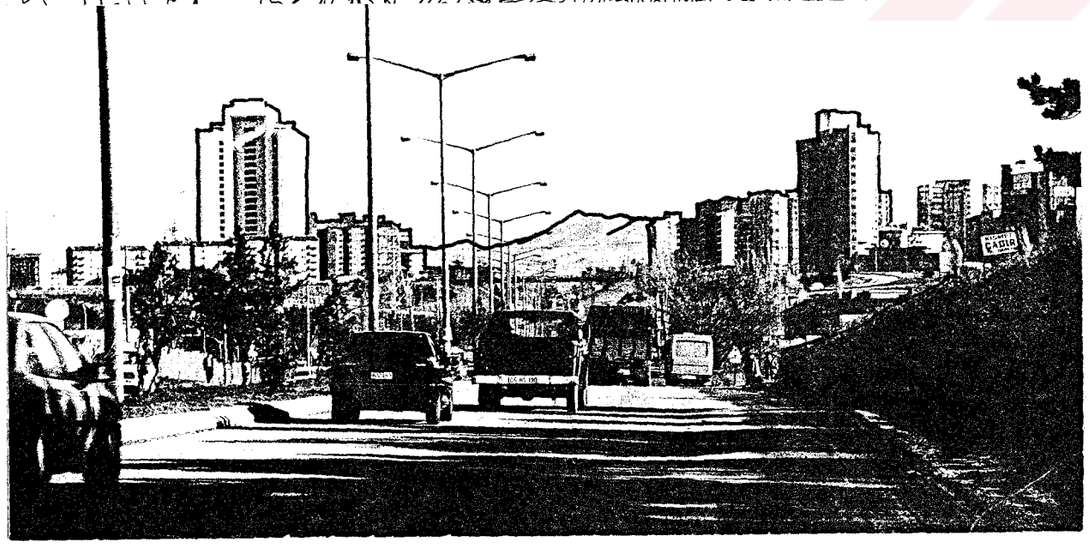


Figure 4.43b Ankara silhouette from Eskişehir approach

Figure 4.43c Shifting image fromÇankırı approache through Çubuk valley

Figure 4.44 Hüseyin Gazi mountain from different locations in the city

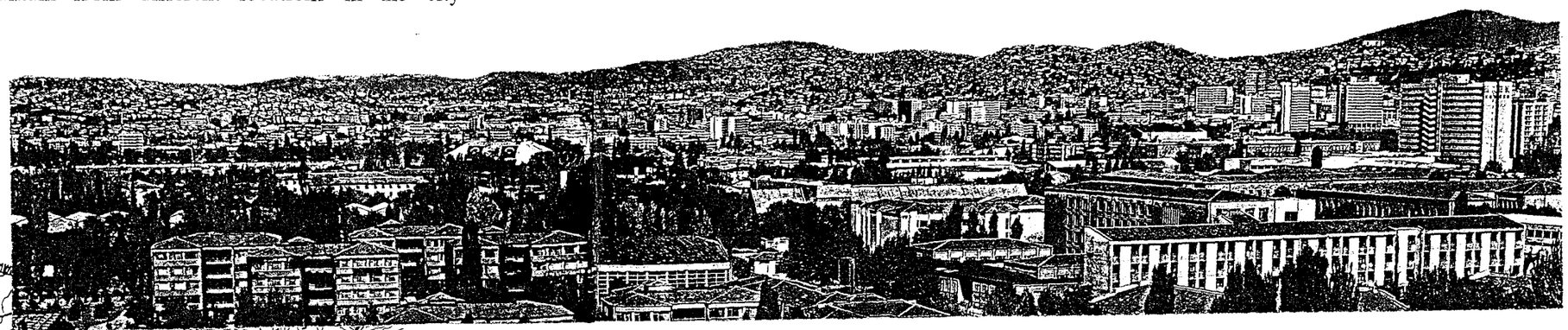
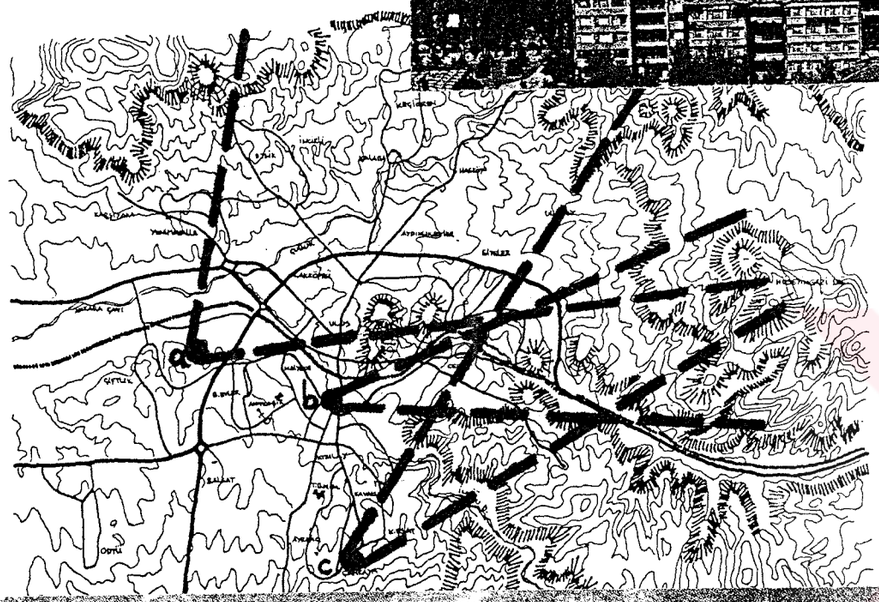


Figure 4.44a Etlik skirts, castle and Hüseyin Gazi mountain from Beşevler -as part of the bowl-like topographical structure of the city
Ankara, 230-231



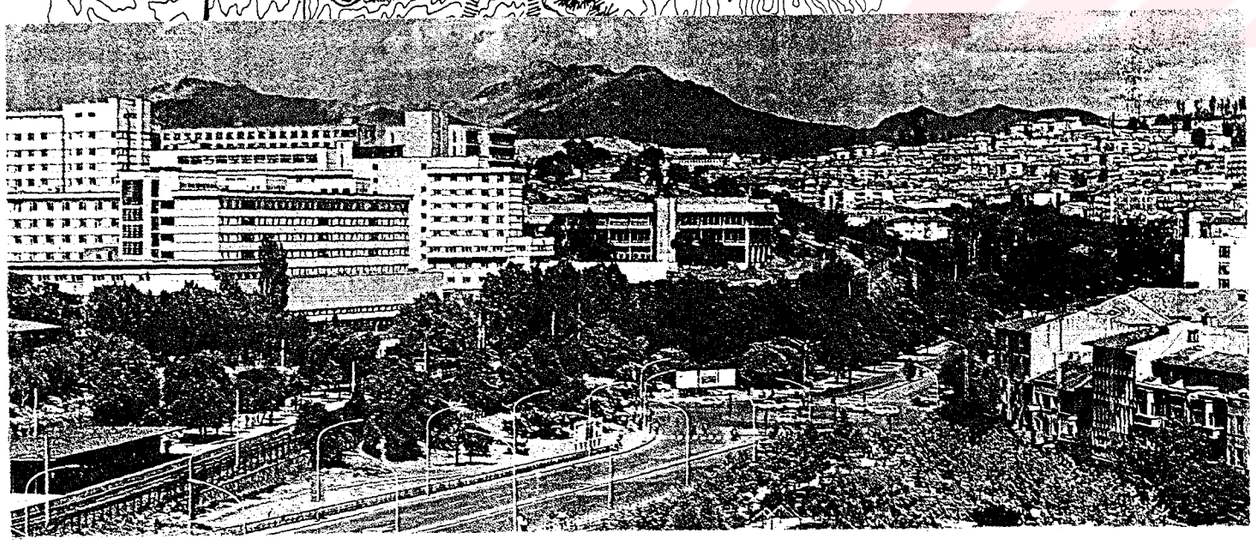


Figure 4.44b Hüseyin Gazi from Sıhhiye -determining the skyline behind urbanized areas
Ankara, 65

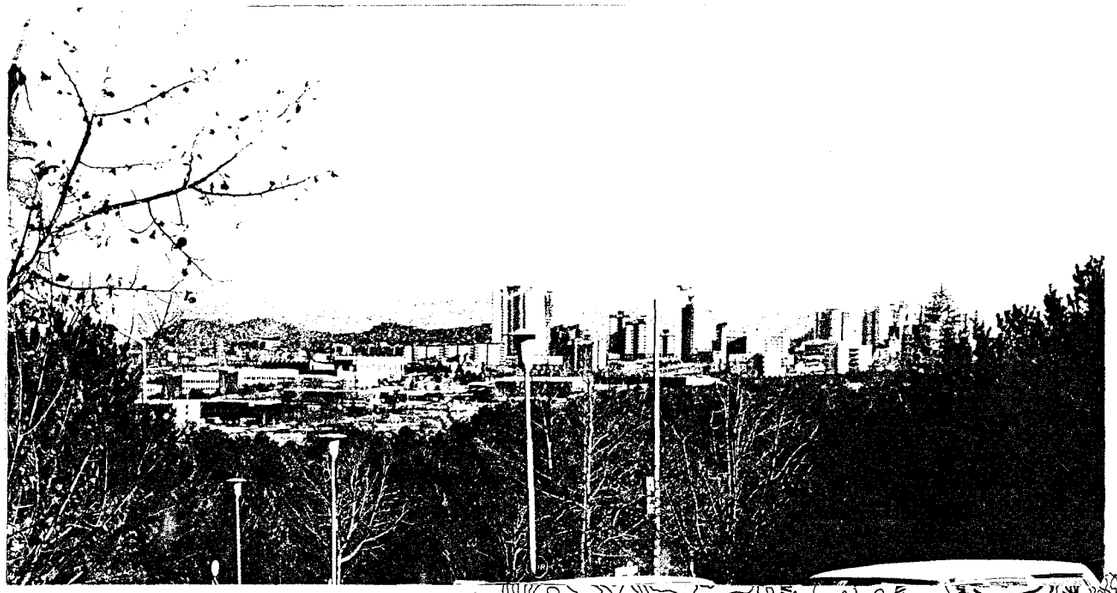
Figure 4.44c Silhouette from GaziOsmanPaşa -H.Gazi as a background
Bir Zamanlar Ankara, 148

Figure 4.45 View from the Castle

Figure 4.45a Silhouette from the Castle towards Engürü plain (west)

Figure 4.45b Silhouette from the Castle towards H.Gazi mountain (east)

Figure 4.46 City silhouette from different locations



igure 4.46a Silhouette from METU

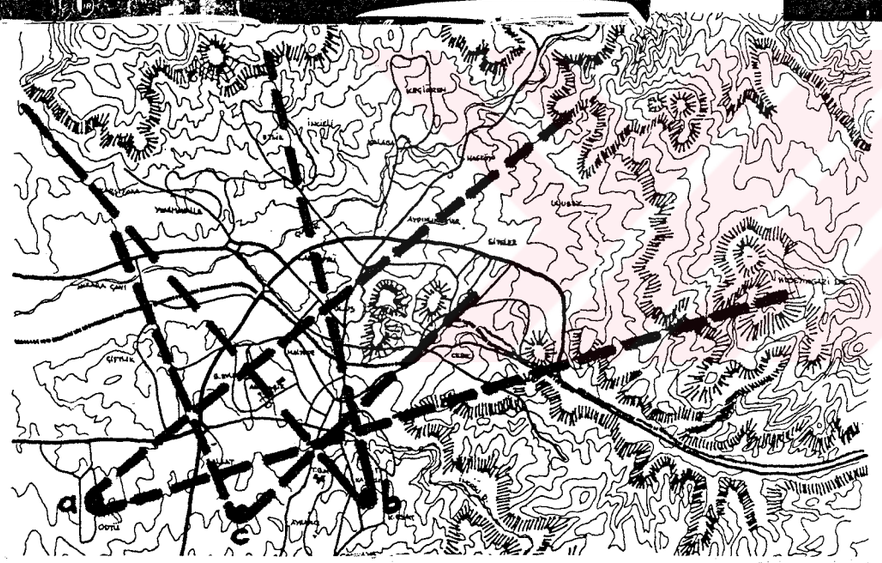


Figure 4.46b Rising buildings on the plain
Photo by C. Çinici

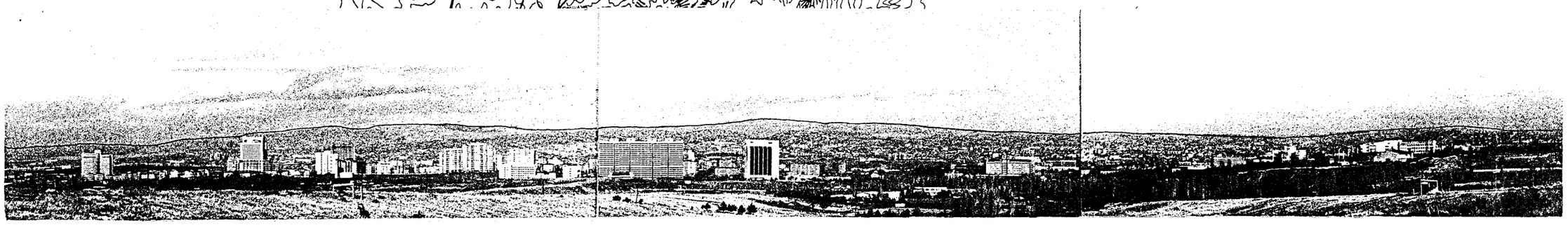


Figure 4.46c High buildings along Eskişehir road -viewed from south

CHAPTER V

CONCLUSION

5.1 Generalizations and Recommendations

The present study was on the visuality aspects of urban form as an entity comprised of natural and man-made elements in relation. The frame of this work consisted only visible reflections of urban environment, though not denying the factors that bring them into existence like social, cultural, economical situations and physical properties and forces.

When visibility is mentioned, how the visual image is perceived by man gains importance. The basic attitude of the human eye to organize the visible entity into a whole through formation of figures and grounds, and domains has been mentioned in this context. This property is valid as well for the visual perception of the urban form, through the possibilities created in it by physical characteristics like organization and appearance.

The perceptive properties of the eye has been used deliberately in the expression of certain urban images throughout the history. These attempts to create visibility patterns developed either as

an overall handling of the city in the direction of an imperial image as in Byzantine and Ottoman İstanbul, or as a reflection of a certain world view throughout the city as in Ancient Greek cities.

In this context, Ankara also has undergone some processes of image-building through visibility patterns in history: The earliest example of this attempt may be mentioned as the placement of artificial mounts (royal tombs) on a ridge in the plain so as to be viewed from the city on the skirts of the hills (Buluç, 1991). Later, when it became Galatia's capital, it gained an overall visual image which would last until the Republican period: The castle on the high, steep hill and the city spreading on its skirts-sometimes close to the castle, sometimes further on the plain as an open city. The last attempt to develop an urban image visibility was in the beginning of the Republican period, with Jansen Plan. Jansen aimed to keep the castle as a visual focus point for the city as it had been through its history. The set of patterns proposed within the plan to enhance visibility of the castle through the urban structure have mostly lost their validity in the rapid development process of the city (see App.C).

When the distinctive elements that determine the urban vision was considered, it was seen that they were basically natural and man-made elements in the city operating in a coordinated way. Handling them one by one and analyzing the effect of each element in urban visibility has formed a basis to clarify the urban formations that create Ankara's distinctive visibility patterns.

It has been seen that natural elements like plains, hilltops, mountain skirts and valleys posses different visual characteristics within the city, and they have an important place in the overall visual images of cities. In this regard, Ankara may be said to have a variety of visibility patterns derived through the topographical formation. Within the topographical layout; there exist natural landmarks, viewpoints, visual domains and corridors. One distinctive property of Ankara's topography is that a bowl-like entity is formed through the mountain skirts surrounding the plain. The hilly area where the castle exists is a visual focus point within this entity, and is dominant with its figural quality on the plain.

The elements of urban structure were also found to be effective in the formation of visibility patterns. Man-made elements direct and define the vision either with their built forms or with the spatial form they create. Thus, a rich variety of visibility patterns evolve within the urban structure. In this context, the visibility patterns offered by man-made elements in Ankara are basically dependent on urban formation types. Orderly building zones, squatter zones, extensive public use areas, and landmarks create distinctive visual characteristics. However, they mostly are neither designed to enhance a visual quality within themselves, nor they have a deliberate relationship with the topographical visuality patterns.

When the silhouette of the city is considered, it is rather difficult to find a co-operation of topographical and man-made figures, and domains which appear as ground to them. The topographical

elements like hills and mountain skirts have certain dominance in the silhouette, but their visibility is destroyed by the man-made elements in some areas. The castle can no longer be said to keep its dominance in the city silhouette; at least not from every direction. Still, when a unique city image is considered, the hill-and-bowl effect offered by the topographical entity appears as the overall distinctive visual quality.

During this study, it has been seen that the topographical offerings of the site has mostly been disregarded in the present building process. Günay and Selman(1982:26) point out this situation stating that though Ankara is founded on hills, hills and valleys have not been used deliberately in the urban visibility: Except for few, valleys are not stressed. On the other hand, the urban formation on hills do not reflect the topographical property with 4-5 storey buildings. Another attitude to stress hilltops with higher buildings does not create a successful view in the city silhouette.

Against this chaotic and unsuccessful situation, the future development plans of Ankara have been examined. When the proposed development strategy for the macroform is considered, the need to handle the urban visibility patterns more deliberately becomes evident as the urban area will be spreading further as arms outside the bowl-like topographical entity. In this process, the visibility attributes of Ankara offered by the topography, the patterns and images coming through history, and the present attitudes to establish visual relationships in the city should not be disregarded.

When talking about the ways of enhancing higher qualities of urban visibility, we should never forget that there are many variables affecting the urban formation. The process for new attitudes in the city would anyway concern these variables. Altaban(1986:15) points out that though natural conditions have an ordering effect on urban form, the main determinants of urban form are social and economical processes. This study did not aim to clarify the way these processes may be handled in the formation of urban visuality patterns, so no concrete visual structuring projects for Ankara is proposed at this step.

On the other hand, examining the sub titles and different aspects of the subject, it is possible to propose the directions in which this study may be carried further. One important title is the critical model developed in the third chapter. This section may be widened to a more comprehensive model including more detailed examination of urban silhouette. Some aspects of urban visuality which were not included in this study like effects of different scales, means of movement, and light conditions changing through time appear as distinctive study subjects which will contribute to the understanding of appearance of cities.

Another important point in examining the urban visuality is the use of computer programs. In this study, it has been used in a very limited field; yet it offers wide possibilities as a visual medium. I believe handling the topographical and the urban entity together in a computer program would contribute a lot to the understanding and improving of urban visual qualities in Ankara.

5.2 A Figurative Approach to the Present Outputs and Future Suggestions

Throughout this study, I have often transferred visual outputs of Ankara into diagrams and sketches. This way, I had the advantage of seeing and explaining the visual relationships in the city rather simply as isolated from numerous details and blockading elements in sight. Distinctively from the analytical manner of the overall study, these figurative studies reflect a personal understanding of the environment as well. I think these sketches also help formation of future images of Ankara as they reflect the essence of the visual characteristics the city possesses -at least as they are in my mind.

Ankara's topographical layout is quite clear. As far as the bowl-like entity is considered, a visual unity is offered from many points within the site. Yet, this overall topographical form comprises a variety of smaller elements within itself without destroying the unity. However each hill, each valley or mountain skirt formation has its own characteristics -like northern mountain skirts creating hilltops within themselves as they reach the plain and southern mountain skirts creating valleys (Fig. 5.1).

Within the overall unity of the site, some sub areas which differentiate in their visual characteristics appear. Western and eastern sides of the Castle area are two main sub areas: Western side is the Engürü plain which offers a wide angle of vision towards the west whereas eastern side is a rugged area visually blockaded in every

direction. Within this entity, the hilly castle area appears as landmark with high visibility and it has both segregating and uniting roles in the visual experience of the area (Fig. 5.2).

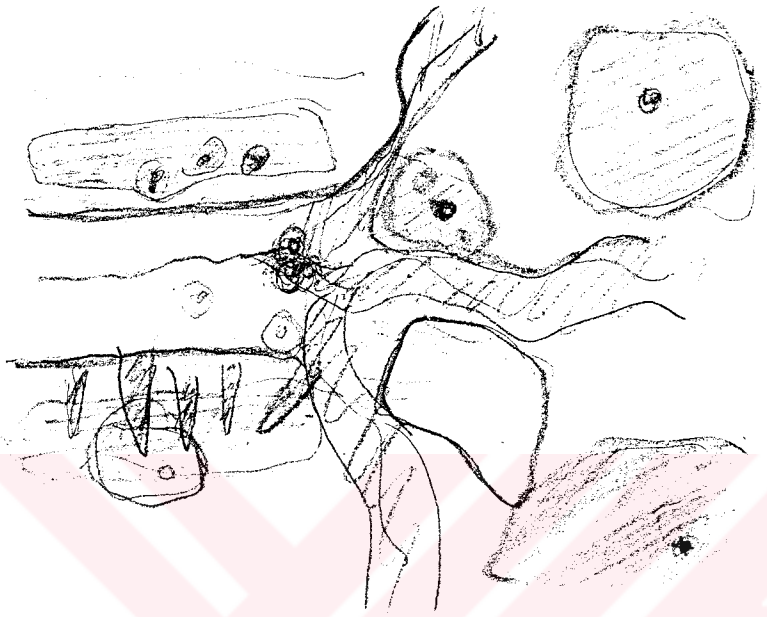


Figure 5.1 Topographical layout of Ankara

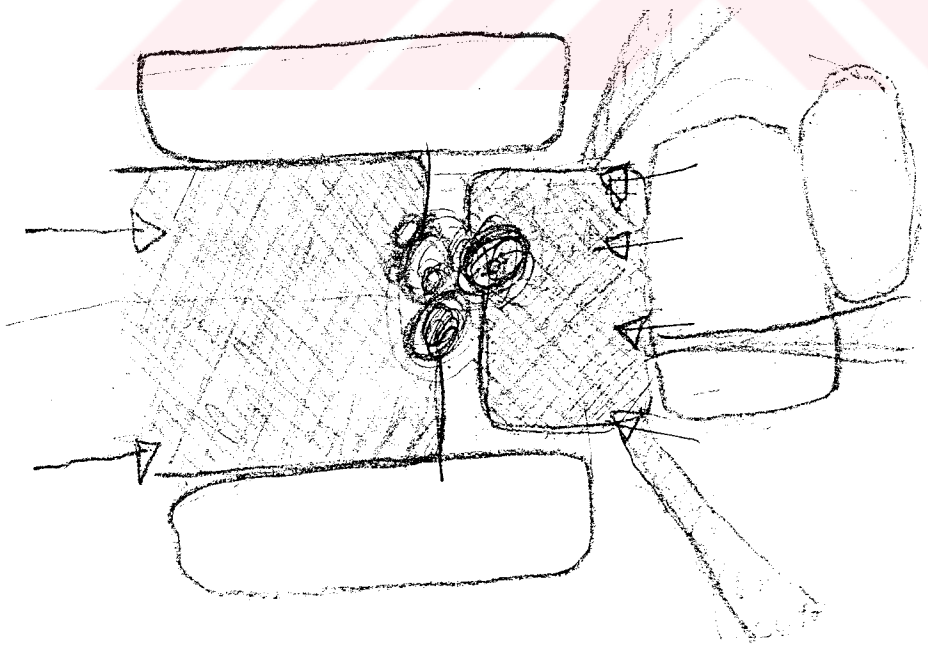


Figure 5.2 Sub areas within the topographical entity

The clear visual structure offered by the topography is in a way reflected in the present urbanized area. Engürü plain is mostly occupied by Atatürk's State Farm and other extensive public use areas with greenery whereas the orderly building areas and squatter zones surround the dense central area (Fig. 5.3).

When the urban man-made elements are considered, it is possible to mention singular forms which come forth in the city with their distinctive size, form and colour, and plural built forms which create domains with different textures (Fig. 5.4).

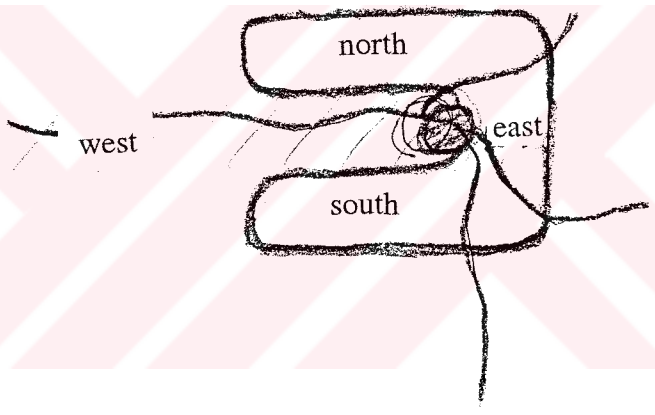


Figure 5.3 Structure of topographical and man-made entities

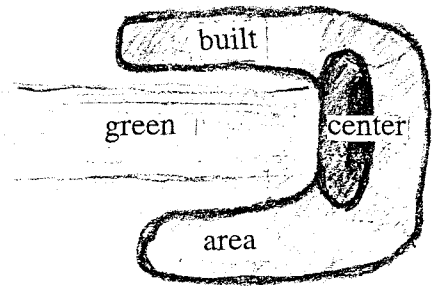


Figure 5.4 Man-made urban areas

When these types are examined regarding the topographical entities they are placed on, a multiplicity of visual experience in the city is seen (Fig. 5.5).

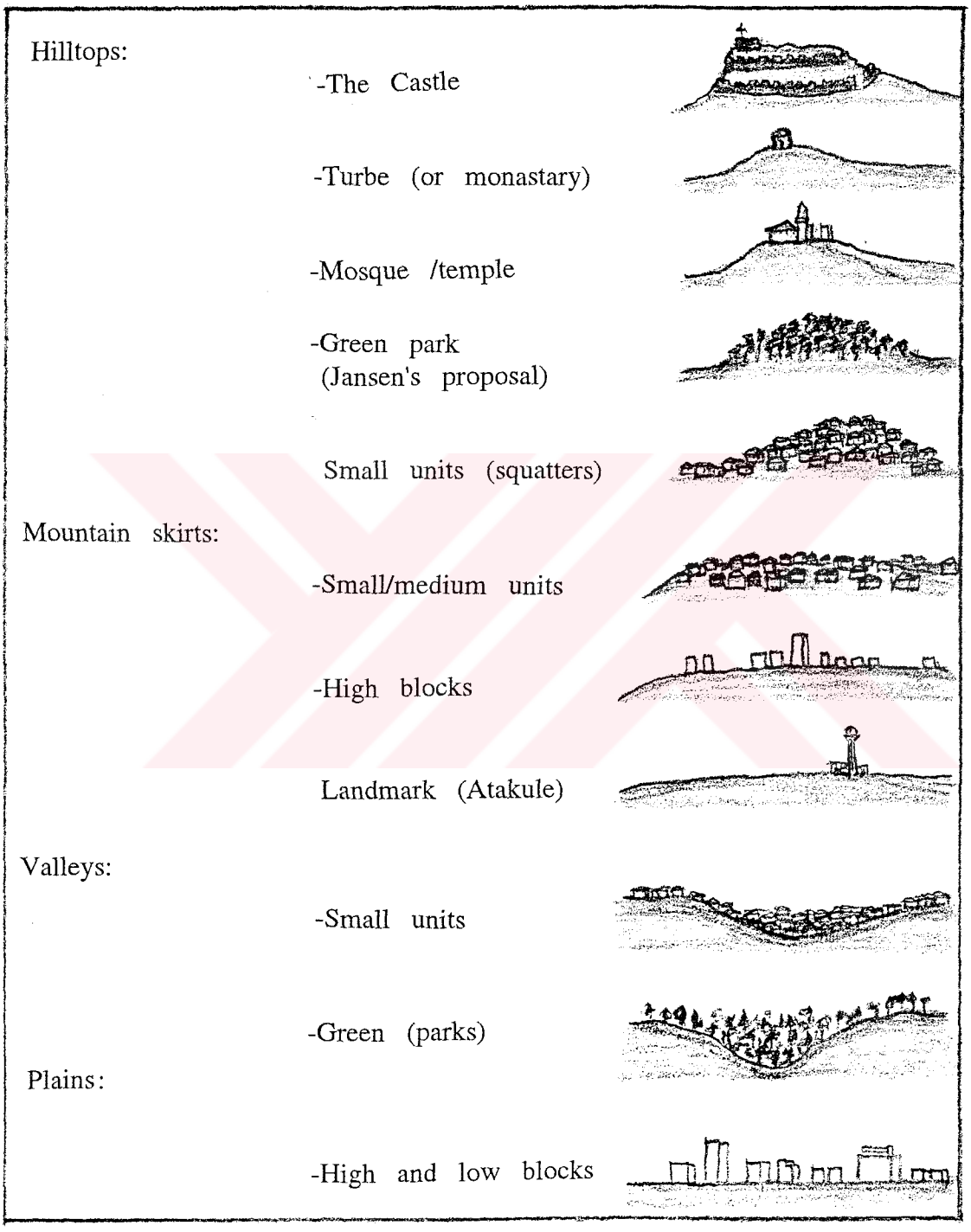


Figure 5.5 Main urban formation types

Within the urban morphology, some distinctive visual patterns can be observed. Winding roads along valleys, landmarks at the end of streets and boulevards, hilltops (Hüseyin Gazi and the Castle) as dominant figures in the silhouette from western approach roads, climbing streets which give urban vista are some of them (Fig. 5.6, 5.7).

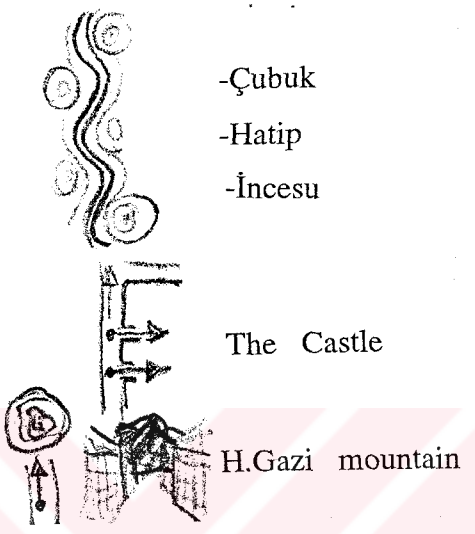


Figure 5.6 Street patterns

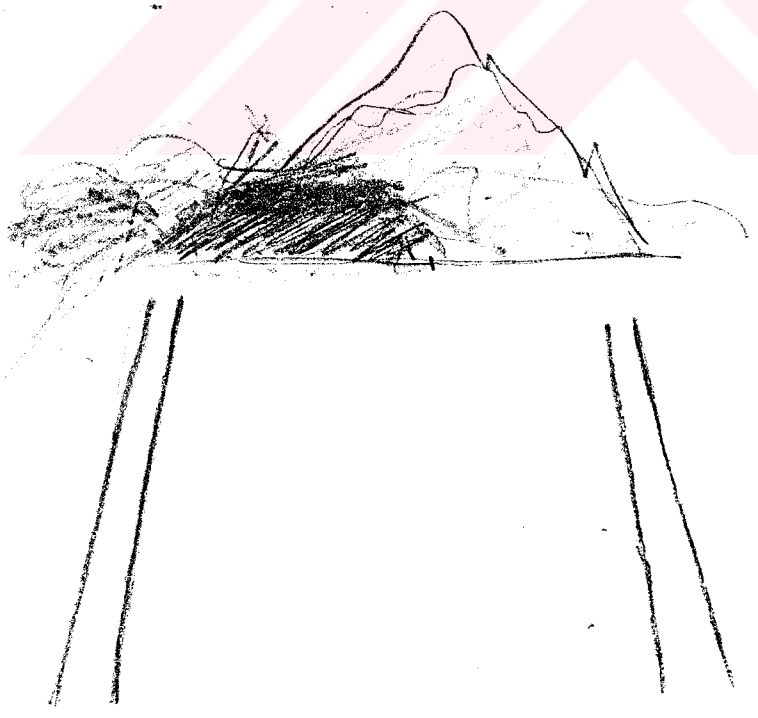


Figure 5.7 Main figures from western approach roads

These images which evolve in one's mind are also hints for future suggestions on Ankara. The essential visual property which give an overall visual character to Ankara is the unity offered by the topographical formation -the hill and bowl effect. I think the future plans for Ankara should take into account the preservation and expression of this distinctive character considering also the visual relationship with the new development areas placed outside the bowl (Fig. 5.8 5.9).

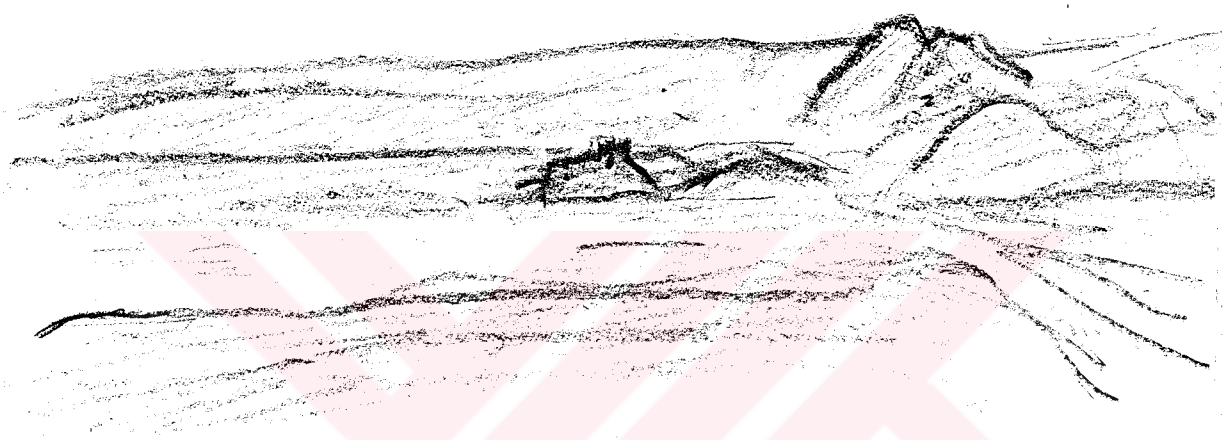


Figure 5.8 Topographical layout from south

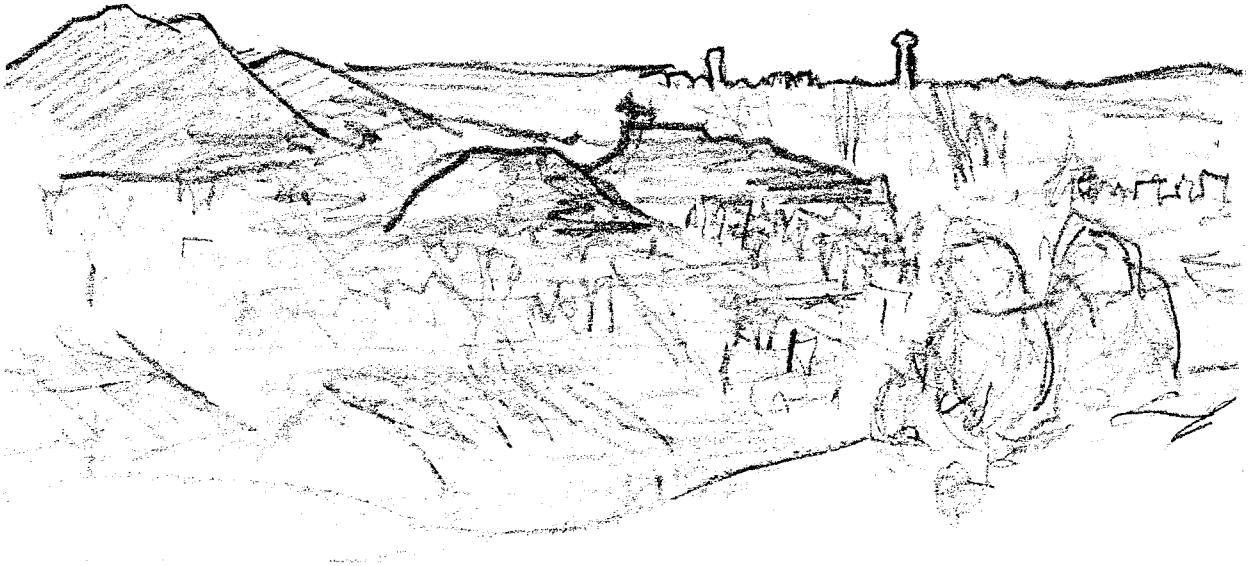


Figure 5.9 City viewed from squatter areas on the northern mountain skirts

For the perception of the overall city image, public vista terraces may be placed in proper viewpoint which offer wide angles of vision to the city. Also visuality along the approach roads from the new development areas should be examined in order to emphasize the critical viewpoints where the overall city image is perceivable -this has already been the approach in the city entrances projects held by the Municipality- (Fig. 5.10, 5.11).

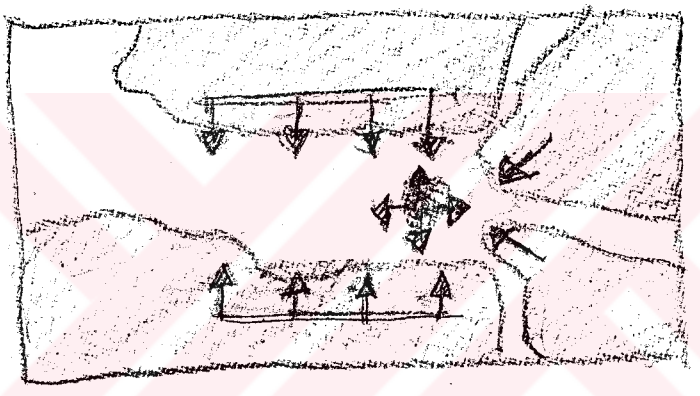


Figure 5.10 Suitable viewpoints for public vista terraces

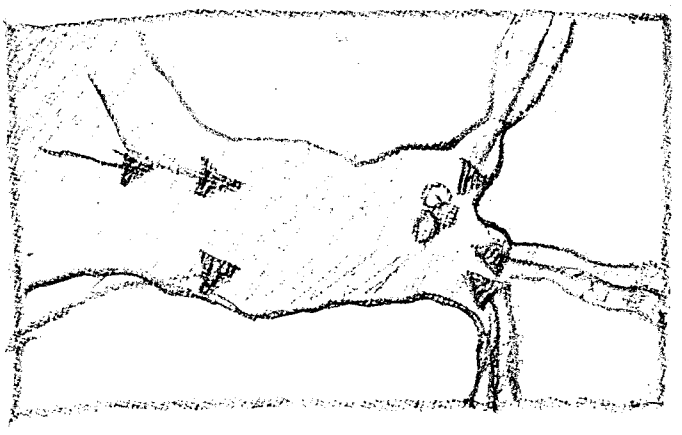


Figure 5.11 Approach roads to be linked with the bowl visually

One urban element to be used in the expression of urban character is the green element. Use of green on hilltops as urban parks as proposed in Jansen plan, I believe, would help emphasizing the hilltops in the silhouette (Fig. 5.12). Trees may also be planted along the valleys reaching the green belt on the plain along Ankara Çayı (Fig. 5.13).

Figure 5.12 Green on hilltops

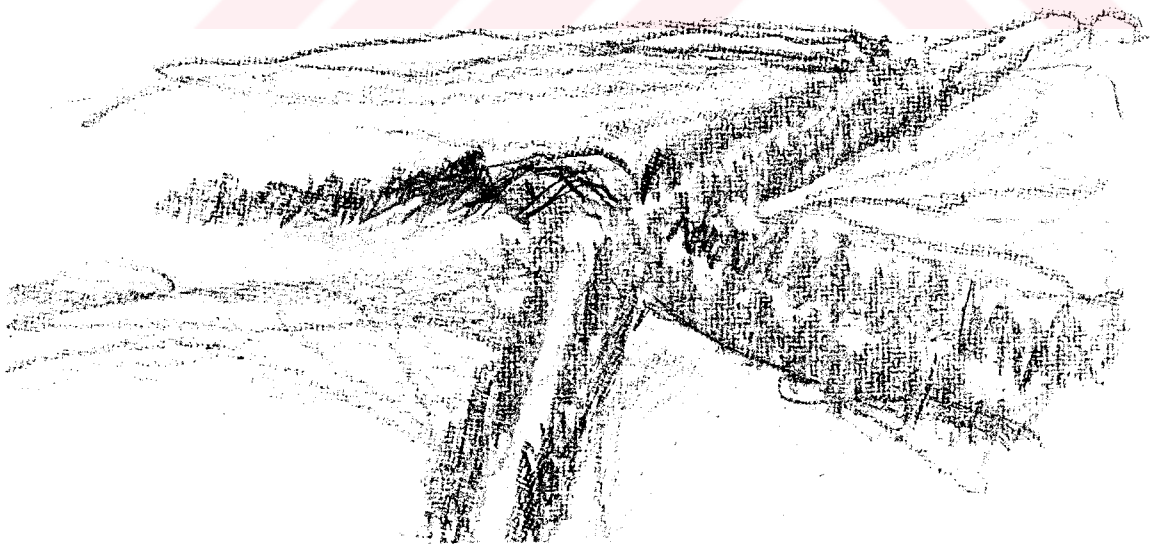


Figure 5.13 Green along valleys

The mountain skirts which play an important role in Ankara should be handled carefully as well so as not to destroy their delicate skyline effect. In this regard, high blocks except for the ones specifically designed as a landmark, might not be placed on the ridges (Fig. 5.14).

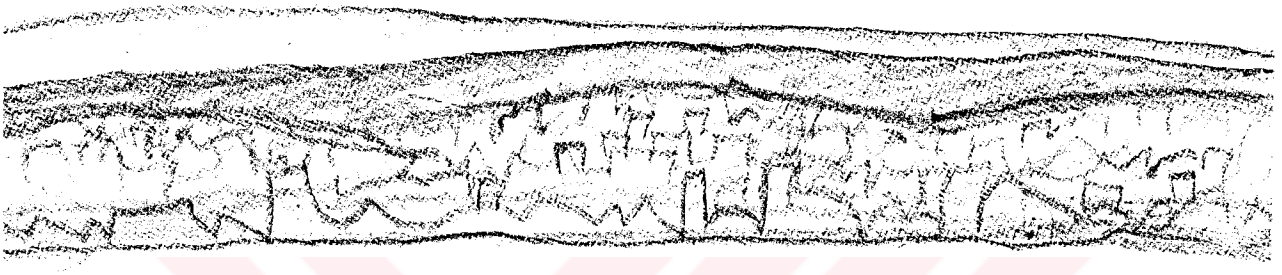


Figure 5.14 Possible organization of man-made elements with mountain skirts

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APPENDICES

APPENDIX A

EXEMPLARY URBAN IMAGES THROUGH HISTORY

A.1 Visibility in Greek Architecture

"The traditional system was devised to bring order into the disposition of buildings in a layout just as Greek philosophy brought order into the cosmos: the ordering of space on the earth would mirror the order of universe.

As revealed in their writings, one of the most profound beliefs of the ancient Greeks was that man was 'the measure of all things'. This concept was given visible expression in the organization of the human environment: man himself was the center and point of reference in the formation of architectural space.

Each site was divided into sectors, allowing for extensions within the over-all plan. The placing of the buildings was directly related to the contours of the landscape, because the Greeks continually sought to achieve order in space, no matter whether the space was natural and man-made. For example, when seen from the main entrance to the Altis at Olympia, at the southeast corner of the site, the outline of the Hill of Kronos, to the right, formed an essential balance with the temple of Zeus to the left.

Since buildings were oriented according to the relative position in space, the effects optical perspective were important. (Parallel lines, for example, give the effect of diminishing space, open angles of magnifying it). The effects of different shapings of space were studied and the lines of buildings were brought into harmony with each other and with the landscape. The ancient Greeks wished to see for themselves the rising and the setting of the sun; hence sectors of the site leading east and west were usually kept open. It was man himself -not the god in the temple- who was the measure of all things" (20-21)

Doxiadis, K.A. (1972). Architectural Space in Ancient Greece.

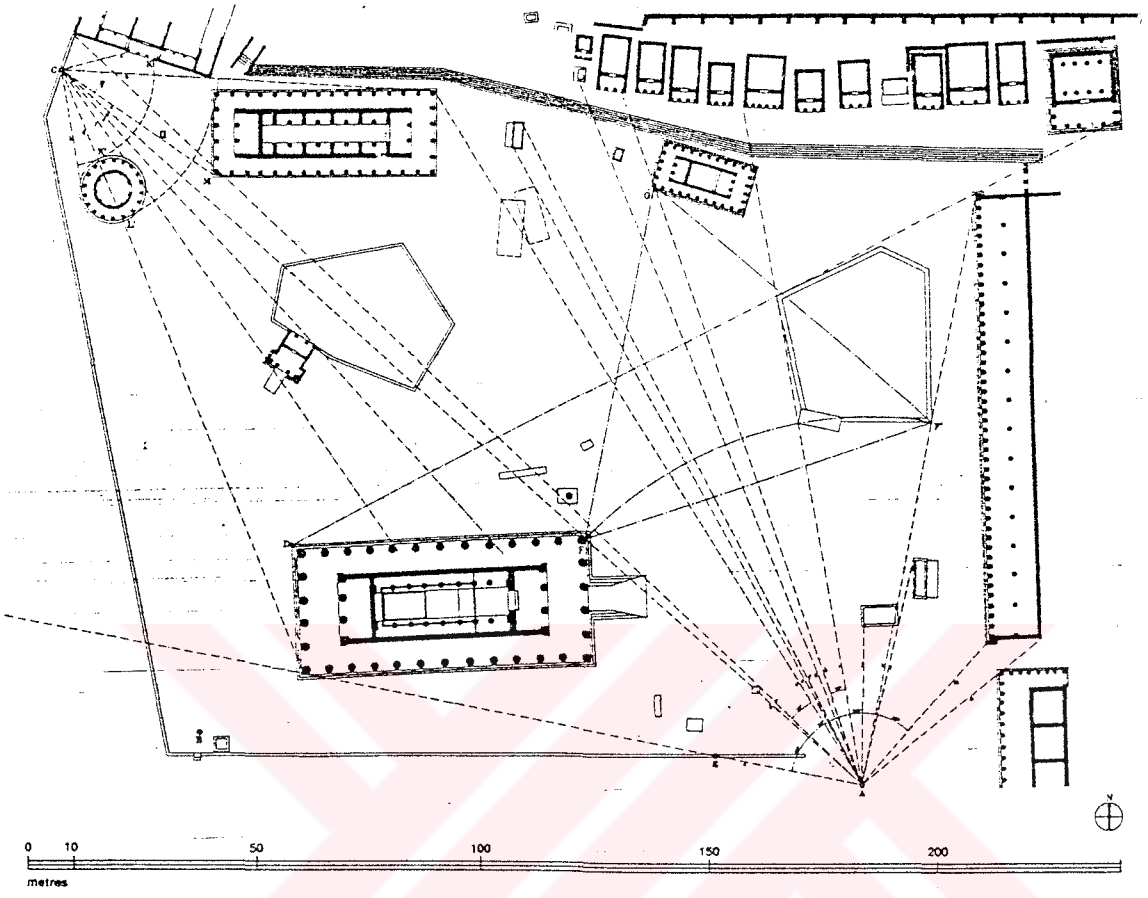


Figure A1.1 Olympia, Altis, Hellenistic period. Plan.

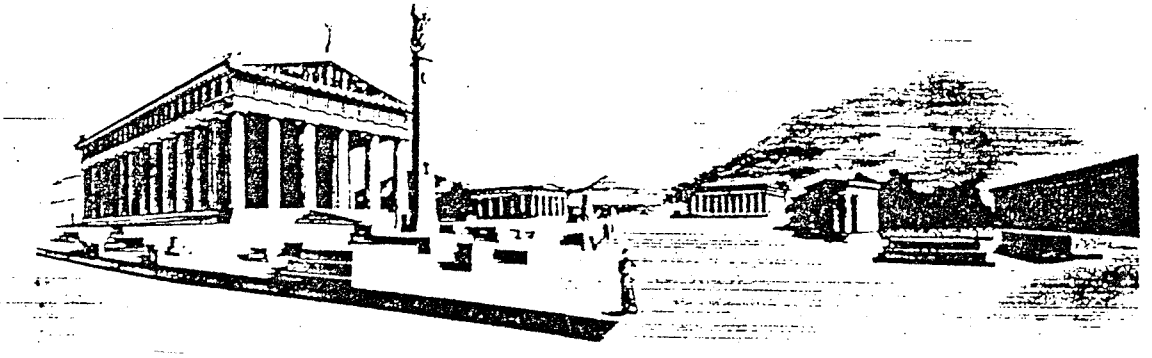


Figure A1.2 Olympia, Altis. Perspective from point A.

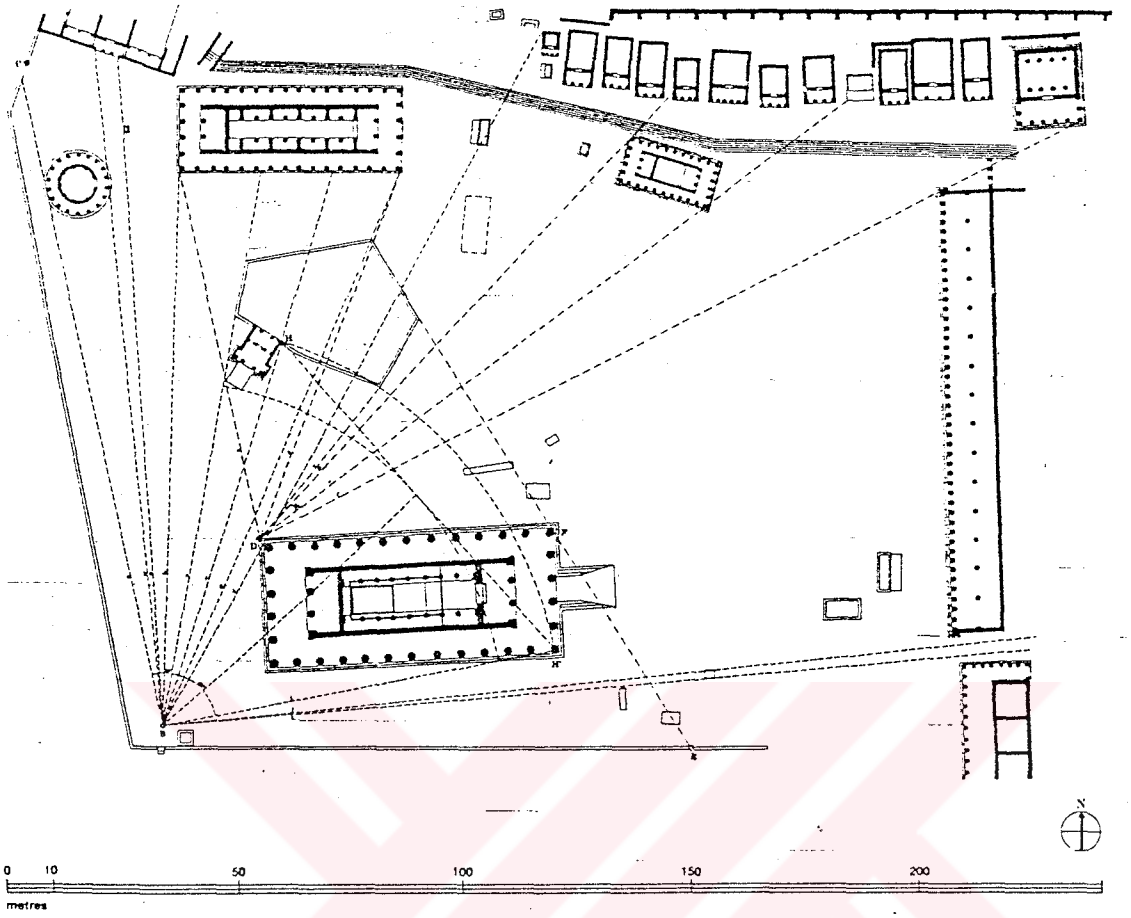


Figure A1.3 Olympia, Altis, Hellenistic period. Plan.

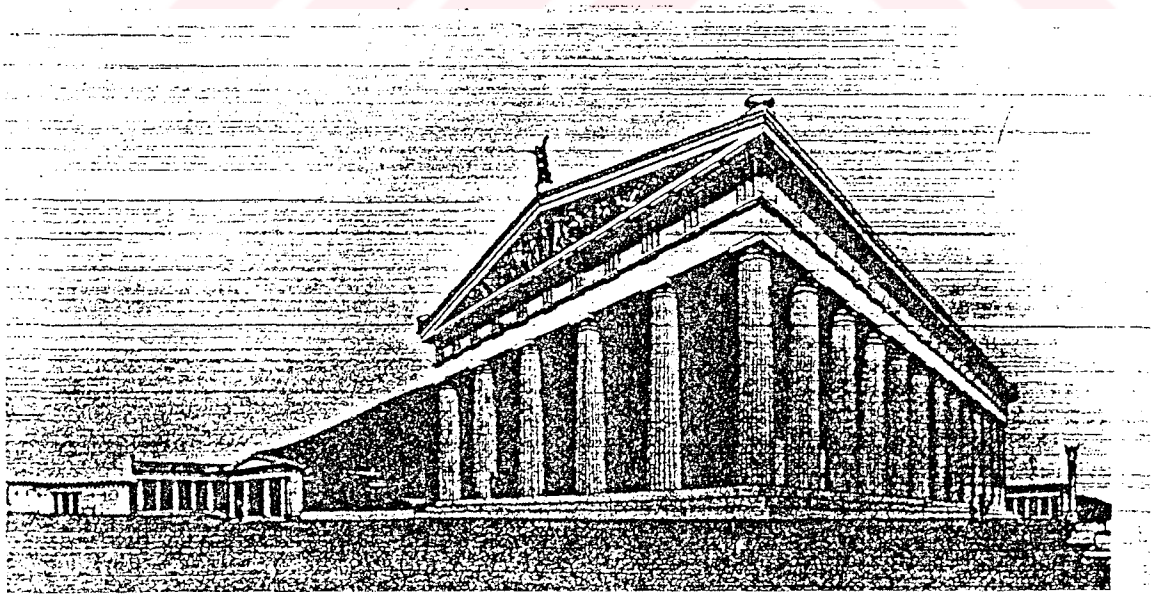


Figure A1.4 Olympia, Altis. Perspective from point B.

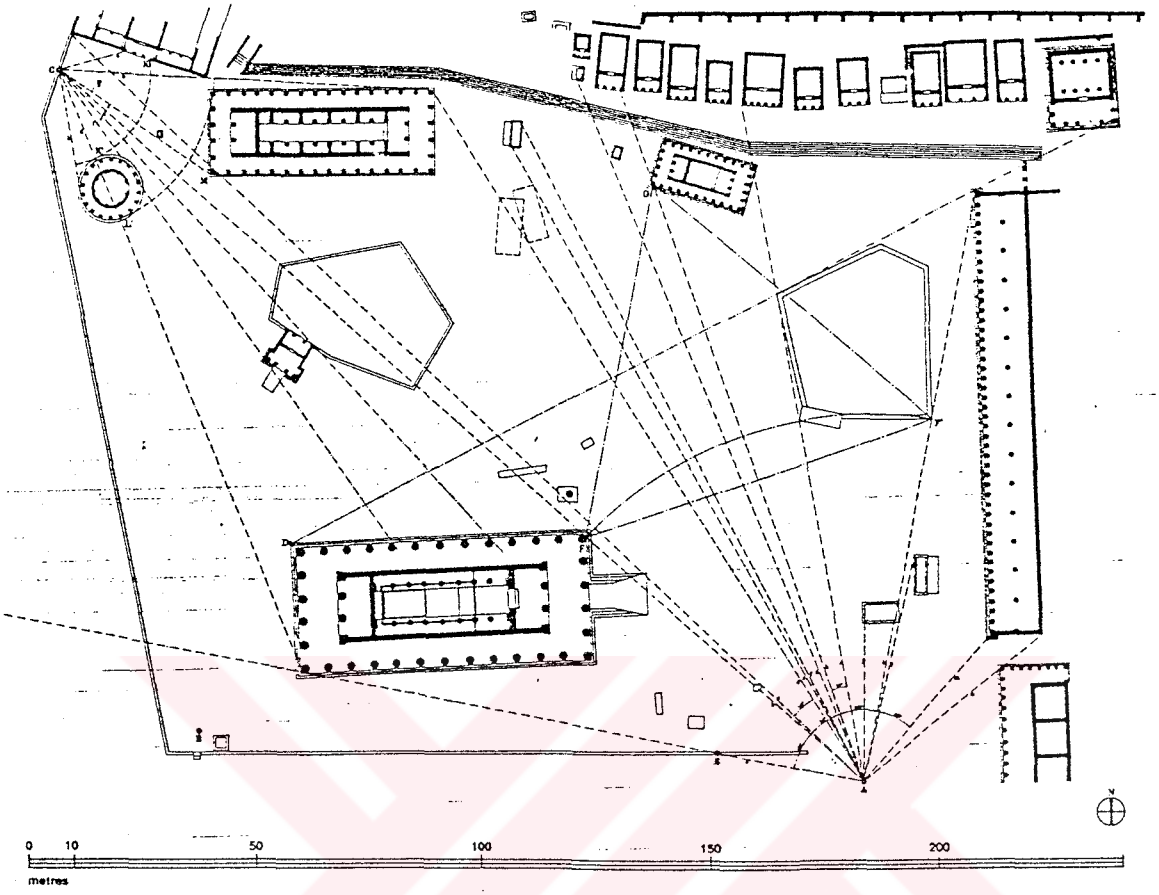


Figure A1.5 Olympia, Altis, Hellenistic period. Plan.

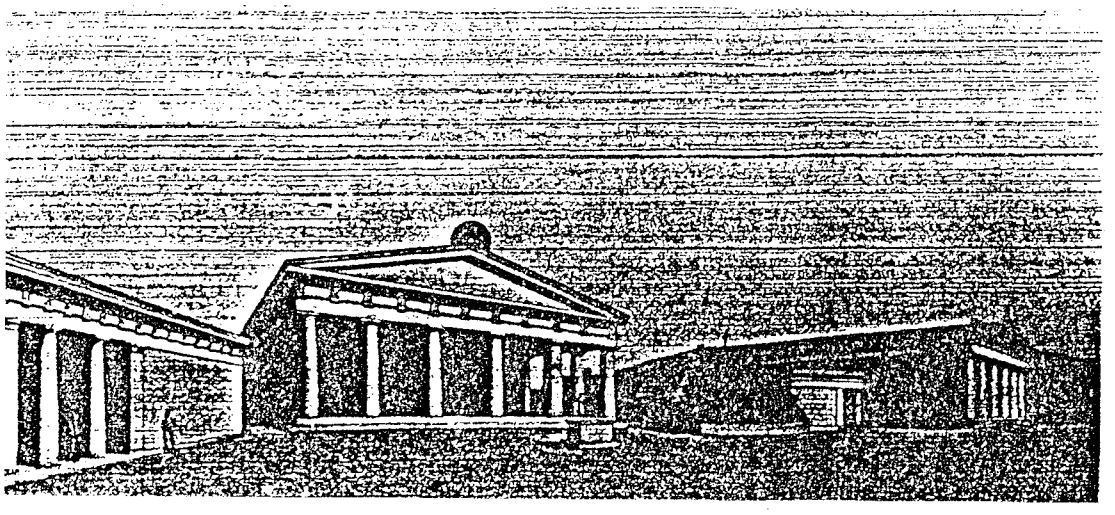


Figure A1.6 Olympia, Altis. Perspective from point C.

A.2 Imperial Image in Ottoman İstanbul

"Decisions of Muhammad II (1453-81)

Among the many initiatives of Muhammad II regarding the reconstruction of the metropolis, we are particularly interested in those which determined the future character of the city of İstanbul. As mentioned, there was a continuity with the existing city, expressed by the confirmation of the great urban and representative axis, which developed along the ridge of the hills, and by a first attempt to occupy the central area, in front of Galata-Pera, on the top of the highest and most visible hill. The first Seraiy of Muhammad II, in the area of the Forum of Theodosius, is sited as a visual and panoramic center of the city. Later on, due to its particular, a tower for watching fires was erected here. The Serai was located in front of Galata, almost in a line across the Golden Horn in direction of the Galata tower (1348). This site was abandoned for a more spectacular though private site on the promontory of Topkapı, showing the Sultan's desire the separate from a landscape viewpoint the imperial residence from the mosques which were intimately inserted in the urban fabric..." (23-24).

"Beyazıd II(1481-1515);a crucial step towards the unique viewpoint

The Beyazıd mosque occupies the central part of the city and the evermore privileged panorama from Galata. It is situated on the axis of Hagia Sophia and the Hadrianapolis gate and inserted between the great bazaar and the first palace, both works of Mehmet Fatih. The mosque Materializes architecturally the physical center of the city and its image. Its situation 'in the center' confirms with great force and consciousness the indication of the conqueror, by creating a sort of umbilicus urbis for the city which by this time extended also across parts of the Golden Horn. In fact the mosque is visibly equidistant from the Fatih, the palace of Topkapı, and the tower of Galata, the only observatory in relation of which the construction of Beyazıd occupies undoubtedly a central position. The mosque is in fact placed in the center of the panorama of monuments. This has as its extreme ends the palace and the Fatih, and is situated exactly on the axis of symmetry of the old center of Galata. It confirms the choices of the Conqueror, leading to the emphasis of the panorama from the Golden Gate. The point of view of this panorama varies little from the top of Pera to the tower of Galata or the port embankment, and is always characterized by the territorial quality of the references, as the distance between the monuments is more than a mile. The intention of building a bridge over the Golden Horn recalls the foresightedness of the Sultan, and confirms deeply the 'fluvial' nature of Turkish İstanbul. The bridge would have certainly rendered more evident the symmetry of the

system, by giving a precise architectural focus to the flow of exchanges between the two shores, and by imposing a more constrained view of the monumental city" (24-28).

"Süleyman the Magnificent(1520-78) and Mimar Sinan: the Completion of İstanbul and its principal panorama

By the time advent of Süleyman the main elements of İstanbul's townscape and the view from Galata were already established. Sinan's numerous architectural projects introduce in the relatively simple urban system, a strong component of the hierarchical depth in the perspective, a full understanding of the reciprocal relation between monumental complexes and urban views. According to this principle the most important building should not be located in the center of the city, but rather in a dominant position, in order to pull together all the other monuments. It should be in the foreground with respect to the privileged view point to highlight it from the other elements in the landscape.

These principles might be theoretically valid for any city. They were however codified and prevailed in İstanbul between the sixteenth and seventeenth centuries, due to its vast panorama. According to the first principle, the dominant building should be built on a hill; but that would not be the case if the hill did not occupy a foreground position in the perspective observed from a point, that would be common or ritually codified and internationally advertised by drawings and engravings. The rules of perspective impose optical implications, which in our case are clear town planning and landscape devices.

The siting of the Süleymaniye (constructed 1550-56) involved these and other issues. It reveals itself as one of the masterpieces of an urban science, based on visual and townscape values, which are still to be discovered, and not only in the Islamic world. The panorama of Istanbul was transformed by the siting of the Süleymaniye: it gained perspective, became three dimensional, was entirely rearranged in a symmetrical way into a new and solid central figure. Like an advancing character detached from a group, the Süleymaniye gains the foreground and relegates the others to the background. It succeeds in overwhelming any other monument and becomes the new hinge of the panorama from Galata. Its siting calls for other considerations, which further consolidate its quality as a central monument not only for its topographical position, but more for its capacity to capture the scene..." (29).

Guidoni, G. (1988). Sinan's Construction of the Urban Panorama. In Petruciolli, A.(Ed.), Mimar Sinan The Urban Vision. Rome:C.N.R.

E VISUAL CENTRAL AXIS FROM GALATA TOWER (A), THE PRINCIPAL POINT OF VIEW (C) AND THE SÜLEYMANIYE (B). THE AXIAL W OF SÜLEYMANIYE FROM THE GOLDEN HORN (D). THE RADIAL VIEWS OF THE PRINCIPAL MOSQUES OF THE PANORAMA OF ANBUL FROM THE POINT OF VIEW OF GALATA TOWER (C). THE LOCATION OF THE PROJECT OF THE BRIDGE BY LEONARDO DA CI: 1) AYA SOFYA CAMII; 2) FATIH CAMII; 3) BEYEZIT CAMII; 4) SULEIMANIYE; 5) SHEZADE CAMII; 6) MIHRIMAH CAMII; 7) SELIM I MII; 8) RÜSTEM PASHA CAMII; 9) YENI VALIDE CAMII; 10) AHMET CAMII; 11) GALATA TOWER; 12) TOPKAPI; 13) GALATA BRIDGE; 14) ATÜRK BRIDGE.

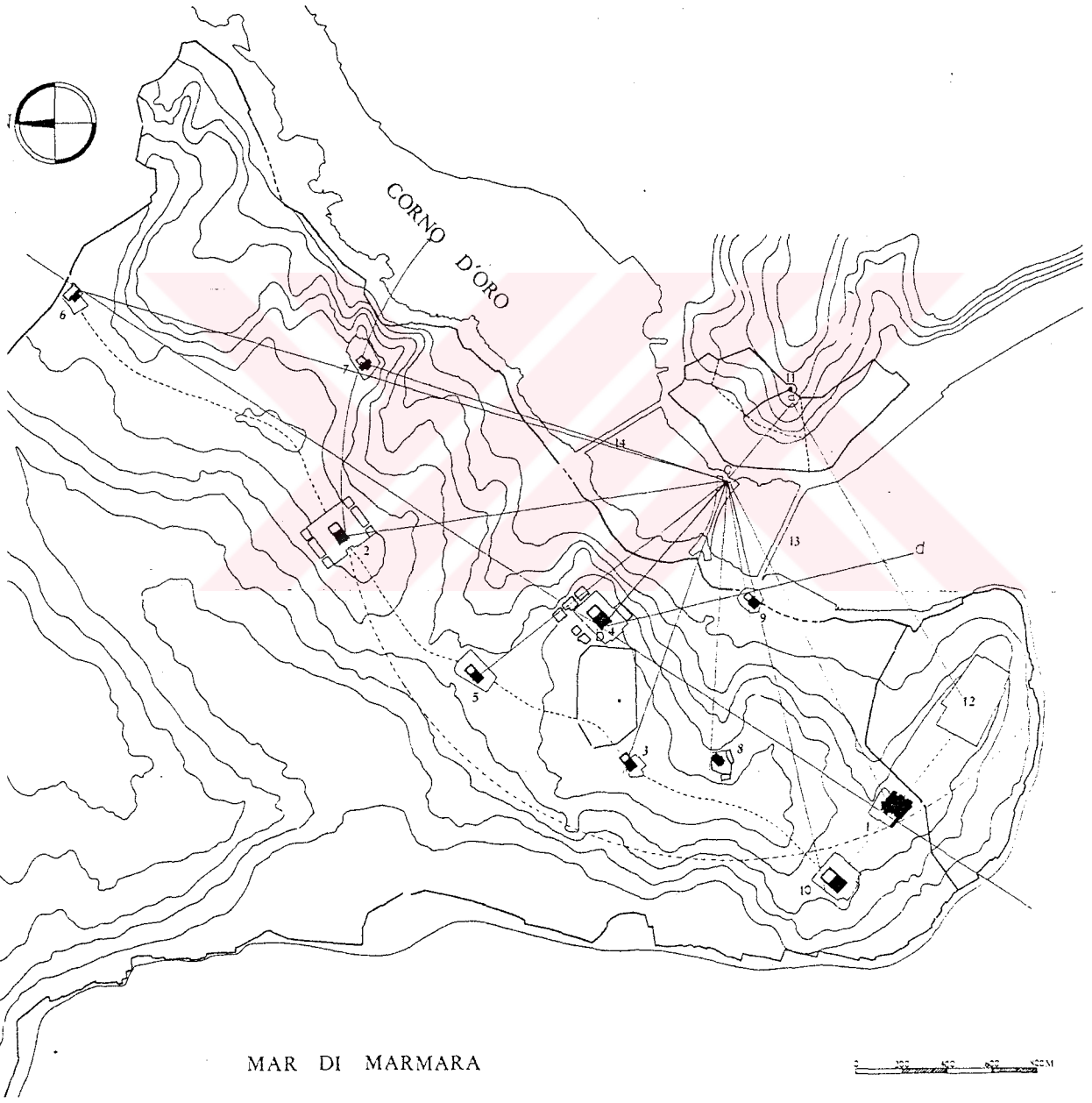
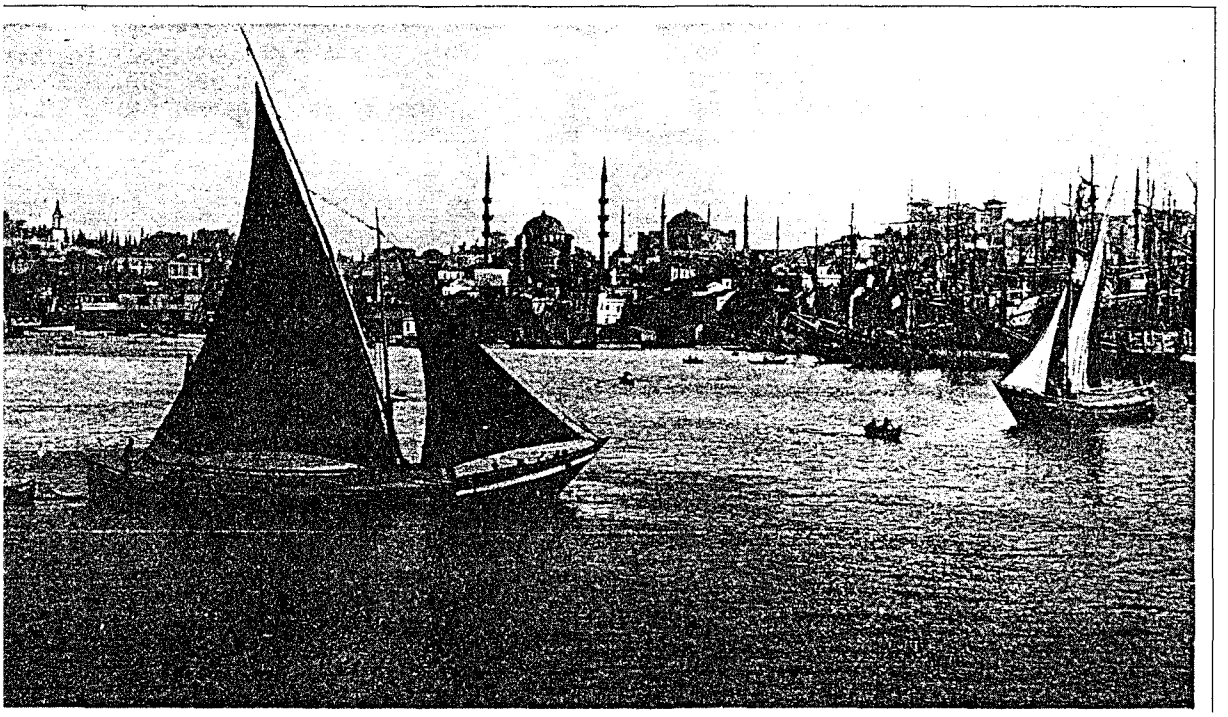


Figure A2.1 Visual Structuring of Ottoman İstanbul.



'igure A2.2 Ayasofya and Yenicami (c. 1910).

Figure A2.3 The entrance to Golden Horn.

Figure A2.4 A view from Galata tower (c. 1910).

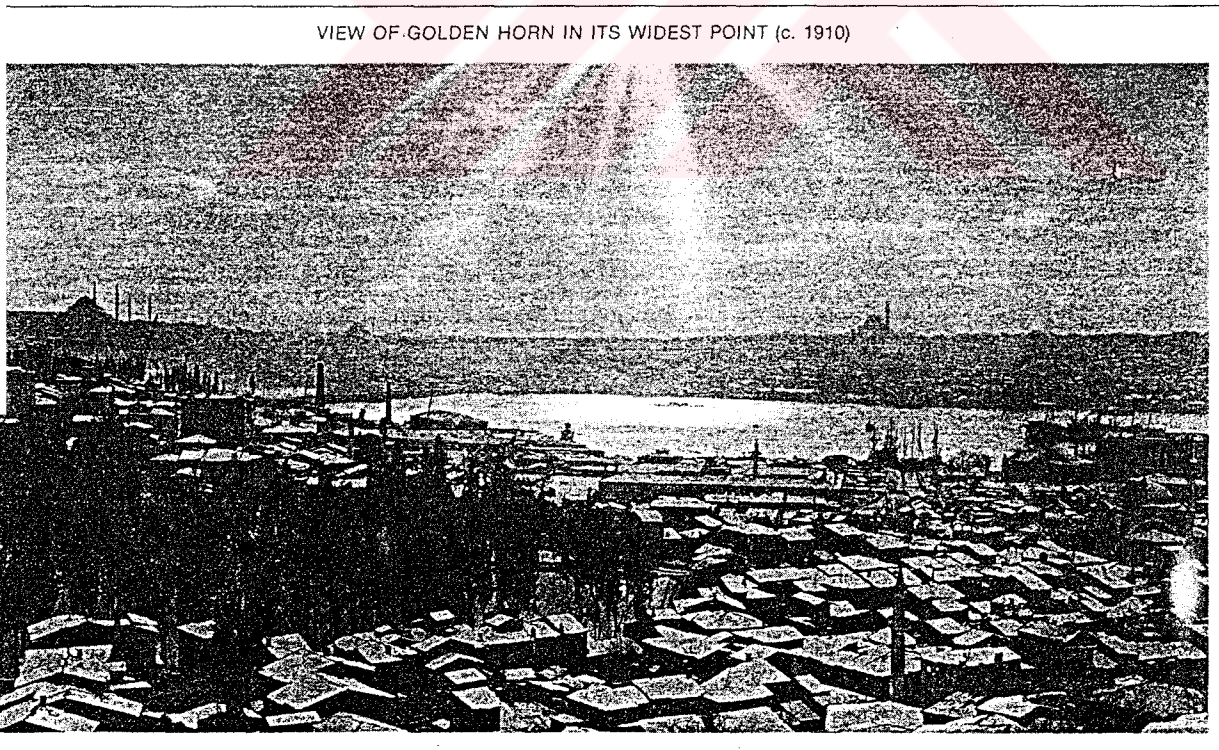


Figure A2.5 View of Golden Horn in its widest point (c. 1910).

APPENDIX B

PROPOSED REPUBLICAN ANKARA IMAGE BY JANSEN

B.1 Jansen's Plan for Ankara

Ankara Şehrinin Müstakbel Planı hakkında mütehassıslara verilen şifahi, tahriri direktif ve doneler:

4) "Kaleyle son bulan esas yollar ve aleler ve kale etrafinin imar ve tezyini gibi fikirlerin planda gösterilmesi..." (p.4)

9) "Meclis-İstasyon yolunun doğusunun binalara tahsisi ve ortasinin kale görünecek vaziyette bahçe haline ifrağı..." (p.5)

Mukaddeme (Giriş):

"Kale ... gelecek nesiller için muhafaza edilecek, gerek kültürel ve gerekse siyasi olsun - milli hayatın merkezine temel teşkil edecektir" (p.137)

"mahallelerin merkezi ağırlıkları ritmik bir tarzda bina gruplariyla (hepsi kaleye bakan) tesbit edilmelidir" (p.137)

2) "Şehrin bütün kısımları merkez kale olarak tanzim edilmiştir" (138).

11) "Planın şekli ... araziden çıkarılmıştır...Vadi ve tepeler gibi manzaraca kıymettar olan yerler park yapılmak için boş bırakılmıştır. Park yapılmasa bile buralarda bina yapılmayacaktır" (139).

-Şehrin Taksimatı

"Şehrin kuzeydoğusunda çoğunluğu şehirden 960-1000m. yükseklikteki dağlarla ayrılan kısımlar (Altındağ - Çubuk yolu) dışında, bu merkez noktası (Kale) imar sahasının heryerinden görülmektedir. Yollar da mümkün olduğu kadar kalenin görülebileceği tarzda açılmıştır" (144-145).

"İstasyondan sonra... yeşil saha kale manzarasının kapanmamasıyla istasyon meydanından... yaya gidenlerin tiyatro meydanına kadar bu manzaradan istifade etmelerini temin etmektedir" (145-146).

"Kalenin etrafı bir çelenk şeklinde yedi adet meydanla çevrilmiştir. Bunların hepsinden kale görülmekte olduğu gibi çoğunun da doğrudan doğruya kale ile irtibatları vardır" (146).

"Eski şehrin imar planında men edilecek şey, kalenin etrafına kale manzarasını kapatacak şekilde binaların yapılmasıdır" (146).

(Ankara Şehrinin Profesör M. Jausseley, Jansen ve Brix taraflarından yapılan plan ve projelerine ait izahnameler, 1929).

B.2 1932 Implamentation Plan

Ankara'nın Umumi İmar Planı

"Kale, şehir tacı olarak kalıyor... Milli abide olan kalenin tamir edilerek yenileştirilmesiyle, kuvvet bulacak olan Anadolu ruhunun takdis edileceği zaman gelecektir" (18).

"Bir şehrin bir ecnebi üzerinde uyandırabileceği en mühim tesir şehrin istasyondan olan görünüşündedir. Bundan dolayı Ankara parklarının kalbi demek olan Gençlik Parkı burada tanzim edilmiştir... üstünde kale kendini yükseltecektir" (18-19).

"Umumiyetle muhafaza edilen tabii kıymetlere kale etrafındaki tepe, ve şimalinde bin metre yüksekliğinde Timurlenk tepesi ve eski şehir civarındaki tepelerin en yükseği ve aynı ismi taşıyan şehir kısmının şimaline düşen İsmetpaşa tepesi, hepsinden ziyade kale, kendi kayalıkları ve civarı... ve cenubunda Hacıtepe, Hacettepe ve daha birkaç tepe ve etekleri dahildirler.

Dağ ve dere mecralarında yeni yetiştirilen yeşillikler uzanırlar, buralara küçük büyük gezintiler yapılarak, şehre hakim temaşa tepelerine çıkılabilir" (19).

"Yeni şehrin şarkında İncesu'nun ayırdığı Cebeci bulunur. Bu mahalleden itibaren tedricen dağ tepeleri yükselmeğe başlar, ve buradan eski şehrin en güzel kısımları görünür (19).

"Yeni hükümet merkezinin kuruluşu manzara, iklim, tabiat, tarihi kıymetler esasına göredir" (21).

Bend Deresi

"Kale de kıyas kabul etmeyen mevkiini bu dereye medyundur. Kale kayalarının Bend deresine doğru sarp inişi bir yabancının sade Ankara'dan değil, belki Türkiye'den de alabileceği en büyük, unutulmayacak kuvvetli intibalardır" (30).

Tepeler ve Sırtlar

"Dere vadilerinden sonra tepe ve sırtlar tabiatın yarattığı çok müsait istirahat yerleridir. Buralarda etraf ve şehri temaşa edebilmek için temaşa noktaları yapılacak, ileride mahalleler arasından yeşil ad gibi kendilerini gösterebilmeleri için de ağaçlar yetiştirilecektir.

Bunların ehemmiyetlisi olarak eski şehrin cenup kenarındaki Hacettepe'yi gösterebiliriz. Bunun çok müsait vaziyeti, şehrin hemen hemen her tarafını görmeyi temin etmektedir" (31-32).

Kutrani Yeşillik Şeritleri

"Tepe ve sırtları, dere vadilerini kesilmeyen bir kemerle bağlayan yeni kurani yeşillik şeritleridir... bunlar, hertaraftan gezintileri Ankara'nın gözbebeğine celp edebilmek için Kale'ye tevcih edilmişlerdir...

Cenup imtidadı da çok mühim temeşe noktası olan Dikmen'de fasıla verir" (32-33).

Gençlik Parkı

"Gençlik Parkı ilerde İstasyondan gelenlere ilk büyük tesiri yaparak şehrin 'hoşgeldin' selamını verecktir. Kale'nin civar banka, hotel

ve saire binalarının çevirdikleri muhteşem çerçeve göze çarpar (33).

Hipodrom ve Stadyum

"...yürüyüş meydanı ile stadyum birleştirilerek her ikisinin de bakış noktası yine Kale oluyor. Bu suretle stadyumda tertip edilecek oyunlar haşmet ve vakar verici bir fon önünde cereyan edilebileceklerdir. Böylece Prof. Jansen'in bütün projeleri şehrin tacına bir münasebet ve yaklaşma temini için çalışırlar" (35).

Dahili Yayılma Sahası

"Yenişehir, Cebeci, Garp mahalleleri (Abidinpaşa, Kayseri yolu), Kooperatif mahallesi (Bahçelievler)" (42-43).

Harici Yayılma Sahası

"Kavaklıdere, Çankaya, Amele mahalleleri" (44).

(Ankara İmar Planı,1937).

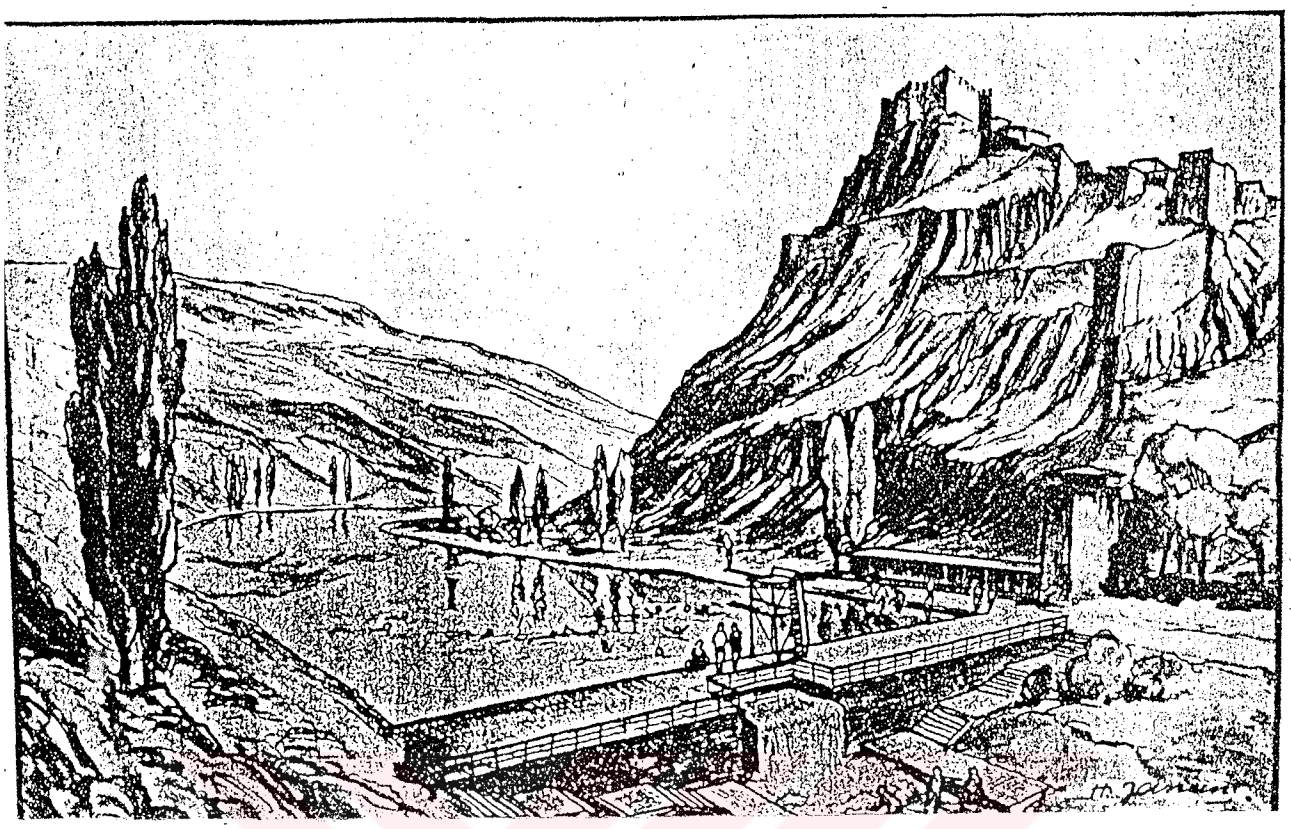


Figure B.1 Ankara: The Citadel and Hatip river.

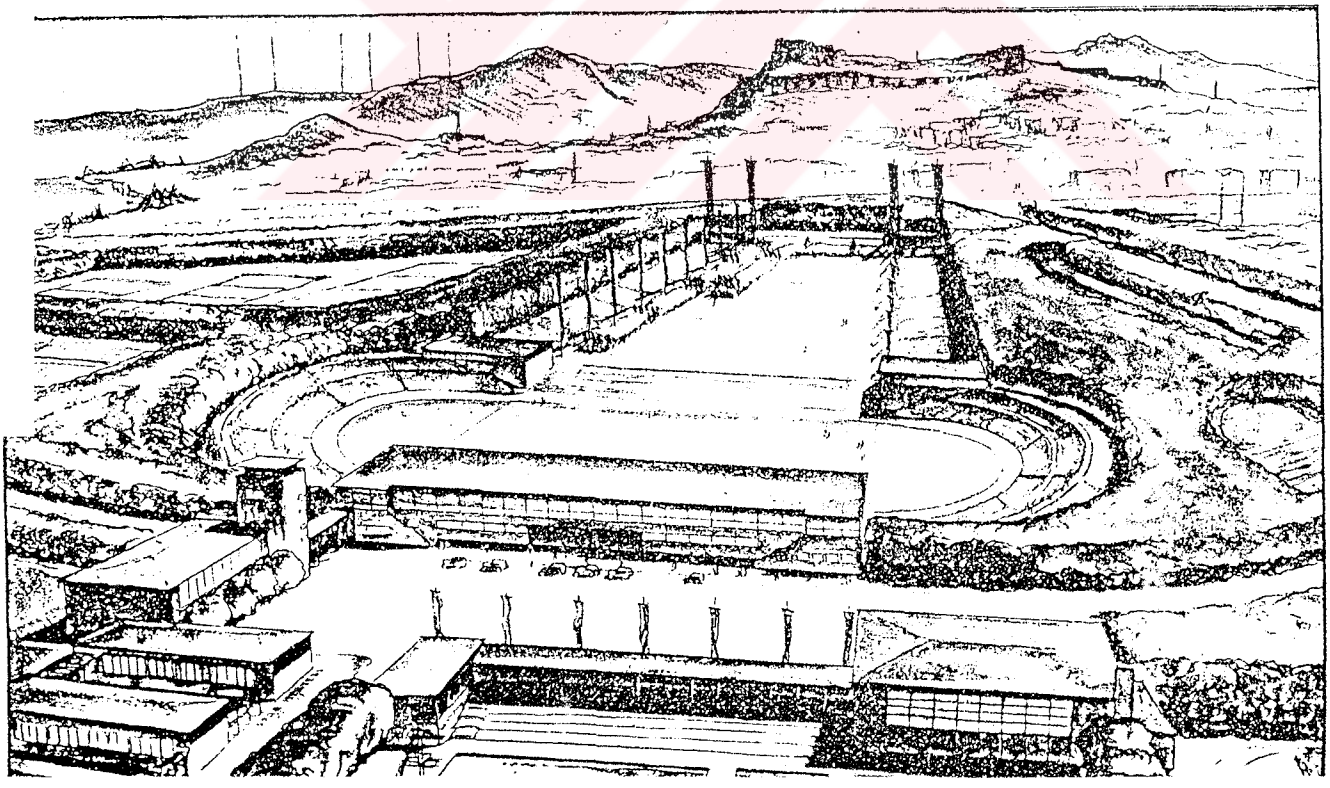


Figure B.2 Ankara: Hipodrom viewing the Citadel.

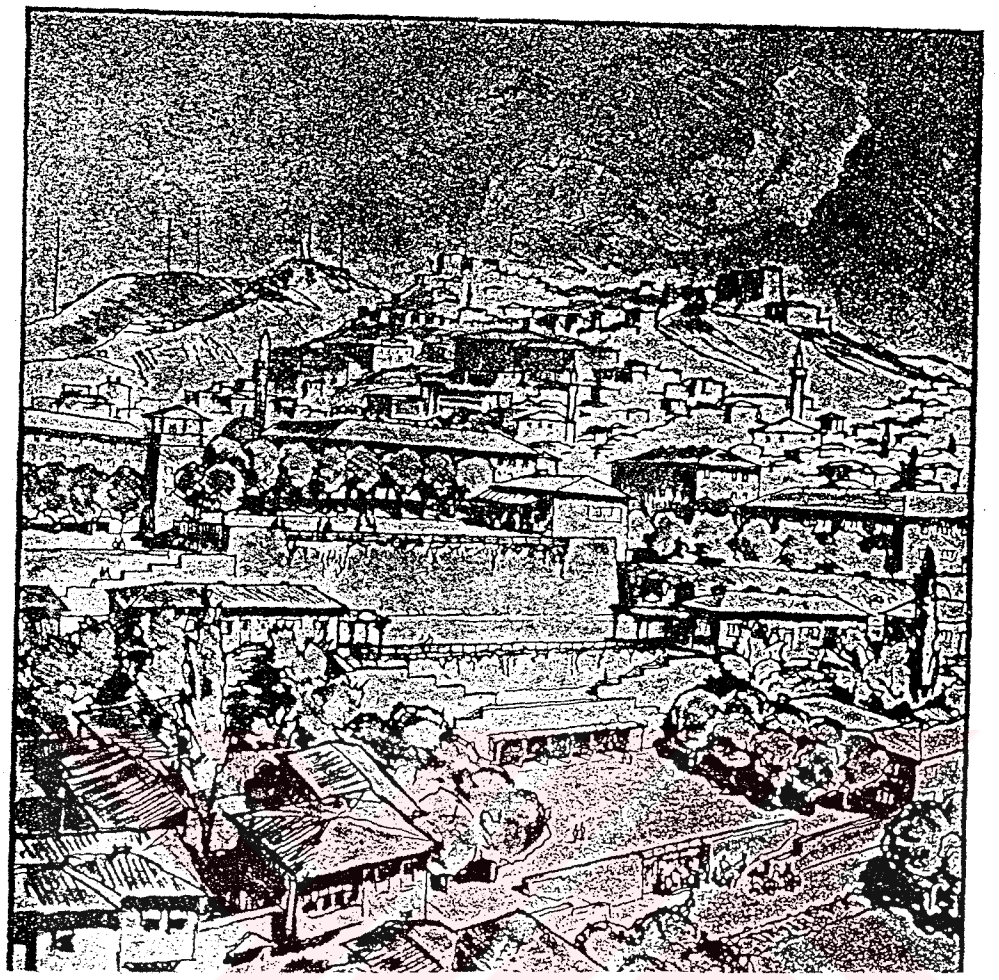


Figure B.3 Ankara: Samanpazarı square.

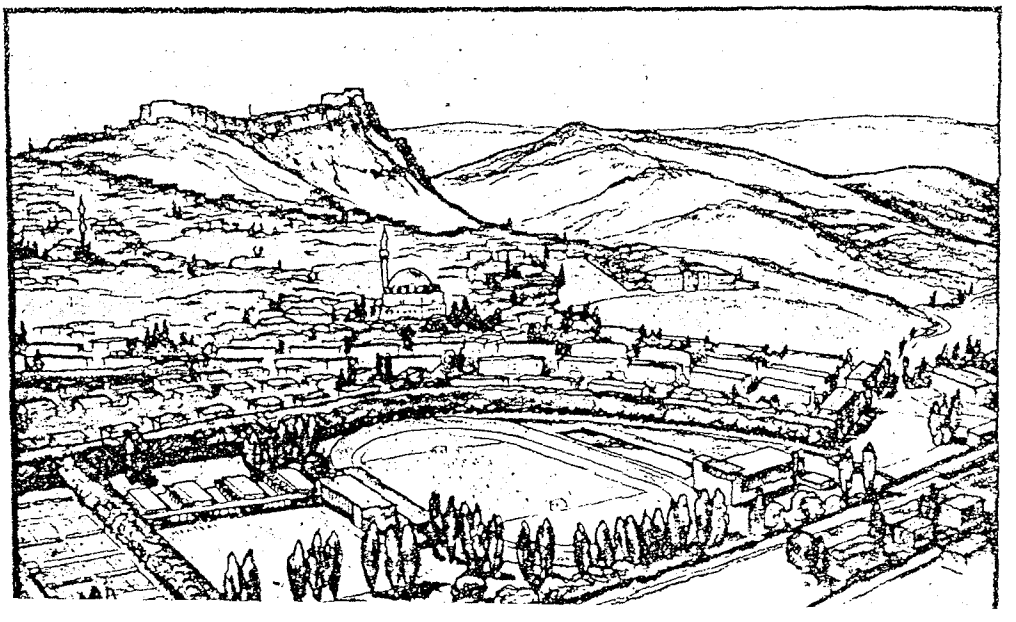


Figure B.4 Ankara: Stadium in Cebeci.

APPENDIX C

SECTION-VIEW STUDY FOR ANKARA CASTLE

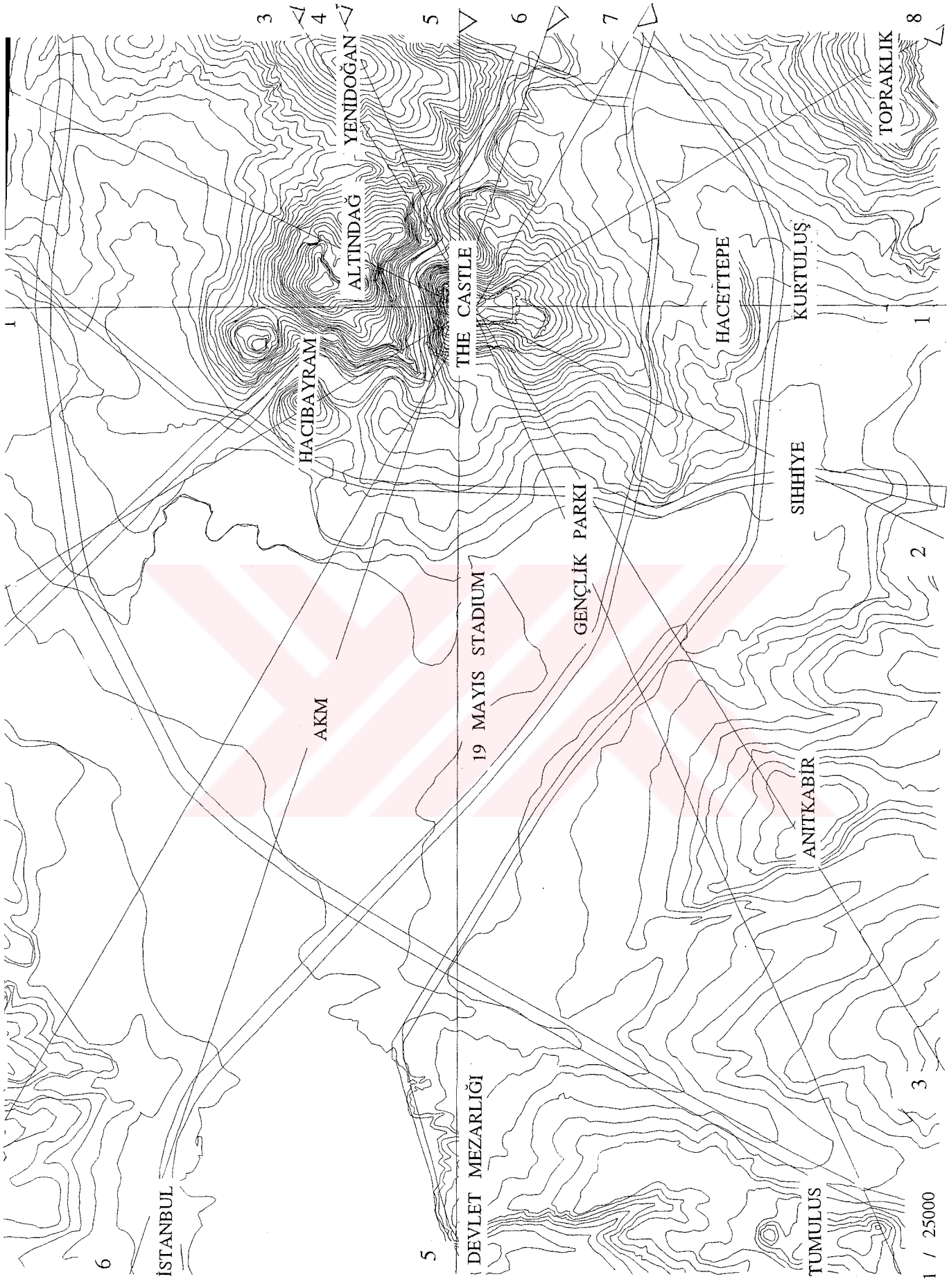


Figure C.1 Ankara, partial topographical plan, 1/25000.

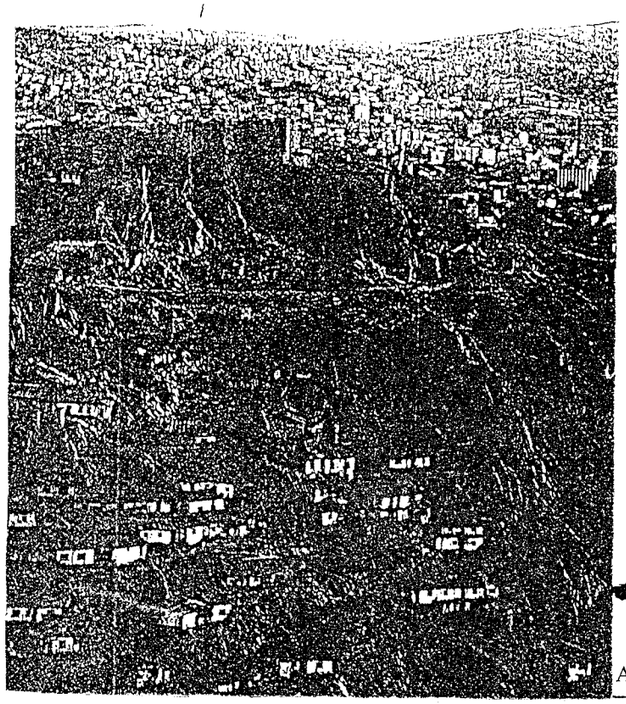
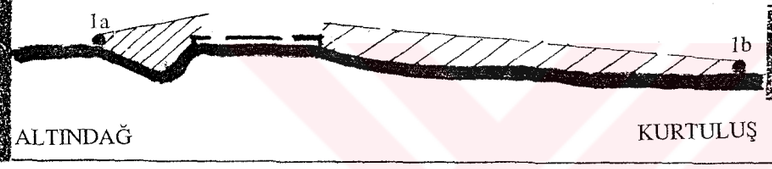


Figure C.2 View from point 1a.
50 Yılın Türk Mimarisi, 387.



Section 1

Figure C.3 View from point 1b, 1925.
Ankara, 58.

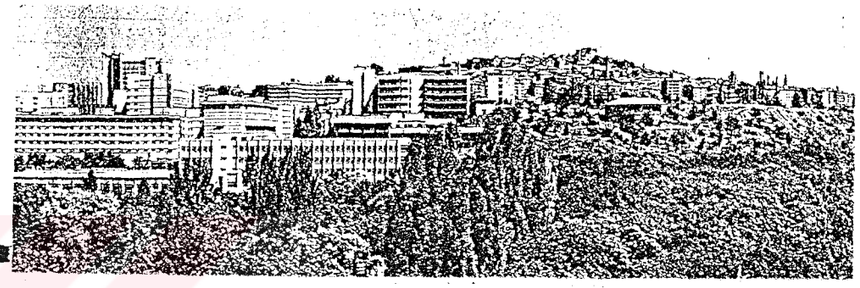


Figure C.4 View from point 1b.
Ankara, 59.

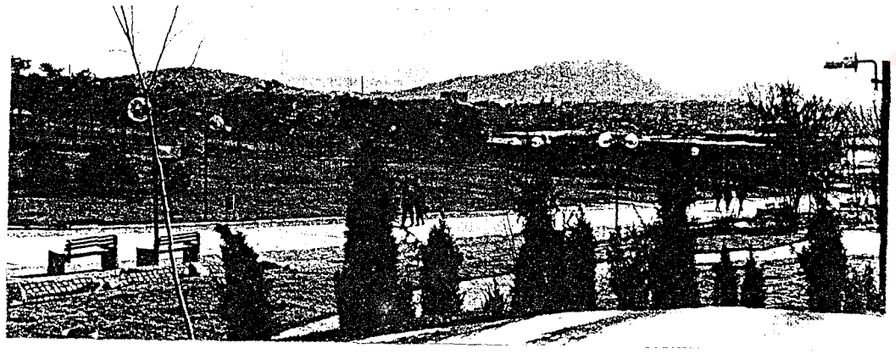
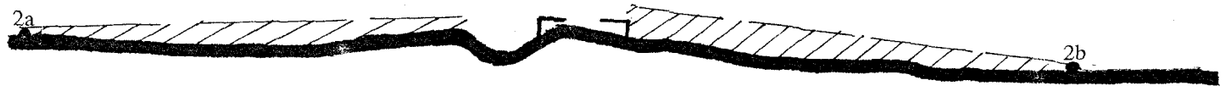


Figure C.5 View from point 2a.



Section 2

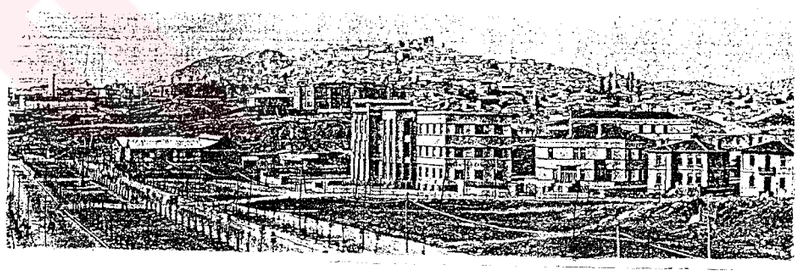


Figure C.6 View from point 2b, 1931.
Ankara, 48.

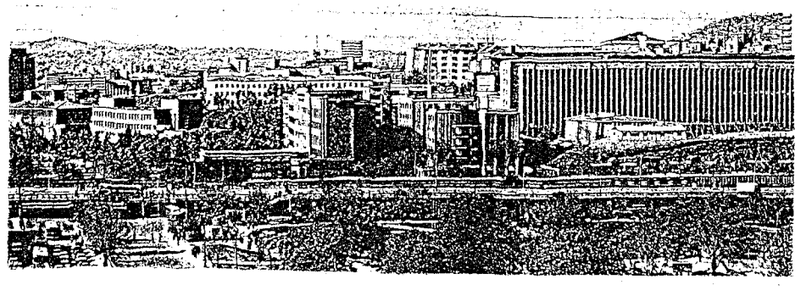
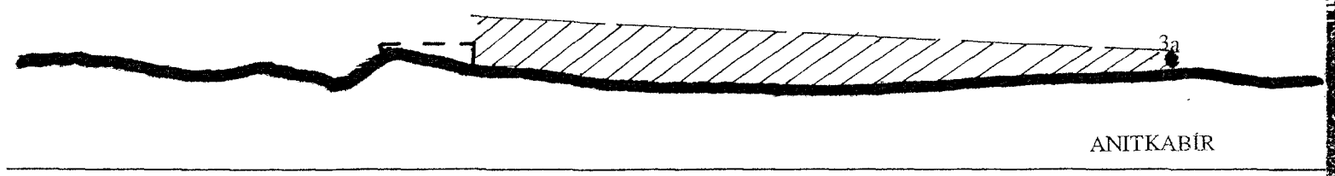


Figure C.7 View from point 2b.
Ankara, 45.



Section 3

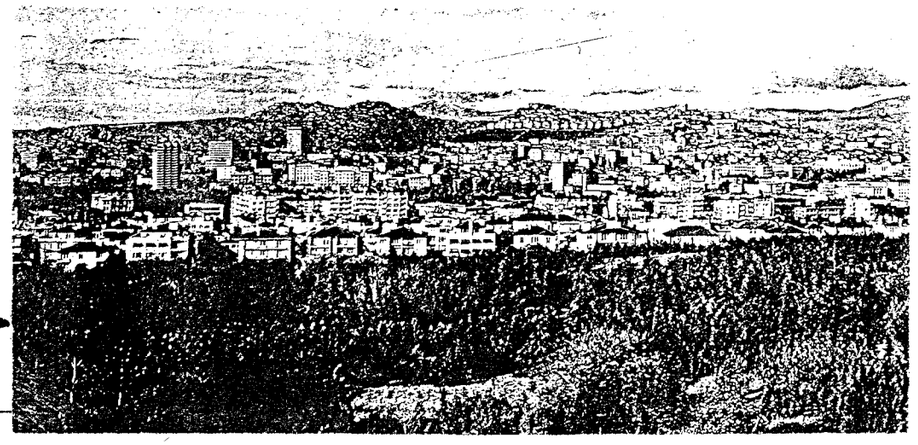


Figure C.8 View from point 3a. Ankara, 388.

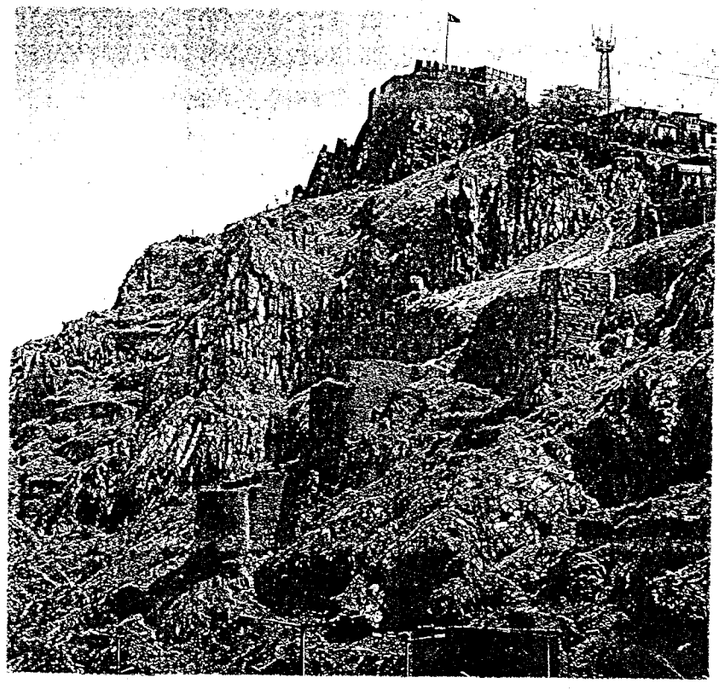


Figure C.9 View from point 4a. Ankara, 13.

Figure C.10 View from point 4b. Ankara, 43.

Section 4

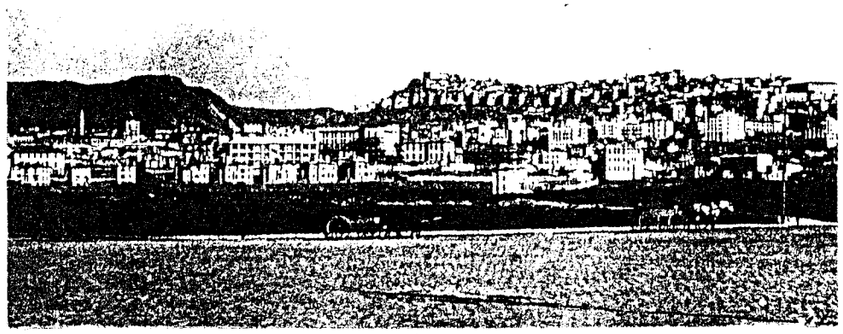


Figure C.11 View from point 5a, 1920's.
Bir Zamanlar Ankara, 28.

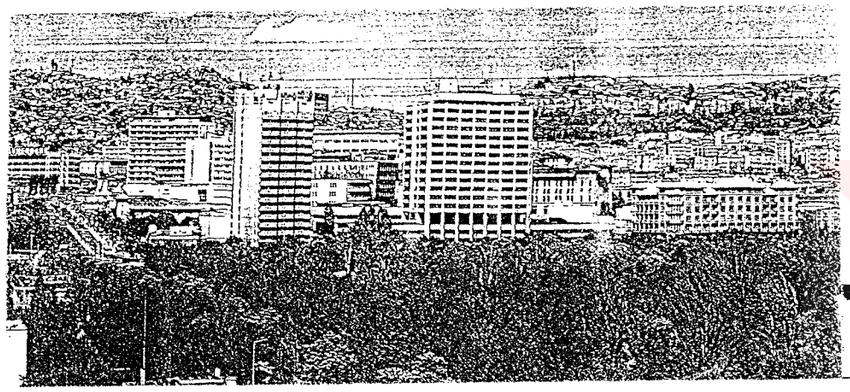


Figure C.12 View from point 5a
Ankara:33

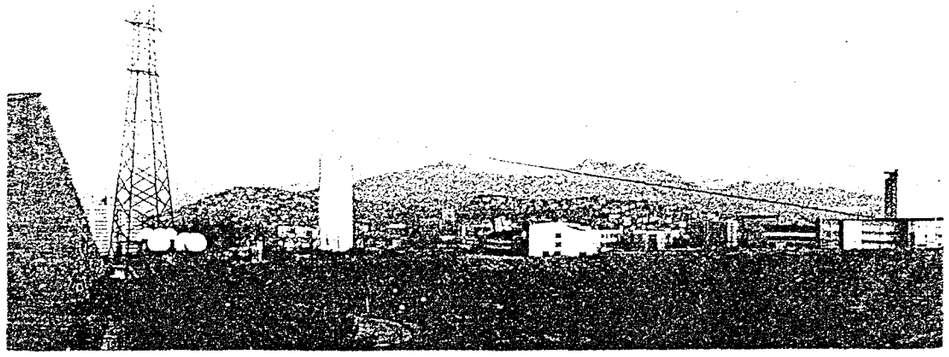
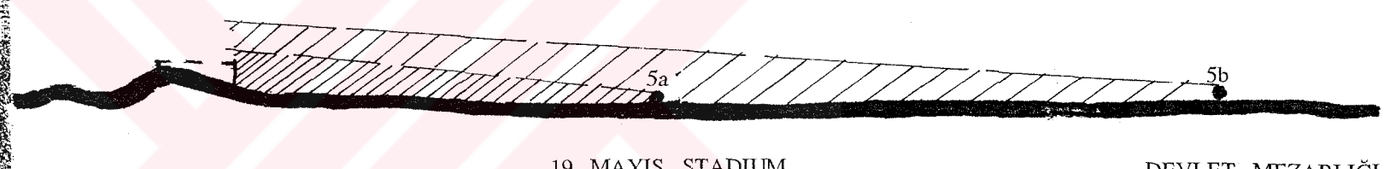


Figure C.13 View from point 5b



Section 5

Section 6

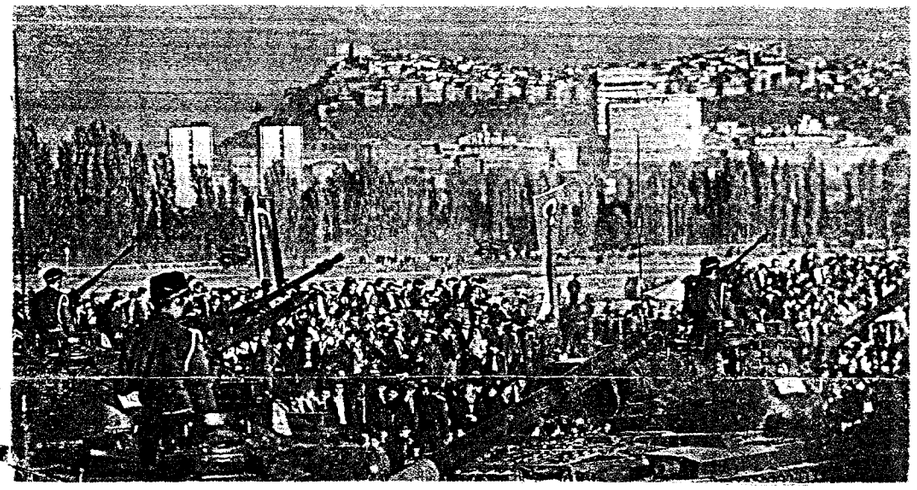


Figure C.14 View from point 6a.

Section 7

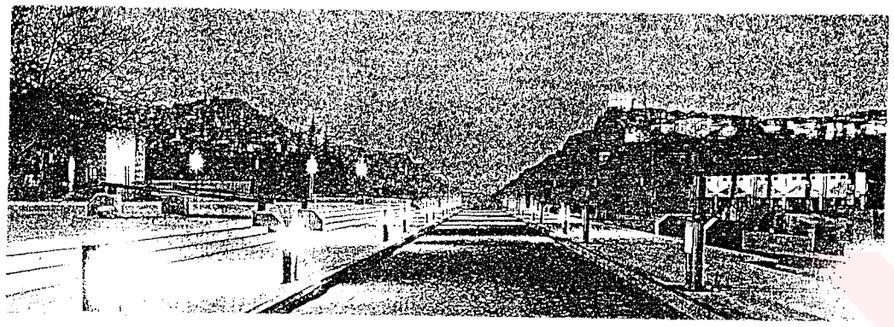


Figure C.15 View from point 8a.
Ankara Dergisi, 92/4, 78.

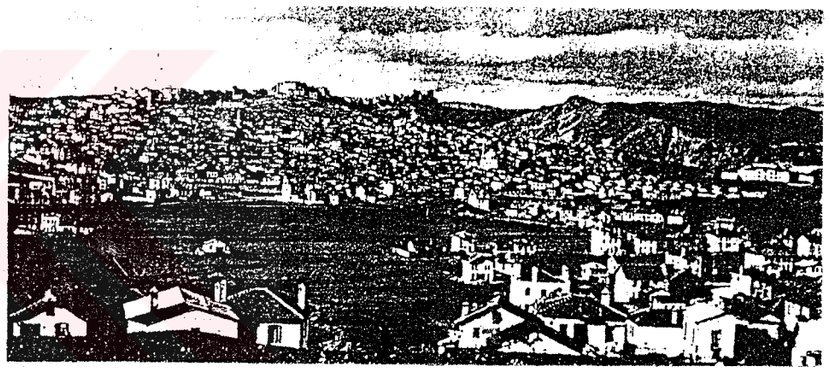


Figure C.17 View from point 8c, 1920's.
Ankara, 58.

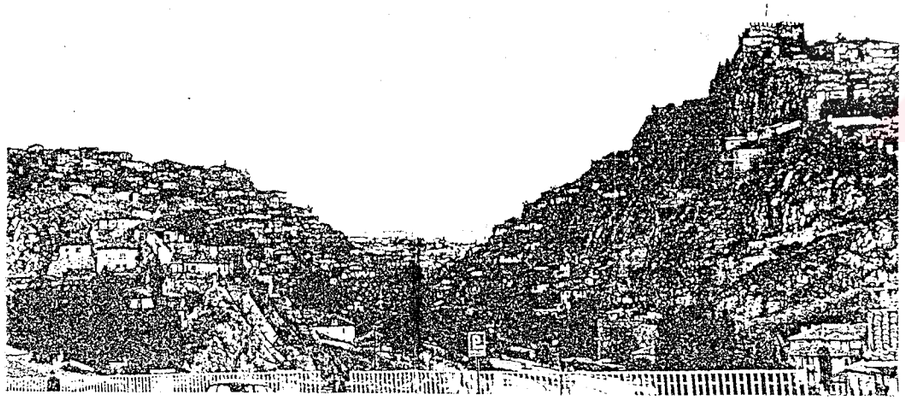


Figure C.16 View from point 8b.
50 Yılın Türk..., 385-386.

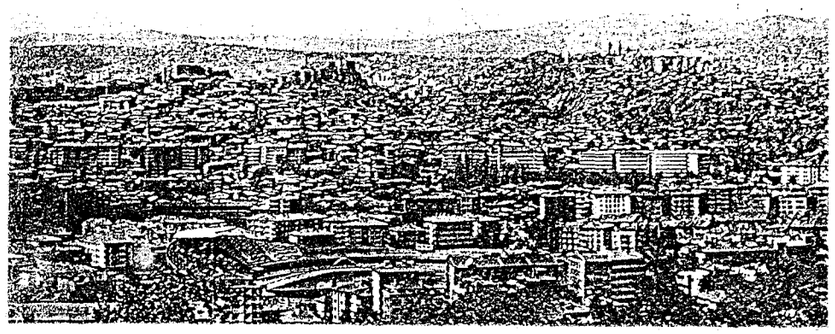
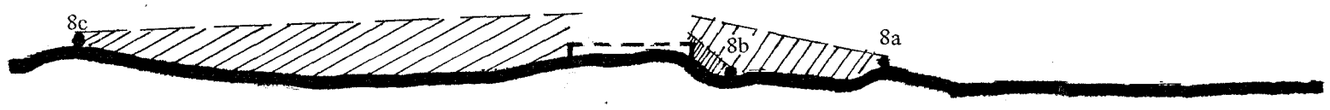


Figure C.18 View from point 8c.
Ankara, 59.



Section 8