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AS
A TOOL IN CITY PLANNING

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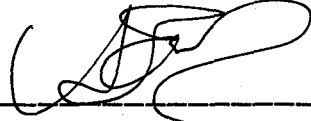
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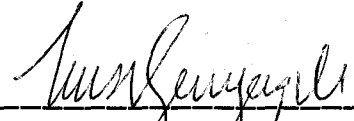
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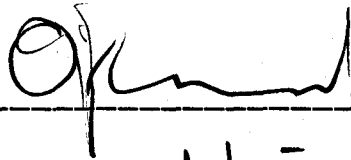
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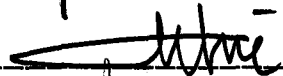
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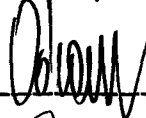
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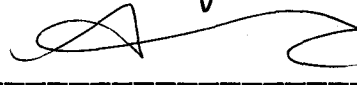
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ABSTRACT

THE BOULEVARD AS A TOOL IN CITY PLANNING

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This study identifies and analyzes the *boulevard* as the model for the main street of modern cities through a comparative discussion. It begins with the city of Paris and its boulevards, then turns to other examples of main streets from the past, and finally looks into the future.

It is widely believed that the physical shape of any urban element (including streets) is a direct result of factors such as social hierarchies, economic conditions and technological abilities belonging to each historical period. Although this study is sincere to this view, it considers these factors only when it is required for elucidating the main points.

This study is primarily concerned with the main streets' physical shapes, their historical origin and their variety. It explores how the main streets physically transformed from narrow paths to wide boulevards of Paris. It shows how some other cities chose the early boulevards as a model for building their own main streets. Finally, the study propounds some ideas about the main streets of future.

Key words: Main Street, Comparative Historical Approach, Paths, Boulevard, Physical Transformation, Tehran.

ÖZ

ŞEHİR PLANLAMADA BİR ARAÇ OLARAK BULVAR

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Bu çalışmada bulvar modern şehirlerin ana caddesi modeli olarak, karşılaştırmalı bir tartışmayla tanımlanmakta ve analiz edilmektedir. Çalışma Paris kenti ve bulvarlarının analiziyle başlamakta, geçmişin ana cadde örneklerini irdelemekte ve sonuçta geleceğe yönelik görüşler geliştirmektedir.

Her hangi bir şehir ögesinin fiziksel şeklinin (sokaklar da dahil) her bir tarihsel dönemin sosyal kademelenmesi, ekonomik şartları ve teknik olanaklarının doğrudan bir sonucu olduğu bilinmektedir. Buna karşılık araştırmada, bu faktörlere yalnızca ana konuların aydınlatılması için değinilmiştir.

Bu çalışma genel olarak ana caddelerin fiziksel şekilleri, bunların tarihsel çıkış noktası ve çeşitlilikleri ile ilgilidir. Ana caddelerin, fiziksel olarak, dar patikalardan Paris'in geniş bulvarlarına nasıl dönüştüğünü araştırmaktadır. Diğer bazı şehirlerin, ilk bulvarları, kendi ana caddelerini kurmak için, nasıl bir model olarak seçtiklerini göstermektedir. Sonuçta, bu çalışma geleceğin ana caddeleri konusunda bazı düşünceler ortaya atmaktadır.

Anahtar kelimeler: Ana cadde, Karşılaştırmalı Tarihsel Yaklaşım, Patikalar, Bulvar, Fiziksel dönüşüm, Tahran.

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TABLE OF CONTENTS

ABSTRACT	iii
ÖZ	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS	vii
LIST OF FIGURES	.....	x

CHAPTER

1:	INTRODUCTION	.....	1
	1.1. The "Modern Boulevard" Defined	.....	3
	1.2. The Origin of the Modern Boulevard	.....	6
	1.3. Haussmann and the Modern Boulevard	.....	8
2:	WHY THE BOULEVARD	.....	11
	2.1: The Monumentalism of Baroque era	.....	12
	2.1.1: The "L'etat, C'est Moi" King and the boulevard	.....	14
	2.2: Pressure of Capitalism era	.....	17
	2.2.1: The Age of Revolutions	.....	18
	2.2.2: The Second Empire and the boulevards	.....	20
	2.3: The Boulevard as a Tool for City Planning	....	22
	2.3.1: The New Business Centre: La Defense	.....	23
	2.3.2: Boulevards Impression on General Location of La Defense	.....	24

2.3.3: Boulevards Impression on Inner Design of La Defense	27
3: THREE HUNDRED YEARS OF BOULEVARD IMITATION	32
3.1: Vienna, Florence and The Others	33
3.2: Washington D.C	42
3.3: Canberra	46
3.4: Rio	50
4: THE MODERN CRITICS AND THE BOULEVARD ..	54
4.1: Le Corbusier--From Pack Donkey's Way to the Boulevard	54
4.2: Walter Benjamin--Boulevard as a Techno-Military Necessity	58
4.3: Rolf Jensen--Boulevard as a Socio-Economic Element in the Changing city	60
4.4: Lenardo Benevolo--Boulevard as an Element of Modern Metropolis	61
4.5: Françoise Choay--Boulevard as a Modern market and Open Space	62
5: MULITPLICITY AND VARIETY OF MODELS FOR THE BOULEVARD	65
5.1: On the General Concept of the Boulevard	66
5.2: The Boulevard Define	67
5.3: The Origin of Boulevard	72
5.3.1: An Earlier Use of Boulevard: Isfahan	74
5.3.2: The 7th and 11th Century B.C Models of Boulevard: Side and Ephesus	77

6:	WHAT ARE THE CRITERIA FOR A STREET TO BE A BOULEVARD?	83
6.1	On the Physical Structure of the Boulevards	84
6.2	On the General Responsibilities of the Boulevards	85
6.2.1	The Physical Responsibilities	86
6.2.2	The Social and Cultural Responsibilities	88
6.2.3	The Economic Responsibilities	90
6.3	A Case Study: Tehran	91
6.3.1	The Physical Responsibilities of Liberty street in Tehran	102
6.3.2	The Social and cultural Responsibilities of Liberty street	106
6.3.3	The economic Responsibilities of Liberty street in Tehran	110
7:	CONCLUSION	113
	REFERENCES	118

LIST OF FIGURES

Figure 1	7
Paris 1670--First Boulevard Segment	
Figure 2	7
Paris 1740--Second Boulevard Segment	
Figure 3	9
Paris after 1869--Third Boulevard segment	
Figure 4	13
Paris--The Boulevard De L'Opera	
Figure 5	15
Paris--Versailles	
Figure 6	25
Paris--La Defense general location	
Figure 7	29
La Defense--A three Dimensional view	
Figure 8	29
La Defense--General Plan	
Figure 9	34
Vienna--Before 1857	
Figure 10	35
Vienna--Boulevard circled around the city	
Figure 11	36
Vienna--After 1872	
Figure 12	38
Florence--In the 14th Century	
Figure 13	39
Florence--Boulevards on the city walls	
Figure 14	40
Barcelona--Cerde Plan of 1859	

Figure 15	41
Barcelona--Rovira Y Trias Plan of 1859	
Figure 16	43
Washington D.C--L'Efant's Plan	
Figure 17	45
Chicago--Plan Of 1912	
Figure 18	47
Garnier--Industrial town	
Figure 19	48
Garden City--City Centre	
Figure 20	49
Canberra--Griffins' Plan In 1913	
Figure 21	52
RiO--The Agache Plan	
Figure 22	56
Paris--Three dimensional view of Voisin Plan	
Figure 23	57
Vision Plan--General relation to the city	
Figure 24	69
Priene--General plan	
Figure 25	69
Priene--City centre	
Figure 26	70
Padua--An organic Medieval Town	
Figure 27	73
Isfahan--Four Garden Street	
Figure 28	75
Isfahan--General Plan	
Figure 29	78
Side--General plan	
Figure 30	80
Ephesus--General plan	
Figure 31	82
Pompeii--General plan	
Figure 32	82
Timgad--The Roman Camp	

Figure 33	92
Tehran--As it was in 1852	
Figure 34	94
Tehran--Ark of the city in 1911	
Figure 35	95
Tehran--The Bazaar	
Figure 36	97
Tehran--New city wall of 1865	
Figure 37	99
Tehran--from 1891 to 1975	
Figure 38	101
Tehran--Boulevards on the city walls	
Figure 39	103
Tehran--The west part of Liberty street	
Figure 40	105
Tehran--Ashrafi boulevard	
Figure 41	108
Tehran--Revolution Square statue	
Figure 42	108
Tehran--Liberty Square Remembrance	
Figure 43	111
Tehran--Propossed central business district	

CHAPTER 1

INTRODUCTION

In this thesis, I give the reader an introduction to the notion of the "boulevard", keeping in mind that no precise definitions that cover all cases exist. I have tried to motivate ideas through historic and city planning examples, giving a discussion of each example to the extent I found useful for the purposes of this thesis.

This historical evaluation is generally divided into two main parts. The first part is dealing with the boulevard and its existing definition. Here boulevard is defined as an element which developed while the cities of modern era were redesigned due to modern human needs. Naturally in this part, the city of Paris is selected as a case study since the word "boulevard" arose as a new concept in this city at the 17th century. Furthermore, some definitions of boulevard as a specific kind of street will be given, the reason why it originated in Paris, its general effects on this city, its effects on other cities all over the world, and also on city planning.

The second part of this historical evaluation is based on another important assumption. If boulevard is a specific kind of street with certain characteristics and responsibilities, its origin should be searched not in the Paris of the 17th century, but in human primitive settlements, since many of them owned such specific streets with the same characteristics but in different scale. Finally, I attempt to show similarities between the modern boulevard and those streets of the past by giving some visual examples. These examples will help us to find a

more universal definition for our modern boulevard and its relation to human primitive settlements.

So in this first chapter, the reader will find an introduction to the concept of the modern boulevard and a review of the origin of the boulevards as commonly given in modern accounts. It focuses on the rise of the boulevard as a major city planning tool in Paris.

In the next chapter, I will provide an analysis of the three major epoches in the rise of the boulevard in Paris, focusing on the driving forces in each epoch.

The third chapter gives further examples of the use of the boulevard in the modern cities of Vienna, Washington D.C., and Canberra. I have reproduced many of the relevant city maps from various sources and have given a discussion of each case to the extent relevant to the purposes of my thesis.

To place the ideas on a solid foundation, in chapter four, I have given a brief review of the critics' views on the boulevard, or on other topics that appear relevant to an understanding of the boulevard in urban development and planning.

Chapter five provides the central part of my thesis. In this chapter, I give an account of my own views on the general concept of the "boulevard". I support these views by providing further examples, which show also multiplicity and variety of models for the boulevard.

In the sixth chapter, the reader will find some of the most important criteria for a street to be a modern boulevard. Historical development of the city Tehran and its two new built boulevard are used as the case studies which support the providing ideas on these criteria.

1.1 The "Modern Boulevard" Defined

The boulevard exists as an important element used in city planning. It has been used as a focus of many recent studies such as Papaeorgiou, et.al. (1990), Jacobs, et.al. (1995), Vanloo (1994) and Suisman (1994). But my study is focused on how we may better understand the concept of the boulevard in its broad historical and evolutionary development as well as its local significance. So, it may be best to begin with some definitions.

Longman Dictionary of American English (1983) defines "boulevard" as "(part of the name of) a broad street, often having trees on each side: Sunset Boulevard". The Random House Dictionary of the English Language (1967: 174) defines "boulevard" as "a broad avenue in a city, usually a park like appearance, with sides or centre for trees, grass or flowers. But what do we mean by an avenue? Rudofsky (1969: 156) pointed out that avenue and boulevard are the same, in their meaning, and recognized that "avenue is akin to the boulevard, another alien word that Americans borrowed and never returned,... it means a wide roadway, bordered by trees or marked by other attractiveness at regular intervals". Rudofsky (1969: 157) developed his definition as follows:

It has a special meaning at least in its country of origin. European boulevards started out as ramparts-*bulwarks* - which, later, dismantled and turned into people's promenades. Since ramparts were defenses surrounding a town, the term boulevard refers to circular streets, such as the older of Paris's boulevards, or Vienna's Ringstrasse.....An authentic boulevard suggests rows of majestic trees that eclipse the sky; parterres of coffee-house chairs filled to capacity; outdoor restaurants; luxury shops; an opera house or two, and a couple of theatres...."

Rudofsky explained that variety of words, which are used for defining such spaces, resulted from variations of boulevards shown in their physical structure. For him either wide or narrow, level or on an incline, staired, impassable, crooked, ascending or descending, passing over or under another one, planted with trees or flanked by water, and so on, all should be called "streets". In other words boulevard or avenue is a "specific street" which is broad, and green.

The word "boulevard" is used to identify a special kind of what we generally call "streets". So to define boulevards more in detail, we have to first explain what we mean by the word "street". For Lynch, not only all sorts of streets, but also all walkaways, transit lines, canals, railroads, etc., which are the predominant elements of city in many people's imagination, should be called "paths". Lynch (1960: 47) defined these paths as

The channels along which the observer customarily, occasionally or potentially moves. People observe city while moving through it, and along these paths the other environmental elements which are arranged and related.

After his definition for paths, Lynch elaborates on certain characteristics of this city element. Lynch recognised (1960: 54) that "paths may not only be identifiable and continuous, but have directional quality as well". He (1960: 55) adds another essential characteristic which may be the most important one this thesis deals with, while defining the boulevard as a path:

Once a path has directional quality, it may have the further attribute of being scaled: one may be able to sense one's position along the total length, to grasp the distance travelled or yet to go.

The term *scale* which is one of the most important

concepts of this thesis will be considered more in detail in coming chapters. What makes this term more interesting is its abundant use as a concept when the boulevard is defined in many documents. Like Random House Dictionary's definition, we find in many other documents, boulevards defined as streets with a great scale. As another example, in Whittick's *Encyclopedia of Urban* (1974: 174), one can find the following formal definition of the boulevard:

The word boulevard originally designated the broad, horizontal surface of the rampart of city wall. Later the term was applied to the city walls of Paris. The first of such boulevards were opened in 1670 on the site of the ancient walls extending from port Saint-Denis to the Bastille. The term has since been used to typify broad, long and handsome avenue.

As far as this definition or something similar to it has been repeated and used by many other writers, there is no need to repeat all of them again. But some explanations on these definitions should be mentioned from the first. One should remember that critiques on any subject begin just at the moment it is defined. A critique on boulevard's definition is not an exceptional case. And that is why many critiques have concentrated on it. Just as an example, one could criticize Whittick and the other planners since their definitions of boulevards are mostly based on the subject's physical characteristics. One should ask what we mean by the word "broad"? Should we refer to a 100 meter width street as a broad one or is a 10 meters one broad enough to call it a boulevard? Then in the same manner one should ask what we mean by the words "long" and "handsome"?

This thesis follows a new approach for defining the boulevard and will discuss it later, but as is mentioned above, it also believes that no one can accurately and comprehensively

discuss a subject without giving its definition at the start. Naturally definitions could be deficient, but a more perfect universal definition can only be obtained by the discussion of existing, deficient ones. It is due to this fact that this thesis agrees with the definition of boulevards as a path with a huge scale just to begin discussion, hoping to introduce a more universal definition as it develops its central ideas further on.

1.2 The Origin of the Modern Boulevard

The origin of the *modern* boulevard as a real urban element is widely attributed to Haussmann's works in the city of Paris. But Whittick's and the other encyclopedic definitions of boulevards show that the first attempts for building such streets is dated to 1670, almost two hundred years before the city of Paris submitted to Haussmann's ideas.

The first generation of such streets of 1670 and 1740 are shown on city maps on the next page. Beside their importance in being an aid for a visual discussion, these figures also help to see the big differences between scales of the first attempts of boulevard-building and those efforts made later, (between 1853 and 1869 by Haussmann) when the city of Paris is considered through its historical development.

Figure 1 shows the city of Paris as it was in 1600 A.D. The Louvre Palace which was placed outside the first city walls of 1300, north of the Seine, now is inside and surrounded by the second city walls. To the east is the Bastille placed right on the city walls, and in black circles is the row of trees planted along the wall in 1670. These trees were the first indication of the great tree-lined boulevard system to follow.

The lower map (Figure 2) shows Paris of 1740. The city under Louis XIV got gradually used the great concept of

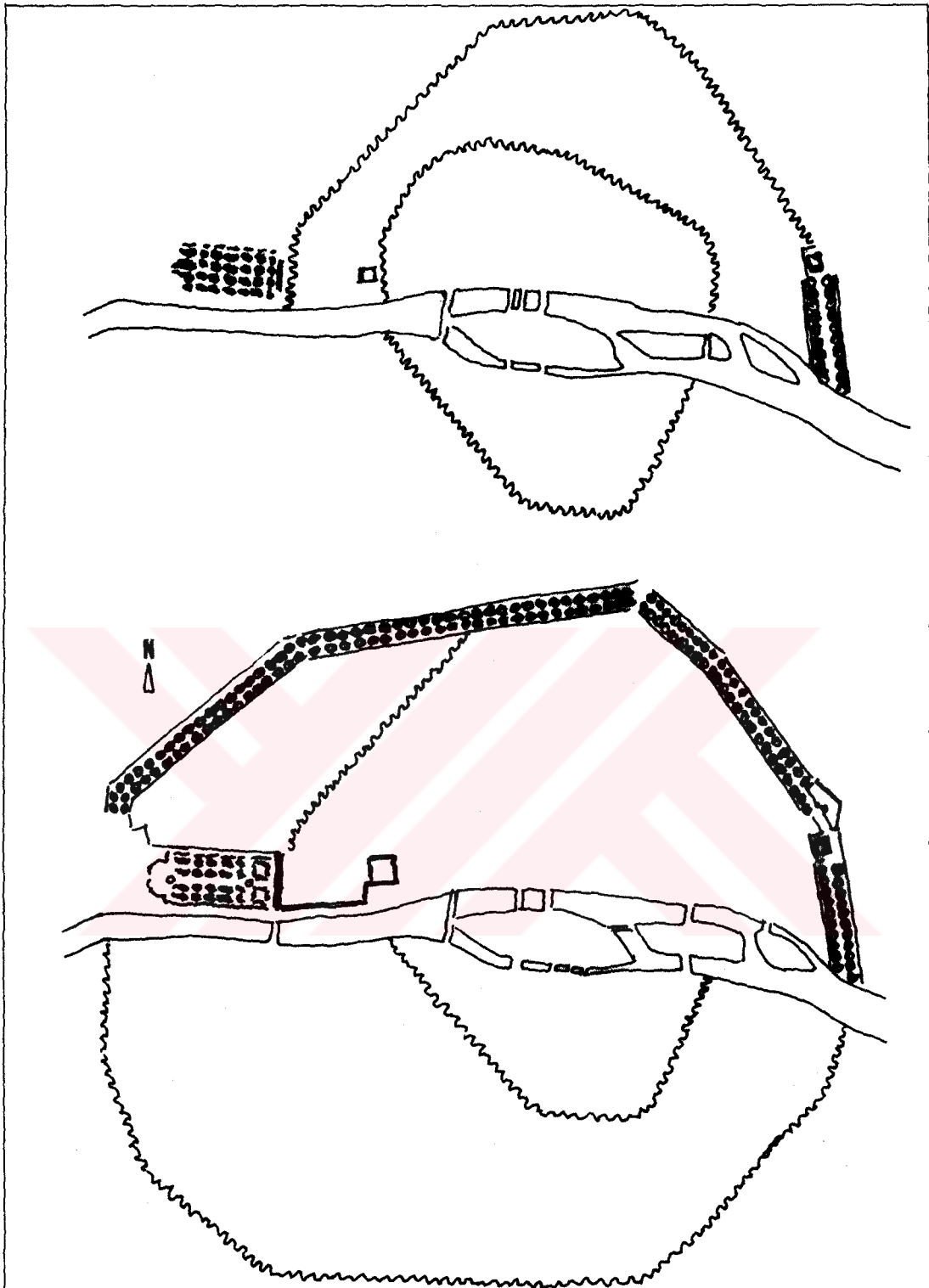


Figure 1: Map of Paris in 1670 shows the first indication of the great tree-lined boulevard system to follow

Figure 2: Map of Paris in 1740 shows the second part of the first generation of boulevards which were built by King Louis (*Figures, drawn by the author of this thesis, are adapted from Bacon, 1976*)

Le Norte. It was extending the axis of The Tuileries Gardens in the form of the green Champs Elysees, which has become a dominant design element of the city. (Later, it extended west and finally ended at La Defense.) Again in black circles are the old city walls which have been planted as great continuous tree-lined boulevards, to be a guide for Haussmann to create what can be noted as the second generation of boulevards and all he did in Paris.

1.3 Haussmann and the Modern Boulevard

As it was mentioned above, today for many people the word boulevard as a modern main street concept began with Haussmann's works in the city of Paris. In some ways, it is indeed a natural result, since it was between 1853 and 1869 and that the biggest part of the boulevards of Paris were made by Napoleon III and Haussmann.

Talking about all social causes and effects of Haussmann boulevards as the second generation of such streets is out of the scope of this thesis, but as it was noted before, these effects will be considered more in detail in the second chapter. Here, only some figures are given to see what Haussmann really achieved, and then we will have a comparative understanding of the scales of the first and the second generations of boulevards when the city of Paris is looked on only as a physical structure. Figure 3 of the next page and Evenson's (1979,15) brief comments on such a great historic event seem to be sufficient to underline the significance of Haussmann's work:

When Haussmann projected the new network of streets which formed the most conspicuous part of his program of urban renovation, he attempted to augment and extend the existing series of boulevards, incorporating them in a city-wide system of circulation. A series of

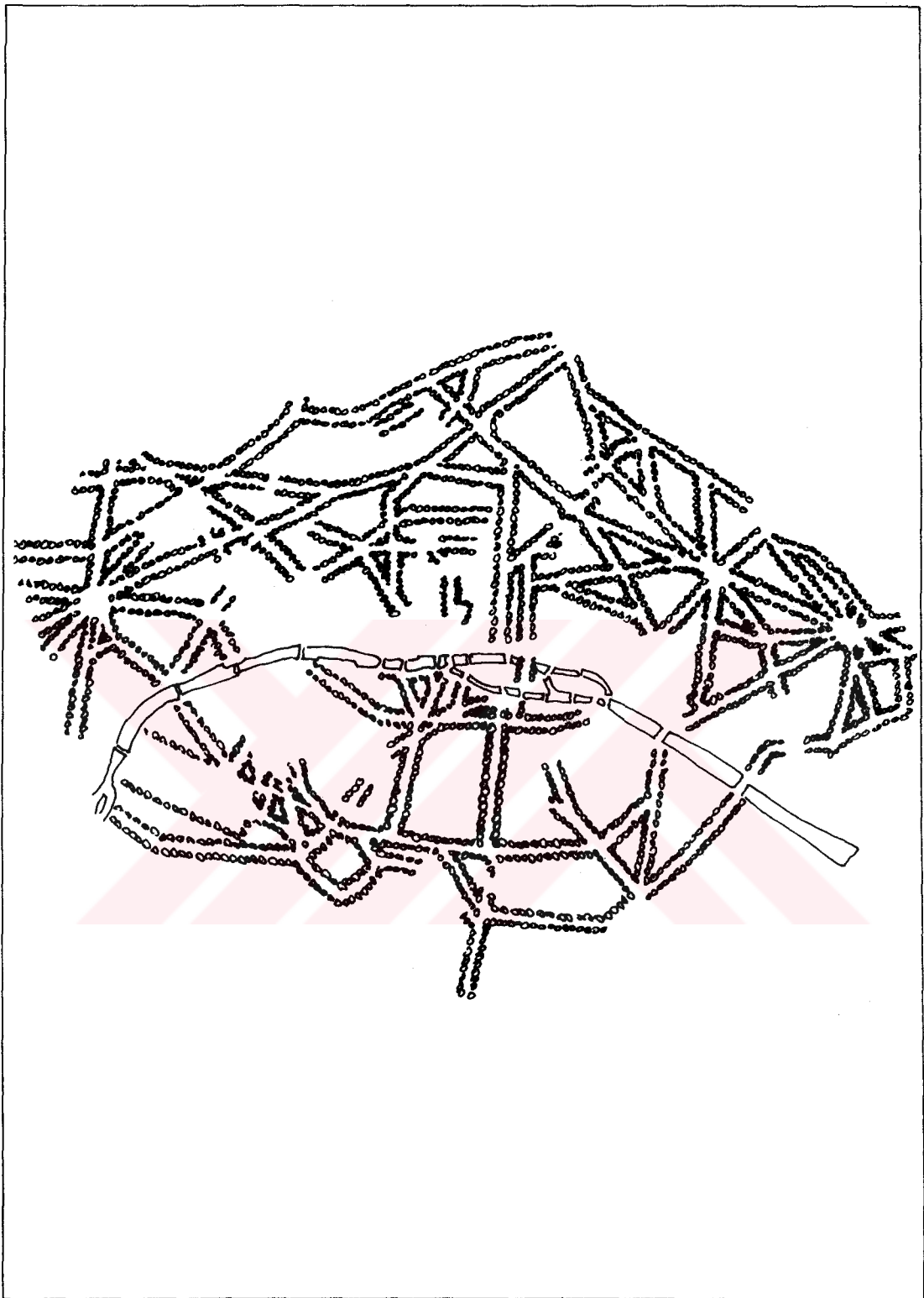


Figure 3: And it is the city after Haussmann finished his new streets. The scales of Haussmann's work should be compared with these first boulevards built by Louis, Looking to Paris as a whole.(Figure, drawn by the author of this thesis, is adapted from Risebero,1979).

diagonal streets was created to connect the interior and exterior boulevards.

As it is known, the story of boulevards image did not come to its end by those which Haussmann built in Paris. Efforts in designing new derivatives of boulevards continued both in Paris and all over the world during the 19th and the 20th century. Works of L'Efant in Washington, Griffins in Canberra, and the modern commercial area, La Defense in Paris are only some examples of the many attempts. These boulevards which should be named as the "third generation" will be considered after the dramatic history of the previous ones are explained in the coming chapters.



CHAPTER 2: WHY THE BOULEVARD

Most historians of urban design agree that it was between 1853 and 1869 that the main part of the boulevards of Paris were designed and built by Napoleon III and Haussmann. But as it was just mentioned, the process which ends in building these boulevards had begun much earlier, almost from the beginning of the 17th century.

All these boulevards, although built in different periods, show completely similar physical attributes. They are all broad, they are all long, they are all straight, they are all decorated by trees, and finally, they are all a place for many monuments or other important structures. But, what made all these similar physical bodies different from each other? Maybe the answer should be sought within the veil of appearance or within the variety of their design. What made their souls different from each other is primarily the different use of methods in each historical period. Olsen (1982: 12) recognized this critical point while he considered the aesthetic and functional sides of planning, by giving some examples;

Every town plan is designed to meet the needs, real or supposed, of the society for which it is formulated. If the needs are thought to be chiefly military and defensive, the result will be Palma Nuova or Carcassonne. If the needs are thought to be the glorification of an absolute prince, the result will be Versailles or Karlsruhe.

In other words, it is the historical differentiation of each generation of boulevards which made it different from the others. The historical question "why the boulevard?" should be answered according to historical conditions that prevailed during each period. We should ask "why boulevard at the beginning of the 17th century?", then "why boulevard at the 19th century?" and finally, "why boulevards in the 20th again?" So, just to begin, let us have a brief look at the 17th century situation.

2.1 THE MONUMENTALISM OF THE BAROQUE ERA

By the end of the middle ages, the declining power of the church resulted in a new political reform. Vatican Palace as a new home of the popes was the biggest physical witness of church's political withdrawal. The pope suddenly became the partner of the monarch who obtained more authority through the new political system. The Church shore up the power of monarch kings in France, autocratic Dukes in Italy, and Lord Barons in England, etc.

The years of 16th century Europe naturally became a ground for the political absolutism in the administration of the government. The new system, which was trying to prove its dominance on social order and public life, used the city's physical structure in its most monumental shape never seen before. Cities became a place for demonstrating who is the biggest, and the monumental built as a sort of historical witness to the kings' absolute power. The architectural elements of the 13th century which had been built as a kind of investment belonged to the Gods. Now they became elements for an allegory of the absolute Kings.



Figure 4: After Olsen divided the city plans into aesthetic and functional, he noted that any town plan tries to be both practical and beautiful. For him, wide boulevards of Paris were designed both for military purpose and impressive architecture. While one planner deals with the beauty, the other thinks of a plan as a tool against revolution. At the top is only one of the Haussmann's Boulevards. It shows how the existing city is cut by a new street. we should ask, why? What was the real purpose? (Figure, drawn by the author of this thesis, is adapted from Risebero(1979).

Medieval cities of Europe changed their faces one after the other by those monumental buildings which now were showing the absolute power of the Kings, and not Gods'. Paris is one of the best examples which shows how cities take their lots from such gradual changes. The Tuileries in 1564, the Place Royale in 1605, the Place Dauphine in 1608, the Palais de Luxembourg in 1615, the Chateau de Maisons in 1642, the Chateau de Richelieu in 1631, the church of the Sorbonne in 1635, the church of Val-de-Grace in 1654, and the church of the Hotel des Invalides were some of the many structures built in the French capital city to glorify the greatness of each king. But the most important part of all these buildings began some years later.

2.1.1 The "L' etat, C'est Moi" King and the Boulevard

Louis, the "L'etat, c'est moi"King", rejected the old Paris as far as its chaotic growth had exhausted efforts for monarchic glorification. Louis decided to build a new capital outside the city, at Versailles (Figure 5), and embellished it by gardens where he could control all government functions. So, one of the most spectacular monuments to absolute monarchy ever seen in Europe was mainly built between 1661 and 1756. Barnett (1986: 12) recognized the real aim of the king:

Louis XIV asserted his symbolic *primacy over France* through the long vistas of the gardens at suburban Versailles, but he left Paris itself relatively unchanged.

Hellman (1988: 64) also agreed with Barnett, when he described the king's new palace at Versailles:

A quarter of a mile long, it has endless formal gardens at the rear where long intersecting paths extend outwards to infinity. It

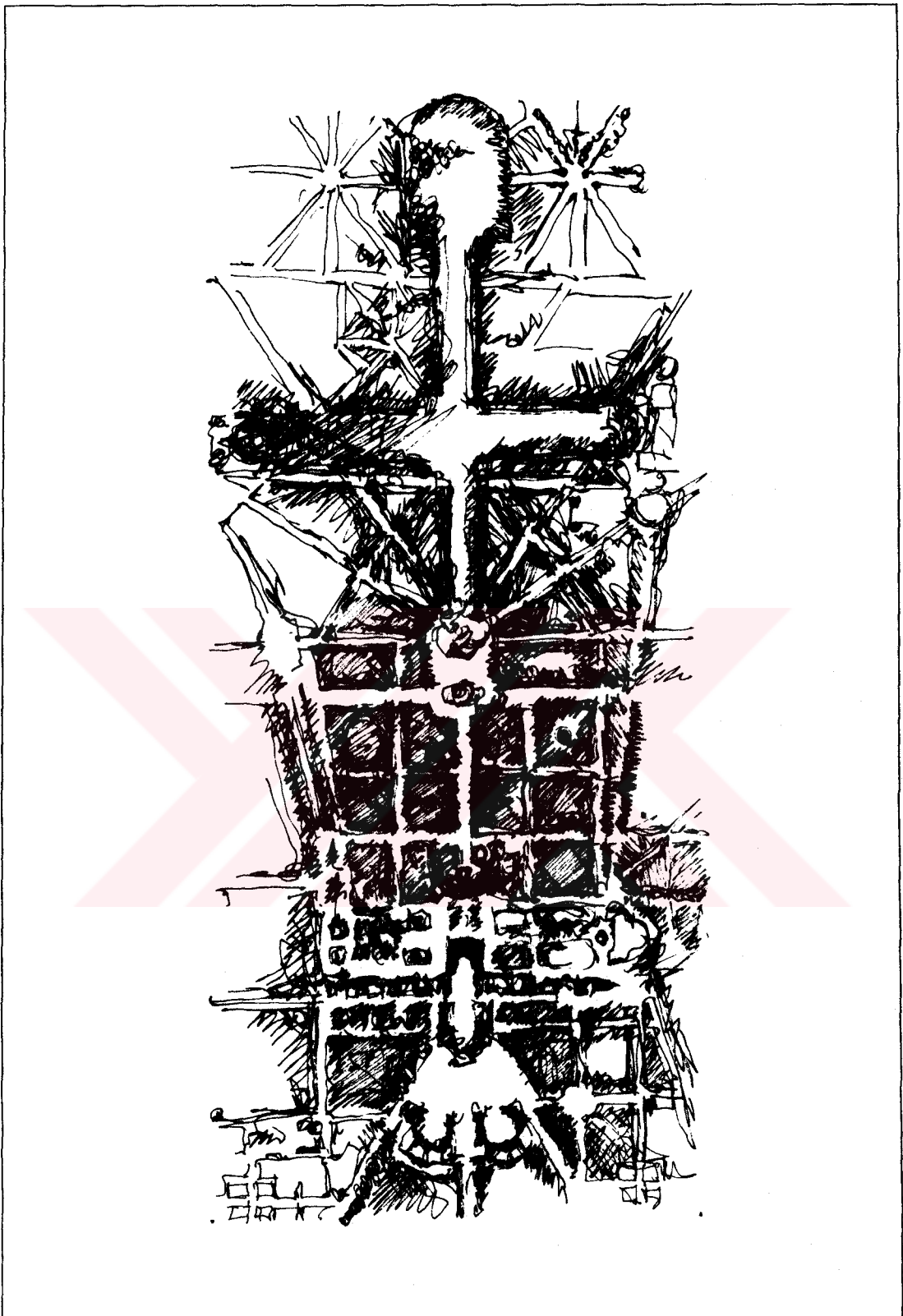


Figure 5: Versailles, the most spectacular monument Europe ever saw, built to glorify Louis XIV's primacy over France. (Figure, drawn by the author of this thesis, is adapted from Morris ,1979).

symbolized the king's total power over nation and nature.

There is no need to deal with this huge monument since it shows its greatness simply by the area it occupied in 17th century Paris maps, a city which was giving shelter to more than 500000 people. What here should be dealt with is, the king's other monuments in Paris: the grand street which was inspired by all he had done in Versailles. This street is now called boulevard.

It is not an accident that just in Louis XIV's era, the first generation of boulevards were built. But, what inspired Louis XIV to build such a street? Mumford has suggested that the long, straight street may have been a response to the introduction of horse-drawn carriages into the cities almost during the same years. On the one hand, it is exactly why only a carriage-drive was left right in the middle of the new street and three rows in two sides for pedestrians. And on the other hand, it sounds naive if one says that Louis XIV only wished to improve the transportation system of Paris by making a more comfortable movement area for the new means of transportation.

This street also was not proposed to solve the old Paris' open space scarcity, of which the city was truly suffering from. Documents show that no one had permission to settle adjacent to the new street at the time, which meant no one to use the street as one normally used streets in cities. Documents also prove that the abandoned street began to be used actively only around 1750 to 1778, almost hundred years after it was built. So after all, what was the absolute king, Louis XIV, really trying to do?

Although all the purposes mentioned above are not denied completely, the most probable reason was Louis XIV's desire for establishing the power of his city. Louis XIV tried to add one victory to those he had gained before. By one hand he built the

new city walls and by the other he destroyed the previous ones. Everybody should understand that he did not need any more to build city walls for defending his monarchy cities, an element which was once one of the most used structures against enemies, but was losing its importance after the innovation of the gunpowder and the canon.

New innovation produced new possibilities for redesigning the defence system which Louis XIV could exploit in Paris and many other military engineers in other cities. City walls began to be changed to broad avenues by war engineers, because of their inefficiency against the modern methods of urban invasion. The best description of this sudden change comes from Mumford when he uses the term "war as city builder". Mumford (1961: 415) also explained the main purpose behind the destruction of the city walls:

Avenues where a victorious army could march with the maximum effect upon the spectator....Both symbolically and practically the design established that every thing was under control.

So finally no one could be frightened as the king and his army were there, even if the city did not have a wall. This was the purpose, and it achieved what it aimed at. What was done with the city walls in Paris became a model for other cities of Europe to follow.

2.2 Pressure of Capitalism era

Baroque period and its monumental approach to architecture and the city lost its attractiveness after some two centuries. There is no need to consider all events which make ready an era to bring itself to an end. This section only aims to

have a brief look at the general developments of the 18th century. These years produced many trends resulting from the sudden growth of capitalism, its new economic relations and its multifarious effects on every part of human life.

From the late 18th to the 19th century the whole of Europe was under the pressure of social and technological revolutions. Each revolutionary event changed the circumstances of human life and with it the cities, where humanity congregated. Considering all developments, all innovations, all social movements, all economic transformations and the effects of all these factors on the cities' physical shape seem to be a never ending discussion. Streets, which also have changed their physical form drastically due to factors just mentioned, are cause enough for considering some of these specific developments.

2.2.1 The Age of Revolutions

The innovation of firearms forced military engineers to redesign the defense system of cities. City walls were changed to broad avenues by war engineers a piece at a time, because of their instability in confronting new military innovation. Years after gunpowder was brought to Europe, it was grappling with another innovation. It was the steam engine innovated by Watt in 1765 which marked the beginning of what is now known as the Industrial Revolution.

The process which began with Watt's innovation continued with a series of new ones. The coal-mines began to appear everywhere possible. As time progressed, the landscape was changed as coal-mines and factories were built to produce steel. Soon, the dual use of coal and steel led to the complete transformation of the whole world, by allowing the development of the railways. Distances became almost ten times shorter in

1860 by the means of new transportation systems when comparing travelling time to 1760.

These momentous events are only some of the many measurable points of what today is called the Industrial Revolution. Hellman actually believed that every time a new technological progress was achieved, it resulted in many other social changes. And for Hellman (1988: 76) the process of the Industrial Revolution was a most dramatic one:

In a short space of time great areas of the country were altered to the unacceptable face of capitalism. Railways smashed through old towns and cities to serve factories, spewing pollution, noise, ugliness and disease over the whole community. The age of Reason in the name of progress produced an environment more inhuman than any previously in history. Driven off the land, their guilds abolished and their rights taken away, the rural poor flocked to the towns for work; to be crammed into quickly erected back-to-back houses without sanitation, water or ventilation and subject to the noise and smoke from the adjacent factory. They came in three grades, semi-slum, slum and super slum.

The dramatic situation of the industrial era has been defined by many others. Mumford (1961: 522) pointed out that "the main elements in the new complex were the factory, the rail road and the slum. By themselves they constituted the industrial town." The new relations were summarised by Gallion and Eisner (1963: 63) when they argue that "now each machine had its job, and each man his machine."

Now we should turn back to France of 1789. By the beginning of the new era, Paris also possessed the new city elements. Factories were built, workers came from poor rural

environments and slums became ready to be settled. The king, Louis XVI, could resist the new system and its new possibilities a time. Almost thirty years after Watt's innovation, Paris became the stage for one of the most fearful social upheavals of the century. The events of 1789 in France which were guided by the bourgeois reached their climax in 1793 by the execution of the king. A series of bloody social movements ended in 1799 when Napoleon Bonaparte became the head of the army. "The French Revolution" was only one of the other similar social movements under way in England, in America and in many other countries, affected by industrial progress and the maturing of the capitalist system.

2.2.2 The Second Empire and the Boulevards

The second generation of boulevards in Paris were planned to be built 1793, when the French Revolution was about to create a city, now out of control. The plans of 1793 with long, straight streets were proposed to Napoleon Bonaparte for keeping down the unruly Paris mob. But no part of the plans were executed since Napoleon used his own methods for tranquillizing the anarchical events of Paris.

After many ups and downs, and almost sixty years later, in 1851 Louis Napoleon declared The Second Empire of France. After he took power as Napoleon III, one of his first decisions concerned his projects for Paris. The plans of 1793, basically with the same motives, this time were proposed by Napoleon III to Haussmann in 1853. For the first time boulevards were going to be built not on the city walls somewhere out of the city, but through the slums and this time right inside the city. Now it is time to ask why the boulevards were the dominant tools for planning in the 19th century.

Documents show that the new plan for Paris, was only a small part of the many other big projects of the second Empire, which aimed to bring France to its own industrial revolution. Barnett (1986: 24) with an optimistic view offers a defence for The Second Empire Projects for Paris which were designed by Haussmann:

Haussmann had seventeen years to carry out the transformation of Paris, including not only new streets and buildings but a comprehensive reconstruction of the water supply, a new sewer system and intensive park improvements. Other major aims were slum clearance and traffic improvements, particularly connecting the newly constructed railway stations to each other and to important central destinations.

Risebero who first agrees with Barnett in all these goals achieved by Haussmann in Paris, later discusses the real aim of the Second Empire by replanning the city. Risebero (1979: 186) believed that the proposing of the plans of 1853 by Napoleon III to Haussmann aimed at defeating probabilities of any new social movement.

One of the greatest works of the Second Empire was the reconstruction by Baron Haussmann of the centre of Paris, which turned the old medieval city into a grand baroque gesture. In fact, aesthetic appeal was not Haussmann's only consideration in the aftermath of the revolutionary street-fighting, security was the first aim. Between 1853 and 1869, small buildings around the palaces and barracks which might offer cover to attackers were swept away and broad avenues, giving rapid access for troops, were ruthlessly cut in all directions. The opportunity was taken to destroy areas of potential opposition.

Risebero's discussion on the real aim of the Second Empire in building boulevards comes to its close when he points out that the important lessons Haussmann learned from the revolutions were the main motivation of his projects in Paris. Street battles taught Haussmann that "the potential enemy was not outside the city but within" right in the narrow winding paths. This point is challenged severely by Barnett. He looked at the military side of Haussmann's projects as a secondary unsuccessful aim when he noted (1986: 24) that "whatever military advantages the new street system possessed did not prevent the rising of the Paris commune in 1871".

Critics of the first generation of boulevards which were built by Louis XIV express few differences as do critics of those of the second generation built by Haussmann and later ones of the 20th century. As it was just pointed out above, many writers agree on the military nature of the thoughts hidden behind the new streets designed by Haussmann. These boulevards were also criticized from economic, social and design perspectives. This thesis will consider some of these critiques in chapter four.

2.3 The Boulevard as a Real Tool for City Planning

No matter which of these experts are right, and again no matter how we criticize the boulevards of The Second Empire in Paris as far as what Haussmann applied in his projects, these projects have opened many new perspectives and views for the other planners of the 20th century. In other words, it was only after his experiments in Paris that boulevards finally began to be used as a real tool in city planning.

The concept of the long-straight street of Haussmann not only resulted in many new approaches in city design, but also in urban economy, in renovation of the existing city, and many other new projects. The variety of boulevards reflect in their design

all the various approaches used in their planning and will be considered in detail in chapter four under "modern critics and boulevards". But now I turn to explain how boulevards were used as a real tool in city planning. I should turn back and continue with Paris of the 20th century as my case study.

One should ask what was the main criteria in planning the Paris of the 20th century? One should ask, if they really add any new structure to the old city? And one should ask many other related questions. When the answers are given, we understand clearly how hard it is to oppose those writers who defend Haussmann, since the only major additional facility after his achievements in Paris until World War II was the metro. Glazer (1987: 413) also reminds us of the general situation and agrees with the Haussmann defenders when he defines Paris in the 1880's:

Paris is still, to an amazing degree, Haussmann's Paris. He served as prefect of the Seine from 1853 to 1870, and the shape of the city, its great avenues, its parks, and its monumental underground works, are still in large measure those laid out or begun under him and continued by the third republic.

2.3.1 The New Business Centre: La Defense

Leaving aside the previous explanations about the general situation, this section actually aims to express two specific points. The first is that the strong influences of Haussmann's boulevards have shown (as the most important existing physical element of the city) to be generally persistent in shaping the physical structure of Paris, even after more than a century has passed. And secondly, I want to show how the new modern generation of boulevards with their different physical characters have been derived from those of Haussmann's

classical boulevards with their straight direction, their great width, their green face and their separated sidewalks.

One of the most important projects in the post war Paris was its new business centre, which was planned to be built on one-twentieth of the usable area of Paris, beyond the city boundaries. The project which was firstly designed by Charles Nicod, later directed by the Etablissement Public pour l'Amenagement de la Defense (EPAD). The area of the project which was divided into commercial, administrative, cultural and other sectors is known as "La Defense". The project which is discussed here from many different views, is used only as a suitable example for considering two points just mentioned above.

2.3.2 Boulevards Impression on General Location of La Defense

Figure 6 shows the site of La Defense and its relation to Paris. The site is located on a straight extension of an axis which originates from the Louvre, and continues to the Tuileries Gardens, the Place de la Concorde and other monumental structures. The axis which was developed by Haussmann previously, using Champs Elysees and the Etoile - they became stronger after La Defense was designed. As it is also easy to see in the figure the site of the new centre was not chosen accidentally. But why?

Many writers have answered the question. For example, Evenson (1979: 49) recognized that "the redevelopment of La Defense emphasized a westward expansion of the commercial centre of Paris, rather than a westward extension of the monumental axis". On the other hand Bacon, who was more interested in the new movement system the site created, later related the decisions made on the site's location to the need for protecting the old city. Bacon (1976: 188) pointed to "La Defense

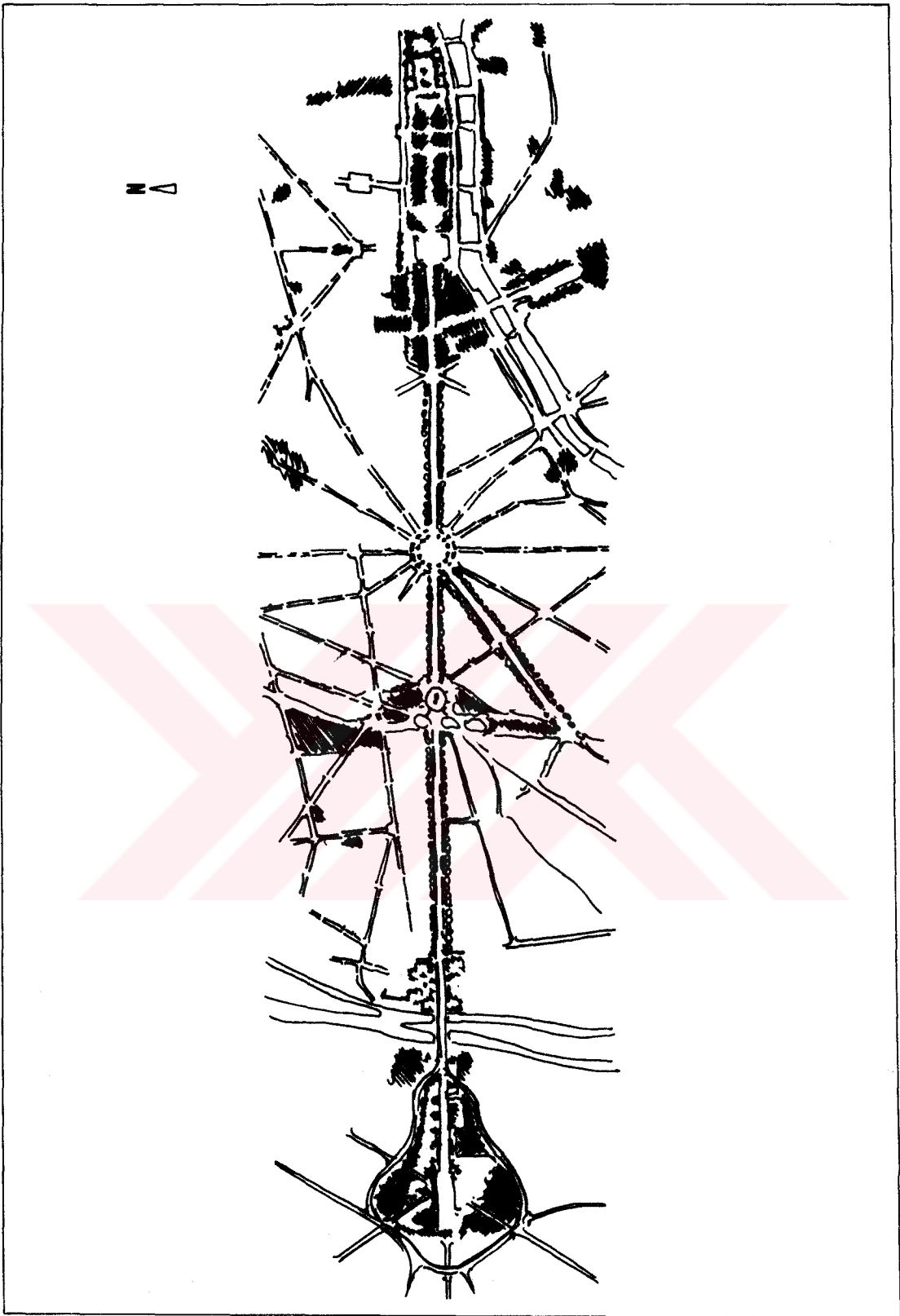


Figure 6: La Défense and its general location in the city of Paris. (Figure, drawn by the author of this thesis, is adapted from Evenson(1979).

with its building and its encircling express ways, helping to protect the old city from the onslaught of modern commercial development."

Many have tried to explain how La Defense was located on the basis of some planning principles. But their comments have not meant that the boulevards of Haussmann were not based on the first principles which they referred to, when the site was designed. Location of La Defense proved the strong influences of Haussmann boulevards on the general physical structure of Paris, both its choice of location based on an axis which was provided by Hausmmann earlier, and also in those hardly criticized proposals for locating the new centre somewhere else. These are the best explanatory reasons for believing in this influence of Haussmann's early designs. Many people have mentioned that placing such a huge centre somewhere else (for example as the architect Claude le Coeur proposed on the "grand croisee" in 1948) could destroy all that Hausmann built. Bacon pointed out that the final decision was made correctly since the design "preserved the integrity of the shaft of space projected by the Louvre and defined by the opening in the Arc de Triomphe". Evenson (1979: 49) also agreed with this critical view and added:

Such a scheme would, of course, have involved massive demolitions along the paths previously hacked out by Haussmann.

Discussions on the location of the new business centre and its relation to Haussmann's boulevard came to an end by recognizing that such an axis can be continued longer or shorter, narrower or wider but there would be no perspective unless it ended in something. So La Defense, designed as a great architectural finality, relied on one of the longest axis, created by Hausmannian boulevards. The one which placed other monumental structures such as Louvre and the Tuileries Gardens on its origin.

As a conclusion Evenson's, Bacon's, and all other critiques on the new centre's location not only show the planner's efforts for protecting Haussmann's boulevards as an important urban axis but also demonstrate how Haussmannian boulevards were sensitively used as one of the most important planning tools in choosing the location of a very important site in the Paris of the 20th century.

2.3.3 Boulevards Impression on Inner Design of La Defense

The sensitive decisions which were made on the site's location were protected in La Defense's inner design, too. All concepts such as buildings height, construction models, their economic costs, financial methods, and finally movement system of the site were alternatively proposed and considered individually. Not all of these concepts but the applied movement system of the site is the one, which this thesis is more interested in. We have to keep in mind that the conditions of the new century were totally different from the Haussmann's one, and before talking about the inner plan of La Defense some critical points on these new conditions should be reviewed

Advanced technology of early 20th century on the one hand brought many facilities in city construction and on the other hand created many new problems to solve. For example by its new machines, not only you could build high-rises in a short time, but also people could be carried easily to its levels without using any steps. Now you could travel very fast by means of developed automobiles. The new machine not only was a great facility in transportation but also was a great source of pollution, noise and confusion for inadequate streets of cities like Paris. Even Haussmannian boulevards (with their great width, their many rows of trees, and their vistas, where

Parisians were habituate to walk, to live, and to watch live), were confronting new problems steadily.

It was due to these new conditions that Le Corbusier proposed his Voisin Plan for Paris in 1925. At those years only 150000 automobiles were travelling in the Paris metropolitan region. This number suddenly reached 2.million by 1965. Meanwhile, since the beginning of the century, the street surface of Paris had increased by only 10 percent. Efforts for solving the problem did not go beyond expanding traffic lanes at the expense of the adjoining sidewalks of boulevards during 1950s and 60s. Evenson (1979: 56) described the results of this painful solution:

"The reduction of the sidewalks, in addition to removing circulation space for pedestrians, notably diminished the number of trees in Paris. Sidewalks that had previously carried a double row were reduced to one, and other sidewalks lost all their trees. Along with the greenery, many of the old sidewalk structures disappeared.... Now there were few sidewalks, in the old sense, left in Paris.... Perhaps the pedestrian aspires more deeply to recover of that human warmth which he found previously on the sidewalks of Haussmann".

A sharp increase of 25 percent in the number of automobiles from 1965 to 1970 suddenly showed that cutting the trees of Haussmannian boulevards, which seemed ingenious at first, was not really a sufficient solution. Confused traffic and new technological facilities forced the adoption of some new approaches and theories for solving the challenging problems in the movement systems of the new cities. And the most applied solution was the total separation of the means of transportation according to their speeds and their types. Evenson (1979: 51) briefly described the real factors behind these new theories:

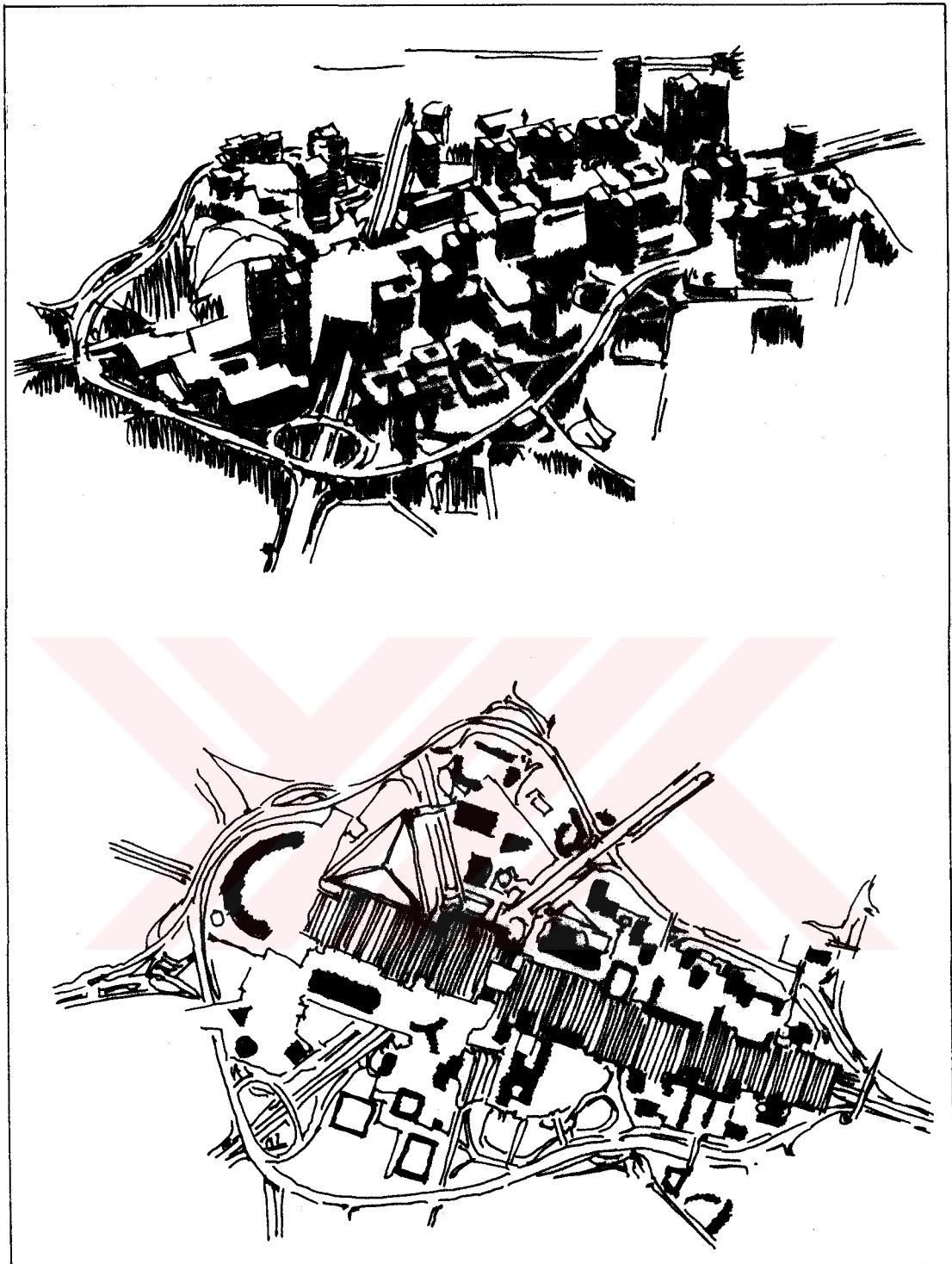


Figure 7: Above is a three dimensional view of La Defense adapted from the site model. It shows how a complex separation occurred at different levels of the site. (Figure, drawn by the author of this thesis, is adapted from Bacon, 1979).

Figure 8: The inner plan of La Defense. Does the pedestrian platform at the ground level remind the Hausmann boulevard or not? (Figure, drawn by the author of this thesis, is adapted from Evenson, 1979).

As the twentieth century advanced, however, and mechanized transport became dominant, theories of the modern movement began to envision a total reordering of the urban fabric. The speed and power of automobile seemed to demand a pattern of uninterrupted movement, separated from pedestrians and building lines.

The new theories of movement systems which generally are tied with separating pedestrians from other vehicles, were all inspired by the Haussmann boulevards. The concept was applied in long, straight, and wide boulevards of Haussmann in its most primitive shape. Each path was divided in its surface, where pedestrians could walk easily in a green area parallel to the carriages, but separately.

Now, I should turn back to La Defense once more. The Figures at the previous page show the site's inner design and its three dimensional views. The plan of La Defense mainly focus on a complex system of transportation, including railway station, a bus terminal, autoparks and many other facilities. Problems of such a huge transportation complex were solved partly by constructing many levels of subsurfaces thirty meters below the ground. These subsurfaces included a system of a complex motor ways. The great scale of this underground network can be understood only when we think about the 32000 car parking capacity of the different levels. These platforms below the ground which were separating the different means of transportation from each other were a natural solution resulting from the new theories of movement systems.

But may be the most attractive part of these separations were happening at the ground level, where whole of the complex was surrounded by a new motor loop, which drew a circle and connected with the existing boulevard axis. Looking to the plan of La Defense, it is hard to deny the similarities between this

new loop and those streets branching off in various directions with the Etoile concept created by Haussmann many years ago.

The main pedestrian axis at the ground level both in its direction and scale is another interesting part of the plan. This main path which is lined by high rises at two sides, also is designed as a direct extension of the boulevard it originated from. The huge pedestrian platform at the ground with its great width, goes straight for more than one kilometre in length. Instead of going on with further details, I would simply ask if this platform did not remind human eyes of Haussmann's boulevards?

As a conclusion all planning process of La Defense first has shown the efforts of planners for creating a modern boulevard concept with its new physical structure, feeling the strong impression of Haussmann's work. Second, it is this effort itself that made the boulevards a real planning tool in urban design.

CHAPTER 3: THREE HUNDRED YEARS OF BOULEVARDS IMITATION

As it was just described, the boulevard concept was introduced by King Louis XIV to European cities around the late 17th century. And it was only after the works of this absolute king and his assistants in Paris that thoughts of using the boulevard in cities became popular very fast. Planners began to use boulevards in many cities of the 18th century more often. The boulevard was used as a monumentary element almost all around the world.

Boulevards began to be used as a real tool in city planning many years later. With strong probability, we should celebrate those days in which the city of Paris was transformed by Haussmann as the birthplace of such a use of the boulevard. The importance of this new tool (if we see it only as a physical structure) can be felt strongly when we look at the plans of the cities from the 19th to the 20th century.

Many planners of different schools used this new concept somehow in their approaches to city planning. Later, the boulevard was discussed not only as a physical structure placed somewhere in a city but also as an important political, social, and economic element, too. Obviously there is no possibility of considering all these schools of thought and all the other cases in this thesis. So this chapter will consider only some examples of using boulevards in different cities. These cities are selected due to their date of design and placement on the world map,

which help us to see also the universality of the concept of the boulevard.

3.1 Vienna, Florence and The Others

Nobody can deny that the most radical and comprehensive transformations in Europe of the 18th century had happened in the city of Paris. In the same manner the strong influence of this radical transformation on the other old European cities is not denied by anyone, either. Haussmann's works in Paris became the main source of inspiration for similar radical changes, not only in other cities of France, but also in many other European cities after 1870. To prove this thesis, it is simply enough to have a look at the plans of such cities.

In France, I would remind the reader of the works in Lyon between 1853 and 1864 which are mainly based on constructing two parallel boulevards by demolishing the old quarters. I would also like to remind the reader of projects which began in Montpellier in 1865 and in Toulouse in 1868 for creating similar straight streets. Rouen and Avignon also were destined to a similar end. The same process was happening in many other European cities, too.

Just as an example, we should look at the plan of Vienna. Figure 9 shows the city during the 1800s. As it is clearly seen, the old city was enclosed within its medieval walls, which was surrounded by an vacant land. The width of this vacant piece reach to almost 500 meters from place to place. The new Baroque suburbs with their new monuments were built beyond this forbidden land. Figure 11 shows the city in the early 18th century, after the second city wall was built. This time the width of the vacant land which surrounded the second wall and the whole city decreased to 200 meters.



Figure 9 : Vienna before the plan of 1857. The 500 meter of vacant land around the city later became a circular boulevard. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

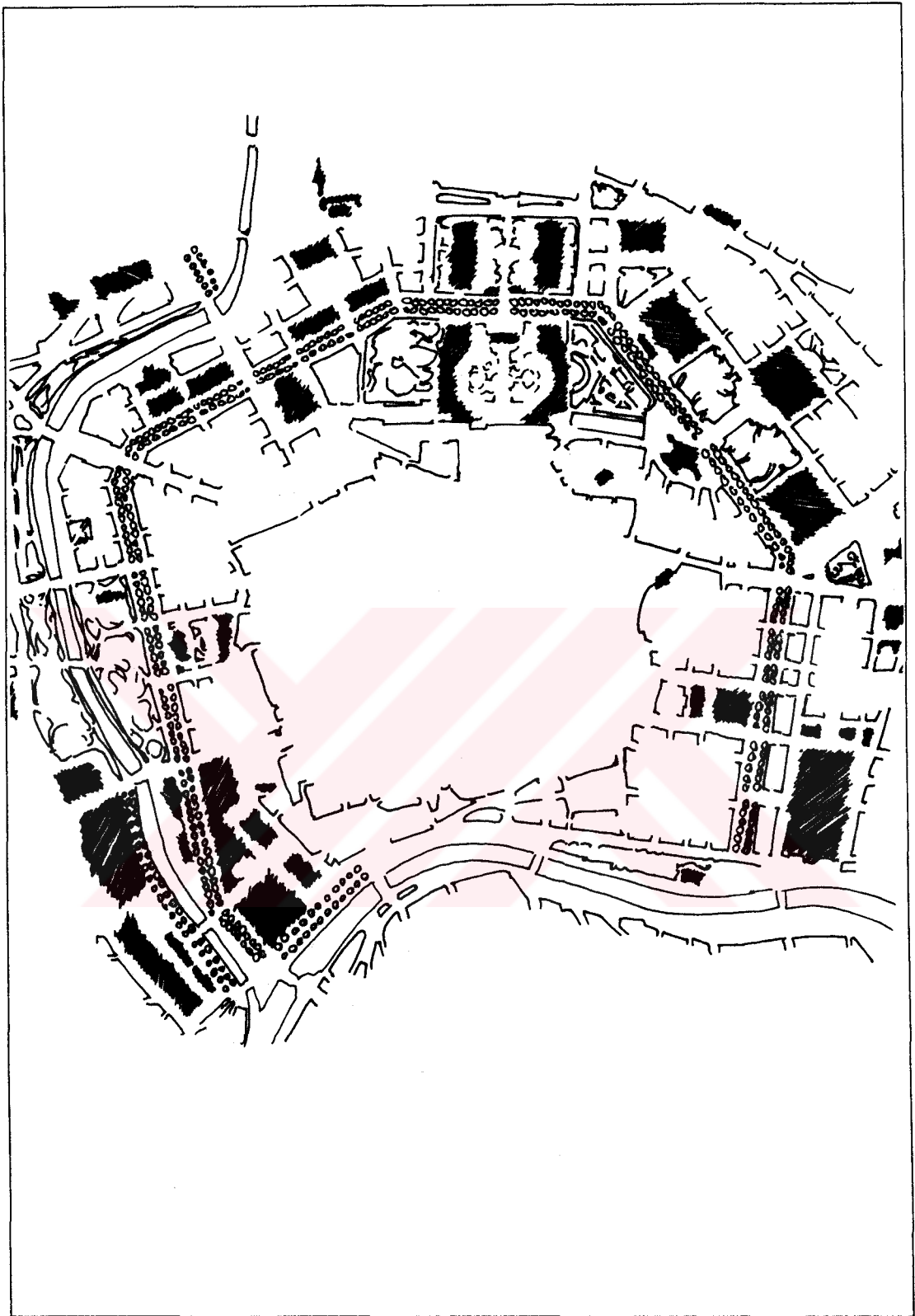


Figure 10: The figure shows how the empty area was used for the construction of residential areas, public buildings, and a boulevard which circled around the city. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

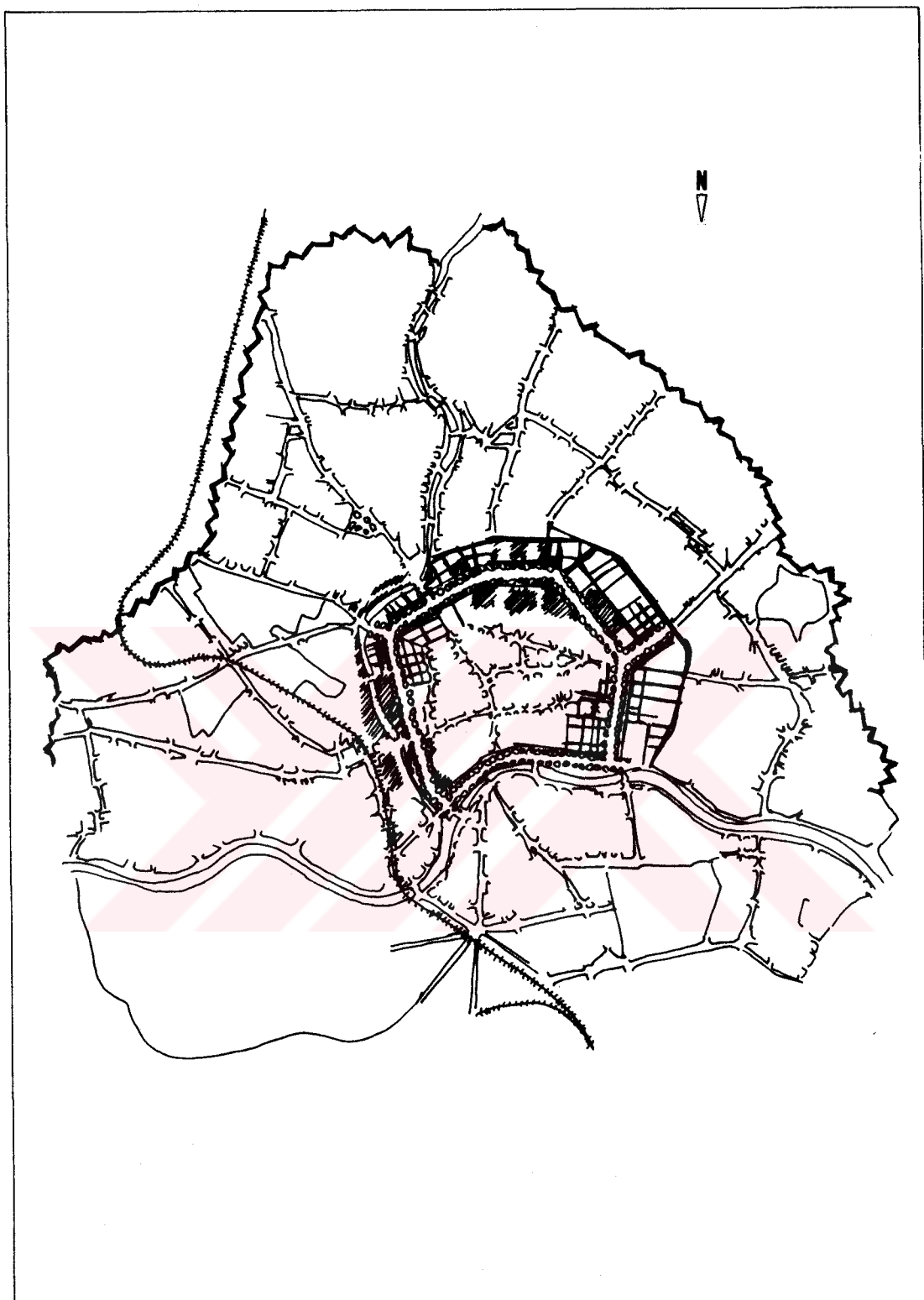


Figure 11: Vienna after the construction process of the empty area between the medieval and the baroque city was finished in 1872. We can see also the second city wall with its 200 meters empty land around which was constructed in the early 18th century. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

The historical development of Vienna shows that the city was not only changed due to the needs of each era, but also it was a regular follower of the city of Paris in these changes. For example, just thirty years after Versailles was begun to be built in Paris, works on building the new royal palace of Vienna (Palace of Schönbrunn), very similar to Versailles, began outside the old city walls in 1690. But the royal palace is not the only known structure inspired by Paris. Vienna followed Paris meticulously in planning the empty area between the medieval city walls and the new suburbs of the baroque era, too. Plans for this area were considered in a competition in 1858, won by Ludwing Förster. Later, definitive plans were drawn and approved by M. Löher.

So, naturally the date of construction of this area is not a surprising one. The construction process began in 1857 and ended in 1872, just a few years after Haussmann began to build his famous boulevards in Paris. But the more interesting point about this area was the physical shape of its main street. What was planned in Vienna directly reminds ones eyes of the first generation of boulevards in Paris built by Louis XIV many years ago. This wide street, which was decorated by trees, was designed to draw a circle (as it drew in Paris around the city) to the extent it was based on the demolished city walls and its surrounding area.

As mentioned, Vienna was not the only city which used the Paris design. Following Paris, many other cities remade their modern face by using boulevards as their new main street model. I would like to remind the reader of Giuseppe Poggi's plans for Florence which were carried out between 1864 and 1877, after the city became the new capital of Italy. Figure 12 shows Florence as it was in the 14th century. The fifth set of walls which surrounded the city can be seen easily also in Figure 13. It is the map of Florence as it is today. It shows how the city walls were replaced by the new boulevards.

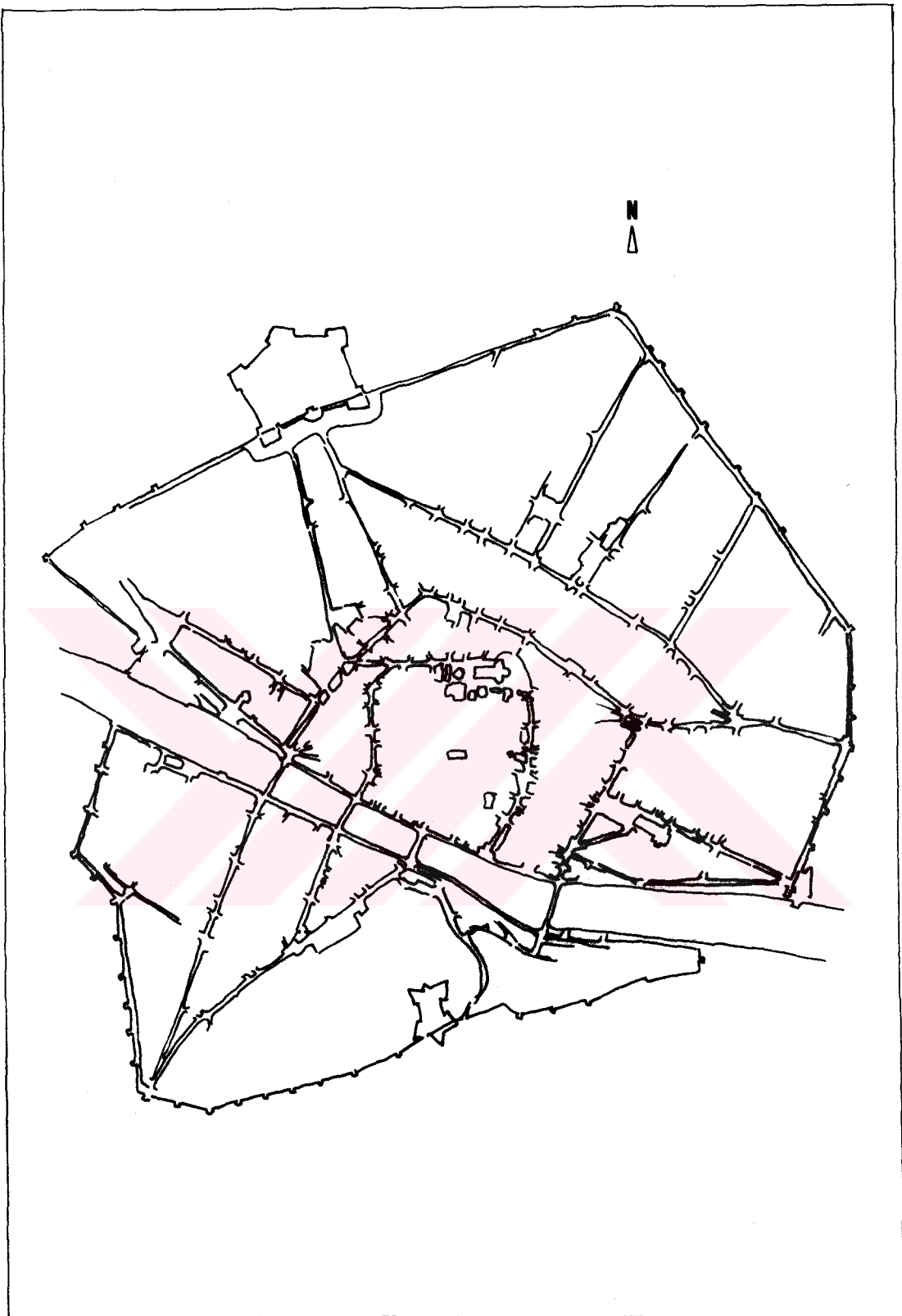


Figure 12: Florence as it was in the 14th century. The city walls surrounded the city as it did in many cities of the century. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).



Figure 13: Florence as it is today. The boulevard was built again on the demolished walls of the city. It was built between 1864 and 1871 after the Paris experience. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

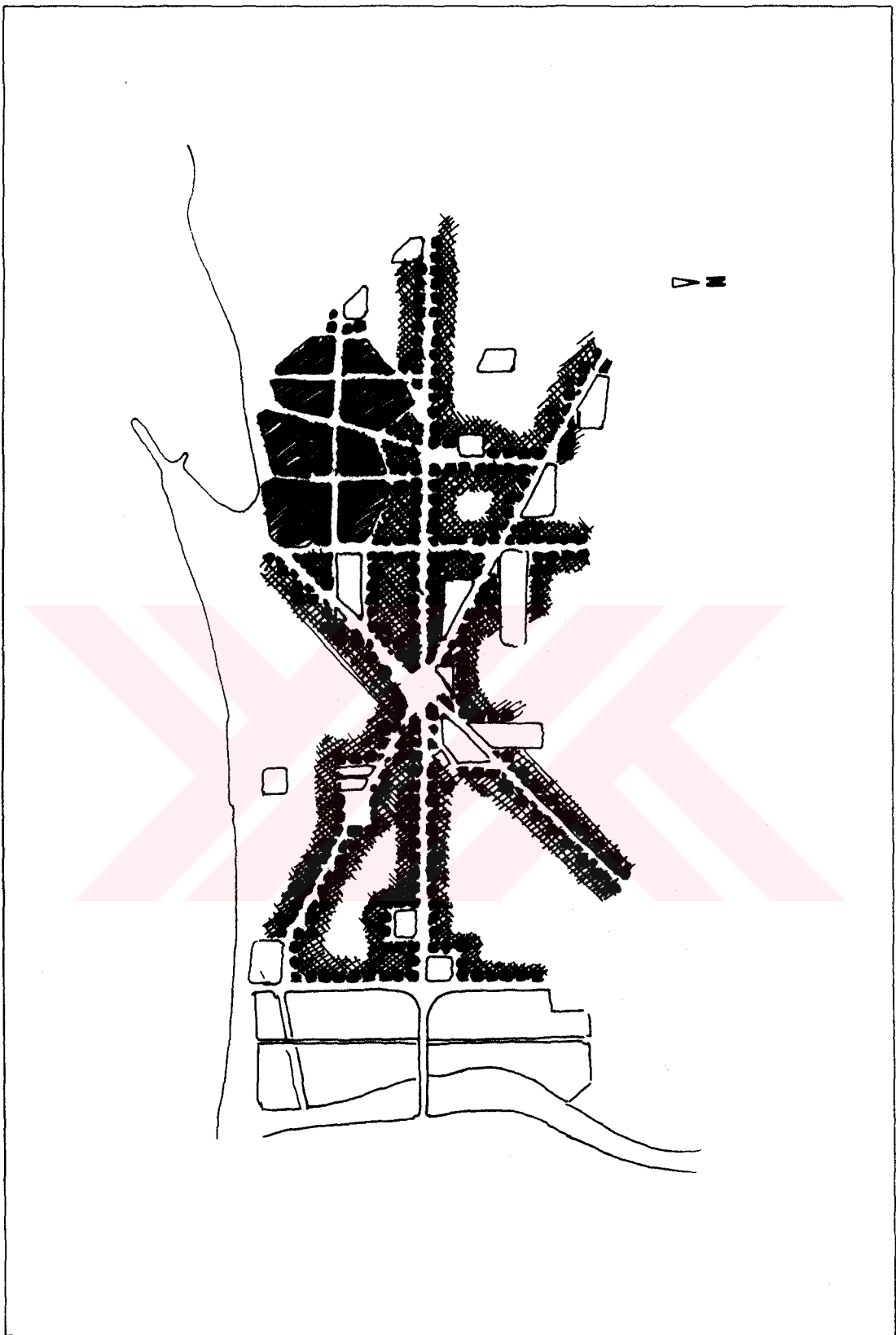


Figure 14: The new plan for Barcelona, proposed by Ildefonso Cerda in 1859. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).



Figure 15: The second plan for Barcelona, proposed by Antonio Rovira Y Trias in 1859. (Figure, drawn by the author of this thesis, is adapted from Choay. 1989).

Finally, I should not forget the plan which was proposed by Ildefonso Cerda in 1859 for the city of Barcelona. Figure 15 shows this proposed plan. The influence of Haussmann's works in Paris and his wide streets can easily be seen simply by looking at Cerda's plan.

3.2 Washington D.C.

One of the most characteristic city plans which imitated Paris is the capital city of the U.S.A., Washington D.C.. It was only a century after Versailles' design in Paris when the greatest "new town" was planned in 1791 by L'Enfant in the United States. The plan of this new town was completely designed, influenced by all the principles of the monumental city planning of late 18th century Europe. Relatively speaking, Washington D.C. was also an imitation of the great cities of Europe such as Venice, Florence, and Saint Petersburg as far as the origin of the design was the meeting place of the city and the river.

One can hardly deny that the most important element of this monumental city was its streets. Pennsylvania, Constitution and Mall avenues which were planned to be sites of principal government offices with 50 meters width are the first focal point of the plan. Maybe it should not be a surprise if these three world-famous streets remind us of Champs-Elysees and other boulevards of Paris when we learn, that Pierre Charles L'Enfant was a French engineer who had come to America in 1777 when he was only twenty three.

Various commentaries on L'Enfant's design for Washington are published. So L'Enfant's plan and all goals he aimed by it are criticized from many different points of view. Here, only some examples which are more related to the streets of Washington D.C. are considered. For example, Pollak (1960: 5) in his book "The

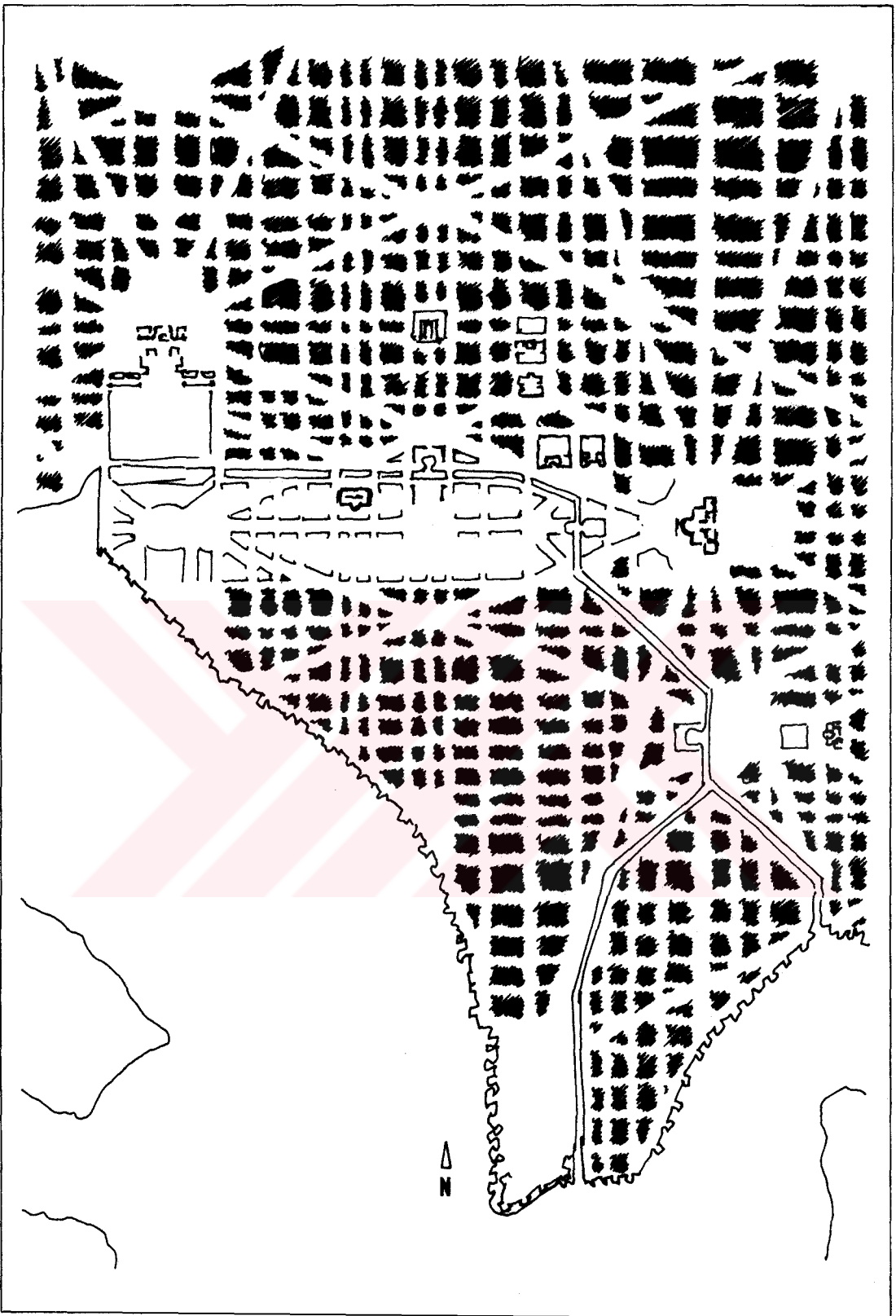


Figure 16: The Ellicott version of L'Efant's plan. (Figure, drawn by the author of this thesis, is adapted from Bacon, 1979).

Capital Cities of the United States" partially explained L'Efant's works; "for that day, L'Efant's 100 and 110-foot-wide streets seemed wholly unnecessary and his idea of an avenue 400 feet wide and a mile long! fool hardly!", and then he described how L'Efant was right in his project for the ideal capital city.

Morris points out that the plan of the new capital city was touched first by the French cultural background and the personality of L'Efant and then by 18th century city planning thoughts and approaches. Barnett agrees with these points and adds that L'Efant was searching to create a new monumental city. Referring to Elbert Peets, Barnett (1986: 18) saw the plan of Washington, D. C. in its spirit to be exactly a second Versailles:

L'Efant almost certainly used Versailles as a reference in organizing his plan's principal features.....The triangle formed by the White House, the Capitol and the intersection of their two axes turns out to be almost exactly one and half times the distance shown on Blondel's plan of Versailles between the Grand Trianon, the palace itself and the intersection of the two axes in the central basin of the canal. The width of L'Efant's Mall is almost exactly that of the canal at Versailles, while Pennsylvania Avenue is approximately the width of the Avenue de Trianon.

Washington was not the only city of the United State which was designed under such an influence. Looking at the plans of major cities of the U.S., we can see at least one great street. As it was considered in first chapter, these streets which carry almost all characteristics of European boulevards are mostly called avenue in the U. S..

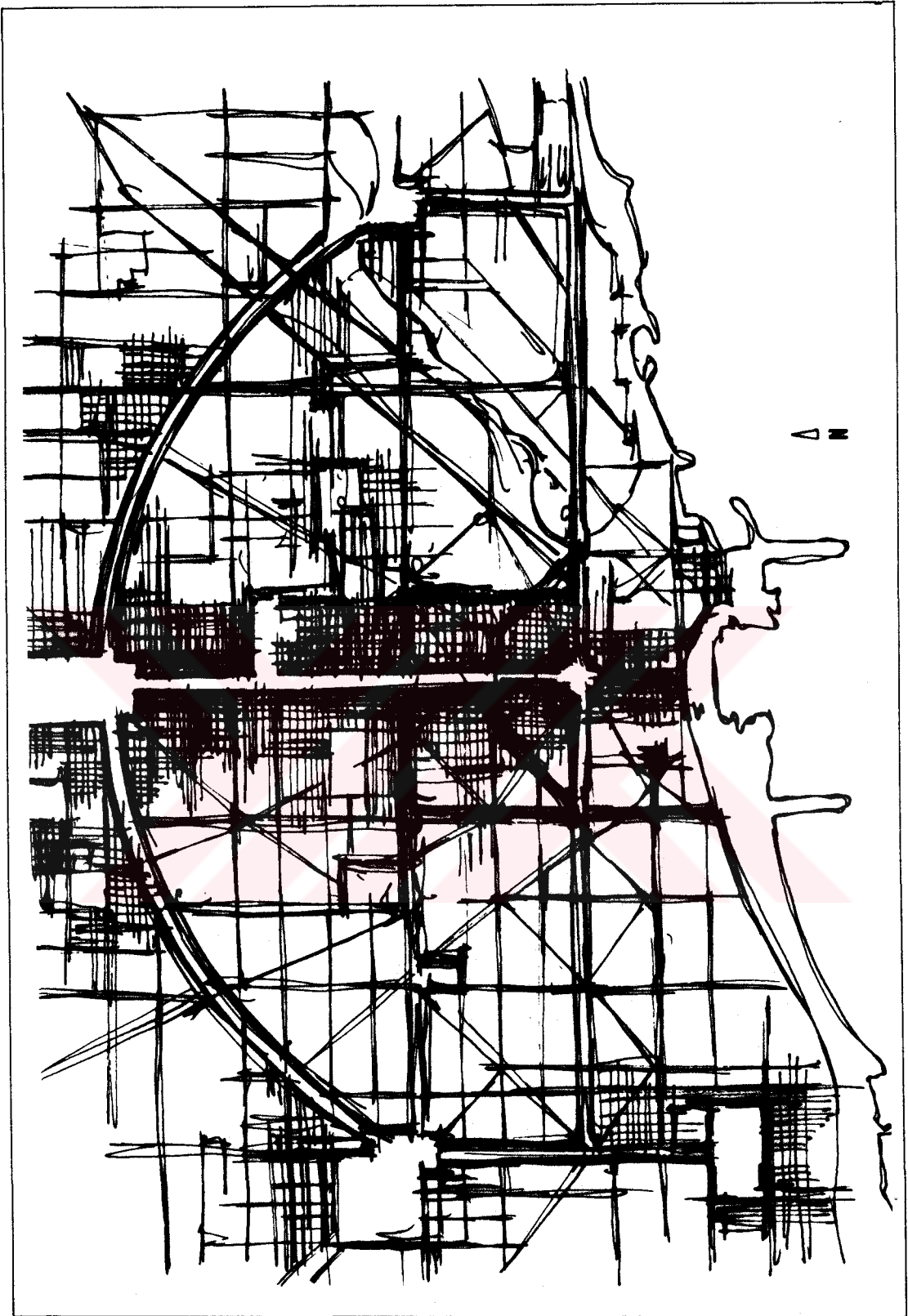


Figure 17: The plan proposed by Burnham and Bennet in 1912 for rearranging Chicago, shows the network of new avenues. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

3.3 Canberra

At the beginning of the 20th century, the discussion of ideal cities resulted in many different approaches. Maybe the most important ones are the concept of the garden city which was developed by Ebenezer Howard, and Tony Garnier's favourite subject, the industrial town. Just after Howard tried to describe how a community must work and how the city must be in his book, *Garden Cities of To-morrow*, which was published in 1898, Garnier with his socialist thoughts designed his medium size city, which was neither a village nor a large city in 1904.

Discussions on these new concepts continued even after Howard and Garnier died in 1928 and 1948. Many tried to define their ideal city form using the concepts of Howard's garden city and Garnier's industrial town. Here Tony Garnier's industrial town is only discussed by looking at two figures, while Howard's garden city is considered more in detail. The discussion of the garden city, which accepted powerful centres and higher density growth around the railroad stations, came to its end almost after realising difficulties of adapting an old concept to a new age, where automobiles were used as the new mean of transportation.

Figure 19 from Risebero (1979: 215) show how garden cities placed all public facilities such as city hall, hospital, theatre and library in a centre which was surrounded by park and shopping spaces. Then around these centres different residential districts were developed. Garden cities, which were planned to be served by railroads, were interested in all natural beauties such as forests, hills and rivers. So the roads were not to be broad straight gashes butting their way through hills, but winding by-ways, very inviting.

The importance of Canberra, the new Australian capital, which was designed by Walter and Marion Griffin in 1912, is

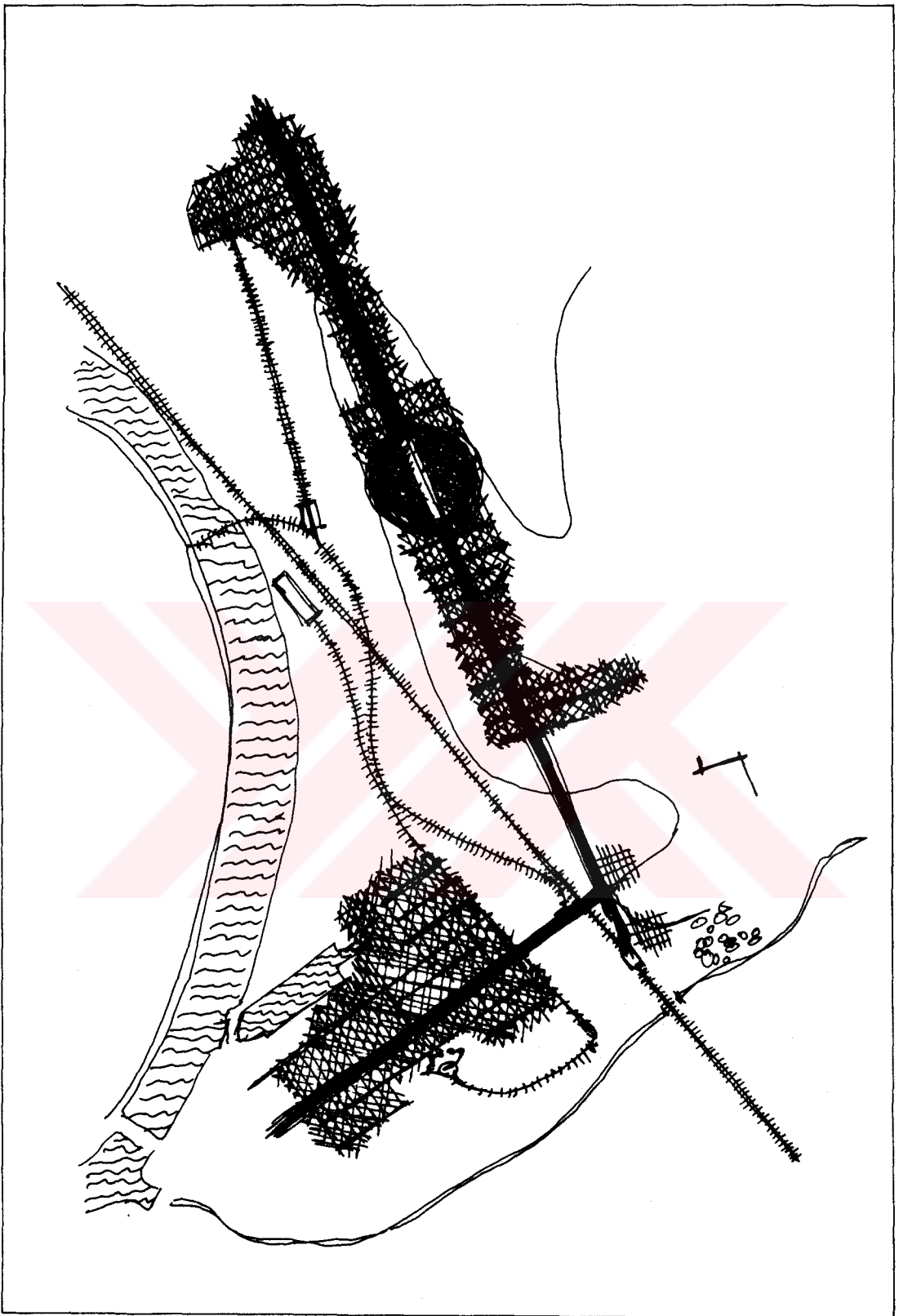


Figure 18: Tony Garnier's industrial town. (Figure, drawn by the author of this thesis, is adapted from Risebero, 1979).

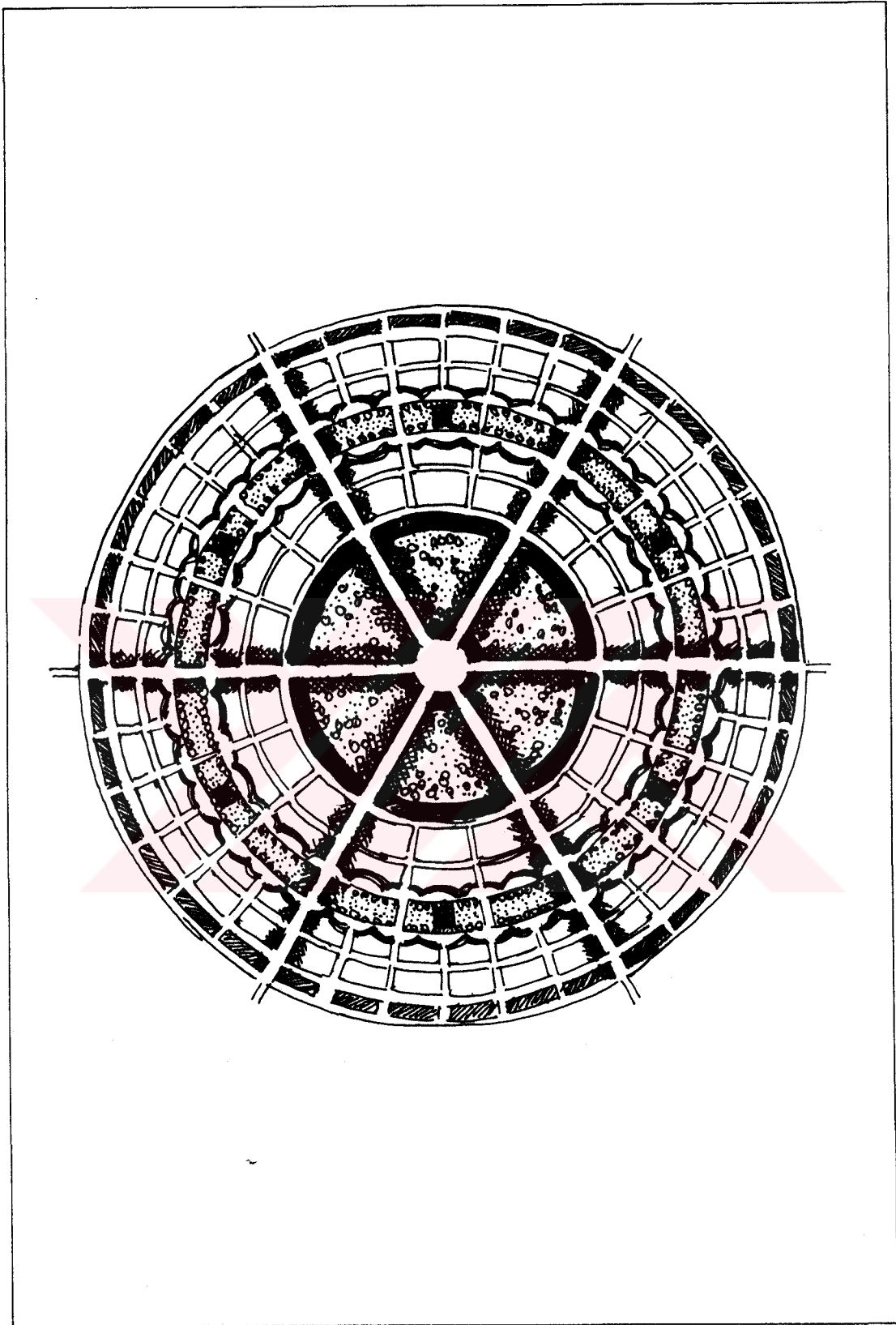


Figure 19: The proposed city centre for a garden city. (Figure, drawn by the author of this thesis, is adapted from Risebero, 1979).

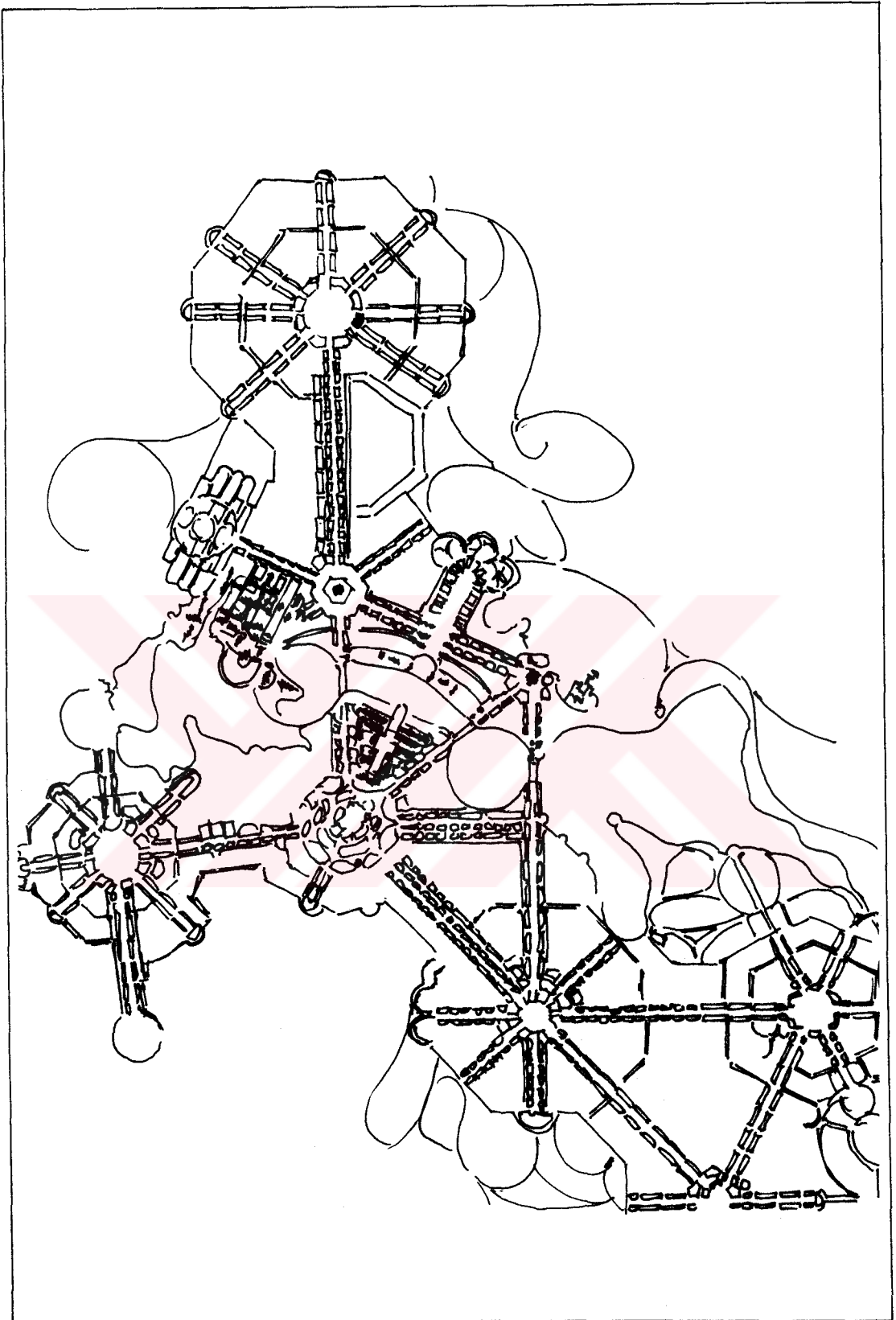


Figure 20: The plan of Canberra according to Griffins' design in 1913. (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1970).

because of its success in mixing the garden city principles with the boulevard concept. Figure 20 is the plan of Canberra according to Griffins' design. It shows how under the influence of Howard and L'Enfant, Griffins crossed their boulevards, noticing the three hills the city will stand on, and designing on a topographical basis.

Griffins has used a series of geometric principles , and at the same time a monumental type of organization in their design. Three hills on the map which were chosen as the political, commercial and military centres, linked by long straight boulevards in a triangle form. Barnett (1986: 31), who first pointed out that the Griffins design of Canberra "was essentially a garden city" later explained (1986: 77) how successfully they used boulevards in their plan:

The third axis from parliament hill crosses the central basin, creating a familiar system of three radial axes seen at the entrance to Rome and at Versailles..... The street system is essentially formal, based on long boulevards and radial streets around subcenters, it is carefully adjusted to the contours.

3.4 Rio

The Haussmann boulevards resulted in an image which introduced Paris as the world's most beautiful city. And as it was mentioned before, this image resulted in imitating this beautiful city in many other countries all over the world. Brussels, Rome, Stockholm, Madrid, Barcelona, Mexico and many others all showed evidence of the Parisian remodelling. The influences of the city of Paris in the 20th century do not come to an end by counting these cities one by one. But as a last example I would like to remind the reader of the plan of the city of Rio, which is one well known example of such an influence.

Planning process of the city began with Passo's plan of 1903, continued by Agache's plan of 1926, and developed by Le Corbusier in 1929. In his book "two Brazilian capitals" Evenson (1973: 211) reminds that although Rio would not have been easy to define, it is clear that the city "was never at any time consciously designed to accord with a local cultural tradition. Much of the urban planning as well as the architecture was based on foreign models". Evenson (1973: 211) believes that French model is the most obvious one

With the arrival, early in the nineteenth century, of Grandjean de Montigny and his colleagues, Rio was extensively redeveloped according to the prevailing tenets of French classicism. The renovations of the early twentieth century under Pereira Passos were inspired by Haussmann's work in Paris and architecturally reflected a belated Second Empire mode..

Evenson claims that the whole planning process which was continued by different planners was sharply influenced by Haussmann's Paris and its boulevards. But he reminds that Passos plans were the most obvious ones. Evenson (1973: 37) recognized this point once more while he considered Avenida Central, the street which was mainly imitated from Haussmann's boulevards in Paris.

Although the work of Passos included a general urban renovation, its greatest visual impact, like that of Haussmann, lay in the creation of new monumental avenues. The most famous of these was the Avenida Central, known since 1912 as the Avenida Rio Branco. This new street was designed to lead north and south diagonally across the peninsula of the central business district, terminating at the waterfront at each end.



Figure 21: The plan of Rio according to the Frenchman Alfred Agache design in 1926. (Figure, drawn by the author of this thesis, is adapted from Evenson, 1973).

Evenson continues by saying that this street was a link between the north and south zones of the city and facilitated circulation through the oldest part of Rio. Evenson's considerations about Avenida central not only show the similarities between this street and Boulevards of Paris, but also help us to see what a boulevard is responsible to do in a city. Evenson (1973: 38) recognized that:

Just as in the creation of the Parisian boulevards, extensive demolition of existing structures was required. In constructing the Avenida Central, seven hundred buildings were reportedly razed, with demolitions lasting from 28 February 1903 until 8 March 1904.....As completed, Avenida Central was 1820 meters long and 33 meters wide, with treelined sidewalks on either side..... Avenida Central became the site of the most important business and commercial buildings as well as various governmental offices in the city. In keeping with the inspiration of Haussmann's Paris, the prevailing architectural style was a reincarnation of the most flamboyant French Second Empire mode.

CHAPTER 4: THE MODERN CRITICS AND THE BOULEVARD

Boulevards as the modern city's main street is criticized by many writers almost from the day it emerged in France's capital city. The almost two-hundred-years-old discussion ranked these experts from idealists to realists. The result is an interesting display of ideas, since the discussion creates a variety of analytical views. Some looked at the subject only as a physical achievement, some as a historical phenomenon and the others as a social event. This thesis is dealing with these critics mainly in two directions.

First, no accusatory word on these critics is accepted, since each one is proposing an explanatory thesis looking at the subject from different points of view. This assumption forces us to be initiated with the subtleties of such views, without any discussion of them. So this chapter, in the following parts, is dealing with some modern critics on the boulevard, bewareing the reader that it is impossible to deal with all of them.

4.1 Le Corbusier--From Pack Donkey's Way to the Boulevard

This thesis is interested in Le Corbusier's thoughts about boulevards since the city of Paris was one of the special case studies he dealt with. His critique on boulevards was connected to his thoughts about the historical development of cities and their streets. This important point forces one to have a brief look on his belief about the development method cities have

chosen over the centuries. Le Corbusier (1929: 6) explained all historical embarrassments as a series of many events:

In the areas into which little by little invading populations filtered, they covered wagon lumbered along at the mercy of bumps and hollow, of rocks or mine. Stream was as intimidating obstacle. In this way were born roads and tracks at cross roads or long river banks the first huts were erected, the first houses and first villages, the houses were planted along the tracks, along the pack donkey's way. The inhabitants built a fortified wall around and a town hall inside it. They legated, they toiled, they lived and they always respected the pack donkey's way. Five centuries later another and larger enclosure was built, and five centuries later still a third yet greater. The places where the pack donkey's way entered the town became the city gates and the customs officers were installed there. The village has become the great capital Paris.

Before his evaluation of the historical development of cities, he tried to prove that human need, both psychologically and physiologically, to live in straight streets. Le Corbusier (1929: 5) recognized that "man walks in a straight line because he has a goal and knows where he is going; he has made up his mind to reach some particular place and he goes straight to it." Le Corbusier (1929: 10) comments on the straight line are important since they are also reflected in his thoughts about boulevards, too:

A modern city lives by the straight line, inevitably; for the construction of buildings, sewers and tunnels, highways, pavements. The circulation of traffic demands the straight line; it is the proper thing for the heart of a city. The curve is ruinous, difficult and dangerous; it is a paralysing thing. The straight



Figure 22: A Three dimensional view of Le Corbusier's Voisin Plan in 1925.(Figure, drawn by the author of this thesis, is adapted from Evenson,1979).

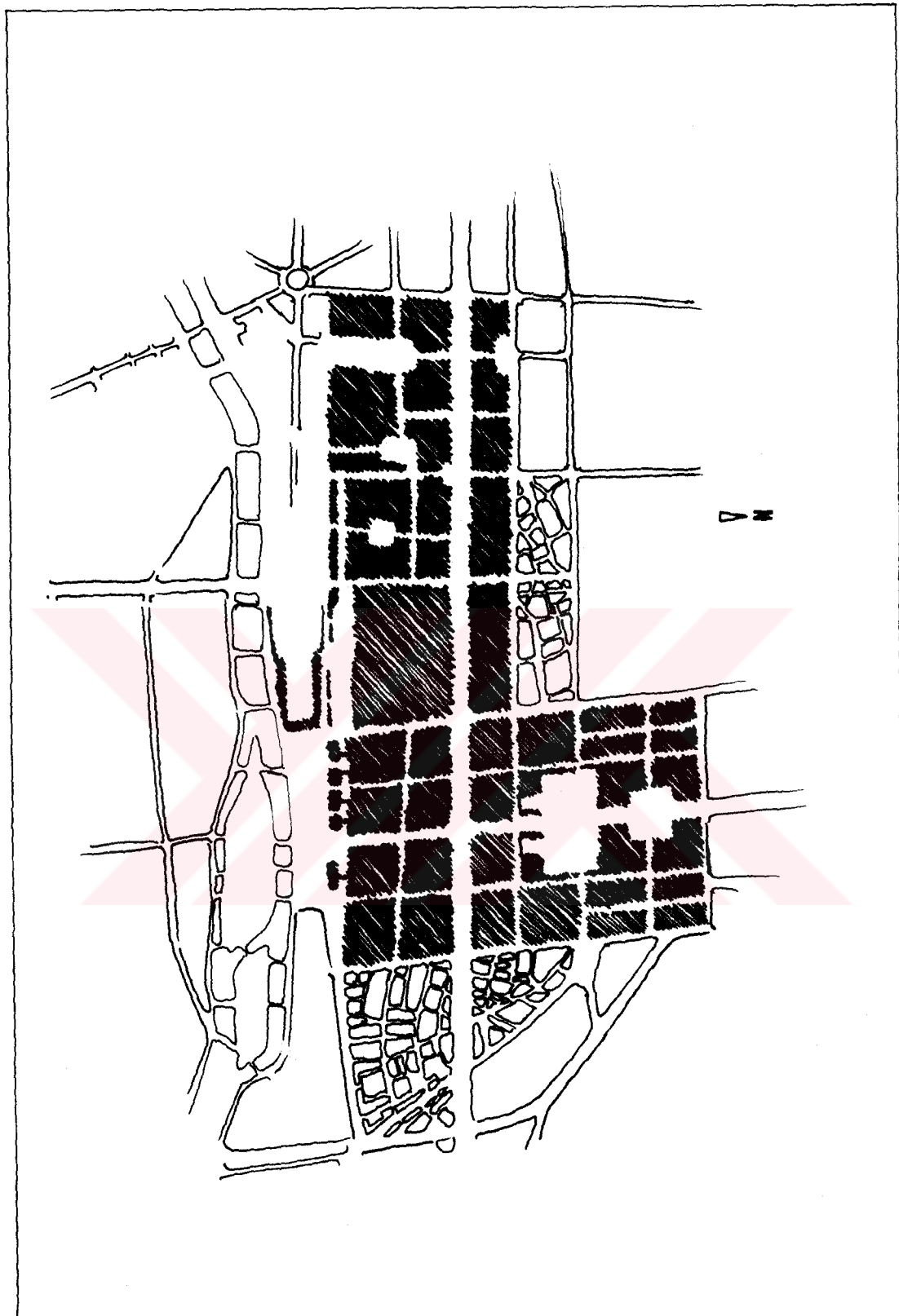


Figure 23: Le Corbusier's proposal plan for Paris and its relation to the city (Figure, drawn by the author of this thesis, is adapted from Evenson, 1979).

line enters into all human history, into all human aim, into every human act.

It is in the light of such assumptions that Le Corbusier calls the plan of Washington, D.C. not only a work of the mind but also an absolute victory of the straight line. Le Corbusier (1929: 11) recognized that "there were no more Pack-Donkey's ways when the plan of Washington was designed". On the contrary, he criticized Haussmann. Le Corbusier (1929: 10) believed that "Haussmann remodeled the city to the best of his ability, but it still remains based on the Pack-Donkey's Way".

On the one hand, Le Corbusier criticized the boulevards of Paris as far as they were not as straight as they should be, and on the other hand he recognized that there is an important lesson which must be learned from Haussmann. He believed that the main message hidden in Louis XIV's and then Haussmann's works is more useful than all they did in Paris. Le Corbusier (1929: 154) pointed out, that we should learn from these men that "the vital thing is to have an idea, a conception and a programme". And it is in the light of this important message that he proposed his never-applied plans (Figure 23) for the city of Paris.

4.2 Walter Benjamin--Boulevard as a Techno-Military Necessity

It is widely believed that boulevards were first planned from a certain military perspective, before they became a real urban element as time passed. Disagreements with this view which mainly stands on 1871 Paris Commune, was not a serious point of criticism, but it was answered thus: boulevards were exactly a military necessity of the Second Empire which became an unsuccessful experience at least in this field.

Momford's, Risebero's, and Hellman's views about Haussmann's boulevards in Paris, just explained in chapter 2, contain many arguments on the military side of these long, wide and straight streets as the primary aim of their construction. Beside those mentioned above, many others also agree that the primary aim of Haussmann was one of a military nature. To prove this idea maybe the most cruel words are used by Walter Benjamin. In his book, "*Paris, Capital of the Nineteenth Century*" Benjamin (1978: 162) attacks Haussmann:

The true purpose of Haussmann's work was to secure the city against civil war. He wanted to make the erection of barricades in Paris impossible for all time. Haussmann seeks to prevent barricades in two ways. The breadth of the streets is intended to make their erection impossible, and new thoroughfares are to open the shortest route between the barracks and the working-class districts. Contemporaries christen the enterprise "strategic embellishment".

Benjamin briefly named all these processes as, "Haussmann's work of destruction" and accused him of incompetence even in achieving his military hopes. As response to those who believed that the Paris Commune rejected Haussmann's boulevards use as a military tool, he reminds the reader of Engels' and many other's studies on the techniques of barricade fighting, just after Haussmann's boulevards were opened. Benjamin (1978: 162) explained the victory of the Commune against Haussmann's boulevards:

The barricade is resurrected in the Commune. It is stronger and better secured than ever. It stretches across the great boulevards, often reaching the height of the first floor, and covers the trenches behind it.

4.3 Rolf Jensen--Boulevard as a Socio- Economic Element in the Changing City

As it was just noted in Chapter 2, almost all examples of boulevards of the third generation were a tool of a new urban design approach in city planning. This never meant that there was not any proximity of a design method to what king Louis XIV or Haussmann have done in Paris. In his book *Cities of Vision* , Jensen (1974: 64) gives many examples recognizing this idea:

The design of some city centres was admittedly influenced by intellectual and artistic efforts to create or reconstruct them according to scientific or architectural principles, such as in Vienna, Karlsruhe, Coventry, and most new towns and new capital cities. In other places, urban designers, like those commissioned by the Popes of medieval Rome; John Nash in central London, and Haussmann in Paris, as well as Edmund Bacon in contemporary Philadelphia, deliberately set out to improve the design of a city centre so that it functioned and looked better.

But what Jensen points out later is an interesting fact. Beside the design principles which are somehow controlled by the designer for the reconstruction of the city, there are some other points which make the city open to changes. In other words, the city has to change due to some factors which could not be controlled by neither the designer nor anyone else for that matter. For Jensen (1974: 65), these are economic and social factors which play important roles in changing the city:

Landlords of central area properties have traditionally developed their sites when the financial returns reasonably to be expected on rebuilding justified the destruction of the old building and the cost of the new one. A site is

theoretically ripe for redevelopment when its value cleared is greater than with the existing buildings.

Benevolo (1981: 786) also agrees with Jensen, but he pointed out that dividing cities into some different kind of neighbourhoods by boulevards, (even if the result is both expensive and inefficient) was a natural process as far as "the cities were designed so as to enable the landlords to obtain the maximum rent possible".

4.4 Lenardo Benevolo--Boulevard as an Element of Modern Metropolis

Beside his comments on boulevard's economic face Benevolo also valued Haussmann's streets as an element of the modern metropolis. Benevolo believed that Haussmann, using the traditional tools of the city planner, tried to improve the quality of the new environment. For example, each new street owned a focal point which introduces some modern or ancient monumental structures, to impose a certain degree of geometrical regularity.

The new order with its architectural uniformity not only produced great streets, squares and other spaces by removing obstacles such as the old individual ones, but also pushed the citizens to an unbelievable solitary state, as a natural result of living in a modern metropolis. For Benevolo (1981: 799) the indirect consequences of boulevards as the modern metropolis element were really perilous, despite its handsome face:

The different areas lost their individuality and blended into each other, the façades of the buildings became merely a constantly unfolding black cloth, while the street furniture began to

assume a much greater importance. The never ending ebb and flow of traffic and pedestrians changed the city to a constantly moving spectacle....This was the face of the modern metropolis, where Baudelaire felt alone in the midst of millions of his fellow men; it was an anonymous organization, which allowed hundreds of thousands of small private units to act independently of each other and in which people lived in their own separate lives.....on the one hand there were the houses, workshops, studios and offices, isolated from each other as much as possible and in to which it seemed that person could penetrate only by magic or with the help of a devil that could take the roofs off the houses.

Characterizing the various results of boulevards as the modern streets of the modern city seems to lead to a never ending discussion. But as far as I would like to note in this chapter, Benevolo's last words on boulevards sound more like a new definition of this great structure. Benevolo (1981: 799) recognized that "a single person or group of people could retain their individuality within the labyrinthine confines of the buildings, but they lost all personal identity upon entering into the open street, where crowds of people came into contact with each other, but rarely acknowledged each other's presence".

4.5 Françoise Choay--Boulevard as a Modern Market and Open Space

After all, Françoise Choay almost rejected all views which have been considered above. For example, he believes that it is not a true assessment if we relate Haussmann's straight line to Napoleon III's concern with matters of internal security, as Walter Benjamin did. He also reminds that Haussmann's project can not be explained simply as a matter of strategy or as a

concern for improved sanitation, which produced the celebrated water and sewage systems, as Benevolo reminds, as a part of the project.

Besides these factors, in his book "*the modern city: planning in the 19th century*", Françoise Choay considered widely many other social and transformation goals of Haussmann's plan, but he believes that all of these goals should be explained as some secondary results. Choay states that in the industrial era we have two types of cities: open city and closed city. The open cities are free for unlimited expansion, like London and the closed ones are bounded by ancient walls like Paris. Being economically behind Great Britain, France's capital as a closed city became the object of the first regularization plan of industrial age. Choay later reminds that the boulevards of Paris should be valued according to this regularization. He believes that we should talk about two essential aims of the Haussmann's plan. Choay considered the first aim as the creation of a huge market and the second one as a try to create the modern open space. Choay (1989: 16) recognized that

Haussmann's initial objective stands in sharp and original contrast to contemporary projects; his propose was to give unity to and to transform in to an operative whole the huge consumer market, the immense workshop of Parisian agglomerate.

Choay regards the open space as the second important idea of Haussmann's plan. He believes that it is with this plan that we got used to a new open space concept differently from the one which the cities in the Baroque era owned. Choay (1989: 18) says that:

With Haussmann, the notation of open space, still current today, came into being-open spaces which are not laid out for visual or

ceremonial effect as in the Baroque, but simply for the negative reason that they are not to be filled in. And related to this idea of open spaces was that of verdured space which is very different from the old public garden in that it has lost its schematic richness.



CHAPTER 5: MULTIPLICITY AND VARIETY OF MODELS FOR THE BOULEVARD

All case studies which were considered in the previous chapters were discussed in agreement with those existing definitions of boulevard which introduce such streets as an element of modern city. They appeared for the first time in the city of Paris after the industrial revolution. Different views and consequences result from these definitions that are mostly based on the concept of boulevard as a physical structure which was discussed in the first four chapters of this thesis.

In this chapter I try to provide an analysis of the variety of boulevards shown during history before its modern appearance in the city of Paris. In other words, from this point on the second part of the historical evaluation of this thesis about boulevard concept will be considered more in detail. As mentioned in the introduction, this historical evaluation is based on one important assumption relating to existing boulevard definitions. If boulevard is a specific kind of street with some certain characteristics and responsibilities, its origin should not be found in the Paris of the 17th century, but in primitive human settlements.

The first consequence of such an assumption is a serious need for redefining "boulevard". But this new definition should not only explain boulevard as a physical structure with some certain characteristics, but it should also be more universal from where boulevard could be explained with its other social, economic and cultural sides. To do this the first step is to

criticize existing definitions of boulevard. It is not too hard since deficient points of these existing definitions and their consequences can be seen clearly if we just begin to ask some simple questions.

So this chapter is generally dealing with such questions related to existing definitions of boulevards. Just as an example I will start with a critical one. Assuming we accept the existing definition of boulevard. So looking on a city-map only certain well known streets could be called boulevard. Here we should ask our first question. What should we call those streets of the past (for example 4th century B.C.) which show many similarities by which we define boulevard today? And what should we do with those streets which we called boulevard (which imitate the first original examples in the city of Paris) but which do not own all the characteristics of a boulevard? These questions and some other similar problems are discussed under critiques of general concepts of the boulevard in the following pages.

5.1 On the General Concept of the Boulevard

After having considered the general concept of boulevard I will continue with some basic problems of existing definitions of this concept which should be solved. These problems should be classified under two main headlines. Firstly we have to define the expressions we use when we try to define boulevard. In other words, expressions used to explain the boulevard concept have no specific meanings. Instability of words in any definition naturally results in a need for a new one. Whatever be our new definition, it will become the main source of the second problem.

We assume that boulevard is a special kind of street. So if we change the definition of this special kind of street then we should develop a new classification of streets generally or we should change the term of boulevard in the existing

classification. And just at the moment this classification has changed some streets which are called boulevard could not be a boulevard any more and some others will take this name for the first time. It is just at this point we should question the origin of the boulevard concept. All those widely known historical appearance of boulevards in the city of Paris (which were also described in the first parts of this thesis) should be considered once more.

5.2 The Boulevard defined

To make these problems and their solutions more clear maybe the best way is to remind briefly some of the comments which were used in the previous chapters. For example, to define the first problem we should first remember Whittick's definition of boulevard. He pointed out that after the first generation of street signs were applied on the walls of the city of Paris, the term "boulevard" began to be used to typify long, broad and handsome avenues. In other words, the criteria for calling a street "boulevard" are its length, its width and its handsome face.

Then we should remember those examples considered in the third chapter which explained attempts of boulevard planning in different cities all over the world. Under the pressure of previous planned boulevards each plan proposes boulevards as crossing more widely, more straightly and in its most beautiful shape. After all this the question arises if these streets are wide, straight and handsome enough to call them boulevards at all?

This question shows its importance once more when we remind Pollak's and Le Corbusier words about L'Efant's plan for Washington. Pollak is quite content with L'Efant's 30 meters wide boulevard. At the same time he regrets that the idea of 120

meters width could not be applied. Pollak also agreed with streets in Washington which were one and a half kilometre long, no need to talk about the beauties they hide inside.

Even more interesting than Pollack's words are the Le Corbusier on L'Efant's plan while he is comparing Washington's streets with the Haussmann boulevards. Le Corbusier explains that the streets of Washington are exactly as modern streets should be and the Haussmann boulevards are those which are still based on some characteristics of "pack donkey's way".

Pollak's and Le Corbusier words show how deeply our minds are confused by some unscientific definitions. One wonders if any one can describe exactly what we are meaning by words such as wide or long. Is there any certain scale for defining a street as a wide or long one? And similarly is beauty a constant concept in human mind? Surely not, but if it is, what is our instrument in measuring beauty? And if there is no certain measurement tool how can we use these definitions for classifying streets scientifically and calling some of them boulevard?

If we use the word boulevard to identify streets of a city with some million people population in the 18th century, which were 50 meters wide, 2 kilometres long, straight, and decorated by trees, how should we call a street 10 meters wide, 200 meters long, straight and decorated by columns of a city with ten thousand people population in the 5th century B.C ? And similarly is there any logical explanation for those narrow, short, and ugly streets of the 20th century which are called boulevard?

What I am trying to express can be seen more clearly by looking at Figures 24 and 25 of the next page, which shows the city of Priene. This city is only one of the many other cities of the classical world which use as straight lines as possible while

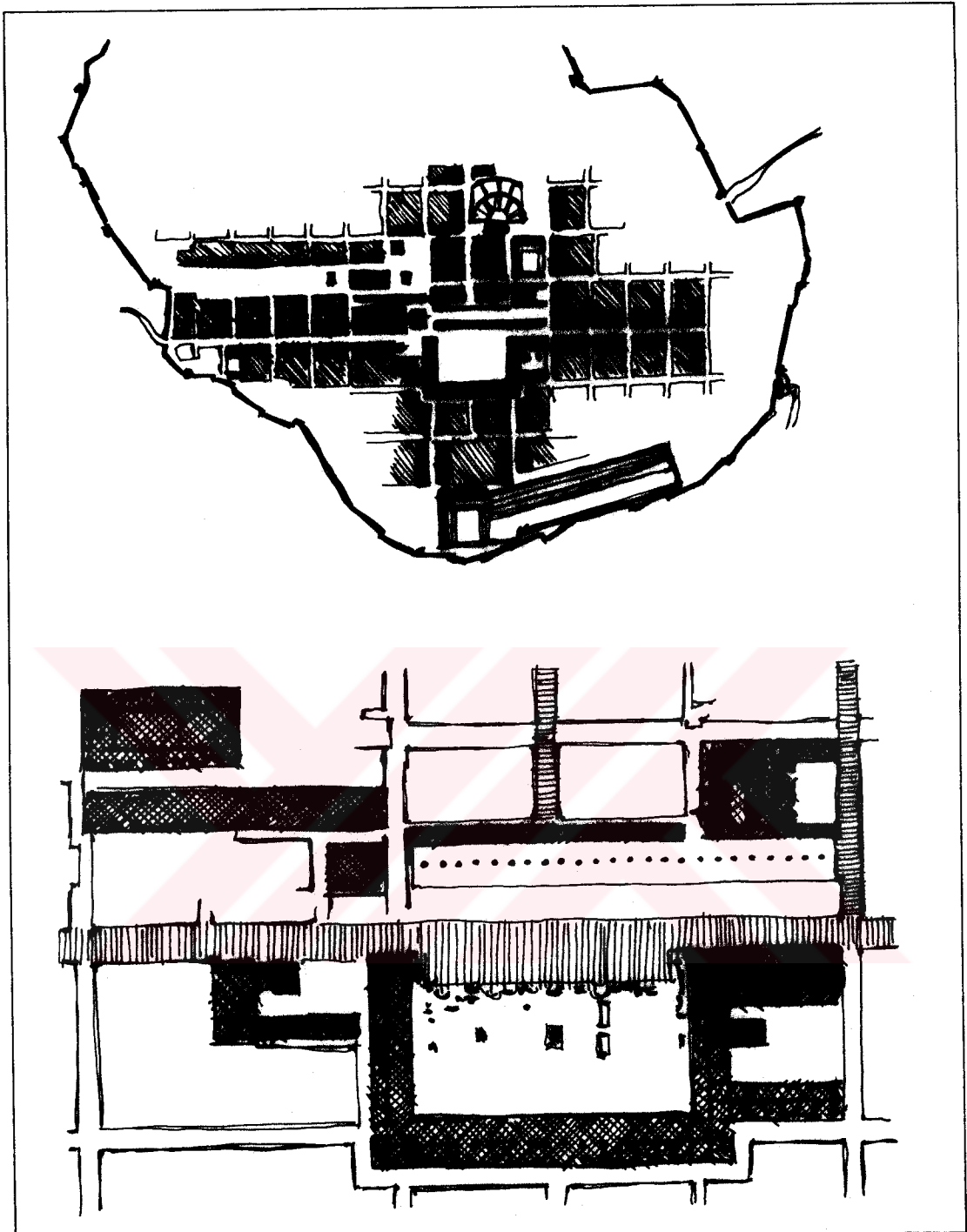


Figure 24) above is the city Priene. The city was rebuilt during the 4th century B.C. was a city of only some 4000 people but it had many public facilities. It is clearly seen that how the main straight streets are connecting market place, temple, and theatre to each other.

Figure 25) It is the city centre of Priene and one of its main streets. Forgetting about scales should we call this street as a primitive boulevard or not? (Figures, drawn by the author of this thesis, are adapted from Gallion and Eisner. 1963).



Figure 26) Above is the medieval town Padua. there is no straight streets since the city grow in an organic shape. (*Figure, drawn by the author of this thesis, is adapted from Benevolo,1980*).

they were planned and built. Not to become confused we should firstly compare the main street of the city of Priene with the organic street structure of any medieval town and then with boulevards of any modern city.

Obviously it is hard to find any similarities between the physical structure of Priene and the medieval town Padua (figure 26). The first one is designed and built due to some geometrical rules while the second one grew as an organic structure. Physical differentiation of these towns naturally created different types of streets. And as far as these streets are showing totally different physical characteristics so we should give different names to each one. (although Le Corbusier called both pack donkey's ways). For example those windy, and organic one of the medieval area can be called medieval streets and those geometrical one of Priene straight streets of the classical world.

Now we should compare the streets of Priene with the streets of Haussmann in Paris. Contrary to the streets of Padua, Priene's main streets show many similarities to the boulevards of Paris: both streets go as straightly as possible, both are the widest streets of the city, both are decorated, both are connecting the other important elements of the city, and both are the heart of the social and economic life of their cities. After all these similarities one wonders if there is any logical opposition for introducing both of these streets not only under the same category but also with a same name.

Apparently there is no problem in categorising these streets under the same term, since firstly both are responsible for carrying the same basic activities of the city and secondly both are designed by the same principles. The only point in which the two differ from each other are their different scales which are simply a result of human thinking and abilities of different eras. All these comments are forming some basic concepts for

redefining and reclassifying boulevards. Discussions about a more distinct definition for boulevards will be continued later when this thesis deals with criteria of such streets. But now we should turn back to the second problem which was brought up by the new classification of streets. As it was mentioned this problem is the origin of boulevards.

5.3 The Origin of Boulevard

As already mentioned, to define boulevards, terms as "broad", "straight" and "handsome" should be defined first. And by the time we look at these terms from a wider view we find that there are many streets in historical cities which are "broad" "straight" and "Handsome" so they could be called boulevard, too. It was tried to describe some difficulties in defining such concepts concerning cities only by words in the previous parts of this chapter. In this part I will try to examine the same concepts by means of some other visual documents considering the origin of boulevard.

The first example was the city of Priene. And as it is understood from this example some streets of this city show many similarities to those modern streets which today are called "boulevard". And these similarities force us to search for the source of boulevards not in Haussmann's Paris but in cities of many years ago. To consider the real origin of boulevard we will not discuss all the historical periods one by one, but some examples of similar streets, lets say ancient boulevards will be given. These examples which are generally selected from preindustrial cities and the classical world will help us to see how the modern boulevards originated from their ancient resembling.

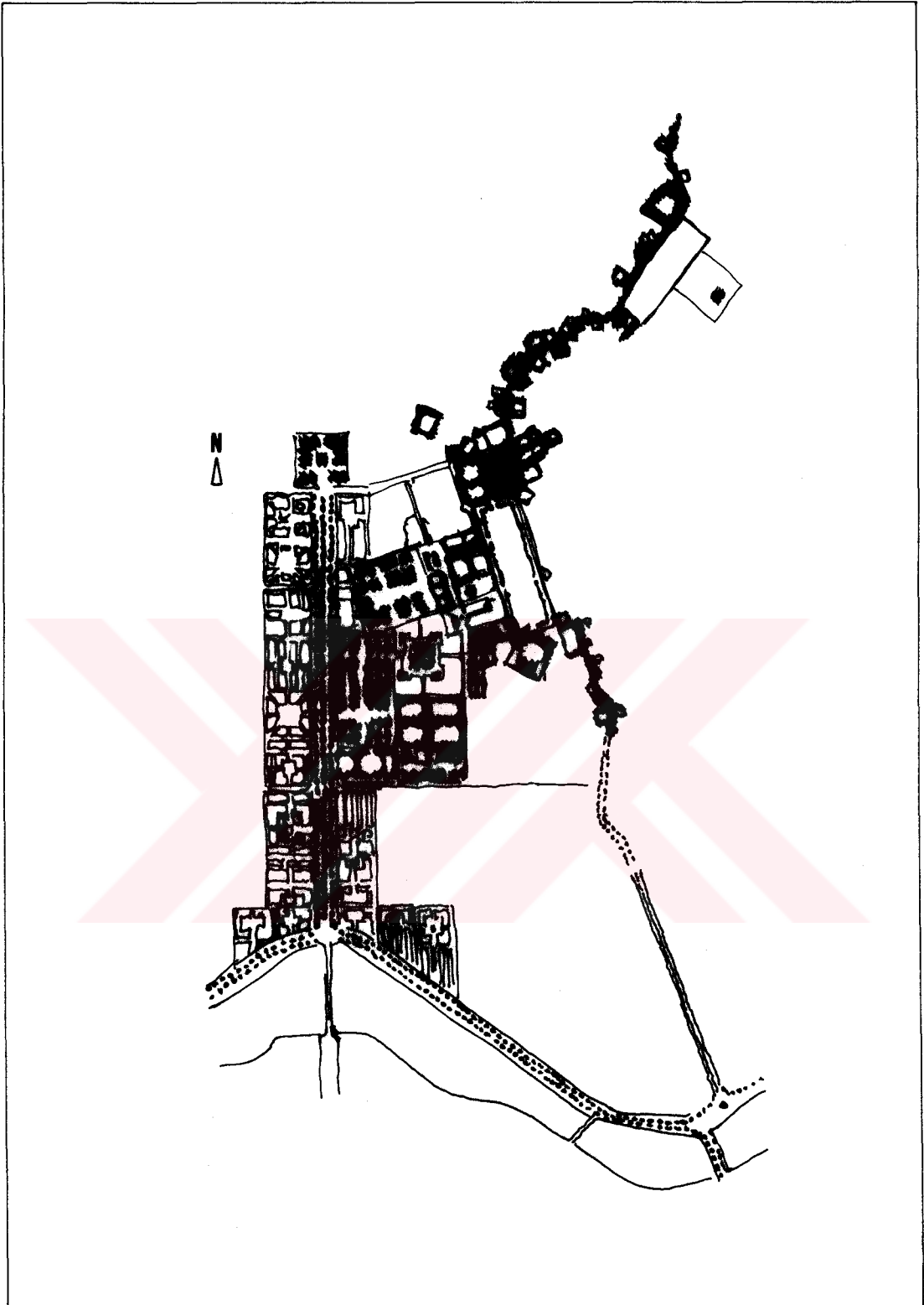


Figure 27) Above is the Four Garden street of city Isfahan which built by Shah Abbas I at the end of 16th century. Doesn't it really remind us of the modern boulevards of 20th century? (Figure, drawn by the author of this thesis, is adapted from Benevolo, 1980).

5.3.1 An Earlier Use of the Boulevard: Isfahan

It is difficult to take all those old cities into consideration whose streets could be introduced as the grandfathers of modern boulevard. Here only some of these cities are selected to show how modern boulevards derived from human historical settlements. We will begin with the city of Isfahan. Figure 27 shows the most famous street of this city which was designed and built in the era of Shah Abbas at the end of the 16th century.

The first point from this plan which should attract our attention is the perfect union of the new geometrical element with the old organic part of the city. Beside this beauty, the main element of the plan is its two kilometres wide street which connects Shah Abbas' Palace straight to the river "Zayandeh Rud". This street (which is known as "Four Gardens" today) was decorated by trees and huge gardens on both sides. It is interesting that the words Wilber (1967: 193) uses for describing this street remind us of the existing definition of the modern boulevard;

To the west of the Palace area was the Chahar Bagh, or Four Gardens, not intended to serve as a busy street as at the present day but as a place of promenade. From a corner of the palace grounds it ran down grade for nearly a mile to the river, crossed by Allah Verdi Khan bridge, and then up rising ground to a now vanished royal estate called Hazar Jerib, or Thousand Acres. Eight rows of plane trees and poplars, among which grew a profusion of roses and jasmine, were spaced across the sixty-yard width of the promenade. Five watercourses ran down the avenue and at each change in level was a marble pool with its fountains. Not until near the end of the nineteenth century were many of the fine old trees cut down, while in recent years wide strips at each side have been

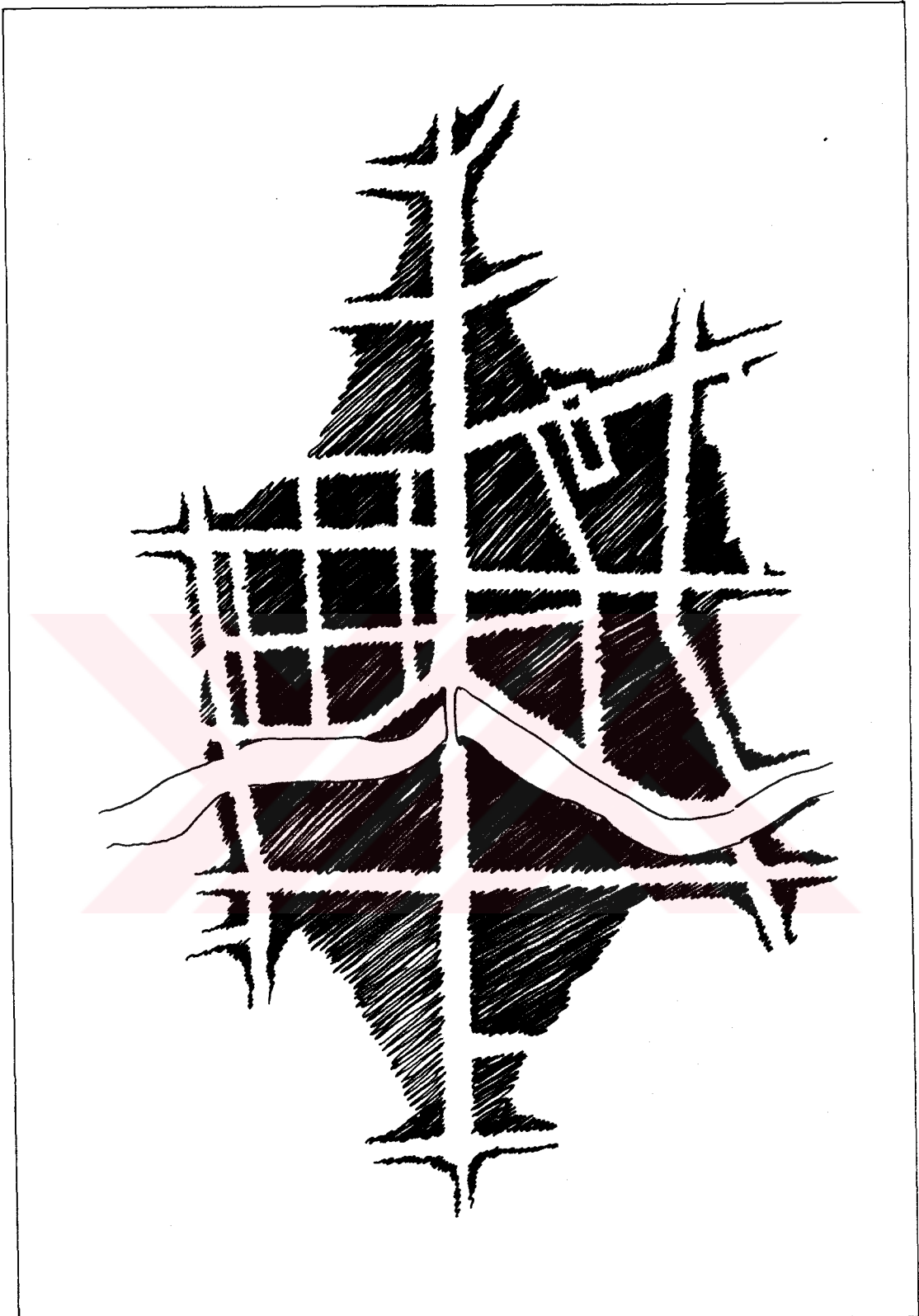


Figure 28) Importance of the Four Garden Street for Isfahan of 20th century can be seen easily by looking to the general plan of the city (*Figure, drawn by the author of this thesis, is adapted from Soltanzade, 1986*).

paved with asphalt. Just enough of the original aspect remains to realize that a seventeenth century traveller was deadly serious when he described it as the most beautiful avenue that he had ever seen or heard talk about.

Wilber's description of Four Garden Street is a natural repetition of the definition of the modern boulevard because Four Garden Street is actually a boulevard. It is a boulevard which was built almost a century before the first boulevards were built in the city of Paris. This interesting relation is also pointed out by Benevolo (1981: 272):

Isfahan was chosen as the new capital city of Persia by Shah Abbas I (1599-1626). The old medieval city, centred on the Friday Mosque, was expended westwards and southwards by means of a series of symmetrical constructions: The great Meidan-i-Shah square, the royal mosque, a rectilinear avenue surrounded by gardens, and two covered bridges. These new landmarks stood out in the cityscape, not because of their size, but because of their strict geometrical shapes: a powerful expression of man's ability to control the environment, as at Versailles. European travellers, ranging from the Crusaders who overran the Arab cities of the eastern Mediterranean to the merchants and ambassadors who visited the farthest flung courts of the east up until the eighteenth century, all marvelled at these magnificent cities which fired the imagination of Europe and became the source of endless stories

Obviously, it is wrong to consider the origin of such earlier boulevards as Four Garden Street of the city Isfahan, since many other similar streets existed in many towns of classical world. Here I would like to deal with only two of such cities to see how

human used earlier boulevards in towns even in the 11th century B.C.

5.3.2 The 7th and 11th century B.C models of Boulevard: Side and Ephesus

The map of the coming page introduces the classical city of Side from western Asia Minor. The settlement dates back to the second half of the 7th century. Most of the magnificent city buildings were erected in the Roman era. Besides temples, Side included many other public facilities such as baths, fountains, a theatre, a port, and also an agora which was surrounded by colonnaded shops.

Some of these important buildings were attractively placed near to each other in the centre of the city while the others were scattered inside the city walls. Economic activities such as slave marketing and cultural ceremonies took place sometimes in the centre and sometimes in other scattered public buildings.

Looking at the city's map we can see clearly how all of these public areas and activities were connected to each other in the best way possible by means of some big streets. These streets, which were the most important streets of the city, were straight and decorated by columns. No one could ask any question about the beauty of these streets since they introduce the perfect architectural arts of this era. It was exactly what Haussmann did by means of the same tools in Paris after many hundred of years. Only then, streets -wider, longer and decorated by trees- were designed due to modern human needs, dreams and abilities. In other words, both streets performed the same tasks.

No need to compare this era's city scales, cultural beliefs, scientific success, and limited technological abilities with

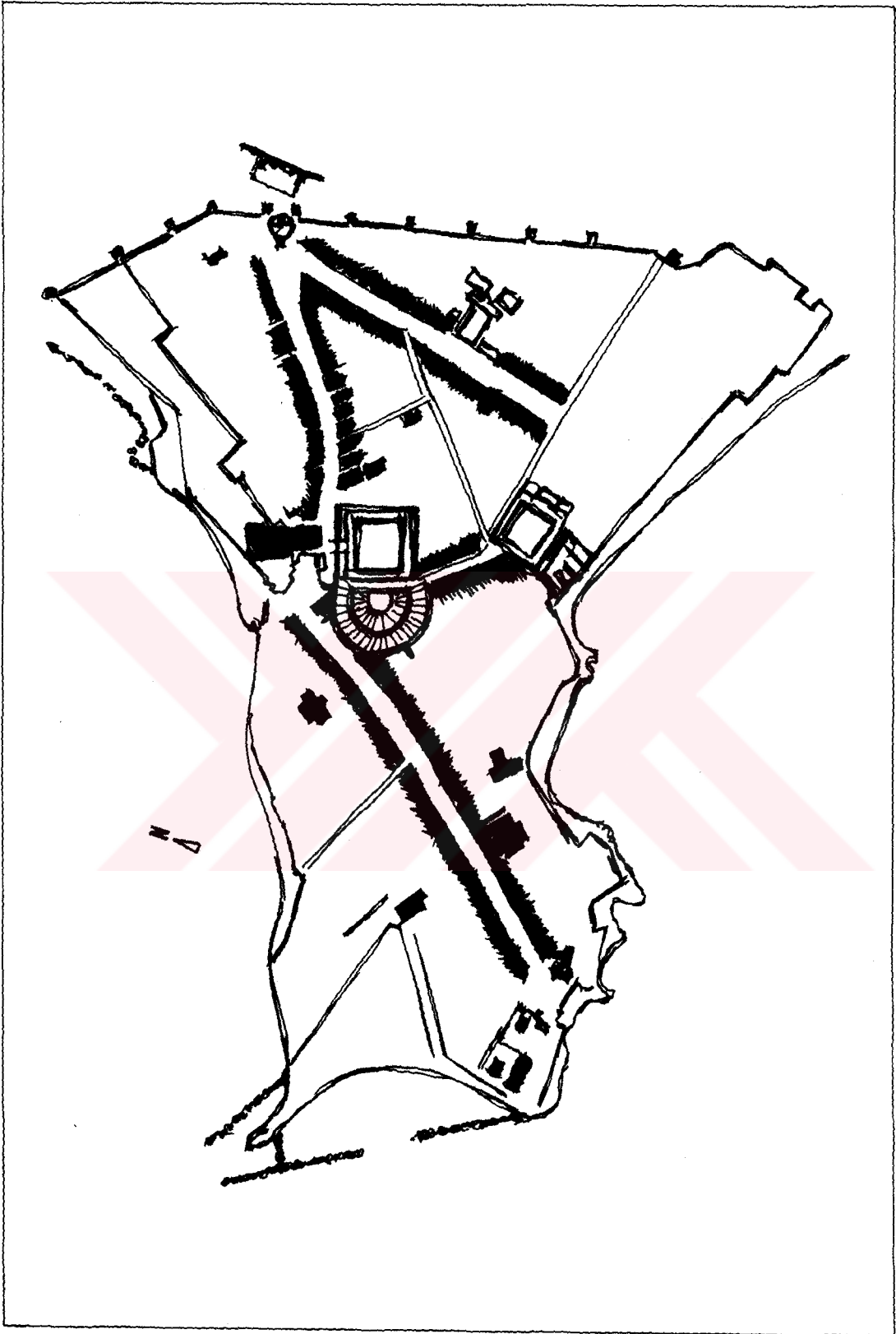


Figure 29) Above is the city Side. The 7th century B.C model of boulevard. (Figure, drawn by the author of this thesis, is adapted from Akurgal,1973).

those which humanity achieved after the ages of industrial revolution. But taking these thoughts into consideration, the differences between width, length, and decorative elements of the Haussmann boulevards and those streets of Side seem to be quite logical ones. (I wonder if there is any difference in beauty between the stems of the serialised trees and the serialised stone columns).

Now, we should look at our second example Ephesus. The map of the coming page introduces this classical city again from western Asia Minor. The foundation of this Greek city took place between the 16th and 11th centuries B.C. First new urbanistic arrangements of Ephesus such as creation of new fortifications between the high ground of Mount Coressus and Mount Pion and also construction of a new port to replace the existing one was achieved by Lysimachus of Thrace, towards the end of 4th century B.C. From this date on, the city added many other important structures, such as Agora, Odeum, Baths of Scholastica, Library of Celsius, and the Theatre, which were the public elements of almost all classical cities.

Figure 30 shows some of these public structures of the city. Looking at this city map we can see clearly how all of these public areas and activities were connected to each other by different streets. For example, Kurests street goes up the slope between the Library of Celsius and the Gate of Heracles. Marbel street constitutes the entrance of the Theatre for any one coming from the library, and goes along the western slopes. But maybe the most interesting one is the Arcadian Way. We should have a brief look at the historical story of this huge street.

This street laid out in the Hellenistic Age, was the main entrance road for whoever was arriving from the Port. It was therefore, known as Port street. Between the end of the 4th century and the beginning of the 5th century, Arcadius began considerable

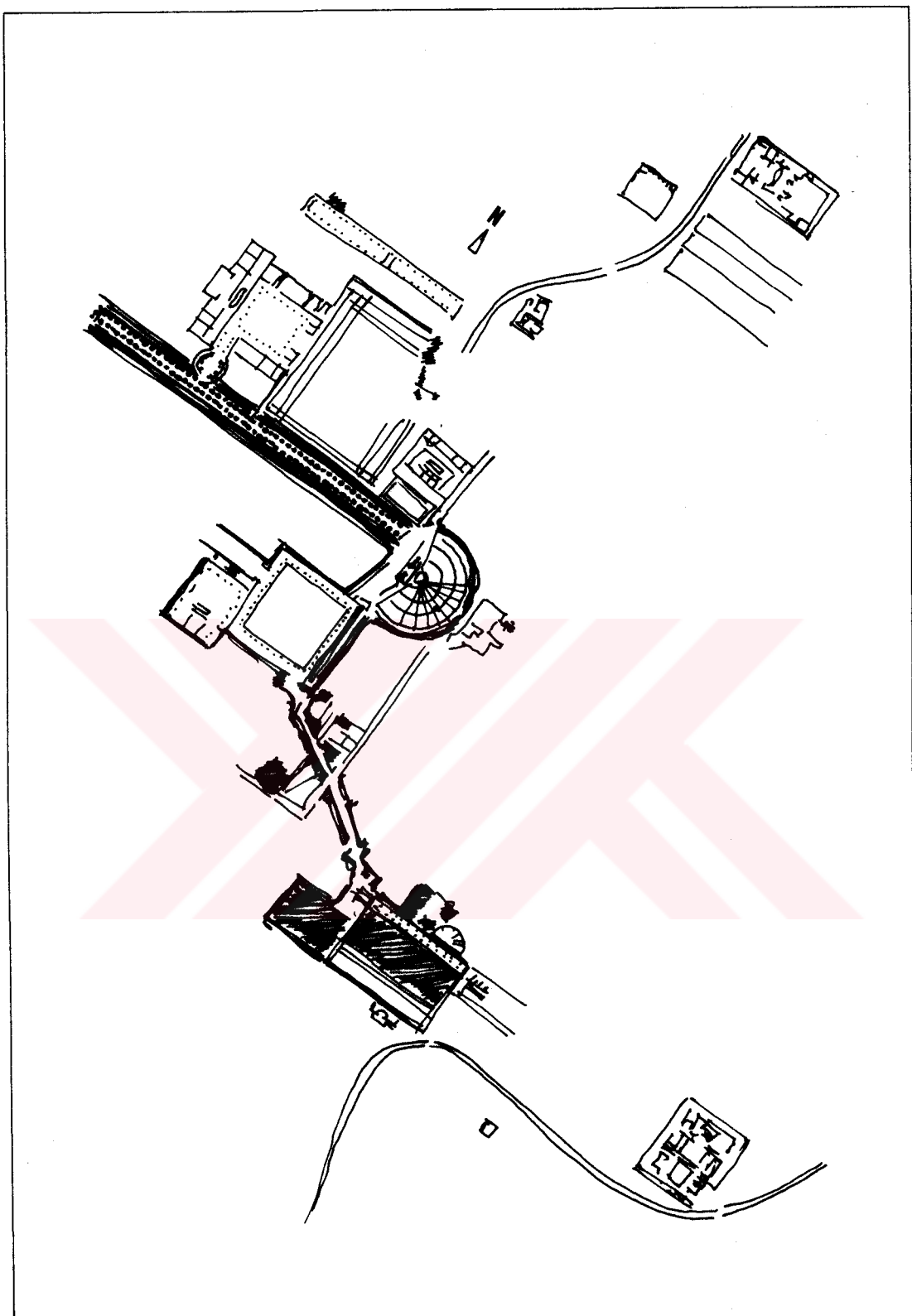


Figure 30) Above is the city Ephesus, another earlier example of ancient boulevards. (Figure, drawn by the author of this thesis, is adapted from Akurgal, 1973).

rebuilding work.....It was lighted at night by a sequence of 50 lamps, spaced out along the 500 metres of its length.....The wide road-11 m- was flanked on the sides by columned porticos, the pavements of which had precious mosaic decorations. These porticos, which were reserved for pedestrians, had the function of protecting them from the bad weather, and hosted shops in the inner part. The roadway, completely covered with marble, was enriched- towards the middle part-by four columns culminating in Corinthian capitals which upheld statues of the Four Evangelists. The shafts of the columns, still existence, denote ornamental pasterns of clearly Christian imprint.

The examples of Side and Ephesus show how the thought of building such monumental streets dates back to incredible dates. The maps of the coming pages show some other primitive settlements from different regions. By looking on these maps the thought arises that the origin of the boulevard could be attributed to even earlier dates.



Figure 31) Above is the city Pompeii. The irregular streets in centre transformed to a more regular system as population increased and as city grew. Should we consider those streets which connected forum, theatre, colosseum, and baths together as primitive boulevards or not?

Figure 32) It is Timgad the Roman Camp. Forgetting scale the same question should be asked for this city too. (*Figures, drawn by the author of this thesis, are adapted from Gallion and Eisner, 1963*).

CHAPTER 6: WHAT ARE THE CRITERIA FOR A STREET TO BE A BOULEVARD?

The multiplicity and variety of models for boulevards that were considered in chapter five lead us to reconsider the general concept of the boulevard. This reconsideration results from some criticism on boulevards, current definitions, and its origin. It is hard to find a general or universal definition for the boulevard which is based on the physical characteristics of such streets. Such a conclusion is supported by evidence of those streets which do not show the physical characteristics conventionally assigned to boulevards but yet can be perceived as a boulevard due to some other definite features. The analysis finally shows how we can search the origin of boulevards in the 7th century.

The main street of the city of Side which was used for developing some new ideas on the origin of the boulevard resulted in an important question. If we contrast the idea of the origin of the boulevard in the city of Paris, and if we believe that we can call the main street of the city of Side also a boulevard-- or let us say a primitive boulevard-- what are the criteria for a street to be a boulevard? This thesis believes that the criteria which made a street a boulevard are determined by what a street is made responsible to accomplish. In other words, a boulevard is a special kind of street which is different from the others not only because of its special physical shape but also because of the high level of responsibilities it carries on behalf of the city.

So the aim of this chapter is to explain how the criteria for being a boulevard is related to the level of different

responsibilities a street bears upon itself. But first we should begin with existing explanations once more. As most definitions of the boulevard are developed only by means of looking to some distinguishing physical features of such streets, we should also begin with these physical features. Then later we will determine the general criteria which make a street a boulevard.

6.1 On the Physical Structure of the Boulevards

As was mentioned above there are no means for measuring the physical characteristics of the boulevard. This problem should be explored once more by searching for some criteria for such a street: Assume that we give certain measurements for defining the boulevard's physical face. For example, due to our modern needs we could say that a boulevard is a street with at least 80 meters width and which 15 meters sidewalk on both sides. We could add that these sidewalks should be decorated by two lines of trees, and finally, this street should go straight for at least 1000 meters.

The first problem would be how to name and characterize those streets which are greater than our given scale, i.e. what name should we use to characterize them? For example, a street of 200 meters width which goes straight for 5000 meters. Is such a street still a boulevard or should we call it a "post boulevard" street? Or should we produce some new names such as "super" or "great" boulevard? Secondly, what will be the destiny of streets which are 79 meters wide and 999 meters long which are built where no trees can be planted? Are they still boulevards or should we simply call them street? So what are the criteria for a street to be called a boulevard? certainly, the use of physical features as our criteria seem to leave something amiss.

It becomes quite evident that the term "boulevard" is in need of a redefinition. But the problems which were discussed in the previous chapters show that there is no way for defining boulevard's physical structure with certain words (e.g. "long, wide, etc.") or measurements. And since there seems to be no measurement tool for defining the boulevard physically, it should be defined in terms of some other criteria. By comparing all main streets of those cities which were discussed in the previous chapters, this study believes that the boulevard should be redefined according to the responsibilities it carries on behalf of any city where it exist. The question then arises what these responsibilities are and how we can characterize them?

6.2 On the General Responsibilities of the Boulevards

Many writers such as Mumford, Hellman, Risebero, Gallion and Eizner have tried to answer this question in their studies using different approaches. Briefly, they believed that physical shape and also responsibilities of any architectural structure are formed due to the social order, cultural beliefs, political and economic conditions, technological abilities, climetical situation, and finally the soul and the dreams of the people who live in a particular city. So the boulevard's physical shape and its responsibilities should be defined according to such factors.

It may be noted by the critics that since all of these factors are changing from one society, city or time to another, many confusions can arise when the boulevard is defined according to its responsibilities. In other words, since responsibilities are explained according to some changing factors, the definition of the boulevard based on responsibilities will be quite transient as well. And any such further definitions and criteria for calling a street a boulevard will also change from society to society and from city to city.

But it is exactly what this thesis defended here and wants to point out. The criteria which make a street of a city a boulevard are defined by the social, economic, cultural and political life of the community of people who live in that city. That is why the boulevards of Paris are different from those boulevards which are built in any other country and thus the difference in physical features. In other words, differences in shapes, scales or generally physical structure of boulevards in France, United States, Germany, Turkey, Iran or anywhere else are some natural ones which can be explained only by differences these countries demonstrate in their general social structure.

Now we come to a critical point which should be discussed once more in detail. All of these factors, which make the boulevards different from each other "physically", are at the same time those same factors which make boulevards similar in their "souls". On the one hand, these factors do not let us find a universal definition of boulevards based on their physical structure. On the other hand, they help us search for a more universal definition based on their "souls". And what do we mean by the soul of a street? The concept could easily be explain just after some of the most important "responsibilities" of the boulevard are considered.

6.2.1 The Physical Responsibilities

As mentioned, defining boulevards only according to their physical characteristics could take us to a labyrinth of new problems and questions. The best example of such confusion is seen simply when we look at the map of any city. Suddenly we find that there are various streets with different scales, shapes, and forms which are all simply called "boulevard" in many countries. But for sure, only naming a street "boulevard" dose not really make that street a real boulevard. This thesis guess that we can define boulevards not by their physical characteristics

but by the physical roles and responsibilities they carry in the cities where they exist. What are these physical responsibilities?

No one can deny that a modern boulevard should be as was introduced in the first chapters of this thesis. And it was in the light of such an idea that many huge streets with their wide side walks and many rows of trees were built wherever it was possible in cities around world. And it is again in the light of such an idea that all of these streets, because of their width and trees, are simply called "boulevard". But when we walk or drive in such spaces we feel that they are nothing than a wide street or motorway. What is missing here?

Here we should remind the reader of all case studies of previous chapters. When we look at the map of the cities, it is not too hard to find one of the most important similarities among all those streets which were introduced as real boulevards. They all have the same physical responsibility. In Side the main street comes from the port it goes to Agora, Temple, and the Gate. In Isfahan it comes from the river to one of the king's houses and then to the mosque and its open space. In Paris, many of Haussmann boulevards go from one monumental structure to the other. In Vienna, it begins from the river, goes to some important buildings and then ends in the river again. So, Vienna created maybe the most famous circular street, on the city walls. In Griffins' Cambera, the same boulevards are come and go from one hill to another since these hills are the heart of the most important activities of the city.

To make it more clear we should remind the reader of Lynch's definition of the street. Lynch believed that streets are the "channels along which the observer customarily, occasionally or potentially moves. People observe the city while moving through it, and along these paths the other environmental elements which are arranged and related". This definition can

also be used when we are talking about the physical responsibilities of boulevards. In other words, as far as boulevard is a street it shares all responsibilities but in its highest level.

It is exactly why Haussmann's boulevards in Paris are considered as the most successful ones. They carried these responsibilities at their highest level. They began somewhere and ended somewhere else, or as Lynch describes, they arranged and related the physical, environmental elements. Absence of these responsibilities, suddenly makes a path only a wide street, even if it is called a boulevard. Two figures of the coming pages which show two streets of Tehran can help us see and understand the differences between a boulevard and a wide street which is also called a boulevard according to their physical responsibilities.

6.2.2 The Social and Cultural Responsibilities

We should not be surprised when we read the name of the national heroes of a country on a plaque which introduces the name of a boulevard we walk on. Maybe it is the simplest way of understanding how boulevards carry their important social and cultural responsibilities in a city. This thesis argues that the second criterion for calling a street boulevard is the level of the social and cultural activities that street possesses.

As was seen in the conventional definition, the importance of these responsibilities is missed. But many writers try to explain this missing part in their definitions of boulevard. To discuss the social and cultural aspects of boulevards, we can begin with one of these writers. For example, we should note the words Rudofsky used when he was defining boulevard in its European style. Rudofsky (1969: 157) shows Ringstrasse as a successful

example and explains what he wants to see or live in a boulevard, "An authentic boulevard suggests rows of majestic trees that eclipse the sky; parterres of coffee-house chairs filled to capacity; outdoor restaurants; luxury shops; an opera house or two, and a couple of theatres".

What Rudofsky tries to explain is that a boulevard should be a space which makes it easy for people to be witness of not one, but many events which are happening in a city. Rudofsky's views help us see the difference between a boulevard and a wide street. In a wide street, you can drive or walk, and that is all. In a boulevard, you are in a very different situation. This situation is a direct result of a variety of choices a boulevard introduces. You can go to a cinema, theatre, or opera. You can have a lunch in a restaurant or you can read a news paper in a coffee house. You can walk, simply sit somewhere to see what is happening, or go shopping. In other words, a boulevard should be a centre which helps citizens to solve not one, but many of their social and cultural needs, side by side.

Before discussing this second criterion by a case study, we should point out its natural relation with those physical responsibilities just explained. We discussed the roles a boulevard plays as a physical element in a city. We saw that how these streets are used in connecting other physical structures of the city. From the first, almost in all case studies, we saw that these relating physical structures are those which are socially important for the city. Although this point was discussed in previous chapters many times, but here we will examine it again by considering the Liberty Street of Tehran to see that these structures could be a university, a theatre, a library, a cinema, a park, a monument statue, or an administration building, etc.

6.2.3 The Economic Responsibilities

Economic value of a land lot increases just at the moment that some different structures begin to be built around it. No one can deny that, no matter if long or short, wide or narrow, streets are one of the most important factors for increasing land value. This thesis believes that one of the other criteria which make a boulevard different from the other and even from wide streets is the level of the economic value it can produce.

This economic value was considered in chapter 4 above but here we should pause on it again. We should note Jensen's views about the development of Paris by means boulevards. Jensen (1974: 64) recognized that although boulevards were used "to improve the design of a city so that it functioned and look better", but they were also an important instrument for the land lords who were always interested in maximizing rental value. We should also note Choay comments on Haussmann's projects in Paris. He recognized (1989: 16) that one of the real purposes of boulevards was "to give unity to and to transform in to an operative whole the huge consumer market, the immense workshop of Parisian agglomerate".

Looking to Paris, we should observe that the boulevards were really successful in their production of various economic activity as the first experience of such streets. To understand this point, we should simply note the placement of La Defense on the extension of one of these boulevards. We can simply say that, beside the physical constraints, it was exactly this economic power and the attraction of boulevards which led to placement of such a huge business district on a boulevard.

But what about the other examples of different cities we have used for redefining boulevards. Considering these examples, we see that many are as successful as those boulevards which were built in Paris while the others should only be called a wide

street. We now consider another criterion for calling a street boulevard. This thesis argues that we can designate a wide street as a boulevard if those conditions which helped that street to contain the economic activities occur in their highest level. In other words, the level of economic responsibilities is the other criterion which help us see the differences between a wide street and a boulevard. Perhaps these differences could be seen better by turning back to Liberty Street of the city of Tehran as a case study later.

Some of the most important of boulevard's responsibilities were explained in detail in previous paragraphs and sections. To examine these responsibilities two streets of the city Tehran, the Liberty street and Ashrafi boulevard are considered as case studies later. Like many other old cities, Tehran also grew in an organic form for centuries. It took many years until the city could build its first modern streets like those which will be considered in the case studies. Before dealing with these two street, considering the historical development of the city of Tehran until 1937 will help us to see the interesting path Tehran went through before building its first boulevards.

6.3. A Case Study: Tehran

Compared with other historical cities of Iran, Tehran is a new city. The oldest signs of the city go back to 900 A.C. when Tehran was only a village. From those years, Tehran could not transform to a city as it was near the big central city Rey. The first important developments took place almost six century later. King Tahmasb I, who reigned over the country for 51 years, travelled frequently from the capital city Gazvin to the west of the country. He chose Tehran as a resting place and the first city walls which surrounded the city by a moat with six gates on it were built under his reign. 114 towers which symbolized the number of the chapters of Koran were placed on the city wall.

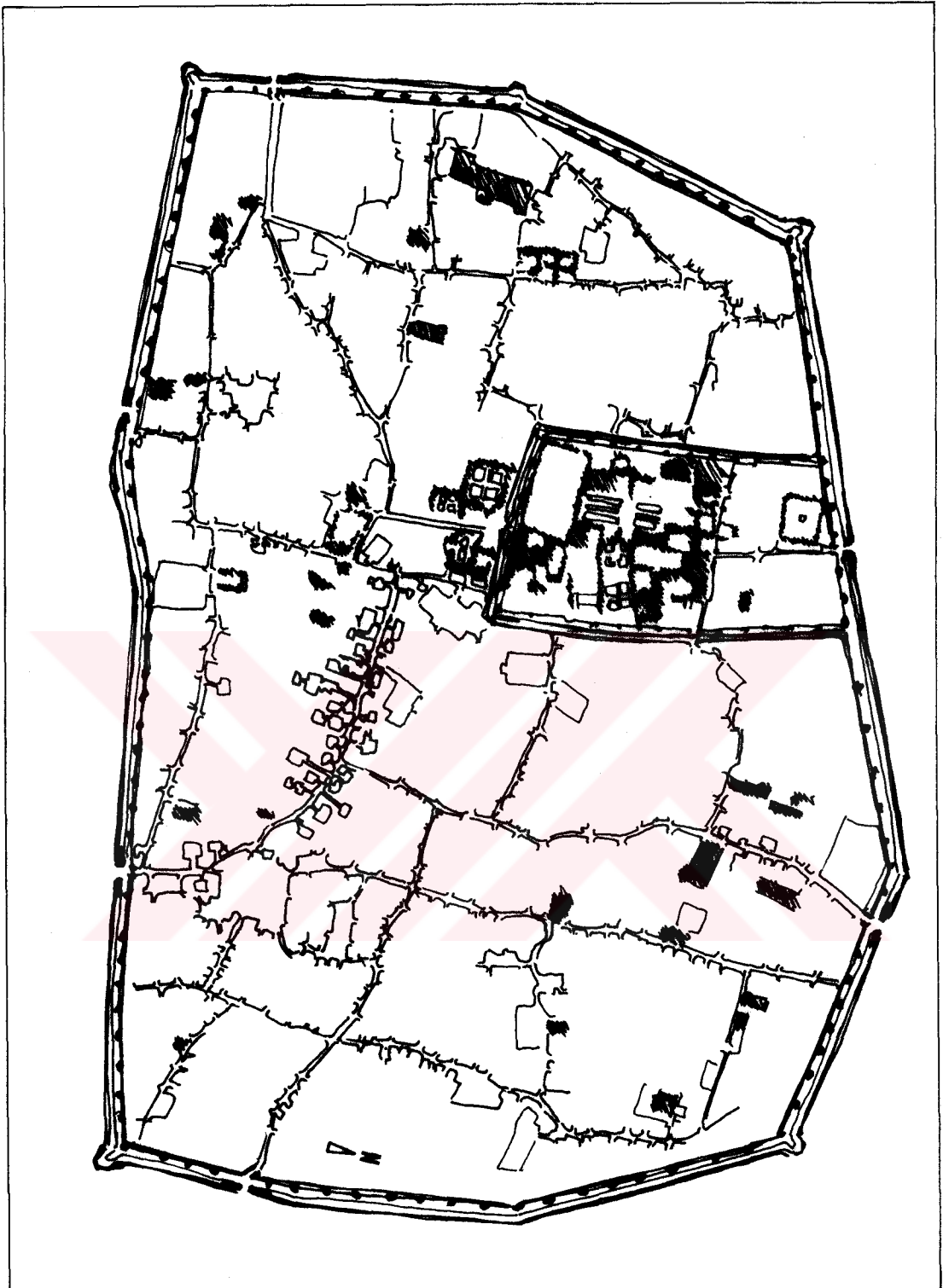


Figure 33) Tehran as it was in 1852. Ark, The defense perimeter wall, with its moat built by King Tahmasb I in 1542 still surrounds the whole city. Although the gardens were changed to new residential districts, the Ark exist unchanged inside the city walls. The town plan gives an example of the typical ancient traffic network. (Figure, drawn by the author of this thesis, is adapted from M.Y. Kiani).

Almost 30 percent of the area was allocated as residential quarters and the rest was planned as gardens. Development of Tehran began to decline after King Abbass moved the capital city from Gazvin to Isfahan.

The first European tourists who visited the city with its 300 houses in 1627 called it the city of groves of plane-trees. It was almost a century later in 1753 that the city was reconstructed partly by King Karim Khan. The Ark area (figure 33) with its new wall became an independent district of the city which placed important foreign guests and governors. Golestan Palace was built in the same area to be a resting place for the king and his family whenever he came to the city. The bazaar of Tehran also began to be reformed in these years.

But the more important developments of the city began by Aqa Mohamed Khan Ghajar's coronation in 1788, after he chose Tehran with its 15000 population as the capital of the country. From this date on, new residential quarters, new mosques, new bazaars, and new public buildings were built rapidly while the older ones were repaired. The first legal municipality of Tehran began to work twenty years later in 1810 to deal with cleanliness and taxes of the growing city, where the population was increasing rapidly. Although almost all of the gardens inside the city walls were transformed to residential quarters, there was a big demand for new lands. Beside houses many other governmental buildings began to be built outside the four square kilometres limits of the city. Suddenly, 16850 of the 147000 citizens began to live outside the existing city walls in 1844.

In 1858, Nasereddin Shah gave instructions to a French engineer "Bohler" to redesign the city seriously for the first time in its history. The most interesting point about the Bohler plan was its new eight-sided wall which was a simple imitation of the city walls of Paris which were built almost a century ago in 1740 by King Louis XIV. The building of this new wall with its

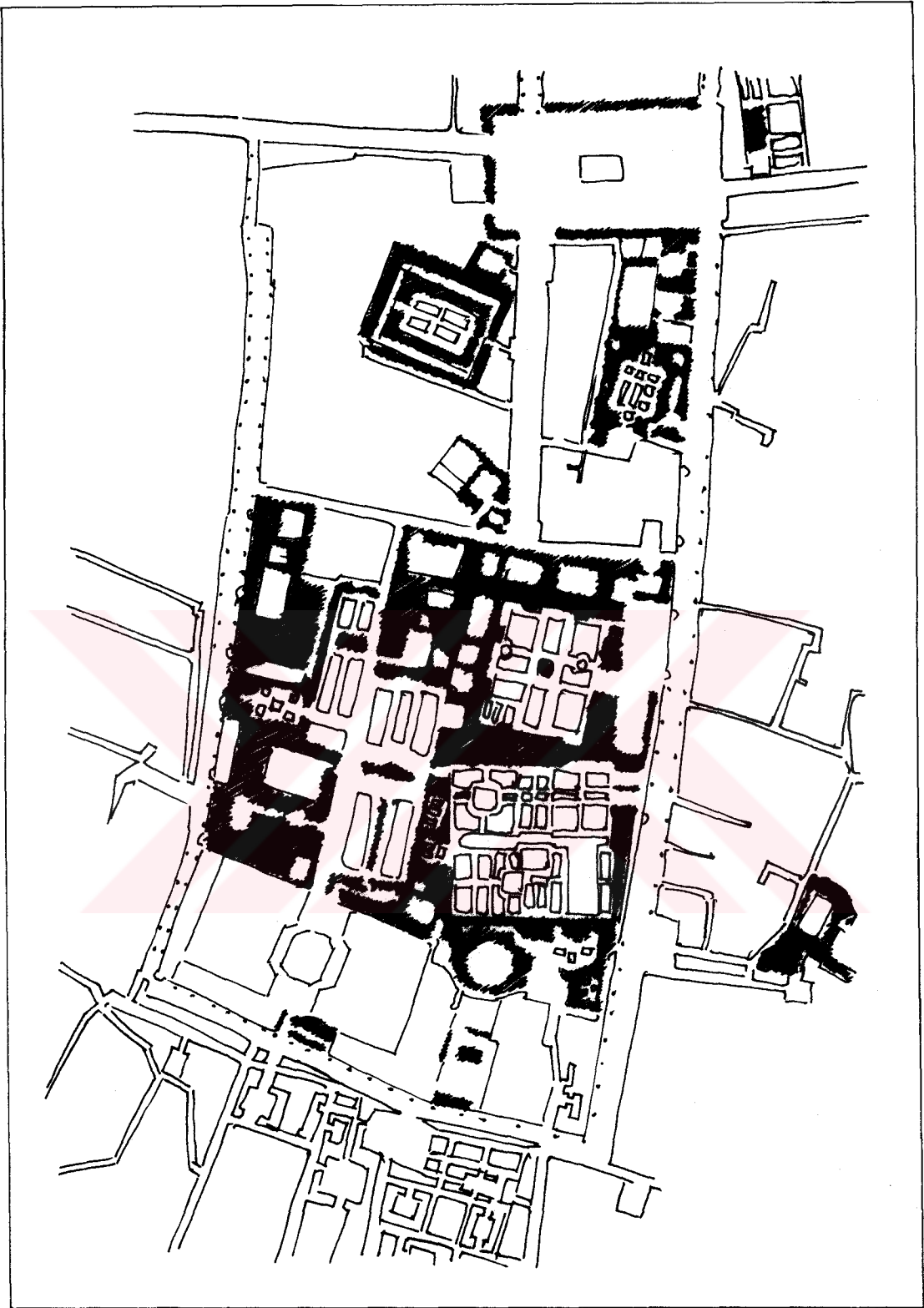


Figure 34) The Ark (castle) of the city of Tehran in 1911. The Ark was reconstructed by Karim Khan in 1754. This reconstruction was nothing more than a few common buildings and a wall with its moat which surrounded the whole area (Figure, drawn by the author of this thesis, is adapted from M.Y. Kiani).

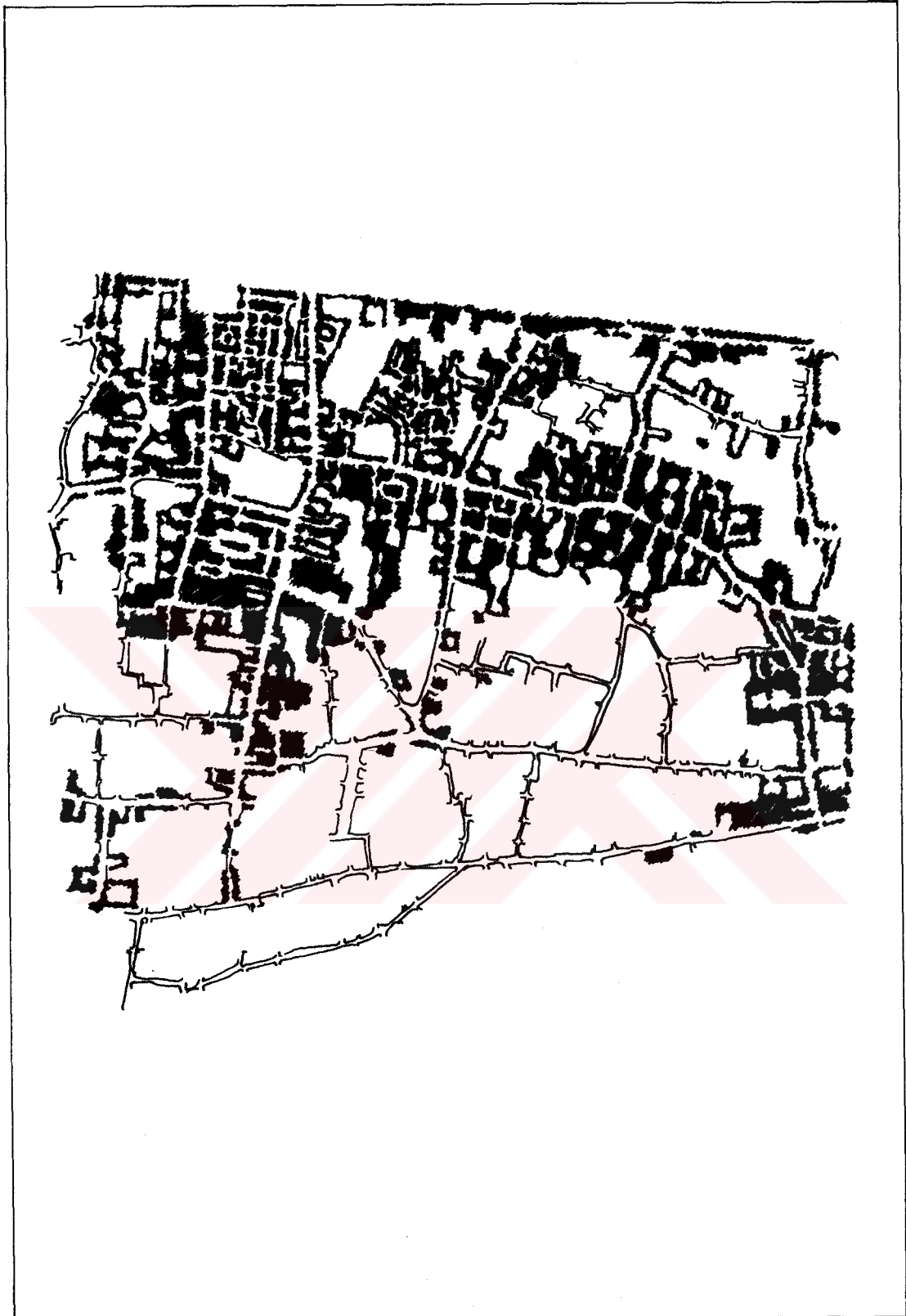


Figure 35) The Bazaar of the city of Tehran which was reconstructed by Karim Khan in 1754. (Figure, drawn by the author of this thesis , is adapted from M.Y. Kiani).

new 12 gates began in 1865 while the previous one was destroyed totally to be replaced partly by new streets. With the new walls, the total area of the city increased from four square kilometres to 19 square kilometres.

From these days on, Iran began to taste different comforts which resulted from industrial revolution, and Tehran became familiar with many new facilities for the first time in its history. To have an idea about the situation, some of these facilities should be considered by giving some numbers. The first train line of the country which connected Tehran to city Rey was built in 1883. Citizens fearing from this huge new machine never used it until Nasereddin Shah travelled with it to Rey, showing that there is no danger. It was exactly 30 years after Haussmann began his great efforts for the connection of train stations which covered all of the city Paris, by means of his boulevards in 1853. The first automobile was brought to Tehran for the King in 1909. As far as no one knew how to use it, a Belgian driver was sent with the car. This man returned few years later since the king never used his car. And after ten years, in 1920 only ten private automobiles were used in Tehran. In the same year 150000 cars were travelling in Paris metropolitan area.

Tehran also was the first city of the country which tasted the pleasures of the cinema, the telephone, electric light and many other facilities in their marginal scale. S.G Wilson, (1973: 149) who travelled to the city in these years, explains this situation in an interesting way:

Because of its modern growth it has partaken more largely than any other Persian city of a European element, and been influenced by western ideas. The old style is seen in the high walls and deep moat which surround the city. On each side of the town are two large, well-built, and handsome gates....broad avenues, well

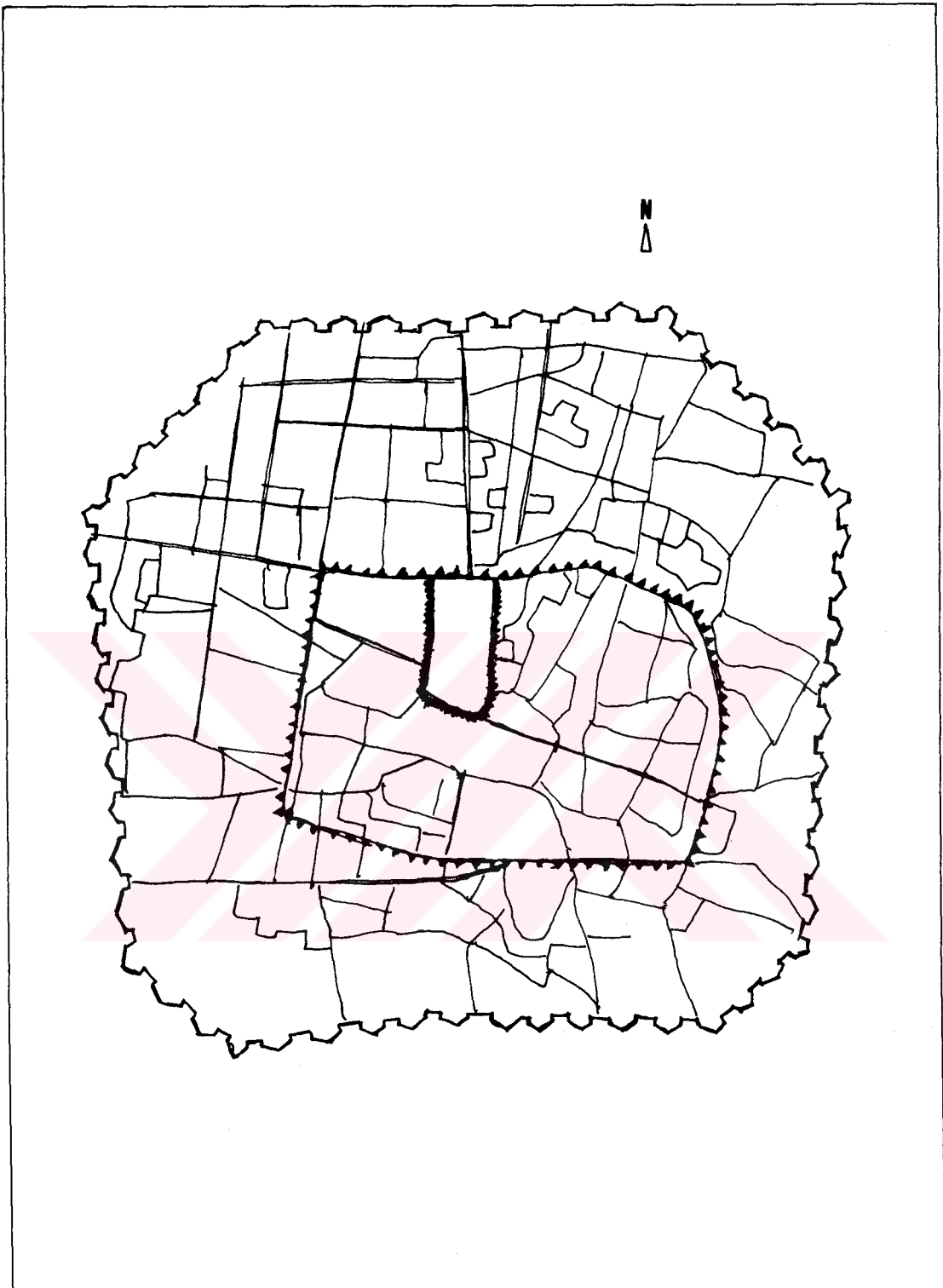


Figure 36) Tehran's new wall was built in 1865 by Nasereddin Shah. The plan of this new wall was based on that of the walls of Paris. It is interesting that just in the same years Haussmann was destroying the walls of Paris to build his new boulevards. (Figure, drawn by the author of this thesis, is adapted from M.Y. Kiani).

paved and bordered with shade-trees, new style of houses, telegraph-poles and tramways, street gas-lamp and the electric light, restaurants, drug-stores, photograph galleries, and Franghi stores strongly attest that Western life has invigorated the stereotyped East.

Modernization of the country and Tehran began in 1920 only after Reza Shah became the absolute ruler of Iran. In 1923, there was only eight factories with 3500 workers in the whole country. This number increased to 5000 factories with 15000 workers only in Tehran in 1927. The number of workers increased by 250 percent by 1933. Reza Shah's efforts for industrialization of the country showed its effects sharply in the cities. Tehran's population which had reached 200000 in 1899 at the end of the Nasereddin Shah reign was increased by only ten thousand until 1920. But the number of citizens increased sharply after 1920, it was 300000 in 1930, and 540000 in 1937.

The census of Tehran in 1930 showed Tehran's unbelievable growth. Some 60635 of the 309689 people were living outside the boundaries of the city. Population density increased from 65 person per hectare in 1920 to 102 in 1930 inside this walls, and it continued to increase to 180 only five years later. These results of the census were enough for Reza Shah to have an idea about the future of the capital city. He was not wrong since fifty years later Tehran became a city with 4.5 million inhabitants which were driving 1.2 million cars in its metropolitan area.

Under the pressure of these conditions new solutions were sought. One year later in 1931 a new law which was mainly related to building of new streets and widening the older ones was approved by The National Consultative Assembly. Mayor of Tehran general Buzarjomehri, who had begun to destroy whole Ark -beside the king's palaces- to carry out the 1928 plan of the

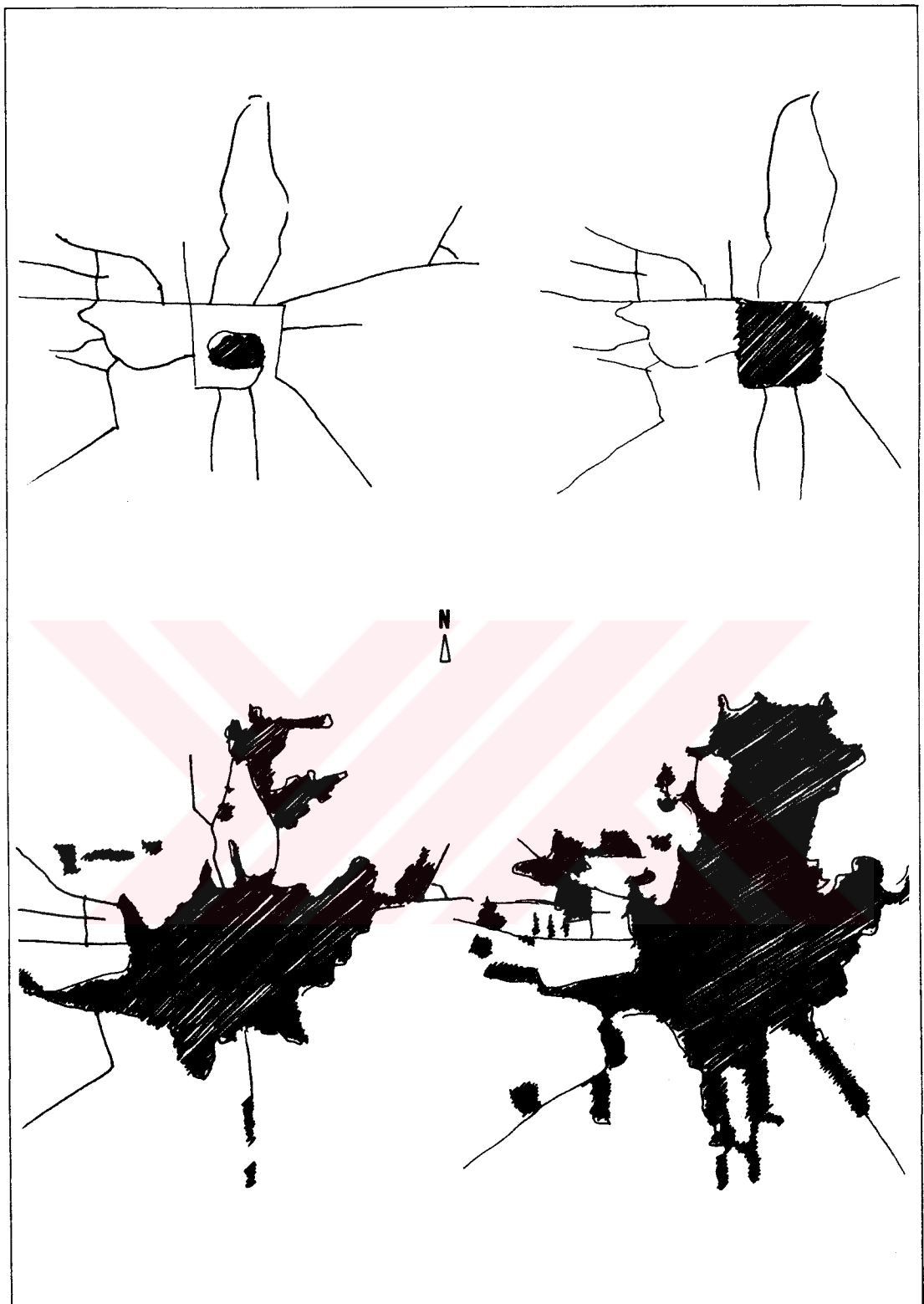


Figure 37) The four drawing above show Tehran as it was in 1891, 1937, 1966, and finally 1975. This figure gives an idea about the speed of development of the city which took place in just 84 years. (Figure, drawn by the author of this thesis, is adapted from M.Y. Kiani).

city, was now a more powerful man. The law of 1931 was the first serious effort which informed those dramatic days that were waiting for the Tehran citizens. Suddenly Tehran was living the greatest destruction during its short history under the hands of a cruel mayor.

The General who also believed that for the rehabilitation of the city new streets should be built while the existing ones are widened, began to work just after the law was approved by Reza Shah. Using the new law, every morning General Buzarjomehri walked in the city and left red flags on the top of those houses which had to be destroyed for building or widening new streets. The General walked on the same paths to control if the destruction officers had begun to destroy the red flagged houses or not by the evening

So the rehabilitation of Tehran by means of streets which began in 1928 became quicker by the law of 1931 and continued until 1936. During these eight years, eleven main streets both from east to west and north to south were reorganized inside the city walls. The high population density inside the city walls caused the mayor to begin destruction works of these walls rapidly in the same years. Demolishing the octagonal city walls took five years of the General's time from 1931 to 1936. As the walls were destroyed and the moat was filled up, an vacant area appeared between the districts inside and outside of the demolished walls.

It was in 1935 that a new plan was designed to use this empty area in its useful shape. The plan supposed four wide streets -from 25 to 35 meters- instead of the vacant area. Shah Reza street, (named partly as Liberty Street after the Islamic Revolution), Shahbaz street (17th of August Street), Shush street, and Si Metri street, (Worker Street) were proposed to be the vertebrate of the whole city. It was two years later in 1937 that these streets with houses in European style on both sides

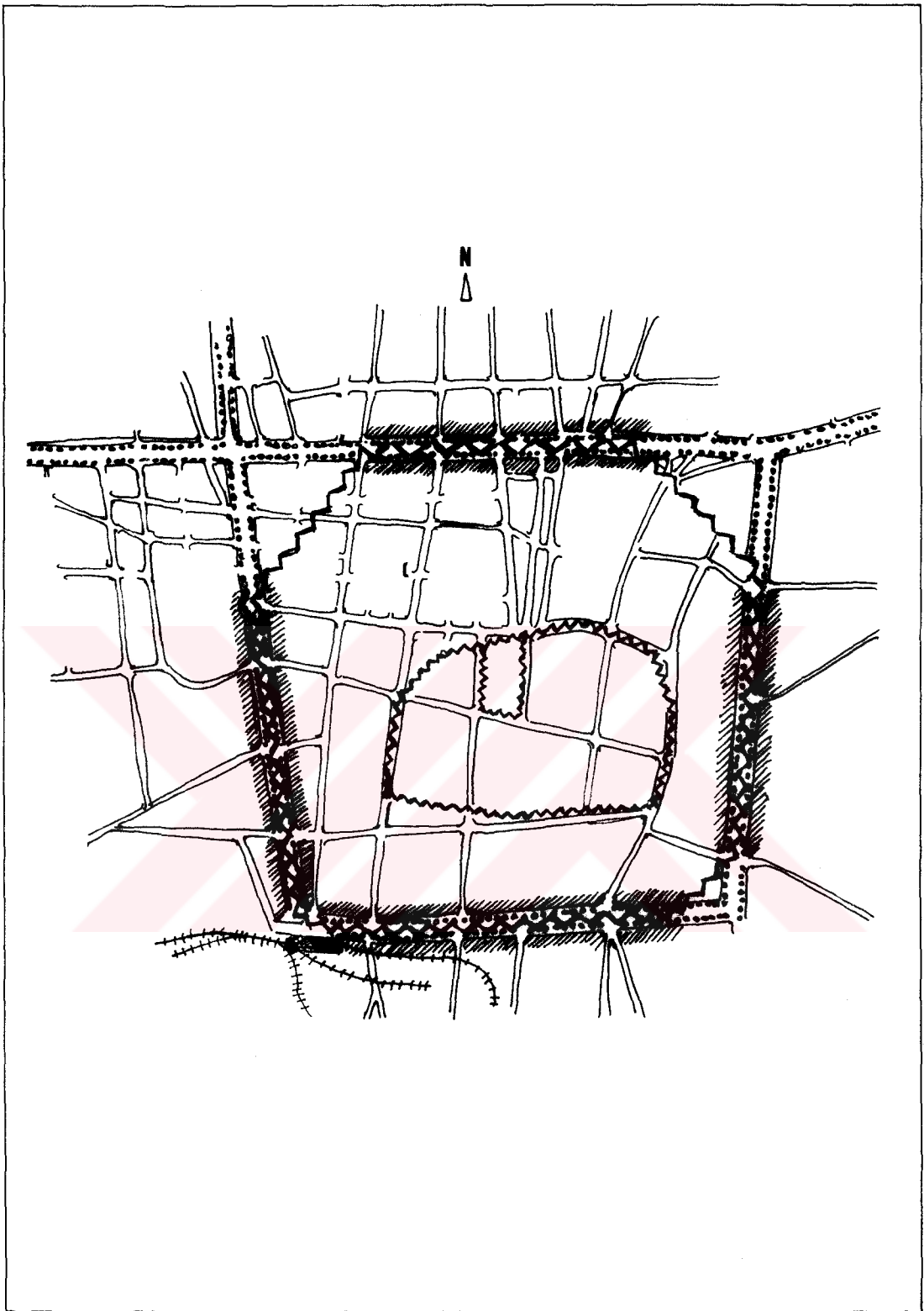


Figure 38) Figure above shows Tehran after the second city walls were destroyed in 1937. The old city walls were replaced by new streets, as it was done in Paris or Vienna. The north part of the city wall is Liberty street which will be considered as a case study later. (Figure, drawn by the author, is adapted from M.Y. Kiani).

were built. Suddenly Tehran changed its organic form after many centuries. Maybe the best explanation of this sudden change comes from Banani (1961: 144) when he uses the term "miraculous":

The Tehran of 1941 bore no resemblance to the Tehran of 1921.....Well planned and wide streets intersecting each other at right angles, some paved with cut granite, others with asphalt and concrete, were a glaring contrast to the labyrinthal lanes of the old quarters. Large and imposing public buildings, the exteriors of some being executed in Achaemenian and Sasanian style, dotted the city.....To the Iranians who remembered the pre-Reza Shah conditions, the changes in his physical surrounding and particularly the speed with which these changes were accomplished were nothing short of miraculous.

Today, after 60 years the four streets on the city walls, remaining from this "miraculous", are still one of the most important factors which determined the growth of Tehran. Here the Liberty Street and its extension, which was built on the northern side of the demolishing city walls, are used as one of the case studies for the examination of the boulevard's responsibilities.

6.3.1. The Physical Responsibilities of Liberty street in Tehran

The figure on the next page shows only the middle part of the extension of a street which was built on the northern side of the walls of the city of Tehran. Today it begins from the eastern districts of Tehran and goes to the western parts of the city.



Figure 39) It is a central part of city Tehran. The figure shows only the west part of the Liberty street from Ferdowsi square to the Liberty Remembrance (Figure, drawn by the author of this thesis, is adapted from the city touristic map).

Beside its historical value this street is an important one since firstly, it relates the eastern and western parts of the city and secondly, because it links many of the most important squares of the city. Importance of these squares can be felt when we see that almost all of the other important streets which are relating the south to the north are beginning from these squares.

There is no need to consider what one can find in each square, but we can mention those which are seen in the figure. In the western part we have the Ferdowsi square, where the big statue of the poet is looking to the fifth highest mountain of the world situated to the north-east of the city. Before coming to the Grand Rudeki Theatre at Mosaddeqe crossroads one passes the oldest high school of the city, a technical university, and the student's park. Between the Mosaddeqe crossroads and the next square, we pass from a theatre and Tehran University, the first national university, which covers almost all of the northern side of the street for a long block of about 500 meters. The Revolution Square which was a resting place for an equestrian of the late Shah nowadays is decorated by a statue which shows a revolutionary image. The theatres of this square form the other significant point which should be noted. Going westward, we pass Sharif University, the foremost technical university in the country, and finally arrive at the huge remembrance building which was placed right in the centre of the Liberty Square in the early 80s. If you want to take a bus to the west of the country, or an airplane anywhere, one should come to this square since both terminals are accessible from this square.

Before dealing with the second street we should answer one critical question about the Liberty Street of Tehran. One should ask what happens after the Liberty Square? No one can pretend that we can call the rest of this street a boulevard, since it is a path which goes wide and straight to nowhere but the western part of the city and the country.



Figure 40) It is the Ashrafi boulevard!!! As it just mentioned if you stand at any point of this street you feel that, there is neither a beginning nor an end ,since there is no physical structure which can made this street different from a motorway. (Figure, drawn by the author of this thesis, is adapted from the city touristic map).

Now we should deal with the next Figure which is showing another of the important streets of Tehran, this a time wider street. The street is called Ashrafi Boulevard. As it seen beside its importance in relating different residential districts to each other and its role in motorized traffic of the city, there is nothing else which can be about about this street. Normally if you stand at any point of this street you feel that, there is neither a beginning nor an end ,since there is no physical structure which can distinguish this street different from a motorway. But we should not be surprised if city officials call it a boulevard since such a street, a wide one which is decorated by trees, is by the conventional definition a boulevard.

But what should be kept in mind is that, a wide street is always a candidate for being called a boulevard, just when it begins to carry those physical responsibilities mentioned above. But how? Perhaps there are many streets which show the ability of such a transformation but here we should note the process which leads to placing La Defense on a boulevard which was in danger of "having no end". Now we should continue with the social and cultural responsibilities of boulevards, which are the natural result of all the physical responsibilities of such streets.

6.3.2 The Social and cultural Responsibilities of Liberty Street

The importance of all these physical responsibilities of boulevards make such streets a place for many social and cultural activities. To consider this hidden side of the boulevards, I would like to turn back to both Liberty Street and Ashrafi boulevard of Tehran as a case study again. First we should have a brief look at the Liberty Street. We need not pause on those daily social and cultural activities on Liberty Street since as was just mentioned, many social and cultural facilities

are placed directly on the street or are made accessible to each other by the Liberty Street. But what I would like to consider is this street's importance, not only for the city, but also on a national level in the last twenty years.

Obviously the first interesting point about this street is its name. Before the revolution of 1978, the street was called Reza Shah Street. Reza Shah was the first leader of the last reign of kings in Iran. The revolutionary changes which began in other cities, continued in the capital first in the universities. As was mentioned earlier, many of these universities were placed around Reza Shah Street which at the same time was one of the widest streets of the city. The first bloody day of The Islamic Revolution in Tehran was lived in one of the squares of this wide street. Hundreds of students and people were killed. The popular massive meetings also began in the same street and the same square which now was called: "The Martyrdom Square".

After only a short walk from this square, demonstrators could view the rest of the street which goes straight for 8 kilometres until its end, where an almost fifty meters tall "Shah remembrance" was placed at the middle of another square. people walked from the martyrdom square, others joined to them at the one of the many other squares and finally millions of people met the crowds of students which were waiting at Tehran University. The final meeting point was the square with the tall statue. Nobody could imagine that one day all of this distance could be full of demonstrating citizens, but it happened for months every day.

Those bloody days of 1978 was introduced many new concepts to those who were living in the city. These new concepts began to be a part of the daily life of millions of people who rose against the Pahlavi Reign. After each event, people became more acquaintance to concepts such as, martyrdom, revolution, and freedom. As the social importance of such new

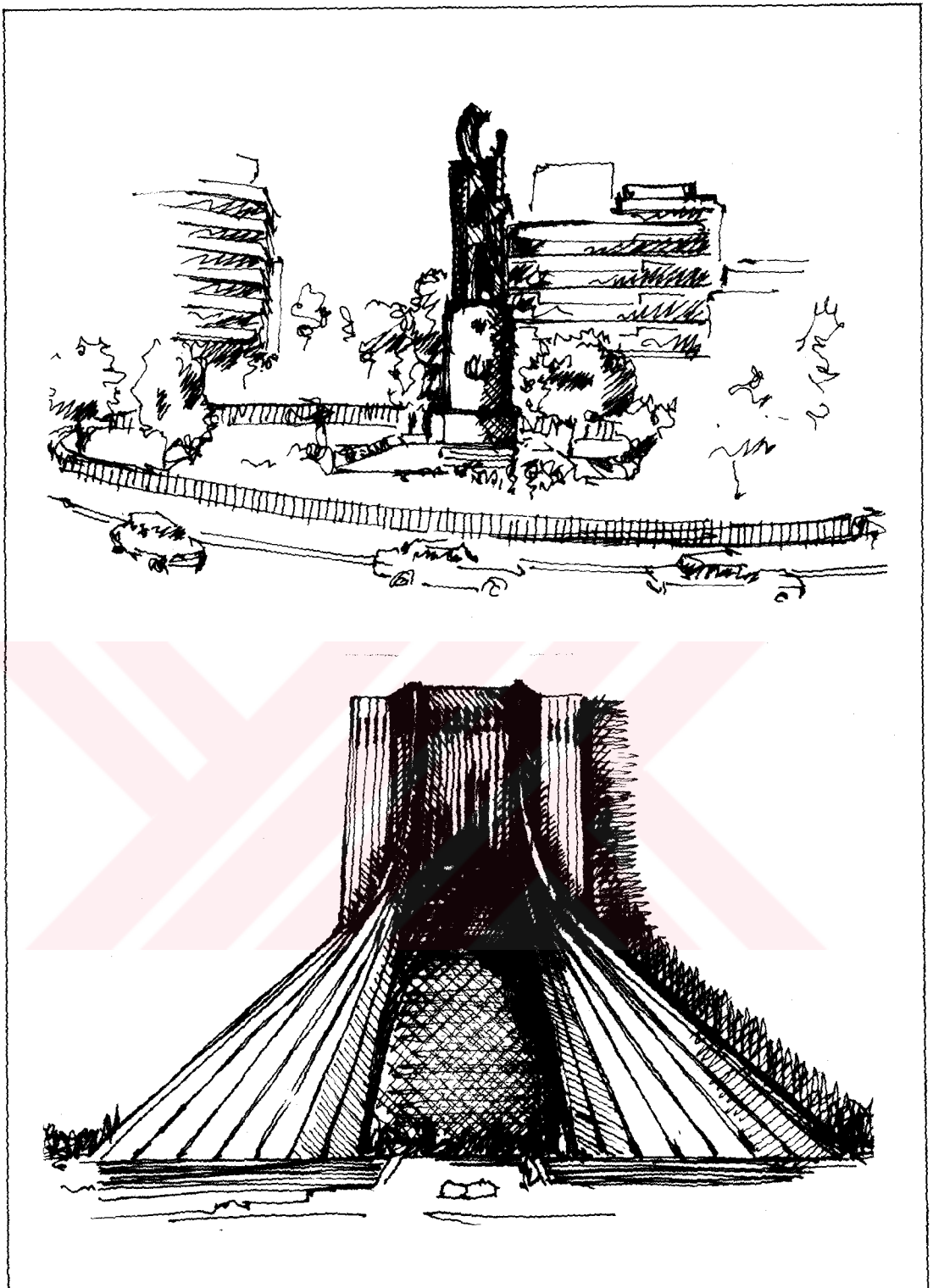


Figure 41) Above is the Revolution Square's statue, which took placed after Reza Shah remembrance was demolished.

Figure 42) It is the square of Liberty Remembrance. The biggest statue of the city is placed right in the centre of the greatest square of the city. (Figures, drawn by the author of this thesis, are adapted from the city touristic map).

concepts increased, they began to show their effects on those parts of the city where the revolutionaries were fighting. Suddenly the most important street of the city changed its name many months before the first republic was announced. The Revolution Street, the Liberty Street and the Liberty Remembrance Monument are only some examples of these significant changes.

Beside those daily activities such as buying a book from those book stores which are packed together like a train in front of the university, going to a cinema which could be found almost on all squares of the street, having lunch or drinking tea in different restaurants, or watching those which are playing chess on stone desks while you are walking in a park, The Liberty street preserved its political importance naturally after the revolution. For example, the bloody events after the Islamic Revolution which ended in the "Cultural Revolution" also happened on this street. An other example is the weekly meeting at the Tehran university which ended by the "Friday Namaz".

On the other hand, all of those tumultuous days were passing calmly in Ashrafi boulevard. Neither before nor after the revolution, can we speak of any level of social or cultural activity in this wide street. But confusions on distinguishing a wide street from a boulevard continued, because these two concept can only be separated with careful attention. Many think that the gap can be crossed even when they call a wide street boulevard, even though it dose not accomplish what a real boulevard dose. That was discrepancies were resolved in the case of Ashrafi boulevard in Tehran. The same process recurs in many other cities around the world. But unfortunately, as is obvious giving the name of a hero to a monumental street is not the only requisite for that street to be a boulevard.

6.3.3 The economic Responsibilities of Liberty Street in Tehran

We must examine the importance of economic responsibilities of boulevards as another criterion which make this kind of streets distinct from the others by looking to our case studies as we did for physical, social and cultural responsibilities of boulevard So to consider this side of the boulevards I would like to turn back to Liberty Street and Ashrafi boulevard of Tehran.

As was mentioned earlier Many of those social and cultural facilities which a citizen needs in his daily life are placed directly on Liberty Street or on its extensions, and if not, these needs are at least related to each other and brought together by this huge street The same situation is exists for daily economic activities. You can buy a book, a shoe, a disc player, a refrigerator, a bicycle, a car or what ever else you need or wish while you are walking on Liberty Street's bustling sidewalks. Beside these daily activities, we can point to the placement of the central branches of all the different banks which give an idea about the huge concentration of financial movements on this street.

The importance of the unbelievable influence of Liberty Street on Tehran's economic life can be proved once more if the rents of offices on different parts of this street are compared not only with the other streets or districts of the city, but also with those on very nearby extensions.

The accumulation of these factors resulted in the automobile traffic jams on the Liberty Street. After many unsuccessful attempts for solving the auto traffic on the street, nowadays private vehicles can not enter the central district of this street and all of its nearby environs between six o'clock in

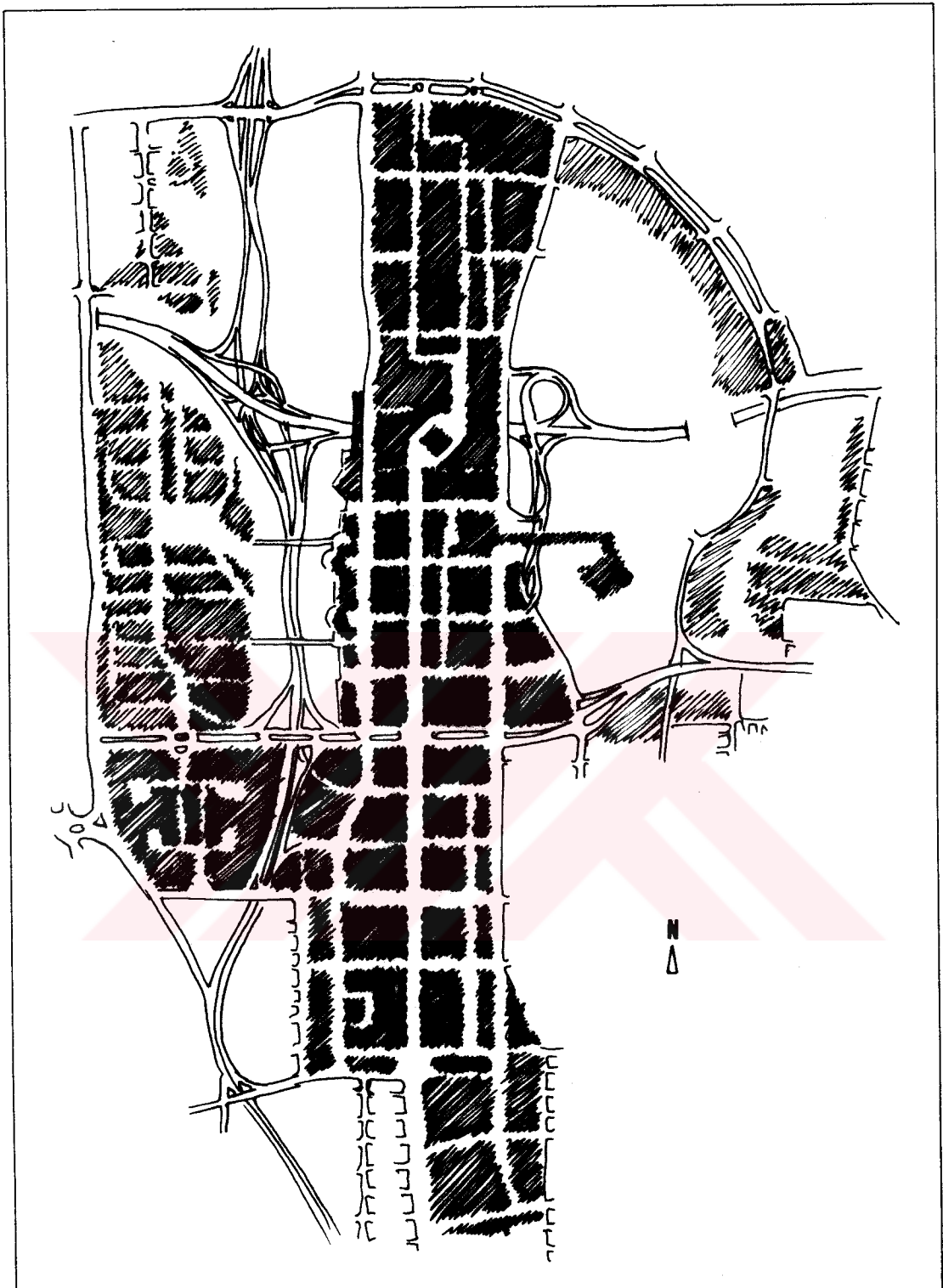


Figure 43) Above is the proposal business district for the city of Tehran, which was planned to be built on one of the extensions of Ferdowsi square. The business district was never built but its proposed location showed how big is the economic value of the Liberty Street, and its extensions. (Figures, drawn by the author of this thesis, is adapted from M.Y. Kiani).

the morning and six o'clock in the evening, which are the street's most active hours.

To consider thoroughly the differences between the economic responsibilities and their levels in the Liberty Street and in Ashrafi boulevard requires a separate study another, but I would like to explain these differences only by some comments. When you enter the Ashrafi boulevard you can see almost nobody beside those people which are waiting for the next bus, or those people which are walking to reach one of these bus stations. When you enter the Ashrafi boulevard you can rarely see any car parking somewhere for the purposes of bringing its passengers to perform financial transaction. The daily regular traffic movement continues until an accident upsets it. And finally, when you enter the Ashrafi boulevard you can ask yourself whether there really is anyone doing something urban in this huge city? And if you do not know the Liberty Street the answers will be almost the same. It all appears to indicate the end of urban economic life! The city appears DEAD!

CHAPTER 7: CONCLUSION

This study was primarily concerned with the boulevard's physical shape and its historical origin in order to reproduce a new definition for such streets.

The general agreement with that widely known assumption which introduces "boulevard" as a huge street which appeared in the city of Paris for the first time forced us to begin our considerations with this city and its boulevards as a case study.

This starting point helped us see some important facts about this important urban structure. We realized how misleading it could be if we discussed any element of city (including boulevards) only on the basis of its physical structure.

It was due to this fact that we examined once more the importance of factors such as social hierarchies, political and economic conditions, cultural beliefs and technological abilities in forming any physical structure of city. This examination showed how the boulevards of Paris were built and shaped under the pressure of such variable invisible factors.

The historical development and forming of the boulevards of Paris which mirrored all of these invisible factors of a certain era were the most important point for researching the development of streets which show many similarities with the boulevards of Paris if not directly in their scale and shape but in their importance and responsibilities. But what is the justification for this research?

Although this question was answered indirectly by giving several examples in previous chapters here it should be answered directly once more.

Human beings lived under the constraints of those factors just mentioned above, in each historical period. These factors helped form new thoughts in planning cities, the problems they faced and also the solutions proposed in the form of various physical structures. The changes of these factors in each historical period naturally resulted in some new thoughts for forming new cities which themselves were again the source of new problems and also new physical solutions.

We will discuss the question with the help of a more simple example. To do this we should remember the incredible progressive process which began with the classical world and ended in that modern era which we live in. Cities in both of these periods own many similar characteristic problems. We should developed our example on one of these problems and its solution.

On the one hand, there is the city of the classical world and its simple marketing problem which was solved in a simple physical structure called Agora. And on the other hand, there is the modern city of the 20th century with its huge marketing problems which are solved in its huge physical structures called central business districts.

The confusion starts when we try to compare an Agora with a central business district only as two different physical structure. Obviously, it is hard to find basic similarities of physical structure between these two elements, since the first one consists of only some one story clonnaded rooms, which are serialized one after the other around a small open space (like what we can see in Priene) and the second one is built of many multi-storied glass covered structures which all together make

a huge complex system which is hard to define in any simple way. Observe, for example, La Defense.

We should not be surprised by results of such dramatic differences, as far as there is no similarities between the physical shape of these two structures. Besides, the different names we use for identifying both of these structures which directly result from their different physical shapes. So the main question is: Are there any real conceptual differences between them or not?

We can answer that there is no real conceptual differences between an Agora and a central business district, since both of them are responsible for the same activity: "marketing". So we could say that a central business district is nothing other than a complex Agora. And suddenly we find that if any structure becomes more complex, it does not mean that it becomes also a radically new concept. The problem includes many other subtle facets.

Turning back to our main subject of the "boulevard", we arrive at some final observations on this element of the modern city by using the same logical path we took while we compared the Agora of the Priene and the central business district of Paris.

From the day that small cities appeared, they owned some similar basic elements. They all had marketing areas, they all had public buildings, they all had residential quarters, they all had streets and so on. After many centuries and several historical periods, the city became a more and more complex organic body. Each of these elements changed their physical shape and became more complex in order to adapt to the needs, abilities and thoughts of human beings and their era. But as can clearly be seen, there is not any obvious change in the urban responsibilities of these elements.

Being an element of the city, streets also take part in the unbelievable historical transformation. Today we could not find too many similarities between the physical shape of the streets of an old city like Priene and those which one finds in any modern city like Paris. But they still are used as they were used before, they have the same urban responsibilities such as giving possibility for human movements, connecting other urban elements to each other and so on.

And all of these responsibilities at the same time are the criteria which should be used for classification of the streets of any city. So it is due to these responsibilities which we can first classify and then compare the streets of different cities such as Priene and Paris. The importance of any street in a city directly relates to the number of responsibilities it carries. By the time the number of responsibilities rises, the street obviously becomes a more important one.

For example, those streets of the Priene which related temple, Agora, theatre and port to each other show their importance immediately when we look at the city map. The same level of importance is felt when we look at the boulevards of Paris since they are exactly doing what the main streets of Priene did many years ago, but in a more complex way.

Since the responsibilities are almost the same ones and since the complexity is not one of quality required for defining any structure as a new concept, the notion of the boulevard is not a new one either. In other words, we can define boulevard only as a developed derivative of the main streets of Priene or any other old city and not as a new concept.

Ofcourse, the complexities of modern human life make the city they live in a complex urban body. And the boulevard is one of the natural results of such a complexity.

According to the study presented here, what distinguishes the boulevard from any other city street contains of three major roles or urban responsibilities:

- (1) Physical
- (2) Social/ Cultural
- (3) Economic

The level and aggregation of these responsibilities in a street will distinguish it to be a boulevard. Whether it is named boulevard or not is immaterial.

In this thesis, I have argued for a new definition, a new and radical use of the word "boulevard" in referring to city streets. This will save urban studies a great deal of confusion and will improve the use of a consistent vocabulary in referring to urban elements

While various communities, cities and nations may have their own idiosyncrasies in referring to their boulevards and streets by inconsistent convention, it is time for urban planners to move beyond convention to a true, consistent, and manageable set of definitions, concept and vocabulary.

The goal and ambition of this thesis has been to clear the confusion, to set an example and to ensure, perhaps at last, that when we speak about cities as critics, city planners and scholars, we shall mean roughly the same thing when we look at a city, point to an urban element, and regardless of the convention of the day, place and time say:

"THIS IS A BOULEVARD."

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