

URBAN IMAGE AND MORPHOLOGY OF KIZILAY (ANKARA)

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

CAN GÖLGELİOĞLU

IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
URBAN DESIGN
IN
CITY AND REGIONAL PLANNING

SEPTEMBER 2014

Approval of the thesis:

URBAN IMAGE AND MORPHOLOGY OF KIZILAY (ANKARA)

submitted by **CAN GÖLGELİOĞLU** in partial fulfilment of the requirements for the degree **Master of Science in Urban Design in City and Regional Planning Department, Middle East Technical University** by,

Prof. Dr. Canan Özgen
Dean, Graduate School of **Natural and Applied Sciences**

Prof. Dr. Melih Ersoy
Head of Department, **City and Regional Planning**

Prof. Dr. Baykan Günay
Supervisor, **City and Regional Planning Dept., METU**

Examining Committee Members:

Assoc. Prof. Dr. Mehmet Adnan Barlas
City and Regional Planning Dept., METU

Prof. Dr. Baykan Günay
City and Regional Planning Dept., METU

Assoc. Prof. Dr. Bahar Gedikli
City and Regional Planning Dept., METU

Assoc. Prof. Dr. Müge Akkar Ercan
City and Regional Planning Dept., METU

Cansu Canaran, Ph.D.
City Planner, BC Tasarım Ltd. Şti.

Date: 05.09.2014

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name – Last Name: Can Glgeliođlu

Signature:

ABSTRACT

URBAN IMAGE AND MORPHOLOGY OF KIZILAY (ANKARA)

Gölgeliöđlu, Can

M.Sc. in Urban Design, Department of City and Regional Planning

Supervisor: Prof. Dr. Baykan Günay

September 2014, 180 pages

This dissertation presents an alternative method for designing distinctive urban places, where the physical forms are in harmony with social and historical values, within the concerns of urban design. Kızılay, the central business district of Turkey's capital, is selected as the case study because of the significant structure in relation to its changing morphology and urban image over the years. Using the gestalt principles, the components of urban morphology and urban image elements are evaluated in an integrated method. Results show prospering agreement with the theoretical predictions and significant improvement over previous efforts by M.R.G Conzen and Kevin Lynch through the principles of Gestalt Theory. The work presented here has profound implications for future studies of urban design and may one day help to solve the problems of the conservation and new design proposals of distinctive urban places.

Key Words: Urban Morphology, Urban Image, Gestalt Laws, Kızılay, Urban Place

ÖZ

KENT İMGESİ VE MORFOLOJİ: KIZILAY (ANKARA)

Gölgeliođlu, Can

Yüksek Lisans, Kentsel Tasarım – Şehir ve Bölge Planlama Bölümü

Tez Yöneticisi: Prof. Dr. Baykan Günay

Eylül 2014, 180 sayfa

Bu tez, kentsel tasarım alanında, özgün mekânların nasıl yaratılabileceđi ve değerlendirilebileceđi üzerine alternatif bir çözüm önerisi sunmakta, gestalt prensiplerini kullanarak, kent imge ve morfoloji elemanları arasındaki uyumu arařtırmaktadır. Ankara'nın merkezi iş alanı, Kızılay, yıllar içinde gösterdeđi dikkate deđer imgesel ve morfolojik deđişimler sebebi ile çalışma alanı olarak seçilmiştir. Sonuçlar MRG Conzen ve Kevin Lynch'in teorik yaklaşımlarını benimsemiş, Gestalt Teorisi bağlamında geliřtirmiştir. Tezin amacı gelecekteki kentsel tasarım çalışmaları için farklı uygulama metotlarının önünü açmak, aynı zamanda özgün kent mekânlarının deđerleri ve tasarımları üzerine alternatif çözüm önerileri sunmaktır.

Anahtar Kelimeler: Kent Morfolojisi, Kent İmgesi, Gestalt Kanunları, Kızılay, Kent Mekânı

to Ankara...

ACKNOWLEDGEMENTS

I would like to thank to Prof. Dr. Baykan Günay whose support and encouragement guided my research. Also, I would like to extend my thanks to the examining committee members, Assoc. Prof. Dr. Adnan Barlas, Assoc. Prof. Dr. Müge Akkar Ercan, Assoc. Prof. Dr. Bahar Gedikli and Dr. Cansu Canaran, for their suggestions and contributions.

Indeed, I should admit that I never find this section as sincere as it should be. I think writing a dissertation can become so rational that the one might feel a little bit insensitive at the end; or, preferring to thank face-to-face rather than writing again. Yet, I believe I also should show some respect to the customary rules of the academic world and the people who left traces on this dissertation. I thank to my family, my friends and everybody who touched my life and make me the person who I am. I hope I was able to show them my gratefulness even if I did not write their names here one by one. Thank you for being near me and giving all the support I needed.

TABLE OF CONTENTS

ABSTRACT	v
ÖZ	vi
ACKNOWLEDGEMENTS	viii
TABLE OF CONTENTS	ix
LIST OF FIGURES	xiii
LIST OF TABLES	xviii
CHAPTERS	
1. INTRODUCTION	1
1.1. OVERVIEW OF THE STUDY	2
1.2. CORRELATING URBAN IMAGE AND MORPHOLOGY	4
1.3. PROBLEM DEFINITION AND SIGNIFICANCE OF THE STUDY	4
1.4. AIM AND SCOPE	7
1.5. STRUCTURE OF THE THESIS	7
2. THEORETICAL FRAMEWORK	11
2.1. URBAN MORPHOLOGY	11
2.1.1. THE SCHOOLS OF URBAN MORPHOLOGY	14
2.1.1.1. British School: Conzen’s Town-Plan Analysis	15
2.1.1.2. Italian School: Muratorian Perspective	16
2.1.1.3. French School: Versailles’s Movement	18
2.1.1.4. Inferences	19
2.1.2. CONZENIAN METHOD: TOWN PLAN ANALYSIS	20
2.1.2.1. Streets and Their Arrangements	20
2.1.2.2. Plot Layout	21

2.1.2.3.	Buildings and Block Plans	22
2.1.2.4.	Inferences	22
2.1.3.	THREE THEORIES OF URBAN SPATIAL DESIGN	23
2.1.3.1.	Figure-Ground.....	23
2.1.3.2.	Linkage Theory	26
2.1.3.3.	Place Theory.....	28
2.2.	IMAGE OF THE CITY.....	30
2.2.1.	KEVIN LYNCH: IMAGE ANALYSIS.....	31
2.2.1.1.	Paths: Connectors of the City.....	31
2.2.1.2.	Edges: Depicters of Urban Space.....	33
2.2.1.3.	Districts: Variety of Urban Features	34
2.2.1.4.	Nodes: Intersection Zones	35
2.2.1.5.	Landmarks: The Faces of the Cities.....	36
2.2.2.	Correlating The Theories of Conzen and Lynch.....	38
2.3.	GESTALT THEORY AS A UNITARY METHOD.....	39
2.3.1.	THE WHOLE-PART RELATIONSHIP	40
2.3.2.	GESTALT PRINCIPLES.....	43
2.3.2.1.	Similarity/Anomaly	43
2.3.2.2.	Proximity and Alignment	45
2.3.2.3.	Continuity.....	47
2.3.2.4.	Closure	48
2.3.2.5.	Figure-Ground.....	49
2.4.	CONCLUSION FOR THEORETICAL FRAMEWORK.....	50
3.	CASE STUDY: KIZILAY ANKARA.....	55
3.1.	THE RATIONALE OF THE CASE SELECTION	55
3.2.	THE FIRST STEPS OF MODERNIZATION: LÖRCHER PLANS.....	59
3.2.1.	PLANNING ANKARA AS THE SYMBOL OF THE REPUBLIC.....	61
3.2.2.	THE EMERGENCE OF ‘YENİ ŞEHİR’ - KIZILAY	62
3.2.3.	SPATIAL ANALYSES OF LÖRCHER PLAN	68
3.2.3.1.	Conzen and Trancik Analysis: A New Pattern in Yeni Şehir	69
3.2.3.2.	Lynch Analysis: A Bourgeois Republic.....	73
3.2.3.3.	The Adaptation of Gestalt Principles	75

3.2.4.	INFERENCES	78
3.3.	IMPROVEMENT OF THE FIRST PLANS: 1932 JANSEN PLAN.....	81
3.3.1.	THE IMPACTS ON KIZILAY	83
3.3.1.1.	The Distortion of the Vekaletler District	84
3.3.1.2.	The Evolution of the Boulevard.....	86
3.3.1.3.	The Emergence of Cultural and Commercial Areas	89
3.3.2.	SPATIAL ANALYSES OF JANSEN PLAN	92
3.3.2.1.	Conzen and Trancik Analysis: Bending the Morphology.....	93
3.3.2.2.	Lynch Analysis: Ataturk Boulevard as the Spine of the Republic	96
3.3.2.3.	The Adaptation of Gestalt Principles	98
3.3.3.	INFERENCES	100
3.4.	A NEW ERA FOR ANKARA: 1957 YÜCEL-UYBADİN PLAN	102
3.4.1.	THE IMPACTS OF ‘PROPERTY OWNERSHIP LAW’	104
3.4.2.	THE LOSS OF URBAN IMAGE IN KIZILAY	106
3.4.3.	SPATIAL ANALYSES OF YÜCEL-UYBADİN PLAN.....	109
3.4.3.1.	Conzen and Trancik Analysis: Filling the Blanks in the Centre..	109
3.4.3.2.	Lynch Analysis: Loosing the Republic Image.....	113
3.4.3.3.	The Adaptation of Gestalt Principles: The Irrelevancy.....	116
3.4.4.	INFERENCES	119
4.	DISCUSSION AND CONCLUDING REMARKS.....	121
4.1.	SUMMARY	122
4.2.	THE FINDINGS OF THE STUDY	123
4.2.1.	The Gradual Evolution.....	125
4.2.2.	Deceptive Morphology: The Illusion of 2D Plans	126
4.2.3.	Changing Correlation of Solids and Voids	129
4.2.4.	The Image of Republic vs. The Centre of Training Schools	129
4.3.	MORPHOLOGY AND IMAGE VIA GESTALT PRINCIPLES	136
4.4.	FURTHER RESEARCH.....	137
	REFERENCES.....	139
	APPENDICES	
A.	HISTORIAL PHOTOS OF KIZILAY/YENİ ŞEHİR.....	145

B. VISUAL COMPARISONS - 1970 vs. 2014	163
C. HISTORICAL MAPS.....	174
D. MAIN IMPACTS OF THE PERIODS	178

LIST OF FIGURES

FIGURES

Figure 1.1 Correlating the Components of Urban Morphology and Image	4
Figure 1.2 Loss of Perceptual Values	5
Figure 1.3 The Irrelevancy	6
Figure 2.1 The Genealogy of Urban Morphology Schools.....	14
Figure 2.2 The Street Patterns of Goteborg	21
Figure 2.3 CBD Block Structures from USA	21
Figure 2.4 Figure-Ground Diagrams.....	24
Figure 2.5 Types of Spatial Linkages	27
Figure 2.6 Diagrams of Urban Design Theories	29
Figure 2.7 Lynch's Image Elements for New Jersey.....	30
Figure 2.8 Street as a 'Path'	32
Figure 2.9 Bosphorus as an 'Edge'	33
Figure 2.10 Manhattan as a 'District'	34
Figure 2.11 Traffic Junction as a 'Node'	36
Figure 2.12 Eiffel Tower as a 'Landmark'	37
Figure 2.13 Combining the Theories of Conzen & Lynch.....	39
Figure 2.14 Unification of Urban Morphology & Image Elements.....	40
Figure 2.15 Principles of Gestalt.....	41
Figure 2.16 Different Groups for Similarity	44
Figure 2.17 Similarity, Barcelona Example	45
Figure 2.18 Similar Block Structure 3D Illustration.....	45
Figure 2.19 Proximity	45
Figure 2.20 Proximity, Ankara Example	46
Figure 2.21 Proximity 3D Illustration.....	46
Figure 2.22 Continuity	47
Figure 2.23 Continuity, İstanbul Example	47

Figure 2.24 Continuity 3D Illustration	47
Figure 2.25 Closure	48
Figure 2.26 Closure, Venice Example	49
Figure 2.27 Closure 3D Illustration.....	49
Figure 2.28 Faces & Vase, Edgar Rubin Example.....	50
Figure 2.29 The Flow of the Theoretical Framework	51
Figure 3.1 Location of Ankara, Kızılay and Ulus	56
Figure 3.2 The Case Area, Kızılay	57
Figure 3.3 Lörcher Plan.....	60
Figure 3.4 1925 Yeni Şehir, Base Map	64
Figure 3.5 Lörcher Plan, The Square System.....	66
Figure 3.6 Alternative Entrance for Zafer Square	67
Figure 3.7 Conzen Divisions in 1925, Kızılay-Yeni Şehir	69
Figure 3.8 Figure Ground Analysis of Kızılay-Yeni Şehir, 1925	71
Figure 3.9 Trancik Analysis of Kızılay-Yeni Şehir, 1925	72
Figure 3.10 Image Analysis of Kızılay-Yeni Şehir, 1925.....	74
Figure 3.11 Jansen Plan, 1928.....	82
Figure 3.12 1930 Yeni Şehir Plan	84
Figure 3.13 Holzmeister's Proposal for Vekaletler District 1934.....	85
Figure 3.14 Gate Proposal for Vekaletler District.....	86
Figure 3.15 Bulvar Palas	89
Figure 3.16 Piknik.....	89
Figure 3.17 Conzen Analysis, Jansen Period	93
Figure 3.18 Trancik Components in Jansen Period	95
Figure 3.19 Image Elements in Jansen Period	97
Figure 3.20 Yücel-Uybadin Plan 1957.....	103
Figure 3.21 Proposed Typologies for Residential and Commercial Areas	104
Figure 3.22 A Poster that reflects the ideals of the current era	104
Figure 3.23 Kızılay Map in Yücel-Uybadin Period	108
Figure 3.24 Conzenian Components in Yücel-Uybadin Period	110
Figure 3.25 Trancik Components in Yücel-Uybadin Period.....	112
Figure 3.26 The Closure of the Landmarks in Yeni Şehir	114
Figure 3.27 The Image Elements in Yücel-Uybadin Period	115
Figure 4.1 The Corruption of Urban Space i.e. Zafer Square	124

Figure 4.2 The Loss of Urban Image Zafer Sculpture	124
Figure 4.3 Irrelevant Architecture.....	126
Figure 4.4 Exaggerated Structures	126
Figure 4.5 Figure Ground Comparisons	127
Figure 4.6 Comparisons of the 3D Analyses	128
Figure 4.7 Conzen Analysis, Present Situation.....	132
Figure 4.8 Trancik Analysis, Present Situation.....	133
Figure 4.9 Lynch Analysis, Present Situation.....	134
Figure 4.10 Locational Changes of the Landmarks	135
Figure 4.11 The Algorithm of Theoretical Flow.....	137
Figure A.1 Mithatpaşa Street 1926	145
Figure A.2 Uybadin House Yenişehir 1927.....	145
Figure A.3 Yenişehir Square 1928.....	146
Figure A.4 Yenişehir Pool 1929	146
Figure A.5 Zafer Square and Ataturk Boulevard 1929	147
Figure A.6 An Embassy Construction 1930	147
Figure A.7 GüvenPark 1930	148
Figure A.8 Italian Embassy 1930.....	148
Figure A.9 Civil Servant House I 1930.....	149
Figure A.10 Civil Servant House II 1930	149
Figure A.11 Ministries 1933	150
Figure A.12 Büyük Theatre Construction and the Boulevard 1933	150
Figure A.13 GüvenPark and Uybadin House 1933.....	151
Figure A.14 View from Kocatepe 1934.....	151
Figure A.15 Iran Embassy 1935.....	152
Figure A.16 An Officer House 1935.....	152
Figure A.17 Mimar Kemal Primary School 1935.....	153
Figure A.18 Ataturk Boulevard 1935	153
Figure A.19 Ziya Gökalp Street 1935	154
Figure A.20 Belgium Embassy 1936	154
Figure A.21 Kızılırmak Avenue 1936.....	155
Figure A.22 Monument of Trust 1936	155
Figure A.23 GüvenPark 1937	156
Figure A.24 Germany Embassy 1938	156

Figure A.25 Ataturk Boulevard 1938.....	157
Figure A.26 Ataturk Boulevard 1938.....	157
Figure A.27 Ministries 1938	158
Figure A.28 Presidency of General Staff 1938	158
Figure A.29 Kızılay Building and the Park 1938.....	159
Figure A.30 Kızılay Building 1938.....	159
Figure A.31 Ataturk Boulevard 1952.....	160
Figure A.32 Kızılay Square 1955.....	160
Figure A.33 Zafer Square 1955.....	161
Figure A.34 Ataturk Boulevard 1959.....	161
Figure A.35 Ataturk Boulevard 1960.....	162
Figure A.36 Zafer Square 1960.....	162
Figure B.1 Ataturk Boulevard 1970.....	163
Figure B.2 Ataturk Boulevard 2014	163
Figure B.3 Commercial Areas 1970.....	164
Figure B.4 Commercial Areas 2014.....	164
Figure B.5 Mesrutiyet Street 1970	165
Figure B.6 Mesrutiyet Street 2014	165
Figure B.7 The Ministry of Education 1970	166
Figure B.8 The Ministry of Education 2014	166
Figure B.9 Ataturk Boulevard 1970.....	167
Figure B.10 Ataturk Boulevard 2014.....	167
Figure B.11 Emek Building 1970	167
Figure B.12 Emek Building 2014	167
Figure B.13 Ataturk Boulevard 1970.....	168
Figure B.14 Ataturk Boulevard 2014.....	168
Figure B.15 Gazi Mustafa Kemal Street 1970	168
Figure B.16 Gazi Mustafa Kemal Street 2014	168
Figure B.17 Kızılay Square 1970.....	169
Figure B.18 Kızılay Square 2014	169
Figure B.19 Ziya Gökalp Street 1970	170
Figure B.20 Ziya Gökalp Street 2014	170
Figure B.21 Kızılay Square 1970.....	171
Figure B.22 Kızılay Square 2014.....	171

Figure B.23 Kızılay Building 1970.....	172
Figure B.24 Kızılay Shopping Mall 2014.....	172
Figure B.25 Kızılay Square 1970.....	173
Figure B.26 Kızılay Square 2014.....	173
Figure C.1 1925 Lörcher Plans	174
Figure C.2 1932 Jansen Plans	175
Figure C.3 1957 Yücel-Uybadin Plans	176
Figure C.4 Change of parcels through subdivision and unification, red parcels are the ones that have not changed since 1935	177
Figure D.1 Main Impacts of Lörcher Period.....	178
Figure D.2 Main Impacts of Jansen Period.....	179
Figure D.3 Main Impacts of Yücel-Uybadin Period.....	179

LIST OF TABLES

TABLES

Table 1.1 Concepts and Sub-Questions.....	8
Table 3.1 Population Change in Ankara, 1920-1955.....	80

CHAPTER 1

INTRODUCTION

“...it is not possible to design rootedness nor to guarantee that things will be right in places, but it is perhaps possible to provide conditions that will allow roots and care for places to develop.” Relph (1976, p. 146)

Urban place is the space in which the limits of physical dimensions are exceeded, due to an accumulation of experiences. From ancient towns to modern metropolises, urban places have always experienced an evolution, because of the changing circumstances surrounding them. An urban place should represent distinctive values, since it creates a common connection between different spatial periods and social groups of the city. Regardless of their differences, people often share experiences in an urban place, and that is what gives them their significance.

At this point in time, the question of how to design a distinctive place is a major concern for urban designers. It is very important to define the methods and principles for creating an urban place, because any action, no matter how small, could have a negative and potentially irreversible impact on urban space. Although these effects can be relativistic, there is an inevitable interrelation between the cognitive and physical urban components. For instance, a landmark can confer a meaning to a public space and the enclosed structure of this space can affect the perceptions of the observers. However, these two structures should work in harmony, to create distinctiveness. Without that distinctiveness, it is possible to create a lack of a perception, which will cause a spatial corruption over time. Without harmony, the common urban memory and values that most people share could disappear.

This study highlights the seemingly lost importance of urban places and aims to propose a new understanding, which unifies the physical and perceptual components of urban places. At this point, the main aim is to discover ways of designing and analysing the distinctive ones. Based upon these concerns, the introductory chapter provides an overview and

problem definitions, and points out the significance and main aims of the study, and the ways in which it focuses on the evaluation of urban place as a distinctive value.

1.1. OVERVIEW OF THE STUDY

The study conducts an analysis of Kızılay, the Central Business District of Ankara, which is the capital of Turkey. While there exists a number of debates regarding the reasons for the decline of the CBD, the study mainly focuses on the interrelation between its morphological and perceptual elements. Today, decentralization policies and new shopping mall culture have affected the CBD; however, this decline cannot be seen just as a result of the locational change of commercial focal points. All in all, a commercial centre should be able to conserve and develop urban functions within its spatial and perceptual distinctiveness.

Since it has designed to be the heart of the young Turkish Republic, the area harbors many significant urban and architectural elements. However, most of the spatial traces of previous periods are faced with a trivialization today. The square network of the Lörcher Plans, the green corridors that were the hallmark of the Jansen Period or the cultural focuses of the Yücel-Uybadin Plans have already mostly disappeared. Eventually, historical values were lost, which means the image elements could not be sustained, revealing an irrelevancy between the morphological and perceptual elements of different planning periods.

Firstly, based upon these problems, the schools of urban morphology are examined in order to understand the basic physical components of urban space. The differences between these movements will show the boundaries of possible understanding of the completed structure. It is important to eliminate any potential ambiguity, which can often be revealed in the details of complex urban systems. The Conzenian School is adopted due to its simple and plain way of defining the components of urban morphology. This unique perspective will then be supported with Trancik's figure-ground elements, wherein the detailed elements will light the way toward the perceptual components of urban place. The crucial point is to make a transition from space to place. According to Relph (1976, p. 8):

“The space we experience of sky or sea or landscape, or of a city spread out beneath us when viewed from a tall building, the built space of the street, of buildings viewed from the outside or experienced from the inside, the reasoned space of maps, plans, cosmographies, and geometries, interstellar space, the space possessed by objects or claimed by countries or devoted to the gods-this is the range of our experiences and understanding of space. Space is amorphous and intangible and not an entity that can be directly described and analysed. Yet, however we feel or know or explain space, there is

nearly always some associated sense or concept of place. In general it seems that space provides the context for places but derives its meaning from particular places.”

Based upon this perspective, the space turns into place with the meanings that we assign to them. The image elements of Lynch (1960) basically constitute the tools of creating the meaning and images. Combining the methodologies of Conzen and Lynch provides an effective methodology in which both the physical and perceptual structures are evaluated together. Falahat (2014) also proposes a similar methodology, by combining the morphology schools with the perceptual components of Cullen, Schultz and Lynch. However, the author could not define a holistic framework with which to describe the physical and perceptual urban components in an integrated way.

The study seeks to use gestalt principles in order to combine image and morphology elements. As its significance, it is the first study which will use gestalt as a unitary method between physical and perceptual elements of urban place. By using its principles, both their internal structure and the relationship between both elements provide a clear method of evaluating their sufficiency. This method ensures a simple way to combine the theories of Conzen (1960) and Lynch (1960). Rather than explicating the components within their internal structure, the main aim of this methodology is to define the interrelation between and correlate them with the features of distinctive urban places.

Kızılay presents a remarkable experimental area with which to test this hypothesis. Since nearly the entire city was built after 1923, the historical evolution of the plans and reflections of their society points out key facts regarding the importance of physical and perceptual interrelation. The new centre, which was proposed as a State district in the 1930s, turned into a declining CBD after 2000s. The organic development of the commercial activities in the 1960s and the residential morphology, which was contrary to this land use, created a spatial corruption over time. As the image decline began, the urban places also declined, creating a blind cycle, and making the spatial quality worse. In order to analyse this conflict, three different planning periods are examined, due to their morphological and perceptual impacts. All in all, the case study will show that, in order to create distinctiveness, a city is obliged to evaluate all of its components in an integrated way. Otherwise, the spatial characteristics will decline over time, and particular urban places will disappear.

1.2. CORRELATING URBAN IMAGE AND MORPHOLOGY

Gestalt theory will be used as a unitary method, in order to evaluate the interrelation of urban image and morphology components. Firstly, the basic elements of the physical urban components will be investigated within the context of historical changes. On the other hand, the transformation of the image elements will be analysed in relation to this morphological change. However, these two issues are not separable since they give meaning to each other with both physical and perceptual features. However there is no explicit method that defines their interaction. Here, gestalt principles will be used in order to evaluate their common features and to define a theoretical framework for the evaluation. Correspondingly, the study has been developed around three main concepts in order to demonstrate the requirements of a distinctive urban place (Figure 1.1). The concerns of urban morphology and image will be bonded with the principles of gestalt theory. The study adopts a holistic approach and interprets this relation within the dimensions of urban space.

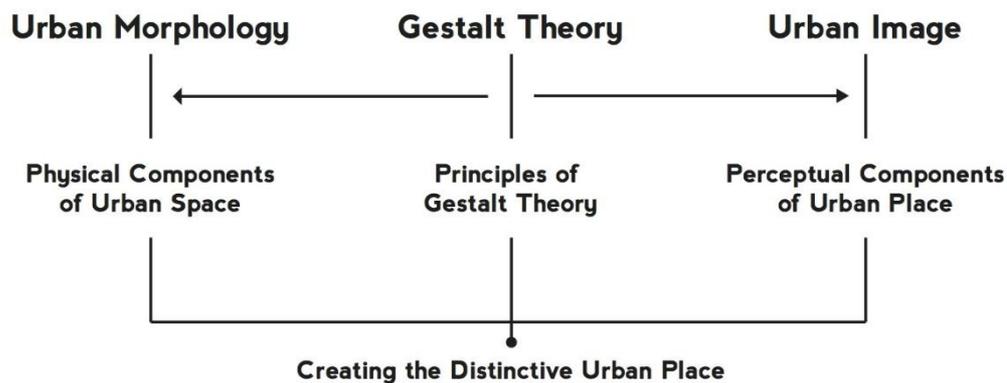


Figure 1.1 Correlating the Components of Urban Morphology and Image

1.3. PROBLEM DEFINITION AND SIGNIFICANCE OF THE STUDY

Although there are a number of studies on the methodology of urban design, there is a gap of a defined interrelation between the physical and perceptual features of urban places. In today's world, wherein cities become increasingly similar to each other, image elements become more important to the survival of urban places. Whereas improved construction techniques have increased the speed of urbanization, historical values have been losing their

significance in cities. Correspondingly, the main problems of this research can be explained through three aspects.

The first one is the loss of perceptual values in city centres (Fig 1.2). Cengizkan (2006) stated that a public space should have both social and historical values in order to have a distinctive value. In Kızılay, there is a clear image ambiguity, because the intended identity of the major plans allowed a chaotic environment to get ahead of the Republic image, which was the identity they were seeking. This aim lost its significance when low quality commercial enterprises and rent-seeking speculators gained occupancy of the urban spaces.



Figure 1.2 Loss of Perceptual Values (author's archive, 2014)

The second one has to do with the loss of unique urban spaces, when they were torn down for being irrelevant. The loss of solid void relationship can become irreversible, since they directly affect property ownership. For instance, some of the squares in Kızılay have been destroyed in order to build new structures, and the arguments on these spaces have become irrational, since it is economically unfeasible to tear down all these buildings. Thus, the relationship between successive plans should ensure a balance in relation to the built structure and emphasize the protection of open spaces in the centres.

The third one comes when the physical and perceptual components of urban place are rendered irrelevant (Fig. 1.3). First of all, it is necessary to obtain the minimum spatial

requirements in order to define the necessary importance of image elements. For instance, an important landmark that becomes lost in the middle of a traffic junction cannot create the aimed effect on people, since it is not perceivable enough in this environment. The opposite situation can reveal when a designer tries to create a landmark in the middle of that junction. Because no spatial value and meaning has been ascribed to the proposed landmark, it will inevitably be as irrelevant as the space.



Figure 1.3 The Irrelevancy (author's archive, 2014)

All in all, it is substantial to define the significance of these urban components within the dimensions of urban planning and design. The spatial corruption of historical values, which cannot resist the pressures of commercial activities, should be stopped. Furthermore, the trivialization that turns the space into a consumable commodity should be criticized with durable arguments. The technology era clearly defines a new method of urbanism within the enormous capabilities available today (i.e., rapid construction techniques). However, this research demonstrates that urban places (i.e., public spaces) are an indispensable part of social life, because their existence defines the common values of the society. The significance of the study is to provide a different approach, which evaluates the values of urban place in the era of spatial consumption.

1.4. AIM AND SCOPE

This dissertation aims to present a new perspective on the correlation of urban image and morphology elements by adapting a holistic perspective within the values of distinctive urban places. This requires a definition of an explicit frame for the components of urban space, since many different studies have attempted to explain them within a wide range perspective. One of the main gaps is the disconnection between two-dimensional plans and the place itself. While some research approaches the topic from architectural details, others emphasize the morphological concerns of urban space. Based upon this concern, emphasis is often focused on the correlation of physical components and image elements, which can create a bridge between the designs and actual experiences.

The urban design literature provides many different perspectives on the components of urban place (e.g., Conzen, Lynch, Trancik and Cullen). However, despite the overlap between their components, they still cannot respond to the needs of a holistic perspective that interrelates the physical and perceptual components. The design of an urban space becomes distinctive with specific image elements. However, as Relph (1976) noted, the designer cannot guarantee the future, since the dynamics of urban place is mostly related with the actions of society. Urban designers still control these actions, however; firstly with the space that they create and, secondly, with the place that they orient.

With regard to this last point, the debate centres on the principles of a holistic approach, which investigates gestalt principles in order to combine the components of urban space. Thus, to link these components with contemporary urban characteristics, a case study is done in order to show the historical evolution of the physical and perceptual components. Briefly, three main theoretical frames, i.e., Conzenian Morphology, Lynch Image Analysis and Gestalt Theory, are examined to demonstrate how to evaluate and design the distinctive urban place. This study asserts the importance of distinctiveness, even as it presents us with a new method for urban design analysis, wherein today's cities become identical with regard to commercial activities.

1.5. STRUCTURE OF THE THESIS

The main hypothesis of the thesis is that urban image elements and morphological components are inseparable structures for distinctive urban places. Within this context, this

study proposes the following research question: “How can we correlate the elements of urban morphology and image in order to create distinctive urban places?”

Thus, different approaches on the understanding of urban morphology and image analysis are examined in order to define a transition from urban space to urban place. Here, the main flow is to define and understand the basic components that constitute the bottom-line of a successful urban place. In relation to this, the main concepts and sub-questions are obtained as follows:

Table 1.1 Concepts and Sub-Questions

CONCEPTS	SUB-QUESTIONS
Urban Morphology	- What are the approaches and main physical components of urban space?
Urban Image	- What are the image elements that give meaning to urban space?
Gestalt Theory	- How can we define an integrated method for morphology and image elements with the tools of Gestalt Principles?
Creating Distinctive Urban Places	- How can we create distinctive urban places with the tools of Gestalt Principles?

This study is composed of two main chapters, apart from the introduction and conclusion. Firstly, it introduces a theoretical framework in order to define the main components of the analysis methods. Secondly, it tests the hypothesis and attempts to show the interaction of urban components in a case area, which give significant value with respect to the main concerns of the research question.

Chapter II provides the theoretical framework with respect to different theories, which focus on the components of urban space. First of all, the morphology schools are studied, in order to frame the main components of urban morphology. The rationale of this part is to distinguish between different approaches on the physical characteristics of urban space and

to prevent a possible ambiguity with regard to perceptual dimensions. Afterward, theories on spatial design are examined, in order to make a slight transition from urban space to urban place. This part is crucial for the connection of physical and perceptual elements, since it obtains the detailed physical structures and makes a connection with the perception of urban place. Later, Lynch image analysis is examined in order to define the perceptual elements of urban place. Here, the crucial part is the combination of image elements with the spatial components through the gestalt principles. Based upon this concern, gestalt principles are adopted to these concepts as a unitary theory.

Chapter III delivers the case study part, in which different planning periods of Kızılay/Ankara are investigated in relation to its morphological and perceptual transformation. The young structure of morphology and mechanical image in the area makes it unique for the rationale of this selection. Three different planning periods are analysed in relation to the transformation of the case area. At this point, the key points of Kızılay are that it represents a significant example of an irrelevancy between the urban image and morphology elements. The 1925 Lörcher Plan, the 1932 Jansen Plan and the 1957 Yücel-Uybadin Plan are all examined with respect to their planning impacts on Kızılay. The last three plans of Ankara are not taken into consideration since they do not have any explicit policies on the area.

The present situation of the case area is given as a final product in the conclusion chapter, where it serves to demonstrate the effects of the interrelation. This part finalizes the discussions and provides the findings of the case study through a comparison between the plans. A discussion on the interrelation of urban morphology and image elements is conducted, so as to demonstrate the importance of gestalt principles for creating distinctive urban places.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1. URBAN MORPHOLOGY

The root of morphology comes from the Greek word, “*morphē*,” which basically means “*the science of form*” (Oxford Dictionary, 2013, cited by Madanipour, 1996, p. 53). When the literature is examined closely, a number of perspectives with different focuses can be seen with some common keywords like function, form, structure and shape. However, since the urban place is the main focus of this study, the concept of form is too superficial to discuss. Many different disciplines, such as architecture, planning, geography and positive sciences have defined morphology, and those definitions should be narrowed down for the purposes of urban design in order to know the balance between them. But firstly, we will look at the definitions in positive sciences in order to form a general frame.

In biology, morphology is the study of shape, form and external structure with classifications (Supplement to the Oxford Dictionary, 1976, cited by Madanipour, 1996, p. 53). On the other hand, in psychology, it is related to the function and structure of organisms (The New Encyclopaedia Britannica, 1984). In mathematics, it is the analysis and processing of geometrical structures based on set theory, topography, and random functions (He–Ma, 2009). All in all, the correlation between forms and their interactions can be seen with all these definitions. It is also possible to discuss morphology through the visions of architecture, planning and geography.

While Gordon (1984) describes urban morphology with components like plots, buildings, land-use, streets, plans, and townscapes, Madanipour (1996) analyses morphology as the study of form, shape, structure, function and the evolution of the built-city. At this point, the authors mainly emphasize the interrelations between components just like the shapes and forms in biology. For instance, Caniggia sees urban morphology as an organic approach

(Levy, 1999). The author emphasizes the buildings (i.e., the basic components of urban morphology) as the integral organisms, like the small parts of human beings (Maffei, 2001). While this perspective adopts an inductive approach, it may create a lack of interrelation (as Gordon [1984] and Madanipour [1996] suggested) between urban components in order to reveal a holistic integrity on a city scale. Cities involve an enormous number of functions and complex structures, and they are unlikely to attach significant importance to only one component. Here, Levy (1999) underlines the transformation of morphological components, where he points out the functional changes in cities. The author points out that streets turned into urban infrastructures, squares transformed into shopping malls, and plots are seen as streets in today's world. This point of view is important to understand the sense of morphological components and their functional changes in urban space.

One of the pioneer researchers of urban morphology, Whitehand, describes the role of morphology in relation to urban form and urban design. The author defends the importance of the existing landscape and defines it as a basic characteristic of urban morphology (Gordon, 1984; Whitehand, 2001). Likewise, Kropf (2005) noted a transition point through the urban form by defining its position between morphology and urban design. The author stated that *“an understanding of internal structure is essential to successful manipulation of a material, urban morphology is essential to urbanism and urban design”* (p. 17). Furthermore, Larkham (2006) pointed out another important fact; that urban morphology can create a bridge between qualitative and quantitative data of urban components, since it combines urban design with physical data. Considerable research has shown that trying to explain urban forms with GIS data shows this.

Besides all these, the description of Conzen has a different importance in the literature. Conzen (2004) stressed the interaction between morphology and space in relation to urban identity. According to the author, while new periods renew the morphological characteristics and townscape, they also change or affect the previous ones. These phases create variations of morphological structures in urban space where the townscape becomes a *“palimpsest”* (p. 51). Correspondingly, the morphological components also become the basic materials of townscape in relation to urban identity. The author examines the relationship between different urban divisions within historical layers.

At this point, the ideas of Conzen (2004) and Lynch (1960) can be combined, in order to understand the changing morphology and image relation more effectively. Lynch (1960)

underlines that urban image depends on an efficient interrelation between components like nodes, paths, landmarks, districts and edges. Here, the identity of the place and functional interaction should also be criticized. In this context, five image elements of the city; node, path, edge, landmark, and district; can be embraced as the additional urban components to Conzen's urban divisions. While sharing similarities with other theoreticians, Lynch used a strong categorization in order to understand the components of cities, which combine form with functionality and urban image. Since the analyses of these two researchers are very effective in a mutual relation, it is possible to achieve an efficient outcome within the interrelation of urban image and morphology.

Additionally, Günay's (2006a) assumption presents a clear understanding as an assembler. The production of urban morphology can be defined in two and three-dimensional scales. Because of this, some basic aspects of the decision-making process cannot be separated from urban morphology, since they play an important role in shaping the form. Also, the image elements of the city (see Lynch, 1960) underpin the basic connection, since the landscape and architecture of the city can never be finalized. Urban design constitutes a complex relation between planning, building architecture and landscape architecture with respect to the tools of urban image and morphology. Since this chapter only seeks to define the morphology in depth, the definitions of gestalt and urban image will be provided in later chapters.

To conclude, the concerns of urban morphology are mainly related to the physical components of cities and the interaction between various components. However, it is not enough to define the case in a simple way, since there are many other factors that shape cities (e.g., property rights, upper-scale planning decisions, image elements, urban tissue and so on). Urban morphology is asserted as a concept, which composes form and its interrelations due to functional and perceptual features. Some scholars explain it as a matter of historical identity, while others stress the perspective of changing urban functions. However, all arguments point out that the form of the morphological components (plot, street, block, open spaces, building structures) orients us to the discussions of urban image and identity.

2.1.1. THE SCHOOLS OF URBAN MORPHOLOGY

This section aims to analyse the schools of urban morphology in order to examine different approaches to and descriptions of the concept. Three major schools have emerged in Europe since the 1950s. As an interdisciplinary field, they involve a large variety of types of researchers, such as geographers, architects, philosophers, historians, planners and so on. According to Gauthiez (2004), it is not easy for a researcher to connect all of these schools on the same level. Since there are separate sets of literature, researchers mainly produced the ideas from their own disciplinary perspectives, despite the fact that some cases are interrelated to each other. The three main schools that will be analysed are:

- British School
- Italian School
- French School

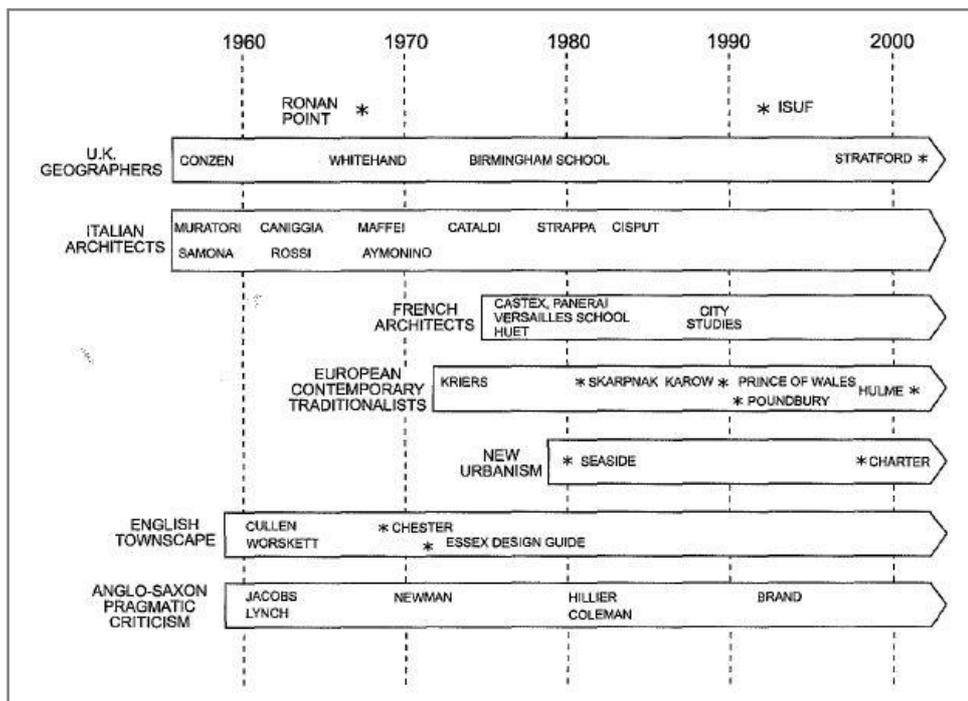


Figure 2.1 The Genealogy of Urban Morphology Schools (Samuels, 2004)

This analysis will explain how different disciplines look at urban morphology is understood by. In order to link the physical and perceptual change of urban morphology, the review of the existing literature is also substantial, since it can enlighten present values as well as traces

of the past. Gauthiez (2004, p. 72) described the interrelation of morphology schools this way:

“Concepts that are close to one another, or even identical, appear in very different words or expressions from one language to another. We shall see how Conzen's 'plan unit' and 'morphological region', notions close to Keyser's 'Stadtteil' and not that far removed from Kretzschmar's Anlage, are in fact very close to Piccinato's 'zona' or even Caniggia's 'tessuto urbano', or to the entire homogene as used by Arnaud.”

2.1.1.1. British School: Conzen's Town-Plan Analysis

The British School of urban morphology emerged at the end of the 19th century and continued with the leadership of Conzen. During mid-1900s, urban morphology, as a concept, was closely related to landscape planning in central Europe. Conzen was one of the first researchers to study and publish research on Anglophone geography. Some articles mention that he was influenced by Schlüter, who was a German geographer and the pioneer in the theory of urban morphology between the 19th and 20th Centuries (Whitehand, 2007).

“In Britain, the major focus of geographical exploration of urban landscapes had, by then, become the Urban Morphology Research Group in the School of Geography at the University of Birmingham, with its focus on the Conzenian morphological tradition. This has since been referred to as the 'British school'.” (Larkham, 2006, p. 119)

When compared to other schools, the Conzenian method differs by analysing the parts of the city both in upper and lower scales. The interrelation of the urban components plays a crucial role when using a holistic approach. With reference to gestalt theory, a consistency is adopted through this approach. Just as parts can form the whole, those wholes can also be a part of another whole (Bademli, 2005). The theory emphasizes that the whole has a different meaning from the sum of all parts. At this point, the Conzenian method is also examined via this approach. Conzen (1960) offered a suggestion for the division of urban form. According to him, there are tripartite divisions of historical townscape analysis:

- Town Plan/Ground Plan: Site, streets, plots and block plans
- Urban Building Fabric: 3-dimensional form
- Land Utilization Surveys: Land-use plans

Samuel (2005) mentioned that the Conzenian approach primarily focuses on the concerns of architecture and urban design. Firstly, Conzenian method enclosed the interest of ordinary buildings that create the urban fabric. Afterwards, it takes cognizance of the change and

interrelation of the built environment in different parts of the city. As a geographer, there are mind-opening drawings and visualizations of him for the urban conservation practices. Inevitably, Conzen's approach provides a connection between the different parts of the city by conducting an ability of visualization.

Conzen (1960) stated that the historical and morphological changes shape the urban identity, which may continue for long periods. Different periods can create new layers, while erasing or changing the effect of previous periods, thus transforming everything into a new one. At the end, "the townscape becomes a kind of palimpsest" (p. 51). The concept of palimpsest emerges with different urban fragments like culture, daily behaviour, identity, place structure, urban space, urban place and so on. Conzen (1960) noted that "*the place or locality is no longer a merely physical structure, but a place with a spirit of its own, it has its own genius loci*" (p. 57). This perspective shows a clear understanding of urban fragments and morphological patterns that overlap in cities.

However, the methods of the British School are still too physical or mechanical, and the connections between space and place are not very well-defined. One can say that the Conzenian approach is ineffective when it comes to combining the perceptual components and the physical elements. Thus, it should be supported with some additional theories in order to use it as an in-depth analysis for urban image and morphology.

2.1.1.2. Italian School: Muratorian Perspective

The first typo-morphological studies emerged after the 1940s, with Muratori, who primarily analyses morphology with respect to building structures. Similar to Muratori, researchers like Caniggia, Aymonino and Rossi defended and have continued this movement by asserting the conflict of modernism in the urban context. Their primary focus is on the operational history of the building structure and its alternative transformations (Pourmohammadi & Mousavi, 2010).

"The contributions of the Italian 'school', first Muratori and then Caniggia, principally on architectural typology, are well known today, as are the contributions of the English 'school' initiated by Conzen." (Gauthiez, 2004, p. 71)

Being a pioneer for the Italian school, Muratori adopts a perspective that shows criticism to those colleagues who strictly adhere to modernism. With his analyses, he proposes important hypotheses related to different historical layers of cities (Sima & Zhang, 2009). Muratori criticized planning systematics and its positivist approach to urban design. According to the

researcher, the tools for the transformation of cities are not natural. Today's existing modernist system is very reductionist and it externalizes the importance of architecture and building knowledge, since it sees them as simple technical data. Muratori believes that this situation creates a lack of logic for understanding the historical transformation of the existing built structure (Gauthiez, 2004, p. 56).

Besides Muratori's criticism of modernism, Moudon (1997) stated that the Italian school and the British school have common points within the concept of *genius loci*, which means "*the identity and soul of a place*" (p. 4). While Italians criticize and separate themselves from the British School, the common concerns of urban image and identity can clearly be observed. Here, Caniggia defends procedural typology, which sees political and economic forces as an impact for the basic elements of urban form. The author analyses the residential row houses as the basic component of morphology and expands the horizon of research related to the residential patterns of the medieval system in Europe. Similarly, his studies focus on architecture, since he sees that as the basic component of urban morphology (Moudon, 1997). All in all, the Italian School approach puts architecture at the origin of urban morphology. This is an apprehensible perspective; however, a reproachable one at the same time. While buildings are seen as the keystones of the cities, inevitably, other morphological components and their interactions are also seen as vital.

For instance, Bademli (2005) mentioned a paradox between the part-whole relationships in his planning-studio writings. Every whole is a part of another whole, since the argument of selecting a deductive or an inductive method emerges for the methodology of the problem solutions. Based upon this perspective, it is questionable that the Italian School contains a balance between the whole and the parts. It is important for planning and architectural disciplines to be bonded for the analysis of the existing system and solve the complexity of modern cities. The building structure and its historical transformation seem to be an alternate method of solving this problem; however, it is only possible to get a successful result by looking at all of the components in a balanced way.

2.1.1.3. French School: Versailles's Movement

At the end of the 1960s, alternative approaches on architecture began to evolve in France. 1968 was seen as a breakthrough year for the modernist approach, in which the doctrines of architecture and city planning changed in France. Komorowski (2007) supports the view that urban disciplines became more interdisciplinary in this decade. Rather than British and Italian School, French School adopted a structure by merging various disciplines like sociology, history, planning and architecture. While Lefebvre conducted the first studies in the Versailles school, sociologists, architects and planners like Castex, Panerai and DePaule continued the movement. Moudon (1997, p. 5) defined the movement this way:

“A third school emerged in France in the late 1960s, when architects Philippe Panerai and Jean Castex, together with sociologist Jean-Charles DePaule, founded the School of Architecture in Versailles as part of the dissolution of the Beaux-Arts.”

The father of the French School, Lefebvre, studied the conflicts between the phenomena of space and social facts at the peripheral sites of France. He analysed the form and the shape of the high-rise buildings within the relation of “degree of control over their physical environment” (Komorowski, 2007, p. 16). This perspective provided the possibility of a comparison between pre-modern/post-war morphology and the social behaviours related to them. Based on this approach, researchers like Castex, Panerai and DePaule defended that contemporary architecture and planning should look more closely at pre-modern cities, in order to create better urban spaces. Komorowski (2007) stated that, while the British and Italian Schools give more attention to the built structure, the French school expends more effort on the social phenomena and built structures in a balanced way. Yet, the French School also examines urban place and social space independently like Italians, where they create a more dialectical relationship and use urban morphology as a tool to explain this evolution (Moudon, 1997). Komorowski (2007, p. 17) described French School and compares with Italians:

“Contrary to Italians, the French tend not to see contemporary production of built form as a historical and do not claim that a return to historical paradigms is particularly urgent. The underlying assumption in Muratori and Caniggia's work is that modernist architecture and urban planning have caused a rupture with the long-standing building traditions. To them, modernist architecture and planning are ahistorical, an aberration that needs to be remedied as soon as possible. In the Versailles School's view, modernist architecture did not arise as suddenly as the Italian would claim. Rather, it is the result of a series of gradual changes in architectural and building practices that began after the French Revolution.”

2.1.1.4. Inferences

The British, Italian and French schools form the general framework of the urban morphology literature. Within these three schools, Conzen proposed components for upper and lower scales, which adopts urban morphology as a palimpsest. He underlined the changing morphology and image in an interaction. Yet, Conzenian method has lacks of defining the image features in order to reveal the perceptual features of cities.

On the other hand, Muratori defended the process of historical transformations and the importance of building structures in this framework. While the Italian perspective focuses on the organic transformation of architecture, it remains relatively weak, when it comes to providing a holistic approach for the evaluation of the urban space as a whole.

The French school emphasizes urban morphology as a complex matter, which encompasses a number of interdisciplinary concerns, like sociology, history, urban design, architecture, planning and so on. Here, the French School stands somewhere between the British and Italian Schools, because it tries to link social concerns with respect to the built environment. However, while the perspective of social phenomena is strong, there is no solid method that can provide an alternative to either the Italian or the British approach

After analysing the three schools of urban morphology, the Conzenian School is selected as the primary methodology, since it contains valuable references to urban image and morphology within upper and lower-scales. However, this approach needs input from additional theories, so as to ensure the connection with physical components and the urban image. At this point, Lynch's (1960) image elements will be bonded, in order to achieve an efficient analysis method.

2.1.2. CONZENIAN METHOD: TOWN PLAN ANALYSIS

In this subsection, Conzenian method will be analysed in order to understand the potential of its application for the case study. While the link between urban image and morphological components seems weak, the relationship should also be tested with different theories. According to Whitehand (2009), three components of Conzenian methodology propound the different types of historical and cultural layers in terms of their patterns and features. Conzen (1960) categorized urban morphology in three groups:

- Town Plan / Ground Plan
 - Streets as Street System
 - Plots as Street Blocks
 - Buildings as Block Plans
- Building Fabric
- Land and Building Utilization

Conzen and Conzen (2004) define that streets and plots have the strongest resistance to morphological transformation because of their significant relation with property patterns. On the other hand, buildings are relatively weak since they can transform when affected by external factors such as fire, natural disasters, architectural movements, and so on. In addition, land utilization can change quite easily with the needs, requests or ideologies of different eras. Between the three main components of urban divisions, Conzen's Ground Plan analysis submits the best components for a morphological analysis. Carmona et al., (2003, p. 63) correlate Town Plan/Ground Plan with the concept of palimpsest in order to highlight their image impacts on cities:

“The ground plan of most settlements can be seen as a series of overlays from different ages. The term 'palimpsest' is used as a metaphor for such processes of change, where current uses overwrite but do not completely erase, the marks of prior use.”

2.1.2.1. Streets and Their Arrangements

Conzen (1960) defined streets as independent open-air spaces, which ensures pedestrian and vehicle movement. This independent but interrelated system is examined as an urban division. Different streets have different features, based on their usages. Without a doubt, they define a perfect public usage for the common concerns of the society. Streets are shaped with the surrounding land use and block structure. Street patterns interact with blocks, public

spaces and other divisions, where they may define these components or may be defined by them.

“The term street here refers to the open space bounded by street-lines and reserved for the use of surface traffic of whatever kind. The arrangement of the contiguous and interdepend spaces within an urban area, when viewed separately from the other elements of the town plan, may be called the street system.” (Conzen, 1960, p.5)

2.1.2.2. Plot Layout

Conzen (1960) described the plots as street-blocks, where the inner parts frame the land use form and the array system. The plots create order in the urban system, as it is called plot patterns. One of the most substantial differences apart from the street network is that plots do not have the same public value. For instance, facades can create an alternative system for the connection of different nodes and continuous space variations throughout the city. Furthermore, they also can be transformed, based upon the needs of larger building areas (or vice versa), where they can be blended or divided. It is also possible to see a total block system, which is amalgamated by privatizing the entire street system for large commercial areas (Carmona et al., 2003).



Figure 2.2 The Street Patterns of Goteborg (Trancik, 1986, p. 186)

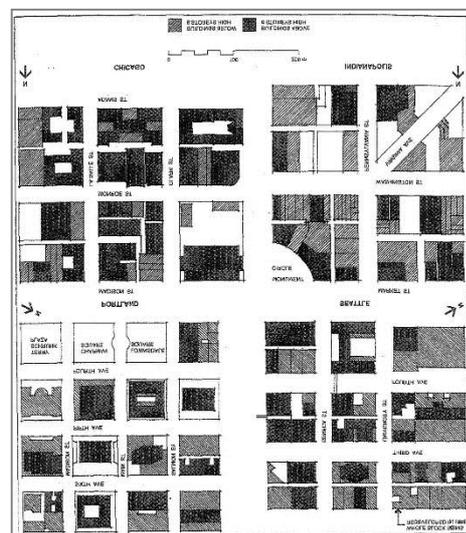


Figure 2.3 CBD Block Structures from USA (Carmona, 2003, p. 84)

2.1.2.3. Buildings and Block Plans

Buildings and block plans are the lines that define the plot ground. In other words, the space that occupied the plot is called the block plan. While buildings define plots, plots define streets and all these components define the town plan. Conzen (1960) defined buildings as the basic elements of urban structure, yet buildings should be defined very carefully, so as to not create an ambiguity between the disciplines of architecture and urban design. Here, the primary concern is to show the effects of urban space, where buildings are defined in relation to other components, such as streets and plots. Rather than architectural details, the space itself is the main concern (Conzen & Conzen, 2004).

2.1.2.4. Inferences

Town Plan Analysis shows different combinations of urban components that establish a measurable unity. Conzen (1960) stated that “it represents a plan-unit, distinct from its neighbours” (p. 5). The author highlights that:

“...plan analysis properly includes the evaluation of physical conditions of site and situation as well as of relevant economic and social development. The latter, indeed, provides the background for the inter-dependence of plan, building fabric, land use and the bridge between the morphological and the functional approaches in urban geography.” (Conzen, 1960, p. 5)

Conzen’s Town Plan components work harmoniously in an interactive system; however, they remain overly technical for an analysis, which aims to focus on the relation of urban image and morphology. After all, a basic physical analysis can orient the discussion to a positivist approach, which can create a handicap for the observations of perceptual features. Thus, Lynch’s image elements will be examined, in order to combine with the Conzenian method due to their supplementary features. However, before analysing Lynch’s method, three theories of urban spatial design will be investigated in order to make a smooth transition between physical and perceptual dimensions of urban space. The relation of urban image and morphology elements has important roles for focusing on the distinctiveness of urban space and place.

2.1.3. THREE THEORIES OF URBAN SPATIAL DESIGN

In this part, theories of urban spatial design will be analysed in relation to urban image and morphology. After integrating the theories with morphological components, a holistic method will be applied for the case study. As the thesis examines how urban image can be conserved and achieved within the process of morphological transformation, it is crucial to analyse the basic theories of urban design. Trancik (1986) is taken as the main reference, due to his approaches on spatial analysis. The author analysed the spatial theories in three different ways:

- Figure-Ground Theory
- Linkage Theory
- Place Theory

Each of those theories hints at the spatial quality and integrity and the main aim is to select and form an analytical method that can be applied to the case study. While figure-ground defines the physical formations, linkage theory reveals the interactions. On the other hand, place theory points out the outcomes of a combination, which bond social behaviours with urban space. Naturally, all three theories fit with the goals of urban image and morphology within the key aspects of built structure, interactions and individual behaviours.

2.1.3.1. Figure-Ground

Figure-Ground is one of the basic spatial analyses of urban space, and one that is necessary to understand the relationship between solids and voids (Fig. 2.4). Trancik (1986) defined this interrelation due to a completion process:

“The building coverage is denser than the exterior space, thereby giving shape to the public openings - in other words, creating positive voids, or ‘space-as-objects’.”
(Trancik, 1986, p. 98)

It is possible to see variations of different building types in urban areas where the effects of the buildings can be evaluated based on the spaces they shape. For instance, Trancik (1986) mentioned that tall buildings, like skyscrapers, cannot define urban spaces because of a lack of continuity and integrity with other solids. Since they are independent, they cannot provide an effective space definition.

Additionally, figure-ground analysis explores an interaction and a completion process. The solids work together where they define the spaces as a whole. They turn into abstract objects with distinctive characteristics after becoming the place itself. Likewise, in spite of creating

vertical systems, horizontal and continuous ones are always more successful to define the transition areas between private and public spaces (Trancik, 1986).



Figure 2.4 Figure-Ground Diagrams (spur.org, 2014)

The solid-void relationship creates an orientation in the city. While they complete each other; they form streets, squares and gathering spaces, all of which define the built structure. Furthermore, they can provide a distinctive perceptual value, according to their changing features of spatial definition.

Urban Solids

Trancik (1986) described urban solids in three components: public buildings/institutions, predominant urban blocks and directional/edge-defining buildings. Public buildings/institutions can give significant clues about the identity and character of a city, with their historical values and visual focal points. Cathedrals and city halls can be given as examples, since their monumental image has a significant importance in urban space. Mostly, these structures stand apart from other groups near a public place, like a square or a piazza.

Predominant urban blocks constitute the basic components of figure-ground theory. Mostly, the composition of the urban space reveals a repetition or an identical language of these blocks. While they differ due to land-use patterns, these differentiations also reflect the main characteristics of the city. Many of the world's metropolises can be identified through their block structures. For instance, Barcelona's courtyard-grid system is easily differentiated from Istanbul's organic block structure.

Directional/edge-defining buildings form non-repetitive urban spaces with significant facade structures. Mostly, the forms are designed so as to define alternative spaces. They can create a break in a monotonous form of a boulevard, or support other built structures, such as public buildings, in order to highlight their visual dominance.

Urban Voids

In relation to urban solids, there are five void elements: foyer spaces, inner block voids, street and square networks, public parks and natural landscape elements. Foyer spaces represent an integration and transition function between different zones. They mostly define a passage into important areas. Trancik (1986) defined them as "a place where one can be both public and private" (p. 103).

The second component, inner block voids, is often used for semi-private functions. These spaces are mostly used as shopping or leisure areas. While they are not recognized from outside, they still provide important usages for urban space. Turkish passages can be given as examples with their permeable structures.

Street and square networks are actively-used spaces with key image values since they represent the most important urban areas with functional densities. These components are like the veins of a connection, with different activities. Trancik (1986) emphasized that the cities are experiencing a kind of an image-erosion since they lose the mixed-use dominance with the emergence of shopping malls.

Furthermore, public parks and gardens can be exemplified as the shifting zones from hard to soft landscapes. They present the rural image and satisfy the need for a natural identity in urban space. Mostly, they are used as important nodes/zones in the peripheral and central parts of cities.

The last one is linear open systems like rivers, wetlands, watercourses and mostly the formations that present an edge. They can link different districts with sharp transitions, like the edge description provided by Lynch (1960). As distinct from that, these components are mostly described as in linear forms. Trancik (1986) stressed that they can provide a movement and break the monotonous patterns with traversal degrees.

All in all, figure-ground theory examines the solid-void relation within two-dimensional city plans. The success of its plain and clear method contributes an important knowledge to the urban design literature. Trancik (1986, p. 106) noted that:

“If the relationship of solids to voids is poorly balanced, fragments become disjointed, falling outside the framework; the result is lost space. In order to reclaim our lost space, there must be a willingness to reconsider the object and evaluate the ground rather than worship of the figure.”

On the other hand, some of its deficiencies should be noted, since we can criticize the need for an explicit three-dimensional analysis. For instance, private ownership – a plot – can change the entire spatial system significantly. It is possible for a plot to be surrounded by walls or barriers because doing so would isolate the space from an active public perception. An edge like this can change the perception and usage entirely, which cannot be observed in the figure-ground analysis. Eventually, it is more effective to use figure-ground theory with the support of three-dimensional analyses.

2.1.3.2. Linkage Theory

Linkage theory examines the connection between urban components where individual functions make up the basic spine. Components create forms and forms create spatial systems. Maki (1964) defined the theory as “the glue of the city” (p. 21). The author stated that there are many different functions working harmoniously in different forms. Based upon this approach, there are three formal types (Fig. 2.5):

- Compositional Forms
- Megaforms
- Group Forms

Compositional forms consist of individual structures, where the buildings are more fragmented from each other and the solids present the dominance in an undefined space system. These forms can be observed in post-modernist urban tissue easily. Here, the

individual structure is prominent, while the space is relatively less important and therefore less significant than the built structure.

Megaforms are the continuous structural systems within a hierarchy that create an open-ended system. Yet, the space they create can be too large when compared with human scale because of the linear formation.

Group forms are the result of overlapping layers, which can be seen in historic towns. They are mainly the results of organic development, where the components have highly integrated relationships among one another. The crucial point of group form is that neither the individual nor the group is more substantial than the others. Both define each other in a balanced way. Eventually, they also overlap with Conzen's "palimpsest" concept (Conzen & Conzen, 2004, p. 51), where they are mostly shaped with respect to environmental values within a historical process.

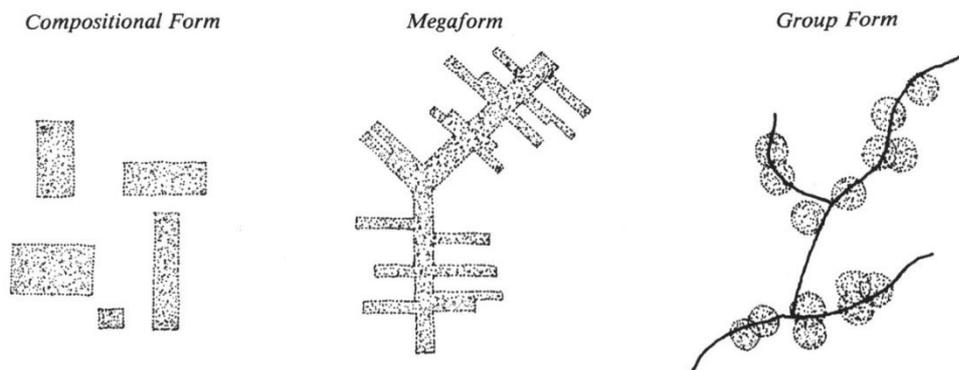


Figure 2.5 Types of Spatial Linkages (Trancik, 1986, p.107)

All in all, the theory indicates a system of different forms, all of which basically control the built environment. It points out an importance for public space totality and its relationship to individual structures. Maki (1964) described the theory in a hierarchical order, from an individual building to the whole system. Trancik (1986, p. 108) interpreted Maki's studies thusly:

“From Maki, we learnt that there are several methods of organizing coherent spatial relationships under the linkage theory of urban design. What emerges from his important work is that the composition of public space is established as a totality before either individual spaces or buildings are planned.”

2.1.3.3. Place Theory

While the theories of figure-ground and linkage analyze the physical interaction, place theory merges the cultural and personal experiences with spatial systems. According to Trancik (1986), space is a technical result of a built structure until such time as people live and turn that space into a place with actual experiences. From this point of view, the theory melts social and spatial phenomena into one pot. Out of many different definitions, Schultz (1980, p. 5) made a distinctive one:

“A place is a space which has a distinct character. Since ancient times the genius loci, or spirit of place, has been recognized as the concrete reality man has to face and come to terms within his daily life. Architecture means to visualize the genius loci and the task of the architects is to create meaningful places where he helps man to dwell.”

Trancik (1986) stated that it is crucial for an urban designer to move from a two-dimensional plan to the place itself and predict the outcomes of implementation with respect to the societal reactions. The role of the urban designer is not only binding the parts of the city, but also merging the social, cultural and spatial features, which are essential. At this point, the importance of these experiences propounds an important role between time and space and they reveal the meanings only if they are continuous in time. Lynch (1972) explained this correlation:

“Just as each locality should seem continuous with the recent past so it should seem continuous with the near future. Every place should be made to be seen as developing, charged with predictions and intentions. The concepts of space and time appear and develop together in childhood, and the two ideas have many analogies in their formation and character. Space and time, however conceived, are the great framework within which we order our experience. We live in time places.” (Lynch, 1972; cited from Trancik, 1986, p.115)

In today's world, decision makers can hardly create significant urban places, since most of them are in no way distinctive. Ironically, this criticism has not changed since the beginning of the 1980s, when Trancik (1986) wrote *Finding the Lost Space*. However, creating new methods by using existing ones might lead to some effective methods. Trancik also looked for the same solution in his book by combining theories like those from Lynch (1960), Schultz (1980), Cullen (1975) and so on. Lynch (1960) defined some clear points in relation to place theory.

In Lynch's (1960) analysis, interviews are conducted with different people in order to test their perceptions of urban components. As a result, the author proposed three principle rules

for new designs: legibility, identity and imageability. The first principle, legibility, represents a mental picture that emerges in people’s minds while they are articulating in the city. Identity represents the physical structure and meaning of an urban area. Imageability represents how people experience the city with its spatial and physical structures. Undoubtedly, these static definitions are not sufficient to defining place theory. However, the three principles should be considered, in order to strengthen the Trancik’s descriptions.

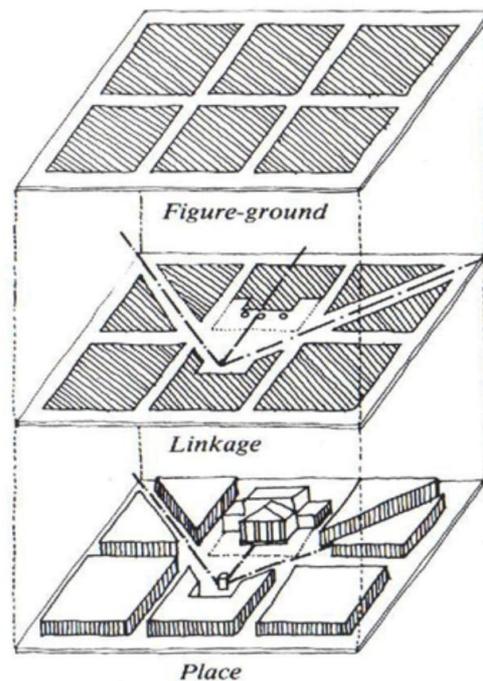


Figure 2.6 Diagrams of Urban Design Theories (Trancik, 1986, p. 98)

It is a fact that catching the harmony between all of these theories is important for a successful urban design practice. The idea of combining the interrelation between solids and voids can be the key methodology for a spatial analysis. However, place theory shows that the integration of social and physical factors is very crucial. Trancik (1986, p. 124) summarized this interaction:

“If an urban context is designed around the linkage theory alone, it falls short because the product becomes non spatial and therefore nonexperiential. If the place theory is applied without regard to linkage and figure ground, important connections outside the design area and new spatial opportunities within may be lost. Conversely, if the figure-ground theory is exclusively used, the results often become totally spatial and possibly unrealistic in terms of user needs and implementation. The key therefore is to apply these theories appropriately and collectively to each urban design project.”

2.2. IMAGE OF THE CITY

The Image of the City (1960) provides an alternative way of thinking about urban design. The author's extraordinary perceptual analyses show that many of the meanings are interchangeable within their own image experiences. According to Lynch (1960), every city has its own society-image. These images can come together and create a serial vision. Most importantly, they are necessities if the people are aware and connected to the urban environment. Individual observations can vary from the overall values, even if they point out a different understanding. The historical background or even a name can have an impact on the place and its image. The author defined the elements of urban image in five groups (Fig. 2.7):

- Paths
- Edges
- Districts
- Nodes
- Landmarks

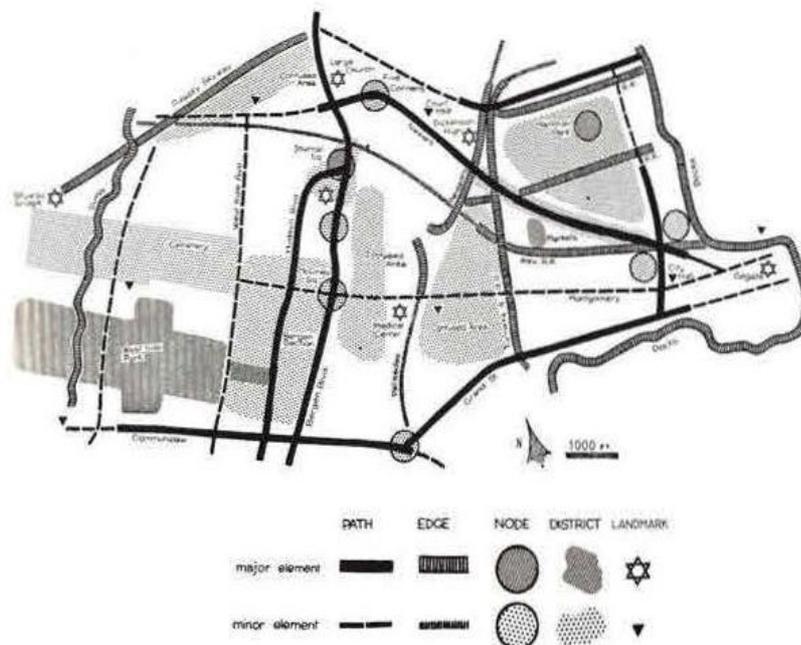


Figure 2.7 Lynch's Image Elements for New Jersey
(Lynch, 1988, p. 26)

The difference between Lynch (1960) and Conzen (1960) is that Lynch defined the urban components not only with physical features, but also with their perceptual features. This point of view brings the argument to an abstract ground, which is necessary to examine the urban image more in-depth. According to Lynch, a building, its history or even the name of a place can create an image perception. The author emphasized that new designs should strengthen the meanings and image elements, rather than exclude them. The cognitive difference can vary based upon the users. For instance, a driver might observe a highway as a path, while a pedestrian might observe it as an edge. This example demonstrates the importance of relativity and the whole-part relation of image elements in a holistic perspective.

Moreover, Lynch provided an alternative methodology within the involvement of inhabitants from three different cities; Boston, Jersey and Los Angeles and it still cannot answer some physical aspects of planning and urban design as a whole. The questions that can reveal answers here are: “Is it possible to combine image elements with the components of Conzen’s Town Plan Analysis?” “How can the collaboration of physical and perceptual elements be acquired?”

2.2.1. KEVIN LYNCH: IMAGE ANALYSIS

2.2.1.1. Paths: Connectors of the City

A path can be a railroad, a street or a canal. According to Lynch (1960), the paths create the main vessels of cognitive maps in people’s mind. In the research, the author observes that some roads (as paths) constitute well-known routes for inhabitants. Here, people attribute a different meaning to these paths, involving special urban activities (e.g., transportation, shopping, pedestrian networks, leisure and so on.) Furthermore, the spatial features can also give some cognitive meaning. For instance, the analysis reveals that inhabitants give different meanings to wide streets and they do narrow streets. When a wide street is combined with high buildings and pedestrian crowds, the strength of the image increases. When the identity of the main paths is lessened, the image of the city becomes weaker. Correspondingly, the continuity of the street networks, pavement or facade gains a significant importance for image perception. Lynch (1988, p. 52) stated that:

“When the channel width changed, as Cambridge Street does at Bowdoin Square, or when the spatial continuity was interrupted, as it is at Washington Street at Dock Square, people had difficulty in sensing a continuation of the same path. At the other end of

Washington Street, a sudden change in the use of buildings may partly explain why people failed to extend Washington Street beyond Kneeland Street into the South End.”

On the other hand, car traffic should also be examined carefully, since many inhabitants identify highways with fear, based on a lack of confidence while near them. Speed and heavy traffic basically create a dangerous image in people’s minds. Correspondingly, while a path can be a pedestrian friendly green zone, it can also be a dangerous edge if the flow is very fast. All in all, paths are the image elements that people use for both recreation and functional activities. Most are functional, since they provide routes between other elements. People ascribe different meanings to the city and other elements while observing and creating a connection between them and the entire system (Lynch, 1988).

The morphological components of Conzen’s Town Plan Analysis can be combined with Lynch’s path description. The street is the transmittal element, which is the place for people to live, move and perceive. Using it as only a technical element would result in a loss of distinctiveness and cultural identity. Concurrently, a street or path is the place for people to share their commonality during a functional activity. In a documentary film about the music culture in Istanbul, the portraiture done by a street performer is one the most enlightening aspects:

“Because of being on the same level, street unites people. Whatever their class basis is, it brings them together on one ground. That is something that the street does and why we make music on.” (Crossing the Bridge: The Sound of Istanbul, 2005, min. 52:00)



Figure 2.8 Street as a ‘Path’

2.2.1.2. Edges: Depicters of Urban Space

Edges are the image elements (e.g., railroads, walls, gated areas), that cause breaks in urban space. Strong edges have continuous linear forms with clear distinctions where they mostly do not allow passage. On the other hand, they do not always have to be impenetrable, since many of them have connective features between different zones. Lynch (1988, p. 65) explained this:

“Boston's Central Artery seems to divide absolutely, co isolate. Wide Cambridge Street divides two regions sharply but keeps them in some visual relation. Beacon Street, the visible boundary of Beacon Hill along the Common, acts not as a barrier but as a seam along which the two major areas are clearly joined together. Charles Street at the foot of Beacon Hill both divides and unites, leaving the lower area in uncertain relation to the hill above. Charles Street carries heavy traffic but also contains the local service scores and special activities associated with the Hill. It pulls the residents together by attracting them to itself. It acts ambiguously either as linear node, edge, or path for various people at various times.”

Additionally, they can be used as elements in order to orient people into a new region or just to highlight the interaction between them. The Bosphorus in Istanbul is a significant example of this. Most people, whether they know the city well or not, form their cognitive maps based on the Bosphorus. While it sharply divides the city into two parts, it creates a meaningful image for people to understand the transition from Asia to Europe. When this element is combined with an important path (sea routes and extraordinary scenery as a landmark), it constitutes a unique kind of edge.



Figure 2.9 Bosphorus as an ‘Edge’

Based upon these descriptions, if edges are accepted as passable/impassable boundaries, Conzen's plot division can also be bonded with them in order to do a procreative analysis. After all, the existing parcelling (plot) system describes a border for the property ownership pattern. These borders can be permeable (or not) for the urban circulation systems, according to their owners. While the property relation and urban design is a complex problem, it is also crucial to look from a practical perspective that private ownership (plots) can affect the circulation systems of central areas with their bordering or orienting abilities.

2.2.1.3. Districts: Variety of Urban Features

Districts are relatively larger parts of the city when compared to other elements. Mostly, they represent the most perceivable elements for the inhabitants. They form their own characteristics without separating themselves from the whole system. Different physical features, such as forms, buildings, symbols, land use activities and spatial qualities can define the main features of a district. Naturally, the more continuous these features, the stronger the image becomes. On the other hand, the image is not only made up of physical aspects, but also with social differences. Most people define districts by their social characteristics, which make them easily recognizable.

In general, there is a type of a hierarchy, since people define the districts due to their land use activities (i.e., commercial, industrial, residential and so on). After that, they make another distinction between regions. For instance, while a CBD can be dominant in one cognitive map, a sub-center may be unclear. The same situation is valid for the case of residential districts. However, the perceptions can be either more in-depth or superficial. Concordantly, Carmona et al. (2003) complained that a crucial problem of today's urban design exists because of the monotonous perspectives that create prosaic urban places.



Figure 2.10 Manhattan as a 'District'

Furthermore, districts are two-dimensional areas with different scales in perceptual senses. People feel that they entered into a different zone with reference to the changing physical and social characteristics. While these elements are recognized by their internal features, some can remain external if they carry unique features in relation to other elements.

Based on these examinations, Conzen's block structure and Lynch's district element can be bonded. While districts differ due to cognitive senses and particular characteristics, block structures can also vary due to different districts. This demonstrates a whole-part relationship, which can solve the prosaic interrelation between different features. If it is assumed that they are shaped with different block patterns, there can be an interaction and variation due to the surrounding urban image.

2.2.1.4. Nodes: Intersection Zones

A node is a significant focal or transition point in which one function changes to another. They can be enclosed spaces, squares, corner places or road junctions. Here, Lynch (1988) highlighted that the relative scale of perception is substantial to examine. While a square can be a node in the city, the same city can be a node in a country. Due to this concern, nodes should be considered due to the changing scales of perception and characteristics.

Nodes are significant image elements, since they are the decision-making points for people. When people come to the junctions/nodes, they always have to decide where to continue. Because of this stimulation, they observe the environment more carefully than others. Ironically, this behaviour is very repetitive at road junctions, and most people believe they have important image values.

Thematic densities are important for the continuity of an urban image. Landscape elements, open spaces and activities all help to define the image of nodes because people unify them with these characteristics. This is especially true when it comes to functional activities like train stations, which can create substantial nodes. Lynch (1988, p. 74) explained this:

“Boston's South Station was one of the strongest in the city, since it is functionally vital for commuter, subway rider, and intercity traveller, and is visually impressive for its bulk fronting on the open space of Dewey Square.”

Nodes create a strategic and intensive focus where they provide an entrance to the city. They create dense activity zones due to their spacious environmental differences. In other words, they are the cores that serve as spaces for different functions.

It is not possible to see this component's equivalence in the Conzenian method. However, these areas can be accepted as the connectors of Conzenian divisions. Moreover, Lynch (1960) propounded that nodes represent highly dense functional focuses or junctions, which can carry the dominant image in the city.

As distinct from other elements, they have basic public values, much like streets. Furthermore, they can have different space hierarchies within variations. Sometimes, a small enclosed space in front of a corner shop or a big traffic junction can be considered a node. The crucial point here is that, while creating public or semi-public focal points, nodes are the dominant interaction points, which constitute mixed usage for people. They play a major role in the relation of different districts or blocks, while orienting people to the other parts of the city.



Figure 2.11 Traffic Junction as a 'Node'

2.2.1.5. Landmarks: The Faces of the Cities

Landmarks play a major role in the orientation and cognitive values of a city. Lynch (1960) expressed them as spot references, which are identified as important buildings, parks or even mountains. They constitute the most important image elements, with their unique characteristics in relation to surrounding environments. With their cognitive features, their image can exceed the limits of the city. Some prominent examples include the Eiffel Tower (Paris), the Empire State Building (New York), the Statue of Hittites (Ankara) or the Galata Tower (İstanbul).

Landmarks are easily remembered eye-catching elements, even when contained in chaotic environments, with a contrary feature such as height, width or even colour. For instance, in Lynch's experiment, some subjects differentiate the landmarks based on their cleanliness or newness, although the most common difference is the height of the structure. Lynch (1988, pp. 80-81) described it:

“Spatial prominence can establish elements as landmarks in either of two ways: by making the element visible from many locations (the John Hancock Building in Boston, the Richfield Oil Building in Los Angeles), or by setting up a local_ contrast with nearby elements, i.e., a variation in setback and height. In Los Angeles, on 7th Street at the corner of Flower Street, is an old, two-story grey wooden building, set back some ten feet from the building line, containing a few minor shops. This took the attention and fancy of a surprising number of people.”

If a node is connected with a landmark, the image of the elements becomes more powerful. Also, an activity corroborates a unique meaning to the landmark. For instance, Paris is one of the most crowded metropolitans of the world with regard to its tourist visitors. Rather than the scenery, the active use of the Eiffel Tower and the Champ de Mars turns the space into an extraordinarily unique landmark. The height, activity and surrounding open spaces make it one of the most famous landmarks in the world. Even if people did not see other parts of Paris, when they see the Eiffel Tower, they know where it belongs, since the image exceeds the limits of Paris.

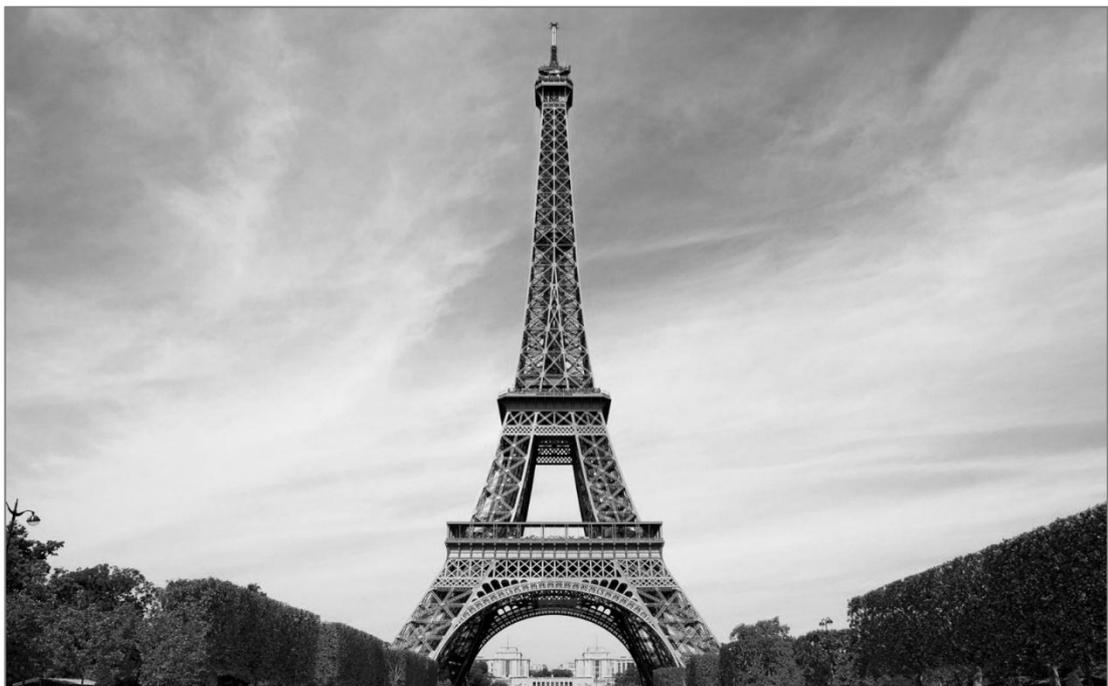


Figure 2.12 Eiffel Tower as a ‘Landmark’

On the other hand, while they can be observed from long distances, it is not always possible to find a way through them. Correspondingly, the weak interrelation between image elements and chaotic orientation systems can reduce their value. Inevitably, the fragmentation between image elements can cause a lack of an identity and legibility.

While landmarks are unique image elements, their historical backgrounds are very vital for the image value. Conzen and Conzen (2004) referred to the historical layers as a “palimpsest,” but landmarks constitute one of the most important layers with their continuous characteristics since they create substantial focal points.

2.2.2. Correlating The Theories of Conzen and Lynch

When the theories of Conzen and Lynch are analysed, it can be seen that they define crucial components both with technical and perceptual features. On the other hand, it is also observed that both lack complete systems (i.e., with spatial and cognitive features). Correspondingly, these two theories will be studied together in relation to urban morphology and image components.

Conzen (1960) stated that morphological transformations of the historical layers provide urban identity. Likewise, Lynch (1960) emphasized that urban image can be shaped by the interactions of several different image elements. While Conzen draws attention to the built structure, Lynch focuses more on the societal and perceptual identity.

Based upon their assumptions, urban morphology and image elements can be combined for the case study of Kızılay. However, the validity of this combination should also be questioned due to its structure. In particular, there is an important gap in the interaction of Lynch elements. While the parts are clearly described due to their roles and values, there is ambiguity for an integrated system. It is clear that the elements should work with each other, but the question of “how?” is not answered. Thus, Gestalt Theory will be examined for this combination (Lynch and Conzen) in order to catch the balance between components with reference to whole-part relationship.

This study aims to analyze the image of Kızılay (Ankara) with respect to its morphological transformations over time. The combination of Lynch and Conzenian methods can generate a new model, which works harmoniously if the gaps in their interaction can be filled with gestalt principles. In this combination, Lynch’s Image Analysis will be the primary method where Conzen’s Town Plan Analysis will be the supportive one (Fig. 2.13).

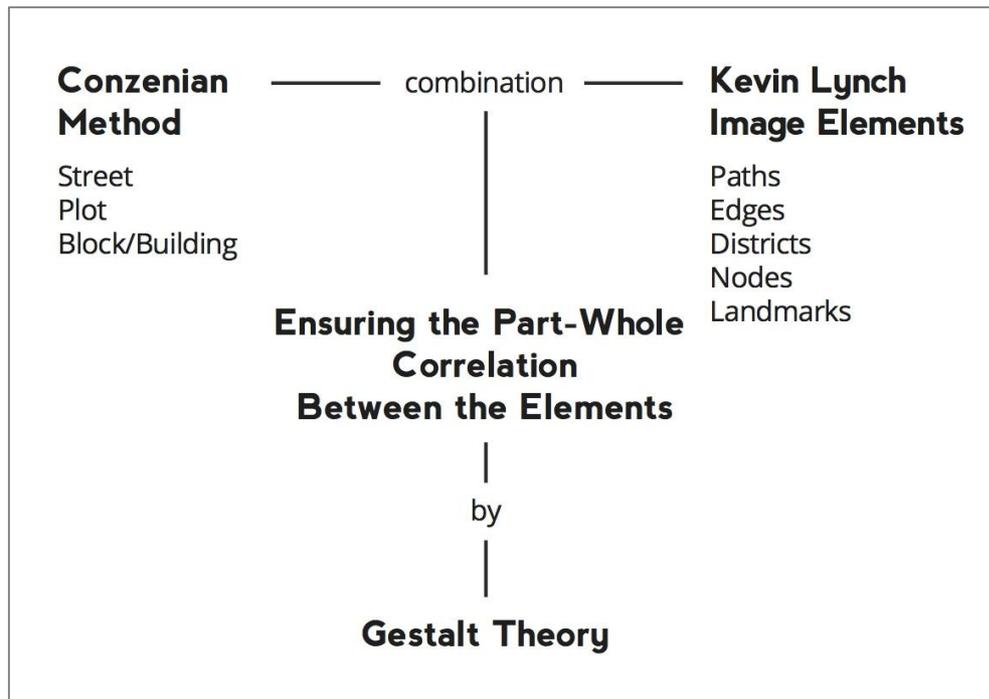


Figure 2.13 Combining the Theories of Conzen & Lynch (by the author)

2.3. GESTALT THEORY AS A UNITARY METHOD

In previous parts, theories on urban morphology and urban image are considered in relation to their methods and components. However, a holistic system, which works efficiently for all of them is not achieved. While Conzen (1960) completes Lynch's (1960) analysis with physical examinations, Lynch completes Conzen with perceptual features of image elements. Moreover, there is a tendency toward repetition in the literature, and most of the morphology and image elements overlap. For instance, Conzen's plot description fits with the edge description of Lynch. Furthermore, three theories of urban spatial design (Trancik, 1986) involve many of these components (edges, monumental buildings/landmarks, urban blocks, street systems and so on), which Lynch and Conzen highlighted before. While most of them constitute essential components, a possible ambiguity should be overcome by defining a clear theoretical framework. There is a need for a simplification for all urban divisions and components in order to provide a plain method for analysis in relation to urban image and morphology. The main aim is to observe their insight relations by creating a correlation between them. Due to these concerns, gestalt theory will be tested within the

framework of urban image and morphology elements, in order to provide a unitary theory (Fig. 2.14). Correspondingly, the question is “How can we create an integrated system of urban morphology and image with the tools of gestalt principles?”

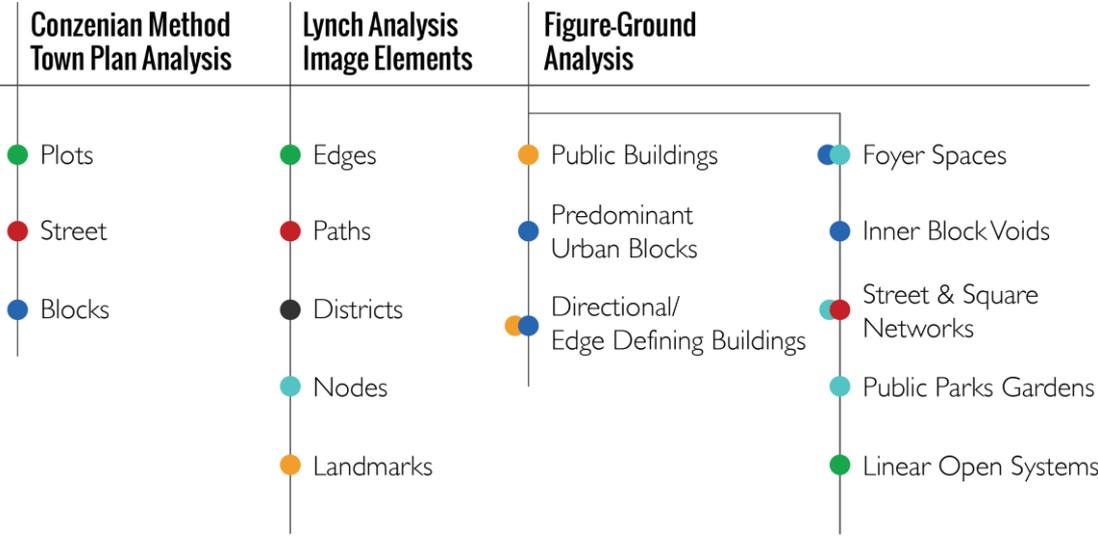


Figure 2.14 Unification of Urban Morphology & Image Elements (by the author) * Colors refer to the spatial and cognitive characteristics of the elements.

2.3.1. THE WHOLE-PART RELATIONSHIP

“There are wholes, the behavior of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole.” (Wertheimer, 1997; cited by Günay, 2007, p. 94)

Here, a discussion that focuses on the image and morphology elements will be provided, in order to examine their working mechanism. The system created by all urban elements differs from the sum that basically constitutes the urban identity. While urban image, identity and characteristics refer to different things, they have an indissociable relationship that reveals the need for a unitary or umbrella theory which correlates the whole-part relationship.

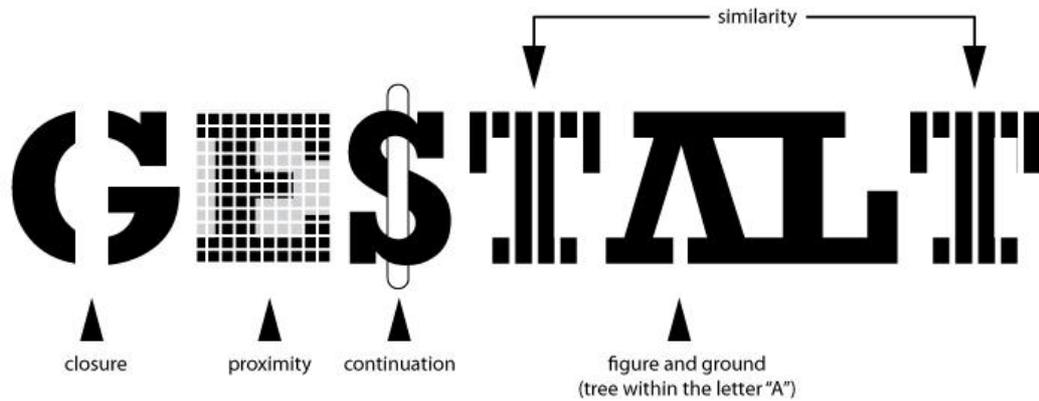


Figure 2.15 Principles of Gestalt (Artspileseenglish.blogspot.com.es, 2011)

According to Koffka (2000) musical notes can create a melody that differs from the sum of all notes. One will not hear a single note, but the music as a whole. Eventually, the whole becomes something different from the sum of its parts. While this perspective reveals an extraordinary point, the father of Gestalt, Wertheimer highlights that the parts and the whole constitute a unique relation, which cannot be separated from one another. While parts define the whole, the whole also defines the parts. Günay (2007, p. 97) describes this:

“What is expressed ‘by the melody does not arise ... as a secondary process from the sum of the pieces as such’ (Wertheimer, 1997, 4). What takes place in each single part already depends upon what the whole is.”

This discussion is also valid for the morphological elements, if we assume that they define the image of the city or the vice versa. On the other hand, there may be no explicit answers, since the spatial circumstances can change due to the complex system of spatial and perceptual relations. For instance, while Anıtkabir (the mausoleum of Mustafa Kemal Atatürk in Ankara) can define a meaning on the city, Ankara can define a different one on Anıtkabir.

In parallel, Arnheim (1969) stated that neither of these matters (parts or the whole) can be the most important. There is a mutual correlation in which they affect each other in different ways. This fact can reveal a different interrelation between urban elements and the system. Furthermore, the correlation of the components can also be argued with respect to the physical and cognitive features. Similar to the whole-part relationship, there is a reciprocal interaction. While they cannot be separated from each other, the space will turn into a nondescript place if they are not working together on any level of physical or cognitive quality. At this point, the term of nondescript places can be used to describe those spaces

which cannot be identified with respect to identity, image or a part-whole relationship. For instance, an architectural masterpiece can become alienated in people's minds where it has no relation with the historical identity of its surrounding environment. Likewise, an urban space may not succeed in creating a place where it can provide the bond or ensure the minimum physical features. The place might create a spark in perceptual level, but if it is far away from being the fire itself, the space inevitably will turn into a nondescript place.

In relation to this, Koffka (1963) defended the relativistic relationship between the whole and the parts. The straight rationality of summing all of the components cannot produce a valuable result, since the focus is the complex relationship between them. In other words, the meaning emerges from a variety of interactions between parts, which constitute the whole in a nested relationship. Correspondingly, Koffka (1963) examined this relationship within two categories: order and meaning. Order refers to the basic patterns of relations between the whole and the parts. The level of the interactions can be differentiated in many ways, where he (1936, cited by Günay, 2007, p. 94) defined it as:

“When you come to life, you find order and that means a new agency that directs the workings of inorganic nature, giving aim and direction and thereby order to its blind impulses.”

On the other hand, meaning reveals a group of interactions that can be considered significant. Koffka (1936, p. 22) stated that, “*every gestalt has order and meaning of however low or high a degree, and that for a Gestalt quantity and quality are the same.*” From this point of view, there cannot be any whole without order or meaning; however, there can be some occasions where people cannot realize or perceive either. The system can be measured through some grouping principles, which are (Günay, 2007):

- Similarity/Anomaly
- Proximity and Alignment
- Continuity
- Closure
- Figure-Ground

2.3.2. GESTALT PRINCIPLES

Gestalt theory analyses the perceptual features through their whole-part relationships. However, in this study, another way of understanding will be adopted, that can provide a unitary ground for the analysis of the image elements (see Lynch, 1960), morphological components (see Conzen, 1960) and the figure-ground components (see Trancik, 1986).

All of these principles will be examined with respect to their original frameworks, but the focus will be more on the perceptual features, rather than the physical observations. Instead of describing the principles in depth, the main aim is to provide a connection between image and morphological elements by providing an interpretivist approach.

2.3.2.1. Similarity/Anomaly

Similarity and anomaly are the basic principles of gestalt theory. When people look at the units, they observe groups as similar based on their colours, shapes, sizes and so on. This makes it easier to understand the order of a system in which monotonous structure breaks with various anomalies. In Figure 2.16, some circles create a square where it is broken with other (grey) in the middle. This shape demonstrates a clear example where similarity/anomaly form an order system.

Wertheimer (1923) defended that people can observe a group of elements more easily when there is a concurrence of characteristics between the forms (Goldstein, 1999). Chang, Nesbitt and Wilkins (2007) demonstrated this with the examples of visually disabled people. When the disabled people touch various objects, they come to understand the difference between the objects through the orders of similarity and anomaly. Eventually, they create a cognitive image through their sense of touch. On the other hand, Arnheim (1974) approached this principle from a different perspective and maintains that the homogeneity is “the most elementary form of coordination” (p. 130). The author stated that the hierarchal structure and the accumulation of homogeneity create a comparable order that people see as similar. Correspondingly, in a more complex formal structure, the hierarchy plays an important role in creating this perception.

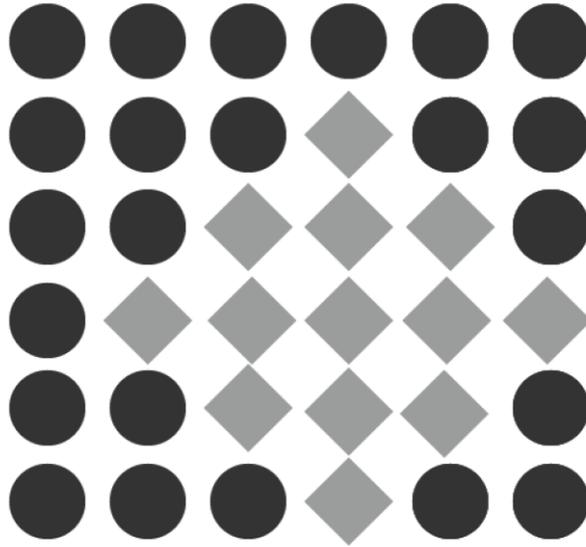


Figure 2.16 Different Groups for Similarity (personal rendering)

The arguments seen in urban design literature tend to be focused primarily on tangible examples. However, we can also discuss the perceptual features of the city. It is inevitable that cities are defined with different key components (image elements, figure-ground elements, town-analysis divisions). Correspondingly, people create their own images through these inner formations, which generate the whole system. The similarity of landmarks or facade types can more easily strengthen the urban image. For instance, because Ankara is the capital city of Turkey, there are substantial governmental buildings. Even the similar functions of these buildings make it easier to define Kızılay (case study), since many of the spaces are used for the same functional purposes. As was shown in Figure 2.16, the similarities can distinguish the perceptual features, where some anomalies can also refresh the image characteristics.

As in the Figure 2.17 and 2.18 the similarity/anomaly of the block, street or building pattern can provide a spatial perception for the experiencing ones for the morphological structure. The similar image elements i.e. nodes, landmarks can reveal the dominant image that is trying to be highlighted. Here, the anomalies can break the prosaic pattern and activate the perception. e.g. the similar state elements in Kızılay, Ankara.



Figure 2.17 Similarity, Barcelona Example
(maps.google.com, 2014, edited by the author)

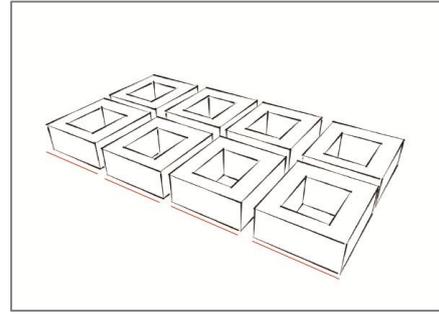


Figure 2.18 Similar Block Structure 3D Illustration
(personal rendering)

2.3.2.2. Proximity and Alignment

Proximity and alignment can be observed where the group units are legible and close enough to each other. In Figure 2.19, different silhouettes can be seen, all of which form the image of a tree. At this point, the proximity of the units, as well as their alignment, make it easier to follow the shape through its power lines. While the order of the shape forms the unity, the total references create another unit. Chang, Nesbitt and Wilkins (2007) stated that it is also possible to create this integrity through different types of groups. Eventually, the similarity of different units, as well as their proximity and alignment, make it easier to read an order as a whole.



Figure 2.19 Proximity (graphicdesign.spokanefalls.edu, 2014)

Based upon these descriptions, Koffka (1936) examined the relationship of proximity and equality, and posited that they affect each other. If there is no attraction between the units, the value of the grouping can be zero. In relation to this, the author describes proximity and equality separately. Firstly, proximity is rather easy to identify, since it is related to the

distance between shapes. Various quantitative analyses can be made, since proximity is measurable, and the perceptual image is relatively easy to understand. Equality cannot be measured with quantitative methods when two of these features are distinguished, yet they work in harmony, much like the relation between similarity and proximity. Koffka (1936, p. 166) described this:

“In that respect, then, namely qua figures, there must be equality, if grouping is to appear. This gives a very important determination of the term equality. In so far, at least, equality is on the same footing as proximity; no equality in this respect, no grouping, just as there was none with no proximity.”



Figure 2.20 Proximity, Ankara Example
(maps.google.com, 2014, edited by
the author)

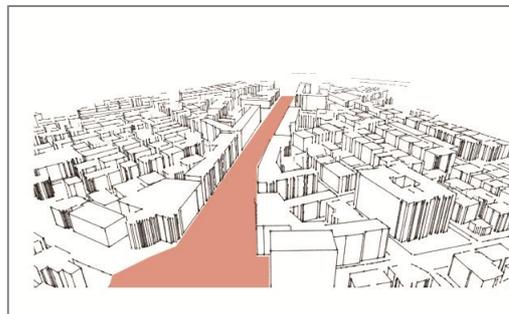


Figure 2.21 Proximity 3D Illustration
(personal rendering)

The proximity and alignment of image elements are crucial for the groups, since they strengthen the image perception. For instance, one can observe the attached embassies for one kilometre from Kugulu Park to the north of Ataturk Boulevard in Ankara. The embassies are very close and they are very dominant, so that one can easily apprehend the image of diplomacy and governmental functions during this experience. The facade ends with the Parliament at Akay Junction, and the governmental functions continue through the Bakanlıklar District (ministries) which strengthens the image. From this perspective, proximity and alignment principles also can be applied to cognitive features where the urban image is examined with relation to urban morphology.

As in the Figure 2.20 and 2.21, the proximity can procure a spatial perception like in a boulevards which are surrounded by high-rise buildings. The ones would feel the defined space within the order of solids. Also the proximity/alignment of the image elements can emphasize the values much effective like in Ataturk Boulevard, the facades and attached buildings would define the spine much effective.

2.3.2.3. Continuity

Continuity refers to the alignment of a group of units. Here, it is important to highlight the possible ambiguity that can emerge because of the similarities between proximity and continuity. While proximity refers to distances and equality between units, continuity refers to the iterations of form and function. For instance, in Figure 2.22, the arc constitutes a continuous line, which splits the logo into two parts. The continuity of the upper lines and leaf is so continuous that one can easily follow the relation and observe them as a whole. In most cases, the interactions are so well combined that two separate units are perceived as one.



Figure 2.22 Continuity (graphicdesign.spokanefalls.edu, 2014)

The principle can be exemplified with serials of urban image through the different parts of the city. The elements of urban image and morphology can become continuous where the perception becomes stronger. For instance, Yüksel District represents a cultural identity for Kızılay, where the serial image continues through the Sakarya Region and ends up at several entertainment areas. The continuity of similar facades, functions and environment is mostly so continuous that most of the people who visit the region for the first time, perceive them as one.



Figure 2.23 Continuity, İstanbul Example (maps.google.com, 2014, edited by the author)

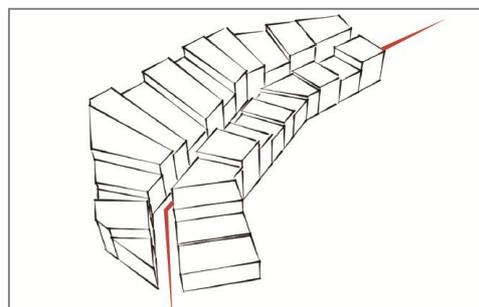


Figure 2.24 Continuity 3D Illustration (personal rendering)

As in the Figure 2.23 and 2.24, the continuity of the built structure can orient the pedestrians within the strictly defined spaces. The principle can obtain an integrated system with respect to the image perception. For instance, the continuous landmarks on İstiklal Street strengthen the image value and define the boundaries of the district with a defined beginning and ending.

2.3.2.4. Closure

Closure principle can basically be observed for groups that are perceived as a whole despite having some missing parts. While a group of units may define the whole effectively, the order of the group can reference other missing parts, if they constitute sufficient closure. Normally, a visual gap emerges in perceptions because of a break in the continuity. When continuity is procured, this gap can be filled as a whole system. For instance, Figure 2.25 represents a simple example of closure. Even if there are some missing parts, one can easily perceive the panda image. The principle integrates different units as a whole within an interrelation of gestalt principles (e.g., continuity, proximity). As with the continuous groups, the alignment and proximity are very important for defining the missing part. There is always a balance between the principles where every one of them can be the dominant one from case to case.



Figure 2.25 Closure (graphicdesign.spokanefalls.edu, 2014)

Closure principle can have a distinctive importance for urban morphology and image. Firstly, urban spaces are defined with physical structures, where the quality of closure plays an important role. Piazzas are simple examples since they are strictly defined with the surrounding block structure. The closure defines the place in a distinctive way, so that people experience it differently from other parts of the city. Secondly, the principle gives some

crucial clues about the integrity of urban image throughout the city. People perceive different kinds of images and characteristics on the streets. When image elements are integrated with closure, the inner zone that is created can generate a unique perceptual feature, in which people can define the borders with continuous image elements. For instance, different types of paths, landmarks and districts surround Kızılay. The interrelation between them creates a framework that highlights the zone. If their interaction is strong with the support of other principles like similarity, continuity and proximity, the image perceived in the inner parts will be much stronger.



Figure 2.26 Closure, Venice Example
(maps.google.com, 2014, edited by the author)

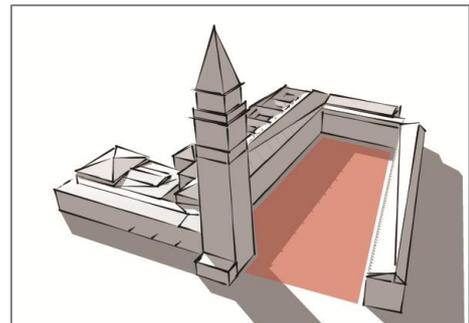


Figure 2.27 Closure 3D Illustration
(personal rendering)

As in the Figure 2.26 and 2.27, the closure principle can be used in order to define open spaces like squares, piazzas. Here, people can perceive the enclosed space with the defined solids. The closure of the nodes or landmarks can create different districts and regions. The circulation will be more influential with the image elements which are connected to each other e.g. Piazza San Marco.

2.3.2.5. Figure-Ground

Figure-ground principle is very similar to the morphological analysis (see Chapter 2.1.3.1). However, the slight difference is that gestalt theory examines the salt relation of the figure due to the foreground and background within the perceptual features. Here, units complete each other in a harmony that clauses some people to observe the figure as dominant, while others observe the background. For instance, in Figure 2.28, it is possible to see the faces or the vase due to the changing relationships.

In this case, the image and morphology elements can be examined as a physical structure through the figure-ground analysis. However, the perceptual features can also be taken into

consideration since they refer to an interactive relationship in a common environment. While the image and morphology elements should complete each other, the articulation of the entity should also work with new functionalities and new urban structures. The lack of interrelation – as in the physical aspect of figure-ground analysis – might cause undefined characteristics such as the undefined space. For instance, the debate on the built structure of the case area (Kızılay) points out that there is a lack of an urban image, which cannot overlap with the historical values of Ankara. The new structures and functions demonstrate a conflict between the present (the figure) and the past (the background). Thus, the region is dragged into an identity conflict. When the history is not defined with morphological and image elements, a misidentification is revealed with the new one.



**Figure 2.28 Faces & Vase, Edgar Rubin Example
(graphicdesign.spokanefalls.edu, 2014)**

2.4. CONCLUSION FOR THEORETICAL FRAMEWORK

The aim of this study is to analyse the changing morphology and image in the central business district of Ankara. CBDs are always the main focal points for the observation of urban evolution. Yet, the different eras of a city will be analysed in the case study part and the analysis methods will show integrative features. The process of bending the space into a place is a long continuum where many of the components demonstrate complex interactions through the eras. Not just the physical aspects, but also the societal differentiations can create different meaning attributions on urban space. The flow (Fig. 2.29) from space to place will be made with different theories since they all have different gaps and contributions in the

literature. In the case study, the physical (Conzen) and perceptual (Lynch) aspects of urban design will be analysed correlatively, where they will be bonded with spatial design theories (Trancik) and integrated with the principles of gestalt theory.

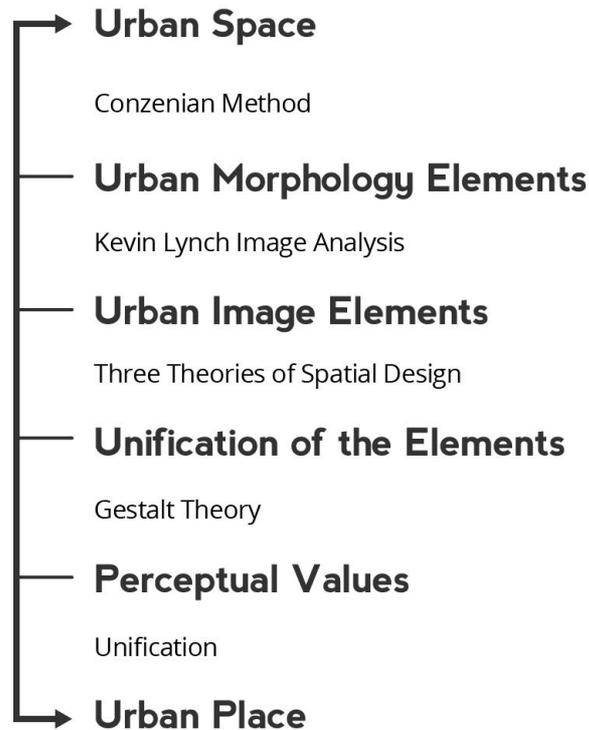


Figure 2.29 The Flow of the Theoretical Framework

Conzen (1960) defined morphological transformations through the example of a palimpsest. The divisions of town plan analysis (plots, blocks, streets) overlap within different periods, where they create the morphology of the city. When his analysis on Alnwick is examined, it can be seen that, Conzen proposed a simple understanding for the urban *morphē*. However, as a geographer, the perception and historical accumulation of the components are not fully defined, compared to the other sources in the literature (e.g., Lynch, 1960; Trancik, 1986). The basic elements of Conzenian method constitute a simple and solid spine for the theoretical framework. Yet, the perceptual frame of the city is at the focus, and there is a need for a convenient method.

At this point, Lynch (1960) filled in the gaps of the Conzen method by defining the perceptual features of image elements (i.e., paths, edges, districts, landmarks, nodes). The systems of the elements provide a variation of cognitive outcomes, since many of the inhabitants ascribe different values to different experiences. At this point, living the

experience and perceiving the city are two key factors that work harmoniously for creating the total image. Despite formulating an extraordinary methodology, Lynch's method lacks a holistic approach, and it cannot define an integrated relationship of the elements. The components of the hypothesis works simply, where the whole system created is blurry.

In relation to this, Trancik (1986) defined the aggregation of different urban components with three theories of urban spatial design. The first is the figure-ground theory, which analyses the interrelation of urban voids and solids. The second is the linkage theory, which examines form and spatial formations as a whole. This perspective is unique, because it provides an understanding for the working mechanisms of various elements. The third is place theory, which includes societal and cultural values in the process. All of these theories are investigated together since they all refer to different values of spatial characteristics. However, place theory constitutes a substantial role among them, since it directly investigates actual experience in urban space, and not simply the image and morphology relationship. Morphology creates space, while image elements provide different ways to experience it. And when people experience the space, it transforms into place, and the experiences turn into memories. It constitutes a good transition from urban space to place where it defines the detailed components. However, while all three spatial theories (Trancik, 1986) are very clear, they still lack a definition as to how to analyse the perceptual aspects of urban divisions.

Based on this problem, gestalt theory is examined to fill the gap in the perceptual aspects of urban image and morphology. Mainly, these principles are used in order to see the whole-part relationship where they are mostly defined in solid ways of perception. At this point, they are used to combine different image values in relation to urban morphology. Here, similarity/anomaly can refer to different repetitions of image values in a spatial system. Likewise, the physical group of objects and the similarity or anomaly of perceptual values can strengthen the image value. Furthermore, people create their cognitive maps in a range of area where they define it with particular image and morphology elements. Thus, the proximity and alignment principle can create a defined image reflection in people's cognitive maps. Additionally, continuity of different activities as well as structural features or particular image values, can create a serial vision where the image of the city will be observed more easily. The closure and proximity create the optimum space and distances between image and morphological components. The experiences should be continuous with optimum distances between image elements, where they will form a cognitive path for the

person. All of the principles of gestalt theory can provide a glue for the urban image perception and definition. While most of the studies lean on the detailed physical structure, the image elements and their perceptual relationship should be investigated within the parameters of cognitive reflexes. While they are defined with physical perception, the image that people create in their minds can also be defined by the gestalt theory.

The basic components of urban morphology are taken by Conzen's method and supported by Trancik's spatial design theories. These two approaches overlap on a number of components, since they consider different factors with regard to urban space analysis. The gap contained in their perceptual examinations is filled with Lynch's urban image analysis, where the author points out cognitive features by defining the particular elements. However, there is also a lack of combination of all image elements within a practical method. Thus, gestalt theory is used to form a new method, which combines all image elements and observes the image as a whole. In the next chapter, the case of Ankara Kızılay will be analysed through the selected methods one by one, in order to understand the changing image and morphology relationship. The methods that constitute the bottom line of the theoretical framework will be applied on the different periods of Ankara's planning process.

CHAPTER 3

CASE STUDY: KIZILAY ANKARA

3.1. THE RATIONALE OF THE CASE SELECTION

Kızılay, the central business district of Turkey's capital, is selected as the case study because of the significant structure in relation to its changing morphology and urban image over the years. The rationale for this selection can be explained by two interrelated factors. First of all, Ankara was planned to be entirely new after the Liberty War in 1923. After the war, the new government of the modern Turkish Republic declared Ankara as the capital city. The historical values were not as dominant and extensive as Istanbul, which raised the question, “*Why Ankara, and not Istanbul?*” That debate has always been a popular one in the urban literature. While some of these debates have coherent points, some become caught up in a kind of Istanbul chauvinism. Ankara was a small town with limited capabilities and twenty thousand inhabitants, but with many opportunities for the new image of the Modern Turkish Republic.

Over many years, several planning acts have transformed Kızılay, so that the strength of its image has become debatable. However, despite its decline, one can still observe the essential urban components of the area. The most condensed zone is the one with governmental activities (e.g., ministries, sculptures, institutions). While there are many other image components, there is a clear lack of integrity between them. In particular, the region has been experiencing an image decline over the past two decades, since the commercial functions have been gathering at the peripheral parts of the city (e.g., shopping malls, see Özüdüru, Varol & Ercoşkun, 2014). Yet, rather than explicitly examining its effects, this study aims to analyse the examination of the morphological transformation and urban image in Kızılay. Correspondingly, the first rationale is the significant transformation of urban morphology and image process in the area.

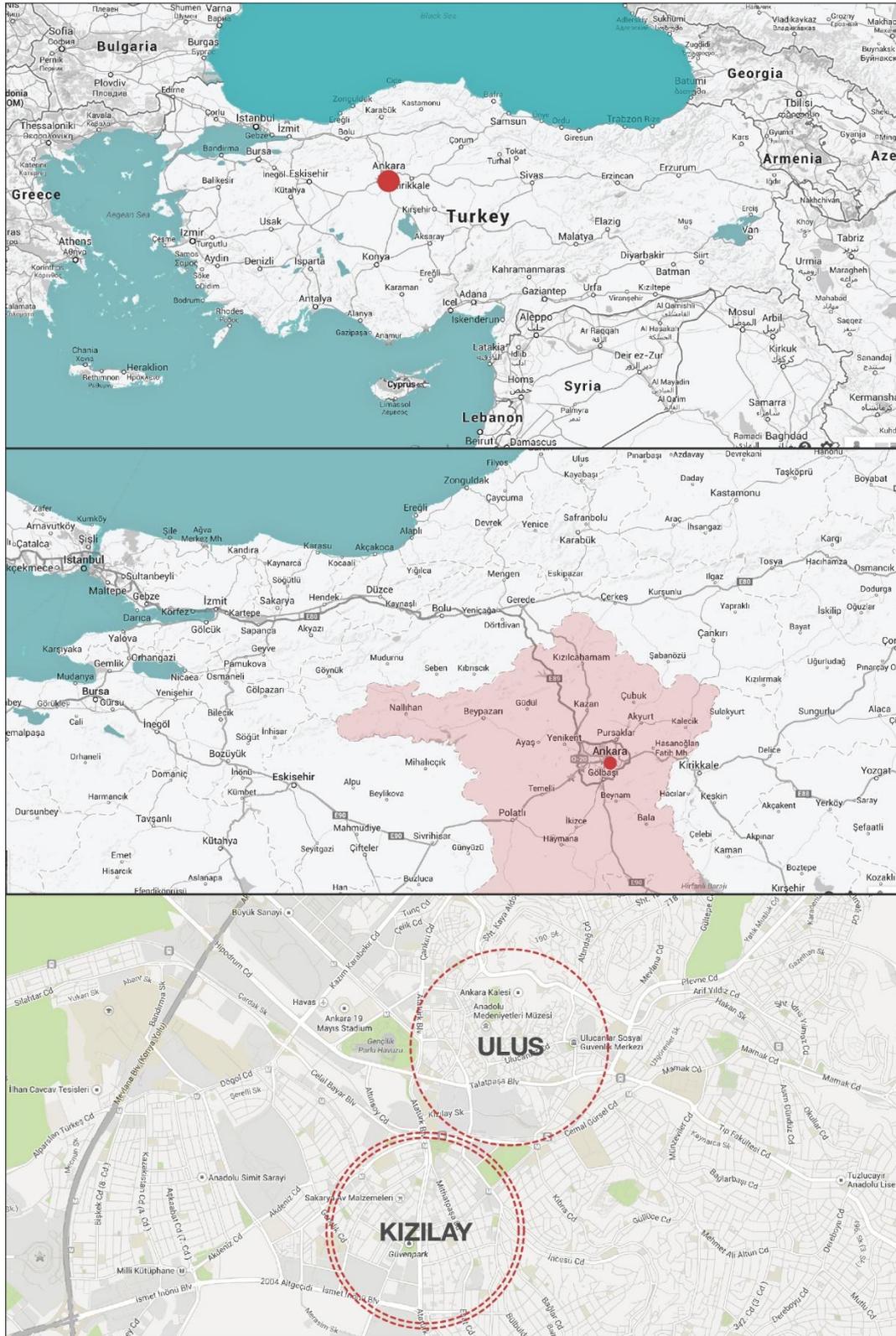


Figure 3.1 Location of Ankara, Kızılay and Ulus (personal rendering)

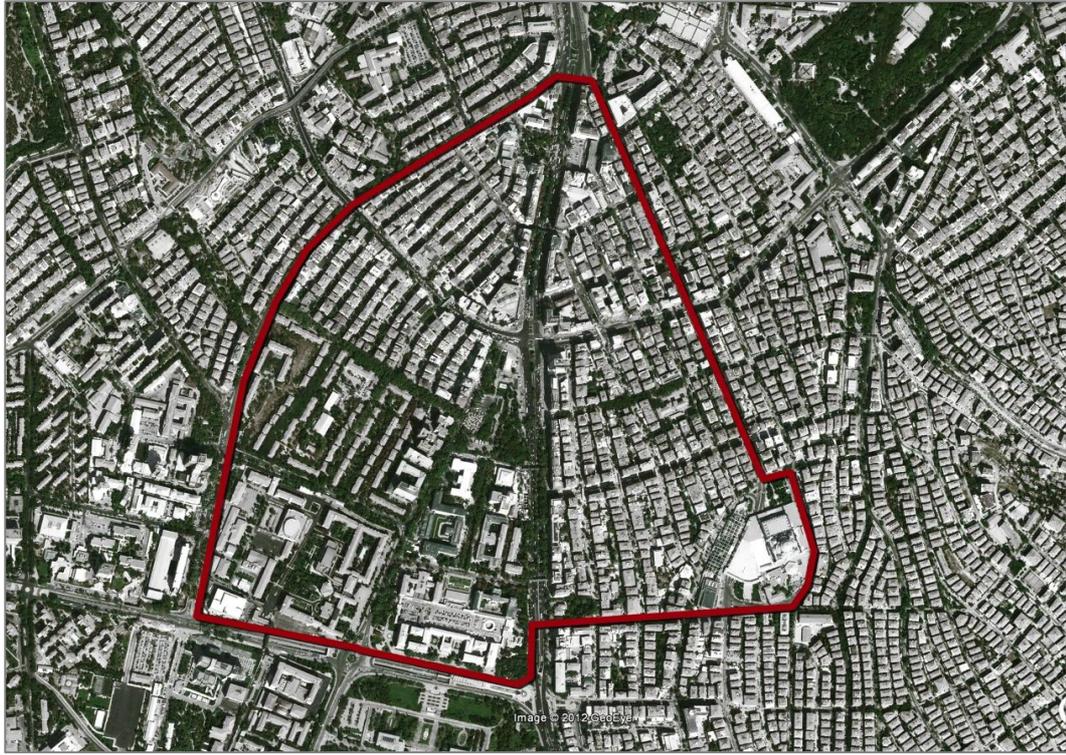


Figure 3.2 The Case Area, Kızılay

Secondly, there is a clash between the historical (Ulus) and new (Kızılay-Yenişehir) centres in Ankara. This fact is important to examine in order to clarify the difference between *creating* and *interpreting* the urban image. In Kızılay, the *history* is created after the 1920s, when the bureaucracy shaped and controlled the new modern-urbanist acts. Landmarks, squares and wide boulevards always highlighted the importance of the new-modern republic. On the other hand, most of the historical structures remain in Ulus. Augustus Temple (25-20 BC.), Ankara Castle (668) and Hacı Bayram Mosque (1427) represent some of the more unique examples, which carry the values of past centuries. However, despite this valuable history, which is naturally shaped in centuries, Ulus represents a weak image for the historical centre. This situation reveals a weak activity distribution and historical conservation in Ankara. Today, Kızılay fails to project an image of a modern CBD, and Ulus fails to represent the features of a historical centre. Eventually, the districts have been experiencing an image decline (it is also possible that the aimed images have never been achieved) in recent decades. Consequently, the second rationale is the image clash of the old and the new centre in Ankara.

Based upon these views, the guiding questions are:

- *What are the key elements of urban image and morphology in Kızılay?*
- *What are the effects of the changing morphology on the urban image of Kızılay?*
- *How can morphological and image elements work together?*

With regard to these questions, different planning periods will be analysed through a focus on the transformation of urban image and morphology in Kızılay. The planning periods to be analysed are:

- 1924 - Lörcher Plans
- 1932 - Jansen Plans
- 1957 - Yücel/Uybadin Plans

Here, a sub-categorization can also be made for the periods. The first two periods shaped the emergence of Ankara's central business district, while the third constitutes an urban articulation process and the effects of Zoning Floor Order Plans. Thus, while analysing the periods from the perspective of the present era, it is also substantial to evaluate this transformation with respect to the contemporary realities of each period. The bourgeois revolution in the 1920s, the effects of World War II and the economic crisis and global movements at the end of 1950s all have had an impact on the fundamentals of Kızılay. The last three development plans of Ankara are not taken into consideration since they do not show any policies or decision on Kızılay.

The continuum of the plans refers to a period of 100 years and the importance of the transformation should be emphasized. Rather than insights and details of these plans, the change and the interrelation of urban image and morphology will be investigated. Conzen's (1960) morphological analysis and Lynch's (1960) image analysis will be applied where the methods will be supported with Trancik's (the theories of spatial design) and Wertheimer's (1924) gestalt principles. Here, the neighbourhoods of Cumhuriyet, Meşrutiyet, Kocatepe, Kızılay, Namık Kemal, Devlet (part of), Kültür (part of) represent the district of Kızılay.

3.2. THE FIRST STEPS OF MODERNIZATION: LÖRCHER PLANS

“The main aim was to build a role model city, which ensures its inhabitants a modern life, leads the urbanization of Anatolia with new social norms and most importantly symbolizes the achievements of the new Republic.” (Tekeli 1980, cited in Altaban, 1998, p. 43, translated by the author)

Ankara was the first Anatolian city planned with modernist methods. Altaban (1998) defines the first steps in the process of a modernization, in which new urban developments provided important references for other Anatolian cities. As is the case in many different fields, the discipline of urban planning got a significant boost from the revolution. Between 1923 and 1933, a new legal basis was set up within a re-institutionalization process. This provided a ground for the planned urbanization, while the reformist policies shaped the first forms of the new, modernist Turkish urbanism. Despite having some speculative pressures on the lands of Ankara (because of the migration from Istanbul and rural areas), the government was surprisingly strong enough to cope with them at the beginning (Altaban, 1998). There was a serious lack of national resources after the Liberty War, however, the central government spent most of its resources on the planning process of the capital, to which it gave significant importance and built up a legal framework, in which Ankara could serve as a role model city (Duru, 2012).

According to Cengizkan (2004), the first plans for Ankara were prepared under the authority of Ali Bey, the first mayor of Ankara. In this period, two different plans, one for Eski Şehir-Ulus District and one for Yeni Şehir-Kızılay District, were ordered to a company named Kesviyat ve İnşaat Türk Anonim Şirketi (p. 35). Afterwards, Dr. Christopher Carl Lörcher made the first plans for Ulus District in 1924 and the second plan for Kızılay District in 1925. These were the first plans for Ankara, and they were prepared using modern planning methods. They blazed a trail for the urbanist understanding and for the first time, a report on the urban history of Ankara was written. The processes of planning procedures were examined and the tools of modern urbanism were used (Cengizkan, 2004).

A distinction between Ulus and Kızılay can be observed in the planning process. In the second plan, a variety of different land uses and urban components (image elements, square systems, government spines and so on) were proposed in Kızılay and the entire system was built as new.

During this period, many important buildings were built in Ulus district, which were effective in creating the image of Ankara. On the other hand, Lörcher Plans were important,

since they provided the dominant structure for Kızılay. Although the existing documents on the Plans do not let us make an in-depth analysis, the main aims of the current era can be observed from the elements of urban image and morphology. For instance, the monumental spine of the Vekaletler District and the squares system in the area (e.g., Kızılay, Zafer and Lozan Squares) have revealed with this plan. Naturally, their examination is important to ensure an interrelation with the latter plans.



Figure 3.3 Lörcher Plan (Cengizkan, 2004)

3.2.1. PLANNING ANKARA AS THE SYMBOL OF THE REPUBLIC

According to Cengizkan (2004) the major aim of the plan was not simply to design a new city, but to also create an interrelated image in relation to the historical roots. There were two different plan proposals for Ulus (Eski Şehir) and Kızılay (Yeni Şehir). The rationale of the new centre revealed because of a lack of enough urban potentials in Ulus District. At this point, Yeni Şehir (Kızılay) was ensuring enough space to build a new pattern and urban image, whereas the current government was also trying to build in Anatolia. Indeed, the limited urban space, as well as the potential risk of harming the old tissue in Ulus oriented the plan proposals toward the Kızılay. Authorities suggested that the integrity of the old and new centres could be ensured with a cohesive combination of systems.

Based upon this information, it is beneficial to start the examination with respect to their major contributions. The case can be analysed in two parts due to the changing features of the old and new centre. Cengizkan (2004) stated that Lörcher plans adopted a modest perspective for the historical tissue in Ulus, and courageous steps for the high quality urban spaces in Kızılay. Here, the case can be examined through four different sub-topics: the system of green areas; the presence of Ankara Castle; zoning decisions and a garden city perspective.

Green Area System

The continuity of the Ankara River was used to define the borders of the settlements between Ulus and Kızılay. The green areas across the river were planned as a system to create open spaces between the old and the new centres. In particular, the valley of Bentderesi was used to reveal city gardens on the eastern border. Various ponds and parks were proposed, in order to create a flexible and green open system. One of the most important rivers of the current era, İncesu River (which was dried after the 1980s) defined the north-eastern border of Kızılay and split Ataturk Boulevard into two parts between Ulus and Kızılay. Furthermore, it also integrated the west-east spine, so that the horizontal and vertical relationship of the urban divisions became stronger with this proposal. The natural potential was planned continuously by defining the existing natural potentials (Cengizkan, 2004).

The Importance of Ankara Castle

It is certain that the presence of Ankara Castle was very important for the first plans. Lörcher had a significant admiration for the castle, so he tried to combine its image with the new centre, in an attempt to attract people to the periphery. Cengizkan (2004) contended that the castle had a significant effect on the urban orientation, where Lörcher tried to show its panorama and glory from different locations of Ankara.

Zoning Decisions

Despite a few functional changes, many of today's important neighbourhoods were planned during this period. The method of creating different districts defined crucial distinctions between Kızılay and Ulus. For instance, the area that was originally proposed for Ministries was first defined in the Lörcher Plans. Later, Jaussely and Jansen also used this region as the government district (Vekaletler District). Yet, some functional changes have affected the morphology and image in several districts. Firstly, Gençlik Park was proposed as a school region, but it turned into a massive green open space over the years. Secondly, what is today called Kurtuluş Park was originally planned as a neighbourhood for the ministry district (Bakanlıklar). The first zoning method ensured Ankara to distinguish substantial functions in the centre (Cengizkan, 2004).

Adoption of Garden City Movement

According to Cengizkan (2004), the Lörcher plans tried to implement garden city principles, by evaluating the natural values and limiting potential development. After the city was declared the capital, many income groups began to migrate to Ankara. Lörcher tried to implement a variation of low-density residential districts around the new centre that can interact with each other through different open spaces. The strategy of low-density housing and a maximum height of four stories on buildings was proposed between Ulus Square and Train Station. However, the feasibility of the plans did not fit in with the economic and demographic circumstances of the era.

3.2.2. THE EMERGENCE OF 'YENİ ŞEHİR' - KIZILAY

The rapid migration revealed the need of a new settlement plan. At first, Lörcher was planning to position the new parliament near Ankara Castle. However, Yeni Şehir was planned as a secondary settlement and government zone because Eski Şehir (Ulus) was

unable to handle the level of migration. The main purpose was to overcome the lack of housing for a number of income groups in Yeni Şehir (Cengizkan, 2004).

The plan drastically affected land use and many different structures that made up the image of the new Republic were built in this area. The embassies, various ministries, and the governmental and non-governmental buildings created a new image within the planned morphology pattern. This had a significant impact on the city, which had seventy thousand inhabitants back then. While new landmarks have begun to emerge, the residential pattern revealed itself with some different arguments. Lörcher was trying to create a new and spacious residential tissue. However, this strategy was criticized because it increased residential prices uncontrollably (Cengizkan, 2004). Eventually the region, which had been planned as a governmental and residential area, transformed into a CBD, in which the vertical morphology has increased significantly over time. Although the transformation of Kızılay was inevitable, the idea of implementing the garden-city principles seemed to be consistent at the beginning. Lörcher explicitly emphasized this approach this way:

“The traces of the two rivers (Incesu and Tabakhane Rivers) surround the settlement with an inherent belt that a natural park can be observed around it. If a bird’s eye view is acquired or a photo is taken from a plane, the precise impression can also be felt according to the forms of the water resources. If the bestowed feature of this natural form can be evaluated, the image of the arid and spiritless city can be turned into a garden city, which is surrounded by the natural zones.” (Cengizkan, 2004, p. 148, translated by the author)

In addition to the arguments regarding the implementation of these plans, the structure of the economy also had a significant effect on the development process. When the economic crisis of World War I is considered, the government spent a lot of money to build the capital. The speed of development was not always connected with the planning stability, but a progression where different pillars like state, market and society was taking shape.

The state built the entire perception with governmental and republican structures. Eventually, the urban image and morphology developed in this direction. It tried to apply a different strategy, which can activate the market in the district. The plots on Ataturk Boulevard remained empty while residential usage was located around that area. By this way, the city council tried to promote private investors around the Boulevard. The base-maps (Fig. 3.4) show no significant development (Cengizkan, 2004).

While it interpreted the process within an economic perspective, the natural results of the rapid migration revealed a vertical transformation in the process of time. The first plans of Yeni Şehir involved 150 hectares of area with two-story garden houses. The major aims of the plan were consistent; however, there were also contradictions, such as the unbalanced system of small residential blocks and the extensive street network. In time, this case could not resist the rapid migration and land speculation. Eventually, it revealed the need for a new plan (Cengizkan, 2004).

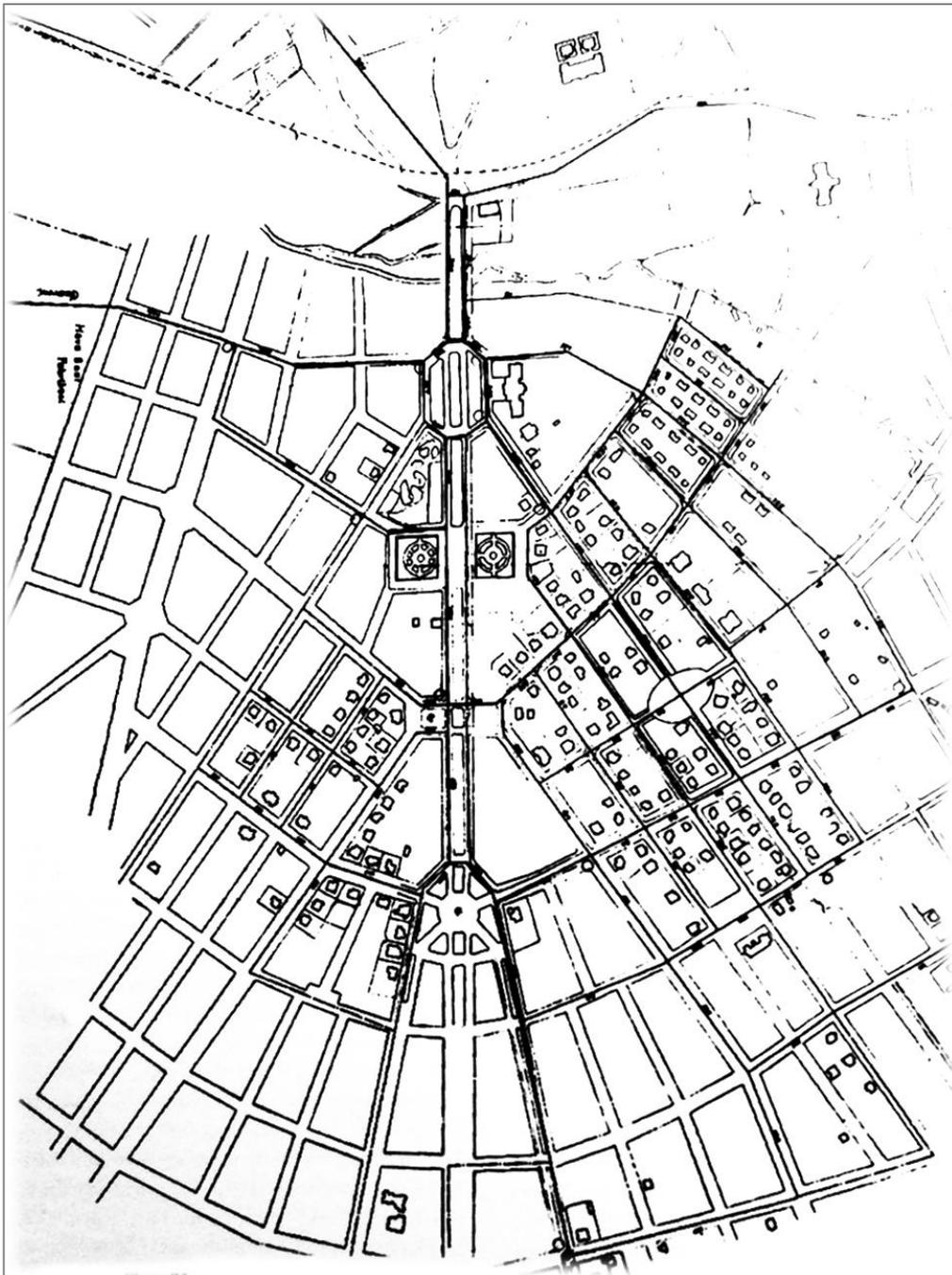


Figure 3.4 1925 Yeni Şehir, Base Map (Cengizkan, 2004)

One of the most important features of the Plan was to create a new centre with respect to the historical values of the Ulus District and the future aims of the modern Republic. Cengizkan (2004) contended that the plans clearly showed that Lörcher intended to melt the old and the new centres in one pot, without trivializing the historical values. A holistic approach constituted the major goal of these plans, which emphasizes the integration of both historical and modern urban life. The plan included some clear urban metaphors, in order to highlight this historical integrity, such as the spine of the train station, new Parliament and the Castle. There was no question of the importance of Ankara castle; it was always significant. Lörcher referred to it as the beautiful.

The first plans proposed a well-defined square system, surrounded by various landmarks on the spine of the Boulevard. However, most of the squares have been transformed into traffic junctions today, despite the fact that morphology and spatial features have remained nearly the same for ninety years. Eventually, since the image and morphology were shaped around this system, the analyses of the squares and their major aims have crucial importance for this study.

Kızılay Square (also known as Cumhuriyet or Kurtuluş Square)

The square takes its name from the Kızılay Organization building, with its old name, Hilal-i Ahmer Cemiyeti (a charity institution, e.g., Red Cross). In the Lörcher plans, the square is referred to as Cumhuriyet Square. After its competition, the name was changed to Kurtuluş Square and the name changed again in 1928 to Kızılay Square I. It is the most important square in the entire area, because it defines the main node between the most important activities (e.g. Parliament, Leisure zones around Sakarya District, Residential Zones and Güven Park). It is the largest square, and is positioned in the southern part of the spine and defined by the significant buildings that surround it. Here, Güvenpark has an important role for the working mechanisms of the square with its historical value.

During the Lörcher period, there was the famous Fıskiyeli Havuz (fountain pool) in the middle of the square. Later, it was moved to another place and Güven Anıtı (The Monument of Trust) was built as a sign of gratitude for the security forces of the new republic. This monument became one of the most important landmarks in Kızılay in time. The integrity of Güven Park and Kızılay Square became inseparable over time. While the first design proposed a more enclosed space in this area, the spatial aim was changed by the involvement

landmarks. Cengizkan (2004) contended that this square represented the image of the new Turkish Republic, which survived from 30th of August (The Great Victory Day) and turned its face to 23 October 1923 (The Proclamation of The Republic). Mustafa Kemal Boulevard (now Ataturk today) also supported this image and represented the main path with different image elements.

Zafer Square

Zafer Square was designed as the key node, to represent an entrance to the new centre. The purpose of the new gate, which named as Zafer (means victory in Turkish), was to orient people step-by-step to the new capital of the Republic. Lörcher proposed a theatre and cinema building around the square, in order to provide a gathering place for the people who were walking from Sakarya and Izmir District, much like Millet Square. The authorities decided to stress the image of this entrance with an arch or sculpture, so an Italian sculptor, Pietro Canonica, created a sculpture of Ataturk in 1927. Cengizkan (2004) stated that, this monument turns his face to the new Parliament and turns its back on the old district. In this way, the image of the transition to the new republic is amplified. There is also other evidence that Arif Hikmet Koyunoğlu proposed an alternative arch entrance (Fig. 3.6). The alternative represents a positive entrance with impressive architecture. However, the project was not implemented due to political and economic conflicts (Cengizkan, 2004)



Figure 3.6 Alternative Entrance for Zafer Square (Cengizkan, 2004)

Sihhiye Square: The Node between the Old and the New Centre

Sihhiye Square was the node between the old and new centres, where one can clearly perceive the transition of image and architectural structure. The initial hexagonal geometry of the square has transformed into an octagon and disappeared in years due to the increasing vehicle traffic and speculative urban implementations. The sculpture of Hittite Sun Disk as it

exists today, was not proposed in the first plans. The radial drawings clearly represented a place defined by its green spaces and roads which rise up from the old and new centres.

The value of its spatial consistency should be evaluated differently than others, since it constitutes a merger of Ataturk Boulevard, Mithatpasa Street and Necatibey Street. Mithatpasa and Necatibey represent the main service roads, which created secondary arterials for the main spine. Linear green routes supported this system until the square where the pedestrian and vehicle traffic were assumed to be dense. Eventually, the square turned into a traffic junction, when the pedestrian system disappeared over the years. However, the Lörcher plan proposed a complex spatial system that combined the old and new images, despite this conflict. It was supported with different landmarks, including buildings like Sihat ve İctimai Muavenet Vekaleti (Ministry of Health and Social Welfare). The image of state was starting with the ministry building and continuing to the southern parts.

3.2.3. SPATIAL ANALYSES OF LÖRCHER PLAN

In this part, spatial and perceptual features of the Lörcher Plan (Yeni Şehir District, 1924-1925) will be analysed through the methods of M.R.G. Conzen, Kevin Lynch and Gestalt Theory. The main aim is to combine the elements of urban morphology and urban image in order to extrapolate their interrelations and effects on today's spatial reflections. Although the information on spatial data is not sufficient to evaluate the complete built structure of Yeni Şehir, Cengizkan's (2004) study can provide an important number of references. Based upon this research, Kızılay will be investigated, to understand the period's design quality and urban image structure.

Firstly, the Conzen method will be applied, with the support Trancik's spatial theories. While it will provide plain physical characteristics, the components of Trancik will detail the built and proposed urban structure. Afterward, the features of urban image will be tested through image analysis (Lynch), in order to find out the values the state had intended to focus on at the beginning of the planning process. The analysis of the first image is very substantial in order to understand modern implementation and evaluate the historical background of the area. Finally, the elements of urban morphology (from the Conzenian-Trancik Method) and urban image (from the Lynch method) will be unified under the principles of gestalt theory. Because there are many different urban components that shape urban space, gestalt principles will be used to define their perceptual and morphological

integrity. Rather than making a salt spatial analysis, the main aim is to integrate these components by revealing the integrity of physical and perceptual features in Yeni Şehir-Kızılay.

3.2.3.1. Conzen and Trancik Analysis: A New Pattern in Yeni Şehir



Figure 3.7 Conzen Divisions in 1925, Kızılay-Yeni Şehir (personal rendering)

Yeni Şehir (Kızılay) was a new planning area, where the street arrangements were planned, highly systematic and defined (Fig. 3.7), especially the diagonal streets, which combine the inner circulation with the outer main arterials, thus breaking the monotonous pattern and orienting people into different districts. Undoubtedly, Mustafa Kemal Boulevard was the major path that constituted the main charge in the south and north spine. Its vista fits perfectly with the square system and green connections. However, the southern end of the Boulevard seems problematic, since it concluded the circulation with the Parliament and did not take into account the potential pressure of a new CBD. Eventually, this orientation has transformed in latter plans.

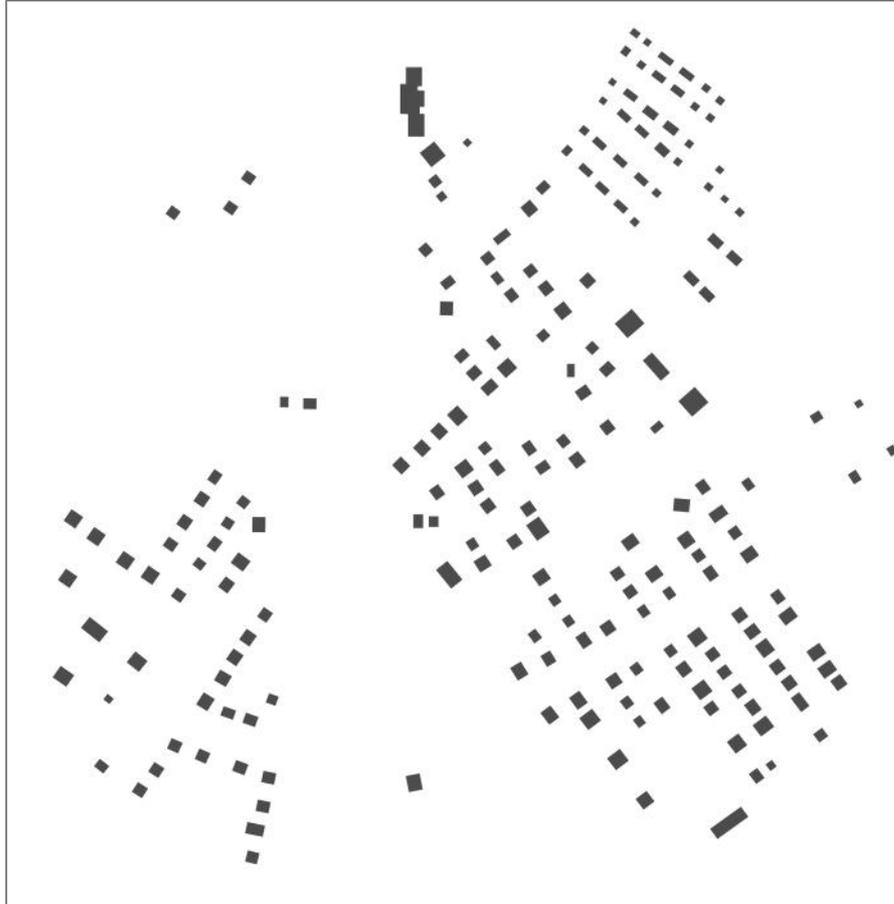
Lörcher proposed one- or two-story buildings and offered simple garden-city perspectives for the block structures (Fig. 3.7). However, low-density usage provoked debates regarding housing affordability and stock capacity. While the ideas of having an alternative green and central zone seem sensible, the need of a new CBD and the reality of the rapid migration have altered the process greatly. The selection of the single detached building type affected the basis of today's building morphology and architecture type in Kızılay.

Plots and their arrangement also shaped the circulation system when the regular settlement system was proposed with back and side gardens. The crucial point is that, although the outer formations of the blocks defined a continuous system, the monotonous inner plot system resulted in a lack of an inner block space variation. The rectangular blocks with dimidiate and linear plots did not allow a spatial variation, since this pattern was used in nearly all of the blocks. In relation to Conzen's (1960) urban components, figure-ground components (Trancik, 1986) can also be added in order to see the potential features in the Lörcher Plan.

Trancik examined the figure-ground analysis (Fig. 3.9) in two parts: urban solids and voids. Based upon this perspective, urban solids (public buildings, predominant urban blocks, directional edge-defining buildings) and urban voids (foyer spaces, inner blocks, street network, public parks, natural landscape) will be examined in the first plans of Yeni Şehir (Kızılay). The main aim is to detail the physical components, which define the basic pattern of the morphology.

The figure-ground analysis (Fig. 3.8) shows that the built pattern remained very premature for a systemized spatial pattern. The built-commercial structure around Ataturk Boulevard was not developed and the residential density of the masses was very low in order to create

enough closure to define alternative variations. Despite the lack of unity, the diagonal-street patterns and block system successfully oriented and distributed the circulation on Ataturk Boulevard. Public buildings were the dominant image elements, which formed the morphology in the south and north axis. In particular, Bakanliklar District, which ended with the Parliament, created a clear vista. While this vista was supported with the Boulevard, the surrounding block pattern reinforced the form of diagonal orientations.



**Figure 3.8 Figure Ground Analysis of Kızılay-Yeni Şehir, 1925
(Cengizkan, 2004; edited and figured by the author)**

The analysis of Trancik components shows that the foyer spaces mostly gathered on Ataturk Boulevard (Fig. 3.9). If we assume Lörcher's interest in Ulus District, it should come as no surprise that the one-ended spine turned its face to Ankara Castle. However, all focus was on a limited space, which did not have much potential for the future of the capital. Furthermore, the residential density and its plot variations were too limited to create alternative spaces. This monotonous pattern was broken with the square system on the spine, where the foyer spaces generated an efficient circulation and integration with the surrounding structure. Moreover, the natural landscapes (Incesu River and a new Urban Park) on the eastern border

were used efficiently, which created green entrances to the inner parts of the city and continue with urban parks. The symmetry of the figure-ground elements clearly referred to a government centre with a rigid urban pattern. All of the significant buildings have public usages, which braces the spatial network between Kızılay, Millet, Zafer and Sıhhiye Squares.



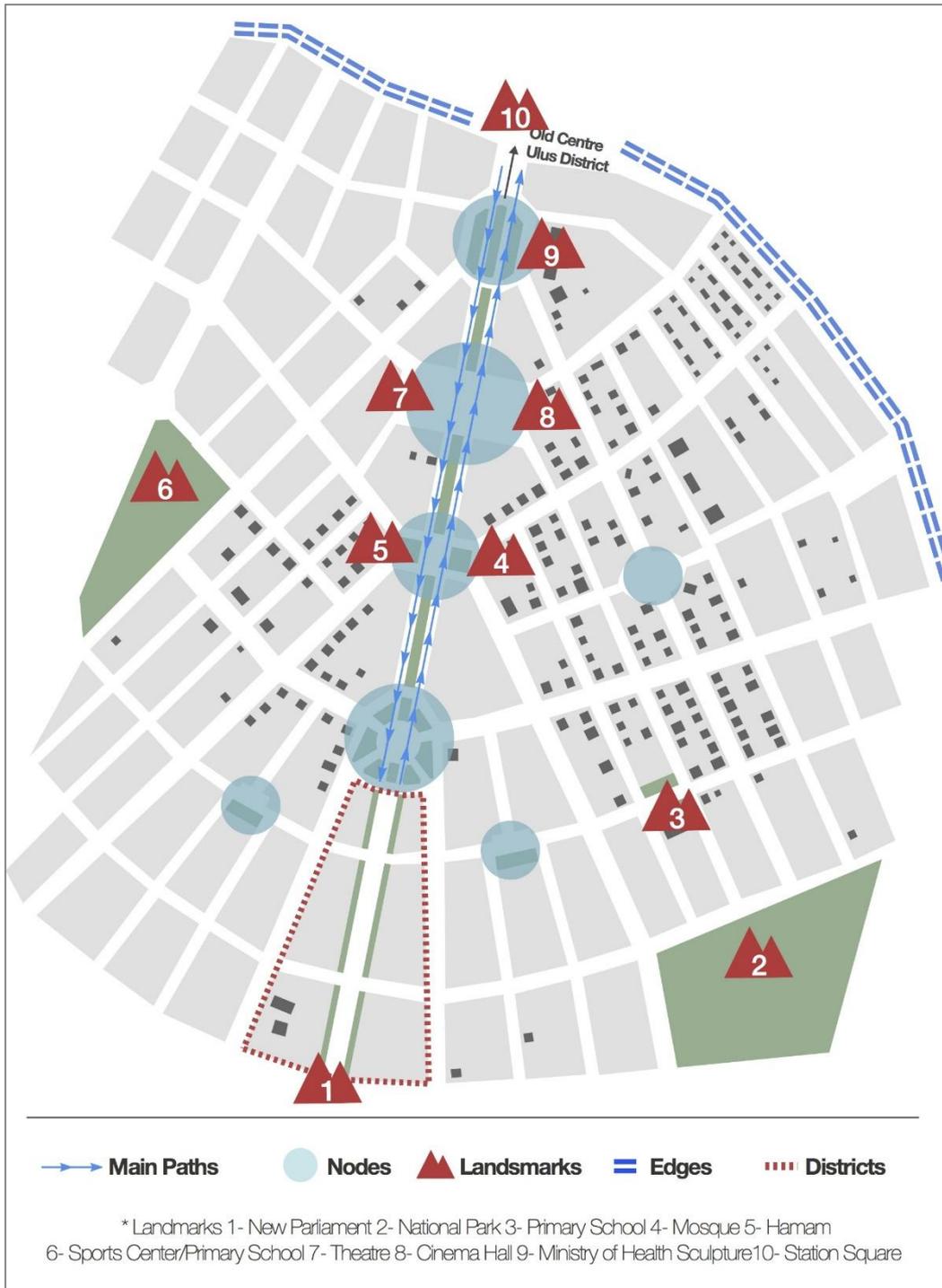
Figure 3.9 Trancik Analysis of Kızılay-Yeni Şehir, 1925 (personal rendering)

3.2.3.2. Lynch Analysis: A Bourgeois Republic

In the previous part, urban components that shape the morphological forms are investigated based on their spatial distributions. In this part, the main aim is to find out the image pattern and characteristics in Lörcher's Yeni Şehir. The image elements of the Lynch Analysis (Fig. 3.10) are examined based on the proposals and implementations of the first plan.

The nodes have a symmetrical and systematized orientation where they are located on Atatürk Boulevard. Due to premature urban development and activity, they are defined with alternative landmarks between one- or two-story buildings. While their spatial features are insufficient to create the space itself, the place quality also was not sophisticated. However, the system of orientation on the Parliament, Train Station and Ankara Castle spine was successful enough to feel the transitions between districts. While the Boulevard clearly constituted the main path between old and new centres; other paths and their hierarchy were relatively insignificant. It was clear that the proposal offered a good order of a street pattern, but their interactions and orientations did not alternate sufficiently enough to highlight the image transition.

The edges were clearly distributed in the settlement area. The City Park and Incesu River on the eastern side, the Parliament on the southern side and Station Square on the northern side defined the frame of reference. Here, the edges were not used to form the districts or the zones, since they mostly shaped the natural belts. The only district that could be observed in Yeni Şehir was the Bakanlıklar District, in which all of the ministries were located. All landmarks belonged to government, which used them primarily for education, health and bureaucracy. The new Parliament, the most important landmark, was located at the end of Mustafa Kemal Boulevard, as if it is saluting the others. Interestingly, the dense interacted zone sits on what is today referred to as the Sakarya District, where the interrelation of landmarks is illustrated in Fig. 3.10. All in all, there is an explicit urban image of the new Republic and bureaucracy on the south (Yeni Şehir) and north (Ulus) spine. However, the plan has created an inconsistency, in that it offered the monumental government spine between one-story garden houses. The image difference between the monumental spine and residential pattern created a conflict. The district was an empty steppe area with flashy single structures (see Cengizkan, 2004) where the urban image was dominantly stressing the reflections of a bourgeois revolution.



**Figure 3.10 Image Analysis of Kızılay-Yeni Şehir, 1925
(personal rendering)**

3.2.3.3. The Adaptation of Gestalt Principles

The features of urban image and morphology demonstrate that there are simple orientations within complex backgrounds in the Lörcher Plan. While every single analysis of these features gives substantial clues about the urban evolution, there is a need of a unitary theory, in order to combine the physical and perceptual preferences and evaluate Yeni Şehir as part of a holistic method. In this part, the characteristics of the district will be bonded through gestalt principles.

Gestalt theory can be the key framework, since it can test both the physical and perceptual features of urban space. While these principles are primarily used for visibility orders, they will also be used to evaluate the perceptual reflections. Moreover, the urban characteristics will be melted into the same pot by framing the unitary theory. Gestalt principles will be applied on both sides, so as to point out the efficiency of integrity, order and interrelations. There are two main concerns that will be investigated. Firstly, urban morphology will be analysed, in order to see the order that the first plans proposed. This will ensure a physical analysis in order to understand the spatial quality in both two and three dimensions. Secondly, urban image will be examined further, to reveal the first aims on the design tendency and the first steps of the image revolution in Ankara. This analysis is crucial to creating a bond with physical features, since it will be defined with respect to a physical and social pattern. All of the principles will be practiced with respect to the basic components of the Conzenian method (physical features) and the Lynch Image Analysis (perceptual features).

Similarity and Anomaly

The block and buildings structure remains monotonous and very similar in the first plans. Specifically, the residential tissue is relatively prosaic, where most of the urban tissue line up in rectangular block patterns. Yet, the blocks structures differentiate and the square network orients them in orthogonal patterns. The symmetry, which is emphasized on the eastern and western side of the Boulevard, represents a simple spatial language, despite the disadvantages of a dull system. The lack of anomalies in this spatial pattern creates the problem of a perceptual confusion between different districts.

The urban image is fully dependent on the governmental landmarks and monumental spine on Mustafa Kemal Boulevard (Ataturk Boulevard). While the similar meanings of the

landmarks are explicit, the Lörcher Plan (1924-1925) proposed some distinctive usage at different nodes of the spine. The cultural activities are melted with Republican monuments where both perspectives complete each other under the dominant image of the capital.

Proximity and Alignment

In the two-dimensional plan, proximity and alignment of the built and planned structures are consistent. Ataturk Boulevard, well-defined squares and obtuse angled block orientations represent a well-thought-out proposal, however, three-dimensional plans reveal other facts, where the residential structure is selected as detached one-story houses. The strengths of the spatial forms are relatively weak because of the failure of continuity. While a two-dimensional plan ensures the principle of proximity, the lack of space definition in three-dimensional analysis (see Fig 4.6 in the fourth chapter) is very clear.

Proximity and alignment should be analysed discretely, even as they are used to observe an order value. At this point, we should define the perceptual proximity for urban image elements. The analysis (Fig. 3.10) demonstrates that landmarks are gathered at the eastern part of the district. Their proximity clearly constitutes a value where the lines get denser at the eastern zone. This area is very significant for the observers who undoubtedly value it more highly than others. While we can criticize the distribution of the landmarks, we can also say the monumental alignment is very clear.

Continuity

The continuity of the morphological features is limited within the block formation where it only defines the street network, but cannot steer the spatial quality. Mustafa Kemal Boulevard (Ataturk Boulevard) defines an explicit continuity through an effective vista on the south and north axis. However, the continuity in three-dimensional perceptions should be formed through the buildings. When the built residential and commercial structures are analysed, the low quality of the urban space is obvious.

The perceptual continuity is only permanent on Mustafa Kemal Boulevard. Rather than the spine, the image of the residential district is very prosaic, in that it is all the same rather than being continuous. The lack of urban image components (nodes, paths, landmarks, edges or districts) outside of the Boulevard causes this image loss. The problem of a prosaic and boring residential pattern trivializes the continuous perception.

Closure

The closure is one of the key principles which define different levels of public spaces people to observe as part of the urban experience. In terms of urban morphology, the residential tissue and building structure have a weak closure relation, where only the plots define linear streets. While the built structure was not mature enough during this era (1925-1926), the existing base-maps and Lörcher's proposals present us with some key ideas. The Plan proposes maximum four-story buildings in the centre, which will be located on the Boulevard. Since the base-maps do not have enough data, we can assume the entire boulevard would be built on four-story buildings and evaluate the physical closure with respect to this. When the widths of the squares (the widths are bigger than 140 meters, e.g., Zafer Square) are considered, it is clear that the spatial recognition and closure is not enough to create a well-defined space.

While physical analysis is rather easy to define through built and proposed urban components, perceptual approaches can be a little bit puzzling. There is a possibility of ambiguity, which emerges due to the similarities with proximity principle. Furthermore, the practice of perceptual closure is predominantly related to serial visions, which expand the frame of this theoretical background. Correspondingly, the analysis should focus on a slight transition, in which existing elements define the non-existing.

In terms of perceptual closure, there should be a balance between regular and significant places (dense nodes-district nodes, landmarks, commercial districts-residential districts, main paths-normal paths). When this interrelation became unbalanced, the place transforms itself into a prosaic (if there is too little) or chaotic (if there is too much) environment. Thus, urban image should be defined with both regular and distinctive places. While the regular place is important as the significant one, it can provide a relief zone between the distinctive ones, in which people can refresh the image impact between. In the Lörcher Plan, the closure of the activity areas is not a good proposal, since the distributions of the districts are unclear. Mostly, the image elements gather in specific zones in the eastern part of the Boulevard, and the interrelation remains relatively weak. Hence, people cannot experience the urban image when they leave the main spine. In this way, the lack of image closure limits the perceptual range of the Kızılay.

Figure-Ground

Figure-ground principle refers to an order where urban solids define the urban voids or vice versa. In this part, we will focus only on the perceptual metaphor, since we analysed the physical ones with Trancik method in Chapter 3.2.3.1. In terms of urban image, all components should be evaluated in relation to the perceptual features. There are two separate dimensions, which work harmoniously in figure-ground analysis: the background and the foreground. While we can name any of the urban components as one of them, we should go beyond the limits of this built structure and enhance a relativistic and perceptual method.

The new urban image will be named as the foreground where the historical pattern will be referred as the background. While this analogy can be seen as naïve, it will provide a crucial understanding in order to note the interrelation between the new and the old images. This case will be understood more clearly in the latter parts, as many different image elements overlap in time and create a palimpsest in Yeni Şehir (Kızılay). Just like in Figure 2.20, sometimes people can observe only the image, which they usually name the foreground. However, without a meaningful portrayal of a background (or the vice versa), the image cannot sustain itself.

Based on this approach, the Lörcher Plans offer a strong relation with the old centre (Ulus) through the physical paths. The spine of the new centre (Mustafa Kemal Boulevard) faces the Ankara Castle where the new Parliament creates a vista in relation to the castle. However, most of the image elements remain disconnected with the historical part of Ankara. There was a need for a stronger connection for Ankara, which has a 5,000-year history that cannot be evaluated through only the Republican approach. The landmarks, paths, vistas and districts should have referenced the historical value as well as the value of the new Republic. However, this interrelation is weak in terms of a holistic perception for the image elements.

3.2.4. INFERENCES

Lörcher firstly tried to propose settlement zones and the Parliament around the Castle and Ulus District. However, because of the rapid migration, a need for an alternative plan emerged. Kızılay District, called Yeni Şehir at the time, was selected as the development zone. The Parliament, Bakanlıklar District and Mustafa Kemal Boulevard were proposed with one- or two-story residential neighbourhoods. Here, Lörcher intended to attract

bureaucrats who were moving to the capital and tried to implement the garden city principles around the government core. The natural landscape at the eastern border was proposed as the natural belts with Incesu River and the potential green areas at the southern region. However, the speculation on land distribution reveals a land use transformation over time. This also supports the emergence of Yeni Şehir, when Ulus was unable to handle the rapid migration. The Lörcher Plan proposed the area as a government district, where people can work and live at the same time. Yeni Şehir is designed through a western perspective, and proposed a square system with large boulevards and a variety of open spaces. Garden city principles and low-density land use is planned in order to attain a spacious centre. Lörcher designed a district of clear urban geometry, where the image characteristics (the Republic and the State) are highlighted for the first time (www.goethe.de, 2014).

The Conzen analysis shows that Yeni Şehir has a systemized physical structure with block structures and plot orientations. While the block pattern is well-defined with orthogonal openings, the street network constitutes an efficient transportation system. However, the plot system and one-story houses are prosaic for a new central zone. Yet, the spine and new image of the state ensures well-defined morphological and perceptual features. In particular, the square system and the Boulevard shape the main concerns of urban image and morphology.

Furthermore, Trancik analysis demonstrates that a detailed examination of the built structure is not possible, since the built components are very premature. However, the detailed physical components show that the built structure around the Boulevard is not planned very well, as there is a lack of activity variation. While most of the significant urban solids can only be defined through governmental buildings, the voids are formed by a variety of squares, gardens and foyer spaces.

Additionally, Lynch analysis shows that the spatial distribution of the image elements. We observe the importance of the landmarks and the dominance of the Boulevard in the first Plan. The activity distribution on the Boulevard generally focuses on the cultural and governmental image, while the surrounding area is defined by low-density residential tissue. The outer zones, which are planned for the new housing stock, are not defined as effectively as the Boulevard. While this may have been a deliberate choice, the image deficiency of surrounding structure cannot support the spine.

Gestalt analysis reveals the bond between the urban image and morphology in Yeni Şehir. When the principles are examined for different urban components, the Lörcher Plan demonstrates a consistent structure, in order to create a new capital for the Republic. This analysis provides the integration of physical and perceptual features, combining them through key concepts, such as monumentalism, republicanism and garden city.

Overall, the Lörcher Plan proposes the first modernist plan for Ankara. The case study, Yeni Şehir (Kızılay), is the new centre, which hosts government activities and its residential zones. The lack of urban areas in Ulus and the effects of the Çankaya District have transformed the morphology and image over time. Eventually, the government opened a new competition, seeking an alternative plan. Hermann Jansen won the competition and made improvements in the plan where the morphology and image were transformed significantly.

3.3. IMPROVEMENT OF THE FIRST PLANS: 1932 JANSEN PLAN

After the creation of the Republic, Ankara experienced rapid migration. Most of the people came because of new potential developments, but the land area was not sufficient to serve them all. In particular, there was unforeseen population growth (Table 3.1) between the Lörcher and Jansen periods (Cengizkan, 2004).

Table 3.1 Population Change in Ankara, 1920-1955 (Şenyapılı, 2004, p. 277)

Year	Population
1920	~20.000
1927	74553
1935	122720
1940	157242
1950	289197
1955	451241

The first plans needed at least ten years to implement, but the utopian aspect of the garden house approach created a countryside pattern around the new governmental district, and many authorities from state and civil society criticized them. Cengizkan (2004) noted that this was proof of dissatisfied public opinion, which cleared the way to the Jansen Plans (Fig. 3.10). While the Lörcher plans reflected good features of modern urbanism, the conflicts between the built structure and societal balances created significant problems in Kızılay. The new housing style, built by upper income groups, created a fragmentation between existing and new population groups. The detached housing style and forms were also signs of social fragmentation. Despite the first plans intending to bond the old and the new tissue, the built structure was obviously not fulfilling its promise (Cengizkan, 2004).

The inevitable consequence of these speculative implementations emerged while the debates on the Lörcher plans proceeded in Yeni Şehir. The regulatory structure and the land use monitoring were not mature enough to control the new developments, while the arguments on Ulus and Yeni Şehir conflict created urgency when it came to the decision-making process. Eventually, a need for an alternative plan emerged when these problems combined with rapid migration. The enormous population growth between 1919 and 1928 was predominantly felt in urban areas, while the rural population was largely unaffected. No matter how much the parts of the land use plan were successful, the natural problem of

housing stock became apparent because of economic and legislative circumstances. At the same time, the solid governmental authority eventually lost control of the situation. This was one of the major reasons why the Lörcher plans did not work effectively.

Urban growth happened so fast that speculators and the bureaucracy seized control of the planning process. Many green fields fell victim to the new housing zones. In particular, residential developments in the southern part of Yeni Şehir took over the green belts. Many buildings added extra stories with increasing rents. Control of the planning process was lost when upper income groups and speculators came to dominate it. In the end, the maximum height of two-story buildings was increased to three for residential usage, and the commercial building height limit of four stories was raised to five on the Boulevard (Duru, 2012).

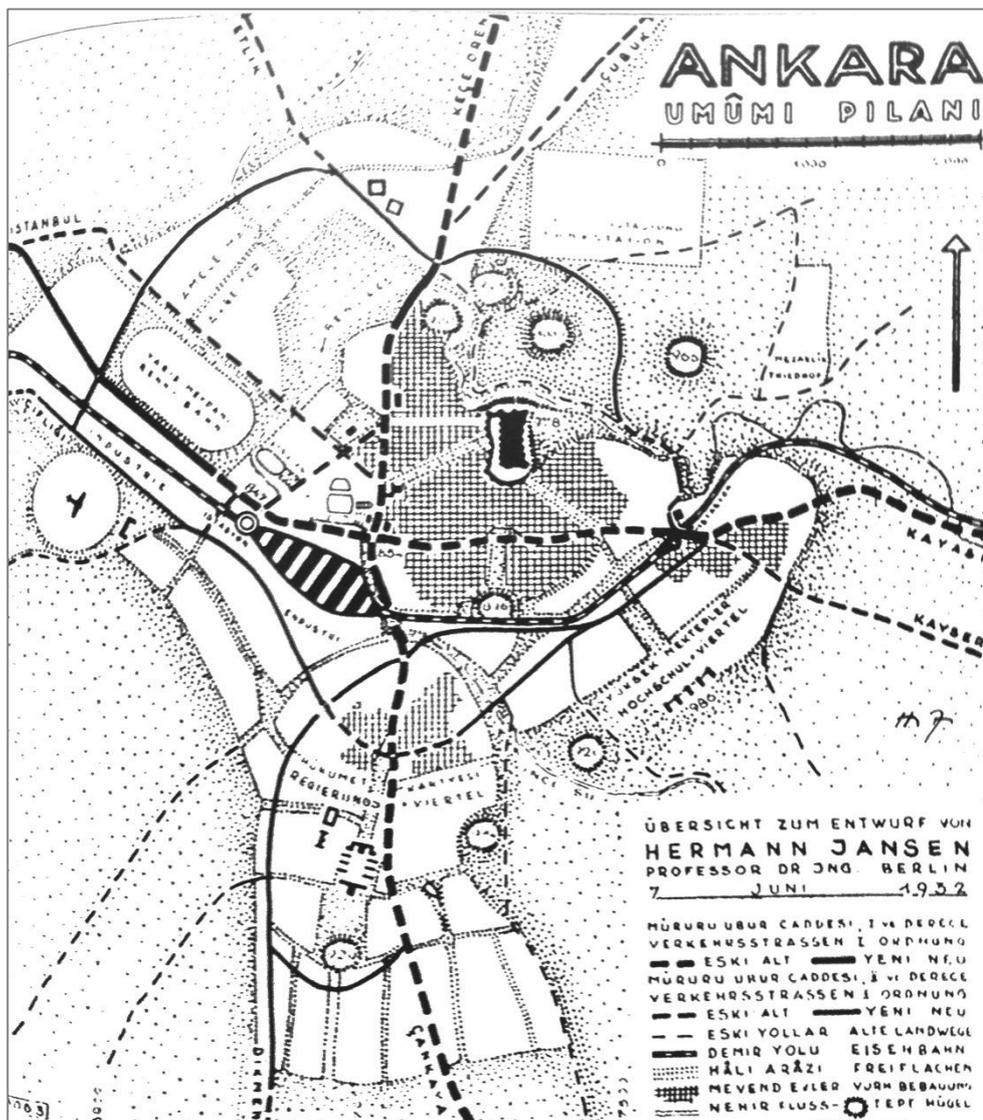


Figure 3.11 Jansen Plan, 1928 (Cengizkan, 2004, p. 67)

In the end, local government officials realized that the plans were not working efficiently, and that there was a need of a new development plan. Mayor Asaf Bey led the new planning process and invited three foreign planners to Ankara, to analyse the current problems. Some prerequisites were given to orient the planner candidates with specific directions. For example, the projection of 300,000 inhabitants and the garden-city approach were explicitly given as the major aims. Among these candidates, Leon Jaussely was the French architect famous with his Barcelona Plans. Josef Brix and Hermann Jansen were the planners who attended the 1910 Berlin Development Plan Competition (Cengizkan, 2004).

Brix pointed out the importance of being the capital city, and he made an analogy with plans for Madrid, Spain. According to him, the population projection was consistent for 300,000 inhabitants; however, his report did not mention a substantial change for the capital's future. On the other hand, Jaussely's Plan was very aesthetic and complex, because it followed the traces of French movement. The green spaces and well-defined square systems were very successful; however, it was too costly, and the jury did not find it feasible. However, Jansen proposed a consistent plan that demonstrated the best fit with Lörcher's. He evaluated the process within the relationship of Yeni Şehir (Kızılay) and Eski Şehir (Ulus) and won the competition by sustaining the goals of the first plan, while strengthening its weak aspects (Cengizkan, 2004).

3.3.1. THE IMPACTS ON KIZILAY

The Jansen Plan had a significant impact on Yeni Şehir, because it detailed, changed and improved Lörcher's proposals. The old Çankaya District was transformed into a new city park (Kurtuluş Park) and the Vekaletler District was defined as a distinct district at the heart of the new centre (Fig. 3.12) (Cengizkan, 2004).

The most important aspect of the Jansen Plan was that it proposed a feasible alternate plan, while keeping the basic features of the Lörcher plan. The artificial urban environment and urban image has evolved into a more complex system with the support of new commercial and civil participation. This was a more effective start for Yeni Şehir. More specifically, the developing commercial activities formed the bottom-line of this development. Briefly, the Jansen Plan had two important impacts on Yeni Şehir. The first was the transformation of Vekaletler District and the emergence of Hükümet Kartiyesi. The second was the building of Atatürk Boulevard, which connected Yeni Şehir with the districts of Çankaya and Ulus.

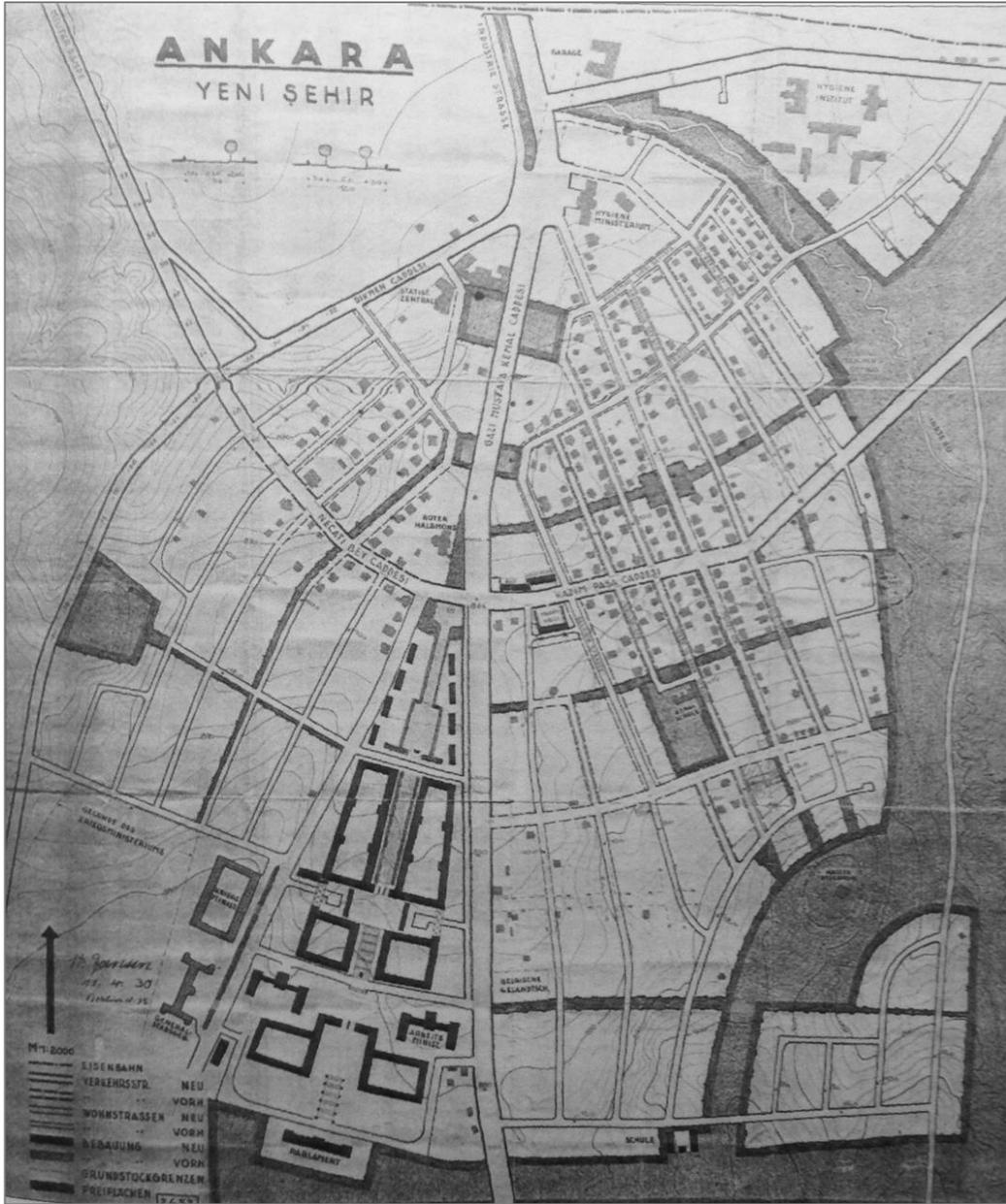


Figure 3.12 1930 Yeni Şehir Plan (Cengizkan, 2004, p. 111)

3.3.1.1. The Distortion of the Vekaletler District

In the Lörcher Plans, the Vekaletler District was the focal point of central activity. The monumental spine ended with the new parliament, where it created an explicitly defined vista. The proposal created an integrated system and the solids of the ministries worked congruently with Ataturk Boulevard (Fig. 3.13).

When Jansen proposed the Boulevard, it broke the symmetric form of the Vekaletler District and shifted it toward the west side of the boulevard. Despite Jansen's detailed design, unforeseen structure and usage developed. While Jansen prioritized the connection of the old and new centres, in doing so, he broke the old spine and proposed an alternative one. Cengizkan (2004) defined this morphological transformation as a warp and highlights its insignificant structure with respect to the other parts of Yeni Şehir.

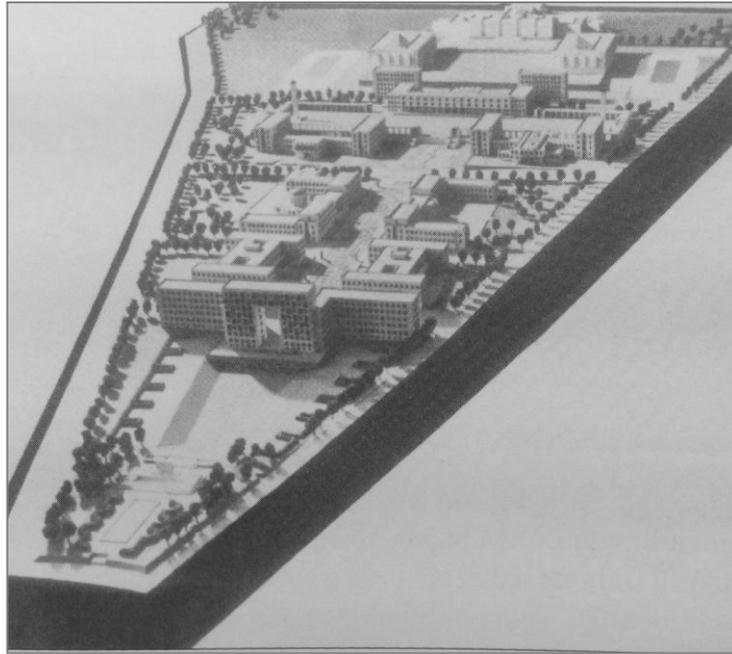


Figure 3.13 Holzmeister's Proposal for Vekaletler District 1934 (Cengizkan, 2004, p. 117)

On the other hand, the district was designed with explicit orientations, which involved a gate at the northern part of the ministries and parliament. While the city maps of the 1940s and the 1950s show a clear shift, Jansen and Holzmeister paid a great deal of attention to the vistas and pedestrian orientations. The desire to create an effective green system was very clear in the first sketches, where Jansen did not try to locate the solids at the beginning but aimed on providing a well-designed open space system. Later, his colleague, Holzmeister (who designed TBMM-the new Parliament), proposed a positive gate at the northern entrance (Fig. 3.14); however, this proposal was not implemented due to economic circumstances (Cengizkan, 2004).

The transformation of Vekaletler District cannot be evaluated separately from Ataturk Boulevard. While Ataturk Boulevard dominated and led this process, Jansen and Holzmeister prevented its potential trivialization by designing an in-depth proposal for the

area. Çankaya and Gazi joined and renamed Mustafa Kemal Boulevard as the new Ataturk Boulevard, and a new urban morphology and image of strong state dominance appeared in Kızılay.

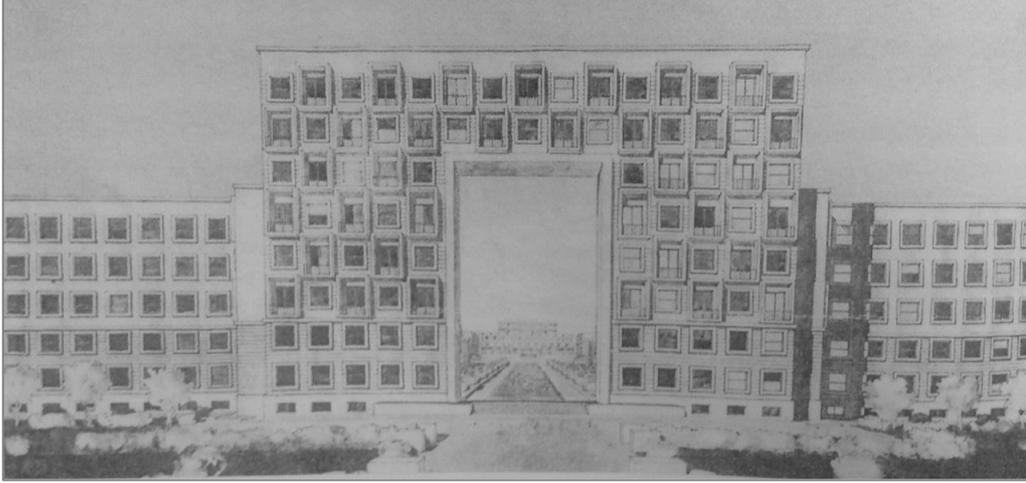


Figure 3.14 Gate Proposal for Vekaletler District (Cengizkan, 2004, p. 116)

3.3.1.2. The Evolution of the Boulevard

“The time stops here. It fossilizes like the coffins of Egyptian mummies, the catacomb passages of Rome or the dungeons of the middle age. There is no way to measure it with a known unit. Because, the old, does not get older anymore. The past is not the past anymore...” (Karaosmanoğlu, 1934, p. 130, translated by the author)

When Karaosmanoğlu (1934) portrayed Ankara, he pointed to a crucial interrelation between time and space. Are the things that we refer to as old really old? How can we define old or historical things and relate them with the present? No matter how one chooses to do so, it is inevitable that we must examine the transformation of urban image and morphology in a nested way without losing the key components of urban space.

Ataturk Boulevard is the most substantial key component, where it merged the old and the new centres and continued the story from different perspectives. Naturally, the new perspective turned into the old one in time. And today, there is the possibility of its disappearance with respect to its image and morphological decline. Undoubtedly, the main aims of its usage do not work today; yet, it is still successful in a way, because it continues to work, even with different urban dynamics like intense pedestrian traffic.

As mentioned previously, Jansen paid great attention to the implementation of the Boulevard. He opposed the long and linear roads, where he suggested that the form of the

Boulevard should be defined due to the modernist norms of urbanism. The folds were creating differentiation to people's perceptions and made the Boulevard more attractive within a variety of spatial differences. In the first plan, the width of the Boulevard and other arterials were always a discussion between professionals. Since residential density was very low, the dimensions of the roads were not consistent and efficient enough to define the spatial requirements. Jansen was opposed to the wide boulevards and roads, and he criticized the Lörcher Plan by proposing to add extra road area to the green spaces. This method enabled him to overcome the lack of urban space in the centre (Kansu, 2012).

Jansen imagined the Boulevard to be the most modern avenue in Turkey. He always emphasized that the secondary roads cannot split a main road. Correspondingly, the traffic on the east and west side was arranged based upon this approach (Kansu, 2012). After the 1930s, the implementation of Yeni Şehir and the Boulevard began. While buildings were rising nearby, the activities became diverse over time. The connection between centres, distinguished architecture and green spaces were consistently located around the Boulevard (Dinçer, 2009).

In April 1930, the width of the Boulevard was increased to 30 meters. Gazi Mustafa Kemal Boulevard and Çankaya Boulevard were merged to make Atatürk Boulevard. Thus, the morphological symmetry around Vekaletler District and Çankaya Boulevard disappeared. Three lanes from Sıhhiye to TBMM junction were planned to serve as wheeled traffic, where the lane near Güven Park would be used for bus stops (Cengizkan, 2004).

The Boulevard reached its final morphology and perceptual value after 1938. There was some construction, but that was completed after the 1940s. In the 1950s, Kızılay became a district in which all the public and commercial institutions worked together effectively. Furthermore, the connections between Cebeci and Beşevler were implemented, and they were bonded to the new centre with universities in those neighbourhoods. The Faculty of Political Sciences and Law (Ankara University-Cebeci) and Science Faculty (Ankara University-Beşevler) have increased the population of young people in Kızılay. That was very important for the commercial sites, which are always searching for different activities for the area, especially the leisure and entertainment sector. Those businesses discovered important opportunities to increase their profits by beautifying the urban environment (Dinçer, 2009).

Jansen proposed a continuous green lane on the Boulevard, to relax the pedestrians who use it. At this point, the pedestrian movement was the key goal where various public institutions and spaces worked effectively. Wide sidewalks, supported by an alternative bicycle lane, oriented the pedestrians and cyclists to the squares and other parts of Kızılay. The public priority and the aim of building a capital for the young population was very clear in Jansen's proposal (Keskinok, 2009). However, according to Kesim (2009), the Jansen Plan shows some different spatial usages along the boulevard. The author described the case as:

“One side of the boulevard proposed as longitudinal activities the other side is for transversal activities. This attitude was also seen from the proposed buildings. However, the imbalanced spatial attributes, the vision of joint public and administrative design principles helped to overcome the problem. In addition, The Atatürk Boulevard design has a character of national identity of young republican community.” (Kesim, 2009, p. 112)

The image of the Republic and its reflections separated the Boulevard from the others in Turkey. While it constituted a role model, it was also supporting the ideology of the revolution and its major goals. All in all, new universities and young civil servants who came from other parts of the country supported this approach. Indeed, this type of reflection can also be seen in other parts of the world. For instance, the boulevards represented the bourgeoisie in Paris, whereas the religious reflections were emphasized in Rome. In Ankara's case, the Republic was the main image, which supported all of the activities on the Boulevard (Kesim, 2009).

However, the rapid migration has continued, and the serious problem of squatter housing has emerged in Ankara. The land use control mechanisms apparently did not work very well. Jansen tried to solve this problem but he was not successful enough. It was a national planning problem rather than a simple land use problem. In the 1950s, Turkey met with different ideological parties and shifted to a multi-party system. The importance of this change was reflected in the conflict between opposing views and its reflection on the urban space. The Democrat Party represented liberal policies, and evaluates urban problems from economical dimensions. Since then, the Boulevard has transformed in a different way than first envisioned. While social concerns oriented the development, the rent became dominant when he came to decision-making. Eventually, the Republican image declined and density has increased considerably. In 1957, a new competition was opened, in order to answer the demands. According to Keskinok (2009) this was a new start for the spatial and social life of Kızılay.

3.3.1.3. The Emergence of Cultural and Commercial Areas

The image of the new Republic and public institutions represented the main characteristics of Yeni Şehir. Here, the monumental glory and the powerful government image can be felt in every sculpture and building. The commercial and cultural activities developed later, when governmental activities in the area got mature. The first commercial buildings were the headquarters of bank buildings situated between Kızılay and Ulus. Furthermore, with the involvement of universities and different public institutions, a greater number of stores, restaurants, theatres and the like began to appear. Piknik (the restaurant) and Bulvar Palas (the hotel) were two important enterprises (Fig. 3.15 and 3.16), which have had important impacts on the image of Kızılay. Naturally, these types of places became feasible when the sufficient income groups became involved in the process.



Figure 3.15 Bulvar Palas
(Cengizkan, 2004, p. 248)

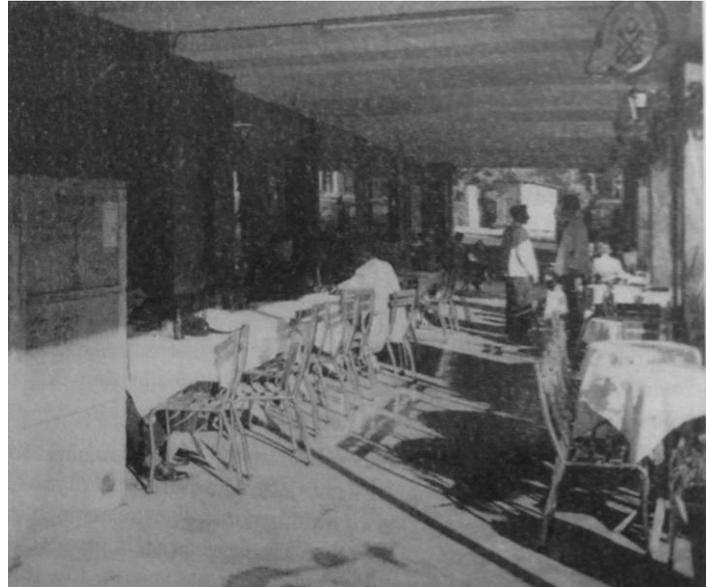


Figure 3.16 Piknik (Tunçer, 2012, p. 236)

As with the Lörcher Plans, the focus of the bourgeois did not change in the Jansen period. When the economy is considered after World Wars I and II, it was normal that only a small group of people were able to use these types of services. Moreover, most of the stores had a quality that cannot even be seen in today's Kızılay. This period had its own characteristics, when compared to either Lörcher's or today's circumstances. Therefore, any examination of the commercial areas is very substantial, in order to understand the demographic structure and the urban image that people have in mind. Inevitably, the land use functions, image and morphology elements were working together.

Ankara Theatre (in Sıhhiye Region), Ulus Theatre (near Soysal Passage) and Büyük Theatre were the oldest movie halls in Kızılay. They were attracting an important amount of young population since they were the most powerful representatives of popular culture. This had a great impact on the centre when youngsters started to spend their time in Kızılay. When the activities shifted to Çankaya, the cultural activities also moved to Tunalı District in years (Dinçer, 2009).

Theatres Halls

Büyük Tiyatro has been the biggest and the most important hall in Ankara. Even though it is not in Kızılay region, its hinterland affected the district too. Presidential Symphony Orchestra also used the hall with many different activities like ballet, opera and theatre. The hall was transformed from an exhibition house in 1949. While there were debates over its acoustic quality, it has served for more than 65 years today. After 1950, the number of theatre halls has risen to five with Küçük Tiyatro, Oda Tiyatrosu and Yeni Sahne. The most famous private hall was Ankara Sanat Tiyatrosu, which was opened after 60s across the Officer's Club in Kızılay (Dinçer, 2009).

Libraries & Book Stores

With the increasing popularity of Yeni Şehir, a number of bookstores moved to Kızılay. There were two important reasons for this. The first one was the destruction of the particular places around Ulus. The second one was the increasing student population in Yeni Şehir. Correspondingly, the bookstores like Tarhan, Bilgi and Mumcu opened new places in Kızılay. Especially Zafer Çarşısı was very popular with the variety of choices they provided. After years, Karanfil and Yüksel District became the most popular area at the eastern part of Yeni Şehir (Dinçer, 2009).

The one and the most important library was the Milli Kütüphane in Namık Kemal Neighbourhood. This building served as a social centre for university students who were coming from Ankara University. Before it was moved to Bahçelievler District, it constituted one of the most important landmarks of Kızılay as a cultural focal (Dinçer, 2009).

Famous Restaurants and Patisseries: 'Piknik' as an Image Element

The developing commercial structure of Yeni Şehir also improved the leisure areas. Many restaurants and patisseries opened, which resulted in a number of different meeting points

and landmarks in the district. Özen, Meram and Sergen Patisseries were the most famous ones on the boulevard. Places like Madam's Place and Penguen Patisserie served as important meeting points. After the 1940s, many people were taking afternoon walks on the boulevard, and that attracted many other enterprises.

The most important image belonged to Piknik Restaurant near the General Directorate of Social Security Institution. The place hosted many different events, and it inevitably made a significant impact on people's perceptual recognition of Kızılay. The restaurant represented the image of a distinguished life in Yeni Şehir. It served as a clean, elegant and high quality restaurant, which brought American-style food serving sizes to Ankara (Dinçer, 2009).

Interestingly, its image coincided with the new image for Yeni Şehir that planners were looking for. It was not a coincidence that the new people of Ankara loved and visited this place. Middle class bureaucrats, military servants, students from Ankara College and Ankara University admired this place for nearly 40 years. Yalçın Ergir described the story of Piknik this way:

“There wasn't any place such as Piknik. The chief, Tanas Mastakas, did come from Orman Restaurant, which was closed in Istanbul. He was cooking unprecedented appetizers, spits and sandwiches for the well-dressed families who kindly salute each other while taking their walk on the Boulevard. The waiters were not allowed to grow a moustache or smoke cigarette. If the man at the cash would not smile or thank to a customer, he would get a kick from the owner, Mr. Reşat. To support a football team or a political party was also not allowed. The doors were open to the all people of Ankara. Significant staff was serving which cannot be easily gathered. The headwaiter, Vasil Lupi used to speak five languages like his mother tongue. Sometimes he would sing Albanian songs when he was happy.” (Tunçer, 2009, p.235-236, translated by the author)

Luxurious Hotels: Bulvar Palace

The hotels of Yeni Şehir also represented the changing image of Yeni Şehir. When compared to today the hotels were very luxurious and elegant. Just like Piknik, Bulvar Palace used to have a significant importance for Yeni Şehir. Since it was very close to the TBMM (the parliament), political visitors always stayed there. Although it did not have a glorious architecture like Ankara Palace, it clearly made an impact on people's perceptions with meetings and other experiences. Uğur Biryol described Bulvar Palace:

“The hotel attracted people's attention because of being very close to the embassies and the parliament. While its restaurant (Washington Restaurant) catered the receptions in Presidential Palace, Bulvar Palace became the stamping place of Ankara's elites and

politics. The owners of the hotel hired a Spanish pianist and it made a great impact on Ankara nights. Everything, from fridges to any other materials, was ordered from foreign countries. The European standards of its cuisine and modern-conventional architecture represented the western face of Ankara.” (Tunçer, 2012, pp. 248-249, translated by the author)

Despite the mechanical change of morphological and perceptual features in the Lörcher period, the natural transformation was inevitable for private and civic participation. After the decline of state power in the 1950s, the change of the image elements and morphological orientations then shifted to the southern part of the area. While Ulus was more powerful from Yeni Şehir, collapsing urban areas have emerged particularly over time. The old promenades have shifted from Ulus to the squares of Kızılay. However, Kızılay also started to lose its shimmer after the 1970s. Failure to create new alternative public places and the area’s declining image revealed the complexity of the situation. All in all, the new centre has lost much of its significant reputation, while other parts of Ankara became more attractive (Dinçer, 2009).

3.3.2. SPATIAL ANALYSES OF JANSEN PLAN

The Jansen Plan shows complex spatial structures when compared with the Lörcher Plans. Not only the enhanced built structure, but also the in-depth design proposals increased the significance of Jansen and Holzmeister’s studies. Undoubtedly, the emergence of the Boulevard made a significant impact on Kızılay’s morphology. It extended the spine on the south-north axis while Vekaletler was transformed into a new and more detailed district. Furthermore, the importance of Kavaklıdere (on the southern border) has increased because of its key location between the new centre and the presidential palace in Çankaya.

The new morphology of Kızılay has revealed new possibilities for the state and market. While shops and restaurants were concentrated in the Sakarya District, the embassies were at the southern part of the TBMM. The boulevard was relieved for the new formation of commercial buildings where the story levels were increased. With all these impacts, Kızılay has started to take on its final formation.

3.3.2.1. Conzen and Trancik Analysis: Bending the Morphology



Figure 3.17 Conzen Analysis, Jansen Period (personal rendering)

The Jansen proposal had a significant impact on the morphology of Kızılay. Firstly, the density of the residential and commercial usage was increased, because of the demand on housing stock. Secondly, the monumental square system of the Lörcher Plans was broken with the emergence of Ataturk Boulevard. When Gazi Mustafa Kemal and Çankaya Streets were connected, Vekaletler District transformed into a different area on the western side of the Boulevard and the Boulevard has been the main spine of Yeni Şehir where it connected Ulus, Kızılay and Çankaya. Thirdly, Vekaletler District (Bakanlıklar) was proposed as a separate and explicitly defined region at the centre. When all these impacts are combined with the changing circumstances, we can easily say that most of today's built pattern started to arise with this plan.

Conzen components (Fig. 3.17) show that the proposal of new Vekaletler District has a great impact on Kızılay. While new solids were offered in the district, the analysis shows that the residential and commercial activities were still not very well developed around Ataturk Boulevard. Despite these negatives, the Boulevard has changed the main morphological structure of Yeni Şehir. While the new centre was defined with clear borders in the Lörcher Plans, Jansen created a centre which can develop toward Ulus and Çankaya. Furthermore, the number of governmental buildings (sports centres, theatres, schools and so on) decreased where the plan aimed more on the detailed design proposals of Vekaletler district and the connection of Çankaya and Ulus.

The Trancik analysis (Fig. 3.18) reveals that the foyer spaces lost their continuity and density around the Boulevard. The system Lörcher proposed on the Castle and Parliament axis was broken where Jansen stressed the dominance of a new spine. While the green belt on the eastern region remained the same, different green corridors were proposed in relation to the Boulevard. Still, the monotonous pattern of the residential zones and block structure remained the same. Yet, the Boulevard transformed the region into a more integrated district, and it clearly defined a working spine with consistent reasons. Despite the disappearance of Kızılay and Sıhhiye Squares, green corridors opened the way for the new districts (Sakarya, İzmir, Yüksel), which will emerge years later. The proposal for a rectangular block pattern was much bigger and more defined where Necati Bey and Kazım Paşa Streets also supported Ataturk Boulevard on the east and west axis.



**Figure 3.18 Trancik Components in Jansen Period
(personal rendering)**

3.3.2.2. Lynch Analysis: Ataturk Boulevard as the Spine of the Republic

The locations of the landmarks (Fig. 3.19) demonstrate that the plan slightly affected the structure of the urban image. Rather than the image itself, the shifting morphology changed the locations around the Boulevard. In particular, the monumental spine system, which was surrounded with many different state buildings, was broken. Here, the nodes of Sıhhiye and Kızılay Squares lost their spatial features and turned into traffic junctions. Still, the linear system of the nodes remained the same on the Boulevard, where the secondary nodes at the eastern and western regions disappeared. Furthermore, the semantic formation of the landmarks and nodes were not proposed as well as in Lörcher Plans.

The main path was explicitly defined as Ataturk Boulevard where it was supported by Necatibey and Kazım Bey Streets on the vertical axis. At this point, the aim of connecting the new centre with the eastern, western, southern and northern parts of the city worked effectively for the new development areas. Yet, the hierarchy of the street system was still premature for a central activity. On the other hand, the pedestrian paths were designed more effectively. Jansen proposed a different transition method from greenbelts to the Boulevard and planned different green corridors on the horizontal axis.

The edges remained the same at the eastern and southern part with the natural greenbelt, which creates the green corridors to the centre. While the rationale of the eastern border seems logical, the existence of the southern one is rather weak, since it splits the connection with Çankaya district. On the other hand, Vekaletler District was the only clearly defined region, which has an explicit usage in the area. However, commercial usage was also developed in Sakarya District and landmarks emerged on the Boulevard where Figure 3.19 shows the accumulation zone between them. As distinct from the Lörcher Plans, the private commercial usages became new landmarks in the centre.

When the transformation of morphological and perceptual structure is analysed, it is obvious that the dominant urban image of the Republic was broken in a consistent way, where the unrealistic monument structure blended with Ataturk Boulevard. Rather than an unfeasible land use pattern between the glamorous state buildings and low residential usage, the increased density and the new connections between Ulus and Çankaya transformed the centre into a transition zone, which carries different image values with the support of a new spine, Ataturk Boulevard.



**Figure 3.19 Image Elements in Jansen Period
(personal rendering)**

3.3.2.3. The Adaptation of Gestalt Principles

Similarity and Anomaly

The Jansen Plan breaks the exaggerated symmetry and similarity of the Lörcher proposals. When Ataturk Boulevard split the region into two different parts, the symmetry of the foyer spaces and the residential pattern disappeared with the creation of the Vekaletler District. However, the block and building structures remained the same with their monotonous patterns, since it was not feasible to change the plot system. Also the prosaic and monumental structure was transformed differently with the proposal of the new Vekaletler District. While it created an anomaly in the centre, its broken symmetry ensured a spatial and perceptual variety.

On the other hand, the urban image was not improved mechanically. Rather than interfere with the image directly, Jansen focused more on the residential problem, which emerged with the rapid migration. This strategy worked well, and the civil involvement started to build its own urban values. Instead of presenting specific places, private companies started to build their own places on the Boulevard. Over time, these places unified different experiences and ensured an image value in Kızılay. Correspondingly, the older landmarks developed with the variety of new involvement and the Boulevard became the main spine of this new image.

Proximity and Alignment

The lack of spatial definition of the facades was overcome with the increasing floor numbers. Since the number of floors was increased, the definition of the foyer spaces and the paths was more powerful. Jansen's proposal primarily solved the main problem of the spatial proximity. However, the detached buildings structure for the central urban pattern was not very efficient when it came to defining the facades and urban spaces. In other words, the proximity of the buildings was still not enough to create a continuous proximity on the streets of Kızılay.

At the same time, the perceptual proximity and alignment also changed after the merger of the Boulevard. When the accumulation of landmarks is examined, it is obvious that many locations have shifted toward the Boulevard, and the civil places have become the new landmarks after the 1940s. Correspondingly, the continuity of the image elements started to

gather on the main spine, which ensured a path in order to observe them all for different experiences in urban space.

Continuity

While Jansen bent the morphology without trivializing the patterns of the first plan, he proposed some crucial changes. The morphological continuity was more effective with the bigger block structure and street pattern. In particular, Ataturk Boulevard became the main and most important impact in this period. Its continuity affected the surrounding morphology and image value in Kızılay, because it gathered a variety of activities on one main spine. Furthermore, this continuity connected the Presidential Palace with the Ulus District.

Just like in the Lörcher Plans, the perceptual continuity was permanent on the Boulevard. The Boulevard was not just a monumental vista anymore, but also a connection between Ulus and Çankaya involving different parts of Kızılay. In relation to this, Vekaletler District made a significant impact on the centre and gathered the state image in a single intensive zone. While Lörcher's perfect monumental spine disappeared, the Boulevard was transformed into a vertical spine, supported by the horizontal and continuous green corridors.

Closure

The closure of the built structure was more effective than the Lörcher plans. The photos and plans showed that there were five-story buildings on the boulevard. However, the old residential pattern remained the same. Yet, the number of the floors has risen step-by-step with the pressure on more urban areas and rapid migration. Correspondingly, the density of the vertical movement has increased and the closure of the morphological structure was improved.

In addition, new landmarks, which were built on the Boulevard, half created a perceptual closure and increased the potential perceptual quality. This fact displays an urban path, which was supported with morphological and image elements. While the increasing number of floors defined the spatial features better, the revealing landmarks created a closure. Furthermore, the outer focuses were disappeared in Jansen Plans, which increased the significance of the main image elements on the boulevard. Ultimately, extreme numbers of landmarks and nodes around the Boulevard gathered on one spine. In relation to this, the perceptual closure was more effective within the relief zones (nodes) on the Boulevard.

Figure-Ground

The morphology and urban image of Kızılay display a good fit with respect to the old and the new plan proposals. While the morphology was just bent in order to create a more feasible plan, the extreme dominance of the state image was decreased and combined with other civil initiatives. The Vekaletler District created a great impact, which melts morphology with image in the southern part of the centre. The district highlights the state image with a significant morphological structure that if we adapt the figure-ground principle on Kızılay, the district demonstrates a successful result.

However, some morphological and perceptual values were lost within this transformation. Especially, the spine of the castle, train station and parliament was lost which constituted the major image of Lörcher's centre. Yet, Jansen still managed to protect the major Republic image in Yeni Şehir and the similarities between both plans continued to coexist with continuous characteristics. The interrelation of the new and the old plan was very explicit, and the figure-ground principle can easily be observed in the plan.

3.3.3. INFERENCES

Conzen components show that there was still a premature housing and commercial structure in place at the beginning of the period. However, the increasing height limits of buildings and the emergence of the Boulevard changed the district considerably. The block and plot pattern remained the same, even after the glorious square system disappeared at the east and west axis. Moreover, the increasing density revealed other important paths, and some nodes lost their spatial features. Ataturk Boulevard, as the key urban component, extended the development zone on the north and south axis and connected Ulus with Çankaya.

The Trancik analysis indicates that the governmental usage along the district was decreased, even as other initiatives began to contribute to the development process. For example, the increasing commercial activities along the boulevard gained different values and they continued to progress until the next plans (Yücel-Uybadin Plan). While the expanded focal points were gathered in specific zones and paths, Jansen plan changed the foyer space system and the landmark locations.

The Lynch analysis points out a critical transformation on the Boulevard. While the nodes of the Lörcher Plan remained the same, Kızılay and Sıhhiye Squares lost their spatial features and turned into traffic junctions over time. Also, different landmarks emerged on the

Boulevard, where their linear developments can be seen on the south and north axis. The interrelation between them showed that the new spine of the Republic created a physical path, which reflects Ankara's image on the Ulus and Çankaya spine.

Moreover, gestalt analysis revealed the slight changes in morphological pattern. Despite the great change on the Boulevard, we can easily say that the main traces of the first plans remained the same. The difference was the changing urban image, which was more modest but still feasible. The image transformed into a more civic structure, which enabled people to experience the city more on the spine. While a garden city perspective continued with the green belts and corridors, the monumental structure was explicitly located at the Vekaletler District. Rather than reflecting the republicanism throughout the city, the Boulevard and Vekaletler District were selected as the specific zones. Thus, a better balance between the morphology and urban image was achieved.

All in all, the Jansen Plans proposed important changes with only slight transformations. The shift of the Vekaletler District and the emergence of Ataturk Boulevard were the most substantial changes between the plans. The centre gained specific places and landmarks over time, wherein the image of the state was defined clearly in the Vekaletler District. Furthermore, the pedestrian network, which was combined with the green corridors, could be more continuous and interconnected with the Boulevard.

During the planning period, Jansen focused more on the housing stock problems than promoting the glamorous image of the Republic. He realized that the projection of 300.000 inhabitants (which was explicitly given as a condition by the government) was not enough to face the rapid migration. The population became nearly 450,000 when the local government decided to open a new competition (Şenyapılı, 2004). This was a defining moment for Ankara, where the global currents started to affect local politics in countries. After the 1960s, Ankara began to change rapidly within different political movements and the major aim of reflecting a Republican city was eventually lost.

3.4. A NEW ERA FOR ANKARA: 1957 YÜCEL-UYBADİN PLAN

As in the previous planning periods, the rapid migration was the most crucial problem during the Yücel-Uybadin period. As was the case with the Lörcher Plans, the population projections were insufficient to satisfy the needs of the new demographic structure of Jansen period. The population projection, which was planned for the 1980s, was achieved by the middle of the 1950s. The city was clearly experiencing a clash between its targeted and achieved goals. After all, it was realized that Jansen Plans would not be effective enough to respond to those demands. Within the changing political structure and rapid urbanization, the local government opened an international competition for a new plan. The jury consisted of a number of experienced planners like Patrick Abercrombie and Luigi Piccinato. Among the many candidates, the proposal of Nihat Yücel and Raşit Uybadin (Fig. 3.20) eventually won the competition.

According to Tekeli (1975) this period showed important differences, when compared to the Jansen and Lörcher periods. The most important difference was the ideal change, which saw Ankara as the symbol of the republic. The ideal of making the city a role model and creating a new legal basis for other Anatolian cities was abandoned. Here, a new political perspective placed more emphasis on Istanbul, which they believed would make a bigger impact on the global arena. This was a breaking point, and as a result, Istanbul began to see an incredible level of migration. On the other hand, Ankara began to lose its only value, the image of Republic.

Additionally, decision-making groups started to put pressure on the planning process. The Jansen Plan explicitly limited the dense development around the centre due to its garden city approach. However, when the political views and urbanization speed changed, powerful groups started to speculate the process, because they had shares in valuable areas. This created pressure to increase the densities (where bureaucrats have most of the land) and it also blocked new development zones in Ankara (Tekeli, 1975).

According to Cengizkan (2006), the proposal could not put original and distinctive planning goals in place because of the explicit development limitations by the current administration. Just like the Jansen Plans, the projections and development areas are planned with respect to the demands of the local government, which created a clear loss of value for the plan. Here, a virtual getaway was created, since all the responsibility was shuffled off.

The population projection was made for 750,000 inhabitants by the year 2000. Crucially, instead of opening new development areas, the plan aimed more on increasing density in existing zones. These policy requests came from the administration, where they corrupted the competition process. Despite these obstacles, the plan had many good points, like evaluating Ankara as a cultural capital. The competition process was not administered well. The limitations prevented an effective plan, which has a consistent framework like the Lörcher and Jansen Plans. The conflicts between hasty practices and utopian theories could not be solved cautiously.

The plan could not face the requirements of the density increase. Eventually, a massive urbanization began in Ankara. In 1965, Ankara Nazım İmar Bürosu (ANPB) interfered with the process. The increasing density and on-going migration created a triggered cycle, and new Zoning Floor Order Plans were introduced in 1968. This was the beginning of the rent period and the arguments of a corrupted urbanization in Ankara (Dikmen, 2012).

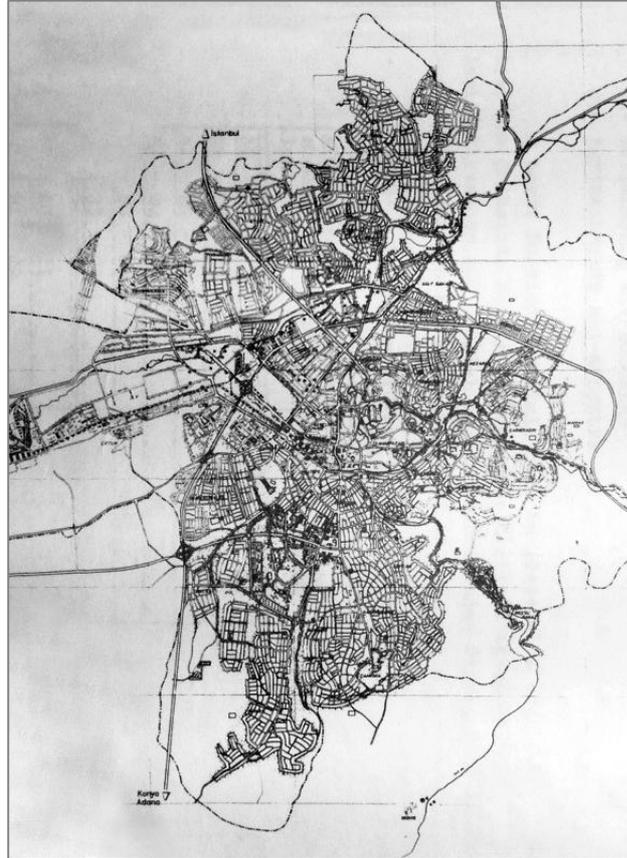


Figure 3.20 Yücel-Uybadin Plan 1957 (Ankara Metropolitan Alan Nazım Plan Bürosu, 1977, p. 103)

3.4.1. THE IMPACTS OF ‘PROPERTY OWNERSHIP LAW’

Çakan and Okçuoğlu (1977) stressed that the plan was trivialized with the pressure of speculators and opportunists on development decisions. Since land prices were rising very fast, the administration could not resist the power of speculators. Ironically, everyone tried to profit from the situation in Ankara. To respond to this, the system created a tear-down/build-up model with the suitable political structure. In particular, the districts like Kızılay were affected deeply, because the rents and demands were very high. Correspondingly, the rapid urbanization caused a serious lack of social infrastructure over time. Since the pervious plans were not proposed for a particular population level, most of the services (e.g., green spaces, sewerage, traffic and so on) remained incapable of meeting demands. Kaya (2002) stated that the rapid urbanization also affected many other sectors (e.g., commercial, industrial) and triggered more migration. As a consequence, the number of squatter areas (especially around Ulus) started to rise at the northern parts of Ankara.

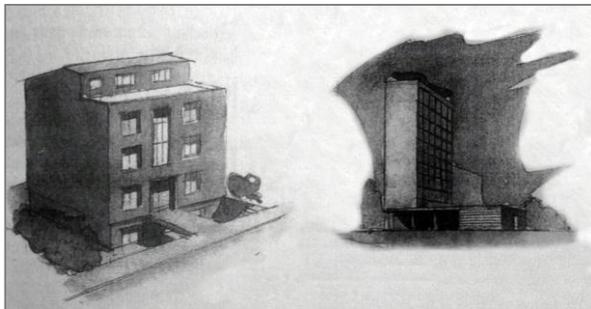


Figure 3.21 Proposed Typologies for Residential and Commercial Areas (Cengizkan, 2006, p.59)



Figure 3.22 A Poster that reflects the ideals of the current era (Cengizkan, 2006, p.58)

The Figure 3.21 shows that the authority viewed this urbanization process as a positive development for the modernization of Ankara. In this figure, we can see the intentions of high-rise buildings for commercial areas and the apartment buildings with increased height. Interestingly, the poster (Fig. 3. 22) on the right side illustrates the city as a utopian high-rise urban land (Cengizkan, 2006).

Eventually, the local administration decided to implement the plans by keeping the expanded zones at minimum and increasing the density by raising the building heights as much as possible. After the Zoning Floor Order Plans were introduced, maximum heights were increased depending on the width of the street on which they were located. For instance, maximum building heights were increased to ten stories between Kızılay and Sıhhiye Square (30 meters) and thirteen stories between Kızılay and Akay Junctions (40 meters) (Cengizkan, 2006).

Çakan and Okçuoğlu (1977) indicated that many planners and institutions agreed on a serious lack of urban services after the density increase. Especially after ten years of this construction period the insufficiency could be seen much more easily. The tear down/build-up model annihilated the basic features of the modern planning products in Kızılay.

During this period, a vertical urban transformation, which values economical profit more than social values took the priority. Landmarks, square systems and spatial formation of the Boulevard were no longer the major aim of the plan. At this point, we should emphasize underline that this failure did not belong to the plan, but the local administration and speculators who manipulated the process. Yet, it is also certain that Yücel-Uybadin Plan won the competition because it fit the limitations of the competition committee (Cengizkan, 2006).

At this point, a serious gap between the implementation and planning processes was exposed. Although the competition jury involved different famous planners and the proposal deserved much credit, with its effective understanding of the cultural and governmental usage, the demands of the corrupted balance of state and market have manipulated the process. When we consider the economic crisis in the 70s, we can see the main reasons of the neo-liberal policies that transformed the space into a consumable commodity. The trend was to build and transform as fast as possible. According to Cengizkan (2006), the existence of Ankara Castle, open and green spaces, the green belt on the western region and glamorous square system were no longer the main topics for discussion. The capital and its new centre have begun to transform rapidly, harshly and irreversibly.

After all, a serious rent-seeking process has affected the spatial quality deeply in Kızılay. The loss of control of the morphological transformation has had a significant impact on people's perceptual recognition. While the artificial improvements had attracted exclusive and

commercial activities, none of the historical values could have been sustained in the area. Eventually, a clear image loss and a morphological chaos have surfaced in Yeni Şehir.

3.4.2. THE LOSS OF URBAN IMAGE IN KIZILAY

According to Günay (2006) the Plan did not propose anything specific on Kızılay District. The relationship between the old (Ulus) and new (Kızılay) centres was left only to Atatürk Boulevard. Crucially, this situation limited the potential developments of the Jansen Plan. The north-south (Atatürk Boulevard) and east-west spines (Gazi Mustafa Kemal and Ziya Gökalp Boulevard) could not demonstrate an effective role in relation to the morphological and perceptual features in Yeni Şehir (Günay, 2006).

In relation to this, Cengizkan (2004) posited that a public place creates its spatial and perceptual characteristics with historical and social values. The decision makers have the responsibility to bond the relationship with both past and present. In this situation, the commission and Yücel-Uybadin Plan could not protect and correlate those values in Yeni Şehir. Thus, the loss of urban image in Kızılay was inevitable, since they could not improve or interpret the previous plans, which built the basic characteristics of the district. The competition report shows that despite the potential central activity in Kızılay, Yücel-Uybadin did not propose any solutions for this situation:

“Today the trade area of the city is collected in Ulus Square and Samanpazarı district in Anafartalar Street binding these two each other. Towards Yıldırım Beyazıt District from Ulus a new development was started in the form of small firms and offices. Other from this centre during the last years, near Kızılay a region of trade started to establish. In this section, existing residences are forced to leave their places to offices and firms slowly. In time, this place is going to become denser with generally offices, places of entertainment, restaurants, nightclubs and retailer firms. Ulus will not change, remains as the main centre and is going to develop.” (Kaya, 2002, p. 98)

As Kaya (2002) mentioned, the new centre has begun to develop and transform since the 1960s. The previous plans imagined Kızılay as a state focus, surrounded by low-density housing areas. However, the residential zones began to transform into commercial zones over time. While authorities saw this change as a positive impact for the rent potential, the incompatible urban pattern and building typology revealed many problems. This was a result of irrelevant plans, which could not meet the same ideals. While previous plans were focused on a role-model city, the new implementation was focused on the increase of economic potential.

In the Yücel-Uybadin Plans, the main CBD was defined as Ulus and the centre was proposed to stay around the castle and the old town district. However, a new round of rent-seeking has emerged where the old building stock is lost its significance. Cengizkan (2006) stated that most of the old and ruined buildings were hidden between the blocks that cover the deformity in Ulus. Most of the people were calling these places as “middens” (p. 41). Frankly, the approaches on urban conservation and implementation methods were not sufficient enough to revive the area. Eventually, this situation has increased the pressure on Kızılay.

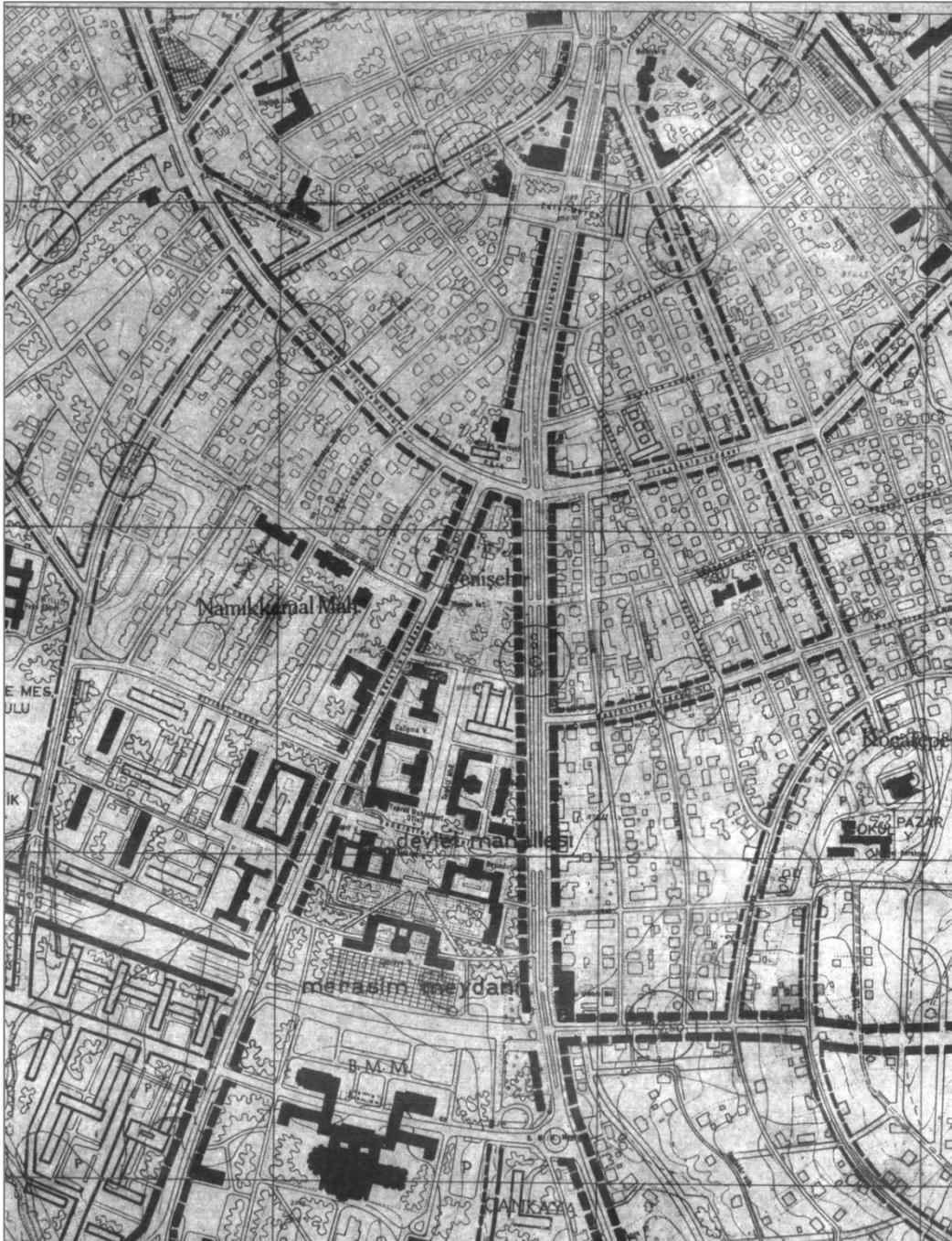
Unguided urbanization revealed an ambitious competition in the construction sector. The architectural approaches and the quality of urban design were so trivial that the significance of the urban place disappeared. The investment potential, which included money that could have been spent on the public and civic structure, was instead spent on speculation zones, in order to gain more profit and create a bourgeoisie image. However, this temporary image disappeared in time. The roots of the old Kızılay were forgotten and the morphological and perceptual quality of the urban space was lost. At the end, the architecture and the image elements were annihilated within this transformation.

According to Bilsel (1977) the planners could not comprehend the urban functions in Kızılay. However, the increasing commercial activity, the location selections made by new entrepreneurs, the existence of the new parliament and ministries were pointing out a clear fact. Bilsel defends that Yeni Şehir lost its sub-centre characteristics in the 1950s and started to develop as a CBD. However, Yücel-Uybadin and the planning commission could not foresee this relationship between Ulus and Kızılay, or the vital requirements of pedestrian networks, and the correlation of image elements and government activity were not introduced.

Because of this, the integrity of the central activity was not defined in the plan. The only impact was to increase building heights, which did not contribute anything valuable to the district. Correspondingly, a new building structure was revealed on the old plot and block pattern. At this point, Lörcher’s detached building order attempted to limit the uncontrolled growth. Ironically, this order has merged with an unguided and rapid urban growth in Kızılay.

After all of these impacts, the image elements and morphological structure on the vertical development was deeply affected. The significant features of the previous plans began to

disappear one by one. For instance, one of the biggest changes was the annihilation of Millet Square. This was the end of a spatial system that Lörcher proposed. The gradual annihilation of this valuable open space network was completed during this period. While Jansen's policies transformed Kızılay and Sıhhiye Squares into junctions, Yücel-Uybadin's proposal annihilated one of the most important open spaces of the district. The loss of Millet Square has had a great impact on Kızılay's spatial continuity, since it constituted a very important node between the pedestrian zones of the Sakarya and Izmir Districts.



**Figure 3.23 Kızılay Map in Yücel-Uybadin Period
(Author's Achieves, 2014)**

3.4.3. SPATIAL ANALYSES OF YÜCEL-UYBADİN PLAN

Apart from the previous analyses of the Lörcher and Jansen periods, the Yücel-Uybadin period shows the spatial and perceptual features from different standpoints. First of all, the period experienced an enormous level of urbanization in the Yeni Şehir District. The density of different usages rapidly increased and the urban experience gained a complex interaction in relation to urban morphology and image elements. Because of this, the uncontrolled growth created a chaotic system in the centre. After this part, we will call Kızılay “the centre” but not the old one since its relationship with Ulus has evolved and they each have distinguished commercial activities.

The spatial analyses will show the interrelation between the uncontrolled development and image elements in different areas of Yeni Şehir. Also, finding the gaps between the components of urban image and morphology has a crucial importance for the final analysis. The best era of Ataturk Boulevard, the existence of the newly finished TBMM and the changing architectural typology all provide generous data for the study. Furthermore, the delicate balance between state, market and society is also substantial to examine, since a consumerist reflection on the urban space has emerged. The ideal of designing for the public and the Republic has disappeared. In this chaotic environment, the state took irrevocable steps that deeply affected Kızılay’s future.

3.4.3.1. Conzen and Trancik Analysis: Filling the Blanks in the Centre

During this period, the diversity of the block and building structure and the variety of urban services became sufficient enough for the central activities. Although the authorities ignored the potential problems of uncontrolled urbanization, the density was much less, when compared to today’s situation. There were also traces of Lörcher’s garden-city approach during this period.

The housing stock could not transform itself around the district and it presented a contradictory image with the rapid urbanization at its core. The most important change was the improving commercial activities on the Boulevard, which revealed a competition between Ulus and Kızılay. Here, the Conzen analysis (Fig. 3.24) demonstrates the consequences of rapid development in block, plot and buildings system. Additionally, Trancik components (Fig. 3.25) reveal the transformation of the distinctive figure-ground components.



**Figure 3.24 Conzenian Components in Yücel-Uybadin Period
(personal rendering)**

The Conzen analysis (Fig. 3.24) also shows that the block structure did not see significant changes over time. The biggest transformation occurred at the southern part, where Jansen has changed the form of Vekaletler District. After it developed, many other state institutions were built in this area and this resulted in much bigger blocks, when compared to the other districts and since that time, they turned into quasi-public areas in the centre.

Undoubtedly, building structure was the most affected town plan component during this era. After the Zoning Floor Order Plans were introduced, the republican architecture and morphology both underwent a significant change. This change has triggered a corrupted urbanization and a limited architectural diversity. Moreover, it activated an urban transformation, which created many other problems for the future. Sakarya District was the most developed area in the Lörcher and Jansen Plans. However, it remained relatively underdeveloped when the speed of the urbanization is compared with others. Most probably, this rather slow transformation occurred because of the existence of building stock, which was not easy to transform, due to the economic circumstances of the period. The detached housing pattern sustained from the Lörcher period created many otiose areas with respect to the central activity. The Plan did not propose a change in the plot or block morphology, apart from simple mergences or separations.

The examination of Trancik (Fig. 3.26) components reveals some key facts about Kızılay. The improved interrelation of the solids and voids points out the changing numbers of public buildings, foyer spaces and directional buildings. While it reveals a maturation in state usages, it points out that the natural landscape elements completely disappeared during the period. Also, the policies on the green belt and the green corridors toward the core district were abandoned. The green system only survived on the Boulevard with particular parks like Zafer Park and Güven Park. However, we can easily say that they did not create a system, since the connections were lost between them. Moreover, most of the foyer spaces disappeared specially on the vertical axis. The pedestrian networks which were designed with particular nodes and foyer spaces were beside the point during the Yücel-Uybadin period. Correspondingly, the open-area system was completely lost. After the loss of Sıhhiye and Kızılay Squares, the planning steps annihilated Millet Square too. Interestingly, the municipality gave permission for two buildings on the square. While this step broke the effective open-area system, the increased traffic transformed the last square (Zafer Square) into a passageway.



Figure 3.25 Trancik Components in Yücel-Uybadin Period (personal rendering)

3.4.3.2. Lynch Analysis: Loosing the Republic Image

The Lynch analysis (Fig. 3.27) shows that the image on the Republic and bourgeoisie has evolved into commercial activities during this period. While the state focuses and structures were dominant in the previous plans, new landmarks like restaurants, theatres and especially palaces emerged within the developing activities. The interrelation of urban image elements can reveal the underlying reasons for the lost or consciously given up urban image in Kızılay. Within this perspective, the examination of the image elements can help us to understand the relationship between morphological and perceptual features.

Nodes were the most affected image elements in Kızılay. After the rapid density increase, instead of an expectation of new nodes, the existing ones also disappeared and transformed into junctions. The continuing system of Sıhhiye, Zafer and Kızılay Squares remained the same after this period. Furthermore, the node system, which was crucial for the pedestrian network on the east-west axis, disappeared. The Plan did not propose anything for the foyer spaces or nodes, but simply continued with the crumbs of previous plans.

Since most of the street pattern remained the same, paths were not affected deeply. However, Gazi Mustafa Kemal and Ziya Gökalp Boulevards created important connections with the districts nearby. Within the development of new urban infrastructure, the paths achieved a hierarchical level during this period. However, most of the urban components for the pedestrian network disappeared. In particular, the loss of green corridors had an important impact. The plan did not propose alternative corridors and broke the connection on the east-west axis, and the continuity between these connections also disappeared.

The plan had explicit impacts on the edges and districts. Especially, the loss of the green belt on the eastern side and Incesu River demonstrated that the natural landscape elements were annihilated. This case was also related to the developing zones at the periphery parts of the centre since they were also connected to the core (Kızılay Square) with stronger paths. On the other hand, the district, which was not observable during the Lörcher and Jansen periods, started to emerge in the Yücel-Uybadin plans. This was not an intentional but an organic development, since the activities were accumulating in different parts of Kızılay. While this case was not related to the morphology, the selection of the site areas for different districts revealed a distinction between them. Vekaletler, Sakarya and Saraçoğlu District distinguished themselves in Kızılay with their explicit and separate activities. These districts

carried distinctive features in the central activities like state (Vekaletler), residential (Saraçoğlu) and entertainment (Sakarya).

The analysis shows (Fig. 3.28) that landmarks are the most affected image elements during the Yücel-Uybadin Period. At this point, the involvement of various commercial activities and their contribution to the urban experience was the key factor of this case. Some particular places like Piknik, Bulvar Palas and Büyük Theatre represented prestigious and rooted landmarks, and all have contributed different values to the perceptual value of Kızılay, and became places where people live and experience the urban space. Besides, the alignment of the image elements was remarkable. The state usage at the south-western area, entertainment places at Sakarya District and cultural-touristic elements on the Boulevard was very explicit.

Figure 3.26 shows the relation of different landmarks and significant places during this period. Here, it can be seen that the area between them was expanded, when compared to the previous planning periods. This fact shows that Kızılay managed to bring different activities within its borders. However, it is also observable that the emphasis on the Republic and cultural elements was lost.

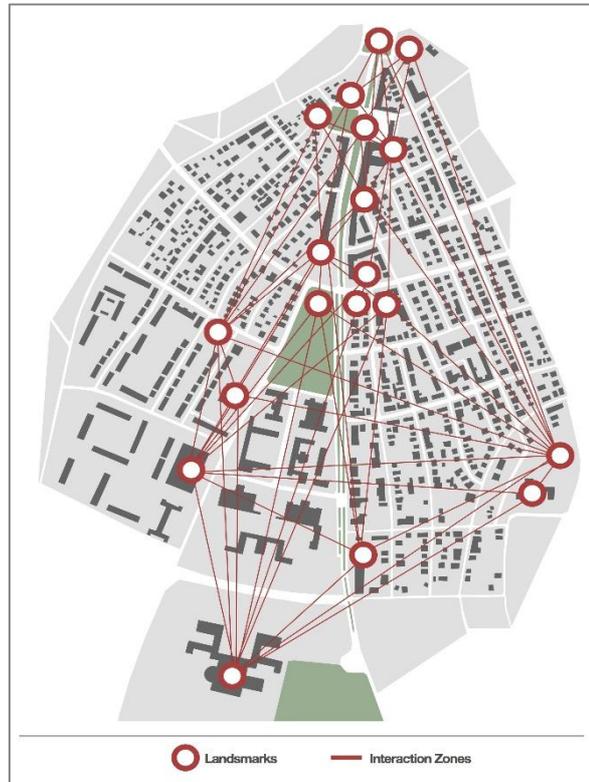


Figure 3.26 The Closure of the Landmarks in Yeni Şehir (personal rendering)

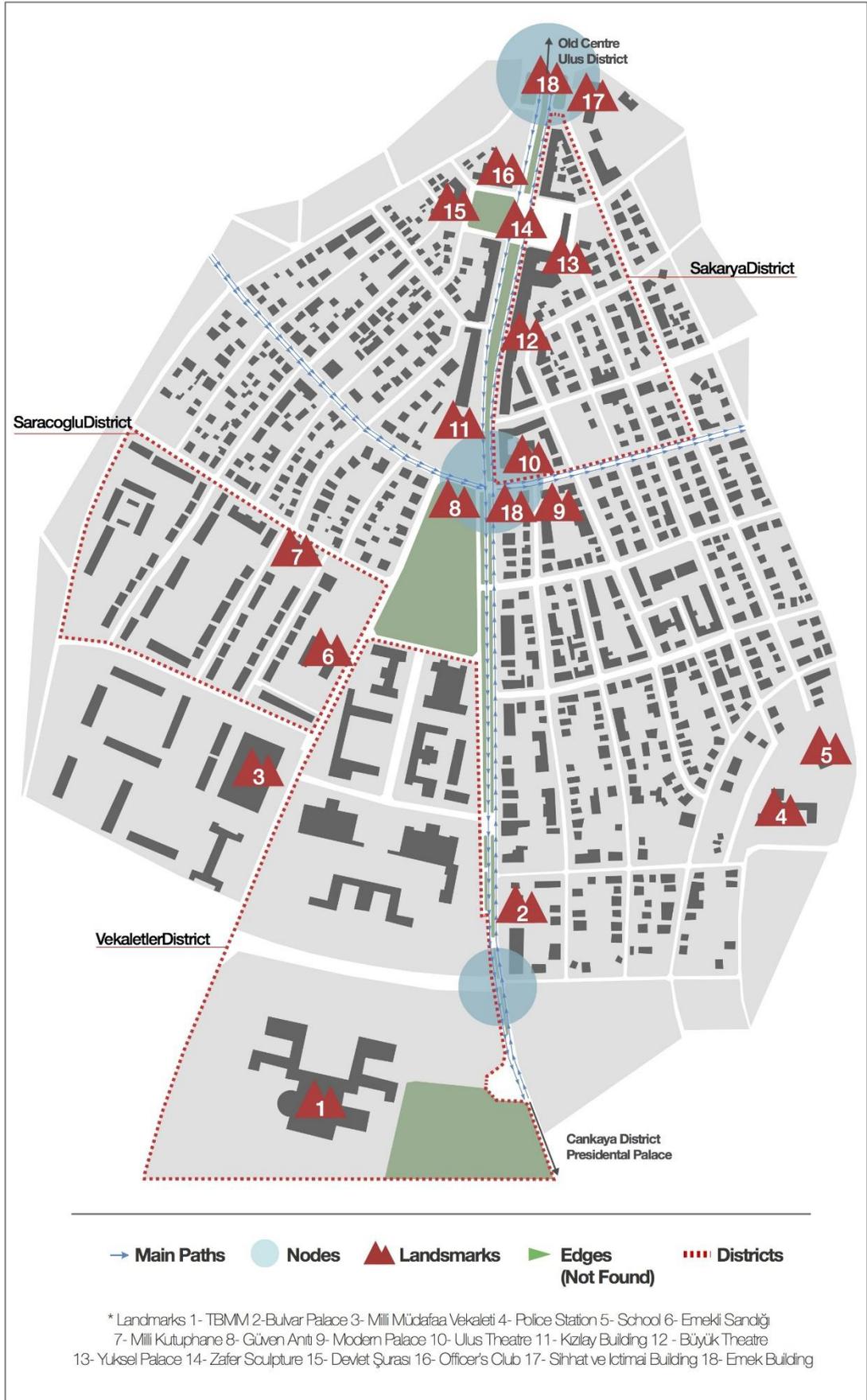


Figure 3.27 The Image Elements in Üçel-Uybadin Period (personal rendering)

3.4.3.3. The Adaptation of Gestalt Principles: The Irrelevancy

The examination of gestalt principles shows that the interrelation of the morphology and image elements needs a more complex analysis compared to the previous periods. The reason is not only because of the increasing number of the urban components, but also because of the absence of a specific policy on the centre. In other words, the gap between the policy and urban implementation will be examined in terms of gestalt principles.

According to Cengizkan (2006), the Yücel-Uybadin Plan attempted to combine the governmental and cultural focuses in Kızılay. However, the Plan did not elaborate on this topic specifically, so a gap has emerged in relation to the perceptual and morphological elements. Despite the fact that this gap has caused a spatial corruption, the centre has developed itself organically, especially within image elements.

Similarity and Anomaly

The extreme symmetry of the building and block structure clearly disappeared during this period. Although, this case was not due to architectural diversity and the law of property ownership made a great impact on the construction sector. Eventually, different types of masses started to rise in the centre. However, the Plan did not seek to overcome the prosaic architecture and urban tissue, but instead provided explicit setback distances and elevation rates. Yet, an anomaly that breaks the very monotonous structure has appeared in some particular areas.

On the other hand, the perceptual anomalies emerged where the image elements varied according to the changing urban activities. This case was also correlated with the increasing number of landmarks. There was no explicit relationship between their locations and morphological structure. All in all, the decisions on specific land use areas have oriented this development, and the landmarks revealed over time have done so because of an experience accumulation.

Proximity and Alignment

The increasing elevation of the masses clearly increased the proximity of the morphological structure on the Boulevard. The defined space ensured a spatial sufficiency, which was continuous along the spine even though it did not have an effective façade quality and diversity. However, the square system disappeared and made the spine too continuous and

linear. The ideal, which Jansen tried to break in particular parts of the Boulevard, was lost with this extreme proximity. The diversity of the building structure changed due to the elevation variety; however, the characteristics of the architecture could not create itself to match the changing urban morphology.

Between the different components of urban image, only landmarks showed the principle of proximity. Especially, the ones on the northern part of Ataturk Boulevard and around Zafer Square made a great impact for the emergence of new districts. However, while it can be observed in perceptual and morphological elements separately, there is no common ground for both structures. In other words, since the morphological diversity was not planned explicitly in the district, the image elements occurred due to upper scale planning decisions rather than morphological transformations. The same situation is also valid for the nodes. For instance, Sıhhiye and Kızılay transformed into junctions and did not show any features of a square where they only defined with salt functional features (e.g., traffic).

Continuity

The principle of continuity can only be observed in the transformation process of the Boulevard. The attached and high rise building structure created a continuity which explicitly shows this principle within spatial dimensions. However, it could not go beyond a prosaic structure and provide a harmonic diversification. One of the biggest reasons for this monotonous order is the undefined urban images in the district. The unguided planning process, the pressure of the speculative groups and unforeseen CBD development have transformed the aimed simplicity into an arid order.

The perceptual integrity is ensured within the districts. The dense state activity with monumental morphology and landmarks in Vekaletler District, high-rise and defining building facades on the Boulevard, the dense commercial focuses and pedestrian zones in Sakarya District and the characteristic residential pattern in Saraçoğlu District all distinguish themselves in terms of morphological and perceptual features from the other parts of Yeni Şehir. Despite the loss of many open areas, the landmarks show a well-defined continuity on the Boulevard (e.g., Hittite Sculpture, Zafer Square, Kızılay Building, Kızılay Square, Güven Park, Ministries, TBMM).

Closure

The principle of closure within the morphologic structure was more clearly observed after the increase in building heights in Yeni Şehir. However, the significant places, like most of the squares, were annihilated. The only square that remained was Zafer Square at the northern part of the Boulevard. Nevertheless, the green zone on the eastern part of the square has trivialized the functional features of this space.

The landmarks have a well-defined closure, which spreads the area in a balanced way. Figure 3.26 shows that the area between them is not related with the morphological development. In other words, the image elements that appeared over time were not predicted to be built up in Kızılay. This development was organic and emerged where market and society involved itself. The interrelation of the image elements and morphological development is not observable in any of the districts, except on the Boulevard.

In the previous periods, the landmarks were only gathered on the northern part of the Boulevard and Sakarya District. Within this rapid urbanization and pressure, the image elements expanded to different areas of Yeni Şehir. Interestingly, instead of a proposed morphology, this organic development of urban image components has affected the orientation of the spatial development (e.g., Sakarya and Izmir district was transformed into car-free pedestrian zones). This case revealed a perceptual diversification in the region. However, the value of these developments is questionable, since there were no comprehensive planning policies as a CBD for Kızılay.

Figure-Ground

As we mentioned in the previous parts, the figure-ground principle should be evaluated in terms of a perceptual and morphological integrity in this process. The morphological structure shows that the district has developed and become mature in most of the parts in Kızılay with respect to previous planning decisions. Thus, it is possible to see the background-foreground relationship in the morphological development. On the other hand, the transformation of the image elements reveals a striking situation. As in Chapter 2.3.2.5, the analogy of background and foreground is important to examine. The image, which has continued to this era, was clearly irrelevant to the previous periods. While the morphological basis has remained largely the same, the image of Kızılay has changed completely, so that, a gap for the interrelation of urban morphology and image has been exposed.

3.4.4. INFERENCES

In this part, the period 1957-1990 is examined with respect to Yücel-Uybadin's plan proposals. Despite the fact that the plan was interfered with by various regulations and laws by ANPB (Ankara Urban Development and Planning Commission), the basic features belong to this plan with respect to Kızılay's morphology and image. The biggest problem during this era was the rapid population growth and urbanization, which triggered uncontrolled development in Ankara. The increasing rent caused a trivialization on the morphological and perceptual elements of urban space.

Conzen's analysis shows that the morphological development of the area was almost finished. The plot and building structures were not changed, but since the building heights were increased, the building structure has changed significantly. The desired progress attempted to take this increase into account, but it failed. The physical transformation remained, as density increased because the activities did not occur within a planned method. Trancik's analysis reveals the same results. A lot of foyer spaces and edge-defining buildings were annihilated. The most explicit usage is the state activities, which accumulated in Vekaletler District.

Lynch's analysis reveals that all image elements except the landmarks experienced a significant decline during this period. In particular, the disappearance of the square system had a significant impact on the perceptual quality of the Boulevard and Kızılay since it broke the open-area system on the Boulevard. Furthermore, the rapid increase of the landmarks points up the rapid increase in commercial activities. Most of these significant places and focuses have experienced their peak eras when Kızılay was an attraction centre for Ankara.

Gestalt principles present the weak relationship of morphology and urban image in the Yücel-Uybadin period. While all of the morphological pattern comes from the Lörcher and Jansen periods, the 1965 The Laws of Property Ownership had a crucial impact on the perceptual features of the district. Rather than developing the current structure, this situation has triggered the rent process rather than improving the image and morphology elements with relation to the previous periods. The Republic image that Lörcher started disappeared, and most of the pedestrian paths and open areas were annihilated.

Çakan and Okçuoğlu (1977) stated that the problems of rapid and uncontrolled urbanization, extreme rent increases near the CBD and the pressure by speculators on state institutions has

revealed this dead-end. The numbers of this study show that the social services was 1.76 m² per person, where the ideal was 16.30 m²/per person in Ankara in 1977 (p. 53). Indeed, these numbers make the argument regarding urban image and morphology luxurious in a sense, since even the basic necessities were not provided in Kızılay. Today, the focus of the Republic image and cultural spaces have been replaced in arguments by shops, insufficient sewage systems or traffic problems in Kızılay. Eventually, high-density policies distracted the main character of the urbanist approach on the area.

In the end, the Yücel-Uybadin plans failed to demonstrate strong stability against the rapid urbanization and increasing problems of the squatter housing in Ankara. The Ankara Metropolitan Area Master Plan Department proposed a plan for 1990; the last plan which corporeally affected Kızılay's morphology and urban image. Two new plans (i.e., 2015 and 2023 Plans) are being discussed for Ankara. However as it was stated in the previous section, Lörcher, Jansen and Yücel-Uybadin Plans are the only ones that affected the CBD. In the next chapter, the inferences of the analysis will be provided in comparison to today's present situation.

CHAPTER 4

DISCUSSION AND CONCLUDING REMARKS

This study has examined the concepts of urban morphology, urban image and gestalt theory. The inevitable correlation of morphological and perceptual components is vital for urban design and planning, yet the methods of this combination are not clear in the literature. The image elements and morphological structure have a nested relationship that is such that neither of them can make an impact on the other. While a building typology can increase its distinctiveness, a landmark can also give significant meaning to the urban place.

Hence, this research aimed to bind the components of urban image and morphology by using the principles of gestalt. The whole-part relationship is substantial to show the nested relationship between different planning periods, changing economic and social behaviours and the urban place, that transforms itself due to these variables. The case area, Yeni-Şehir/Kızılay, constituted an important example, in that it represents a significant story of urban image and morphology. The results of this transformation and the loss of connection between different planning periods point out important facts about losing perceptual and morphological values. Thus, the inferences of this study are very important to bond the components of urban place both in physical and perceptual ways.

The final chapter examines the findings of the case study and focuses on the key facts of gestalt theory for the correlation of the urban components. After a brief summary of the pervious parts, the comparison of the three different periods (Lörcher, Jansen and Yücel-Uybadin) will be procured with reference to the current situation. The present spatial data will provide a way of thinking out of the box, since it will represent the final product in the process. Moreover, the image elements (Lynch, 1960) are the significant urban components, through which people perceive and define the urban define accordingly and the components of Town Plan Analysis (i.e., plot, street, building and block structure [Conzen, 1960]) are the

basic fabrics of the urban space, and what transforms space into place is the social and historical accumulation of these experiences.

4.1. SUMMARY

This thesis is systematized on four main concepts: Conzen's Town Plan Analysis, The Theories of Urban Spatial Design, Lynch Image Analysis and Gestalt Theory. Firstly, the schools of urban morphology are analysed in order to see different approaches on the physical structure of cities. The Conzen method is selected, because it explicitly defines the basic physical components with simple and consistent methodology. In this sense, the element of Town Plan analysis has shaped the analysis methods. Streets, plots and building/block systems show the main components of the build structure. These three components are indispensable from each other, although many other perspectives can also shape the cities. However, the major aim of this study is to understand the correlations in urban place. Thus, the salt definition of the physical aspects remains dull without the perceptual features of the place.

The next section seeks a transition from the salt physical perspective of Conzen (1960) to the perceptual values of Kevin Lynch (1960). Trancik's studies on the three theories of urban spatial design are examined, in order to create this bridge. Trancik (1986) analysed the theories of figure-ground, linkage and place in a nested relationship that the author ensures to catch the harmony and combines the interrelation between solids and voids can be the key methodology of a spatial analysis. In particular, place theory shows an integration of social and physical factors, despite defining perceptual factors. Trancik defended that the theories be evaluated together and the spirit of the place be revealed within the combination of physical and perceptual values. Eventually, this point of view provides a slight transition to the image elements.

Lynch (1960) image elements provide an understanding Piknik on the perceptual features of urban space. The rationale of this selection is the significant experiments with people who understand and interpret urban space differently because of various experiences. This case shows that people do have a cognitive map from which they can read and give meaning to different urban areas. Most importantly, these images can come together and ensure a total image for an area or a district. At this point, the crucial image reveals a difference between Conzen and Lynch. While Lynch defined the components of urban integrity with respect to image elements, Conzen defined them with plain physical characters. However, both

researchers focused on the value of urban place. While Conzen lacks definitions for perceptual reflections, Lynch explains the interrelation between elements. But how can we combine these two theories under one roof? What principles can include both the image and morphology elements? Until this part, we emphasized the necessity of a system that works for both perspectives. The whole is our main goal, which influences people's minds and orients them efficiently to the physical structure. Eventually, this whole-part relationship is examined through the principles of Gestalt theory.

The principles of Gestalt Theory provide a method to combine both the physical and perceptual aspects of urban space. Since it is a way of understanding the whole-part relationship, it constitutes a unitary methodology for Conzen and Lynch analysis. Here, the main aim is to meld all of these urban components (e.g., blocks, buildings, street, plot (Conzen, 1960) and node, landmark, district, path, edge (Lynch, 1960)) into a nested system. Based upon this problem, gestalt theory is examined to fill the gap between perceptual sides of urban image and morphology. All of the principles are adapted to the different planning periods for the Kızılay case. The aim is to define the boundaries of abstract and physical values, where they mostly create an ambiguity between.

Ankara's central business district, Yeni Şehir (also known as Kızılay), is selected as the case study. The rationale for this selection is that it is a newly built structure, developed after 1923. This significant area was built up in order to create a new image with an effective morphology. However, the transformation of its built structure affects an image change in years. On the other hand, the images, which come with different eras and movements, have affected the urban morphology. All in all, the case area is a unique example of a struggle in which authorities are trying to create a distinctive urban place, but the impacts of different planning periods and the irreversible nature of urban development resulted in serious problems for the area. Every period is examined in detail due to its morphological and perceptual impacts. Rather than analysing them one by one, a synthesis of the results is explained with illustrations and detailed descriptions in the next part.

4.2. THE FINDINGS OF THE STUDY

In this part, we will examine the results, which are gathered from the comparison of different planning periods. As distinct from the case study part, the present situation will also be mentioned, since it constitutes the final case of the area. With these comparisons, we will try to find out the repercussions of the interactions between image elements and morphological

structure on urban space. There are different factors to examine, like the changing political climate, economic dynamics, changing demographic structure and so on. All of these factors have affected the spatial development from the Lörcher Plans (1924) until today, but rather than explicating the details of these factors, the main aim is to find out the results of the interaction between the components of urban image and morphology.



**Figure 4.1 The Corruption of Urban Space
i.e. Zafer Square (author's archive, 2014)**



**Figure 4.2 The Loss of Urban Image
Zafer Sculpture (author's archive, 2014)**

In the case of Kızılay, one major problem is the sharp change in urban image, while the morphological structure remained mostly the same. The rapid change of perceptual features caused a clash between physical and perceptual features. For instance, while Vekaletler District was designed for pedestrian circulation and the reflection of the Republican image, today the area is used as a quasi-public space. As a consequence of these examples, contradictions functional and aesthetic facts have been revealed over time. The historical evolution is analysed in order to understand and criticize the present quality of urban space.

As in Chapter 3, the components of urban morphology and image will be examined according to the historical evolution. However, as distinct from this part, the results of this flow will be described due to the balance between the changing features of physical and perceptual components. In other words, the reasons for today's spatial quality will be questioned with respect to the altering policies and the interaction of urban image and morphology elements. The impacts on urban space and changing urban activities will show the importance of their integrity.

4.2.1. The Gradual Evolution

We have examined the transformation of Kızılay in three main periods. The first is the Lörcher Period, which attempted to build a role-model city designed to show the modern face of the new Republic. The plan proposed a monumental morphological structure with a dominant image of the state in Kızılay within garden city principles. However, when it was unable to face the demands of new incoming groups, the need for a new plan emerged. The limitations of the garden city approach and the low-density residential usage triggered this.

The 1932 Jansen Plan broke the monumental structure of Vekaletler District and connected Ulus and Çankaya through the new boulevard. The morphological and perceptual impact of Atatürk Boulevard was so significant that most of the image elements began to emerge around it. It was a spine, which gathered new landmarks and connected the old centre (Ulus) with the presidential palace in Çankaya District. This case has affected Kızılay so deeply that the region has transformed into a transition zone between them. Of course, the existence of the ministries and the new parliament was also very effective. However, the Jansen Plan annihilated most of the details of Lörcher Plan where Atatürk Boulevard dominated other urban spaces. Undoubtedly, the increasing rent around the centre also affected this case. In particular, after Kızılay and Sıhhiye Squares lost their spatial features, they turned into traffic junctions and the square network disappeared. Although Atatürk Boulevard emerged as a connective path, the emergence of east-west corridors i.e., Ziya Gökalp and Mustafa Kemal Boulevard annihilated the most important square (i.e., Kızılay Square) in the area. Still, people used it as a gathering node for important social movements. This was an example of a contradiction between physical and perceptual features. While it no longer ensures the spatial necessities, it has been used as an important square in Ankara.

None of the population projections were successful until the mid-1970s. Eventually, every plan including Yücel-Uybadin had to be reworked periodically. The irrelevancy between different plans affected the perceptual continuity, since it affects the spatial features of Kızılay. The annihilation of the green spaces in the centre serves as a great example. The 1957 Yücel-Uybadin and Zoning Floor Order Plans changed the solid density of the region considerably. There has been an enormously rapid urbanization, which annihilated some open spaces and green fields in the area. Furthermore, a lack of social infrastructure emerged after this density increase. Correspondingly, an image decline has started in relation to spatial and perceptual erosion. Most importantly, the pattern that emerged from the Lörcher Period

remained the same, although the usage started to differ over time. All in all, a commercial area that was built on a residential pattern was revealed where the social and physical necessities were insufficient.

4.2.2. Deceptive Morphology: The Illusion of 2D Plans

The Conzen analysis shows the transformation of the basic morphological components (i.e., blocks/streets, buildings and plots pattern). Here, this change provides important clues about the features of distinctive urban places. Especially, while the street and plot pattern changed slightly, the increase in building heights affected its usage significantly. While the built environment changed completely, this transformation cannot be evaluated from master plans. There is a big difference between the first imagined plans in 1925 and the present situation in 2014. While the transformation has been very natural, due to the changing dynamics of economy and social structure, the capacity of the interrelation between plans inevitably affects the distinctiveness of the urban space. As Cengizkan (2006) defends, a public space can only be sustained if it can conserve its historical and social values. The irrelevance between plans presents the loss of image and spatial quality. However, the residential block structure of the 1930s transformed into the commercial centre of 2000s.



**Figure 4.3 Irrelevant Architecture
(author's archive, 2014)**



**Figure 4.4 Exaggerated Structures
(author's archive, 2014)**

One reason for this situation is because there are no important decision makers in the area. The built environment, which was not designed for commercial activities, and the blurry urban image, which cannot be named, causes a serious lack of distinctiveness. As it can be seen in Figure 4.5 & Figure 4.6, the density of the solids in the area has increased considerably. Apart from Lörcher's monumental morphology, today's built structure has the characteristics of the Jansen and Yücel-Uybadin Plans. Yet, the historical plans of Ankara can be a little deceptive, since one cannot understand the spatial change in this perspective.

While the main design tendencies seem very similar, the built urban structure has changed enormously, especially between the 1960s and the 2000s. Today, the area represents a different place compared to the 1960s and 1970s. This reality can be seen in 3D plans and the historical photos of Yeni Şehir.

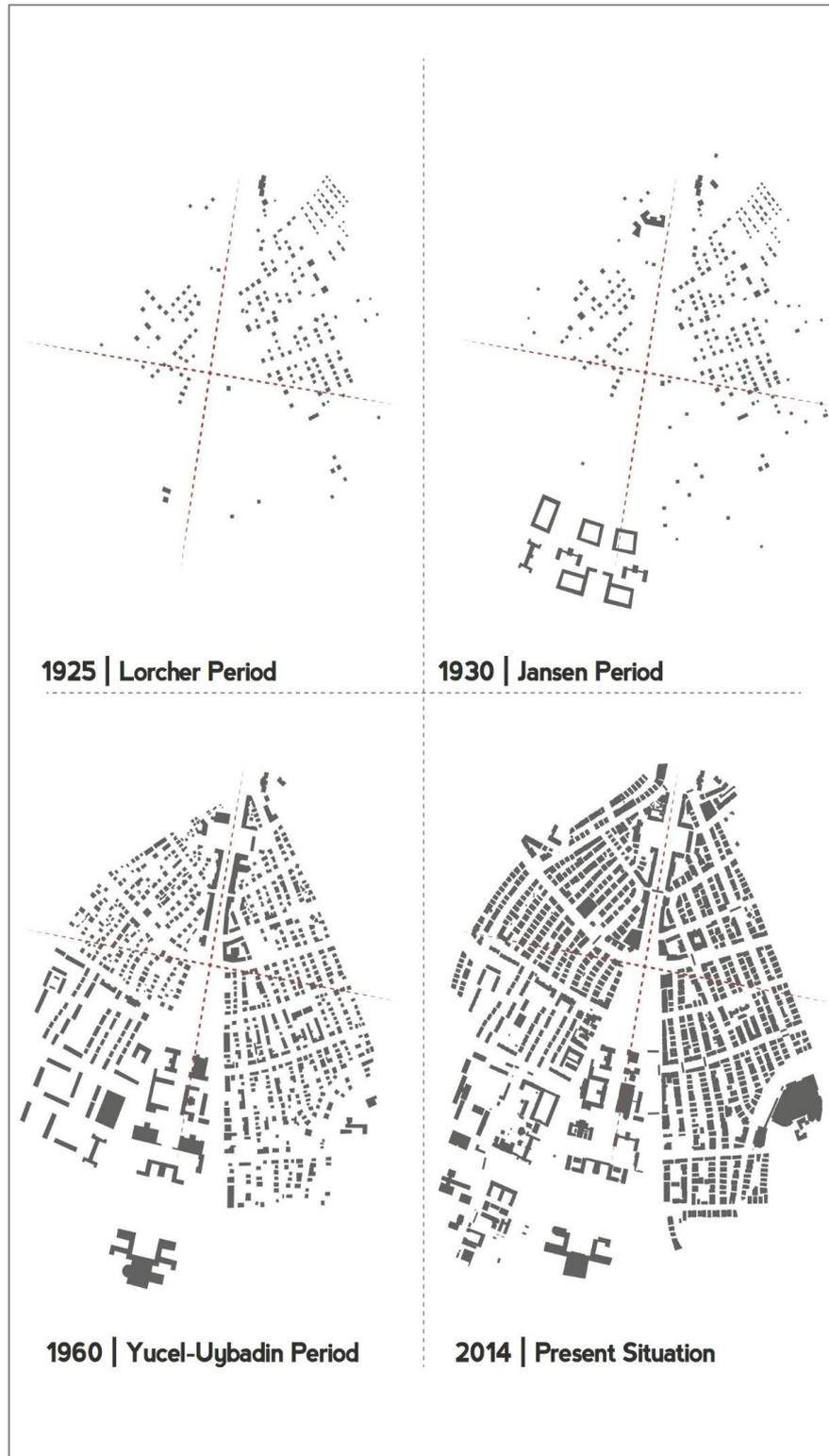


Figure 4.5 Figure Ground Comparisons (personal rendering)

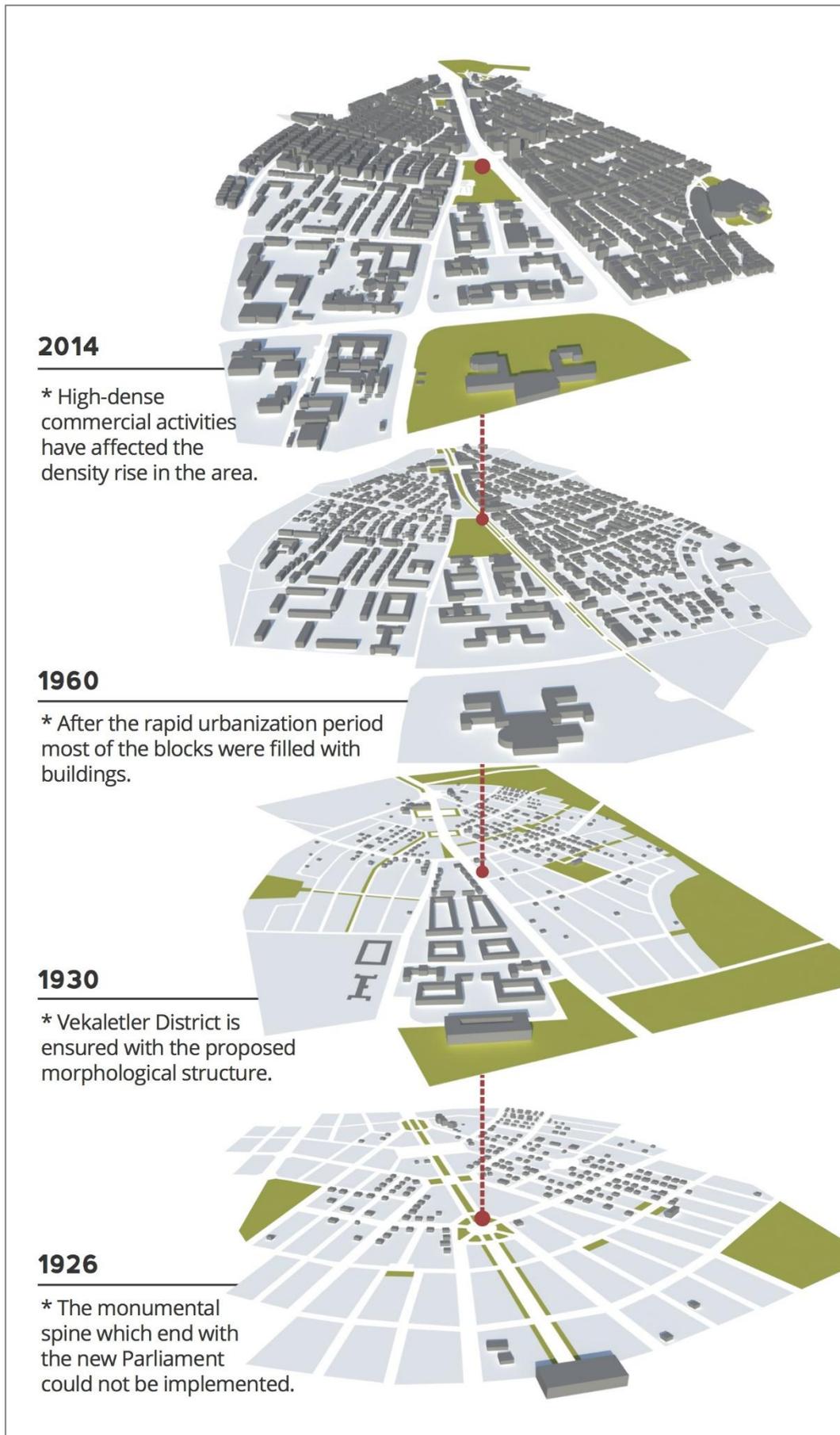


Figure 4.6 Comparisons of the 3D Analyses (personal rendering)

4.2.3. Changing Correlation of Solids and Voids

Figure-ground analysis shows the gradual development, which started from Sakarya District and continued towards Sıhhiye and Çankaya. While there are not many figure-ground components to analyse until the 1940s, Kızılay reached its final morphē after the 60s. We can say that the correlation of solids and voids became mature, yet most of the open spaces have been annihilated.

Trancik Analysis shows a clear decline of the figure-ground components in Kızılay. While the area became a centre for all government institutions, solid and void components have lost most of their interactions and, today most of the foyer spaces, directional facades and green spaces have disappeared. Yet, there are also positive changes, such as the emergence of the green continuity with Abdi İpekçi Park, Güven Park and Meclis Park on the Boulevard. These three parks represent the biggest open spaces in Kızılay. However, their connections with the east-west axis are very weak, which can be attributed to the disappearance of the greenbelt on the eastern border.

While the block pattern did not change, nearly all of the foyer spaces disappeared. The situation was related to both the annihilation of the square system and the dominance of Ataturk Boulevard. After the emergence of the Boulevard, the spine turned into the main space, which represents the image and most of the focal points began to gather around it. Ironically, this case increased the rent and the pressure on this area. The disappearance of Millet Square can also be attributed to this change. Furthermore, the changing policy on the greenbelt, which was cancelled after the Jansen Plans, has also played a major role as to why the green corridors disappeared. Also, when the foyer spaces were lost, the directional/edge-defining facades naturally disappeared. The only orienting facades can be found on the Boulevard, where detached and continuous ones support the spatial orientation.

4.2.4. The Image of Republic vs. The Centre of Training Schools

The Lynch analysis shows that image elements have always changed, due to changing circumstances of each successive era. We can say that there is a serious lack of image continuity and every era created its own specific one. The nodes of the Lörcher Plan, which were designed in the middle of the monumental spine, were gathered at the northern part of the Boulevard during the Jansen Period. Later, most of them became junctions and, rather than spatial features, the commercial functions created new nodes, like those in the Sakarya

and Yüksel-Karanfil Districts. The image of the State and the Republic was altered in the Jansen Period. Within the involvement of civil and market participation, the main image eluded the dominant Republican perspective.

While the paths mostly remained the same, Ataturk Boulevard undoubtedly represents the main spine of the system. The closed boulevard system of the Lörcher era was exceeded with the new green corridors on the east-west axis. However these pedestrian connections were also eliminated over the years. Today, we can say that the only important consciously planned path is Ataturk Boulevard. One of the major differences in the present situation is that new pedestrian paths revealed after Sakarya and Yüksel-Karanfil districts transformed into pedestrian areas.

The transformation of landmarks is strictly related to the change in morphological structure. However, the dominant impact comes with the economic concerns of different eras, since the commercial structure oriented the image evolution in Kızılay. The Republic image of Lörcher, the Boulevard and bourgeoisie image in Jansen, the rapid urbanization and commercial image of Yücel-Uybadin Periods all resulted in the Kızılay of today, which is filled with training centres and leisure places. The gradual decline of the first image finally ends here and today, a person who has not seen Ankara in his life most probably can only observe the crumbs of the leftovers in the district.

Districts are the most developed image elements in Kızılay. Their improvement is also related with the matured urban functions, which have found consciously defined areas. While there was only Vekaletler District in the Lörcher and Jansen Periods, today there are at least six sub-districts, all of which have a special functional and morphological structure. Among them are: the Saraçoğlu Neighbourhood (historical neighbourhood), the Izmir District (shopping-passages), the Sakarya District (pubs, bars, restaurants), the Yüksel-Karanfil District (social events, culture, political focal points), the Karanfil II District (training centres, cafes, pubs) and the Vekaletler District (ministries, government institutions).

However, edges are not developed or used as effective as districts. Actually, we can state that the whole edge system, which was created with the greenbelt in the Lörcher and Jansen Plans, were eliminated since their development and the demand on the connections with Kızılay was very high. When the present edges are evaluated, it can be seen that, rather than supporting the image strength, they decrease the image continuity because of high traffic

movement. Sıhhiye Bridge at the northern border of Akay Junction at the southern border clearly demonstrates this. Also the refuge, which is filled with different landscape elements so as to prevent pedestrian movement, splits the Boulevard into two. Eventually, the pedestrian cannot circulate freely and the east and west facades are not connected with each other, so Ataturk Boulevard acts like two low-degree paths rather than the spine of the Republic image.

The built environment, which was designed for the integration of the society and new capital image, are lost. The distinction between the state and society is very clear with the example of the Vekaletler District. While Lörcher and Jansen proposed the area become a pedestrian path, today no one uses it because of excessive controls and police density. The disappearance of Government Square (in front of Police Headquarters) can also be explained this way. With all of these spatial corruptions, the image of Kızılay has lost its significance and consistency.

In this study, the plans which have effects on the morphology and image of Kızılay are analysed due to their perceptual and physical features. After Yücel-Uybadin Plan, none of the development plans have an impact on the area. However, rather than the increasing density, the image of Ankara and Kızılay have evolved. Thus, not as a major aim but a supportive one, the present situation of the case area is examined in order to understand the final product.

The present analyses show that the CBD has reached to its saturated morphology with its block and building structure. The images show a well-defined urban structure, however, there is a clear conflict between the experiences (Fig 1, 2, 3 & 4) and the plans (Fig. 7). The loss of image quality creates a lack of a perception on the paths of Kızılay. This case can also be observed in Trancik analysis where nearly entire foyer spaces and spatial variety lost. Moreover, the Lynch Analysis show that the image value shifted towards the commercial activities unlikely to the Republican image of the first Plans. Rather than accumulating on the Boulevard, the landmarks are gathered mostly in Yüksel-Karanfil District and most importantly, the Boulevard is split into two different parts with the refuge which creates and edge between.



Figure 4.7 Conzen Analysis, Present Situation (personal rendering)



Figure 4.8 Trancik Analysis, Present Situation (personal rendering)

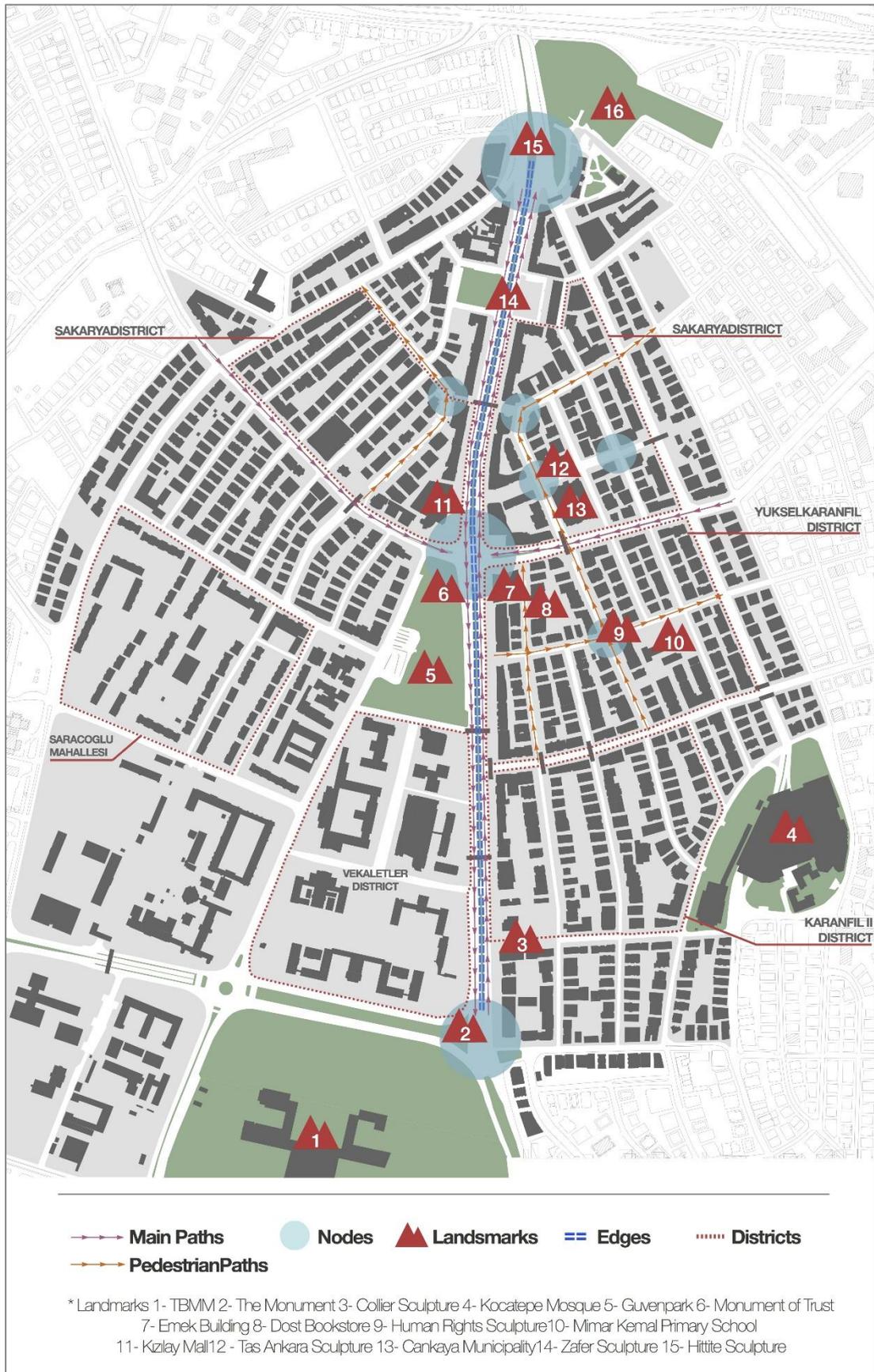


Figure 4.9 Lynch Analysis, Present Situation (personal rendering)

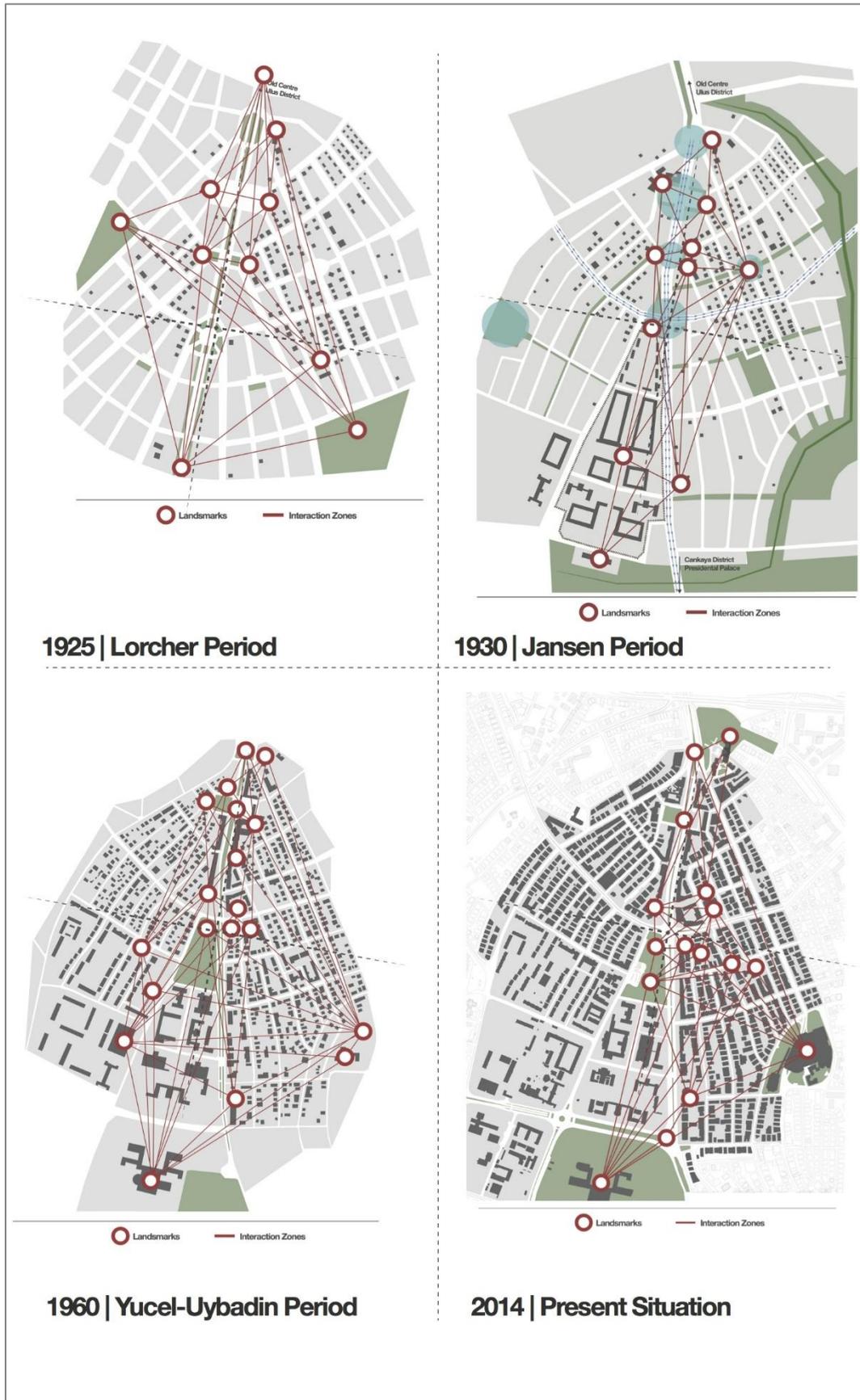


Figure 4.10 Locational Changes of the Landmarks (personal rendering)

4.3. MORPHOLOGY AND IMAGE VIA GESTALT PRINCIPLES

Urban spaces that cannot combine the integrated features of urban morphology and image elements are destined to be trivialized. A distinctive urban place can only happen when there is harmony between these components. Today, the ambiguous urban image, which is irrelevant within the morphological structure, creates this unassertive urban identity. The Ataturk sculpture in the middle of a refuge, the restricted pedestrian path on Hükümet Kartiyesi, Saraçoğlu District, which is believed to have been torn down, the chaotic environment of the signboards, the lost spatial values of Kızılay Square and many other examples are all signs of the weak interrelation between morphology and image elements. Moreover, a building typology that cannot renew itself and suburban attractions with an increasing number of shopping malls also provoke this decline.

For instance, the Cabinet Decision, approved on 05.08.2014, introduced that Saraçoğlu District should be redounded to the economy of Ankara. If we assume that the district is a residential area, we can infer that the State is planning to change it with an urban transformation project. A morphological existence will disappear, as the historical and social values. All in all, the place will turn into a consumable commodity. To prevent loses like this, more effective planning methods should be followed, wherein different systems can work and be tested in an integrated way, both for urban image and morphology elements. Here, gestalt principles definitely create a connection between these elements and to test the distinctiveness of an urban place. A place that provides the spatial and perceptual consistency will inevitably be successful.

The method which uses gestalt principles as a tool to combine the physical and perceptual features, have the potential to present an alternative and clear method to create distinctive urban places. Results show prospering agreement with the theoretical predictions and significant improvement over previous efforts by M.R.G Conzen and Kevin Lynch through the principles of Gestalt Theory. The work presented here has profound implications for future studies of urban design and may one day help to solve the problems of the conservation and new design proposals of distinctive urban places. The algorithm (Figure 4.11) represent the flow where this relationship is ensured with an integrated method.

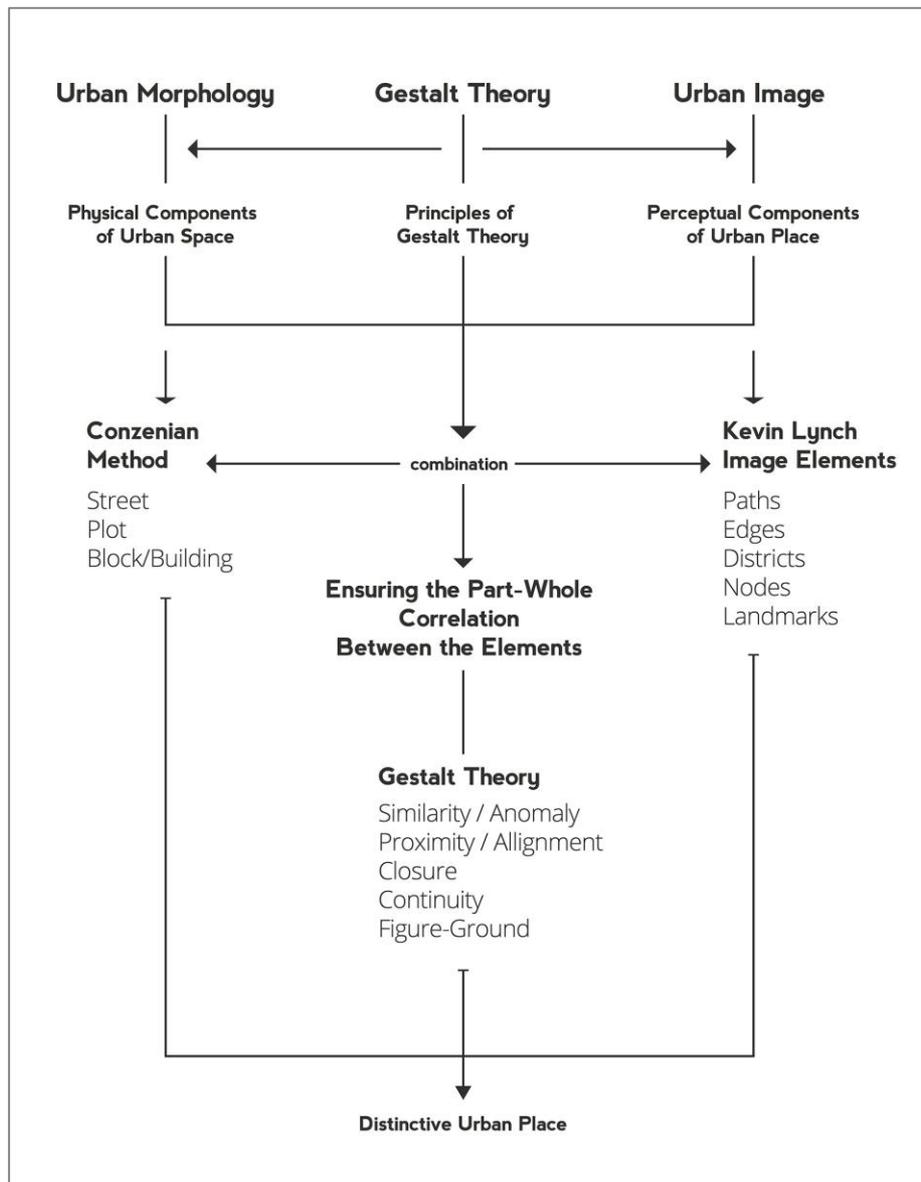


Figure 4.11 The Algorithm of Theoretical Flow

4.4. FURTHER RESEARCH

This study has provided a crucial interrelation between morphological components and image elements, in order to ensure distinctive urban places. The main aim has been to create a bond between the physical and perceptual features of urban spaces, and to evaluate them based on their distinctive values. In the literature, mostly the morphological and perceptual dimensions are discussed separately, while a few make the transition with simple methods. Except for Trancik's (1986) theories on spatial design, there are no explicit methods and elements that bond and describe how to merge these two phenomena. In this study, the aim

of adopting different planning periods in a nested system, and interpreting them according to physical and perceptual values has been the main emphasis. Two important facts are revealed in order to understand the distinctiveness of urban place. The first is the inevitable interrelation between different urban components, e.g., morphological components or image elements. This case points out the nested relationship between parts and the whole. The second is the consequences of periodical impacts, which are made through planning decisions. Development Plans and sub-regulation decisions made during these periods create irreversible continuums, where the private ownership pattern changes. Based upon these facts, two potential further research studies can be done following this study.

The first could focus on the whole-part interrelation of urban components with respect to the transformation processes. In cases like Ankara, irreversible planning policies create crucial impacts on the urban space. There are the possibilities of bending the morphology (e.g., Ataturk Boulevard during the Jansen Period) and orienting the urban image. However, this process depends on an efficient part-whole relationship. So potential guiding questions could include: Is it possible to bend the morphology and create new image impacts without tearing down the built structure? How can a successful urban transformation be achieved without trivializing the historical morphology, even it is not successful?

Another study could focus on property ownership and its irreversible impact on urban space. The balance between the legal order, property ownership and urban planning clearly orients potential developments. Also, the spatial quality of the urban space is limited within these boundaries. Correspondingly, to reveal the interrelation between property rights and urban design can show the ways of exceeding the limits where development plans have created prosaic spatial patterns. So potential guiding questions can be: What is the importance of property relations with respect to urban design practices? How can the limitations of property relations be overcome in urban design?

All in all, planning and urban design is indispensable, since they are connected within a complex series of interactions. The historical and social values define the perceptual values of a place and planning actions, ownership patterns and development tendency all orient the morphological formation. In order to create a distinctive urban place, these two facts cannot be evaluated separately. They should be examined and tested with a consistent method and gestalt principles do obtain a sufficient one.

REFERENCES

- Altaban, Ö. (1998). “Cumhuriyetin Kent Planlama Politikaları ve Ankara Deneyimi”, 75 *Yılda Değişen Kent ve Mimarlık*. İstanbul: İş Bankası Kültür Yayınları, 41–64.
- Ankara Metropolitan Alan Nazım Plan Bürosu. (1977). *Ankara Nazım Plan Şeması Raporu 1970-1990*. Ankara: İmar ve İskan Bakanlığı.
- Arnheim, R. (1969). *Two and Two Together*. In *Visual Thinking*. Berkeley: University of California Press.
- Artspileseenglish.blogspot.com.es, (2011). *Learning by doing. Arts & English for young students: GESTALT THEORY: An exercise for 3rd.Level Students*. [online] Available at: <http://artspileseenglish.blogspot.com.es/2011/11/gestalt-theory-exercise-for-3rdlevel.html> [Accessed 13 Aug. 2014].
- Bademli, R. R. (2005). *Kentsel planlama ve tasarım öğrencilerine notlar*. Ankara: TMMOB Şehir Plancıları Odası.
- Bilsel, S.G. (1977). ‘Ankara’nın Kentsel Gelişmesinde Yıkılıp Yeniden Yapılma Yoluyla Yükselip Yoğunlaşma Olgusu ve Yaygınlaşma Seceneği’. *Mimarlık*. 1977/3, pp. 54-59
- Çakan, C. & Yusuf, O. (1977). *Ankara’da İmarlı Alanda Yoğunluk Sorunu*. *Mimarlık*, 77(3), 42-53.
- Carmona, M. (2003). *Public places, urban spaces: The dimensions of urban design*. Oxford: Architectural Press.
- Cengizkan, A. (2004). *Ankara'nın İlk Planı 1924-1925 Lörcher Planı (1st ed.)*. Ankara: Ankara Enstitüsü Vakfı.
- Cengizkan, A. (2006). *1957 Yücel-Uybadin İmar Planı ve Ankara Şehir Mimarisi*. In Şenyapılı, T., Cumhuriyet’in Ankara’sı (pp. 25-59). Ankara: ODTÜ Geliştirme Vakfı Yayınları

- Chang, D., Nesbitt, K., & Wilkins, K. (2007). *The gestalt principles of similarity and proximity apply to both the haptic and visual grouping of elements*. 79--86.
- Conzen, M. R. G. (1960). *Alnwick, Northumberland: A study in town-plan analysis*. London: George Philip.
- Conzen, M. R. G., & Conzen, M. P. (2004). *Thinking about urban form: Papers on urban morphology, 1932 - 1998*. Oxford, Lang.
- Crossing the Bridge: The Sound of Istanbul*. (2005). [Documentary] Istanbul: Fatih Akın.
- Cumhuriyetinbaskenti.ankara.edu.tr, (2014). *Cumhuriyetin Başkenti*. [online] Available at: <http://cumhuriyetinbaskenti.ankara.edu.tr/> [Accessed 1 Sep. 2014].
- Cullen, G. (1975). *Townscape*. New York: Van Nostrand Reinhold Co.
- Dikmen, Ç. (2012). *Cumhuriyetin İlanından Günümüze Ankara'da Katlı Konutların Cephe Düzeni*. In 6. Ulusal Çatı & Cephe Sempozyumu.
- Diñer, G. (2009). *Atatürk Bulvarının Öyküsü*, ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı*, Koleksiyoncular Derneği Yayını, Reklam ve Ltd. Şti, pp. 11-36.
- Duru, B. (2012). *Mustafa Kemal Döneminde Ankara'nun İmarı*. In F. Ş. Cantek, *Cumhuriyet'in Ütopyası: Ankara* (pp. 173-191). Ankara: Ankara Üniversitesi Yayınları.
- Falahat, S. (2014). *Re-imagining the City: A New Conceptualisation of the Urban Logic of the "Islamic city" (1st ed.)*. Springer Vieweg.
- Gauthiez, B. (2004). *The History of Urban Morphology*. *Urban Morphology*, 8, 71–89.
- Goethe.de. (2014). *Bir Başkentin Oluşumu: Avusturyalı, Alman ve İsviçreli Mimarların İzleri - Yeni Başkente Doğru - Şehir Planlaması - Goethe-Institut*. Retrieved 24 June 2014, from <http://www.goethe.de/ins/tr/ank/prj/urs/geb/sta/trindex.htm>
- Gordon, G. (1984). *The shaping of urban morphology*. *Urban History Yearbook* pp. 1-10
- Graphicdesign.spokanefalls.edu,. (2014). *The Gestalt Principles*. Retrieved 26 May 2014, from

<http://graphicdesign.spokanefalls.edu/tutorials/process/gestaltprinciples/gestaltprinc.htm>

1

Günay, B. (2006). *Ankara Çekirdek Alanının Oluşumu ve 1990 Nazım Planı Hakkında Bir Değerlendirme*. In Şenyapılı, T., Cumhuriyet'in Ankara'sı (pp. 61-118). Ankara: ODTÜ Geliştirme Vakfı Yayınları

Gunay, B. (2007). *Gestalt theory and city planning education*. METU JFA, 1, 93--113.

He, W. and Ma, Y. (2009). *Clarity Algorithm of Images in the Fog and Application*. In: International Conference on Computational Intelligence and Security. Beijing, China, pp.583-586.

Janicelaura.files.wordpress.com, (2014). [online] Available at:

http://janicelaura.files.wordpress.com/2012/11/img_4066.jpg [Accessed 28 Aug. 2014].

Kansu, A. (2012). *Mustafa Kemal Döneminde Ankara'nın İmarı*. In F. Ş. Cantek, Cumhuriyet'in Ütopyası: Ankara (pp. 173-191). Ankara: Ankara Üniversitesi Yayınları.

Karaosmanoğlu, Y. (1934). *Ankara*.

Kaya, T. (2002). *Post Evaluation of Physical Planning Experience of Ankara: 1957 Plan of Uybadin-Yücel*. METU.

Kesim, B. (2009). *The Boulevard as a Communication Tool: Atatürk Boulevard*. METU.

Keskinok, Ç. H., (2009). *Ankara Kentinin Planlanması ve Atatürk Bulvarının Oluşumu*, ed., Keskinok, Ç. H., *Cumhuriyet Devrimi'nin Yolu Atatürk Bulvarı*, Koleksiyoncular Derneği Yayını, Rekmay Reklam ve Ltd. Şti, pp. 37-58.

Koffka, K. (1936). *Principles of Gestalt Psychology*. Lund Humphries, London.

Koffka, K. (1963). *Principles of Gestalt Psychology*. New York: Harcourt, Brace & World, Inc.

Koffka, K. (2000). *Introduction to: "Perception: An introduction to the Gestalt- Theorie"*. (1922), Classics in the History of Psychology, an internet resource developed by Christopher D. Green, York University, Toronto, Ontario: Last revised February 2000.

- Komorowski, B. (2007). *The Death and Life of Local Building Traditions: Typomorphological Analysis as a Basis for Urban Design in Montreal*.
- Kropf, K. (2005). "The Handling Characteristics of Urban Form". *Urban Design*, Winter 2005, Issue 93.
- Larkham, P. J. (2006). *The Study of Urban Form in Great Britain*. *Urban Morphology*, 10, 117–141.
- Levy, A. (1999). *Urban Morphology and the Problem of the Modern Urban Fabric: Some Questions for Research*. *Urban Morphology*, 3(2), 79–85.
- Lynch, K. (1960). *The image of the city*. 1st ed. Cambridge, Mass.: MIT Press.
- Lynch, K. (1972). *What time is this place?* (1st ed.). Cambridge: MIT Press.
- Madanipour, A. (1996). *Design of urban space: An inquiry into a socio-spatial process*. Chichester: Wiley.
- Maffei, G. L. (2009). *The historico-geographical approach to urban form*. *Urban Morphology* 13, 133-5.
- Maki, F. (1964). *Investigations in collective form*. School Of Architecture, Washington University, (2).
- Maps.google.com, (2014). *Google Maps*. [online] Available at: <http://maps.google.com> [Accessed 14 Aug. 2014].
- Moudon, A. V. (1997). *Urban Morphology as an Emerging Interdisciplinary Field*. *Urban morphology*, 3–10.
- Norberg-Schulz, C. (1980). *Genius loci (1st ed.)*. New York: Rizzoli.
- Ozuduru, B., Varol, C. and Yalciner Ercoskun, O. (2014). *Do shopping centers abate the resilience of shopping streets? The co-existence of both shopping venues in Ankara, Turkey*. *Cities*, 36, pp.145--157.
- Panerai, P., Castex, J., Depaule, J., Samuels, I. and Samuels, O. (2004). *Urban forms*. 1st ed. Boston: Architectural Press.

- Pourmohammadi, M., & Mousavi, M. (2011). *A Review on Urban Morphology Schools. Arid Regions Geographic*, 2(5).
- Relph, E. (1976). *Place and Placelessness*. Pion Limited, Great Britain.
- Samuels, I. (2004). *'Urban morphology and planning practice- a chronic case of Anglophone squint and interdisciplinary myopia'*. unpublished paper presented to the Thirtieth International Geographical Congress, Glasgow, 16-20 August 2004.
- Samuels, I. (2005). *Conzen's Last Bolt : Reflections on Thinking About Urban Form*. *Urban Morphology*, 9, 136–144.
- Şenyapılı, T. (2004). *Baraka'dan Gecekonduya*. İletişim. İstanbul.
- Sima, Y., & Zhang, D. (2009). *Comparative Precedents on the Study of Urban Morphology*. *Proceedings of the 7th International Space*, 1(8).
- Spur.org. (2014). Retrieved 18 May 2014, from <http://www.spur.org/sites/default/files/migrated/images/F22.jpg>
- Tekeli, İ. (1975). *Ankara Nazım Plan Çalışmaları Üzerine, 'Ankara' da Yeşil Alan Sorunu ve AOÇ"*.
- Trancik, R. (1986). *Finding lost space (1st ed.)*. New York: Van Nostrand Reinhold.
- Tunçer, M. (2012). *Cumhuriyet'in ilk Yıllarında Ankara'nın Ticaret Merkez Yapısı*. In F. Ş. Cantek, *Cumhuriyet'in Ütopyası: Ankara* (pp. 215-260). Ankara: Ankara Üniversitesi Yayınları.
- Verstegen, I. (2005). *Arnheim, Gestalt, and art (1st ed.)*. Wien: Springer.
- Wertheimer, M. (1997) *Gestalt Theory*. (an address before the Kant Society, Berlin, '7th December, 1924, Erlangen, 1925), in the translation by Willis D. Ellis published in his "Source Book of Gestalt Psychology", New York: Harcourt, Brace and Co, 1938, reprinted by the Gestalt Journal Press, New York.
- Whitehand, J. (2001). *British Urban Morphology: The Conzenian Tradition*. *Urban Morphology*, 5, 103–109.

Whitehand, J. (2007). *Conzenian Urban Morphology and Urban Landscapes*. Proceedings, 6th International Space Syntax Symposium, İstanbul, 2007

Whitehand, J. (2009). *The structure of urban landscapes: strengthening research and practice*. *Urban Morphology*, 13(1), pp.5-27.

APPENDIX A

HISTORIAL PHOTOS OF KIZILAY/YENİ ŞEHİR

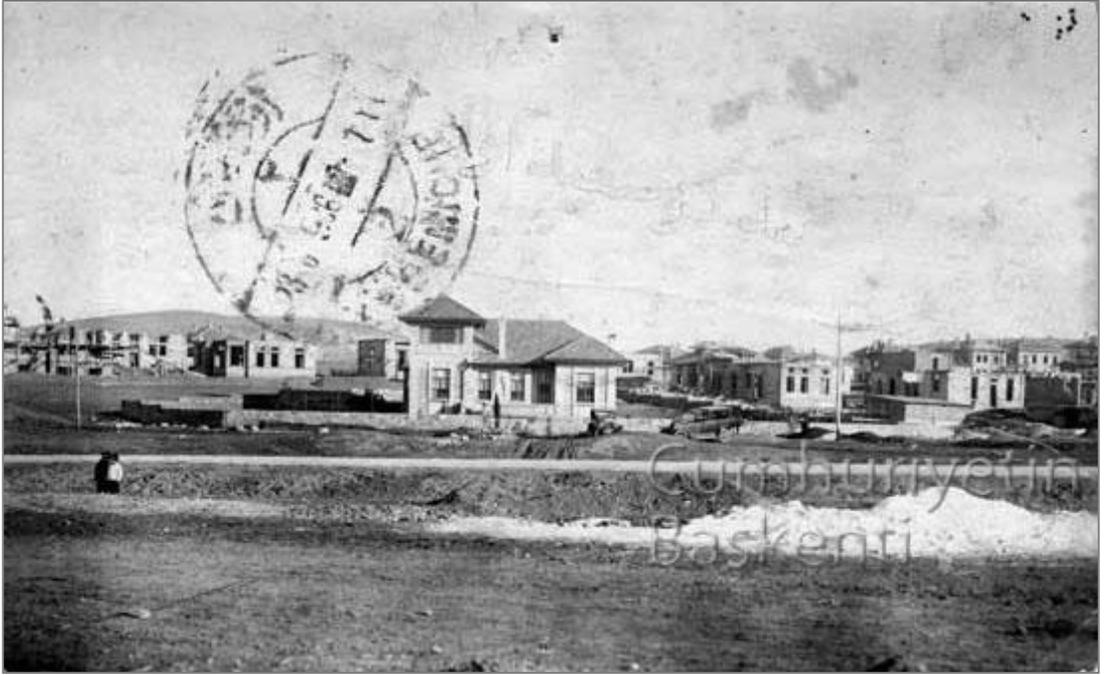


Figure A.1 Mithatpaşa Street 1926 (ankara.edu.tr)



Figure A.2 Uybadin House Yenişehir 1927 (ankara.edu.tr)



Figure A.3 Yenişehir Square 1928 (ankara.edu.tr)



Figure A.4 Yenişehir Pool 1929 (ankara.edu.tr)



Figure A.5 Zafer Square and Ataturk Boulevard 1929 (ankara.edu.tr)



Figure A.6 An Embassy Construction 1930 (ankara.edu.tr)



Figure A.7 GüvenPark 1930 (ankara.edu.tr)



Figure A.8 Italian Embassy 1930 (ankara.edu.tr)



Figure A.9 Civil Servant House I 1930 (ankara.edu.tr)



Figure A.10 Civil Servant House II 1930 (ankara.edu.tr)



Figure A.11 Ministries 1933 (ankara.edu.tr)



Figure A.12 Büyük Theatre Construction and the Boulevard 1933 (ankara.edu.tr)



Figure A.13 GüvenPark and Uybadin House 1933 (ankara.edu.tr)

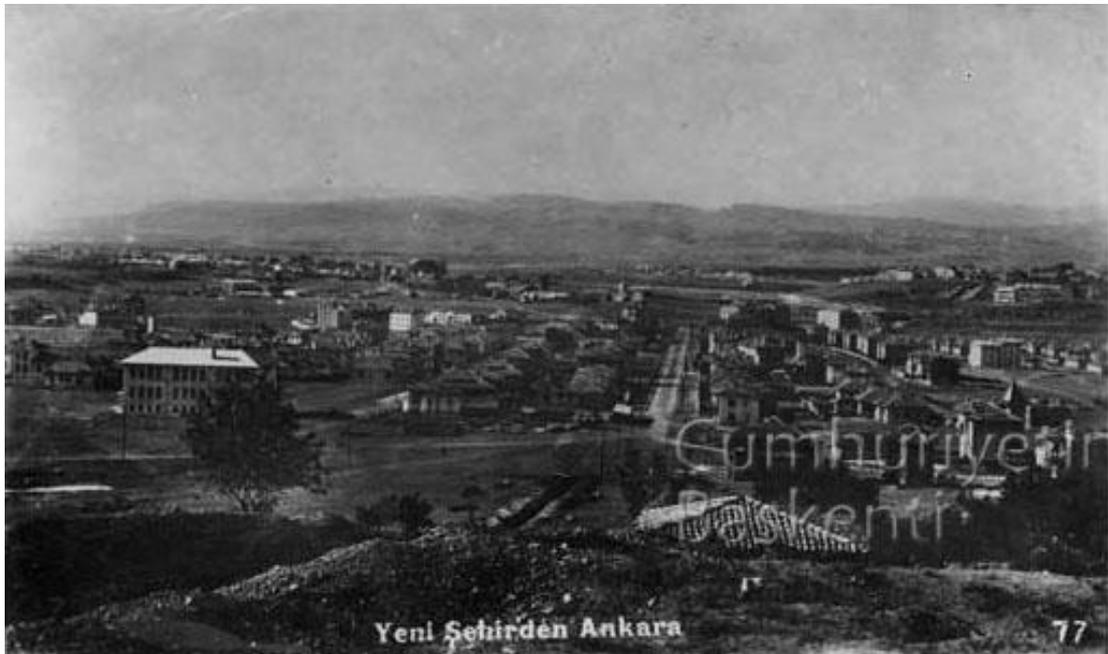


Figure A.14 View from Kocatepe 1934 (ankara.edu.tr)



Figure A.15 Iran Embassy 1935 (ankara.edu.tr)



Figure A.16 An Officer House 1935 (ankara.edu.tr)



Figure A.17 Mimar Kemal Primary School 1935 (ankara.edu.tr)



Figure A.18 Ataturk Boulevard 1935 (ankara.edu.tr)



Figure A.19 Ziya Gökalp Street 1935 (ankara.edu.tr)



Figure A.20 Belgium Embassy 1936 (ankara.edu.tr)



Figure A.21 Kızılırmak Avenue 1936 (ankara.edu.tr)



Figure A.22 Monument of Trust 1936 (ankara.edu.tr)



Figure A.23 GüvenPark 1937 (ankara.edu.tr)



Figure A.24 Germany Embassy 1938 (ankara.edu.tr)



Figure A.25 Ataturk Boulevard 1938 (ankara.edu.tr)



Figure A.26 Ataturk Boulevard 1938 (ankara.edu.tr)



Figure A.27 Ministries 1938 (ankara.edu.tr)



Figure A.28 Presidency of General Staff 1938 (ankara.edu.tr)



Figure A.29 Kızılay Building and the Park 1938 (ankara.edu.tr)



Figure A.30 Kızılay Building 1938 (ankara.edu.tr)



Figure A.31 Ataturk Boulevard 1952 (ankara.edu.tr)



Figure A.32 Kızılay Square 1955 (ankara.edu.tr)



Figure A.33 Zafer Square 1955 (ankara.edu.tr)



Figure A.34 Ataturk Boulevard 1959 (ankara.edu.tr)



Figure A.35 Ataturk Boulevard 1960 (ankara.edu.tr)



Figure A.36 Zafer Square 1960 (ankara.edu.tr)

APPENDIX B

VISUAL COMPARISONS - 1970 vs. 2014



Figure B.1 Ataturk Boulevard 1970 (METU CRP Archives)



Figure B.2 Ataturk Boulevard 2014 (Author's Personal Archives)



Figure B.3 Commercial Areas 1970 (METU CRP Archives)



Figure B.4 Commercial Areas 2014 (Author's Personal Archives)



Figure B.5 Mesrutiyet Street 1970 (METU CRP Archives)



Figure B.6 Mesrutiyet Street 2014 (Author's Personal Archives)



Figure B.7 The Ministry of Education 1970 (METU CRP Archives)



Figure B.8 The Ministry of Education 2014 (Author's Personal Archives)



Figure B.9 Ataturk Boulevard 1970
(METU CRP Archives)



Figure B.10 Ataturk Boulevard 2014
(Author's Personal Archives)



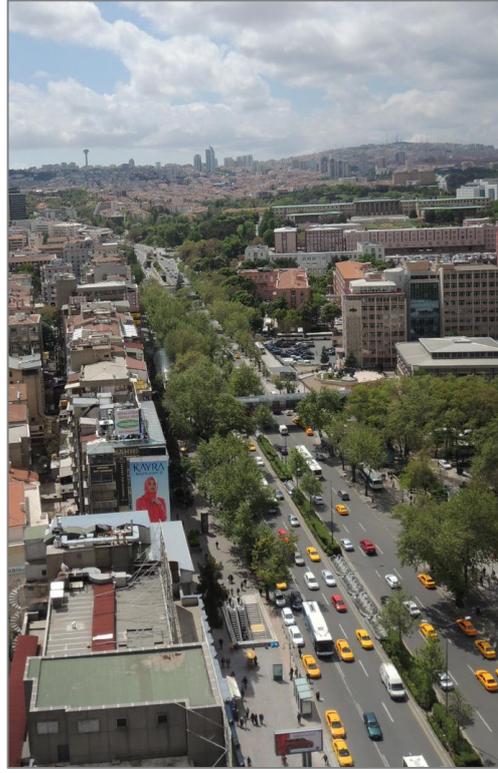
Figure B.11 Emek Building 1970
(METU CRP Archives)



Figure B.12 Emek Building 2014
(Author's Personal Archives)



**Figure B.13 Ataturk Boulevard 1970
(METU CRP Archives)**



**Figure B.14 Ataturk Boulevard 2014
(Author's Personal Archives)**



**Figure B.15 Gazi Mustafa Kemal
Street 1970 (METU CRP
Archives)**



**Figure B.16 Gazi Mustafa Kemal
Street 2014 (Author's Personal Archives)**



Figure B.17 Kızılay Square 1970 (METU CRP Archives)



Figure B.18 Kızılay Square 2014 (Author's Personal Archives)



Figure B.19 Ziya Gökalp Street 1970 (METU CRP Archives)



Figure B.20 Ziya Gökalp Street 2014 (Author's Personal Archives)



Figure B.21 Kızılay Square 1970 (METU CRP Archives)



Figure B.22 Kızılay Square 2014 (Author's Personal Archives)



Figure B.23 Kızılay Building 1970 (METU CRP Archives)



Figure B.24 Kızılay Shopping Mall 2014 (Author's Personal Archives)



Figure B.25 Kızılay Square 1970 (METU CRP Archives)



Figure B.26 Kızılay Square 2014 (Author's Personal Archives)

APPENDIX C

HISTORICAL MAPS



Figure C.1 1925 Lörcher Plans (Cengizkan, 2004)

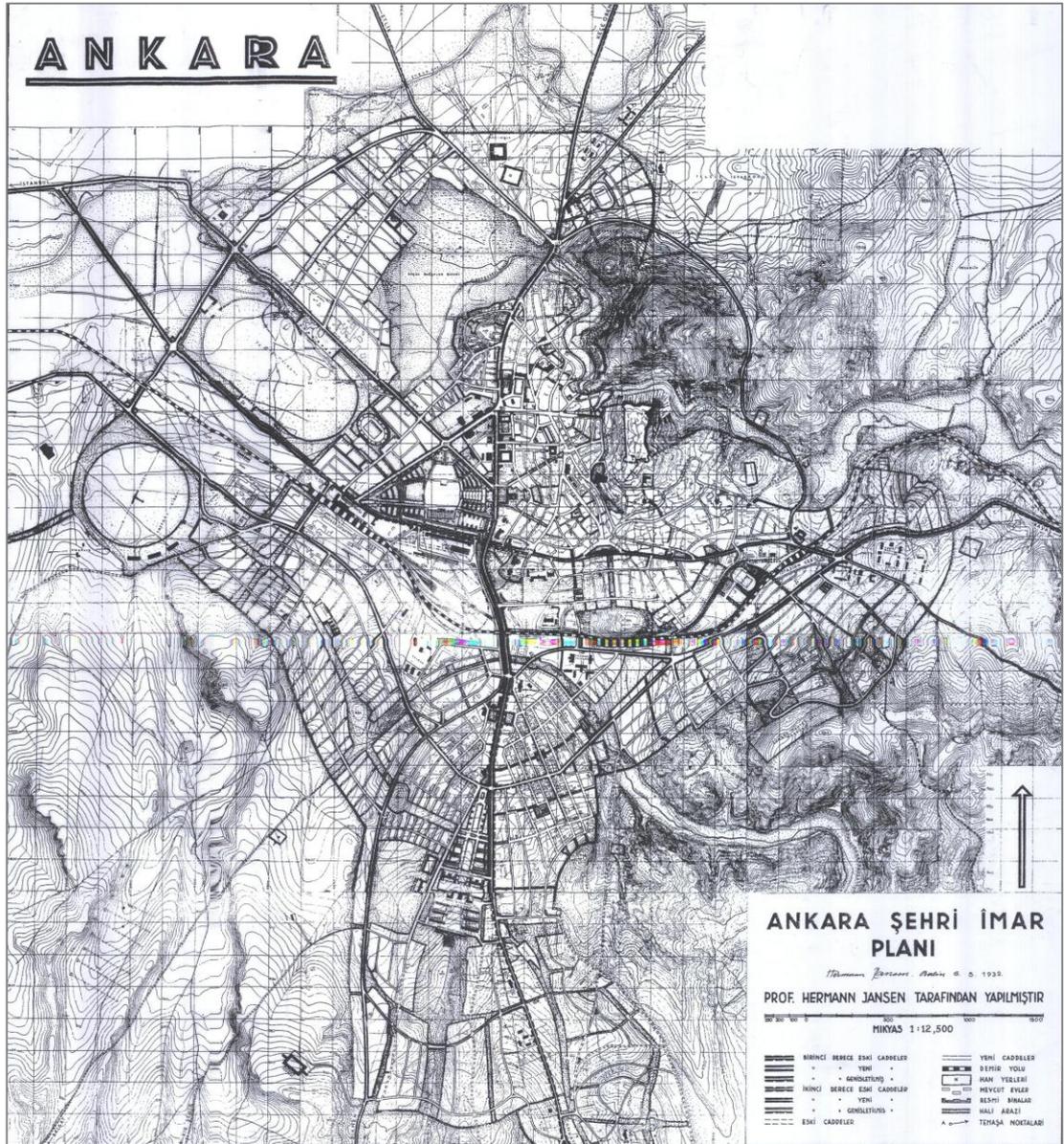


Figure C.2 1932 Jansen Plans (Cengizkan, 2004)

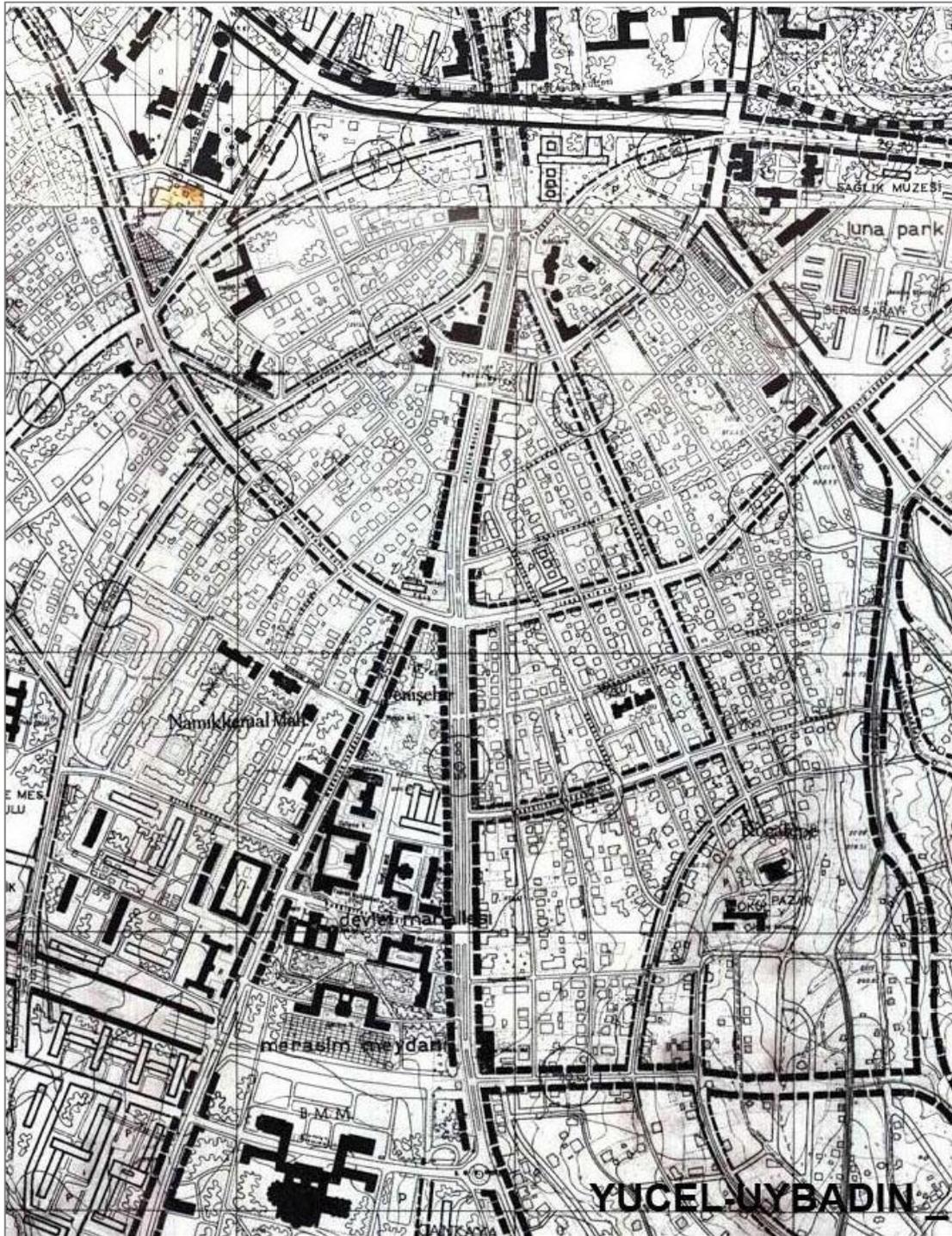


Figure C.3 1957 Yücel-Uybadin Plans (Baş, 2010)



Figure C.4 Change of parcels through subdivision and unification, red parcels are the ones that have not changed since 1935 (Baş, 2010)

APPENDIX D

MAIN IMPACTS OF THE PERIODS

Main Impacts of Lorcher Period

* Image - Garden City Perspective



* Morphology - The Monumental Spine & Square Network

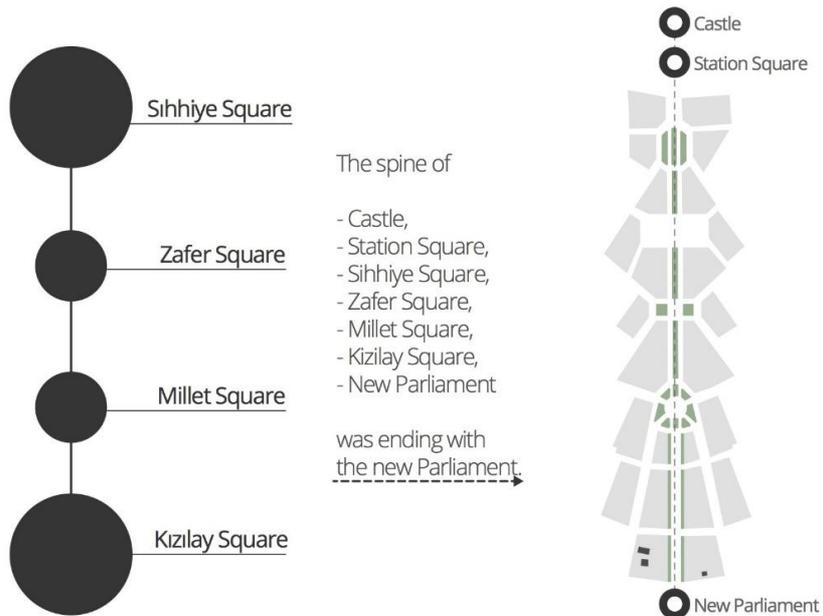


Figure D.1 Main Impacts of Lörcher Period (illustrated by the author)

Main Impacts of Jansen Period

* Image - Vekaletler District & The Boulevard



* Morphology - The Emergence of Ataturk Boulevard

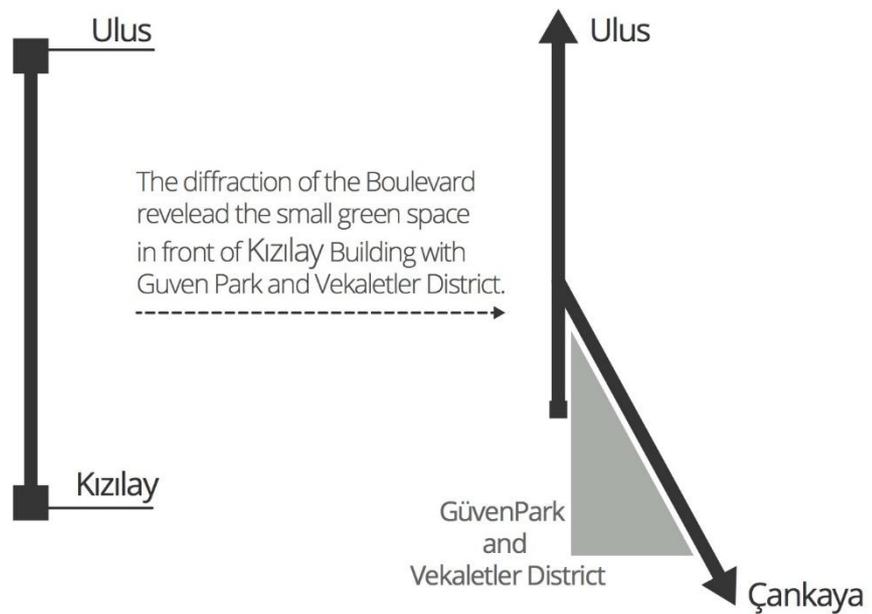


Figure D.2 Main Impacts of Jansen Period (illustrated by the author)

Main Impacts of Yücel-Uybadin Period

* Image - Rapid Urbanization/Residential vs. Commercial



* Morphology - Loss of Square Network / Density Increase

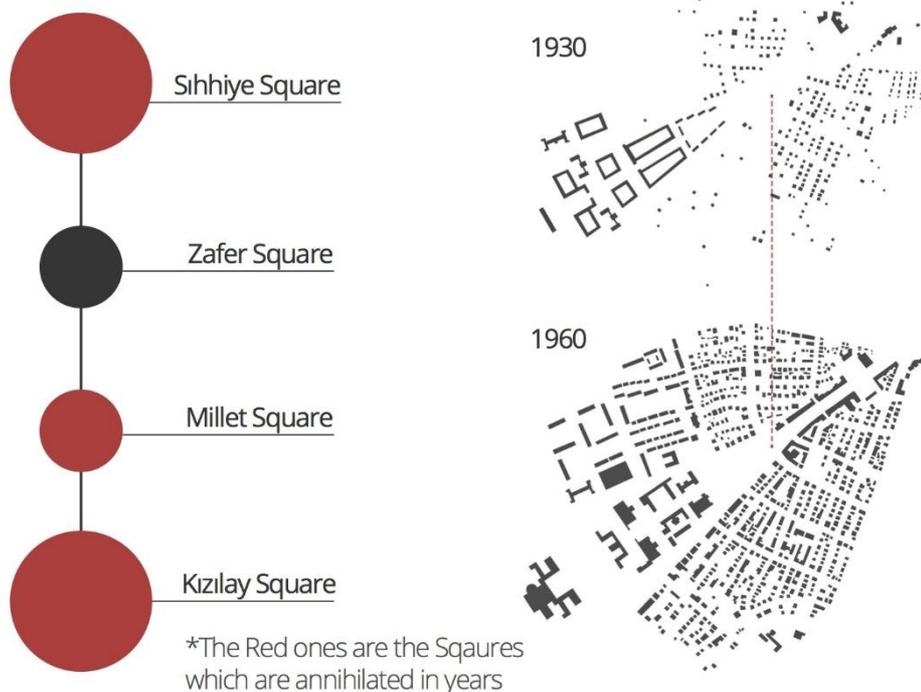


Figure D.3 Main Impacts of Yücel-Uybadin Period (illustrated by the author)