UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

The modernization of an Iranian city : the case study of Kermanshah

Sahar Pakseresht

Research plan for Ph.D. thesis

The modernization of an Iranian city: the case study of Kermanshah



Student: Sahar Pakseresht

Directors: Manel Guardia Bassols

Department of Theory and History of Architecture

University Polytechnic of Catalonia UPC

November 2017

Abstract

The notion of the Islamic city evoked in comparison with European cities and their modernization process and often criticized for its Eurocentric nature, acknowledges the characteristics' existence that are shared by traditional cities across the extensive geography, where Islam is the predominant religion. It is not unusual, therefore, to attribute these peculiarities to the shared religious framework, although said framework officially didn't experience serious modification until twenty centuries, despite the modernization of these cities. Consequently, this study suggests an indirect approach through the study of the modernization process of cities in the Islamic world. The emphasis, thus, no longer rests on specific religious qualities and falls instead on the urban practices and the cultural frameworks in which they are inscribed, resulting from the crystallization of practices and from environmental, social and cultural equilibria in the long-term.

Before 1920, Iranian cities were characterized by a set of features which were common in other traditional Islamic cities in the world. As those traditional Islamic cities have been much more studied than the twentieth century changes that have transformed them, we need more holistic and integrated understanding about the changes derived from the modernization process. To explore the broad and wide-spread of their metamorphosis, it is more enlightening if we study second order cities, rather than studying the transformations of major capitals such as Cairo, Istanbul or Tehran, where interventions are more exceptional and more rhetorical. Therefore, this research examines the Kermanshah city, to understand the link between urban and social transformations due to the modernization process. Tracing city, historically, from its traditional form, as prototypical of the so-called Islamic city, to the Pahlavi dynasty (1925-1979) and after the Islamic revolution in 1979. We will focus, particularly, on studying the stages of urban transformation and changes of urban morphology as well as conflicts and differences between traditional urban features with the modern ones. In other words, we are interested in understanding how traditional morphology and structure of the city, like residential and commercial zone, are affected by symbols of development ambition in the each era, like the opening of new and wide boulevards, intensification of land use, disciplining space, embellishing the city and etc. Moreover, we want to trace how these changes influence social structure over the time.

Table of contents

Chapter I: Introduction……..1

- Research question
- Outline of chapters
- Methodological approach

Chapter II: Modernization in context of Muslim world

- Iranian cities as a subdivision of the so-called Islamic cities……...6
- Capitals as a symbol of modernization in the context of the Muslim world……..….9

Chapter III: Kermanshah city as the so-called Islamic city and emergence of modernization

- Kermanshah history background: from pre- Islamic era to the beginning of 20th century……..….24
- Traditional city and its urban structure…….....27
  - A. Streets' network…….….33
  - B. Residential quarters……..…..38

2.1 Traditional houses as the main elements in neighborhoods (mahalla)……..…….43

- C. Bazaar complex……...49
- The rise of modernization……..55

Chapter IV: Kermanshah and urban modernization under Pahlavi

- Modernization in the First Pahlavi under the monarchy of Reza Shah (1925-1941); new street, expropriation and haussmannian scheme ……59
- Modernization in the Second Pahlavi under monarchy of Mohammad Reza Shah (1941-1979); new strategies, National Development Plans and new social class……77

Chapter V: New amenities in the context of urban modernization

- Emerging social facilities and technical networks……110
- Modernization of Water and sewage system……111
- Public transportation; a response to traffic control in the new motorable streets……..……....120
- Industrialization and rise of electricity demand……..124
- Telephone as a new amenity for communication……...……...127
- Media as a tool for cultural discourse; radio, television and cinema……..…..130

Chapter VI: Islamic Revolution and modernization of provincial cities

- The Revolution, war and housing problems……135
- Post- revolution and after war; the historic core and informal settlements as Inefficient urban contexts……...…156

Chapter VII: Conclusion; from so-called Islamic city to during Islamic republic era……..……..172

Index……181

Bibliography……..186

List of illustrations

Chapter II:

Figure 1.2: The common characteristics of Islamic cities (Kheirabadi, 2000).
Figure 2.2: Model of a traditional Islamic city (Ehler &Floor, 1993).
Figure 3.2: The development plan of Tehran in 1878 by Naser-Al-Din Shah (Alemi, 1984).
Figure 4.2: The Cairo three cities in three periods (Ahmed & Kamel, 1996).
Figure 5.2: The 1937 plan of Tehran, which became known as Map of Streets (khiyabanha) (Emami, 2011).
Figure 6.2: Istanbul European Side Master Plan, Old Istanbul, by Henri Prost, 1937 (Bilsel, 2011).
Figure 7.2: Master Plan of Tehran prepared for Shah of Iran in 1968 from Victor Gruen Associate (Emami, 2011; Zad, 2013).
Figure 8.2: Shahestan Pahlavi Master Plan 1976 (Mazumdar, 1981).

Chapter III:

Figure 1.3: The ancient trade routes and the situation of Kermanshah (Habibi, 1999).
Figure 2.3: Kermanshah in 1850s as prototypical of so-called Islamic city (Mahyar, 1999).
Figure 3.3: The geographical situation of Kermanshah between Tehran and Iraq (Clarke &Clark, 1969).
Figure 4.3: The relief and supply surface water, Qarasu river, in Kermanshah (Clarke &Clark, 1969).
Figure 5.3: General situation map of old Kermanshah in 1840s (Flandin &Coste, 1840).
Figure 6.3: The Masoudieh mansion in Qajar dynasty near to Sassanid heritage, Tag-e Bostan (Khadivi, 2000; De Morgan, 1900).
Figure 7.3: Emadieh palace in Qajar dynasty (Kermanshah Cultural Heritage Administration).
Figure 8.3: Emad-al-Dawla mosque in bazaar complex from Qajar dynasty (by Author).
Figure 9.3: The windowless walls with occasional doors both sides narrow alleys (by Author).
Figure 10.3: The topography of the region led to stepped and sloping accessibility(by Author).
Figure 11.3: The Hierarchy of accessibility in traditional network of streets in Kermanshah.
Figure 12.3: Some examples for guzar as a traditional pathway with public or religious facilities.
Figure 13.3: Two examples of bunbast in the historic context of Kermanshah (by Author).
Figure 14.3: Hashti; the last elements in hierarchy of traditional streets' network (Kermanshah Cultural Heritage Administration).
Figure 15.3: The view from hashti to sky (Kermanshah Cultural Heritage Administration).
Figure 16.3: The semi private space in front of the entrance of traditional houses.
Figure 17.3: Overlapping of Topography and irregular street network in 1850s; extracted by author based on (Kermanshah master plan, 1973) and (Mahyar, 1999).
Figure 18.3: The court, or Divan-Khanih, in traditional city during Qajar (From album of photographs by Ali Khan Vali. Qajar, http://nrs.harvard.edu).
Figure 19.3: Brrack or maydan-i Sarbaz-khanih, one of the main squares in traditional city, and governor's palace (Jackson, 1906).

Figure 20.3: The Sabzih Maydan, or maydan-i Tupkhana, the traditional square in the city; Photo by Hugo Grothe cited in Jalilvan (1990).
Figure 21.3: Five neighborhoods(mahalla) of the old city of Kermanshah; (extracted by the author based on (Mahyar, 1999; Borumand, 2009; Hashemi, 2013).
Figure 22.3: The Feiz-Abadneighbourhood and its traditional elements.
Figure 23.3: The pattern of traditional houses in the city in comparison with the emergence of modern pattern along new streets after Pahlavi.
Figure 24.3: The layout of one of the traditional houses, House of Khajeh Baroukh (Borumand, 2009).
Figure 25.3: The integrated morphology of bazaar.
Figure 26.3: The detailed map of the city center and bazaar before crossing new boulevards karimi,1998).
Figure 27.3: The principal elements of bazaar of Kermanshah.
Figure 28.3: Redrawing map by author based on map of city in 1919 (Clarke & Clark, 1969).

Chapter IV:

Figure 1.4: The plan and section of the Tagh Bostan (Sassanid heritage landmark), by Pascal Coste and Flandin in 1840.
Figure 2.4: Kermanshah in 1935 (www.britainfromabove.com), the aerial photo of city with 1941 shows first new boulevard and roundabouts (Clarke&Clark, 1969).
Figure 3.4: Facades from the different parts of first new boulevard in the city (Keshmiri, 2013; Rashidi, 2014a).
Figure 4.4: Dualistic appearance between new streets facades and traditional architecture behind them.
Figure 5.4: New squares in the first new street.
Figure 6.4: Aerial view of oil company situation in north suburban of Kermanshah and near to Qarasu River in 1965 (Clarke&Clark, 1969).
Figure 7.4: Example of residential complex of oil company in Braim, Abadan city in south of Iran (Karimi, 2009).
Figure 8.4: Redrawing map by author based on map of city in 1948 (Clarke&Clark, 1969).
Figure 9.4: The city in 1956 with the second haussmannian boulevard.
Figure 10.4: Confrontation between tradition and modernity, mosque and new street in A Sheik-Hadi or Jalili square (by author).
Figure 11.4: New modern squares as new places for social events and gathering (Keshmiri, 2008).
Figure 12.4: Industrialization of Iran and situation of Kermanshah city, from 1925 to 1973 (Ehler, 1991).
Figure 13.4: Land reform program; Mohammadreza shah is handing over property documents to Kermanshahi farmers (Wikipedia).
Figure 14.4: The more concentration and density of mosques in 1973 and public baths in the 1950s in the historic core, comparing with the new southern developed part of the city with rich residents in 1973 (Kermanshah master plan, 1973; Clarke &Clark, 1969).
Figure 15.4: The formation of the government housing.
Figure 16.4: Example of new housing construction by government during second Pahlavi (Kermanshah master plan, 1973).
Figure 17.4: Lands price in the inner traditional contexts.

Figure 18.4: The city in 1965 with the third haussmannian boulevard and new east-west crossed streets.
Figure 19.4: Construction of third new boulevard, Javanshir, in 1961-1963 (Keshmiri, 2008).
Figure 20.4: The traffic volume on the main streets in 1973 (Kermanshah Master Plan, 1973).
Figure 21.4: The establishment of retailers and importance of them along new streets in 1965 Clarke&Clark, 1969).
Figure 22.4: Growth of Garages, warehouses around places with good car accessibility and decrease of caravansaries in the city in 1965
(Clarke&Clark, 1969).
Figure 23.4: Extracted map by author based on raster image of city in 1972 (Iran National Geographic Center).
Figure 24.4: Kermanshah first phase of master Plan in 1973 (Kermanshah master plan 1973).
Figure 25.4: Kermanshah second phase of the master plan: the layouts of neighborhoods and houses based on the social level of residents, high and middle classes (Kermanshah master plan 1976).
Figure 26.4: The population and the gross density in the 13 districts of the city in 1973, extracted by the author based on (Kermanshah master plan 1973).
Figure 27.4: Some examples of the architecture's style during second Pahlavi in Kermanshah (Keshmiri, 2013; National library of Iran).

Chapter V:

Figure 1.5: Using stream water for washing; Kurdish women near heritage site of Tag-Bostan (www.qajarwoman.com).
Figure 2.5: Diagram of a typical qanat (English, 1968).
Figure 3.5: A., B., C. reservoir or ab-anbar to storage water for hot season in the city, (www.memaribana.com); D. Passing aqueduct, qanat, in a traditional Iranian house (Kheirabdi, 2000).
Figure 4.5: Water piping network in 1966 (Clarke&Clark, 1969).
Figure 5.5: The city's sources of water in 1973: qanats, springs, wells and river (Kermanshah master plan 1973).
Figure 6.5: Water piping network in 1973 (Kermanshah master plan 1973).
Figure 7.5: The situation of Qanat of Cheshme Rozan as the important qanat in the city.
Figure 8.5: The situation of Qanat of Cheshme Rozan as the important qanat in the city.
Figure 9.5: Increasing the sources of water in the north of the city and the possibility of the city growth to the north (Revision of Kermanshah master plan, 2001).
Figure 10.5: The network of piping water after revolution (Revision of Kermanshah master plan, 2001).
Figure 11.5: The Sewage system in Kermanshah in 1966 (Clarke&Clark, 1969).
Figure 12.5: The sewage system of Kermanshah after revolution and priority of the historic core to the northern new development areas in 2001 (Revision of Kermanshah master plan, 2001).
Figure 13.5: Kermanshah in the 1960s; buses, new street, the jūbs and electric light beams as new elements of modernization.
Figure 14.5: The five bus lines of the city in 1973 (Kermanshah master plan, 1973).
Figure 15.5: Increasing of bus lines in 2001 to 22 lines due to city and population growth (Revision of Kermanshah master plan, 2001).

Figure 16.5: The general map of RLT through the city from north to south (www.imo.org.ir; www.hexa.ir)
Figure 17.5: Electrical wiring in 1931 in the city (Keshmiri, 2008).
Figure 18.5: Electrical lines in the city in 1960s (Clarke&Clark, 1969).
Figure 19.5: Proceeding of the electric network until 1973 (Kermanshah master plan 1973).
Figure 20.5: Kermanshah as power generator for western regions in Iran after revolution (Revision of Kermanshah master plan, 1998).
Figure 21.5: Contrast between tradition and modernity; Traditional house and new modern amenities (Department of cultural heritage of Kermanshah).
Figure 22.5: The network of telephone lines in 1973 (Kermanshah master plan 1973).
Figure 23.5: Density of telephone and post cabinets in the city after revolution (revision of Kermanshah master plan 2001).
Figure 24.5: Cinemas, radio and TV centers in the city in 1973 (Kermanshah master plan 1973).

Chapter VI:

Figure 1.6: The scene of revolution in Kermanshah; marching people in the streets with photos of Ayatollah Khomeini (www. iqna.ir; Kermanshah.isna.ir).
Figure 2.6: Extracted map by author based on Kermanshah master plan in 1983.
Figure 3.6: Proposed Kermanshah master plan in 1983; after the revolution and based on fast and widespread city and population growth.
Figure 4.6: The seventeen districts in the city in 1981 (Adibi, 1981).
Figure 5.6: The preliminary land preparation plans in1986 for some district based on low, medium and high density housing (National library of Iran).
Figure 6.6: Transformation of city from second Pahlavi to after revolution and war.
Figure 7.6: Kermanshah revision master plan in 2003 with main objectives:determination of the city boundary, creating integrated urban contexts and zoning, urban facilities in the five main parts of the city (By Tarh va Amayesh engineering consultant).
Figure 8.6: Urban interventions in Feiz-Abad neighborhood as the most historical part of the city.
Figure 9.6: Feiz-Abad and its traditional bazaar.
Figure 10.6: The organization and rehabilitation plan for the Kermanshah central core in 2006, Feiz-Abad and Gomrok district (Municipality of Kermanshah; Renewal and Rehabilitation establishment).
Figure 11.6: The residents and their act to increase the quality of their living area.
Figure 12.6: Wide spread demolition and environmental pollution in the historic core of the city (photo by author in 2014).
Figure 13.6: Bazaar of Feiz-Abad after crossing with new streets and physical restoration (by author).
Figure 14.6: Some of new constructed projects in the first haussmannian street in the city after revolution.
Figure 15.6: Distribution of Informal settlements in the city between 1978 and 2000.
Figure 16.6: Mass housing projects (Mehr) in Kermanshah by Kayson company.
Figure 17.6: The progress of segmented grown context of city after last revised master plan in 2002/2003.

Chapter VII:

Figure 1.7: The parallel new streets during the Pahlavi dynasty divided the historic core and its traditional elements like the bāzār (Borumand, 2009).
Figure 2.7: The general transformation of the city over the time (extracted by the author).
Figure 3.7: Scheme of social change in the city during the modernization process (extracted by the author).

List of tables and charts

Chart 1.4: The comparison chart for urban land use areas between years 1966 and 1973.
Chart 2.4: The growth of vehicles in the city as a symbol of modernization (Kermanshah Master Plan, 1973).
Chart 1.6: Difference between physical and residential areas in 1981 and 1976, based on (Adibi, 1981).
Chart 2.6: Different districts and their population and area's density in 1981 (Adibi, 1981).
Chart 3.6: The number of residential building license based on height between the years 1990 and 1998 (Kermanshah master plan, 1983).
Chart 4.6: The number of residential building license based on land areas in the city (Kermanshah master plan, 1983).

Table 1.5: The number of cinemas in 1973 in the city (Clarke&Clark, 1969).
Table 1.6: Kermanshah's population of suburbs and shanty towns in 1981 (Adibi, 1981).
Table 2.6: Kermanshah housing characteristics in 1981 in comparison with 1976 (Adibi, 1981).
Table 3.6: Different districts and their population and area's density in 1981 (Adibi, 1981).

Persian

Letters of the Alphabet

Initial	Medial	Final	Alone	Romanization
ا	ا	ا	ا	omit (see Note 1)
بـ	ـبـ	ـب	ب	b
پـ	ـپـ	ـپ	پ	p
تـ	ـتـ	ـت	ت	t
ثـ	ـثـ	ـث	ث	s̲
جـ	ـجـ	ـج	ج	j
چـ	ـچـ	ـچ	چ	ch
حـ	ـحـ	ـح	ح	ḥ
خـ	ـخـ	ـخ	خ	kh
د	ـد	ـد	د	d
ذ	ـذ	ـذ	ذ	z̲
ر	ـر	ـر	ر	r
ز	ـز	ـز	ز	z
ژ	ـژ	ـژ	ژ	zh
سـ	ـسـ	ـس	س	s
شـ	ـشـ	ـش	ش	sh
صـ	ـصـ	ـص	ص	ṣ
ضـ	ـضـ	ـض	ض	ẓ
طـ	ـطـ	ـط	ط	ṭ
ظـ	ـظـ	ـظ	ظ	ẓ
عـ	ـعـ	ـع	ع	‘ (ayn)
غـ	ـغـ	ـغ	غ	gh
فـ	ـفـ	ـف	ف	f
قـ	ـقـ	ـق	ق	q
کـ	ـکـ	ـك	ك	k (see Note 2)
گـ	ـگـ	ـگ	گ	g (see Note 3)
لـ	ـلـ	ـل	ل	l
مـ	ـمـ	ـم	م	m
نـ	ـنـ	ـن	ن	n
و	ـو	ـو	و	v (see Note 3)
هـ	ـهـ	ـه ، ـة	ه ، ة	h (see Note 4)
یـ	ـیـ	ـی	ی	y (see Note 3)

Chapter I

Introduction: The modernization in a second order city

The modernization in a second order city

In terms of history, a long tendency to progress in Iran began from the Qajar dynasty with the early steps of modernization in the Constitutional Revolution (1906-1911), which touched the Pahlavi dynasty under the monarchy of Reza Shah in the new socio-political since 1920s. The government became a new pivotal in the transformation and change of the structure and function of cities. Rapid modernization enhanced the gap between old and new, tradition and modern. The split and polarization were developed across the cities' older areas, which were often going to lose their physical, social and economical livability, and built new modern, Western-style, developed areas. In the course of these evolutions, Tehran as the capital experienced the major changes while the transformation was uneven for other cities like Kermanshah in the country. However, the importance of urban modernization study in Iranian-Islamic cities is that the modernization process in Iran was chosen by the government itself and the Western (colonial) countries did not impose the modernization like the most of the so-called Islamic city (Isenstadt and Rizvi, 2008). Moreover, Iran's case study has become an interesting benchmark, being the only country that has established an Islamic regime since 1979. The period for over 30 years, less studied, in which the religion has acquired a great collective presence.

In the current study, we analyze what were the features of urban modernization and the tension between them and traditional ones over the time. The research examines the city morphology and its administrators' and planners' attempts to address perceived and real problems which are related to the process of modernization. The modernization was driven, not only, by power of municipal law, such as the opening of boulevards, new infrastructures and equipments, but also it was accelerated by historic city transformation's dynamic such as new ways of inhabiting, demographic and urban expansion.

Kermanshah city, as our case, is one of the important second order cities in Iran and the capital of Kermanshah province (Clarke& Clark, 1969). Kermanshah considered as a second order capital region because this city has not experienced exceptional and fast modernization process like Tehran. Also, it has not been rapid-growing industrial city, but has faced with radical urban transformation. Kermanshah as a historic city, in terms of its historical evolution, is not exceptional as Isfahan, Iranian historic city "*par excellence"* (Karimi, 1998). But it has a long and constant history, in which the

traditional structure of the city as a pattern of so-called Islamic city has been maintained long enough before modern transformations (Ibid.). Moreover, it is not a religious center in Iran like cities Mashahd and Qom with Shrine. But, not only the city has significant features of urban modernization now, but also contains considerable character of its traditional features as a traditional Iranian-Islamic city yet. Therefore, the city like Kermanshah can be a good laboratory for observing as an example for a more defused modernization process in Iran.

The purpose of this thesis is, to find out when the changes due to the modernization process led to change the traditional elements of the city, their function and accordingly customs way and practices in terms of the social aspects. In this context the study addresses; how a second order city in Iran met the modernization process. The purpose is to analyze whether the modernization process in Iran, has generated a theoretical model for the city, similar to one for a traditional city as so-called Islamic city, especially after the Islamic revolution as a era with emphasize on Islam or not.

This thesis is divided into seven main chapters (including the introduction and the conclusion). The chapter II aims to build a comprehensive picture by comparative study of some crucial and relevant episodes of modernization in context of so-called Islamic cities with colonial or non-colonial background. The concept of this chapter driven as configuration how the modernization process in Iran, as a subdivision of the so-called Islamic city and as a country that were never politically colonized, evoked from negotiations with the colonial powers and based on Mirgholami &Sintusinga (2012): how “local elite-led processes of ‘self-colonization’.” Explaining how a long and widespread history of the modernization process only summarized to describe the capitals and major cities in this context. Whilst not only the capitals is considered as instruments of political rhetoric, which makes their modernization process as an exclusion goal**,** but also they are not the only cities that touched the modernization in the context of the so-called Islamic cities’ modernization process. So, there is a noticeable gap in the literature to address non-capital and non major cities as a model to describe a more diffused modernization process in the countries. Moreover, this chapter will address how Iranian cities as non colonial cities, includes Kermanshah, are remarked as a subdivision of the so-called Islamic city, the notion that at the beginning was the result of the colonial look of Muslim and especially the Arab countries in the North Africa and the middle east.

In chapter III, we examine the traditional city of Kermanshah as the Iranian-Islamic city with describing its traditional elements: wall, citadel, bazaar complex, mosques, traditional neighborhoods and traditional street pattern. This chapter is the beginning phase of the long-term approach to study of the modernization process in this research. The study of the modern city would be incomplete if limited our vision to the new appearance of the city without an awareness of history.

In the chapter IV and V the main focus is tracing metamorphosis of Kermanshah as the second order city under urban modernization process during the Pahlavi dynasty, with the monarchy of Reza Shah and then his son Mohammadreza shah (1925-1979). The term of modernization, in this study, is applied as a conceptual framework for the analysis of urban form transformation in Kermanshah city. We examine how modernization projects, which embodied the symbols of each political and historical era, affected the city transformation as well as urban society. Moreover, we examine how this urban physical and social changes impacted on the formation and the progress of new amenities, infrastructure, public and social facilities, as the maximum expression of the city modernization. The social polarization and physical segregation, as a result of urban modernization under Pahlavi, were manifested even in the process of urban equipping. Eventually, these fragmentations erupted to a historical moment in Iran, Islamic revolution in 1979. Although the preparation of the master plan of Kermanshah city started in the late of the Pahlavi dynasty, but the process of preparation was suspended due to the revolution. This was one of the main reasons for uncontrolled city growth over the time.

In the chapter VI, this study explores the revolution and post revolution era as one of the main objective in our research, the period that there is a lack of studies about that. At the beginning the Islamic regime reacted strongly against the Western-nature of Pahlavi modernization and global influences. The years after the revolution that were accompanied by the Iran-Iraq war and the promise of low-cost and even free provisions. This issue led to the major demographic change and migrations in the country. We study how set of events, more than religious emphasize, like reconstruction policies after the war without a comprehensive vision for the city planning and applying the pre-revolution modernization symbol like imposing and widening the street formed the course of urban modernization in the city under the new

governments. However, the reviews show how city faced with a range of problems like informal settlements and city inner evacuating in this era.

Methodological approach

With the main focus on modernization of Kermanshah as a second order city in Iran, this study attempt to make a comparative vision with the other Islamic cities in order to develop a meaningful discourse and a scope of urban modernization process in an Iranian case.

For Middle Eastern cities always there is a lack of compiled information and Kermanshah city was not an exception. Evaluating of accessibility of data collection in different historical periods of Kermanshah city was the first step in this research. In addition, except of Tehran and some major cities like Isfahan the archives about other cities like Kermanshah are limited. In this regard, the preliminary research into the history of Kermanshah began with an exploration of Iranian archives. Looking for secondary data included books, articles, journals, newsletters (for both documents in English and Persian and from both Persian and Western scholars) needed to review the different archives from different organizations. Among them were the Cartographic Society, Cultural Heritage Organization, City Hall, the National library, the Constituent Assembly Library, the Center for the Great Islamic Encyclopedia.
The newsletters' data were useful for extracting prove of important dates and information concerns with important events, modernization of public amenities and technical infrastructures. The most useful newsletter among thirteen different reviewed series of old newsletter (like Bakhtar, Sadat-e Iran, Khak-e Sorkh…) was National newsletter for Kermanshah from 1940 to 1966. On the other hand, demographic and physical changes are studied through maps, aerial photos, photographs, and census information, (during each period) largely provided by consultancy reports and important geographical study about the city by Durham university.

Moreover, I conducted, with the help of my friend Mehrzi Nikourazm as a young architect in Iran, some occasional visits as well as informal interviews with some of the inhabitants, merchants in the bazaar and two professional persons who involved officially in the process of conservation and urban planning of the historic core of the city in the recent years. The aim was to figure out how is the situation and actual life of the people, by focusing on the historic neighborhood of the Feiz-Abad. We asked about

their chronological memory and their experiences about the effects of urban transformation, new modern streets and new technical and public utilities in the city. Since these questions are about time away and most of the habitants and merchants, as elderly people, asked to informal and very short interview, the answers and descriptions about dates and some events was not coincident with the literature. But most of answers about social changes was coincided with literature. Therefore, I only cited a few parts of their information that I thought were relevant and compatible with the bibliographic data.

Chapter II

Modernization in context of Muslim world

Iranian city as subdivision of the so-called Islamic city

The first phase to study the urban changes of Iranian cities due to modernization process is studying traditional Iranian cities. Before 1920, Iranian cities had a set of characteristics and features considered to be a typical form of the ‘traditional’ city as so-called ‘Islamic city’ (Marefat, 1988; Ehler, 1991; Ehler & Floor, 1993; Kheirabadi, 2000; Habibi, 1999; Falahat, 2014) (Fig. 1.2 & Fig. 2.2). Features of Iranian cities and their functionalities should be studied to successfully understand in order to the evolution of cities from traditional to modern situation.

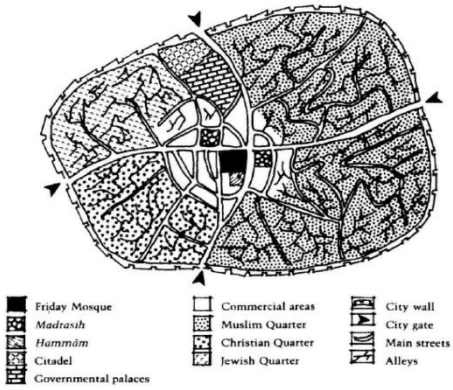


Figure 1.2: The common characteristics of Islamic cities (Kheirabadi, 2000)

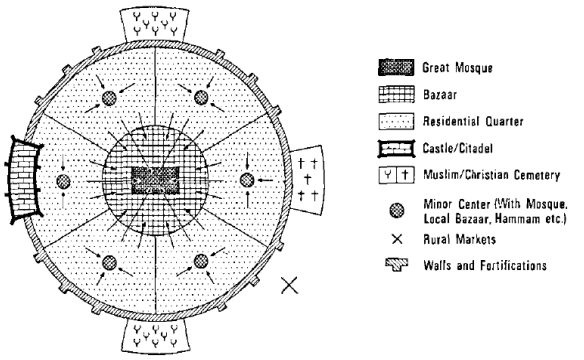


Figure 2.2: Model of a traditional Islamic city (Ehler & Floor, 1993)

The concept of the 'Islamic city' became an important research area for European Scholars, mostly French orientalist, by focusing on the Mediterranean Arab cities. But, they did not study the concept of the Islamic city in Iran and Turkey (Haneda, 1994). Indeed The interpretation of ‘Islamic cities’ urban form by orientalists resulted from the colonial look and the formal analytical methods mostly conducted based on comparisons with medieval European cities and Greco-Roman cities (Raymond, 1994). These comparisons led to the ‘negative’ and ‘strange’ approach to describe attributions about urban morphology of so-called Islamic cities like: shapeless, fluid, twisting, amorphous, lack of any logic, labyrinth and formlessness. From their point of view, Islam provides a holistic value system driving behavioral patterns and social organizations, which in turn affect and determine the physical morphology of cities. They generalized their idea about spatial organization and form of the Islamic city from

small samples, Arab cities, to all Muslim cities as the ‘‘distinguishing features’’ of the morphology of each Islamic city (Abu-lughod, 1987). These characteristics include the elements of a traditional Islamic city and their spatial relations based on the model: Citadel (Arq), the Friday mosque[1] forms the city's central core; religious schools (madrasihs), a public bathhouse (hammam), and the commercial district (bāzār) surrounding it. A hierarchical segregation of trade within the bāzār, concentrated around the Friday mosque, forms the basis of the spatial arrangement of the commercial district; segregated residential quarters (mahallahs) surround the core area of the city (Abu-lughod, 1987; Hakim, 1986; Hourani, 1970; Ehler & floor, 1993; Kheirabadi, 2000).

Whilst some scholars warned of the dangers inherent in making the generalization and considering Islam, as the only cause of urban form in Islamic city, studying the cities under ottoman rule as Islamic regime was developed the criticisms of orientalists as well (Abu-Lughod, 1987; Raymond, 1984). For example, case studies of Ankara and Aleppo displayed contradicted pattern with the old assumptions about Islamic cities (Çelik, 1999). For example, neighborhoods were not differentiated according to ethnic groups; markets and other public amenities (commercial, educational, religious) were not centralized but scattered throughout the town (Ibid.). In this regard, after orientalist scholars started to emphasize more on the differences between cultural and social structure of cities. Actually, they started to observe cities in their context, as the logical factors for shaping Islamic cities pattern or some of them introduced climate as another factor behind logic and function of the Islamic cities' urban form (Bianca, 2000; Hourani and Sten, 1970; Hassan Fathy, 1986; Lapidus, 1969; L. Carl Brown, 1973). According to Nazar Alsayyad (1991), the “stereotype model of Islamic City” is developed as a result of special and classic imagination about the traditional Muslim urban settlements,

[1] In the point of introducing Iranian city as the sub-division of Islamic city, there is no doubt that the mosque as Islamic indicator is mandatory elements in Iranian cities and it becomes physically integrated with the texture of city (Pope, 1967). But it worth to mention for Iranian society as Shiite Muslims (A tendency of Islam) the other important element in the cities' formation is also Husayniyya (The place for worship the third leader of Shiite) and also Imamzadihs (shrine of the Prophet"s cousin and son-in-law) like holy city Mashhad, is circular and fit into the model of Islamic city developed by scholars such as Von Grunebaum (Kheirabdi, 2000; Momen, 1985).

their physical layout, typical elements, spatial structure, and morphology which is not a complete view because it divorces form from function.

However the concentration of studies on Arab cities and dynamic vision about urban progress during the Ottoman era and their *Tanzimat* modernization process led to lack of attention to Iranian cities as a subdivision of Islamic cities, although some scholars raised some contradictions between them and conception of Islamic cities. They explained other factors beyond the religious (Islam) influencing on the urban form and street patterns in Iran such as topography, water supply, physical environment and climate, trade and historical events and socio-political structures of Iran (e.g., Bonine, 1979; Bonine, 1990; Frieden & Mann, 1971; Ghobadian, 2009; Habibi, 1999; Kheirabadi, 2000; Tavassoli, 2002), while others focus on the origin of Iranian cities form in the religious mystical philosophy of gnosis (Ardalan et al.,1973). Their studies about the morphology and structure of Iranian cities show that most of Iranian cities have geometric patterns that can describe their contradiction with the attribution of labyrinthine of Islamic cities,[2] although Iranian cities also fit the pattern of so-called Islamic cities. There is some evidence such as historical and old drawings, as well as geographical reconstructions, supporting the validity of this model for Iranian cities, for example, Isfahan (Gaube and Wirth, 1978), Tehran (Marefat, 1988), Kermānšāh (Clarke and Clark, 1969), Kāšhān (Costello, 1976), Kermān (English, 1966), Malāyer (Momeni, 1976), Shiraz (Clarke, 1963).

Generally, all of the discussions and criticisms about Islamic cities show that attempting to understand the cities over the Muslim world, from Arab cities to Iranian cities, through the examination of their origins and logic of formation reveals some diversity. Despite the fact that the Islamic city concept developed from the negative image of western scholars, but continually those criticisms make the concept as an enriched model, which can work as theoretical tool to analyze traditional sites in this category. This theoretical tool as a model can define the main features of the city from starting point in its modernization process. Emerging a new understanding of the Islamic city as an entity shaped by varies of constantly changing of socio-cultural factors that Islam as a religion is just one of them. In fact, studying the morphology and the form of a city plays an important role in understanding of the city. The morphology and form of the

[2] There are some exception cities about this formula like Kermanshah, Isfahan, Tabriz, Hamadan which are located in the slope of the mountains and streets do not follow any particular geometric (Bonine, 1979; Kheirabadi, 2000).

city are the direct reflection of the life-world of its people (Falahat, 2014). So, the city morphology has to be studied within its own individual context, but it seems that it is not the case Islamic cities (Ibid.).

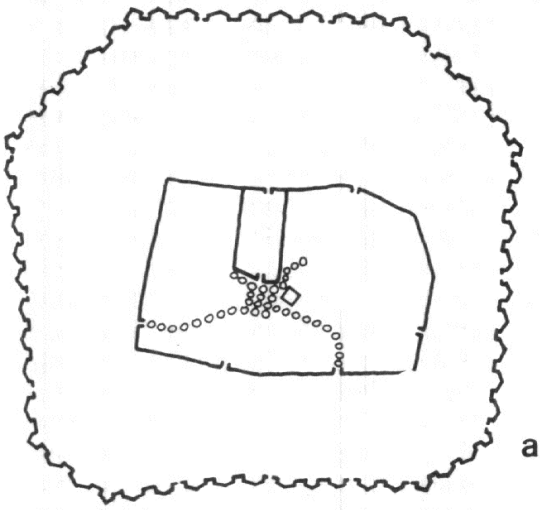
Therefore, in this study, we will consider common physical elements that play a pivotal role in shaping the cities of the Muslim world. These are among the major reasons behind the similarities in the ‘Islamic cities' physical form. So ignoring these elements has brought about some of the confusion in the theory of the Islamic city (Alsayad, 1986; Neglia, 2008). Based on the literature, the Islamic cities and their particular features , still existing these days, indicate a high level of three factors including cultural identity, continuity, and unity which is often not considered in the recent urban settlements. Despite these traditional features were influenced by modern features over the time, but coherent and original urban system explains the success of these towns, and their dynamism in the early modern period (Raymod, 2005). Indeed the identity and the history of each city in Iran have been looking for in its traditional core that includes the most common features of the so-called Islamic city. However, consideration to chronology is essential in order to understand the variety of ‘Islamic cities’ existing from the moment of their foundation through the classical and modern periods (Raymond, 2005). The Muslim countries, especially in the Middle East, have extensive urban changes under the process of modernization in the twentieth century. Despite of the fact that Western Europe pioneered in modernization, but it became a truly global phenomenon and has developed outside Europe as a result of different and special conditions.

The Capitals as symbol of modernization in the context of Muslim world

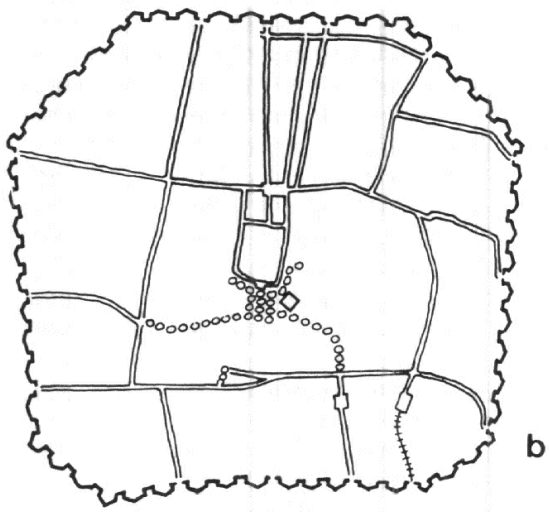
The “modernization” or rather “westernization” of Persia started in about mid of the nineteenth century, which was the result of Persia’s awareness about intellectual change in the west and growing interest of western countries in Persia (Alemi, 1984). “Although Iran was never politically colonized, negotiations with the colonial powers led to parallel local elite-led processes of ‘self-colonization’ that selectively appropriated European modernization” (Mirgholami & Sintusinga, 2012). So Tehran, where was chosen by the Qajar dynasty as the capital in 1786, seized with the idea of rising to the level of European cities that was the result of Nasser-Al-Din Shah’s travel (King of Qajar) to the Paris in the 1870s (Alemi, 1984; Katouzian, 1996). The traditional city of Tehran was prototypical of most the Iranian-Islamic cities, but the new city model that

Nasser-Al-Din Shah favored to evoke for Tehran was Paris (Katouzian, 1996). He replaced the Tehran's old city walls with new rampart, and the form of a perfect octagon with 12 gates, and almost followed Parisian fortification. The city was expanded by him from three to seven and a half square miles, while new areas recalled scheme of Haussmann, and were formed by a new central square (Meydan-i Tup-Khanih), new wide streets lined by trees and water channels (lalehzar and Ala-Od-Dawleh), a bank, an institute of technology, secular university (Darol Fonun) a hospital, a telegraph house, hotels and European-style shops were, according to a British observer, a ''twofold renaissance'' for Tehran (Bonine, 2005; Katouzian, 1996; Madanipour, 2006) (Fig. 3.2). Despite the city expanded, the basic fabric of Tehran remained much the same as the past, until the fall of the Qajar and the beginning of the Pahlavi monarchy (Marefat, 1988). The reforms which began by Nasser-Al-Din Shah and were conducted by his prime Ministers, Amir-Kabir and Sepahsalar, resulted in the 1906 constitutional revolution or Mashruteh movement as a political reform in the country (Zad, 2013). This modern movement was the result of consciousness of civil individual rights that began to shape different people/state relationship and "social" brick toward modernized cities (Ibid.). They thus established the modern municipality in Iran, or *baladieh*, in 1910, to manage increasing requirements for the transformation of the city structure (Zad, 2013; Habibi, 1996).

Tehran as the capital of Iranian modernization was involved with all modern changes systematically; hence, the first planning in Iran started with the priority of Tehran compared to other cities (Zad, 2013). Like other capitals in the Muslims world, among them Cairo and Istanbul as pioneers to mark a strong seal of modernization reforms by the ruling elites. The period of modernization, which is known as the Tanzimat (1838–1908) during the Ottoman Empire was a result of the direct European presence or undertaken as indigenous elites following the Europeans' pattern (Murden, 2005)? The new urban design philosophy also came as a part of the Tanzimat reform package when Mustafa Resid Pasha, as one of authors in Tanzimat Charter, and after his diplomatic missions in Paris, Vienna and London, like Nasser-Al-Din Shah, admired European countries and wanted Ottoman capital met their standards (Çelik, 1986). Achieving this goal, he advocated a scientific approach or mathematical/geometrical in order to regularization of streets' network and subsequently straight and wide arteries through the historic context (Ibid.). In fact, the main concepts for Tanzimat evoked from a superior vision of modern European society that Ottoman society and solutions to

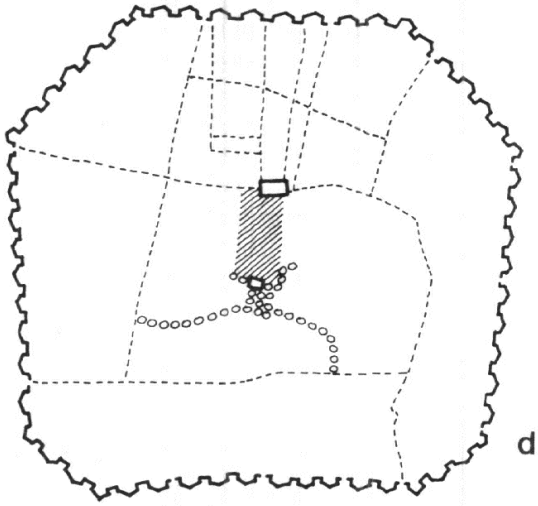


a - The relationship between the new walls and the former walls shown in the plan of Kriziz



b - The pattern of the main streets of the new city related to the pre existing elements.

c - A comparison between the pattern of the streets in the new city and the old one



d - The Gardens & cultivated lands cover a great amount of land in the new area which is reflected in the pattern

Figure 3.2:
The development plan of Tehran in 1878 by Naser-Al-Din Shah(Alemi, 1984).

Empire's problems found based on western institutions and methods (Ibid.). Thus, the series of attempts was begun to make ottoman's modern capital. The establishment of a public ferry system (Shirket-i Hayriye) in Istanbul, the 1850s, was the beginning of "modern" life which was followed by introducing the telegraph, the railroads, and public lighting (Jayyusi, Holod, Petruccioli, Raymond, 2008). These new techniques and organizations increased European influence not only in Istanbul but also in Cairo. The Cairo involved with modernization since the rule of Khedive Ismail (1863–78) whose vision was to turn Egypt into a European country (Uddin Khan, 2008). He traveled to Paris in 1867 and was deeply impressed and inspired by the city reconstructions, which led to "Haussmannian urban interventions" in the city with his decree (Bianca, 2000; Çelik, 1999) (Fig. 4.2). As soon as, the opening of the Suez Canal, he built several new "European" districts in Cairo with their parks, large colonnaded boulevards with lighting and French styled buildings, apartments, an opera house and moved the seat of power from the Citadel to Palace, Abdeen Palace (Bianca, 2000; Uddin Khan, 2008). Ismail had been deeply impressed by Exposition Universelle 1867 in Paris; upon his return, he had Parisian-style master plan drawn up for the city Cairo. One result of its implementations was the destruction of the historic fabric of old Cairo, particularly parts of the Fatimid district, which were torn down to build wide boulevards (Abu-lughod, 1965; Bianca, 2000; Dumper& Stanley, 2007). Later, the imposition of new foreign elite after 1882, dominated by the British for political issues and by the French for cultural issues, resulted in a high speed development of the modern city (Abu-lughod, 1965). In this regard, hundred of thousand of foreigners gathered into the country leading to the formation of new towns, Heliopolis and Maadi, growing on the periphery and the decline of the old city.

Following the Tanzimat, and disintegration of the Ottoman Empire in World War I, provoking Modern Turkey While It was involved by a wave of secularization in the public authorities, especially in the fields of justice, education, and health (Arnaud, 2008). That was the way for Iran under Reza Shah, at the beginning of the twentieth century, who followed Turkey's example, under Kemal Attaturk and moved towards secularization in the context of modernization (Uddin Khan, 2008; Murden, 2005). For them religion was power to prevent a progress. Based on Habibi and Meulder (2015) Reza Khan in 1920 (who, one year later, became Reza Shah, the founder of the Pahlavi Dynasty) declared his position on Iranian modernism to Farangestan Magazine:

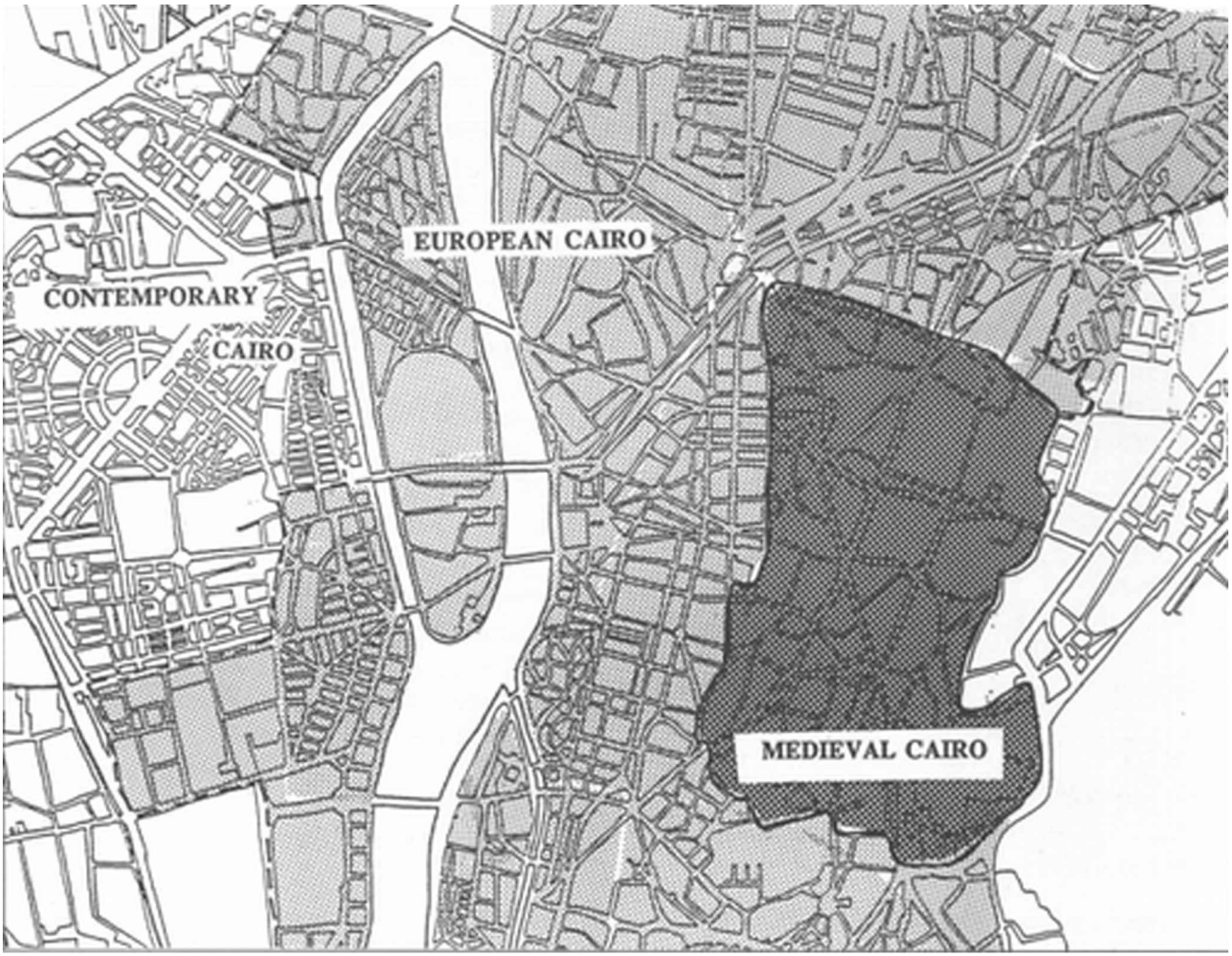


Figure 4.2:
The Cairo three cities in three periods(Kamel & Ahmed, 1996).

> “Iran should resume her life again and everything should be renewed. We want to have a ‘modern Iran’ and a ‘modern nation’. We (as the central government) want to convert Iran into a European country. Tehran will be the first modern city in Iran and then it will be used as a model for other Iranian cities. In keeping with the morality of Iran, let us hold this sentence in our minds as our instruction: Iran should be mentally and somatically, outwardly and inwardly European-oriented.”

Despite the tendency to city modernization in order to achieve new states came from outside, but also evoked from local elites desire. For example, during the first Pahlavi dynasty, in 1930s, returning of graduate architects who studied in France and Brussels started a new era in Iranian architecture towards modernization. It was the ultimate break with the past in order to search new way for understanding and practicing architecture (Katouzian, 1996). They were called ‘Iran's leading modern architectures’ and their architecture affected by the Vienna school of modern architecture, the German Expressionist architecture before 1930s and Art Novi France (Marefat, 1988; Bani Masoud, 2011). Under the autocratic state of Reza Shah, Iranian society had a set of major economic, social, cultural and political transformations having significant impacts on people’s life. European experts were also employed to prepare a plan for modernization of Iran. Thus the modernization plans were based on exogenous factors related to European experts. As a sequence of interventions, especially based on an idealistic plan prepared in the early 1930s, Tehran was transformed from a walled city into a modern-looking city with a super-imposed streets grid network, while a process was considered as the process of Paris transformation by Haussmann in the mid-nineteenth century (Emami, 2011) (Fig. 5.2). The King wanted both modernization and glory, reflected in building and institutions, inspired by the forms of ‘Achaemenid’ and ‘Sassanid’ architecture developed by European archaeologists (Micara, 1996). Such a superficial syncretism to show of incorporating local and European structural models in non colonial countries like Iran had a high development in colonial Muslim countries like protectorate Morocco in early 1912 (Fuller, 2008).

General Louis-Hubert Lyautey, as the governor of protectorate Morocco, and who called the man of culture and conservation, In 1913, invited Henry Prost as an architect and planner to organize the Service des Plans (planning office) in Morocco (Bilsel, F. C.; Radoine, 2012). He developed a master plan for several cities, such as Fez,

Figure 5.2:
"The 1937 plan of Tehran, which became known as Map of Streets (*khiyabanha*). On the plan, according to a note at the bottom of the sheet, "His Majesty, Reza Shah had marked with a red pen." This reminds one of Haussmann's Paris where "Napoleon III with his own hand, 'his own august hand,' plotted the alterations he intended to make in the city (Emami, 2011)."

Marrakesh, Meknes, Rabat and Casablanca (Ibid.). The uncoordinated adaptation with a local architectural heritage that expanded by Lyautey's team of architects and planners in order to make a modern and well-funded program for the government (Fuller, 2008). However, the rules[3] of urbanism established by the French authorities and generated a new way of making cities in Morocco. This colonial architecture was embellished, in order to give a sense of locality, using Moroccan and Moorish decorations on the facades (Radoine, 2012). It was Proust, who demanded that: "The style, scale and materials of new buildings should harmonize with the traditional Moroccan architecture. The aesthetic was literally only a facade, for the building height of the walls was fixed by to a European norm, the positioning of windows and types of roofs to European standards. For all their Moroccan decorative flourishes, these were buildings for Europeans to live in. Moroccans lived in the mèdinas, from which Europeans were excluded by quite different building regulations that made the houses unsuitable for them…" (Ibid.).

The French protectorate of Morocco, the plans and policies of the Resident-General Hubert Lyautey as well as the architect and urban planner Henri Prost, had a dual purpose: modernization and preservation (Bonine, 2005). On the other hand, from 1936 to 1951, Prost who was the head of the City Planning Office worked on the urbanization of Istanbul. He had some information about Istanbul, due to his first travel in 1904 to the capital of the Ottoman Empire, to study the remained archeological of the Ancient Constantinople (Bilsel, F. C.). By the time, the founders of the Turkish Republic, who wanted to break with the Ottoman past, decided to transfer the political capital from Istanbul to Ankara. The aim was to make national unity and be away from Istanbul, where western colonialist networks were established (Ibid.). Unlike, Prost started to think about shaping the modern Istanbul for the young Turkish Republic extracted from the memory of the Ancient East Roman capital (Ibid.). In this regard, he reformed historical parts of the city with a set of new arteries across historical parts from east to west, following the hypothetical trajectory of the Byzantine axes (Fig. 6.2).[4] It was in conflict with Prost's protectionist attitude in the Moroccan historical towns where he kept the traditional form of the indigenous society as it was. It was the result of different socio-political contexts between Morocco and Turkey, the dynamics of

[3] Dahir

[4] The network of arteries is one his proposal based on his concept. For more information about Prost master plan in Istanbul please see: *Shaping a Modern City out of an Ancient Capital: Henri Prost's plan for the historical peninsula of Istanbul* by F. Cânâ Bilsel.

Figure 6.2:
Istanbul European Side Master Plan at 1/5000 scale, Old Istanbul, by Henri Prost, 1937(Bilsel, 2011).

social change in 1930s of Turkey due to revolutionary politics, and conducted the urbanist into radical interventions in the historical context of Istanbul (Ibid.).

After World War II in Iran, with the beginning monarchy of Mohammad Reza Shah Pahlavi, United States of America emerged as the new western superpower while European nations weakened by internal struggle after the war. This encouraged the Iranian government to try and establish stronger relations with the US. By the time, the lack of a comprehensive plan for Tehran was a cover for the expansion and growth of the city and made an opportunity for large landowners to build passageways and register the land to sell it subsequently (Khatam, 2015). In this regard, the Plan and Budget Organization of Iran approached the architect Abdol-Aziz Farmanfarmaian to prepare a 25-year growth plan for Tehran in late 1965, while the committee was depended on collaboration with a "foreign partner" (Emami, 2011). So, the first comprehensive [5] plan for Tehran was proposed based on joint collaboration between Abdol-Aziz Farmanfarmaian Association of Tehran and Victor Gruen Associates of Los Angeles, under supervision of Fereydun Ghaffari, an Iranian city planner in the late 1960s (Fig. 7.2). The plan enumerates the city's problems as" high density, especially in the city center; expansion of commercial activities along the main roads; pollution; inefficient infrastructure; widespread unemployment in the poorer areas, and the continuous migration of low-income groups to Tehran" (Madanipour, 2006). The Idea of this Plan was envisioned Tehran as the metropolis with ten urban districts, containing 5.5 million people, connected by an extensive network of highways and organized around ten commercial cores tied by rapid transit routes (Ibid.).

Among the number of urban design projects during this period the Shahestan Pahlavi as a new town center of Tehran aimed to be one of the most prestigious projects of its time (Mazoumdar, 1981). The proposed plan, prepared by Llewelyn-Davies [6] International, was comprised of a large plaza and two boulevards lined with governmental and commercial buildings, although construction was soon stopped with

---

[5] The comprehensive plan after the revolution, criticized as it was considered mainly a physical development plan and unable to cope with change, for being rooted in the political framework of the previous regime as well as not paying enough attention to the problems of implementation. So the comprehensive plan's 25-year lifespan came to an end in 1991. A firm of Iranian consultants (A-Tech) was commissioned in 1985 to prepare a plan for the period of 1986–1996 (Madanipour, 2006).

[6] "The Llewelyn-Davies plan was not the first proposal for the site. It was initially planned in Tehran's master plan (1966-70), and also in late 1973, Louis Kahn was solicited to prepare a proposal, which was never finished as Kahn died in March 1974 (Emami, 2011)."

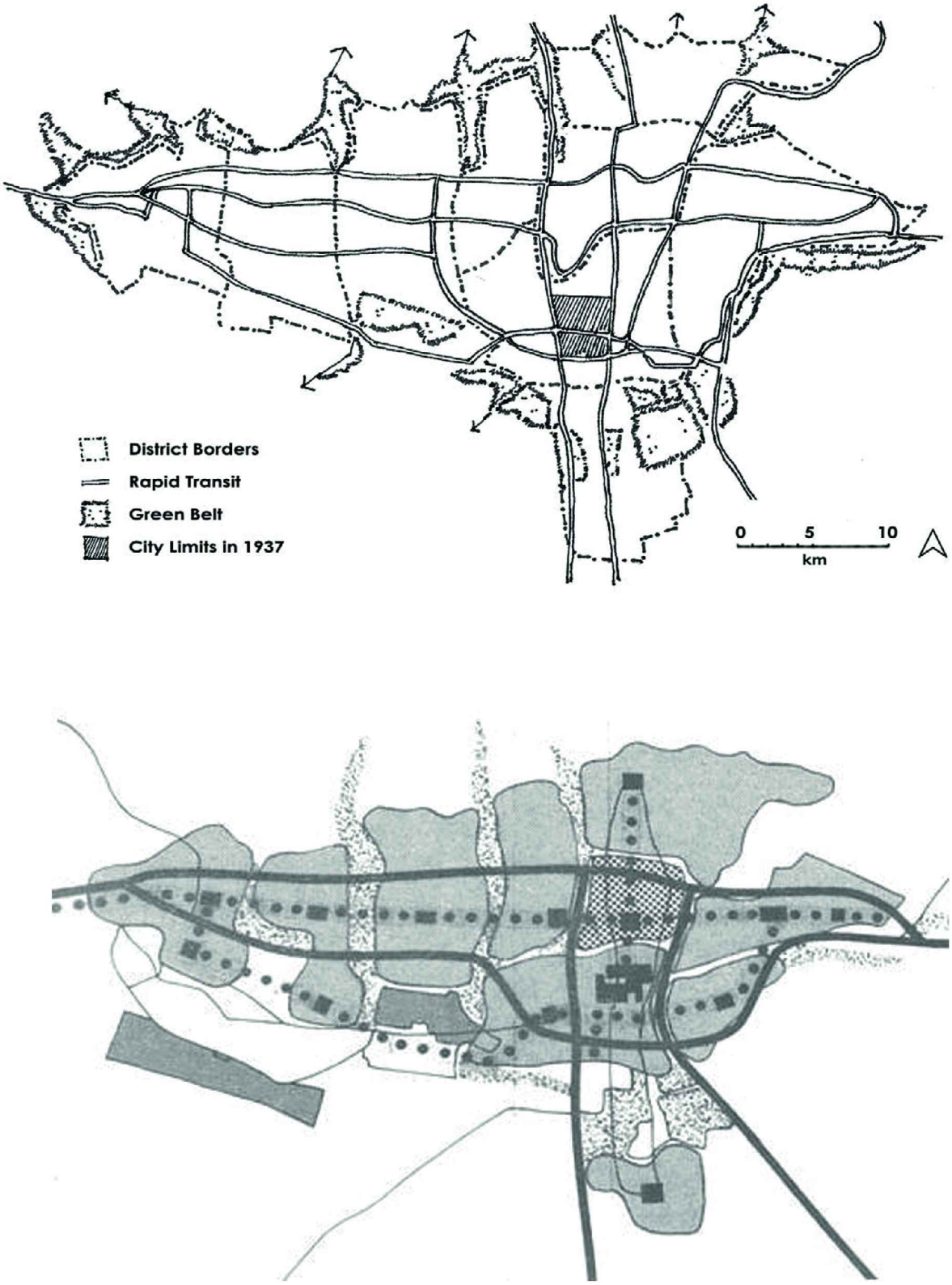


Figure 7.2:
Master Plan of Tehran prepared for Mohammad Reza Shah of Iran in 1968 from Victor Gruen Associate (Emami, 2011; Zad, 2013).

the fall of the Pahlavi monarchy in 1979 (Fig. 8.2). Other projects like planning Metro System in Tehran by French engineers, planning a new airport with United States assistance, the Aryamehr Stadium as the largest in Asia (with almost 100,000 seats) and the ambitious new town or housing projects were commenced with revenue of oil or loaned from abroad (Ibid.).

Along with physical changes, one important factor that intensified the situations was the height rural-urban migration that was mainly caused, among others, by the Mohammad Reza Shah's land reforms of the 1960's (Shatifi and Murayama, 2013). The land reforms had a serious impact on Tehran and led to rapid growth in Tehran's population. That released large numbers of rural populations from agriculture's occupation and flowed farmers from villages to cities to achieve opportunities that the capital had to offer. Although similar acts had been tried in other Muslims country like Egypt land distribution programs during Nasir (1952–61) or in Syria, Iraq in the late 1950s and 1960s, but ulama in these cities were not close enough to the small and middle landowners to start any opposition of their own (Ghazzal, 2008). But in Iran, the Pahlavi shahs underestimated the importance of relations between ulama and small to medium land ownership (i.e., they had a close relationship) who mostly bring up with rural landowners, as well as the clergy's own reliance on land ownership (Ghazzal, 2008) that all resulted in the Islamic revolution by the leadership of Imam Khomeini, in 1978/9, and the fall down of 2,500 years of monarchy in Iran (Ibid.). In other words, strong Islamic movements in Iran arise with revolution while other countries like Egypt[7] had a movement experience without a revolution (Bayat, 1998). This mutuality evoked from three major factors as "differing political and social statuses of the clergy, differences in the ways that Islam was articulated and practiced, and finally different degrees of political control in the two countries" (Ibid.).

After the revolution speech, by Imam Khomeini, where he mentioned that all Tehrani had the right to have a house, the city limits, set by the Tehran Comprehensive Plan, were ignored, which encouraged overnight, small houses' building on the outskirts of the city (Shahshahani, 2003). By the mid-1970s, Tehran had some fifty slums and squatter communities, although the overall scale of those settlements was smaller than their counterparts in such Third World countries as Egypt, Pakistan, Turkey, the

[7] Egypt' Islamist revival began in the 1920 and evoked from a penetrant social movement which increased rapidly after the early 1970s, reaching its peak in the early 1990s (Bayat, 1998).

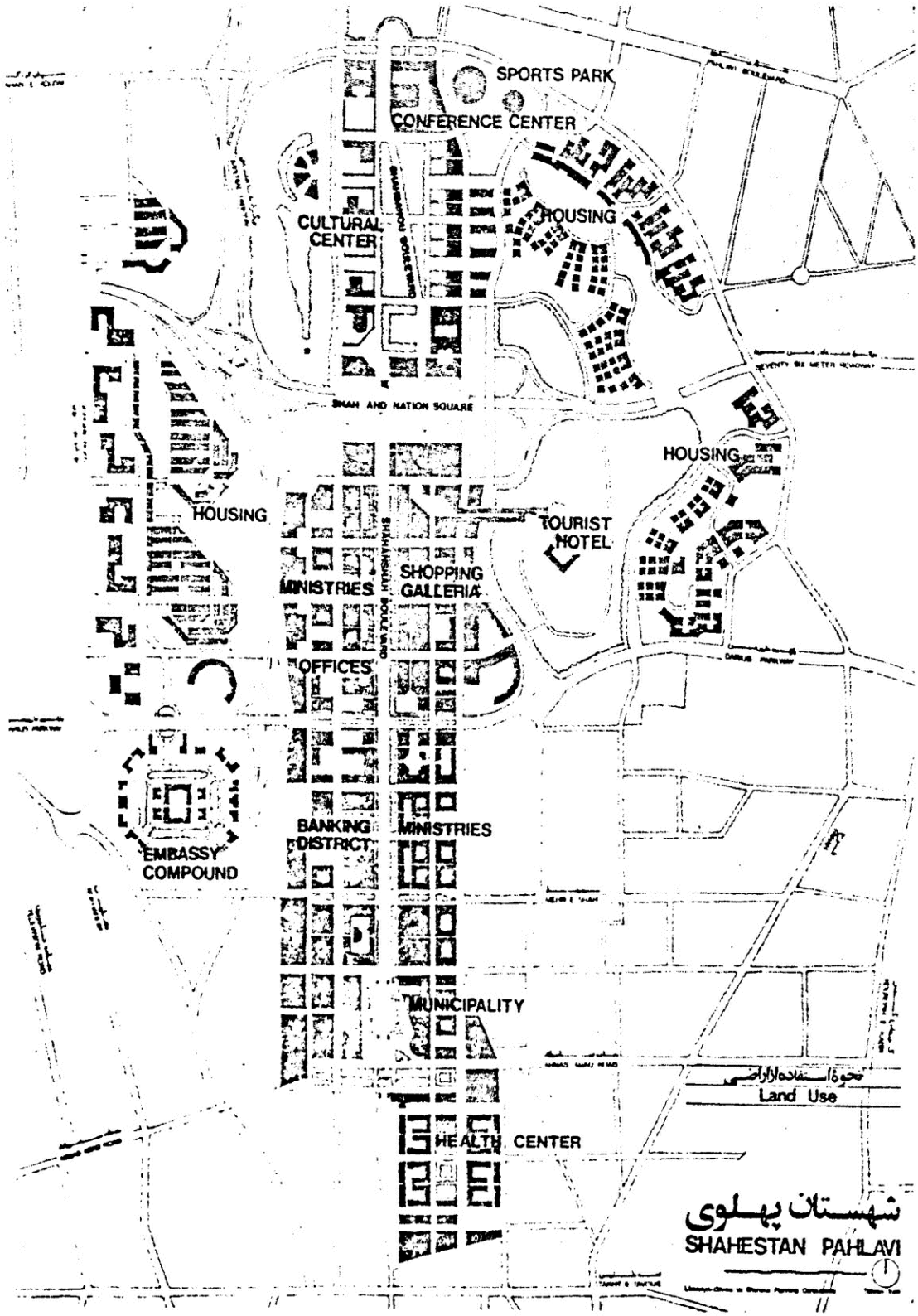


Figure 8.2:
Shahestan Pahlavi Master Plan 1976(Mazumdar, 1981)

Philippines, or the Latin American nations (Bayat, 1997). Generally, Informal settlements in Iran have been different from those in other developing nations since their total size is smaller, and the quality of housing better (Ibid.). Moreover, the regulation of 1989 by the government, after Iran-Iraq war, mentioned that different parts of the government needed to be economically self-sufficient. This policy encouraged the city hall to allow and then impose fine for illegal buildings and subsequently the growth of the city (Shahshahani, 2003). The city today has a population of fifteen million inhabitants and an area of 7,000 square miles that makes Tehran as one of the largest, most dynamic and most paradoxical urban density in the world (Grigor, 2016). Tehran urban growth still remains a crucial problem to solve with respect to both architecture and power politics.

The demographic explosion and rapid growth of the city in recent years are an essential feature of the human geography for many other countries and cities in the Muslim and non-Muslim world as well. For example, in Morocco, the percentage of urban population, compared to the total population has steadily increased from the end of the First World War. In the 1960 census listed eight cities as having actually more than 100,000 inhabitants, with Casablanca in the lead with about one million, while fifty years ago, there was no single city in Morocco of more than 100,000 population (Awad, 1964). The lower rate of growth in traditional old towns than the demographic growth of the country compromises more migration of a part of their population, whereas modern coastal towns meet highest rates of growth in the country (Ibid.). Since the Second World War, rate of rural-urban flow increased and immigrants show greater preference for settling in major cities, especially Casablanca, in general, and its industrial suburbs in particular (Ibid.). This invasion of the population made the traditional towns (Medina) overpopulated, usually without sanitation and mechanical means of communication (Awad, 1964; Degez, 1961). Also, many of the new arrivals have settled in vacant lots, due to lack of housing, where they have built shaky shelters made of waste timber or with walls of petrol cans arranged (Ibid.).

However, the discussions about modernization, especially in Iran, after the Islamic revolution, turn to the comparison studies across developing cities instead of analyzing the modernization in one city and without benchmarking based on urban practices in developed countries. Although there are some criticisms about this approach like differences of historical background among different cities (Hadianpour, 2013), some

scholars like Sintusingha & Mirgholami (2013) based on their article: *Parallel modernization and self-colonization; Urban evolution and practices in Bangkok and Tehran,* believe that the comparison between developing countries, can show to what extent the processes of modernization in the Islamic world, especially Iran, today can be equated with processes in other developing countries with other cultural and religious frameworks. This indicates that probably the religious dimension as a factor to shape of urban structure is not as much an important factor as in the traditional cities.

Chapter III

Kermanshah city as the so-called Islamic city and emergence of modernization

Historical background of Kermanshah; from pre- Islamic era to the beginning of 20th century

The approach of this research is tracing the more diffused process of change and transformation in the Iranian cities due to urban modernization process. To achieve this goal the small and middle-size or in the other word second order cities like Kermanshah, which were neither industrial centers nor the objectives of social-political desires by governments, could be served as a worthy benchmark. Since the procedure of this study has a historical and chronological viewpoint, so the time sequence of available documents that as the main problem for the most of Middle Eastern cities is another important indicator to select city like Kermanshah. Kermanshah city is one of the significant historical second order cities in Iran and the capital of Kermanshah province. The city considered as a second order capital region because neither has experienced fast modernization and industrialization process like the major cities in the country, nor is a religious capital, like Mashhad, or prime historical city like Isfahan.

Kermanshah is an old city in the west of Iran on the road from Tehran to Baghdad. It is the regional capital of the central Zagros Mountains, especially of southern Kurdistan and an important strategic point in the heart of a mountainous area dominated by nomads. The town and province of Kermanshah (or Kermānšāhān) are located on the strategic travel route, “Khorasan Highway” or “Silk road,” linking Mesopotamia to the Iranian plateau (Fig. 1.3). This route was militarily and commercially important (Calmard, 2015). The city is on the way for the Muslims pilgrim route to Karbala (shrine of Hussein, who is the prophet’s grandchild) in Iraq that makes it as the first large city in Persia after the climb from Mesopotamian plains, through the Zagros Mountain, and an important trading center in the Persia (Clarke &Clark, 1969).

The exact origins of Kermanshah itself, as a town or province, are difficult to designate. But more reliable debate is that the city was built by Sassanid king Bahram IV (388-399 A.D.). However, it is notable that based on Yaqut al-Hamawi [8](1861) the founding of the city refers to Kobad I son of Piruz (488-531 A.D.) (as cited in Khadivi, 2000). On the other side Jackson (1906) identified the city much older than these dates were

[8] Yaqut ibn 'Abd Allah al-Hamawi (1861). *Charles Barbier de Meynard* , ed. *Dictionnaire géographique, historique et littéraire de la Perse et des contrées adjacentes, extrait du "Mo'djem el-Bouldan" de Yaquout, et complété à l'aide de documents arabes et persans pour la plupart inédits*.

occupied probably the site of ancient Kambadene, mentioned as one of the “Parthian Stations” by Isidorus of Charax (Jackson, 1906).

Figure 1.3: The ancient trade routes and the situation of Kermanshah (Habibi, 1999)

In Sassanid era the original town probably was situated north of the present site, on the other side of Qarasu river nearby to the Tag-e-Bostan, ‘The arch of the garden’ (Aubin, 1908). Apart from these discussions over the time the city boasts such well-preserved ancient relics as the symbol of its historical value, Taq-e-Bostan, with its reliefs covering the Median, Achaemenid and Sassanian periods.

After the Arab invasion of Iran they conquered Kermanshah in 641 A.D. and eventually their victory led to the end of Sassanid Empire in 651 A.D. and replaced by Arab Caliphates and Islamic religious in Iran. It was during this period that the site of Kermanshah moved from Tagh-e-Bostan to the hill On the other side of Qarasu river but close to the river which stands up in the north-west of the current modern town (Aubin, 1908). At this time the name of Kermanshah was replaced temporarily by the Arab name Qirmisin or Qarmasin. So Qirmisin with Hamadan, Esfahan and Rai became of the four main cities of the province of the Jibal where the caliph Harun-al-Rashid, Abbasid dynasty, held his summer court there like his Sassanid ancestors (Clarke&Clark, 1969).

For a second time the Kermanshah city was demolished severely by Mongols in the following year after their invasion of Iran in 1219 A.D.. So the Arab site was abandoned next site further south was settled. In the post-Mongol era, Kermanshah became increasingly significant as a strategic fortified zone between the Safavid and Ottoman empires. It was particularly crucial for Safavid efforts in Iraq and for Ottoman threats to Azerbaijan and also to prevent the Ottoman advance to the Persia. But during the Turco- Persian wars, the city was captured by Turks more than once. Eventually, in 18th century Nāder-qoli Beg Afšār, the future Nāder Shah, the king in Afsharid dynasty between 1736 and1747, assembled an army in Hamadan and besieged Kermanshah, which surrendered to him in late 1732 and remained part of Iranian territory thereafter. To consolidate control over the area and support any future campaigns in Ottoman Iraq, Nāder Shah ordered the construction of a fortress (*qalʿa*) about one farsang (equal 6 km) west of Kermanshah, well stocked with arms and munitions, including siege artillery and a cannon foundry (Calmard, 2015; Clarke&Clark, 1969). But this region is now a part of the city, due to widespread city growth, and Elahieh as a new suburb area locates on this area.

Geographical and Frontier position of the City puts it always as a military target over the history which led to several distractions. After each time of destructions the city had been restored not too far away from its previous location. But the last time it happened during the Zandiyeh dynasty, an Iranian dynasty by Karim Khan Zand from 1750 to 1794, when the city moved from the Qarasu riverside to Abshuran riverside and was formed by the combination of three villages Faiz-Abad, Chonani and Barzeh- Damagh, these villages still are the oldest neighborhoods in the city (Borumand, 2009; Khadivi, 2000). The oldest city monuments like a Friday mosque and Feiz Abad mosque belong to this period.

Kermanshah became an important city with several developments that were completed during the Qajar dynasty (1785 to 1925) like several Mosques, public bathes, squares, bāzār s, barracks… and also as a Governmental Center in the west of Iran (Khadivi, 2000). Based on the memories of some travel writers in the 19th century late the city wall was going to be ruined and the moat was going to be filled up from 1890 (Curzon, 1892; Clarke &Clark, 1969). At the beginning of the 20th century Kermanshah remained as a significant Iranian city and the capital of an important province, Kermanshahan (Karimi, 1998).

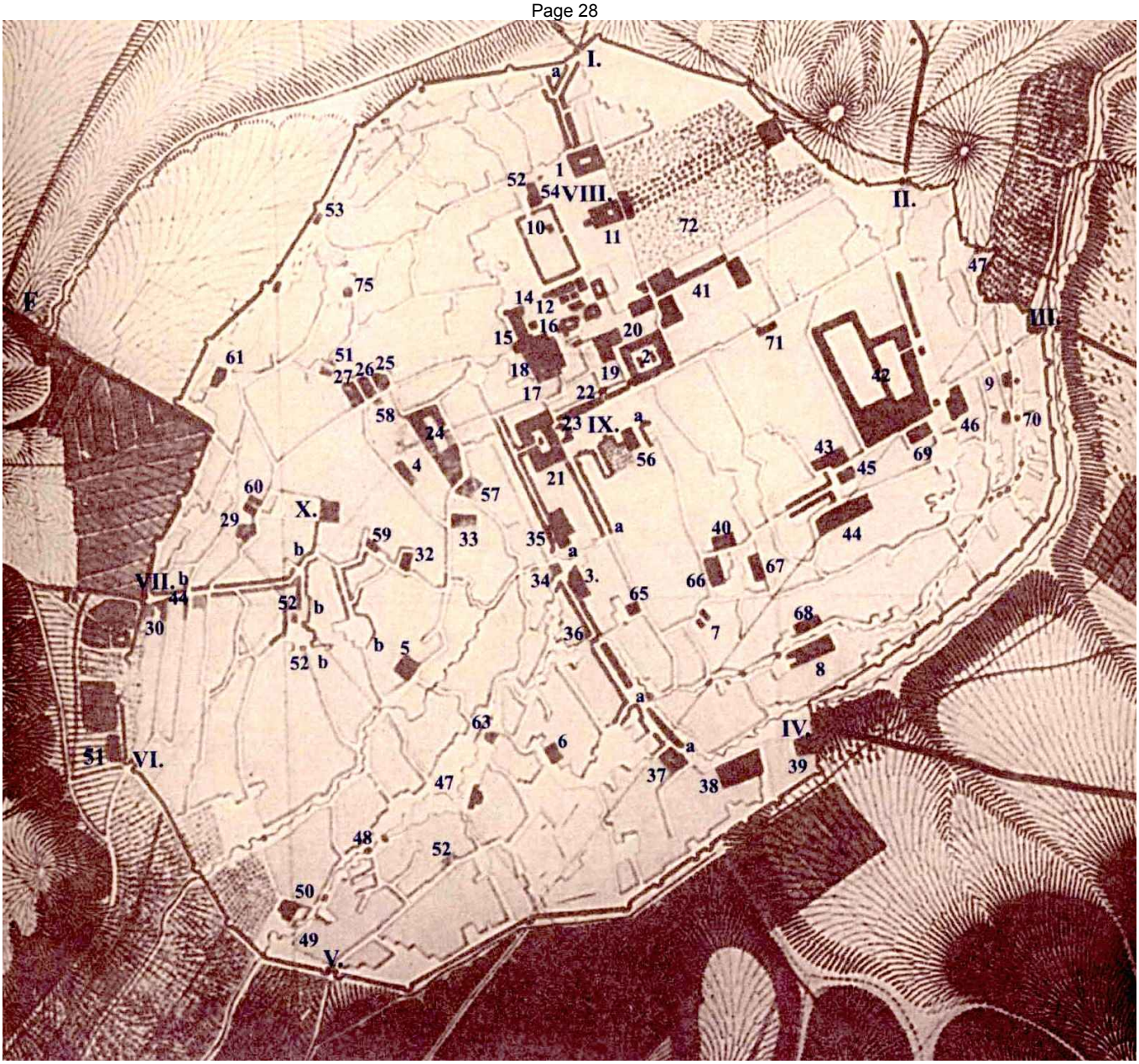
Traditional city and its urban structure

The traditional city of Kermanshah like the others traditional cities in Iran was prototypical of most Iranian cities, typical form of the traditional structure as so-called Islamic city, consisted of major elements bāzār , citadel (Arq), governor palace, Friday mosque (Masjid-I Jumih or Jāmih), public baths (hammāms), caravansaries and residential neighborhoods (mahalla) with their hierarchical network of twisting alleys (Kūchih) linking the houses to the city center via the call-de-sacs to the neighborhood alleys and the main streets (Clarke &Clark, 1969; Clarke&Costello, 1973) (Fig. 2.3). Despite some serious interruptions and fluctuations of the most of the Iranian cities, Kermanshah also is not an exception, over the time the main concepts of city building didn't change drastically before (Karimi, 1998). The organization of the cities was formed based on the trade network (bāzār), historical events (the role of political leaders historically), environmental (following underground water routes and rivers) and Socio-political and religion (Islam) (Bonine, 1979; Kheirabadi, 2000; Sintusingha & Mirgholami, 2013). Based on these factors, Persian cities were located where they could have the most benefits of natural endowments and Kermanshah also followed this process. The location of the Kermanshah has been admired by many travelers, because of its natural beauty and fine environment (Lockhart, 1960).

Kermanshah has been surrounded by mountains, along the slopes of the Zagros Mountain chain in the north and south, providing the good situation of these fertile plains in the east and west as well as a dependable supply of surface water like Qarasū and Ab-Shūran Rivers for the city (Fig. 3.3 & Fig. 4.3). This geographical situation made roughness in topography and urban structure for the city. Joseph Benjamin, a Jewish traveler of the mid-19th century, described Kermanshah as a large and fortified city surrounded by a chain of mountains, and carried "a considerable trade," as well as a "costly carpets" industry (Pirnazar, 2014).

The most of traditions in old Kermanshah were established by the governors during Qajar dynasty. During government of Mohammad Ali Mirza-Dowlatshah,[9] between 1809 to 1821, the city was flourished and Improved with development of bāzār and construction of many mosques, public baths, court (divan-khanih), caravansaries, palaces like Dar-al-Hokūmih (government administration palace) and different

[9] He was the first son of Fath-Ali Shah, the second Qajar king of Persia.



Legend:

- **From I. to VII. Gates (darvasa)**
- **From 1. to 9. religious elements like mosques(masjid) and religious school(madrasa)**
- **From 34. to 43. and 24. to 29. caravansaries**
- **From 10. to 14. complex of citadel**
- **From 54. to 74. public bath**
- **From 51. and 53. storage for ice**

Figure 2.3:
Kermanshah in 1850s as prototypical of so-called Islamic city (Mahyar, 1999).

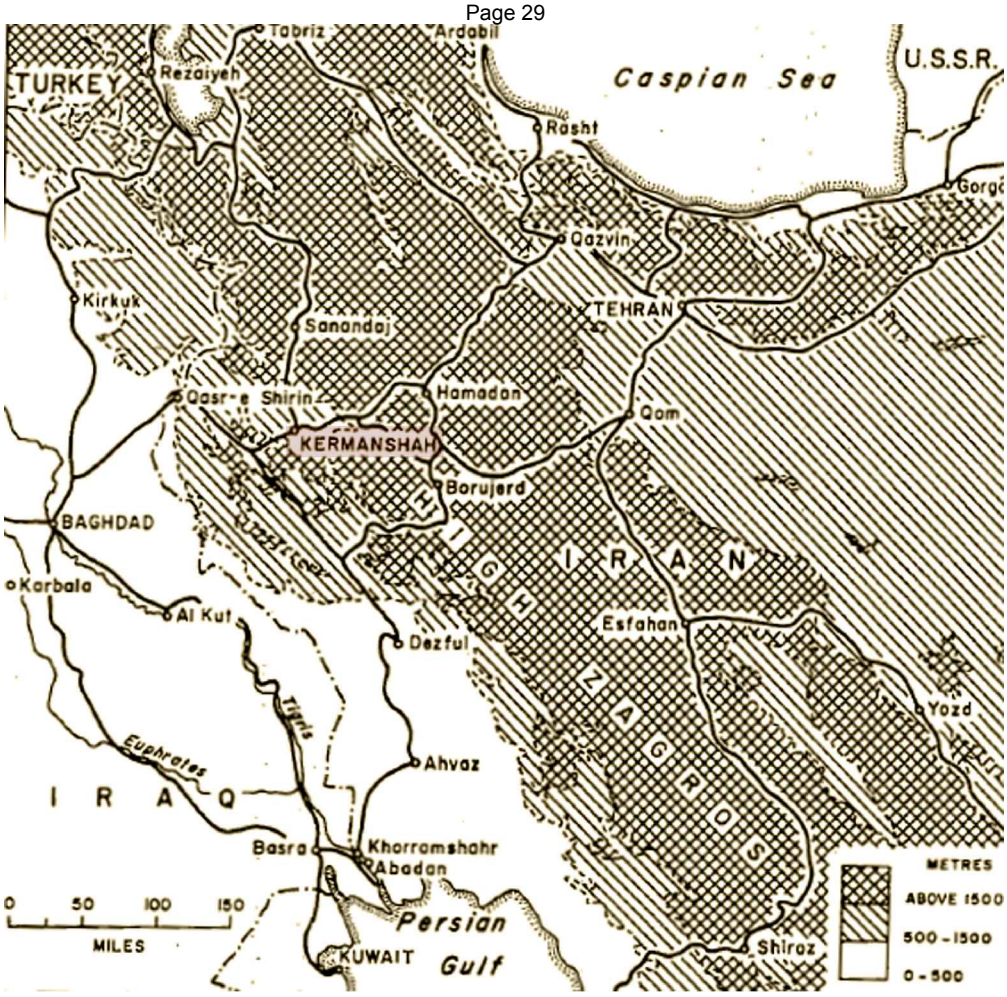


Figure 3.3:
The geographical situation of Kermanshah in Zagros mountains as the strategic location between Tehran and Iraq (Clarke &Clark, 1969).

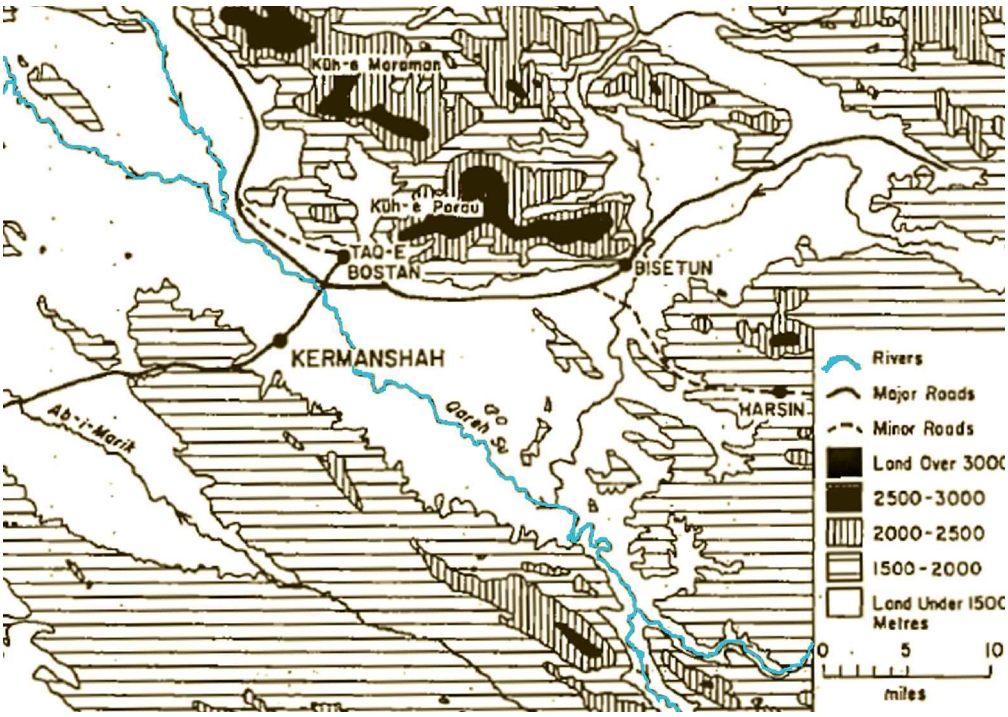


Figure 4.3:
The relief and supply surface water, Qarasu river,in Kermanshah (Clarke &Clark, 1969).

buildings. The repairmen and restoration of the city wall and construction of four gates (darvāsa)[10] for it, include two main gates were named darvāsa Tehran, darvāsa Shah-I Najaf and two subsidiary darvāsa (Khadivi, 2000). Nowadays, except of Bāzār and some Mosques nothing remains from his effort. There is a general map of Kermanshah city and its situation in its region from 1840s by French architect Pascal Coste and painter Eugene Flandin which still shows four gates of the city (Fig. 5.3). But another map of 1850s with more detail was made by Cherikof colonel and shows Kermanshah with seven gates (darvāsa) as well as six neighborhoods (Mahalla), nine mosques (masjid) and some religious school (madrasa), forty caravansaries and mansions like barrack, forum, Gunpowder House and etc. (refer to Fig. 2.3). The number of caravansaries is confirmation of high traffic travelling in the city which includes merchants and traders. As Cherikof colonel the city was located on the postal way through Iran to Turkey and also has a key role in agricultural trade with Iraq in the 1850s (Mahyar, 1999).

Emāmqoli Mirzā ʿEmād-al-Dawla (1834-75, the sixth son of Dawlatšāh) was the only governor After Ali Mirza, during monarchy of Nāṣer-al-Din Shah Qajar, who continued city improvement in Kermanshah. Some part of the bāzār and Emād-al-Dawla mosque are the remained historical monuments of his governorship, but some of these beautiful buildings were destroyed under Pahlavi modernization like Masoudieh mansion and Emādieh palace (Keshavarz 2003) (Fig. 6.3, Fig. 7.3 & Fig. 8.3).

After monarchy of Nāṣer-al-Din Shah and during the reign of Mozaffar ad-Din Shah Qajar (1896 and 1907) the Russian and British consulates were established in the city by the early 20th century (Borumand, 2009; Calmard, 2015). It showed the importance strategic and political role of the city at that time where could provide a pivotal station on their communication lines to trade with Caspian Sea and Asia, especially between Britain with India (Ibid.). So this time could be the beginning of new practicability for motor traffic revitalized, as one of the main elements to force urban modernization, in Kermanshah as a trade center. The American scholars Jackson (1906) gives a general picture of a city and the city wall in 1903 at the beginning of the 20th century:

[10] These four gates can be seen in Fig.4.

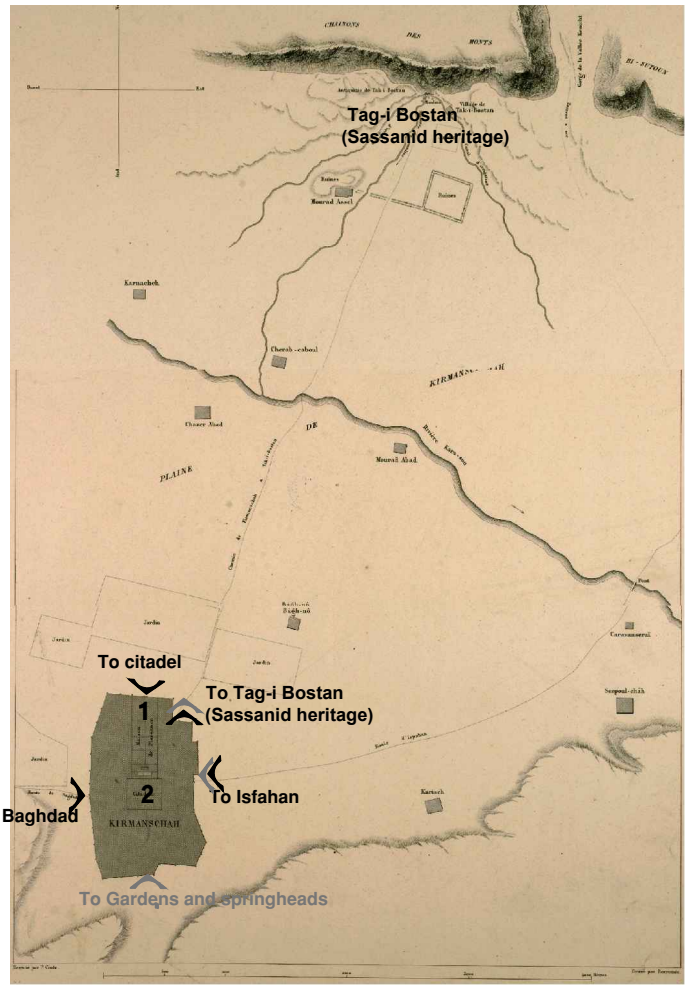


Figure 5.3:
General situation map of old Kermanshah in 1840s (Flandin &Coste, 1840).

1. Governor palace with typical Persian garden (four gardens or Chahar-Bagh

2. Citadel

The four gates based on Coste & Flandin map

The four gates based on (Ajir, 1973)

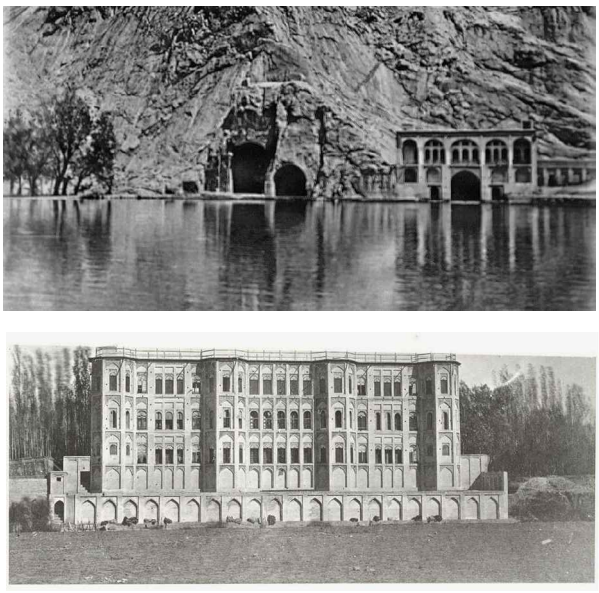


Figure 6.3:
Above; The Masoudieh mansion in qajar dynasty near to Sassanid heritage, Tag-e Bostan (Khadivi, 2000; De Morgan, 1900).

Figure 7.3:
Bottom; Emādieh palace in Qajar dynasty (Kermanshah Cultural Heritage Administration).

> “The town enjoys the advantages of a busy trade, especially on commission, and its population is now reported at fully sixty thousand, the inhabitants being largely of Kurdish blood, besides Persians, Turks, some Jews, and a few Christians… In area the extent of the town is considerable, as it measures about four miles in circumference, and its circuit was formerly enclosed by walls, although these have now disappeared, except that one or two of the towers have been built into the walls of dwellings, and traces of the moat are visible where it has not been completely filled up. The five city gates have been preserved in name at least, as their names are still employed to designate the several quarters where the main roads enter the town… There are a number of public squares and buildings… Among them may be mentioned the Governor's Palace, whose high towers overlook the top meydān, or ' Artillery Square.' In the midst of this square is a reservoir, and around the plaza are shops adjoining the bāzār s. The arsenal itself is behind the palace, and to the south is another square called Meydān-I Sarbaz Khānih, or ' Barrack Square,' because the soldiers' quarters are built around it and it serves as a parade-ground. There are several mosques in different parts of the city… a bank, custom-house, post and telegraph office, and about thirty baths make up the rest of the quota of public buildings… the city is well supplied with caravanserais, and they are usually crowded with merchants or with pilgrims on their way to and from Karbala” (Jackson, 1906).

Eventually Development of the historical context of Kermanshah terminated at the end of Qajar and first of the Pahlavi dynasty, it had 230 hectares, involving to be as a new and modern context of the city. Therefore we want to describe the key structural elements which gave Kermanshah much of its character as a so-called Islamic city for serving as a background versus the changes of the 20th century: [11]

[11] Although the wall and gates, citadel and religious component are also another important structural element of so-called Islamic city, I have chosen not to include these in this discussion because wall, gates and citadel were destroyed totally over the time and also general structure of religious components despite replacement of some old buildings with new buildings like Friday mosque it was, and remains, little affected by modernization of of Reza Shah So I will suffice to short introduce of them besides other descriptions in the texts base on travel writers.

A. Streets networks (Kūchih)

The streets and their network are the first viewed within the whole context of traditional Iranian-cities like other so-called Islamic cities since they work as an essential component to form integral part of routes for connecting different localities (Hakim, 1986). In Kermanshah this thoroughfares network reflects the nature of city growth (Clarke &Clark, 1969). A mature traditional Islamic city was characterized by a network of widespread thoroughfares, connecting the main gates to the major religious and commercial core (Friday mosque and Bāzār) of the city (Hakim, 1986). The narrow alleys, in the traditional Iranian-Islamic city theses (Kūchih in Persian), provide a complex pattern of access between residences and businesses. They were bordered on both sides by the high walls of residential compounds, uniform in color and texture and usually made of mud mixed with straw. The walls were windowless, with only an occasional door providing an entrance to the compound (Falahat, 2014). Some alleys could be quite lengthy, starting from the bāzār and continuing through residential context, occasionally joined or crossed by other alleys, until reaching at city gate or ended at the city wall, but more commonly, the Kūchih ended at a neighborhood center where an open space containing a few shops and public buildings (Falahat, 2014; Kheirabadi, 2000). Therefore, it is not surprising that “the houses in Kermanshah were separated from the streets by high walls and legislator how from the outside any images would not occur to viewers about home inside” (Blücher, 1949) (Fig. 9.3).

The narrow and variable width alleys in the traditional city of Kermanshah are often steeply sloping or even stopped and in the vicinity of the bāzār are generally crowded and most of them are quite impracticable for motor traffic (Clarke &Clark, 1969) (Fig. 10.3). The prevailing viewpoint is that the organic and the irregular plan of traditional neighborhoods is universal in the Muslim world (English, 1973). For instance the old city of Kermanshah is composed of "winding alleyways, known as Kūchihs in Persian and numerous cul-de-sacs” (Clarke &Clark, 1969). As mentioned Grothe (1910) Kermanshah had too narrow alleys and there are just two main streets, one in the North - south and the other in the west-east directions, that carriage can barely pass by them. This narrow and winding structure provides exclusive situation to use and control of alleys for their residents, which led to more security and Confidentiality of neighborhood (Abazari&Gholipoor, 2013). “The structure of the central complex in old

Figure 8.3:
Emād-al-Dawla mosque in bazaar complex from Qajar dynasty(by Author).

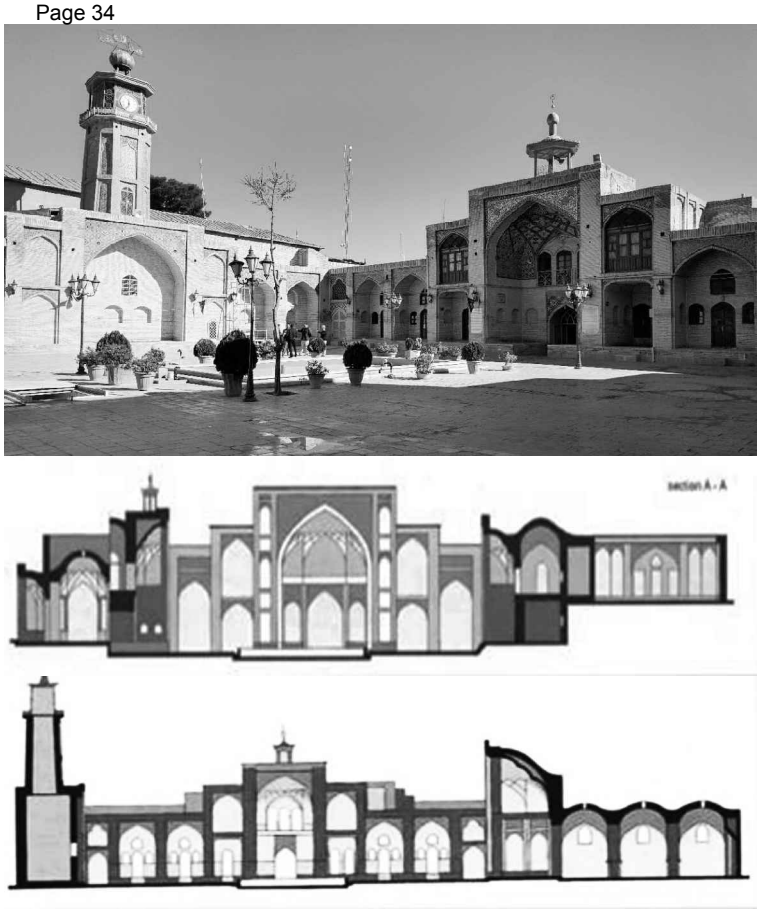


Figure 9.3:
The windowless walls with occasional doors both sides narrow alleys (by Author).

Figure 10.3:
The topography of region led to stepped and sloping accessebility(by Author).

Kermanshah is one the closest examples to the concept of a 'city spine' in an organic system “ (Karimi, 1998).

Although the development pattern of the traditional Iranian city was organic, it followed a hierarchical principle of organization, ranging from the totally public to the almost exclusively private street. These hierarchical principles include three general levels of streets with hierarchy of traffic network: gozar or ma'aber or khiaban (artery or pathway), Kūchih (alley) and bombast (cul-de-sac) (Fig. 11.3). Some Kūchih coming from bāzār wider than others; a gozar or ma'aber, usually, consisted some public spaces or religious buildings and public facilities. Often these gozars have been recognizable only by the density of pedestrians and facilities because as a favorable location for a commercial (Kheirabadi, 2000; Marefat, 1988). For example, in Kermanshah some gozars can be considered like Gozar-i Chonani, Gozar-i Jelo-Khan and Gozar-I bāzār -e-Feiz-Abad, where contains bāzārchih (some shops) and Takya or huseyniheh, as known Nayeb-Agha-Morad (Fig. 12.3).

A gozar sometime named as an influential person who once lived there, local hero or some important persons of the time. For example, in Kermanshah the Gozar-i Ali-Moradkhan was named as the fifth governor of the Zand dynasty in Iran and Gozari-i Motazed-Dowleh was named as the vizier of the Kermanshah province who later become a member of the first parliament (majles) of Persia and was given the title Motazed-Dowleh by a Qajar king (Abazari&Gholipoor, 2013; Kheirabadi, 2000; Soltani, 1994). Often gozars were considered as sociol-cultural, rather than purely physical, so frequented by an identified group of people and became a significant patog [meeting place] for them (Marefta, 1988).

Kūchihs, as secondary access routes, are narrow alleys between two and four meters and had the character of pedestrian thoroughfares. The houses are located directly along them, or connected with them by way of bonbasts. All bonbasts are cul-de-sac and narrow private alleys that leading to the entry of one or more houses. But the houses often opened into the typically a polygonal covered space that is named hashtī where located forthwith behind the entrance door contacted with the pathway. Therefore the hierarchical network model in the traditional Iranian city, and also Kermansh, includes five major elements: bāzār, gozar, Kūchih, bonbasts and hashtī (Kheirabadi, 2000; Marefat, 1988) (Fig. 13.3, Fig. 14.3, Fig. 15.3 & Fig. 16.3).

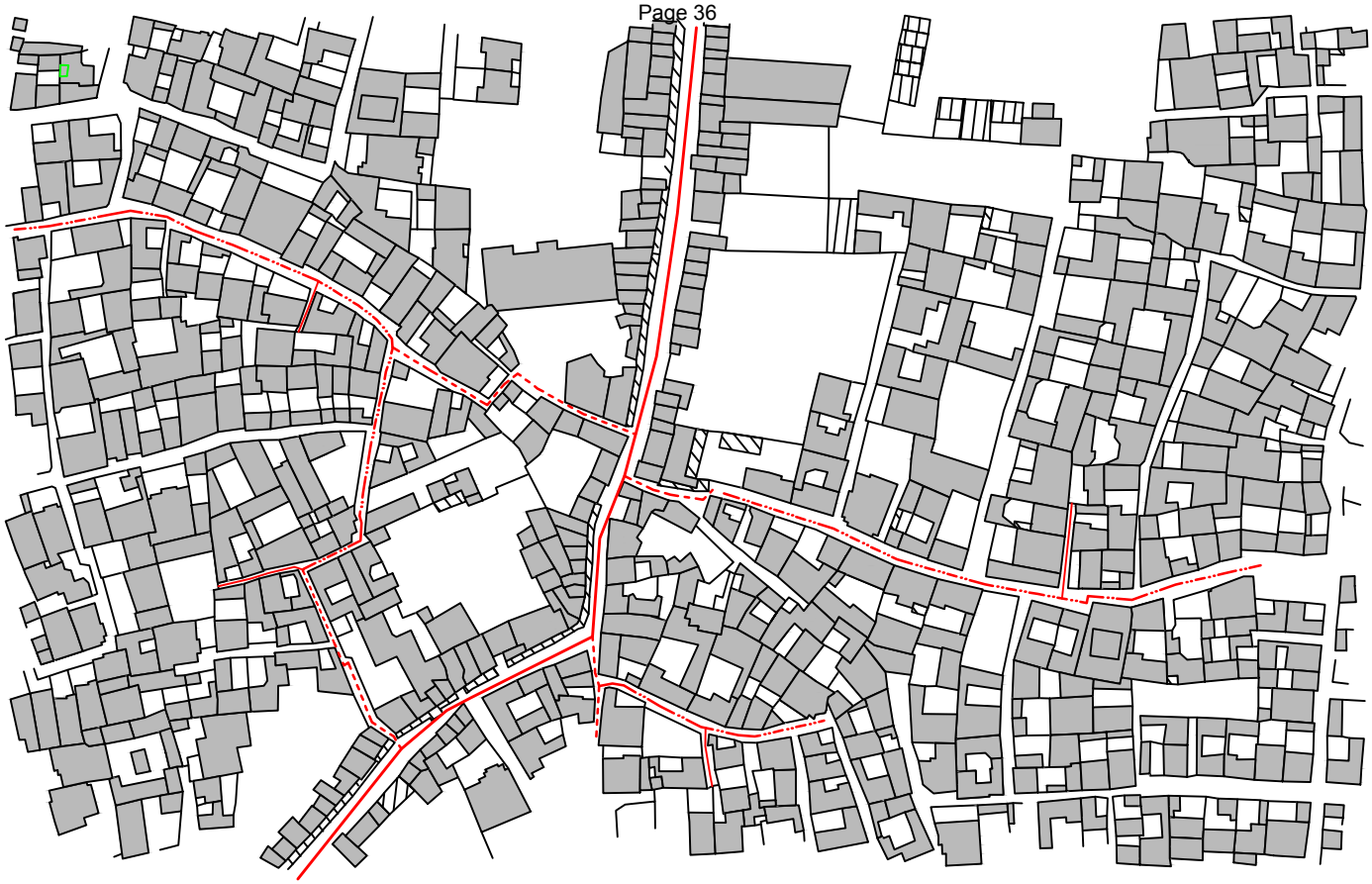


Figure 11.3:
The Hierarchy of accessibility in traditional network of streets in Kermanshah.
Estern part of bazaar as examplae:1.bazaar ____, 2. gozar - - - - -, 3.kuchih ....., 4.Bunbast ____(Map from Improvement and Renovation Organization of Kermanshah, 2002).

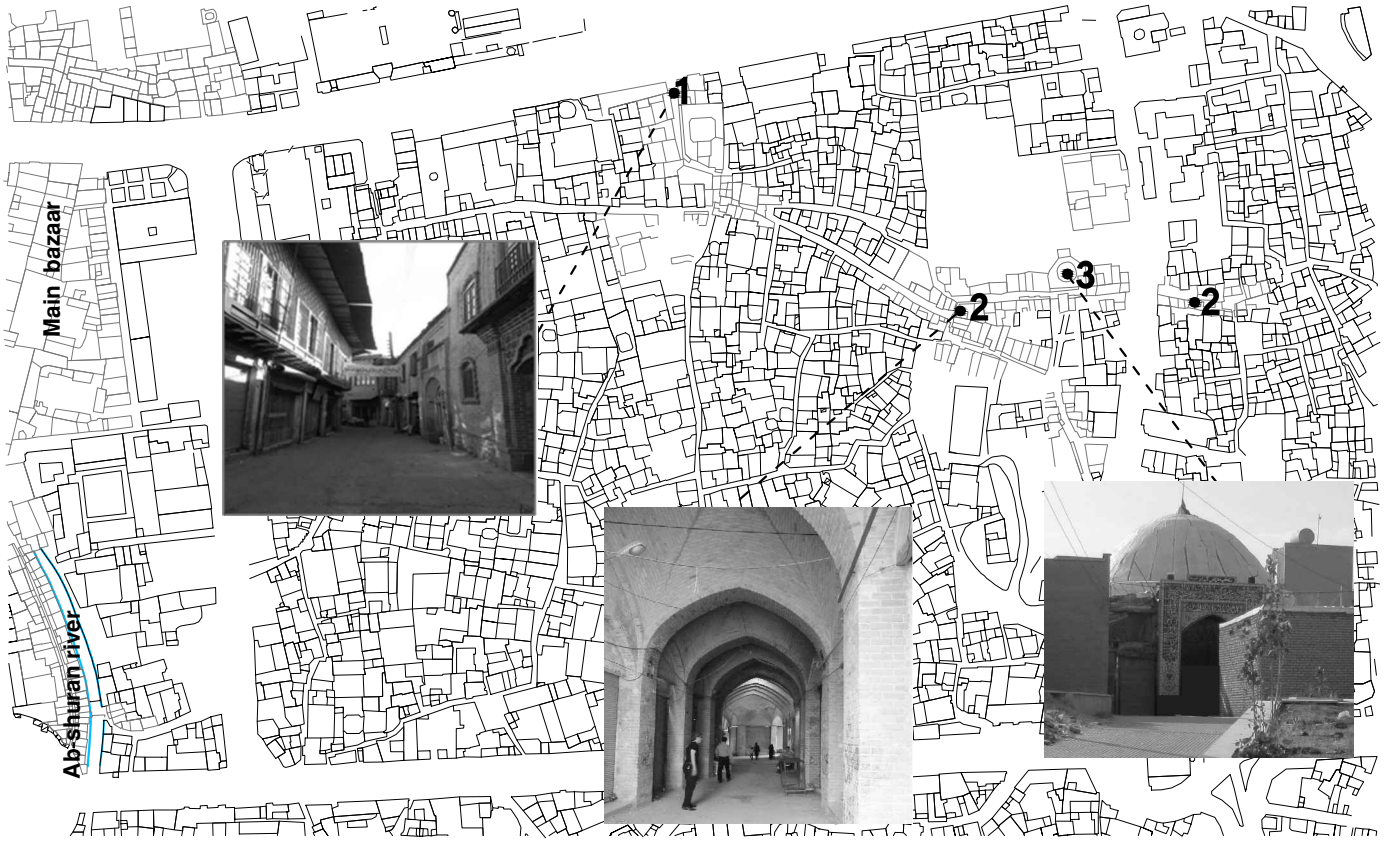


Figure 12.3:
Some examples for guzar as a traditional pathway with public or religious facilities.
The Feiz- Abad mahalla : 1.Guzar-i Jelo-Khan; 2. Guzar and Bazaar-i ; 3. Takaya (Map from Improvement and Renovation Organization of Kermanshah, 2002).

Figure 13.3:
Two examples of bunbast in historic context of Kermanshah (by Author).

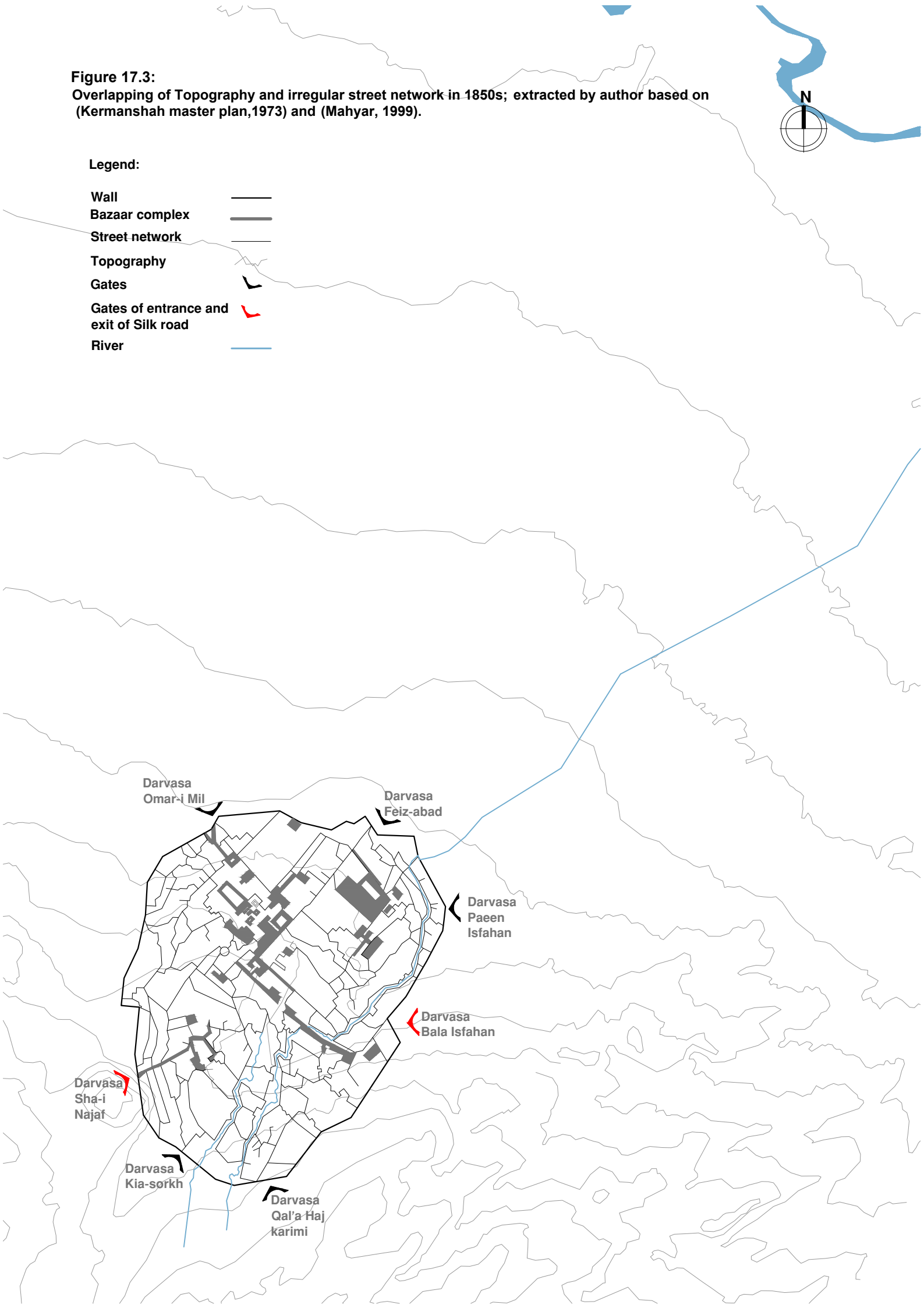
Figure 14.3:
Hashti; the last elements in hierarchy of traditional streets' network
(Kermanshah Cultural Heritage Administration).

Figure 15.3:
The view from hashti to sky
(Kermanshah Cultural Heritage Administration).

Figure 16.3:
The semi private space in front of the entrance.

• Sometimes instead of hashti two or three doors of houses open to the shared semi private space where directly connect traditional house with bunbast (cul-de-sac) or Kuchih(alley).

Figure 17.3:
Overlapping of Topography and irregular street network in 1850s; extracted by author based on (Kermanshah master plan,1973) and (Mahyar, 1999).



On the other hand, this street network in traditional cities of Iran involved many reasons to seem as chaotic pattern, like other so-called Islamic cities (English, 1966; Planhol, 1959). The proposed reasons are the lack of motor vehicles, need for protection and the Islamic concept of privacy, lack of defined status in Islamic law for city, incapability of civil authorities to impose a regular plan on the urban environment and lack of protection of encroachments of private houses upon already existed a regular network, which may have been inherited from antiquity (Falahat, 2014). However, these descriptions have not been totally accepted by some recent scholar of the Islamic city and the rationality of this system, from their point of view, has related to a combination of geometry, the realities of land ownership, topography and also water courses (e.g., Bonine 1979; Frieden and Mann 1971; Kheirabadi 2000).

In the historical context of Kermanshah where the topography is very irregular, due to geographical location in the Zagros Mountains area as well as numerous hills in the city the general slope is from south to the north, the streets of the traditional city follow the Slope of the terrain and direction that the topography allows. Hence, they do not follow any particular geometric orders and Bonine's theory (1979), relying on the traditional Iranian cities has a geometric pattern. The streets in the traditional city of Kermanshah do not have any clear geometric order and thus could not be called regular in its general sense (Fig. 17.3). Also the main water flow in the city, Ab- Shūran river were (and remain) a continuation of two major streams from two springhead (Sarab), which are named Sarab-i Ganbar and Sarab-i Saeed and they are following the general slope of the land too. The river is completely absorbed by urban grid and is concealed inside the fabric of the city. So, because of higher annual precipitation in this area and the proximity to irrigation canals, the protection against flood is important factors in the location of streets (Bonine, 1979; Kheirabadi, 2000).

B. Residential quarters (Mahalla)

Mahalla in Persian and Arabic means "a place" which incorporates in its definition a "sense of place" with which inhabitants can easily identify (Hakim, 1986; Marefat, 1988). The initial city of Kermanshah was consisted of joining three villages which are still the oldest mahallas in the city: Feiz-Abad, Barzeh-Demagh, Chonani (Borumand, 2009). After major development of bāzār during Dawlatšāh Qajar another Mahalla grew in the city that was named Allaf-Khānih that was placed in the most agricultural trade (Ibid.). Also based on descriptions of colonel Chericof about city in 1850s perhaps

another neighborhood can be considered, mahalla-i Tupkhana, where the main public buildings were located (Khadivi, 2000). This neighborhood included bāzār, citadel (Arq), Friday mosque (Masjid-i Jumih), court (Divan-khainh) (Fig. 18.3), Customs office, barrack or Sarbaz- khānih square (Fig. 19.3) and Sabzih Meydān[12] as a common and main square in Iranian cities (Fig. 20.3).[13] Thus, this mahalla included a smaller section of the residential context in comparing with others mahallas in the city (Borumand, 2009).

The Citadel (Arg-I Saltanati), of Tehran was isolated from other parts of the city by a wall and a moat, “like a city within a city” (Marefat, 1988). But in Kermanshah there was not any Impenetrable wall for isolated the citadel (Arq) from other parts (Abazari&Gholipoor, 2013). Generally, in various travelogues there are different information about the number of neighborhoods and also gates of the city, It might the traveler usually attributed the name of one part or pathway as a neighborhood (Khadivi, 2000) (Fig. 21.3). Moreover, unlike the Hara of Cairo, or the historical neighborhoods of Isfahan, the mahallas of Kermanshah had no walls around them like Tehran. Unfortunately, still there is not a map or information about clear boundaries of each Mahalla and existence maps for determining it. Actual boundaries are based on assumptions relying on travelogues description (Ibid.). Residential areas in traditional Iranian cities (like other so-called Islamic city) were segregated into different mahallas. Each mahalla included groups of residents with similar interest or common ethnic, religious or socio-cultural background for comfortable protection and greater security (Kheirabadi, 2000; Hakim, 1986). However, within the walled city of Kermanshah despite diverse ethnicity, lure-Turks- Kurds- Jewish- Christian, there is no historical evidence that different racial groups were physically separated as was common in many other so-called Islamic cities in the Middle East (Clarke&Costello, 1973; Khadivi, 2000). But this detachment took place on a minor scale in mahallas by determining their residential areas in a special alley (Kūchih) or part of mahalla (Borumand, 2009; Khadivi, 2000). For example, the Jewish and Christian people lived in the eastern part

[12] Sabzih Maydān in Kermanshah also was known as Maydān-i Tupkhana (artillery).

[13] The traditional Iranian cities contained at least one major maydān as a large public squares used as gathering place during major religious, political, or socio-cultural events. In many cities like Kermanshah this large maydān was the entrance to the major bazaar (Kheirabadi, 2000).

Figure 26:
The court , or Divan-Khanih, in traditional city during Qajar (From album of photographs by Ali Khan Vali. Qajar, http://nrs.harvard.edu).

Figure 27:
Barrack or maydan-i Sarbaz-khanih, one of the main square in traditional city, and governor's palace (Jackson, 1906).

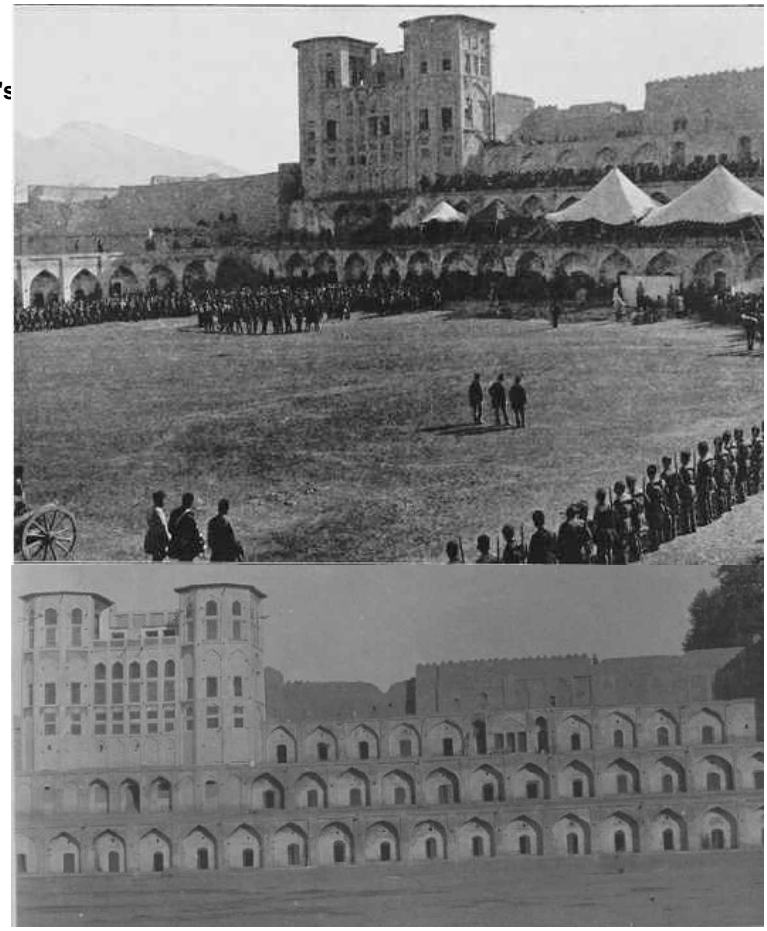


Figure 28:
The Sabzih Maydan, or maydan-i Tupkhana, the traditional square in the city; Photo by Hugo Grothe cited in Jalilvan(1990).

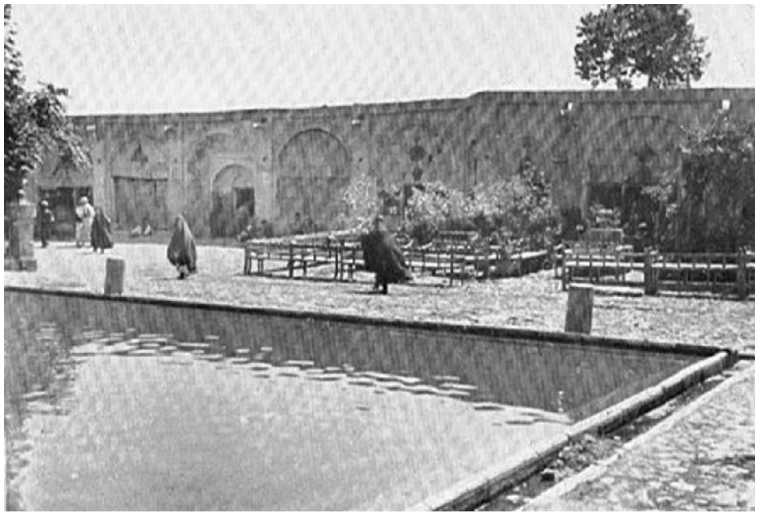
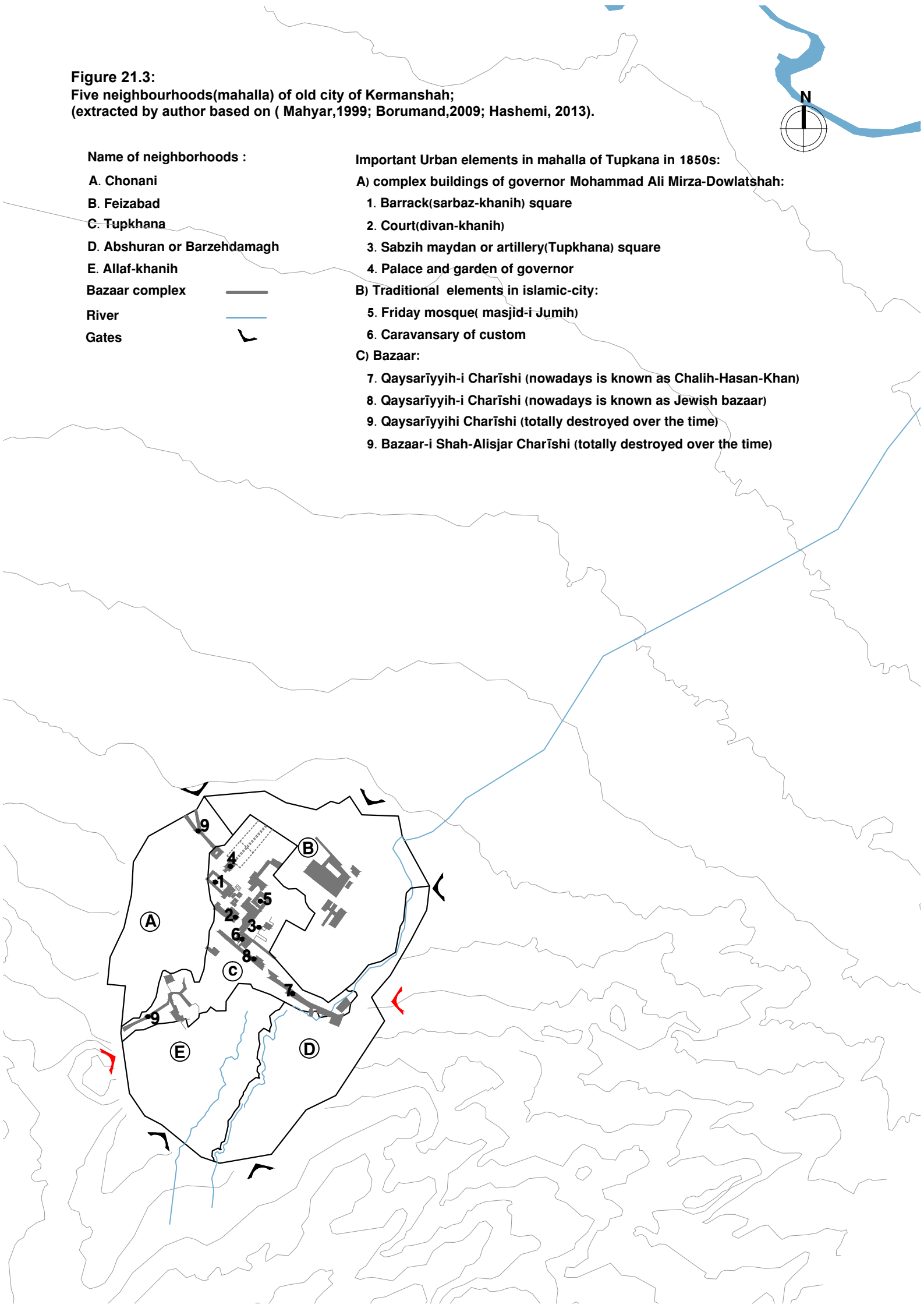


Figure 21.3:
Five neighbourhoods(mahalla) of old city of Kermanshah;
(extracted by author based on (Mahyar,1999; Borumand,2009; Hashemi, 2013).



of Mahalla-i Feiz-Abad and they formed an intensive society with special job categories like Jewelry, Goldsmith, silk weaving and medicine (Abazari&Gholipoor, 2013).

Feiz-Abad is the most important mahalla in the traditional city of Kermansha and it can be considered as a complete pattern for a traditional mahalla in a traditional city (Borumand, 2009). This neighborhood consisted of all urban elements as a traditional-Iranian mahalla: like Mosque, Takaya,[14] bāzār (bazar-i Feiz-Abad), hierarchal system of accessibility (gozar, Kūchih, bombast, hashtī), church, public traditional bath, zūr-khānih[15] (zur-khānih-i Ferdowsi), caravansary, Public bath (hammāms-i Nezam) and three main gates of the city were part of this neighborhood (Fig. 22.3). It should be mentioned the bāzār of Feiz-Abad was the first bāzār of the city[16] and focal point to formation of main bāzār (Borumand, 2009; Kermanshah Cultural Heritage administration, 2014). The proximity of this mahalla with the main core of the city and important urban elements as well as Ab-Shūran river made it as the habitat of rich and important people with the most beautiful houses in the city specially merchants of the bāzār. Moreover, Barze-Demagh neighborhood, like Feiz-Abad, due to proximity to the Ab-Shūran River had a good quality as a residential area so most of rich people as well as most of consulates were located in this Mahalla too.

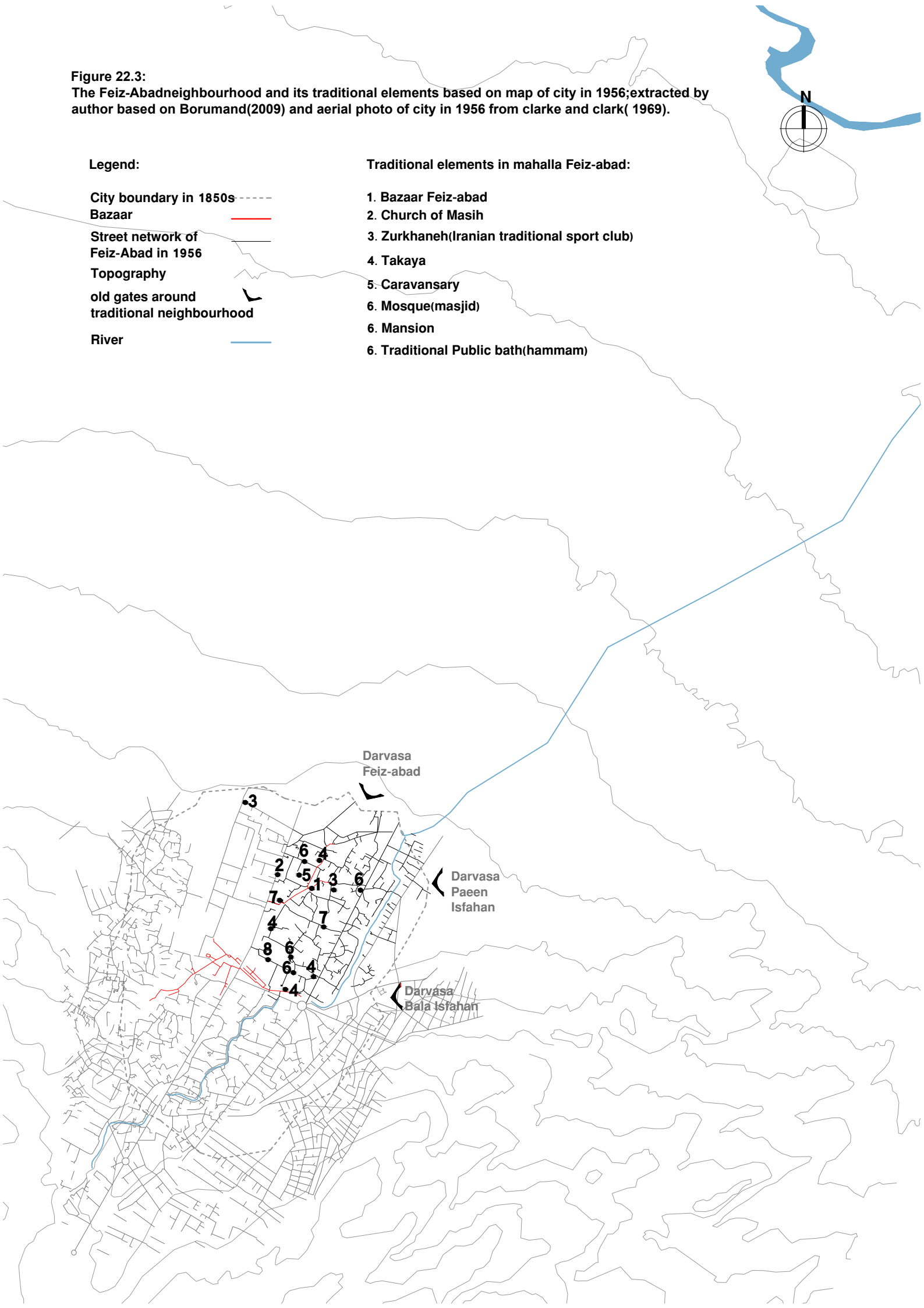
Generally, segregation of the city into mahallas not only served as a system of administration, control, taxation and other affairs, but also provides better water management in the city. Therefore, the municipal administration in the traditional city of Kermanshah based on its three major mahallas was “in the hands of three magistrates (kadkhuda), each of whom presides over one of the three wards into which the city is divided, and is accountable, through a number of higher officials, to the Governor of Kermanshah appointed by the Shah” (Jackson, 1906).

B.1. Traditional houses as the main elements in neighborhoods (mahallas)

Iranian-Islamic houses had a special and traditional layout with the fundamental features of design, predominant from the past, were altered and sometimes replaced with new modern spatial layouts. The traditional layout was structured around an open rectangular courtyard (hayāt), included a central pool of water (hawz) with a fountain in

[14] The theater as gathering spaces for religious, social and, later, political activities (Marefat, 1988).
[15] Varzesh Bastani; The traditional Iranian sport club for training soul and body (Kheirabadi, 2000).
[16] After moving people from Qarasū river to side of Ab-Shūran river during Zandieh dynasty in order to formation of the new city of Kermanshah.

Figure 22.3:
The Feiz-Abadneighbourhood and its traditional elements based on map of city in 1956;extracted by author based on Borumand(2009) and aerial photo of city in 1956 from clarke and clark(1969).



the middle, as the main source for the daily household's water supply, as well as gardens[17] surrounding it, with rooms arranged around two or more sides (Kheirabadi, 2000; Marefat, 1988) (Fig. 23.3).

The tall surrounding wall with very few penetrations to courtyard provided privacy for the residents from public life in the street. The concept of privacy and hospitality that was dominated by the social interaction control across different sexes had a key impact on formation of traditional Iranian-Islamic housing (Memarian& Brown, 2006; Memarian & Sadoughi, 2011; Marefat, 1988; Kheirabadi, 2000). Two different patterns have been developed according to these traditional concepts: One separated the private and reception areas (bīroūnī or men's quarter) of the dwelling, which was a pattern of privacy (andarūnīs or women's quarter); another provided a special area for guests, which was the pattern of hospitality (Memarian & Sadoughi, 2011).

Reception area (bīroūnī) was part of a house that it was only acceptable for a male guest to enter (Memarian & Sadoughi, 2011). The other privacy pattern (andarūnī) or internal realm was segregated women and the inhabitants sphere from the men's sphere and gusts (Memarian and Brown, 2006). In this regard, large houses had separate courtyards for each section, while smaller houses had separate quarters around the same courtyard (Marefat, 1988) (Fig. 24.3).

The bīrounī or "public" part of a house usually was accessible from the courtyard and was used as the place of formal and ceremonial activities for household and visitors (Memarian & Sadoughi, 2011; Marefat, 1988). Its major feature was the tālār (reception room) as the largest room of the house where shaped in two-story hall, flanked symmetrically by the dālān (corridor) and gushvārs (multi-purpose rooms), that functioned as waiting rooms to the tālār or as private quarters and offices for members of the household, elaborately decorated and usually overlooking a traditional ayvān or īwan (semi-enclosed loggia or porch) (Karimi, 2009; Marefat, 1988).

Moreover, the traditional courtyard houses evolved in response to climate as well as ideological needs, including social-cultural and religious values. All of these values as

[17] The garden contain flowers, vegetables, and fruit trees and create a pleasing aesthetic atmosphere.

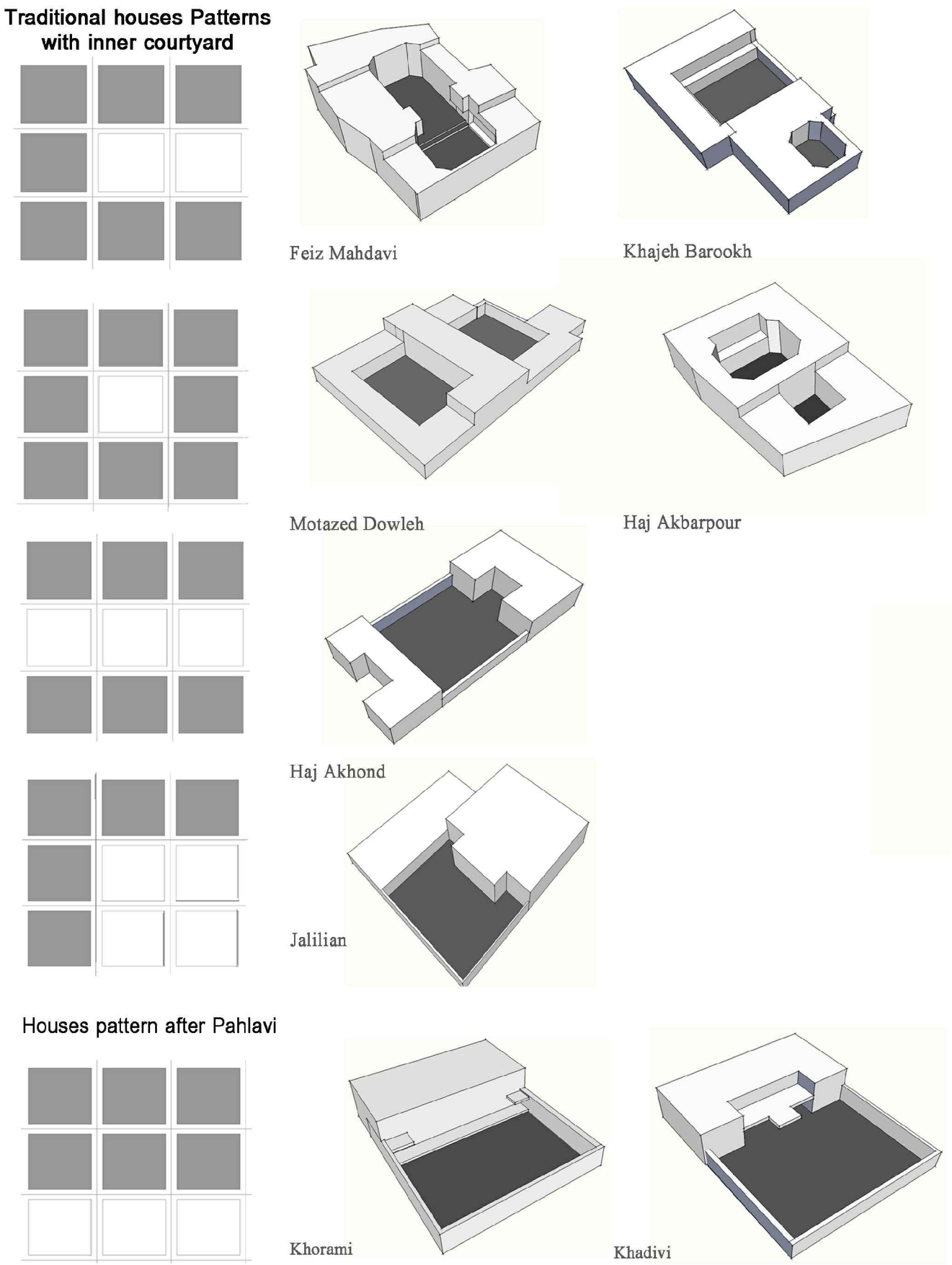
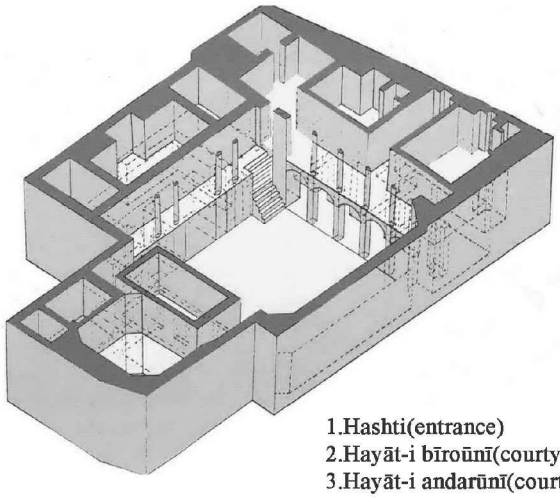
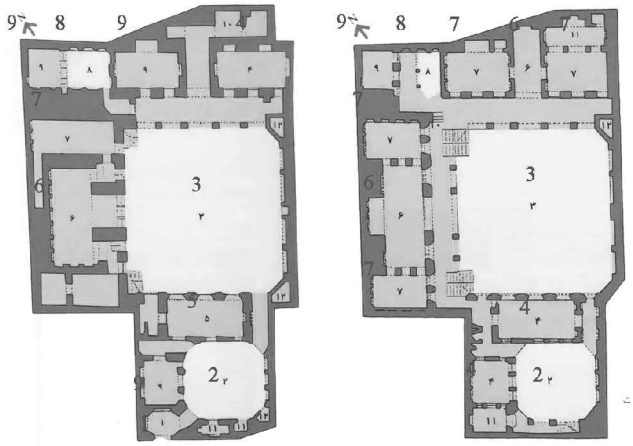
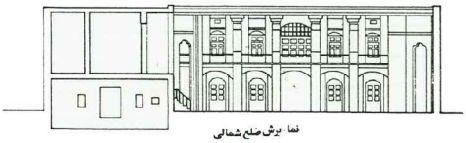


Figure 23.3:
The pattern of traditional houses in the city in compare with emergence of modern pattern along new streets after Pahlavi(by author based on graphic analysis of (Einifar & Ghafari, 2014). Source of houses' pattern(Rashidi, 2014b).





1.Hashti(entrance)
2.Hayāt-i bīroūnī(courtyard)
3.Hayāt-i andarūnī(courtyard)
4.Sedarī(three doors)
5.Hawz khanih(Spring room)
6.Tālār(reception room)
7.Gushvārs(multi-purpose rooms)
8.Hayāt-i khalvat(pasio)
9.Otāgh(room)
10. Hammām(traditional bath)
11. Anbār or pastū(storage)



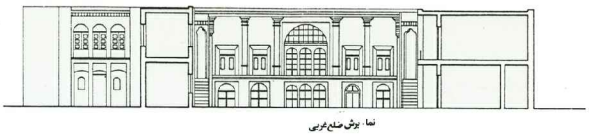


Figure 24.3:
The layout of one of traditional houses, House of Khajeh Baroukh (Borumand, 2009).

significant features have been determined the internal layout of houses, the correlation between individual houses and its residences and the relationship between private residences and the public (Memarian & brown, 2003; Memarian & brown, 2006; Memarian & Sadoughi, 2011; Kheirabdi, 2000; Marefat, 1988). For example, climate generated seasonal movement between different parts or rooms of the house, which is one of the features of domestic life in Iran, especially in central hot and dry region of Iran, and some neighbors like Arab countries (Memarian & brown, 2006; Memarian & Sadoughi, 2011).

In traditional courtyard houses, rooms are usually arranged around the courtyard in such a way that the summer rooms always face the north (away from the hot summer sun) where the tālār and ayvān as the main components of summer part are located (Memarian & Brown, 2003; Kheirabdi, 2000; Tabriz, Mahdavi Tabatabaei Fard, & Aliyev, 2012). The winter areas of the house are located opposite the summer part on the south side of courtyard in order to expose it to the sun during the winter more effectively (Ibid.).

The seasonal movements in the summer usually take place between or basements (zir-zamin) and the first and second floors in the heat of the day to take advantage of the lower temperatures (Memarian & brown, 2006; Memarian & Sadoughi, 2011). In winter the inhabitants would stay mostly in rooms with few openings, for example corner rooms (Pastoo) and during the daytime also they might use larger and more open rooms where these faced south (direction with high efficiency heat in winter) into the courtyard (Ibid.). Rooms were specified by the physical attributes of size, shape or location and served multi purpose use (Marefat, 1988). There were, for example, sedarī, three-door rooms, and panjdari (five-doors rooms) so called for their size and number of openings into the hayāt. This flexibility was important because, like the city, the house supported Islamic religious rituals as well as provided spaces for domestic and business (Ibid.).

The Kermanshah city is located in the region of western mountains where include all over Zagros Mountains and are considered as the cold regions of Iran. During winter this region is cold and in summer it is dry (Kasmai, 2003). So the traditional urban fabric of cities in this region like Kermanshah, Tabriz, Hamadan, etc. were compact and cell-like to attach back to back and side by side to keep the buildings and urban spaces warm and protect them from winter wind (Ghobadiyan, 2015).

Although the houses in this region like the hot and dry region in Iran were inward oriented- around a central courtyard, but the same common and traditional architectural elements had some modifies to provide cold region's climatic requirements. So to prevention of losing thermal energy as the main climatic requirement the general characteristics of the construction form included the central or introverted yards, but smaller than hot and dry area, the low height of the rooms to reduce the room volume and minimize the ratio of the external surface of the construction volume, the flat roofs to increase the surface and time of sun heat absorption, small openings, relatively thick walls (Ghobadiyan, 1998; Kasmaie, 2003). The terraces or ayvāns are other architectural elements in this area like other region, but with a lower depth compare with terraces in south of Iran to provide depth sunlight in the rooms and the windows have been protected more from rain and snow (Ghobadiyan, 1998).

C. Bāzār complex

The Iranian bāzār is an integrated building complex of stores, caravanserais, and pathways; also squares (meydān), religious buildings, bathhouses (ḥammām), and other public institutions are included in bāzār (Bonine, 1989). "Bāzār is raison d'être of Iranian cities; without it, a settlement is not considered a city" (Karimi, 1998). The two major forms for bāzār in Iranian cities can be considered as linearly, can expand along the infra-urban main axes, or it can spread over the center of the city (Gaube, 1978). The linear bāzārs always connects the two main entrance gates at the end of walled city as well as outside roads to the city center and mostly covered with domed roofs (Karimi, 1998) (Fig. 25.3). The bāzār of Kermanshah follows this pattern and like of most Iranian bāzār have evolved within its major city wall (Bonine, 1989). As mentioned before Kermanshah was located on the way of famous trade road, the Silk Road, passing through the city and actually on its way through the city made the main bāzār. This important trade road, as bāzār, entered into the city from northeast gate, Pol-i Seyed-Jumih[18] or Bala-Isfahan darvāzeh, and after passing through the main city core went out of town from the south-west gate, Shah-i Najaf, towards Baghdad (Borumand,

[18] Darvaza Pol-I Seyed-Jumih as the important gate of the city where was one of the most crowded entrances for trade caravans and focal point to formation of main bāzār; nowadays is known as Meydān-I Vaziri or square of Vaziri (Borumand, 2009).

Figure 25.3 :
The integrated morphology of bazaar, backed by caravansaries that more are located on east and west part of bazaar ❯ and near to former gates of traditional city; aerial photo of 1956(Clarke and Clark, 1969).

1. Bazaar, 2. barrack square or maydan-i sarbaz- khanih, 3.governor's palace, 4.Sabzih maydan or maydan-i tupkhana, 5. friday mosque(masjid jumih)

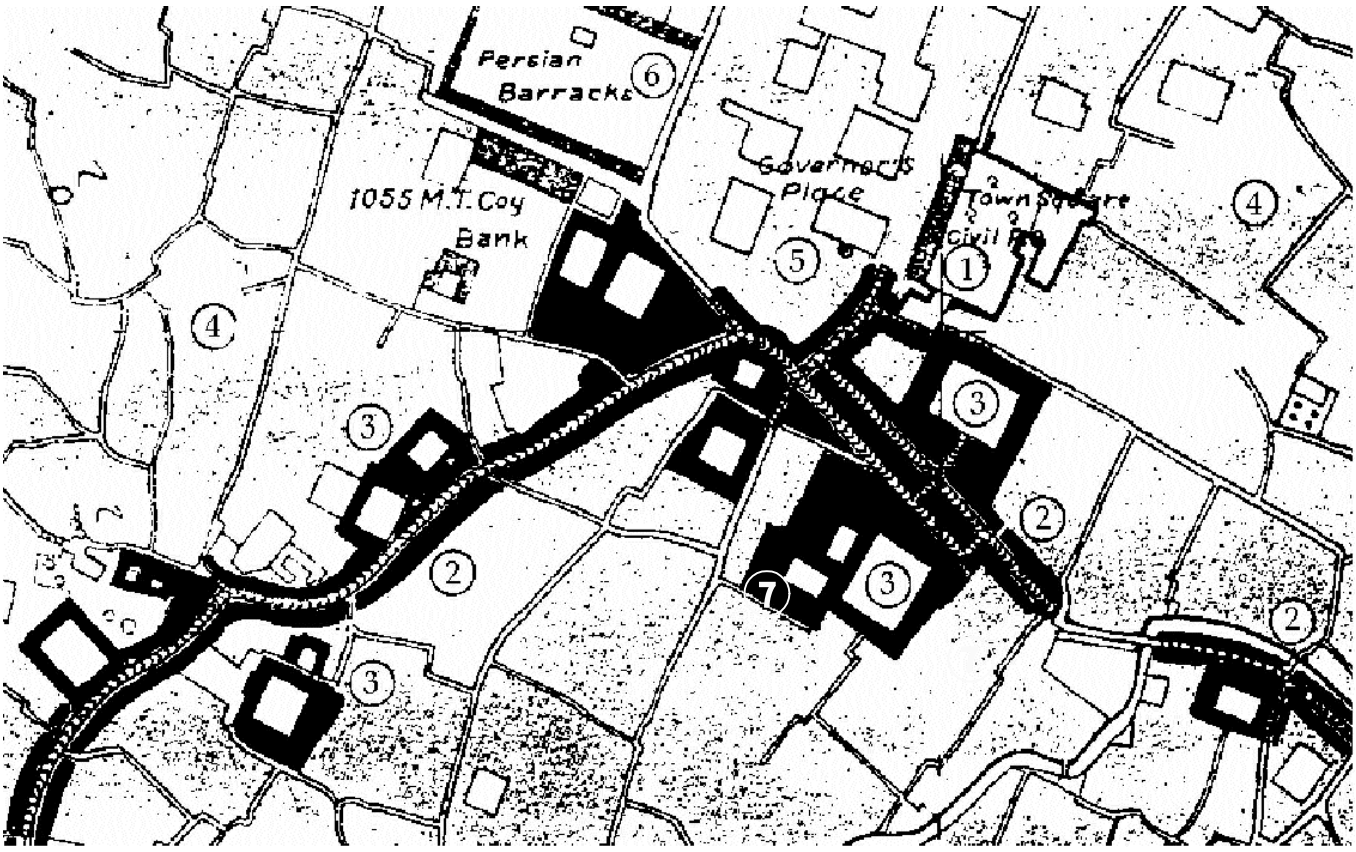


Figure 26.3 :
The detailed map of the city center and bazaar before crossing new boulevards; Sc/1: 5000 (karimi,1998).

1.city square, 2. bazaar, 3. carvansarayes, 4. residential quarters, 5. governor's palace, 6. barracks, 7.d ālān

2009) (refer to Fig. 17.3). The bāzār of Kermanshah, as one of the most important local bāzār in the city, also played a key role in international trades (Ashraf, 1989).

While the bāzār is the main core of public life as the major commercial center in Iranian traditional cities, the close relation of the bāzār with other elements such as religious schools (madrasa), mosques (masjid), shrines, caravansaries, bathhouses (hammām), Takaya, coffee houses (qahvih-khānih) and traditional sport clubs (Zūr-Khānih) confirms the strong political, social, cultural and religious role of abuser in traditional cities (Kheirabadi, 2000). The intersection of the economic heart of the Kermanshah traditional city, bāzār, and its political center, citadel, was where one of the main public squares of the city Sabzih–meydān, or Tupkhanih, was located (refer to Fig. 21.3). The meydān (Square) was a place for economic activities, political announcements as well as social meetings, spreading rumors and performing religious ceremonies (Sintusingha & Mirgholami, 2013). The role and significance of the bāzār in Iranian cities can be compared with the city squares in Europe with the same quality with them as the gathering place and center of activity for citizens (Karimi, 1998).

Bāzār in old Kermanshah was one of succeed traditional bāzār in Iran because the strategic location of city between Iran and Mesopotamia and their trade relations. In the era of city progress as an important trading center, the main route from Tehran to Baghdad, where passing through the center of the city was the bāzār. Sometimes, the Friday mosque is next to or even a part of the bāzār, but we have some cities such as Yazd and Kermanshah which do not follow this pattern (Bonine, 1989). The initial core of the formation of the bāzār in the city refers to Zand dynasty in the neighborhood of Feiz-Abad and near to the Ab-Shūran River. After that time bāzār was developed during Qajar dynasty and had two golden times in order to flourish: first during Mohammad Ali Mirza-Dowlatshah and later by Emāmqoli Mirzā ʿEmād-al-Dawla as governors by the time. Actually Mohammad Ali Mirza-Dowlatshah made the Grand bāzār with other integrated features like religious building, public baths (hammām)… and Emāmqoli Mirzā ʿEmād-al-Dawla added some Sarāy,[19] Emād-al-Dawla mosque,

[19] Small caravanserai located along bazaar reserved for commercial purposes (Kheirabadi, 2000).

qaysarīyyih [20] and chahār sūq[21] that made centrality for bāzār (Abazari&Gholipoor, 2013; Borumand, 2009).

In Kermanshah Bāzār lined with shops (dukkāns) and other commercial buildings on both sides (rāstih-bāzār) and it stretched in an east-west direction through the city. In this central core of the city the main east-west rāstih multiplied into the system of separate rāstih, some goes parallel to the main bāzār while others crossed in the north-south direction to link up with other main gates and exit roads of the city. Sometimes these parallel rāstih were separate of each other by the doors or with some narrower and shorter corridors than rāstih that is called dālān, sometimes dālān links rāstih with open spaces like caravansaries or Sarāy, like dālān-i Vakil-al-Dawla in the bāzār of Kermanshah (Borumand, 2009) (Fig. 26.3 & Fig. 27.3). The central part of this complex is the typical vaulted and the brick built beehive structure and the light and ventilation were provided with those holes in the roof. This bāzār includes many typical features of traditional bāzārs of Iranian cities and it is organized, like society in general. Also the specific 'type' bāzār developed in which a combination of processes was executed relating to one or group of products. The various products were usually associated with groups of people with ethnic, cultural or religious attachments as a guild. The guild (sinfs) system and the journeywork schemes also enforced considerable influence on the survival of distinctive product groups like Ironworkers, goldsmith, drapery, sheet metal workers, Bookmaker, Turks, Jews… and It was the guild member rather than the very rich who frequently lived close to the bāzār (Clarke & Clark, 1969; Clark & Costello, 1973; Karimi, 1988) (refer to Fig. 27.3).

The bāzār in the old Kermanshah was supplied with a large number of caravansaries[22] and a chain of caravansaries was developed behind the frontage of the bāzār. In fact, these two elements, bāzār and caravansary, have their roots in the strong connections

[20] A part of bazaar and a center of more valuable goods with two lines of shops across from each other (Habibi, 1999).

[21] Literally means four-sides, referring to the space created two main line of bazaar (rāstih-bazaar) intersect. Often decorated with a central fountain pool and covered by dome higher than the domes of ceiling of rāstih-bazaar (Kheirabadi, 2000).

[22] The houses of the caravan; a building along the trade routes or within cities to provide lodging and commercial exchange facilities for members of caravans as well as their animals. Moreover Different types of caravansaries were differentiated by their special use or the group of people who used them, for instance different guilds or ethnic groups such as Zoroastrians or Jews (Sultanzadeh,1986).

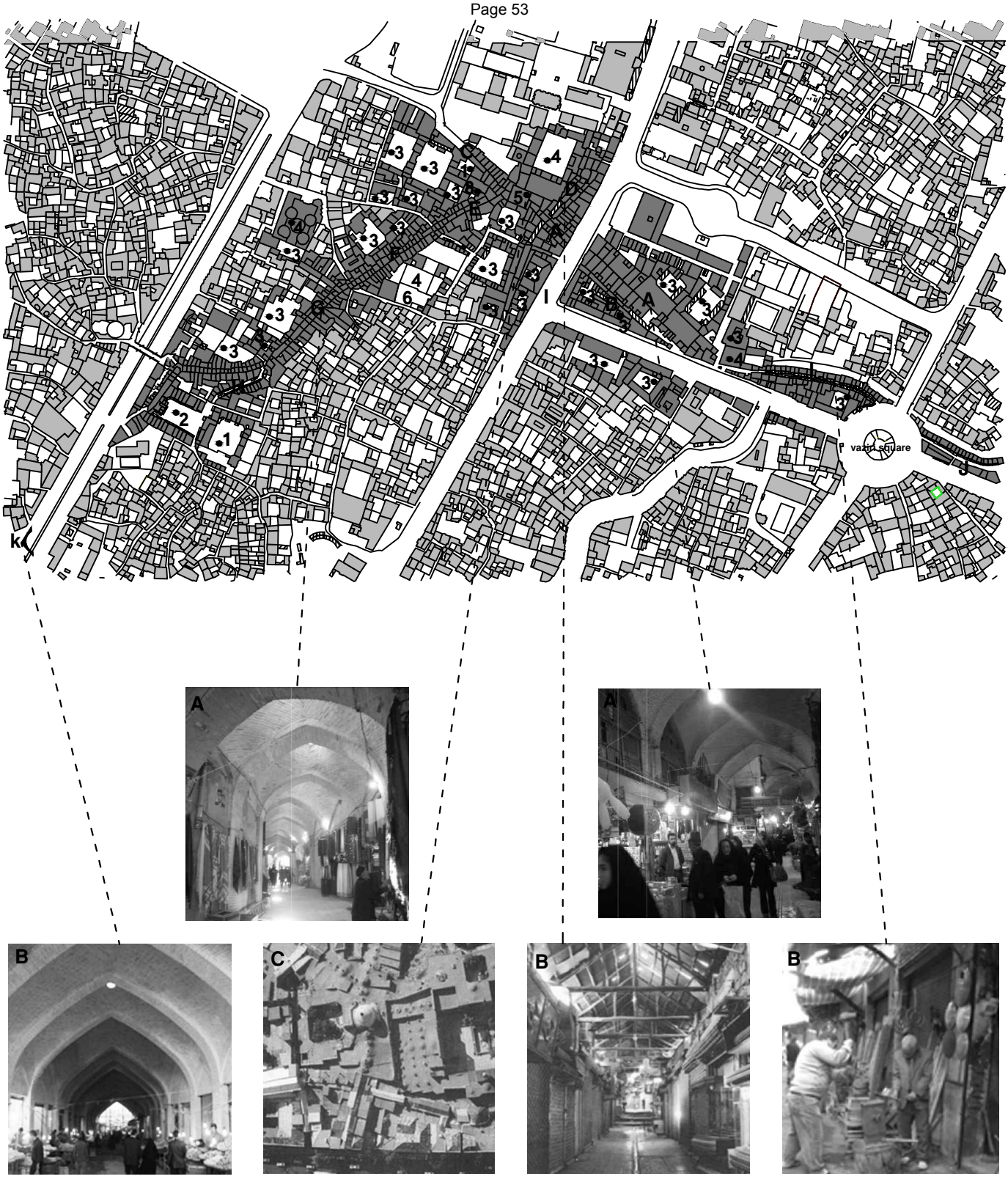


Figure 27.3: The principal elements of bazaar of Kermanshah

1. caravansary, 2. Gandomi Square(maydān), 3. sarāys, 4.mosque(masjid), 5. chahār sū or chahār sūq, 6. traditional public, 7. bath(hammām), 8. tīmchih; .(Improvement and Renovation Organization of Kermanshah, 2002; Borumand,2009; Hashemi, 2013).

- **The general guild or sinfs system in central part of bazaar during Qajar dynasty (Hashemi, 2013):**

A. Drapery section(rāstih-i bazāz-hā), B. Jewish section, C. Coppersmith section(rāstih-i mesgar-hā), D. Goldsmith section(rāstih-i zargar-hā), E. Saddle section(rāstih-i serāj-i-hā), F. Turk section, G. rāstih-i Allaf-khanih, H. rāstih-i Seyed-īsmaīl, I. Smiths section(rāstih-i āhan-gar-hā), J. bazaar-i chal-Hasan-Khan, K. towards bazaar-i tupkhana

- **Photos: A (Hashemi,2013); B (Kermanshah Cultural Heritage Administration); C aerial photo of chahār sū by Jasem Ghazbanpour cited in (Broumand, 2009).**

between the cities and outside/inside commerce. They gradually evolved to reveal their prominent social, spatial and functional role in the traditional city (refer to Fig. 24.3).

Despite the morphology of bāzār in Kermanshah conforms with other traditional bāzār in Iran,[23] but the most constituent traditional elements in the bāzār of Kermanshah are caravansaries and sarāys because the situation of this bāzār, locating in one of the most crowded caravan road In the past (Borumand, 2009) (refer to Fig. 27.3). The size of caravansaries depends on their location and product specialization, although usually they have been formed in a rectangular shape around a courtyard with a pool or water trough in the center (Kheirabadi, 2000). In Kermanshah the caravansaries are normally two stories high, although more peripheral ones that are some of the larger are three or four stories high. The ground floor was used to store goods in transit; stock purchased products and stables the animals. Upper floors provided cheap accommodation and office space for the merchants. A limited amount of process industry was carried on in caravanserais, but in Kermanshah this was never very important. Therefore the caravansaries were an integral part of the bāzār complex with product specialization, being related to specialization within the bāzār itself (Clarke &Clark, 1969).

Indeed, the functional importance or strategic location of a bāzār is not the only factor that makes it as a *par excellence* Iranian cities element, it is further, also its flexibility to combine other major elements in order to create a multi-functional city complex. More integrated elements with a bāzār in Kermanshah were the main city squares like: Sabzih–Meydān or Meydān-i Tupkhānih (artillery square), Meydān-i sarbaz-khānih, Meydān-i Allaf-khānih and Meydān-i Gandomi as well as governor's Palace, although some still exist and some were destroyed totally (refer to Fig. 27.3). The structure of the bāzār becomes more complex in the center, where the major routes of the city radiate from the main axis of the bāzār to the periphery and join the major roads that connect Kermanshah to the rest of the country (Karimi, 1998).

Another feature in the bāzār, as an identical element in terms of politics, is the people who work in the bāzār and they are called bāzāries. They can support people's movements, oppositions, rejection or confirmation of a ruler's policies (Kheirabadi,

---

[23] bazaar in Kermanshah like othe cities include different traditional elements: tīmchih, like tīmchih-i seyed-Ismail in rāstih-bāzār-i Allaf-khanih or tīmchih-i Vakil-al-Dawla, qaysarīyyih, like qaysarīyyih-I Emād-al-Dawla…(borumand, 2009); Tīmchih is a major meeting place for merchants, the rooms of tīmchih used as offices where the most business contacts are made (Kheirabadi, 2000).

2000). The bāzār and bāzāries, especially before beginning of urban modernization in Iran, "both were strong and interested in compromise, which was in political challenge and opposition to the rulers” (Falamaki, 1987).

The rise of modernization

Through 19th century and early of 20th century, before 1925, the Qajar city of Kermanshah continued to display the traditional features of an Iranian Islamic city. The map of the city in this period presents a self-contained city, continuing to grow along traditional lines of social and spatial organization. The traditional Persian walled city with a fortified citadel, the self-sufficient neighborhoods developing according to their own needs, labyrinth routes of access based on common use, and homes which surrounded private life from public life. The network of buildings and streets became more complex, but did not have a set of fundamental or planned changes in the form.

Throughout the late of Qajar era, before 1925, the mahalla had remained as the essential unit of urban administration like the past, a self-sustaining community with its own local centers constituted cultural, mercantile and religious elements, its own network of accessibility, and its own hierarchy of natural protection and security. The smallest unit of a social organization, the house, also continued a century-old tradition, turned a blank face to the street and focused private life around an internal courtyard. Like the neighborhoods, these traditional homes were comprehensive units providing for most fundamental needs. The historical and traditional urban structure and architecture serve as a reference point for the changes that the Reza Shah Pahlavi was to bring about.

Although the first steps of modernization in Iran were taken during the Qajar dynasty, especially from the 1870s in a regimen of Naser-Ed-Din Shah and after his visiting of Paris, (Madanipour, 2006; Madanipour, 1998; Alemi, 1984; Katouzian, 1996), but it was not fundamental until 1925 when under the monarchy of Reza Shah Pahlavi Iranian cities experienced drastic structural changes in their form (Habibi, 1999; Costello, 2001).

The primary step of modern experiments in Kermanshah led to the establishment of the modern institutions like telegraph in 1863[24] (Hershlag, 1980), modern hospitals like Westminster Hospital[25] or Masih Hospital in 1916, embassies of Russia and Britannia in 1903 (Borumand, 2009; Calmard, 2015), as well as hiring English and French advisors for military and urban planning advice. This time can be considered as the end of the old town and the beginning of the emergence of a new town before Pahlavi dynasty and at the end of the Qajar dynasty. By the time, some modern schools were established in a semi-European style like school of Islāmīeh, Mohtashamīeh, in 1900, by one of first educated architects of Kermanshah Hosein-Ali khan-i Hendesi Guran who was one of the educated students in Dar-ol-Fonun[26] Polytechnic College. He came back to Iran and Kermanshah after finishing his study of architecture from France, and also establishment of Alliance[27] Jewish school in 1904 (Netzer, 1985; Nuri Ala, 2014). Before 1918, this Alliance of Jewish School was highly popular in western and French-speaking cities and also very effective for elites, mainly in Morocco, Turkey and Iran, but with particularly monopolized modern education for Jewish (Laskier, 1983).

The map of the city in 1919 provides an excellent source of data on the city at the end of First World War and in prior to Pahlavi modernization. This map marked enough public buildings to determine the major characteristics of the urban morphology and some of them are the legacy of the first steps of modernization in the last of Qajar dynasty like National Bank, embassies, hospitals, customs office. The most of these modern elements of the city were raised in the south of the city in the area with a high density of gardens and good quality of water, where the primary growth of the city in the early future would be happened extensively. Moreover, the ice-pit as the traditional

---

[24] " The resulting Anglo-Iranian telegraph engagement, signed by Queen Victoria in 1863, called on Iran to build a line stretching from Khanaqin (across the Ottoman frontier from the Iranian town of Qaṣr-e Širin) thru Tehran… supervised by a British engineer, Patrick Stewart. The IETD established intermediate telegraph stations between Khanaqin and Tehran in Hamadān and Kermānšāh. Hampered by lack of railroads and carriage roads to transport material, construction did not begin until August 1863(Rubin, 2004)."

[25] This hospital is the first hospital in the west of Iran where was established with the support of Christian missionaries and was built by a doctor Blanche Wilson. It is also one of the few old buildings with pre-designed maps and modern constructions method (www.isna.ir).

[26] The Dar-ol-Fonun Polytechnic College had been inspired by European academies in 1851 during Naser-ed-Din Shah Qajar but had continued the madrasa tradition (Marefat, 1988).

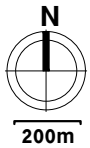
[27] The Alliance universelle is a Paris-based international Jewish organization founded in 1860. From 1898 to 1920 Schools were founded in Tehran (1898), Hamadān (1900), Isfahan (1901), Shiraz (1903), Sanandaǰ (1903), and Kermānšāh (1904). In 1977 the number of students at Alliance schools was as follows: Tehran, 7 schools, 1,800 students; the following cities each had one school: Hamadān, 673 students (173 Jews); Kermānšāh, 314 students (171 Jews)… (Netzer, 1985).

urban features in the north-west and periphery wide cemeteries have long condition to direct expansion of the city to the south, during Pahlavi, and later to the north of traditional city, after Islamic revolution in Iran.

In 1919 the compact built-up city context was expanded to 3.5miles in circumference, slightly less than some travelers' estimation likes Jackson (1906). The town extended 1.5 miles from northeast to south-west and 1 mile from northeast to southeast. The limited area of the city was defined by 14 actor towers belong to the period when the customs duties, busy trade situation, were farmed out by districts and were collected not only on the frontier but also as the octroi in internal centers. This map also confirmed the city was not walled city any earlier than the beginning of Pahlavi radical modernization, in the lot of 19th century (Clarke and Clark, 1969; Jackson, 1906; Karimi, 1998) (Fig. 28.3). This fact was admitted by the other traveler like Curzon (1892) and Mrs. Bishop[28] (1891) who described the city with ruined wall, lying in the moat that some ruinous loophole towers (as cited in Clarke and Clark, 1969).

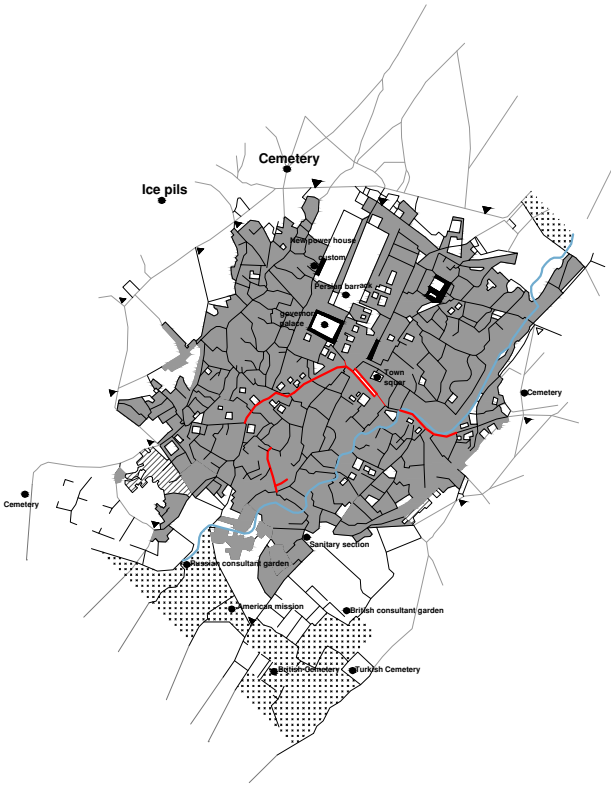
In many of its nineteenth and early twentieth-century changes, the existed social pattern of Kermanshah appears to conform to those discernible in other Iranian cities. The social structures and physical morphology of Iranian cities were similar in many respects to other Islamic cities in the Middle East, although their evolution under a predominance of the Persian culture had given them a distinctive character of their own. By the First World War the only visible evidence of elite was the gardens and orchards on the higher slopes to the south-west of the city; while in the past were a peripheral area of the traditional city (Clarke & Clark, I969; Clark & Costello, 1973). The southern areas owned by rich merchants and rural landowners who still lived in the city, and some large houses and institutions of the foreign community (Ibid.).

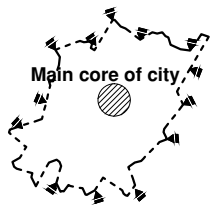
[28] Mrs. Bishop (1891), Travels in Persia and Kurdestan, London, Vol 1, PP.9-103.



Kermanshah in 1919 still with its traditional pattern but not as walled city any more

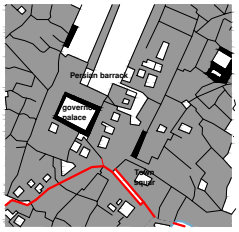
Agricultural area
Octroi tower
Covered Bazaar
Ab-Shuran River
Built environment





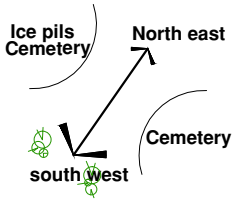
- The first map of city without wall but main core of Islamic city still is remain(Friday mosque, Bazaar, Religious school, Citadel)

-The limit of the town is difined by 14 octroi towers

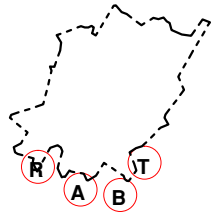


- Integrity of bazaar and urban fabric

- Existence of main public buildings and spaces like Citadel, caravansary...



- City's Growth orientation is more to the south west where there are lots of garden and source of aqueduct (Qanats)



- Opening consultant of Turkey,Britania,Russian and America Hospital

Figure 28.3:
Re-drawing map by author based on map of city in 1919, approximately 1:3000 (Clarke & Clark, 1969) .

Chapter IV

Kermanshah and urban modernization under Pahlavi

Modernization under monarchy of Reza Shah (1925-1941) in the First Pahlavi dynasty; new streets, expropriation and haussmaniann scheme

Between 1921 and 1941, Reza Shah Pahlavi as the first king of Pahlavi dynasty began to arrange of the transformation of Iranian cities, especially with focus on Tehran as the capital, from traditional Iranian Islamic cities to modern cities. Reza Shah initiated a rapid and certain process of change from the public domain at the city scale and filtered into the private domain of the houses.[29] A grid of wide boulevards, traffic circles, and planned public spaces were superimposed on the traditional cities and permanently altered the character of the most of Iranian cities. Foreign and native architects designed new state institutions including ministries, banks, museums, universities and schools. They introduced modern materials and a variety of forms incorporating both historical and modern influences (Ehlers & Floor, 1993; Marefat, 1988).

The public architecture, as an important element in Reza shah modernization policy, besides bringing archaeology together, as a symbiotic relationship, and for the first time, proposed that a form could provide the new function of a modern state (Grigor, 2005, Kiani, 2004, Marefat, 1988). So architecture became a straight instrument of state propaganda and its power provided by archaeology. This new architecture with Neo-Achaemenid style was admitted to use the newly discovered archaeological finds of the Persepolis and Susa (Grigor, 2005; Marefta, 1988).

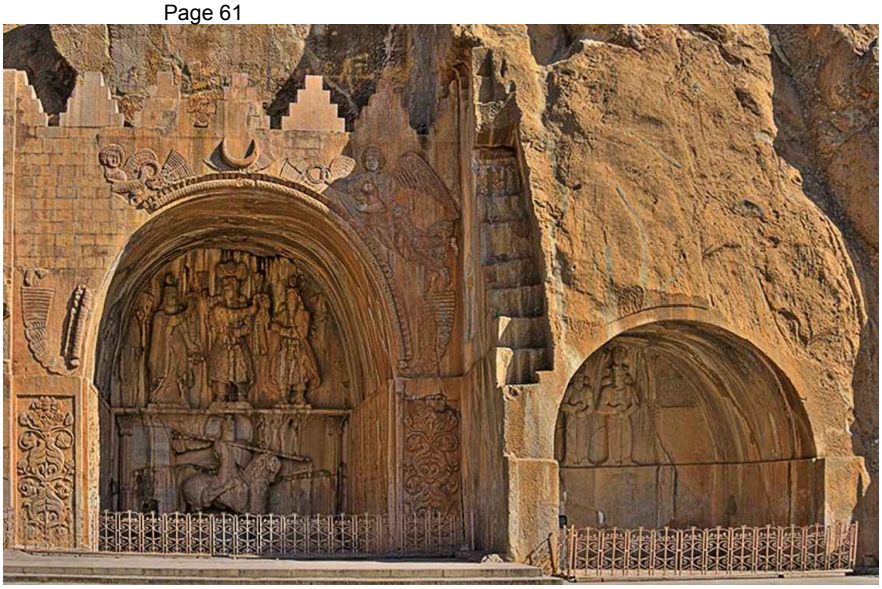
Reza shah had two different models for his city progress: one “metropolis based on 'modernization' through or synonymous with ‘westernization'” and one of the main inspiration for him was derived from Baron Haussman's Paris and its avenues; and “second model was to create an empire similar to that of the Achaemenians and Sassanians” (Mazumdar, 1981). Indeed, interest of Reza Shah in ancient of Iran returns to his trips and visits of heritages of Isfahan, Shiraz and Persepolis as the secretary of war during monarchy of Ahmad Shah Qajar in 1922 (Kiani, 2004). In His second trip from Isfahan, Shiraz and Khuzestan in his return way by visiting Kermanshah and Sassanid monument in the city he remembered porch of Ctesiphon and said: “unfortunately, Tigris It is not on our way otherwise we could see the vault Khosrow Anushirwan and one of the magnificent and proud of the Sassanian era as an

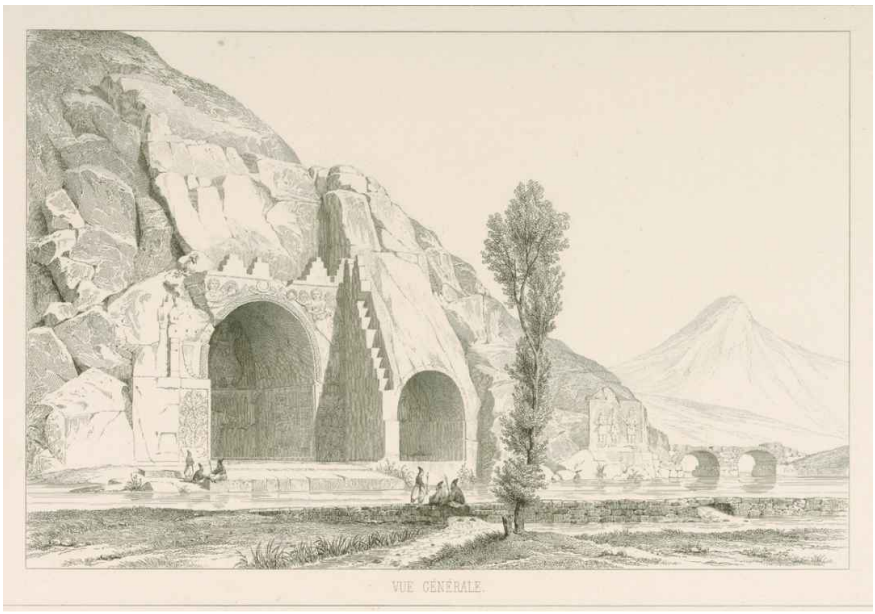
[29] www.dspace.mit.edu

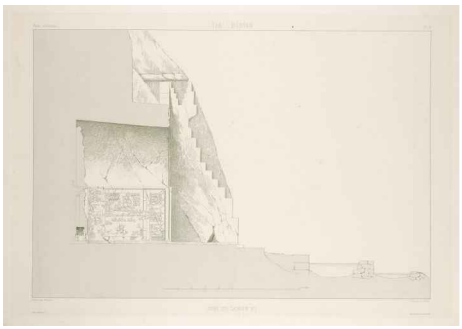
instructive admonitory example" (Kiani, 2004). Actually, it was one of the major goals in modernization process of Tehran and never implemented as the same for other cities like Kermanshah, where is one of the pre-historic locations in the country with some of most important archeological sites and heritage monuments form Sassanid era like Tag-e-Bostan and Bisotun that could be inspiring to achieve this goal (Fig. 1.4). While the public architecture in Tehran trend in the style of ancient architecture in Iran, the architecture of Kermanshah in the early reign of Reza Shah was continuation the hybrid style of European with traditional Iranian-Islamic architecture from Qajar era and later in this period was the time of appearance new modern style especially for public buildings in the city (Borumand, 2009).

A spirit of modernization gave rise to the demolition of much that had given Tehran its traditional appearance. So the gateways, wall and moat of the city as traditional elements, that were certainly in conflict with the image of modern Tehran and its expansion naturally beyond its limits, were gradually demolished between 1932 and 1937 (Kiani, 2004; Habibi, 1999). Although these traditional elements in the old city of Kermanshah were demolished earlier than the beginning of Pahlavi modernization, this potential didn't provide city development and progress for Kermanshah as fast as Tehran during Reza Shah. Reza Shah wanted immediate results and much Urbanization was done quickly that led to little documentation in this period (Ehlers & Floor, 1993; Marefat, 1988). Therefore, there are not any detailed map documenting the Kermanshah city and few diaries, travel journals and chronicles from this period. One of the few available documents of this time, but with low quality, is the aerial photos of the city in 1935 and 1941 that belongs to an era before the Anglo-Russian invasion of Kermanshah and Azerbaijan. This invasion was motivated by the Anglo-Russian fears of growing Germans influence in Persia were followed by the British occupation of a zone south from Kermanshah to the northeast corner of the Persian Gulf (Clarke and Clark, 1969) (Fig. 2.4).

Reza Shah tried to "Europeanize" Iran in spite of his strategy was autocratic (Zad, 2013). He formed the central government in the context of law when radical Iranian reformists tended to force for a modern country and a modern society (Abrahamian, 2008; Habibi, 1999). He assigned the power of autonomous city council to central/sectoral approach of governance and decentralized them by suspending







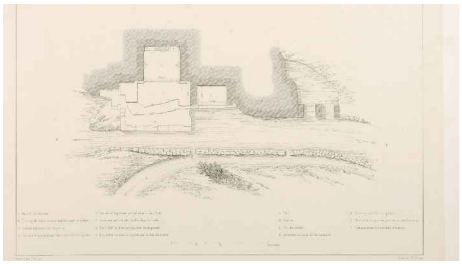


Figure 1.4: The plan and section of the Tagh Bostan(Sassanid heritage land mark), by Pascal Coste and Flandin in 1840.

• View to the east of city: the barrack and old citadel in the wright of photo

• View to the south- east of city: the gardens in the south of city

• View to the north of city: the way to Sassanid heritage land mark and villages around city

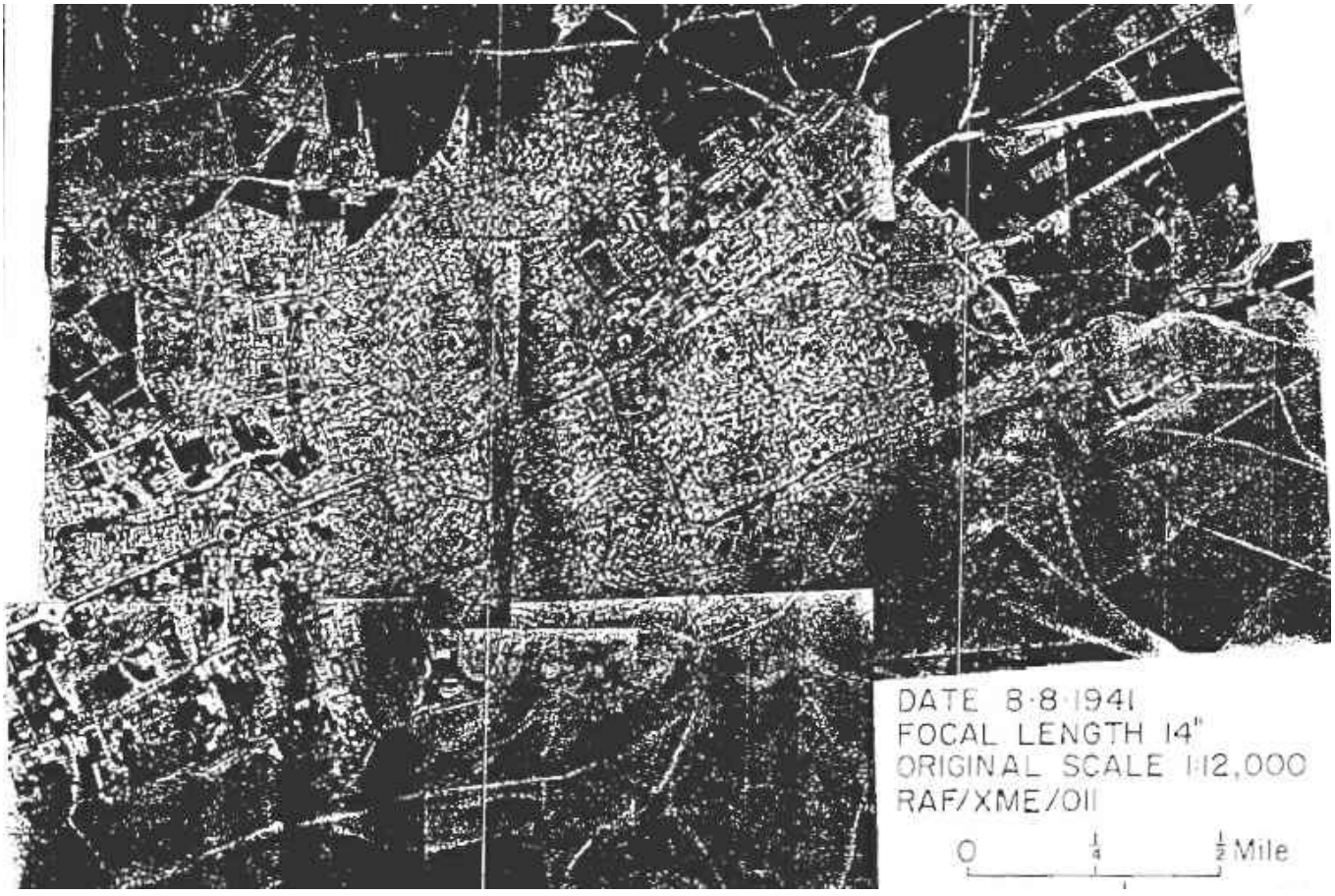


Figure 2.4:
Above: Kermanshah in 1935 (www.britainfromabove.com), Bottom: the aerial photo of city in 1941 shows first new boulevard and roundabouts (Clarke&Clark, 1969)

“municipal law “ or Ghānoon-e Baladieh of 1907.[30] Similar as Paris under Haussmann where there was a great effort to centralization of various types and all changes. Similar to what happened to Paris during Haussmann; Iranian cities experienced similar political and social changes. Napoleon III and Reza Shah both were trying to establish absolute power after a revolutionary period, constitutional revolution of 1906 in Iran and French revolutions. Napoleon III and Baron Haussmann rebuilt or, better, "regularized" vast sectors of Paris while they catalogued what they were destroying, giving "monuments" new meaning and burying the previous context for a different understanding of the city, space, and society (Rainbow, 1995).

Reza Shah during the Pahlavi dynasty chose a design method that was the legacy of Baron Haussmann with Intention to make Iranian cities accessible by modern transportation and tendency to destroy by super-imposing boulevards on traditional cities (Marefat, 1988). Napoleon III ordered to Haussmann: aérer, unifier, et embellish Paris: to give it air and open space, to connect and unify the different parts of the city into one whole, and to make it more beautiful (De Moncan & Heurteux, 2002). In like manner, in 1920, Reza Khan before his monarchy declared: “Iran should resume her life again and everything should be renewed. We want to have a ‘modern Iran’ and a ‘modern nation’… Iran should be mentally and somatically, outwardly and inwardly European-oriented” (Habibi &Meulder, 2015).

The success of the Haussman’s program was its financial system. Napoleon III established a self-sufficient finance system for the urbanization of Paris. In this regard Haussman supported by a council of progressive financiers associated with Isaac and Emile Pereire brothers (De Moncan & Heurteux, 2002). The Pereires profited handsomely in this new physical environment by founding the Société Générale du Crédit Mobilier as thcompany which raised 24 million francs to finance the construction of the street (Ibid.). This finance was provided in exchange for the rights to develop real estate along the route and it became a model for the building of all of Haussmann's

[30] In 1907, the first parliament of Mashruteh (constitutional) passed a law on local governance known as Ghanoon-e Baladieh in order to increase social consciousness of civil rights. The second and third articles of the law, on anjoman-e baladieh or the city council, extended outline on issues such as the role of the councils in the city, the members’ qualifications, the election process, and the requirements to be entitled to vote. Then Baladieh, or the modern municipality in Iran, was established in 1910, to respond and mange the growing need for the transformation of the city structures (Zad, 2013).

future boulevards (Ibid.).[31] While at the same situation for Iran, not only centralization of government was enabled Reza Shah to achieve full control over the economy, oil income and etc., in order to achieve his modernization goal, but also the financial support for Reza shah's urban renewal and modernization was provided by increasing and legislation of 'Estate tax law' and 'vehicle tax law' in 1930 (Shabani&Kamyab, 2013). Moreover, many of the new quarters were built by financing of such urban notables as merchants from the bāzār or urban-based rural landlords (mālekān) (Ehlers, 1991). They invested money in real estate in order to move from the old city quarters to the new quarters (Ibid.).

In Iran the "municipal law" (Ghānoon-e Baladieh) of 1930 provide executive power for Municipality (Baladieh) to make interventions in the traditional context of cities in Iran and especially first steps were begun from Tehran as the capital and witness of modernity (Habibi, 1999). So based on this law the construction of primary cross streets were begun first in Tehran and then in the other cities in Iran. But the major changes in the urban contexts started with the law "street-widening act" of 1933 which served as a framework for changes in all cities (Habibi, 1999; Mozayeni, 1974; Zad, 2013). As a result of this act, the traditional texture of the city was cut with intersecting streets and large roundabouts. That was a limiting of haussmannian language in urban planning, which authorized municipalities to widen narrow traditional alleys of Persian cities (Mozayeni, 1974). Although these streets were destructive, but left an inspiring example for the design of urban and square edge In most of Iranian cities (Tavasoli, 1997). In Kermanshah theses examples could be found in the first new street and its roundabouts; the edge of Shahpoor (Sepah, Shah) street and Meydān-i Mokhber-al-Dowleh (Shardari Square).

In the "municipal law" (Ghānoon-e Baladieh) of 1930 the license for construction of private property and the right of ownership was not foreseen (Rezavni, 1992). Therefore, it led to improve and develop of this law by approving the law of "Street Widening Act of 1933" as the first codified law until 1961 in Iran and as the legal basis for Reza shah urban renewal Policies (Rezavni, 1992; Ehlers & floor, 1993; Devos and Werner, 2013). Although in this law mentioned that the objective of construction of the new streets or squares is for prestige, elegance and to facilitate the traffic movement,

[31] wikipedia

but later in the modification of this law in 1941 some other requirements were added (Kiani, 2004; Shabani & Kamyab, 2013). This new modification covered other developments objectives like public facilities and etc.; but essential items like future of urban design, the future of traditional contexts, national identity, historical monuments[32] and people's participation had not been considered (Kiani, 2004; Shabani & Kamyab, 2013).

The Ministry of the interior, in 1933, in order to integrate management and increase quality of urban renewal, technical affairs and urban design in all cities of Iran, under supervision of a group of professional engineers, legislated the establishment of the Technical Department Of The Organization in this ministry (Kiani, 2004). It could provide an efficient support for other cities' urban renewal and development, like Kermanshah, especially small cities where their municipality had not enough budget for urban and architectural projects (Kiani, 2004). Accordingly, the policy of homogenization in architecture and urban design for all cities in Iran was not only limited to the instruction, but also a central group of designers and planner in Tehran was responsible for decision making and improving all plans for all cities in Iran (Ibid.). This program until 1941, during eight years, had supplied all municipalities' requirements about modification of the urban plan under supervision of central engineers group in Tehran (Ibid.).Hence, the uniformly network of straightforward and axial streets as typical planning's principle passed through heart of historical fabric of cities from the north to the south of Iran without any consideration to historical growth patterns or observance of indigenous cultural values (Ehlers & floor, 1993; Kiani, 2004). In the Kermanshah lack of attention to the topography of the city and slope of territory, city located in mountain area, in order to make new streets made some accessibility problem for some part of the city (Kermanshah master plan, 1973). In this regard, an article in the National Newsletter of Kermanshah that issued in February 28, 1942 with the title of: The *municipality does not think about the city,* addressed how the first new boulevard in Kermanshah was constructed and was steeped regardless of topography and made problem for different height between boulevard and around its built environment (Bagherpour, 1942). Unlike, the central planning principle of the whole country, city development was uneven (Ehlers & floor, 1993). Tehran, of course,

[32] In 1936, " the Ministry of Interior was announced to the governors of the provinces that delineating a urban plan and constructing of new streets in the cities has to be done how doesn't make any damages or destruction for historic buildings and monuments" (Kiani, 2004; Shabani & Kamyab, 2013).

showed the major changes, while in other cities like Tabriz the new streets did not follow the usual gridiron pattern; or In Kermanshah and Yazd only one modern avenue was driven through the old labyrinths (Ibid.).

As an example, this uniformity is documented in the letter dated 1931 to the Ministry of the interior that included detailed instructions to the engineers, planners, and architects charged with renovating the old city center and adjacent areas of Malayer, in western of Iran and near to Kermanshah city (Ehlers & floor, 1993):

> "The width of the main thoroughfare was to be 16 m, that of the gutters (*jūb*s) on each side 0.5 m, and that of the sidewalks 3.5 m, for a total width of 24 m. The circular central *meydān* (open space) was to have a radius of 16 m, surrounded by an inner sidewalk 3.5 m wide, an inner *jūb* 3.5 m wide, a street 16 m wide, an outer *jūb* 0.5 m wide, and an outer sidewalk 3.5 m wide. The streets and the *meydān* were to be on exactly the same level. The buildings around the *meydān* and along the streets were to be uniform, and the ground floors were to be strong enough to support second stories… Trees were to be equally spaced along the streets and around the *meydān*. The surfaces of the streets were to be slightly convex so that rain and snow would run off into the gutters. The bricks used for the curbs, the facades of the shops, and all buildings were to measure 9 x 4.5 x 3 inches" (Ibid.).

However, Iranians were not careless about these events; hence, Seyyed Hasan Modarres, as the most vocal anti-Pahlavi clergy, in his parliamentary speech in 1925, objecting to the urban renewal: [33] "modernization had to be distinguished from such lawless acts against the people and their possessions" (as cited in Grigor, 2016). Some other observers like a German archaeologist Ernest Herzfeld, who had supported the reformists in their efforts for modernization and even had a personal collaboration with the government, described: "It is a system of ruining established authorities of old, without replacing them with anything at all. Everything we see [is] a methodical destruction... The result is a vacuum. One day the consequences will appear" (Ibid.).

---

[33] Katouzian, *Political Economy of Modern Iran, 120.*

Despite complaints, especially about property rights, based on the new law of 1941 the municipalities were authorized utilization of Waqf [34] property within the urban boundaries for urban development (Ehlers & floor, 1993). Although this was an infraction of the Islamic law, which forbids the sale of Waqf land, but the parliament passed the legislation and after Reza Shah's abdication in 1942 it was returned to the previous state in (Ibid.). Thus, it would be worth to mention some important points about ownership rights in the “widening street act of 1933” law, although it was modified in 1942:[35]

A) Municipality office is required to prepare a detailed map of the new streets or squares in order to determine the area of each property, house, wooded land, agricultural land or empty land, [36] where will be belonged to a new street or square. After the approval of the municipality and the Ministry of Interior and based on determined time to execute of the map that usually is three months after the municipality’s declaration to owners, administrators and officers at endowments. They have one month to deliver their objections about the map with reasons to municipality.

B) The municipality should pay any value amount of property that will be expropriated because developments or constructions of new streets and squares; Thus, owners must transfer their ownership to municipality… but until financial agreements between the municipality and the owners not should be done any actions for property damage on behalf of the municipality.

C) If remaining area of a property, except of the area were expropriated for developments or the constructions of new streets or squares, has not capacity for new building’s construction or adjacent to neighbor's property, or neighbor doesn’t want to buy it, so the municipality has to pay for this area as the same value as paid for expropriated areas for new developments.

---

[34] The religious endowment for charitable purposes (Kheirabdi, 2000).

[35] The original legal clauses are summarized and literal translations have not been made in this study. Source: Islamic Parliament Research Center Of The Islamic Republic Of Iran, “widening street act of 1933”, online accessibility 2017.

[36] In the law it is called Bayaz that in Persian it means any type of empty land with or without proprietor and fence.

D) If the adjacent property behind expropriated area after demolition of that to be placed on the front of new streets and this new location bring more than 10 percent increased price value for this property; hence, the owners had to pay one-third of this increased value to the municipality.

E) If after the development or construction of the street or square, the adjacent property owner to the street or square dosen't want to build new wall or building in harmony with the other walls and buildings on the edge of a new street or square, the municipality has to build this wall and owner must pay its expenses.

Although this renewal policy just had 20 meters depth, and it means actually it was implemented only in the first urban block along new streets and square, but increased the financial value of adjacent context and provide the opportunity of economic speculation for the future urban development (Rezavni, 1992; Kiani, 2004).

From another viewpoint, Western pattern for expropriation policy under modernization process can be examined as an example. Paris expropriation before 1789 had been a royal privilege (Rainbow, 1995). An important evolution of the principle for expropriation was made by Louis Napoleon in a decree of 26 March 1852 that empowered the state to expropriate entire properties in the rebuilding of Paris and its streets (Mead, 1995). The 1852 decree passed by Napoleon III one year before beginning of Haussmann' responsibility as the Prefect of the Seine (Paccoud, 2012). Although it was the last piece of planning legislation that passed before Haussmann's arrival on the scene, but became the major enabling factor in haussmannien street building program in Paris. Indeed, in Haussmann's programs "precisely because he did have the Emperor's support, Haussmann was always able to avoid having to justify his actions politically and could present them as technical and administrative measures deriving from objective necessities" (Benevolo, 1967).

The most important article of the decree 1852 is the following: "In all expropriation projects aimed at widening, straightening or creating Parisian streets, the administration will have the possibility of including the totality of affected buildings in its plans, in those cases where it considers that remaining sections are not of a size or shape that would allow for salubrious constructions to be erected on them" (Paccoud, 2012). In other words, when a new street cut through urban fabric, not only the sections of buildings through which the new street is to pass will be expropriated, but also all

those parts of buildings that have been partially cut through that are not considered to be large enough to accommodate buildings will be expropriated too. Therefore the real estate that would extremely increase in value after the boulevard was constructed could be seized by the city authorities and then could be sold off at a high edge (Ibid.). The rebuilding of Paris would remain as a collaborative effort between public and private interests, but this decree gave a major right to the government to be effectiveness vis-a-vis the private sector when carrying out its program of urban renewal (Mead, 1995). But later in an important decision on December 27, 1858, the Conseil d'Etat ruled that the city no longer had the right to resell the land which already had expropriated for public works; hence, this decision limited the authorities' right to expropriate land along either side of projected streets, while the improvement values went directly to landlords (Rainbow, 1995). Haussmann began his transformations by seizing more land than he needed for a particular project in order to gain the profits of enhanced property values after passing through the new street (Jordan, 2004). This policy not only supported finance of his future work, but also secured the possibility of making uniform new neighborhoods (Ibid.). But the Paris landowners soon put the city out of the real estate business and made a permission only to condemn enough property to build a street and new public utilities, which eventually would provide more profit from the new urban land market for them (Ibid.).

The objective of urban uniformity by regularizing all the façades for Haussmann in urban modernization of Iran, as a non- Western country, was applied by Reza Shah program. Under Haussmann's program buildings were formed as a group of blocks (îlots), based on the law the height could not be more than 80 meters (between five to seven stories) that includes normal shops on the ground floor- mezzanine floor- three main floors- two attic floors, it featured with high French windows with emphasize provided by all horizontal elements like cast iron balconies in the row with neighboring buildings (Giedion, 1941). On the other hand, for Reza Shah not only the streets' pattern, but also their layout should be planned centrality in order to change parts of the cities with extensive architectural uniformity character (Ehlers & floor, 1993). The common feature of this architecture was the construction of two-storey buildings, at the central meydān often occupied by public offices (city administration, banks, police, etc.), while new avenues were predominated by new shops (Ehlers, 1991). The street fronts of these new buildings were decorated by protruding neoclassical columns, house entrances and windows were often framed by stucco decorations, Small turrets,

blind stories and arches, these all contributed to what has been termed the "Pahlavi style" (Ehlers, 1991; Ehlers & floor, 1993; Marefat, 1988) (Fig. 3.4). These architectural features present a dualistic appearance of the cities under Reza Shah, between neoclassical facades around the central meydān and the modern avenues with the traditional architecture of the residential and commercial sections of the historic city (Ehlers & floor, 1993) (Fig. 4.4). This style of architecture can be seen in the architecture along the first new boulevard in Kermanshah where the plan and function of the building was changed from traditional introverted Iranian-Islamic architecture to nearly modern and semi-extroverted architecture (Borumand, 2009). The architectural decorations are hybrid of European with traditional ones. In this style more details were done on the facades of buildings in contrary with inner of buildings (Ibid.).

Eventually, Kermanshah's traditional pattern of mazelike growth was interrupted when Reza Shah introduced a new organ in the city: the modern street (khiaban). The most important act of urban modernization in Kermanshah started in the 1935 by the construction of only one long and broad avenue with occasional roundabouts as a result of "bold stork" of the engineer's pen (Borumand, 2009; Clarke and Clark, 1969; Ehlers & Floor, 1993). This street featured tree-lined pedestrian paths with water from the qanats (aqueduct) running in jubs (open irrigation ditches) along its entire length. For Reza Shah, street in the urban planning was described as more than a functional component. For him street was an aesthetically pleasing space where people would come to walk (Marefat, 1988).

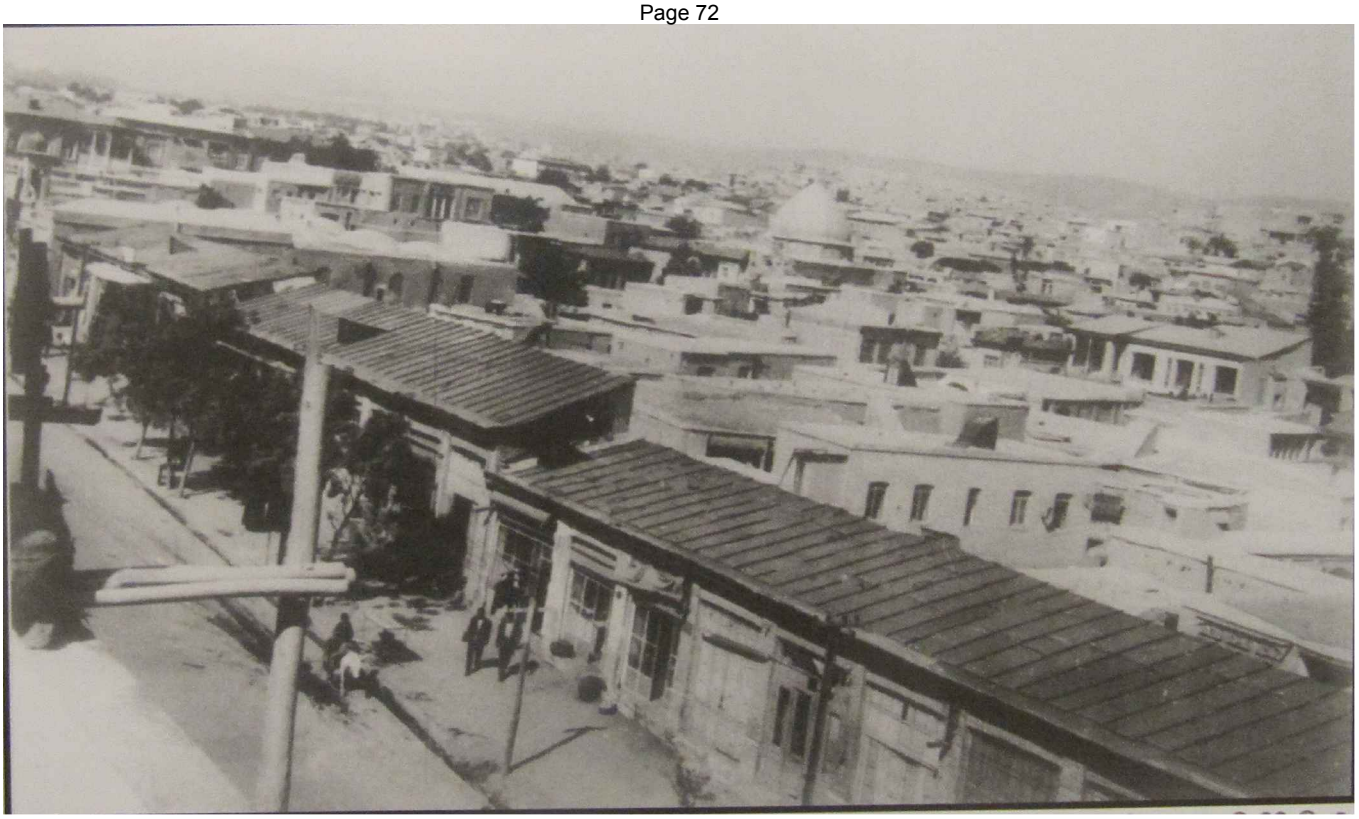
For Kermanshah the process of urban modernization during Reza Shah was limited in the first edge or block of its new street and the value of property along the street increased, apartments and multi-story buildings were constructed and mixed-use buildings appeared. This new boulevard with three different sections' name: Shahpour, Sepah and Shah (now is called Modarres), was constructed from northeast to south-west and extended out into the garden areas to the south of the city. It passed through the heart of the old city and broke the traditional bāzār linear axes in two parts as well as destructed the historic core of a city and hierarchical structure of two main mahallas Tupkhana and Feiz-Abad that were the integrated context as political and religious heart of the city. It was built for reasons of prestige and health, showing clearly the influence of French engineers and regardless of any urban precedent, social and economic organization of the central part of the city and (Clarke and Clark 1969; Clark

•**Photo dated from 1956 shows facades with typical two-stories and neoclassical design, Pahlavi style, was constructed during Reza Shah Pahlavi (Keshmiri, 2013).**

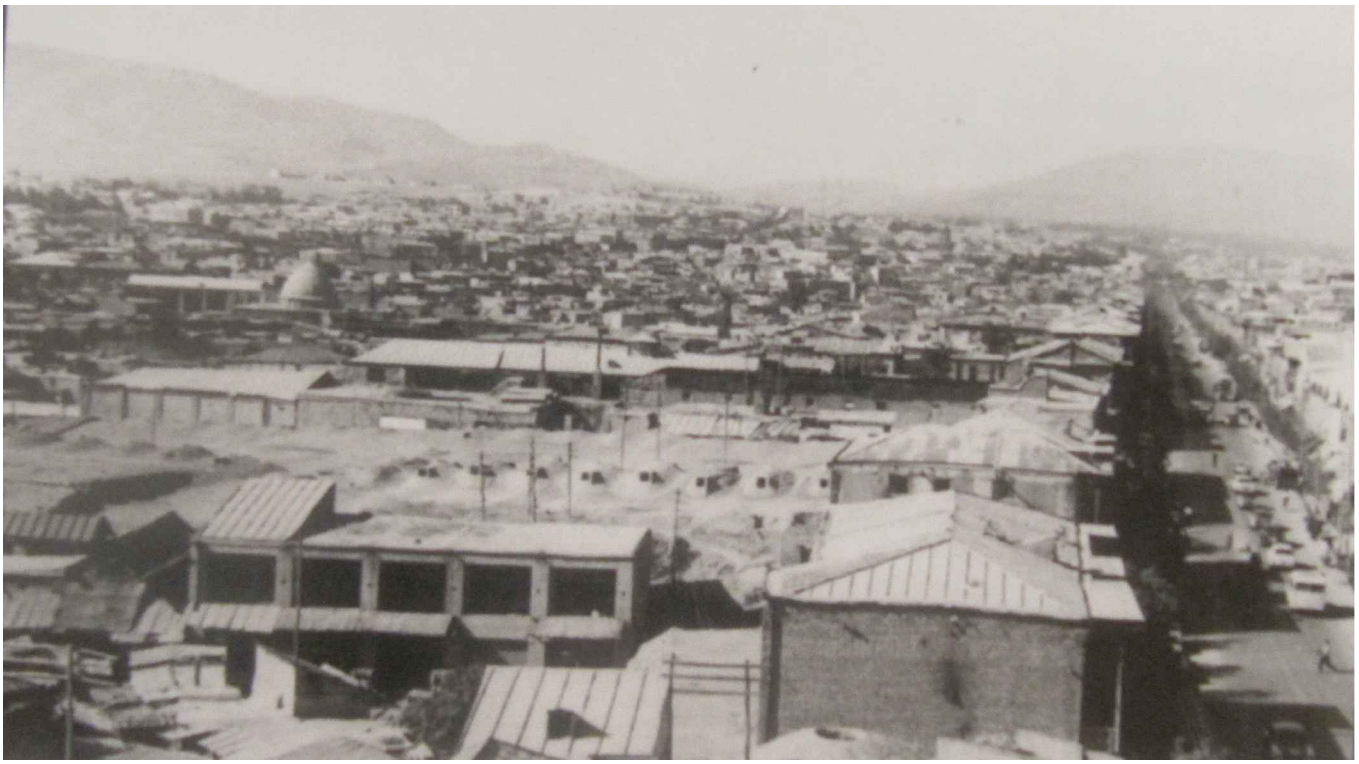
- **The street and facades in 2007, by author.**

- **Neoclassical facades with detailed decoration by (Kermanshah cultural heritages Administration)**

Figure 3.4:
Facades from the different parts of first new boulevard in the city (Keshmiri, 2013; Rashidi, 2014a)



- **The photo shows the depth of expropriated blocks along sides edge of new street, which is maximum one block, and differences between haussmannian expropriation plan with Reza Shah (Keshmiri, 2013).**



- **Those domes of traditional bazaar roof is clear behind the edge of first new street in 1960 (Keshmiri, 2013).**

Figure 4.4:
Dualistic appearance between new streets facades and traditional architecture behind them.

& Costello, 1973; Karimi, 1998). This modern street in the city as the 'single element planning' had an extensive impact on the city future evolution, beginning to be reflected by new technology (motor transport, and building materials), new social values (attitudes to education and health, and intra-city mobility to more prestigious locations) and changing the location of economic pattern activity, best shown in the decline in the centrality of the bāzār (Clark & Costello, 1973).

Although the aerial photos of the city in 1935 and 1941 shows some urban traditional features like governor palace and old barracks still have been remained in this era, but it is obvious that the first new modern street cut apart the active and continues link of historic bāzār from some of integrated traditional urban elements like Sabzih Meydān as a major open space in the city. This leads to the fact that the bāzār became fragmented and incrementally lost their functionalities. However, still the dense tissue of the city as well as agricultural land that surrounded north and especially south of the city as the place with the source of qantas (aqueduct) are evident in those maps. However, there are many houses in the new residential area set in large gardens, especially in the south, in contrast with those in the old city, where gardens were few (Clarke and Clark, 1969).

The bāzār was no more the main commercial route of the city. Also, its inaccessibility to motor vehicles accelerated the decay of its livability. Therefore, concerned about the reducing client forced many retailers to leave the Bāzār and be located along the frontages of the new built street to provide the resources and participate in the new lifestyle and modern culture (Madanipour, 1998). However, the new streets became new shopping areas were mainly stopping points for commercial purposes with diminished social functions (Sharifi &Murayama, 2013).

Also, meydān got a new definition and uniform dimensions were set for its design (Ehlers & Floor, 1993). Most of the traditional Iranian cities as so-called Islamic cities had at least one meydān that functioned as a marketplace or public and social gathering place for special occasions. Unlike the traditional meydān, the modern one was designed not as a public space, but as a roundabout for better movement of automobiles. The two first modern meydān along the new street in Kermanshah (Shahpour, Sepah, Shah) were meydān-i Shahrdari (now Enghelab) and meydān-i 28 Mordād (now Kāshāni), were planted with flowers and even grass with a statue, as a

very European landscaping technique uncommon in Iran (Fig. 5.4). So they moved away from old communal connotations and became symbolic spaces (Marefat, 1988).

Actually, the years between the two world wars were not a period of rapid expansion in Kermanshah, although some growth occurred in 1936, notably in response to the construction of the Anglo-Iranian oil company [37] refinery [38] on the north part of Qarasu River, actually as suburban at that time (Borijian, 2014) (Fig. 6.4).

The modern company encouraged social change and urbanization in the city by employing from different ethnics in other close cities to Kermanshah like Lurs and Kurds. James Mollison Wilson (1887–1965) was one of young architects who were given considerable scope for their professional skills in parts of the British Empire after the First World War. In fact, Wilson had received commissions from the Anglo-Iranian oil company since 1927, the work rapidly mushrooming in the 1930s from the design of individual buildings to the planning of new large residential areas, especially for Kermanshah, Abadan, Masjid-i-Suleiman, Agha Jari, Gach Saran and Bandar Mashahr (Crinson, 1997)[39] (Fig. 7.4). Although Iran was never a formal colony of any Western power, but because its strategic situation and rich resources were subject to indirect, "semi-colonial" political and economic rule of the West (Karimi, 2009). For example the homes of foreigners who involved in Iran's growing oil industry, in south of Iran and also in cities like Kermanshah, served as models for rethinking traditional residential dwellings (Ibid.). Usually, fully furnished accommodations were provided to all British (after 1954 also Americans, and other Europeans) workers, while some senior Iranian engineers were given partly furnished accommodations, and the unskilled laborers found themselves in shanty towns on the periphery of the main city (Ibid.).

The National Iranian Oil Company (N.I.O.C.), in Kermanshah included a group of sixty bungalows for their senior staff and executives of their senior staff and executives.

---

[37] The Anglo-Persian Oil Company (APOC) was an English company founded in 1908 following the discovery of a large oil field in Masjed Soleiman, Iran. It was the first company to extract petroleum from Iran. In 1935 APOC was renamed the Anglo-Iranian Oil Company (AIOC) and in 1954 it became the British Petroleum Company (BP), one of the antecedents of the modern BP public limited company (wikipedia).

[38] The oil of this refinery have been provided by the Naft-e Šāh oilfield[38] near to Qaṣr-e Širin city, one of sub-provinces or counties of the province and it is part of an oil reservoir that extends across the international border with Iraq. Built with a daily capacity of 30,000 barrels, the refinery produces much of the petroleum products consumed in western Iran (Borijian, 2014; Clarke and Clarke, 1969).

[39] There is lack of technical map or document about residential complex of Oil Company in Kermanshah but you can see documents about Abadan oil city that was designed by same architect.

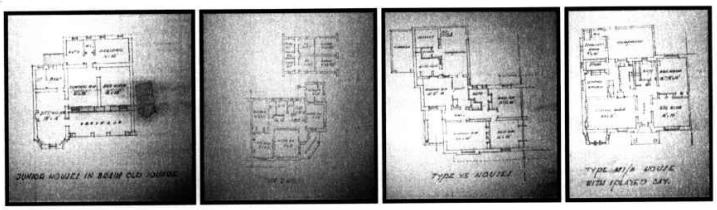
Figure 5.4:
New squares(maydān) in the first new street.

• The Shahrdary square , photo dated from 1938 (Keshmiri, 2008).

• Kashani square (Keshmiri, 2008)

Figure 6.4:
Aerial view of oil company situation in north suburban of Kermanshah and near to Qarasu River (Clarke&Clark, 1969).

Figure 7.4:
Example for residential complex of oil company in Braim ,Abadan city in south of Iran (Karimi, 2009).



Located within the refinery compound 4 km to the north of Kermanshah, the house's layout bears a strong resemblance to a British garden suburb of that period (Clark & Costello, 1973). Self-contained both physically and socially the oil company executives were one of the most distinctive social groups in the city, educated in many instances in Britain or America (Ibid.). Julius W.Mirza (2012) in his book about his memories about living in Iran during WWII, 1939-1945, in the Oil Company of Kermanshah described the residential complex as:

> "The oil company provided Jobs, housing for senior staff, recreation and some shopping for its resident, which carried primary dry goods like candy, cigarettes, magazines, chocolate, liquor and for other items company provided housewives with daily bus trips to go shopping in Kermanshah; Also the city provided schools, medical facilities, churches, banking, foods, post office and transport system for them. Also rental housing was available for day labors. He described the residential area as complex with tree-lines streets, guest house like American motel, swimming pool, fenced nine-hole golf course, and club, Qarasu club, for entertainment activities of staffs and their family. He mentioned how the Club served for non-Muslims women form worker in the company as well as Muslims women from city center to entertainments like rummy and whist drive without fear of religious zealots. Based on him the company constructed British-style brick veneer houses[40] for junior and senior staff and he explains the unit assigned to his family with three bedrooms, one bath, which was not usual in traditional houses in the city center at that time, living room/dining, backyard with one-car garage and tool storage building. He pointed to some modern elements like a twin bed in the bedroom, free standing floor fans and overhead ceiling fans as well as freestanding radiator for providing steam heat that was supplied by a central power plant for steams and hot water. This central plant was supplied for some two hundred employee houses and business buildings in the compound" (Ibid.).

---

[40] I didn't find any architectural document from this area and even any permission to photography so the only way for study the difference between this area and city centre is aerial photos.

As the city was located in an important tribal area multifarious social and economic pressures have led to the immigration of tribesmen into Kermanshah from the nineteenth century onwards, but particularly during the I920s and I930s (Clarke and Clark, 1969). While some of this was voluntary movement, many groups, and particularly the Kurds, were 'pushed' to the city as a result of bad harvests, drought or the development of settled agriculture. Others were forcibly settled by Reza Shah as part of his new conscription law of 1925, which imposed military service on all men aged 21, had comparable effect (Clark & Costello, 1973; Clarke and Clark, 1969). Introducing young men to live in urban areas, mechanical civilization and some modern education led to decrease of what he believed to be the anachronism of tribalism in a twentieth-century stat (Ibid.). The policy of Reza Shah to pacify and settle the tribes, and thereby reduce pastoral nomadic, influenced upon urban growth. Some tribes were forced to send their children to elementary schools in cities like Kermanshah and undoubtedly some of these children stayed and found employment there (Clarke and Clark, 1969). During this period, the population of Kermanshah was increased from 60,000 in 1935 to 88,622 in 1941, leading to the southward expansion of the residential area up (Clarke and Clark, 1969; Ehlers & Floor, 1993).

Modernization in the Second Pahlavi under monarchy of Mohammadreza Shah (1941-1979); new strategies, National Development Plans and new social class

During Second World War Kermanshah grew a little because the city was located among an area affected by tribal troubles and disorder after falling Reza Shah. Also, it was a military base, with an airport, and was a staging point on the long road haul for convoys supplying Russia (Clarke and Clark, 1969). At that time Kermanshah was occupied by the Allies, especially Britannia and America, and faced with serious economic problem and starvation, like other Iranian cities at that time, because of massive food purchases by foreign armies in the city and block of some main roads between Kermanshah and other cities (Ibid.). The appearance of new large barracks in the only city map after war dated from 1948 is witness of importance of army objectives in the city at that time. The aerial photos and maps of the city during 1940s shows the intricate situation and economic stagnation led to lack of series experiment and variations in terms of city’s modernization even in the network of new streets (Fig. 8.4). The expansion of the city in this decade had persisted only to the south as an area with widespread gardens and high quality of water. Actually, hardly, any expansion occurred

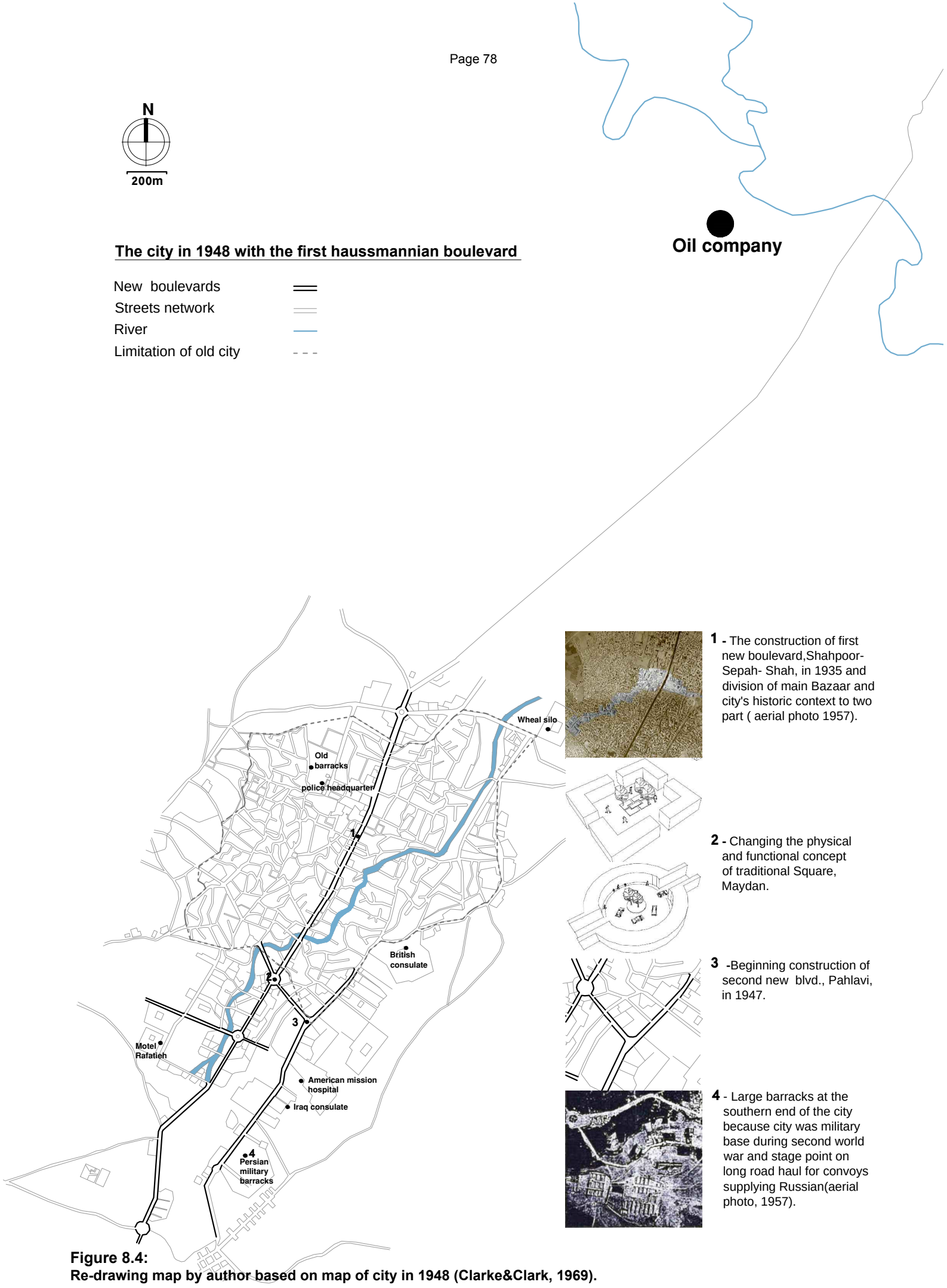


Figure 8.4:
Re-drawing map by author based on map of city in 1948 (Clarke&Clark, 1969).

on the northern, eastern and western edge of the city and the architecture was limited only to the construction of some villas and residential buildings especially in the south area (Borumand, 2009). The intensity of forced migration was weak in this period because there was not strong central control due to WWII, but after that was improved as a result of government social and rural development policies (Clark & Costello, 1973).

After the abdication of Reza Khan, his son Mohammad Reza (1941-1979) became the monarch. He continued his father's dual ideals of nationalism and the revival of ancient glory on the one hand and rapid westernization on the other, but his techniques of control were somewhat different. His techniques, although autocratic, were much more subtle and informal (Mazumdar, 1981). Nonetheless, few legislative means rather than direct autocratic orders were also used. The Law of Independence of Municipalities in 1949 dealt with municipal jurisdiction and cities. Based on this law, citizens could choose city managers as a council with 25[41] members who were selected for four years.[42] While Reza Shah had destroyed the old system and set up a secular nation-state in the place of the Qajar Empire, in the following aimed to improve the existent socio-economic infrastructure and to polish the image of the Persian monarchy (Grigor, 2016). By the early 1960s, his son managed to reestablish and control of the “three Pahlavi pillars” that had supported the supreme power of his father: “the armed forces, the court patronage network, and the vast state bureaucracy” (Abrahamian, 1982).

In 1944, eight[43] architects who had studied in Europe and were working for the government on the design and construction of government buildings came together and formed Anjoman-e Me’maran-e Diplomeh (Society of Diploma-Holding Architects). In addition to the construction of projects, these architects also taught at the School of Architecture that had been established in 1938. They strove to be a more coherent influence on the country’s architecture. They published Architect magazine to start a conversation with specialists, intellectuals, and academics from non-architectural

[41] Except of Tehran with 30 members; also villages or small cities with maximum 10,000 habitants had 6 members in council (Islamic Parliament Research Center of The Islamic Republic Of Iran, Law of Independence of Municipalities, online accessibility 2017).

[42] The first meeting Kermanshah municipality council was held in 16 August 1941 (National news letter of Kermanshah issued in 16 August 1941).

[43] The Society of Diploma-Holding Architects was established by well-known architects Vartan Havanesian, Mohsen Forughi, Keyqobad Zafar, Manuchehr Khorsand, Ali Sadeq, Nasser Badi’, Iraj Moshiri, and Abbas Azhdari.

backgrounds. The main essential point of their writer was “fulfill their duties to the best of their abilities to improve the construction and sanitary conditions of cities in the country” (Architect, 1). Nevertheless, their concentration was more on the Tehran and major industrial or historical cities like Isfahan or Tabriz and they didn’t publish any topic for cities like Kermanshah at that time.

After a famine and inactivity of war in the late 1950s, especially after about 1960, urban development in Iranian cities gained new impetus from a sharp rise in urban population that provide three main aspects transformation: development of new quarters, infrastructural and industrial changes, and urban-renewal programs (Ehlers, 1991). Kermanshah began to undergo significant urban and economic development following World War II (Borjian, 2014). Its demography discloses a growth from 88,662 inhabitants in 1941 to 123,439 in the First national census in 1956, after the Reza Shah Monarchy in 1941, and the comparison of city map between 1947 and 1956 shows 2.7 percent annual increase in the city areas (Adibi, 1989; Clarke and Clark, 1969). In this decade population overtook the construction and growth of the built environment in the city and led to a prevalence rental pattern as a single room (Irandoost, 2001).

Mohammad Reza Shah like his father favored the construction of urban highways and boulevards as “a symbol of modernization“(Zad, 2013). Therefore, during his monarchy the construction and imposing network of new streets and boulevards on historic context had been continued in Kermanshah like other Iranian cities. In this regard, the construction of the second haussmannian boulevard, Pahlavi Street,[44] with three roundabouts A-Sheikh-Hadi, Vaziri, Shahnaz (Now called Ghadir) and in parallel with first one, Sepah/Shahpour/Shah Street, was finished in 1956 and for the second time distrusted the organic morphology of the east section of the bāzār as well as its integrated structure with surround urban contexts (Clarke and Clark, 1969) (Fig. 9.4). The A-Sheikh-Hadi or Jalili square was one of the roundabouts that its formation was concerned with religious elements, A-sheikh-Hadi or Jalili mosque. The second modern street on its way through historic context faced with A-sheikh-Hadi mosque. So new streets rounded the mosque and mosque became a traditional landmark in the middle of the square as a new, modern elements in the city, it was a confrontation between tradition and modernity (Fig. 10.4). Moreover, by the time, one of concern about

[44] This street after revolution is named Dr. Shariati Street.

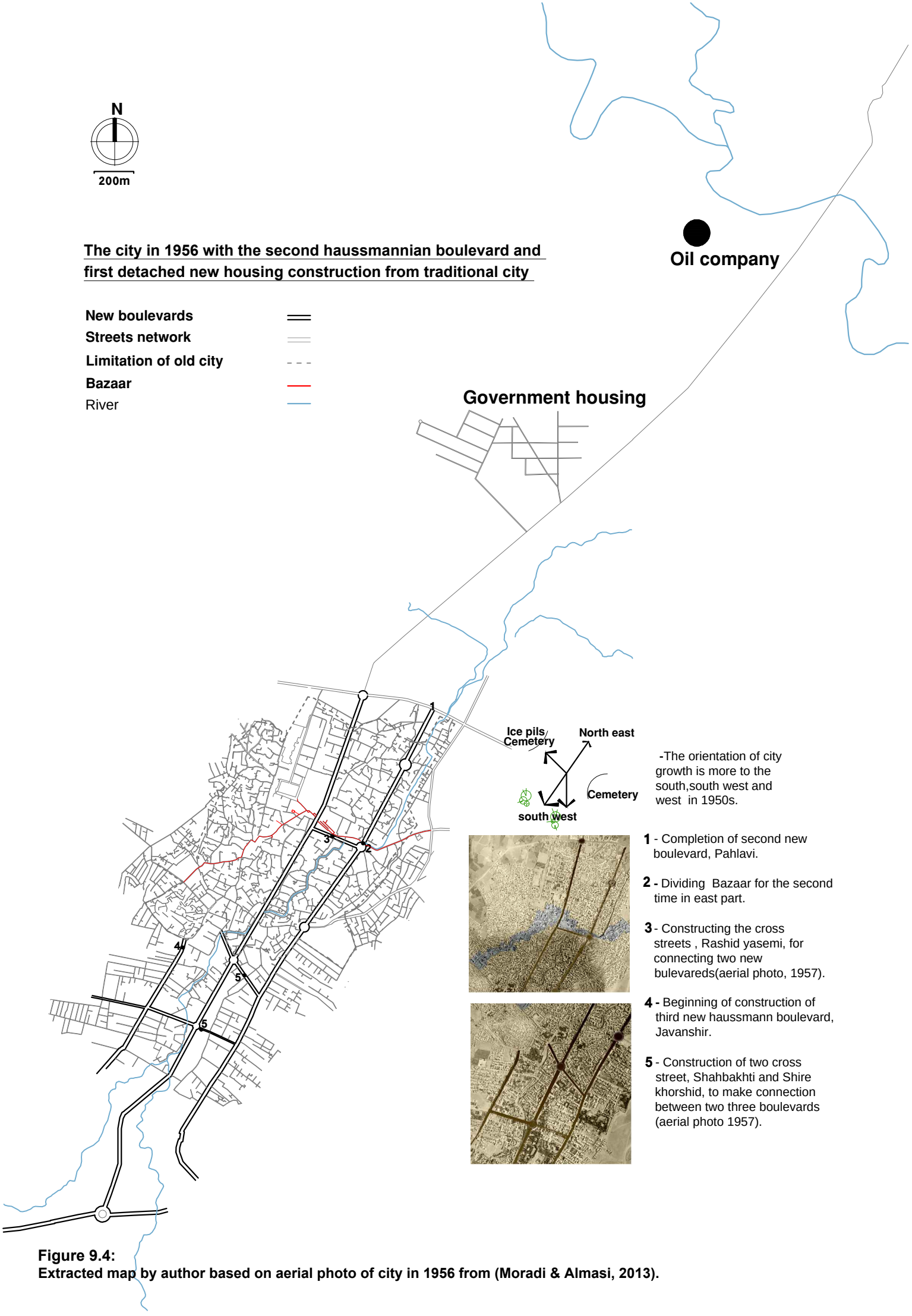


Figure 9.4:
Extracted map by author based on aerial photo of city in 1956 from (Moradi & Almasi, 2013).

prestige and elegance as well as a facility for traffic accessibility in the city was the lack of cross streets, east-west direction, with these two parallel haussmannian boulevards (Kavousi Brouman, 1952). So two east-west streets: Shahbakhti/Shirekhorshid and Rashid al Yasami had been constructed, in 1952-1956, in order to make a connection between two main parallel boulevards (Clarke and Clark, 1969) (refer to Fig. 9.4).

Figure 10.4: Confrontation between tradition and modernity, mosque and new street in A-Sheik-Hadi or Jalili square (by author).

Figure 11.4: New modern squares as new places for social events and gathering; The first anniversary of nationalization of oil company in Shardari square, as new typical modern squares in the city, in 1952 (Keshmiri, 2008).

In the first decade after World War II, Iran faced with the national and regional tensions that were evoked due to the nationalization of the oil industry by Prime Minister Mohammed Mosaddeq in 1951 (Katouzian 2009) (Fig. 11.4). Two years later, after the fall of Mosaddeq's in 1953 by a coup d'e´tat, Reza Shah's son, Mohammed Reza, fixed his autocratic rule and like his father was characterized his reign by a resolute commitment to modernization, industrialization, and developing the country's infrastructural facilities (Grigor, 2013; Madanipour, 1998). He sustained a similar policy like a father on absolute control over political discourses and pushing for further Western-style infrastructural and ritual practices (Grigor, 2013). He had strong tendencies toward Americans and two major catalysts for his modernization projects were 'Truman's Point Four Program' and the 'Plan Organization' (Sāzmān-e Barnāma) in Iran (Karimi, 2009).

The Point Four Program was a technical assistance program for 'developing countries' announced by the United States in 1949 (Mashayekhi, 2016). So the President Truman's administration came up with the idea for a technical assistance program by US in various fields, especially agriculture, industry, and health as means to raise the

standard of living in the developing world and indirectly helping to stimulate a desire for Western commodities (Karimi, 2009). After putting Iran on the list of four Truman, an office as the 'Board of Point Four' was established in Tehran and after that some branches were held in cities: Tabriz, Shiraz, Babol, Isfahan (Sajedi, 2008). Then they sent some representatives for Ahwaz and Kermanshah and it was actually the beginning of work based on this principle (Ibid.).

The finance of 'Point Four Program' in part, borrowing extensively from the World Bank and sharing of oil revenues were main sources for financial support of 'Plan Organization', which provided a series of seven-years cycles guidelines for the national development strategy (Karimi 2009). For example, in the Kermanshah construction sector of 'Point Four Program' supported and financed city's municipality in order to new street construction and improvement of water aqueducts, qanat, in and a part of piping water in the city.[45]

Based on published interview with Mr. Nathaniel Farris as Deputy of Cultural and economical department in 'Point Four Program' in Kermanshah they started with cultural program in Kermanshah and provided training classes for teachers for modern teaching methods and English langue class as well as the education of girls in matters of housekeeping.[46] Point IV specialists planned to help these young women refine their domestic skills, improve the quality of their food and cooking methods, consider their family's health, and create "good taste" in decorating and furnishing their homes (Karimi, 2009). In addition, in terms of urban design activity Poin IV was responsible to improve the municipalities in Iranian cities. In this regard, The POIN IV had a plan to train authorities by preparing urban design and planning book for the municipalities ; hence, they prepared first comprehensive plans in Iran for the three important cities Isfahan, Sanandaj and Shiraz (Habibi, Ahari & Emami, 2010). Although their activities in terms of urban design never had Physical crystallization or the instructions never translated to Persian, but it intellectually was effective for officials and experts (Ibid.). Despite efforts to keep a distance from the appearance of colonial aspirations, the

[45] National newsletter of Kermanshah 1332 A.H.S. (3096) , issued 24 dey/14 January 1954. Iran National library.

[46] National newsletter of Kermanshah 1332 A.H.S. (3100), issued 6 Bahman/ 26 January 1954. Iran National library.

Point IV Program and other American-initiated efforts were denigrated by nationalists and religious groups as neo-colonialism (Karimi, 2009). So, Many Shi'ite scholars during the Shah's era made an effort to revise their traditional norms in the face of modernization; hence, during the 1960s and 1970s, many Shiite seminarians in Iran introduced their own opinions about how to live a life as modern and religious (Ibid.). They reinvented certain aspects of everyday religious practices in the Tawzih al-Masāil (Guide to Problems), as a handbook of behavior governing, which was written by the mujtahids [47] or highest-ranking authorities of Shiite Islam (Ibid.). Ending the Point Four Program in Iran (1967) was concurrent with rising the price of oil in the world market and consequently Iran's income through oil during the second national development Plan (Khatam, 2015).

The formation of the 'Planning Organization' of Iran in 1948 led to prepare the first course seven-year plan for socio-economic development from 1949 to 1955 led to concentration of industrial investment in few regions accelerated the uneven and rapid growth in central cities of some major provinces (Zad, 2013) (Fig. 12.4). During the second development plan (1955-1962), industrialization strategies proceeded to carry out a national development program, called the White Revolution. The White Revolution supported the king to appropriate the various political, socioeconomic, and cultural forces in his own domain of power and thus gain unprecedented executive over major agencies such as the Plan Organization, the National Iranian Oil Company, the Women's Organization of Iran, and the Society for National Heritage (Grigor, 2016). Among these strategies the 'land reform' policy had considerable impact on the process of urbanization in the whole country. Based on 'Land reform' policy, the government initiated property redistribution with the aim of abrogating the traditional feudalism and enhancing the industrialization process of redistributing agricultural land from feudal landowners to sharecropping farmers (Ibid.). In a speech of the land distribution ceremony at Kermanshah on 14 November 1962, Mohammad Reza Shah used precisely these same words, adding, however, that Iran belonged to all without special privilege to any group (Ansari, 2010) (Fig. 13.4).

[47] A person accepted as an original authority in Islamic law. Such authorities continue to be recognized in the Shia tradition, but Sunni Muslims accord this status only to the great lawmakers of early Islam (oxford dictionary).

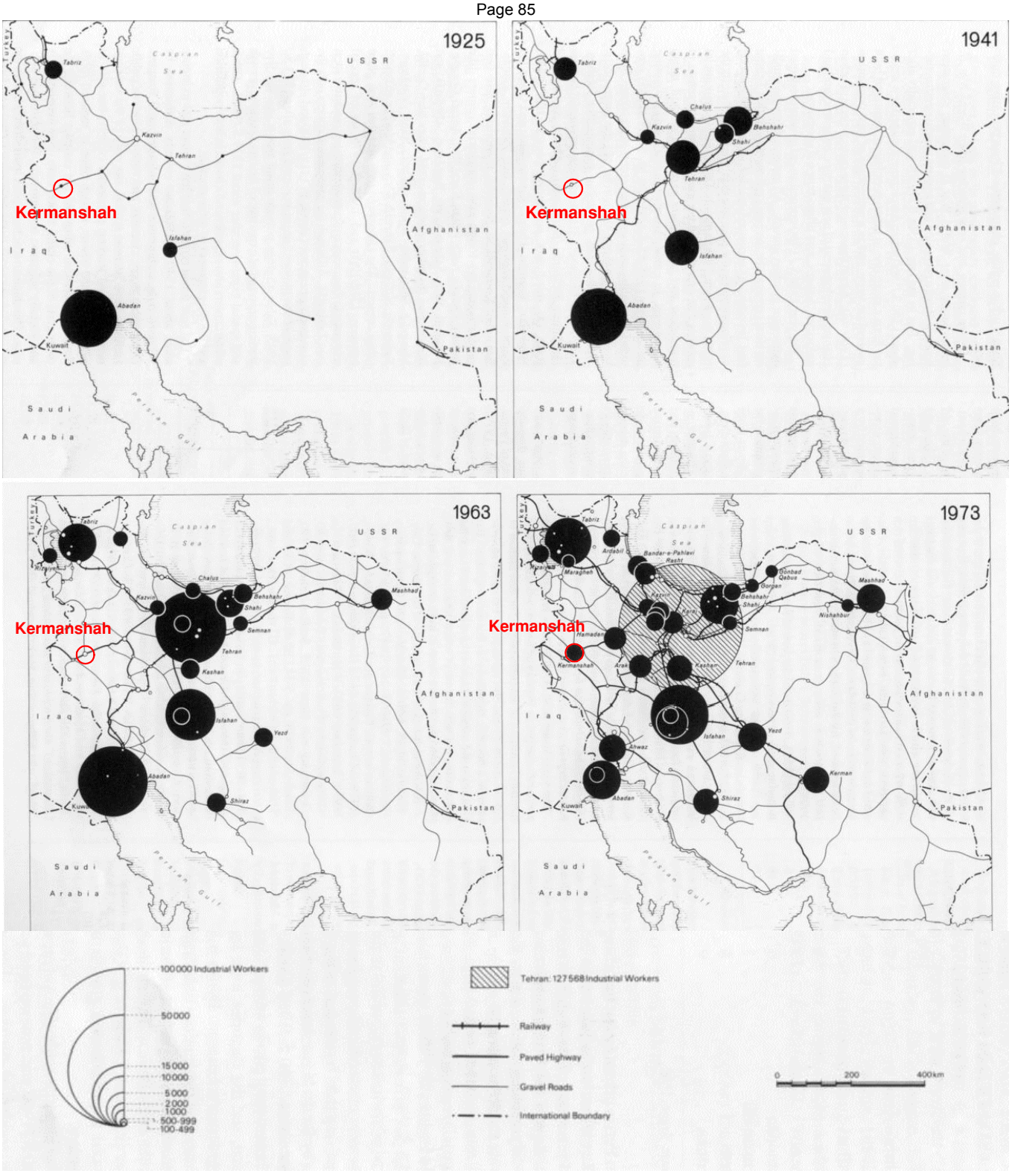


Figure 12.4:
Industrialization of Iran and situation of Kermanshah city, from 1925 to 1973 (Ehler, 1991).

Figure 13.4: Land reform program; Mohammadreza shah is handing over property documents to Kermanshahi farmers (Wikipedia).

The land reforms resulted in the high rural-urban migration by releasing a roughly large number of rural populations from agriculture in the countryside and attracted these new labor forces to cities: to the new industries, to the construction sector, to services and the constantly growing public sector bureaucracy (Zad, 2013; Madanipour, 2006). The massive urban growth and population increase accompanied by remarkable economic growth as a result of skyrocketing oil revenues during 1960s and 1970s (Mashayekhi, 2016). The attraction of the new labor force in the cities rose property prices due to increasing demand for housing that exceeded land supply (Zad, 2013).

Based on the second national census, held in 1966, Kermanshah's population grew to 187,930 with an annual increase of 4.1%, making Kermanshah as the eighth largest city in Iran (Adibi, 1989). Migrants who represented a high percentage of the total population could be identified as two groups: intra-urban migrants from the old city, and new social mix in Iranian cities as 'middle stratum' of society (Clark & Costello, 1973). This new middle class group comprised army officers, teachers and administrators, while many had been drafted into the city as a direct result of central government policies (Ibid.). The main built-up area of the city has increased enormously in size since 1903, when Jackson (1906) wrote: "In area the extent of the town is considerable, as it measured about four miles[48] in circumference" (Adibi, 1989) and grew to 9 km2 in 1966 and then to 14 km2 in 1973 (Kermanshah master plan, 1973).[49] In 1966, 33.19% of whole area or 3 km2 was belonged to residential district and 15% or 1.4 km2 was covered by streets and avenues while In 1973, 36.75 % or 4.9 km2 of

[48] Four miles is equal to 6.4 km.

[49] These areas presented based on aggregate of land uses areas.

whole area belonged to residential areas and around 20% or 2.9 km2 covered by streets and avenues (Kermanshah master plan, 1973; Kermanshah master plan, 1981) (Chart. 1.4).

Between 1956 and 1966 the expansion of the city is no longer mainly toward south, because topography limitations, and almost, there was an advance housing everywhere to some extend that built up area began encircle cemeteries around the city (Clarke and Clark, 1969; Irandoost, 2001). Compared with the old city, there was a low density of population per hectare in the new southern-western developments and, although servants living in the house or in a hut in the garden help to inflate the figure, the area lacks many of the traditional facilities found in the old city such as *hammāms* and *chāikhānihs*, or tea houses, and mosques (Clark & Costello, 1973) (Fig. 14.4).

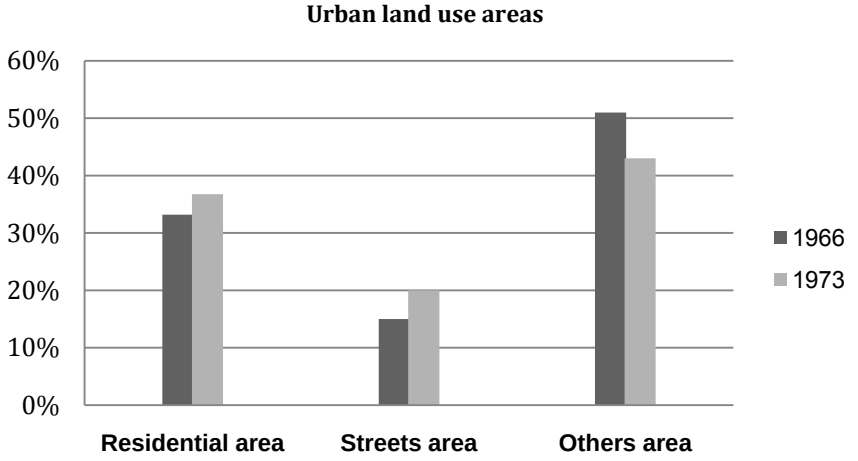


Chart 1.4: The comparison chart for urban land use areas between years 1966 and 1973.

The Kermanshahi [50] agricultural landowners built the most of the houses in this district where was prior to a piped water supply, the streams and qanāts were purer, and the risk of sewage pollution was less; thus, they rented these houses to more mobile members of society such as the army officers and senior government employees (Ibid.).

[50] Kermanshahi means: The people from Kermanshah.

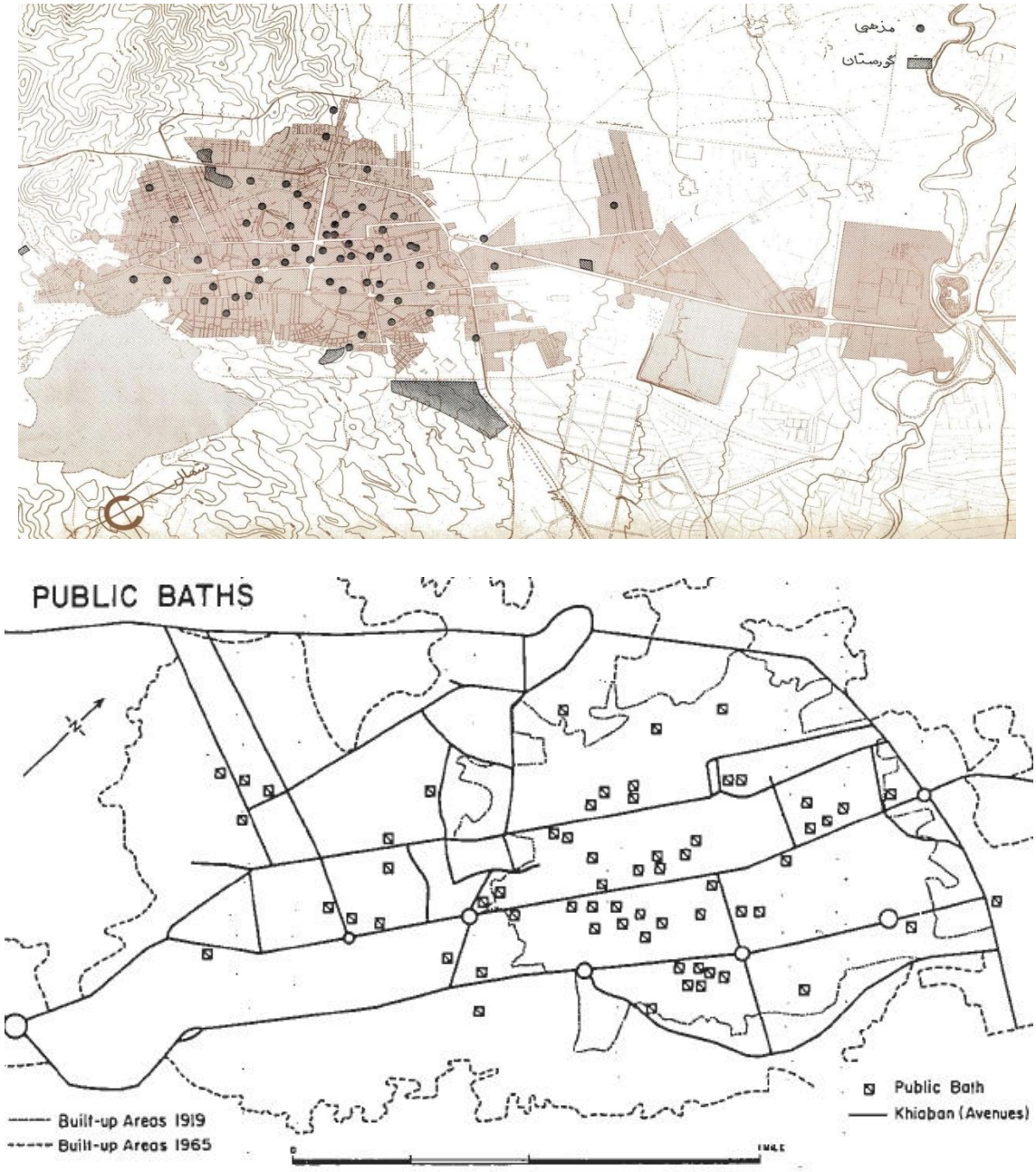


Figure 14.4:
Above; The more concentration and density of mosques in 1973 (above) and public baths in the 1950s (bottom) in the historic core, comparing with the new southern developed part of the city with rich residents in 1973 (Kermanshah master plan, 1973; Clarke &Clark, 1969).

In contrast with Reza Shah whom the transformation of the old context of the city was the dominant pattern of urban design for him, for Mohammad Reza Shah transformation was beyond the city boundaries and exogenous development (Habibi et al., 2010). The first example of this concept for Kermanshah formed in this decade was as detached constructions from the main body of the city (Irandoost, 2001).

It began with the development of new residential complex, 150 houses started from 1963, for The N.I.O.C. Workers, situated 1 km from the refinery, as well as the establishment of the city's stadium, were started from 1953, in the same area with high value of agriculture (Clark & Costello, 1973)[51] (Fig. 15.4). Between 1953 and 1975, the number of small factories increased from 1,500 to more than 7,000; medium-sized factories from 300 to more than 800; and large factories, employing more than 500 workers, from fewer than 100 to more than 150 (Abrahamian, 2008). They included textile, machine tool, and car assembly plants in Tehran, Isfahan, Shiraz, Tabriz, Ahwaz, Arak, and Kermanshah (Ibid.).

The establishment of Bank-e-Rahni[52] in Kermanshah in 1941, and in Tehran from 1938, shows government concerns about providing and improve housing problems in the city from years ago especially for its employee (Habibi et al., 2010).[53] In contrast with the past that first urban facilities were determinative for direction of urban growth, now it was city growth that was determinative for installation of urban facilities. The housing units were attractively designed with a well-planned landscaped area and were considered to be one of the best examples of low-cost housing in Iran (Clark & Costello, 1973). Moreover, central governments decided to provide subsidized housing for the growing number of junior and middle-rank government employees. In this regard, they financed by Plan Organization, building of 400 single-storey with courtyard, residential units, 3 km from north of the old city and next to the only new high-class residential area of oil company housing (Ibid.). In the Planning of both developments, schools for employees' children, health and welfare service, cooperative shopping facilities, bank, post office, park, theater and cinema and the mosque were considered [54] (Fig. 16.4). So, housing became a tool for social and urban modernization. All these developments, for oil workers and government housing, led to selecting a social distinctive class of tenant in the places that were in contrast with the city sprawled and unplanned areas.

---

[51] Also mentioned in; Kermanshah National Newsletter 1342 A.H.S. (3994) , *issued 21 Mordad/12 Agudst 1963. Iran National library.*

[52] Specialty Bank for Housing and Building that now is named Bank-e-Maskan (housing bank).

[53] Also mentioned in; Kermanshah National Newsletter 1320 A.H.S. (1387), *issued 22 Farvardin/12 April 1941. Iran National library.*

[54] Mentioned in; Kermanshah National Newsletter 1341 A.H.S.(3958), *issued 20 esfand/11 march 1963. Iran National Library.*

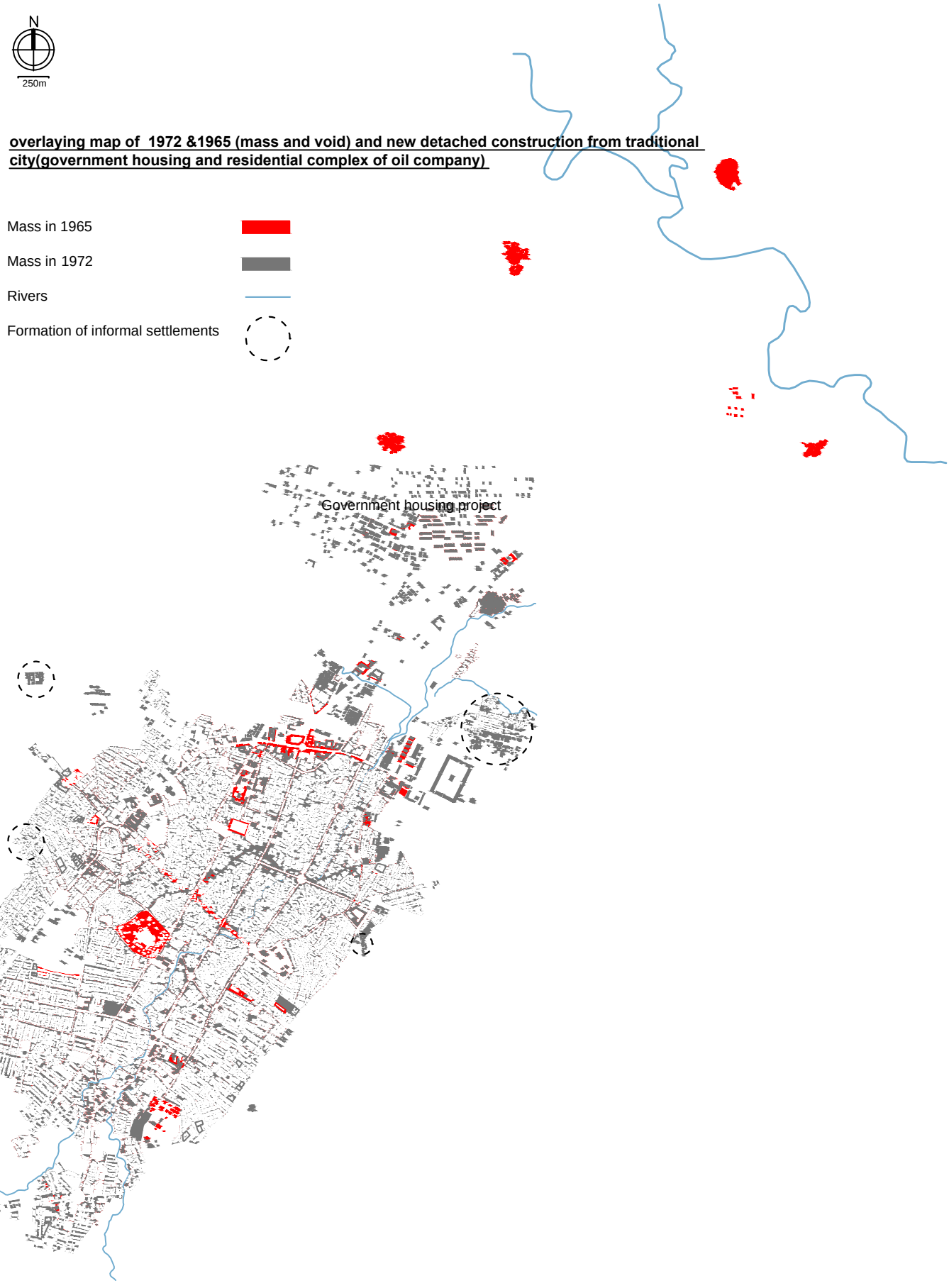


Figure 15.4:
The formation of the government housing (middle and high class areas in the north, as the primary detached constructions from body of traditional city .Extracted by author based on aerial photos of city in 1965and (1972National Cartographic center of Iran; Clarke &Clark, 1969).

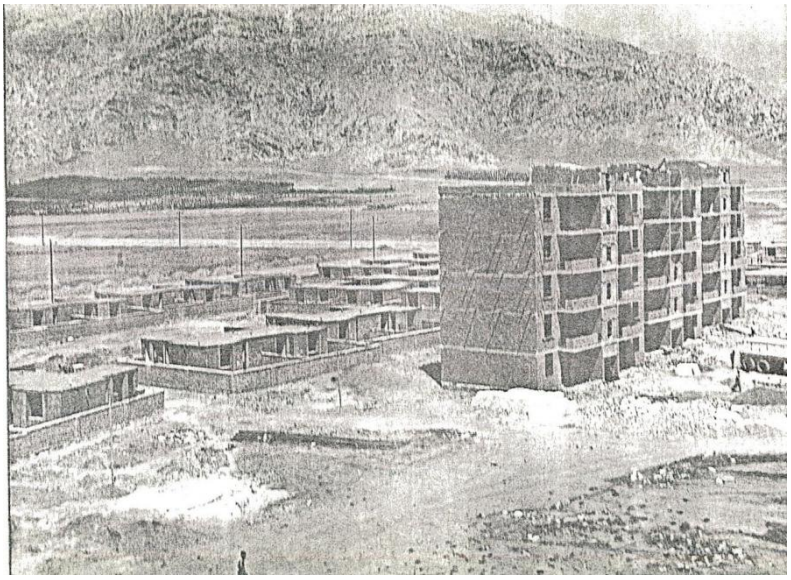


Figure 16.4: Example of new housing construction by government in Kermanshah during second Pahlavi (Kermanshah master plan, 1973).

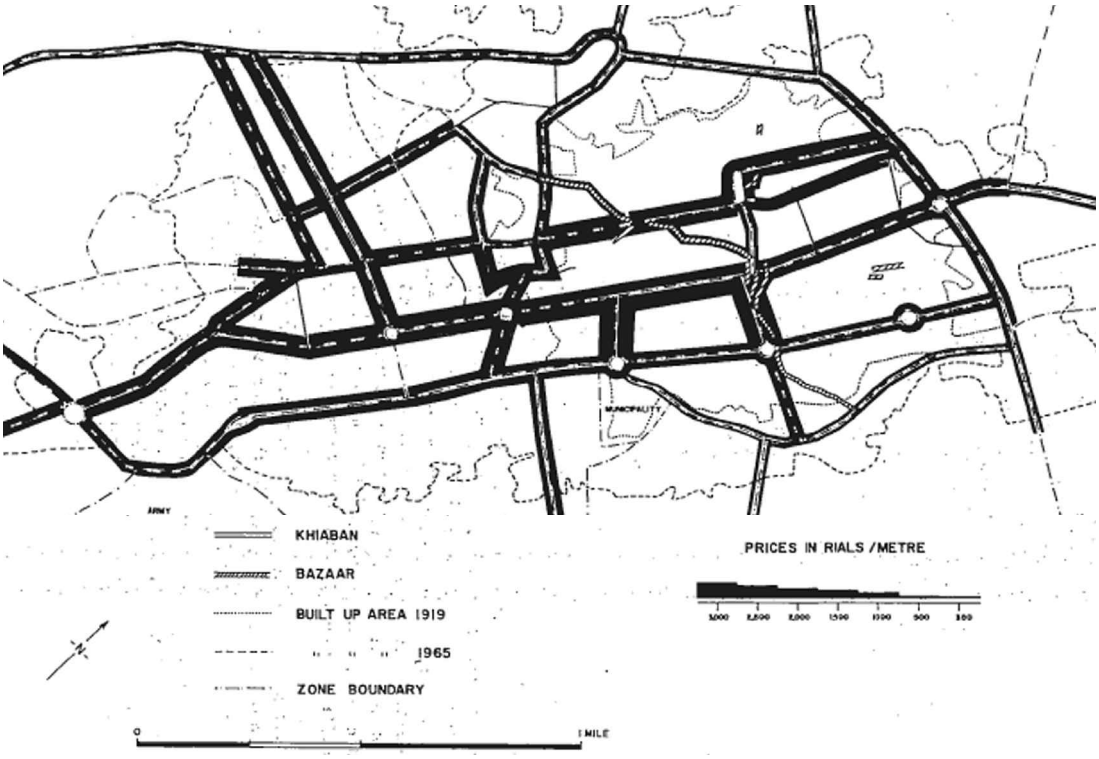
The beginning of significant programs for the construction of middle-class housing resulted a variation on modernization in the decade that followed. These programs were clearly a strategic element in Iran's nation-state (re) building and modernization projects. Similar to Turkey, Egypt, and others, Iran's rebuilding of the Iranian nation-state was expected to result in a modern nation ambition while its ambition was to become the equivalent of the European nations model, such as France and Germany (Habibi & Meulder, 2015). In Iran, like in many countries, the tendency for innovation by architects and rise against tradition were a reflection of intertwined political movements, which housing was a central issue to address. In this way, modern housing projects marked clear split with traditional housing production and were meant to create Iran's modern middle-class society. Turkey had also taken a similar approach to urban development, with the introduction of large middle-class neighborhood projects (Ibid.).

Occupant of agricultural land with the built environment and absorption of villages by city growth led to unemployment of many agricultural workers as main worker group in a city like Kermanshah. It would be meaning full in case of Kermanshah comparing with Tehran at the same time. In 1956 Kermanshah had 12.4 % of the occupied people in agricultural category, while Tehran had 1.6% of people in this category, and it had extremely declined by 1966 to 3.5% or 1,727 people in this category (Clarke and Clark, 1969). On the other hand, increasing the number of professional, technical, administrative, managerial and clerical post in this period emphasized development of Kermanshah as an important administrative and regional center. The fundamental

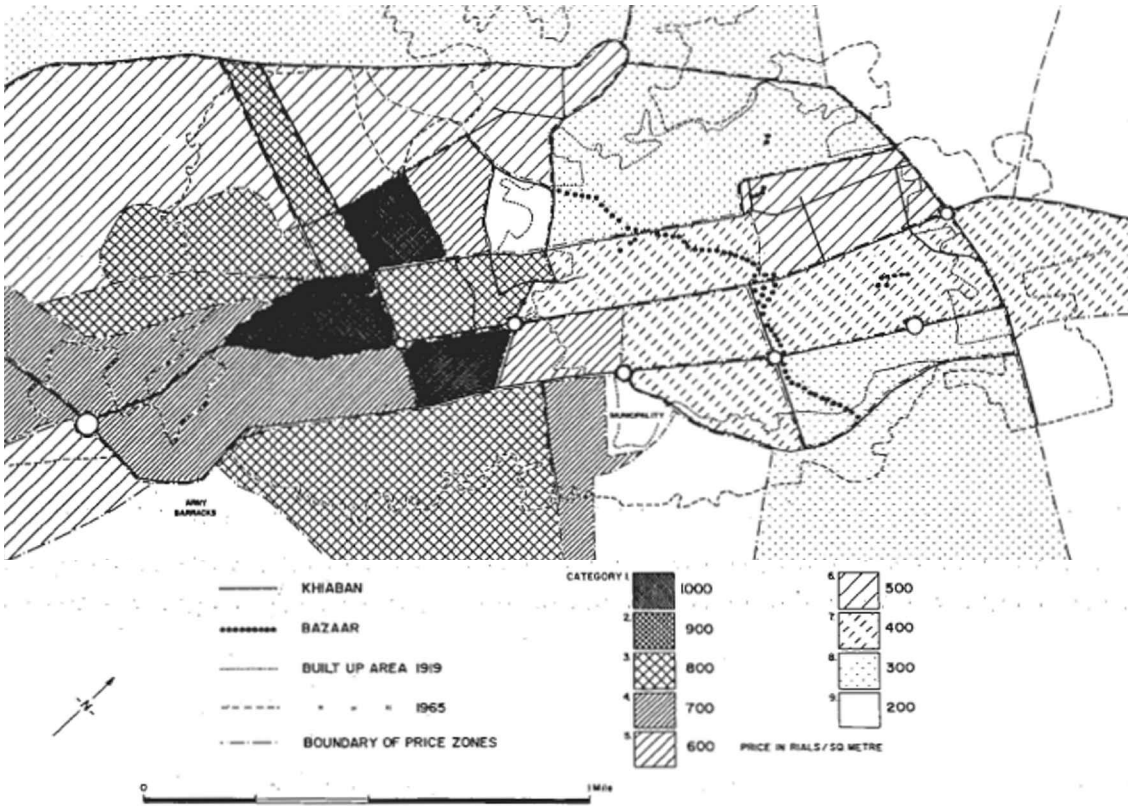
development was the increase of the number of government employees by 135.8% from 6,226 to 14,683, between 1956 and 1966 (Ibid.). This high percentage of government employment reflected not only the built environment of Kermanshah by central government policies, but also emphasized the significant role of the government sector in the urban economy and development.

Actually, after the 1930s, which was started as a growth of high class areas in Kermanshah especially in southern higher lands near to the old city could be found in many cities of Iran. For example, that happened as same in Tehran, but with more extensive pattern form, where temperature differences were also a major factor in explaining the areas' social level (X.de Planhol, I968).It was the contrast between the hot, smog-ridden, densely developed south areas with the cooler exclusive high-class suburbs and palaces in the north (Ibid.). The old city of Kermanshah became as a reception area for many of the poorest migrants coming from nearby small towns or villages and tribal areas, while suffering lack of facilities and services with high room occupancy (personal interview with residents of the historic core, 2017). Some of the newcomers lived in sub-divided houses that were vacated by movement of successful members of the urban community. Also, some of them settled in caravanserais or in commercial offices where functionally outmoded because their centrality had declined due to city transformation and social pattern changes (Clark & Costello, 1973). Despite social pattern changes in the city, more traditional Urban and social features of an Iranian-Islamic city had been still important in the historic core. Including mosques, with the Islamic influence far greater than the new residential areas, the *hammāms*, still necessary because of the paucity of piped water and the *Chaikhānihs* (tea houses) important among the poorer members of society in order to provide social interactions, diffusion of news as well as hearing social welfare advertisements from the radio (Ibid.).

The urban context between the new southwestern suburbs and the old city was a mixed zone of residential development that its land values away from the major avenues were declining (Fig. 17.4). All large properties in this area, where was considered as the periphery of the city in the I920s, in these decades were sub-divided into smaller housing units or were converted into local and central government offices. It was a mixed area, both in the quality of the residential units and the social class of the residents (Ibid.). The more traditional merchants and businessmen who have no



• **Frontal land high prices on the first 30m of new avenues, specially main streets in 1965 (Clarke&Clark, 1969).**



• **The Price of land in interior of blocks in 1965. Contrast between traditional city and new developments to the south (Clarke&Clark, 1969).**

Figure 17.4:
Lands price in the inner traditional contexts, new development areas and frontal land along new streets.

wish to move to a modern house, those who are less successful in the field of commerce, and also higher income migrants were residents of this part while in the less densely developed parts they were selling some sections of the private houses' gardens for further residential units constructions (Clark & Costello, 1973; residents personal interview, 2017).

On the other hand, vehicle ownership had highest level in the city; hence, imposing modern boulevards had been continued in these decades as a policy for modernization and facilitation of the transportation (Clark & Costello, 1973). So, the third haussmannian boulevard[55] passed through the city historic core, between 1959 and 1965, and for a third time segmented the western structure of bāzār, its stability and dynamism with traditional neighborhoods (Fig. 18.4). Since this boulevard was constructed without any consideration to city topography; hence, it made height differences about 15 meters between boulevard and surrounded built environment (Fig. 19.4). The increase of motor transportation and the city expansion were the main reasons for arising traffic problems in the city. Since the old lanes and alleyways were impossible for motor vehicles, the new network streets had not served adequate all parts of the town and most of the time during the day they were overloaded with cars (Fig. 20.4 & Chart. 2.4). Accordingly, by the time police authorities suggested to widen the first Huassmannia Boulevard, Sepah/Shahpoor/Shah.[56]The widening project was started from late of 1960s due to expropriation and budget problems but has not been completed yet. While all this was happening and the city was taking on a modern look, those who could not afford automobiles were riding on donkeys on the streets (Mazumdar, 1981).

Many new shops were formed along the new main avenues based on greater purchasing power of the local population and to provide requirements of the new class of residents like: stock of electrical appliances, high- quality packed food and luxury items (Clarke and Clark, I969; Clark & Costello, 1973). Whilst, some luxury commercial activities was increasing, like jewelry and sewing, other traditional ones faced with a deteriorating situation like traditional shoemaker (giveh-bafi), Silk weaving… (Irandoost &Bahmani-e Oramani, 2011). The aim of many retailers in the bāzār was bought or rent the premises in these main and new avenues and if they were successful to achieve

[55] The Javanshir street that after revolution is named as the Mahmoud Afshar-e Tous street.
[56] The Sepah/Shahpoor/Shah street after revolution is named as the Modaress street.

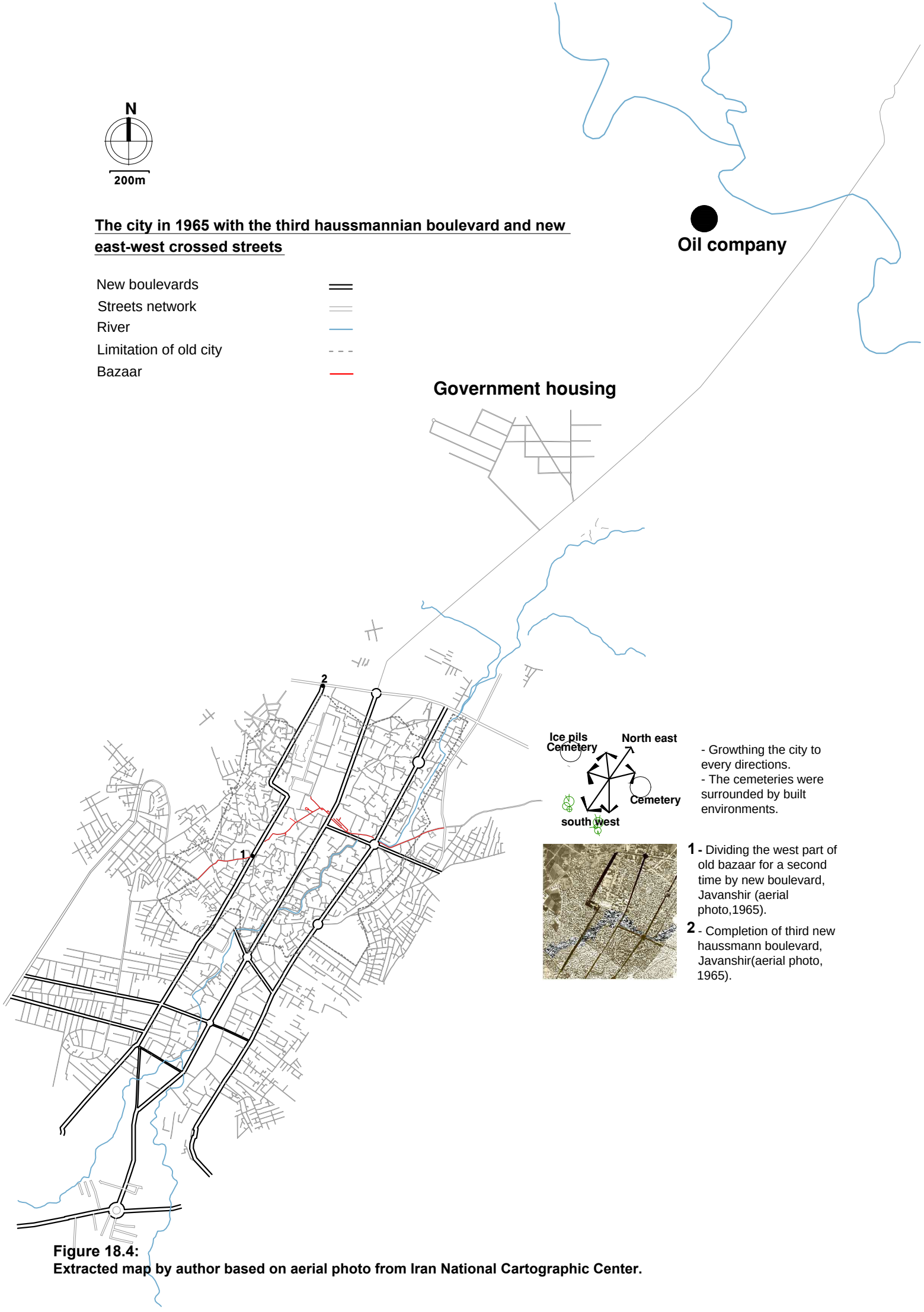
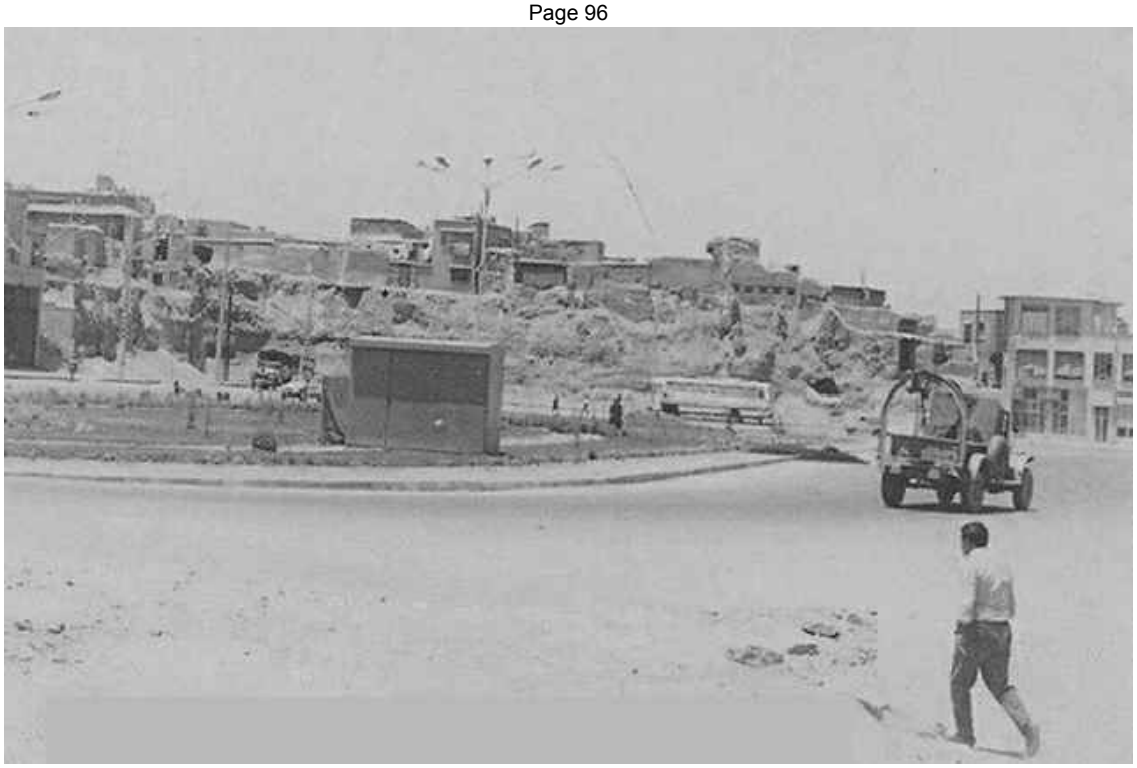
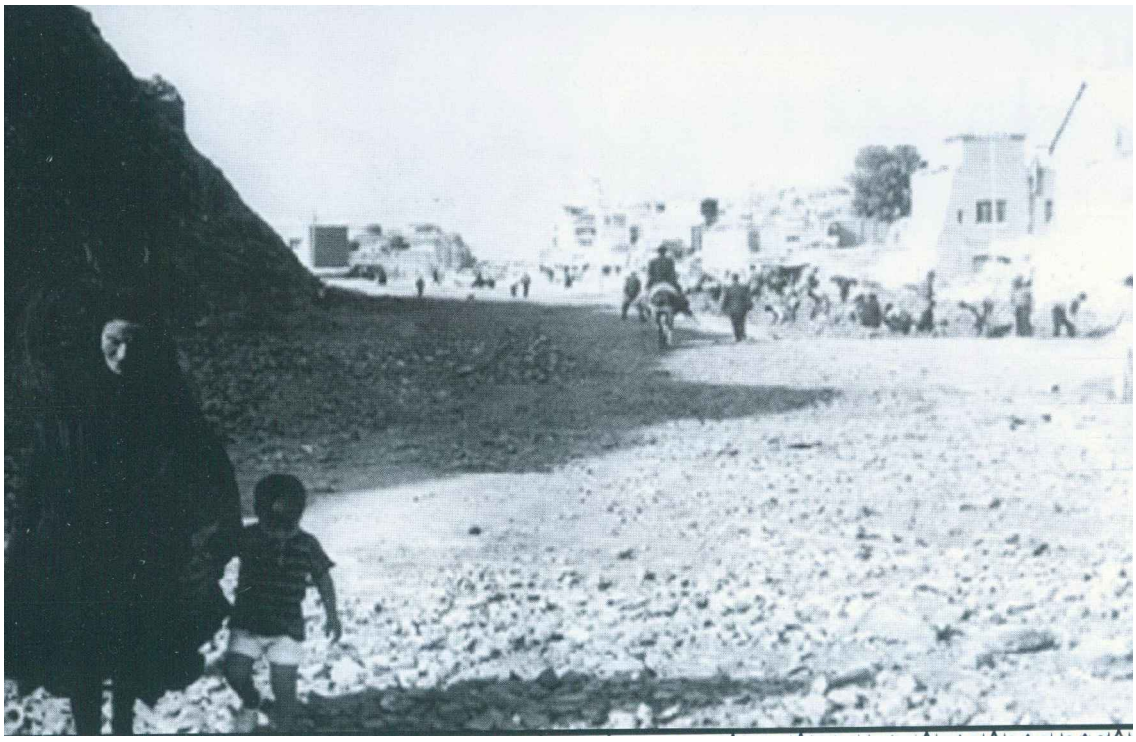


Figure 18.4:
Extracted map by author based on aerial photo from Iran National Cartographic Center.



- **The construction without consideration to topography of city that led to height difference between traditional contexts and new street.**



- **Widespread deconstruction in order to construct the new boulevard.**

Figure 19.4:
Construction of third new boulevard, Javanshir, in 1961-1963 (Keshmiri, 2008).

this aim then they utilized their establishment in the bāzār as cheap storehouses (Clarke and Clark, I969). Despite interior areas in the old city faced declining centrality , because the opening of retail premises on the new avenues, however, many of these older retailing areas were still evident, in the east and west part of the city, even in some part there was an increase in the number of these retailing shops (Fig. 21.4).

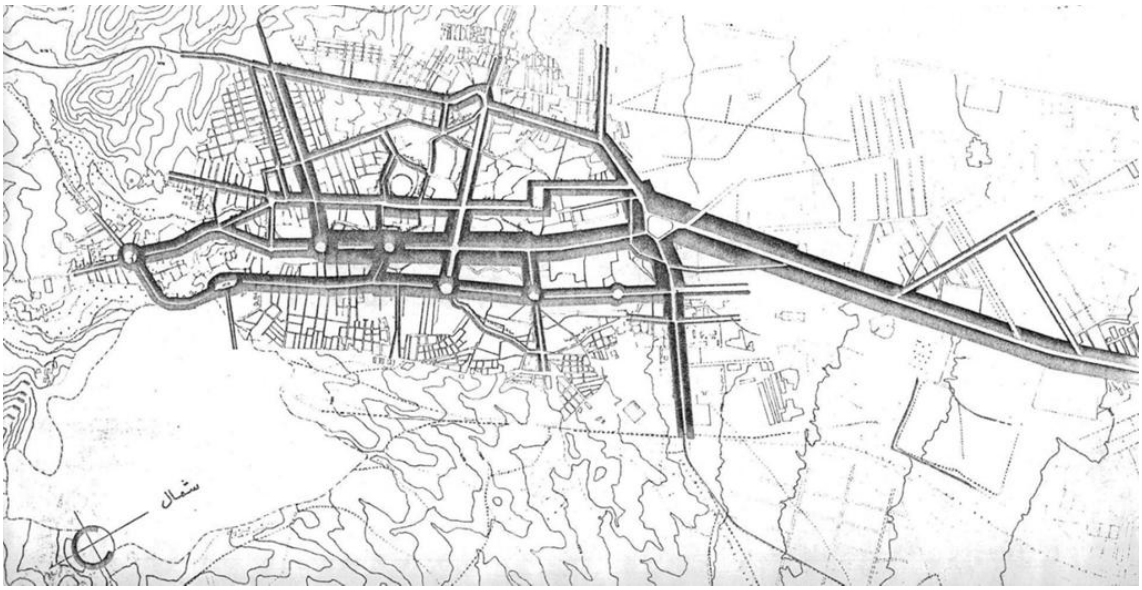
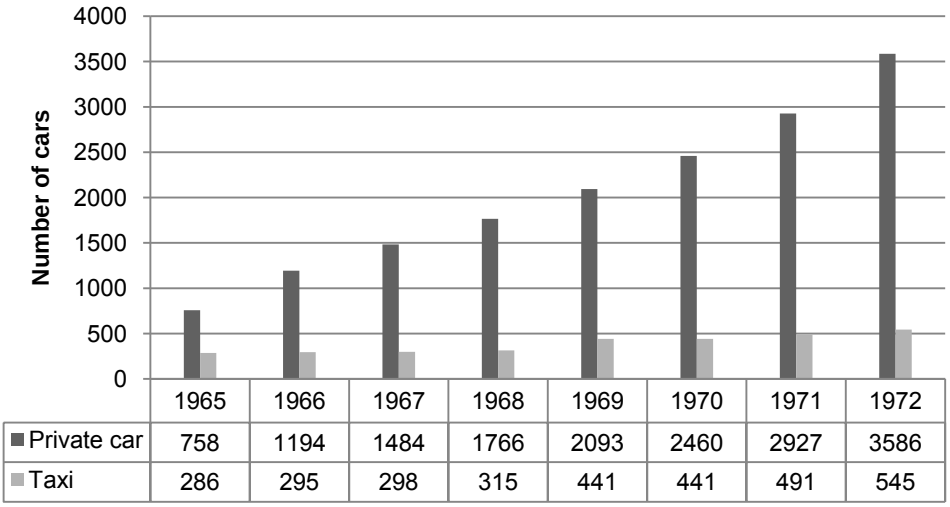


Figure 20.4:
The traffic volume on the main streets, during 24-hour, in 1973 (Kermanshah Master Plan, 1973).



	1965	1966	1967	1968	1969	1970	1971	1972
Private car	758	1194	1484	1766	2093	2460	2927	3586
Taxi	286	295	298	315	441	441	491	545

Chart 2.4: The growth of vehicles in the city as a symbol of modernization (Kermanshah Master Plan, 1973).

The increase can partly be accounted due to development in density of the resident population, especially immigrants, in these areas. Pressure from immigrants to the city who cannot afford their own accommodation has forced many of them into rented accommodation, such as large merchants' houses now vacated and sub-let, or in some part they built their house's courtyard as a shop (Ibid.). In contrast, in different social areas as the new development areas with low residential density and good accessibility to the three new main avenues, where containing a wide range of new shops, there was no need to create new capacity. In the functional term, there were probably differences between shops in the bāzār and new streets. Nonetheless, it seems "the 'bāzār' is merely an area of more intense commercial activity differing only superficially in kind from activity elsewhere in the city" (Darwent, 1965). The important item about Kermanshah is whereas several Iranian cities had major avenues with commercial development along them, prior to Reza shah period Kermanshah had none until the 1930s (Clarke and Clark, I969). Hence, until then the significance of the bāzār and commercial areas were largely synonymous.

Another recent element in the urban structure of the city was garages.[57] Many of the traditional activities in bāzār that performed by caravansaries, such as transport, storage, bulk trading and office accommodation, then was operated by the garages as new elements in the city (Ibid.). Although two major functions of caravanserais, as hotel accommodation and merchants' house didn't move into the new garages, later they were replaced by their vicinity cheap hotels, lodging, and *chāikhānihs* (tea houses) (Ibid.). Based on Clarke and Clark (I969) there were several factors to account the reasons of garages' development and location as follow. First, the growth of motor vehicles necessitated a location away from caravansaries where vehicle access has been often impossible. Secondly, demanding to create the garages could extend the amount of lands and it would be too costly to compete with higher order functions, like retailing, which were also moving from the inner part of the bāzār to the new streets. Thirdly, their peripheral location in the city concerned with cheap irrigation and agricultural lands in the area. Their physical plan in several respects was similar to caravansaries; both had open courtyards with a high entrance passage that could be closed for security in the night. The caravansaries had been usually two or three stories, but the garages were single storey. A few garages, as another type of garages, were built in the city and close to the specialized product area like wood, sugar and

[57] The multifunctional units as the main collection and distribution points.

fruit. Beside these types of commercial garages the other type was those that were built to support private car owners in the city because except of many high class housing areas that had garages attached to their residency there were many parts of the city that access to the housing areas by vehicle were impossible (Fig. 22.4).

In the last decade of second Pahlavi, from 1966 to 1976, the growth rate had reached 4.5% and the population of the city in 1976 was estimated 290,600 people (Adibi, 1989). As a result of the attraction of the new labor force to cities and population growth, demand for housing exceeded land supply and thus property prices rose (Zad, 2013). So, in the east and west margins of Kermanshah four informal neighborhoods[58] were formed by squatter communities as a sign for intensified social segregation (Irandoost, 2001; Gholipour and Kazemi, 2015) (refer to Fig. 15.4). This intensified social segregation, destroyed suburban gardens and green spaces and left the city managers feeling powerless. The informal settlements were considered as a source of urban disorder, the practices of these informal dwellers, hāshyehneshin or Gheir-e Rasmi dwellers were not acceptable to the state (Zad, 2013). While government housing and social employees were forming new neighborhoods,[59] the slum dwellers shaped informal, spontaneous, and often illegal settlements by practicing resistance to the regulations, institutions, and discipline imposed by the state. They were deprived of the basic infrastructure which in the Persian is equivalent with marginality (Ibid.). Dwellers in these informal neighborhoods in contrast with the past and neighborhoods in traditional city had not any joint identical background and the poverty and the same social situation was the main reason for their gathering.

In this situation both the northern and southern half of the city remained in the hands of middle and upper class. It benefited from more green space, larger houses, lower densities, and higher concentrations of modern facilities. In all respects, the city grew in a disjointed manner in all directions, especially to the north, along the outgoing roads toward integration with the surrounding villages in order to create new suburban settlements. Enormous and uneven city development led to many Old villages were absorbed by new modern estates. The National Oil refinery, which located outside the city years ago, then was surrounded by suburb residential areas (Adibi, 1989). In the parallel with cities development the second national development plan (1955-1962)

[58] Neighborhood names: Shater-Abada, Koli-Abad, Jafar-Abad, Dowlat-Abad.
[59] Neighborhood names: Elahieh, Abadani-Maskan, 22-Bahman.

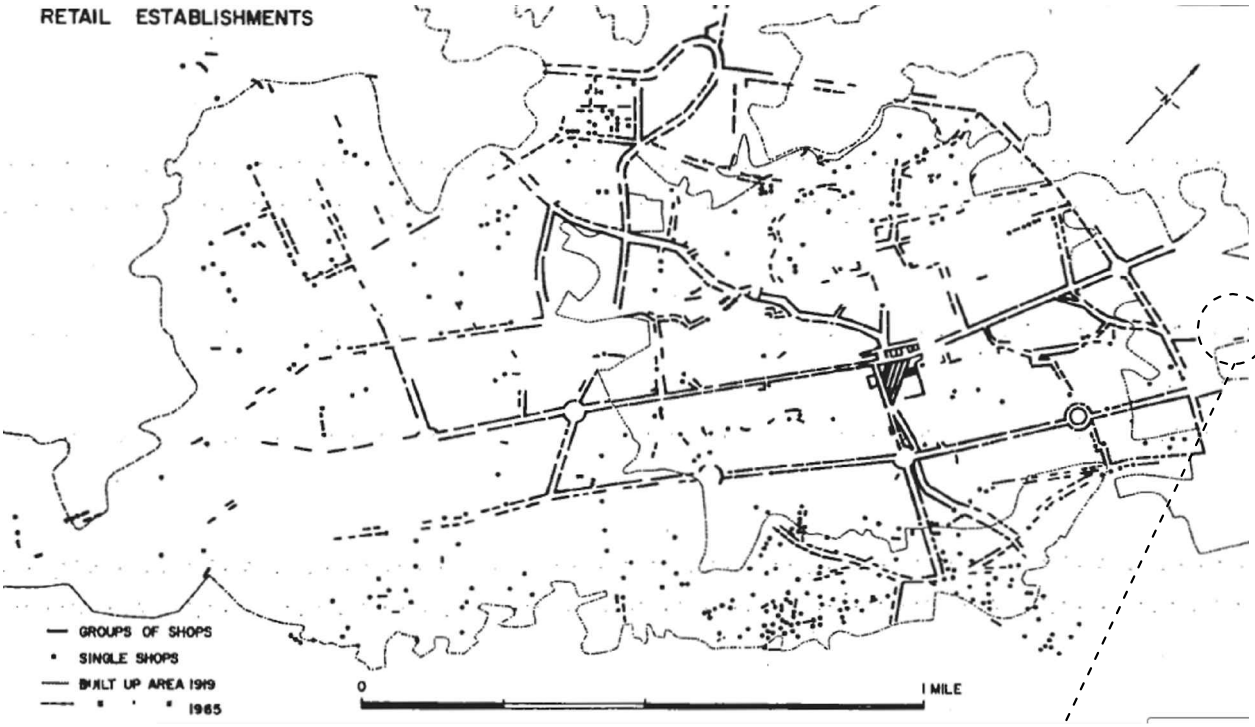


Figure 21.4:
The establishment of retailers and importance of them along new streets in 1965 (Clarke&Clark, 1969).

- **Fruit and vegetable square as new place with new design to provide daily fruits need, instead bazaar,**
  of citizens in 1973 (Kermanshah Master Plan, 1973).

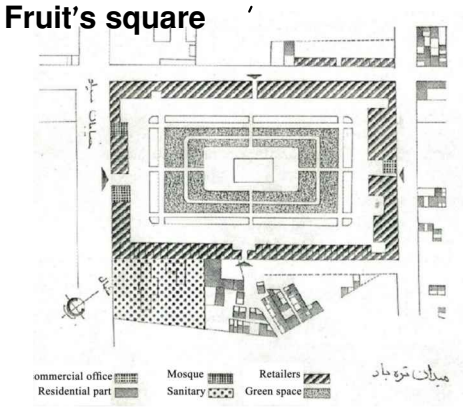
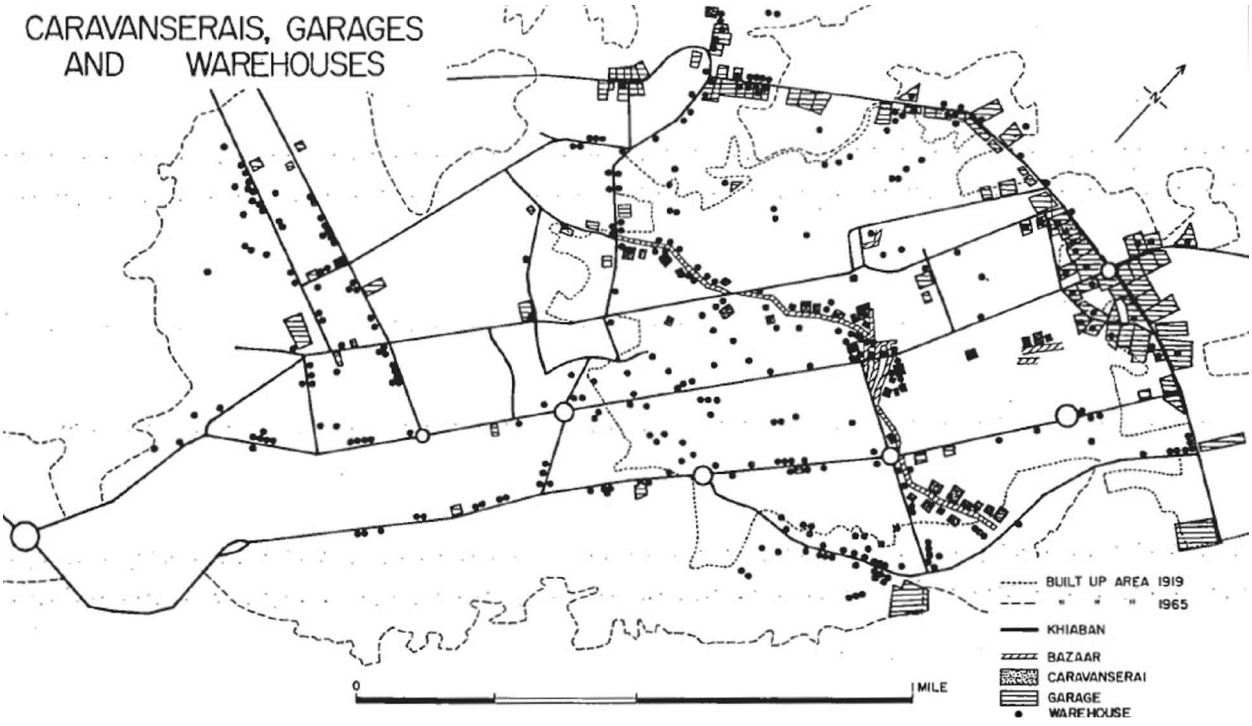


Figure 22.4:
Growth of Garages, warehouses around places with good car accessibility and decrease of caravansaries in the city in 1965 (Clarke&Clark, 1969).



initiated emphasis upon the development of the country's infrastructure with improvement and provision of services and facilities such as main road networks, feeder roads, water, electricity and urban scheme including asphalting, street lighting, education and health services.

In the 3rd Plan (1963–67) many of these urban projects were continued, and new ones were begun, and for the first time a considerable sum of money was allocated for the preparation of comprehensive plans for selected 17 Iranian cities, but Kermanshah was not listed in this group and instead the city was chosen for preparing its comprehensive plan in 4th Plan. In an attempt to introduce a more efficient system of planning control and development, the high council of city planning was created in 1964. Its main aim was to draft comprehensive plan legislation and through its technical committee (Clarke &Clark, 1969). The Fourth Comprehensive Plan (1968-72) proposed the establishment of industrial zones in other major cities in the country to stimulate the decentralization of Tehran. Expensive industrial decentralization had been achieved through government investments in infrastructure and industrial poles around the country in 1970s (Khatam, 2015). Increasing oil revenues gave the government free reign to invite influential architects from around the world to design hotels, museums, and cultural buildings. The High Council of Architecture and Urban Planning (HCAUP) organized two international conferences (1970 and 1974) in which famous architects attended (Ibid.). The 1970s was a decade of rapid growth in the middle class that made possible in part through the increase of the oil revenues (Fig. 23.4). Based on 4th Plan, HCAUP made a contract with the Marjan Consultant Engineering Company in 1973 for preparing Kermanshah master plan (Fig. 24.4). Practically, by the time the only sort to control planning was through the granting of building license by municipality, but due to lack of overall plan the effectiveness of this system was minimal (Clarke and Clark, I969). Until that time, the only real planning that existed was some single element planning like construction of avenues, water supplies and sewerage pipes. So, the establishment of land-use planning in the form of a comprehensive plan for Kermanshah city was proved in 1975 by HCAUP. This approval was the most important step in the progress of the Master Plan for Kermanshah.

The Shah's interest in autocratic control of projects even included close control on activates of HCAUP, although the latter was certified to approve plans, this was rarely done without the notifying of the Shah (Mazumdar, 1981). This control was clearly

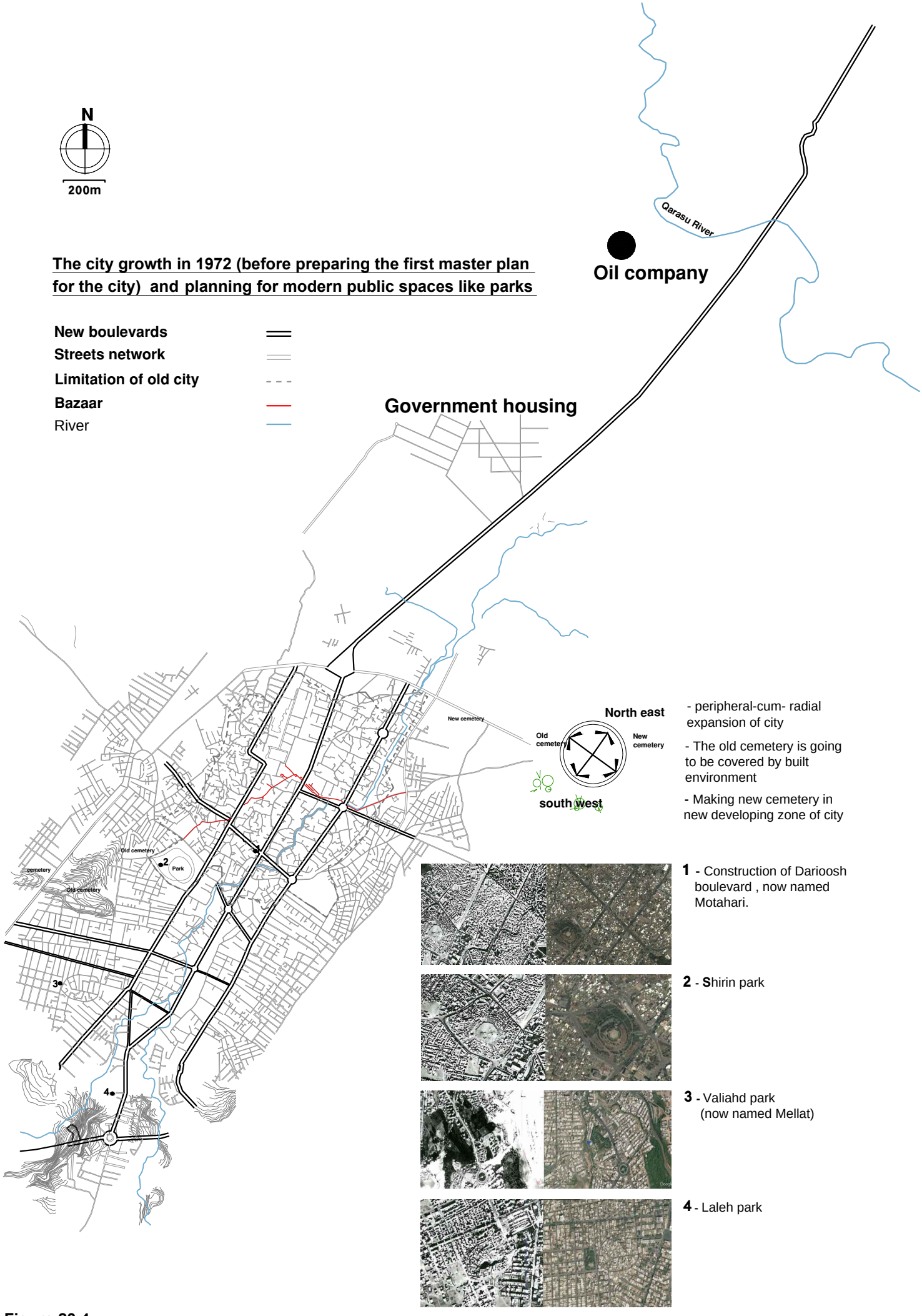


Figure 23.4:
Extracted map by author based on raster image of city in 1972 from Iran National Geographic Center.

- **Aerial photos ; the comparison between 1965 and 2005 and emergence of Parks as new modern public spaces.**

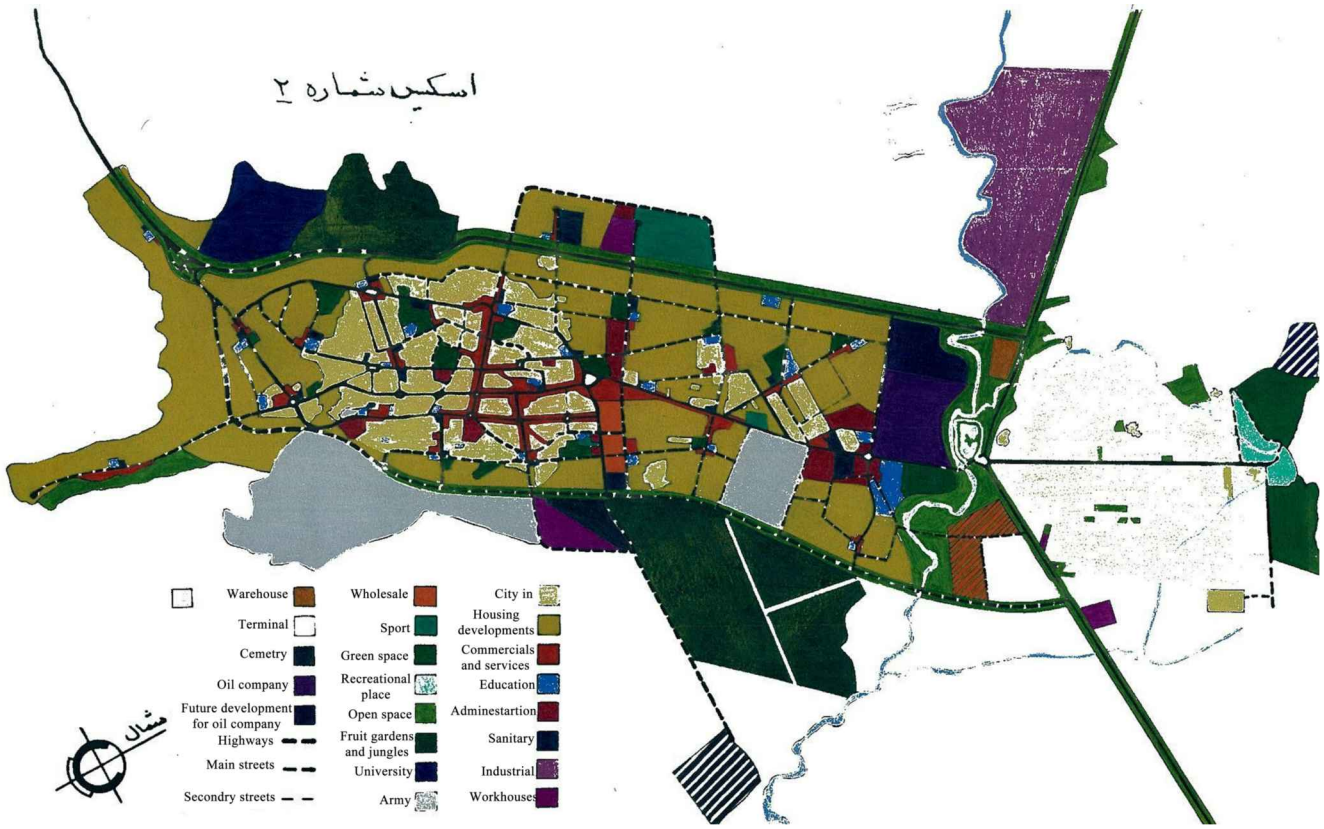
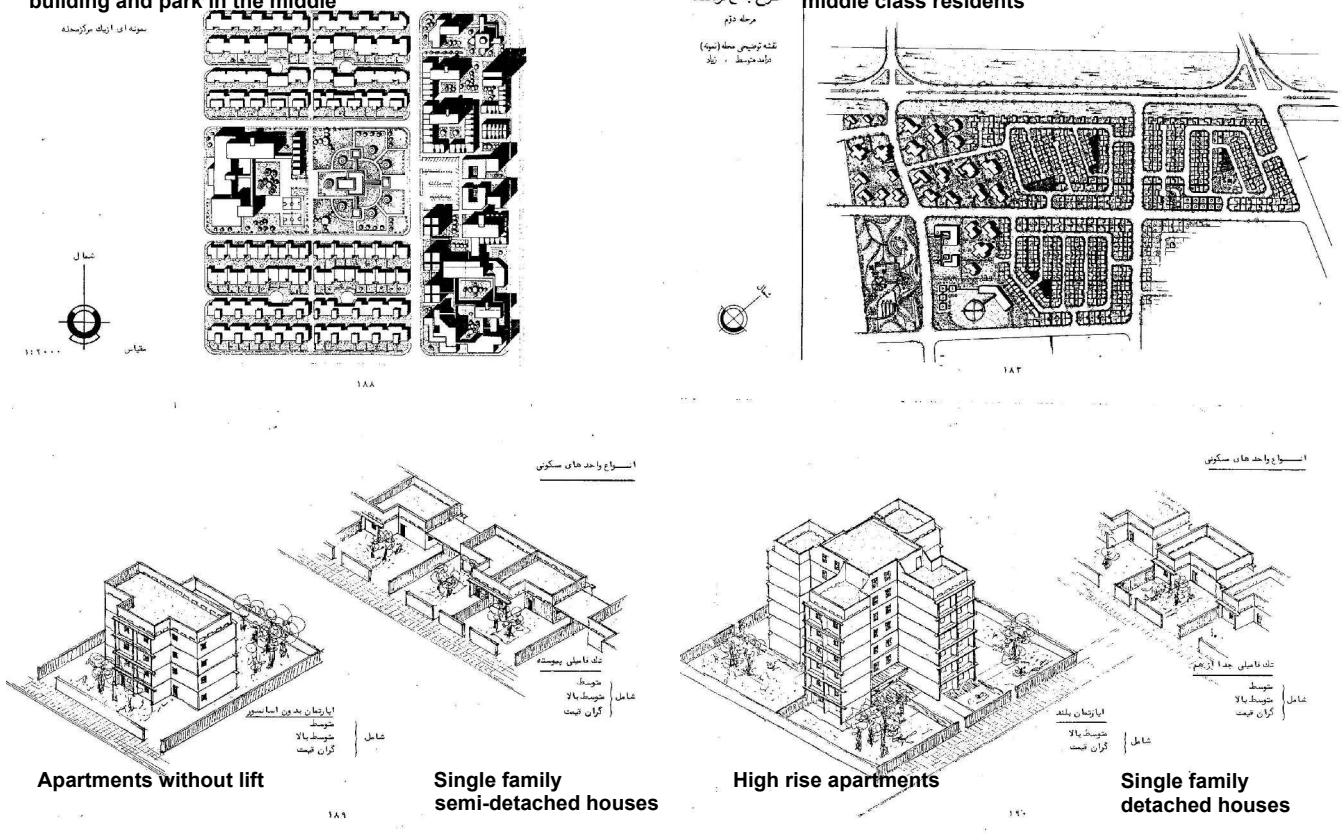


Figure 24.4:
Kermanshah first phase of master Plan in 1973 (Kermanshah master plan 1973).

The layout of neighborhood's center with commercial building and park in the middle

layout of neighborhood for high and middle class residents



Apartments without lift

Single family semi-detached houses

High rise apartments

Single family detached houses

Figure 25.4:
Kermanshah second phase of master plan: the layouts of neighborhoods and houses based on social level of residents , high and middle classes (Kermanshah master plan 1976).

stated by Richard Llewelyn Davies,[60] when he said: “So long as the Shah still ruled tight central control over the final form of the development was expected and feasible. Baron Haussmann was luckier than we were. Napoleon III survived just long enough to see his new city built, but the Shah did not” (as cited in Mazumdar, 1981).

The first phase of the Kermanshah master plan was considered for the future growth and development of the city for 10 years, until 1983 (Kermanshah master plan, 1973). Relying on the first phase, they presumed that there was just one logical direction for planning of city spread and it was the north direction between the old city and N.I.O.C constructions where plots almost segmented beside some new western-style and uneven new constructions. Also, there was some limitation based on the topography for the growth of the city to the south and industrial zone, cemeteries, fruit gardens and jungle land limitation to the west and east of the city. So the future of the city was attended to be growing northward in a linear form. One of significant points in the prepared proposal was the appearance of two highways, as the new symbol of modernization, in the eastern and western end of the city to collect traffic jam in the city and also connect inner-city accessibilities to outer roads.

The second phase of master Plan was begun from 1975 and was finished in 1976 but due to concurrency with the beginning of the Islamic revolution in Iran was not proved by HCAUP and actually it was remained useless until 1980s after the revolution. The second phase was intended to design connection between accessibility ways in the governmental housing and new neighborhoods that already had been constructed with available public accessibility in the city. These new developments had been constructed piece by piece and without any comprehensive plan with regard integrated future developments. The plan identified the city problems as diffused and uneven constructions; inefficient infrastructure, lack of public transportation; widespread unemployment, continuous migration of low-income groups toward the city, geographical and topographical features of the city that before was not considered in new construction specially new streets and plot segmentation, Ab-Shuran River in the middle of a city that had been became a source of pollution due to sewage flow, N.I.C.O that was circled by the built environment and lack of tourists services and facilities (Kermanshah master plan, 1976). The design goals were physical planning based on geographical and climatic feature of the city, making urban spaces based on

[60] Braybrooke, S. "Llewelyn-Davies" in Urban Design International (1980). Vol 1. No.2 Jan-Feb. p.3 8 -39.

inhabitants' social and economical characteristic, flexible design for adopting with future developments, making minimum change in general feature of the city, planning for easy implementation and providing city requirements that included: Housing, accessibility network, education facilities, health facilities, public utilities and infrastructure facilities (Ibid.).

The concept of city growth in this planning was: each district (mantagheh) would be subdivided into a number of areas (nāhyeh) and neighborhoods (mahallah). An area, with a population of about 16–20,000, would have a high school and a commercial center, green spaces and other necessary facilities (Madanipour, 2011). A neighborhood, with its 5000 inhabitants, would have a primary school and a local commercial center that the furthermost distance to the school should be 5 minutes by walk. These areas would be linked by a transportation network, which included motorways, a rapid transit route and a bus route. Kermanshah city as a whole was considered as a district with a linear core, included bāzār and facilities around, because of its geographical situation and its extension over the years. The use of neighborhood units of limited population, focused on a neighborhood center and a primary school was an idea that had been developed in the 1920s in the United States (Madanipour, 2003) (Fig. 25.4).

But beside the goals for design still the growth of population and providing houses remained the main concern for design (Fig. 26.4). Indeed, those master urban plans in these decades provided a good platform for lands and construction business (Habibi, 1999). In the first phase, was dedicated 1.6 km2 for growth population and then 2.4km2 for fixing housing shortage and in a second phase, they dedicated 2.61km2 for growth population and 0.65km2 for fixing shortage of housing. Thus, the housing's land uses would be reached from 8.9 km2 or 39.09% of urban lands to 12.25km2 or 36.75% of urban lands in a way that low density had fewer and more density had the most areas in the planning. Based on these outlines the street and alleys that covered 19.96% of the city by the time would be raised from 2.6km2 to 3.5 km2 in the second phase, although its percentage was decreased than the city's area.

Also the "Urban Renewal Law" of 1968 confirmed the purchase obligatory of properties for implementing public projects in the built-up areas as well as undeveloped lands. So municipalities were authorized to intervene with property rights and land ownership like the first Pahlavi dynasty. However, Mazumdar (1981) mentioned that this law didn't

follow any goals and objectives and evoked the questions that what the law was to achieve, or why it was passed. The lack of mentioned objectives and legislation about the manner and extent of compensation that the state was liable for, showed that autocratic control indirectly guided the actual development (Ibid.). By the time in a categorized, centralized and coordination system of government, could only take place in the capital and within ministries. There were no parliamentary or governance systems for regions and cities that could link them to central government activities (Khatam, 2015). The highest ranking government title, the governor, was mainly an executive arm of the Interior Ministry rather than a coordinator of various activities of the ministries under his jurisdiction even mayors had even less influence (Ibid.).

Until 1973 the older parts of Persian cities were decaying more or less rapidly (Ehler, 1991). The sharp increase in national income after the Organization of Petroleum-Exporting Countries (OPEC) raised oil prices in 1973, combined with a new national awareness of the urban heritage, and forced the Persian government to initiate an extensive urban-renewal program (Ibid.). Although at the beginning this renewal program originally focused on such historical and tourist centers like Isfahan and Shiraz, in the last years of the monarchy the program was extended to other cities. For city like Kermanshah in the second phase of its master plan for the first time the historic core of the city and specially bāzār was considered as a valuable site for renewal and improvement, though had not implemented in reality until years after revolution. Actually, the urban renewal if done often involved only single buildings with historical or architectural significant value and didn't have a comprehensive vision of the whole traditional context.

Eventually, the 4th Development Plan in 1968 embodied a movement toward a policy of investment in heavy basic industries in the largest provincial cities, rather than in Tehran (Clarke and Clark, I969). The phase of infrastructure project for Kermanshah was included the highway from Tehran to Kermanshah and Iraq. The major feature of Iran economy in these years was the private investment (Ibid.). The 4th Plan suggested private investment to be encouraged with a minimum amount of government interference. In this regard, one of the most important was booming in house buildings, the only phase that Kermanshah took advantage of it in 4th plan's strategy of private investments. The consequent included boom in woodworking, furniture construction, non-metallic mineral industry (cement, brick, earth brick,…) (Ibid.). In parallel increase

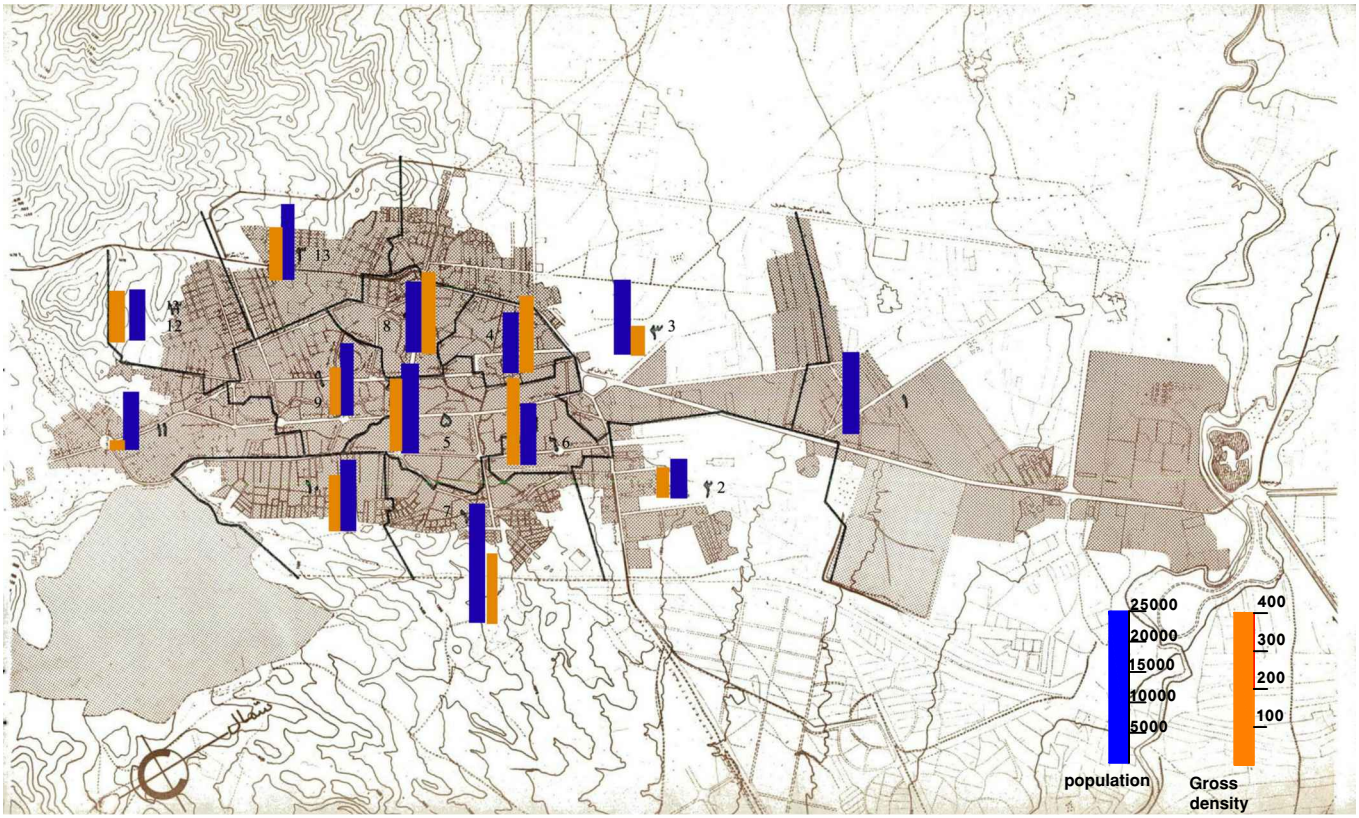


Figure 26.4:
The population and the gross density in the 13 districts of city in 1973, extracted by author based on (Kermanshah master plan 1973)

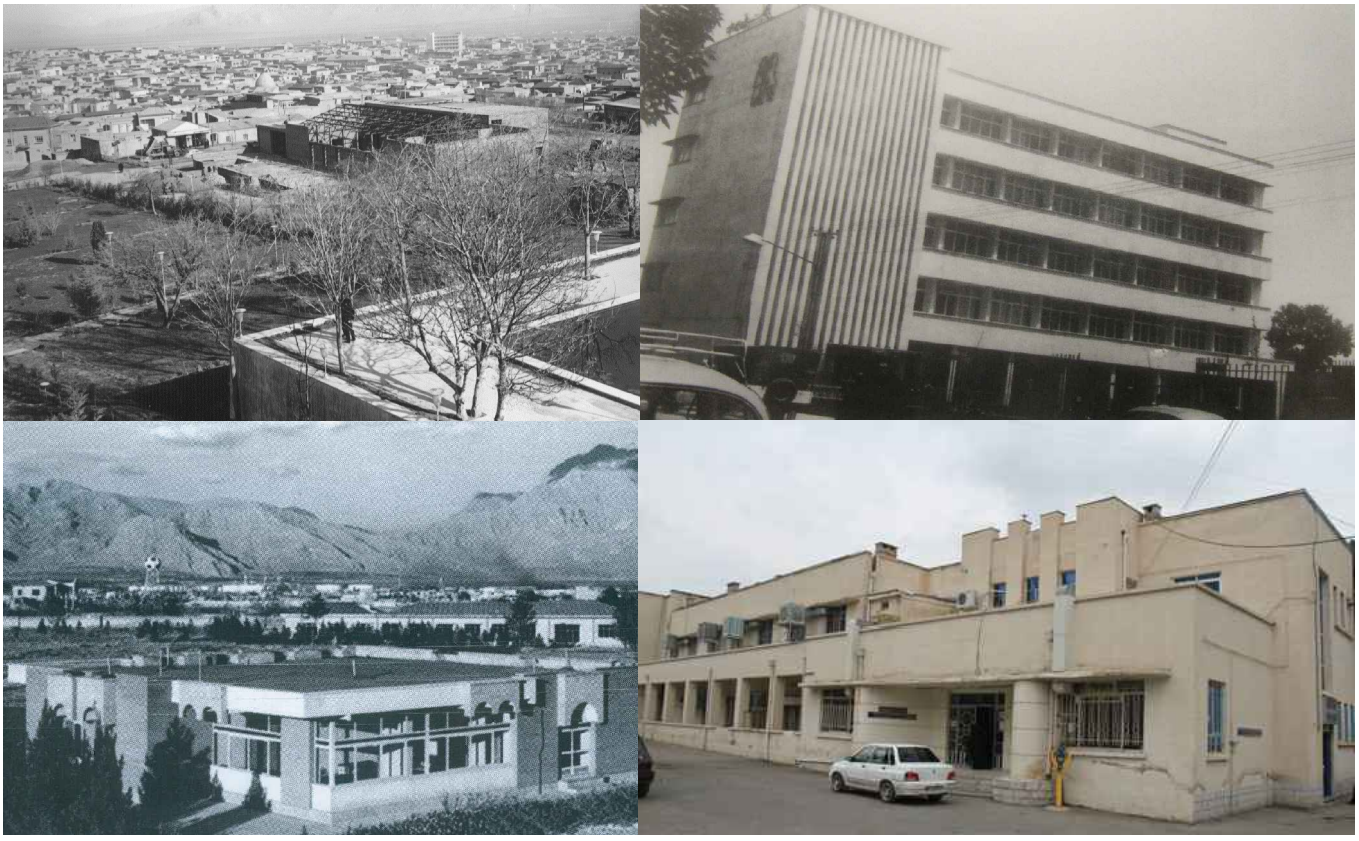


Figure 27.4:
Some examples for style of the architecture during second Pahlavi in kermanshah;abovet:Meli Bank building and its situation as a land mark in traditional context of city; bottom left:Institute for the Intellectual Development of Children and Young Adults, right: Motazedi hospital (Keshmiri, 2013; National library of Iran).

trade activity in the field of cheap carpentry like *qilim* indicated growth of poor residential housing and consequently enlargement of demand for cheap furnish (Ibid.). In all respects, merchants and landlords prefer to invest in housing and retail developments rather than the industrial sector, where there was considerable uncertainty as to the rate of return on money invested (Ibid.). The economic situation as a result of the government policies' development became equivalent to investment. The cultural dimension of this work was less well considered, and one of its consequences was the hurried and uncalculated importation of western ways. The establishment of modern educational institutions like the School of Fine Arts in Tehran was a motivation for prevalence of modern western architecture (Dehbashi & Diab, 2004). During this period numerous governmental and commercial buildings were erected and many residences were built without consideration for local characteristics or climatic conditions, in Tehran and in other cities (Ibid.). The aim for faster and cheaper construction led to the exclusion of all ornamental elements and the use of a minimum variety of materials (brick, steel and glass), and paved the way for developers to build and sell increasingly uniform structures regardless of location (Ibid.). Technologies by the time provide possibility to increase height of building to four levels (Borumand, 2009). Also emphasis on the horizontal lines and asymmetry in the facades were other features in the architecture of that time in Kermanshah (Ibid.) (Fig. 27.4). Eventually, since 1973 have brought the most profound changes in Iranian urbanism, whether viewed formally, socially, or economically. The Revolution of 1978-79 and the subsequent Iran-Iraq war brought a decisive slowdown in the development of the country and especially affected Kermanshah far more severely than most other urban centers in Iran due to border situation of the city.

Moreover, one of the main criticism about the era of the Shah was cultural critic that was begun since the last two decades of the Pahlavi reign. Indeed, that rooted in the beginning of the Reza Shah monarchy and his tendency to give European characters to the society and cultural etiquette (Cronin, 2003). Ayatollah Khomeini was the most opponents of the Pahlavi regime and its' tendency to foreign control and their cultural dominant (Keddie, 1983). So beyond continuation to the improvement or modernization of material and physical conditions, like public utilities and technical network in the cities, the Islamic revolution in Iran pursued a new situation with a set of new cultural, social, and moral norms by which the western culture became less threatening. This trend as the 'Cultural Revolution' was extended to observe all cultural institutions and

activities in the society. The next chapter with regard to examine of the modernization process between some of important and main social facilities in the city will emphasize the priority of the ‘Cultural Revolution’ in more than other objectives in the course of Islamic revolution of Iran.

Chapter V

New amenities in the context of urban modernization

Emerging social facilities and technical networks

Bernard Lepetit (1979) characterized the transform from the traditional city to the modern city as the passage of the "heraldic" and immobile city, which was recognized by the enclosure of its walls and by its antiquity, the foundation of its hierarchy and its privileges, in a city that changes and is valued by very different criteria. The walls, demolished or overflowing, cease to be the sign of the city. The old image of the city is erased and replaced by a new image that has taken shape in Europe since the 18th century. An animated and dynamic image of a city equipped with functions. The activities induce the population growth, the population and activities are measured, its evolution is followed. It goes from a heraldic geography to a specific geography. Utilitarian criteria are imposed. In a city where defined by its functions, making a distinction between the inside and the outside of walls loses meaning. The notion of the network is imposed both in relation to the exterior and the interior of the urban structure. The city becomes what Voltaire called “a system of comforts” or, to use current terms, in cities equipment or cities services (Teyssot, 1977). This transformation, which began during the eighteenth and the first half of the nineteenth century, culminated in the nineteenth century with the implementation of technical networks that became the maximum expression of the modernization of the city. These technical networks are generally oriented according to the solvency of the users. So, not only they modify the operation of the city, they transform the structure of the urban space. They accentuate social segregation; the richer neighborhoods tend to be better equipped and, because they are better equipped, reinforce their privileged character. This priority is clear with the provision of water and sewage system. Moreover, public and private transport strongly affects the organization of space.

In the case of Kermanshah these processes of technical network implementation acquire great relevance in the period of study and have effects that should be considered. The urban modernization programs under Reza Shah accompanied by infrastructural improvements, but were mainly focused on in big cities and particularly in Tehran. The main improvements was concentrated on transportation system, water and sewage system, and electricity distribution, besides public spaces such as parks and other recreational facilities in order to increase social facilities and higher living standards.

The traditional pattern of narrow and twisting alleys, kuchehs, were a main obstacle to the installation of modern technical networks, especially for water supply and drainage, and transportation that was more costly (Ehlers & Floor, 1993). So, a grid plan of wide avenues as a symbol of modernization for Reza Shah and then his son Mohammadreza Shah provided the installation possibility for technical network and subsequently public investment in infrastructure. The amenities' improvement in the provincial cities like Kermanshah beginning to receive more serious consideration from the second Pahlavi and at the beginning of the Second Seven-years Plan (1955-62), when most of the Iranian towns and cities suffered from lack of drinking water, electricity productions and proper sewerage. This progress thereafter was followed by the new government in the post Islamic revolution. The Islamic regime persuaded for the fulfillment of public amenities, especially for rural and deprived areas, with the aim to be considered itself in the form of spatial justice (Azizi & Fatemi, 2016). Even, Ayatollah Khomeini as the leader of the revolution had a plan to supply water and electricity for free of charge to the poor people (Karimi, 2009).

Modernization of Water and sewage system

The technical networks had a great effect on the urban space structure and profoundly transformed and modified the practices and values of the urban culture and population. In the case of water system, it is evident if we compare the current city with the traditional city: frequency in the bathroom, kitchen, washing clothes, and other forms of water consumption, but the same thing happens with each of the services that provide the technical networks. The direction of peripheral growth, especially of high-social level residential areas, has often been initiated by the accessibility and quality of the water supply (Clark & Costello, 1973). By 1941, none of Iranian cities had an appropriate plumbing, except of Abadan and some Anglo-Iranian Oil Company settlements such as Ahvaz (Ehlers & Floors, 1993). So the water supply was not adequate and safe from infection in most of the cities. The shallow wells or underground canals (qanats), were main supply sources of water in towns, despite their distribution through open canals (jubs) became them polluted. A report by the American consulate from 1934 reads:[61] "Nearly every Persian house has a water cistern, below the level of the ground, which is filled from this water supply, and for many people this is the only drinking water: As the water flows through the city in open

[61] American Consulate, "post report": Embassy, legation file, 124. Consulate File, 125, January 18, 1934, (PHS) RG 91-19-16. Pp. 11-12.

courses on either side of the street where women... wash clothes and everything else in the stream. It is hardly pure when it reaches the cisterns" (as cited by Karimi, 2009) (Fig. 1.5). In spite of these problems, even after Reza Shah's monarchy, new qanats were built in most of the cities and also in the city like Tehran (Ehlers & Floors, 1993). The legislation of the Nationalization of Water Resources on 29 July 1968 One was one of the key steps in the development of water resources in Iran. This law stated that all water resources in Iran should be considered as a natural wealth and belonged to all people. As a result of this law, the development of water resources were governed by the Ministry of Water and Power. Also, usage of water was under the control of this Ministry. Prior to this law, the using of water resources was managed by a complex set of Islamic laws and local customs.

Although Kermanshah in contrast with cities in dried region of Iran like Isfahan, Kirman, Yazd… always take advantage of surface water (Ab Shuran, Qarasu…) in its region, but it was a good example of the use of the traditional methods of supplying water in Iran in the past. Traditional methods are qanats as subterranean aqueducts that collect groundwater at the foot of the mountains and carry it, by gravity through gently sloping tunnels into settlement, alluvial material and fields (Kheirabadi, 2000) (Fig. 2.5). Two hundred years ago in the south of the city was different source of water and was full of springs (sarabs) among them Ghanbar, Hemat, Said, Seyed-Ali, Lijan, Bagh-e-Ney and Cheshme Rozan and different qanats like Pahlavi, Ahani… that most of them due to the development of the city to the south had been demolished (Keshavarz, 2016). Despite the city like Kermanshah was not underprivileged to provide water source like the cities of central Iran, with dried region, but the existence of a traditional and public reservoir (ab-anbar),[62] ab-anbar-i Shazdeh, in the historic core of the city shows the city sometimes or in the hot seasons faced with lack of water and needed to store water for people (interview, 2014)[63] (Fig. 3.5).

Based on collecting data from old newsletters before piping water in addition to the aqueducts, qanats, and streams from them or some springs in the south of the city another important source of water was Ab-shuran River that stems from Ghanbar spring in the south of the city too. This river before streaming into the city from south at

[62] Ab- anbars as storage facilities where the underground water channels bring water for urban consumption and then individually collected forpersonal use (George, 1996).
[63] Persenoal interview with Mr. Rashidi as restoration expert in Kermanshah Heritage Office.

Figure 1.5:
Using stream water for washing; Kurdish women near heritage site of Tag-Bostan in kermanshah when (Harvard school digital archive; www.qajarwoman.com).

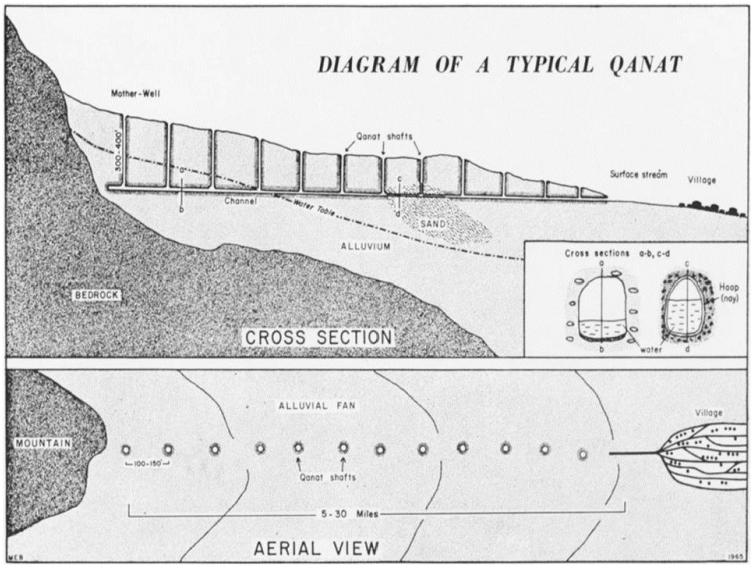


Figure 2.5:
Diagram of a typical qanat (English, 1968).

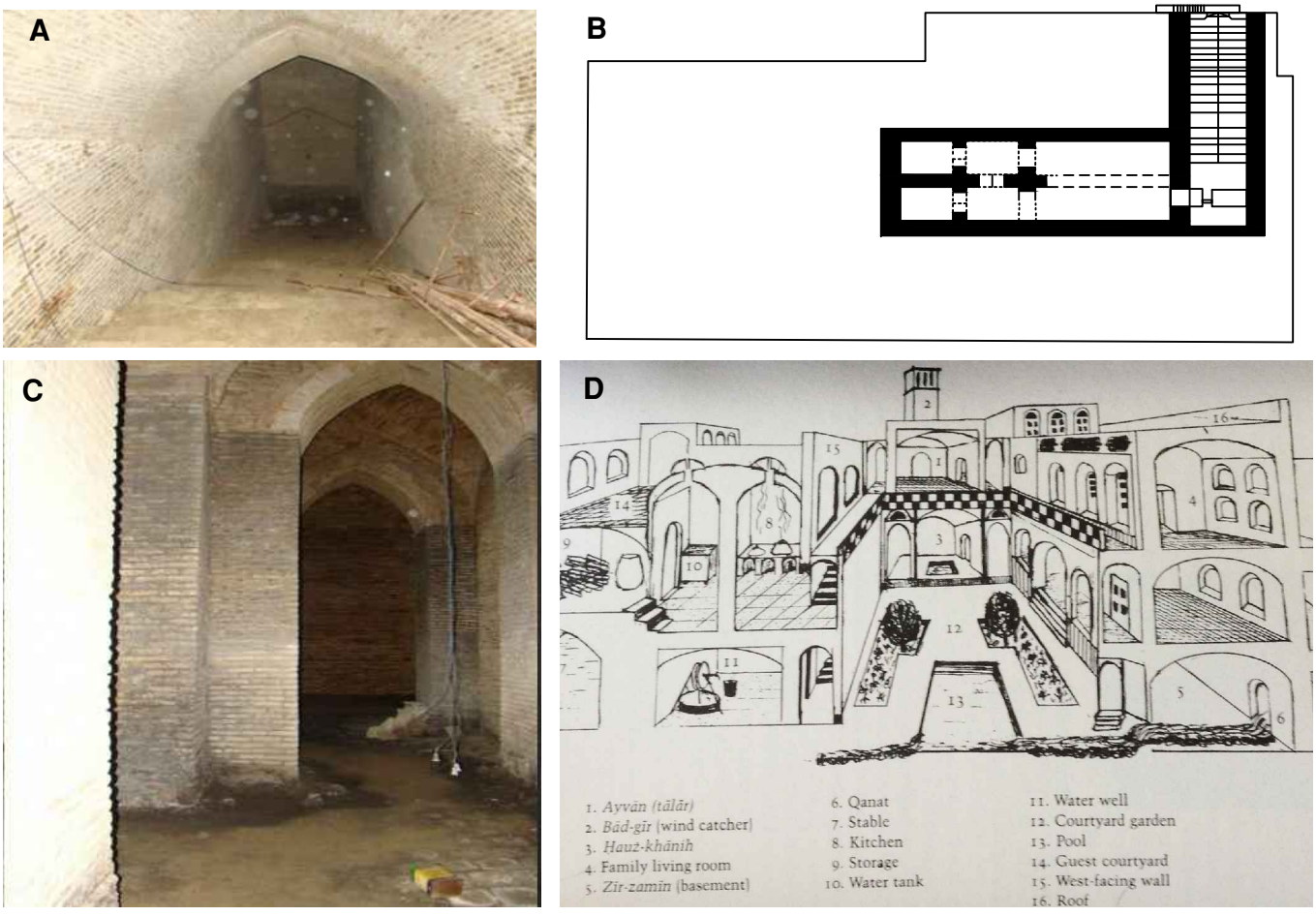


Figure 3.5:
A, B, C reservoir or ab-anbar to storage water for hot season in the city (www.memaribana.com);D) Passing aqueduct, qanat, in a traditional Iranian house (Kheirabdi, 2000).

the beginning, bala-ab, was divided into two streams. One of these streams that was called stream of Mehdi-Khani, nahr-e Mehdi-Khani, was used as drinking water for settlements and after passing through a house by house jointed to Ab-Shuran River again.[64] Ab-Shuran River after passing through the city to the north was used for agricultural lands and gardens in the north of the traditional city. Generally, qanats and streams from rivers and springs often pass under the owners' summer rooms or basements, zir-zamin, and emerged somewhere on their properties (Kheirabadi, 2000) (refer to Fig. 3.5). Theses streams in houses after passing through the small pools in the courtyard (hawz) and saved for daily consumption went to another house, one by one (Ibid.). Unfortunately, some of the residents didn't care to keep clear stream which passed through their house and that led to next following houses deprived of clean water. So the residents that were settled near to sources of water, in Kermanshah in the south, had the best quality of water and residents in the traditional city, Payin-ab, and had the water that already polluted and warmed. The water pollution and also lack of water due to increasing population and city development during the first Pahlavi led to Reza shah decree to the establishment of the Irrigation Company by Keshavarzi Bank[65] in the city and try to transfer water from Qarasu River to the city.[66] Eventually the company was established, but due to disagreements over the head of the company between Agribank and one of the shareholders the project was failing (Ibid.). Reza Shah in the late of his monarchy traveled to Kermanshah and decreed again to start the city water pipe. But coincidence with Second World War and The Anglo-Soviet invasion of Iran prevented continue of every series project in Iran. During WWII, the Allies brought clean and fresh water from springs in Tag_Bostan, outside of traditional city, to the city by trucks (Ibid.). Before beginning the official water piping project a group of donors consists of doctors, administers and citizens, due to unsanitary problems, decided to make a semi-deep wells with electrical pump, reservoir and public water taps around the city, among them Friday mosque and A-Sheykh-Hadi mosque.[67]

---

[64] Kermanshah National Newsletter 1 Mordad 1330 A.H.S.(24July 1951), About water, *Iran National Library.*

[65] Keshavarzi Bank, also known as Agribank, is a major Iranian banking establishment offering retail and commercial services. The company was established in 1933 and as a Farming and Industrial Bank. (Wikipedia).

[66] Kermanshah National Newsletter 13 Tir 1333 A.H.S.(4 July 1954), The history of water piping in Kermanshah, (3150). *Iran National Library.*

[67] Kermanshah National Newsletter 22 Khordad 1333 A.H.S.(11 june 1952), Water health commission of Kermanshah, (3150). *Iran National Library.*

Eventually, in 1949 a group of French engineers prepared the water piping plan for the city and in 4 July of 1953 the project of water piping by the financial support of plan organization and municipality in the city was begun and the Kermanshah Water company with an investment of donors and stakeholders was formed.[68] The traditional system of water supply that was provided by three qanats delivering southwestern margin of the city, together with the output from Cheshme Rozan were not enough as a source of water for increased population and developed city. So 'Plan Organization' has provided financial assistance for the drilling around the city and in 1966 work began a project to obtain drinking water eventually from the Qareh-Su River (Beaumont, 1974). (Fig. 4.5). In 1966, 16,633 housing units from a total of 18,394 used the city piped water while 11,604 had piped water and 5,029 used either pumps or other means of collecting water supply of the city which were not within housing units (Clarke&Clark, 1969). Remaining housing units utilized water directly from wells (1,135 units), qanats (59units), river (160units) and springs or other sources (407 units) (Ibid.) (Fig. 5.5).

There were differences between the service offered in different parts of the city based on different periods of urban growth and even social level of the areas (Clarke&Clark, 1969). For example, the south of the city as a new development area with high social class had a priority to install the piping water in comparing with the city center as an older part as well as some new development areas with lower social class (Residents' interview, 2017). As instance, many of new and cheap housing areas didn't have piped water, thus streets' pumps, that were located as a random and unplanned, provided by local authorities as the main water supply for them (Residents' interview, 2017). By the time, within the city, there were 130 pumps with red tap, each being used by the dwellers of four or five streets (Clarke&Clark, 1969; Residents' interview, 2017). In the southern part with the better housing class area the pumps were located only in the main avenues, where they were used for general washing and cleaning purpose rather than providing drinking water (Ibid.). Also the quality of services was different between different social areas since in the some part of poorer areas the water was only

[68] Kermanshah National Newsletter 14 Tir 1332 A.H.S.(5 July 1953), Beginning of piping water, (3045). *Iran National Library. And;* Kermanshah National Newsletter 18 Ordibehesht 1328 A.H.S.(7 May 1949), Entrance of Engineers of company of Mavar'o Bahar, (2544). *Iran National Library.*

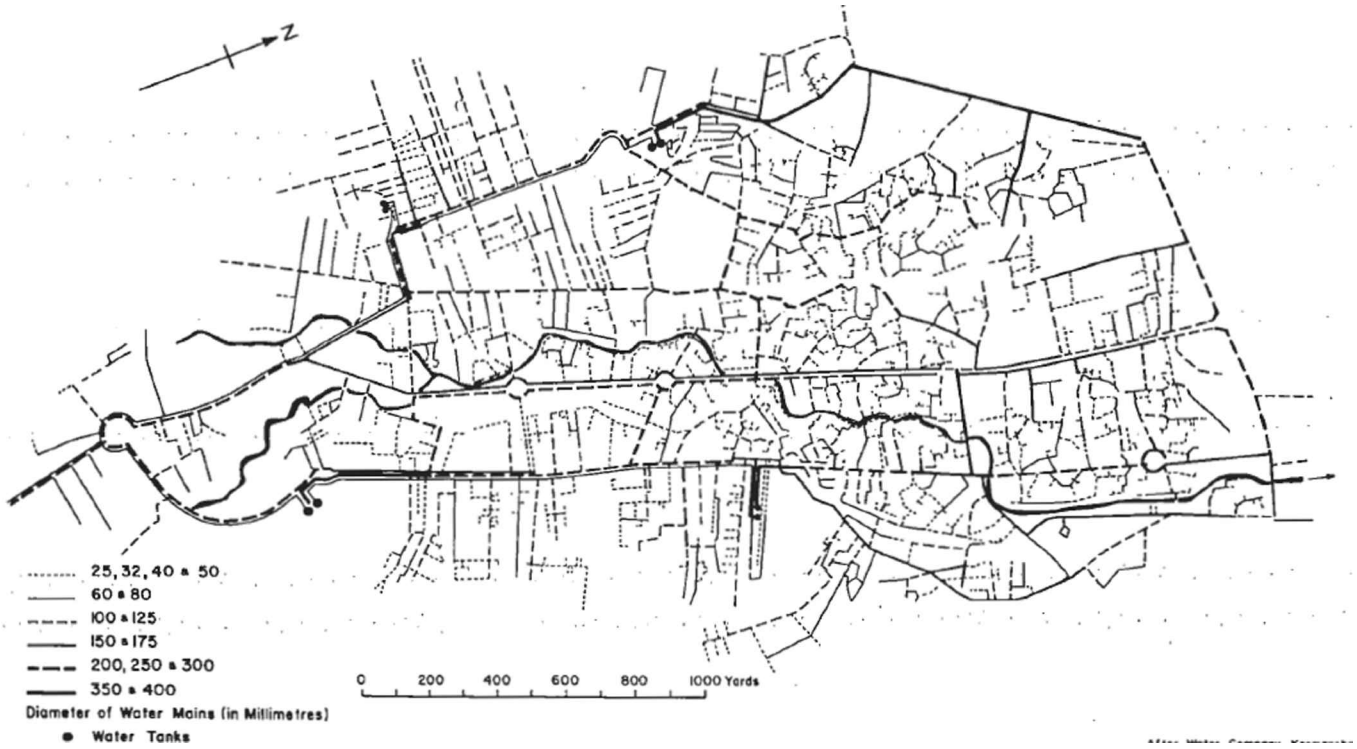


Figure 4.5:
Water piping network in 1966 (Clarke&Clark, 1969).

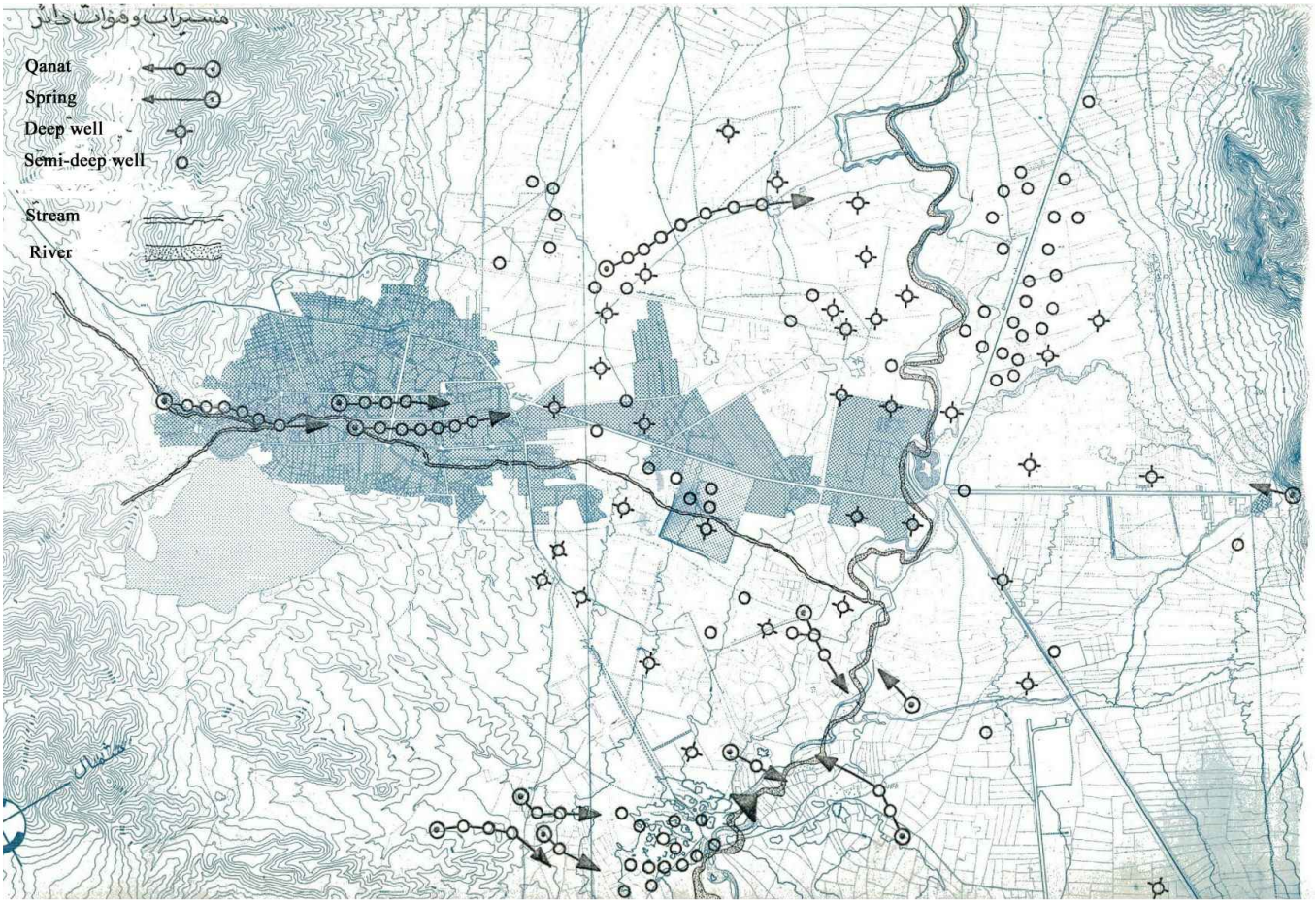


Figure 5.5:
The city's sources of water in 1973: qanats, springs, wells and river (Kermanshah master plan 1973).

available two or three hours per day during summer and autumns (Ibid.). However, the system was improved and spreading, the number of consumers increased to 22,500 in 1973 and sources of water in the city still were qanats: Cheshme Rozan, spring of Ghanbar, Qarasu River and two deep well (Kermanshah master plan, 1973) (Fig. 6.5, Fig. 7.5 & Fig. 8.5). After the revolution, in 1993, due to high pollution of Qarasu river that the factory waste was flooded with that, as well as wide city developments to the north of the city the government decided to add Tagh-Bostan historical springs instead of Qarasu River as a source of drinking water for the city (Fig. 9.5 & Fig. 10.5).

Moreover, resolving the pollution problems in the city required major attention to the sewage system as well. Kermanshah was one of the few cities in Iran that from the past took advantage of a sewage system, which was formed in primitive and old way (Kermanshah master plan, 1975). As mentioned before, this Ab-Shuran River before streaming into the city from south at the beginning was divided into two streams, one stream went through the city for drinking water and after feed housing units jointly to the river. But the other stream from the past was used as a place for disposal sewage for housing units. Sewerage was transferred from houses by burrows (naghbs) that passed through the alleys to the river (Kermanshah master plan, 1973). This stream dissected both new and old part of the city and always been a central and convenient dumping ground for all waste and sewerages. Over the years out-spread and unplanned intensive system of pipes evolved. All pipes feeding sewages into the river and causing hazards to hygiene. This intensive system of pipes was so inefficient because, many of old pipes ran under existing property without serving that property (Clarke&Clark, 1969). Throughout river length small banks or cuts led off water for irrigation propose specially for intensive agricultural land north of the city. Several medical practitioners believed that vegetables grown in these irrigated areas were the main reason for endemic stomach and intestinal problem in the local habitants at that time (Ibid.). The importance of these problems led to the beginning of construction of new sewage network for the city from 1966 in three main stages, respectively, the priority of urban areas. The project was started with construction of trunk line underneath of Ab-shuran River, placing side pipes and treatment tank in the northern new development part of the city (Fig. 11.5). One of the main goals was providing clean water form Ab-Shuran River for jubs networks on the streets and also save the fresh water (Ibid.). But there was a technical problem, especially in the older part of the city, which slowed down the project. The walls of houses were often closed to the stream of

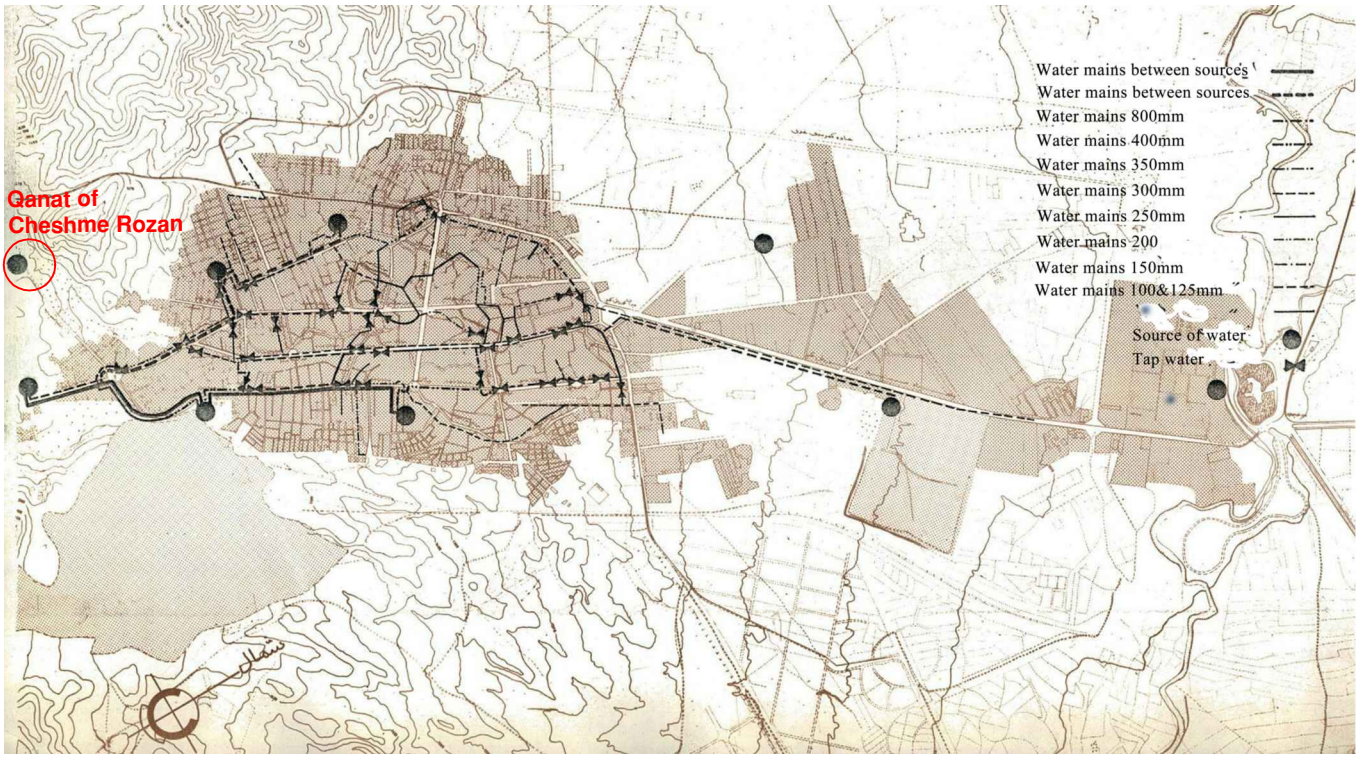


Figure 6.5:
Water piping network in 1973 (Kermanshah master plan 1973)

Figure 7.5:
The map shows how the qanats in the south of city are conducted to refinery. Also shows how sewerage ducts conducted to stream of water. (Personal archive of water company's employee Mr.Mohammadi)

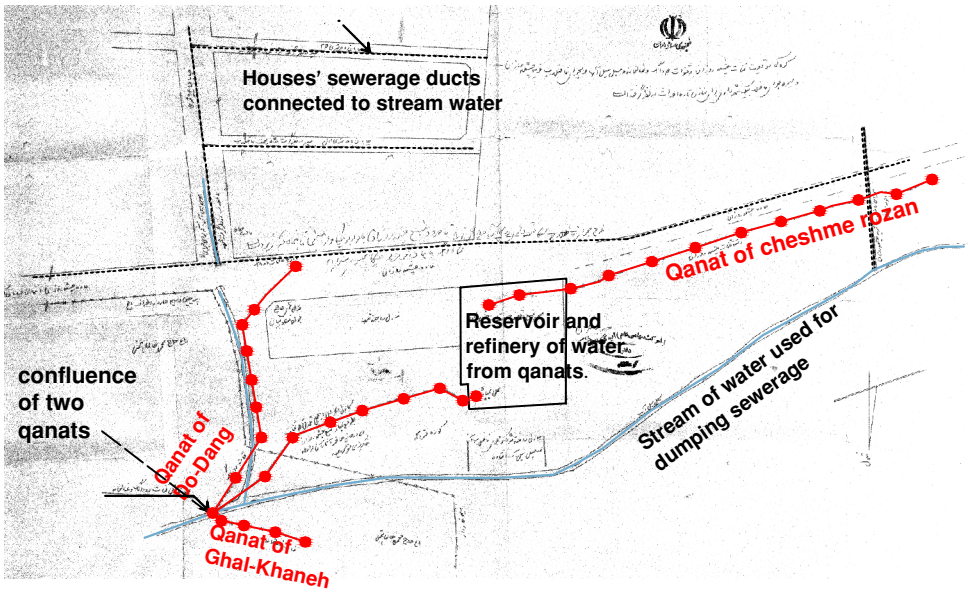


Figure 8.5:
Map shows how qanat of Cheshme- Rozan as one of The main and traditional source for drinking water in the south of city conducted to the modern system of refinery. (Personal archive of water company's employee Mr.Mohammadi)

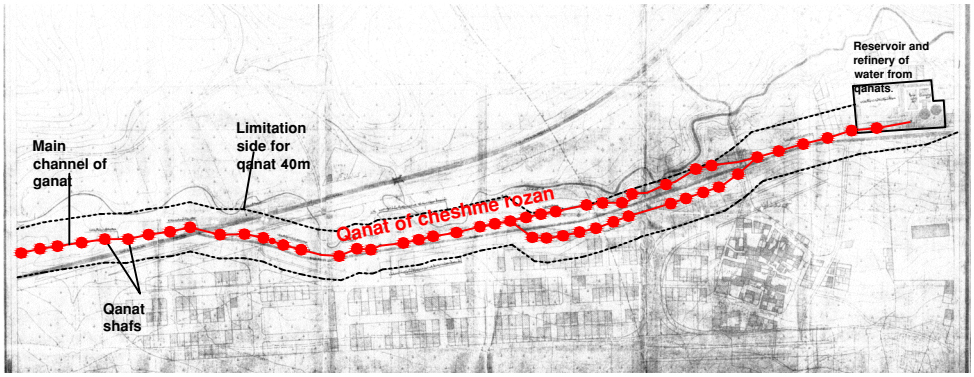


Figure 9.5:
Increasing the sources of water in the north of city and possibility of city widespread growth to the north (Revision of Kermanshah master plan, 2001).

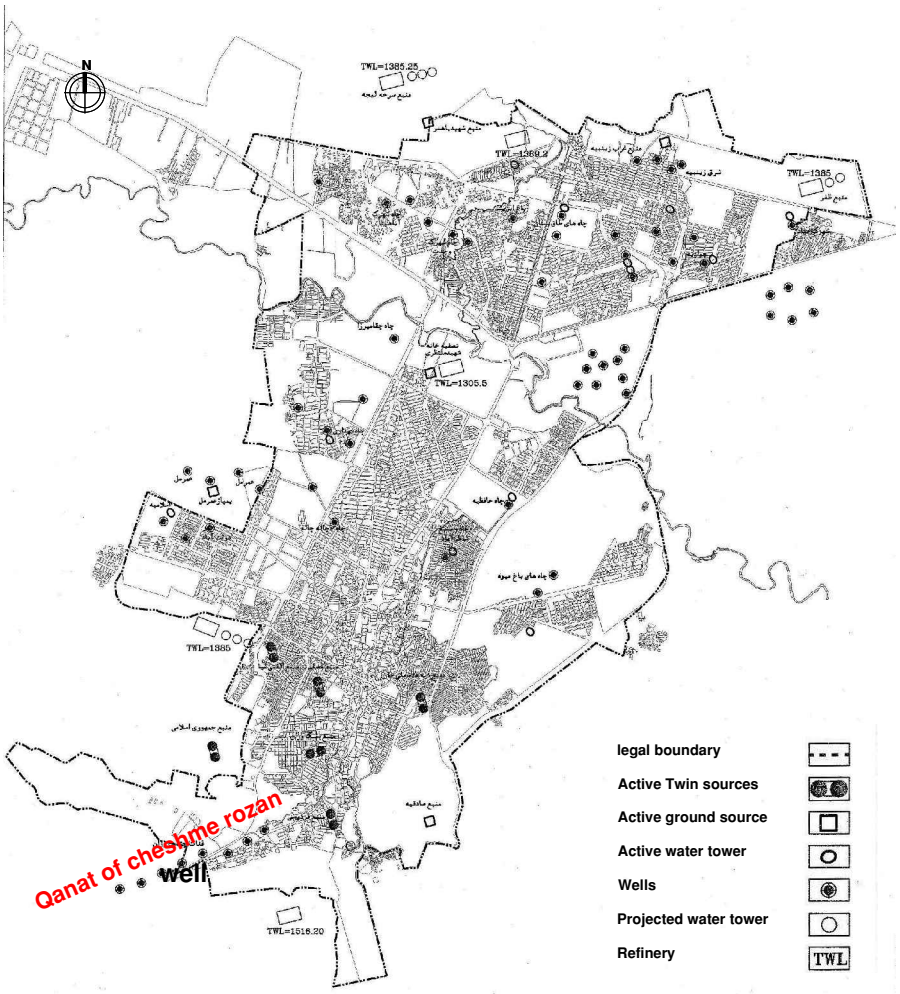
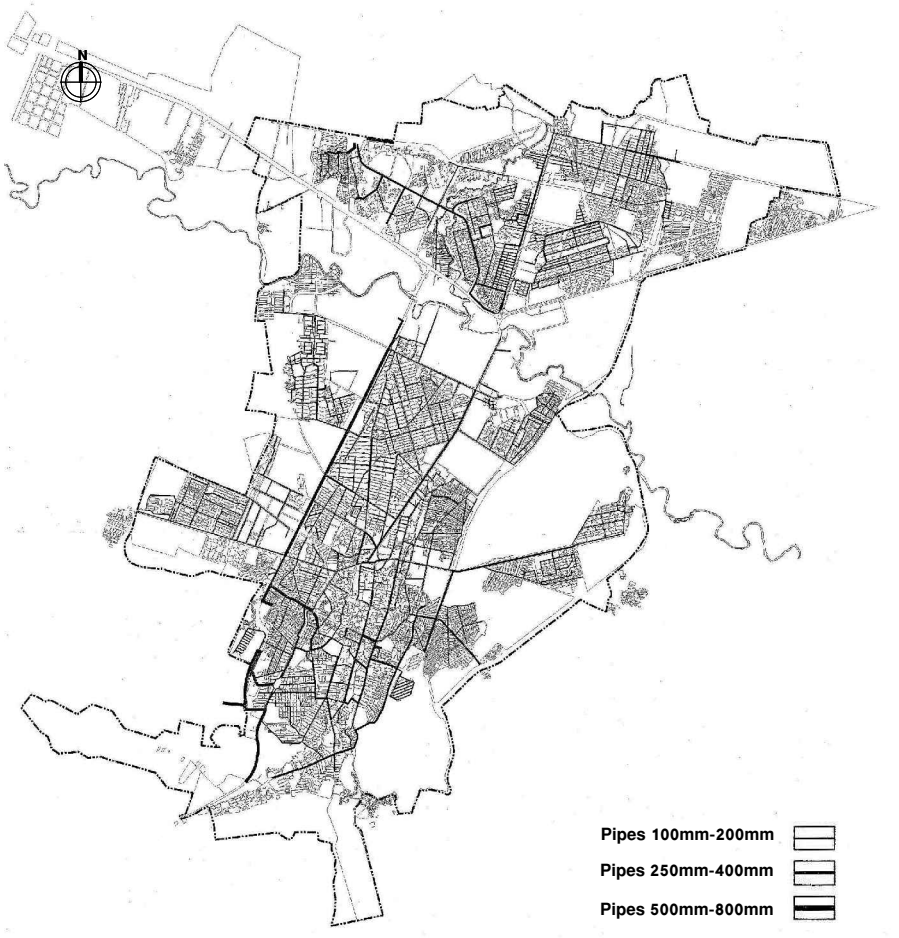


Figure 10.5:
The network of piping water after revolution and widespread city growth; still the main pipes passing through main imposed streets in the traditional context of the city (Revision of Kermanshah master plan, 2001).



Ab-shuran River; hence, accesses to the river for pipe laying were often difficult and prior to construction work municipal authority had to buy the property (Ibid.). Despite implantation of this system in a part of traditional city until 1973 but due to lack of technician in the municipality, practically, this system was left useless and reckless (Kermanshah master plan, 1973). In 1973 again the first comprehensive studies about sewage network was done by the Pars Consulate Consultant Company and in 1974 preparation of executive plans were assigned to the Marjan engineering consultant company. They estimated that the implementation of collecting network would take time until 1997 and implementation of treatment system would take time until 1991. Due to city growth and new developments they considered to design a new and independent network collection for the new developments in the northern part of the traditional city and suggested that Ab-shuran River had to be covered to use as part of this system (Kermanshah master plan, 1975) (Fig. 12.5). However, improvement and reorganizing the sewerage system of Kermanshah is still one of the problems that the governments involve it. Although, in general, the system was developed after the revolution, but population growth, urban rapid development, geographical situation and financial constraints led to the continuation of this project over the years.

Public transportation; a response to traffic control in the new motorable streets

A sudden expansion of the city from the 1940s, Increasing of population and private cars as well as impracticability of traditional pattern to motor traffic, as the feature of modernization, made the new imposed streets as the focal points for traffic problems in the city. So, the public transportation considered as one solution to address this problem. The first system of public transportation in the city was begun by public buses in main avenues from the 1940s [69] (Fig. 13.5).

[69] Kermanshah National Newsletter 15 Dey 1326 A.H.S.(5 January 1948), Evrey day Report, (2388). *Iran National Library.*

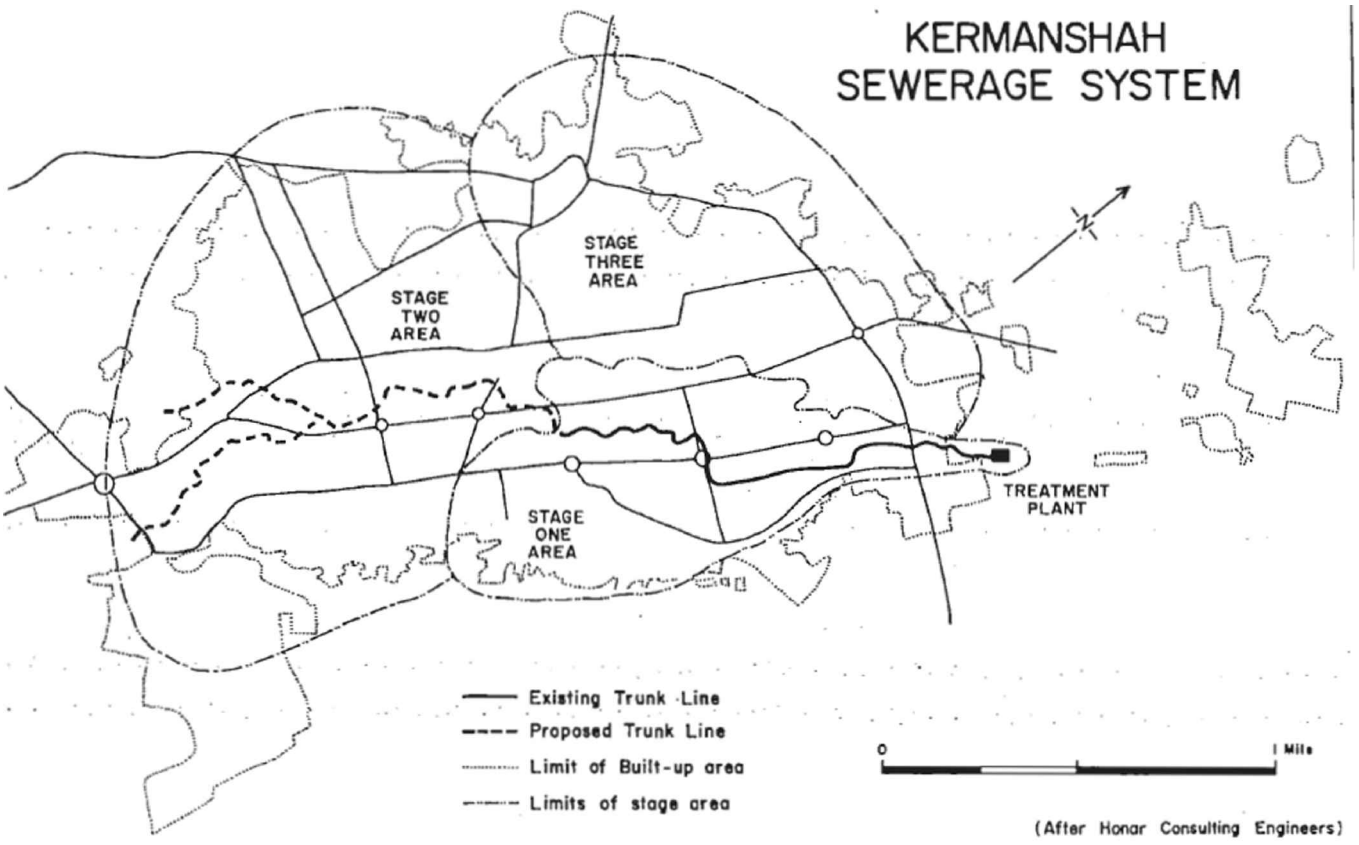


Figure 11.5:
The Sewage system in Kermanshah in 1966 (Clarke&clark,1969).

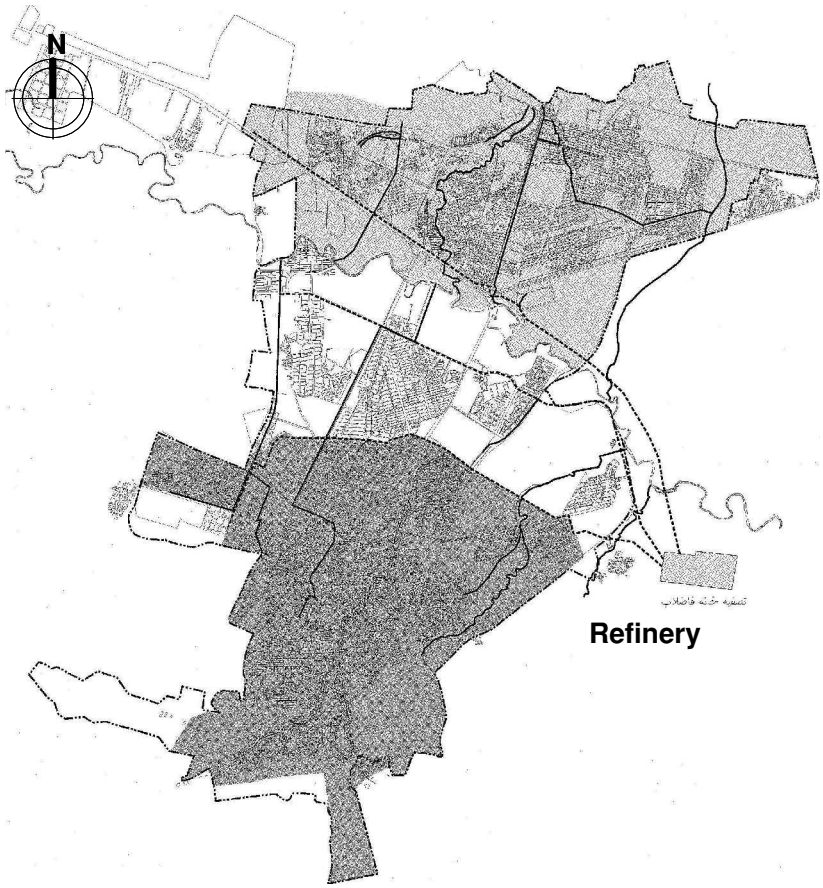


Figure 12.5:
The sewage system of kermanshah after revolution and priority of historic core on northern new development areas in 2001 (Revision of Kermanshah master plan, 2001).

Figure 13.5:
Kermanshah in the 1960s; buses, new street with jūbs and electric light beams new elements of modernization.

- **Also, it is visible how, culturally, people didn't get use to pedestrian and new style in the city (www.iichs.ir).**

In the 1970s Kermanshah had 5 lanes of public buses that all was formed along main new avenues (Fig. 14.5). The first phase of master plan proposed twelve lanes for the future of the city, due to population growth and city development, included seven northern-southern lanes, three eastern-western lanes and 2 lanes of highways toward industrial zones and airport. After revolution in the new revision of master plans for the city in 1980 and 2002, new formation and widespread development of the city made a force for new proposals for public bus lanes (Fig. 15.5). Eventually, in 2007 in order to solve traffic problem and provide more facility for the city that had been deprived of many modernization projects during the war the new government decided to supply public transportation of the city by the construction of the metro. Although, this project later in 2009 and without any comprehensive studies about the situation of Kermanshah in terms of geography, culture, history, urban contexts, economy… was changed to monorail project[70] (Fig. 16.5). This project still faces with different struggles for implementation because the fact that in the initial design the route was considered through the historical context and the bāzār of Kermanshah from the northern end to the southern end of the city. By the beginning of project studies showed that after the haussmannian boulevards again the historical contexts have been threatened by the new symbol of modernization in the city. Constructing the huge piles in the project led to cut a lane of old cities in a main boulevard from Qarasu-river to historic core. Also passing the monorail through the heart of the city in addition to the threat for the historical contexts was culturally criticized due to the kind of design and installation of RLT in height and overlooking the public space in private homes. Accordingly, it was decided that monorail to be replaced with light urban train or LRT and its way through

[70] Based on article issued in Iran economy online website: http://eghtesadeiranonline.com

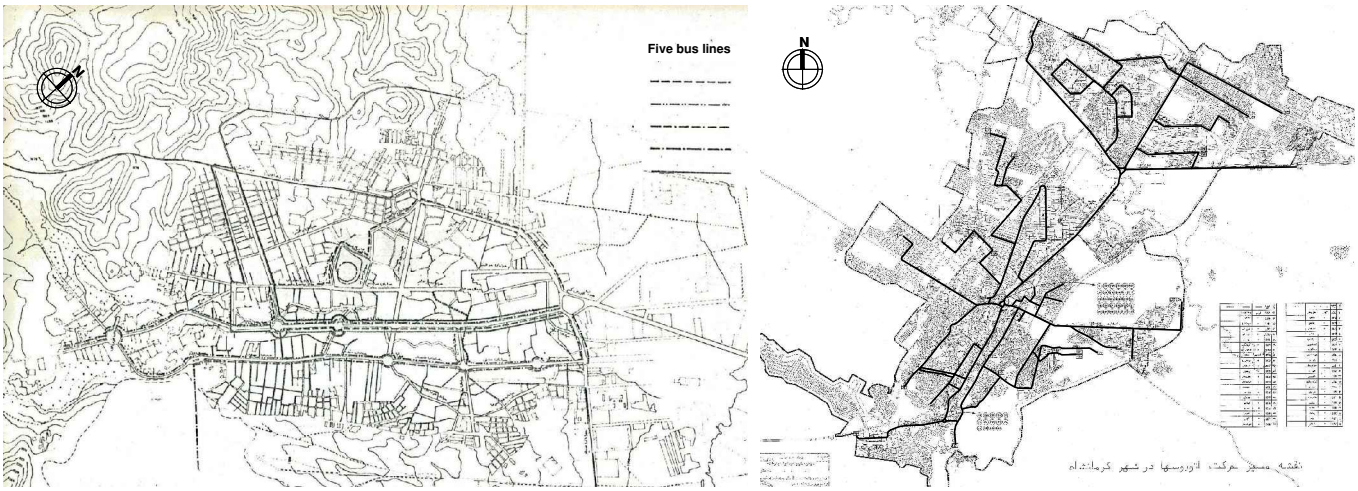
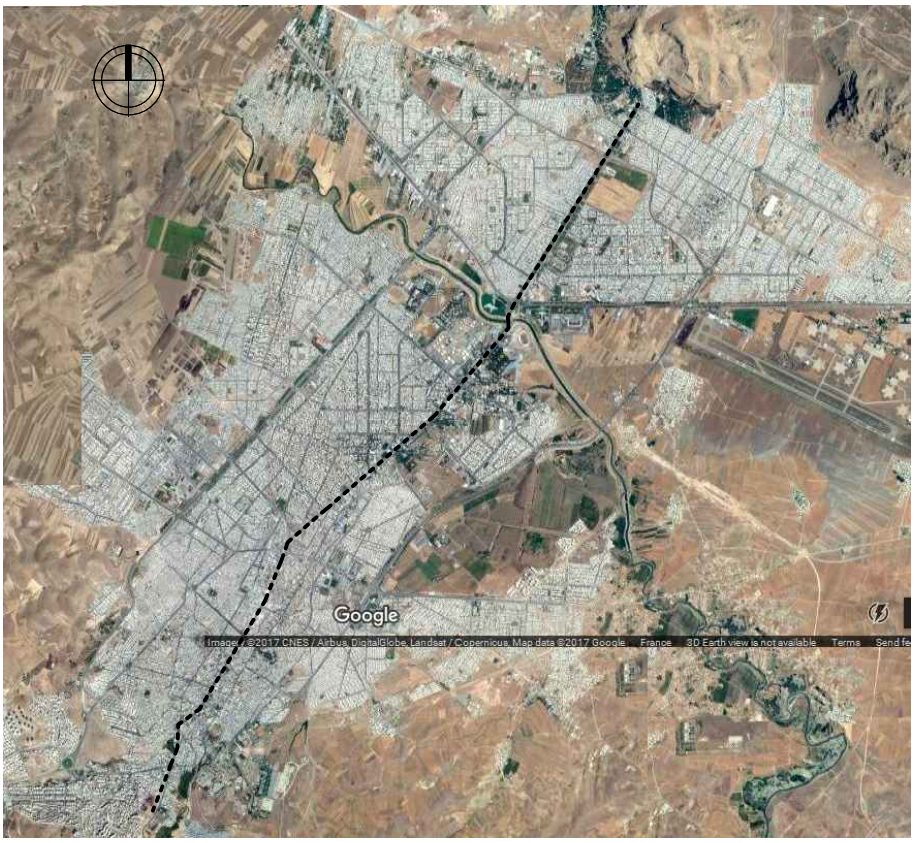
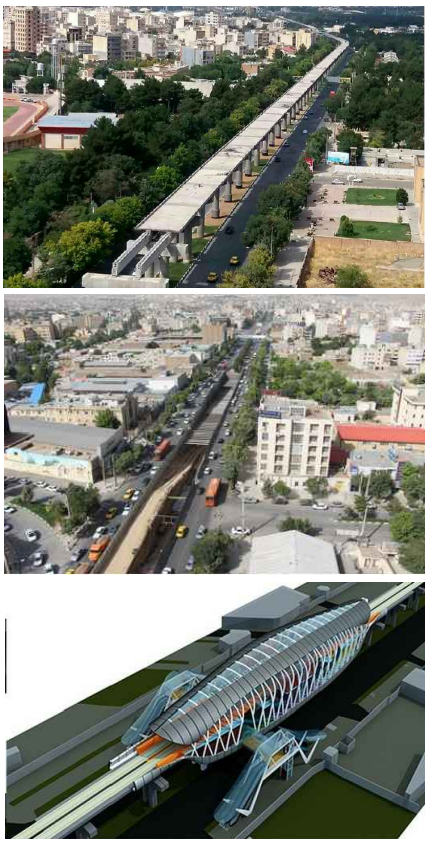


Figure 14.5:
Right; the five bus lines of the city in 1973; almost all of them were formed along new streets (kermanshah master plan, 1973)

Figure 15.5:
Left; Increasing of bus lines in 2001 to 22 lines due to city and population growth (Revision of Kermanshah master plan, 2001).



- **General map of RLT direction.**



- **Views of RLT on its way from northern part of the city and the stations' 3d design**

Figure 16.4:
The general map of RLT through the city from north to south (www.imo.org.ir; www.hexa.ir)

the city run underground, which need more economical support and more time to complete the project.

Industrialization and rise of electricity demand

An emerging of modern middle class during Pahlavi and ravenous, demand for mass consumer technical goods and electricity, to achieve higher living standards, started in the mid of the twentieth century. While clean and safe water was needed in the late nineteenth century in Iran, the electricity was not an important need (Shayegh, 2012). But due to modernity, not only it was necessary in industrial production and lighting, but also for using a new set of products such as refrigerators, televisions, and washing machines (Ibid.). Existing industry's consumer in the city like stone masons and ice plant with service industries like radio station all needed more power (Clarke&Clark, 1969). As a result, the government seriously started expansion of needed infrastructures for distribution of electricity because it could adopt a more integrated vision of development (Shayegh, 2012). In this regard, in 1939, every town in Iran had electricity and Kermanshah from 1932 listed in the city with electricity until 1939 that the four plants with 165,000kWh capacity supplied electricity in the city (Ehlers & Floor, 1993) (Fig. 17.5). The new streets equipped with modern shops where the electricity was key to marketing and selling, particularly for modern product.

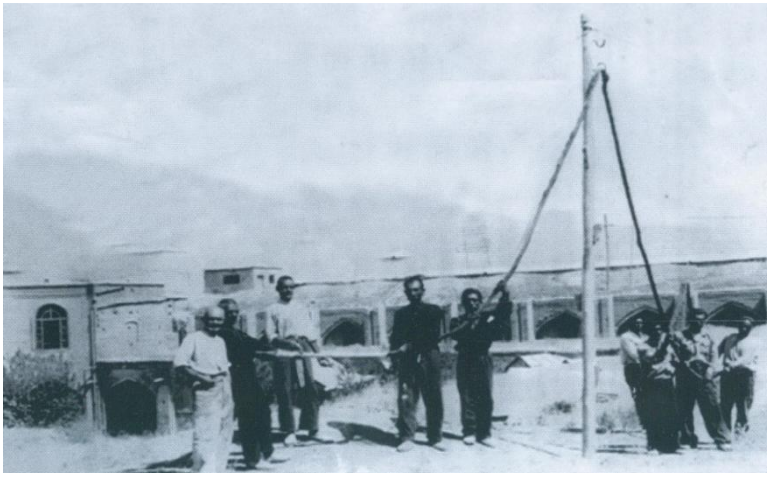


Figure 17.5:
Electrical wiring in 1931 in the city (keshmiri, 2008).

So, the new technical networks in the city, initially, were installed in public streets, after that buildings and residences were connected to this network (Ibid.). Even some of old bāzāries believe that bāzār affected by the emergence of new electrical households as much as the construction of new avenues (Bazaries' interview, 2017). Because before

that the bāzār was not the usual place to deal of these new luxury goods for people (Ibid.). It is remarkable based on plan of wiring systems in 1950s how new main avenues impacted on orientation axially of main cables in the city, while in contrast with other infrastructure system at that time the electric network was extended to poorer peripheral areas (Fig. 18.5). Based on interview by residents in the historic core, the first and second new streets in the city as well as some new squares in the south new developed part with a high social level of residents were the first place to install the electricity.

By 1951, reform of electricity was a high public interest and demand for it was increasing, but the city was struggling with implementation for expansion. In the announcement of 3 June 1951 in the National newsletter of Kermanshah the authorities declared they would not accept any new electricity subscriptions to be processed due to overload pressure on generators in the city. Estimations about future needs increased which also reflected the city's rapid population growth, thereby leading to reaching 8,000 KW by 1970 (Clarke & Clark, 1969). In 1966 Kermanshah electricity supply that was under private ownership [71] became as a public corporation and responsible for the bulk of production in the city. The productions of electricity other than this corporation were as follows: N.I.O.C, army barrack, municipality and ice factory (Ibid.). Because of the old wiring system through the city, total rewiring of the main power lines would be started in 1968 (Ibid.). By the time, 30 % electrical production was lost, 10% goes to industry, 20% of the municipality mainly for street lightening and about 40% for domestic consumptions (Ibid.). Around 15,402 consumers and 12,074 housing units from 18,394 units in 1966 in the city had electricity, which was increased to 29,089 consumers in 1973 (Clarke&Clark, 1969; Kermanshah master plan, 1973) (Fig. 19.5). Among them many houses in the traditional part and poorer new quarters were without electricity.

Although, the government planned to add one 63 KW power station in 1974 or 1975 and a 50 MW gas power plant in 1976 in the city, but actually no change occurred in the condition until 1970, when the national electric company began its activity in the west of Iran and Kermanshah was connected to the nationwide electricity network as one of the first cities in Iran (Kermanshah master plan, 1973; West Regional Electric

[71] As mentioned Keshavarz (2008) it was began by Ali Asghar Haj Dahi who first established the Lighting company in the city(personal interview by traditional part's residents, 2017).

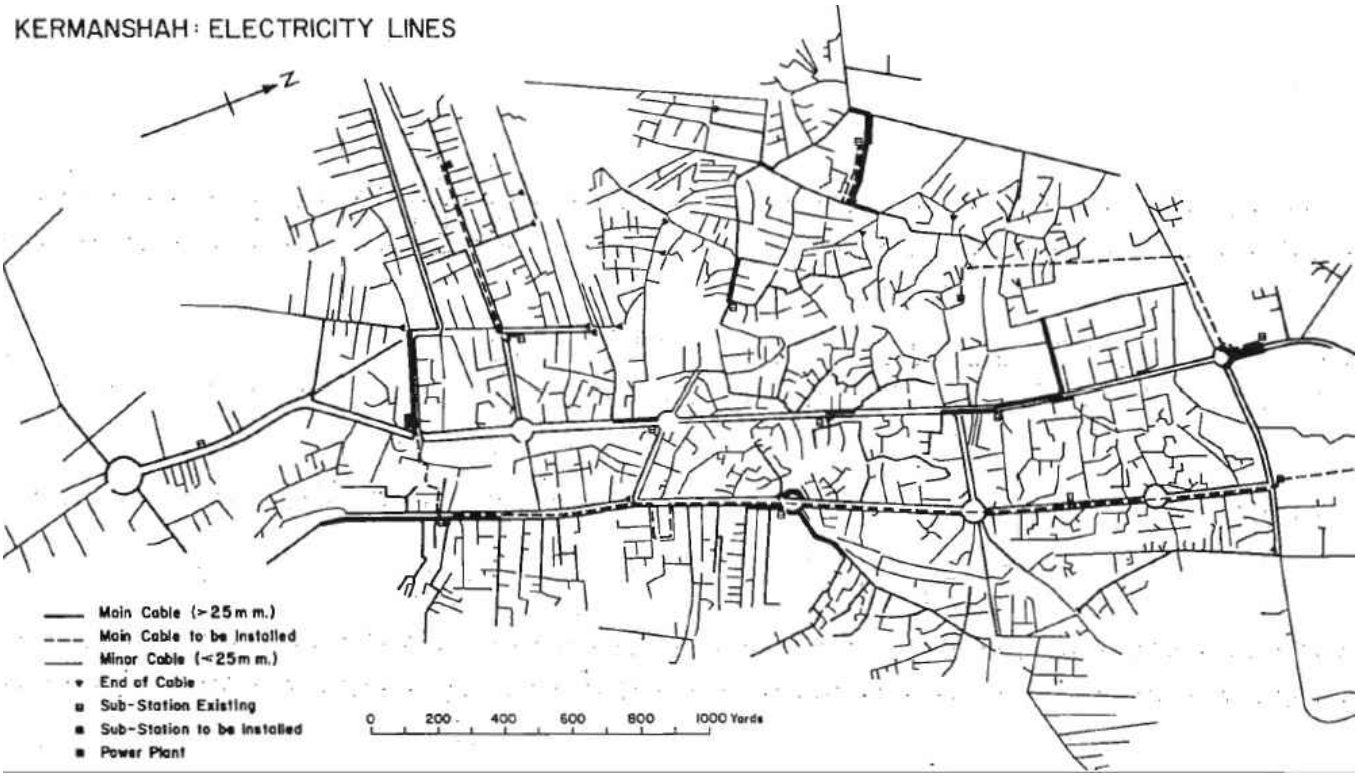


Figure 18.5:
Electrical lines in the city in 1960s and development to poor areas in eastern and western part of city (Clarke&Clark, 1969).

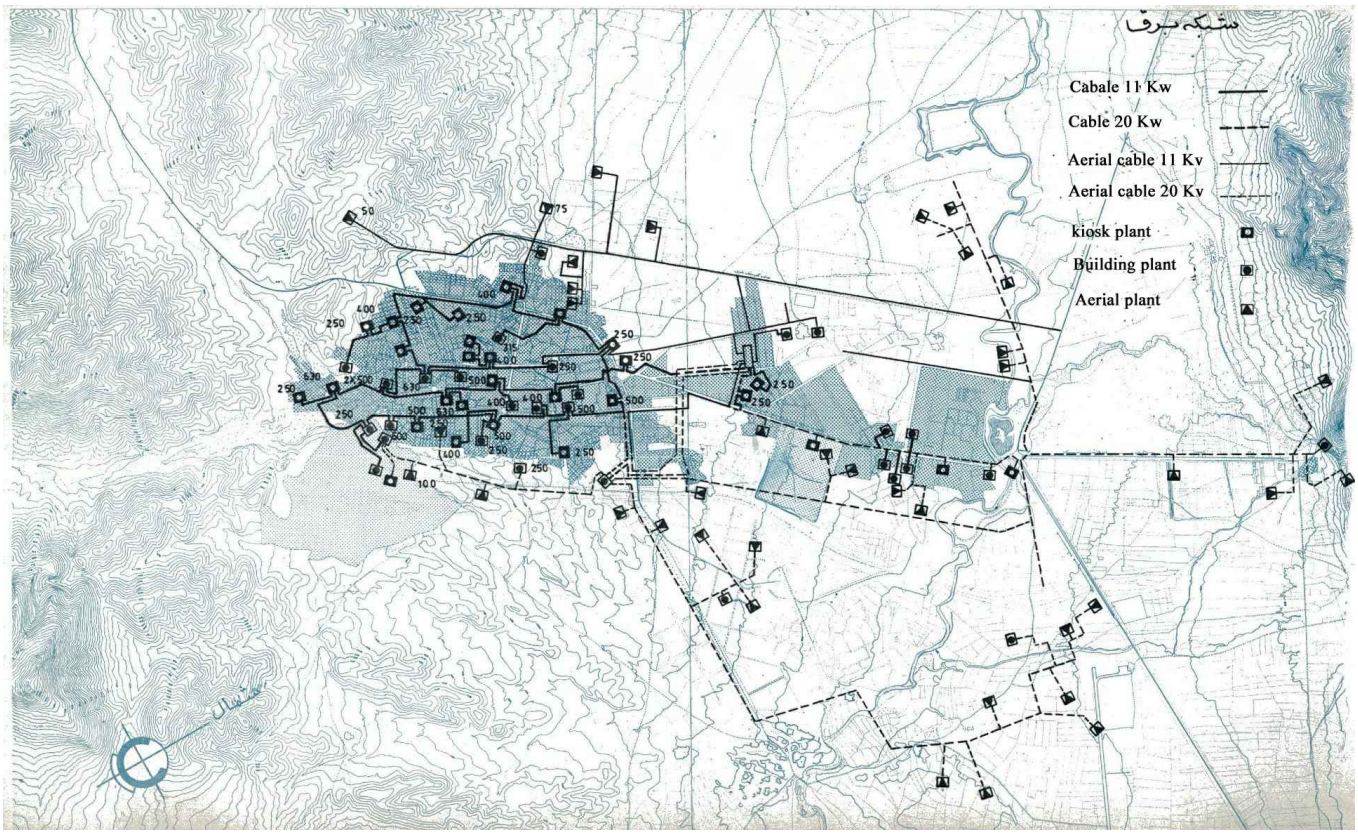


Figure 19.5:
Proceeding of electric network until 1973 to peripheral area and new development area in the north of old city (Kermanshah master plan 1973).

Company of Iran official website). After the Islamic Revolution, developments in the electricity industry were accelerated. Despite eight years of war and stopping of developmental programs in west of Iran, the number of subscribers, power consumptions, construction of facilities and power plants and rural electrification dramatically increased[72]. In 2007 separation of electricity distribution activities from the territory of regional electricity companions, was led to the establishment of three distribution companions in the western provinces of Iran: Kermanshah, Kurdistan and Ilam[73]. Also the establishment of thermal power plant of Bistoon, in 1994 on the site near Kermanshah, has added the city to the west regional power grid in recent years and have made Kermanshah as one of Electricity manufacturers instead of only consumes electric power in the west of Iran (Fig. 20.5). Since 2004, the government started to export electricity, because of proximity to the border with Iraq, via three lines of exchange from Kurdistan and Kermanshah provinces (Ibid.).

It is worth to mention that one of an important power supply system that has been added to city's infrastructure after the revolution is gas piping network. Although since late of 1950s establishment of Butane Industrial Group as well as changing source of fuel for houses from coal to oil in Iran for cooking and heating made possible the removal of the old masonry charcoal oven in the kitchen (Saremi, 2005). Later, after the revolution and from the 1993 beginning of piping gas brought new stream of an easier life for the cities (Fig. 21.5). The operation was started from new developments from northern part of the city with a grid plot network that could provide more facility to progress of the project.

Telephone as a new amenity to communication

Electricity supply led to consideration other amenities in the city like telephone, radio… The installation and commissioning of the first telephone center of Kermanshah dates back to 1941.[74] So it was begun by the first call between Iran and Iraq[75] in 1946, from Kermanshah and communicating between Tehran, Kermanshah and Iraq.[76] At the

---

[72] http://en.ghrec.co.ir/Default.aspx
[73] http://en.ghrec.co.ir/Default.aspx
[74] Kermanshah Province Telecommunication Office official website.
[75] Between Minister of Post and Telegraph and Telephone of Iran(Seyyed Ali Nasr) and Iraq.
[76] Kermanshah National Newsletter 22 Tir 1326 A.H.S.(14 July 1947), Opening of Telephone system, (2335). *Iran National Library.*

Low pressure network 20kv

Existence transmission line 63 KV

Existence transmission line 230 KV

Transmission line 230 KV under construction

Stations 63kv and 230 KV

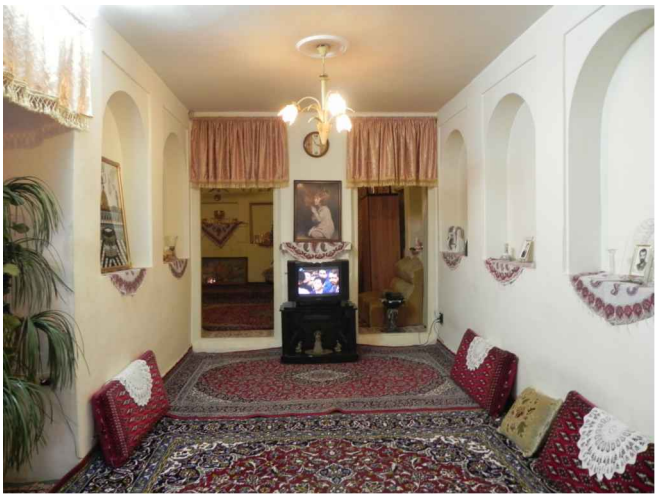
Figure 20.5:
Kermanshah as power generator for western regions in Iran after revolution Revision of Kermanshah master plan, 1998).

Figure 21.5:
Contrast between tradition and modern;
(Department of cultural heritage of Kermanshah)

- **The traditional house in Kermanshah; modernizing the traditional space with modern facility.**

- **Using modern features like cabinets, electrical furniture like refrigerator as well as new gas stove that using gas piping directly,TV and lamps.**

- **Traditional decorative elements like Persian carpet(farsh), traditional backrest(poshtī), niches(tāghcheh) beside modern elements like luster, television and modern frames with western style picture in living room.**



beginning the government provided telephone facility from some public post and telegraph counters in the city with daily time limitation, between 1:00 and 2:00 pm and between 4:00 and 7:00 pm (Ibid.). There were only three public lines of communication with the provinces of Tehran and Central province and Iraq plus several private lines used by N.I.O.C., police, army and Persian Red Cross (red lion and sun) (Clarke&Clark, 1969). In 1956 government dedicated lands with area around 4000 m2 to the establishment of the first center for auto telephone (telephone-e-khod-kar) in Kermanshah, although the group of German engineers suggested another location for this installation but private proprietary didn't cooperate to land expropriation.[77] In 1958 German engineers prepared caballing plan for the city and in the same year the project of construction of center was inaugurated that was finished in 1962 and officially began to work.[78] In 1966 there were only 3,500 telephones within the city, a small number of residential population of 188,000 (Clarke&Clark, 1969). In 1973 the center of communication in Kermanshah had 7000 telephone numbers that only 6500 of them were active and most of the customers were from the habitants of city center (traditional part) and merchants of the bāzār (Marjan consultant engineer company, 1973) (Fig. 22.5). So by the time government couldn't supply 3000 new demands of habitants in new developed part of city while based on fifth plan organization the government had to provide 20000 telephone numbers for city until 1977 (Ibid.). In 1993, after Revolution and war, with the increase of populations the telephone numbers increased to 38000 and in the same year digital telephone ID Call started to be used (Fig. 23.5).

Media as a tool for cultural discourse; radio, television and cinema

Other amenities like Radio, television or cinema, though that had a smaller incidence in the urban structure for the technicians of the modernization process, but a great impact in the urban culture. "The first images of cities in the movies almost coincided with the birth of cinema" (Goharipour, 2016). They have a key role in the representation of the city, its social reality and cultural perspective of cities. This potential makes them

[77] Kermanshah National Newsletter 29 Shahrivar1335 A.H.S.(19 September 1956), About Telephone system*. Iran National Library.*

[78] Kermanshah National Newsletter 2 Tir 1337 A.H.S.(23 June 1958), About Telephone system, (3509), *Iran National Library. And;* Kermanshah National Newsletter 8 Dey 1337 A.H.S.(29 December 1958), About Telephone system, (3560), *Iran National Library. And;* Kermanshah National Newsletter 17 Ordibehesht A.H.S.(7 May 1962), About Telephone system (3778), *Iran National Library.*

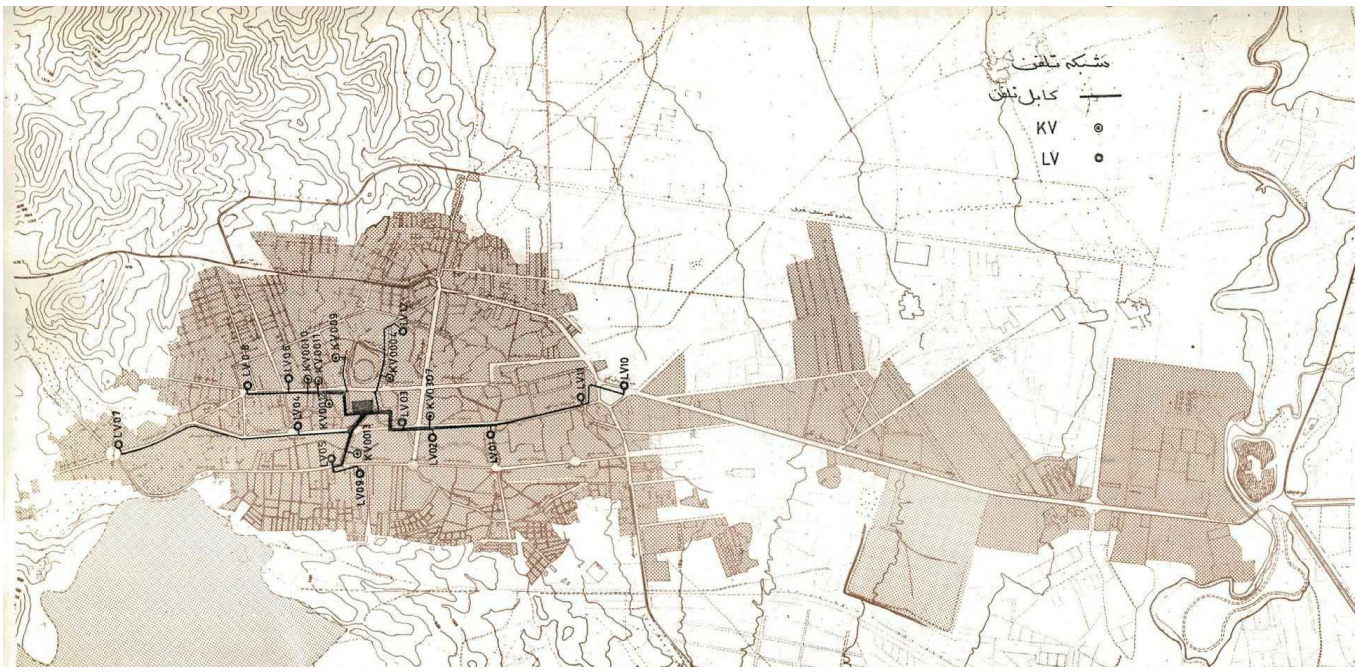


Figure 22.5:
The network of Telephone lines in 1973 (Kermanshah master plan 1973).

Figure 23.5:
Density of telephone and post cabinets in the city after revolution due to population growth (revision of Kermanshah master plan 2001)

particularly interesting in the Iranian case because they highlight the profound impact of the Islamic Revolution. They evolve under a remarkable transformation after the revolution, in parallel of the wider changes in Iranian culture and society. In contrast to encourage modern modes of behavior in the house before revolution by the Iranian popular media, making the media's sensationalist concern in the supposed extreme gender dichotomy of public and private is one important interest in the post-revolutionary Iran (Karimi, 2009). The media, such as TV and radio, announced the victory of the Iranian revolution: “This is the voice of Iran, the voice of true Iran, the voice of the Islamic Revolution”; “the Shah had gone and Mr. Khomenini had returned” (Abrahamian, 2008; Bayat, 1997). After the revolution the people, especially poor, considered to the radio and TV as the instruments to publicize their grievances and problems for getting attention of religious leaders and authorities (Ibid.). The informal settlements that began to form and develop around the city before the revolution, in 1970s, in the post revolution area became the image of movies and TV programs (Ibid.).

During Pahlavi radios were seen by the government as an important component of every household, especially those in distant villages and other outlying places (Karimi, 2009). The first radio station in Tehran was installed towards the end of Reza Shah's reign in 1938 and on July 12, 1951, Iranians sent a letter to the Office of International Trade in the U.S., insisting that radio batteries were an essential need of the country for operating radio sets in remote areas without electricity (Ibid.). The ministry of information established a radio station in Kermanshah by installing a 1 KW transmitter in 1958 and most of the programs were in Persian and Kurdish languages (Kermanshah master plan, 1973). In 1961 another 1 KW transmitter was added that at the beginning had 7 hours daily programs (Ibid.). This timetable was increased to 19.5 hours daily programs from 6:00 Am to 1.5 Am until the next day, in 1973, and with three languages: one program in Persian, two programs in Kurdish and Arabic for neighboring countries (Clarke & Clark, 1969; Kermanshah master plan, 1973). The Kermanshah station was mainly in Kermanshah province. By the time, increasing advertisements for radio batteries, especially in the newspapers at that time suggests an increase in the general interest to this modern set and the ministry of information estimated that there were 50,000 radio sets in the city in 1966 (Clarke & Clark, 1969). Between 1956 and 1966, two million of the villagers, whose connection to the capital and other bigger cities had been mainly through radio, actually moved out to settle in

urban centers (especially Tehran). This trend was in part due to the regime's Plan-Organization industrialization strategy, which ultimately encouraged the migration of these villagers to cities.

Radio was considered as an important device, before the arrival of television sets, for keeping the (mostly illiterate) Iranian society up to date and they were crucial for uniting the nation (Karimi, 2009). From 1970 to 1976 the number of employees in factories that producing televisions and radios rose by 65 percent, while the number of factory workers employed in the household appliance sector increased by 58 percent (Ibid.). In Kermanshah television transmitter began to work from 1970 with daily program that included: from 8:00 Am to 12:00 Pm didactic program and from 12:00 Pm to 14:30 Pm and in the third part after 5:00Pm it worked as regenerator for the national programs. Some folklore music and programs also were displayed in some special days and hours in a week (Fig. 24.5).

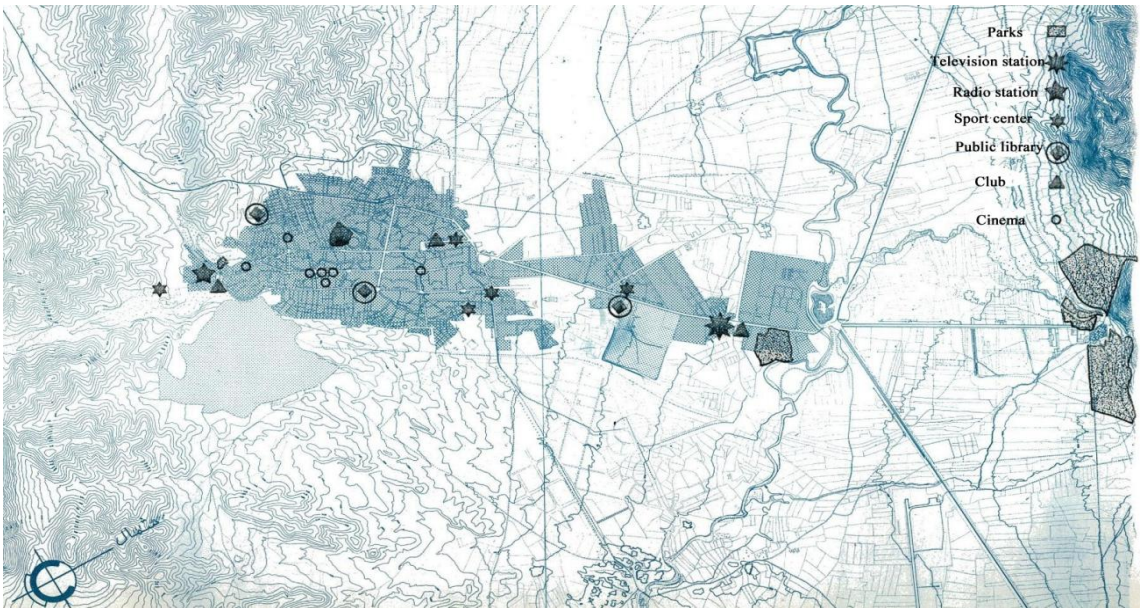


Figure 24.5:
Cinemas, radio and TV centers in the city in 1973 (Kermanshah master plan 1973).

Also In the most of Middle Eastern cities, the cinema played an important role, especially as it was one of the few public forms of recreation attended by women in that decade. Before the revolution, the city was provided by cinemas better than by other recreational facilities. In 1973 Kermanshah had seven cinemas as follows (Kermanshah master plan, 1973) (Table. 1.5):

Cinema	Mahtab	Metropole	Atlas	Shr-e-Farang	Iran	Moulin rouge and Rex
Year of establishment	1953	1956	1966	1971	1943	Summer cinema
Area	800m2	670m2	1100m2	1000m2	840m2	-------
Seat capacity	600	450	1125	850	460	900

Table 1.5: Also N.I.O.C and American-Iranian society had a screenplay for their staff too (Clarke&Clark, 1969).

After the Islamic revolution, Ayatollah Khomeini', leader of the revolution, thoughts," he once wrote, [During the Pahlavi regime]... the media art (cinema and theatre) was associated with corruption. This was particularly because of the Western influence. Now, our responsibility is to open up the minds of our youth and show them that we don't need to follow the West in our cultural achievements and artistic productions" (Karimi, 2009). In this regard, the government attempted to eliminate centralized areas of the music industry, theatres and cinemas (Azizi& Fatemi, 2015). In the days of the revolution, attack on cinemas was common, and Kermanshah was not an exception. Thus, some of cinemas in the city were burned down. Following Iran-Iraq war after revolution led to close the most of remaining cinemas in the city. Although later the construction and renovation of cinemas were started again, but because different reasons outside the discussion of this study, in fact, they have been in decreasing trend, so far. The city recently has only two active cinemas. However, the war and its serious impact on the cities and immigration led to a new trend in the media in order to address migrants' and refuges' problems and representation of cities from their viewpoint (Goharipour, 2016).

Chapter VI

The Islamic Revolution and modernization of provincial cities

The revolution, war and housing problem

The Twentieth century of Iran experienced two Revolution. First, constitutional revolution in 1905-1909 and Islamic revolution of 1977-1979. The first revolution, was the triumph of modernizers who, inspired by Western Ideologies and in the second the traditionalists won the leadership that inspired by “golden age” of Islam (Abrahamian, 1982; Madanipour, 2006). The Islamic revolution of Iran was formed in order to have "Muslim identity" against Western political and cultural penetration and the theorists of revolution believed that the Westernization of Iran in the past had separated Iranians from their true essence (Bayat, 1998; Karimi, 2009). However, the approach of both revolutions led to a number of major issues such as urban development, showing a strong tendency for modernization, and difficulties for transformation in the country.

In addition to political changes, Iranian cities are faced with economic and cultural changes after the Islamic revolution in 1979 (Fanni, 2006). The revolutionary and post-revolutionary period can be divided into three phases: revolution (1979–1988), reconstruction (1989–1996), and reform (1997–2004), each led to different approaches to urban planning (Madanipour, 2006). The Iranian Revolution of 1978-1979 is remarked as one of the most important events in the twentieth century that not only replaced the Pahlavi monarchy, and 2,500 years old monarchy in Iran, with the Islamic Republic but also changed the rules of the global power game, by the leadership of Ayatollah Khomeini (Grigor, 2016). It was declined the vision of Mohammad-Reza Shah and actually Pahlavi dynasty for developments, and based on Emami (2011) can be a reality image of which Berman[79] called “the tragedy of development.” The reasons for the failure of this development probably could be that “the pace of (urban) modernization was not fast enough to absorb the whole population, or too fast for the traditional class to absorb” (Emami, 2011). The post-revolutionary regime rejected the secularism and rapid modernization that was considered as motives to limit religion within the private spaces of the mosques and people's homes (Karimi, 2009). Hence, the new government brought religious regulations as a “Cultural Revolution” into the public realm, especially from late of 1980, which persuaded people to make the private domain more secular (Khatam, 2015; Karimi, 2009). For example, most government institutions, university campuses, sports stadiums and public transportation became

[79] See Berman, M. (1983). *All that is solid melts into air: The experience of modernity*. Verso.

gender-segregated with separated the space of women from the men. “The revolutionary in Iran proved that ‘authentic’ Islam could be revolutionary ideology to inspire the masses because it spoke to them in their own language (unlike imported' Western ideas of the left and the nationalists)” (Zubeida, 2000).

Indeed, the reasons that led to revolution could be resulted from a deficiency of development model under the Shah’s regime, which created “clashes between modernization and traditions, between economic development and political underdevelopment, between global market forces and local bourgeoisie, between foreign influence and nationalism, between a corrupt and complacent elite and discontented masses” (Madanipour, 2006). On the other hand, highly centralized actions that characterized the formation of the modern national state by the Pahlavi dynasty led to accelerate political engagement between more or less all provincial towns and their rural peripheries in national affairs during the revolutionary years and not only in Tehran as the capital of modernization (Ehsani, 2009).

The policy of modernization and economic change, initiated by Reza Shah and his son (1925-1979) resulted in the growth of new social forces, a force that took back traditional social groups. By the late 1970s, a modern middle class, modern youth, public women, an industrial working class as well as new poor, slum and squatter dwellers dominated the social scene (Bayat, 1998). The traditional social groups included a segment of traditional bāzāries, the old layer of urban middle class, the clergy and those followers of Islamic institutions were disappointed from the past modernization strategies that were undermined their economic interests and social status (Ibid.). The Ayatollah Khomeini’s movement was supported by traditional middle classes, especially bāzāries and clergies, and indeed bāzār and religious establishment like mosques, not only by their generous financial support, but also with their nationwide organizational network (Abrahamian, 1982) (Fig. 1.6). Ayatollah Khomeini not only was the prototype of a charismatic leader for Iran, but through world media for the whole of the Muslim world (much like Mao, Castro or Guevara played that role for the international left at a previous moment) (Zubeida, 2000).

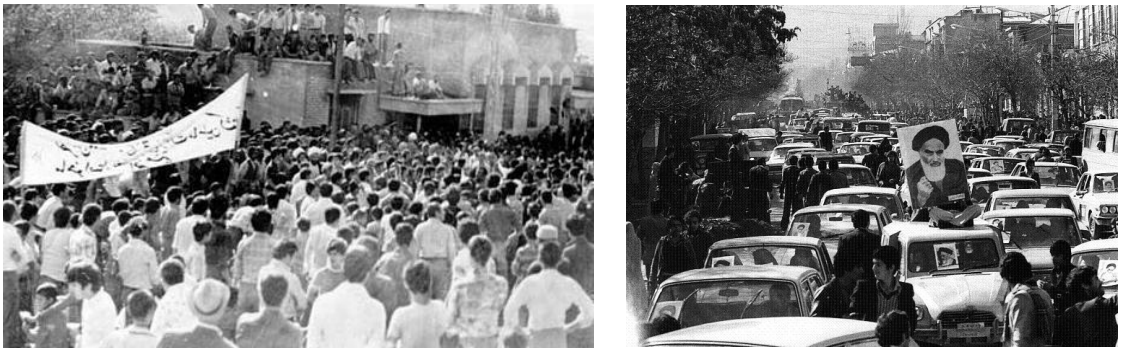


Figure 1.6: The scene of revolution in Kermanshah; marching people in the streets with photos of Ayatollah Khomeini (www. iqna.ir; Kermanshah.isna.ir).

The revolution was formed by stream of poor and middle classes in the streets who demanding democracy and social justice, among other things. In fact, as some sociologists have argued, the "housing problem" was a major force behind the involvement of the masses in the revolution, while the critical voices regarding the problem of housing had started much earlier after World War II (Karimi, 2009). The last two decades of the Pahlavi regime were an era of great plans, major projects and creation in order to rise of the arts and culture while the Shah's government was unable to provide the urban poor with adequate housing (Ibid.). The revolutionaries were marching in the streets of big cities and ordinary people under the influence of religious Islamists' propaganda despoiled many monuments from Pahlavi dynasty as a legacy of decadence. In the climate of revolution, very poor people took advantage of the police control collapse in order to seize vacant palaces and occupied homes, villas, unfinished apartment blocks that had belonged to the upper class who had either rushed to the west or gone into hiding (Bayat, 1997). Although these expropriated properties later fell under the control of the Bunyād-I Mustazafān (the foundation of the dispossessed), but created a lot of legal problems for the Islamic Republic since were claimed by their original owners (Karimi, 2009). The regime thus "were consequently caught up between threats of disorder and chaos, of losing their legitimacy as the 'servants of the dispossessed' and of being irrelevant" (Bayat, 1997). So the new authorities, especially upper religious authorities, in order to accused squatters by assigning their practices, expropriating properties, as 'un-Islamic' or harām act and instead they promised of housing to segment of them, or used some tactics, In addition of, religious verdicts, like cutting water, electricity or arrests and armed raids (Bayat, 1997; Karimi, 2009). So some squatters left properties without much resistance, others

did after obtaining compensation or promise for alternative houses, many resisted and stayed on, though some agreed to pay some repayments to the governments and If the squatter lands belonged to *Waqf* it was required them to pay some annual rent (Bayat, 1997). These kind of government's solution were not unique to Iran. For example, in 1958 following the shantytowns- clearance policy of the Egyptian governance the informal settlements in the El Dekhila district of Alexandria province who were forced to evacuate houses, based on the city master plan, were promised new houses by government, although the illegal development of the site then ignored by government due to politic and economic transformation of the country in 1967 (Alsayyad, 1993).

Ayatollah Khomeini mentioned in his speech in 10 March of 1979,[80] (as cited in Khatam, 2015):

> "Housing is the main calamity that made our people miserable under the Pahlavi regime. People were after a shelter their whole life… The Islamic government would not tolerate such misery and discrimination. This is a right for anyone to have a shelter. The problem of land should be solved. All poor people should have a shelter of their own. No one in our society should remain homeless. The Islamic state should find a solution for this and others are to support the state in this cause…. I open an account for this in all the branches of National Bank and invite all those who can help to put money in this account. A group of trustworthy and righteous people, least of three- member group of an urban/housing engineer or planners, a clergy and a government representative should be elected in each city to plan for building affordable housing for the poor. There should be no payment for land in these projects. I hope all who own large parcels of land contribute to such humanistic- Islamic cause and grant their better lots in livable areas of these projects. Those who can provide construction materials and their labor are asked to contribute. Government should provide the electricity, piped water, paved roads, transport system, schools, clinics and other public services for the projects. Bunyād-I Mustazafān is supposed to contribute by the [confiscated] propertied of Pahlavi… this is a new experience of mobilization of Islamic beliefs for cooperation and struggle to defeat the poverty… I ask modestly all dear nation to join this effort" (Ibid.).

[80] Ayatollah Khomeini, 10 March 1979- Collection of speeches and statements 1999, vol. 6: 520.

So in 10 April 1979 Ayatollah Khomeini asked to establish of Housing Foundation of the Islamic Revolution (HFIR), Bunyād-i Maskan, as well as opening a bank account, named after him as the Imam's 100 Account (hesāb-e 100 Imams), and asked everyone, especially rich merchants to support his goal by making donations to his account (Habibi, 1996). Moreover, many self-driven organizations, as an independent governing body, such as Jahād-i Sāzandegī (The Construction Crusades) were emerged to supply of public welfare (including agriculture, electricity, water, roads, telecommunication and health care to family planning) and to help housing with main focus on deprived and outlying areas as well as villages (Azizi and Fatemi, 2016). Initially, it seemed viable solution, but these measures were limited and were accompanied by rising price of land and rent, the new wave of urban immigrants and refugees of follow Iran-Iraq war (1980-1988) and led to encourage the poor to focus on alternative strategies of spontaneous settlements through the occupation of urban lands (Bayat, 1997).

In Kermanshah during the first week of the revolution, one hundred and fifty families of flood victims were mobilized carefully in planning campaigns by youth activists who then led them to occupy government-built apartment blocks (Bayat, 1997). According to a report by the newspaper, Shāhed-i Gharb issued on 26 April and 20 September 1979, poor people and opportunistic people in Kermanshah during the climactic days of the revolution, cutting down the trees in parks, green spaces and cemeteries around the city in order to make vacant land for construction or sale. Moreover, In the report was mentioned only 700 illegal housing units, without control, were constructed by people in an area of the city with a lack of electricity, drinking water and sewerage system facilities. These situations not only in Kermanshah but in other cities forced the government to impose unforeseen expenses on them for extending urban services and amenities to such poor settlements. So between 1980 and 1983 the land area of the city of Kermanshah[81] grew from 6km2 to about 80 km2 (Bayat, 1997). These kinds of practices are common in other countries in developing world like Latin America or

[81] After the revolution in 1979, the city was named Ghahramān-shahr for a short period of time, and later the name of the city as well as the province changed to Bākhtarān, apparently due to the presence of the word "Shāh" means "king" in the original name. Bākhtarān means western, which refers to the location of the city and the province within Iran. After the Iran–Iraq War, however, the city was renamed Kermanshah again in 1993 with the efforts of the city's deputies in parliament, as it resonated more with the desire of its residents, the Persian literature and the collective memory. The name changes also were course for most of the streets and the names of the passages or places that reminded the characters or events of the Imperial times without consideration to historical, cultural and social memory of that name.

Middle East countries. For example, Cairo embraces over one hundred ‘spontaneous’ communities or manatiq al-ashwa’yya, housing people who claimed cemeteries, rooftops and public land on the outskirts of the city and subdivided the former agricultural land and put their shelter there illegally (Ibid.).

The Housing Foundation continued to function with the aim of providing housing for the poor, but following the Iran- Iraq war, the bulk of the foundation's activities was directed to war reconstruction, and its function was limited to promote self-help housing through interest-free loans and the provision of materials and technical assistance (Bayat, 1997). In addition to the Housing Foundation, the municipalities in the large cities cleared a number of slums, relocating their residents to more decent dwellings, or offered them aid and loans to build their own homes (Ibid.). The kind of these solutions from the government were not unique to Iran. For example, in 1958 following the Egyptian governors’ slum- clearance policy, the slum dwellers of Alexandria were relocated to lower cost housing and the illegal dwellers in the El Dekhila area, in Alexandria, were forced to evacuate houses, based on the city master plan, while they were promised for new houses by government (Alsayyad, 1993). However, the illegal development of the site, then ignored by government due to political and economic transformation of the country in 1967 (Ibid.).

Despite Housing Foundation’s (HFIR) early radical procedure in regard to housing, for the poor[82], along with a number of radical clerical leaders, which encouraged expropriation of left buildings and lands from escaped owners from Iran, after the revolution climate, the government brought some legal and administrative order to the sector and regulated the urban land market (Bayat, 1997). Hence, the new regime passed a series of laws between 1979 and 1987 that provided the vast power for government in order to expropriate and redistribute property subsequently directly involved in the provision of land and housing (Bayat, 1997; Keivani, Mattingly and Majedi, 2008). These laws largely facilitated by attention to the Islamic law in determining urban land categories and rights of ownership that states the land primarily belong to God and then to anyone who works on it and improves it (Alsayyad, 1993;

[82] The first year of the Revolution witnessed irregular activities of four governmental and public institutions in occupation and preparation of urban lands for housing the urban poor. This included the Ministry of Housing and Urban Planning, Housing Foundation, municipalities and the Office for Housing the Destitute (daftar khaneh sazi baraye mostazafin). The Office for Housing the Destitute, formed by a small group of radical Islamists, was headed by a clergy close to Ayatollah Khomeini. They had armed groups and were involved in direct expropriation of buildings and hotels (Khatam, 2015).

Keivani et al., 2008). With the same concept, poor in Saudi Arabia, as informal settlements in Sayed Al-Shuhada in Madinah, used this existing Islamic law and based on that they first occupied the land and then take their case to the religious court and ask for legalization of their claim land (Alsayyad, 1993).

The first and main piece of these laws was passed in 1979 and according to this law which was called "The Abolition of Undeveloped Urban Land (mavāt) Ownership Law and Regulations for its Development"; each urban family could have only one plot of land with a specific maximum area and specific period time to develop it and the area excess to that defined limitation was automatically recognized as state's property (Majedi, 1996). In the Kermanshah province[83] the total amount of undeveloped urban land (mavāt) which was obtained by the government during the implementation of the law between 1979 and 1981 was 2192,000m2[84] (Ibid.). But this law considered only two categories of undeveloped (mavāt) land and developed (dāyer) land while abandoning, previously used or unutilized (bāyer) land being considered in category of undeveloped (mavāt) land. So number of Islamic scholars, however, debated about the legality of this approach and claimed that owners of bāyer land were entitled to compensation (Keivani et al. 2008).

As a result, the first law was modified by a new law in 1982, the "Urban land Act" with regard that bāyer land was considered with a separate status and private ownership rights but with restrictions on their private market transactions (Ibid.). In this regard, the government identified 14468,000m2 developed [85] (dāyer) lands, 627,000m2 undeveloped [86] (mavāt) lands and 5279,000 m2 unutilized [87] (bāyer) lands for Kermanshah Province between seven years from 1982 to 1988 (Majedi, 1996).

Then the new Urban Land organization (ULO) was formed in 1982 to take charge of the "Urban land Act" law. Despite the government, in fact ULO, didn't build houses, and those new residences were built mostly by private individuals, but based on "Urban land Act" law the government became the biggest provider of urban land for housing

---

[83] There is lack of information about Kermanshah city as detailed.
[84] As detailed information; 420,000m2 in 1980 and 1772,000m2 in 1981(Majedi, 1996).
[85] As detailed information; 9733,000 in 1984; 4424,000 in 1985; 221,000 in 1986; 90,000 in 1988 (Majedi, 1996).
[86] As detailed information; 542,000m2 in 1984; 38,000m2 in 1985; 47,000m2 in 1986 (Majedi, 1996).
[87] As detailed information; 4689,000m2 in 1984; 287,000m2 in 1985; 165,000m2 in 1986; 138,000m2 in 1988 (Majedi,1996).

and subsequence controlling the price of lands (Ehsani, 2009). The government facilitated the transfer of public land into private hands, but its own share of investment in social housing construction (affordable or otherwise) was less than 2 percent of the total of new residential units built after the revolution (Ehsani, Arjmand & Brown, 2013). Distribution of land for construction for residential and non-residential buildings by the ULO during 1979 to 1988 for Kermanshah province accounted totally 4888,000m2 that was estimated 93% or 4553,000m2 for residential land and 7% or 333,000m2 for non-residential land and included 19845 families who were benefited from these distributions (Keivani et al., 2008; Majedi, 1996). The ULO distributed lands directly to households, housing co-operatives and to public and private developers/companies that in Kermanshah province the percentage of distributions between these three groups, respectively were 55%, 35% and 15% (Majedi, 1996).

Kermanshah has become the major headquarters of the Iranian army in northwest Iran and as a result of that it was one of the main targets of Iraqi air raids. During the war several sections of the city had been completely destroyed and water supplies, power systems as well as utilities had been damaged throughout the city as well (Adibi, 1989). Therefore, low industrial activity and military situation in Kermanshah province led to 64% of the members of the beneficiary housing cooperatives were government employees and 26% were from the military and security organizations (Majedi, 1996). By the time, the percentage of residential land in the Kermanshah province and some other provinces in Iran had been more than average because they were badly damaged as a result of the Iran-Iraq war (1980-1988) (Ibid.). Hence, much of the investment and building effort was directed towards the physical reconstruction of the housing units in these areas. Although public land's distribution or sold was substantially below current market value, but it was an important source of the government's income during the difficult years of war with Iraq and international sanctions (Ehsani, 2013). In fact, the greatest beneficiaries of government housing credit rather than low income and needy population turned out primarily to public employees, which more than doubled after the revolution, from 1.7 million in 1976, to 3.5 million in 1986 (Ibid.). Another group of beneficiaries was the middle class who could maintain substantial bank deposits to qualify as guaranty and state clients (veterans, and families of war casualties) (Ibid.). However, in the 1987 another law as "New Urban Land Act" extended the ULO responsibilities after the Iran-Iraq war (1980-1988), especially in affected areas.

This large scale privatization of mostly public lands in the early years of revolution and war without appropriate regulation changed Iranian urban geography. Between 1979 and 1981, the most of new constructions in Kermanshah were built widely outside the formal city limits based on the master plan of the city in 1975, where satellite villages were transformed into sprawling suburbs like. Also more than 30 percent of the total population lived in the slums which have developed and grown since the beginning of the Islamic Revolution in Iran in 1979 (Adibi, 1981). The population of the city had reached 441,442 people in 1981, included 33,639 refuges, indicating 8.7% annual growth rate during the five years from 1976 to 1981 (Ibid.). However, 94,001 inhabitants with 18,214 households of this population lived in the eight such suburban areas of the city and 26,127 households with 134,260 inhabitants lived in five shanty towns while in the same year city's urban districts raised to seventeen areas in overall (Table. 1.6). This Indicates that since the Islamic Revolution began, the city of Kermanshah attracted many migrants from other parts of the country. This had led to the physical expansion of the city and a wide spread of slum areas. The physical area of the city was increased from 1334,84 hectares in 1973 to 2966,67 hectares in 1981, while the central city consisted a physical area of 224,29 hectares, with a population density of 456 people per hectare (Kermanshah master plan, 1983) (Fig. 2.6). In 1981 and after two years of revolution 1028,92 hectares of the total physical area in the city were belonged to residential areas and housing units had increased to 67,046 units that in comparing with 1973 with 36,630 housing units and 490,54 hectares residential areas almost doubled (Adibi, 1981) (Chart.1.6). Therefore the rooms available in Kermanshah had increased more than 60%, from 129,778 in 1976 to 210,668 in 1981 (Ibid.).

In the same year, 1,310 housing units did not have access to electricity and 470 did not have access to piped water and only 1,535 housing units (or 12% of all units) had telephones (Adibi, 1981). However, more than half of all existing urban dwellings in the entire country had been built after the revolution (Ehsani, 2013) (Table.2.6).

Habibi (1996) in his interview about "Urban planning in post-Revolution Iran" explained how the Islamic populist modernization under Khomeini revolution aimed to distribute the commodities of modernity among the impoverished urban areas and encourage the out-migration trends from large cities, especially Tehran. Based on him this anti-urban tendency, especially, against large cities as symbols of the previous regime's remark

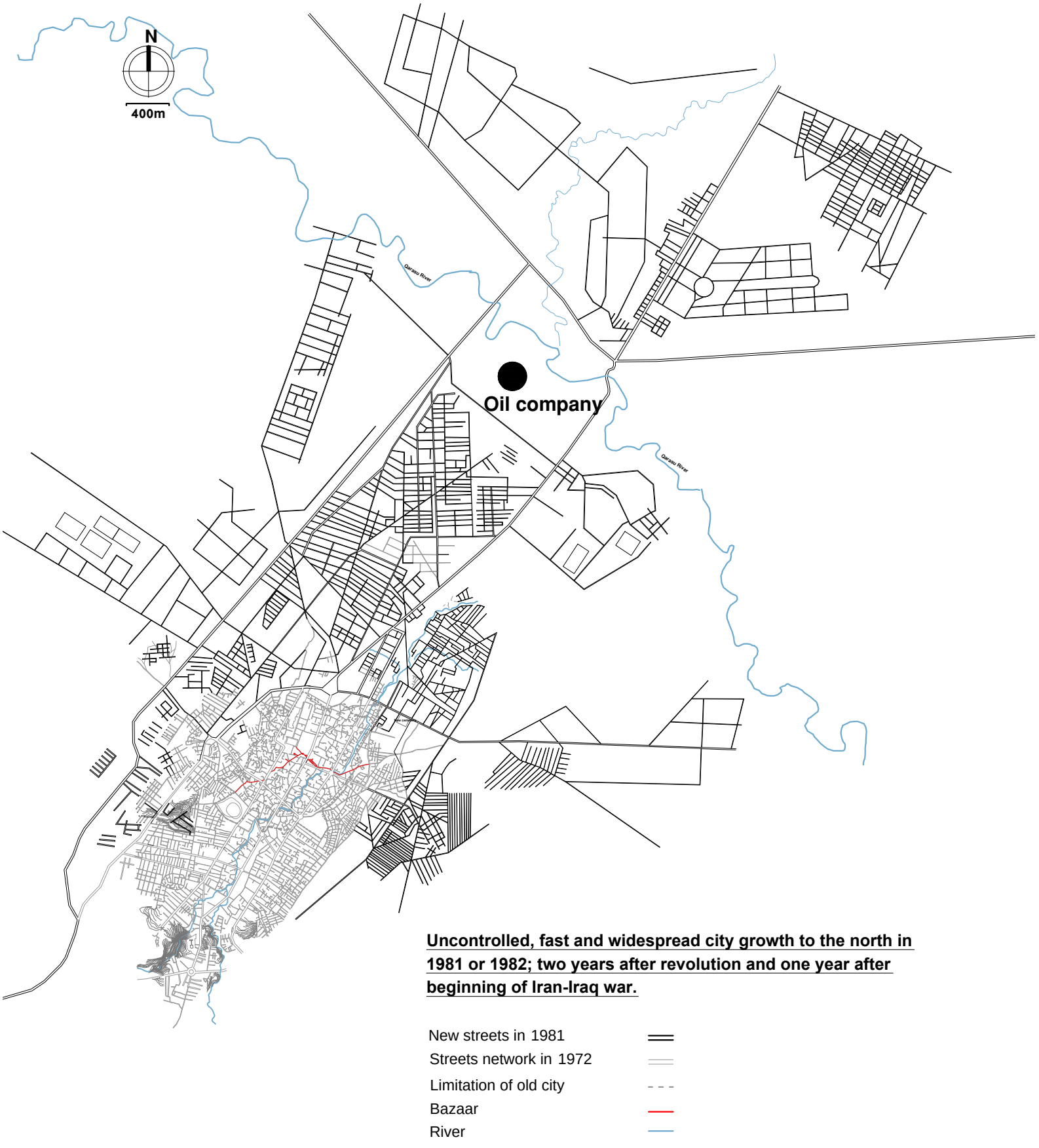


Figure 2.6:
Extracted map by author based on Kermanshah master plan in 1983.

as ‘westernization’ was common during revolutionary era and was evoked from the mentality of the revolutionaries. He resulted that the Iran-Iraq war changed this anti-urban tendency by involving some cities to resist against the invasion of Iraqi troops, evacuating other or making some cities as helpers or *moein* to those in war zones to provide shelter for its population and supply their hospitality requirements with medical personnel, equipment and supplies. Kermanshah as one of these cities that was considered as “capital of War” in west of Iran.

Name	Population	Percentage of total population	No.of households	Percentage of total number of households
A) Suburbs:				
Hafiziah	20.084	21.36	3,903	21.00
Elahiah	3,022	3.20	642	4.00
Ariashahr	2,588	2.75	583	3.00
Kayhanshahr	2,880	3.00	616	4.00
Anahita	2,305	2.50	436	2.00
Bisdebo Bahman	36,590	38.92	7,149	39.00
Gendarmery	5,260	5.59	1.068	6.00
Maskan va Taavon	21,272	22.60	3,817	21.00
Total	94,001	100.00	18,214	100.00
B)Shantytowns:				
Shaterabad	38,813	28.90	7,613	30.20
Jaafarabad	50,183	37.37	9,802	39.40
Dowlatabad	26,483	19.72	4,997	8.10
Zorabad	17,774	13.23	3,512	21.70
Khachalabad	1,007	0.75	203	0.60
Total	134,260	100.00	26,127	100.00
Grand total for A&B	228,261		44,341	

Table 1.6. Kermanshah’s population of suburbs and shanty towns in 1981 (Adibi, 1981).

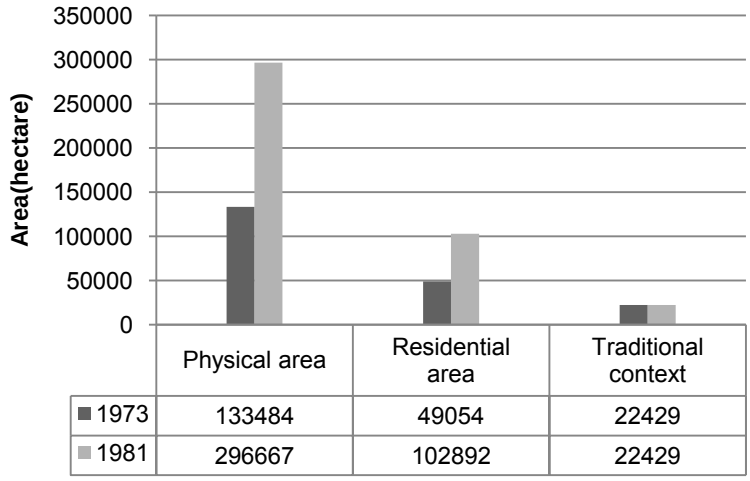


Chart 1.6.

Difference between physical and residential areas in 1981 (after the revolution) and 1976; extracted by author based on (Adibi, 1981).

Feature	1976				1981
	Total country of Iran	**Rural area of Iran**	**Urban area of Iran**	**Kermanshah city**	**Kermanshah city**
Population	33,708,744	15,854,680	17,854,064	290,600	441,442
Household size	4.97	4.76	5.17	4.97	5.01
Housing units	5,305,538	2,377,586	2,927,952	36,630	67,046
No. of households per housing unit	1.26	1.37	1.18	1.60	1.31
No. of housing units per 1000 persons	159	153	164	126	152
No. of persons per housing units	6.29	6.54	6.08	7.90	6.50
No. rooms	16,797,984	8,673,998	8,122,986	129,778	210,668
No. rooms in each housing units	3.17	3.65	2.77	3.54	3.14
No. of people in each room	1.99	1.79	2.19	2.24	2.09

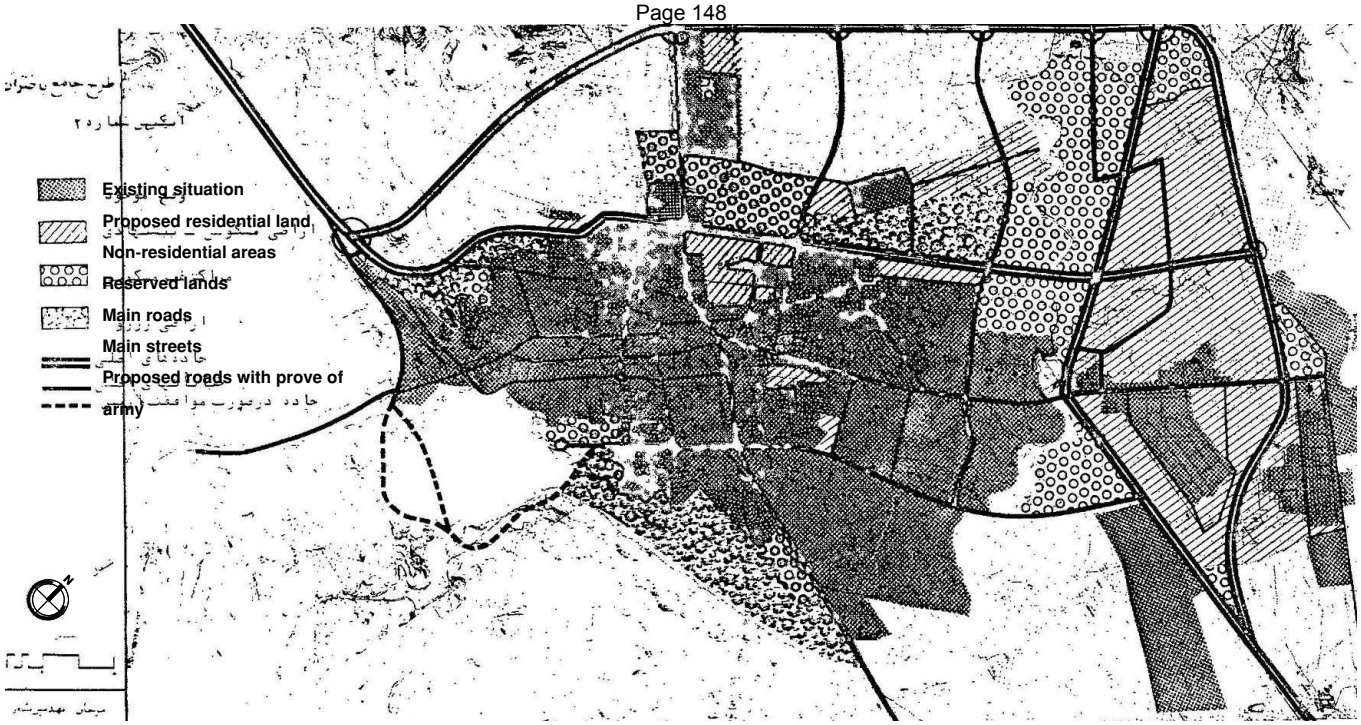
Table 2.6. Kermanshah housing characteristics in 1981(after revolution) in compare with 1976 (before revolution) (Adibi, 1981).

All of these efforts led to cities were considered with more attention after the revolution and not be considered as a result of westernization in contrast with villages. Habibi (1996) added another reason behind this anti-urban tendency was the determination of

urban boundaries in those master plans for large cities during Pahlavi regime. Based on these boundaries every settlement inner these boundaries took advantage of all urban facilities and settlement out of these boundaries were deprived of urban facilities, although even inner boundaries facilities were distributed unevenly. Therefore, after the revolution they override the system of boundary limitation for cities that was assumed as a result of a luxury and occidental vision in master plans from the previous regime. This decision led to enormous cities' growth in Iran during the first two years after the revolution (Ibid.).

From late of 1980s government decided to control these vast changes; hence, Ministry of Housing and Urban Development (MHUD) was responsible for preparing new master plans for cities. So in 1983 the new revision of the master plan after the revolution was proved for Kermanshah city. Actually the last prepared master plan in 1976 was useless for the city because of rapid and extensive urban growth and population in the city between these years (Kermanshah master plan, 1983). This new plan also aimed at management of growth and a linear spatial strategy, using the scales of urban regions, sub region, district, area and neighborhood. This plan improved conservation and decentralization of development. Thus, planners proposed northern and northern-East direction city growth with 17 districts, each with its own service center (Fig. 3.6 & Fig. 4.6) (Table. 3.6) (Chart. 2.6). First, the geographical situation and topography of the city suggested this direction and also already MHUD and ULO distributed lands widely in the north of the city and they started construction of many residential areas, almost 600 units, near to Tag-Bostan area. Planners decided to preserve more development of city to Eastern and Western direction. Although some of shanty towns already was formed in the Eastern and Western part of the city, where actually had not been considered for future city developments in two last versions of master plans due to the location of many urban facilities, like airport, cemetery, fruit gardens, industrial areas…. Also, they had to determine the new location for new cemetery of city because most part of the previous cemetery was occupied by dwellers of these shanty towns during the first years of revolution.

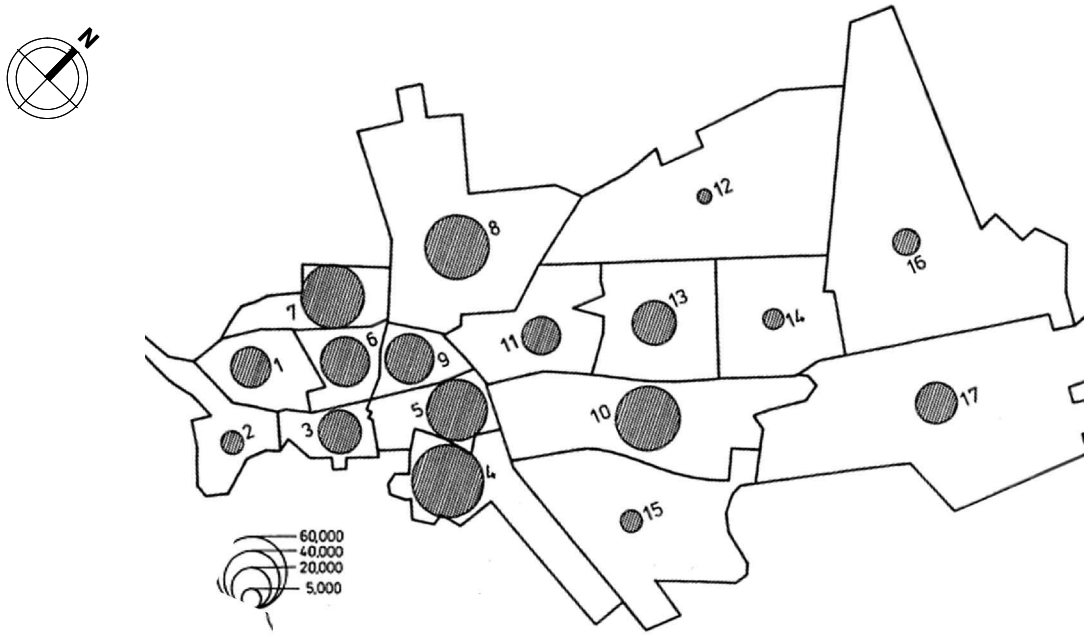
Since one of the main problems was housing provision and based on the master plan in 1983 they zoned for the type of housing density in plan as very high, high, medium and low density in the city and they put different construction regulation for these three types (Fig. 5.6). For very high density they designated minimum limitation for plots with



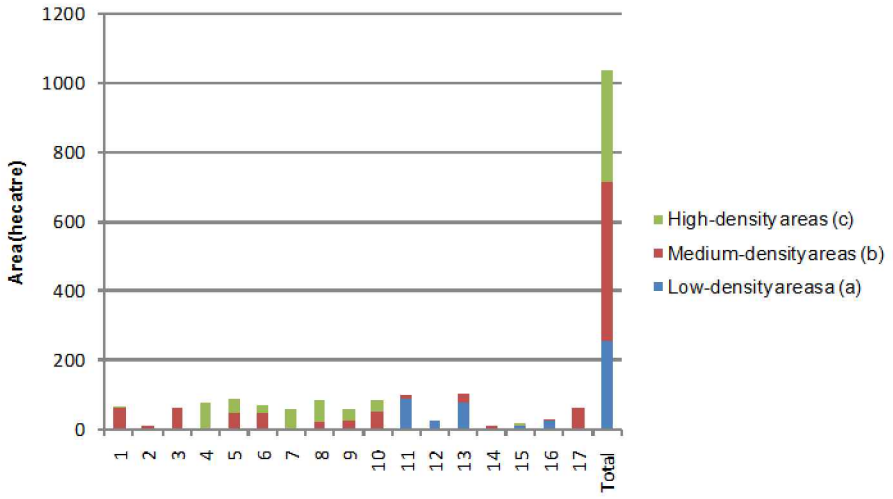
- **Proposed land use map**

- **Proposed accessibility layout**

Figure 3.6:
Proposed Kermanshah master plan in 1983; after revolution and based on fast and widespread city and population growth.



	Low-density areasa (a)		Medium-density areas (b)		High-density areas (c)		Totals	
	area (ha)	population	area (ha)	population	area(ha)	population	area(ha)	population
1			64.03	18086	3.73	2245	67.76	20331
2	23.1 7	4837	11.04	3229			34.21	8066
3			62.51	22250			62.51	22250
4			4.38	1749	71.27	61016	75.65	62765
5			49.55	20211	40.39	24407	89.94	44618
6			48.5	15452	21.85	13371	70.35	28823
7			12.1 8	5749	55.94	41796	68.1 2	47545
8			18.61	7186	66.37	41598	84.89	48784
9			26.39	11087	31.31	16820	57.7	27907
10			53.6	23975	29.1	24668	82.7	48643
11	90.75	15904	5.84	2412			96.59	18316
12	25.3	2727					25.3	2727
13	77.73	16889	25.21	6745			102.94	23634
14			13.29	4986			13.29	4986
15	11.52	2469			6.35	3213	17.87	5682
16	25.29	5578	5.28	2199			30.57	7777
17			60.01	18588			60.01	18588
Total	253.76	48404	460.42	163904	326.31	229134	104049	441442

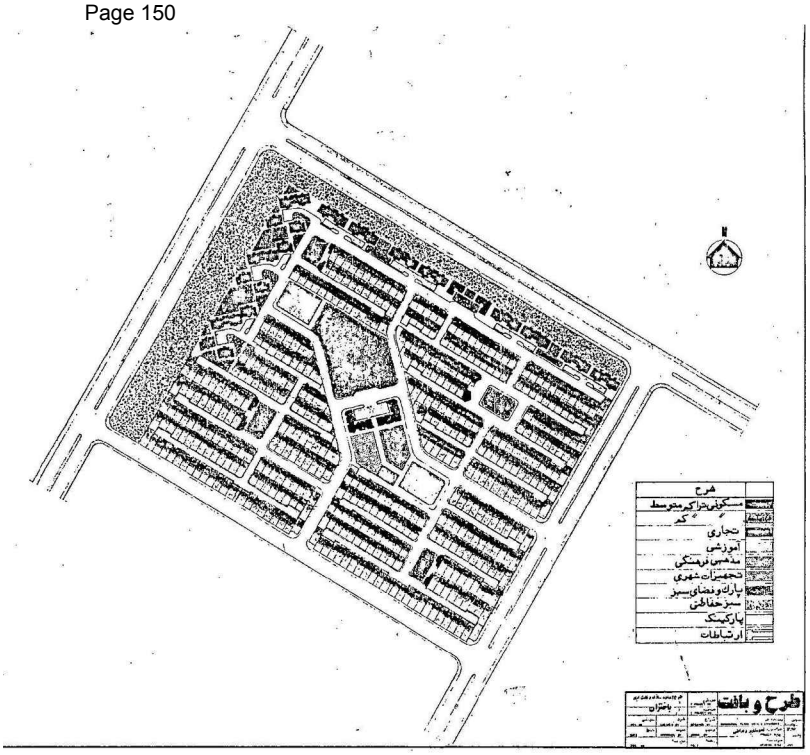


A) Up to 249 inhabitants/hectare.
B) 250-499 inhabitants/ hectare.
C) Over 500 inhabitants/hectare.

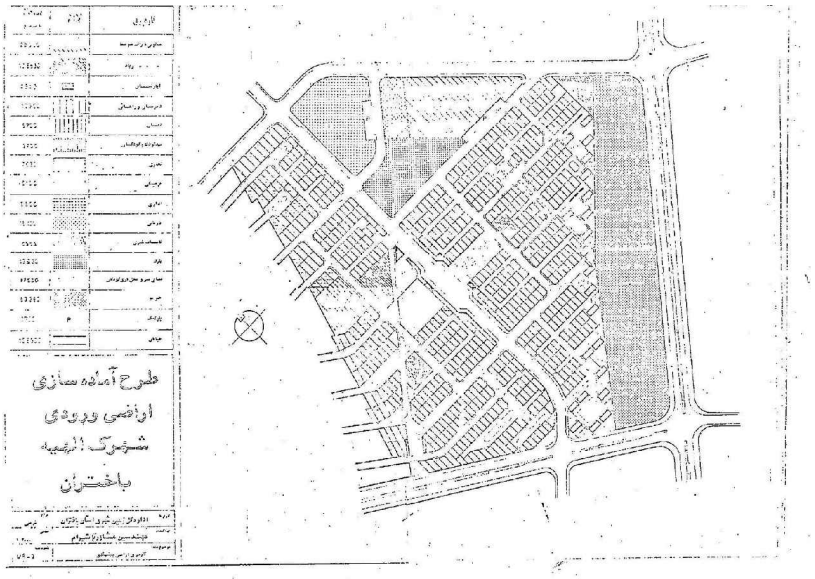
Figure 4.6;Table. 3.6 & Chart. 2.6:
The seventeen districts in the city in 1981; the central core and districts with immigrants areas consisted high density and high population areas (Adibi, 1981).

Figure 5.6:
The preliminary land preparation plans in 1986 for some district based on low, medium and high density housing (National library of Iran).

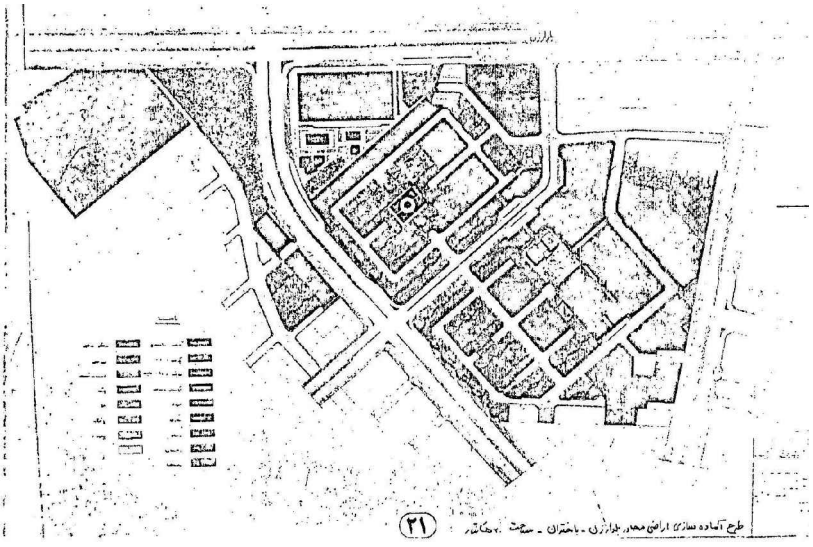
A) Dowlat-Abad districts with low and medium density housing.



B) Elahieh district with medium and high density housing.



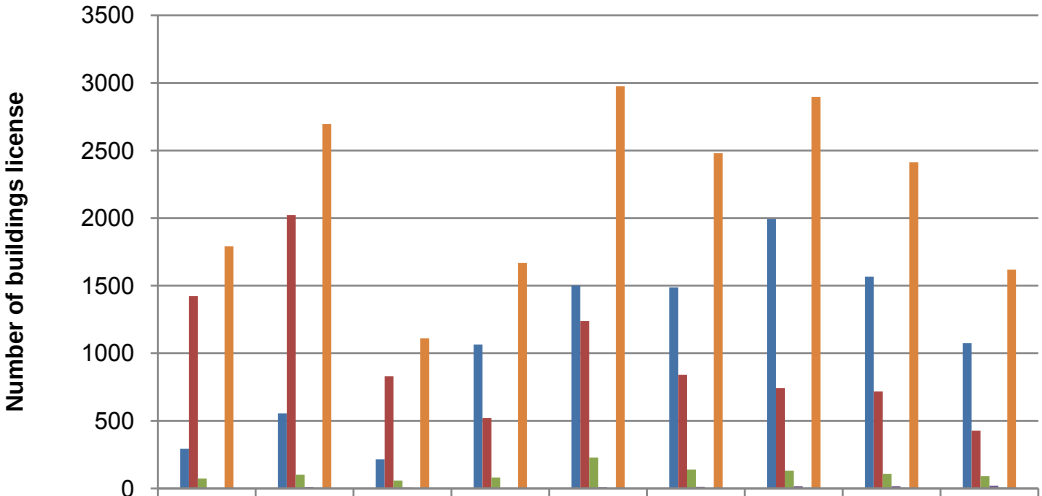
C) Boulevard Zan district with low and medium density housing.



500m2 with maximum nine floors, and maximum 50% building area. Also, they obligated Technical Engineer and Installations in addition to architect for buildings with more than four floors as well as elevator and escaped stairs. For high density areas they designated minimum limitation for plots with 150m2 for single family and 500m2 for multifamily with maximum four floors and a maximum 60% building area. For medium density they designated minimum limitation for plots with 200m2 for single family and 500m2 for multifamily with maximum four floors and a maximum 60% building area. For low density areas they designated minimum limitation for plots with 300m2 just for single or two families with a maximum 90% building area and maximum two floors. In comparing with the previous master plan, in 1976, very low density category for housing objectives replaced with the very high density category as well as dropped area of land plots with aim provision more families' housing requirements (chart. 3.6 & Chart. 4.6).

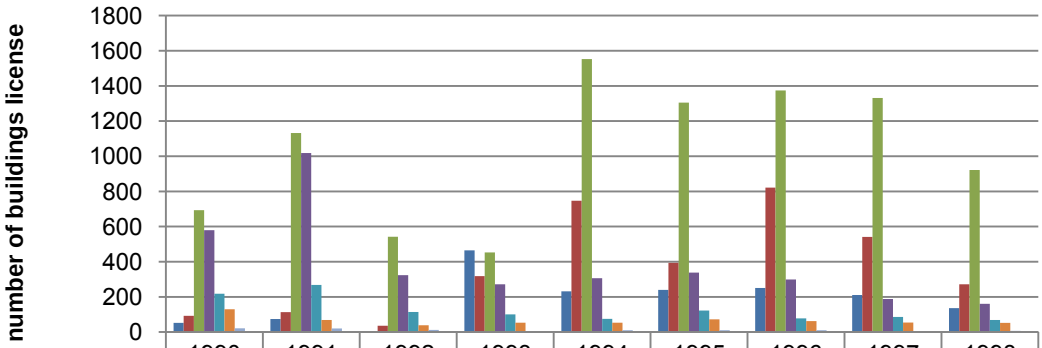
At the same time after four years of confusion following the revolution and to realize the goals of the Iranian revolution as securing equity, justice and the economic independence through the country, the government proposed five year development plan for 1983 to 1987 and another plan for 1988 to1993 that was implemented after the Iran-Iraq war (Kano, 1996). Both of these plans were forced to deal with how to control prevalent urbanization and rapid population growth after the revolution in the country (Ibid.). The strategies were controlling of Tehran expansion, redistributing various functions to major regional cities and promoting growth of smaller cities in rural areas (Ibid.). Also the government restated the policy of family planning, abandoned in 1979 for its prohibition in Islam [88] (Khatam, 2015). Under this program, the government provided some facilities for contraception at the family level accordingly the population growth rate dropped from 3.3 in 1986 to 1.2 in 2001, which is recognized as one of the highest drops in the rate of population growth in developing countries.Although this strategy brought the population growth under control, but the impact of the nearly decade-long population boom in the 1980s continues to haunt the Iranian economy, its socio-political infrastructure, its housing, and its urban geography (Modarres, 2006).

[88] In the early 1980s, Iran official policy to ban the family planning program lunched in mid-1960s led to increase the birth rate in urban areas from 32.5 to 36.6 per thousand subsequently increase Iranian population from 2.7 percent annual growth to 3.2 percent, while the change of policy did not affect the productive behavior of the rural population and in rural areas the birth rate continued to decrease from 48.8 to 42.8 births per thousand during 1976-86 (Khatam, 2015).



	1990	1991	1992	1993	1994	1995	1996	1997	1998
1 floor	294	555	215	1064	1501	1487	1993	1566	1075
2 floors	1423	2023	830	521	1238	841	742	717	427
3 floors	73	102	58	80	228	140	131	108	91
4 floors	1	11	6	3	9	12	16	17	20
5 floors <=	0	5	2	0	0	1	4	5	6
Total	1792	2696	1111	1668	2976	2481	2896	2413	1619

Chart 3.6: The number of residential buildings license based on height between the years 1990 and 1998 (Kermanshah master plan, 1983).



	1990	1991	1992	1993	1994	1995	1996	1997	1998
100m2=>	52	74	2	465	232	240	251	211	136
101-150m2	92	113	36	318	747	394	822	541	272
151-200m2	693	1132	542	453	1553	1305	1374	1331	922
151-250m2	579	1018	324	272	306	338	299	188	161
251-300m2	218	268	114	101	75	122	78	86	69
301-500m2	130	69	39	53	53	72	62	54	52
501m2<=	21	20	12	5	10	10	10	2	7
Non-stated	0	2	0	0	0	0	0	0	0

Chart 4.6: The number of residential buildings license based on land areas in the city (Kermanshah master plan, 1983).

Based on these plans Kermanshah experienced less migration to Tehran, but absorbed more rural migrants and made that strengthen regional city (Kano, 1996). Some other ideas like to create new city near to Kermanshah was proposed, in 1990s, in order to demographic change toward the new city and compensate of the housing shortage, as well as create green belt around city, in 2000s, to control its growth but None of them came into action (Bakhtar newsletter issued in 1992; Bisotun newsletter issued in 2004).

Also the Ministry of Housing and Urban Development consider to the city master plan in 1983 as one of the reasons for dispersed and widespread urban growth (Borumand, 2009). Hence, they proposed to preparation of another master plan in 2002/2003 by Tarh va Amayesh Engineering Consultant as a new revision of the last master plan in 1983 (Fig. 6.6 & Fig. 7.6). In this new revised plan the city divides to five zones for planning and each part considered for providing special city-level services: northern part with heritage monuments as cultural, medical (zone for major hospitals in the city) and academic zone (for universities); almost historic central part as identical, commercial and administrative zone; western part was considered as a zone for sport facilities and agricultural services; eastern part dedicated for industry service. The main goal for this plan was create integrated urban fabrics by appropriate density through the city and control widespread city growth by determining city boundary and green belt with the aim of preventing further damage to the natural surroundings of the city. Despite preparation of this new master plan the importance of housing problem Ministry of Housing and Urban Development prepared another plan as Housing Master Plan for Kermanshah Province in 2008, which was provided a comprehensive study of the housing situation in the province, threats and opportunities ahead and finally some main strategies for the future in this regard.

However, the policy of lands' distributions that mostly implemented out of cities limitation led to outward cities' growth and subsequently inner cities' evacuation gradually. This process led to in second five year development plan (1995-1999) for the country the central cores of cities were considered for preparing rehabilitation and renewal Plan (tarh-i behsāzi va no-sāzi). Therefore, central contexts of cities like Kermanshah, Tehran, Mashahad, Qom and Shriaz were put into this plan (Habibi, 1996). Although earlier a comprehensive study by Durham University in 1969 and the master plan of 1976 emphasized importance of consideration of the historical and

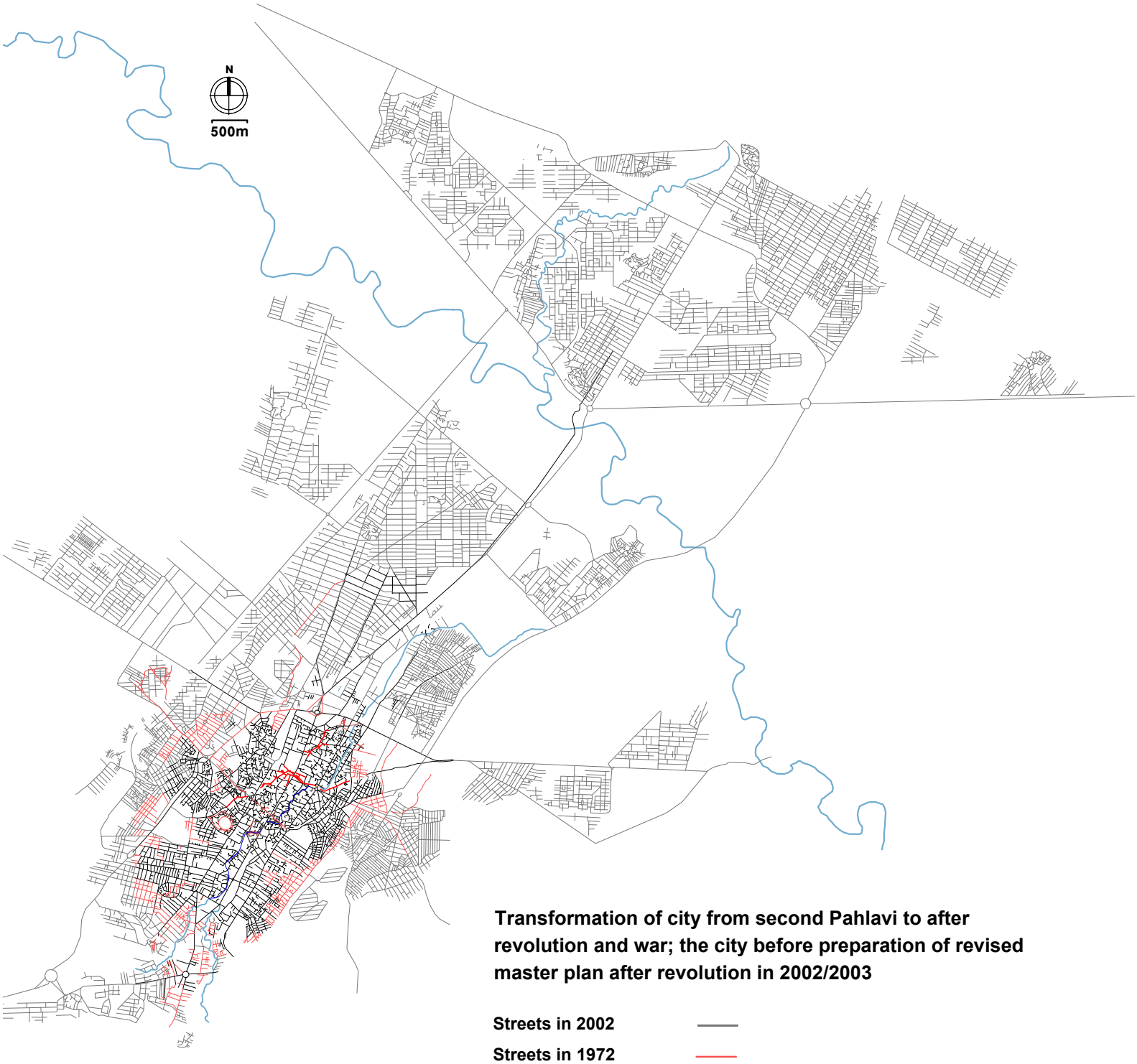


Figure 6.6:
Extracted by author based on aerial photos of city respectively from Clarck&Clark (1969), Iran National Cartography Center and Municipality of Kermanshah.

Figure 7.6:
Kermanshah revision master plan in 2003 with main objectives:determination of city boundary, creating integrated urban contexts and zoning urban facilities in the five main parts of city (By Tarh va Amayesh engineering consultant).

central context of the Kermanshah city. In addition to the city's rapid external expansion, capability and potential of the city central context in order to provide housing requirements as well as strength dissonance in this context encouraged authorities to more consideration to the central contexts (Kalhornia, 2001). The improvement vision for major cities like Tehran and Mashhad for planning and implementation were defined as a mega scale regeneration project like Navvab Regeneration Project in Tehran and Regeneration of the Historic City Core of Mashhad.

Post- revolution and after war; the historic core and informal settlements as Inefficient urban contexts

After the revolution and war, a period of normalization and reconstruction started, which lasted for most of the 1990s (Madanipour, 2006). In 1993/94 MHUD in participation with Urban Development and Revitalization Organization (UDRO)[89] in Kermanshah suggested four[90] rehabilitation and renewal plan in the historic core of city With regard to that historic core of Kermanshah estimated with an area of 285 hectares (Eftekhari-Rad & Jabari, 2001). Based on Kalhornia (2001) at the beginning instead to prepare comprehensive plan that could investigate all problems in the central context of Kermanshah with an area of 600 hectares, the authorities decided to prepare four separate plans with different objectives in central context: 1. 'Organization'[91] of first new haussmannian boulevard in the city (that was constructed during Reza-Shah Pahlavi), 2. Preparing detailed plan for historic context of the city, with areas of 285 hectares, as well as preparing rehabilitation and renewal plan for Feiz-Abād neighborhood, with an area of 33 hectares and 4830 population, as the most historic mahallah with inefficient context and poor residents, 3. Rehabilitation plan for inefficient

---

[89] Basic structure of this organization was formed in 1985 but was established officially in 1996/97. Initially focused on inefficient and deteriorated historic fabrics but since 1999 began upgrading projects in informal settlements too (Alaedini &Fardanesh, 2014).

[90] The primary studies for rehabilitation and renewal plan (tarh-i beh-sāzi va no-sāzi for historic core of Kermanshah was prepared in 1997/98 by Tarh va Amayesh Design Consultant Engineers then secon studies was prepared by Ministry of Housing and urban planning in kermanshah province(Eftekhari-Rad & Jabari, 2001). later in 2007 introduced as Organization and Rehabilitation Plan (tarh-i Sāmān-dehi va beh-sāzi) for Central Context of Kermanshah (ORPCCK), which was prepared under supervision and design by Tadbir-shahr Design Consultant Engineers.

[91] The word "organization",”Aménagement” or Sāmān-dehi in the field of urban interventions in Iran based on set of laws, laws and regulations of the country is considered as a "title.” It is not a specific approach in terms of type, planning, or even intervention. In other words, the purpose of organizing is improvement of existence situation in order to increase quality of life in urban and rural areas (Erfani &Dizani, 2010).

contexts of city with an area of 15 hectares in the heart of historic context. 4. Organization, restoration and reconstruction plan for bāzār complex.

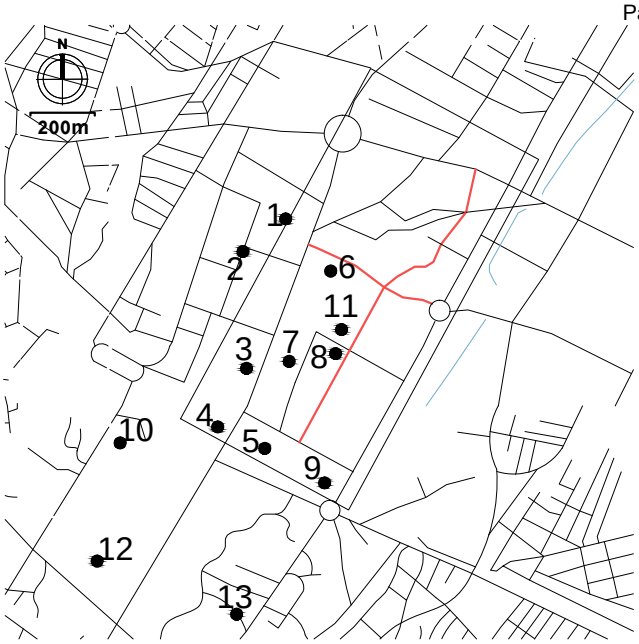
As Kalhornia (2001) argues, lack of comprehensive social-cultural, physical and economical plan for central context as a whole, insufficient rules for urban planning in Iran in terms of ownership rights for urban rehabilitation and renewal programs, lack of civic society participation and society control over implementation as well as lack of planning for temporary accommodation for residents in the site are some of the important reasons for unsuccessful executive, chronological, economical and social aims of plan (Ibid.). He thinks, as a one of urban planner and director of the organization in the central core of Kermanshah, the urban planning in the cities still follow the design based on street network development, which was begun by Reza Shah, without any consideration to social aspects of the cities (Kalhornia personal interview, 2014). He emphasized this lack of social perspective in the organization plans for historical and central core of Kermanshah led to lack of interest for social participation in this context and subsequently fail of plans (Ibid.).

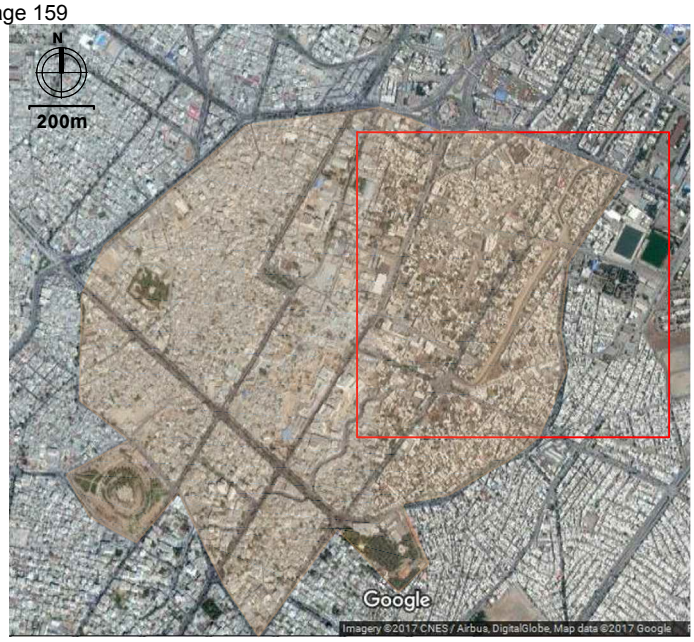
Eftekhari-Rad & Jabari (2001) in an article titled as: “Analytical report on the rehabilitation and renovation of Kermanshah, Feiz-Abād quarter” studied urban intervention in Feiz-Abād neighborhood as one of four main objectives in rehabilitation and renewal (renovation) plan for the central context of the city. Based on this study, the authorities put rehabilitation and renewal plan for Feiz-Abād neighborhood as the first and priority program in the whole context. Based on study the main indicators of this plan consisted of welfare facilities like sport centers, parks, clinics, schools as well as providing new accessibility on the site new residential complexes and restoration of old bāzār -i Feiz-Abad in the neighborhood. As they mentioned, the plan started by widespread expropriate in the area, but during implementation they decided to expropriate properties along or located in proposed new accessibilities, public facilities and new housing areas based on priority of implementation of each plan. Implementation of this plan brought some proponents and opponents that some of their opinions in the article were reviewed. Head of MHUD in Kermanshah province by the time, Mr. Nik-Kerdar as the proponent believed new accessibilities, which began by imposing new street with 12 width through the heart of Feiz-Abād and its historic bāzār , created vitality in this context since reduced people's tendency to sell their properties to compare with the past. On the other hand, one of the members of Kermanshah city

council, Mr. Del-Angiz as the opponent believed the urban interventions, in the site were not accomplished as a universal way of encouraging to increase residents' participation from other parts of the central context. He simulated the effect of intervention like "The trace of biting the mouse" through the site (Fig. 8.6 & Fig. 9.6). Mr. Del-Angiz added some of expropriated was not accurate subsequently their demolition strengthen the decade vision and insecurity in the site, although empty lands resulted from these demolished parts encouraged children to play and just gave appearance and not inner pleasure to the site.

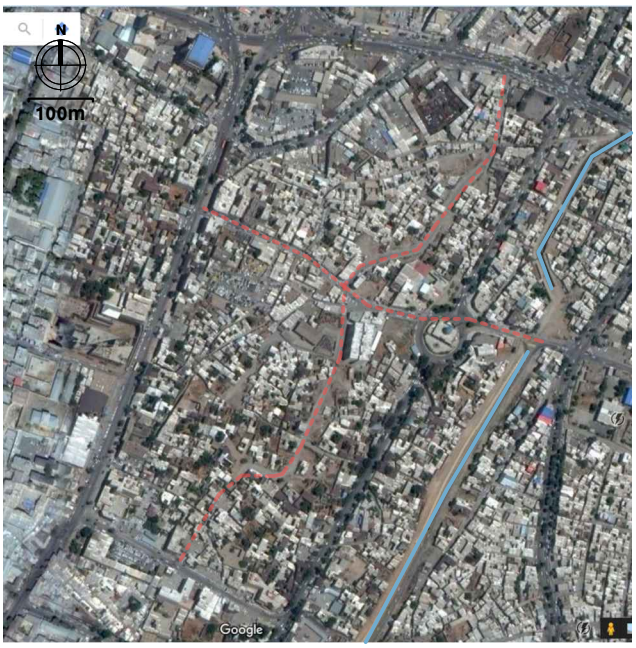
Unfortunately, concentration of urban invention on creating new accessibilities or widening passages as well as expropriation issues in the historic and central contexts of cities not only didn't encourage people to stay on the site, but would accelerate their movement or strengthen their non-cooperation. New accessibilities' networks shifted integrate social interaction from inner historical context, like traditional bāzār and traditional alleys to new streets. There are no comprehensive urban design principles to be followed in the process of urban interventions, in order to make the site vital again. Negative environmental impacts due to construction of new streets, huge cleared areas running through the heart of historic context, remind the policy of modernization before revolution again. Examining of prepared detailed plan for historical context, especially Faiz-Abād neighborhood, shows how this plan was summarized in imposing network of widen accessibilities on the traditional accessibilities in the site (Fig. 10.6). There is not a clear solution for resulted lost spaces that was made on the site due to these new constructions. Site observations and interviews with residents demonstrate how some residents customized left spaces of new construction near their residential areas to have a better feeling about environments (Fig. 11.6). The Planning for urban land use and allocated frontage streets value lands for commercial activities is not any thigh except of beneficial vision of the central core of the city like the past. The wide spread deconstruction in the site not only didn't help to improve quality of life in the site, but also made a lot of environmental problems, pollution and insecurity in the neighborhood and made a lot of eliminated space that still work as parking (Fig. 12.6).

The restoration objectives about urban contexts and traditional bāzār have been limited to single buildings and physical restoration (Fig. 13.6). In order to organization of first haussmannian boulevard widening plan as well as conservation and restoration of





location of Feiz Abad neighborhood in the city core



Feiz Abad neighborhood in 2017

Feiz Abad neighborhood in 1956

Historical Heritage Landmarks

1 Etehad Synagogue
2 Sonies Mosque
3 Grand Mosque
4 Bazzar Tarike (Market Place)
5 Bazzar Islami (Market Place)
6 Bazzar Feiz Abada(Market place)
7 Paleolithic Museum
8 Caravanserai
9 Motamed Mosque
10 Emadodoleh Mosque
11 Iranian Ancient Gymnasium
12 Haj Shahbaz Khan Mosque
13 Museum of Anthropology

Environmental Impact Assessment

Waste Canal(Ab-shuran river)
New streets crossing the old urban fabric

The boundary of traditional city

Figure 8.6:
Urban interventions in Feiz-Abad neighborhood as the most historical part of the city core by imposing crossed new streets through it s context and old bazaar with the aim of rehabilitation and renovation of the city core since 1990s.

Figure 9.6:
Above:Feiz-Abad and its traditional bazaar(in gray colors) before imposed new streets(Municipality of Kermanshah); Bottom:Expropriated plots (in red colors) in order to urban interventions (Extracted by author Based on aerial photo of city in 2014 from google earth).

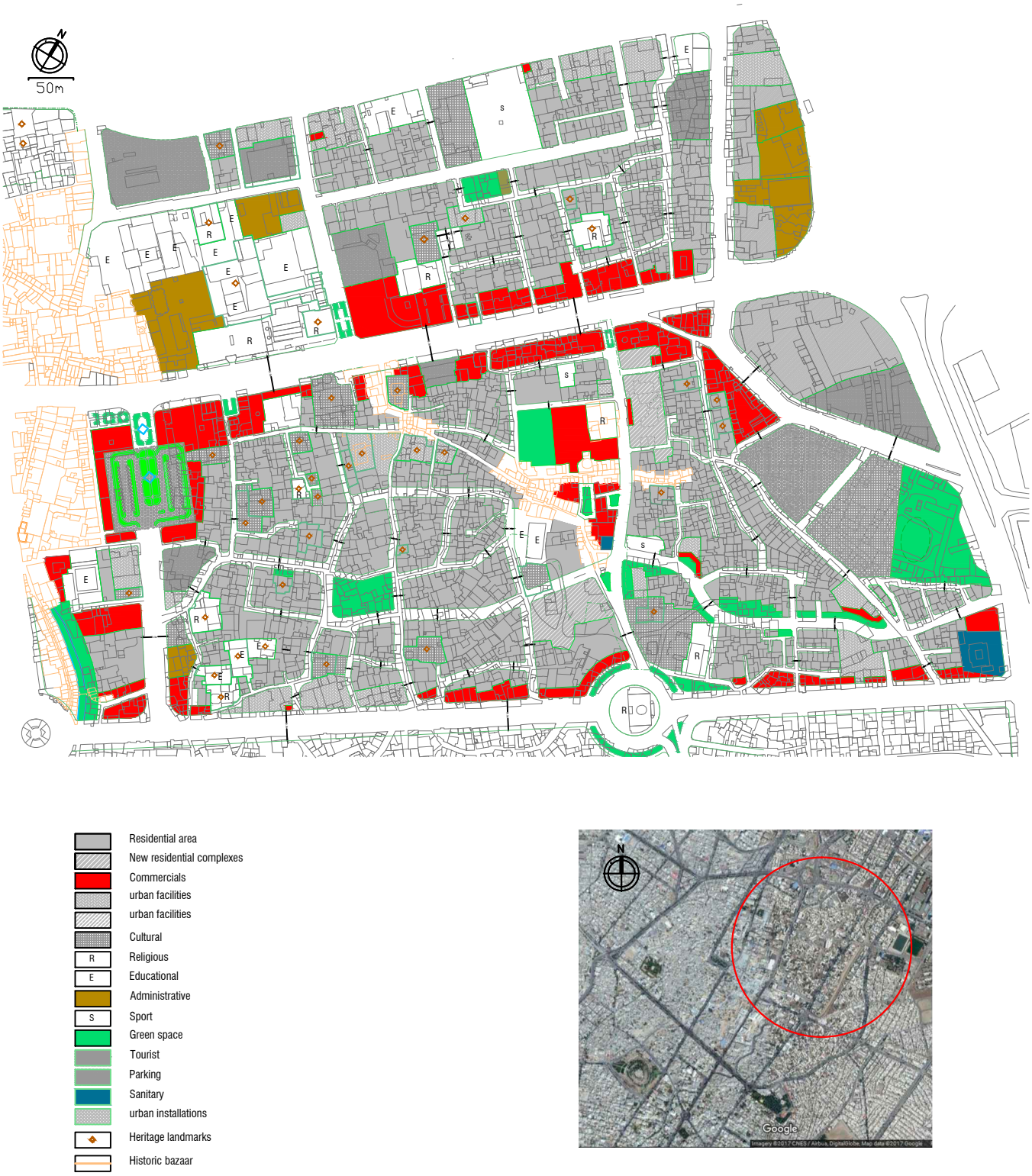


Figure 10.6:
Approved plan(include urban land use, new accessibility network and widening traditional accessibility networks) for organization and rehabilitation of Kermanshah central core in 2006, Feiz-abad and Gomrok district from(Municipality of Kermanshah; Renewal and Rehabilitation establishment).

Figure 11.6:
Some residents planted spaces left from demolitions and new constructions for their leisure time and increase quality of their living area (photo by author in 2014).

Figure 12.6:
Wide spread demolition and expropriated land led to increase environmental pollution and made spaces for parking and cars (photo by author in 2014).

some remained valuable facades were considered to intervention. Although widening act for cars accessibility in this street had been considered earlier, during the second Pahlavi, but in new regime the authorities decided to wide only pedestrian's accessibility in each side with a 10m width without widening of cars accessibility route (Kalhornia, 2001).[92] This project still is under very slow implementation and had been faced with the expropriation and temporary resettlement problems for shopkeepers on this street as well as economic problems. On the other hand new construction in some demolished and expropriated parts, by state or private owner, emphasized that the planning doesn't follow any principal design for facades and height of building like Pahlavi era. Nowadays this street suffers from the mess and disordered between new and historic construction. The new constructions are hybrid of neoclassical, modern and traditional facades' patterns. This trend seriously undermines the identity of this historic street and historical places that are in line with it during recent years (Figure. 14.6).

Informal settlements

Insufficient urban contexts were not limited only to some parts of central and historical core of the city. Also the most of Shanty towns in the city are considered as inefficient urban contexts. Typical informal settlements consist of poor migrants, often with same religious and ethnic background, and other low-income households, with high rates of unemployment, underemployment, and informal-sector employment, unable to purchase standard shelter or lands in the formal market thus informally owned lands in areas just outside official city boundaries. "In this sense the composition of informal settlements in Iran is quiet different form ones in Turkey, Egypt or most of Latin America where large scale of middle and working classes have been forced to reside informal settlements and have brought outside experiences with them into the shanty towns (Bayat, 1997). "Based on Alsayad (1993) "there is no encompassing model for process of formation and maturation of informal settlement, For example, while informal developments in the Middle East have clearly depoliticized and unobtrusive character in Latin America such settlements are rarely isolated, maintaining ties either ruling or opposition political parties."

[92] Part of this widening is visible in organization plan for historic core in Figure 96.

Figure 13.6:
Bazaar of Feiz-abad after crossed with new streets and physical restoration(by author).

Figure 14.6:
Some of new constructed projects in first haussmannian street in the city; in order to street 's renewal.

- **The buildings and facades don't obey any architectural and identical rules for design like Pahlavi style before revolution (behsazi.kermanshah.ir).**

Despite efforts for the urban management in Iran many constructions in these sites may take place semi-clandestinely. The various post-revolutionary obstacles, including budget shortfalls, prevented enough attention to increase and growth of these informal settlements as ignored and insufficient contexts. Unfortunately, urban authorities didn't have enough capability (financial and organizational) to control informal settlements that led to further growth of them over the time. Also lacking proper plot divisions or construction permits make a cheaper exchange market for these than formally lands' with promissory notes (*qawl-nāma* or *pata*) in official city boundaries (Alaedini, 2015).

In early of 1970s almost one percent or 2558 of Kermanshah populations were dwellers of informal settlements [93](Gholipour, Kazemi and Rezaie, 2014) (Fig. 15.6). Since quality of life between these areas was not difference the only features that divided dwellers between areas where their family and cultural-ethical relationship between them (Ibid.). They need to be with their family because to follow their common goals for living. For example (Gholipour, et al., 2014) refer to one of dwellers' interview in the Jafar-Abad district about these families' participations: "We coordinated with our family and started building houses early in the night. Until the morning that people woke up and the municipality officials arrived we completed the house… All the workers in the family like our cousins, the uncle's son, brothers and sisters, all helped us for building… we did not pay money either for the worker because we were family and we did the same for them." Although initiative studies about informal settlements was started earlier from 1960s and were continued in 1970s but mostly included the identical and descriptive studies about reasons and process of formation in these areas (Irandoost & Sarafi, 2007).

Continuing of this process in 1996 led to the number of shanty towns and suburban areas in Kermanshah increased to 35 that among them 13 shanty towns, included villages sprawled due to city growth, suffered from poor situations as informal settlements (Kermanshah province's housing master plan, 2008) (refer to Fig. 15.6). These shanty towns and suburban areas in 1996 contained 255854 or 37.5% of whole 681611 city population and 87.9% of the population of 13 shanty towns in the city (Ibid.). Based on statistics in 2003 more that 90% of whole 42381 housing units, which

[93] Jafar-Abad with 391 households, Shater-Abad with 73 households, Toop-Khanih as city center area with 66 households, Dowlat-Abad with 27 households, Deh-i Majnoon with 25 households.

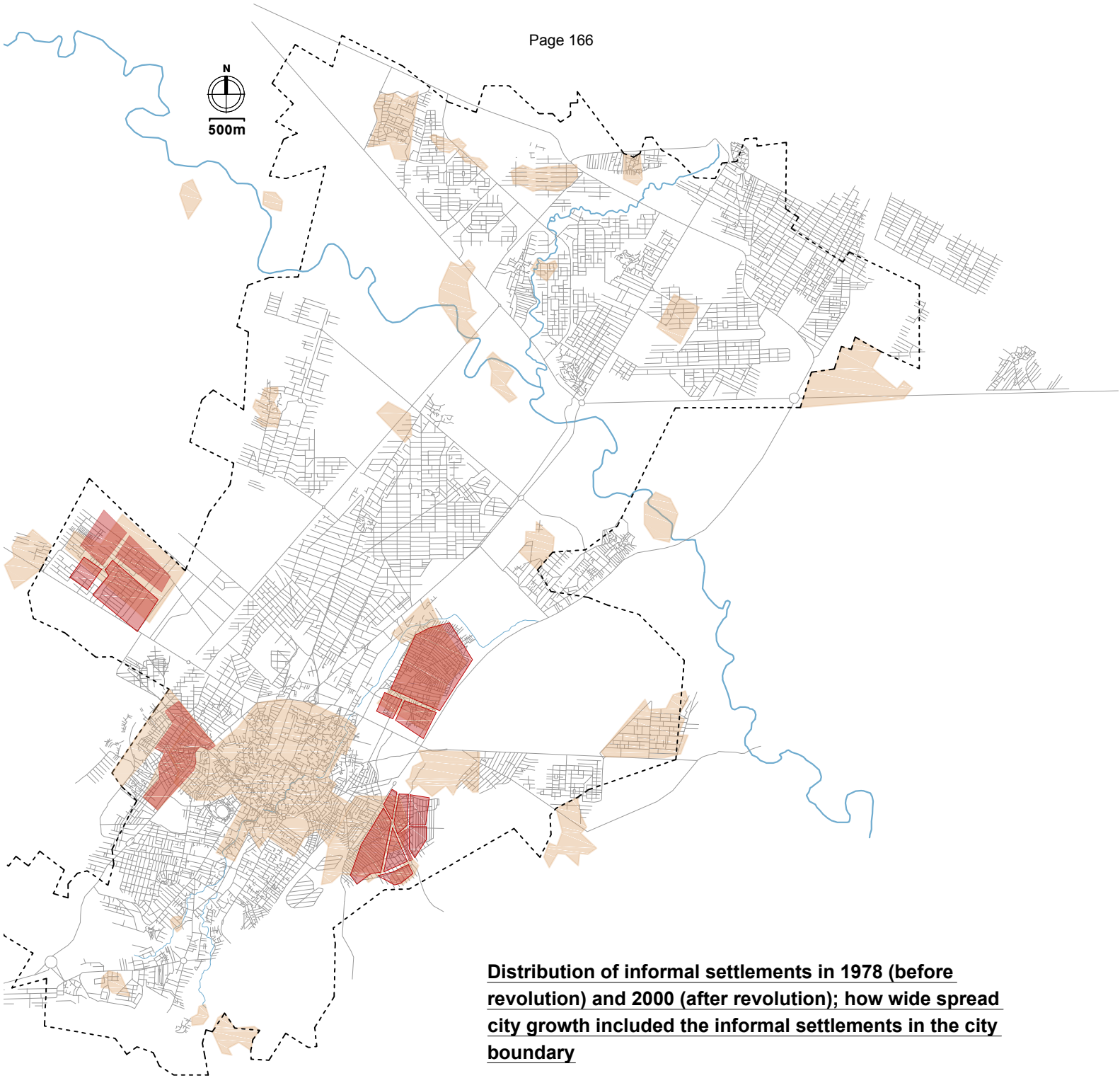


Figure 15.6:
Extracted by author based on (Gholipour, Rezaie and Kazemi, 2013) & (Irandoost, Alizadeh, Khosrovanian and Tolaie, 2013).

increased from 36333 units in 1996, in these 13 shantytowns[94] were constructed by Semi-durable and durable materials like mud and adobe. While their population increased to 270979 with 2.4% annual growth rate from 1996 to 2003; because immigrations and Lack of fertility control (Ibid.). Since most of dwellers in these areas are migrants with the culture and traditions of rural areas or nomad areas so they are not familiar with culture and behavior of apartment's residency and most of buildings, almost 76.9%, were constructed as single house units and only 16% of buildings had building license and only 7.6% had formal ownership documents and promissory notes (Ibid.). The occupations of this group include a wide range of peddlers, hawkers, building workers, and dilly-paid labors; whilst, the most of the employees have had a job for a short period.

Thus the control of spontaneous settlements' development and migration to the perior urban areas became a major issue during the Second and Third Five-Year Development Plans with remaining housing/land projects and physical rehabilitation as the main public policy tools (1995-2004) (Alaedini, 2015). The MHUD[95] conducted a series of studies in regularization of informal settlements in 1999 in three districts as case studies in the cities of Kermanshah, Ahwaz and Zahedan (Nodehi & Fouladinasab 2017). Two years after these studies, in 2001, The World Bank declared its agreements to collaborate in these studies in the format of plan for low-income household settlements and also for upgrading and community enabling programs for informal settlements in Iran, based on the World's Bank 'Terms of Reference' through gratitude financial aid in the first phase and also through financial aid through Japanese government, though this program formerly was mentioned in Third Five years development plans (Ibid.). The continuation of these collaborations depended on some conditions amongst which the most important was 'preparation of National Documents for Enabling and Regularizing informal settlements'. So the 'National Task Force for Enabling' was established by the secretariat of 'Urban Development and Rehabilitation Organization (UDRO)' for preparing this national document and its dependent organizations were established in other provinces to provide countrywide cooperative relations (Ibid.). The UDRO adopted the national document with the aim of defining the

---

[94] The name of these shanty towns are: Nokān, Bāg-i Abrisham, Ghaghā-Golan, Ghaghā-Kaboud, Hekmat-Abād, Shāter-Abad, Jafar-Abād, Anāhitā, Shahrak-I Sādeghieh, Dowlat-Abād, Koli-Abād, Chaman, Dareh-Derāz.

[95] The Ministry of Housing and Urban Development was named Ministry Of Roads and Urban Developments since June 21, 2011.

informal settlement area and recognizing the rights of their residents in addition to highlighting the requirements in their progress approaches (Alaedini &Fardanesh, 2014).

In this regard, the main housing policy approach was drawn based on ‘saving, mass production, small units (Pas-andāz, Anbuh-sāzi o Kučak-sāzi) or ‘PAK’. The supplied amenities by governments included making free land market, decreasing subsidized land transfers, involving private financial institutions, floating banking interest rates and increasing of the housing loan ceiling; hence, subsidize would be increased based on housing types and for example construction of social housing (50 m2 units) was allocated to highest subsidize (Alaedini, 2015). So, the set of physical and socio-economic subprojects in the informal settlements of Kermanshah, Zahedan, Bandar ʿAbbās, Sanandaj, and Tabriz based on community priorities (Ibid.).

The Fourth Five Developments Plan (2005-2009) concerned with some important provisions in terms of regularization of informal settlements through an enabling approach. Thus, the Ministry of Housing and Urban Development by helping from both public funding and private investment, including foreign entities, was required to prepare Comprehensive Housing Plan for addressing the housing problems (Alaedini &Fardanesh, 2014). Since World Bank was associated to finance this project, Urban Upgrading and Housing Reform Projects, and Iran faced with various problems like international sanctions; hence, the government was able to spend less than half of its loan amount to the project and did not enter its second phase with the assistance of the World Bank (Alaedini, 2015).

However, in the Comprehensive Housing Plan prepared for the Fourth Plan, certain initiatives were formulated, among a number of other things, to exclude the cost of land from the price of housing, which were turned to the programs in the Fifth Plan (2010-2014) that is known the ‘Mehr’ Housing projects, Maskan-my Mehr (Alaedini, 2015). These new mass housing projects brought back the role of government as the main means to provide standard homes for poor households (Ibid.). According to the program, construction of about half a million housing units in the country was on the agenda. In fact, Mehr housing is an example of a new mass affordable housing era in Iran that designed with the aim of producing housing with low prices. One of the main obstacles for many people buying residential units in the main cities of Iran is the impact of land prices on housing price (Jamali & Dadashzadeh, 2016). The Mehr

housing project's incentive to build multi-storey residential buildings in suburban areas of the main cities was meant to address this problem and real estate developers are offered free lands in return for building cheap residential units for first-time buyers in 99-year lease contracts (Ibid.). For instance, in Kermanshah city, encompassing an area of 27.5 hectares, with 4,920–unit Mehr Housing Project, for shanty town of Dowlat-Abad, and just behind this informal settlements region, as one of mass housing projects in the city, was one of the largest and fastest mass housing projects in Iran that was done during the 15 months (Fig. 16.6). The units were built with two bedrooms, in 5-story apartment blocks, using Kayson's[96] "Cast–in–situ Monolithic Reinforced Concrete Construction System"; the project utilizes 7 sets of wall formwork and 42 sets of ceiling formwork, enabling it to build the reinforced concrete structure of 28 housing units per day. But the location of the Most Mehr housing projects creates a lot of problems like lack of services, job opportunities, and identity crisis, also social conflicts in their areas. Since the projects have been implemented just to focus on construction and not community building most of units are left vacant because people don't welcome to live in them.

Continuously, the Fifth Development Plan addressed to informal settlement with the outdated Persian name as *ḥāshie-neshin* that means 'peripheral areas' and states that such areas when located inside the city boundaries should be regularized with the

Figure 16.6:
Mass housing projects (Mehr) in Kermanshah by Kayson company.

[96] Founded in 1975, Kayson is an Iranian international general contracting public-limited company providing premier management, engineering, procurement, construction, financing and investment services worldwide. The company has resume of fast mass housing project in other countries like Iraq, The 1,920-unit Housing Project in Baghdad, and Venezuela, The 10,000-unit housing Project in Venezuela in Bolivarian. Http://www.kayson-ir.com/

participation of residents through the formulation and realization of legal, financial, cultural, and enabling mechanisms. Moreover, the plan prevented the formation of informal settlement outside official city boundaries by strict control on the expansion of peripheral villages and demolishing illegal construction (Alaedini &Fardanesh, 2014).

Although the policy shifts, by the end of 2011, the Urban Development and Revitalization Organization had identified 710 informal settlements across 46,000 hectares of the sixty cities with a population of more than five million persons and had planned to carry out upgrading feasibility studies for 250 of them (Alaedini, 2015). Based on information from the National Enabling Taskforce the contribution of Kermanshah in these statistics in 2012 shows from 692,986 populations and 9,569 hectare area of the whole city 739 hectare area or 7.72 percent with 270,979 populations belong to the informal settlements that almost 70 percent of this area were located in the city boundaries (Alaedini, 2015). Despite these informal settlements have different living's values based on geographical situation, the desirability of a place, Social characteristic of residence, quality of facilities, upcoming plans and hope for the future, but most of them are improving in recent years (Irandoost & Sarafi, 2007). So Land and home prices have been increased rapidly in these neighborhoods, becoming unaffordable for new poor households without homes in the city, migrants, or young people who starting their own families and most probably these new households would have to find shelter in newer informal settlements taking shape outside official city boundaries (Alaedini, 2015). Although the end of the war was a good reason to return refugees to their cities and villages but actually it has not happened. Increasing housing demand and new planning for the city led to growth city and even filling empty and segmented space between urban contexts (Fig. 17.6). Eventually increasing government's land holdings over the time and decreasing land allocations by them to housing cooperatives led to failure of serving low-income households who are mostly engaged in informal economic activities (Ibid.). The physical fragmentation of cities also socially manifested and despite the revolution's main slogan for equality and improvement, the growing gap between the rich and the poor have been widened. Despite the Islamic government's efforts different public and private development agencies, resulted from revolution and war, continue using western images as a source of inspiration (Sintusingha & Mirgholami, 2013).

Figure 17.6:
The progress of segmented grown context of city after last revised master plan in 2002/2003.

- **Respectively form up to down: the city in 1997, 2007 and 2012 (Reshadat , Saedi , Zangeneh ,Ghasemi , Gilan , Karbasi and Bavandpoor, 2015).**

Chapter VII

Conclusion: From so-called Islamic city to city during Islamic republic era

From so-called Islamic city to city during Islamic republic era

For centuries, the process of modernization has introduced new physical and social patterns through cities worldwide and urban inhabitants in response to their conceived and real needs (Sintusingha and Mirgholami, 2013). The specific historical relationship between different non-Western cultures and European imperialism and their post-colonial experience led to the contemporary proceeds of the modernization process (Ibid.).

This study presented an attempt to analyze one of second order cities in Iran as historical city, Kermanshah City, with a long approach vision about its development. The aim was providing a better understanding of urban change and the factors that shaped urban form in the modernization process as the Iranian-Islamic city. This study examined the Kermanshah urban form from its prototypical traditional form as the so-called Islamic city in Qajar dynasty to the city in the Islamic republic era. As this approach, the constant modernization tendency to constitute the pattern of an Iranian city led to the transformation of the common features of the traditional city. The study has developed in parallel looking at the history of a built environment and social life as well as set of rules and policy that have assisted and governed the developments over the time.

It is obvious that Kermanshah architecture and urban form, like most of the cities in Iran, changed substantially since the end of the Qajar dynasty (1920s) for twenty years later when Reza Shah left the power. This city became a totally different city. For example, the city walls and gates disappeared. The dominant traditional landscape such as domed mosques, bāzār, and inner courtyard houses opened into a grid network streets, modern squares (Medan) with monuments, new forms of commercial building along major arteries, government buildings,[97] or they were replaced by neat row houses and modern apartments. It was the era of dramatic departure from the past and the

[97] Like banks and administrative police headquarters.

beginning of Iran's first involvement with a process of ‘modernization’ or rather ‘Westernization’ and subsequently new socio-cultural living in the country.

The new trend of governance during Pahlavi, Reza Shah and his son Mohammad Reza Shah, evoked the national identity and glory of pre-Islamic of Iran. Moreover, their secularization and centralization tendency required new instrument, including multiple unified progress, development plan and architectural style over the country, with the primacy of Tehran and without regard to local conditions, the historical context in other provincial cities like Kermanshah. Indeed, according to Sintusingha and Mirgholami (2013) ‘self-colonization’ and indigenous version of modernization in Iran have applied and established urban practices from more developed countries.

For both kings superimposition of boulevards and highways with grid pattern on the city traditional pattern, like other cities in Iran and cities in the world of Islam as Isfahan, Baghdad, Aleppo…, accompanied by other physical town improvements, worked as one of important codes for modernization (Fig. 1.7).

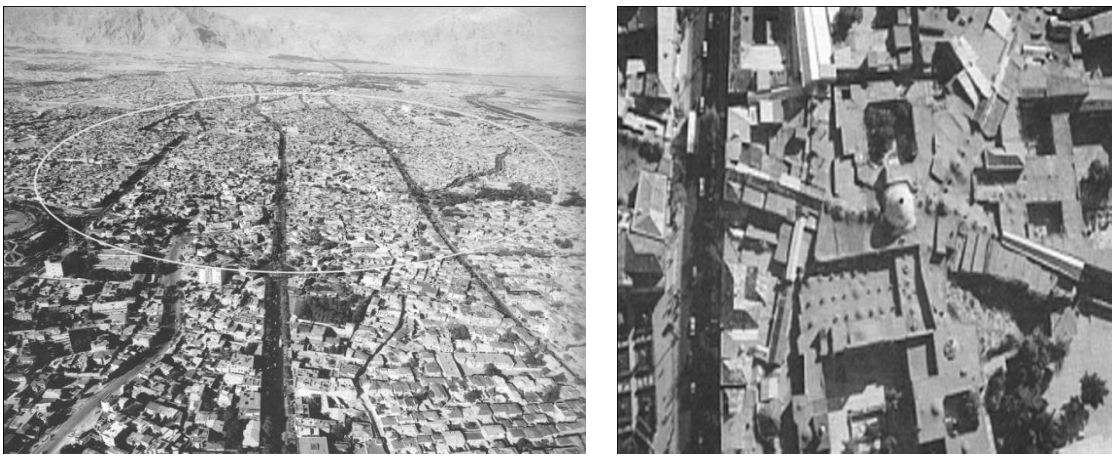


Figure 1.7: The parallel new streets during the Pahlavi dynasty divided the historic core and its traditional elements like the bāzār (Borumand, 2009).

Initially the centralized decision to open new avenues in the old traditional cities was the most decisive action. Despite brutal result, but it is a fundamental action in the 'modernization' of the city, because it is accompanied by new means of circulation and transportation, establishment of new water, electricity

and telephone networks, etc. as well as the formation of new spaces of consumption and sociability. It applied radical changes in the urban structure, from both viewpoints, its function and its socio-spatial changes like the displacement of the centers of gravity and spaces of sociability in the city, the processes of social segregation and etc. These are conscious actions of modernization that made a less expected processes. For example, technical networks reinforced the differences between neighborhoods.

For achieving the codes of modernization, Legislation was applied as a tool of legitimation. For the father, Reza Shah, the legal basis for his physical interventions was" Street Widening Act of 1933." Although the Reza shah urban acts, usually, compared with Haussmann's interventions and their both superimposed plans had looked for strong change and demolish of traditional context, but their expropriation policy for their practicing was different. As instance the analyze of Kermanshah at that time clarifies, the first long stretch new avenue with modern roundabouts passed through the heart of the city and the historic bāzār only by passing on expropriated blocks on its way. There was not an expropriation plan for the street sidebars, as Haussmannian's one. Hence this approach limited urban renewal policy to the first urban block, and almost with 20 meters depth, along new street and square. Generally, close look to the some of the cities' plans at that time, shows they could not be the result of local inventions while the key factor in their urban operations looked forward only to satisfy the autocratic order of Shah (Mazumdar, 1981). There was not any socio-cultural consideration in Reza Shah urban renewal program for different cities based on their distinct historical background and even geographical situations in the country.

During the second Pahlavi and governor of Mohammad Reza Shah, between 1941 and 1979, the National Development Plan led to beginning of cities planning activities since 1947. A seven-year development plan was prepared to reach industrial flourish. The results included a drastic increase in national revenues and growth rate. The second phase of fundamental transformation was not the result of a voluntary action of modernization in the long analyzed

processes, but a consequence that ended up overflowing all the forecasts: immigration, population growth and the dramatic problem of housing. This made especially clear after the Islamic Revolution.

The first two National Plans focused on feasibility studies and implementation of urban facilities like Water supply and electric power. Actually, from the Third National Development Plan the necessity and beginning of towns' master plan preparation made an origin for city planning in Iran as a modern course. The High council for city planning, as the central headquarters to control, was established to guide the preparation of master plans based on standards and regulation and final approve. In this regard, some cities were given priority due to their national significances; hence, Kermanshah was listed in the Fourth Development Plan for preparation of its master plan. Although, the master plan was approved by council, but due to dropping of Pahlavi reign and Islamic revolution could not be implemented. Thus city grew without any plan and housing and construction permitted almost everywhere in the city. In fact, sprawled Government's housing program, especially in providing people working in the oil industry with housing facilities, was another tool for social and urban modernization in the city, in this era, but for unplanned city. Despite large scale housing program for social employees or middle class, the city suffered from lack of houses for poor industrial working class and rural-urban migrants. The population growth as the main result of land reform policy, by Mohammad Reza Shah, and industrialization was the beginning of formation and development of spontaneous informal settlement around the city. The history of development and planning in Kermanshah during Pahlavi reign indicates how physical operations and urban planning without pursuing the vernacular socio-cultural pattern led to major socio-spatial segregation, between tradition and modern, rich and poor…

This segregation in whole country was one the main reasons that led to the Islamic Revolution in 1979 by the leadership of Ayatollah Khomeini, while upper and middle classes lost their superiority versus traditional middle class and the urban poor in the trajectory of modernization of Iran. The occurrence of

revolution in the name of Islam as a political religion was one of important manifests in the twentieth century that brought Iran toward “Cultural revolution.”[98] The revolution became a unit idiom for all segments of society, in spite of their differences, at least for the time being as against the autocratic monarch and the abdication of the Shah. The revolution looked forward to the revival of the true essence based on Islamic identity for Iranian against Western political and cultural penetration.

The statement of a new government as equality and justice in Islamic society made them commitment to provide housing for the poor and give the right to have a habitat for everyone. This new statement and following the Iran-Iraq war led to radical demographic expansion in Kermanshah, like other provincial cities in the country. So, the land became the key issue for housing and Islamic government tried to limit the private ownership in contrast with previous reign. In this regard, relying on ownership rights in Islam a series of law were legislated for determining the rights of ownership and urban land distributions, which led to large‐scale privatization of public lands. In contrast with official propaganda, which claimed the priority of low income and the neediest, but primary public employees, the middle classes, and a vast range of people only categorized as the government clients took advantage of this new strategy. This major transfer that happened under the lack of enforceable regulations’ as well as failed execution of the master plan, due to fast and uncontrolled transformations and as a legacy of the previous reign, derived outward, widespread and unplanned city growth. Therefore, some of the housing constructions took place informally or illegally and many poor families and refuges occupied suburb areas. The historic core already was occupied by immigrants before the war; hence, the refugees more settled in the suburbs area around the traditional city (residents’ interview, 2017). However, rapid and expand urban development gradually absorbed some parts of these informal urban contexts and villages around the city and made them as an official neighbors for the city formal built

[98] I borrow this term from Pamela Karimi (2009) and Khatam (2015).

environments (Fig. 2.7). Although the next preparation of the new master plan in the new reign puts some of these informal settlements in the official city boundary, but solving the social- spatial segregation between different urban contexts still is one of the important problems for authorities (Fig. 3.7).

The expansion of the city entailed new important challenges to provide services. At the same time, changes in the urban form resulted in the degradation of the historical center and the need for radical interventions that necessarily represented significant losses in urban heritage. Evacuating and decaying the city historic core with its all Iranian-Islamic characteristics were a major awareness for the city and government's authorization not only because it's Islamic identity but also because it's historical values and social-physical harshness. Although the new revival and modern strategy tended to seek true Islam in different layers of domestic life, have not continued with historical instances or committed to traditional features, which are known as the legacy of traditional Islamic-Iranian model. They borrowed symbol of modern urban planning, including superimposed grid network, widening street, modern high rise building, without regard to local social pattern, from the pre-revolution era.

"Iran is the only example of an Islamic state installed through a popular revolution which engages all aspects of the questions" (zubeida, 1997). In its effort to develop an Islamic republic, the Islamic government involves into different views of socio-cultural and domestic life. The dominant concept of the new state as the Islamic republic was creation of new physical, socio-cultural and economic patterns for the country to revival of true Islamic identity in different aspects against Western influence. But, since the tendency of modernization and progressive transformation was dominant like other Islamic or even non-Islamic countries, these new patterns, even in urban modernization and development, are not revived or continued the historical and traditional examples of the traditional so-called Islamic city, in contrast is a quite new modified pattern. In other word, the Iranian cities in the era of the Islamic republic can't create the new prototypical like their traditional prototype as the so-called Islamic city only by emphasizing Islam significances and it's rooted in the predominant tendency of modernization.

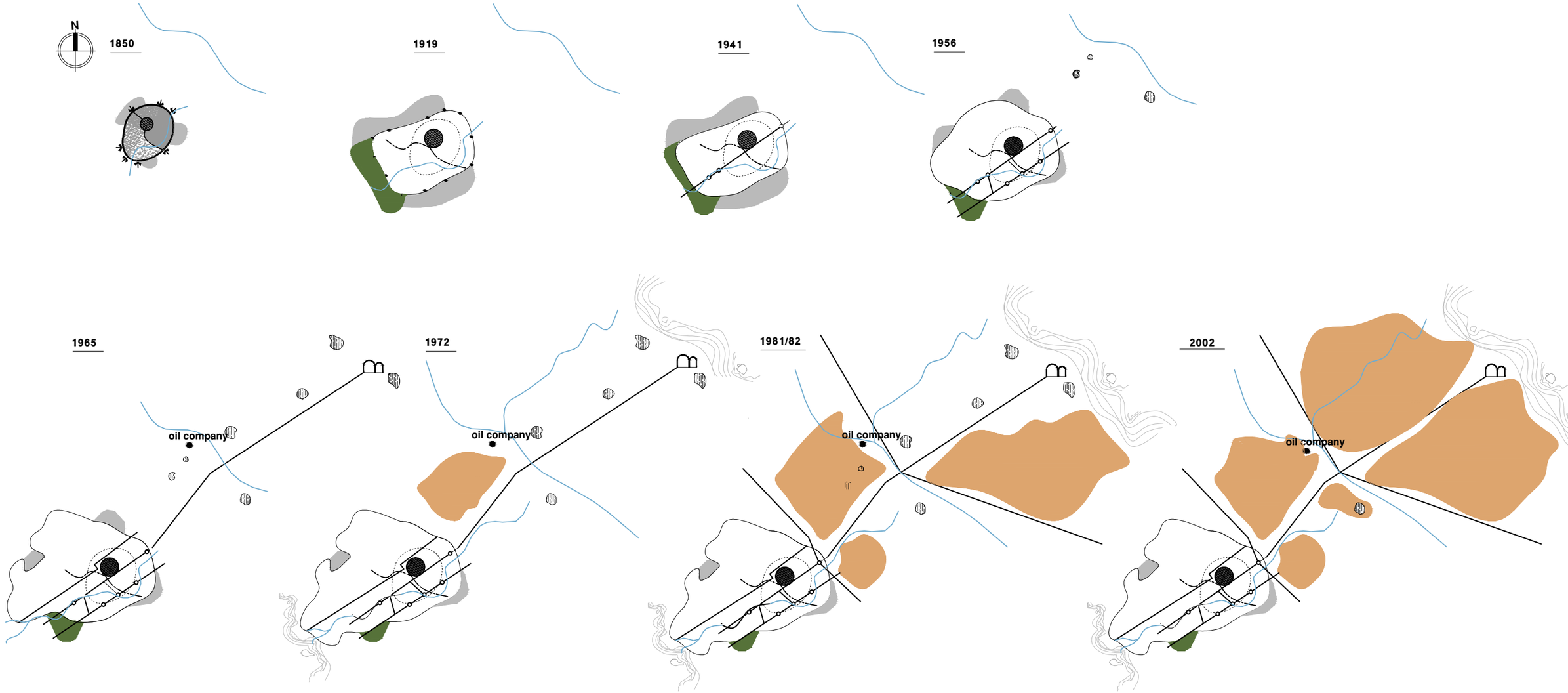


Figure 2.7: General transformation of city over the time (extracted by author).

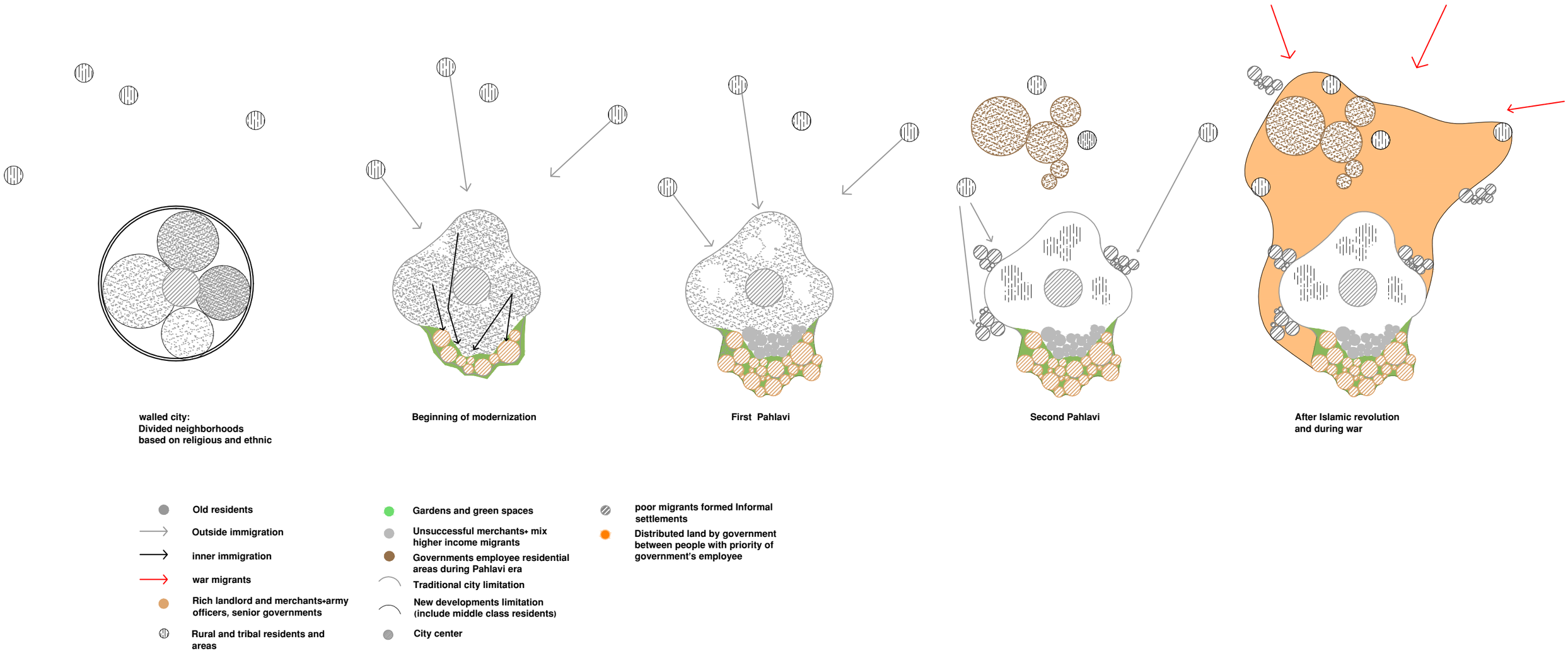


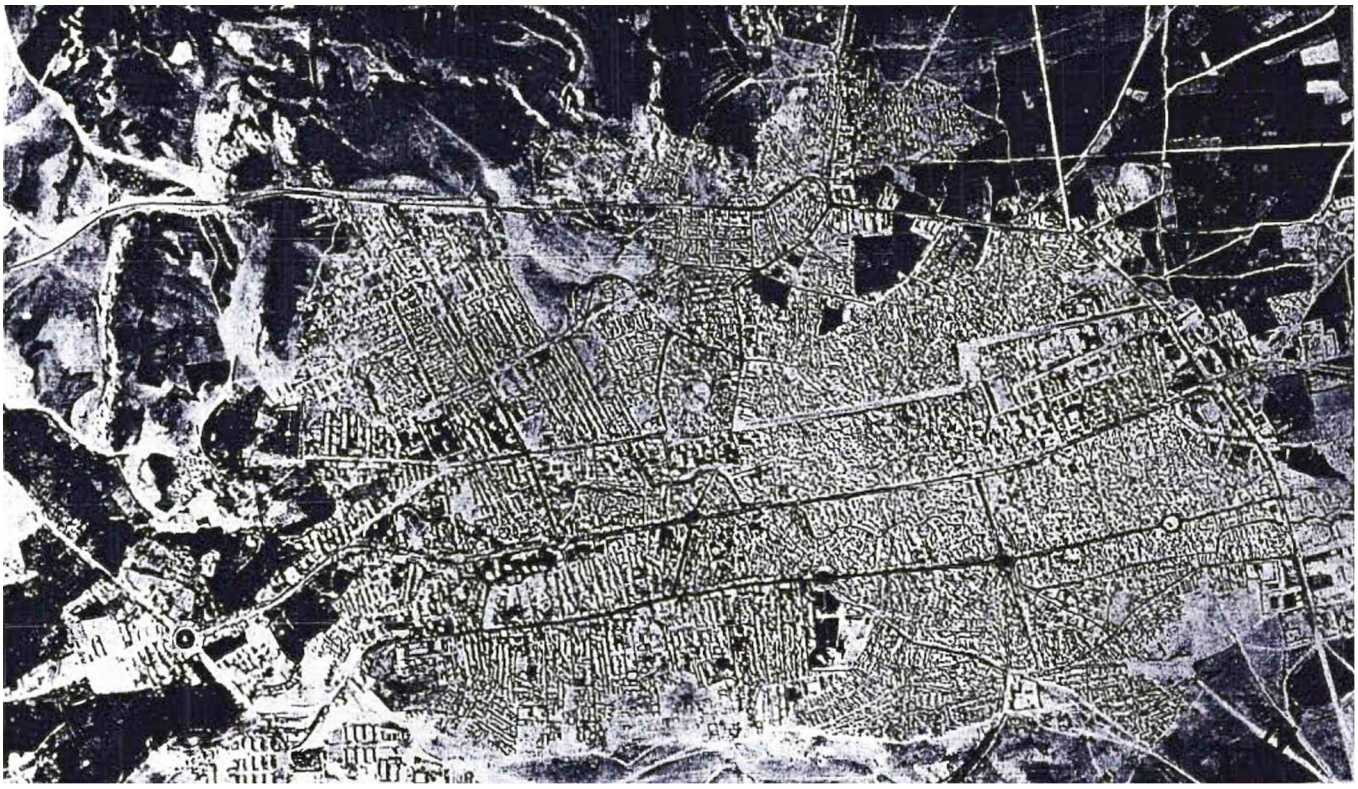
Figure 3.7: Scheme of social change in city during modernization process; extracted by author.

Indeed, both processes of transformation, before and after the revolution, are actually shared by the modernization of many other cities in the rest of the world, and particularly by many other cities in the Islamic world. They might have experienced diverse particularities and non-uniformity, but they have many similarities. The transformation of the city like Kermanshah in the context of the modernization process is impacted not only by all reactions to the Western modernization that is imposed globally, but also by other factors such as local, cultural, political, demographic, social, etc. The War with Iraq, the emigration of the rural population to the city, or the lack of investment derived from the disconnection of the Western world, all had impacts even greater than Western global modernization in the process of urban modernization in the provincial and second order cities like Kermanshah in Iran. Despite religious emphasize by the Islamic Republic in Iran, even they have inevitably followed the force of these factors more than religious ones in their urban modernization process. So, the desire to return to Islamic traditions could not reject Modernization.

Kermanshah demonstrates the general form of modernity that is not an incomplete version compared to an ideal situation of modernity, but it is kind of modernization that happened and transformed according to its own history, discourses, and social character as a second order or provincial city. Although, the modernization process in Kermanshah has not been symbolized, equal as major cities like Tehran, but shares many similarities in terms of urban modernization processes and morphology changes with most of the cities in the world.

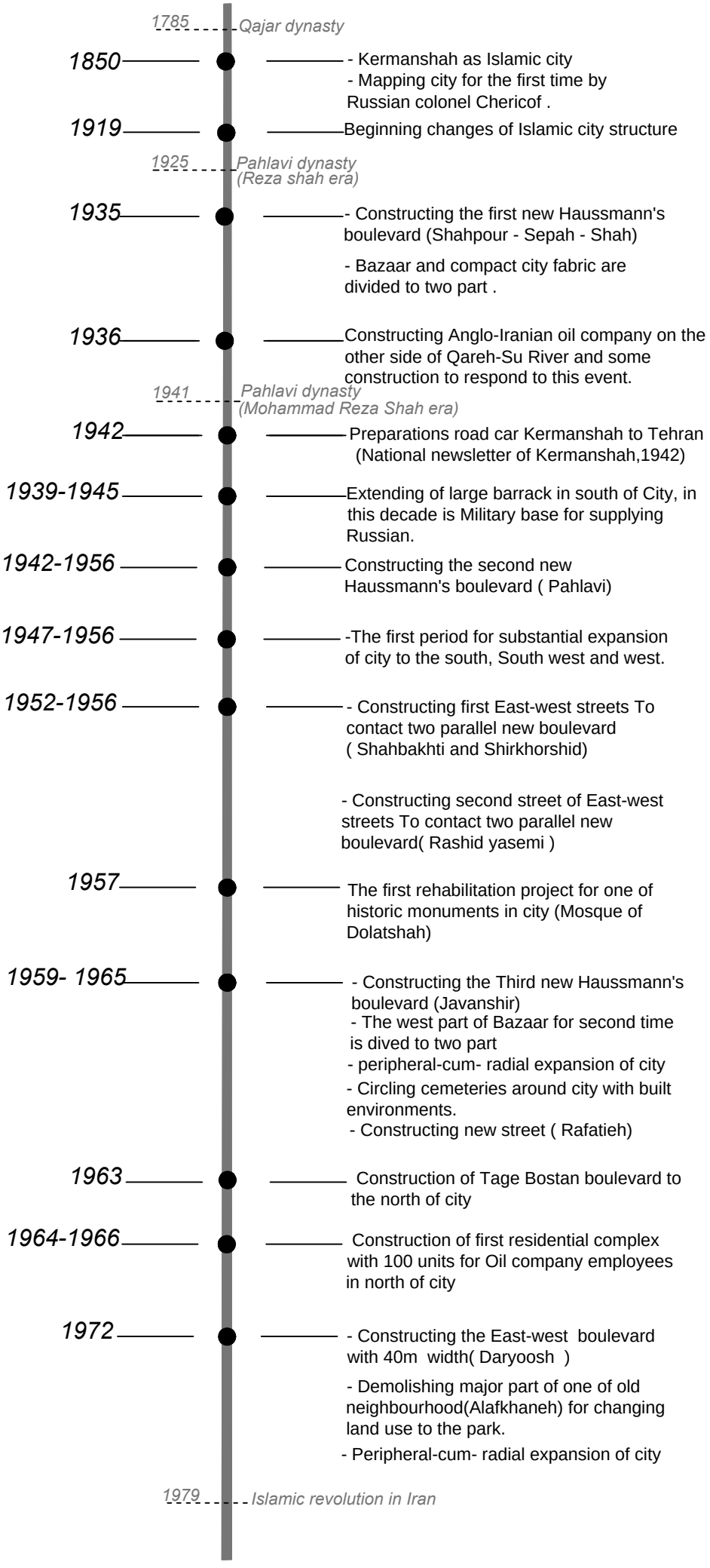
Index 1.

- **Aerial photo of Kermanshah in 1956 (Moradi & Alamsi, 2013).**

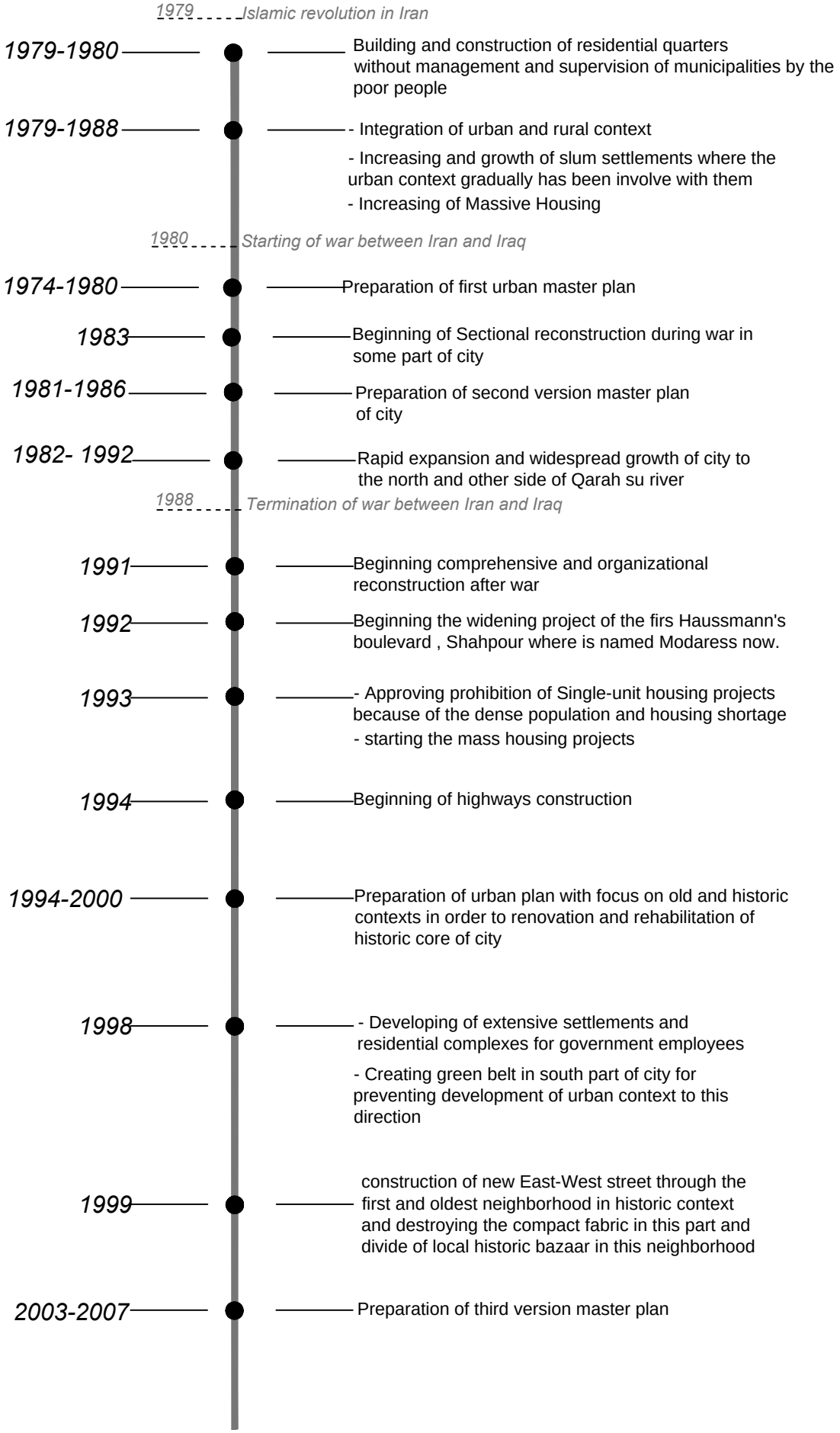


- **Aerial photo of Kermanshah in 1965 (Clarke & clark, 1969).**

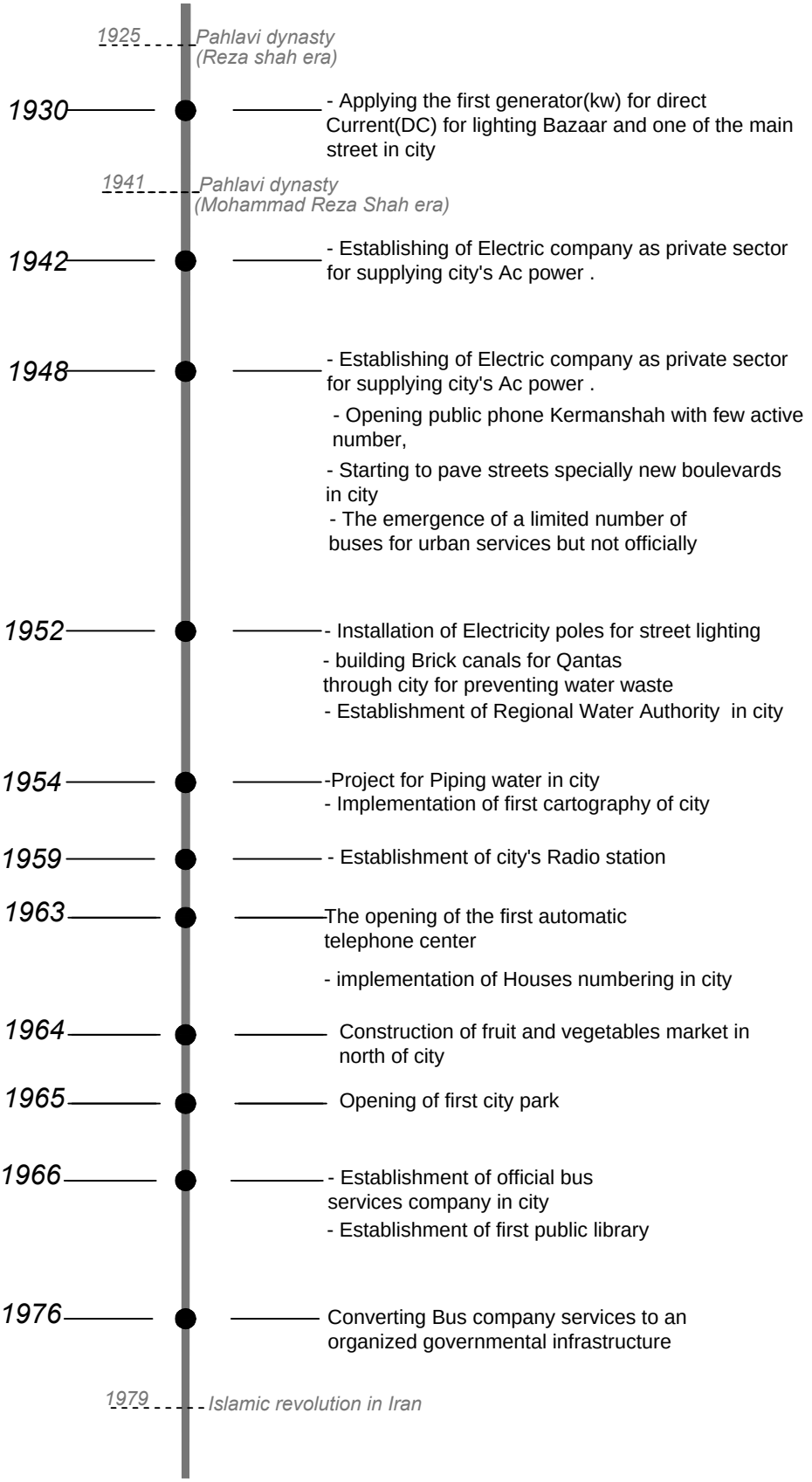
Index II :The chronology of built environment transformation (before revolution)



Index III :The chronology of built environment transformation (after revolution)

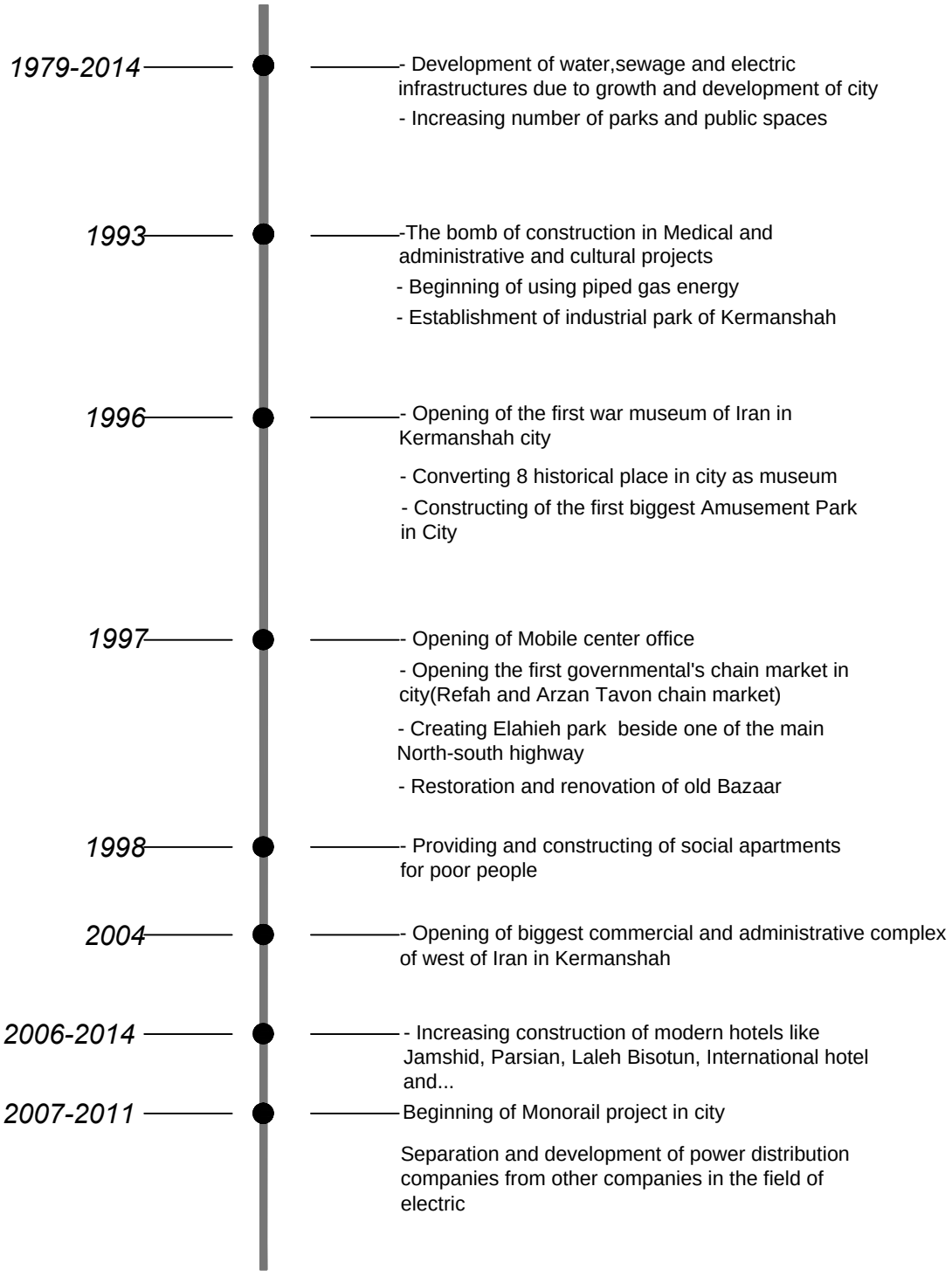


Index IV :The chronology of changes in Infrastructures and public Facilities (before revolution)



Index V :The chronology of changes in Infrastructures and public Facilities (after revolution)

1979 _____ Islamic revolution in Iran
1980 _____ Starting of war between Iran and Iraq
1988 _____ Termination of war between Iran and Iraq



Bibliography

Abrahamian, E. (1982). *Iran between two revolutions*. Princeton University Press.

Abrahamian, E. (2008). *A history of modern Iran*. Cambridge University Press.

Alemi, M. (1984). The 1891 Map of Tehran: Two cities, two cores, two cultures. *AARP Environmental design*, (1), 74-84.

Abu-Lughod, J. (1965). Tale of two cities: the origins of modern Cairo. *Comparative Studies in Society and History*, *7*(04), 429-457.

Abu-Lughod, J. (1987). The Islamic city, historic myth, Islamic essence, and Contemporary relevance. *International Journal of Middle East Studies, 19, 155–176*.

Alsayyad, N. (1991). *Cities and caliphs, on the genesis of Arab Muslim Urbanism*. New York.

Alsayyad, N. (1993). Squatting and culture: A comparative analysis of informal developments in Latin America and the Middle East. *Habitat International*, *17*(1), 33-44.

Alsayyad, N. (1986). Notes on the Islamic city: Aspects of physical and non-physical structure. In *The costs of not knowing--: Edra 17/1986: proceedings of the seventeenth annual conference of the Environmental Design Research Association, Atlanta, Georgia April 9-13, 1986* (p. 15).

Ardalan, N., & Bakhtiar, L. (1973). *The sense of unity, the Sufi tradition in Persian architecture*. Chicago.

Arnaud, J. L. (2008). A. Tradition And Modernity In The Nineteenth Century. Modernization Of The Cities Of The Ottoman Empire (1800–1920). In *The City in the Islamic World (2 vols)* (pp. 957-982). Brill.

Awad, H. (1964). Morocco's expanding towns. *The Geographical Journal*, *130*(1), 49-64.

Aubin, E. (1908). *La Perse d'aujourd'hui: Iran, Mésopotamie*. Colin.

Ashraf, A. (1989). BAZAR iii. Socioeconomic and Political Role, *Encyclopædia Iranica,* online edition, available at http://www.iranicaonline.org/articles/bazar-iii.

Adibi, H. (1989). Population redistribution in Iran: The case of Kermanshah city. *Urban Geography*, *10*(3), 270-280.

Ansari, A.M. (2001). The Myth of the White Revolution: Mohammad Reza Shah, 'Modernization' and the Consolidation of Power. *Middle Eastern Studies, 37:3, 1-24.*

Azizi, Z., & Fatemi, M. (2016). Tehran: A Call for Spatial Justice. In *Urban Change in Iran* (pp. 71-85). Springer International Publishing.

Alaedini, P., & Fardanesh, F. (2014). From shelter to regeneration: Slum upgrading and housing policies in islamic republic of Iran.

Alaedini, P. (2015) “CITIES vi. Urban Informal Settlements in Modern Iran,” *Encyclopædia Iranica,* online edition, 2015, available at http://www.iranicaonline.org/articles/cities-06-settlements (accessed on 11 September 2015).

Architect Journal, N (1-6): Arts-Architecture-Urbanisme, Tehran: August 1946 - July 1948.

Ahmed, H. F., & Kamel, B. (1996). Cairo: Three cities, three periods, three maidans. *Built Environment (1978-)*, 104-123.

Bianca, S. (2000). *Urban form in the Arab world, past and present*. London.

Bonine, M. E. (1979). THE MORPHOGENESIS OF IRANIAN CITIES. *Annals of the Association of American Geographers, 69(2), 208-224.*

Bonine, M. E. (1990). The sacred direction and city structure: a preliminary analysis of the Islamic cities of Morocco. *Muqarnas*, 50-72.

Bonine, M. E. (2005). Islamic urbanism, urbanites, and the Middle Eastern city. *In Choueiri, Y. M. (Ed.), A companion to the history of the Middle East. Malden.*

Bonine, M. E. (1979). THE MORPHOGENESIS OF IRANIAN CITIES. *Annals of the Association of American Geographers, 69(2), 208-224.*

Bonine, M. E. (1989). BAZAR i. General, *Encyclopædia Iranica,* online edition, available at http://www.iranicaonline.org/articles/bazar-i.

Bilsel, F. C. (2011). Henri Prost's Planning Works in Ðstanbul (1936-1951): Transforming the Structure of a City Through Master Plans and Urban Operations. *From the Imperial Capital to the Republican Modern City: Henri Prost's Planning of Ðstanbul (1936-1951)*.

Bayat, A. (1997). *Street politics: poor people's movements in Iran*. Columbia University Press.

Bayat, A. (1998). Revolution without movement, movement without revolution: Comparing Islamic activism in Iran and Egypt. *Comparative studies in society and history*, *40*(1), 136-169.

Brown, L. Carl (1973). Introduction. In: L. Carl Brown, ed. *From Madina to Metropolis.* Princeton:Darwin Press.

Blücher, W. V. (1949). Zeitenwende in Iran. (tr. K. Jahāndārī as *Safar-nāma-ye Belūšer*, Tehran, 1363 Š./1984). *Ergebnisse und Beobachtungen. Biberach/Riss*.

Borjian, H. (2014). "KERMANSHAH i. Geography," *Encyclopædia Iranica,* online edition, 2014, available at http://www.iranicaonline.org/articles/kermanshah-01-geography (accessed on 19 August 2014).

Beaumont, P. (1974). Water resource development in Iran. *Geographical Journal*, 418-431.

Clarke, J. I., & Clark, B. D. (1969). *Kermanshah: an Iranian provincial city* (No. 10). University of Durham, Department of Geography.

Clark, B. D., & Costello, V. (1973). The urban system and social patterns in Iranian cities. *Transactions of the Institute of British Geographers*, 99-128.

Çelik, Z. (1986). *The remaking of Istanbul: portrait of an Ottoman city in the nineteenth century* (No. 2). Univ of California Press.

Çelik, Z. (1999). New Approaches to the" Non-Western" City. *The Journal of the Society of Architectural Historians*, 374-381.

Costello, V. F. (1976). *Kashan, a city and region of Iran* (No. 3). Bowker [for] the Centre for Middle Eastern and Islamic Studies of the University of Durham.

Costello, V. F. (2001). The morphology of Tehran: A preliminary study*. Journal of the Built*

Environment, 24(4), 201–216.

Clarke, J. I. (1963). *The iranian city of Shiraz* (Vol. 7). Department of Geography, University of Durham.

Clarke, J. I., & Clark, B. D. (1969). *Kermanshah: an Iranian provincial city* (No. 10). University of Durham, Department of Geography.

Clark, B. D., & Costello, V. (1973). The urban system and social patterns in Iranian cities. *Transactions of the Institute of British Geographers*, 99-128.

Calmard, J. (2015). Kermanshah iii. History to 1953. *Encyclopædia Iranica,* online edition, 2015, available at http://www.iranicaonline.org/articles/kermanshah-03-history-to1953 (accessed on 11 March 2015).

Curzon, G. N. (1892). *Persia And The Persian Question Vol. 1*. Longmans, Green, And Co., London.

Crinson, M. (1997). Abadan: Architecture and Planning Under the Anglo-Persian Oil Company. *Planning Perspectives*, *12:3*.

Cronin, S. (2003). Modernity, change and dictatorship in Iran: the new order and its opponents, 1927-29. *Middle Eastern Studies*, *39*(2), 1-36.

Dumper, M., & Stanley, B. E. (Eds.). (2007). *Cities of the Middle East and North Africa: a historical encyclopedia*. ABC-CLIO.

Devos, B., & Werner, C. (2013). *Culture and Cultural Politics Under Reza Shah: The Pahlavi State, New Bourgeoisie and the Creation of a Modern Society in Iran* (Vol. 18). Routledge.

De Moncan, P., & Heurteux, C. (2002). *Le Paris d'Haussmann*. Ed. du Mécène.

DE PLANHOL, X. (I968) . Geography of settlement' in W. B. FISHER (ed.) *The Cambridge History of Iran, vol. I.*

Darwent, D. F. (1965*).* Urban Growth in Relation to Socio-Economic Development and Western-ization: A Case Study of the City of Mashhad*, Ph.D. thesis, University of Durham, 1965.*

Dehbashi, M., & Darab, D.(2004). Trends in Modern Iranian Architecture In Iran: Architecture for Changing Societies. *Philip Jodidio (ed). Torino: Umberto Allemandi & C.*

De Morgan, J. (1900). *Délégation en Perse*. E. Leroux.

Ehlers, E. (1991). Cities. iv. Modern urbanization and modernization in Persia. *Encyclopaedia Iranica*, *5*(6), 623-29.

Ehlers, E., & Floor, W. (1993). Urban change in Iran, 1920–1941. *Iranian Studies*, *26* (3-4), 251-275.

English, P. W. (1966). *City and village in Iran: settlement and economy in the Kirman Basin* (No. 28). NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL WASHINGTON DC FOREIGN FIELD RESEARCH PROGRAM.

English, P. W. (1968). The origin and spread of qanats in the Old World. *Proceedings of the American Philosophical Society*, *112* (3), 170-181.

English, P. (1973). The traditional city of Herat, Afghanistan. *From Madina to Metropolis: Heritage and Change in the Near Eastern City*.

Emami, F. (2011). *Civic visions, national politics, and international designs: three proposals for a new urban center in Tehran (1966-1976)* (Doctoral dissertation, Massachusetts Institute of Technology).

Ehsani, K. (2009). The urban provincial periphery in Iran: Revolution and war in Ramhormoz. *Contemporary Iran: economy, society, politics*, 38-76.

Ehsani, K., Amir-Arjomand, S., & Brown, N. (2013). Politics of Property in the Islamic Republic of Iran. *The Rule of Law, Islam and Constitutional Politics in Egypt and Iran*, 153-178.

Einifar, A., & Ghaffari, A. (2014). Effect of Streets Construction in the Context of Iranian Cities on Transformation from Traditional to Modern Housing, Case Study: Hamadan. *Research Journal of Environmental and Earth Sciences*, *6*(3), 168-173.

Frieden, Ray A. and Bruce D. Mann (1971). Strategy for sound adaption and development: case study of Kerman bāzār .Tehran:ministiry of Interior.

Falahat, S. (2014). The Model of 'Islamic City'. In *Re-imaging the City* (pp. 7-49). Springer Fachmedien Wiesbaden.

Fathy, H. (1986). Natural energy and vernacular architecture.

Fuller, M. (2008). Mediterraneanism: French and Italian architects' designs in 1930s North African cities. In *The City in the Islamic World (2 vols)* (pp. 983-998). Brill.

FLANDIN, E., & Coste, P. (1840). Voyage en Perse, entrepris par ordre de M. *Le Ministre des affaires étrangères, d'après Les instructions dressées par L'Institut Pendant les années*.

Fanni, Z. (2006). Cities and urbanization in Iran after the Islamic revolution. *Cities*, *23*(6), 407-411.

Gaube, Heinz. *Iranian Cities*. New York: New York University, 1978.

Gaube, H., & Wirth, E. (1978). *Der Bazar von Isfahan: von Heinz Gaube und Eugen Wirth.-1* (Vol. 22). Reichert.

Ghobadian, V. (2009). Sustainable Traditional Buildings of Iran. *Islamic Azad University, Dubai*.

Ghazzal, Z. (2008). The Ulama: Status and Function. *A Companion to the History of the Middle East*, 71-86.

Grigor, T. (2005). *Cultivat (ing) modernities: the Society for National Heritage, political propaganda and public architecture in twentieth-century Iran* (Doctoral dissertation, Massachusetts Institute ofTechnology).

Grigor, T. (2013). Shifting Gaze. *Architecturalized Asia: Mapping a Continent through History*, *1*, 217.

Grigor, T. (2016). *Tehran: A Revolution in Making.* In Christie, J. J., Bogdanovic, J., & Guzmán, E. (Eds.). (2016). *Political Landscapes of Capital Cities*. University Press of Colorado.

Grothe, H. (1910) *Wanderungen in Persien: Erlebtes und Erschautes*. (tr. M. Jalīlvand as *Safar-nāma-ye Gerota*, Tehran, 1369 Š./1990), Berlin.

Ghobadian, V. (2015). Shape of Sustainable Houses in Iran: A Climatic Analysis. *European Online Journal of Natural and Social Sciences*, *4*(3 (s)), 110.

Ghobadiyan, V. (1998). Climatic Analyses of Iranian Traditional Architecture. *Tehran, TEH: Tehran University Publications*, 82-91.

Gideon, S. (1941). Space, time and architecture. *The Growth of a new tradition*.

Haneda, Masashi, ‘‘Introduction: an interpretation of the concept of the ‘Islamic City’,’’ in Masashi Haneda and Toru Miura (eds.), Islamic Urban Studies (London, Kegan Paul, 1994), pp. 1–10.

Hakim, B. S. (1986). Arabic-islamic cities. *Building and planning principles*, *2*.

Hourani, A. H. (1970). The Islamic city in the light of recent research. In *The Islamic city. A colloquium* (pp. 9-24). Bruno cassirer.

Hourani, AH. & Stem, S.M. (1970). *The Islamic City.* Oxford, Cassirer; [Philadelphia] University of Penosylvania Press.

Habibi, R., & De Meulder, B. (2015). Architects and ‘Architecture without Architects’: Modernization of Iranian housing and the birth of a new urban form Narmak (Tehran, 1952). *Cities*,*45*, 29-40.

Hadianpour, M. (2015). Post-colonialism and problem of comparative studies: Comment on Sidh Sintusingha and Morteza Mirgholami,“Parallel modernization and self-colonization: Urban evolution and practices in Bangkok and Tehran”[Cities 30 (2013) 122–132]. *Cities*, (45), 148-149.

Hakim, B. S. (1986). Arabic-islamic cities. *Building and planning principles*, *2*.

Hershlag, Z. Y. (1980). *Introduction to the modern economic history of the Middle East*. Brill Archive.

Habibi, R., & De Meulder, B. (2015). Architects and ‘Architecture without Architects’: Modernization of Iranian housing and the birth of a new urban form Narmak (Tehran, 1952). *Cities*,*45*, 29-40.

Isenstadt, S., & Rizvi, K. (Eds.). (2011). *Modernism and the Middle East: architecture and politics in the twentieth century*. University of Washington Press.

Jackson, A. V. W. (1906). *Persia past and present: a book of travel and research*. Macmillan.

Jayyusi, S. K., Holod, R., Petruccioli, A., & Raymond, A. (Eds.). (2008). *The City in the Islamic World, Volume 94/1 & 94/2* (Vol. 94). Brill.

Jordan, D. P. (2004). Haussmann and Haussmannisation: the legacy for Paris. *French Historical Studies*, *27*(1), 87-113.

Jamali, S., & Dadashzadeh, M. (2016). The Effects of Iran’s First Baby Boomers (1976–1986) on the Housing Economy of Iran and the Government Policies to Deal with Its Resulting Issues. In *Urban Change in Iran* (pp. 207-214). Springer International Publishing.

Kheirabadi, M. (2000). *Iranian cities: formation and development*. Syracuse University Press.

Katouzian, S. (1996). Tehran, capital city: 1786-1997. The re-invention of a metropolis. *Environmental design*, *15*(1), 34-45.

Katouzian, H. (2009). The Persians. *Ancient, Medieval and Modern Iran. Yale University Press, New Haven and London*, 452.

Khatam, A. (2015). Tehran Urban Reforms Between Two Revolutions Developmentalism, Worlding Urbanism and Neoliberalism.

Karimi, K. (1998). *Continuity and change in old cities: an analytical investigation of the spatial structure in Iranian and English historic cities before and after modernisation* (Doctoral dissertation, University of London).

Khan, H. U. (2008). C. Transformations: Identity, Globalization, And The Contemporary Islamic City. In *The City in the Islamic World (2 vols)* (pp. 1041-1068). Brill.

Kasmai, M. (2003). Climate and architecture. *Khak Nashr*.

Karimi, Z. P. (2009). *Transitions in domestic architecture and home culture in twentieth century Iran* (Doctoral dissertation, Massachusetts Institute of Technology).

Keivani, R., Mattingly, M., & Majedi, H. (2008). Public management of urban land, enabling markets and low-income housing provision: The overlooked experience of Iran. *Urban studies*, *45* (9), 1825-1853.

KanŌ, H. (1996). URBANIZATION IN POST-REVOLUTION IRAN. *The Developing Economies*, *34*(4), 424-446.

Keddie, N. R. (1983). Iranian revolutions in comparative perspective. *The American Historical Review*, *88*(3), 579-598.

Lapidus, Ira Marvin (1969). Muslim Cities and Islamic Societies. In: Ira M. Lapidus, ed. *Middle Eastern Cities. A symposium on Ancient. Islamic. and Contemporary Middle Eastern Urbanism.* Berkeley: University of California Press.

Lockhart, L. (1960). *Persian cities*. Luzac.

Laskier, M. M. (1983). Aspects of the Activities of the Alliance Israélite Universelle in the Jewish Communities of the Middle East and North Africa: 1860-1918. *Modern Judaism*, 147-171.

Lepetit, B. (1979). L'évolution de la notion de ville d'après les tableaux et descriptions géographiques de la France (1650-1850). *Urbi*, *2*, 99-citation_lastpage.

Marefat, M. (1988). *Building to power: architecture of Tehran 1921-1941* (Doctoral dissertation, Massachusetts Institute of Technology).

Mozayeni, M. (1974). City planning in Iran: Evolution and problems. *Ekistics, 38*(227), 264-267. Retrieved from http://www.jstor.org/stable/43618417.

Madanipour, A. (1998). *Tehran: the making of a metropolis*. Academy Press.

Madanipour, A. (2003). Public and Private Spaces of the City. London and New York: Routledge.

Madanipour, A. (2006). Urban planning and development in Tehran. Cities, 23, 433e438.

Madanipour, A. (2011). Sustainable development, urban form, and megacity governance and planning in Tehran. In *Megacities* (pp. 67-91). Springer Japan.

Momeni, M. (1976). *Malayer und sein Umland: Entwicklung, Struktur und Funktionen einer*

Kleinstadt in Iran (Vol. 68). Selbstverlag des Geographischen Institutes der Universität Marburg.

Momen, M. (1985). *An introduction to Shi'i Islam: the history and doctrines of Twelver Shi'ism*. Yale University Press.

Murden, S. (2005). Political Economy: From Modernization to Globalization.in Choueiri, Y. M. (Ed.). (2008). *A Companion to the History of the Middle East*. John Wiley & Sons.

Micara, L. (1996). Contemporary Iranian Architecture in Search for a New Identity. *Environmental Design: Journal of the Islamic Environmental Design Research Centre*, *1*.

Mazumdar, S. (1981). *Control and cities: Some examples from Iran* (Doctoral dissertation, Massachusetts Institute of Technology).

Memarian, G., & Brown, F. E. (2003). Climate, culture, and religion: aspects of the traditional courtyard house in Iran. *Journal of architectural and planning research*, 181-198.
Memarian, G. H., & Brown, F. (2006). The shared characteristics of Iranian and Arab courtyard houses. *Courtyard housing: Past, present and future*, 21-30.

Memarian, G., & Sadoughi, A. (2011). Application of access graphs and home culture: examining factors relative to climate and privacy in Iranian houses. *Scientific Research and Essays*, *6*(30), 6350-6363.

Mashayekhi, A. (2016). Tehran, the Scene of Modernity in the Pahlavi Dynasty: Modernisation and Urbanisation Processes 1925–1979. In *Urban Change in Iran* (pp. 103-119). Springer International Publishing.

Mead, C. (1995). Urban contingency and the problem of representation in second empire Paris. *Journal of the Society of Architectural Historians*, *54*(2), 138-174.

Majedi, H. (1996). *Public acquisition of urban land and allocation for housing and urban development in Iran (1979-1988)* (Doctoral dissertation, University of London).

Modarres, A. (2006). Urbanization and the revolution: An introduction to the special issue. *Cities*, *23*(6), 405-406.

Neglia, G. A. (2008). Some Historiographical Notes on the Islamic City, with Particular References to the Visual Representation of the Built City. *Jayyusi, SK and et al. The City in the Islamic World Leiden: I*, 3-46.

Netzer, A. (1985). "ALLIANCE ISRAÉLITE UNIVERSELLE," *Encyclopaedia Iranica*, I/8, pp. 893-895, available online at http://www.iranicaonline.org/articles/alliance-israelite-universelle (accessed on 30 December 2012).

Nodehi, M. K., & Fouladinasab, K. (2017). 11 Communities of practice of planning in Iran and integration of residents into planning. *Citizens' Participation in Urban Planning and Development in Iran*.

Pope, A., Ackerman, U. (1967). A Survey of Persian Art, vol. VII.

Planhol, X. D. (1959). *The world of Islam*, Ithaca. NY.

Pirnazar, N.(2014). KERMANSHAH viii. The Jewish Community, *Encyclopædia Iranica,* online edition, 2014, available at http://www.iranicaonline.org/articles/kermanshah-08-jews (accessed on 10 September 2014).

Paccoud, A. (2012). *A politics of regulation: Haussmann's planning practice and Badiou's philosophy* (Doctoral dissertation, The London School of Economics and Political Science (LSE)).

Raymond, A. (1994). *Islamic city, Arab city: Orientalist myths and recent views*. British Journal of Middle Eastern Studies, 21, 3–18.

Raymond, A. (2005). *Urban life and middle eastern cities, the traditional Arab city*. In Choueiri, Y. M. (Ed.), A companion to the history of the Middle East, Malden (pp. 207–226).

Radoine, H. (2012). French Territoriality and Urbanism: General Lyautey and Architect Prost in Morocco (1912-1925). *Colonial Architecture and Urbanism in Africa: Intertwined and Contested Histories*, 11.

Rubin, M. (2004). INDO-EUROPEAN TELEGRAPH DEPARTMENT, *Encyclopædia Iranica,* online edition, 2012, available at http://www.iranicaonline.org/articles/indo-european-telegraph-department.

Rabinow, P. (1995). *French modern: Norms and forms of the social environment*. University of Chicago Press.

Reshadat, S., Saedi, S., Zangeneh, A., Ghasemi, S. R., Gilan, N. R., Karbasi, A., & Bavandpoor, E. (2015). Spatial accessibility of the population to urban health centres in Kermanshah, Islamic Republic of Iran: a geographic information systems analysis. *Eastern Mediterranean Health Journal*, *21*(6), 389.

Schayegh C (2012) Iran's Karaj Dam affair: emerging mass consumerism, the politics of promise, and the cold war in the Third World. Compar Stud Soc His 54(3):612–643.

Sintusingha, S., & Mirgholami, M. (2013). Parallel modernization and self-colonization: Urban evolution and practices in Bangkok and Tehran. *Cities*, *30*, 122-132.

Shahshahani, S. (2003). Tehran: paradox city. *IIAS, Newsletter N*, *31*, 15-16.

Sintusingha, S., & Mirgholami, M. (2013). Parallel modernization and self-colonization: Urban evolution and practices in Bangkok and Tehran. *Cities*, *30*, 122-132.

Sharifi, A., & Murayama, A. (2013). A critical review of seven selected neighborhood sustainability assessment tools. *Environmental Impact Assessment Review*, *38*, 73-87.

Teyssot, G. (1977). Città-servizi. *La produzione dei bâtiments civils in Francia (1795–1848)*, *424*, 56-65.

Tabriz, S. N., Fard, F. M. T., & Aliyev, F. (2012). Sustainability patterns in the traditional residential fabric of Tabriz. *Sustainability in Energy and Buildings, SIST*, *12*, 391-402.

W Mirza, J. (2012). An Assyrian - Dream the Mirza Family Story. *Harvard College Library Assyrian collection, Xlibris Corporation.*

Zad, V. V. (2013). Spatial discrimination in Tehran's modern urban planning 1906–1979. *Journal of Planning History*, *12*(1), 49-62.

Zubaida, S. (1997). Is Iran an Islamic State?. *Political Islam: Essays from Middle East Report*, 118.

Zubaida, S. (2000). Trajectories of Political Islam: Egypt, Iran and Turkey. *The Political Quarterly*, *71* (s1), 60-78.

In the Persian language

Abazari, Y.A., & Gholipoor, S. (2013). Fazaie Ejtemaie Shahre Kermanshah dar Dore Ghajar (The social space of the Kermanshah during the Qajar period). *Iranian Journal of Anthropology Research*, *2(1), 9-37.*

Borumand sorkhabi, H. (2010). Dar Jostojuie Hoviate Shahrie Kermanshah (Searching identity of Kermanshah city). *Center for the Study and Research of Urban Planning and architecture.Teharn.*

Bani Masoud, A. (2011). *Iran Contemporary Architecture*. Honar-ememarie gharn, Tehran.
Bagherpour, H. (1942). Shahrdari be Fekre Shar Nist (the municipality dose not think about the city). The *National Newsletter of Kermanshah 9 Esfand 1320 A.H.S.,(1610), National library of Iran.*

Bisotun Newsletter 26 Bahman 1382 A.H.S. (15 February 2004), Green belt for the city, (543). *Iran National library.*

Bakhtar Newsletter 9 Tir 1371 A.H.S. (30 June 1992), Sararood shahre bozorgi dar hashieh Kermanshah (Sararood a big city near to Kermanshah), (108)*. National library of Iran.*

Eftekhari Rad, Z., & Jabari, H. (2001). Takapouie zendegie dobare va bazyabie jaygahe gozashte (An Analytical Report on Rehabilitation and Renovation (Kermanshah - Feizabad Quarter), 1 (4) 80-89, *Journal of development and Organization Haft-Shar. Tehran, Iran.*

Erfani, G., & dizani, ehsan. Samandehi az vajeh ta amal dar modakhelate shahri (From the Words to Action, “Organization” In Urban Interventions), 7(13) 49-60. *Journal of Baghe Nazar. Tehran, Iran.*

Falamaki, M. (1987). Sheklgirie Shahr’haie Iran (Formation of Iranian Cities). In *Iranian Cities*, ed. Mohammad Yosef Kiani. II. Tehran: Ministry of Guidance Publications.

Gholipoor, S., & Kazemi, A. (2015). Gstareshe Na-makanha va Tahdide Shahri (Development of non-Places and threats to urban life A Case study of Kermanshah City), journal of Sociological studiesco 22 (1) 77-101. www.journals.ut.ac.ir

Gholipoor, S., Kazemi, A., rezaies, M. (2014). Zohure sokunatgahaie gheire rasmi dar Kermanshah (The emergence of informal settlements in Kermanshah), journal of Sociological studiesco 21(1) 63-87. www.journals.ut.ac.ir

Goharipour, H. (2016). A Review of Urban Images of Tehran in the Iranian Post-revolution Cinema. In *Urban Change in Iran* (pp. 47-57). Springer International Publishing.

Habibi, S. M. (1999). Az Shar ta Shahr: Tahlili tarikhi az mafhume shahr va simaye kalbodiean, tafakor va tasvor (De La Cite a La Ville-Analyse Historique De La Conception Urbaine Et Son Aspect Physique). Iran: University of Tehran.

Habibi, S. M. (1996). Urban planning in post-Revolution Iran. *Goftogu*, 13: 7-18. 1375.

Hashemi, M. (2013). Tarikhe sakhte bazare Kermanshah ba negahi be hamian va banian an (Kermanshah Bazaar: Its History and Patrons). *Journal of Soffeh, 23(63) 99-113, Tehran.*

Habibi, S.M., Ahari, Z., & Emami, R. (2010). Az Foru- rikhtane Baruha Ta Andisheieh Shahraha (From the Collapse of Fortifications to the Idea of Highways). *Journal of Soffeh 20(50) 85-102. retrieved from http://fa.journals.sid.ir*

Irandoost, K. (2001). Baresie Ejmali Az Ravande Roshd Va Toseie Shahre Kermanshah (An Overview of the Growth and Development Process of Kermanshah City). Journal of Geoghraphy education (58) 41-47.

Irandoost, K., & Bahmani Oramani, A. (2011). Tahavolate Kalbodie bazare sonata dar Shahrhaie Iran; bazaar-e Kermanshah (Physical Developments in the Traditional bazart in Iranian Cities; Case Study: bazar of Kermanshah), *The journal of Study of Iranian-Islamic city 2 (5) 5-15. http://fa.journals.sid.ir.*

Irandoost, K., & Sarafi, M. (2007). Yas va omid dar sokunatgahaie ghere rasmi Kermanshah (Desperate and hopeful in informal settlements, a case study of Kermanshah city). Quarterly *journal of Refahe Ejtemaee, 7(26) 201-221.Tehran, Iran.*

Irandoost, K., Alizadeh, H., Khosravanian, L., & Tolaie, R. (2013). Guneh Shenasie sokunatgahaie gheire rasmi dar Iran : Kermanshah va Sanandaj (Typology of Informal Settlements in Iranian Cities, Comparative Study of Sanandaj and Kermanshah), *journal of Architecture and Urban planning, 5(10) 91-104.Tehran, Iran.*

Kalhornia, B. (2001). Tajrobehaie no-sazi va beh-sazi bafthaie ghadim dar Kermanshah (The experiences of renewing the old textures in Kermanshah), 1(3) 80-88. *Journal of development and Organization Haft-Shar. Tehran, Iran.*

Khadivi, S. (2000). Baresie Sakhtare Kalbodie Bafte Tarikhie Kermanshah (A brief introduction to the historical context of Kermanshah, Proceedings of the Second Congress Architectural History Cultural Heritage Organization, Volume III.

Keshavarz, A. (2003). Kermanshahe Ma be Durnamaie Ghadime Shar(Kermanshah from old perspective of the city). Tagh Bostan, Kermanshah.

Keshavarz, A. (2016). Bazmandeh Chatre sabze Kermanshah Bar Labehe Tighe Naboodi (Surviving green umbrella in Kermanshah on the edge of the razor blade), *published interview in an E newsletter, Atabe Kermanshah. http://www.aftabksh.ir/fa.*

Kiani, M. (2004). Memarie doreie Pahlavi aval (The First Pahlavi era architecture). *Tehran, Iran's contemporary history studies institution*.

Kavousi Borumand, F. (1952). Interview with the mayor. The *National Newsletter of Kermanshah 17 Dey 1332 A.H.S. Iran National library.*

Keshmiri, A. (2008). Yade Ayam (In memomry of time). *Sa'adat-e Iran Publications, volume (1), Kermanshah.*

---------- (2013). Yade Ayam (In memomry of time). *Sa'adat-e Iran Publications, volume(3). Kermanshah.*

Kermanshah master plan (1973). *Marjan Consulting company 1352 A.H.S. Department of Housing and Urban Development. Retrieved from digital archive of High Council for Urbanism and Architecture of Iran, http://archive.mrud.ir.*

Kermanshah master plan (1976). *Marjan Consulting company 1354/55 A.H.S. Department of Housing and Urban Development. Retrieved from digital archive of High Council for Urbanism and Architecture of Iran, http://archive.mrud.ir.*

Kermanshah master plan (1981). *Marjan Consulting company 1360 A.H.S. Department of Housing and Urban Development. Retrieved from digital archive of High Council for Urbanism and Architecture of Iran, http://archive.mrud.ir.*

Kermanshah master plan (1983). *Marjan Consulting company 1362 A.H.S. Department of Housing and Urban Development. Retrieved from digital archive of High Council for Urbanism and Architecture of Iran, http://archive.mrud.ir.*

Kermanshah National Newsletter 22 Farvardin 1320 A.H.S. (12 April 1941), (1387). *Iran National library.*
---------- 22 Tir 1326 A.H.S.(14 July 1947), Opening of Telephone system, (2335). *Iran National Library.*
---------- 15 Dey 1326 A.H.S.(5 January 1948), Evrey day Report, (2388). *Iran National Library.*
---------- 18 Ordibehesht 1328 A.H.S.(7 May 1949), Entrance of Engineers of company of Mavar'o Bahar, (2544). *Iran National Library.*
---------- 1 Mordad 1330 A.H.S. (24July 1951). 'About water'. Iran National Library.
---------- 12 Khordad 1330 A.H.S. (3 June 1951). Announcement. Iran National Library.
---------- 22 Khordad 1333 A.H.S.(11 june 1952), Water health commission of Kermanshah, (3150). *Iran National Library.*
---------- 14 Tir 1332 A.H.S.(5 July 1953), Beginning of piping water, (3045). *Iran National Library*
---------- 24 Dey 1332 A.H.S. (26 January 1954), (3096). *Iran National library.*
---------- 6 Bahman 1332 A.H.S. (26 Janury 1954), (3100).Iran National library.
---------- 13 Tir 1333 A.H.S. (4 July 1954). Tarikhcheh lule-Keshi Kermanshah (The history of water piping in Kermanshah), (3150). *Iran National Library.*
---------- 29 Shahrivar1335 A.H.S.(19 September 1956), About Telephone system. *Iran National Library.*
---------- 2 Tir 1337 A.H.S.(23 June 1958), About Telephone system, (3509), *Iran National Library.*
---------- 8 Dey 1337 A.H.S.(29 December 1958), About Telephone system, (3560), *Iran National Library*
---------- 17 Ordibehesht A.H.S.(7 May 1962), About Telephone system (3778), *Iran National Library.*
---------- 20 Esfand 1341 A.H.S. (11 March 1963), (3958). *Iran National Library.*
---------- 21 Mordad 1342 A.H.S. (12 Agust 1963), (3994). *Iran National library.*

Mahyar, M., Fatolah, sh., Fhakhar Tehrani, F., & Ghadiri, B. (1999). Asnade Tasviri Shahrhaie Iran Dar Dore Ghajar (Image documents of Iranian cities in Qajar). *Iran Heritage Organization and Shahid Beheshti University.*

Moradi, A.M. & Almasi, S. (2013). Barresie sakhtar kalbodie baft tarikhie shahre Kermashah (Examination of the physical structure of the historical texture of Kermanshah city). *8 Symposioum on Advances in Sience and Thechnology; Architecture, Urban design and Sustainable development, Mashhad, Iran.*

Nuri Ala, GH. (2014). Bonyan-Gozare Avalin Madreseie Modern Dar Kermanshah ke bood? (How was the founder of the first modern school in Kermanshah?). *Iranian student agency, ISNA, retrieved from http://kermanshah.isna.ir...*

Rezvani, N.S. (1992). Shahrneshi va Shahrsazi dar Doreie 20 Saleh 1300-1320 A.H.S (Urbanization and urban construction In twenty years period from 1920 t0 1941). *Geographic research (25) 140-165.*

Rashidi, M. (2014). Khiaban Modarres (Modarres street). *Unpublished presentation in Kermanshah Cultural Heritage Administration*

---------- (2014a). Khiaban Modarres (Modarres street). *Unpublished presentation as archive in Kermanshah Cultural Heritage Administration*

---------- (2014b). Khanehaie ba arzesh (Worth traditional houses). *archive in Kermanshah Cultural Heritage Administration.*

Sultanzadeh, Hossein. (1986). Tarikhe Mokhtasare Shahr va Shahrneshini dar Iran (*An Introduction to the History of City and Urbanism In Iran)*. Tehran: Amir Kabir Publication.

Soltani, M.A. (1994). Goghrafiaie Tarikhi va Tarikhe Mofasale Kermanshahn (Historical geography and history of Kermanshah). Suha Cultural Institute,
Tehran.

Shabani, E., & Kamyab, J. (2013). Sísate Shari dar Tarikhe Moasere Iran (1299-1320 A.H.S); Ba takeed bar fazaie omoomie shahre Tehran (Urban Policy in the Contemporary History of Iran (1920-1941A.D.); by emphasizing on the public spaces of the city of Tehran). *The scientific journal of Nazar Research Center, for Art, Architecture & Urbanism, (23) 9, 83-92.*

Sajedi, A. (2008). Asle Chaharome Truman va Gostareie Fa'aliate an dar Iran (Principles of Truman's program and its scope in Iran). *Journal of Peyke Noor 2(7) 120-130, retrieved from* http://fa.journals.sid.ir.

Saremi, Ali. (2005). Moderniteieh Natamam darIran (Iran's Unaccomplished Modernization in Architecture), *Mimar (farvardin/Ordibihisht 1385).*

Shāhed-i Gharb Newsletter 6 Ordibehesht 1358 A.H.S. (26 April 1979), The days after revolution, (21). *Iran National library.*
---------- 29 shahrivar 1358 A.H.S. (20 september 1979), Report, (52). *Iran National library.*

Tavassoli, M. (1997). Principles and methods of urban design and residential spaces in Iran. *Jldavl, Research Center of Urban Planning and Architecture, Fourth Printing, Tehran*.

Tavassoli, M. (2002). Urban structure and architecture in the hot arid zone of Iran. *Tehran/Iran*.

Archives and websites

West Regional Electric Company of Iran official website; http://www.ghrec.co.ir

Kermanshah Cultural Heritage Administration; http://kermanshah.ichto.ir

Kermanshah Municipality; http://kermanshah.ir

Harvard school digital archive; http://nrs.harvard.edu, www.qajarwoman.com

Institute for Iranian Contemporary Historical Studies; http://www.iichs.ir

Britain from Above; www.britainfromabove.com

Iran National Cartographic Center

Digital library and archive of National Library of Iran; http://www.nlai.ir

Kermanshah Urban Railway Organization; http://www.kuro.ir, www.imo.org.ir

HEXA Consulting Engineers CO.; www.hexa.ir

Iranian Students News Agency; Kermanshah.isna.ir

Comprehensive Electronic Document Management System and Digital Archive; Ministry of Road and Urban development Islamic Republic of Iran; High Council for Urban Planning and Architecture of Iran; http://archive.mrud.ir

International Quran News Agency; http://iqna.ir

Kayson INC.; www.kayson-ir.com