

Restructuring Urban Morphology: A Case study of Rasht, Iran

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Abstract

Under the influence of recent socio - economic and technological transformation, Iranian cities have experienced notable changes in their spatial structures. Reviewing the main aspects of morphological change in the City of Rasht, this paper attempts to analyze the underlying factors of recent spatial change and how it influenced the conditions of urban life in this city.

The main data and information employed in this article come from different case studies and author's experience on the City of Rasht over the past five years. As the largest city in southern Caspian shores, Rasht is witnessing a relatively rapid change in its spatial form. The change in the spatial structure of the city is observed both in old districts as well as in the newly built neighborhoods. Using a descriptive method, collected data and information have been analyzed to sum up the characteristics of spatial structure of the city over the past decades.

Changing the street layout through widening or opening the new thoroughfares in the city center and reshaping the old network from an unplanned pattern of the past into a semi- radial layout, substituting the single story houses with multi story buildings, change in the architectural style, development of new forms of residential complexes within the city as well as in the outskirt and a boom in housing construction are the main changes which one can observe in the present Rasht. This paper also discusses the increasing social segregation in the city, as the income gap among social groups is widened. It argues how economically based neighborhoods are segregated in the city.

Keywords: Urban change, Morphology, Spatial structure, Urban development, Rasht.

Introduction

Viewed as a physical structure of the urban environment, urban morphology is one of the longest established branches of urban geography (Knox and Pinch (2000, p.432). This term which refers to the study of elements of the townscape (Johnston, 1991, p. 397), is becoming an interdisciplinary setting for research on urban design, architecture, planning, urban sociology, archeology and urban history (Chan Lee, 1999). Urban morphology is concerned both with the tangible results of cultural actions and with morphological processes. Consequently, the study of elements such as buildings, plots, streets, gardens, parks and monuments are the main subjects of analysis in this domain and therefore attention is given to both generative and transformative processes and agents of change (Moudon, 1997, p.7).

In the past, urban forms and major urban design schemes were mostly considered an outcome of economic growth of both cities and countries. However, today, a reverse procedure is taking place; urban design appears to be consciously "used" as a means of economic development of cities in the new competitive milieu (Gospodini, 2002). Cities are being reshaped and urban landscapes are rapidly transformed to address globalization and to handle intercity competition (Beriatos, and Gospodini, 2004).

This raises important questions like what kind of urban landscape transformation is occurring in the changing societies like Iran? What are the main components of the emerging new urban landscapes and how do they influence the urban life?

This article attempts to analyze the recent transformation in urban morphology in Rasht as a relatively large city in the context of changing society of Iran. The data and information employed here come from author's work on Rasht over the past years. Basically, with Iran linking to the international economy during the past century, urban areas have considerably been influenced by interaction with the world economy. Under the influence of world economy, the built environment in Rasht, like the other cities in the country has been subject to transformation during the past decades. Therefore, characterizing these changes in the provincial city of Rasht constitutes the main goals of this study.

Background

As the center of Guilan province, the City of Rasht is located 320 km North West of Tehran and 25 km south of the Caspian Sea shore. The province is situated between 37, 00 and 38, 27' northern latitude and 48, 53' and 50, 34' eastern longitude. At present, Rasht, with of about 500 thousand a population is one of the largest cities in Iran (MPOG, 2002). In terms of physical setting, the city is situated on the alluvial plain of Sepidroud river with an elevation of about zero meter from sea level. The slope of the plain is very low with less than one percent from south to north. From the north, this plain is limited to the Caspian Sea and from west and south to Alborz Mountains and from the east to the Mazandarn province. The annual rainfall in Rasht is about 1200 mm and its average annual humidity is 78.2 percent

Historically, Rasht is not very old. In the very past this area was buried under the Caspian Sea and after withdrawal of the sea, it was not habitable for a long time (MHUD, 1972). Even though the name of Rasht has been recorded since the 4th century A.D., city's growth began during the Safavid dynasty, particularly in the time of Shah Abbas. In the early 17th century, to eliminate the two rivaling local governments in the east and west of Rasht called Biebish and Biepass (Azimi, 2002, p. 42-3), Shah Abbas designated Rasht as a trade center and selected it as the seat of Guilan region. This selection resulted in the growth of Rasht from a small town to a trade center especially for silk which was the main product of region. By the order of Shah Abbas, silk merchants gathered in Rasht and built different trade complexes or «Sarai» for silk. During this time, the city grew considerably and in addition to east-west direction, it has developed in the south-north axis too (MHUD, 1972).

At the end of Safavids, this magnificent great city fell in chaos and was occupied by Russians in 1722 A.D. which lasted for about ten years (ibid). After the

Safavids, Rasht maintained its central role in the region; however, it did not grow much until mid 19th century during Ghajar Dynasty. During the Gajars, because of the economic relations between Iran and Russia, Rasht gained an important role in the region and its bazaar grew significantly.

During Reza Shah (1920-1940) and with the gradual introduction of the motor vehicle, several new streets were built. Construction of Pahlavi St. (present Imam Khomeini St.) began in 1925 from Shahr-dari square to Bankmelli square which later extended in south and north directions. Also construction of Reza Shah St. (Shariati St.) eastward in 1935, which cut through the old bazaar, led to the arrangement of shops along these newly built streets. These two streets became, in fact, the backbone for future development of Rasht during 1925-1948. New districts were laid out along the extended parts. From 1948 to 1956, Rasht was mainly developed from south, south east and south west. The underlying factors of the development of Rasht in the past could be categorized as follows:

- The physical setting of Rasht on a flat plain without any limit for development.
- The central location of Rasht on the densely populated plain of Guilan which has made it a suitable place as a trade center in the region as well as with foreign countries because of its closeness to the Caspian Sea. During the 19th century, Rasht was a major distributing center for imported goods and the main departure point for travelers to Russia and Europe. It was because of this situation that in the mid - 19th century it was named as the gateway of Europe in Iran.
- As a nodal point, Rasht links northern cities of Iran to each other as well as with other cities outside the region.
- Proximity to Russian border and its vulnerability to foreign occupation have influenced the development of Rasht, as it happened during the 18th century.
- The extent of the Iran's relations with Russia and Europe has influenced the economic growth of Rasht during the past century. For example, in 19th century because of the extended relations between Iran and Russia, Rasht benefited very much from this relation and became an important city in the country. However, during the 20th century, especially after the political changes of the early 20th in Russia and Iran, Iran and Russias economic relations were hindered which negatively influenced the growth of Rasht for decades.

Rapid population growth and physical expansion

Based on the censuses, population of Rasht increased from 109 thousand in 1956 to over 417 thousand in 1996 and at present it is estimated to be about 528 thousand, implying an average annual growth rate of 3.34 percent over the last 48 years (MPOG. 2004, SCI, 1997). Such rapid growth followed by socio-economic changes of the past decades has accelerated the physical expansion of Rasht. The physical expansion in association with imported (non-local) construction technology and building materials as well as the rise in car ownership has altered the urban

morphology of the city. The main changes in the following aspects of urban morphology in the City of Rasht are discussed in the following.

Street layout

Within an urban area each mode of transportation creates an impact on the structure of cities (Hartshorn, 1992, p.158). In Iran most of the large cities have mainly been developed in different eras, therefore the layout of their districts reflects the transportation mode of their times. Like in many third world cities, in all of these cities we usually witness what Lowder (1986, p.12) calls non-modern (old) part in the core with organic pattern layout and a modern (new) part usually with planned streets. The periphery is mostly occupied by squatters as well as by industrial and uncongenial uses (Griffin and Ford, 1982) in which pathways are mostly disordered.

The old districts of Rasht have mainly been formed when walking and horse-drawn carts were the main transportation mode producing an organic layout for it. By 1960, the city was mainly limited between the two rivers of Zarjoob and Ghohar-roud in east-west direction formed a dense and a relatively triangle shape area fitted into the natural setting of the land. In the past, the city was composed of neighborhoods each with a square (Maidan) as the centre and houses around it linked by narrow and curved passages (Farid, 1990, p. 98). As mentioned above, in the first half of the 20th century the construction of two cross streets one in south-north and the other in east-west direction divided the city in four parts. Later, the extension of these streets which linked the city with entering roads into Rasht, formed the future physical development of the city and changed its shape to a star like shape along the extension of main streets (Fig.1 to Fig.4).

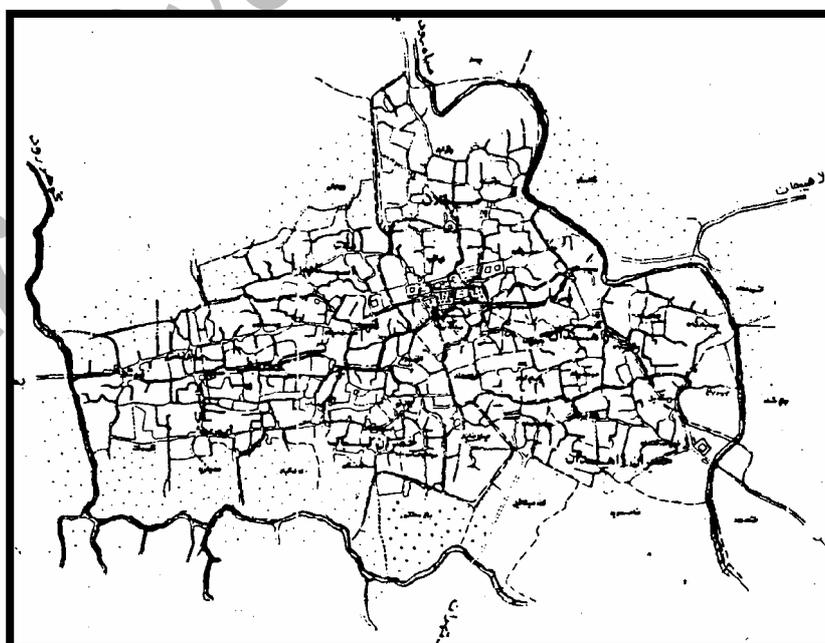
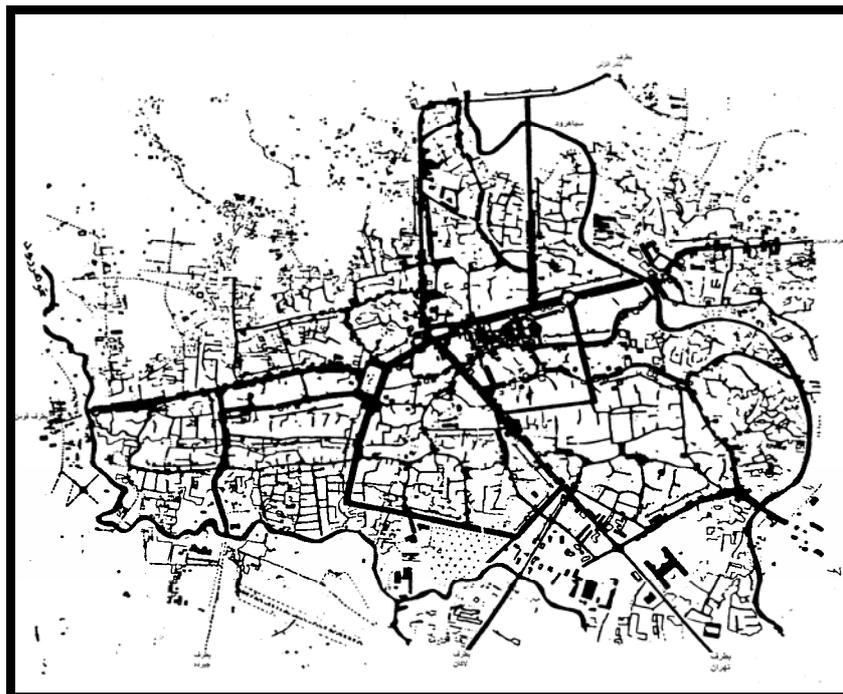
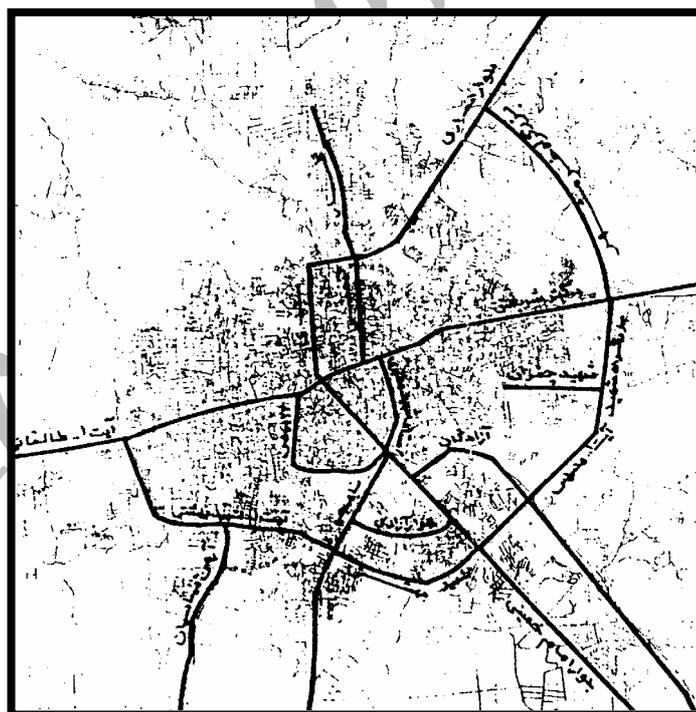


Fig. 1 Street layout in Rasht (1920)
Source: First master plan of Rasht, 1972



*Fig. 2 Street layout in Rasht before 1970
Source: First master plan of Rasht, 1972*



*Fig 3 Street layout in Rasht (1978)
Source: Department of Housing and Urban Planning , Guilan Province*

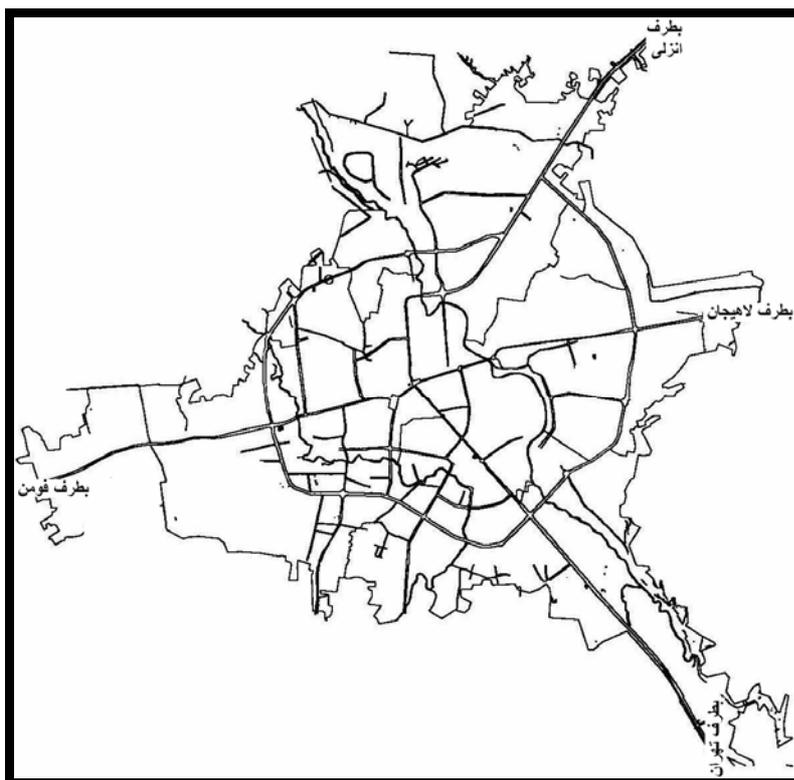


Fig 4 Street layout in Rasht (2003)

Source: Municipality of Rasht, Urban Studies' Unit,

The first master plan of Rasht in 1972 set the basic changes in its street layout and provided a radial pattern for the future development of the city (MHUD, 1972). Radiating streets from the city center in conjunction with incomplete ring roads shapes the main structure of street layout at present which gives a significant role to the city center where traditional bazaar is situated. Situation of the bazaar, as the main retail centre in the core of the city, causes a heavy congestion. To cope with this congestion is a main challenge for the local authorities. In the recent years, several secondary city centers are emerging in the city among them to mention are Golsar square, Mikaeil intersection and Gaz square. The recent gradual shift of government offices from centre and their substitution with cultural activities implies the intention of local authorities to bring tranquility to the centre. However, without serious efforts for moving economic activities to the secondary centers, overcrowding would remain intact.

Over the past three decades especially during the 1970s and 1980s, like many cities in the country a surge of rural-urban exodus has contributed to the emergence vast squatter settlements around Rasht. These unplanned settlements with disordered pathways, low quality and condensed houses and weak infrastructure constitute a major part of spatial structure in Rasht. What is transforming now is the gradual super imposition of widened streets on the present fabric which attempts to improve the accessibility across the to ease the existing growing car traffic. Widening or opening several streets in the central part of Rasht such as Motahari, Lakan, Hajiabad, Roudbari and Moallem are example which have considerably changed the street layout in Rasht over the past decades.

Housing pattern

Several changes could be observed in the housing pattern of urban areas in Iran particularly in large cities during the past two decades. The Housing type in Iranian cities was usually composed of single-story attached row houses. One major change in recent years especially in large cities is the construction of housing in multi-story patterns instead of single-story buildings. This has been mainly because of the increase in urban land price which has remarkably raised the housing cost in the last fifteen years. Housing deficiency which has accelerated housing demand and technological advancement in building construction are other factors contributing to the higher housing price. These factors have inevitably led to the construction of multi-unit and multi-story buildings. Another characteristic related to the housing pattern over the last two decades is the reduction in the size of housing units. The traditional extended families required large houses in which usually more than one family was living. For example, in 1966 the average number of families in each housing unit in Rasht was 2.15, which dropped to 1.2 in 1996 and to about 1.0 in 2003 (Azimi, 2004).

With the recent socio-economic changes in urban society and reducing the family size and formation of nuclei families, the size of the recently built houses has decreased. According to new statistics, the average size of housing units over the last decade in Rasht has decreased from 142 square meters in 1991 to about 102 Square meters in 2002 (ibid).

Another major change related to the urban morphology in Rasht during the past years is urban sprawl. A higher demand of housing and a profitable market for developers has led to a boom in housing construction especially over the past decade. The housing construction has spread all over the city and in some cases residential complexes have appeared in the outskirts of the city. During the past decade, in the City of Rasht, the number of newly erected housing has increased from 1010 units in 1992 to 12280 units in 2002, more than 12-fold of an increases. Part of the new developments has appeared in the form of residential complexes, such as Pardisan, Abrisham, Andisheh and Kakdoos within the city and Lakan complex in the periphery. As a tourist city, Rasht receives a considerable amount of housing demand from outside of the city especially from Tehran.

Land use and activities

Over the past decades in Rasht, like the other cities in Iran, there has been a change in the spatial pattern of activities. With construction of new streets around the traditional market and diversification of goods and services and also the limited space of old bazaar, part of the commercial activities was to move out of from traditional bazaar. After the construction of Shariati St. in 1935 which cut through the old bazaar, strip shops were shaped along this street and later construction of new streets around and in vicinity of traditional bazaar, attracted many retail shops. At present, streets like Motahari, Lakan, Lahijan, Imam Khomeini, Takhti, Saadi, Taleghani, Hajiabad, Golsar, Poorsina, Namjoo and Behesti Boulevard constitute the major part of commercial activities in Rasht (Fig. 5). Some of these streets are specializ for some goods and services. Like Motahari, Hajiabd and Lakan dominantly for electronic, computer products and home appliances, Saadi , Lahijan and Fouman Road for repair

shops, car sales, automobile parts and Poorsina St. and Golsar square for medical services. However, the high order goods such gold and carpet markets are mainly located in traditional Bazaar. In the past decade also there has been a tendency for out moving of some government offices to move out from central the part to new streets like Moallem St. and Razi Square; instead, cultural activities are strengthened and some private small offices are moving in to the city center.

In the first half of the 20th century, most of the factories have been built close to the city center. Over the past decades most of them have moved out of the city. At present, few old factories still function within the city but not close to the center. However, they are gradually moving out of town.

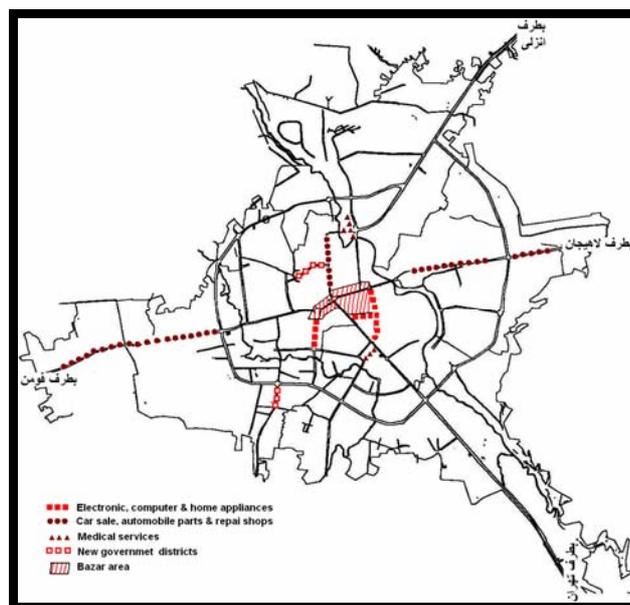


Fig 5 Streets with specialized activities in Rasht (2003)
Architectural style

One of the main morphological changes in the City of Rasht can be observed in the architectural style of the buildings. Part of this change has been inevitable regarding the technological advancement in construction technology, however, some changes in the architectural style are criticized because they are mostly considered as imported styles and have ignored the local culture and local climatic conditions (Fig.6 and Fig.7). Consequently, many buildings with visual impact on cityscape have been built with little attention to historical, cultural and environmental requirements. From economic perspective, the output has been more dependent on imported and non-local building materials and the higher cost of construction. On the other hand, in cityscape we see many different architectural styles with little harmony which could be characterized in disordered sky line, heterogeneous facades, mixed building sizes and unmatched roof. In whole, we see a negative move from a relatively harmonized cityscape towards a confused landscape. Controlling such disharmony has been the concern of both designers and urban authorities.



Fig 6 Examples of old architectural style in Rasht
Source: Ghorrooh Pajoheshgharan -e- Iran, 2001, Guilan Book



Fig 7 Examples of new architectural styles in Rasht
Source: Pictures taken by the author

Restructuring the inner city

One of the main morphological changes occurring in Rasht has been restructuring the inner city. During the past years, older residential districts around the traditional bazaar have been subject to renewal. The new administration of Tehran municipality in the early 1990s introduced a policy allowing higher density construction for developers by paying more tax which was very successful in terms of increasing revenue for the city. This policy shortly diffused to other cities across the country benefiting mainly the large cities. The policy basically permitted the property owners to construct new buildings or reconstruct old buildings denser than what the zoning regulations allowed through purchasing density rights. Shortage of land inside the cities and its higher prices encouraged developers to buy old houses and reconstruct them in multi story building. The relative improvement of economy after the war and housing shortage were the main factors for a housing boom in the past ten years in most cities. One of the most notable impacts of this housing boom was a rather wider

range of housing renewal in inner cities by developers where they could purchase old houses with lower price while they included basic services making them a good profit.

Over the past years, in the old districts of Rasht a considerable number of old buildings have been reconstructed. In most neighborhoods in inner city, especially the west and northern part of city center, the old and single story houses have been replaced with multi-units and multi-story new buildings. The renewed buildings are bringing back the attraction and vitality to the inner city as one can observe in the old districts of Rasht (Fig.8).

Despite the positive impacts of inner city renewal, two points should be mentioned for the way this reconstruction has occurred. First, many old buildings with importance of heritage are demolished by private sector; consequently the city loses its identity and historical background. Second, the outcome of reconstruction through replacing the single story houses with multi story buildings will result in a higher density districts. Knowing that, these inner city neighborhoods already lack adequate public services and open spaces like parks, schools, streets, dense construction will negatively influence the quality of life in the inner city. Therefore, the question is that how can we conserve the old buildings with heritage values through an appropriate renovation policy. Second, how can we provide adequate public services for the inner city?

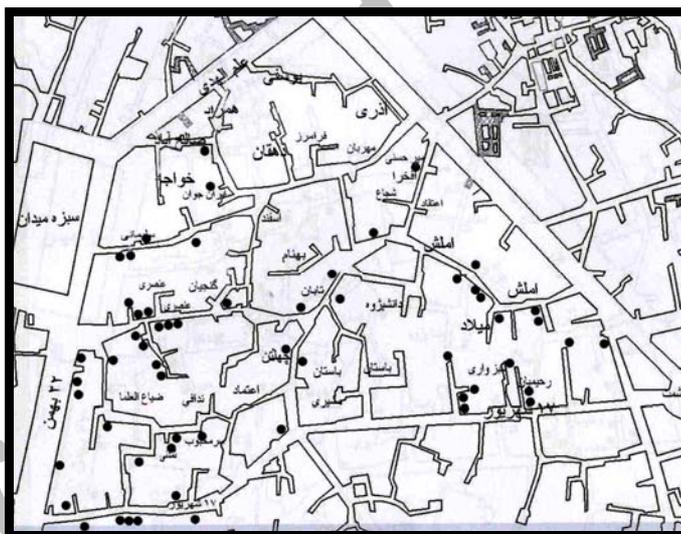


Fig. 8 The location of redeveloped buildings in Rasht in an old district, (1994- 1995)

residing in several old and rundown neighborhoods such as Sagharisazan, Zarjoob, Khahar Imam and Sookhte Tekie.

Conclusion

This paper analyzed the main changes in the morphology of Iranian cities with an emphasis on the City of Rasht. At first, the historical development of Rasht was reviewed in which the main influencing factors of the city change in the past were characterized. Then, the changes in the main elements of urban morphology such as street layout, housing pattern, architectural style, land use pattern, inner city structure and social segregation in the city of Rasht were analyzed. The main findings of this study are as follow:

- Street layout in the City of Rasht has been changing through widening or opening the new streets in the city centre. The overall transportation network is reshaped from an unplanned pattern into a radial pattern.
- Single-story houses are mostly substituted by multi-story buildings which result in the emergence of different buildings with a mix of architectural styles.
- The old architectural styles are substituted with new models as more imported (non-local) materials like iron, concrete and glass are used instead of local material like wood and different designs not much in accord with the local culture and environmental conditions.
- Because of rural-urban exodus especially during the past three decades, the City of Rasht has remarkably been spread out.
- The morphology of inner city is transformed as the renewal of old houses and their substitutions with multi story buildings is continued.
- Segregation of social groups is perpetuated through which lower income groups are pushed into the lower quality residential districts while higher income groups are gathered in better quality neighborhoods.
- Under the influence of national and global economy, the city is getting more dependent on the imported (non local) technology and building materials which results in higher living costs, loss of cultural identity and polarization of social groups.

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