Renovation and Reconstruction of Old Textures in Tehran: A Case Study of Bagher Shahr

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ABSTRACT

During the recent decades, excessive and unplanned spatial expansion of big and medium cities has caused the formation of new urban textures around cities and displacement of residents and urban uses to new area. As a result, old urban textures have gradually lost their economic-social function, leading to stagnation and erosion. Bagher Shahr region which has been selected as the case of this study has not been excluded from such a principle and it is regarded as one of the worn out textures of Iran. The purpose of the present study is to identify economic, social and environmental characteristics of the residents of Bagher Shahr as well as identifying spatial status of the old texture. This study has used field (observation, interview and questionnaire) and library methods and the obtained data has been processed in different types of software such as GIS. As the research findings revealed, lack of facilities, urban services and infrastructural installations cause the immigration of local residents to other cities, leading to negative growth rate of textures’ population during the recent years. On the other hand, due to economic-social status of the texture’s residents, renovation and reconstruction trend has been slow, leading to the increase of the texture’s erosion and destruction.

INTRODUCTION

To recognize a city and its formation history, old texture of that city should be studied; therefore, recognizing old urban texture is the first stage of any civil action (Shafaghi, 1997). Based on the Higher Council of Architecture and Urbanization’s approval, the area of old urban textures in each city are specified with respect to the indices of worn out texture. Based on this approval, worn out textures are specified through three main indices of impermeability, instability and fineness. According to the definitions, the urban blocks that more than 50% of its constructions have had an area less than 200 m² are superfine, the urban blocks that more than 50% of its constructions have had unstable with no structural system are unstable and the urban blocks that more than 50% of its passages have had a width less than 6 m are impermeable.

Renovation and reconstruction study of Bagher Shahr’s worn out texture was performed in an area about 80 hectares. In Bagher Shahr, out of 522 hectares, only 204 hectares belong to the urban constructed land and the rest is uncultivated and industrial (Shahr Sang) lands. Hence, more than 40% of the lands have been constructed in the city are placed in the area of worn out old texture.

Investigating the characteristics of the worn out texture area has revealed many complex problems of texture renovation and reconstruction such that these problems practically act as a barrier for such a process and due to the certain situation of the city and the danger of earthquake, these problems can lead to a human disaster. As the most important barriers, it can be referred to appropriative ownership of a great part of the city’s lands in which construction has been avoided or illegal construction has been appeared due to imposing high costs on the residents.

In the present paper, Bagher Shahr City and its natural-political status has been firstly introduced and then, its population, social, cultural, economic, spatial, and natural features of the urban worn out texture area have been discussed. Finally, the barriers of renovating the worn out textures of Bagher Shahr and the feasible dangers have been studied.

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The Basic Concepts:
Renovation: the process of improving a construction or space with a focus on changing the shape of the urban space or complex (Smith, 1996: 85). Renovation takes place when urban space, complex and/or construction are functionally active but spatial erosion causes to the decrease of its efficiency (Seyf-Ul-Dini, 2002: 390).

Retrofitting: a set of activities performed to improve urban space in short term (Mahdi Zade, 2001: 18). Retrofitting, in fact, takes place when relative spatial erosion has functionally become acute (Habibi et al., 2007: 47).

Worn out texture: worn out texture can be defined as the decline of social, economic and spatial status of urban texture. Generally, the decrease of each phenomenon’s efficiency is followed by its erosion. When the life of an area of a city is declined due to any reason, the urban texture of that area is placed in the trend of erosion (Rosemary, 2005: 9). In other words, worn out textures are those urban textures in which various factors and elements lead to the decrease of qualitative values (e.g. spatial, functional, environmental, economic, and social) of the environment in which human lives and with the decline of residential values, renovation is stopped and the willingness to immigration is increased in the residents (Jahanshahi, 2003: 18).

Reconstruction: it means to rebuild. Reconstruction occurs when erosion has been completely created in a construction, urban space or complex (Shamaei & Pour Ahmad, 2005: 54).

Fig. 1: The Location of Bagher Shahr Near to Tehran City.

The Natural and Political Status of Bagher Shahr:
With an area of 522.8 hectares, Bagher Shahr has been located at a little distance from southern side of Tehran Metropolis’s area. It is one of the towns of Ray City which has been under the control of region 10 of Tehran Municipality up to 1997. After 1997, Bagher Shahr’s field of shielding has been determined by establishing independent municipality. The area of this city is limited to Tehran and southern Ray (from north), Kahrizak (from south), Varamin plain (from southeast), and Behesht Zahra and the shrine of Imam Khomeini (from southwest).

Bagher Shahr has been located near to old road of Tehran-Qom which is the main axis of this region. This vital artery has caused to the spatial separation of eastern and western parts of the city.

This city is limited to Shahr-e-Ray and its neighboring agricultural lads (from north), Behesht Zahra area (from southwest), high-voltage power line and Ray Power Plant (from south), and Tehran Refinery (from east).

Fig. 2: Bagher Shahr and Its Neighboring Elements.

Population Characteristics:
Based on census of 1996, Bagher Shahr was considered as village. During 1996-2001, this village was changed into a city and regarded of urban regions of Ray City.
Based on the general censuses of 1967, Bagher Shahr had a population of 1520 people and this population has been increased to 52604 people during a forty-year period (from 1967 to 2006) with a growth rate of 9.26%. Therefore, the population of this period has become more than 34 times.

The peak of immigration to this city is related to 1976-1986 but such a growth has been decreased in the ten-year period of 1986-1996. Undoubtedly, the establishment of refinery, Ray Power Plant and Shahr Sang in this region during 1961-1978, Islamic Revolution and imposed way during 1976-1986, and the immigration of Afghans are the major causes of immigration to Bagher Shahr during the so called period. Additionally, proximity to an important population-economic center like Tehran as well as Shahr-e-Ray has been a highly important factor in the increase of population to this city.

According to the 2006 General Census of Population and Housing, the number of residential units of Bagher Shahr equals 10659 and with respect to 12480 resident families, the mean of density of family per dwelling is 1.17.

According to the information obtained from the 2006 General Census of Population and Housing and relying on statistical blocking maps of the same year, Bagher Shahr has had a population of 26549 people in its worn out texture area. Considering the population of 52604 people in the city, this area has embedded more than half of total population of Bagher Shahr.

Total number of resident families in the worn out texture area has been 6304 people such that these families form 50.5% of Bagher Shahr’s families; also, considering their population (26549 people), the average number of families in this area is 4.21 people.

According to afore mentioned regarding Bagher Shahr, about 19% of the city’s population growth during 1996-2006 has been due to the population-related effects of immigrants entered to the city. Regarding the worn out texture area of the city, based on the 2006 General Census of Population and Housing, it can be stated that 4666 immigrants have been entered into the worn out texture area during 1996-2006 such that this number of immigrants has formed about 17.5% of the population in the worn out texture (46% of the immigrants entered into the city). That is, as the half of the city’s population lives in the worn out texture, about of half of the immigrant have stayed in the worn out texture.

Given that the population living in the worn out texture has been 26549 people in 2006 and using the area of the populated area (60.99 hectares), its average gross population density has been computed 435 people per hectare. Moreover, the gross density of dwelling is 640.35 people per hectare with respect to the gross dwelling levels (41.46 hectares).

Fig. 3: The Diagram of Annual Population Growth.

Social-Cultural Characteristics:

To identify social-economic groups, it is necessary to take the history of city’s formation and growth and the investigation of various social classes’ immigration flow into consideration since various lifestyles and ethnic, income and cultural groups highly influences the way of establishing social-cultural systems of each community.

Residential Background:

Previously, the current region of Bagher Shahr was a part of the main 170 block of Bagher Abad and apparently, it belonged to an Azeri person and after the 1920s, it has been possessed by three people, namely, Mir Abd-Ul-Allah Hoseini, Mir Habib and Sadat Khamse. Before 1921, the primary core of Bagher Shahr was castle-like but it has been fully destructed. In this castle, the Bahais lived; they primarily resided in this region and sparsely lived there up to before the revolution. The second castle has been also fully destructed. But constructing Qom road (1921) and the placement of the castle at the margin of this road, the city was gradually expanded. Constructing leather making factor (1941) in the southern side of the castle caused to build the first residential units around the factory. In the 1950s, constructing some poultry units near to the Bahais’ castle led to building some residential units around the castle, casing the spatial development of the city’s primary core. Among the constructions built in these periods, it can be referred to the coffee houses at the margin of Tehran-
Qom road. Constructing factories and big industrial centers such as Tehran Refinery and Behesht Zahra in the 1960s, the population of Bagher Shahr was increased and some of the workers working at the industrial centers, particularly Sang Shahr, stayed there. Constructing Ray Power Plant caused the increase of the city’s economic power as well as population growth such that after 1974, Jafar Abad Town was formed and at the end of the decade, three formed urban cores were connected and formed Bagher Shahr. After the revolution, followed by the lack control over constructions in Tehran City’s field of shielding, Jafar Abad Town rapidly started to grow and up to 1986, this town was completely formed. Ultimately, in 1997, the main Baghr Shahr with Jafar Abad, with a population more than 45 thousand people, was recognized as an urban unit called Bagher Shahr.

**Ethnicity:**

In Bagher Shahr, there are various ethnicities (Turkish, Lorish, Kurdish, and Persian) due to different geographical origins of the immigrants. Cultural and ethnical associations are of the factors supporting immigrants of Bagher Shahr and indicate a wide range of relatives or at least friends and acquaintances.

**Social Classification:**

Just like other points near to metropolises, Bagher Shahr is mostly living place of low-income people and armature workers. In fact, most of Bagher shahr’s population is immigrants who have immigrated to this cit due to inexpensive land and dwelling compared with various points of Tehran and other village and cities. Based on 2004 sampling results, simple workers (30%), service proving employees (22%), workers in charge of machineries and assembly in productive and transportation works (0.4%), and employees (9.5%) have formed the highest percentages of occupation ratios in the city. Further, there are specialists (0.9%) and technicians (0.6%) in the so called sampling, indicating low level of specialization among caretakers.

**Characteristics of Economic Coffee Houses:**

**Investigating Ownership Patter:**

More than 60% of the city’s lands are appropriative. These appropriative lands include the lands endowed for Astan Quds Razavi (private endowment) and the lands endowed for Endowment and Charity Affairs Organization (public endowment- endowments of Firouz Kouh)

In the worn out texture area, the endowed lands, compared to the lands with private ownership, include 65% of the worn out texture area levels.

In 1996, by the approval of Astan Quds Razavi’d board of trustees, Endowments Organization of Tehran’s Astan Quds Razavi started to work to act upon reviving the endowments of Astan Quds Razavi.

These title deeds discern to sell the endowments without any legal license and comment on nullification and disreputability of the above title deed and the necessity of restituting the above mentioned lands appropriated by Astan Quds Razavi, and nullification and disreputability of the dependent title deeds such that the issued vote has been determined based on private and public civil courts and Supreme Court of Iran.

The commission has announced the article 2 of the regulation of nullifying selling water and endowed lands competitors equal with theory no 29 8 68- 308 530 and no legal license can be seen for selling endowment fund on the behalf of legal qualified referent, indicating the expediency in selling and changing endowment; therefore, the nullification and disreputability of the title deed of selling three shares out of six share of Bagher Abad’s farm (Kaboutar Khan) has been commented and in March 1999, the three share’s ownership title deed for Astan Quds Razavi has been issued and the possessors gradually refer to Endowments Organization of Tehran’s Astan Quds Razavi to regulate the rent contract.

Notably, the other three shares of Bagher Abad is the endowment of Firouz Kouh which is under the control of the Endowment Organization.

**Investigating the Status of the Main Economic Activities of the City:**

The statistics presented in this section have been obtained from the 2002 workshop census results of Iranian Statistics Center. Considering the results, mine and industry section, as the most important economic sections, have allocated a major part of economic activities in Bagher Shahr to itself such that about 67% of working units in Bagher Shahr are allocated to industrial activities.

In 1982, out of 11530 employees of Bagher Shahr, the sectors of “mine extraction” (38%) and “building” (25%) have had the highest share of employees.

Investigating the internal combination of industry and mine sector reveals that the activity of “building” sector (1137 workshop units) with 41% has allocated the highest share of active workshops to itself among the subsectors.

**Identifying Major Occupational Groups of the Residents:**

Based on the sampling performed in the worn out texture of Bagher Shahr, the exact occupational titles of caretakers (the active population) are divided into 9 main groups. Among these groups, the highest share
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belongs to service providing employees and sellers (20%). The simple workers group with the share of 18% has been placed in the second rank.

The lowest share belongs to legislator, higher officials, managers, and specialists. This result is consistent with the education level of the residents since about 75% of the residents are below diploma or illiterate. That is, two-third of these individuals is placed in low-literacy group.

Spatial Characteristics:

According to the aforementioned, the worn out textures are determined through three main indices of instability, fineness and impermeability. According to the definitions, the urban blocks that more than 50% of its constructions have had an area less than 200 m² are superfine, the urban blocks that more than 50% of its constructions have had unstable with no structural system are unstable and the urban blocks that more than 50% of its passages have had a width less than 6 m are impermeable.

Instability:

The old urban texture studies reveal that all the locks placed in the urban area have the index of instability and only about 18% of total number of old urban texture constructions has skeleton structure and the rest of them have been constructed using brick and iron and accordingly, they lack necessary resistance against earthquake.

Impermeability:

Following checked network, the main passages of the city have an almost appropriate width. However, the access passages of dead-end providing the access to residential blocks have a width below 6 m (map) such that 43.76% of total length of the passages in the worn out texture area have a width below 6 m. Such a fact causes that the access and service providing for residential units face many problems in case of any natural event such as earthquake and secondary accidents (e.g. fire, explosion, etc.).

Fineness

Bagher Shahr has a very superfine and dense texture. According to renovation and retrofitting studies of the worn out textures of Bagher Shahr, all the blocks placed in the old texture area have the index of fineness and 88% of the constructions located in the worn out texture belong to the superfine lands with the pieces area of below 200 m². Such a fact indicates the high population density in the worn out texture of this city and in case of any accident, the residents are threatened by many dangers.

Fig. 4:

Fig. 5:

Fig. 6:
Natural Characteristics:
Fault:
The main active faults located in Tehran and around Tehran can be listed as follow:
1. Mosha Fault (length of about 200 km): the major fault of central Alborz located in the north of Tehran and extended towards the north.
2. North Tehran Fault (length of about 90 km): it is the most prominent tectonic structure in the proximity of the city. This fault extends from the foot of the Alborz (about 35 km), from Kan in the west to Lashgarak in the east.
3. The Faults of South and North of Ray (length of about 20 km): these are the most prominent faults placed in the southern plains of Tehran. These faults have been scattered across both sides of Ray’s subsidence.

The fault of south Ray with a length of about 20 km has been located in the south of Tehran. This fault is extends in line with the southern side of ray’s subsidence and approximately parallel with this fault, the fault called North Ray is extended in line with the northern side of the subsidence. There a distance of 3-5 km between these two faults. It seems that the origin of both faults is the same and both of them are the branches of a single fault. Such a fact cannot be definitely claimed since there is not adequate information about them.

Notably, Kahriza Fault has been also located near to Bagher Shahr, at the southern side. Bagher Shahr has been surrounded by the southern faults of Tehran. As shown in Figure 7, The Faults of South and North of Ray have been located in the north of Bagher Shahr and Kahrizak Fault has been located in the south of Bagher Shahr.

Fig. 7: The Location of the Three Main Faults.

Seismicity:
According to many historical resources related to earthquake events during the last times, many of these earthquakes have been taken place in the southern area of Tehran City, i.e. the area of Ray.

The following table presents a list of earthquakes occurred neat to Tehran. Four earthquakes with the Richter magnitude of above 7 have been occurred during 855, 958, 1177, and 1830. During1996 to 1999, more than 1000 earthquakes have taken place in a radius of 100 km from Tehran’s center. Figure 7 shows the dispersion of earthquake center. The most of earthquakes have had Richter magnitude of less than 3.5. The micro-seismic activities have been observed around the following points:

- Southeast of Tehran
- South of Tehran, near to the Faults of South and North of Ray
- The farthest end of east of Tehran, along the Mosha Fault

Fortunately, no serious damage has been resulted by earthquake during more than 150 years. The following items which have been extracted from the book of Ambraseys and Melville (1982) describe the damages resulted by historical earthquakes:

In the year 855, a great earthquake occurred in Ray, leading to the destruction of many houses and the death of many people. In Qom and Kashan, a strong earthquake occurred, leading to some damages. The aftershocks continued for more than one month.

In the year 958, a catastrophic earthquake occurred in the central north of Iran. This shake destroyed all the villages located in Ray and Taleghan regions as well as those placed in the plain and mountain. Followed by this earthquake, a major part of Ray was totally destroyed, leading to heavy losses in both regions. After the earthquake, only 30 people survived and in Ray, 150 villages were destroyed. The damages in east-north and south were extended to Deylaman and Qom and Kashan, respectively. This shake has been probably felt in Isfahan as well as Baghdad.

In the year 1177, an earthquake destroyed many cities of Iraq along the southern ranges of Alborz to the region beyond Ray. Qazvin and Ray were of the cities destroyed by this earthquake, leading to many human
losses. The internal evidences show that the regions of Ray, eastern Bouin Zahra and the villages of Karaj were imposed the most damages.

In the year of 1665, a destructive earthquake occurred in Damavand and its suburbs.

In the year of 1830, a strong earthquake occurred in southern Mazandaran, leading to the destruction of the regions of Shemiranat and Damavand in the east of Tehran. The range of damages was extended to Jajroud such that a caravanserai was completely destroyed and many old houses were destroyed in Tehran, leading to the death of about 30 people. In Tehran, only one house did not survived. This shake damaged a number of public buildings in Amol, Sari and Damghan, leading to the closure of defiles in Haraz and Talar Roud roads. The earthquake was felt up to Baku and followed by many aftershake, leading to more damages in Shemiranar region. Due to this earthquake, people living in Tehran were highly scared and most of them resided in tents.

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Table 1: List of the Earthquakes Occurred Near to Tehran.

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Day</th>
<th>Richter (Mw)</th>
<th>Latitude (degree)</th>
<th>Longitude (degree)</th>
<th>Epicenter (Km)</th>
<th>Supposed background of ground acceleration (gal)</th>
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Richter:

In the studies of seismic microzonation project of Tehran, the earth movement due to earthquake and its intensity was computed. The scale of earthquake intensity (MMI) is based on human feeling from vibrations and damages during the earthquake.

Based on the modeling performed in these studies, the following results have been obtained:

1. The model of Ray Fault: based on this model, the southern region of the city will feel a 9-Richter earthquake and its northern region will feel an earthquake between 7 to 8 Richter.
2. The model of North Tehran Fault: the intensity of the earthquake in the northern part of the city reaches 9and in the southern part, this magnitude reaches to 7. The major part of the city will experience an 8-Richter earthquake.
3. The model of Mosha Fault: the major part of the city will experience an earthquake of 7 Richter.
4. The floating model: the major part of the city will experience an earthquake of 8 Richter and several parts will experience a 9-Richter earthquake.

Environmental Pollutions:

Urban wastewater disposal:

Bagher Shahr lacks a wastewater collecting system and currently, a part of home and industrial wastewater are disposed through absorptive wells and a part of wastewater (washing and bath) is disposed in open runways. High levels of underground waters lead to the decrease of absorptive wells’ performance, especially in rainy seasons. Disposing superficial waters in Bagher Shahr is slowly performed due to low slope of passages, causing the creation of dangerous sewage. These wastewaters are mostly directed towards the ravine of the east of the city and the southern and south-west agricultural lands.

Drinking Water:

There is one water piping network supplying the required water of the city. Water and Wastewater Organization supplies piping water through 19 rings of deep well and after treatment, drinking water is transferred to the people of the city from 2 water reservoirs located in Bagher Shahr.
Water network of Bagher Shahr is confirmed by Water and Wastewater Organization but due to lack of observing the wells’ boundary, partial treatment and sewage leakage into them, water of the wells are polluted and even after treatment, the water is not qualitatively appropriate to drink; accordingly, most of the residents are made to use water treatment equipments. The citizens of Bagher Shahr who are in low financial conditions to buy these equipments use water piping of Tehran located at the end of Felesatin Bulvar near to Niroughah Town. However, such an opportunity is not available for all the citizens of Bagher Shahr.

Due to the decline of underground waters’ level of the region supplying the required water of the city, the pollution of Bagher Shahr’s water has been even increased; water pressure loss and its water interruption. Drought, water shortage and other things such as Tehran Refinery, Tehran Wastewater, Tehran garbage disposal center, and Tehran graveyard located in these regions intensify thus situation and Water Organization of Bagher Shahr can decrease these pollutions only through using Chlorine.

Facilities and Limitations Influencing Social Development of Bagher Shahr

Facilities: in addition to the possibility of exploiting the services, due to the place of establishment and appropriate access through metro and urban highways to the city center, Bagher Shahr has been regarded as one of the satellite points of Tehran City and making use of such an opportunity and appropriate guidance of employment process and activities can be highly effective in economic and social growth of this city. Moreover, the proximity with Shah Sang, as an effective element in the north of Bagher Shahr played a deterministic role in the economy of Bagher Shahr, has provided an appropriate opportunity for additional growth of the city in the future. In fact, using occupational facilities and opportunities of Shah Sang can be highly effective in social and economic future of Bagher Shahr.

Limitation: as one of the barriers of development which has a direct effect on social development of the city, it can be referred to the fact that more than 60% of the city’s lands are of appropriative lands and the problems related to their ownership need to be solved through necessary coordination with the related institutes and particularly Astan Quds Razavi’s endowment. More than two-third of Bagher Shahr’s lands is appropriative and additionally, some parts of the southern lands of the city including Ray Power Plant to Azim Abad village and Qamsar are appropriative lands belonged to Astan Quds Razavi and Charity Affairs Organization of Firouz Kouh. Moreover, the lands related to Behesht Zahra, the greatest graveyard of Tehran Metropolis, will created some specific problems for the city development in general and social development in particular. Other issues which directly influence social development of Bagher Shahr include high immigration rate to the city, low income of the residents, and lack of official and civil institutions’ formation; regarding the latest item, social status of the residents should be promoted by forming public institutions and using the mechanisms of involving people in urban development. Also, productive-industrial workshops within the urban texture of Bagher Shahr have caused that the separation of residential space and activity space is highly disappeared, leading to a negative effect on the life quality and environmental values.

Fig. 8: Limitations and Opportunities of Development.

The Barriers of Renovating Old Urban Texture:
A High Share of Appropriative Lands, Constructions And Worn Out Texture in the City:

As mentioned earlier, in the period of Pahlavi, the lands of Bagher Shahr have been released from endowment and their ownership title deed was issued. After returning this boundary to endowment area and nullifying private title deeds, those owners who purchased these lands without knowing that the lands are appropriative did not accept to pay the tariff to Endowment Organization and claimed that they are the owner of those lands.

Currently, after passing about 15 years from announcing these lands and construction as appropriative, the owners have approximately accepted that the lands are appropriative but high tariff of endowment and particularly, the endowment of Astan Quds Razavi is a barrier for renovation by the residents.
The tariff of private endowments (Astan Quds Razavi) is higher than the tariff of public endowment such that Astan Quds Razavi computes a rent for the next 20 years while the Endowment Organization computes this rent for three to five years. Such a fact has been caused that people has no willingness to get renovation license and accordingly, the texture gets older.

People has attempted to renovate and construct strong buildings in the parts which are not in the area of appropriative lands while in the appropriative part, i.e. the old texture of the city, people show no tendency to get license.

The current area of Bagher Shahr includes an area of Jafar Abad to the old Bagher Abad. The area of the old Bagher Abad is a more rural texture compared to Bagher Abad but currently, most of Bagher Abad area has been renovated since this part is not appropriative.

Due to intense erosion of some constructions and high cost of endowments, people have been involved in a dilemma and attempted to illegally construct in spite of the strictness of the Municipality, and police. In the first and second period, the City Council followed up solving the problem of endowments but it failed. In 1997, after establishing the Municipality, the first mayor attempted to issue construction license without referring to Endowment Organization, leading to some problems for him.

Such a major barrier of renovation with low economic power of the residents which is evident from their social texture and classification, as mentioned before, has practically made it impossible to renovate the texture by the residents or implement any reconstruction and renovation plan with the participation of the residents.

**Human Disaster Due to Earthquake:**
Proximity to three important faults (the North and South Fault of Ray and Kahrizak Fault) in Tehran which have surrounded the area of Bagher Shahr from north to south, instability of Bagher Shahr’s constructions against earthquake, low width of access passages and dead-end making assistance impossible and high gross and net density of population are the factors which will lead to human disaster in this city due to earthquake.

**Danger of Social Tensions:**
Social class including low-income people, economic pressure and lack of urban services and installations are of the factors increasing the dissatisfaction among the residents. Economic disability of the people to renovate constructions, the compulsion of bearing undesirable residential conditions and intense dissatisfaction of people about ownership state of these lands can act as the deriving factors leading to social tensions.

**Secondary Dangers Due to Earthquake:**
Dangerous installations (the installations dealing with dangerous materials, mostly factories) can cause secondary dangers such as fire and explosion. Since Bagher Shahr is limited to the refinery from the north-east and Power Plant from the south, vital arteries management organizations should form crisis management systems to minimize the damage due to earthquake.

**Conclusion:**
During the last 50 years, Bagher Shahr located in the south of Tehran has been changed from a small village to a town with a population of about 54 thousand people lived in an area of about 210 hectares; accordingly, it can be stated that total population of Bagher Shahr are immigrants who have immigrated to this city during this 50-yar period.

The old texture of the city with an area about 60 hectares has embedded a population of 26549 people (i.e. the half of total population of the city).

In this area, similar to city, family dimension equals 4.2 (people) which is higher than the average family dimension in Tehran Province and total urban points of Iran. Net density of population in the old texture of Bagher Shahr equals 640 people per hectare which a high density; moreover, similar to city, the density of family per dwelling of the old texture equals about 1.17 families per dwelling.

Investigating the statistics of family’s cost-income in the area of old texture indicates that low-income people lives in the city such that about 46% of the residents have an income between about 133 dollars and 166 dollars and about 38% of the employees are simple workers and service staffs.

Worn out texture of Bagher Shahr have all three characteristics of fineness, instability and impermeability. Additionally, with respect to fact that the city has been located among three important faults of the South and North Faults of Ray, Nirth Tehran Fault and Kahrizak Fault, the importance of renovating the old texture of the city is increased since with respect to impermeability of the passages in the worn out texture, relief assistance will be difficult after earthquake.

However, with respect to the instability of all the blocks of worn out texture, total worn out texture are greatly instable against earthquake and high fineness of the parts in this texture makes direct inference of the government and/or urban management to integrate parts inevitable.
One of the important and basic problems in Bagher Shahr is the existence of appropriative lands which include about 65% of the old texture’s lands. These endowments entail the lands of Astan Quds Razavi’s endowment and Firouz Kouh Endowment.

Environmental pollutions and especially drinking water pollution and the way of disposing urban wastewater can be introduced as another problem of the city.

**Social, Economic and Environmental Recommendation:**

**Social and Environmental Recommendations:**
- Involving the residents in measuring needs (identifying problems), decision makings (presenting designs and suggestions), and supervising and implementing programs;
- Creating public formations at the level of communities to create more balance among the residents, mangers and authorities of the city;
- Coordinating inter-sectoral activities, urbane management and local institutes formed at the level of communities;
- Supplying appropriate dwelling to promote the quality of life and creating sense of peace for the family members;
- Supplying recreational places for adolescences leisure time and increasing social and local supervision on their social behavior;
- Supplying playing spaces for children and green spaces to make communities lively and reviving dynamicity and liveliness in the life;
- Presenting educational programs to improve the knowledge of life skills for the residents, especially women;
- Assigning supervisory authorities to the residents to establish security;
- Gathering non-financial helps by supporting organizations and forming social-cultural associations for adolescences
- Creating collective presence centers and social interaction among the residents to increase social unity among them;
- Covering medical services and social support for socially vulnerable;
- Creating local management institutes and developing civil participations of the residents at the community level.
- Economic Recommendations
- Uncertainty about legal ownership status of a great number of lands and estates;
- Finding solution for the problem of high share of appropriative lands;
- Forming a dwelling and urbanization committee to investigate the old textures and authorizing the mayor to issue license for the buildings included the criteria of the old texture without endowment allowance;
- Propounding this problem with the higher degree officials;
- Propounding this problem in the public session of the parliament;
- Decreasing the costs by Endowment and Charity Affairs Organization and Astan Quds Razavi for the area;
- Introducing the process of getting title deed to the applicants;
- Facilitating the process of getting title deed;
- Creating job opportunities by creating and developing the services related to outdoor activities;
- Granting facilities and encouraging discounts to encourage the residents to get title deed;
- Creating mixed and compound commercial-workshop complexes with the aim of organizing productive-workshop activities;
- Making use of acceptable economic and financial capabilities for participation to implement the design;
- Granting loan and encouraging facilities to encourage the residents to renovate;
- Presenting the pattern of inexpensive dwelling;
- Setting up collective productive workshops with the aim of job creating, especially for women;
- Training ad capacity making for labor force through holding the related educational courses;
- Creating saving boxes and local development for spatial retrofitting and supplying services at the level of the region’s communities;
- Modifying the regulations of construction appropriate with social and economic texture of the communities.

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