

Design of Social Housing in Tehran's Worn Texture Using Industrialization in Construction

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Abstract: Urban housing has been always depended on population and the tendency to take benefit of these houses has been increased over the years. Moreover, increased tendency for urbanization in metropolises, especially Tehran has led to increased demand for affordable housing. Accordingly, over the years, some projects have been switched over the years in Iran under the title of Mehr Housing with the aim of providing house for low-income classes in majority of Iranian cities and have been developed rapidly. Although, the construction of these projects had fast process at the first and the demand for these houses was increasing day by day, it lasted no long time that because of undesirable quality of architecture in these projects, their popularity was decreased rapidly. Lack of stability of textures and lack of harmony of housing design with desirable architecture intense insufficiency of facilities, weakness of planning and lack of suitable infrastructures and many other undesirable conditions of architectural design in these projects could be the main problems with those projects. Construction of affordable houses in the cities instead of marginal areas is another option without problems of projects such as Mehr Housing. In fact, social housing is an option against Mmehr Housing and the most important difference between them is location of these houses inside the limit of cities, especially, worn textures. Interference in old urban textures across the different countries of the world has a history of several hundred years. In Iran because of existence of cities with old texture, this action is being taken in modern form since, a few decades ago. Till now, across the world and in Iran, various models and methods are used for purpose of influence in urban worn textures. Decline of qualitative indices in urban spaces of worn textures is one of the main problems with these urban areas and as urban spaces show the peak of location manifestation of urban life and presence of citizens, the mutual effect of decline of quality of urban spaces on decline of quality of urban life could clear depth and dimensions of the problem in worn textures on the other hand, the best way to construct affordable houses is use of industrial methods instead of traditional methods. The main objective of this study is to provide an approach to design social houses in worn textures (no-historical textures) of Tehran using precast systems (with the capability of production in Iran) at the first, the qualitative concepts of housing are explained and then, a history of construction of affordable houses at the world and in Iran is introduced. Afterwards, the importance of housing industrialization and introduction of precast system with the implementation capability in Iran is discussed. At the end, the studied area is introduced.

Key words: Urban housing, affordable, social housing, worn texture, precast systems, studied

INTRODUCTION

After the industrial revolution, the urbanization process was developed at the world increasingly and following that, abundant problems such as lack of housing were created. In fact, housing as a real phenomenon is one of the first issues (Habibi *et al.*, 1994) in which human has been always involved and has always thought about changing it and finding good, reasonable and thoughtful solution for that (Bagherian, 2010). Hence, at the different countries of the world, especially developing countries, various policies have been provided to provide housing and especially social

housing for low-income classes. Social housing or public housing refers to a special type of housing which is designed and constructed basically by the government or local sectors and with the aim of providing houses for low-income social classes (Bentley, 1987).

Mass housing was created after the World War II at the world communities. Gerald P. Daly has conducted an article under the title of "Planning Problems in Public Housing after World War II" and has provided a comparative study between America and Europe and has investigated the position of mass housing and has claimed that clearly, the concept of "adequate shelter" is depended on the cultural framework of people

(Pourdehimi, 2012). The definitions and expectations vary from one region to another and they would be also changed in same region over the time and the fundamental importance of social planning is correlated to consideration of users. Elsewhere, the discussion is on the position of mass housing models in the insight of industrial development and housing in accordance with it and the tendency for globalization has been considered as the requirement of the growth. From now, on housing had a certain definition and the interior space should be able to meet the needs of single-family households. Accordingly Kand and Soltanpanah (2011), the interior space of house was basically designed for a standard consumer with certain social behavior, psychology and certain purchase power. After this issue, the crisis of industrial development and promotion of these models was intensified (Steven, 2000).

Mass housing in countries of the world has led to some outcomes over the years and the phenomenon has been observed in architecture and urbanization for different reasons. The creation of demand to meet housing need could be considered under the title of end of useful lifetime of buildings, necessity of replacement of unstable and healthy buildings, changes in living style and the attitude to housing as a kind of economic investment. Housing as one of the fundamental human needs has its own position in all projects and architectural plans, urban design, economics, politics and culture and technology and each of these fields consider it in a special manner (Jamalpour, 2008).

Literature review: Since, the second half of 19th century, the interference in physical texture of cities has been taken in two different forms. On one hand, UK has codified some regulations to solve some problems with crowded old centers of industrial cities. On the other hand, France has taken wide range deformations through the Mayor of Paris (Baron Housman) and has emphasized the problems caused by the disorganizations of executive facilities and unprecedented decision making processes of the city (Chapman, 2007).

The renovation trends in the West have been progressed along with urban evolutions and their evolutions, so that, in 21st century and as a result of urgent actions, the qualitative functional-physical issues of cities were considered. The said actions emerged based on the common and accepted theories of that time show mainly 4 types of policy making in renovation of urban life: emphasizing physical properties and the artificial environment (Habibi and Maghsoudi, 2007) renovation of neighborhoods with emphasis on social issues (1960-1970), rehabilitation of worn textures in all economic,

physical, social and cultural dimensions in frame of comprehensive methods of urban renewal (1970-1990), emphasizing cultural and artistic aspects in creating vital, dynamic and attractive urban environments (from 1990 to the date). In Iran, after rapid and unstudied interferences in majority of old and worn textures in early recent century, some experiences were executed gradually in organization of old textures. The method and the way of interference and encountering worn textures have been different in different times and places. According to the evidences, it could be found that till before 1921, urban renovation measures used to be taken organically and by people and in accordance with the geographical condition in balanced form. In other words studied the Habibi and Maghsoudi (2002) humanistic urbanization has been dominant. The renovation process of urban centers in different historical periods have shown different models of urban operations and renewal of old textures (early interferences in urban textures and construction of crossed streets in the Era of Reza Shah) to the large scale renovation (1941-1978) and renovation patterns after Islamic Revolution (1978 to the date). Analysis of new policies of renovation of worn textures in Iran shows following a delay of left models in decades of 1940-1970 at Western countries in the urban development plans. However, with more interference of public systems in destruction of urban centers and inattentiveness to social and economic conditions of residents of central neighborhoods of cities have finally led to forced occupation of properties of citizens and increased resistance of the local residents and has created serious problems with the renovation process of urban centers (Habibi *et al.*, 2007).

MATERIALS AND METHODS

In terms of purpose, this study is an applied study and in terms of method, as the study is focused on the effect of a factor on human life, it is a qualitative research. Moreover, this study is focused on the present time and the qualitative method is used in this research. Theoretical framework of the research is also obtained using documentary method and through library investigations.

RESULTS AND DISCUSSION

Data analysis

Introducing and analysis of project site (Design and Architectural Consulting Engineers): Research area features: According to the investigations done in different fields in the first step of studies of regional issues, the main characteristics and features of the research area could be presented based on different fields of research in summary as follows:

Table 1: Land use in district 10

Codes	Use	Area	Percentage	Per capita land	Area	Percentage	Per capital land
1	Residential	4610440	57.1	16.3	4610440	57.1	16.3
2	Commercial	375774	4.7	1.3	-	-	-
3	Educational	152642	1.9	0.5	-	-	-
4	Higher education	228	0.0	0.0	-	-	-
5	Religious	38653	0.5	0.1	-	-	-
6	Cultural	72003	0.9	0.3	-	-	-
7	Health	60421	0.7	0.2	-	-	-
8	Medical	34708	0.4	0.1	-	-	-
9	Administrative	68561	0.3	0.2	-	-	-
10	Green space	143166	1.8	0.5	1425109	17.7	5.1
11	Industries	85792	1.1	0.3	-	-	-
12	Urban facilities	86396	1.1	0.3	-	-	-
13	Transport and warehouse	117443	1.5	0.4	-	-	-
14	Social services	3320	0.0	0.0	-	-	-
15	Recreational	46020	0.6	0.2	-	-	-
16	Sport	19971	0.2	0.1	-	-	-
17	Other and abandoned	61484	0.8	0.2	-	-	-
18	Dry land	12704	0.2	0.0	-	-	-
19	Garden	45816	0.6	0.2	-	-	-
20	Passages	2036234	25.2	7.2	2036234	25.2	7.2
Total area of the district		3071783	100.0	28.6	-	-	-

Land use: District 10 of Tehran ended to Azadi Street from North, to Navab Highway from East, to Qazvin Street from South and ended to Shahidan and Hormozan Street and Padejan Jay from West has an area equal to 807 ha and is the smallest district in terms of area (district 17 with area of 827 ha is in next position). Through an overview on this region even before identification and analysis of land use status, it could be observed that the major land use in this area is residential use and rarely other land uses, except for residential land use, could be observe din the district. Land use studies also confirm this issue.

The full dominance of residential land use possessed 57% of region and accumulation of uses with trnsregional scale in the borders of the district and in adjacency of Azadi, Qazvin and Navab axes could be observed on the map.

Out of the area of 807 ha of the district, 91 ha or 57% of the regional area is formed of residential use. The compressed texture with very small pieces of land in this district has occupied considerable part of the district. An area equal to 2003 ha or 25% of the district is possessed to passages and access points. Other remained parts of the region equal to 142 ha or 18% is allocated to other uses such as green space and services and industries and workshops. Table 1 has presented the distribution of regional area for the main and partial uses.

Intense shortcomings of urban services and per capital uses of green space, health and medical uses, sport and cultural uses show in general 150 ha shortage for the population of 300.000 people (Table 2).

Compressed and dense residential textures: All indices of housing status in the district show formation of a very compressed and dense residential texture almost in all

Table 2: Shortage of the main urban services in district 10

Use	Available area (ha)	Existing per capita (m ²) (population of 1996)	Desired per capita (m ²) (new comprehensive plan)	Shortage (ha)
Educational	34	0.5	1.74	34
Cultural	7	0.3	0.13	-
Health and medical	9	0.3	0.69	9
Green space	14	0.5	3.65	89
Sport	2	0.1	0.71	18
Total	66	1.7	6.92	150

points of the district. District 10 beginning its growth and extension since, 1951's decade in adjacency of Tehran has the most compressed and dense residential texture in Tehran after district 17. Small sectioning of lands (53% of residential sections <100 m²) and inadequate accesses to the sections could be the features of this residential texture. If the intensity of destruction and renewal over the years in this region is considered, the problems with the situation could be cleared. Trend for construction has made the district go out of the immigrant sending status over the past decade and increase its population.

Development perspective of the district: According to dominant residential function of the district, the most important factor to preserve and promote the quality of urban life in the district is the way of growth and distribution of population and the fluctuations of the district over the time. Any kind of required change in the existing process could be resulted from the necessity. The population of the district has reached from 282.000 people in 1996-307.000 people in 2002. Continuing the process of construction with no measure to supply the services and urban spaces required by citizens could worsen the quality of residence in the district.

The residential permissions issued in the district show that the portion of construction in district 10 has been increased compared to all permissions issued in Tehran after the Act of 329 in 2000 and has reached to 2-3 times of the permissions issued in last years in the district and about 6% of total number of permissions issued in Tehran. As about 95% of the permissions are residential and almost all residential permissions are issued for destruction and renewal, the region has no new residential development and its construction happens in the limit of exiting residential area and in form of renovation. In general, during 1996-2001, permissions are issued for 5868 residential units and more than 29.000 residential units with area about 2 million m². Due to destruction of about 8570 residential units in the desired sections (1.46 units per section), 17133 units or about 28% of residential areas are added to the residential area of the district during 6 years.

According to land use studies and with comparison of per capital urban services under existing conditions and per capita presented in the new comprehensive plan of Tehran (organization, about 150 ha lands should be allocated currently to provide urban services, healthcare services, green space and sports. According to the area of 800 ha of the district, it could be specified adequately that providing such space is very difficult if it is not impossible and could be impossible unless with use of macro policies and evolution in the process of construction.

Proposed zoning: The proposed zoning of the district encompasses the zoning features of existing status is resulted from goals of regional development strategies and it has been tried to determine some zones for policy making and conducting the construction of physical evolutions of the district in accordance with these goals. The most important zones selected in the proposed zoning are similar to the existing zones although, they have different subsets to determine special regulations. The zones are as follows:

Residential zone including (R):

- Residential zone with small separated texture (R1)
- Residential zone with large separated texture (R2)
- Residential zone of small complex (R3-1)
- Residential zone of persuasive small complex (R3-2)
- Residential zone of large complex (R4)
- Special residential zone (RK)

Commercial-service zone including (C):

- Regional scale commercial-service zone (C1)
- Regional and larger scale commercial-service zone (C2)

- Workshop-manufacturing zone (M)
- Particular zone (P)
- Protective-historical zone (H)

Hence, in the proposed zoning, 5 types of main zones are practically identified and the features of each of them are presented in the following study. In this study, all regulations of construction and uses in each said zones are mentioned.

According to the residential complex if Navab in adjacency of Navab Highway in East of the district and lack of link between the complex and its adjacent texture and also due to necessity of renovation and accumulation of residential lands caused by regional renovation strategies, the complex residential zone is predicted in continuing Navab project. Moreover, in commercial service zone and beyond that in Rudaki axis and after that in Malek Ashtar Axis and Komeil axis, construction of residential complexes is offered. The commercial-service zone, at which mixed residential-service uses could be formed, could have complex construction pattern. Practically, Komeil axis links the Navab Highway to Yadegar Emam Highway and could be one of the most important service-residential axes in future of the district.

The proposed zoning of the district has been taken based on the detailed map in terms of road network, along with reforming suggestion in field of the main passages and roads network. Hence, the image obtained from land use zoning in future could encompass the style of links and main passages network.

Except for commercial-service zone in adjacency of Azadi Street and the proposed zone of Rudaki and Malek Ashtar axis, the main part of commercial-service zones act as local access points. These zones are also available in the existing status and the aim by that is organizing and conducting the activities in these fields in future. A part of Hashemi Street, Beryanak St. and adjacency of Komeil Street could be among these zones (Habibi and Maghsoudi, 2002, 2007).

With the construction of Yadegar Emam Highway and its passage throughout Padegan Jay in district 9 and its link to Imam Khomeini Street and Komeil, a big junction could be created around the 30 Metri Jay Street with the capacity of being changed into an important commercial-service zone with mixed residential complexes. Hence, one of the commercial-service zones is predicted on this point.

With the organization of main passage network in South part of the district, considerable part of this area is allocated to separate residential zone and a small part of that is allocated to complex residential zone.

Determining the limit of worn texture and renovation and improvement strategies: Determining limit of urban worn textures is important at least from two perspectives: first, worn texture of Tehran (mainly made of heavy materials) could be a threat to safety of Tehran as one feature of healthy city, since, it could cause probability of heavy earthquake, necessity of making policies and renovation measures, retrofitting and rehabilitation of worn textures as one of the most important tools to reduce vulnerability of Tehran City (Habibi, 2006).

Second, fine-grained nature of worn textures and lack of open space, low permeability, problems caused by supplying urban services and other issues could be solved through cleaning the urban worn textures and in parallel, they could facilitate the possibility of accumulation of lands, modification of road networks, renovation of urban infrastructures and allocation of space to lack of urban services. In other words, the interference conditions and realization of basic detailed plans could be possible in urban worn textures through this.

The investigations have shown that the district 10, due to its gradual formation in 1951's decade and the antiquity of its residential texture and neighborhoods, could be one of the most vulnerable regions of Tehran. In this region, about 66% of blocks have more than 60% low-resistance buildings and on the other hand, more than 51% of the properties and buildings in this district have area below 100 m². The local passages of this district are low in width and have a width below 6 m. Therefore, making strategies and policies focused on reduction and elimination of worn textures and the surrounding areas could be the necessities of urban development of the district. In this study, the criteria to identify worn textures and their features are discussed in details (Zabihi *et al.*, 2011).

Identification and classification of limit of worn texture of district 10: In order to identify worn texture of district 10, the criteria inserted in instructions of planning institute of Tehran are used and the information is used to classify the regional space in which there are zones with high degree of deterioration and intense exhaustion to zones with relatively less exhaustion. Each of the said zones has certain time condition and priority to overcome and reduce the urban exhaustion and worn out which could be considered in frame of renovation projects, improvement projects and the land accumulation policies. In next section, the features of zones and applied criteria are explained (Rahnama, 2008; Schoenover, 2010).

Identification of blocks with more than 90% of low-resistance buildings: In this study with attachment of

audit information of step 4 to the existing maps applied by consultant engineers in GIS environment, the blocks with more than 60% of buildings with low-resistance skeleton are identified. Out of the total number of blocks in the district (about 1111 blocks), about 746 blocks (67%) had above mentioned conditions. Distribution of these blocks is in such way that except for the North of the district (the limit of North of Toosi Street and some part of Eastern areas), it has covered whole district. The wide area includes considerable number of buildings with low-resistance skeleton (40644 buildings with low-resistance skeleton equal to 85% of total area of the district). The population density of the said area is equal to 506 people per hectare and the index is equal to 452 people per ha for the total area. The area of block with mentioned features is equal to 406 ha encompassing 66% of blocks in the district. The integrated desired area to take the planning interferences with calculation of passages could be an area about 691 ha equal to 85.9% of total area of district. Average area in these blocks is estimated about 120 m² (Shamaei and Pourahmad, 2005, 2006).

Identification of urban blocks with 60% of buildings with area below 100 m²: Another criterion to identify the urban worn out texture is small pieces of buildings. The urban texture is created sometimes as a result of authorized or unauthorized construction of buildings or they are urban textures constructed without preparation projects of segmentation and another group is related to the self-created textures and informal residence mostly in margin of cities. Small size of the sections in addition to compression of texture and enhancement of population density, could make problem with creation of urban facilities and supplying services for these textures.

The investigations have shown that in district 10, there are about 462 urban blocks with more than 60% of buildings with area below 100 m² and they have possessed 41% of all blocks of the district and this could show extension of these buildings in the district. The area of these blocks is about 187 ha encompassing about 31% of area of district blocks. Average size of sections in these blocks is equal to 90 m².

The distribution of this type of blocks is mainly ended to Imam Khomeini Street in West and the distance between Toosi and Mortazavi Streets from North and South and West of Jeyhoon Street and in South of the district in downstream of Komeil Street along Nahr Firoozabadi, Beryanak Neighborhood, Haft Chenar along Golestani Street. In these blocks, 13999 sections with area below 100 m² are built.

Identification of the limit of urban areas with passages with width below 6 m: The findings of the project show

Table 3: Information of worn texture

Type of worn	No. of blocks	No. of total blocks	Blocks below 100 m ²	Average area of block (m ²)
1 (low-resistant skeleton)	746	33895	19290	120
2 (low-resistant skeleton)+small blocks	378	17327	12984	100
3 (low-resistant skeleton)+small blocks+(low-width passages)	331	15818	11757	1011

Table 4: Information of worn texture of the studied area (continuing)

Worn type	Population	Population density	Residential unit	KB unit	No. of Low-resistant blocks	Area of low-resistant blocks(ha)	No. of semi-resistance blocks	No. of resistant blocks
1 (low-resistant skeleton)	205637	506	43886	11130	40644	345	1135	13542
2 (low-resistant skeleton)+small blocks	103992	598	21581	3773	22423	166	422	6743
3 (low-resistant skeleton)+small blocks+(low-width passages)	93937	587	19729	3340	20361	150	379	6149

that passages with width below 6 m have been distributed in relatively uniform mode in whole area and the passages have caused many problems for the residents because of low width, lack of following certain geometric form and with unroofed raceways. Regardless of health problems of passages, low coefficient of safety of blocks because of low permeability could be one of the main problems changing the residential textures of the district into one of the most vulnerable districts of tehran against unexpected accidents, especially earthquake (Shamaei and Pourahmad, 2005; Schoenover, 2010).

In regard with identification of blocks with 9 m passages, those blocks limited to 6 m passages from surrounding area or with various low-width passages are selected as the passages interfered in the block.

The limit of maximum distribution of such passages is about 700 ha (87% of total area of the district) which could cover whole district except for insignificant area in Northwest of the district and several small study.

Classification of worn out texture of district 10: In order to determine the intensity of worn out texture and prioritization of implementing renovation plans and improvement of worn out textures the criteria mentioned previously are combined and the classification for the worn blocks is presented as follows.

Worn out texture type 1: Low-resistance buildings play key role as the most important feature of worn textures to determine and identify worn urban textures and could be used as the early context for detection of worn textures. The criterion applied introducing the worn texture as it was explained before, refers to the blocks with area of more than 90% buildings with low-durability skeleton. Among 746 blocks with such conditions, 40644 buildings with area of 345.5 ha are low-resistance buildings, 1135 buildings out of 746 blocks have semi-resistant skeleton and 1352 buildings have high-resistance skeleton forming respectively 73, 2 and 25% of the area of said region. More information about the features of the worn out zone is presented in Table 3 and 4.

Table 5: The existing uses in worn texture

Land use	No. of uses	Percent of total area	Area (m ²)
Residential	19553	87.17	1872459
Commercial-residential	1391	6.20	169092
Residential and other	632	2.82	86319
Commercial	230	1.03	84831
Other	181	0.81	23025
Non-residential and others	141	0.63	29033
Educational	55	0.25	76509
Urban facilities	49	0.22	18621
Green space	41	0.18	98775
Religious	41	0.17	23171
Industries	16	0.13	12121
Administrative	16	0.07	4434
Transport and warehouse	15	0.07	16730
Medical	13	0.06	1773
Administrative-residential	12	0.05	1544
Garden	10	0.04	39729
Tourism and hostage	8	0.04	1002
Cultural	8	0.04	22511
Sport	7	0.03	14907
Recreational	3	0.01	251
Total	22432	100.00	2595938

Worn texture type 2: This type of worn texture is a combination of two criteria of building skeleton and fine-grained nature of texture. The area occupied by this type of worn texture is less than type 1 and it covers an area about 174 ha equal to 28% of total blocks of the district. This type of worn textures is observed in 378 blocks. The population in detected blocks is equal to 598 people per ha which is relatively high compared to the population of the district (380 people per ha).

Analysis of the skeleton of the buildings located in this urban worn texture shows that about 22423 buildings are low-resistant (20% of total number of buildings), 422 buildings are semi-resistant and 6743 buildings are resistant and cover respectively 75, 1.5 and 23.5% of the district. Moreover, in this type of worn texture, 12984 buildings have area below 100 m² covering about 56% of total area of buildings of the district with area below 100 m.

The integrated studied region for renovation and improvement measures or similar measures is recommended to 2 ha which is observable in report maps.

Worn texture type 3: The worn texture type 3 is the overlapped area of type 2 with texture with passages with area below 9 m and this type of worn texture is the most intense type of worn texture due to use of 3 criteria of low-resistance skeleton, fine-grained nature and low-width passages. In fact, the said zone is considered as the urgent action area and needs making policies focused on renovation and accumulation of lands which needs executive organization, financial and investment institutes and codification of plans, special projects and special public participation.

In district 10, 3 relatively centralized zones were identified with area of 160 ha of type 3 which were different in terms of location and distribution. The first zone is located in West of the district and North of Komeil Street. Second zone is located in South of the district and third zone is small area in the center of district. The zones are different in terms of properties and information. Table 5 the 3 zones have area of 332 ha in an integrated designed area.

CONCLUSION

So, far at the countries across the world and in national level of Iran, various models and approaches have been used to interfere in urban worn out textures. Decline of qualitative branches in urban spaces of worn out textures is one of the main problems in which the urban zones are involved. As urban spaces could show the peak of location manifestation of urban life and presence of citizens, the mutual effect of decline of quality of urban spaces on decline of quality urban life could clear the depth of the problem in the worn textures. On the other hand, the best way to construct affordable houses is using industrial methods instead of traditional construction methods. The main objective of this study has been providing a solution to design social housing in worn textures (non-historical textures) of Tehran using precast systems (with the capability of being produced in Iran) and this objective could be achieved with the explanations provided in this research.

REFERENCES

Bagherian, M., 2010. Recognition of renovation ability in mid-medium textures based on the characteristics of society and space, case study: Neighborhood 19 from Tehran's 17th district. *J. Res. Hum. Geogr.*, 73: 141-156.

Bentley, J., 1987. *Responsive Environments*. 2nd Edn., Iran University of Science and Technology, Tehran, Iran,.

Chapman, D., 2007. *Creation of Neighborhoods and Places in the Manmade Environment*. Tehran University Press, Tehran, Iran,.

Habibi, A.Z., M. Seyyed, F.K. Khavar and A.A. Nia, 1994. *Affordable Housing*. Road, Housing and Development Research Center, Tehran, Iran,.

Habibi, K., 2006. *Physical development and preservation of modernization and rehabilitation of urban worn textures*. Ph.D Thesis, Tehran University, Tehran, Iran.

Habibi, K., A. Meshkini and A. Poorahmad, 2007. *Improvement and Modernization of Worn Urban Textures*. Kurdistan University Press, Erbil, Iraqi Kurdistan,.

Habibi, S.M. and M. Maghsoudi, 2002. *Urban Restoration*. 1st Edn., Tehran University, Tehran, Iran,.

Habibi, S.M. and M. Maghsoudi, 2007. *Urban Restoration*. Tehran University Press, Tehran, Iran,.

Jamalpour, B., 2008. *A way to plan ancient urban textures*. Master Thesis, University of Tehran, Tehran, Iran.

Kand, T. and A. Soltanpanah, 2011. *Evaluation of the Reasons for not use of Modern Construction Technologies in Modernizing the Worn out Texture of Tehran City: Urban Management*. Hurst Publisher, London, England,.

Pourdehimi, S., 2012. *City of Housing and Collections*. Armanshahr Publications, Tehran, Iran,.

Rahnama, M., 2008. *The Effects of Implementation of Mashhad City Center Improvement and Renovation Project on Down Town: Geography and Development*. Hurst Publishers, London, England,.

Schoenover, N., 2010. *Housing, Suburbs and Cities* (Translated by Sh Pourdehimi). Rozaneh Press, Tehran, Iran,.

Shamaei, A. and A. Pourahmad, 2005. *Urban Improvement and Modernization from the Point of View of Geography*. Tehran University Press, Tehran, Iran,.

Shamaei, A. and A. Pourahmad, 2006. *Urban Improvement and Renewal from the Point of View of Geography*. Tehran University Press, Tehran, Iran,.

Steven, T., 2000. *Re-Evaluation of the Quality of the City's Historic Neighborhoods: The Pasteurso Area, Albany, New York* (Translated by H. Farsi). Hoviat-e-Shahr Publishing, Tehran, Iran,.

Zabihi, H., F. Habib and M. Rahbari, 2011. *The Relationship between Satisfaction of Residential Complexes and the Impact of Residential Complexes on Human Relations (Case Study of several Residential Complexes in Tehran)*. Hoviat-e-Shahr Publishing, Tehran, Iran,.