

Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran

Elham Zadbagher-Seighalani¹, Mohammad Hasan Rafi¹, Ahmad Reza Akbari¹, Maryam Yousefian², Saeid Yaghoubzadeh³, Saeid Eslamian⁴, Kaveh Ostad-Ali-Askari^{5*}, Vijay P. Singh⁶, Nicolas R. Dalezios⁷

¹Municipality of Gaz-Borkhar, Goz Borkhar, Isfahan, Iran

²Department of Urban Engineering, Sheikh-Behai University, Isfahan, Iran

³Department of Natural Resources, Goz Borkhar, Isfahan, Iran

⁴Department of Water Engineering, Isfahan University of Technology, Isfahan, Iran.

^{5*}Department of Civil Engineering, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran.

⁶Department of Biological and Agricultural Engineering & Zachry Department of Civil Engineering, Texas A and M University, 321 Scoates Hall, 2117 TAMU, College Station, Texas 77843-2117, U.S.A.

⁷Laboratory of Hydrology, Department of Civil Engineering, University of Thessaly, Volos, Greece & Department of Natural Resources Development and Agricultural Engineering, Agricultural University of Athens, Athens, Greece.

***Corresponding Author:** Dr. Kaveh Ostad-Ali-Askari, Department of Civil Engineering, Isfahan (Khorasgan) Branch, Islamic Azad University, Isfahan, Iran. Emails: Koa.askari@khuif.ac.ir , Kaveh.oaa2000@gmail.com

ABSTRACT

Protection, optimization and revitalization of old textures in historical cities which are the main cores of those cities are inevitable. These old textures have undergone corrosion due to inappropriate maintenance and ignorance. There are ruptures in these textures. The current study is aimed to investigate potentials and factors affecting identity of historical city of Gaz-E Borkhar-Isfahan which have undergone corrosion due to ignorance. Some recommendations are proposed here to revitalize these textures. This study is of descriptive-analytical type which has been conducted in a way that data have been collected based on desk study and then data analysis has been performed. Results have shown that the old textures of the mentioned city are the primary component of the identity of Gaz-E Bokhowar. Consequently, these textures are demanding for special attention. Additionally, to resolve the mentioned problems, some alternatives have been proposed in order to promote environmental qualities, to increase spatial attractions, to maintain historical identity of the city and to provide better services for habitants.

Keywords: City identity, old texture, organization, Gaz-E Bokhowar

INTRODUCTION

As for those city which have undergone civilization but no employment of urbanization has occurred in there, civilization-related problems increase the need for optimization alternatives in order to serve habitants. However, the problem of old texture adversely affects the lifestyle of habitants. The main reason for polarization within cities is the existence of old textures which can be a great threat for lives of habitants due to economic, social and physical problems. Despite the given problems, in the majority of cases, these old textures are representatives of

history and civilization of a given nation. Accordingly, ignorance of these old textures may be an equivalence for ignorance of city identity. Gaz-E Bokhowar has a history of thousands of years which includes multiple old buildings within itself as the core of its identity. Actually, these old buildings are manifestations of historical identity of that city. However, problems the city face really needs to be managed and resolved. The main point is to find useful ways of organization, optimization and revitalization of old textures in order to improve the life quality of habitants and to increase their satisfaction to the appearance of the city in

Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran

terms of physical and psychological dimensions. Corrosion is one of the most important problems related to city environment. It may lead to chaos, unbalanced environment, inappropriateness, and ugly appearance. Corrosion can wash away collective memories and deteriorate city life. It approaches an end point slowly. Old textures are laden with history of the city. They are the place in which historical monuments are located. So, they are responsible for reminding history and culture of a nation [1]. All in all, to study the old textures, three parameters have to be taken into

account: age of the building, grading and typology of material.

Over 80% of old-textured buildings are beyond 50 years old. Even if they are younger, they have been built inappropriately ignoring construction standards. Old-textured residential buildings are of small-sized grain and of the area less than 200 m². The used materials are adobe, brick, wood, or iron which have been embedded ignoring vertical or horizontal links and structure system. Different types of interventions are given in table 1.

Table1. The extent of corrosion in city environment and the intervention method

scale	Stay time	Intervention	Corrosion type	Extent of corrosion
Alley	Short term (0-5 years)	Renovation	Operational	Relative corrosion
Neighborhood	Medium term (5-10 years)	Renovation	Physical	Relative corrosion
City of a part of city	Long term (10-20 years)	Reconstruction	Operational and physical	Complete corrosion

Organization is a comprehensive concept which includes all procedures and concepts related to optimization, renovation, re-construction and maintenance. The word “organization” can refer to optimized usage of all facilities while maintaining the city texture. City organization based on neighborhood or region scale is attempting to resolve the city problems with the least costs and destruction. To this end, city organization tries to manage and navigate development and employment. At the very beginning, problems are to be recognized to provide an applicable plan based on the existing facilities. Spatial organization aiming at old textures means to organize these textures in order to provide an appropriate environment for habitants to live in. so, the mentioned environment has to be able to meet daily needs of community in order to help habitants meet their ends [3]. As a social, humanistic, physical, cultural, economic, and political, city has its own identity. On the other hand, identity is a characteristic to discriminate

city from city or to discriminate neighborhood from neighborhood. A city is assumed to have identity only when it has well-organized characteristics including construction orders. Additionally, all people have to play their collective and personal role in an appropriate fashion. City identity is referred to creation of environments matched with high technologies and laden with spiritual resources which diversify the city to make links between environment and humans. In these environments, aesthetics and alacrity of an identity-oriented city may be obvious [4]. The under-study area is of 84 acres’ area located in the central part of Gaz-E Borkhar-Isfahan. It is a part of Haji and Aqa Sharif neighborhoods which are the cores of Gaz-E Borkhar-Isfahan. This region is of primary importance due to the sizable number of sacred tombs including Shah Nematollah, Ab-Ol Foqara and especially Gaz mosque. These historical places have richened the mentioned region culturally.

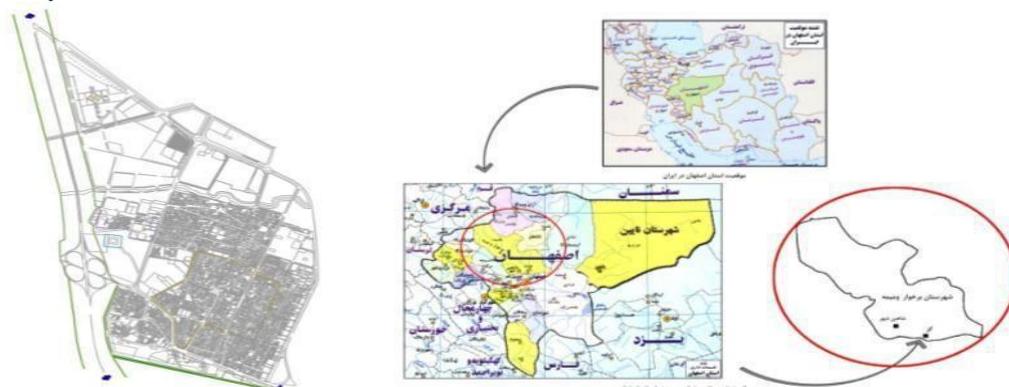


Figure1. Position of Gaz and its old-textured neighborhoods

Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran

According to the fact that old textured-neighborhoods of Gaz formed in different historical eras, various historical buildings and monuments can be found there. On the other hand, according to figure 2 Abbasi Caravanserai and Shah Nematollah tomb are located in old neighborhoods. Figure 3 shows historical parts of Gaz. Currently, the under-study region has maintained its significant to the distribution of commercial, service and cultural centers.



Figure2. Historical places of Gaz

METHODOLOGY

Physical studies on the old-textured buildings cover 84 acres of area. Study on different usages of the given region have indicated that it can be used for different purposes including green space, recreation center, and city utilities, but the existence of the historical and sacred monuments makes the considered region a good one for cultural and religious usages (figure



Gaz museum of ethnography



Abbasi Caravansera



Momeida historical bath



Shah Ne'matollah tomb



Gaz historical castle



Boroumand Adib Frahangsara



Gaz Jame' mosque



Historical mansion of Aqa Mohammad Khan Boroumand



Historical mansion of Haji Khan Boroumand

Figure3. Historical attractions of Gaz



Figure 4. Land Use

Old-textured city parts are often of organic amorphous structure which have narrow and spiral passages. According to figure 5, old-textured parts of Gaz have passages of width of 6-8 m or even less than 6 m. Also, the main passages are Ferdowsi, Khaje Nasir-al Din Tousi, Azadi and Sheikh Bhaei streets which make links between different parts of the city and the main city square named Touhid.



Figure 5. Width of Passages

Generally, buildings of the under-study part are of three types in terms of quality: recently constructed, re-constructed, deconstructed. Study on quality of these buildings according to figure 6 have shown that over 70% of buildings belong to deconstructed category which require renovation while almost 15% of them are worth repairing which can be of use if they are repaired. The remaining 15% are recently constructed buildings.



Figure 6. The quality of the building

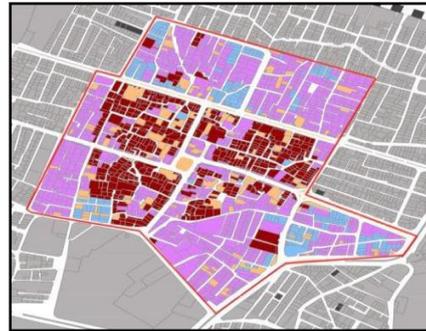


Figure 7. Materials

Study on the condition of the studied part have confirmed the problems which will be given in the following.

One of the most notable problems of the given neighborhood is the serious lack of green spaces which is a kind of deficiency for all age groups. Lack of gathering places for social interactions can be another shortcoming. Another problem is narrow spiral passages which make habitants run into trouble while driving. Additionally, it can be a bottleneck for public transportation. Another shortcoming can be inappropriate lightning and pavement which may lead to insecurity and reduced safety. On the other hand, habitants are in the problem while heavy raining begins because there is no well-organized drain system and consequently, puddles of water will make people annoyed. One important point is arid lands and ruined buildings which reduced physical quality of the city as well as aesthetic aspects. These places can be good places for criminals to gather together. Additionally, they can be places for habitants to dispose their trashes and wastes.

CONCLUSION

Texture of Gaz is one of the oldest textures in our country. It is ignored due to urbanization and it has undergone corrosion. But, the existing of the main square (Touhid) and other principle streets reaching to the mentioned square, this city is yet a living city in terms of economic and social terms. However, if it does not receive reconstruction, its economic and social flows will be faded away due to developed physical corrosion. To resolve the current problems, some recommendations have been proposed.

The very first step is to revitalize the old-textured buildings, to promote quality of passages and to optimize pavements. Passages have to have well-calculated slope to efficiently drain surface water in order that historical buildings may be protected. Lightning of streets and

Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran

passages is another important factor affecting welfare of habitants. To convert streets reaching to historical attractions including Gaz Jame' mosque and Shah Ne'matollah tomb into sidewalk according to city identity can enrich this city. Figure 8 shows those tourism centers required to be redesigned and reorganized.



Figure8. Map of Proposed Routes

To use historical buildings as places for cultural services including restaurant, residency, café and so on can develop tourism industry. It may increase not only economic prosperity but also social interactions which in turn may lead to increased safety.

To establish a gathering resort for each neighborhood is one of the primary goals of city organization which may help habitants to meet their spiritual and materialistic needs in the resort as a space for spending free times and for promotion of social interactions. Figures 9 and 10 represent suitable places for establishment of social gathering resorts. Some issues such as the existence of ruined buildings (figure 5), local-sized green spaces as well as the existence of mosques and shrines (figure 3) and according to local resorts, habitants play an important role in selecting the studies region as the center of the neighborhood.



Figure9. Map of Delimitation of the Center of Neighborhood 1



Figure10. Map of Delimitation of the Center of Neighborhood 2

Figure 11 represents the proposed plans for city center which includes services required by habitants. These services can be commercial, cultural, religious, educational and green spaces.



Figure11. Proposed Plans for City Center

Bank loans available to habitants in order to help them renovate their residential buildings using appropriate materials and with accordance to architectural principles in a way that there may be harmony with city identity can be deemed as another alternative for attracting investments. Improvement in infrastructures of access networks including parking lots may attract tourists' attention. Deployment of uses required by habitants such as green spaces, sport courts and gyms plays an important role in life quality of habitants. Ruined buildings can be

Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran

used to create green spaces. Converting small-grain buildings into residential spaces leads to increase in physical and spatial aesthetics and to promotion of social interactions while habitants are gathering in the spaces between these building blocks. Figure 12 represents the studied area and eligible blocks to serve as gathering resorts.

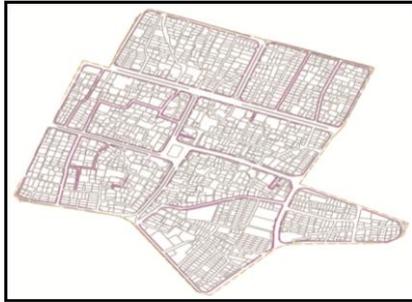


Figure12. Map of Eligible Blocks for Gathering Resorts

REFERENCES

- [1] Habibi, Seyyed Mohsen. Maqsoudi, Malihe. (2002). Civil renovation. Publication: Tehran University
- [2] Jamal, Mohammad Jafar. (2007). Planning and designing for old-textured buildings focusing on citizen's cooperation. Journal of municipalities. 8th edition. Vol. 81
- [3] Pour Ahmad, Ahmad. Shamaei, Ali. 2006. City Renovation and optimization in geographical point of view. Publication: Tehran University
- [4] Kalantari Khalil Abadi, Hossein. 2011. Repair of historical buildings. Tehran: municipality department
- [5] Consultant engineers of Ivan-e Naqsh-e Jahan. Compiled plan of Gaz city, 2005.

Citation: Z. Elham, H. Mohammad, R. Ahmad, Y. Maryam, Y. Saeid, E. Saeid, O. Kaveh, P. Vijay and R. Nicolas, "Protection of Identity of Historical Cities Aimed at Revitalization of Old Textures, Case Study: Historical City of Gaz - Borkhar, Isfahan, Iran", *International Journal of Emerging Engineering Research and Technology*, vol. 6, no. 1, pp. 1-6, 2018.

Copyright: © 2017 O. Kaveh, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.