



Exploring the problems of old urban tissues (Case study: Shiraz city)

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Abstract. The unbridled urbanization and unbalanced spread of cities together with the expansion of old urban tissues over the past few decades have threatened the identity and existence of urban spaces as a place for the growth and development of humans. If appropriate policies and plans for resolving these problems are not applied, in near future these problems will pose tremendous challenges to the urban life (Shamaei and Pourahmad, 2004:181). In the study, the old urban tissue of Shiraz city (District 8), as one of the most important architectural monuments with remarkable historical and cultural values, has been investigated. The old fabric of this area with an area of approximately 378 ha lies at the heart of modern city of Shiraz. Covering 2.8% of the total area of the city, this zone constitutes the core of the city which has been subject to tremendous changes during different periods. The purpose of this study is to evaluate the shortcomings of old urban tissues of Shiraz with the aim of organizing and empowering these areas. Finally, some suggestions are made in this regard. This is a comparative analytical research based on field studies and library analysis. The results indicate numerous physical, social and economic problems in old urban tissues including the ongoing imbalance between the facilities and infrastructure and the needs of people, social crime and ills, the low social status of residents and so on. As such, it is essential to provide the means and infrastructure required to improve the status quo and eliminate the damages.

Keywords: Corrosion, worn-out tissues, old tissues, damage, organization, empowerment

1. INTRODUCTION

City is in a dynamic process of change, development and deterioration. As such, old and worn-out urban tissues constitute an inevitable phenomenon that is almost present in all cities. Therefore, the historical cities generally face the problem of oldness (Abdolalhi, 2004). Basically, an old or worn-out tissue is referred to a fabric developed over time and is surrounded by technology of the modern era. Such tissues had a logical and essentially hierarchical function, but today they suffer from structural and functional deficiencies that make them unable to meet the needs of their residents.

Following the deterioration of problems in old urban fabrics, particularly in central areas of cities, which have affected all aspects of people's life, governments should pay special attention to these areas and their security issues (Carley 1995: 107). Although old tissues used to have hierarchical and logical functions in accordance with the requirements of their time, today, they face many structural and functional deficiencies that hamper their capacity to address the needs of their residents. Living in such places is replete with depression, confusion, chaos and lack of social participation, which propagates an unhealthy life in the city (Hnachy, 510: 1376). Today, the old tissue of Shiraz is part of the modern city that is host to many works of culture, civilization and traditions as well as historical documentation about social relations in the past. As such, the aim of this study is to elaborate on the importance of old urban tissues in order to identify obstacles and problems and provide solutions for organizing and empowerment of the old urban tissues in the city of Shiraz.

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Theoretical research framework

Tissue:

Tissue comprises coherent neighborhood morphology of buildings, roads, complexes, open spaces, facilities, urban utilities or a combination of them.

2. OLD TISSUE

It refers to areas within the defined limits of a city, which due to physical exhaustion, lack of adequate roadway access, facilities, services and urban infrastructure are vulnerable and possess low environmental and economic values. Also, give the poor economic status of residents and owners, these areas cannot be automatically renovated and investors have no incentive to invest in such areas. The general characteristics of old tissues are:

A) Life of the buildings:

The buildings located in these tissues are generally old or lack the technical standards, which is often evident in the façade of these structures. They are not resistant enough to withstand an earthquake of even moderate intensity.

B) Grading and the number of floors:

Residential buildings in these tissues are mainly fine-grained (pieces with a total area of less than 200 m²) and often comprise of one or two stories.

C) Type of material:

Materials used in these tissues mostly comprise of adobes and bricks or bricks and irons without compliance with horizontal and vertical joints or required standards.

D) Accessibility

Old tissues are often created without any pre-defined plans. They have irregular structures which make them only accessible on foot. Their passages and alleys often lead to dead ends less than 6 m in width and a penetration coefficient of less than 6 meter (30%).

E) Urban services and infrastructure:

Worn-out tissues are gravely deficient in terms of services, infrastructure, open spaces and green

F) Qualitative indicators:

The issues related to population, earthquake faults, canals and river routes as well as rural fabrics within the urban structure are other issues inherent to worn-out tissues.

3. INDICATORS FOR IDENTIFYING OLD TISSUES AND VULNERABILITY

Vulnerable tissues are defined according to vulnerable blocks, which possess at least one of the following conditions:

A) A block with 50% old and derelict tissues which is vulnerable in terms of residential and living conditions. Vulnerable old buildings must have one of the following two conditions.

1. A building lacking a structural system (concrete structure, steel or lower, upper and vertical straps), as examined by official examiner of buildings.

2. A building that its construction is inconsistent with the provisions of the Code 2800 and lacks compliance with these regulations.

B) A block that at least 50% of its passages (before modification) lead to a dead end or is less than 6 meters in width with a penetration rate of less than 30%

Types of old tissues

1. Tissues containing urban heritage:

These are areas with ancient and historical relics and artifacts that make them irreplaceable as they are part of the cultural consciousness of a community and their preservation helps stimulate national pride and consolidate a sense of identity which can also increase the quality of life.

These monuments, which may belong to ancient, historical or contemporary eras, are registered as national monuments or recorded in the list of cultural and tourism heritages.

2. Tissues lacking urban heritage:

These are areas within the permitted limit of cities and have legal ownership, but are deficient in terms of safety, strength and utilities.

3. Marginal tissue (informal settlements)

These areas, often on the periphery of cities and metropolises, have developed outside the official city plan and their residents are often low-income people, rural migrants or poor urban citizens.

These independently-constructed areas, which are built quickly and unsystematically, lack any security, stability, social security and urban infrastructure.

5. Methods of intervention in historical fabrics

A) Improvements:

In this method, the emphasis is on the loyalty to the past and preservation of monuments with historical values. These activities are aimed at improving the potential and actual utilities and strengthening positive aspects and mitigating the negative aspects through support, maintenance, conservation, restoration and strengthening. Executing any intervention in these areas requires compliance with the terms and conditions stipulated by the Cultural Heritage Organization.

B) Renovation

In this method, the loyalty to the past is more flexible and the range of intervention may cover little to massive changes. Through increasing efficiency and productivity, renovation activities restore urban life to the old fabric, as they are associated with rehabilitation, revitalization, adaptation and transformation.

C) Reconstruction:

In this method, there is no obligation to protect the past, and the emphasis is on creating new living conditions and physical space through demolition, cleanup and rebuilding process.

D) Rehabilitation

The restoration of an economically worn-out historical site may require rehabilitating many distinctive buildings and abandoned structures such as storages, manufacturing workshops, caravanserais, baths, and cisterns and so on. Rehabilitation refers to performing physical reforms to ensure the proper use of an abandoned building or a site that has not been utilized properly. Such treatment is considered as a prelude to the renovation.

E) Revitalization

Rehabilitation refers to a series of planned measures to improve socioeconomic activities of a historical site, a historical city or a building that has lost its vital function.

This function should be consistent with the modern needs of human societies. In reality, revitalization is integrating the past mold with the urgent and increasing needs of today's world. This requires innovative architectural design.

Review of literature

There are many studies on old urban tissue, historical fabric, and improvement and revitalization issues published in form of books, articles and theses.

"The principles of community empowerment as the goal of urban modernization and improvement" by Rahim authoring Sarvarzadeh and Majid Roustia is one of such books.

Pirouz Hanachi and Mahmoud Srajian have also published a book on the revitalization of historic urban fabric based on a partnership approach. Mirzaee and Daroudkhani also carried out a study on improvement and revitalization of old urban tissues based on a partnership approach (Case study: Pirsara region in Rasht). In the same line of research, Fatima Moeinifar et al did a research on recreating old urban fabrics through a participatory approach to realize the goals of sustainable development. Old tissue and its impact on urban development (Case study: District 8 of Shiraz) by Tayebe Gholami and Saeid Givechi is also another study in this field.

Data collection method

This is a descriptive-analytic study. The theoretical principles of the study and characteristics of studied neighborhoods were collected using a descriptive study (e.g. books, articles, Statistics Center and documents available in libraries, organizations and consulting engineers) and observations and interviews with the local people. Finally, through an analysis of data and presentation of research findings, proper solutions were proposed.

Results and Discussion

Shiraz, Metropol area:

As the capital of Far Province, Shiraz is located around Zagros Mountains. The geographical coordinates of this city are 29 degrees 36 minutes north and 52 degrees 32 minutes east, which is 1480 to 1670 meters above sea level. The lowest area of Shiraz city is in the southeast (Maharlu Lake), which is 1500 meters above sea level. Shiraz is surrounded by Bamoo Poshte Mele, Chehel Magham and Baba Koochi mountains in the north and the Drake Mountain range in the west, which extends to the northwest. In the south, Sabz Poushan (Sayah) Highlands extend along Ghare Ajagh River to the Sepidar Heights and notable Drake Mountain. Maharlu Mountain extends from the south of Maharlu Lake and the southeast of Shiraz to the Khafar Highlands in the north (Revision of comprehensive plan of Shiraz, 2007: 131).

From ancient times, Shiraz has been the heritage of Persian culture and civilization, serving as the birthplace for many great men of religion, science, art, philosophy and mysticism whose magnificent works have kept the eternal scientific and literary heritage of Iran alive.

According to 2013 Census, Shiraz has 9 districts in an area of 1,788,901 km², with a population of 1,503,276 people and a population growth rate of the 1.448% (Shiraz Municipality Website, Department of Planning)

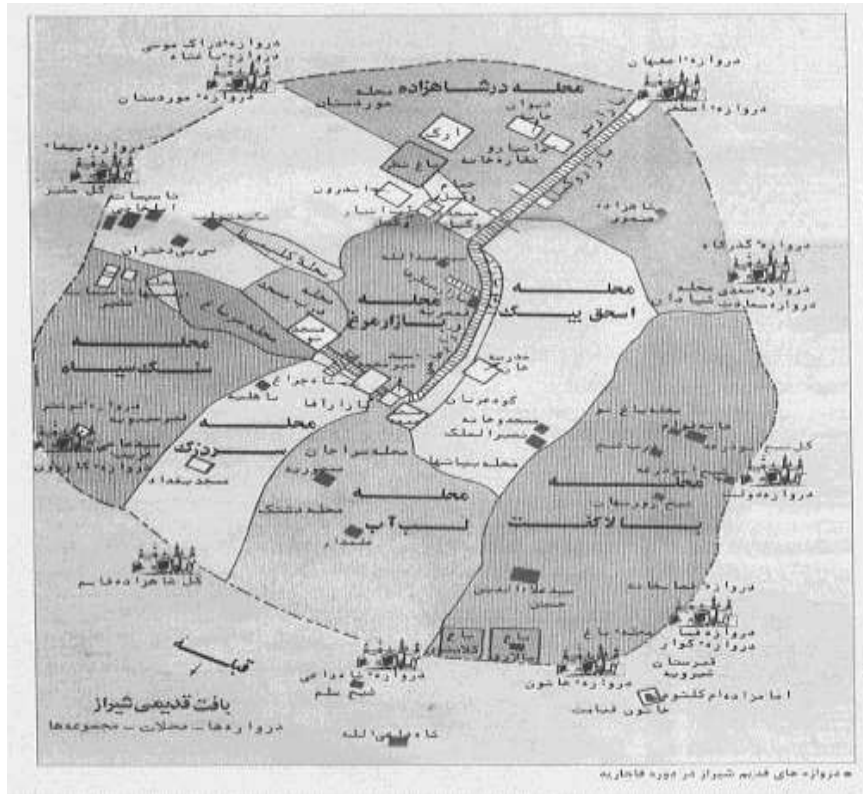
Old urban tissue in Shiraz:

The history of old Shiraz tissue can be traced back to the pre-Islamic and even pre-Achaemenid period. This old fabric, once the origin of Shiraz city, used to be the finest residential area throughout the city, but today it has lost its appeal due to a plethora of social, cultural economic and physical problems, thereby becoming host to people from all walks of life, especially those with low social status (i.e. people with low income and low education level).

The coexistence of individuals and groups from different and sometimes conflicting cultural backgrounds in the old fabric of the city has made it prone to crime. On the other hand, the evacuation and movement of the population in these old tissues have contributed to its worn-out and degradation (Varesi et al., 2012).

The historical and cultural site of Shiraz with an area of approximately 378 ha constitutes part of the city center with its own independent municipality. This area is characterized by narrow and twisting streets passages and compacted and intertwined urban tissue. According to the 2009 Census, this area, which is host to more than 50 thousand people, is made up of 8 districts with each having their own distinctive characteristics (District 8 of Shiraz Municipality).

In general, all of these districts are relatively similar in terms of degradation, low income level of residents, the coexistence of local people with new immigrants, the lack of urban utilities and aging population.



District containing old urban tissues in Shiraz city:

Bala Kaft neighborhood: This is one of the largest areas in the old tissue. Astaneh and Lotfali Khan Zand Streets are located in the east and west part of this neighborhood.

Astanhe Street, which is home to Seyed Alaeddin Hussein Shrine, is located in this neighborhood. The dominant land uses in this area are religious together with business functions and residential purposes beyond the neighborhood level, which have taken up a large portion of the area.

Lab-e Ab Neighborhood: As one of the peripheral neighborhoods, this area leads to the Shah Daei Allah in the south. It is surrounded on both sides by businesses of different types. Hosseini St. in the east of this neighborhood, which leads to Astaneh St., is one of the most crowded streets of Shiraz. Here, the land uses are mainly residential.

Sar Dozduk Neighborhood: This neighborhood is located in the south of old tissue. Hazarati S., which links this area to the religious hub of the city, namely Shahcheragh, often has heavy traffic.

Sang-e Siah Neighborhood: This is one of the peripheral neighborhoods in the old tissue. With respect to inter-neighborhood communications, this area is in a better position with definite secondary accesses. Here, the residential land use is dominant.

Eshagh Beig Neighborhood: Karim Khan Zand covers part of the north area of this neighborhood with Lotfali Khan Zand St. passing through it. Accordingly, this area is divided into two north and south parts with the former having a better position due to the vicinity to the Astaneh Square and more convenient accessibility. Here, the residential land use is dominant

Darb-e Shazdeh Neighborhood: Despite some changes, this is still one of the oldest tissues in the northern part of neighborhood. The existence of Vakil Baza in this area indicates trans-city or even trans-regional functions of businesses in this neighborhood. Here, the residential land use is dominant.

Meidan Shah Neighborhood: The area is located in the northwest part of old tissue. Lotfali Khan Zand St. divides this area into northern and southern parts. The former due to the proximity to Darb-e Shazdeh has greater access to urban services. The presence of the Mosque in this neighborhood has highlighted its religious-tourist use. The residential significance of neighborhood has been due to the quality and social success of its residents.

Darb-e Masjed Neighborhood: Moshir Nou Mosque, located between Meidan Shah, Sarbagh and Morgh Bazar is still alive with the name of its mayor, Haj Agha Jani, the son of Khan Agha-Jani, and Abdul Razzaq Kadkhoda, the son of Ghafarkhan. The glorious name of this fantastic and strong mosque is associated with the name of Moshir al-Molk Shirazi, one of the great landowners of the city.

Physical examination of old tissue: Vitality and viability of the physical tissue, social and emotional ties amongst residents, pleasantness and desirability of living environment along with a host of social accomplishments are the results of a decent urban landscape which were of significant importance in old tissues. Today, however, there is nothing left of them except for a name. With the relative decline of social life in old urban tissues, the physical fitness of this area also deteriorated and gradually economic preferences replaced the old urban principles, with the demand for rebuilding and mass construction increasing in areas with guaranteed economic values. This development was especially in areas in which transportation system enabled travel to other parts of the city and the movement of people from neighboring areas.

Socio-economic analysis of old tissue: One of the major issues in old tissues concern social and economic issues. The old tissues, which used to be the residence of aristocrats and wealthy people, has become home to low-income segments of the society and immigrants. Given the cultural disparity of its citizen, the cultural and social homogeneity of this area has been disintegrated, thereby preparing the ground for emergence of social issues so that a plethora of crimes, deviances and social damage can be observed in these areas (Soltanzadeh, 1993:28).

Pathology of Shiraz Old tissue: According to the studies in the target area, the most important problems associated with worn-out tissues include:

1. Noncompliance between these tissues and today's needs.
2. Lack of access to new services and facilities.
3. Lack of leisure time
4. Low social status of residents
5. Lack of a sense of belonging to the neighborhood.
6. Migration of the rich people from historical context and the inflow of low-income people.
7. Economic vulnerability of neighborhood residents
8. Inability of residents in promoting the revenue sources of municipalities.
9. Deterioration of urban tissue and disregard for historical values
10. Incompatibility of old tissue identity with ill-considered street system

4. CONCLUSION

According to the above- mentioned points, the most important conclusions that can be drawn from old urban tissue of Shiraz are as follow:

Considering the vulnerability and deterioration of District 8 of Shiraz, this area is struggling with a host of problems. One of the most important issues required to improve the standard of living in the neighborhood is to raise the level of individual abilities. Most residents of these neighborhoods are proud of their living place, willing to contribute to the improvement and empowerment of old tissues. Therefore, the necessary infrastructure and means for the full-fledged participation of these people with the aim of motivating the current problems and issues should be provided. The following strategies can help achieve this goal:

- Raising the cultural level of these areas and strengthening spiritual values to prevent the spread of crime;
- Promoting active participation and encouraging a sense of participation among residents through establishing NGOs;
- Strengthening cultural-religious values, which are indispensable to religious tourism industry;
- Granting long-term loans to residents of neighborhoods with the aim of improving the quality of their living condition;
- Developing tourism infrastructure to attract tourists.

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