### Urban spirit and heritage conservation problems: case study Isfahan city in Iran

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**Abstract:** at the case of protecting heritage, urban spirit assessment and its value should be considered. In the case of historic cities, this assessment is more complex, because these areas are dynamic and evolving over time. This paper has shown existing problem that most of them have focused mainly on the physical characteristics of urban conservation and heritage protection in the context of urban development in Isfahan city. Such as Climate and environment, Historic cities structure, Formation of urban spaces and other factors. It describes the evolution of a conservation program for the historic centre of Isfahan city and provides an overview of urban conservation diagram and practices in numeric format. Finally, conclusions are drawn about the link between conservation and urban spirit.

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**Key words:** urban spirit, heritage conservation, heritage protection, urban development

### 1. Introduction:

According to (UNESCO, 2007) heritage is "our legacy from the past, what we live with today, and what we pass on to future generations" and (2002) define that the "Heritage as the contemporary use of the past has the advantage of side-stepping some contentious issues, while improving the focus upon others". In (1972) UNESCO divided heritage in to major parts: 1) tangible heritage such as Monuments, Buildings and Sites 2) intangible heritage as well as the knowledge and skills (including instruments, objects, artifacts, and cultural spaces). And conservation of heritage means all the process of looking after a tangible and intangible heritage so as to retain its cultural significance, and also to keep them safe from destroying or being damaged as well (Cuthbert, 1984) (ICOMOS, 1981). Historical area and urban heritage planning in Iran have values as well as cultural, religious, social, economic, and physical concepts. **Exploring** the heritage conservation concepts and traditional urban planning in addition to the conservation of these values and honoring the principles and elements of urban planning not only help the new urban infrastructures greatly, but also cause the principles of urban sustainable development in the historic contexts (Assari & Mahesh, 2011), in this paper try to find the heritage conservation problem facing to historical city of Isfahan and classified in three major parts.

### 2. Methodology:

Study area is the historical city of Isfahan, according to purposes of this research, we used a combination of qualitative and quantitative research methods, to analyze the patterns and trends of heritage conservation on urban spirit frame work. Qualitative data were collected by library method, using different documents and indexing, and also observations of bodies in charge of heritage conservation in form of urban spirit in four categories. 1) climate and environment, 2) historic cities structure, 3) formation of urban spaces and 4) other factors, while quantitative data collected by interview by expert and giving value for urban spirit and heritage conservation.

## 3. Formation of urban spaces factor: 3.1 Impact of Urban renewal in Isfahan city:

Meaning of urban renewal is the process where an urban neighborhood or area is improved and rehabilitated. The renewal process can include demolishing old or run-down buildings, constructing new, up-to-date housing, or adding in features like a theater or stadium. Urban renewal is usually undergone for the purposes of persuading wealthier individuals to come live in that area. Urban renewal is often part of the gentrification process (Business Dictionary, 1996). Urban development plans, particularly those of large and fast growing cities, routinely declared significant portions of the historic fabric as "areas for urban renewal", mean that the existing historic structures could be removed to make way for new buildings and any elements. (Rojas, 2007). According to Patrick Geddes city of today must be different from the city of past, but the physical form of a historic city should be considered as a whole, and every urban renewal activity should be done in complete accordance to the spirit of place.

History of Isfahan city core consisted of two parts, the old section, which started from the old square, close to the Friday mosque, and the new section, which started from Naghsh-e-Jahan square today called as the Meydan-e Emam (Karimi & Motamed, 2003). By the 11th century, after selecting Isfahan as the capital of Saljuqi period <sup>1</sup>, the old square had become the center of the city and old square become such an important urban space, that is a big difference in that particular era. It had a castle, bazaar, and mosque and residential. There were some peripheral markets along the main streets radiating from the old square from at least that time. The 1.5Km (1,650-yard) shopping street is still the main street in the bazaar, the longest vaulted bazaar street in the world (Weiss, Walter M; Westermann, Kurt-Michael, 1998). Nowadays Old square (today called as Meydankohneh or Sabzehmeydan) and Jame mosque of Atigh is one of the important backbone nodes of the city that by passing of the time it has being changed in stage of development. There are three major reasons for these fundamental changes in old square of Isfahan city which referred below: (Seamon & Sowers, 2008), (Zangiabadi & Soltani, 2007), (UN-Habitat, 2008).

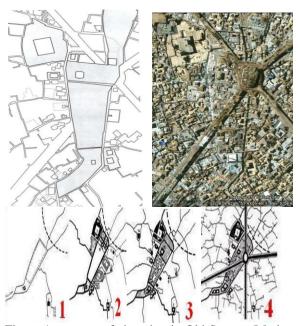


Figure 1: process of changing in Old Square (Mydan kohneh), since the beginning of Islam till now

- Some factors such as low cost of land and house, low level of urban services of old textures of Isfahan, have affected on decreasing the local people's tendency to live and increasing the immigrants who have low income.
- Isfahan Municipality Renovation & Restoration Organization (IMR&RO) decided to renovation this region because of its revival historical axis in order to extension of the city to the south and increase quality of life in heart of the city.
- Renewal of old square is an outstanding example of the physical transformation of a great public space; it is fundamental change in transportation from pedestrian-based to automobile-based (Figure 1).

## 3.2 Traffic &Transportation:

In Isfahan regarding growth and spread of urbanization, urban migration, weakness and lack of urban services, the urban problems are more complex than ever and urban land use planning has been faced with serious challenges. Among the urban land use, parking land use is one of the users that all urban users need it and it is clear that in a world dependent on car, parking as well as roads and bridges are important, because easy access to work, residence, shopping and entertainment are made possible with them. Therefore it is an integral part of the infrastructure sector. Since the time of car stops in cities is much longer than their departure time, therefore predicting the suitable space for parking cars, especially in crowded areas and downtown is very important. But despite all the organizational planning for parking in the city of Isfahan and the great help and assistance of city managers, parking user condition in the present situation is very worrying and it can be mentioned as a complex urban problem. On the other hand, volume of vehicle entry to the city of Isfahan, the ease of car buying and ownership interest of citizens to use personal vehicles for various reasons and the increase of urban travel because of poor access to municipal services, is one of the reasons that signify the importance of parking user (Malekababdi, 2010). The problem facing to the traffic and transportation of heritage areas in Isfahan city categories below:

- The historical areas are mostly having narrow roads with many dead-end streets.
- The vehicles are parked opposite the entrance of heritage monument that has historic value and disturbing the easy movement of pedestrian.
- Poor level of service affecting safety, efficiency and economy of traffic operation

<sup>&</sup>lt;sup>1</sup> The Saljuqids (1040-1194): Malek shah chose Isfahan as the capital of his kingdom and created the old square of Isfahan Source: iran chamber socity

- Traffic congestion problems in heritage areas especially in CBD
- Parking on road reduces the capacity of road networking and making difficult flow of traffic by occupation width of road
- Irregular movement of pedestrian in Main Street toward the historic area and taxis that carry to inner city do not have any organization in main road.

### 4. Historic cities structure factor:

## 4.1 New street cutting through interacting historic bazaar:

After selecting Isfahan as the seat of Shah Abbas safavi<sup>2</sup>, a new core was designed between the old bazaar and the square. Creation of Nagsh-e-Jahan square played an important role in Isfahan's town planning .The important point is the best design for connecting of this new square with the old structure of the city core (Figure 2). The purpose of design was linking it with the main chain of the grand bazaar, which extends from the Old Square (Sherban & Browner, 1976), (Karimi & Motamed, 2003) . Shah Abbas redeveloped the city extensively and had a number of new bazaars built: the buildings surrounding the Naghsh-e-Jahan square (originally including a large number of coffee houses), to the south east and the large bazaar to the north, where the old core was located (Walcher, 1997).



Figure 2: Isfahan city core during the Saljuqi and Safavi period which is cut apart of bazaar line by ABDORRAZZAGH Ave. (Assari, Mahesh, Emtehani, & Assari, 2011)

In figure 2 shows one of the streets of the urban renewal plans which is now heavily criticized. This street cuts through the interconnected historic bazaar and its surrounding fabric, and not only physically, but also socially damaged the bazaar and its socio-spatial communication with the surrounding fabric (Cantacuzino, 1976).

# **4.2 Impact of subway in conservation of heritage monuments:**

According to the statistic report in 1998 the population of Esfahan province has been 4,370,000 which half of this population is concentrated in cities. 32% of the population is under 16 years old, 62% are between 15 and 64 years old and only 6% are over 64 years old, it is obvious that population of Esfahan is young and in 10 years from now it is going to need more city services (statistical center of iran, 1986). In the city the growth of the car population has led to ever increasing pollution and congestion. In order to alleviate the worsening traffic conditions, especially on the important regional routes, the Esfahan Regional Metro Company (ERMC), later it was converted to Esfahan Urban Railway Organization (EURO), was formed with the task of investigating a suitable mass transit system in Esfahan city and the region. (Iranian railways, 2003). According to (isfahan urban railways organization, 2007) social benefits of the system Isfahan urban railway are:

- Creating a better connect between the habitable regions and shopping centers
- Better availability to the shopping and entertaining places.
- Developing convenient shopping centers in the stations especially for the lacking regions.
- Better availability to the new established habitable regions and possibility of founding new towns
- Providing a safe Transporting system for the elderly people and those who financially are not able to use personal vehicles.
- To make easier approaches to the city centers for the people living in suburban towns and let them a better availability to the central potentialities.

Completing the Isfahan urban railway has got many benefits for the city, but the question is: vibration of subway which designed to pass under the historic avenue of Chahar Bagh, and surrounding area, is a threat for heritage monuments? According to Washington charter (october 1987), historic towns should be protected against natural disasters and nuisances such as pollution and vibrations in order to safeguard the

<sup>&</sup>lt;sup>2</sup> Safavid Empire (1502 – 1736) Isfahan was capital of shah abas safavi ,and Naghsh-e Jahan Square by surrounded buildings was from Safavid era: Shah Mosque, Ali Qapu Palace, Sheikh Lotf Allah Mosque, and Isfahan grand bazaar. Source: iran chamber socity

heritage and for the security and well-being of the residents.

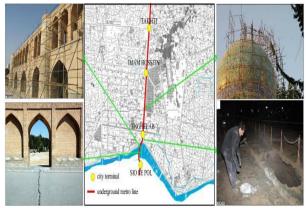


Figure 3: Risk of subway in historic sites of Isfahan city

Construction of the underground urban railway line in Isfahan's Chahar-Bagh district will be detrimental to the areas architecture and will lead to the destruction of Madreseh Chahharbagh and Si-o Se Pol .and also historical monuments of the Naghshe-Jahan square will be threatened by the vibrations caused by metro trains passing under the neighborhood. Then we have to propose a plan to protect these monuments trough vibration of subway.

# 4.3 Historic zone and sky line of heritage monuments:

Heritage zones are sensitive areas for development and part of larger urban agglomeration possessing significant heritage values. Heritage zone concept requires the conservation of unprotected architectural heritage and sites must be sensitively planned and also aligned with the imperatives of routine development process. Regulations to control the development within the heritage zones, including new constructions, demolition or modification to the existing buildings around historic structures and historic precincts can be formulated and incorporated "special area zone".The Municipality began construction of the Jahan-Nama Tower in early 1996 with 56 meter tower, which covers an area of 16,000 square meters. UNESCO gave the time till February of 2006 to government authorized to reduce height of Jahan Nama Tower in Isfahan to register Naqsh-e Jahan historical Square as the world cultural heritage. (W.H.C, 28 June – 7 July 2004)Jahan-Nama Tower, situated in west of the square, and spoils the horizontal view of the square, whose monuments were registered on the UNESCO World Heritage List in 1979. And also Jahan Nama construction does not have any harmony with area, and make disturbing image of historical city.

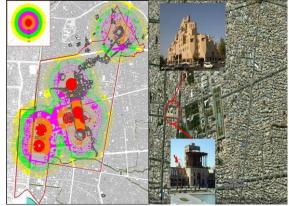


Figure 4 : Google Image, 2011. Jahan-Nama location within the development control zones map

Jahan-Nama means reflection of the World, this building is example of the new constructed monuments in the historic fabric of Isfahan city. The new construction is in complete contrast to the surrounding historic fabric. The name of Jahan-Nama is borrowed from once a Safavid pavilion in the same location, and inside the harem zone of the Safavid Isfahan (Babaie S., 2008)

## 5. Climate-environmental factor:

### 5.1 Air Pollution:

The composition of the atmosphere has been gradually changing over the past millions of years, it is only during the last two to three hundred years, since the beginning of the industrial revolution in Europe and North America, however, that man has begun to affect this change. The process has accelerated over the past 50 years as more countries have also embarked on rapid economic development. (State of the Environment in Asia and the Pacific, 2010).

Air pollution in recent years has caused damage to historical buildings Figure 5 shows the deteriorated wooden ceiling of Ali Qapu building, 16th century, in Isfahan, Iran. During last four decades the number of industrial plants and private cars has greatly increased and has resulted in worsened environmental pollution. As a result the surfaces of many historical buildings have been affected. (Hejazi, 2008).

# 5.2 The socio-environment of Zayandeh Roud river drought in Isfahan city:

Zayandeh Roud River was considered as the natural south boundary of Isfahan city in different period. This river had run through the middle of the city, and it along with the *Chahar Bagh* axis had divided the city to four sections.

Zayandeh roud River was utilized throughout the city and had formed Isfahan according to a model of a garden city. (Agha Ebrahimi Samani & NAGENDRA, 2011)

And Isfahan city development was formed from southern direction and accessibility from the south side of the city was provided with several bridges over it, such as Pol-e Khaju, Si-o-Seh Pol, Pol-e-Joui or Choobi.

However, as of 2009, the river got completely dry up, except for brief periods when man or nature managed to make the water flow again. The main reason drought of zayandeh Roud is: (Foltz & Ferederic, 2003), (Waldman, 2001)

1) Regional drought that was started from Afghanistan to southeastern Iran

Damming of Zayandeh Roud and the pumping of groundwater for irrigation and domestic uses in neighbor province



Figure 5: Increasing Emissions of Corrosive Acidic Pollutants such as Sulfur Oxides cause of deterioration of Wooden Ceiling of Ali Qapu palace.

### 6. Result and discussion:

Based on heritage conservation issues and interviewing with expert persons in Isfahan municipality district and asking them to describe the problems are facing to heritage conservation and spirit of city prepare the table with below specification:

- ✓ Importance of heritage conservation that stands on the center of circle and divided into four categories: (figure 7)
  - Climate and environment factor
  - Historic cities structure factor
  - Formation of urban spaces factor
  - Other factors. (figure 6)
- ✓ Importance of urban spirit, that is shown by horizontal arrow

Economic	social and cultural	land mark and visiol elements	Environmet	Human aspects	Criteria
					City Strength
			O→ N	STATE OF THE STATE	City Weakness

Figure 6: another city strength and weakness has been show by field observations In order to systematize the study (Assari & Mahesh, 2012).

As per as the results come traffic and transportation and air pollution are the highest thereat for heritage monuments. That means by reducing these aspects we can help for conservation of heritage areas and beauty of the Isfahan city. In other hand new construction such as high rise building and new streets destroy the spirit of the traditional city.

### 7. Conclusion:

Traditional urban culture and modern spirit of the city must discuss the essence of the city such as systematic conservation of heritage, local lifestyle of the citizenship and community spirit. Urban conservation and urban spirit are two important factor, that should working together to preserve the urban heritage while considering the modernization and development of society in a culturally and historic sensitive manner. In recent years, with growing traffic and air pollution in metropolitan areas such as Isfahan city, it's obvious that we need to pay more attention to reducing the amount of vehicle especially in historic city. In order to achieve sustainable development in Isfahan historical city some suggestions were offered for solving these problems:

 Increase the sense of dependant to historical spaces and convergence with new structure and make new shapes that is same to old structure

- Planting trees in the edge of streets
- Limiting the arrival of personal cars by improving Public transportation systems and Traffic Management for internal roads
- Parking requirement/ Multi Storied parking at various congested places like city center and Bazaar
- Attraction of tourism for cultural heritage and central design structure among the long period
- Sustainable development regarding to sprit of city and building construction with improving the urban infrastructures
- Decentralize planning considering value of cultural heritage and bazaar in city core.

- Making a physical welfare and facilitating the connection of interior structure of texture with urban structure.
- Recognition the basic elements of the old cities structure (particularly the passages and squares) and preserving them in the new developments
- Recognition the traditional architecture elements and using them a new architecture style

Determine architecture and urban patterns for residential and public places through historic studies.

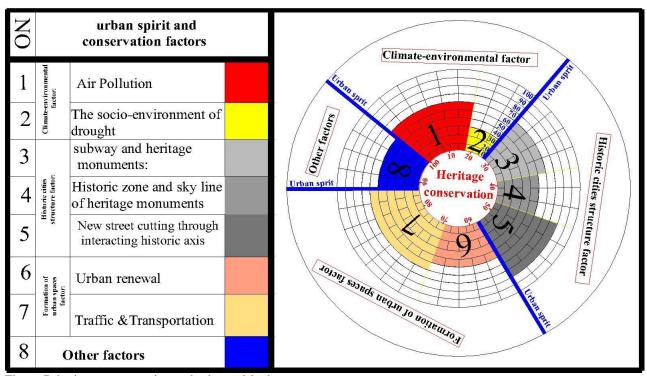


Figure 7: heritage conservation and urban spirit chart

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