Constructing a New High Rise Building in Historical Places: In the Case of Jahan Nama Tower in Naqsh-E Jahan Square

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Abstract

The adaptability of the historical setting to "changes", to new technologies and new socio-economical standards is necessity for the vitality of it. Introduction of the new buildings is actually one aspect of change but also it is the reflection of changes in many cases on the architecture of the city. In this respect, new building as the last layer of the historical tissue comes out to be an urban conservation problem to be discussed. The city of Isfahan in Iran is aware that its historic square is part of our common world heritage. Nagsh-E-Jahan is a historical city square in Isfahan which was registered as a World Heritage Site in 1979 at UNESCO's conference in Egypt. Also, as a UNESCO World Heritage Site, Isfahan old city is one of the main destinations for tourists from all over the world (Vadiati & Kashkooli, 2011). Today a large number of historical cities including those in Isfahan are facing a challenge for harmonization between the conservation of cultural property and the development or economic interest. Reducing the height of Jahan Nama Tower up to the determined level is an inevitable task in order to save the position of Naqsh-E-Jahan Square in the list of World Heritage Site. Jahan Nama tower has a direct impact on how this historic square presents itself to the viewers by distracting the eye from the focus of the view. Accordingly, the present study on new buildings in historic environments, tries to evaluate the positive and negative impacts of the new buildings in historic environments according to views and vistas. It is investigated for two case studies, Naghsh-E-Jahan square in Esfahan, Iran which is affected by the height of Jahan Nama tower and London city hall nearby Tower Bridge. To achieve this purpose, influence of new buildings in historic environment and possible ways to create a balance between conservation and development in the World Heritage areas which is an important issue for each historic environment have been investigated. The method is qualitative and data collection is based on literature review and library study.

Keywords: historic environment, new buildings, cultural heritage, public squares, new developments; Isfahan-Iran

I. Introduction

The twentieth century brought rapid transformation to the urban landscape and the pace of change continues to increase in the twenty-first century and, with it, so have threats to the conservation of historic environments. Urban areas face development pressures to accommodate unparalleled urban population growth and new economic pressures. Modernism, the leading architectural force of the twentieth century, broke with traditional architectural and planning approaches, utilizing forms and materials that often contrasted with the existing historic environment. More recently, in response to economic pressures, civic leaders have promoted their cities by creating new landmarks, often turning to celebrity architects to create provocative designs that strive for individual attention (Donovan, 2005).

The relationship between new architecture with its historical context is determined from the values assigned to the meaning of its heritage architecture and consequently its modern interpretation. A critical issue facing decision makers and conservation professionals is accommodating change to heritage places and adding new layers to the historic urban environment in ways that recognize, interpret, and sustain their heritage values. Change, however, is inevitable. Buildings, streetscapes, and urban areas evolve and change according to the needs of their inhabitants (Donovan, 2005).

Therefore, it is important to determine the role of contemporary architecture in contributing to this change in ways that conserve and celebrate the special character and quality of the historic environment that communities have recognized as important and wish to conserve for future generations. Historic areas typically exhibit a range of heritage values, such as social, historical, and architectural. Frequently, they also have aesthetic significance; therefore, the design quality of new insertions in a historic area is important. Accordingly, the research try to answer and analyze how past and current architectural interventions in the historic environment have been addressed. In addition, assessing the impact of new development in a historic context has

pushed governments and the conservation community to provide guidance to conserve what is valuable (Jencks, 2005). World Heritage – and heritage in general – can make also an important instrumental contribution to sustainable development across its various dimensions.

I.1 Contribution of World Heritage to Sustainable Development

Change is inevitable in the historic environment. Buildings, streetscapes, and urban areas are dynamic places that are constantly adapting to the needs of their inhabitants, with each generation contributing uniquely to this evolution. Accordingly, World Heritage may provide a platform to develop and test new approaches that demonstrate the relevance of heritage for sustainable development (Donovan, 2005).

The Contemporary Architecture in the Historic Environment (CAHE) project is addressing one of the critical issues in heritage conservation—the management of change—by exploring the role of contemporary architecture in historic environments and developing methodologies and criteria for designing new buildings that are respectful of their historic contexts and assessing the impacts of these new constructions. Being a World Heritage Site means assuming responsibility: responsibility for the historic heritage, but also for future-oriented urban development. The care and protection of landmarks at an international level are tasks of UNESCO (United Nations Educational, Scientific and Cultural Organization), which was founded in 1945. In 1972, this body held the 17th UNESCO General Conference in Paris, in its context approving "The Convention Concerning the Protection of the World Cultural and Natural Heritage" (Cameron, 2006). "The adoption of this agreement was decisively motivated by the fact that our heritage is increasingly and visibly threatened with destruction, not only due to conventional decay, but also because of the change in social and economic circumstances" (Cameron, 2006).

Therefore, at least the cultural and natural Heritage Sites of special and universal significance should be listed and preserved as the world heritage of all of humankind. This led to the birth of the World Heritage List. International practice is guided by the World Heritage Convention, which calls on countries to "give heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programmers" (Salazar & Montagud, 2005). "The relationship between heritage conservation and urban revitalization is not an easy one. Usually planners and developers have to deal with layers of occupation and history, requiring difficult choices among options that range from conservation through rehabilitation to demolition" (Tuan & Navrud, 2008). It is only in exceptional circumstances that urban developers get a chance to build a completely new district in an historic center. Before developers begin, they need to know what is heritage and why. In the international field, there is only one formal designation process for cultural heritage. This is UNESCO's World Heritage system, which lists sites of outstanding universal value to humanity, explains their heritage characteristics, and makes known what the constraints on development might be (Cameron, 2006).

I.2 Importance and Value of Historical Environments

Historical places are important and valuable because they attract tourists and these landmarks are cherished by everyone around the world. Also, Historic environments have much influence in towns, cities, their commercial and other activity that takes place. Towns and cities that are known for having historic environments are often highly regarded as places people want to visit. This is shown in simple terms by a strong correlation between the number of listed buildings that a town/city has and both the extent to which it is seen as a desirable destination and is likely to be visited (Litvin, 2005).

According to Provins & Pearce (2008), a short definition of the Historic Environment is "*the material and natural world all around us, as shaped by people's activities through time and perceived by people now*" (Provins & Pearce, 2008). This usefully connects subject matter and process and recognizes it as a construct of changing human perceptions.

As more extended definition, the historic environment of today is inherited from the past and bequeathed to the future, introducing the concept of change and the need for its management. A model of the Historic Environment can be proposed in three interlocking parts, a hierarchy of physical scale, shaping human activities, and natural contexts (Provins & Pearce, 2008). Usually historical places are linked by development; there is fundamental issue that is the inherent contradiction between the desire to conserve heritage and the inevitable change associated with the developmental process. Based on development, cities might face danger of losing their Historical-cultural foundation.

Where developments go ever skyward; amenity may suffer at lower levels and harm the future prospects of historic buildings. Many historic buildings are capable of receiving an alteration that is of its time, respects and defers to what has gone before, and may be justified as supporting the continued conservation and use of that building.

I.3 Modern Renovation in Historic Places

Many factors are creating pressure for new development of historic environments; population increases,

economic activity, the failure of existing building stock, and the demand for higher living standards are the most important factors. In this regard, the question is not whether to allow development and the insertion of new buildings in historic places. The main question is that "how integration of contemporary architecture into historic centers is acceptable" (Cameron, 2006). Fitting new buildings within historic contexts requires a dynamic process between planners, architects and developers to ensure that any new schemes fit into their surroundings, argues a new report jointly published by English Heritage and the Commission for Architecture and the Built Environment. It is important to create a stylish modern architecture without disrupting the historic setting.

A historic city that wants to retain its liveliness and vibrancy must be able to grow and change. "The central challenge of contemporary architecture in the historic urban landscape is to respond to development dynamics in order to facilitate socio-economic changes and growth on the one hand, while simultaneously respecting the inherited townscape and its landscape setting on the other" (Vadiati & Kashkooli, 2011).

I.4 Sample of Constructing New Building in a Historic Environment

Historical places are center of tourism and attraction. To attract more tourism or because of development and economic interests, architects tries to construct new buildings in historic areas, which some cases are adapted with the surroundings and some other are not adapted. As a sample, London City hall (Figure.1) is a new building nearby an important and valuable historic environment and touristic attraction of London (Figure.2), which is presenting itself to the viewers without negative impact on Tower Bridge.



Figure.1: London city Hall



Figure.2: Historical surrounding of London city hall

London city hall, by Foster and Partners, takes its place among London's historic landmarks. It is a new building in historic environment which is located on the south bank of the Thames, alongside the new More London development. City Hall is one of the capital's most symbolically important new projects. Advancing

themes explored earlier in the Reichstag, it expresses the transparency and accessibility of the democratic process and demonstrates the potential for a sustainable, virtually non-polluting public building. At first glance, it's not like a public service building. It is looking more like a moon base landing unit than a city hall. The goal was to create a headquarters building for London's mayor and the GLA that would become a new landmark for the capital. The design of this building is modern; also, one that provided a symbolic break from the past, now it is one of London's most famous symbols (Marmot, 2004). There is a similar example of new building in historic environment like London city hall, which is Naghsh-E- Jahan square and Jahan Nama new building is disturbing its view. The main purpose of constructing this new building over there is related to economic values.

II. Case Study

II.1 General Information about Isfahan

Isfahan is "located about 340 km south of Tehran and is the capital of Isfahan Province and Iran's third largest city" (after Tehran and Mashhad) (Vadiati & Kashkooli, 2011). It is the second most populous metropolitan area in Iran after Tehran. The Persians call it Nesf-e-Jahan (Half the World). Amongst Iranian cities Isfahan is a unique jewel that still has a noble and fascinating shining after many historical fluctuations and the passage of several centuries (Figure 3). This city is a complete manifestation of the Iranian-Islamic civilization, culture and arts (Vadiati & Kashkooli, 2011). During its hundred years of evolution, because of numerous traditional street gardens and water stream rooted from Zayandeh-rood River (main City's river) from the past and waste water management in recent decades, Isfahan has got good reputation in history of environmental activity in the world. "Isfahan may also be well named the city of Iranian handicrafts and traditional arts. Carpet weaving, engraving, miniature painting, inlaid work, tile making, brocade, and calico are among the most important forms of art in Isfahan. Due to its high potentials and arts, it can be said that Isfahan is a Museum where People Live in" (Karimi & Motamed, 2003).

In recent years, Isfahan has become a large, touristic-industrial city, which has inherited a huge legacy from the past, but is confronted with the problems created by the clashes between its past and present (Karimi & Motamed, 2003) (Figure.4). This city is renowned because of the abundance of great historical monuments. Isfahan's main monuments are centered around the Naqsh-E Jahan square.



Figure .3: Isfahan Province in Iran



Figure.4: Contemporary Map of Isfahan city

II.2 Naghsh-E Jahan Square

At this stage Nagsh-e-Jahan square is being considered as an example of historic squares with a significant environmental design (Figure.5). Naghsh-e-Jahan (also called Imam Square) means World View Square and it is one of the biggest city squares in the world and an outstanding example of Iranian and Islamic architecture (Vadiati & Kashkooli, 2011). "This square is situated at the center of Isfahan city, Iran. Constructed between 1598 and 1629, it is now an important historical site, and one of UNESCO's World Heritage Sites. It is 160 meters wide by 508 meters long (an area of 89,600 m²)" (Figure.6). It is surrounded by the royal palace, the central mosque, the main bazaar entrance, the music pavilion and religious schools, which are from the Safavid era (Charkhchian & Daneshpour, 2009). The former function of this square used to be commercial, governmental-recreational, social and athletic, e.g. playing polo. Nowadays, after pedestrianizing most of this square, its old function has been revitalized but in a new manner. Now this square is one of the endangered historical sites in Iran, which its condition was carefully studied by UNESCO's World Heritage Committee in its 30th session.



Figure.5: Naghsh-E-Jahan square, Isfahan, Iran



Figure.6: The plan of Naghsh-E-Iahan square, Isfahan, Iran

II.3 Analysis of Jahan Nama Tower

The 48-meter Jahan Nama Tower (literary translates into "World View"), commercial complex in the city of Isfahan is located on the vicinity of Naqshe Jahan historical square. When it was on final stage, not only the construction of such a new tall building at a distance of only 760 meters from the World Heritage Site of Naqshe Jahan Square never approved by UNESCO to begin with, its height exceeded UNESCO standards. (Figure.7)



Figure.7: Jahan Nama Tower

The Tower was clearly visible from Isfahan's World Heritage Site (figure 8). It was realized that the height of the Tower exceeds the limit set by UNESCO when Naqsh-e Jahan was being inscribed in UNESCO's list 27 years ago (Elham, 2006). So, it's a controversial construction as its going to ruin the view from Naghshe Jahan. Concerns raised over the fate of the historic square of Naqsh-E Jahan and a new wave of protests spread throughout the nation. Iranian cultural heritage experts were called in to examine the case and it was determined that the height of Jahan Nama Tower is detrimental to Isfahan's cultural heritage and that construction of Jahan Nama is in contravention of cultural heritage standards and UNESCO legislations (Dolatyar, 2006). Later, UNESCO sent several experts for close inspections and Iran was asked to lower the height of the Tower, if it is interested in keeping the Naqsh-E Jahan Square in UNESCO's list. Finally, the Iranian authorities accepted to comply with UNESCO regulations and late October 2005, the process of lowering the height of the Tower finally started by removing the 4 upper floors under the supervision of UNESCO representatives. It was the only way Iran had if it wants to stop the world heritage site of Naqsh-E Jahan Square from going to the list of UNESCO's Endangered World Heritage Sites.

Accordingly, UNESCO has determined that the height of Jahan Nama should be lowered up to 24 meters as seen from the Naqsh-E Jahan Square (western side), and 12 meters from Chahar Bagh Street (Eastern side). Based on this decision, Iran was expected to bring the height of the Tower to the expected level while keeping UNESCO abreast of the progress. Therefore, they reduced the height of Jahan Nama tower by demolishing upper floors, to keep the Naghsh-E Jahan square in the natural world heritage list forever

(Dolatyar, 2006).



Figure.8: The Jahan-Nama Tower is seen at the right side of the Aali-Qapu palace on the horizon from the Nagsh-e Jahan square

III. Comparison of London city hall and Naghsh-e Jahan Square

The principles state that the authenticity and integrity of historic cities must not be compromised when introducing new buildings. The analysis of London city hall and Nagh-E-Jahan square and comparing them has found strong evidence of negative and positive impacts of constricting new building in historic environments. It demonstrates that: Jahan Nama tower, a newly built high rise tower was seen in the back ground of Naghsh-E-Jahan square, endangered cultural heritage site of Isfahan. It has intruded the cultural landscape of this World Heritage Site. So, in this square, negative impact of the new building in Historic fabric, views and vistas of the Naghsh-E-Jahan is considerable. It doesn't respect to the historic area and distracts the eye from the focus of the view (Figure.8).

The purpose of design this building was development and economic interests, it doesn't have any effect on increasing the real value of this historic area. Under this scope, Jahan Nama tower is as an Unsuccessful design in the historic surrounding without any sense of responsibility and awareness of the historic heritage.

It can be said that; London city hall is an acceptable example of constructing a new building in historic environment. It has opened new doors to further studies about sophistication and reasonability of designing a new building in historic context. By integrating between new buildings and their historic surrounding, London city hall doesn't have negative impact in visibility of the tower bridge. It respects to the surrounding which is a historic and valuable environment. By its curved shape, the tower tried to move backward to show the Tower Bridge at the background (Figure.9).



Figure. 9: London city hall

Consequently, it is considerable that vistas and visibility of a historic place or environment is very important. Also, this new building makes positive impact on the surrounding area. It provides something different to view, which is a cause of increasing the real value of this historic context. So, it is a successful design in order to develop the historical surrounding environments and can be as a model for safeguarding the world heritage sites.

Conclusion

Due to rapid urbanization, new technological developments, shift in the life style a new building making process has started both in the general city settlement and certainly in the historical settlements. This continuous change through the historical tissues has created new buildings mostly ignoring its context, and result is the loss of the cultural and architectural values of the setting. In that sense, the subject of new buildings in historical settings as an urban conservation problem gains importance for the historical continuity and vitality of the urban setting.

As a case, Jahan Nama tower which is located in Naghsh-E Jahan Square in Isfahan, Iran is a controversial construction as it is going to ruin the view from Naghsh-E Jahan square. The analyses and evaluations made through the study area and compare with London city Hall shows that; in development of the historical cities, the authenticity and integrity of them must not be compromised by introducing new buildings. So, Architects should know the importance of understanding the history; culture, architecture of the historic places and how to appraise the character of areas. Sensitivity to context and the use of traditional materials are not incompatible with contemporary architecture. Accordingly, with skill and care, it is possible to accommodate large modern uses within the grain of historic settings. It can be said that, there is a link between the proverbially awareness of the value of historical environment and the effort to create a balance between preservation and development in the World Heritage. Thus, to obtain a permit to construct a new building within the World Heritage perimeter, the developer must pay attention to incorporate the cultural heritage significance into city development strategies from the beginning.

In conclusion, the architectural language should be contemporary while the new building should "integrate harmoniously" into the old surroundings not breaking "the balance of the composition". Also, the way of thinking should be quite similar nowadays even in the case of cultural landscapes that are also a kind of historic context.

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References

[1] Cameron,C. (2006). "Heritage Conservation, Rehabilitation and Urban Revitalization: An International Perspective". Journal of Cultural Heritage. vol.4. pp.110-121

[10] Vadiati, N & Kashkooli, A. (2011). "Environmental sustainability of newly developed city squares in historic cities: Case study of Isfahan-Iran" *journal of Procedia Engineering*. Vol. 21, N.1. pp. *839-837*

[2] Dolatyar, S. (2006). Reduction of Jahan Nama Shows a Satisfactory Trend. Retrieved July 9th, 2016. From: http://www.chn.ir/en/news/?section=2&id=6488

[3] Elham, Gh. (2006). Height of Jahan Nama Tower in Isfahan to be reduced to meet UNESCO's demands. Retrieved June 23rd, 2015. From: http://www.payvand.com/news/05/dec/1202.html

[4] Litvin.S. (2005). "Streetscape improvements in an historic tourist city a second visit to King Street, Charleston, South Carolina". Journal of Tourism Management. Vol. 26. pp. 421–429

[5] McKercher, B. (2005). "Relationship between tourism and cultural heritage management: evidence from Hong Kong". journal of Tourism Management. vol. 26. pp.539–548

[6] Karimi, K & Motamed, N. (2003). "The tale of two cities: Urban Planning of the city of Isfahan in the past and present", presented at the *4th International Space Syntax Symposium*, London, United Kingdom.

[7] Provins, A & Pearce.D. (2008). "Valuation of the historic environment: The scope for using economic valuation evidence in the appraisal of heritage-related projects". *Journal of Progress in Planning*. Vol. 69. pp. 131–175

[8] Salazar. S & Montagud. J. (2005). "Valuing cultural heritage: the social benefits of restoring and old Arab tower". Journal of Cultural Heritage. vol 6. pp.69–77

[9] Tuan. T & Navrud, S. (2008). "Capturing the benefits of preserving cultural heritage". Journal of Cultural Heritage. Vol. 9. pp.326-337

[10] Donovan, R. (2005). *The Economics of Historic Preservation: A Community Leader's Guide*. Washington DC: National Trust for Historic Preservation.

[11] Jencks, C. (2005). The Iconic Building (New York: Rizzoli)