

The Restoration of Shadorvan Dam-Bridge, Cultural & Historical Landmark of Shooshtar

Taleb-Mash'had, Fereshteh

MA in environmental design; Tehran University of Science & Research, Iran.

Daneshpour , Abdul-hadi

PhD in urban design; Assistant professor in the faculty of Urbanism, Tehran University of Science and Technology, Tehran, Iran.

Laghai, Hassan-Ali

PhD in urban Architecture, Associate professor in faculty of Environmental Design, Tehran University of Science & Research, Iran.

Abstract- The cultural-historical landmark of Shooshtar has traversed a very long distant since the ancient era. In fact it was the mutual corporation of history and nature that end up as a city like Shooshtar which is a combination of both tradition and culture, emerged authentically in a wild natural way through time; and taking the important historical landmarks under consideration, it is expected to become one significant tourism attraction district. Retaining the sustainable aspects of the city, this research aims to restore connection between natural and historical layers within the boundaries of natural city landscape restoration and its main purpose is to provide a range of principles and solutions for a sustainable development, natural resources' conservation, and retaining the historical sight of Shadorvan Bridge.

Primary in this research, the issue and research method will be defined and afterwards, paraphrasing the keywords of historical landmark and the principles of landmark restoration would lead toward a series of principles for sustainable conservation in a historical landscape. Studying the site would be the next step and following the landscape restoration rules, some issues such as points of strength & weakness, opportunities, natural threats and vernacular culture will be concluded in a table, which all finally will indicate the criterions of preservation to the historical landscape restoration of Shadorvan Bridge. The total conclusion would reveal that the restoration of all the existing layers through the land and understanding the interconnections will guide us to a comprehensive & general restoration ways of the similar landmarks. The fulfillment of this research is achieved by means of descriptive-analytic method (with practical approach) in the context of library studies, harvest field and documents review, detailed plans, summary information and applied access to general principles.

Keywords: Tourism, Shadorvan Bridge, Shooshtar, region, cultural landmark

Introduction

Every inch of this country has natural arena with historical, artful and cultural landmarks of Persian civilization -the sites which have been constantly neglected; Meanwhile any plan for restoration would lack a 'comprehensive approach' toward their natural and historical values (Afshar Sistani, 1371: 574).

In a natural context, history is seen as ancient landmarks. "This dialogue between natural appearance and cultural one, shall bring up a dynamic and prevalent process of change and evolution which guarantee the sustainability and survival of a civilization. The prosperity of structural relation between nature and culture - which have been achieved through time- and the maintenance of the proofs to the contemporary age, lead to figure historical symbols with environmental values." (Behbahani- Inanlou, 1379). Usually the failure in removal of landscape obstacles and difficulties is not only related to the design disabilities, but also is directly related to the insufficiency of data to offer a precise definition for site threats and strength and weakness points (Mothloch, 2001: 286).

One of the most important discussions of current days within urban design management and environmental design, is restoration of historical context management, which is declined for the weak points in authority functioning strategies in historical landscape of Shadorvan. Hence, this issue is dedicated to recognition of Shadorvan Bridge region -newly enlisted in UNESCO world heritage- as a historical-cultural site to be the primary concern for its restoration process.

Subject and research necessity

Historical squares or sites are to define credit and originality for a city and have artistic, cultural and historical importance. These sites -containing the elegant and vernacular architecture of the region- “help to develop historical knowledge or exist as a historical document” (Vinas, 1389: 43). Although urban historical sites play a very important role in the architecture and originality of the city, but occasionally turn into an element without any sign of fortune, due to paradoxical and inefficient ideas and theories. Here is a quotation from the Italian critic and thinker, Cesare Brandi (1967):

“There is nothing intuitive and free-standing exterior as a ‘historical structure’. What we call ‘historical structure’ is a concept defined in the relative connection of contemporary human with the structure built in the past and gains significance accordingly. In another words, historical work is a phenomenon resulting as the way human looks upon a work, which for the independent qualities lied in its essence and nature and also for all it gained through long times, could be the subject of thoughtful discussions.” Therefor Shadorvan is considered as a cultural landscape because “it comprises the unique features of the land and is a compound indication of natural and humanistic works.” (UNESCO, 2009).

Shooshtar -3,538 Sqm- in located at the center of Khouzestan province. Having almost 100 aquatic structures, Shooshtar is one of the most rare cities with old works of aquatic engineering and hydrology. Studies in this region show disconnection and chaos among regional historical and natural continuity, therefor specific conservation plans are considered to be mandatory.

Research Method

The research method of this issue is descriptive-analytic method (with practical approach) in the context of library studies, harvest field and documents review. In order to achieve a better cognition of the historical-cultural landscape and their definitive and practical aspects, in the current research we have tried to study the cultural landscape and the impressive factors upon its existence, and in order to provide and interpret the case studies, we chose the harvest field method.

The ecology of historical landscape restoration

What matters the most in restoring the landscape, is humanistic view along with the restoration of design nature. In fact here we spot two different viewpoints toward the concept of restoration: One is by ecologists who believe that “the scattered pieces of nature must be positioned back where they used to be”, and the second is the viewpoint of landscape designers who mainly say that “the modification of a demolished landscape lies in creating a place where could be reused by people.”

Here we have to mention that all the layers of existing values of the landscape -whether cultural or natural- must be taken under consideration and being restored [UNESCO-ICOMOS, 2009: 8]. The most recent viewpoints on landscape restoration suggest that the mere ecological study of natural environment and restoring the nature within the landscape do not suffice. This approach, defined within the measures of landscape design, on one hand aims to restoring the ecological bed of the region and on the other hand, -considering the cultural and historical features of the region- also tries to restore the signs, symbols and artistic, cultural and historical monuments (Figure 1).

“In fact by offering a humanistic design, the landscape restoration is looking for a way to ascend the quality of landscape.” (Pour-Yousefzadeh, 1391: 6). And finally we should mention that restoring the landscape comprises a wide range of ecological, social and cultural notions, and brings up solutions in order to restore them on the basis of sustainable development purposes. Table 1 indicates the effects of natural landscape for ecological study.



Figure 1: Shadorvan dom-bridge, Shooshtar, 2005. Source: Ali-Mohamad Chaharmahali's private archive.

Table 1: SWOT natural landscape of Shadorvan. Source: the authors.

context	In the site		Out of the site	
	Strong points	restrictions	opportunities	threats
ecology	The Karooun river with non-stop stream in the site. The strong stone-bed of the river. High ecological power by sustainable and unsustainable resources.	Free and isolated edged near the site & river. Inappropriate functions near natural spaces. River as a trash bin.	Linkage between the existing natural resources, and historical & modern context of the city within the general design. Development of green civic spaces & making a green corridor at the perimeter of Shadorvan dom-bridge.	Falling quality of natural visual effect of site for indigested interferences. Oscillation of the river water surface for the irrigation plans and dam constructions.

Landscape restoration

“Landscape restoration is an economical concern, and is a valuable challenge among all the new solutions for the environmental management.” (France, 2008. Preface). As a national heritage in an industrial world, cultural and historical landscapes are bringing up changes in economy, environment and social opportunities in the way that “the purpose of restoration has to be as consolidation of potential unity of the artifact.” (Brandi, 1388: 41). Neglecting and inappropriate development of urban landscape, and also the ever-increasing human interferences has had a strong impression on cultural heritage and landscape of ecological society and mostly, the inappropriate decisions will threat the survival and continuity of these cultural heritages (Table 2).

Table2: restoration of historical landmarks according to the theories of restoration
Source: www.dio.gov/Secretary . (of the interior standards)

preservation	The process consists primary measuring to preserve and restore the current materials and situation which helps to avoid replacement of new materials and structural methods.
rehabilitation	To prepare a situation for using the historical site, or to restore, change and add. Albeit these should not exceed the historical and antiquity features of the region.
restoration	The act or process of describing the form, features and identity of a place, according to the related historical period. The precess consists of eliminating the later-added extensions/elements and restoring its lost features through time and events.
reconstruction	The act or process of new construction of forms and landscape elements and structure, aiming to create the closest similarity with a specific historical period and placement it used to be in.

The principles of Natural landscape restoration:

1. To follow the sustainable development measures, extensively and within the whole landscape, without mere emphasis on conservation regions. (Bell. 2007:410)
2. To restore & reconstruct the ecological values by methods of natural revival and reconstruction, modifying operations, “constant and long term management of natural landscape & design in order to revive the health of landscape and humanistic advantages.” (Motloch,2001: 211) (figure 2).
3. “Landscape design in order to achieve the best aesthetic experience” (Craul et al, 2008: 22) and to design as the natural patterns. (Bell. 2007:297).



Figure2: Restoration of Shadorvan dom-bridge, 2013. Source: Fereshteh Taleb-Mashhadi.

The natural-historical landscape of Shadorvan

Cultural-historical structures and monuments try to preserve the survival and values while keeping up with the contemporary needs (by fixating the historical function or giving it the proper usable function). UNESCO world heritage committee had offered a definition for the cultural landscape as the geographical distinction mark of the lands: “A show combined of natural and humanistic monuments.” (Fowler, 2003: 15). In architecture and urbanism, the historical landscape seems to be a brand new topic which has been listed in the world heritage category for the contract signed in the UNESCO, and attracted the attention of countries. The cultural landscape is a emanation field of nature and culture through time, supporting cultural and emotional functions as well as physical ones while often has an appreciative cultural and positional identity. Certainly by the improvement of technology and population & according to the diversity in human behavior patterns through time, the human behavior -in any historical and cultural site- has been different. (Mokhles.2013:4).

Shadorvan is a cultural-historical tale of the region, hence preserving it depends on protecting the natural , cultural and physical features of the region, simultaneously. Protecting these sites and analyzing the efforts that have been done or are to be done, shall enhance the life quality and transmit the sense of place and identity much better to the next generations. Shadorvan is a combined model for culture and nature of a society & its development will cause a considerable increase in cultural exchanges.

The necessity of privacy for historical monuments

“The old landscapes will not reemerge, but the ways to preserve and make sustainability of them along with melting into modern life and taking advantage of their urban/landscape design principles are the issues that have to be taken under consideration.” (Antrop, 2003).

The mere preserve and restoration is not the things that matter, however maybe sometimes only the restoration will end up more sustainable and functional. The restoration must obey the proper function of the historical monument which shall avoid its isolation and oblivion.

“The restoration, as we know today, does not date very back in time, although some cautious actions can be tracked. But any restoration in order to keep the ancient monument is a modern act of the recent centuries. Keeping the ancient models is an action that has several reasons & shall contain many values for human societies.” (Motaghi. 2009:48).

In a world that undergoes quick changes, time and money used for restoring the ancient monuments because of their inner value, keeping historical beauty & landscape, visual & tangible documentation, and also for artistic & cultural sustainability. The aquatic system of Shooshtar is settled in a natural land, hence its restoration must follow the natural situation of the region & the historical-natural relations to the surrounding elements. Therefore establishing privacies seem mandatory –especially large scale civic programs such as building dikes. These information must be verified by the organization during the Feasibility study process.

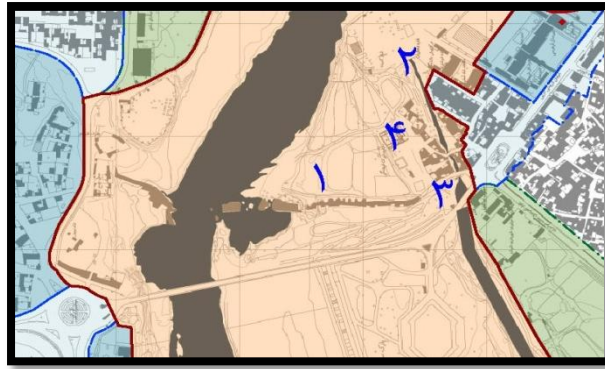


Figure 3: Shadorvan sanctum and arena. 1- Shadorvan dom-bridge. Source: Shooshtar detail design, 2005.

Merits for Shadorvan historical landscape restoration

Proposals to achieve merits for preservation and restoration of Shadorvan historical landscape:

1. To record Shadorvan as a “cultural-historical landscape”: this can bring global credit for this region. This shall assign a wider domain than the current UNESCO list. It will also lead to elimination of industries and low-value buildings.
2. preservation plans: Studying archeology, we can use “preservation, restoration & reconstruction” (Feilden at 1998.82) plans to preserve and revive Shadorvan historical landscape.

Table 3: SWOT of preservation of Shadorvan cultural landscape. Source: the authors.

preservation	In the site		Out of the site	
	Strong points	restrictions	opportunities	threats
	1. To assign the preservation limits by the cultural heritage organization & to make a technical preservation committee. 2. To keep the main interface in the city context despite the damages through time. 3. To restore the historical landscape.	1. Management weak points in scientific restoration methods & hasty operations with inappropriate techniques. 2. general ignorance about the existing values due to weak informing system. 4. Inadequate supervision and operational controls for different parts of the historical landscape in order to prevent any interfering. 5. inadequate budget for restoration & reconstruction.	1. Providing jobs and income for the citizens. 2. improve the experimental and technical knowledge of the workmen and managers, in the case of settling a systematic instructional management for restoration projects.	1. reluctancy of the residents to restoration and renovation of the units adjacent to the old context. 2. Weakness in public financial resources for city development & its effects on preservation project resources. 3. decrease in city income rate because of restriction in building projects around the preserved sites. 4. The possibility of an increase in water level which may lead to flood and demolition of constructions.

Necessity of reconstructing the Shadorvan dom-bridge

The project is base dupon the idea of preservative restoration, and the purpose is to bring back the originality and credit of the monument, without any change in its origin. This could be fulfilled by:

1. resolving the damages, frazzles, weathering, electrical cables, humanistic interferes and etc.
2. preventing any more damage and fortifying the structure.
3. providing a good sight and viewpoint for Shadorvan dom-bridge.

4. Providing a safe place in the city and removing abnormal behaviours close to the bridge.
5. Protecting the structure as a valuable heritage and preserving it for the following generations.
6. Preparing an organizing program: Unfortunately some plans and ideas have been performed without dedicated studies, on the bridge and surrounding area that has destroyed the natural and historical sight. (figure 4)

To take back originality to the monument will make it as a dynamic element; also to insert dynamism to the surrounding area will accelerate this achievement.

When we reach this purpose, we would be able to show off the power and intelligence of our ancestors and the potentials of our vernacular structures. It will be a way to develop tourism and attract in-border and foreign tourists. (Table 4).



Figure 4: Non-normative restoration of Shadorvan dom-bridge, 2013. Source: Fereshteh Tleb-Mashhadi.

Table 4: SWOT analysis table about historical landscape of shadorvan. Source: the authors.

context	In the system		Out of the system	
	facilities	restrictions	opportunities	threats
Function of the site	<ol style="list-style-type: none"> 1. The assigned privacy for Shadorvan Dom-Bridge 2. Natural lndscape along the river 3. Possibility of creating a recreational function for the public use of citizens. 4. Possibility to release the east side of the site and refunctioning it for preservation and green land development & tourism service. 	<ol style="list-style-type: none"> 1. lack of transparency & unity n the construction merits - offered by the responsible organizations, around the ancient district. 2. Erosion of the old adjacent residential context. 3. Insufficient quality & quantity of the urban istallations and equipments around the site. 4. lack of services and tourism facilities. 5. The existance of irrelevant structures around the historical context. 	<ol style="list-style-type: none"> 1. To perform the master plan of the city by the approach of taking advantage of rich resources of the urban historical and natural context. 2. Creating more job opportunities by constructing tourist guest centers. 3. Organizing the other site-related urban centers by organizing the site landscape. 	<ol style="list-style-type: none"> 1. To cause disturbance for the natural & humanistic landscape by performing new constructions around. 2. To create duality between the the restored and developed context around the historical site with the old residential and non-residential ones throughout the city, in the case of not having a site plan. 3. To increase pressure to the river and water pollution.

Merits for natural-historical landscape of Shadorvan preservation

Within the historical context of Shadorvan that indicates wide range of human-nature interrelation, merits are assigned as follow:

Historical monuments for nations are documents of ancient glory –a witness on a great old civilization remained up to the present time. These visible proofs could enhance to form a national-cultural identity and help the human to remember memories in the place. They could bound the society of today with the past and hence, form a special meaning to the present days. Having gained much recognition and significance since 1960s to justify the historical landscape preservation, this attitude is in a direct relation with the contemporary sensitivities, sociological index, and concept of individuality and builds a barrier against cultural synchronizations. “The recommendation on beauty and landscape features’ preservation 1962”, edited in the 1960s says: “Historical districts are heritages & their destructions will cause loss of serenity & also considered as an abuse to social rights, even if it doesn’t cause economical loss.” Contemporary human is more aware about the importance of human values’ unity and know the ancient monuments as a heritage for all, accordingly their preservation is a general operation which in the most original way consists of every individual’s corporation. The most defensive reasons for different valuable aspects of historical monuments usually consist of aesthetic, social and cultural values, rather that tangible economical & commercial ones. Although in today’s living style, to preserve and take use of structures and historical landscapes faces many challenges and economic crisis. We must keep in mind that in the economically competitive world of today, the historical monuments are seen as ‘products’ which are rare, therefore, worthy. This feature of being rare and uncommon could raise financial benefits as for tourism attraction or special social-cultural events. The results of studying the solutions for the historical landscape preservation merits are documented in table 5.

Table 5: Methods of conservation and restoration of Shadorvan cultural landscape. Source: the authors.

solutions for the natural landscape of Shadorvan bridge preservation
1. To remove polluted water, “to prevent pollution in the focal point” (Botkin 2008:418) and to prevent sewage penetration into the river of Gargar.
2. Restoration of site & removing the desolated or architecturally worthless structures. (Craul et al,2008: 22).
3. To preserve and restore earth and prevent soil drifting & erosion. Also to revive vernacular vegetation.
4. To prevent constructions which are heterogeneous with the site.
solutions for the historical landscape of Shadorvan bridge preservation
1. To fortify the dignity of cultural heritage organization among civil decision-making institutions & to define a fair budget for this organization for performing requested plans.
2. To fulfill fundamental & comprehensive studies on the natural-historical site for learning more about the roots & processes of the complex configuration & also in order to gain dominancy on sustainability aspects of it.
3. To provide and fulfill a purging plan of site and surrounding area, plus restorations according to the sustainable preservation and development measures.
4. Ratification and performing comprehensive rules for urbanism and restoration according to urban development plans, needs of the citizens, and coherent reservation of historical monuments between civic institutions and Cultural Heritage Organization.
5. To encourage the owners of old rusty buildings for restoration and renovation according to the declared measures, through encouraging policy.
6. To develop transportation and communication systems in & out of the city & to construct proper roads and bridges.

Conclusion

As a historical landscape, the Shadorvan dom-bridge area stands as a linkage between now and past; a medium to helps human gain an acceptable fair cognition about his past and identity. So in the first place, people would know the landscape and its identical-cultural values, and second, tries to preserve and transmit it to the next generation. The harmony between a structure and its surrounding which is gained through decades and centuries has a very high importance and as a basic principle should not ever be demolished. Also it is not justified to demolish the area or make a transmission to build a single structure, just in case of instant considerations.

To study the landscape of Shadorvan, its special identities and their interrelations, is an important obligatory of present time. As a main stream of recreation and historical linkage between nature and urban setting, Shadorvan dom-bridge had potentials which enroot in the pass of time. Although this cultural-historical complex has been existed since very long time ago but up to now, its unique identity has never been the basis of its special organization, hence, it is mandatory to study, know and preserve the identical, historical, cultural and

natural features of the monument for the sustainability of the landscape identity. Shadorvan (along with other historical contexts of Shooshtar), through a historical relation between human and nature, offers a great potential for sustainable development programs and define new standards for enhancement of living styles according to the historical, cultural & tourism capacities. By precise and deep studies on the structural features of this complex we shall create a harmonious corporation between human and nature.

Feuilleton

- 1- Preservation
- 2- Rehabilitation
- 3- Restoration
- 4- Reconstruction

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