Principles of cultural landscape Restoration

Case Study: Bisotun, UNESCO world heritage site, Iran

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Abstract

Increasingly, heritage site restoration projects require conceiving beyond their disciplines to develop analysis, strategies and design concepts with other fields of expertise to overcome challenges that threaten eternity, unity, and the other heritage sites conflicts. Cultural Landscape restoration in heritage site, plays the crucial role in reconnecting tangible and intangible aspects of heritage site with considering the natural, historical and cultural aspects in an interdisciplinary restoration plan.

"Bisotun" site as an outstanding universal value and a testimony to ancient Iranian civilization is inscribed on ICOMOS world heritage list (2006, No 1222). This research emphasizes on the principles of the cohesive restoration plan to converge conservation and design frameworks according to valuable layers of this heritage site as an asset for all humanity. With defined viewpoint to cultural landscape restoration, conditions of applicability and feasibility will be preserved for long-term benefits. Research results show that, during the last fifty years, the natural-historical succession of the site has lost its coherence and connection. The descriptive-analytic with correlation research methods have been applied to present and codify the principles in this site. Research in multi scaled zones is inevitable and description of observation including the content of opportunities and threats in the site will be applied.

Keywords: Heritage -Persian history-cultural landscape-Bisotun

1. Introduction

Cultural Heritage Site refers to a place, locality, natural landscape, settlement area, architectural complex, archaeological site, or standing structure that is recognized and often legally protected as a place of historical and cultural significance [1]. Heritage, in our view, is a very comprehensive term that includes three major entities: material culture (cultural properties) and the geographic and human environments. To insist above all on the great importance of landscapes and natural sites, which have a unique esthetic and/or panoramic value. Finally, that the people in their environment, who have their own customs and traditions, whose memory is furnished with a particular folklore, and whose way of living is adapted to this specific setting, are a human and social treasure that also requires protection. [1] The international heritage community has always maintained that the heritage of one is the heritage of all, and that respect for all cultural heritages is a major instrument for peace-building through mutual inter-cultural understanding [2].Considerably, in nowadays territories of Iran and exactly in its historic Persian Empire borders as the heaven for archeology and heritage sites we witness the unique natural landscapes which are the milestones of the historical, artistic and cultural heritage of human civilization in this region of the world. "Heritage is our legacy from the past, what we live with today, and what we pass on to future generations" [3].

In the recognition of the historical sites in Iran, Bisotun heritage site is a blend of layers of interconnected cultural landscape. The natural landscape of the area is unique; since the mountains, springs and rivers create special herbaceous and wildlife species, and on the other hand, the historical

aspect of Bisotun has a worldwide reputation. So, in fact, Bisotun is a cultural landscape because "it is a unique feature of the land, and a drama composed of natural and human works.

Intensively research the site to determine the threats it faces and the specific phases it requires for restoration planning is the priority step in this research.

In parallel with recommended policies and advent design strategies in this research, suggestions and cohesive restoration policies for applying in the other similar heritage site in the world is considered. Provide insights into how reviving the intangible values of the heritage landscape could be a creative solution for retrieving and enhancing design processes to "Finding the Spirit of Place" [4]. Cultural Landscape Restoration cause to convert threats into opportunities and vibrant the site with a brighter future.

In fact natural features of Bisotun were an introduction to formation of culture and human history in this region. At least 28 historical-art pieces in this region has so far been inscribed by Iranian Cultural Heritage Organization. Ecological and aesthetical values , foaming springs ,several caves deep inside the mountain and also Gamas-ab and Dinevar-ab rivers ,native vegetation and wildlife features which had motivated the building of bridges and hydro-plants for Sasanian kings, all were influential in the occurrence of cultural-historical events, artistic relics, and pivotal points in Iranian identity around Bisotun mountain. Furthermore, there are many fictions and folklores mingled with Bisotun.

Research Aim: survey the Bisotun heritage site in the province of Kermanshah evidences the presence of a unique and vast cultural heritage landscape, resulting in innovative method in restoration policy decisions and defining the strategic valorisation principles of the site.

2. Proposed methodology:

This research applied mixed research methodologies as considering the interdisciplinary content of the studies that related to the subject. The case study method and correlation method to interpreting the results are two main strategies, on the other hand, inductive reasoning method has the main role in concluding surveys and achievements of investigation in the case studies site The descriptive-analytic method has been applied to present and codify the principles in this site. Survey the information as a detailed description of observation including the content of opportunities and threats in the site will be applied.

3. Cultural landscape Restoration :

Cultural Landscape restoration is the restoration of the relationship between nature and human being that means the difference between a vigor and vital landscape with a mass of useless and ruined ancient monument. As the last cultural restoration approach that implemented by ICCROM and IUCN which emerged as a response to the growing concerns over the divide between nature and culture, it is mentioned that "One of the defining characteristics of the World Heritage Convention is that the protection and management of both natural and cultural values of Outstanding Universal Value should fall under one international instrument [5]."Furthermore Promoting People-Centred Approach aims at contributing towards the new paradigm shift 'from the care of heritage to that of pursuing the wellbeing of both heritage (natural and cultural) and society as a whole. Its goal is to strengthen practitioners' understanding of people and communities as a core component of heritage management, thus ensuring that natural and cultural heritage has a dynamic and mutually beneficial role in society today and long into the future [6]. The revival of our heritage must be compatible with the maintenance and even the improvement, of its specific identity, integrity and cultural values [1].

Recognition and restoration of national identity are influencing factor on Cultural landscape Restoration: Reviving the intangible layers, ancient traditions, and rituals for any cultural landscape cause to promote life meaning for local communities and reduce social harms and immigration to cities."Responding to the current and future challenges in the site and defining new functions and activities in the framework of cultural heritage values [9]" and reviving the immaterial values of the cultural landscape could be a creative solution for retrieving these sites.

"The Interpretation and Presentation of cultural heritage sites should relate to their wider social, cultural, historical and natural contexts and settings. Interpretation should explore the significance of a site in its multi-faceted historical, political, spiritual, and artistic contexts. It should consider all aspects of the site's cultural, social, and environmental significance and values". [1]

Maintenance, consolidation, repair, safeguarding, preservation, restoration and reconstruction are different phases of a comprehensive heritage landscape restoration that regarding to the results of survey the cultural landscape meticulously could be defined as policies and strategies, considering the below cultural landscape restoration policies, as critical in comprehensive, multidisciplinary approach:

Maintain or introduce functions that are useful to society and that are compatible with the structure and nature of the buildings, spaces and sites of which it is made up.

Economic and social activities of the surrounding community should be preserved.

Continuous use of heritage, without any interruption of occupation.

Whenever we decide to make new use of heritage material, we must ensure the preservation of all the important characteristics of that material.

Any changes that are made must, at all times, be reversible.

Avoid excessive use and the deterioration that would result from such use. Such reconstructions go against internationally accepted scientific approaches to conservation and violate the principles of the Venice Charter, Nara Document of Authenticity as well as the Operational Guidelines for the Implementation of the World Heritage Convention [1] [8]

Tab. 1: multidisciplinary approach in historical landscape restoration. (Author) [1] [8]

4.Bisotun, world heritage site:

Heritage is defined as "the combined creations and products of nature and man, in their entirety that make up the environment in which we live in space and time. Heritage is a reality, a possession of the community, and a rich inheritance that may be passed on, which invites our recognition and our participation." [9]

4.1 BISOTUN historical landscape:

Bisotun is located along the ancient trade route linking the Iranian high plateau with Mesopotamia and features remains from the prehistoric times to the Median, Achaemenid, Sassanian, and Ilkhanid periods. The principal monument of this archaeological site is the bas-relief and cuneiform inscription ordered by Darius I, The Great, when he rose to the throne of the Persian Empire, 521 BC. The basrelief portrays Darius holding a bow, as a sign of sovereignty, and treading on the chest of a figure who lies on his back before him. According to legend, the figure represents Gaumata, the Median Magus and pretender to the throne whose assassination led to Darius's rise to power. Below and around the bas-reliefs, there are ca. 1.200 lines of inscriptions telling the story of the battles Darius waged in 521-520 BC against the governors who attempted to take apart the Empire founded by Cyrus. The inscription is written in three languages. The oldest is an Elamite text referring to legends describing the king and the rebellions. This is followed by a Babylonian version of similar legends. The last phase of the inscription is particularly important, as it is here that Darius introduced for the first time the Old Persian version of his res gestae (things done). This is the only known monumental text of the Achaemenids to document the re-establishment of the Empire by Darius I. It also bears witness to the interchange of influences in the development of monumental art and writing in the region of the Persian Empire. There are also remains from the Median period (8th to 7th centuries B.C.) as well as from the Achaemenid (6th to 4th centuries B.C.) and post-Achaemenid periods.

BISOTUN, (Bīsetūn, Bīstūn, Behistun), the modern name of a cliff rising on the north side of the ageold caravan trail and main military route from Babylon and Baghdad over the Zagros mountains to Hamadān).[10] The name clearly shows that the place had been holy from time immemorial and Darius's monument was well known to the ancients the various archeological remains at the site, reflecting almost continuous use since prehistoric times,the most important remains in this heritage site is described below:

3.1.1.Darius's Inscriptions:The monumental relief of Darius I, King of Persia, representing the king's victory over the usurper Gaumāta and the nine rebels, is surrounded by a great trilingual inscription in Old Persian, Elamite, and Babylonian. This inscription is the most important document of the entire ancient Near East and a major key to understanding its languages. It alone made it possible to decipher cuneiform writing and thus to open the door to previously totally unknown ancient

civilizations; in that sense it has had a value comparable to that of the Rosetta stone for Egyptology. [11] [12]

- **3.1.2. Prehistoric remains.** Some Paleolithic cave finds are the earliest evidence of human presence at the spring-fed pool of Bīsotūn[13] Next come traces of a 2nd-millennium settlement on the "Parthian slope"
- **3.1.3. The Median fortress**. This name has been given to the remains of a fortress on the mountain slope because a bronze triangular fibula of the 8th/7th century b.c. was found in its wall [14][15]
- **3.1.4. Heracles**: Beside this gateway a relief depicting Heracles was erected in the Hellenistic period. His lion-skin cloak appears to be a separate figure and was taken by D. Stronach to be a Median gate monument [14][15]
- **3.1.5. Parthian remains**. These comprise reliefs of Mithridates II (123-87 B.C.) and Gotarzes II (ca. 50 b.c.) and the Parthian stone [16] .These rock carvings were among the earliest discoveries at Bīsotūn. The relief of Mithridates depicts four satraps in a line before the king, with all the figures in profile, and thus is still strongly within the Achaemenid tradition.
- **3.1.6. Sasanian remains.** The three large sculptured capitals .These capitals were the first Sasanian remains at Bīsotūn to attract attention. After the relief of Darius, they are the most significant monuments at Bīsotūn, constituting important documents for the history of Sasanian art [14][15]
- **3.1.6. Pol-e Kosrow**. Remains of a bridge by this name were mentioned by Rawlinson , and the name is still current among the local people. The masonry consists of a rubble-concrete core faced with stone blocks. Nine piers, each pointed on both sides, are still standing, but none of the superstructure remains. [17]
- **3.1.7. Tarāš-e Farhād** .This section of the cliff is of key importance in understanding the entire Sasanian building program at Bīsotūn. It is a chiseled rock face approximately 200 m wide and 30 m high, with a retaining wall ca. 150 m in front of it; it is thus the biggest such work in Iran [17]
- **3.1.8. The Mongol building.** This structure was discovered by the writer in a reconnaissance along the bank of the Gamašāb. A mound of debris could be seen there on a site roughly 25 m wide and 30 m long ,and the presence of 14th-century potsherds and fragments of cut brick immediately suggested a Mongol building. The building was a sort of kiosk facing the river, decorated on the outside with cut bricks. The interior rooms were decorated with glazed bricks. [13]
- **3.1.9.** The Safavid caravansary and bridge. The Safavid caravansary was built by Shaikh 'Alī Khan Zangana, the same man who destroyed a large part of the relief of Mithridates to make way for his *waqf* inscription. This handsome structure, built in 1092-96/1681-85, is of brick on dressed stone socles and measures ca. 80 m wide and 90 m long; the interior courtyard is 50 x 52 m and has four *ayvāns*. The adjacent sleeping rooms are vaulted, and there is vaulted stabling behind. This plain, monumental building is one of the larger Safavid caravansaries still in a good state of preservation, though now lacking its original entrance pavilion. [17]
- **3.1.10.**The surrounding district and the "Paradise of the Kosrows" Bīsotūn must not be viewed simply as an isolated site containing historical monuments. It formed instead an integral part of a larger district, which was particularly well defined in the Sasanian period, as can be seen from other contemporary remains found throughout the entire area. The evidence thus suggests a distinct cultural area on this fertile plain. The most important is, of course, Ṭāq-e Bostān (q.v.), 30 km away, which is also connected with Kosrow II[15] [16]

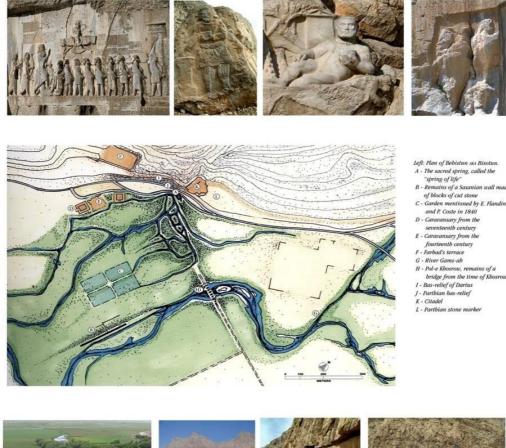










Fig. 1:BISOTUN historical landscape. (Author)

3.2 BISOTUN natural landscape:

"The connection between nature and culture is unique in every region of the world and returns to the attitude of every culture to nature. Failure to take into account these differences will lead to inappropriate decisions to protect cultural landscapes [18]" In a comprehensive view of the Bisotun region, ecological studies should be prioritized. Studies on ecological layers the region is being carried out and could be the base for any plan with comprehensive vision of landscape restoration.

Understanding the ecological, cultural and historical layers helps the designer to hear the sound of the studied landscape and identify its values and threats, so that it can come up with a plan to solve deficiencies and strengthen values in the evaluation and summing up of problems and, on the other hand, provide a plan and outlook for the future development of the region.By summarizing this chapter, we are looking to know which lands are inherently suitable for what they use and protect .

The special natural features of Kermanshah province, such as high altitude mountain, forests and abundant fountains are a good habitat for wildlife, so that in the past not so long ago, Kermanshah province has enjoyed a great diversity of habitat "Natural vegetation cover of Bistoun plain has caused the longest pasture times and one of the most important breeding centers of high quality horses [19], "Therefore, this plain has a military value. The twenty years in the Mongol era and The Timurid seems to have been the main horse breeding center for the army "In the eastern, southern and western parts of Bisotun Mountains, there is a vast and green plain. The Gamasiab River, which originates from the Alvand Mountains,

crosses the region with the Dinevar river and passes through the Bisotun Mountain and plain."This plain is one of the most fertile fields of agriculture and is one of the oldest places where cultivation has begun.

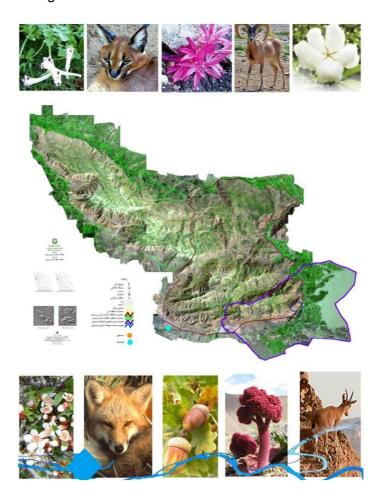


Fig. 2:BISOTUN natural landscape. (Author)

3.3. Cultural values and local traditions of Bīsotūn:

Bisotun cultural landscape has the irreplaceable memories and ancient stories that hidden in this site as the immaterial and authentic values during the history .The most important epics ,poems and paintings that relate to old stories and common Persian memories about this cultural landscape are as significant as historical monuments in this unique and original heritage site. Neẓāmī (1180)is one of the most famous poet that tell epic stories about Farhād, Šīrīn in bisotun site.Neẓāmī mentions three great works of Farhād: the milk channel, the passage cut through the mountain at Bīsotūn, and the portrait of Šīrīn. **Miniature paintings**: are particularly helpful in clarifying matters at Bīsotūn. The story of Farhād and Šīrīn was a favorite theme for miniatures, stucco work, and paintings on tiles and under glass from the 9th/15th to the 14th/20th century which depicts a meeting of Farhād with Šīrīn in front of the pool at Mount Bīsotūn; a slab carved with effigies of two lovers is set into the hillside, which is clearly identifiable as the great rock face . [20]

4. Bisotun cultural landscape analysis:

Therefore, all heritage management and conservation approaches ought to be based on the identification and consideration of this interrelationship and provide a shared vision—within a global context—through the adoption of cross-disciplinary methods of analysing, evaluating and monitoring cultural landscapes in all their dimensions over time. [21]

Historical site of Bisotun is 30 km northeast of Kermanshah city and on the road of Kermanshah. Hamadan. In fact, the road to the historical site of Bisotun is drawn at the confluence of the plains and the mountains."It has been deduced from the surveys that in the last 50 years the natural and historical layers of the site has undergone an unbalanced change, including the rapid change of the fast-moving network on the one hand and the construction of many factories on the other. [22] "Unfortunately, despite the ecological potential and natural resources of the area that can provide beauty and paradise, with a dull and indifferent view of factories, abandoned buildings, agricultural land without any special features, barracks and military use. Which appear more than anything else. The unobtrusive exploitation and neglect of the landscape language of the region have led to a degraded view. Bisotun has the ability to present a beautiful, amazing and even lucrative landscape and increase quality of life of native residents and attraction for visitors. Mismanagement and hybrid plans in the form many different organizations in the region caused nowadays issues in this site ."The unsustained experience (the construction of factories, highways and roads within historical and natural sites) as a contagious disease threatens many historical and natural sites, and it is hoped that in future regional projects, such as the highway crossing, the route and the establishment of industrial and production units, governers, planners and designers paying attention to these valuable sites.

Analysis of various ecological and historical layers of the region have been carried out in accordance with surveying documents such as area photos, maps, reports of the Cultural Heritage Organization and the environmental organization of the past and present situation In fact, in order to understand and analyze different parts of the region, we divide this study into two main zones.

Zone 1: Natural Landscape Studies: The area includes the protected area of Bisotun with an area of 50,000 hectares and the area of Bisotun Wildlife Refuge with an area of 45,000 hectares, as well as parts of the Bisotun Plain and the Gamasiab River, located near the historic site of Bisotun, Landscape views are studied.

Zone 2: Historical Studies: Review of the Historical Monuments in the National and World Beyond union and revising its historical narratives

Considering natural restoration of Bisotun, protection of springs, river rehabilitation, regeneration of native plants, limitation of agricultural uses and restoration of ancient meadows seedling and planting native species, is recommended on the other hand preservation and restoration the historical monuments is the other primitive policy in this site.

In parallel with recommended principles, following strategies suggested to employ in the historical and natural restoration of the project:

- 1. Design Wildlife corridor to the respect of landscape flows in connection with the mountain and the Gamas ab Riverbank features.
- 2. Restoration of the historical hydro structures around "Khosrow" bridge according to its trace.
- 3. Eliminating the old sugar factory which has been built on parts of archeological lands in the region. The factory serves as a polluting factor for the river and contributes to the landscape destruction.
- 4. Eco-Restore lagoons designed aiming at reviving the River and creating aesthetical values.
- 5. Restoration of Sassanid Bridge of "Khosrow" based on the documents and researches about this in completed bridge.
- 6. Rebuilding the ancient route trail passing through the bridge toward Bisotun inscription zone.
- 7. Changing the agricultural function and using lands as meadows covering native plants so that plant species and plain animals living beside the river could be grown. Furthermore, the possibility of destruction of the archaeological lands might be out of sight.
- 8. Designing symbolic elements and artistic statues for reviving mythical narrations at the site. The ideas for these elements are extracted from literary works (Khosrow and Shirin ode).
- 9. Defining special routes for walking, bicycling, and horseback riding (horseback riding and horse breeding have roots in the history of this area).
- 10. Designing the cultural terraces considering the folklore music, traditional dance, and drama.

- 11. Farms that are parts of cultural landscape narrating the story of farming, should be preserved
- 12. Building a new capacity for recreational and service facilities like restaurant, café, and hotel in a rural region near the site for tourists. With this strategy without constructing new structures in this historical landscape, we can reinforce local economy and enhance the underlying identity of the physical and social form of local community

5. Conclusion:

Research results show that, during the last fifty years, the natural-historical succession of the site has lost its coherence and connection. A cultural landscape losing its unity and being violated and disrespected cannot preserve the spirit of the place. Unfortunately, construction of the inner-city freeway through the ancient site, disposing of the sewage of factories in the riverbanks, vacant lands and destroying the pastures are examples of disregards to the language of the landscape in the region. In fact, all of these one-sided decisions and ignorance, damage the glory and dignity of the landscape; the elegance which attracted Persian Empire kings (from 500 B.C.) and many artists, architects, and poets. By detailed research on the characteristics of the region, an area of about 600 acres around the river containing a historical bridge and hydro-plants of Sassanid period (600 A.D.) and its surrounding lands with archeological, value following results should be expected: In this phase, the national and world defined boundaries of Bisotun historical site and the trail of ancient route that contains 3,700 acres of natural landscape are studied. cultural landscapes should remain safe for future generations to" enjoy and learn to care [23] as irreplaceable cultural and economic asset for all humanity. With restoration, conditions of applicability and feasibility will be preserved for long-term benefit. Cultural landscape restoration must be a mission of every humanitarian outreach to" transform the monumental glories of civilization into essential, relevant parts of our shared human culture once again" [24]

Defining principles in comprehensive restoration plan in Bisotun heritage site should regard these three main aspects coincide: natural landscape ecological rehabilitation, historical monuments preservation and restoration, cultural and folkolar intangible values valorization.

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