Islamic Republic of Iran

Iranian Cultural Heritage, Handicrafts & Tourism Organization

ICHHTO



State of Conservation report of Bam and its Cultural Landscape

World Heritage Site

UNESCO

World Heritage Convention

Tehran 2015

In the name of God

Introduction

Bam and its cultural landscape has been inscribed on the List of World Heritage in Danger in 2004 after the enormous earthquake struck the city and its cultural heritage masterpieces in 2003.

The Citadel of Bam (Arg-e Bam), as a part of these cultural heritages, is considered as the largest extant mud brick complex of its type in the world which has kept its traditional architecture and town planning undisturbed by incompatible elements until now. By the early 20th century its inhabitant had gradually started to move outside its walls which have become unnecessary by then for defensive purposes, its most important symbolic features (Congregational Mosque/ Masjed-e Jāme', the Well known as Chāh-e Sāheb-e Zamān and Tekiyeh) have kept being used not only up to the day they were severely damaged by the earthquake (26 December 2003), but even now.

Some locals, bound to old Iranian traditions, used the height of the upper fort to salute the arrival of the New Year (Norooz). The Arg has thus remained alive through its religious and national symbolic elements.

The diverse tangible and intangible heritage resources of Bam also express values associated with the long and complex history of the city. Bam and its surroundings are a cultural landscape composed of the desert environment, ingenious water use, management and distribution systems, (e.g. *qanāts*), agricultural land use, gardens, and built environment.

The authenticity and integrity of Bam's Citadel and its related sites are proved on the bases of historical documents and archaeological studies. The early Muslim geographers, since a thousand years ago, the Persian and British travellers have also depicted Bam and its Citadel in detail in the 19th and early 20th century.

Bam and its cultural landscape has, however, removed from the list of World Heritage in Danger by the World Heritage Centre in 2013 since the work needed to complete the remaining corrective measures identified by the October 2011 reactive monitoring mission met the Desired state of conservation for the removal of the property from the List of World Heritage in Danger.



Figure 1. Bam and its Cultural Landscape

Following discuss some of the implementations and corrective measures carried out earlier, immediately after the earthquake and by 2011:

The earthquake has brought up new problems and challenges and as the safeguarding of World Heritage Sites' integrity and especially that of Citadel has always been a matter of concern to ICHHTO. These challenges have been and will be faced through national and international expertise as wells as national and local workmanship.

The intervention records concerning Bam before earthquake go back to 1948 when repairs were undertaken in the Governor's quarter by the General Office of Archaeology on behalf of Ministry of Culture. More extensive restoration work at Bam began in 1976 by National Office for Restoration of Historical Monuments and the General Office of Archaeology. These restorations mainly concerned repairs and preservation of the ramparts and the drainage system, and also major structures in the old town within the fort and the citadel. Recent restorations led to the gradual identification and revival of the urban fabric within the old town.

Corrective measures records of the site started in the period immediately preceding the earthquake in December 2003:

- One of the principal actions taken after the earthquake was to protect the area both for the safety of people and the safeguarding of the monument. In this regard, a wooden path was created upon the debris of the original way going through the South Gate into the Arg and up to the Governor's Quarter. This facilitates access to some of the important structures for restorers. For safety reasons, visitors' tour remains limited.
- The removal of debris constitutes a major problem which went along the consolidation of the ruined building along the main street and side paths, which subsequently used as an access to structures.
- A light effect system was designed for protection and safety reasons; it also aims to aesthetic aspects.
- The assessment of damaged structures in the Arg and in the town was another action taken after the earthquake. The Task Force has since been organized to collect documentation regarding the typology of architecture, town planning, structural problems and on other relevant topics, etc.

However ICHHTO and Bam World Heritage Base have also sustained efforts in implementing the corrective measures within the site in the last two years. Following is a list of these measures considering the preservation of Bam and its Cultural Landscape integrity, authenticity and Outstanding Universal Values of the site:

Research and Recognition

- Processing photogrammetry surveys on the western fort (drawing plans, elevations and sections of the for 560 m including 14 Towers and 13 walls)
- Processing photogrammetry surveys on the northern fort (drawing plans, elevations and sections of the for 620 m including 15 towers and 16 walls)

- Processing photogrammetry surveys, drawing plans, elevations and sections of the significant structures in Bam Cultural Landscape (Rahim Abaad Edifice, Western installations of Yakhdan)
- Processing photogrammetry surveys, drawing plans, elevations and sections of the castles within the cultural landscape and Bam cultural axis (Qale Sang, Fahraj Castle, Naeem Abaad Castle, Shahab Abaad Castle and Negarestan Castle)
- Surveying the significant qanats within Bam Cultural Landscape (Akbar Abaad qanat, Qassem Abaad qanat, etc.)
- Sketching and mapping the castles and Bam cultural axis (15 Castles)
- Archeological surveys on western Fort of the citadel (for 560 m including 14 towers and 13 walls)
- Archeological surveys on northern Fort of the citadel (for 620 m including 15 towers and 16 walls)
- Archeological Surveys on existing castles in vicinity of landscape and cultural axis of Bam (60 Castles)
- Identification of 65 historical properties (sites, hills, etc.) as well as the castles in the landscape and cultural axis of Bam
- Archeological surveys on rock inscriptions of Bam Cultural landscape (12 inscriptions)
- Continuation of Archeological studies on tracks of hand-dug architectures within the citadel's forts
- Continuation of documenting the archaeological excavations
- Studying and preparing of restoration and preservation plans on the western fort (for 560 m including 14 towers and 13 walls)
- Studying and preparing of restoration and preservation plans on the northern fort (for 620 m including 15 towers and 16 forts)
- Studying and preparing the restoration and preservation plans on the structures and architectural properties of the site (western tower of the Governor's quarter, Governor's quarter western ramp, Governor's quarter western fort, 2nd Gate, 3rd gate, Stable, eastern tower of 2nd fort)
- Studying and preparing of restoration and preservation plans on the significant structures of Bam Cultural Landscape (Henna grinding Factory, Vakil Complex, Yakhdaan, Mirza Ebrahim Shrine, Khaje Afaq Shrine)
- Studying the typology of adobes in site
- Studying the morphology of golden glazes samples
- Studying the morphology and inspecting the damages and faults in historic metal samples

Cultural and Communication

- Making an agreement between Deputy of Iranian Cultural Heritage and Cultural Ministry of Italy regarding the western fort of Arg-e Bam
- Establishment of cultural products shop with partnership of private sector within the site

- Continuation of collaboration with Dresden University on seismic reinforcements in Sistani's House
- Establishment of Steering Committee for Bam World Heritage Base

Introduction and Training

- Development of archeological and anthropological exhibitions



Figure 2. Archeological and anthropological exhibitions

- Installation of Signs and introduction facilities



Figure 3. Installation of signs

- Video Production of the "conservation achievements within a decade" in Bam with collaboration of private sector
- Celebration on the removing "Bam and its Cultural Landscape" from the list of World Heritage in Danger
- Establishment of a photo-exhibition on the conservation and restoration activities for the 10^{th} anniversary of earthquake in Tekiyeh

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- Collaboration in a session with the focus on "Bam and its Cultural Landscape" meeting with the Architecture Faculty of Tehran University for the 10th anniversary of the earthquake
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- Continuation of Training Courses on Bam Cultural Landscape in the city
- Supporting internships and research studies on the Bam and its Cultural Landscape
- Publishing the book "Nonagon Square and nine domes in architecture" (with a focus on Rahim Abaad Edifice)
- Presentation of the article "New findings on the inscriptions of Jebal Barez Hillside/ History and Archeology Magazine
- Presentation of the article "Experiences in improving adobe qualities and the improvements of structural seismic reactions in Bam World Heritage Site
- Presentation of the article "Experiences of a decade in preservation of Bam earthen Heritage
- Presentation of the article "Achievements and Challenges in preservation of Bam Cultural Heritage/ International Conference of Traditional Architecture in Portugal

Inscription and Possessions

- Collaboration in nomination of Akbar Abaad and Qassem Abaad qanats in the serial nomination of Iranian outstanding qanats

Restoration and preservation

- Accomplishment of conservation and restoration plans of Rahim Abaad Edifice
- Accomplishment of Conservation and restoration measures on Qale Dokhtar
- Accomplishment of Conservation and restoration plans of Khaje Afaagh's Shrine
- Accomplishment of Conservation and restoration measures at Mirza Ebrahim's Shrine
- Accomplishment of Conservation and restoration plans of Jewishs' House
- Accomplishment of Conservation and restoration measures at Eastern Tower of Citadel
- Accomplishment of Conservation and restoration measures at the fortifications of Western wall
- Continuation of Conservation and restoration measures at the towers and fortifications of Governor's Quarter
- Continuation of Conservation and restoration measures at Sistani's House
- Continuation of Conservation and restoration measures at the stable (Southern Hall, Western Hall, Southern Fort, Ab anbar, barn)
- Continuation of Conservation and restoration measures at Vakil Caravanserai in Bam

- Continuation of Conservation and restoration measures of Ameris' House
- Continuation of Conservation and restoration measures at henna grinding Factory
- Continuation of reorganizing the of gardens' walls in bam (Covering the incompatible materials with clay and straws plaster)
- Continuation of reorganizing the of garden's walls in bam (usage of traditional enclosures instead of Block Walls)
- Continuation of reorganizing the entrance zone to Jame Mosque of Bam
- Continuation of reorganizing the citadel resorts
- Conservation and restoration measures at Jame Mosque of Bam
- Conservation and restoration measures of northern fortification of the citadel
- Conservation and restoration measures of Nartij holy shrine



Figure 4. Removal of debris- Before



Figure 5. Removal of debris- After



Figure 6. Restoration and conservation- Before outlining the main structure



Figure 7. Restoration and conservation- After outlining the main structure



Figure 8. Restoration and conservation- Before revival



Figure 9. Restoration and conservation- After revival

Monitoring

- Holding periodic meetings of the cultural landscape team to finalize removing of illegal constructions in the buffer zone of Bam fault
- Removing Telecommunication towers in Landscape zone of Arg-e Bam
- Continuation of reorganizing gardens and palm farms' walls in collaboration of the owners
- Continuation of tracking the tree planting and revival of gardens by the authorities
- Continuation of monitoring patrols in Bam Cultural Landscape

Tourism and Handcrafts

- Assigning the restored areas of Citadel to artists and traditional artisans to train traditional arts and handicrafts in order to promote the tourist attractions



Figure 10. Rehabilitation of restored structures

- Continuation of restoration and preservation measures in Vakil Caravanserai, Ameris' Complex and Henna grinding Factory for further rehabilitation measures and promoting tourism development as well as encouraging the revival of handicrafts production

- Reorganizing Ab anbar of the stable to be rehabilitated as a teahouse
- Continuation of reorganizing the surrounding vicinities of Bam Citadel
- Continuation of reorganizing the recreational resorts of the citadel
- Reorganizing the furniture in the site



Figure 11. Reorganizing the furnitures

Responses to the statements of the decision 37 Com 7A.31

a) Revise the existing Management Plan to include visitor management component and action plans with timeframes and adequate resources for implementation,

The management plan of the World Heritage Site has included some visitor management approaches as it mentioned above, some of which has been implemented within the site.

Within a span after earthquake, damages caused by the earthquake had disrupted all the visiting paths. The pressure caused by visiting groups could damage the remains. So, a safe and flexible wooden path had been set up. It then accompanied with multi-lingual signs and designed furniture for more efficient and more attractive tours whether for national or international tourists and visitors. Establishment of introduction and handicraft exhibitions, rehabilitating historic structures to be used as recreational and resorts and employing tour guides within the site are some of these measures.



Figure 12. Reorganizing tour paths

The integrated management plan, its action plans and timeframes are however, under major revision under supervision of ICHHTO, Bam and its Cultural Landscape Base and its trustee

board. It will thus be presented to the World Heritage Centre as soon as receiving the national approval.

b) Control illegal construction and ensure effective protection of the buffer zone through the development and adoption of regulatory measures,

The master plan of Bam and its Cultural Landscape has been approved by the Higher Council for Architecture and Urban Planning [HCAUP] and is delivered to the related authorities, according which a team, including the governor of Bam, is gathered to supervise the activities within the vicinity of Bam. With the support of this team, all the economic, commercial and urban development projects have to be approved by Bam and its Cultural Landscape base before any implementations. Considering these activities, the base has had a major success in controlling the alteration of land use in agricultural lots and gardens, the height limitation in new constructions and remove non-adaptive elements and structures such as the gas station which had been constructed within the buffer zone of Bam fault, etc.

However, ICHHTO and Bam and its Cultural Landscape base would like to ensure permanent monitoring of the buffer zone and sustain efforts to prevent illegal constructions.



Figure 13. removal of non-adaptive structures

c) Achieve consistency in restoration through the development guidelines and criteria for interventions to ensure a balanced approach to conservation that sustains the conditions of authenticity and integrity of the property,

Despite all the difficulties arise from the numerous properties and large area of the site, as well as financial shortages, the restoration, preservation and conservation of the property and its buffer zone is active and effective. Development guidelines and criteria for interventions are all always subjects to study within the management plan of the site. The results of which are constantly includes in the training courses and awareness raising activities within the local society and even the authorities and appears clearly in the process of alteration of incompatible view of urban landscape with co-operation of locals.

d) Ensure continuing site security with the involvement of the local authorities and communities;

The 23000-ha site of Bam and its Cultural Landscape can, however, be threatened by various aspects, thus is subjected to a permanent security protection provided by ICHHTO with cooperation of police force of Bam. Despite all the efforts, the large area of core and buffer zone of the site needs progressive guarding. Bam and its Cultural Landscape base, thus, has managed to supply a better protection of this significant World Heritage Site with the contribution of local people by wide range of trainings.



Figure 14. Training courses for awareness rising



Figure 15. Training students on protection of the site