



# Integrated Approach for Nature-Culture Linkage at Mahasthan Heritage Site

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## ■ Abstract

*Mahasthangarh and its Environs is on the Tentative List of Bangladesh for nomination as World Heritage due to the significant interchange of human values that it exhibits, with interactions between nature and culture since the 3<sup>rd</sup> century BC. Due to changes in the landscape and the constant threat from natural hazards related to the monsoon climate, the linkage between nature and culture is being affected. For instance, the ancient water system that protects the settlements from stagnation of rainwater is not operational. Moreover, the local communities' traditional building techniques are currently threatened by the flow of modern materials. The objective of this paper is to explore these underlying issues which are eroding the nature-culture linkages of this site and outline recommendations for a comprehensive approach for the conservation of its nature and culture.*

**KEY WORDS:** Cultural heritage, Natural settings, Building resilience, Community.

## ■ 1. Introduction

Mahasthan and its surroundings exhibit an important relationship between nature and culture. The remains of the walled citadel show an outstanding example of an ancient metropolis, where people made use of the physical setting, topography, and natural features. For instance, changes in the course of the river and landforms created a protective separation between the ancient structures and potential natural hazards. Moreover, the villages surrounding the archaeological site have a long tradition of adobe architecture which reflects construction techniques adapted in response to the natural threats. Since the 3<sup>rd</sup> century BC, the Mahasthan area has undergone urbanization, then suburbanization, and later de-urbanization (Hossain 2013). In the present context, Mahasthan is located in a rural area, flourishing as the suburb of the new urban center of Bogra in Bangladesh. Since the beginning of the 19<sup>th</sup> century, different measures have been taken to protect the heritage site. But, due to the lack of a comprehensive approach that looks at the archaeological site and its surrounding

villages as a whole, the site faces great challenges for the use of its natural and cultural resources for sustainable development. This study explores the underlying issues that need to be addressed in order to build resilience, using nature-culture linkages through a community-based approach.

## ■ 2. Significance of Mahasthan and its surroundings

Mahasthan and its surrounding environments in Bengal exhibit a significant interchange of human values, like cultural practices and religious belief, ranging from the 3<sup>rd</sup> century BC to the 18<sup>th</sup> century AD. The remains of the ancient metropolis show developments in a township that evolved as overlapping layers of intervention on the fabric. The site is exceptional as it represents the ancient Pundranagar, which was the Provincial administrative headquarters, successively of the ancient Mauryan, Gupta, and Pala civilizations, which have already disappeared (Ahmed 1975). The ancient citadel and its surroundings are outstanding examples of making the best use of its physical setting, topography, and natural features. For

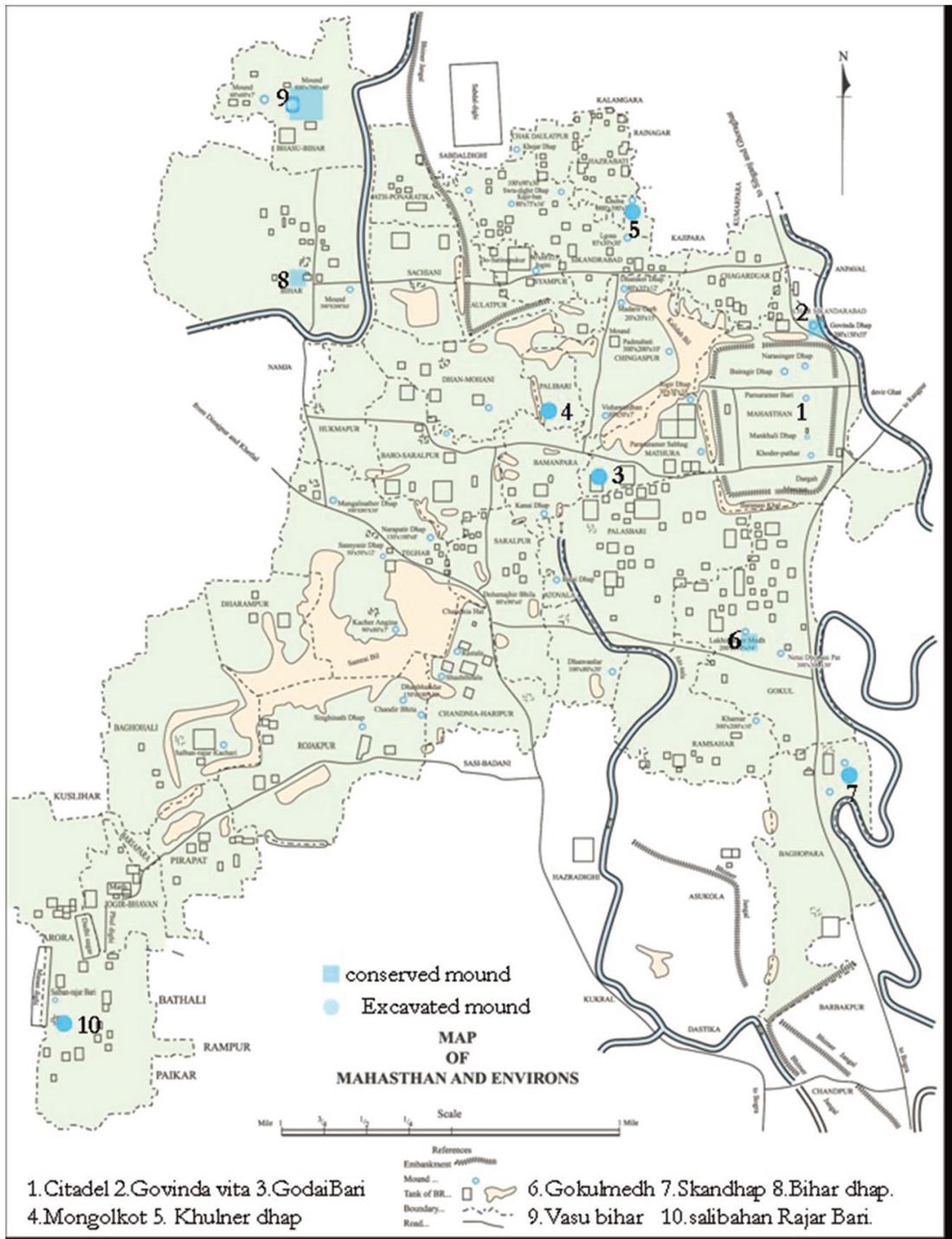


Figure 1: The core zone of Mahasthan's heritage site. (Source: Hossain 2013)

instance, in order to avoid flooding, the ancient metropolis was established on high lands, letting the water flow into the river through the surrounding moats. Moreover, the site is surrounded by traditional villages built of adobe which represents indigenous techniques that are resistant to the impact of strong winds, cyclones, and heavy rainfall.

*The Archaeological Remains*

The extensive archaeological remains of Mahansthargarh are spread along the Western bank of the River Karatoya. The site has two special features: the fortified citadel and its suburbs. The

citadel occupies an area of almost 208 hectares. The existing rampart wall and its inner remains reveal the fortified capital of the ancient city. The Northern, Western, and Southern sides of the fortified city were encircled by a deep moat. The river Karatoya flows on the Eastern side. Many isolated mounds are scattered around the citadel, testifying the existence of the vast suburbs of the ancient metropolis. The ruins form an oblong plateau, measuring 1.5 km N-S and 1.3km E-W, and is enclosed by the rampart walls that rise to an average height of 6m from the river level.

The excavation at the North Eastern area

within the citadel, conducted by the Department of Archaeology in 1960-61 and 1965-66, revealed dwellings of successive periods. Among the several building and rebuilding periods, the latest was found to represent the latter part of the Pala period (11<sup>th</sup> century AD) which is uniformly characterized by wall and floors that are composed mostly of the brickbats of earlier buildings. A remarkably well-preserved brick paved floor from the 2<sup>nd</sup> century BC, with a hearth and some timber holes at the center, was found in a deep trench. Moreover, there was a partial archaeological excavation in 1961 within the citadel that exposed an interesting temple complex from the 8<sup>th</sup> century AD (Ahmed 1975). According to the First Interim Report of The French Bangladesh joint excavation in 1993-99, the Eastern rampart area was a small domestic neighborhood. The excavation yielded remains of earthen architecture, like mud walls, clay floor, brick wall, and roofing tiles that dated from the 3<sup>rd</sup> centuries BC to the 2<sup>nd</sup> century AD. The excavation also revealed 7<sup>th</sup> – 12<sup>th</sup> centuries human settlements, like houses, courtyards, and wells, lined along a South to North well-paved street with brickbats (Bernard Boussac and Breuil 2001). Excavations in 2000 at the South-Eastern part of the Mazar area revealed both a pre-Muslim and Muslim building period. The remains of the pre-Muslim occupation are a fortification wall, a well-paved street with brickbats, and many movable objects. The remains of the Muslim phase are streets, a well, and other urban elements. Regular excavation up to 2005, conducted in the Mazar area, revealed a road and some remains of human settlements with a drainage system. Besides the citadel, 134 medieval and early medieval sites were identified in the Bogra district.

#### *Architectural Heritage*

Muslims ruled Mahasthan from Lakhnawati since the Muslim conquest at Bengal in 1204 AD. The kingdom of Lakhnawati came under the rule of the Mughals in 16<sup>th</sup> Century AD. In 1757, the British occupied Bengal (Ali and Bhattacharjee 1986). Some Mosques from the Mughal period still exists in the area. Also, many residential and administrative buildings from the British colonial period still exists, though in decay.

#### *Traditional Adobe Villages*

There are traditional adobe settlements of the potter and blacksmith communities. The traditional houses commonly have walls and floors made of local clay, thatched roofs, and terracotta tiles. The traditional settlements reveal significant features

of the traditional architecture in the region. To resist strong winds, they use gabled or hip roofs, tied with the main structure. The traditional craftsmanship of the local artisans and their settlements blended the components of intangible and tangible heritage.



*Figure 2: Traditional adobe settlement. (Source: Author 2009)*

#### *Palaeo-environment and Natural Heritage*

Bangladesh has a tropical monsoon climate that is determined by the monsoon wind. The climate is characterized by heavy rainfall, often excessive humidity, and fairly marked seasonal variations. Thus, Mahasthan and its surroundings are embedded in a rich natural environment that includes a diversity of trees, seasonal birds, and fish (Rahman 2000).

The cultural heritage of this site is deeply connected to the landscape. The early settlers of Mahasthan may have selected the Barindh high terraces to build their metropolis on the flood free area. The high terraces are located to the East of the Brahmaputra and were developed by river sediments, dating back to the Pleistocene period that was deposited by the ancient river system of the Tista (Rahman 2000).

The moat and the river might have served as a major transportation-route and drainage-line for the fortified city. The Karatoya River flows below the site of Mahasthan. It was formerly fed by the Tista and therefore used to have a heavy flow (Christine, Cyril and Kevin 2001). Nowadays, the Tista no longer feeds the Karatoya, and the Karatoya has become a very small river which dries up at the end of the dry season. A water channel was built along the north face of the ramparts to divert water into Barindh as the city's ramparts were destroyed by flooding on several occasions (Christine, Cyril and Kevin 2001). The fortified citadel is surrounded on its three sides by the artificial moats. Yet, the vast suburbs

are comprised of numerous marshes, lakes, and channels, like Hatibandha, Baranoshi, Kalidaho, and Sagor.



Figure 3: Part of the artificial moat around the citadel. (Source: Author 2019)



Figure 4: Part of the River Karatoya at Mahasthan. (Source: Author 2019)

#### *Intangible Heritage*

The cultural festivals and activities, like Baishaki mela, Chand mela at Shiladevir ghat, Poradaho mela, and Sesh Baishaki mela, are deeply rooted in the cultural landscape of the historic zone. The historic legends and folklores, associated with the cultural landscape of Mahasthan, have significant cultural values. *Laksindarer Medh*, or Behula-Laksindarer Basar-ghar, is popularly known as the nuptial room of the traditional heroine and hero of a popular ballad, Behula and Laksindar. It is also associated with the angry snake goddess -*Manasa*. The popular tales about the death of princess Sila, the beautiful daughter of King Parasurama, relates to Sila devir Ghat. During the Chand mela, a huge number of people of the Hindu religion, from Bangladesh and India, assemble at Shiladevirghat, near the western bank of the river Karatoya, for a bath.

#### ■ 3. Current management

The Bangladesh Government's Department of Archaeology is the main authority concerning the management and protection of the archaeological site. The Department of Tourism is also responsible for the promotion of tourism in the area. Within the "Antiquities Act, 1968 (Amendment at 1976)," there is a mandate for heritage resources protection and conservation. Areas located on the bank of the river Karotoya and within an 8 km radius around the South East corner of the citadel were already declared protected by the Department of Archaeology, Bangladesh in 1920.

The ownership pattern is different for different portions of the site. Most of the areas of the large sites are under different private ownership and are mostly used for agriculture. But some of the plots were acquired by the Government under the 'Land Acquisition Act 1894.'

#### ■ 4. Current State of Conservation and Challenges

Since the British colonial period, different measures have been taken to conserve different sites and monuments. During the rainy season, the water becomes stagnant due to drainage problems, which may affect the archaeological remains located at a lower level. Therefore, most of the archaeological sites are buried again soon after excavation. Large portions of the Northern and Eastern rampart walls, including the gateways, are already being restored by the Department of Archaeology. Inside the fortified citadel, the Jahaj ghata, Munirghon, and Jiat Kunda, the base remains of the pre-Mughal mosque, were also restored. Moreover, outside the citadel, part of the Bhasu bihara, Bihar dhap, Godabari dhap, Govinda vita, and Gokul medh were also restored. In 1920, under the 'Ancient monuments preservation Act-1904,' areas located on the bank of the river Karotoya and within the 8 km radius surrounding the south-east corner of the citadel were declared as a protected area. However, challenges to conservation still exist.

#### *Gap between ancient settlements & changing landscape*

Since the 2<sup>nd</sup> century BC, the landscape has changed notably, and many features of the ancient settlements have lost their original function. The river course has changed and the water flow has decreased. At present, the water channels and moats mostly remain dry and have already lost their original functions. However, most of

the archaeological remains inside the citadel are currently buried and the original drainage system, which was originally connected to the surrounding moats, is no longer in function. Thus, the linkage between nature and ancient remains is seriously affected and heavy rainfall has become a serious threat. In 2004-2005 a large portion of the Eastern rampart wall collapsed due to heavy rainfall.

#### *Gap between current practices and indigenous technique*

To resist natural threats, like cyclones, heavy rainfall, and strong winds, the communities of the traditional villages used local building techniques based on local materials. However, due to the lack of a comprehensive approach to conservation, with a focus on the resilience of cultural heritage, modern materials and techniques are gradually replacing the traditional ones. Industrial bricks are now replacing the earthen ones and traditional thatched roofs are now widely replaced by corrugated iron. Therefore, traditional values are being eroded. Moreover, for disaster preparedness and risk management, a top-down approach that does not consider local culture, experience, and skills are enforced, neglecting the potential of traditional and local knowledge for reducing vulnerabilities.

### ■ 5. Recommendations

Shifting the focus from an individual structure to the larger context, in the process of conservation, may reinforce the nature-culture linkages between the archaeological sites, its surrounding villages, and the natural setting. Conservation, therefore, may work as a planning tool to incorporate nature-culture linkages in building resilience. It is necessary to establish guidelines for sustaining heritage values and adapting them to the economic, social, and environmental contexts.

There are a number of recommendations that can be used to address the underlying issues found in this site.

#### *Revitalize the water-ways*

Rivers, water channels, and surrounding moats may be well dredged and interconnected to revive their function. These may be activated as important conduits for water-transport and drainage to revitalize the area. Moreover, different inland water bodies, marshes, lakes, channels, and household water reservoirs need to be revitalized in this regard.

However, the remaining archaeological layers may be further explored to identify the original drainage system inside the citadel. Reversible intervention may also be allowed to adopt an integrated drainage system which will allow stagnant water to pass through during rainy seasons.

#### *Promote indigenous knowledge and techniques for building resilience*

Traditional knowledge about natural phenomena and construction techniques to build resilience to disaster are being passed on to subsequent generations. Therefore, it is important to introduce heritage support programs to promote the traditional living pattern in the artisan villages, characterised by local materials. Moreover, capacity building programs on disaster preparedness and risk management with a focus on local know-how would be beneficial in order to adopt new strategies to address threats without affecting the heritage values.

#### *Introduction of special planning zone*

The entire heritage site may be included under a special planning zone for disaster preparedness and risk management, with a focus on protecting the cultural values. An effective buffer zone should be introduced, with guidelines for land use to protect the heritage from potential threats. It is also important to engage the local community in the planning process and integrate their feedback into the decision-making process.

#### *Ensure community participation in the heritage management*

In the neighbourhoods surrounding the archaeological site of Mahasthan, communities have been living for generations and possess a sense of belonging to the place. The benefit of this attachment is evident in cases of the Mughal mosques that are well managed and maintained on a regular basis by the local Muslim communities who keep the structures in continuous use. Communities are most knowledgeable about their heritage. The traditional adobe settlements are safeguarded and used by the local communities and embody the local identity and cultural essence in both tangible and intangible forms. Active community engagement in heritage management and conservation, with a focus on disaster and risk management, will help to ensure continuity and sustainability of the linkage between nature and culture.

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