Taxila Regional Site Conservation Assessment
for Global Heritage Fund

2011
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*Note: For imagery, see "Management Plan Recommendations for Taxila" document.
GHN Site Conservation Assessment (SCA)

Site Conservation Assessment (SCA) Report

Date: 29th October, 2010

Site Name: Bhir Mound

Country: Pakistan

GHN Site Monitor's Name: Muhammad Safdar Khan

Institution: Department of Conservation Studies, Hazara University, Mansehra

Profession: Teaching and Research (Chairman, Department of Conservation Studies)

Affiliations: Department of Conservation Studies, Hazara University, Mansehra

Dates of visit: 29th October, 2010

World Heritage Status: National Heritage (The serial ID number of Bhir mound as world heritage is 139-003 in UNESCO world heritage sites list)

Annual Visitation and Revenues

National Tourism Income (% of Total): 50%

Entrance Fee Revenue: Rs. 3.316 M

Concession Revenues: Nil

Approximate number of visitors annually:

National: 11380  Foreign: 3830 (2009)

Growth from 2000: National: 110530  Foreign: 11290

2005: National: 113670  Foreign: 7690

Site Historical Archives-

The remains of Taxila are spread over a large area and have been distributed into various sections. The archaeological remains of Bhir Mound are the oldest ruins of Taxila. These ruins are the remains of a thriving city that flourished from the 6th to the 2nd centuries BC. Darius conquered Bhir Mound in 518 BC. In 326 BC, Alexandra came to this area and conquered Bhir Mound. The ruins of Bhir Mound stretch back to 6th to 2nd century BC. The remains of Bhir Mound are present near Taxila museum. The remains of Bhir Mound comprise the blocks of dwelling houses and shops divided by
streets and lanes. There are no fortifications around the monastery of Bhir Mound. This ancient city was built on a small plateau in the open fields. The houses of Bhir Mound city were probably made of stone rubble with wooden ceilings. The settlement at the Bhir mound was an urban settlement and it was ended when the Bactrian Greeks built a new city called Sirkap. The masonry used in the Bhir Mound remains is lime stone and rubble with little Kanjur stones. All specimens are bounded together by mud mixed with chopped straw.

### Site Name: Bhir Mound, Taxila

<table>
<thead>
<tr>
<th>Entry Fee (Domestic):</th>
<th>Rs. 10</th>
<th>(International):</th>
<th>Rs.200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge for Camera:</td>
<td>Nil</td>
<td>Video:</td>
<td>Nil</td>
</tr>
<tr>
<td>Guides available</td>
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Note: Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
Site Name: Bhir Mound

General condition:

The bio deterioration of stone moments at Bhir Mound is very obvious. A variety of biological agents including mosses, higher plants, fungi and algae are present on the surface of the monuments. UNESCO declared the remains of ancient city of Bhir Mound as a World Heritage site in 1980.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the sings of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during moon soon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:

Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

Integrity and Authenticity of the Site According to its Universal Values?

Bhir Mound is declared as world heritage site by UNESCO.

The serial ID number of Bhir mound as world heritage is 139-003 in UNESCO world heritage sites list.
Site Values: Are these values readily communicated to the public? Yes

Site Name: Bhir Mound

Recommendations

• Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfall. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

• Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

• The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

• Experienced and trained technical staff should be appointed.

• Besides the manual methods of conservation, modern techniques should also be applied in Bhir Mound site.

Photography and Mapping

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

Estimation of your Personal Experience (scale of 0-10 points):

Performa is filed and attached.

Additional comments:

The present condition of preservation of Julian site is not satisfactory. The structural decay and growth of wild plants is very obvious. The deterioration of stone material of monuments is very common. The lack of proper techniques and technical staff is one of the main reasons to detain the decay features of these monuments. The periodic cleaning of wild plants is not useful for long period of time. The future of these monuments is under the threat of decay and deterioration. Proper measurements to preserve the monuments should be taken as soon as possible.
Quantitative Assessment - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below.

Site Name: Bhir Mound

<table>
<thead>
<tr>
<th>Area of Assessment</th>
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<td>Due to lack of trained staff and funding site conservation plan is not fruitful.</td>
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<td>6</td>
<td>Most of the monuments of the site are in good and visible form</td>
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<td>5. Authenticity</td>
<td>7</td>
<td>The Bhir Mound site is a world heritage site</td>
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<tr>
<td>6. Management</td>
<td>6</td>
<td>To some extent it is proper. Archaeology Department is involved in preservation of the site</td>
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<td>7. Community Involvement</td>
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<td>Only cleaning of wild plants is carried out but the removal of microbial communities and prevention of structural decay has not been taken yet.</td>
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<td>9. Living Heritage</td>
<td>8</td>
<td>It is not living site but is a world heritage site and worth seeing</td>
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<tr>
<td>10. Visitor Experience</td>
<td>8</td>
<td>It is one of the most valuable archaeological site of Taxila with many precious monuments but due to many factors its future existence is questionable.</td>
</tr>
</tbody>
</table>

Total Average Score: 6.4
Qualitative Assessment

Site Name: Bhir Mound

Site Background

The remains of Taxila are spread over a large area, and have been distributed into various sections. The archaeological remains of Bhir Mound are the oldest ruins of Taxila. These ruins are the remains of a thriving city that flourished from the 6th to the 2nd centuries BC. Darius conquered Bhir Mound in 518 BC. In 326 BC Alexandra came to this area and conquered Bhir Mound. The ruins of Bhir Mound stretched back to 6th to 2nd century BC. The remains of Bhir Mound are present near Taxila museum. The remains of Bhir Mound comprise the blocks of dwelling houses and shops divided by streets and lanes. There is no fortification around monastery of Bhir Mound. This ancient city was built on a small plateau in the open fields. The houses of Bhir Mound city were probably made of stone rubble with wooden ceilings. Settlement at the Bhir mound was an urban settlement and it was ended when the Bactrian Greeks built a new city called Sirkap.

The masonry used in Bhir Mound remains is limestone and rubble with little Kanjur stones. All specimens are bounded together by mud mixed with chopped straws.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Julian site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):

Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:

1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants

Current Protection Level: Not good but satisfactory.
Management Plans management plan for Sirkap site is under the Department of Archaeology and Museums

**Funding:** Local funding by Ministry of Culture (TTS, Taxila to Swat Project)

**Staffing Levels (Human Resources):**

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<tr>
<th>Designation</th>
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<td>Curator</td>
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<td>Assistant Curator</td>
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<td>2</td>
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<td>Site Supervisor</td>
<td>1</td>
</tr>
<tr>
<td>Site Attendants</td>
<td>10</td>
</tr>
</tbody>
</table>

**Sources of Expertise and Training in Conservation and Management Techniques:**
Nothing at site but Archaeological Conservation Lab. is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

**Scientific Studies:** Nothing

**Education and Awareness Building:** Only through the broachers and maps provided to visitors

**Training & Capacity Building:** Transmitting Heritage to Future Generations no proper project

**Factors Affecting the Properties Physical, Chemical and Biological factors:** (Detail is given in site conservation assessment section)

**Governance and Management:** As designated by Department of Archaeology and Museums, Pakistan.

**Agencies Responsible:** Department of Archaeology and Museums, Ministry of Culture

**Latest Events and Current Situation:** Periodic cleaning of wild plants and no scientific study has been conducted.

**State of Site Planning:** unsatisfactory

**Scientific Conservation:** No measures or scientific investigation has been conducted for conservation of Bhir Moundsite.

**Site Infrastructure:** Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

**Community Development:** No involvement of local masses in the protection of monuments of Bhir Mound site.
GHN Site Conservation Assessment (SCA)

Private Sector Involvement: UNESCO

Top Priorities for Conservation:

1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.

2. Scientific studies to understand the process of biological decay and growth.

3. Non-destructive measures to protect the Bhir Mound sites

4. Proper future planning to preserve Bhir Mound site from severe environmental factors

5. Generation of funds for the conservation of stone monuments of Bhir Mound site.

6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
GHN Site Conservation Assessment (SCA)

Conservation Funding

Is site funding sufficient?
Has extra funding been drawn in through the World Heritage status?
Does the site have sufficient funding available for the adequate management of the site?
Has the site received financial assistance? State estimated amounts:
  - Government
  - National
  - Regional
  - Municipal
  - International
  - Bi-lateral cooperation
  - Other

Staffing Levels (Human Resources)

Are adequate professional staff available across the following disciplines?

• Conservation
• Management
• Promotion
• Interpretation

Is training available for home-owners at site level?
Is on-site training available for all stakeholders (ie homeowners, others)?

Community Involvement

Is there awareness of the Heritage property among various groups?

Have information channels been identified for reaching relevant groups at local, national and international level?

Have mechanisms been established for effective communication between site, national and UNESCO levels?

Has information material encouraging sustainable tourism, such as a ‘Code of Conduct’ been developed?

How can the local communities reach the full potential of their heritage, both tangible and intangible?

Legal

Is there is special national or regional legislation for World Heritage site?

Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

**Disaster Preparedness**

Which natural disasters threaten the site's integrity or may compromise its values?

How can the site's disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

**Tourism Management**

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

How can the impact of humans on the historic materials and site be reduced? Eliminated?

How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there a guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?
GHN Site Conservation Assessment (SCA)

Site Conservation Assessment (SCA) Report

Date: 10th October, 2010

Site Name: Dharmarajika

Country: Pakistan

GHN Site Monitor's Name: Muhammad Safdar Khan

Institution: Department of Conservation Studies, Hazara University, Mansehra

Profession: Teaching and Research (Chairman, Department of Conservation Studies)

Affiliations: Department of Conservation Studies, Hazara University, Mansehra

Dates of visit: 10th October, 2010

World Heritage Status: National Heritage The serial ID number of Dharmarajika as world heritage is 139-006 in UNESCO world heritage sites list.

Annual Visitation and Revenues

National Tourism Income (% of Total): 50%

Entrance Fee Revenue: Rs. 3.316 M

Concession Revenues: Nil

Approximate number of visitors annually:

National: 120450 Foreign: 4930 (2009)

Growth from 2000: National: 110760 Foreign: 12145

2005: National: 12456 Foreign: 7754

Site Historical Archives-

Dharmarajika Stupa is one of the eight shrines constructed in the 3rd century BC during the reign of Emperor Ashoka of the Mauryan dynasty. It is earliest Buddhist stupa in Taxila. The shrine gradually expanded, reaching its largest size in the 2nd century AD.

The remains of vast monasteries that are barely distinguishable are present near the main stupa of Dharmarajika.

Dharmarajika stupa is the largest Buddhist stupa in Taxila. Many smaller stupas were
constructed around the relics of Buddha. Many chapels and stupas were added over a period of four centuries ending in 5th century AD. Dharmarajika stupa is situated at the foot of Hatial spur on its southern side. The modern name of Dharmarajika is Chirtope. Dharmarajika is also famous for monastic quarters, stupas and chapels. The remains of Dharmarajika are a source of valuable data for history, local architecture and art of past times. The masonry of Dharmarajika remains is rough limestone rubble. Dharmarajika was a monastic settlement. The serial ID number of Dharmarajika as world heritage is 139-006 in UNESCO world heritage sites list.

**Site Name:** Dharmarajika, Taxila

<table>
<thead>
<tr>
<th>Service</th>
<th>Domestic</th>
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<tbody>
<tr>
<td>Entry Fee (Domestic)</td>
<td>Rs. 10</td>
<td>(International): Rs.200</td>
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<tr>
<td>Charge for Camera</td>
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<td>Video: Nil</td>
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<tr>
<td>Guides available</td>
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Note: Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
Site Name: Dharmarajika

General condition:

Dharmarajika Stupa is one of the eight shrines constructed in the 3rd century BC during the reign of Emperor Ashoka of the Mauryan dynasty. It is earliest Buddhist stupa in Taxila. The shrine gradually expanded, reaching its largest size in the 2nd century AD. The remains of vast monasteries that are barely distinguishable are present near the main stupa of Dharmarajika.

Dharmarajika stupa is the largest Buddhist stupa in Taxila. Many smaller stupas were constructed around the relics of Buddha. Many chapels and stupas were added over a period of four centuries ending in 5th century AD. Dharmarajika stupa is situated at the foot of Hatial spur on its southern side. The modern name of Dharmarajika is Chirtope. Dharmarajika is also famous for monastic quarters, stupas and chapels. The remains of Dharmarajika are a source of valuable data for history, local architecture and art of past times. The masonry of Dharmarajika remains is rough limestone rubble. Dharmarajika was a monastic settlement. The serial ID number of Dharmarajika as world heritage is 139-006 in UNESCO world heritage sites list.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the sings of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during moon soon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:
Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

**Integrity and Authenticity of the Site According to its Universal Values?**

Dharmarajika is declared as world heritage site by UNESCO.

The serial ID number of Dharmarajika as world heritage is 139-006 in UNESCO world heritage sites list.

**Site Values:** Are these values readily communicated to the public? Yes

**Site Name: Dharmarajika**

**Recommendations**

- Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfalls. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

- Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

- The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

- Experienced and trained technical staff should be appointed.

- Besides the manual methods of conservation, modern techniques should also be applied in Dharmarajika site.

**Photography and Mapping**

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

**Estimation of your Personal Experience** (scale of 0-10 points):

Performa is filed and attached.

**Additional comments:**

The present status of the monuments of Dharmarajika site is not satisfactory. There is a
large number of different colored biofilms, Patinas and stains on all stupas of Dharmarajika. The structural damage of these stupas is also noticeable.

**Quantitative Assessment** - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below.

**Site Name: Dharmarajika**

<table>
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Total Average Score: 6.4

Qualitative Assessment

Site Name: Dharmarajika

Site Background

Dharmarajika Stupa is one of the eight shrines constructed in the 3rd century BC during the reign of Emperor Ashoka of the Mauryan dynasty. It is earliest Buddhist stupa in Taxila. The shrine gradually expanded, reaching its largest size in the 2nd century AD. The remains of vast monasteries that are barely distinguishable are present near the main stupa of Dharmarajika.

Dharmarajika stupa is the largest Buddhist stupa in Taxila. Many smaller stupas were constructed around the relics of Buddha. Many chapels and stupas were added over a period of four centuries ending in 5th century AD. Dharmarajika stupa is situated at the foot of Hatial spur on its southern side. The modern name of Dharmarajika is Chirtope. Dharmarajika is also famous for monastic quarters, stupas and chapels. The remains of Dharmarajika are a source of valuable data for history, local architecture and art of past times. The masonry of Dharmarajika remains is rough limestone rubble. Dharmarajika was a monastic settlement. The serial ID number of Dharmarajika as world heritage is 139-006 in UNESCO world heritage sites list.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Dharmarajika site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):

Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:

1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants
Current Protection Level: Not good but satisfactory.

Management Plans management plan for Dharmarajika site is under the Department of Archaeology and Museums

Funding: Local funding by Ministry of Culture (TTS, Taxila to Swat Project)

Staffing Levels (Human Resources):

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Sources of Expertise and Training in Conservation and Management Techniques: Nothing at site but Archaeological Conservation Lab. is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

Scientific Studies: Nothing

Education and Awareness Building: Only through the broachers and maps provided to visitors

Training & Capacity Building: Transmitting Heritage to Future Generations no proper project

Factors Affecting the Properties Physical, Chemical and Biological factors: (Detail is given in site conservation assessment section)

Governance and Management: As designated by Department of Archaeology and Museums, Pakistan.

Agencies Responsible: Department of Archaeology and Museums, Ministry of Culture

Latest Events and Current Situation: Periodic cleaning of wild plants and no scientific study has been conducted.

State of Site Planning: unsatisfactory
GHN Site Conservation Assessment (SCA)

**Scientific Conservation:** No measures or scientific investigation has been conducted for conservation of Dharmarajika site.

**Site Infrastructure:** Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

**Community Development:** No involvement of local masses in the protection of monuments of Dharmarajika site.

**Private Sector Involvement:** UNESCO

**Top Priorities for Conservation:**

1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.

2. Scientific studies to understand the process of biological decay and growth.

3. Non-destructive measures to protect the Dharmarajika sites

4. Proper future planning to preserve Dharmarajika site from severe environmental factors

5. Generation of funds for the conservation of stone monuments of Dharmarajika site.

6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
GHN Site Conservation Assessment (SCA)

**Conservation Funding**

Is site funding sufficient?
Has extra funding been drawn in through the World Heritage status?
Does the site have sufficient funding available for the adequate management of the site?
Has the site received financial assistance? State estimated amounts:
  - Government
  - National
  - Regional
  - Municipal
  - International
  - Bi-lateral cooperation
  - Other

**Staffing Levels (Human Resources)**

Are adequate professional staff available across the following disciplines?

- Conservation
- Management
- Promotion
- Interpretation

Is training available for home-owners at site level?
Is on-site training available for all stakeholders (ie homeowners, others)?

**Community Involvement**

Is there awareness of the Heritage property among various groups?
Have information channels been identified for reaching relevant groups at local, national and international level?
Have mechanisms been established for effective communication between site, national and UNESCO levels?
Has information material encouraging sustainable tourism, such as a ‘Code of Conduct’ been developed?
How can the local communities reach the full potential of their heritage, both tangible and intangible?

**Legal**

Is there is special national or regional legislation for World Heritage site?
Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

Disaster Preparedness

Which natural disasters threaten the site's integrity or may compromise its values?

How can the sites disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

Tourism Management

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

How can the impact of humans on the historic materials and site be reduced? Eliminated?

How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?
GHN Site Conservation Assessment (SCA)

Site Conservation Assessment (SCA) Report

Date: 18th October, 2010

Site Name: Jaulian

Country: Pakistan

GHN Site Monitor's Name: Muhammad Safdar Khan

Institution: Department of Conservation Studies, Hazara University, Mansehra

Profession: Teaching and Research (Chairman, Department of Conservation Studies)

Affiliations: Department of Conservation Studies, Hazara University, Mansehra

Dates of visit: 18th October, 2010

World Heritage Status: National Heritage: The serial ID number of Jaulian as world heritage is 139-015 in UNESCO world heritage sites list.

Annual Visitation and Revenues

| National Tourism Income (% of Total) | 50% |
| Entrance Fee Revenue:                | Rs. 3.316 M |
| Concession Revenues:                 | Nil |

Approximate number of visitors annually:

National: 12450  Foreign: 4380 (2009)

Growth from 2000: National: 100430  Foreign: 10280

2005: National: 114670  Foreign: 6790

Site Historical Archives-

The monastery and University of Jaulian was situated on a mountain top that rises some 100 meters. Like other monasteries in Gandhara period, the cells surrounded a rectangular central court with a bathroom, an assembly hall, a storeroom, a kitchen, a refectory and a latrine. The settlement had been restored briefly before it was abandoned after the invasion of the White Huns at the end of the 5th century. Therefore, the decorations are better preserved than those at Mohra Moradu, but unfortunately, they are of a poorer quality.

The ruins of Jaulian belong to Buddhist monastery. There are twenty one votive stupas
around main stupa of Jaulian archaeological site. Some original structures were permanently shifted to some other places. Jaulian monastery was founded in 2nd AD but enlarged in 5th century AD.

Jaulian ruins are consisted of historic chapels, monastery and stupas. The figural decoration on stupas is very famous and has archaeological values. Masonry of archaeological remains of Jaulian is coarse diaper, semi ashler, roughly squared stones, lime mortar, mud, lime and river gravel. The floor of stupas is covered with concrete and lime plaster. Kanjur blocks with mud are used in figural decoration of Buddha. The settlement of Jaulian was on monastic pattern.

Site Name: JAULIAN, Taxila

Entry Fee (Domestic): Rs. 10   (International): Rs.200
Charge for Camera: Nil   Video: Nil
Guides available No
Quality of guides: NA
Languages Available: English and Urdu
Literature available Yes
Quality: Good printing quality
Custodians Yes
Quality: Good
Supervisory Staff Yes
Quality: Good

Note: Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
Site Name: JAULIAN

General condition:

The ruins of Jaulian are also under severe biodecay. The growth of biological agents is very common. The effects of biological decay can easily be observed visually on the surface of monuments. The different colored stains and patinas due to biological growths are very common on these monuments. The remains of Jaulian were included in world heritage list in 1980 and the serial ID number of Jaulian as world heritage is 139-015 in UNESCO world heritage sites list.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the signs of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during moon soon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:

Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

Integrity and Authenticity of the Site According to its Universal Values?

JAULIAN is declared as world heritage site by UNESCO.
The remains of Jaulian were included in world heritage list in 1980 and the serial ID number of Jaulian as world heritage is 139-015 in UNESCO world heritage sites list.

Site Values: Are these values readily communicated to the public? Yes

Site Name: Jaulian

Recommendations

• Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfall. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

• Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

• The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

• Experienced and trained technical staff should be appointed.

• Besides the manual methods of conservation, modern techniques should also be applied in jaulian site.

Photography and Mapping

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

Estimation of your Personal Experience (scale of 0-10 points):

Performa is filed and attached.

Additional comments:

The present condition of preservation of Julian site is not satisfactory. The structural decay and growth of wild plants is very obvious. The deterioration of stone material of monuments is very common. The lack of proper techniques and technical staff is one of the main reasons to detain the decay features of these monuments. The periodic cleaning of wild plants is not useful for long period of time. The future of these monuments is under the threat of decay and deterioration. Proper measurements to preserve the monuments
should be taken as soon as possible. Special care is needed for the shelters over stucco statues as rain water is going to deteriorate the same.

**Quantitative Assessment** - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below.

**Site Name: Jaulian**

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<td>Most of the monuments of the site are in good and visible form</td>
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<td>6. Management</td>
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<td>To some extent it is proper. Archaeology Department is involved in preservation of the site</td>
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<td>8. Responsible Development</td>
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<td>Only cleaning of wild plants is carried out but the removal of microbial communities and prevention of structural decay has not been taken yet.</td>
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<td>9. Living Heritage</td>
<td>6</td>
<td>It is not living site but is a world heritage site and worth seeing</td>
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</table>
Visitor Experience

It is one of the most valuable archaeological site of Taxila with many precious monuments but due to many factors its future existence is questionable.

Total Average Score: 6.4

Qualitative Assessment

Site Name: Jaulian

Site Background

The monastery and University of Jaulian was situated on a mountain top that rises some 100 meters. Like other monasteries in Gandhara period, the cells surrounded a rectangular central court with a bathroom, an assembly hall, a storeroom, a kitchen, a refectory and a latrine. The settlement had been restored briefly before it was abandoned after the invasion of the White Huns at the end of the 5th century. Therefore, the decorations are better preserved than those at Mohra Moradu, but unfortunately, they are of a poorer quality.

The ruins of Jaulian belong to Buddhist monastery. There are twenty one votive stupas around main stupa of Jaulian archaeological site. Some original structures were permanently shifted to some other places. Jaulian monastery was founded in 2nd AD but enlarged in 5th century AD.

Jaulian ruins are consisted of historic chapels, monastery and stupas. The figural decoration on stupas is very famous and has archaeological values. Masonry of archaeological remains of Jaulian is coarse diaper, semi ashler, roughly squared stones, lime mortar, mud, lime and river gravel. The floor of stupas is covered with concrete and lime plaster. Kanjur blocks with mud are used in figural decoration of Buddha. The settlement of Jaulian was on monastic pattern.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Julian site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):

Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:

1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants

**Current Protection Level:** Not good but satisfactory.

Management Plans management plan for Jaulian site is under the Department of Archaeology and Museums

**Funding:** Local funding by Ministry of Culture (TTS, Taxila to Swat Project)

**Staffing Levels (Human Resources):**

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<td>1</td>
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<td>Site Attendants</td>
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</tr>
</tbody>
</table>

**Sources of Expertise and Training in Conservation and Management Techniques:** Nothing at site but Archaeological Conservation Lab. is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

**Scientific Studies:** Nothing

**Education and Awareness Building:** Only through the broachers and maps provided to visitors

**Training & Capacity Building:** Transmitting Heritage to Future Generations no proper project

**Factors Affecting the Properties Physical, Chemical and Biological factors:** (Detail is given in site conservation assessment section)

**Governance and Management:** As designated by Department of Archaeology and Museums, Pakistan.

**Agencies Responsible:** Department of Archaeology and Museums, Ministry of Culture

**Latest Events and Current Situation:** Periodic cleaning of wild plants and no scientific study has been conducted.

**State of Site Planning:** unsatisfactory
Scientific Conservation: No measures or scientific investigation has been conducted for conservation of Jaulian site.

Site Infrastructure: Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

Community Development: No involvement of local masses in the protection of monuments of Jaulian site.

Private Sector Involvement: UNESCO

Top Priorities for Conservation:

1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.
2. Scientific studies to understand the process of biological decay and growth.
3. Non-destructive measures to protect the Jaulian sites
4. Proper future planning to preserve Jaulian site from severe environmental factors
5. Generation of funds for the conservation of stone monuments of Jaulian site.
6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
GHN Site Conservation Assessment (SCA)

Conservation Funding

Is site funding sufficient?

Has extra funding been drawn in through the World Heritage status?

Does the site have sufficient funding available for the adequate management of the site?

Has the site received financial assistance? State estimated amounts:
- Government
- National
- Regional
- Municipal
- International
- Bi-lateral cooperation
- Other

Staffing Levels (Human Resources)

Are adequate professional staff available across the following disciplines?

- Conservation
- Management
- Promotion
- Interpretation

Is training available for home-owners at site level?

Is on-site training available for all stakeholders (ie homeowners, others)?

Community Involvement

Is there awareness of the Heritage property among various groups?

Have information channels been identified for reaching relevant groups at local, national and international level?

Have mechanisms been established for effective communication between site, national and UNESCO levels?

Has information material encouraging sustainable tourism, such as a ‘Code of Conduct’ been developed?

How can the local communities reach the full potential of their heritage, both tangible and intangible?

Legal

Is there is special national or regional legislation for World Heritage site?

Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

**Disaster Preparedness**

Which natural disasters threaten the site's integrity or may compromise its values?

How can the site's disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

**Tourism Management**

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

How can the impact of humans on the historic materials and site be reduced? Eliminated?

How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?
Mohra Moradu belongs to Kushan age. The city was built in 3rd century AD and renovated in 5th century AD. The ruins of Mohra Moradu are situated near a village of the same name. Monastery of Mohra Moradu is approached through a gap across the water channel coming from Khanpur dam. In Mohra Moradu site wild olive and Sonatha shrub flourish freely among the rocks. The stupa of Mohra Moradu site stands on a double rectangular terrace with an offset projection for the steps on the east. This Stupa has a figural decoration of Buddha and Deva. The steps of monastery are made of lime stone. Mohra Moradu Monastery flourished as a beacon of knowledge from 3rd to 5th centuries.
AD and is located in a small valley between Sirkap and Jaulian. The monastery was once a place of meditation in the rural areas outside of Sirkap city. The stupa of Mohra Moradu is famous for many base-relics of Buddha that adorn its base. The monastic cells around the stupa are badly damaged. Mohra Moradu was a monastic settlement.

**Site Name:** Mohra Moradu, Taxila

- **Entry Fee (Domestic):** Rs. 10
- **Entry Fee (International):** Rs. 200
- **Charge for Camera:** Nil
- **Video:** Nil
- **Guides available:** No
- **Quality of guides:** NA
- **Languages Available:** English and Urdu
- **Literature available:** Yes
- **Quality:** Good printing quality
- **Custodians:** Yes
- **Quality:** Good
- **Supervisory Staff:** Yes
- **Quality:** Good

- **Note:** Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
Site Name: Mohra Moradu

General condition:

The bio deterioration of stone moments at Mohra Moradu is very obvious. A variety of biological agents including mosses, higher plants, fungi and algae are present on the surface of the monuments. UNESCO declared the remains of ancient city of Mohra Moradu as world heritage in 1980.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the signs of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during moon soon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:

Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

Integrity and Authenticity of the Site According to its Universal Values?

Mohra Moradu is declared as world heritage site by UNESCO.

The serial ID number of Mohra Moradu as world heritage is 139-013 in UNESCO world heritage sites list.
GHN Site Conservation Assessment (SCA)

Site Values: Are these values readily communicated to the public? Yes

Site Name: Mohra Moradu

Recommendations

- Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfall. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

- Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

- The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

- Experienced and trained technical staff should be appointed.

- Besides the manual methods of conservation, modern techniques should also be applied in Mohra Moradu site.

Photography and Mapping

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

Estimation of your Personal Experience (scale of 0-10 points):

Performa is filed and attached.

Additional comments:

The present condition of preservation of Mohra Moradu site is not satisfactory. The structural decay and growth of wild plants is very obvious. The deterioration of stone material of monuments is very common. The lack of proper techniques and technical staff is one of the main reasons to detain the decay features of these monuments. The periodic cleaning of wild plants is not useful for long period of time. The future of these monuments is under the threat of decay and deterioration.
Quantitative Assessment - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below.

Site Name: Mohra Moradu

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<td>It is one of the most valuable archaeological site of Taxila with many precious monuments but due to many factors its future existence is questionable.</td>
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Total Average Score: 6.4

Qualitative Assessment
Site Name: Mohra Moradu

Site Background

Mohra Moradu belongs to Kushan age. The city was built in 3rd century AD and renovated in 5th century AD. The ruins of Mohra Moradu are situated near a village of the same name. Monastery of Mohra Moradu is approached through a gap across the water channel coming from Khanpur dam. In Mohra Moradu site wild olive and Sonatha shrub flourish freely among the rocks. The stupa of Mohra Moradu site stands on a double rectangular terrace with an offset projection for the steps on the east. This Stupa has a figural decoration of Buddha and Deva. The steps of monastery are made of lime stone. Mohra Moradu Monastery flourished as a beacon of knowledge from 3rd to 5th centuries AD and is located in a small valley between Sirkap and Jaulian. The monastery was once a place of meditation in the rural areas outside of Sirkap city. The stupa of Mohra Moradu is famous for many base-relics of Buddha that adorn its base. The monastic cells around the stupa are badly damaged. Mohra Moradu was a monastic settlement.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Mohra Moradu site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):

Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:

1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants

Current Protection Level: Not good but satisfactory.

Management Plans management plan for Mohra Moradu site is under the Department of Archaeology and Museums

Funding: Local funding by Ministry of Culture (ITTS, Taxila to Swat Project)
Staffing Levels (Human Resources):

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Sources of Expertise and Training in Conservation and Management Techniques: Nothing at site but Archaeological Conservation Lab. is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

Scientific Studies: Nothing

Education and Awareness Building: Only through the broachers and maps provided to visitors

Training & Capacity Building: Transmitting Heritage to Future Generations no proper project

Factors Affecting the Properties Physical, Chemical and Biological factors: (Detail is given in site conservation assessment section)

Governance and Management: As designated by Department of Archaeology and Museums, Pakistan.

Agencies Responsible: Department of Archaeology and Museums, Ministry of Culture

Latest Events and Current Situation: Periodic cleaning of wild plants and no scientific study has been conducted.

State of Site Planning: unsatisfactory

Scientific Conservation: No measures or scientific investigation has been conducted for conservation of Mohra Moradu site.

Site Infrastructure: Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

Community Development: No involvement of local masses in the protection of monuments of Mohra Moradu site.

Private Sector Involvement: UNESCO

Top Priorities for Conservation:
1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.

2. Scientific studies to understand the process of biological decay and growth.

3. Non-destructive measures to protect the Mohra Moradu sites

4. Proper future planning to preserve Mohra Moradu site from severe environmental factors

5. Generation of funds for the conservation of stone monuments of Mohra Moradu site.

6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
GHN Site Conservation Assessment (SCA)

Conservation Funding

Is site funding sufficient?
Has extra funding been drawn in through the World Heritage status?
Does the site have sufficient funding available for the adequate management of the site?
Has the site received financial assistance? State estimated amounts:
  Government
  National
  Regional
  Municipal
  International
  Bi-lateral cooperation
  Other

Staffing Levels (Human Resources)

Are adequate professional staff available across the following disciplines?
  • Conservation
  • Management
  • Promotion
  • Interpretation

Is training available for home-owners at site level?
Is on-site training available for all stakeholders (ie homeowners, others)?

Community Involvement

Is there awareness of the Heritage property among various groups?
Have information channels been identified for reaching relevant groups at local, national and international level?
Have mechanisms been established for effective communication between site, national and UNESCO levels?
Has information material encouraging sustainable tourism, such as a ‘Code of Conduct’ been developed?
How can the local communities reach the full potential of their heritage, both tangible and intangible?

Legal

Is there is special national or regional legislation for World Heritage site?
Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

**Disaster Preparedness**

Which natural disasters threaten the site's integrity or may compromise its values?

How can the sites disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

**Tourism Management**

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

How can the impact of humans on the historic materials and site be reduced? Eliminated?

How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?
Site Conservation Assessment (SCA) Report

Date: 28th September, 2010

Site Name: Sirkap

Country: Pakistan

GHN Site Monitor's Name: Muhammad Safdar Khan

Institution: Department of Conservation Studies, Hazara University, Mansehra

Profession: Teaching and Research (Chairman, Department of Conservation Studies)

Affiliations: Department of Conservation Studies, Hazara University, Mansehra

Dates of visit: 22nd Sept, 2010

World Heritage Status: National Heritage (The serial ID number of Sirkap as world heritage is 139-004 in UNESCO world heritage sites list)

Annual Visitation and Revenues

National Tourism Income (% of Total): 50%

Entrance Fee Revenue: Rs. 3.316 M

Concession Revenues: Nil

Approximate number of visitors annually:


Growth from 2000: National: 110615  Foreign: 10120

2005: National: 114670 Foreign: 7844

Site Historical Archives-

After the abandonment of Bhir Mound site, Sirkap became the major city of Taxila in the 2nd century BC. Greeks who introduced this city with planning principles after Alexander’s conquest in the 3rd century BC. On the east side of the main street there are several notable structures, such as the Shrine of the Double-Headed Eagle, the Apsidal Temple, and a Palace at the south end of the
main street. Sirkap flourished under several different regimes, beginning with the Greeks, then the Scythians, Parthians and finally the Kushanas.

The main street of Sirkap running north to south through city lined with shops, interspersed with shrines and stupas. Sirkap site was constructed on embraced part of extreme western end of Hathial spur. Sirkap is an important archaeological site because of its unique stupas. The settlement of Sirkap city was on urban pattern.

**Site Name:** Sirkap, Taxila

Entry Fee (Domestic): Rs. 10  (International): Rs.200

Charge for Camera: Nil  Video: Nil

Guides available  No

Quality of guides: NA

Languages Available: English and Urdu

Literature available  Yes

Quality: Good printing quality

Custodians  Yes

Quality: Good

Supervisory Staff  Yes

Quality: Good

Note: Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
GHN Site Conservation Assessment (SCA)

Site Name: Sirkap

General condition:

Sirkap site is found under severe physical decay. The growth of wild plants is very obvious on different monuments of Sirkap site. The cracking, bulging, leaning, disfigurement and dislodging of stone materials are also evident in Sirkap Site. The heavy growth of wild plants is causing the structural decay of monuments.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the sings of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during monsoon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:

Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

Integrity and Authenticity of the Site According to its Universal Values?

Sirkap is declared as world heritage site by UNESCO.

(The serial ID number of Sirkap as world heritage is 139-004 in UNESCO world heritage sites list)

Site Values: Are these values readily communicated to the public? Yes
Site Name: Sirkap

Recommendations

• Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfall. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

• Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

• The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

• Experienced and trained technical staff should be appointed.

• Besides the manual methods of conservation, modern techniques should also be applied in Sirkap site.

Photography and Mapping

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

Estimation of your Personal Experience (scale of 0-10 points):

Performa is filed and attached.

Additional comments:

The present condition of preservation of Sirkap site is not satisfactory. The structural decay and growth of wild plants is very obvious. The deterioration of stone material of monument is very common. The lack of proper techniques and technical staff is one of the main reasons to detain the decay features of these monuments. The periodic cleaning of wild plants is not useful for long period of time. The future of the monument is under the threat of decay and deterioration. Proper measurement to preserve the monument should be taken as soon as possible.
Quantitative Assessment - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below.

Site Name: Sirkap

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<td>It is one of the most valuable archaeological site of Taxila with many precious monuments but due to many factors its future existence is questionable.</td>
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Total Average Score: 6.4

Qualitative Assessment

Site Name: Sirkap
Site Background
After the abandoned of Bhir Mound site, Sirkap became the major city of Taxila in the 2nd century BC. Greeks who introduced this city with planning principles after Alexander’s conquest in the 3rd century BC. On the east side of the streets there are several notable structures, such as the Shrine of the Double-Headed Eagle, the Apsidal Temple, and a Palace at the south end of the streets. Sirkap flourished under several different regimes, beginning with the Greeks, then the Scythians, Parthians and finally the Kushanas.

The main streets of Sirkap running north to south through city were lined with shops, interspersed with shrines and stupas. The Sirkap was constructed on embraced part of extreme western end of Hathial spur. Sirkap is an important archaeological site because of its unique stupas. The settlement of Sirkap city was on urban patter.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Sirkap site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):
Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:
1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants

Current Protection Level: Not good but satisfactory.

Management Plans management plan for Sirkap site is under the Department of Archaeology and Museums
**GHN Site Conservation Assessment (SCA)**

**Funding:** Local funding by Ministry of Culture (TTS, Taxila to Swat Project)

**Staffing Levels (Human Resources):**

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<td>2</td>
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<td>Site Supervisor</td>
<td>1</td>
</tr>
<tr>
<td>Site Attendants</td>
<td>10</td>
</tr>
</tbody>
</table>

**Sources of Expertise and Training in Conservation and Management Techniques:**
Nothing at site but Archaeological Conservation Laboratory is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

**Scientific Studies:** Nothing

**Education and Awareness Building:** Only through the broachers and maps provided to visitors

**Training & Capacity Building:** Transmitting Heritage to Future Generations no proper project

**Factors Affecting the Properties Physical, Chemical and Biological factors:** (Detail is given in site conservation assessment section)

**Governance and Management:** As designated by Department of Archaeology and Museums, Pakistan.

**Agencies Responsible:** Department of Archaeology and Museums, Ministry of Culture

**Latest Events and Current Situation:** Periodic cleaning of wild plants and no scientific study has been conducted.

**State of Site Planning:** unsatisfactory

**Scientific Conservation:** No measures or scientific investigation has been conducted for conservation of Sirkap site.

**Site Infrastructure:** Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

**Community Development:** No involvement of local masses in the protection of monuments of Sirkap site.

**Private Sector Involvement:** UNESCO

**Top Priorities for Conservation:**
1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.

2. Scientific studies to understand the process of biological decay and growth.

3. Non-destructive measures to protect the Sirkap sites

4. Proper future planning to preserve Sirkap site from severe environmental factors

5. Generation of funds for the conservation of stone monuments of Sirkap site.

6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
**GHN Site Conservation Assessment (SCA)**

**Conservation Funding**

Is site funding sufficient?

Has extra funding been drawn in through the World Heritage status?

Does the site have sufficient funding available for the adequate management of the site?

Has the site received financial assistance? State estimated amounts:

- Government
- National
- Regional
- Municipal
- International
- Bi-lateral cooperation
- Other

**Staffing Levels (Human Resources)**

Are adequate professional staff available across the following disciplines?

- Conservation
- Management
- Promotion
- Interpretation

Is training available for home-owners at site level?

Is on-site training available for all stakeholders (ie homeowners, others)?

**Community Involvement**

Is there awareness of the Heritage property among various groups?

Have information channels been identified for reaching relevant groups at local, national and international level?

Have mechanisms been established for effective communication between site, national and UNESCO levels?

Has information material encouraging sustainable tourism, such as a ‘Code of Conduct’ been developed?

How can the local communities reach the full potential of their heritage, both tangible and intangible?

**Legal**

Is there is special national or regional legislation for World Heritage site?

Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

**Disaster Preparedness**

Which natural disasters threaten the site's integrity or may compromise its values?

How can the sites disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

**Tourism Management**

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

How can the impact of humans on the historic materials and site be reduced? Eliminated?

How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?
World Heritage Status: The serial ID number of Sirsukh as world heritage is 139-005 in UNESCO world heritage sites list.

Annual Visitation and Revenues

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Tourism Income (% of Total)</td>
<td>50%</td>
</tr>
<tr>
<td>Entrance Fee Revenue</td>
<td>Rs. 3.316 M</td>
</tr>
<tr>
<td>Concession Revenues</td>
<td>Nil</td>
</tr>
</tbody>
</table>

Approximate number of visitors annually:

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1290</td>
</tr>
<tr>
<td>Foreign</td>
<td>2380(2009)</td>
</tr>
</tbody>
</table>

Growth from 2000:

<table>
<thead>
<tr>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>123567</td>
</tr>
<tr>
<td>Foreign</td>
<td>11490</td>
</tr>
<tr>
<td>2005: National</td>
<td>245780</td>
</tr>
<tr>
<td>Foreign</td>
<td>7850</td>
</tr>
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</table>

Site Historical Archives-

Kushan King Kanishka founded Sirsukh city in the middle of 2nd century AD. It was last ancient city of Taxila. The city at that time had a cut through the fortification wall, which is almost 5 kilometers long and less than 6 meters thick. Sirsukh city was constructed after the abandon of Sirkap city near Lundi Nala.

Stone fortification of Sirsukh has historical value. This wall was slightly irregular rectangular measuring nearly 1500 yards along its northern and southern sides and 1100 yards along its eastern and western sides. The northern and western walls have almost entirely disappeared. The masonry of Sirsukh fortification is rough rubble with neatly fitting limestone. The settlement pattern of Sirsukh was an urban pattern. The
fortification of Sirsukh city was selected for the present study.

The wall of Sirsukh city is covered with hundred of colored stains, biofilms and debris of algal colonies. The growth of grasses is also very common in cracks between stones of fortification. UNESCO declared the remains of ancient city of Sirsukh as world heritage in 1980.

Entry Fee (Domestic): Rs. 10   (International): Rs.200
Charge for Camera:   Nil   Video: Nil
Guides available    No
Quality of guides:   NA
Languages Available:   English and Urdu
Literature available    Yes
Quality:   Good printing quality
Custodians    Yes
Quality:   Good
Supervisory Staff    Yes
Quality:   Good
Note: Quality of staff is subjected to work load. The Curator has to perform managerial as well as field visitation with delegates.

The designations of management are below.

1. Curator
2. Assistant Curator
3. Archaeological Conservator
4. Site Supervisor
5. Site Attendants
Site Name: Sirsukh

General condition:

The wall of Sirsukh city is covered with hundred of colored stains, biofilms and debris of algal colonies. The growth of grasses is also very common in cracks between stones of fortification.

Conservation or restoration work completed or in progress:

The concerned authorities are taking some measures to wipe out the sings of decay. The periodic cleaning of wild plants is carried out. The deep twitching of roots is also carried out regularly. However no practical measure regarding the cleaning of microbes and lichens have been taken yet.

Condition of setting and environment:

Periodic growth of wild plants is observed due to favorable climatic conditions especially during moon soon rains. The availability of suitable growth conditions like sunlight, temperature, humidity etc are excessively available around monuments.

Threats to the integrity and authenticity of the property:

1. Encroachment
2. Illegal digging
3. Blasting by crush machines
4. Ignorance by common masses
5. Improper supervision round the clock
6. Lack of trained staff

Signage leading to and within the property:

Proper signage is located at every Archaeological sites of Taxila. The signage with proper indications and site information are built near every Archaeological site.

Integrity and Authenticity of the Site According to its Universal Values?

Sirsukh is declared as world heritage site by UNESCO.

The serial ID number of Sirsukh as world heritage is 139-005 in UNESCO world heritage sites list.
Site Values: Are these values readily communicated to the public? Yes

Site Name: Sirsukh

Recommendations

• Protective shelters should be constructed on open-air monuments, as these monuments remain wet after rainfall. The stagnant water around these monuments should be drained quickly. Improvement of drainage system should also be maintained.

• Proper cleaning of stone monuments especially exposed to open air should be carried out on regular basis because it is useful to remove periodic growth of macro and microorganisms. New improved methods of stone cleaning should be applied.

• The periodic removal of wild plants and mosses should be practiced, as these plants are best hosts of many fungal species. The exciting staff should be trained with refresher courses.

• Experienced and trained technical staff should be appointed.

• Besides the manual methods of conservation, modern techniques should also be applied in Sirsukh site.

Photography and Mapping

Relevant Photographs and maps with description are presented in Annexes. 2 to 13.

Estimation of your Personal Experience (scale of 0-10 points):

Performa is filed and attached.

Additional comments:

The wall of Sirsukh city is covered with hundred of colored stains, biofilms and debris of algal colonies. The growth of grasses is also very common in cracks between stones of fortification. UNESCO declared the remains of ancient city of Sirsukh as world heritage in 1980.
Quantitative Assessment - Site Conservation and Responsible Development

To your best ability, rate on a scale of 1-10 (worst to best) current state of site conservation and responsible development using the table below:

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Total Average Score: 6.4

Qualitative Assessment
Site Name: Sirsukh

Site Background
Kushan King Kanishka founded Sirsukh city in the middle of 2nd century AD. It was last ancient city of Taxila. The city at that time had a cut through the fortification wall, which is almost 5 kilometers long and less than 6 meters thick. Sirsukh city was constructed after the abandon of Sirkap city near Lundi Nala.
Stone fortification of Sirsukh has historical value. This wall was slightly irregular rectangular measuring nearly 1500 yards along its northern and southern sides and 1100 yards along its eastern and western sides. The northern and western walls have almost entirely disappeared. The masonry of Sirsukh fortification is rough rubble with neatly fitting limestone. The settlement pattern of Sirsukh was an urban pattern. The fortification of Sirsukh city was selected for the present study.

The wall of Sirsukh city is covered with hundred of colored stains, biofilms and debris of algal colonies. The growth of grasses is also very common in cracks between stones of fortification. UNESCO declared the remains of ancient city of Sirsukh as world heritage in 1980.

Statement of Outstanding Universal Value - Justification for Inscription

Boundaries and Buffer zones: Map of buffer zone is attached

Statement of Authenticity/Integrity: The Sirsukh site is with good authenticity

Threats (Encroachment, Insufficient Resources, Looting, etc):
Encroachment, Insufficient resources, lack of scientific staff etc

Management Organization:
1. Deputy Director
2. Curator
3. Assistant Curator
4. Archaeological Conservator
5. Site Supervisor
6. Site Attendants

Current Protection Level: Not good but satisfactory.
Management Plans management plan for Sirsukh site is under the Department of Archaeology and Museums

**Funding:** Local funding by Ministry of Culture (ITS, Taxila to Swat Project)

**Staffing Levels (Human Resources):**

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**Sources of Expertise and Training in Conservation and Management Techniques:** Nothing at site but Archaeological Conservation Lab. is established in Taxila Museum but it is non functional due to lack of trained staff and management Techniques. Assistant archaeological chemist is lying vacant since October, 2006.

**Scientific Studies:** Nothing

**Education and Awareness Building:** Only through the broachers and maps provided to visitors

**Training & Capacity Building:** Transmitting Heritage to Future Generations no proper project

**Factors Affecting the Properties Physical, Chemical and Biological factors:** (Detail is given in site conservation assessment section)

**Governance and Management:** As designated by Department of Archaeology and Museums, Pakistan.

**Agencies Responsible:** Department of Archaeology and Museums, Ministry of Culture

**Latest Events and Current Situation:** Periodic cleaning of wild plants and no scientific study has been conducted.

**State of Site Planning:** unsatisfactory

**Scientific Conservation:** No measures or scientific investigation has been conducted for conservation of Sirsukh site.

**Site Infrastructure:** Stone monuments are in good and intact conditions but their decay is a threat for their future existence.

**Community Development:** No involvement of local masses in the protection of monuments of Sirsukh site.
Private Sector Involvement: UNESCO

Top Priorities for Conservation:

1. Removal and control of wild plants. The proper eradication of wild plants should also be carried out.
2. Scientific studies to understand the process of biological decay and growth.
3. Non-destructive measures to protect the Sirsukh sites
4. Proper future planning to preserve Sirsukh site from severe environmental factors
5. Generation of funds for the conservation of stone monuments of Sirsukh site.
6. A workshop regarding the conservation of monuments and control of biological growths should be conducted (Department of Conservation Studies, Hazara University is planning to conduct a workshop on the problem of conservation of Monuments of Taxila).
GHN Site Conservation Assessment (SCA)

Conservation Funding

Is site funding sufficient?

Has extra funding been drawn in through the World Heritage status?

Does the site have sufficient funding available for the adequate management of the site?

Has the site received financial assistance? State estimated amounts:
  - Government
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Staffing Levels (Human Resources)

Are adequate professional staff available across the following disciplines?

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How can the local communities reach the full potential of their heritage, both tangible and intangible?

Legal

Is there is special national or regional legislation for World Heritage site?

Does the site have special legislation or administrative arrangements (such as specific spatial planning and zoning requirements)?
GHN Site Conservation Assessment (SCA)

Have there been any significant changes in the ownership, legal status, contractual or traditional protective measures for the site since the time of inscription?

Are the current protection arrangements effective and/or sufficient?

Disaster Preparedness

Which natural disasters threaten the site's integrity or may compromise its values?

How can the sites disaster risk be reduced?

Which traditional skills must be maintained essential to enhance conservation and prevention and mitigation of disasters?

Which gradual cumulative processes and factors, such as pollution, tourism, or urban encroachment are affecting authenticity or integrity of the site?

How can we strengthen support at the regional, national and local institutions for reducing natural and man-made risks at the Heritage site?

Tourism Management

Is there an opportunity to increase funding for site preservation thru Bed Taxes?

Are there visitor statistics available for the site?

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How can income diffusion to local community through local ownership be increased?

As tourism pressure poses a growing threat to World Heritage properties, what is the tourism/visitor management plan to manage growing visitation?

Is signage adequate?

Is there guidebook for the site?

Is there a website(s) for the Heritage site(s) focusing on conservation and community development?