GLOBAL HERITAGE NETWORK

Site Conservation Assessment Report:
JAHANGIR’S TOMB COMPLEX,
LAHORE, PAKISTAN

Prepared for Global Heritage Fund
By Rogers Kolachi Khan & Associates,
Lahore, Pakistan
February 2011
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Site Conservation Assessment Report:
JAHANGIR’S TOMB COMPLEX,
LAHORE, PAKISTAN

Date: February 2011
Site Name: Jahangir’s Tomb Complex, Shahdara, Lahore
Country: Pakistan

GHN Site Monitor’s Name: Dr. Ayesha Pamela Rogers
Institution: Rogers Kolachi Khan & Associates Pvt Ltd.
Profession: Archaeologist and Heritage Manager
Affiliations: Center for Cultural Heritage Conservation & Management,
National College of Arts, Lahore

Dates of Visits: Repeat visits between January 20 and February 12, 2011
Jahangir’s Tomb Complex
Site Background

Location

32°20' latitude north - 31°38' longitude east North of the City of Lahore

The complex lies in Shahdara, across the Ravi River to the north of Lahore. The area was known in the Mughal period as Dilkusha Bagh, or Heart-expanding Garden, and was one of many such gardens that lined the river bank. The modern Grand Trunk Road which leads to Shahdara from the city follows the same route as the Mughal road from Delhi to Kabul.

The site comprises a group of linked monuments: the tombs of Emperor Jahangir, of his wife Nur Jahan and of her brother Asif Khan, grouped around a large serai or courtyard.

Setting and Environment

The original setting of the tomb complex was a rural landscape beside the Ravi River and some distance from the historic town of Lahore and its Fort. The contemporary environment of Jahangir’s Tomb Complex has changed a great deal and can only be described as urban, dense, heavily populated and polluted. It can be summarized as follows:

North Asharat Rasul Shahid Road runs east - west dividing the site from densely packed residential areas such as Qazi Park and Siraj Park mixed with commercial and some light industrial buildings, such as Ravi Mills. The road passes as close as 20m from the perimeter wall of the site. Residential buildings have been built right up against the site wall. The area north of Akbari Serai is occupied by a graveyard.

South The eastern portion to the south is semi-agricultural land with dwellings and related structures. The western portion is dense residential area up to the railway lands along the alignment.

East To the east lies the flood plain of the Ravi River with little construction. On the east a road runs along the periphery of the site with a minimum proximity of about 35m

West The western edge of the main site is occupied by residential housing beyond which lies the railway alignment and the access road to the west. At its closest in the southwest corner of the site it lies only 60m from the peripheral wall. Shahdara Town Underpass Road passes within 2m of the same corner and runs along the south side of the wall at a distance of 2-6m.

On the west the complex is cut in two by the railway line; this corridor has removed the eastern extent of the Tomb of Nur Jahan. On the remaining sides of the Tomb the site is occupied by tree plantations with Ravi Town to the southeast.

World Heritage Status:

Tentative List [ref. 1279]
Tentative listing is entitled “Tombs of Jahangir, Asif Khan and Akbari Serai, Lahore”; listing does not include the Tomb of Nur Jahan.
Date of submission by Pakistan National Commission for UNESCO: 14/12/1993
Fig. 1 1893 Map of Lahore showing the location of Jahangir’s Tomb Complex in relation to the Ravi River, Lahore Walled City and the British Cantonment
Fig. 2  Diagram illustrating the setting of the site
**Brief Historical Background of Jahangir’s Tomb Complex**

Emperor Jahangir was born in 1569 AD, the son of Emperor Akbar who made Lahore his capital. Jahangir, a great aesthete and connoisseur, inherited a prosperous empire. He acted as patron to the arts which flourished during his reign. His wife, Nur Jahan, was also responsible for the building of numerous important buildings and gardens. Among these was the Dilkushan Bagh, or Garden of Contentment, built at Shahdara, a rich complex of royal gardens. She constructed the garden as an addition to the serai, or caravan halting ground built by the Emperor Akbar.

On the death of Jahangir in 1627 his tomb constructed by his wife and son Shahjahan. The tomb took ten years to build and was completed in 1637 at a cost of rupees ten lac. The structure was set amidst a classic chahar-bagh garden layout with the serai serving as a forecourt.

Asif Khan was the brother of Nur Jahan and powerful grandee and commander under Jahangir. His daughter married Emperor Shahjahan and he continued to be both powerful and wealthy up to his death in 1641. His tomb and funerary garden were added to the west of Jahangir’s compound. When Nur Jahan herself died in 1645 her tomb was constructed adjoining that of her brother. By this process the landscape of pleasure gardens was transformed into one of royal funerary gardens.

The tomb complex suffered at the collapse of the Mughal empire when it was looted by Sikh invaders. It suffered further damage when used as a residence, first for the French officer to the Sikh ruler Ranjit Singh and later by Sultan Muhammad Khan. Under British rule the gardens suffered badly when the railway was built cutting Nur Jahan’s tomb from the rest of the garden. The Akbari Serai was used as a railway depot and works area and tracks were laid across the middle of the garden.

“Jahangir’s tomb The Monument, a single storey structure, square in plan, consists of a platform with tall octagonal corner towers and a projecting entrance bay in the middle of each side. The exterior of the monument including the lowest stage of the towers, has a red sandstone facing with rich panel decoration inlaid with marble decorative motifs. The four corner towers, with white marble cupolas, rise in five stages to a height of 100 feet with a zigzag inlay of white and yellow marble: the building is divided into a series of vaulted compartments. The interior is embellished with floral frescoes, delicate inlay work (pietra dura) and brilliant marble inlays of various colours. The marble cincture with its delicate and colourful pietra dura is engraved with the ninety-nine attributes of Allah. Asif Khan’s tomb The tomb, an octagonal structure with a high bulbous dome stands in the centre of a vast garden divided into four squares once set with reservoirs, fountains and pathways. The exterior was originally adorned with rich stone inlay work and the interior decorated with very bold stucco tracery, tile mosaic and ghalibkari. The high bulbous double dome was originally covered with marble veneering. Akbari Sarai The series of tombs called Akbari Sarai, is situated between the tombs of Jahangir and Asif Khan. The open courtyard of the Sarai is flanked on all sides by a raised terrace where are built rows of small cells, numbering 180, fronted with a verandah and a common open passage. The corners of the Sarai are graced by burjis. The Sarai has two stately gateways of usual Mughal style, one on the north and the other on the south. These gateways are beautifully decorated with frescoes and ghalibkari. From the decorative elements, the style of the structure and the size of bricks, the Sarai and the entrance gateway to the tomb seem to have been built in the same period apparently parts of single building complex of Shah Jahan’s Tomb. To the west of the Sarai in the middle of the row of cells is a mosque with three splendid domes. It is graced with red sandstone facing decorated with inlay work.”

*Description from the submission for Tentative Listing in 1993*
Fig. 3  View from Gateway towards Jahangir’s Tomb (photograph by W. Baker ca, 1864)

Fig. 4  Arcade and minarets of Jahangir’s Tomb (postcard 1920—30)

Fig. 5  Arcade and minarets of Jahangir’s Tomb (postcard 1920—30)

Fig. 6  Gateway of Jahangir’s Tomb (1920 postcard)

Fig. 7  Tomb of Empress Nur Jahan (postcard ca. 1900)

Fig. 8  Tomb of Asif Khan seen behind the Gateway to Jahangir’s Tomb (1920 postcard)

Fig. 9  Jahangir’s Tomb viewed from the Gateway (Photograph of W. Baker, ca. 1864: British Library)

Fig. 10  Cenotaph of Emperor Jahangir, watercolour by William Simpson, 1860
**Continuity of Use**

Jahangir’s Tomb continues to function as a funerary monument and is visited by pilgrims and worshipers. The tombs of Nur Jahan and Asif Khan are neglected and receive fewer visitors, however modern shrines in the gardens draw devotees.

![Shrine against the north wall of Asif Khan’s Tomb compound](image1)

Fig. 11 Shrine against the north wall of Asif Khan’s Tomb compound

The gardens of Jahangir’s Tomb and Akbari Serai continue to be used as such by visitors who relax in the open spaces and enjoy the trees and flowers, particularly in the summer season. The gardens of the Asif Khan’s tombs are not cultivated and are not visited. Those around the Tomb of Nur Jahan are roughly landscaped and are visited but less frequently.

![Shrine in the garden of Jahangir’s Tomb](image2)

Fig. 12 Shrine in the garden of Jahangir’s Tomb

**Integrity**

The integrity of the site has been impacted by flooding of the Ravi on numerous occasions in recorded history; most recently in 1988. On these occasions the flood waters have invaded the site covering it in up to 10 feet of water for five days. The results of this flooding can be seen in the damage done to the walkways of the southwestern quadrant of the garden and the repeated need for repairs to the peripheral wall.

The main loss of integrity in recent times has been to the garden of Nur Jahan’s Tomb which has been truncated by the railway line and separated from the rest of the complex. The overall integrity of the site is also eroded by the loss of buffer zone and the pressing in of modern construction against its walls on several sides.
Statement of Significance

No statement of the significance of the site is available. Below is a preliminary statement in tabular format which introduces the main elements of value and authenticity of the property.

<table>
<thead>
<tr>
<th>Socio-Cultural Values</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Identity Value</strong>—the emotional ties of society to the site (aesthetic and spiritual value, continuity, memorial, legendary, patriotic and nationalistic)</td>
<td>Jahangir’s Tomb Complex is an icon for national identity, acknowledged as such by all levels of society even if not fully understood. It is symbolic of both historical and legendary versions of the past which are shared by all Pakistanis; a tangible representation of Mughal rule in the sub-continent. It provides a link with the pre-colonial past reviving memories and sentiments related to a free subcontinent.</td>
</tr>
<tr>
<td>Based on recognition and influences selection of resources</td>
<td></td>
</tr>
<tr>
<td><strong>Relative artistic or technical values</strong>—the importance of the design and the significance of its technical, structural and functional concept and workmanship</td>
<td>The site embodies Mughal concepts regarding gardens as paradise on earth and specifically those related to funerary landscapes; the site retains the essential plans of historic gardens and the original distribution of built elements, water features and planting areas.</td>
</tr>
<tr>
<td>Based on research and influences the strategy for treatment of a resource</td>
<td></td>
</tr>
<tr>
<td><strong>Rarity value</strong>—the resources rarity and representativeness or uniqueness in relation to other examples of the type</td>
<td>The site is one of only a few intact Mughal funerary garden complexes and represents the classic form</td>
</tr>
<tr>
<td>Based on statistics and influences the level of protection accorded to a resource</td>
<td></td>
</tr>
<tr>
<td><strong>Physical and visual value</strong>—value inherent in the scale, location, physical form and its impact on the viewer</td>
<td>Jahangir’s Tomb Complex is an elegant and visually stunning representation of Mughal rule, design and symbolism in the language of architecture and landscape</td>
</tr>
<tr>
<td>Based on recognition and influences overall treatment, particularly of site setting</td>
<td></td>
</tr>
</tbody>
</table>

Table 1

![Decorative details from Jahangir’s Tomb, W. Griggs, India: Photographs and Drawings of Historical Buildings, London, 1896.](image)
<table>
<thead>
<tr>
<th>Economic value—the value generated by the heritage resource or by its conservation in terms of potential revenue from tourism, commerce, use and amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Complex is a potentially rich economic resource with potential revenue generated through visitation and appropriate hospitality infrastructure in the vicinity; economic benefits could be felt in the local community resulting from integrated development. It has the potential for income generation through craft sales based on Mughal designs from the site.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Educational value—the extent to which a resource can inform the present about the past in the context of cultural tourism</th>
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</thead>
<tbody>
<tr>
<td>The Complex provides a highly visible and dramatic tool for informing the present about many historical and cultural themes of Pakistan’s past; it contains a wide array of didactic forms, both built and intangible, to enrich the visitor experience.</td>
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</tbody>
</table>

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<tr>
<th>Recreational and Social value—the potential for social interaction and establishing community identity</th>
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<tbody>
<tr>
<td>Jahangir’s Tomb Complex is the metaphorical property of a wide community. Involvement of the community in safeguarding and caring for the site could create a sense of pride and commitment in all elements of society and strengthen social cohesion.</td>
</tr>
</tbody>
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Table 2
Visitation to Jahangir’s Tomb Complex

Annual visitation and revenues

Opening hours
From early morning to an hour before sunset

National tourism income (% of total)

Entrance fee revenue
2009 – 2010 Rs. 1,932,000/-

Concession revenues
Snack bar: 2009 – 2010 Rs. 436,745/-
Car Parking: 2009 -2010 Rs. 75,000/-

Approximate number of visitors annually (2009 -2010)

<table>
<thead>
<tr>
<th>Type</th>
<th>Adults</th>
<th>Children</th>
<th>Students</th>
<th>Foreigners</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>125,731</td>
<td>5,179</td>
<td>4,722</td>
<td>357</td>
<td>135,989</td>
</tr>
</tbody>
</table>

This number can be compared to the total visitor numbers to Lahore Fort in 2000 which was 1,142,597.

Growth from 2000 data not available
2005 data not available

Entry fee (US$)
Domestic Rs. 10
International Rs. 200

Charge for camera/video No

Guides available No
Training of guides No
Languages available N/A
Literature available N/A
Quality 1-5 N/A

Is income generated from tourism and to what degree is it shared with the local community?

Tourism income is in the form of entry fees, parking and the drinks concession. All funds enter the larger departmental pool and are redistributed to sites on a priority need basis which is not particularly transparent. No benefit whatsoever reaches the local communities. The idea that living near a major heritage site could bring economic opportunity is alien to management and residents alike.
Accessibility

The site is accessed from the Grand Trunk Road (GT Road), the main artery running between Islamabad and Lahore and the Mughal route between Kabul and Delhi. From the GT Road Old Ravi Bridge Road leads through local neighbourhoods to Jahangir Tomb Road and across the railway lines to the southwest corner of Jahangir’s Tomb complex. The alternate route is further north via Shahdar Town Underpass road which joins Jahangir Tomb Road at the entrance to the site. Traffic along these roads is very congested with trucks, animal carts, tractors, buses, motorcycles and cars. There is a particular bottleneck at the railway line crossing.

There is no signage on the GT Road to indicate where to turn off to the site and no signage along the roads through these densely packed residential areas. The only way to find the site is to ask repeatedly or to have someone who knows the way.

In order to reach Nur Jahan’s Tomb on the other side of the railway line one travels west along Shahdara Underpass Road, then diverts into t slip road on the opposite side of the road and turns into a small lane which leads to a small area available for free parking. Again, there is no signage at any point along the route.

The site of Jahangir’s Tomb can be reached by bus 39 from the Lahore Railway Station terminus via Ravi Road; both parts of the site are also accessible by “informal” public transport such as rickshaws and trishaws.
Tour visits
No major tour companies bring visitors by bus in large numbers to the site, although some private guides and tour leaders include the complex in their tour itinerary. Jahangir’s Tomb is included on the Pakistan Tourism Development Corporation website as a site worth visiting by tourists to Lahore.

Parking
Parking is available in the space in front of the entrance in the southwest corner of the site. This is an informal open area where site staff charge Rs. 10 for parking. There is room for approximately a dozen cars.

Visitor Facilities

Interpretive signage

<table>
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<th>Quality 1-5</th>
<th>Yes</th>
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<tbody>
<tr>
<td>1</td>
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</table>

Fig. 15 Parking area in front of site entrance

Fig. 16 An example of the signage that is found at the site

Fig. 17 Visitors to the site reading the information sign
Adequate restroom facilities
Quality 1-5

There is one male and one female toilet (2 cubicles in each) with single wash basin at Jahangir’s Tomb site; they are located in two chambers of the Serai next to the entrance. Conditions are damp, dirty and unappealing. No toilets are available at Nur Jahan’s Tomb.

Visible security staff/measures

There are several guards at all times near the tomb of Jahangir and also of Nur Jahan; otherwise security staff are rarely seen.

Amenities

Food/drink
Yes

Shop
No

Quality 1-5
1

Tea and cold drinks are available from a concession stand located along the site wall, immediately inside the main gate. There is another stand in the parking lot. Seating is placed in the garden.
Overall visitor experience

Visitors’ main interest appears not to be so much in the historical aspects of the site, but rather in using the site for recreational purposes. There is little understanding of the historicity of the monuments and, accordingly there is a general disregard for proper behaviour and treatment of the site as an important national monument. This is aggravated by a lack of creative signage, tours and sources of information for the visitor. No educational activities or events are organized at the site.

![Fig. 20 Families picnicking in the Akbari Serai](image)

Fig. 20 Families picnicking in the Akbari Serai

![Fig. 21 Boys playing a game of cricket in the gardens of Nur Jahan’s Tomb](image)

Fig. 21 Boys playing a game of cricket in the gardens of Nur Jahan’s Tomb

Tourism Management

How can impacts from tourism be controlled and/or eliminated?

Tourism impacts at the site are minimal and not the result of large numbers but rather of inappropriate behaviour and use by visitors. Impacts include graffiti, litter and damage to fabric. The site is presented to the public as a large park area, something highly valued by local residents who live in congested and polluted urban areas. It is presented and seen as green space for recreational use and so it is not surprising that visitors have little interest in the historical and cultural significance of the place and no idea how to “behave” at a heritage site of international value. This situation can only be addressed by educational efforts on site and in schools and the provision of “educational” options for visitors—other than cricket and a picnic.
Tourism Potential

“At present there is wide acknowledgement of the value of Pakistan’s culture as a potential tourism asset. However, there are no specific mechanisms to maximize this potential. The present state of heritage conservation and cultural tourism in Pakistan can be described as full of potential but handicapped by failures of cooperation, communication and the lack of a structure to resolve these problems. In particular, mechanisms are lacking which can bring together the wide array of relevant stakeholders including policy makers, professionals, business representatives and the community to implement cultural tourism initiatives. Innovative and well-integrated initiatives are required to “jump start” the process and to begin a self-sustaining process from which all parties will benefit.”

*(Cultural Tourism in Lahore and Peshawar, 2003, p.31)*

Little has changed since 2003 regarding issues of cooperation and innovation in cultural tourism in Pakistan. If anything, matters have become worse due to terrorism and instability which combined with economic problems and severe budget cuts have created a general malaise and lack of interest in investing in improvement.

There is a need for a comprehensive plan for sustainable cultural tourism at the site. Such an exercise was carried out in 2005 for Shalamar Gardens, part of the Lahore World Heritage site, as part of the management planning process undertaken by UNESCO. The report of that study is referenced in the bibliography as an example of a possible first step towards tourism development for Jahangir’s Tomb Complex.

![Jahangir’s Tomb Complex](image)

*Fig. 22* Jahangir’s Tomb Complex has great tourism potential for both local and overseas visitors
Site Management

Management organization and level of support / Agencies responsible

The Department of Archaeology and Museums, Government of Pakistan has until recently been the agency responsible for site management and maintenance. Conservation works are the responsibility of the project for the Preservation and Restoration of Shahdara Complex of Monuments (PROSCOM) carried out under the federally funded Master Plan for PROSCOM. [Note: this does not include Nur Jahan’s Tomb]

As of June 2011 the Ministry of Culture, of which the Federal Department is a component, has been dissolved. All responsibility for heritage including staff, existing contracts and management, has been transferred to the provincial level. In the case of Jahangir’s Tomb Complex this means that the Department of Archaeology Punjab is now legal custodian. They will now be responsible for site maintenance and management; PROSCOM will continue under Punjab authority.

Staffing levels

There are two sets of staff operating at the site:

(a) Staff of the Federal Department of Archaeology & Museums (DOAM) / now Punjab (DOAP)

<table>
<thead>
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<tr>
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<tr>
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<tr>
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<tr>
<td>Head Mali</td>
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Table 3
(b) Staff of the PROSCOM

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<td>Tractor Driver1</td>
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<td>Chowkidar / Site Attendant</td>
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<td>Mali / Baildar</td>
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Table 4

Staff provided within the Project is similarly at lower levels of the hierarchy with only one senior member as Project Director; he is a senior structural engineer hired from outside the DOAM for this specific project. Although he is not qualified as a Conservation Engineer he has shown a keen interest in and support of sensible conservation decisions and is open to outside expert advice.

Analysis of the composition of the existing staff shows that the emphasis lies on the watch and ward staff, with garden staff receiving second priority and, lastly, conservation. As a result, there is a serious shortage of specialist expertise in the wide range of skills needed to carry out the conservation and maintenance of a Tentative World Heritage site.

No professional staff or even unqualified staff is responsible for Interpretation or Promotion.

Due to the inability of the Federal Department of Archaeology to engage experts for specialist advice, the staff has had to rely on sources within the Department. They are thus unable to get timely advice necessary for proper execution of works. Too often, the professional staff managing the site are placed in the difficult position of having to chose between what they believe to be the correct conservation decision and what is politically demanded of them.
Implications of the Recent Transfer of Custodianship

All site staff previously working under the DOAM are now under DOAP, at least until end of June 2011 after which changes may be made. Based on the experience at Lahore World Heritage Site which was transferred to provincial management in 2006, it seems very likely that staff will remain unchanged. Unfortunately, this means that numbers of staff and particularly of qualified professional staff are unlikely to increase.

What are most urgent needs for site management personnel?

The most urgent and relevant need for site management personnel is capacity building. This needs to be a realistic program of on-the-job training. Staff members are not in a position to leave their employment and families for full time study abroad and short term “workshops” and training courses are too piecemeal to be of benefit. The same officers are always sent on such courses and come back with a bit of theory but neither the know-how nor the opportunity to put it into action. Such intensive training is useless when the student has no wider basic grounding in heritage management.

What is needed is an ongoing program of:

- sensitization to what heritage means and the responsibilities of its caretakers
- introduction to basic concepts and the priorities of site management and conservation
- training in the use of essential tools such as documentation, impact assessment, risk analysis, visitation development and management and conservation planning
- explanation of how heritage can play an important role in sustainable development, livelihood improvement and the growth of a tolerant nation

This kind of program should be developed by a local academic institution with understanding of local complexities. International expertise should be drawn in to augment a core national team of trainers.
Funding

The existing funding situation within the Department of Archaeology depends entirely on government sources. No international funds have been acquired for the Shahdara monuments. The government funds from the Ministry of Culture are allocated through the recurring grants-in-aid for operational expenses and development grants for specific projects. This system will continue despite the transfer to provincial administration with funds coming from the federal government via the DOAP.

(a) Recurring Funds:

Annual repairs a fixed amount per annum for managing vegetation, clearing drains etc. allocated for all the Shahdara Monuments
Special repairs preparation of yearly estimates for individual monuments /sites

(b) Development Project funds:

Additionally government sources can be obtained through the development grants in the yearly ADP, through timely submissions of PC-1 development proposals for consideration of the following year ADP. The development grants are disbursed to the Director General Archaeology on a quarterly basis and monitored by the government through well established procedures, ensuring that the project is implemented as envisioned in the grant proposal and funds are utilized according to the cash plans. All development funds are lapsable funds.

PROSCOM has a total budget of Rs. 461.837 million. It had an approved budget up to June 2010 of Rs. 461.837; expenditure up to June 2009 was Rs. 68.372 and to June 2010 an additional 6.000 totalling Rs 74.372. The main objectives of this expenditure were:

(a) Sang-e-Badal flooring in Jahangir’s Tomb (work in progress)
(b) Restoration of white marble jails along north of Tomb (work in progress)
(c) Red sandstone façade of the Tomb—Northwest Minaret (problems bringing stone from India where a large shipment remains stranded at Amritsar railway station)
(d) Garden development—filling up of low areas and repair of flood damaged walkways on north (in progress)
(e) Installation of a turbine well in nursery area (on hold due to cuts in payment /not functional)
(f) Akbari Serai—kankar lime pointing on southeastern side and kankar lime terrace flooring (suspended by contractor due to non-payment as a result of budget cuts)

The approved budget for 2010 -2011 is Rs. 8.231 million with a sum of 3.290 million being released. The projects covered by these funds are basically the same as those from the previous year, all of which are incomplete. In fact, looking at previous budgets and reports it is clear that most of these conservation initiatives, such as façade work and flooring, have been in progress for over twenty years.

All works are seriously impacted by recent budget cuts and resulting inability to pay contractors. Staff salaries are also delayed as of writing.
Funding Issues

Funding for the Annual and Special Repairs is insufficient while the sums available under PROSCOM are more substantial. The issue seems to be twofold: more money is needed but, more urgently, an overall management approach to expenditure is required. What money there is available is not spent in a rational manner or according to a long term plan.

There are a number of bureaucratic obstacles to be overcome before Ministry funds can be spent on a site under the current process. The national budget is announced in June but it takes several months before the information reaches the Department of Archaeology and its regional offices. The amounts are then allotted to various monuments. But the process for making actual expenditures is lengthy and bureaucratic. The Director has the power to spend up to only Rs. 25,000. Beyond this sum, detailed conservation plans and budget estimates in the form of Conservation Notes are prepared for the approval of the Director General/Ministry.

This process can only be completed by the end of November or early December when half the fiscal year has already passed. The budget estimates then pass between offices until all objections and queries are settled, a process which may take several more months. As a result, the earliest that approval can be received is often the middle or end of April. This leaves only two months in which the department must carry out implementation of all the works before the end of the fiscal year. There is inevitable pressure to finish the work quickly. Hasty execution and dependence on ‘replacement and reconstruction’ which can be carried out quickly, rather than painstaking preventive conservation, can be directly attributed to this system for the release of funding.
Clarity and enforcement of boundaries and buffer zones

The boundaries of the two parts of the site as demarcated by the DOAM can be seen in Figure 23. At Jahangir’s Tomb the boundary follows the perimeter wall of the garden enclosures; it also includes a small area outside the current entrance in the southwest corner of the site. At Nur Jahan’s Tomb it follows the perimeter wall but is truncated by the railway line to the east.

The Antiquities Act, 1976 Clause 22 states that “no development plan or scheme or new construction on, or within a distance of two hundred feet of a protected immovable antiquity shall be undertaken or executed accept with the approval of the Director General.” Fig. 23 illustrates the approximate extent of this prescribed 200’ buffer zone around Jahangir’s Tomb. It can be seen that this zone is heavily encroached upon along the north, west and part of the southern side of the monument, where houses are constructed directly on to the outside of the historical perimeter wall.

The site of Nur Jahan’s tomb has cut off from the other portion of the site by the railway line running northwest to southeast, constructed during the British colonial period, and Shahdara Town Underpass Road. Residential areas encroach on the south, while tree plantations and associated marshy areas lie along the west and south.

Do current boundaries fully cover the site’s limits and significance?

Current boundaries do not reflect the coherence of the Shahdara monuments or the historic nature of the area.

Are modern digital maps showing boundaries and buffer zones available?

None are available.

Fig. 23 Map showing boundaries of the site and approximate extent of buffer zone
Current legislative and actual level of protection

Jahangir’s Tomb Complex is governed by the stipulations of Federal Antiquities Act 1975 (Act VII of 1976). The Act provides various forms of legal protection in support of preservation and best-practice management of sites. However, in almost every case there is a failure to take advantage of this potential and the site suffers as a result.

Clause 19 clearly stipulates the fine and punishment in case the ‘antiquity’ is damaged or destroyed: “No person shall, except for carrying out the purposes of this Act, destroy, break, damage, alter, injure, deface or mutilate or scribble, write or engage in any inscription or sign on, any antiquity or take manure from any protected antiquity.” Infringement is punishable (19 (2)) “with rigorous imprisonment for a term which may extend to three years, or with fine or with both.”

In spite of the stringent fines and punishments that are laid out in Clause 19 for willful damage to a monument, it has not been possible for the Department to protect the various structures from graffiti and other forms of vandalism. There are insufficient number of guards and problems enforcing punishment since the Department does not enjoy magistrate’s powers necessary for enforcement.

Clause 22 requires that “no development plan or scheme or new construction on, or within a distance of two hundred feet of a protected immovable antiquity shall be undertaken or executed except with the “approval of the Director General.” However, since such a clause is not incorporated in Building Byelaws or Urban Planning Byelaws of the Acts governing city development, Clause 22 has been contravened as the Department has not yet acquired the land in the buffer zone. There is no local and provincial government legislation related to development which protects the 200 foot buffer zone around the site from encroachment, garbage, road works and the resulting damage to the integrity of the site.

Clause 23 (i) prohibiting direct attachment of any item on or near a protected monument is regularly and systematically contravened. Unless this clause also becomes part of local government legislation, the site perimeter wall will continue to suffer with structural accretions, electricity poles and cables, handbills posting and other intrusions.
Encroachments

As per Section 22 of the Antiquities Act 1975, any kind of construction of temporary or permanent nature without the permission of the Director General of Department of Archeology of Pakistan, is prohibited within the area of 200 feet in the surroundings of the protected monument or site. Situation with regard to the protected perimeter wall of the Jahangir’s tomb is very bad especially position on southern and southwestern side is worst where more than four hundred residential houses are constructed some portions of the houses erected close to the wall are projected over the wall of the monument. On part of the custodians legal action under the prevailing Antiquities Act has been taken against the encroachers. Some court cases also filled by the encroachers against the custodians and they managed to get stay orders, all these cases are pending in the courts of law. Department of Archaeology time to time raises the issue with concerned agencies for the removal of illegal constructions/ encroachments in and around the Shahdara monuments especially Jahangir’s tomb.

The apex court of Pakistan in Human Right Case No 179, also directed the city government / concerned agencies to remove the encroachments in and around the historic monuments and sites. The main issue that prohibits the agencies to take any action against the encroachers around the Jahangir’s tomb is their documents of owner ship of land over which they have constructed their houses. In view of this aspect the only solution of the issue is to acquire the land within 200 feet around the monument under section 15 of Antiquities Act 1975. In this respect efforts have been completed and land shall be acquired whenever the required funds shall be available

Figs. 24-5 Houses next to and on top of the perimeter wall of Asif Khan’s Tomb

Fig. 26 Railway tracks, road and structures that cut Nur Jahan’s Tomb off from the rest of the site
Routine Monitoring and Maintenance

No comprehensive or systematic monitoring of building condition or maintenance of structures is carried out at Jahangir’s Tomb Complex. This is in a large part due to staffing limitations. There is only one Assistant Archaeological Engineer to maintain and monitor all the monuments in the care of the Northern Circle. At the site, one Archaeological Conservator (DOAM) and one Conservation Assistant (PROSCOM) are responsible for all specialist maintenance. The wide range of professional expertise needed for safeguarding such a large and complex monument is lacking, with inevitable results.

Routine maintenance is carried out on verbal instruction; systematic records are kept only in exceptional circumstances. Separate systems do not exist for monitoring the condition of the monuments and for implementing required maintenance. There is only one team carrying out both with no system of cross-checking and certification. In addition, no specific research or site investigations are carried out in advance of conservation and maintenance interventions.

Monitoring of Conservation Works

Monitoring of conservation work carried out by the Department of Archaeology on approved Master Plans and Development Schemes is carried out by the Ministry of Culture, Sports, Youth Affairs and Tourism on PC-IV and PM-I proformas. These proformas do not suit monitoring of conservation works as they were designed for monitoring of new works and don’t provide adequate baseline information about the buildings and interventions.

This is an extremely unsatisfactory state of affairs, and allows latitude to those who are entrusted with the work of conservation. Due to a lack of an efficient reporting and monitoring system, the works are carried out on the will of those executing them without regard to the importance of following accepted conservation principles. Since the quality and expertise of those executing the project varies enormously, it is critical that all works are monitored carefully and systematically.

Cleaning of Monuments

During the last several decades, the Department has concentrated on conservation and restoration and insufficient attention has been paid to basic cleaning of the historic structures. Lack of cleaning of surfaces has resulted in accumulation of grime, fungi and deposits of chemicals on all surfaces, resulting in damage, the extent of which remains undetermined. This failure to clean the monuments may have been due to the misapprehension that washing and cleaning would remove the patina formed on the surface, and thus cleaning was not considered essential as part of a maintenance program. This may also have been due to lack of sufficient staff to undertake such works.

Cleaning of the monuments is important not solely for appearances. It is not possible to make informed decisions about how to maintain and conserve the monuments when they are covered in filth, therefore regular cleaning is a necessary first step in the conservation process.
Site Cleanliness

Quality 1-5

Jahangir’s Tomb site is kept quite clean in comparison with other sites in Lahore, particularly the World Heritage site. There are refuse bins placed around the site and also in the grounds of Asif Khan’s Tomb. No doubt the standard of cleanliness is related to the relatively smaller numbers of visitors.

Fig. 28 Refuse bins at the site

Visitor circulation

No route is recommended or laid out for visitors to follow. Visitors tend to take the route illustrated in Fig. X walking up the central pathway through the serai and via the gateway into the tomb garden. They walk again along the central path into the tomb to visit the central chamber. They then retrace their steps back to the serai area, stopping for tea. Some visitors then visit Asif Khan’s tomb perhaps stopping at the mosque en route. Few take an additional trip to nearby Nur Jahan’s Tomb where they go straight to the tomb and then retrace their steps.

Fig. 29 Map showing the circulation of visitors within a very restricted area
Disaster Preparedness

Flooding

The tomb complex is located only about 1/2 a km from the River Ravi and has been flooded on many occasions. Records show floods in 1947, 1950, 1954, 1955, 1957, 1958, 1959, 1962, 1973, 1976, 1988 and 1966. Recently in 1988 flood waters filled the garden and stood for 5 days at a depth of up to 10 ft. Damage has been particularly serious in the southeast corner of the site where walls and garden features have been washed away repeatedly. Fig. X from 1867 illustrates how close the site is to the river flood plain and how high waters impact on it.

Fig. 30  Markings inside the site entrance showing how deep flood waters rose during different disasters

Fig. 31  View from Jahangir’s Tomb showing the proximity of the river

Fig. 32  Map of 1867 showing flood damage; note that Nur Jahan’s Tomb is not shown
Figs. 33-34  Showing areas of Nur Jahan’s Tomb where rain water has collected and is not draining away

Drainage is a constant problem at the site of Nur Jahan’s Tomb. After a long dry period, a single day's rain resulted in large areas of sitting water.

Long term soil consolidation under heavy loads is aggravated by the water table fluctuation moving up and down over the lifetime of the monuments. The drastic drop in the water table from 15—30 ft to present levels of 100—150 ft. has played an important role in the consolidation of subsoil and resulting impacts on the structures above.
Disaster Preparedness at the Site

National disaster management programs in Pakistan do not include cultural heritage and the country has not adopted ICCROM’s standards for risk preparedness for cultural heritage as proposed by the Committee of the Blue Shield. This has proved a major obstacle to coping with impacts on heritage arising from recent disasters such as the earthquake of 2005 and the major floods of 2010.

The use of preventive conservation approaches “that improve of maintain the condition of heritage assets to ensure survival of the heritage and its significant messages during and after natural disasters” (World Bank Good Practice Notes, “Risk Preparedness for Cultural Heritage” 2008) is rare at locally managed sites and not found at Jahangir’s Tomb Complex. The essential elements of preventive conservation are lacking:
(a) identifying risks to heritage
(b) assessing magnitude of all risks
(c) identification of mitigation options
(d) cost/benefit evaluation of options

Fig. 35 Plan of Jahangir’s Tomb, from W. Griggs, India: Photographs and Drawings of Historical Buildings, London 1896; showing damage resulting from flooding of the Ravi
Conservation

The Approach to Conservation

The conservation of monuments or archaeological sites requires special expertise in order to cope with unexpected findings, their interpretation and treatment. Too often, a contractor appointed through the government tender system does not have these skills and uses inappropriate tools and methods on historic fabric. The contract system has resulted in a great deal of sub-standard conservation work and irreversible loss of integrity to historic monuments.

Schemes take the form of PC-1 documents. These are designed to serve as applications for government funds for specific works, giving a brief background of proposed works and quotations for manpower and materials. The PC-1 normally provides only general information on civil works items. Schemes prepared on PC-1 proforma do not require detailed justification for proposed works; the information given on the proforma fails to provide details regarding location and measurements of an item of work and thus can not be a substitute for a full and detailed report.

The lack of detailed work specifications as a part of the PC-1 proforma leaves the use of funds and decisions regarding treatment of historic fabric mostly to the discretion of the site supervisor. Much of the unfortunate and unnecessary intervention in evidence is likely to be due to these discretionary powers allowed under the present system.

Almost all schemes were revised repeatedly, in many cases because funds were not provided according to the phasing envisaged in the Scheme. As a result no Scheme has been completed on time. Formulation of a new Scheme while previous ones are still in progress created problems for the staff of the Department as the increase in work is not matched by additional staffing. The result is that normal maintenance and repairs are abandoned and all buildings not included in the new Schemes suffer further neglect.

Conservation efforts have been characterized by the lack of a comprehensive plan based on accurate assessment of need and on international standards. The custodians of the monuments have followed an outdated conservation manual, written decades ago by Sir John Marshall (1923). Decisions to conserve have too often been taken arbitrarily without reference to need or assessment of priorities.

As a result, the recent approach to "conservation" has tended towards:

- Reactive conservation without assessment of need and clear statement of priorities;
- Refurbishment without adequate historical research or artisan skill;
- Dealing with surface appearance without addressing serious structural issues;
- Carrying out interventions without proper study or preparation before hand;
- Replacing faded or slightly damaged original elements with new copies in similar materials;
- Partial or full reconstruction of structures on the basis of insufficient research and without clear identification of "new" vs. "original".
Conservation carried out at Jahangir’s Tomb

Conservation works carried out at the Tomb during the past few decades have focused on the following:

(a) piecemeal replacement of red sandstone decoration on the facades of the building
(b) replacement of flooring of the surrounding platform
(c) replacement of sections of the white marble jail balustrade around the platform
(d) replacement of broken or damaged individual members
(e) pointing and underpinning brick masonry
(f) cement patching of cracks and voids
(g) restoration of sections of the enclosure wall adjacent to the gate
(h) repair of cracks in the main dais of the grave with cement grout

The major work carried out has been the dismantling and reconstruction of the northwest minaret which was tilting. This work was carried out in 2008 as part of the current Master Plan.

Fig. 36 View of new white marble jalis
Fig. 37 Replacement of jails with new members
Fig. 38 Restored northwest minaret
Fig. 39 Section of reconstructed peripheral wall
Conservation Issues and Priorities at Jahangir’s Tomb

Jahangir’s tomb and its minarets sit on a single, massive platform constructed of solid brick masonry. This acts as a one-unit-fixed-end-immovable part, whereas the section comprising the corridor and minarets acts as a comparatively lighter and free moving unit. Downward movement of the solid mass as a result of subsoil consolidation causes differential settlement which translates into:

(a) movement of the outer wall of the corridor
(b) symmetrical cracking running the central length of all the corridors,
(c) quarter circle cracks within the corridor symmetrical at all the four-point masses of minarets indicating the separation of the minarets from the rest of the structure
(d) outward tilting of all the four minarets at anticlockwise azimuth of 45°, 135°, 225° and 315°. The tilt is visible to the naked eye.

Other issues include:
(a) archaeological investigations are needed to confirm whether there is a burial tomb below the existing platform. This would explain why the upper platform has cracked due to flood water
(b) cracks in the Sang-e-Badal stone flooring of the outer platform are due to expansion and contraction from thermal variation. The original flooring was made with large blocks of stone set into the platform; these have been replaced with 1” thick stone tiles of the same size. These behave differently under thermal stress causing cracking.
(c) Water is entering from the roof through breaks in the stone paving
(d) new veneering is separating from original masonry

Fig. 40 Quarter circle cracks in masonry below minarets
Fig. 41 New members separating from original masonry
Fig. 42 Sang-e-Badal flooring replacement
Fig. 43 Crack in sarcophagus marble filled with cement
Fig. 44 Sketch of the construction of Jahangir’s Tomb showing basic architectural components

Fig. 45 Sketch illustrating the central cracking in the corridors

Fig. 46 Sketch showing the forces causing the outward tilting of the minarets
Fig. 47 Water damage to masonry and finishing

Fig. 48 Shift in blocks of the drain of the main chamber

Fig. 49 Water damage from flooding of the main chamber

Fig. 50 Corner member of central sarcophagus has separated and been repaired with cement

Fig. 51 Eroding masonry and loss of mortar
Conservation carried out at Akbari Serai

Conservation works carried out at the Tomb during the past few decades have focused on the following:
(a) kankar lime pointing of masonry of serai cells
(b) kankar lime terraced flooring on the roof of the serai cells
(work suspended by contractor due to non-payment as a result of budget cuts)
(c) upgrading of the drains along the front of the serai cells

Fig. View of the Akbari Serai cells

Conservation Issues and Priorities at Akbari Serai

The main issues are:
(a) no investigations and chemical analysis have been made of the mortars and other original materials
(b) use of different materials such as kankar lime or cement or lime surki powder at different places without any consistency
(c) structural assessment of all the sections of serai needs to be carried out

Fig. 52 Corner cells with new pointing

Fig. 53 Drain renovations in front of Serai cells

Fig. 54 Kankar lime pointing
**Conservation carried out at Akbari Serai Northern Gateway**

Works include:
(a) re-plastering of the exterior and interior facades
(b) provision of a supporting pillar under a side arch

**Conservation Issues and Priorities at Akbari Serai Gateway**

The main issues are:
(a) major structural cracking in the arches at the crown has not been repaired, just remedial provision of a brick supporting pillar. The arch needs to be redone with the original materials
Conservation carried out at the Akbari Serai Mosque

The only documented conservation works carried out at the Mosque were repairs to parts of stone sills in the upper left front façade fell after tremors in 2011.

Fig. 58  Façade of the Serai Mosque

Fig. 59  Portion of the façade that was damaged by tremors

Conservation Issues and Priorities at Akbari Serai Mosque

There are no serious conservation issues; continued monitoring and maintenance is required.
Conservation carried out at the Gateway to Jahangir’s Tomb

No reference can be found to conservation work other than minor repairs to masonry and repaving of the platform; patchwork repairs have been made to the decorative veneer of the façade.

Fig. 60  Façade of the Gateway to Jahangir’s Tomb

Conservation Issues and Priorities at the Gateway to Jahangir’s Tomb

The main issues are:
(a) high quality painted decoration is in need of cleaning and conservation
(b) rainwater is entering the brickwork where the spout is missing and causing cracking and discoloration of masonry
(c) outer brick veneering is separating from the main wall
(d) veneering under the small minarets is coming away—later repairs that do not adhere

Fig. 61  Example of painted decoration at risk
Fig. 62  Entry of rainwater where structural sections are
Fig. 63  Column element pulling away from the structure
Conservation carried out at Asif Khan’s Tomb

In 2004 GHF with Kamil Khan Mumtaz and Associates, University of Engineering and Technology and Government of Pakistan “completed the Master Conservation Plan for the South Gate and Mughal Gardens restoration and received approval for the conservation of the Asif Khan complex. Work began to stabilize and restore the South Gate and walls, and a complete survey, mapping and structural engineering plan for the Main Tomb.” (GHF Annual Report, 2004) Works were delayed for most of 2005 waiting for government approval to commence works.

Fig. 64  Edging of decorative plaster with cement and tile slabs to prevent falling

Fig. 65  Masonry repairs

Conservation Issues and Priorities at Asif Khan’s Tomb

The main issues are:
- (a) there is major crack in the western side main arch at the crown growing inwards which needs to be stabilized
- (b) rendering problem—archaeological research needed to identify original finishes
- (c) stucco plaster inside the building is very thick and is developing cracks and needs to be stabilized
Fig. 69  Gateway to Asif Khan’s Tom has cracking in the arches and vault which need stabilization

Fig. 70  The faux-gateway is structurally sound but in need of maintenance and decorative repairs

Fig. 71  The periphery wall is at risk from squatter occupation; large sections of original stucco rendering are intact but require urgent consolidation

Fig. 72  The domed structure on the east of the site is in a ruinous state; it should be stabilized to prevent further collapse

Fig. 73  Preventive conservation is needed for the patches of excellent tile mosaic still remaining
Conservation carried out at Nur Jahan’s Tomb

Conservation works carried out at the Tomb during the past few decades have focused on the following:
(a) restoration to the main façade of the building
(b) upgrading of flooring around the marble coffin in the central chamber

Fig. 74 The façade of the Tomb has been completely “restored” creating an artificial appearance

Fig. 75 The interior chamber has been re-floored with modern tiles

Fig. 76 Examples of painted panels which have received no attention; they need to be cleaned at minimum

Fig. 77 The original headstone rests against a wall of the inner chamber; note the red graffiti
Conservation Issues and Priorities at Nur Jahan’s Tomb

The main issues are:
(a) sections of new red brick decorative rendering have been poorly applied and are coming out of alignment
(b) external brickwork which has not been maintained is eroding badly due to exposure to weathering
(c) instead of using stone panels, conservators used concrete slabs painted to look like stone;

Fig. 78 Restoration work of poor quality

Fig. 79 Areas of original brick on edge flooring and painted murals

Figs. 80–1 Examples of “faux” stone panels eroding

Fig. 82 External walls of the building where no preventive conservation has taken place are rapidly degrading
Conservation carried out of Gardens

Conservation works carried out at the gardens during the past few decades have focused on the following:
(a) Brick on edge paving of walkways
(b) New water supply pipes in serai garden
(c) plastering and painting of the tank in Jahangir’s Tomb garden
(d) clearance of scrub growth and seasonal planting

Figs. 83-85 Views of the western portion of the garden of Jahangir’s Tomb showing new walkways, raised lawns, the painted tank and plantation at different seasons

Fig. 86 View of the eastern portion of the garden of Jahangir’s Tomb showing different levels of care

Fig. 87 View of the garden of Akbari Serai

Fig. 88 View of the garden of Asif Khan’s Tomb; cleared but unplanted
**Conservation Issues and Priorities for Gardens**

The main issues are:

(a) restoration of a traditional Mughal planting scheme

Historical events and past management approaches have resulted in a complete break in the continuity of planting in the gardens of the Complex. Since abandonment at the end of the Mughal period, the gardens have experienced continuous invasive use, changes to soil and its levels, orchard cultivation and overgrowth and the intentional introduction of many non-Mughal plant species. This means that, unlike these other gardens, it is not possible to simply lift the overburden of intervening centuries and find undisturbed evidence of the Mughal gardens below. “Restoration” not possible as the required high level of horticultural integrity has been lost.

Priorities should be:

1. to carry out archaeological garden research to ascertain the original charbagh lay outs of the gardens
2. to carry out soil research in an attempt to find seeds of original planted species
3. to research the geometrical principles guiding the garden design
4. to draw up a planting plan “on the basis of scientific research and in accordance with the principles of the historic Mughal garden architecture”
5. to draw up a restoration plan or a revitalization plan (if sufficient information has become available) for one square as a trial, based on findings, source and scientific research and based on internationally recognized restoration principles. A pilot project in one square will provide experience and allow the public to respond to proposed changes.
(b) revitalization of the Mughal hydraulic system and ornamental water features

The present hydraulic system of the gardens comprises three aspects:
(a) the original Mughal water distribution system which is no longer functional
(b) elements of the Mughal water display system, such as fountains, chadar, channels etc., some of which are original while others are modern reproductions
(c) the modern water system laying on top of the original and feeding the Mughal display elements

Investigations into the original Mughal hydraulic system at Shalamar Gardens have shown that it cannot be revitalized in its present state without radical interventions. The overall approach should therefore be to “preserve” it in its present condition, stabilizing all elements and developing a program for its display and use as an educational feature.

The following priorities are recommended:
(1) Documentation of all visible remains
(2) Archaeological excavation of selected portions of the system with a view to exposing the remains for display
(3) Consolidation and stabilization of remains as required
(4) Design of protective barriers and modes of display
(5) Inclusion of the hydraulics remains in the overall interpretive scheme for the site; signage, information boards, pamphlets with maps etc.

Fig. 91 View of the tank and channels in the garden of Jahangir’s

Fig. 92 View of the tank and channels in the garden of Jahangir’s
Resources and expertise available to conservation and management staff

Conservation Laboratory

The existing laboratory facilities comprise a Tile Workshop and Lime laboratory, both at Lahore Fort, and a Central Archaeological Laboratory which is a national facility of the Department of Archaeology. The tile work shop and lime laboratory produce materials for use in restoration projects within the site. The Central Archaeological Laboratory deals with conservation of artifacts including ceramics, coins, paper and tile.

Staff totals ten persons, including several with relevant qualifications and some specific skills. However, there have been no opportunities for further training or upgrading of skills. The labs were set up in the 1960-70s and have received little or no upgrading since in terms of equipment and materials. All of the equipment and technical machinery is outdated and most no longer works or, if it works, the knowledge of how to use it is lacking.

Materials Repository

A large volume of architectural and archaeological material has accumulated in various parts of the site but is neither on display nor in inventoried storage. The lack of systematic inventory means that valuable material is not available for study or re-use in conservation and is at risk from inadequate standards of curation. Most of the architectural material has accumulated due to the removal of various elements during the course of restoration and reconstruction projects. There is a need to determine the original locations of these elements, and if possible, to replace the facsimile with the original. All other material should be curated.

Skilled Artisans in Traditional Building Crafts

Conservation work at Shahdara is dependent on having a skilled workforce of artisans trained in traditional building crafts. In the past a large number of artisans were trained while carrying out restoration and spent a lifetime working on the monuments under the control of the Department. There were many opportunities since replacement and replication were considered to be acceptable “conservation” practices. However, as funding became scarce and a ban on recruitment imposed, the posts for artisans were abolished. Those artisans and their families who had been considered part of the Department were forced to look for other kinds of employment. The long standing tradition of master – apprentice training has broken down and as a result there is a serious shortage of young people receiving training and entering these trades.

Figs. 93-94 Casual storage of debris from conservation work; (left) original pieces stored in a painted side chamber of tomb (right) new materials left on site

Fig. 95 Artisans at work on replacement elements
Research and Publication

There is no publication policy or strategy and no material has been generated concerning the Tentative World Heritage site. Research in the last decade has been carried out by only a few scholars, most notably Dr. M.Y. Awan of the School of Architecture and Design, University of Engineering and Technology, Lahore, who has written on causes of decay and restoration methods.

Archaeological Research

No archaeological investigations have taken place, with the exception of incidental excavations associated with conservation works. There is enormous potential for garden archaeology and for examination of deposits associated with the Serai in particular.

Fig. 96 Garden archaeology being conducted at the Mughal funerary garden site of Gulabi Bagh in Lahore

Library and Archival Material

There is no library or reference collection on site; the library at Lahore Fort is the only repository of texts and archival material available within the DOAM, Lahore.

Baseline Site Documentation

The issue of documentation of the monuments is unclear and has been difficult to resolve. According to the Project Director of PROSCOM detailed measured drawings of Jahangir’s Tomb have been made. Our request for copies of some of these plans and elevations was politely ignored. No record of any detailed architectural drawings of the Serai, and its gate, the Mosque or Nur Jahan’s Tomb were found, although we believe that such material from the British period Archaeological Survey of India must be in existence. Further research is needed.

(Note: Period drawings of Asif Khan’s Tomb and garden, the Serai, Jahagir’s Tomb and garden and Tomb of Nur Jahan are available for purchase as part of a large portfolio of 225 historical drawings from The Heritage, Agra, India in CorelDraw 11.)

Detailed drawings and other information from the GHF project, Master Conservation Plan, at Asif Khan’s Tomb is in the possession of the project partners and not accessible to this Site Conservation Assessment.
Training and capacity building available to staff

To date, capacity building for staff of the DOAM and DOAP has tended to be in the form of sending individual officers (usually the same few officers) to short training courses abroad or, in a few cases, longer term (up to 6 months) courses at foreign universities. The problem with this approach is that the candidates sent are not based on merit or competition but selected by the Director General of the department in question. Repeated experience over the years has shown that these officers never implement or use their training and new knowledge when they return to Pakistan.

UNESCO has run a number of valuable training programs and modules over the years on topics such as cultural mapping and impact assessment. Again, the officers sent are not the younger and more enthusiastic members of staff and the training is too short and too fragmented to achieve its goals. Too often the trainers are well intentioned but unfamiliar with local conditions and ground realities.

Specialist training in heritage conservation and management has until recently been unavailable through local and national institutions. It is now possible to study at a post-graduate level at the Center for Cultural Heritage Conservation and Management at the National College of Arts, Lahore. This program hosts a UNESCO Chair in the Management of Historic Towns and Urban Centers and currently has seven students. Due to serious funding shortage and a resulting lack of permanent staff the program has not taken in additional students for the past two years. However, it is planned that the soon-to-be graduates (5 MPhil and 2 PhD) will form a core teaching team and with the support of national and international visiting experts new 2-year MA programs in Conservation of Built Heritage and Heritage Management will commence in 2012. Funding support will be needed to allow government staff to pursue advanced training.

![Post-graduate training in heritage management at the CCHC&M, National College of](image)

Fig. 97 Post-graduate training in heritage management at the CCHC&M, National College of

Site manager’s top priorities for conservation

Unfortunately, the managers at Jahangir’s Tomb Complex are not in a position to set priorities for conservation; they are simply required to implement the Master Plan. Such Plans are written by departmental officers without adequate baseline understanding of the issues on site and often merely cut and paste recommendations from past plans, perpetuating the current conservation approach. It is notable that the current Project Manager of PROSCOM has requested that we hand on to him a copy of the conservation and management recommendations and priorities that result from this GHF initiative. This sort of interest in sharing and cooperation is sadly not typical.
# Recommended Conservation and Management Priorities

<table>
<thead>
<tr>
<th>Issue</th>
<th>Priority Action</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inappropriate and uninformated “conservation” interventions</td>
<td>A moratorium on “conservation” interventions other than those which are clearly preventive: consolidation, stabilization and cleaning</td>
<td>Site custodians and managers</td>
</tr>
<tr>
<td>Lack of overall comprehensive planning for long term retention and enhancement of site values</td>
<td>Development of a comprehensive Management Plan for the site, including plans for monitoring and maintenance, conservation, garden restoration and cultural tourism development</td>
<td>Site custodians and managers, Heritage Management consultants, Local academic and professional expertise</td>
</tr>
<tr>
<td>Need for detailed data on which to make conservation and management decisions</td>
<td>A full and detailed documentation program: research into past interventions, identification and special focus on original elements of the site, catalogues of measured drawings and a proper topographical map of the site and surrounding area, and a program of archaeological research</td>
<td>Site custodians and managers, Technical experts, Archaeological team</td>
</tr>
<tr>
<td>Need for assessment of building condition in order to set priorities</td>
<td>Detailed structural and decorative surveys of all elements of the site to create condition dossiers from which prioritization of preventive conservation needs can be developed</td>
<td>Site custodians and managers, Heritage Management consultants, Technical experts</td>
</tr>
<tr>
<td>Lack of basic heritage conservation and management knowledge by site managers</td>
<td>A training module for site managers on the basic principles of conservation, fundamental approaches and tools which are applicable to the needs of this site</td>
<td>Site custodians and managers, Local academic and professional expertise</td>
</tr>
<tr>
<td>Lack of preparedness for the high risk of flooding</td>
<td>Creation of a Disaster Preparedness Manual outlining basic steps to protect the site from flood damage</td>
<td>Site custodians and managers, Heritage Disaster Preparedness Consultant</td>
</tr>
<tr>
<td>Need to start outreach to the local community</td>
<td>Development of a Heritage Site educational pack / presentation program to kick-start awareness among the young in the local community and to start building links with local schools and community groups</td>
<td>Site custodians and managers, Heritage Management consultants, Local schools</td>
</tr>
</tbody>
</table>

Table 5
Community Involvement

Is there awareness of the heritage property among various local groups?

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

Has information material encouraging sustainable tourism been developed?

Is on-site training available for stakeholders?

Are partnerships in place with schools for site visits, curriculum development, awareness building?

Are there any up-to-date native language publications describing the site’s history, significance. Relevance?

Unfortunately, the answer to all the above questions is “no”. This is not just the case for Jahangir’s Tomb Complex, however, it is true for all sites and World Heritage sites throughout the country. There is no one on site to conduct tours for school groups, only for VIPs, and no attempts have been made to forge links with local schools and colleges. No literature on Jahangir’s Tomb is available for visitors or students. Students interviewed on site either claimed to have no idea what the site was or could tell us only that it was where Jahangir or Nur Jahan, his wife, was buried.

Fig. 98  School children playing at Nur Jahan’s Tomb

Fig.99  A stakeholder with no idea of the value of the site he is visiting
# Threats to the Site

## Natural /Environmental Threats

<table>
<thead>
<tr>
<th>Source</th>
<th>Description of threat</th>
<th>Degree of Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood and drainage</td>
<td>• Direct impact of flood waters on built fabric</td>
<td>Very high risk of seasonal inundation</td>
</tr>
<tr>
<td></td>
<td>• Extended impacts of moisture in soil causing rising damp and salt action</td>
<td>High risk of flood</td>
</tr>
<tr>
<td></td>
<td>• Inevitable impacts of on-going process</td>
<td>Inevitable impacts of on-going process</td>
</tr>
<tr>
<td>Bio – deterioration</td>
<td>• Lichen and fungi growth on damp fabric</td>
<td>Inevitable impacts of on-going process</td>
</tr>
<tr>
<td></td>
<td>• Enzyme action on stone and brick</td>
<td></td>
</tr>
<tr>
<td>Thermal movement</td>
<td>Differential heating and cooling causing cracks</td>
<td>Inevitable impacts of on-going process</td>
</tr>
<tr>
<td>Soil</td>
<td>Reduced soil strength causing settlement and cracks</td>
<td>High risk</td>
</tr>
</tbody>
</table>

## Man-made Threats

| Original construction           | Use of iron clamps and dowels which rust and cause splitting and shattering of stone | Inevitable impacts of on-going process                                          |
| Conservation interventions      | • Altering of original design and details                                              | Very high risk under current conservation approach                             |
|                                 | • Use of Portland Cement instead of lime mortar                                        |                                                                                |
|                                 | • Poor workmanship                                                                     |                                                                                |
| Pollution                       | • Acid rain leaching of lime mortar                                                     | Inevitable impacts of on-going process                                          |
|                                 | • “marble disease”                                                                     |                                                                                |
|                                 | • Suspended particulate damage to paintings and decorative work                        |                                                                                |
| Visitor use                     | • Graffiti                                                                             | Very high risk under current management approach                                |
|                                 | • Inappropriate climbing and contact with fragile fabric                                |                                                                                |
| Neglect                         | Failure to maintain fabric and decoration by regular maintenance due to lack of awareness and/or interest and shortage of funding | Very high risk under current management approach                                |
| Vibration                       | Traffic on GT Road and railway lines causing loss of foundation strength leading to structural cracks | Inevitable impacts of on-going process                                          |
| Vandalism                       | Damage from encroachments against and on top of peripheral walls of the heritage site | Very high risk under current management policy; potential for reduction through legal means |
| Lack of comprehensive planning for conservation and management | Fragmented and wasted efforts and loss of site authenticity | Very high risk under current conservation and management approach |

Table 6
Quantitative Assessment

Assessment compared to other protected heritage sites in Pakistan

In this table we have tried to assess the conservation and management of the site by realistic local and regional standards. Numbers may seem high, such as an 8 for visitor experience when there is no interpretation, guides or presentation; or a 6 for Site Integrity when illegal squatters are literally encroaching on the site walls. However, when compared to many other protected sites in Pakistan (including World Heritage sites) Jahangir’s Tomb Complex offers a meaningful visitor experience and has managed at least to keep encroachers and developers outside the site walls.

<table>
<thead>
<tr>
<th>Area of Assessment</th>
<th>Scoring (1-10 best)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Site Conservation Plan (where applicable)</td>
<td>6</td>
<td>Most site have no plan of any sort</td>
</tr>
<tr>
<td>2. Site Conservation &amp; Maintenance</td>
<td>7</td>
<td>By national standards the site has a considerable degree of management and conservation</td>
</tr>
<tr>
<td>3. Site Integrity</td>
<td>6</td>
<td>Legal protection has at least maintained boundaries compared to some national sites which have been invaded</td>
</tr>
<tr>
<td>4. Setting Integrity</td>
<td>6</td>
<td>Poor but with potential for improvement</td>
</tr>
<tr>
<td>5. Authenticity</td>
<td>8</td>
<td>Lack of large scale interventions in most of the site; garden plans intact</td>
</tr>
<tr>
<td>6. Site Management</td>
<td>7</td>
<td>Current management level better than many sites in Pakistan</td>
</tr>
<tr>
<td>7. Community Involvement in management</td>
<td>5</td>
<td>Average for Pakistan (non-existent)</td>
</tr>
<tr>
<td>8. Responsible development</td>
<td>5</td>
<td>No development per se</td>
</tr>
<tr>
<td>9. Continuation of traditional uses</td>
<td>8</td>
<td>Better than many sites; funerary and garden functions continue with a degree of historical context</td>
</tr>
<tr>
<td>10. Visitor experience</td>
<td>8</td>
<td>The site is attractive and green and provides a tranquil retreat much valued by visitors</td>
</tr>
</tbody>
</table>

Table 7
Assessment compared to international best-practice for protected heritage site management

In this table we have tried to assess the conservation and management of the site in the context of international best-practice. Scores are not surprisingly much lower, but not as low as they would be for many other sites in Pakistan.

<table>
<thead>
<tr>
<th>Area of Assessment</th>
<th>Scoring (1-10 best)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Site Conservation Plan (where applicable)</td>
<td>3</td>
<td>Not a Conservation Plan but rather a works document</td>
</tr>
<tr>
<td>2. Site Conservation &amp; Maintenance</td>
<td>3</td>
<td>No regular maintenance planning, no monitoring; random interventions</td>
</tr>
<tr>
<td>3. Site Integrity</td>
<td>2</td>
<td>Irretrievably compromised by the railway alignment</td>
</tr>
<tr>
<td>4. Setting Integrity</td>
<td>2</td>
<td>Completely lost to urban development and encroachment</td>
</tr>
<tr>
<td>5. Authenticity</td>
<td>5</td>
<td>Compromised by some poor interventions but on the whole intact</td>
</tr>
<tr>
<td>6. Site Management</td>
<td>3</td>
<td>Split between agencies, without qualified staff; lacking a comprehensive plan or policy, under and poorly staffed, without basic understanding of conservation principles</td>
</tr>
<tr>
<td>7. Community Involvement in management</td>
<td>1</td>
<td>Non-existent; potential completely untapped</td>
</tr>
<tr>
<td>8. Responsible development</td>
<td>5</td>
<td>No development on site</td>
</tr>
<tr>
<td>9. Continuation of traditional uses</td>
<td>6</td>
<td>Still used as mausolea and visited; garden uses continue. Not turned into a “museum” experience</td>
</tr>
<tr>
<td>10. Visitor experience</td>
<td>2</td>
<td>Enjoyment of the natural environment but historical and cultural potential completely untapped</td>
</tr>
</tbody>
</table>

Table 8
## Bibliography and Sources
### On Jahangir’s Tomb Complex

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Source</th>
</tr>
</thead>
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</tr>
</tbody>
</table>