

*Ambassador's Fund for Cultural Preservation*

**Tombs of Sultan Ibrahim and Amir Sultan Muhammad**

**1<sup>ST</sup> CONSULTATIVE COMMITTEE MEETING**

5<sup>th</sup>-6<sup>th</sup> March, 2015

**Minutes of Meeting**

The First Consultative Committee Meeting for the Project “Preservation of the Tombs of Sultan Ibrahim and Amir Sultan Muhammad” was held at the historic WHS of Makli Necropolis on Thursday 5<sup>th</sup> March 2015 and at Heritage Foundation Office in Karachi on Friday 6<sup>th</sup> March 2015.

The meeting was organized by Heritage Foundation of Pakistan. A list of participants is attached herewith.

**Day I: 5<sup>th</sup> March, 2015**

**Location: WHS Makli, Thatta**

The proceedings were begun with a welcome address by Mr. Qasim Ali Qasim, Director, Archaeology and Museums, Government of Sindh, the legal custodians of the World Heritage Site of Makli. He conveyed his thanks to the US Ambassador's Fund for Cultural Preservation for its first ever investment in a project in the Province of Sindh and he expressed the need for similar projects in the province.

Ar. Yasmeen Lari, the second speaker of the day, began by thanking the consultative committee for participating in the meeting and taking time out of their schedule to be present for the session. She gave a brief introduction to the project and the role of various persons at the US Embassy who ensured that the project was realized in the Province of Sindh.

She gave a brief introduction to the studies that had been undertaken by Heritage Foundation of Pakistan team and consultants of the project. She iterated that all studies had been carried out in the best possible scientific manner keeping in mind international standards and prevalent practices. Lari also articulated that the consultative committee meeting would steer the project in a definite direction after decisions have been undertaken based on the general agreement of the various points which would be under discussion later during the meeting.

She mentioned that after the 18<sup>th</sup> Amendment and devolution to the provinces, it is hoped that the Culture Departments of the various provinces would take a higher interest in the heritage sites bequeathed to them. Speaking about the Historic site of Makli, she reiterated the need for a massive effort to help safeguard and protect the site from the various factors that are causing substantial losses to the historic property. She was glad to state that the current project also allowed the involvement of

the local community that live around the heritage site. She gave the example of Mohenjo-Daro, one of Pakistan's world-famous heritage sites, which had received high levels of funding over the years but communities around the site had not been involved in the activities and were still in a marginalized state. Lari emphasized the need for socio-economic development and increasing local stake in the heritage site to reduce localized threats such as theft of historic assets from the site.

Lari mentioned that due to the deteriorated condition of the site as a result of environmental and other hazards she mentioned UNESCO's concern over the possible loss of integrity. WHS Makli was discussed during the 36<sup>th</sup> session of the World Heritage Committee, noting that it was under serious threat of being placed on the endangered list, since little progress had been apparent to address its conservation needs.

Luckily through a collaborative effort with Sindh Culture Department and preparation of the required documents and compliance with the recommendations, and particularly due to the guidance of Dr. Michael Jansen, the placement of Makli on the Endangered List was avoided. She reminded that a 2-year grace period had been given when evaluation would take place during the next session of World Heritage Committee.

She thanked Dr. Laura Tedesco, Li Ping Lo, Sarah Alam as well the team at the US Embassy for their efforts in assisting the remarkable World Heritage Property. Additionally, Lari thanked Ambassador Richard Olsen, a true history scholar for his visit to the site earlier during the year. She also expressed appreciation for the interest and enthusiasm with which the Consul General and his team had participated in the Heritage Façade Cleaning and Mural painting event.

She expressed her thanks to Mr. Qasim Ali Qasim for his support to the work of Heritage Foundation of Pakistan at WHS Makli and other sites in Pakistan were applauded, and requested him to convey her appreciation to the minister for her continued support to the work of the Foundation.

Mr. Saleemul-Haq, Director, Archaeology and Museums, Government of Punjab who was also a member of the team of the UNESCO-NORAD project, was introduced to the table. Mr. Haq is currently custodian of the historic series of Pre-Mughal, Mughal and Post-Mughal structures in Punjab and has a great and detailed working knowledge of heritage sites and their conservation and would be instrumental to the consultative committee.

Honorary Member, Mr. SuhailZaheer Lari, who has the largest collection of photographs of Makli and Thatta was introduced. Mr. Lari has been instrumental to the works undertaken at the Foundation due to his vast knowledge of the history of Sindh and Makli.

Ar. Yasmeen Lari introduced Ms. FeryalGauhar, who has been an active member of various Civil Society Organizations and heritage safeguarding projects. Ms. Gauhar has been included in the Consultative Committee as her expertise in community interactions and increasing local stakeholders interest in the site would be helpful to the project.

She followed this by giving an introduction to Structural consultant Amin Tariq, with whom she had developed various technical solutions for the UNESCO-NORAD project of the Lahore Fort and

Shalimar Gardens in 2003. She applauded Engr. Tariq's unconventional and creative solutions for structural problems at heritage sites.

Mrs. Lari once again thanked all the participants for their time and the team of Heritage Foundation of Pakistan for organizing the event and preparing the materials for discussion.

### **Folios Presentation**

As per schedule Folios of Studies undertaken were presented. They were as follows:

- Folio 1:** Introduction to WH Makli
- Folio 2:** Introduction to AFCP Project
- Folio 3:** Significance & Values
- Folio 4:** Architectural Drawings
- Folio 5:** Numbering System
- Folio 6:** Photographic Documentation
- Folio 7:** Image Superimposition
- Folio 8:** Historic Brick and Glazed Tiles Analysis
- Folio 9:** Geotechnical & Structural Consultants' Assessment
- Folio 10:** Condition Survey, Guiding Notes, Damage Assessment
- Folio 11:** Material Treatments and Guidelines

### **Folio 1: Introduction to Makli**

The First Folio highlighted the World Heritage Site of Makli, Thatta and the work undertaken by Heritage Foundation of Pakistan at the Site.

The folio was met with various queries by Dr. Laura Tedesco, who wished to understand if the provinces could be regarded as a more efficient way to manage heritage sites. The query was answered by Yasmeen Lari, Mr. Qasim Ali Qasim and Saleem ul-Haq, who reported that due to government procedures the funding for heritage sites lapses at the end of each financial year creating difficulties in implementation. They shared their knowledge of the Federal Government's Antiquities Act 1975 and its provision for maintaining a 200 feet buffer zone around each site among many other protective measures. Mr. Qasim Ali Qasim informed that unlike Punjab, Sindh does not yet have a Provincial Antiquities Act although the law has been prepared since 2011 and waits being tabled at the Assembly. The government officials also mentioned the lack of trained professionals with the department and emphasized the need for formal training at all levels for conservation professionals.

Queries were also raised with respect to the history of Makli and the local tourism at the site. Mr. Suhail Z. Lari informed the committee of the various aspects of local tourism including regular festivals and spiritual gatherings that occur at the site. He gave a listing of ethnic and spiritual diversity of the tourists and their affiliation to various tombs and saints at the necropolis. He also mentioned the constant changes and renovations that are being undertaken by the devotees to the historic sites and that it is not

possible to stop these illegal developments from happening due to the sensitive nature of the site and its structures.

Ms. Feryal Gauhar informed of her earlier visits and meetings with local communities at Makli. She stated that the various communities visit the site on regular basis and have different affiliations to the tombs and saints interred within. She mentioned that various religious and spiritual sensibilities should be considered as devotees from various ethnic and religious groups visit the site.

### **Folio 2: Introduction to the Project**

Folio 2 gave a detailed description of the project scope, objectives, timeline and milestones achieved thus far. The folio was an introduction into the various aspects of the project including the conservation works to the tombs, external works around the site, visitor information packages along with workshops and artisan ateliers constructed at WHS Makli. Consultative Committee members were agreeable to all information provided in the folio.

### **Folio 3: Site Significance and Values**

This folio listed all reasons for the significance of the world heritage site in general and the Tombs of Sultan Ibrahim and Amir Sultan Muhammad in specific. The folio listed the following values for WHS Makli:

- Historical Value
- Information/Education/Academic Value
- Associative Value
- Communal/Social Value
- Intentional/Purpose/Functional/Use Value
- Commemorative/Symbolic Value
- Social Value
- Spiritual/Religious Value
- Economic/Use Value
- Non-use/Existence/Option/Bequest Value

The folio also listed the below values for the specific tombs being conserved under the project:

- Artistic Value
- Illustrative Value
- Associative Value
- Aesthetic Value
- Design Value
- Age Value

#### **Folio 4: Architectural Drawings**

The folio displayed the various Architectural Drawings of the monument. These included plans, sections, elevations for the entire compound and its elements.

#### **Folio 5: Numbering System**

A specific numbering system has been developed for the project. It follows a similar system that was established for the UNESCO-NORAD project for the Lahore Fort and Shalimar Gardens and for all subsequent projects undertaken by the Heritage Foundation. Folio 5 highlighted the rationale for the numbering system and illustrated the detail of numbering with drawings completely numbered.

#### **Folio 6: Photographic Documentation**

Folio 6 illustrated the entire tomb and its facets with photographs. The details of documentation allowed the consultative committee the first glance of the monuments.

#### **Folio 7: Image Super-imposition**

The image super imposition folio used Architectural drawings and the photographic documentation to prepare detailed views of each aspect of the monuments. The image super-imposition drawings developed a better understanding of each monument and its current condition.

#### **Folio 8: Historic Masonry and Glazed tile Analysis**

Since the Tomb of Sultan Ibrahim and its entrance Archway has been subjected to various interventions over a period of time, it was considered important to highlight to the Consultative Committee the variance of historic masonry used at the tomb. Drawings that highlighted the various eras of intervention were displayed in Folio 7.

It was essential for the discussion that Consultative Committee Members be aware of the areas where Kashi tiles have been utilized on the monument. Subsequently, drawings analyzing the areas of the monuments which may have had *kashi* tiles were prepared.

#### **Visit to HF Artisan Ateliers and Community Clusters**

A short break was taken after the presentation of Folios 1-8. Consultative Committee Members visited the site of the Artisans' Workshops and Ateliers and Community Activity Clusters.

Various Activities were ongoing at the clusters. A local community woman had set up her craft stall at one of the chaura pavilions. There were also students from the local school participating in a painting activity. It is hoped that the art teacher instructed to carry out the activity will continue to hold such sessions at the site and sell the products prepared by the children for long-term sustainability of the activity.

Various craftsmen were also present at site, engaged in pottery making, stone carving and tile making. The Consultative Committee members remarked that although the quality of work being undertaken by the potter and the stone carver were up to standard, the Kashi tiles required further work and training.

### Folio 9: Consultants' Assessments

The Consultants' Assessment Folio which included the Geo-Technical and Structural Evaluation of the monuments was presented by Engr. Amin Tariq. He highlighted that the Geo-Technical Studies found that the structure does not suffer from any global settlement and the soil tests found that no elements were affecting the foundations. He also stated that the monuments displayed no signs of instability except for the dome of the structure.

The Structural engineer put forward some suggestions to rectify and stabilize the structure.

- Platform undulations to be filled immediately.
- Any cracks that may have appeared have been filled and have not reappeared again should be left untouched.
- All bulging and sagging found in the monument (except for the dome) are localized and should be monitored.
- Fill cavities with mortar that may strengthen the existing system.
- All interventions to be minimal, resulting in a monument less prone to movement.
- All damages and interventions (new and prior) to be monitored during the course of the project and later by the Department of Culture.

Mr. Tariq also informed the Consultative Committee members of a general classification of safety zoning which he has undertaken for the site. This classification divides the entire site of Makli into 4 zones of Safety.

- **Zone-A:** It is non-historic part comprising local shrine as later addition. Hence to be removed whenever possible but keeping safety on top priority with zero damage to adjoining historic parts.
- **Zone-B:** This is relatively safe zone for historic conservation works if to be carried out. Minimum danger of global failure but local failure may occur hence one can move inside with precautions and care.
- **Zone-C:** Dangerous Zone but movement for conservation works is possible with safety & care.
- **Zone-D:** This is the zone which is technically collapsed because tilt is much more than permissible limits and separated parts at top levels may fall down and most dangerous to the people and property inside and around. This is no-go area and any sort of activity is not permitted inside or around.

It was decided that further deliberations on the state of the tomb will be highlighted and discussed during the site visit.

## Folio 10 – Condition Survey

The Condition Survey and Damage Assessment Folios highlighted the documentation and assessments of the current condition of the monuments. The folio highlighted the guiding notes and assessments that were undertaken by Conservation Consultant, Saba Samee. The Document gave a detailed summary of the various facets of the monuments and their damages. The Folio highlighted the following as the main causes of damage at the monument.

- Lack of Maintenance – dry cleaning and graffiti removal required
- Various interventions in structure noted– 1950s, 1970s
- Deformation of internal and external dome
- Discoloration of brick and stone
- Brick voids
- Spalling of brick and stone
- Loss of pointing
- Collapse of brick masonry
- Hairline cracks along openings
- Damaged/missing plaster
- Damaged stone fretwork
- Damaged parapet at roof
- Efflorescence
- Damaged stone flooring
- Damaged stone cenotaphs
- Damaged/missing *kashi* tiles
- Damaged stucco
- Minimum traces of fresco

## Folio 11 – Material Treatments and Guidelines

Folio 11 illustrated the various techniques and standard operating procedures being undertaken to conduct test patches for conservation works. The guidelines were discussed briefly with the understanding that they would be detailed during the site visit later during the day.

### Site Visit

After lunch the Technical Consultative Committee visited the Tombs of Sultan Ibrahim and Amir Sultan Mohammad. They were able to examine the monuments in light of the various points under discussion and the display of samples and historic materials at the site. The Committee members broke into groups of two and three and made a detailed visit of the site and discussed various points that would be held for discussion on Day 2. Some samples of brick, mortars and pointing methodology were also discussed and finalized.

## Day 2: 6<sup>th</sup> March 2015

**Location: Heritage Foundation Office, Karachi**

### **SESSION I – DISCUSSION ON STUDIES UNDERTAKEN**

Day 2 of the session began with all consultative Committee members giving their general assessment of the studies undertaken. The following comments were issued:

*Dr. Laura Tedesco* stated that the studies carried out by Heritage Foundation teams were detailed and impressive. She iterated that for any preservation project it is important for the documentation of the monument(s) to be as detailed as possible. She expressed that the studies and samples prepared at the site were also indicative that the conservation work undertaken would be carried out with utmost care. She explained that for preservation works, it must be insured that any intervention does not harm the monument and that the least interventions would be carried in accordance to the Venice Charter. She emphasized that the members of the consultative committee and the Heritage Foundation would ensure that all activities undertaken at the site would be based on the emotional attachments that Pakistanis would have to the site as well as the best international practices.

She expressed that further studies on Kashi tiles and their manufacturing should be taken up to ensure that traditional practices and techniques could be revitalized. She mentioned the traditional glazed tile workshops in Herat where a paste for glazes is manufactured by tedious grinding of traditional dyes and stones. She put forward the names of Julien Lesley and insured that further assistance could be provided to create a cross-border bridge to Afghanistan for enlisting of skilled Kashi tile craftsmen. She stated that she would be happy to help actualize cross-border collaborations and discussions on the matter.

Saleemul-Haq interjected the conversation by stating that Lahore, once the centre of tile making is also at a loss for the historic method of glazed tile making. He also suggested that a workshop maybe organized where a master craftsmen from Afghanistan could visit and train local craftsmen in Pakistan in the traditional technique.

Ar. Yasmeen Lari informed that a UNESCO project is underway for the scientific assessments and analysis of historic glazed tiles. The project would allow for collaboration with master artisans from across the border, but the extent would be actualized once the project scope is finalized.

*Ms. Li Ping Lo* reiterated Dr. Laura Tedesco's statements and hoped that the meeting and discussion would help bring all experts to the same page. She also expressed her pleasure at the involvement of the Embassy Staff in various activities to engage the community at the site.

*Ms. Feryal Gauhar* gave her point of view on the studies by dividing the levels of engagement of kashi tiles:

- 1<sup>st</sup> Level – All craftsmen and artisans
- 2<sup>nd</sup> Level – Local community members engaged in tile production for sale of local products
- 3<sup>rd</sup> Level – Public, in raising awareness of the traditional art of tile making, motifs and designs.

She stated that the kashi tile production may engage marginalized communities. Due to commercial mass production of tiles, the economic state of artisans can be connected to the possible fallout of training. Priority should be set to the earning aspect, revitalization of traditional techniques and informing the public about motifs and the products themselves. She suggested that a possible point of sales could be developed at the site for craftsmen to sale the products that would not be used for conservation, thus ensuring sustainability of a kashi production workshop at WHS Makli. She also suggested modernized applications of the crafts for better sale value as majority of the tiles may not be of professional quality but would still retain their market value. She also stated that the general public could be connected to the site through the products prepared there, without being directly associated to it.

*Ms. Sarah Alam* expressed that all work was going satisfactorily. She suggested that engagement activities with students and alumni could be planned for community engagement activities. She suggested that a field trip of US Alumni in Hyderabad and Karachi could be planned for the coming months, so interested persons could be involved on a long term basis during the course of the project. Ar. Lari suggested that a plan of action be prepared and shared by her for taking up the activity.

*Engr. Amin Tariq* had prepared a list of discussion points based on his observation during the prior day as well as discussion with other experts. It was decided that in view of general comments being shared, the engineers detailed technical slides was discussed during the presentation.

*Mr. Saleem ul-Haq* expressed the pleasure to see the detailed nature of studies and documentation at the site. He expressed his desire to share the studies conducted by Heritage Foundation teams with students of his class at the Punjab University faculty of Architecture. He requested a copy of the folio presented during the previous day for sharing purposes. He also expressed his satisfaction upon the inclusion of geo-technical and soil studies in the program as they are the foundation stones of any conservation project. He recommended that a complete soil profile of the entire site of Makli be prepared for further analyses of the site and possible reasons for the rapid deterioration currently taking place.

*Mr. Qasim Ali Qasim* began his statement with congratulating Heritage Foundation on well conducted studies. He stated that the studies conducted were on standard and that division of the monuments and its elements into various components provides a future road map to the conservation of the monument as well as further activities to be taken up at the site at a later time. He said that the studies could also provide a practical example for other sites in Sindh and their conservation.

The session was ended with Yasmeen Lari thanking all members for their suggestions and comments.

## **SESSION 2 – DECISIONS**

A presentation of discussion points and decisions was put forward. Each slide was discussed in great detail and a final decision was agreed upon.

### **Slide 1 – External Dome Treatment**

During the site visit, Consultative Committee members were of the opinion that the dome is in reasonable state. Any work on the external dome would require careful erection of safety scaffolding and special attention must be paid to the safety of workers at site. It was decided that all biological growth on the dome would be removed as soon as possible as all bulges and deformations are being caused by the presence of growing roots inside the historic material.

It was the committee observation that the dome also shows signs of embedded moisture. It was suggested that the inclusion of silica packets could rid the dome of excess moisture. This idea should be tested as there may be long-term consequence of the inclusion which must be tested before use.

It was decided that like in the case of several case studies, a thin layer of silicon would be applied to all mortar joints and cavities before the placement of the final lime-sand plaster. All cavities and opening in the dome would be sealed to ensure that no water is able to penetrate the historic core.

The void between the internal and external dome requires further study. A void of 8” x 8” x 2’ identified at the site by Mr. Saleem ul-Haq should be further examined and a cathedral camera used to investigate the gap. This may be undertaken as a research study with the utmost care to ensure that the structure does not suffer any damage due to its invasive nature. The study would help in determining whether a structural support system has been installed within the dome to prevent its collapse.

It was expressed that all loose masonry will be re-laid using lime-sand-brick crush to ensure that the joints are water tight.

It was also decided that at the moment only the core area of the dome would be completed, whereas the kashi sections of the dome would be taken up at a later date.

### **Slide 2 – Inner Dome, Squinches and Pendentives**

After the site visits and viewing the various causes of damage, consultative committee members felt that voids in the phase of transition should be filled and all elements which are in various stages of detachment should be fixed and stabilized.

It was suggested by Amin Tariq that finesse modulus of all materials applied should be greater than 3 to ensure that the binding of the historic and new would be permanent. It was thus decided that all intervention mortars and mixes used in the dome and phases of transition would be stronger than the historic material and that all intervention did not need to be reversible.

It was suggested by Mr. Saleem ul-Haq that a vacuum cleaner or blower be used to clean all surfaces before application of intervention materials. This procedure was to be followed with the application of the approved grout to be applied in layers.

It was decided that as a first priority all historic portions that have been damaged or detached would be saved before any further work is conducted.

### **Slide 3 – Parapet Wall and Flat Roof**

The decision undertaken for the parapet and flat roof was to consolidate existing edging and making up of the damaged parapet wall. It has been suggested that the parapet wall not be higher than two courses of bricks as evident at site.

### **Slide 4 – Masonry Restoration**

All masonry restoration would be sealed by removing loose material and re-pointing carefully. It would be ensured that as much historic mortar would remain as possible. Underpinning of brick masonry would also be taken up.

### **Slide 5 – Masonry Cleaning**

All techniques used thus far have been recorded and approved by the Consultative Committee.

### **Slide 6 – Stone Flooring**

The natural drainage of the site should be determined and stone flooring to be maintained with all joints filled with mortar. It was decided that there was no need to change or replace the historic material for aesthetic purposes.

### **Slide 7 – Kashi First Aid and Treatment**

It was suggested that the use of cow dung be replaced with a simple mixture of mud and straw as cow dung may lead to deterioration of the tiles even though it is a short time measure. All other activities highlighted in the presentation were agreed upon.

### **Amin Tariq Points of Discussion**

The Structural consultant put forward his points for technical evaluation. These are:

- Platform:
  - Repair of broken corners, edges inserting/fixing stone
  - Filling of joints with mortar
  - Resurfacing and slopes to be maintained so as to push water away from building
- Exterior Walls:
  - Wall alignment to be checked minutely for any progressive bulging or movement
  - If movement is taking place the alternate could be wire loops with turn buckles with packing

- Top roof:
  - Roof surface to be sloped, repaired for cracks and cavities to make it water tight
  - Roof surface slope & parapet edges to be checked, to make water flow to through rain water vertical drains
  - Vertical drains to be lined with water Barrier lining keeping conservation principles intact
  - Top and bottom of vertical drains should be perfectly sealed
- External Dome:
  - Safety scaffolding to be fixed
  - Dome cavities missing bricks to be filled, workers should use safety shoes, harnesses & safety belts keeping standard safety principles intact.
  - Alignment to be checked & budgeted part to be realigned by sound methodology
  - Vegetations, roots to be removed by specialists without compromising the integrity of structure
- Internal Building:
  - All edging to be done as per original
  - Bricks to be replaced as per original with sound mortar
  - All cavities to be filled
  - Floor undulations to be corrected
- General : ( particularly for this and all Makli structures as well)
  - instrumentation and control system must be in place
  - seismic up gradation may be required as per latest codes local design earthquake.

All points were agreed upon except no mechanical measurements of bulging was required as these deformities will not vary in the limited two year project plan.

The final discussion was closed with Yasmeen Lari thanking the Consultative Committee Members for their participation.

This session was followed by lunch.