## AGA KHAN DEVELOPMENT NETWORK

# QUTB SHAHI HERITAGE PARK CONSERVATION & LANDSCAPE RESTORATION



## C.1860

View from the tomb of Muhammed Qutb Shah shows a lush garden in an otherwise barren landscape. The colonnade in the forecourt of Muhammed Quli Qutb Shah is also visible.

Photograph Courtesy: Col. Horatio Biden Tombs at Golconda from The Biden Album, Vol. 1; Photo credit: H.J.Nixon c.1860; Source: Alkazi Foundation





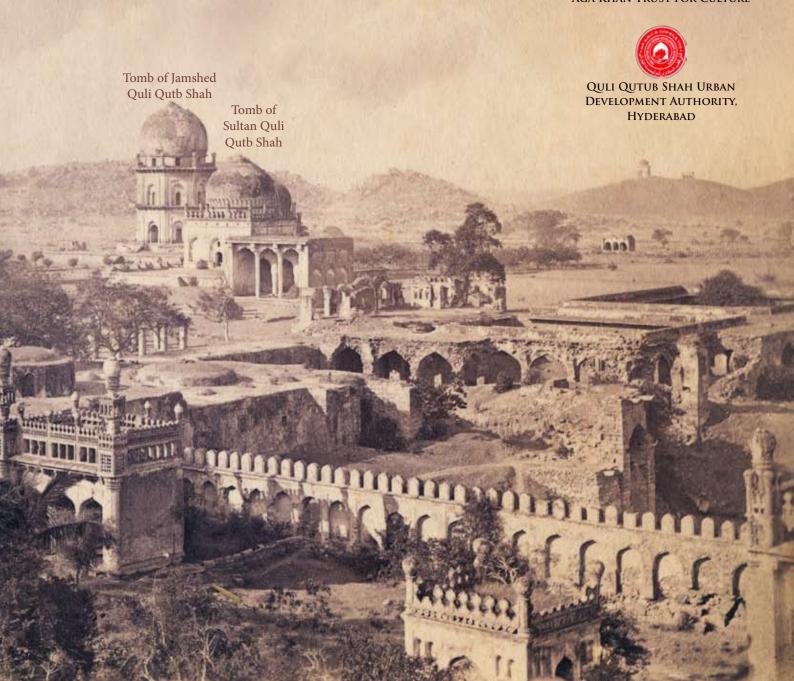
## Partner Agencies:

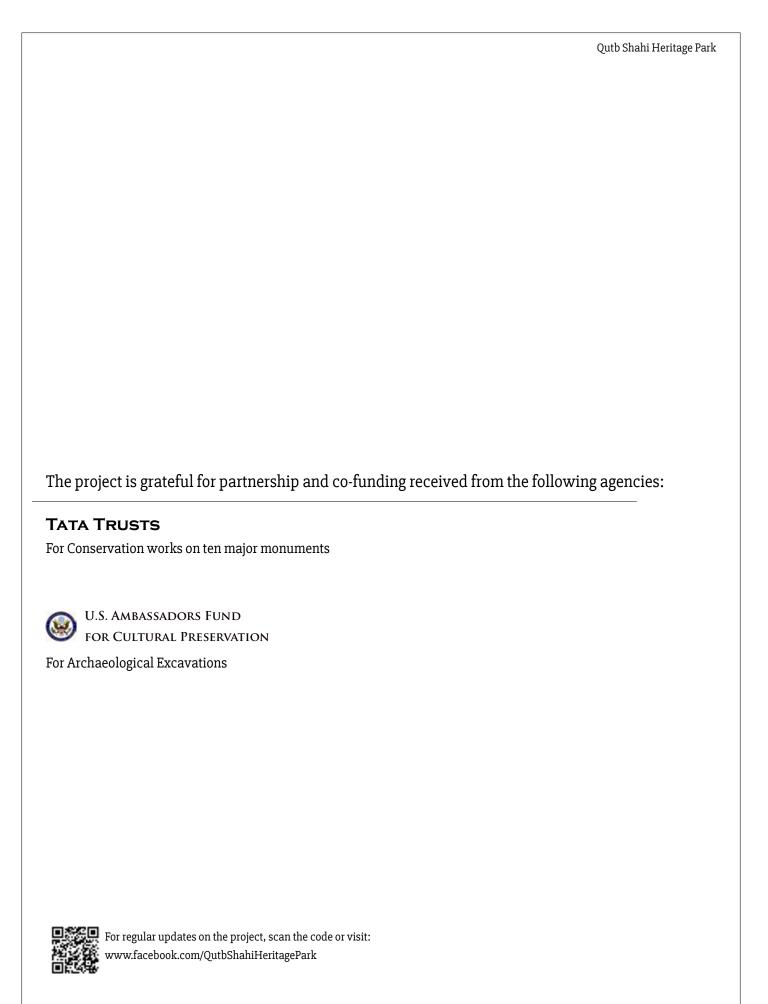


DEPARTMENT OF ARCHAEOLOGY & MUSEUM, GOVT. OF TELANGANA



AGA KHAN TRUST FOR CULTURE





**(Cover Page)** Over 40 layers of paint were painstakingly removed by conservators to reveal original 16<sup>th</sup> century plaster medallions that had remarkably survived the centuries at the Idgah.

## **CONTENTS**

| <b>Executive Summary</b> | 7 9 |
|--------------------------|-----|
|--------------------------|-----|

Peer Reviews

Conservation Works 14

Archaeological Excavations 16

Conservation

Documentation 18

Archival Research 22

Sultan Quli Qutb Shah's Tomb 24

Jamshed Quli Qutb Shah's Tomb 30

Fatima Sultana's Tomb 36

Abdullah Mosque 37

Muhammad Quli Qutb Shah's Tomb 38

Idgah 48

Hamaam 50

Grave Mosque 56

Tomb No. 15 57

Badi Baoli 58

Deccan Park 60

Archaeology

Area North of Hamaam 62

Conservation of Archaeological Remains 64

Landscape 66

Plantation 68

Conference: Engaging Hyderabad with Conservation 70

Project Team 72



Qutb Shahi Heritage Park is listed on the tentative World Heritage List. Major conservation and landscape restoration works will be undertaken from 2013-23 to ensure long term preservation and enhance the visitor experience of this site of international significance.

The Qutb Shahi Heritage Park, including the Deccan Park area, is one of the most significant historic medieval necropolises anywhere in the world, comprising over 70 structures mausoleums, mosques, step-wells/ water structures, a hamaam, pavilions, garden structures — all built during the reign of the Qutb Shahi dynasty which ruled the Hyderabad region for 169 years in the  $16^{th}$  –  $17^{th}$  centuries.

### View Of Qutb Shahi Heritage Park

There are 40 Tombs, 23 mosques, 6 Stepwells, 1 Hamaam, Enclosure Walls which date from the 16<sup>th</sup> - 17<sup>th</sup> centuries



## Qutb Shahi Heritage Park: A non-profit Public – Private Partnership

## **EXECUTIVE SUMMARY**

In January 2013, the MoU between the Department of Archaeology and Museum (DAM), Quli Qutb Shah Urban Development Authority (QQSUDA) and the Aga Khan Trust for Culture (AKTC) was signed to commence this major conservation and landscape restoration effort at this unique necropolis listed on the tentative World Heritage List.

Though the project could not commence until late 2013 on account of a Wakf Tribunal order prohibiting urgently needed works, the support from the Tata Trusts for funding of conservation works on 10 major monuments was pledged in 2013 itself. In 2015, the Hon'ble Minister of Finance, Government of India pledged additional funding for building tourism infrastructure at the Qutb Shahi Heritage Park.

In 2015, significant conservation works were undertaken and the understanding of the site significantly enhanced with a sustained archival research programme and archaeological excavations; the latter supported by the US Ambassador's Fund for Cultural Preservation. In 2015, 3D Laser scanning technology for documentation of the monuments and site was introduced here.

This report summarises the works carried out and begins to list objectives for 2016 and future years. The conservation of Sultan Quli's tomb where restoration of missing stucco plaster patterns was possible when 16<sup>th</sup> century stucco plaster was revealed on the removal of modern cement layers and the similar effort at the Idgah were no doubt the most significant achievements of 2015. The nature of the work was such that an independent peer review required a week's deliberations.









His Highness the Aga Khan, Chairman, Aga Khan Development Network was honoured with a Padma Vibhushan in 2015; (Below left) His Highness the Aga Khan reviewing the ongoing conservation works on the tomb of Muhammad Quli Qutb Shah, and (Right) proposed landscape design for the first phase of works by late Prof M Shaheer and Mr. Paparao, Advisor to Chief Minister (Govt. of Telangana).

For the conservation of the 75 individual monuments that stand within the Qutb Shahi Heritage Park, master craftsmen – stone carvers, plasterers, masons, carpenters – are expected to clock at least 500,000 man-days of work. Conservation of India's built heritage is dependent on the survival of these craft skills and for which a greater number of conservation opportunities need to be created.

In December, a three day conference provided an opportunity to share the conservation effort with multiple stakeholders in Hyderabad and also bring in national and international experts to Hyderabad to share their experiences.

While conservation works will continue for the remainder of the seven year project, the immediate challenge is to integrate Deccan Park and commence landscape restoration which will also significantly enhance visitor experience. Linkages with Golconda fort could also be established though this will need additional agreements with the Archaeological Survey of India.

The principal objective of this project remains to ensure long term preservation of the monuments which is most likely to be achieved by a return to the use of traditional materials in the conservation project. This is to be coupled by a sensitive restoration of the immediate setting of the monuments. In reviving the use of the baolis and planting of native flora the project also has significant ecological aspirations.

Simultaneously, the Aga Khan Foundation (AKF) has commenced an education programme in the neighbourhoods and will eventually develop a larger socio-economic programme to improve quality of life.



























Qutb Shahi Heritage Park Architectural Typology



























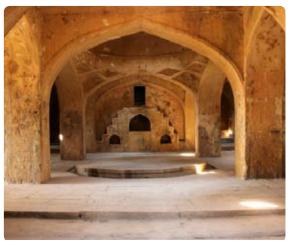




























































## Peer Review: Conservation

Major Conservation works being implemented at the Qutb Shahi Heritage Park with the support of the Tata Trusts benefit from regular independent peer reviews. The Peer review is an opportunity for the project team comprising both AKTC and Department of Archaeology and Museums officers to present the conservation proposals and seek guidance.

In 2015, the peer review was held from 26-29 May and discussions focussed on conservation works at Sultan Quli Qutb Shah's tomb, Jamshed Quli Qutb Shah's tomb, Hamaam, Badi Baoli, Ibrahim Quli Qutb Shah's Tomb and Muhammed Quli Qutb Shah's Tomb, amongst others.

### **ACTION TAKEN:**

- · Mr. Gamini Wijesuriya, Project Manager (Sites Unit), ICCROM, Rome, Italy led the peer review along with Dr. MH Talebian, Deputy of Cultural Heritage, ICHHTO, Tehran, Iran & Dr. RC Agarwal, Former Joint Director General, Archaeological Survey of India, Delhi.
- · Mr. Babji Rao, Asst. Superintending Archaeologist, ASI, Hyderabad also joined the three day Peer review.
- · The Peer review was attended by Director and officers of the Department of Archaeology and Museums, Government of Telangana.
- The peer review focussed on establishing a Conservation decision making process based on the significance of the site, established conservation philosophy and structures as well as the results of the condition assessment and archival research.
- · The Peer Review report was submitted to Tata Trusts.
- The annual independent peer review exercise is in addition to the formal joint review carried out monthly by senior officers of both Department of Archaeology and AKTC. Also, as per the project MoU, a quarterly meeting of the Technical Committee is held under the chairmanship of Principal Secretary (Youth, Culture & Tourism), Government of Telangana.
- $\cdot$  The Wakf Tribunal appointed supervisory committee also meets at regular intervals to review project works.

#### **IMPACT**

The three day extensive site inspection and discussions led to decisions on several key aspects on the project and on the ongoing works as well as on the works to commence in the coming two years. A similar exercise would be carried out prior to commencing conservation works in Phase 2.

#### **EXPERT OPINION:**

"...Technical works mostly comprise the removal of the late interventions on historic structures which have compromised the form, architectural details, and artistic details and caused structural damages through water leakages and growth of plants. Such additions have also compromised the form, material, craftsmanship and aesthetic aspects of authenticity of structures under conservation. Carefully tested and developed lime mortars are being used by skilled craftsmen in all interventions, which are commendable can be used to defend the 'common' criticism brings by certain sections of the society or profession that the final products look 'new'.

Finally, I join the peer review team to commend and congratulate the excellent work of the project team and for their readiness to openly review and improve the quality through this process and above all setting standards in all aspects of the heritage process."

DR. GAMINI S. WIJESURIYA Project Manager, ICCROM, Rome



(Above) Review of conservation works at Qutb Shahi Heritage Park with Dr. Gamini S. Wijesuriya, Dr. Mohammad H Talebian, Dr. R.C Agrawal, Mr. Babji Rao (ASI), Mr. Brahmachari (DAM), Mr. Osman (DAM) and AKTC team.

## Peer Review: Archaeology

Following the revelations and discoveries, it was necessary for review by experts in the field of archaeology and provide guidance for approach to the conservation, consolidation and presentation of these remains as well as for any future undertakings.

#### **OUTCOME:**

- · The following team of expert archaeologists reviewed the site on 13th December 2015:
  - 1. Dr. RC Agrawal-Former Joint Director General, Archaeological Survey of India
  - 2. Prof. K Pulla Rao- Professor, Department of History, University of Hyderabad
  - 3. Dr. Babji Rao- Assistant Superintending Archaeologist, Archaeological Survey of India
  - 4. Dr. Padmanabhan-Assistant Director, Department of Archaeology and Museums
- · After the completion of the inspection, the team of experts appreciated the team of State Department of Archaeology and Museums in Hyderabad and the Aga Khan Trust for Culture for discovering and excavating a number of structures on the basis of research and archival photographs.
- · They expressed their satisfaction for the meticulous care and precision with which the excavation was carried out and also for applying the laser scanning technique at the archaeological site, which provides a comprehensive and accurate picture of the excavated area.
- The team suggested that the 16<sup>th</sup> century enclosure wall should be resurrected strategically to its original profile in order to establish the extent of enclosure.

#### **IMPACT:**

A list of suggestions and discussions were held on the original usage of the area and prospects of long term preservation. This will help in determining original intent of development of the necropolis.

#### **EXPERT OPINION:**

"... AKTC has undertaken the excavations in the different zones of Qutb Shahi Tomb complex and the excavation of the summer palace complex having historical relationship with Bagh-i-Faiz is of importance to total complex and establish significance (of the exposed structures). There is a every possibility that bagh and summer palace are the earliest remains and contemporary to Qutb Shahi Dynasty established in the second decade of 16<sup>th</sup> century. The excavation of various platforms the remnants of which have been exposed in sections need further examination to ascertain the significance of individual platforms in relation to the tombs and Bagh-i-Faiz.

The whole excavated area adjoining to the rock-cut step well (Baoli) and behind the mortuary bath needs conservation to integrate the complex with the development being carried out in the tombs complex.

As a whole, I feel a commendable work has been done..."

Dr. R.C AGRAWAL
Former Joint Director General, ASI







(Above Left) Detailed architectural documentation was commenced by manual drafting on a stone-by-stone basis wherein the draughtsmen meticulously drew each stone in the location found; (Right and Below) Review of archaeological excavations by experts

### **Documentation**

In continuation with the documentation carried out in 2014, detailed documentation of the monuments were carried out on the tombs of Sultan Quli, Subhan Quli, Muhammad Quli Qutb Shah, Hamaam and archaeology apart from the smaller monuments where conservation works have commenced.

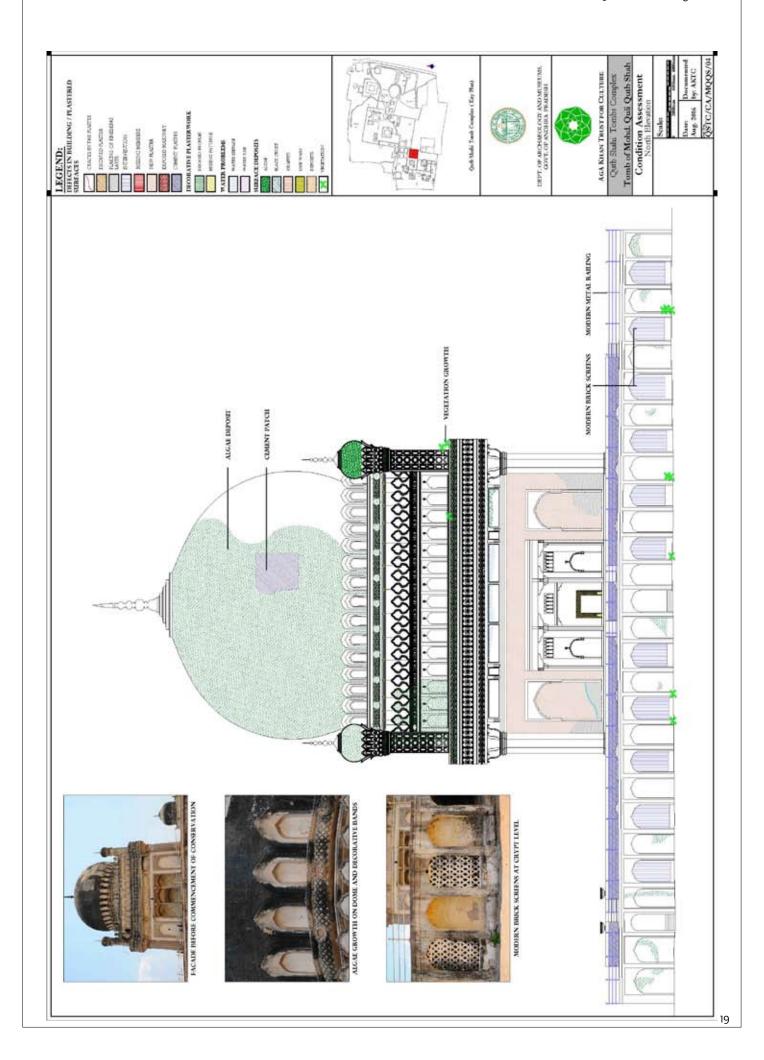
#### **OUTCOME:**

- · 3D Laser Technique was used for detailed documentation of the Archaeology and the tombs of Sultan Quli, Ibrahim Quli, Jamshed Quli as well as the Hamaam.
- · A grid of 3 mm x 3 mm grid was used to document the details on the archaeology site.
- $\cdot$  Upto 1 mm x 1 mm grid was used to document the details on the monuments.
- · The amount of scan data generated has been stitched together for better understanding.
- · Regular photo and video documentation of the works have been continuing on the site.
- · Comparative photos capturing the change in the monument following the restoration of details have been done for all the works.
- · Comparative analyses of archival images with the present-day images have helped us reveal the original profile of the building.
- · Video documentation of the works has helped in maintaining an exhaustive record for process-documentation for future.
- · Aerial photography of the site is being carried out regularly to record the changes in the complex following the restoration, archaeological exploration and landscape restoration of the complex.

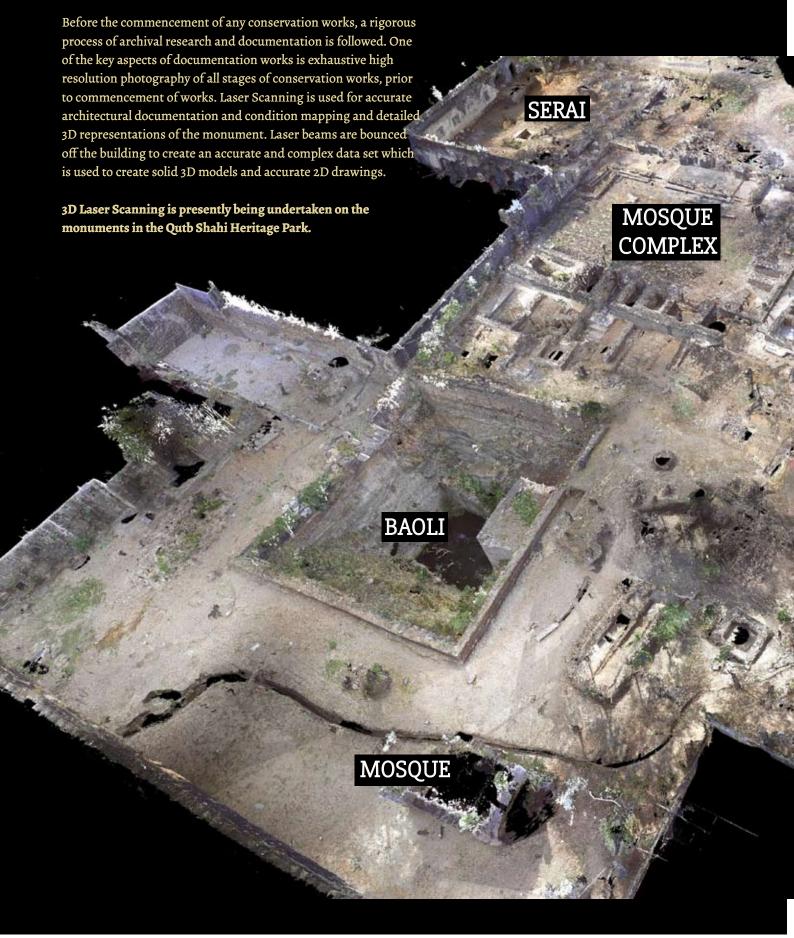
#### **NEXT STEPS:**

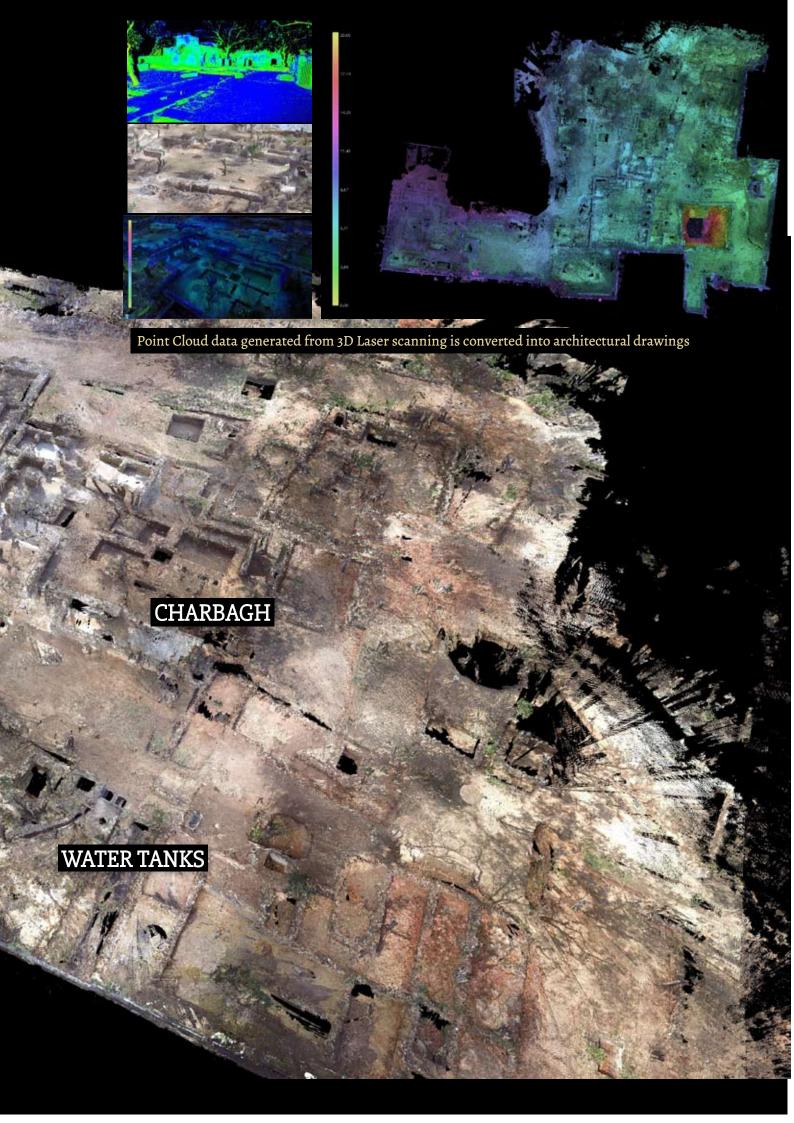
- · Similar exercise of 3D Laser Scanning technique needs to be carried out for the all the monuments in the complex.
- · The photo and video documentation of the site would continue to capture the changes and the process of restoration works.

(Right) Architectural Documentation & Condition Assessment Through 2012, exhaustive recording, documentation, condition assessment, surveys and research exercise carried out by the multidisciplinary Aga Khan Trust for Culture team as a precursor to the Conservation Plan includes over 2000 such drawings.



## 3D Laser Scanning





## Archival Research

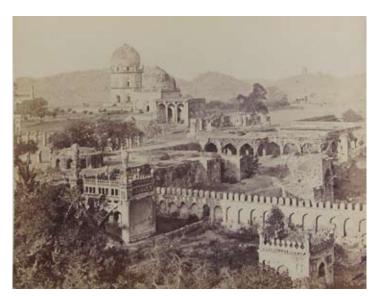
The archival research started in 2014 has immensely helped in decision making for conservation of these monuments and greatly impact the landscape of the setting.

#### **OUTCOME:**

- · The 1860's images prior to restoration work done during Salar Jung's period and the 1950's images have shown that the monuments and landscape of Qutb Shahi Tomb Complex underwent a lot of change during the Nizam's Dominion.
- This led to a need for looking deeper into the Nizam's records. A committee called the Sarf- I-Khas Mubarak was specially appointed by the Nizam to look after the Qutb Shahi heritage Park. As part of the archival research and gain a better understanding of the site, a team of conservation architects and archaeologist are investigating these records, prior to conservation works that took place at the site.
- · An architectural study is being done, to identify and date each of the 75 monuments on the site in a chronological order, that would help understand the site's expansion and change in its architectural landscape under each king.
- · AKTC is now in possession of 12 Persian manuscripts from Salar Jung museum written during the Qutb Shahi and Nizam period, which will be translated into English.
- · A chronological order of history and architecture of the seven rulers of the Qutb Shahi dynasty is being listed, which will also look beyond the heritage complex.
- · Archival images and records from the archeological dig done in 1960's 70's have been collected from the Department of Archaeology and Museums (DAM), which has helped the archeological excavations being carried out in the area North of Hamaam.

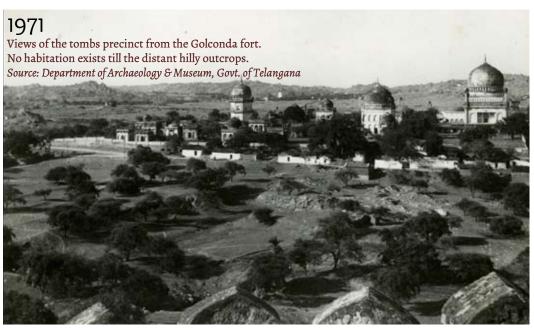
#### **IMPACT:**

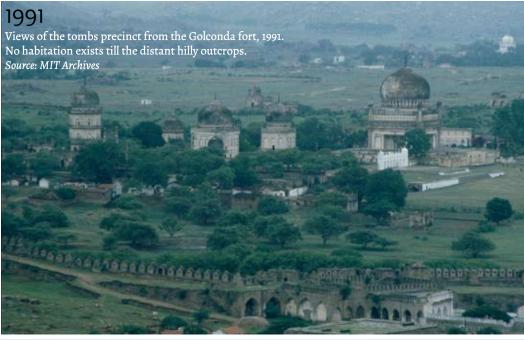
Archival research will help increase our understanding on the history and architecture of the Qutb Shahi dynasty and the changes that have taken place with time, which will help inform all conservation decisions on site.

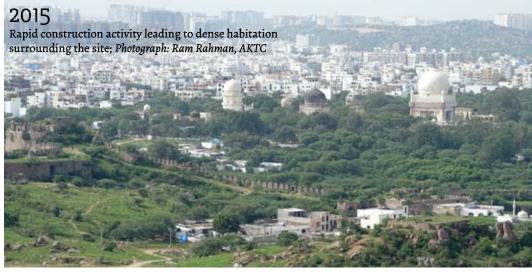


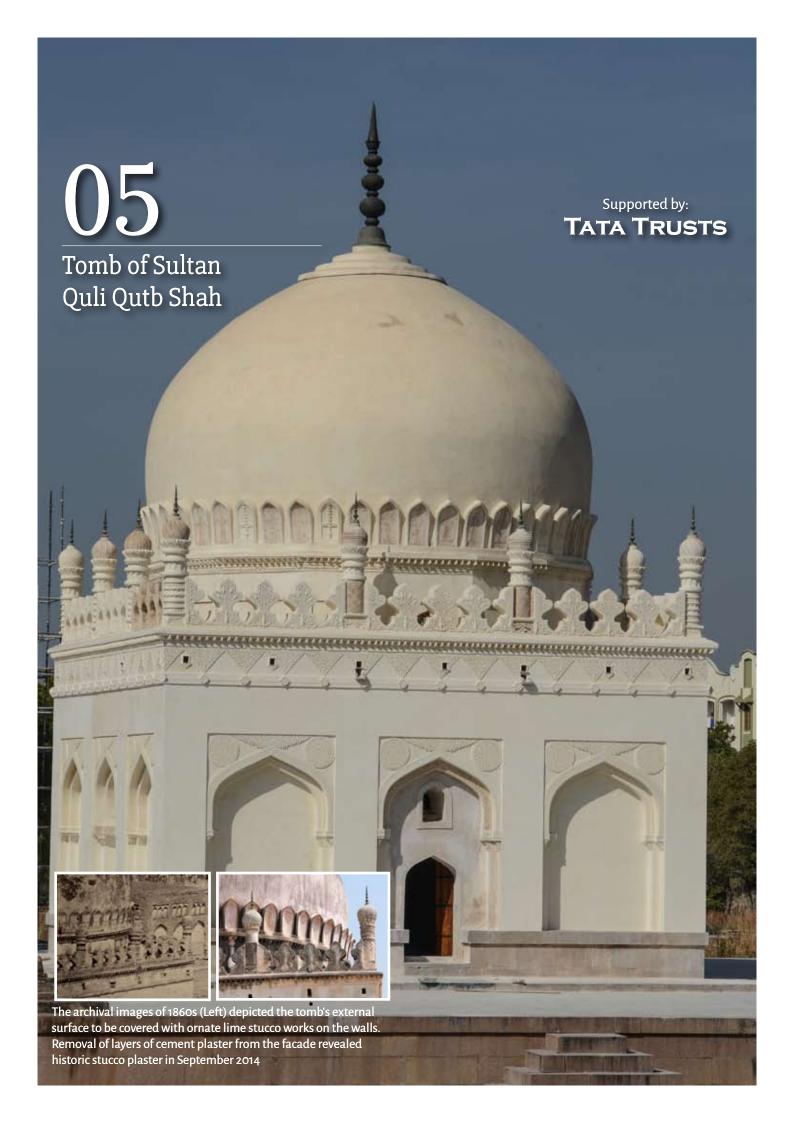
Jamshed Quli Qutb Shah's Tomb and adjoining tombs, early 1860's. The photograph shows the ruinous nature of the principal tomb and indicates that elements such as the finial and the stucco plaster ornamentation is from a later conservation.

Photograph Courtesy: J.H. Nixon; 'West view of the 'City of the Dead," from the Tomb of Kullee Kootub Shah' from the Album of Views in His Highness the Nizam's Dominions Source: Alkazi Foundation









## Restoration of Stucco Plaster Patterns

The scrapping of modern cement layers had revealed distinct patterns on the parapet, minarets, petals on the neck of the dome, arch bands, medallions in the spandrels of the arch, bands below the parapet and remnants of a moulding with bird holes.

### **OUTCOME:**

- · The missing portions of the details on the domes of the minarets on all the sides were restored to the pattern vertical bands on the east and west, horizontal bands on the north and south and the corners has spiral bands -as per the existing evidence seen on respective minarets.
- The details on the shaft of the minarets were recreated based on the in-situ evidence and the archival images. It was determined that the 16<sup>th</sup> century builders used similar pattern on the north south minarets, east west minarets and the corner minarets.
- The petals on the base of the dome revealed distinct impressions of stucco work and since the impressions themselves were considered to be of value only on 9 of the 48 'petals' was the stucco motif restored.
- The parapet battlements on all the four sides were restored with patterns that had survived on the complete eastern corner of the south facade and in portions on the western facade. It was concluded that for each cluster of three battlements and an additional half battlement on the corners of the cluster patterns were symmetrical along a central line.
- $\cdot$  The ornate band and mouldings below the battlements were recreated based on the archival image.
- The bird holes which form important feature of this monument, but also were reasons for water ingress to the building due to damaged mortar, have been grouted, repaired and restored as original ensuring no further internal damage to the structure.
- The facade on all the four sides was restored with highly ornate bands V-shaped bands, medallions in the spandrels of the arches, arch crowns and arch bands based on visible patterns, impressions that could be discerned and archival images.
- · Over 1500 man-days of work by master craftsmen was required to restore the lime stucco ornamentation on the external facade.
- · Appropriate wooden doors have been fixed to the arcaded openings.









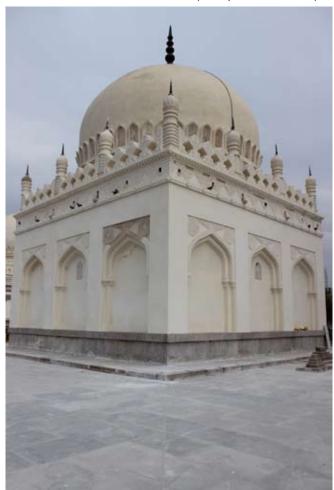
## Conservation of the Plinth and Graves

As with most structures in the Qutb Shahi Heritage Park, the plinth was provided only with a layer of cement concrete – allowing water ingress and growth of vegetation and thus catalysing deterioration. Several gravestones stand on the plinth and in many of these stones had dislocated from their original position.

### **OUTCOME:**

- · 15 cm thick layer including the top cement concrete was removed from the plinth surface and replaced with a traditional lime concrete base.
- · 30 mm thick granite stone slabs were laid atop the lime concrete in lime mortar to provide a water-tight permanent surface. This would also not be susceptible to wear and tear with high numbers of visitors.
- $\cdot$  The graves were cleaned of the cement mortar and the dislocated stones were carefully reinstalled with lime mortar.

Careful cleaning of the facade and internal surfaces revealed the underlying original lime stucco as well as incised plasterwork on the Tomb of Sultan Quli Qutb Shah, which were restored in 2014. (Below) Cement concrete flooring on the plinth replaced with 30 mm granite laid on base lime concrete









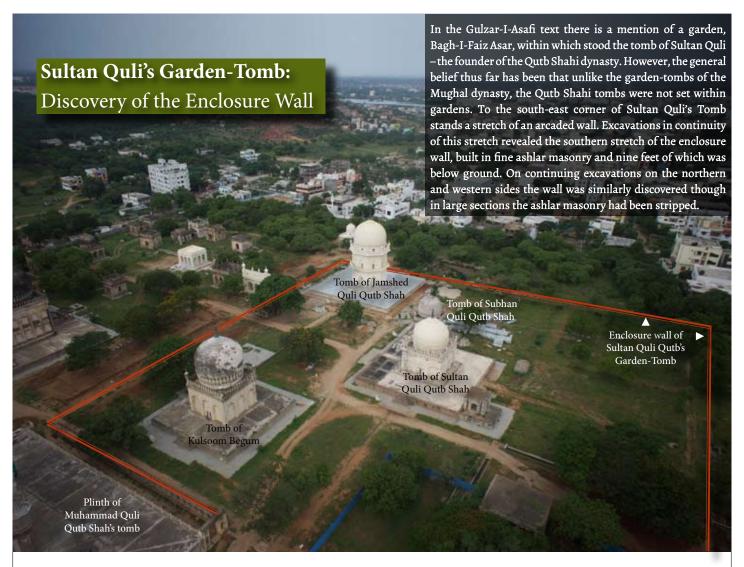
(Above) Conservation works on Sultan Quli Qutb Shah's Tomb required replacing cement plaster with traditional lime plaster and conservation works now commencing on Subhan Quli Qutb Shah's tomb will aim to achieve similar results

#### **NEXT STEPS:**

- · As with the facade, a similar dismantling of cement layers from the internal surface has revealed the original layer of lime mortar. Several details and mouldings which were covered up have been revealed. However, many of the ornate stucco works have been damaged and only outer impression are existing. A thorough study of the lime plaster composition and the details needs to be done prior to commencing conservation works.
- $\cdot$  The internal cement flooring is also to be replaced with granite slabs.
- The conservation of the garden enclosure wall followed by ensuring portions can be visible to the public by sensitively lowering ground levels during landscape works.

#### **IMPACT:**

- $\cdot$  The revelation of 16<sup>th</sup> century patterns during the conservation effort allowed an opportunity to restore the architectural elements as per the intention of the original builders and in turn has restored the authenticity of material, form and design of this tomb of the founder of the Qutb Shahi dynasty.
- The exposed enclosure while confirming the existence of tomb garden have also established the development of the complex and have significantly impacted the proposed landscape.



## Garden Enclosure

Following the arcade visible to the west of the Tomb of Muhammad Quli Qutb Shah, trial excavation pits were made in 2014 revealing the existence of an ashlar masonry wall with the Tomb of Sultan Quli sitting at the centre of the enclosure, establishing the existence of an enclosed tomb garden with the ashlar masonry going as deep as 2.8 meters along the southern side.

### **OUTCOME:**

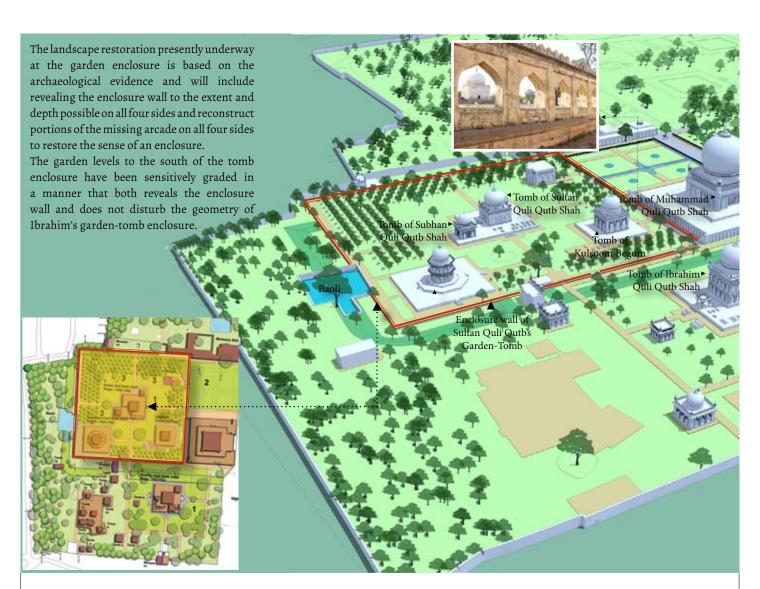
- $\cdot$  In 2015, extensive manual excavations were carried out to reveal the entire length of the enclosure wall over 560 m exposing upto 1.5 meters depth of the wall.
- The entire south and south west side of the enclosure wall was revealed upto the Baoli to the west of the tomb of Jamshed Quli.
- $\cdot$  Excavations on the west side of the enclosure revealed the missing portions of the wall which had signs of existence of the ashlar wall.
- $\cdot$  On the north side of the enclosure, stones wall was damaged and many of the stones were missing from the wall.
- The excavations revealed the profile of the wall ashlar masonry wall with coping stones on top and a masonry arcade standing above it.

(Above) Stone-carvers restore the coping stone of the discovered wall; (Centre) Later tombs of Subhan, Jamshed and Kulsoom Begum were also built within the 560 m long wall enclosing the tomb of Sultan Quli; (Bottom) Earth re-graded to expose the 16<sup>th</sup> century wall

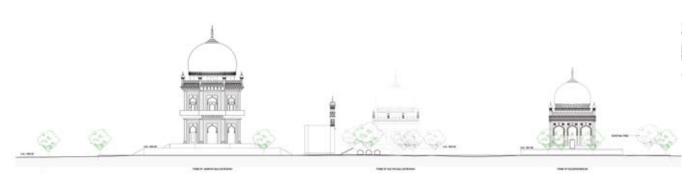




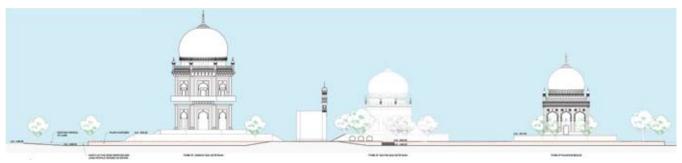




## Landscape Restoration



Existing section showing the land profile and monuments before excavations

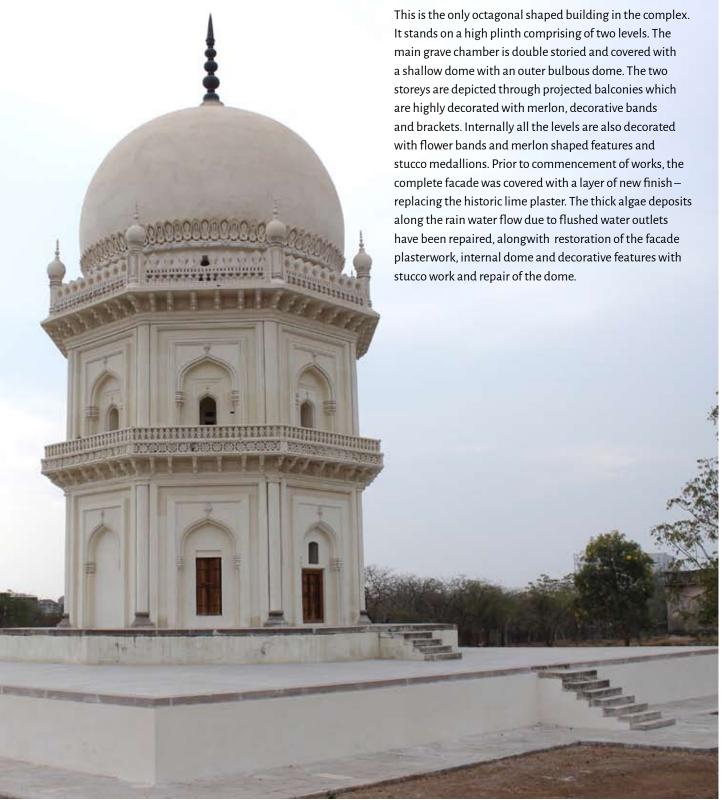


Section showing the proposed grading and land profile to expose 1m (approximately) of historical plinth wall

### Supported by:

## **TATA TRUSTS**

## Jamshed Quli Qutb Shah's Tomb



## Restoration of Stucco Plaster Patterns

With significant deterioration of the dome, this was the first structure were conservation works where commenced following the lifting of the 'stay order' by the Wakf Tribunal in late 2013. By 2015, conservation works on the principal structure were nearly complete.

### **OUTCOME:**

- The structure has two plinths, the larger lower square plinth and a higher octagonal plinth. Both these were finished with 30 mm thick granite floor on lime mortar replacing the existing cement flooring layer. Thus, over 10,000 sq. ft. of stone floor was laid providing a permanent protective layer preventing water ingress to the foundations.
- · The existing modern panel doors to the tomb structure and the staircase were replaced with historically appropriate wooden doors, similar in design to some of the old doors found on some of the structures in the tomb complex.
- $\cdot$  By lowering ground levels surrounding the tomb, the lower plinth was restored to its original height.
- · Granite stone edging, visible in archival photographs, was found missing from the structure. This was restored as per the archival photographs and now provides greater stability to the plinth.

#### **IMPACT:**

Completion of conservation works at Jamshed's tomb have stalled the deterioration process that had threatened the stability of the dome, and the replacement of missing portions has resulted in much needed restoration of significant architectural elements.





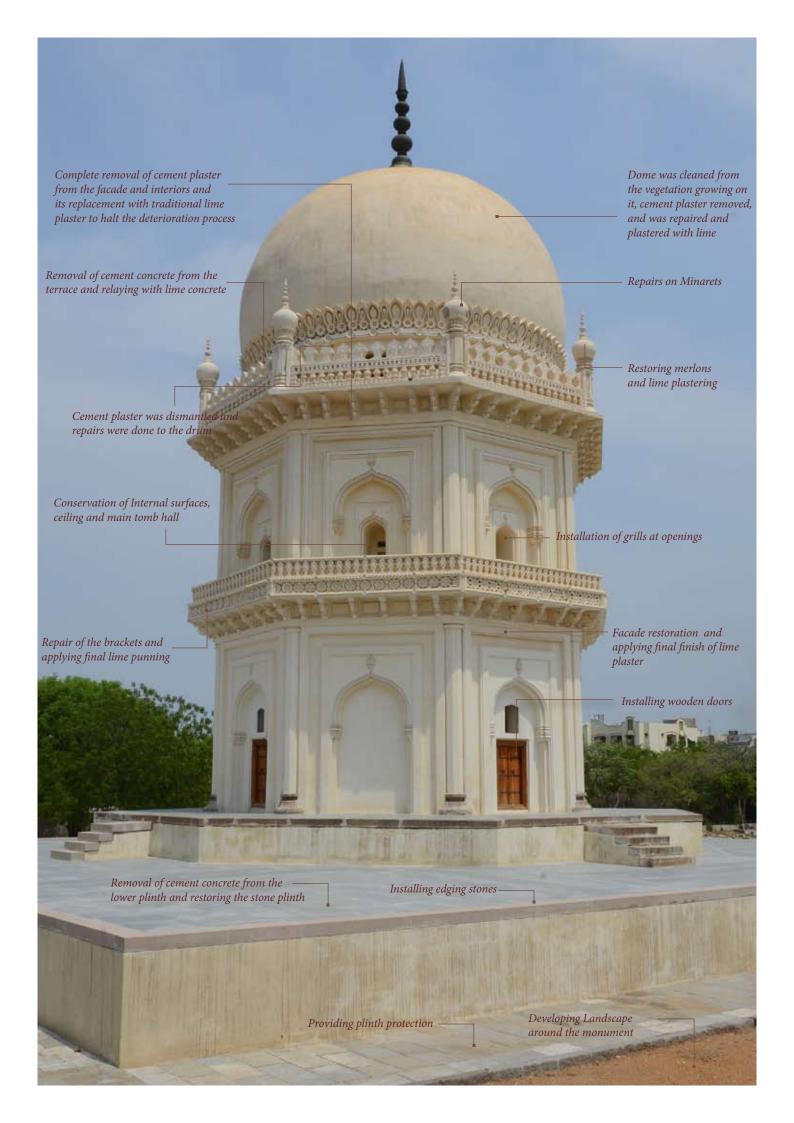


April 2013

March 2014

December 2014

Within two years from the completion of conservation works the patina of organic growth has returned to the dome of Jamshed Quli Qutb Shah's Tomb.















































## **QUTB SHAHI MONUMENTS: LOOKING NEW?**

Conservation works on the monuments standing within the Qutb Shahi Heritage Park include removal of 20<sup>th</sup>/ 21<sup>st</sup> century cement layers to reveal and restore original Qutb Shahi architectural elements and materials.

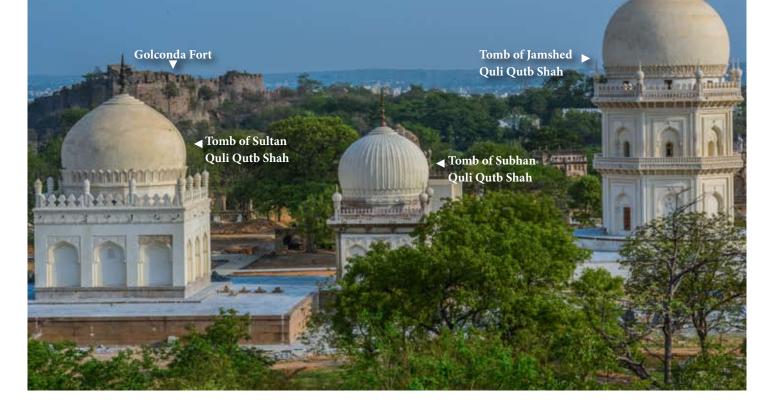
Though the cement used in earlier repairs had accelerated the deterioration of the softer 16<sup>th</sup> century lime plaster, it provided an appearance of 'ruin' which was confused by many to represent 'age' or 'historicity' and thus be of value.

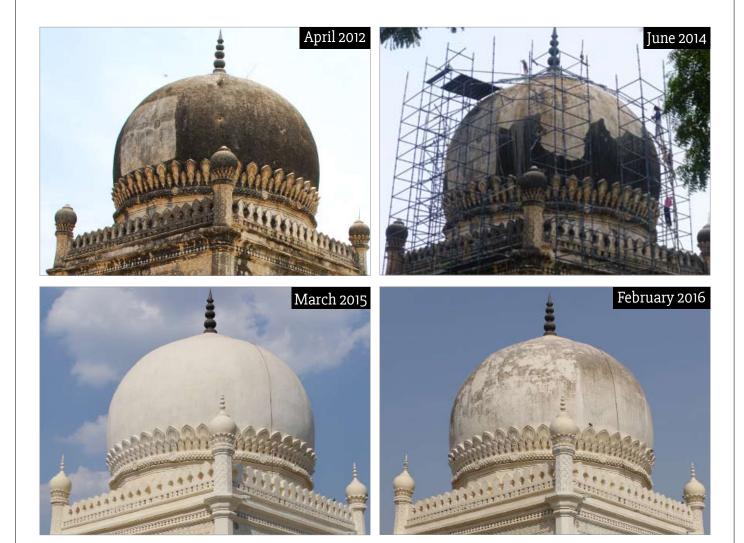
By contrast, the conservation works at the Qutb Shahi Heritage Park are being carried out using traditional materials authentic to the building such as lime mortar as used by the 16<sup>th</sup> century builders and being implemented by master craftsmen familiar with traditional building crafts – knowledge of which has been handed down over generations.

Though the first few layers of lime plaster are prepared with a mix of lime with sand and brick dust, the final protective layer of lime plaster – only 1 mm thick – is composed of only lime and marble dust. This application of the final plaster layer as part of the conservation effort was essential both to ensure long term preservation and respect (and thus restore) the architectural intention of the original builders.

Though intricate ornamental details of the monument were mostly lost and required to be carefully and painstakingly restored – this temporarily results in a 'new' appearance of the historic building.

From the onset of the project in 2013, there was agreement that artificial means such as chemicals would never be applied to give a 'fake antique' appearance to the monuments, and instead the natural processes would be allowed to restore a layer of patina – organic growth - that during monsoons would naturally return. The organic growth also enhances the protective nature of the final plaster layer as it fills up any cracks that would have developed in the lime plaster.



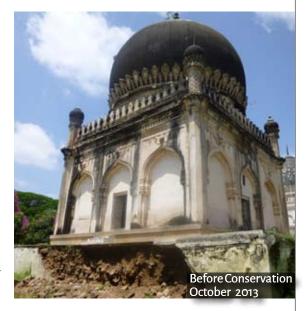


Within two years from the completion of conservation works the patina of organic growth has returned to the dome of Fatima Sultana's Tomb.

## Conservation of Fatima Sultana's Tomb

Though standing at the entrance of the ticketed portion of the Qutb Shahi Heritage Park and not within the area demarcated for Phase I of Conservation works, conservation works on the Tomb of Fatima Sultana were undertaken subsequent to significant collapse of its plinth during 2013.

Repair works to the plinth, in which the original band at the bottom of the plinth which was discovered during the repair works was duly completed on all sides, were extended to a comprehensive conservation effort on the structure, much of which were completed during 2014. The conservation works included removal of all cement plaster and restoring lime plaster to the dome and wall surfaces.



### **OUTCOME:**

- In view of the structural failure and collapse of the plinth while its cement flooring remained, indicated the significant risk to structures within the Qutb Shahi Heritage Park from water ingress. It was thus agreed, in 2015, that the inappropriate cement layers be replaced with granite stone slabs that though would ensure stability by quick disposal of rain water and preventing water ingress.
- · Earth around the plinth wall was cleared up to a meter width with adequate slope ensuring proper discharge of ground water without affecting the monument.

#### **IMPACT:**

The Tomb of Fatima Sultana following its complete restoration is accessible for the public. Timely conservation works carried out following the structural collapse of the plinth have ensured long term preservation.







## Conservation of Abdullah Mosque

Conservation works on the mosque were taken up in 2014 on the request of the Department of Archaeology and Museums who had been approached my members of the community to carry out emergency repairs as the roof was leaking and collapse was feared. The roof and the external surface below the *chajja* were repaired in 2014 ensuring no further deterioration of the structure.

#### **OUTCOME:**

- · Following investigations, over 40 cm of cement concrete and loose lime concrete weighing over 120 tonnes was removed from the roof of the Mosque and inappropriate 20<sup>th</sup> century alteration were repaired during 2014-15.
- · Conservation works on the internal surfaces commenced after six months of removing the cement plaster which is time required for the masonry to dry out.
- · The ceiling of the three shallow domes had medallions which were damaged. All these medallions were repaired and remade with lime mortar and finished with lime putty as per the original.
- The detail ornamentation of the central *mihrab* on the west was restored. The missing ornamentation on the columns and arches on the internal surface were reinstated and the internal surface was finished with a final layer of lime putty.
- · Granite stone slabs were laid with lime mortar over base lime concrete using traditional tools and techniques, and MS grills fixed to the arches on the east side were recessed to make them somewhat less intrusive.

#### **NEXT STEP:**

- $\cdot$  The two corner *minars* on the east, minarets and the battlements will be restored to its original form.
- The eastern facade which has intricate ornamentation above the arches are covered with layers of paint, which needs to be scrapped and the missing details restored and finished.

### **IMPACT:**

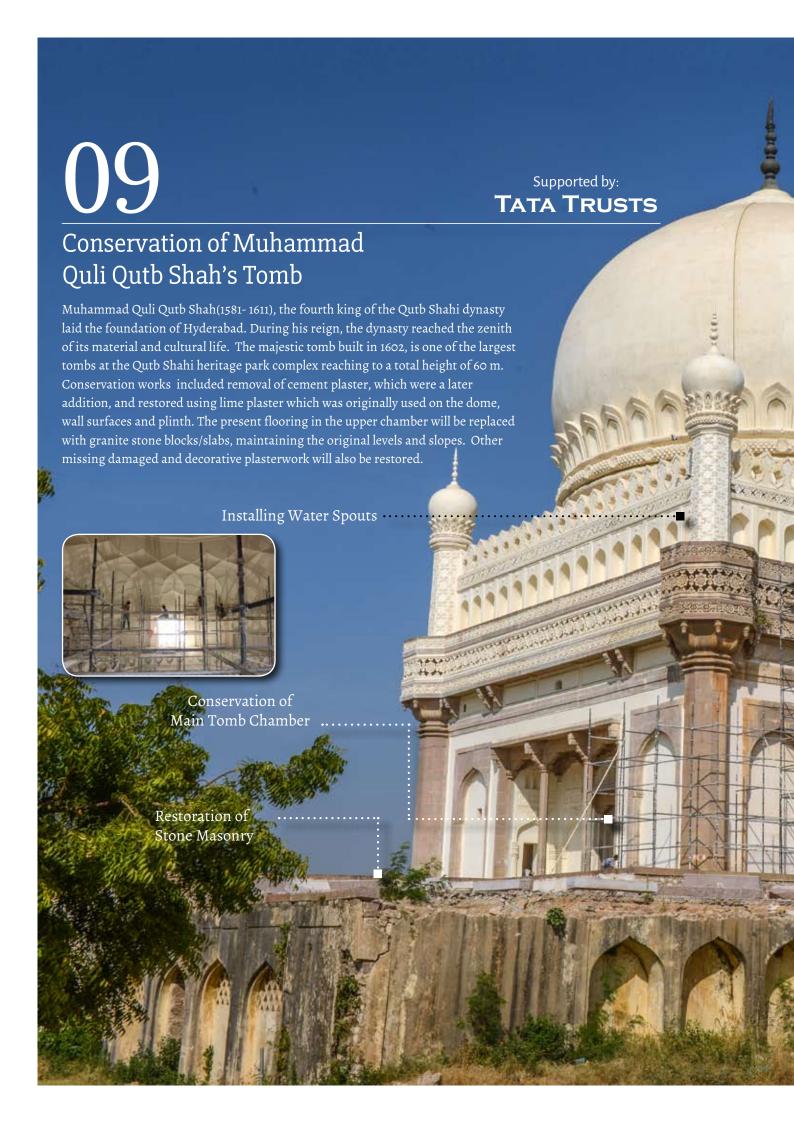
The restoration of the internal surface before the Eid ul Fitr ensured the locals offered Eid prayers in the mosque. This helped to establish the intention of the restoration works being carried out. Conservation works will continue through 2016.

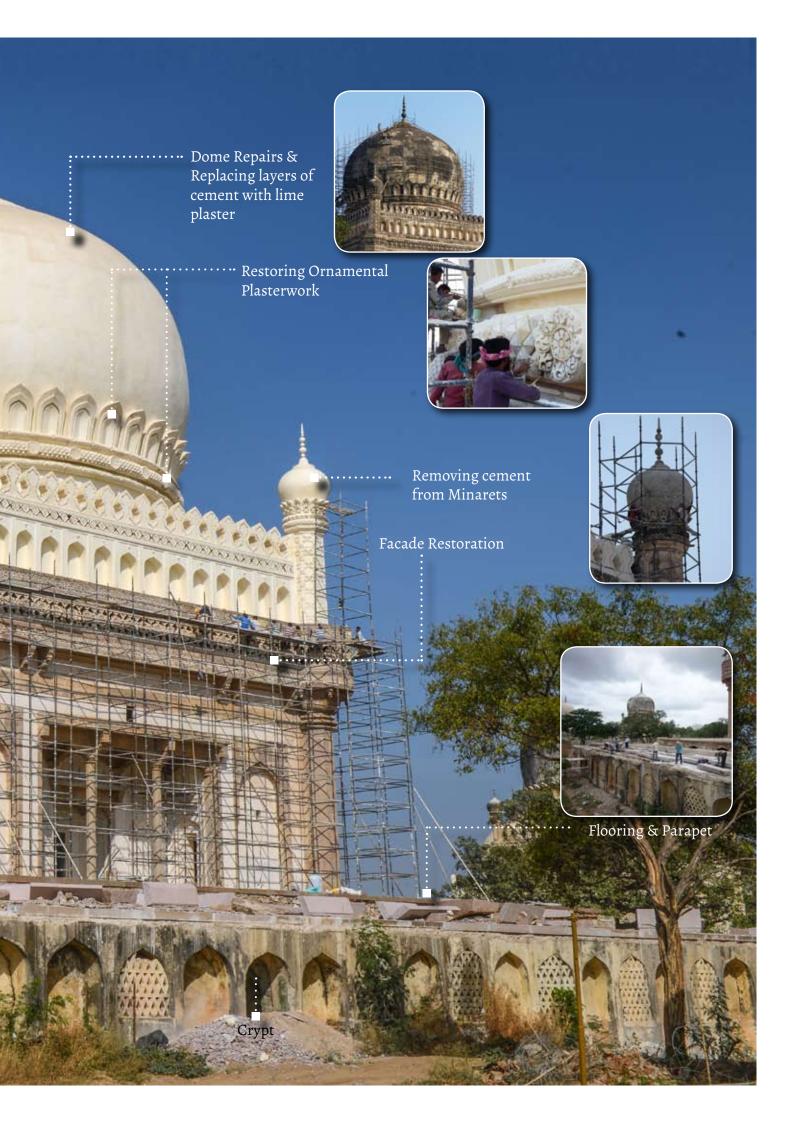












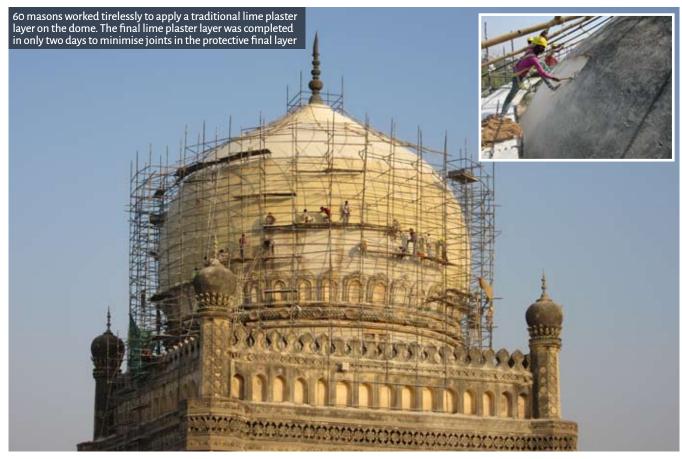
## Conservation of the Dome

The dome over 10 meters in radius and over 15 meters in height has an approximate area of 1600 square meters. It had signs of deterioration with cracks on the surface permitting water ingress and vegetation growth. On inspection, the dome was found to be covered with cement mortar thereby causing the original lime plaster below to disintegrate.

The merlons below the dome were damaged in portions and the ornate band below had vegetation growth loosening the mortar and causing moisture retention inside. The drum below was also finished with cement mortar and had signs of deterioration.

#### **OUTCOME:**

- Erection of scaffolding on the entire dome surface was carried out simultaneously. On account of the large scale of the dome, this was both a very challenging and risky endeavour.
- · At the onset all the cement and loose lime plaster from the dome was carefully dismantled.
- · Removal of cement revealed holes that were up to 1.1 meters deep in the dome surface and which were thought to be have been made during 20<sup>th</sup> century repairs to support the scaffolding and later superficially filled without adequate protection against water ingress into the dome's masonry. All such holes were carefully repaired with stone masonry in lime mortar.
- $\cdot$  1600 square meters of surface was plastered with traditional lime mortar.
- · Over two dozen craftsmen were simultaneously engaged on the dome for the duration of the re-plastering to minimize the joints in successive layers of lime plaster.
- · The merlons were repaired with the original details cleaned and finished while missing portions restored.
- · The missing portions of the ornate band below the merlons were also similarly restored carefully matching the original in all respects.

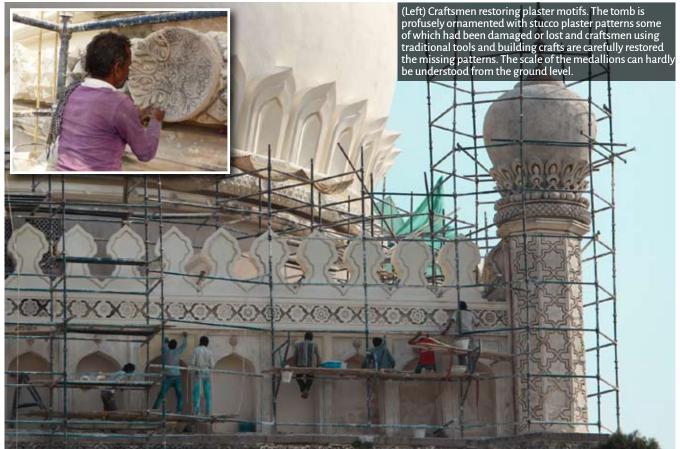


## Conservation of the External Surfaces

The external surface below the dome had signs of ageing of the final finish and thin layer of finish was flaking at several portions. Modern repairs had been carried out in cement which led to further damage to the underlying lime plaster. Vegetation growth was also seen in many portions of the surface.

### **OUTCOME:**

- · After cleaning the monument manually using brushes and water, any loose plaster and cement was dismantled
- · The battlements were repaired and restored using traditional lime mortar.
- · The four corner minarets 7 m tall were also repaired and covered with a final finish of lime plaster.
- $\cdot$  The intricate flower bands, arch details were restored by master craftsmen with traditional lime mortar.
- · New granite stones were fixed to the existing rainwater spout for drainage of rainwater away from the terrace and to ensure no water seepage occurs into the monument from these points.
- The projected gallery with highly ornate stucco patterns below the minarets have been repaired at portions and finished with a final coat of matured lime putty with additives.
- The plain plastered surface below the projected gallery has been repaired at portions with traditional lime mortar and covered with the final coat of lime putty.
- · The lower recessed portions leading to the doorways had highly ornate patterns which were covered with paint. All the layers of paint were removed and the galleries were restored.
- · On inspection, it was found that the principal tomb chamber originally had openings on all four sides with the openings on the north and the south closed at a later date. The external facade of the doorways was marked with ornate bands on all sides. Except for the east side, these bands were tampered and covered with modern layers in cement. The bands on the south and the north side have been restored.



## Conservation of the Tomb Chamber

The internal portion of the dome spans 12 meters in height springing from a 16 sided polygon above the terrace level. A large floral medallion measuring 3.85 meters in radius ornaments the domed ceiling. The central medallion and the internal surface above the terrace level were covered with several layers of paint. The openings at the terrace level were covered with cement lattice screens.

### **OUTCOME:**

- · On investigation of the loose plaster at the cenotaph level, original details were found to be covered with cement thereby altering the original patterns of mouldings and stucco.
- · From the central medallion on the domed ceiling, the cement and modern paint layers were removed, repaired and restored by master craftsmen using traditional lime mortar and natural colours.
- $\cdot$  The entire internal surface was cleaned and scrapped manually and the repairs were carried out at necessary portions.
- The cement screens were replaced with non-intrusive MS grills, thereby restricting the entry of birds as well as allow more light and ventilation into the monument.
- · The 96 merlons atop the series of arches were documented to detail and carefully conserved with minor missing portions restored.
- · Original details at the main cenotaph level were restored as per the evidence revealed on removal of cement plaster. This included arch mouldings, bands, arch crowns restored with lime mortar.
- Dismantling of the cement and loose plaster at the main cenotaph level also revealed the existence of the openings at the north and west side as well. The entire surface was plastered and the openings were marked with recess and grooves.
- · The modern panel doors on the south and the east side were replaced with historically appropriate wooden doors.

(Left) Restoration of the Main Hall required extensive scaffolding in this tomb chamber - equivalent to a five storeyed building; (Top Right) Restoration of the ceiling medallion; (Bottom Right) Craftsmen applying final finish of lime plaster on internal surfaces





# Parapet Restoration

Archival image revealed that the tomb had a stone block parapet similar to that of the Tomb of Muhammad Qutb Shah and Tomb of Hayat Baksh Begum up till the 19<sup>th</sup> century sometime after which the existing metal parapet seems to have been installed. The stone edging on the parapet was also found to be missing at several portions.

### **OUTCOME:**

- · Over 2 meter long granite stone blocks of matching texture were procured with each stone weighing in excess of 5 tonnes
- $\cdot \ \, \text{The preparation of stone blocks to desired shape, profile, width and height commenced by chiselling down the stone blocks.}$

### **NEXT STEPS:**

- $\cdot$  The dressed stones will be prepared over the next 12-18 months and fixed thereafter.
- · Cement concrete from the plinth needs to be removed and replaced with traditional lime mortar and granite stone slabs ensuring long term preservation.

An 1860's view (Left) of Muhammed Quli Qutb Shah's tomb, showed the original stone parapet that was replaced in the 20<sup>th</sup> century with an iron railing thus disfiguring historic architectural character and authenticity; (Right) At least 20,000 man-days by traditional craftsmen will be required to restore the stone parapet





# Restoration of the Crypt

This structure is the only tomb in the complex with the grave chamber accessible. The documentation of this crypt level reveals that the monument was enlarged with a peripheral bay created at a date later than the original construction. It was also discovered that ground/earth levels in the crypt have been insensitively altered with original levels of the peripheral bay being significantly lower originally. There were alterations made to the facade by blocking arched openings with brick lattice screens, which had also disfigured the original form and design of the structure.

#### **OUTCOME:**

- · In an effort to determine original floor levels, clearance of earth dumped within the crypt has been carried out at several points in the crypt.
- · This has revealed that for the original extent of the building large boulders served as the flooring.
- · In the peripheral section, where two bays have been added at a later date, the lime concrete flooring was found almost 50 cm. below existing levels.
- · Two feet depth of earth has been removed from the two peripheral bays and almost one foot depth removed from the original limit of the monument.

### **NEXT STEPS:**

- The intrusive brick screens on the elevation of the ground level were additions made during the late 1980's and will be removed completely and replaced with simple recessed metal grills to limit visitor access while allowing ventilation and restoring view corridors.
- · The floor levels will be restored to drain water away from the monument.

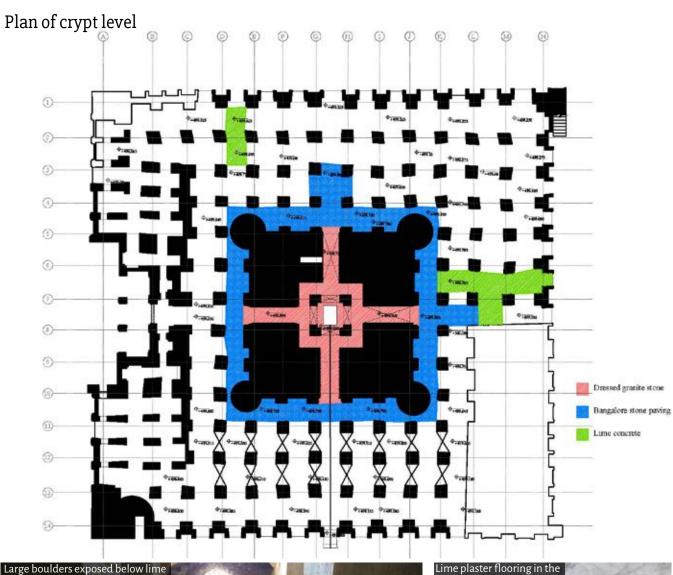
### **IMPACT:**

The completion of the restoration works on the external facade up to the plinth level has not only ensured long term preservation but also revived the original intent of the builder. The indication of doorways has revealed new facts that these monuments would have been open on all the sides and would be an important investigation in all the monuments built later to this.

(Left) Clearing of debris from crypt floor to expose original levels; (Right) The crypt of the monument was covered with inappropriate stone flooring. Also, the original levels of the monument had been tampered. Several trial trenches were made in 5 locations in the lower chamber of the monument to help determine the original level at the chamber level as well as get a better understanding on the structure of the monument.







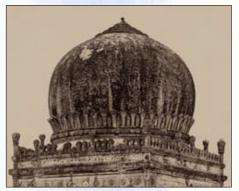




## Muhammad Qutb Shah's Tomb

This monumental mausoleum stands just north of the Badi Baoli. Traces of ceramic glazed tile-work on the petals on the dome, mouldings and on the neck of the dome are visible; the latter being when the 20<sup>th</sup> century plaster on the dome has fallen. Archival photographs revealed that the entire dome was tiled and there is a strong possibility that much of the original tile-work remains below the 20<sup>th</sup> century plaster layer. This is the only dome in the complex which, in the Iranian tradition, would have been tiled completely.

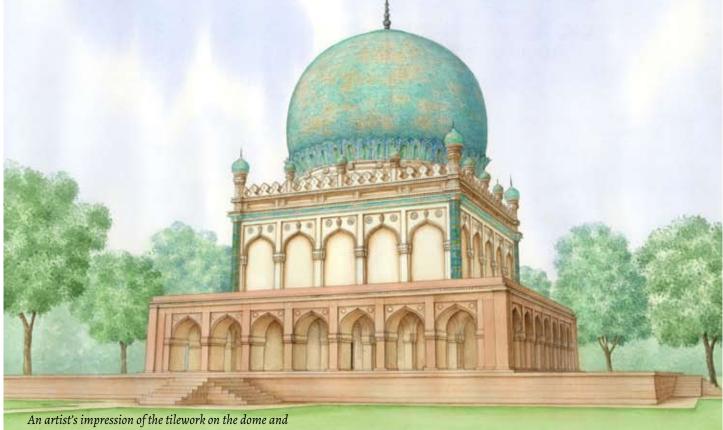
Samples of tiles have been tested at three scientific centres to understand their physical and chemical composition. Experiments are now ongoing to produce a glaze layer matching the colour of the existing tiles. It is planned to begin removing the 20<sup>th</sup> century plaster layers from the dome surface to understand the extent of tiles remaining on the dome, with or without their glazing layer. Restoring tilework to portions of the dome should be attempted where this is missing, to ensure authenticity of material, form and design as well as structural stability as this is more a protective layer even if ornamental in appearance.



Archival view from early 1860s



Present-day view where the tiles seems to have been plastered over



An artist's impression of the tilework on the dome and facade of Sultan Muhammad Qutb Shah's tomb.
Illustration: Himanish Das

# **Conservation Process**

Before any practical work starts, a project must be prepared on the basis of said research and must be submitted to a group of experts for joint examination and approval.

- The Florence Charter, 1981, Article 15

1. Identify the Place
The need for extensive conservation and landscape necessary to ensure long term preservation, enhance visitor understanding and experience of the Qutb Shahi Heritage of Hyderabad.

### 3. Statement of Significance

Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work. Additionally, being have already been held to discuss ongoing works and project team has accumulated significant archival material that will help define an appropriate conservation action for

### 5. Peer Review

considered essential to define the significance as is

### 8. Supervision

Conservation works will be carried out in keeping with the Conservation Plan and be guided by experienced engineers conservation works and will be assisted by field supervisors.

### 9. Completion Report & Publication

The conservation project will culminate with the writing of a completion report. In addition the annual report will document works carried out each year.

Conservation works undertaken at Muhammad Quli Qutb's Tomb in January 2015

### 2. Documentation & Research

Through 2012, exhaustive recording, documentation, condition assessment, surveys and research exercise was carried out by the multi-disciplinary project team as a precursor to the Conservation Plan that forms the foundation for the project.

### 4. Conservation Philosophy

The conservation works preceded by high standards of recording to be undertaken are focused on restoring the 'spirit and feeling' of the space with an emphasis on craftsmanship, interpretation and supervision.

#### 6. Conservation Plan

Following the incorporation of the comments from the review process, the Conservation Plan (text, photographs and drawings) has been circulated for comments by experts. The final Conservation Plan will be available on the Project website and thus accessible worldwide.

### 7. Manage & Allocate Resources

Project commenced following sufficient financial resources having been raised. The project has access to technical staff, national and international experts. In order to ensure quality of craftsmanship all materials -stone, lime, tiles - of quality will be procured.



# Conservation of 16th century Idgah

Idgah was one of the earliest structures constructed by Sultan Quli (1518-1543) after establishing his court in Golconda. Its Qibla arch is flanked by three arches on each side and the entire composition defined by bastions made of fine ashlar masonry at both ends. The intricate medallions carved in stucco on the spandrels of the arches and the flourish of the floral scroll floating just above the key stone make it a class apart. The details of many of these carvings can be traced back to the Juma Masjid of Bidar.

Unfortunately all these carvings were lost under the thick integuments of white wash layers applied over the last many years, twice in a year, during the festival days of Eid ul Fitr and Eid ul Zuha. The team of conservation architects and master craftsmen painstakingly removed the accretions with meticulous care and precision and restored the intricate carvings to its pristine purity. The repairs carried out to the structure have given a new lease of life to the entire complex.



(Above) Situated to the south-east side of Tomb of Muhammad Quli Qutb Shah, a 'Qibla' built in the 16<sup>th</sup> century is an active religious space used twice a year during Eid.

The monument, 25 meter long, 3 meter deep and 6 meter high, consists of 7 arches.

## Restoration of the Facade and Roof Repairs

In early 2015, the Idgah Committee requested the Department Of Archaeology and Museums (DAM) and AKTC to undertake the conservation works on the monument on a priority basis.

On close inspection, it was found that several layers of paint obliterated the underlying 16th century ornamentation. The battlements on the roof edge had vegetation growth causing damage to the structure. Inappropriate repairs with cement and mud were also found on the battlements. The wooden finials on the minarets and the turrets were also badly damaged. The two bastions on the sides which originally had exposed dressed stones were covered with layers of paint.

### **OUTCOME:**

- · Careful manual cleaning of over 20 layers of paint revealed that 16<sup>th</sup> century stucco plaster ornamentations had largely survived below 20<sup>th</sup> century paint layers.
- · For several months, careful removal of paint layers was carried out using soft sandpaper.
- · In minor portions of the structure where the stucco ornamentation was missing, master craftsmen carefully restored this matching the original designs.
- The damaged cement concrete from the roof was removed and lime concrete was laid with adequate slope and opening the existing rain water spouts to ensure proper draining of rainwater.
- $\cdot$  All the missing finials of the domed minarets were restored with wooden finials after proper treatment.
- · Layers of paint were removed manually from the two bastions to expose the original dressed ashlar stone masonry.
- · The rear wall of the Idgah was also similarly cleaned and repaired.

### **IMPACT:**

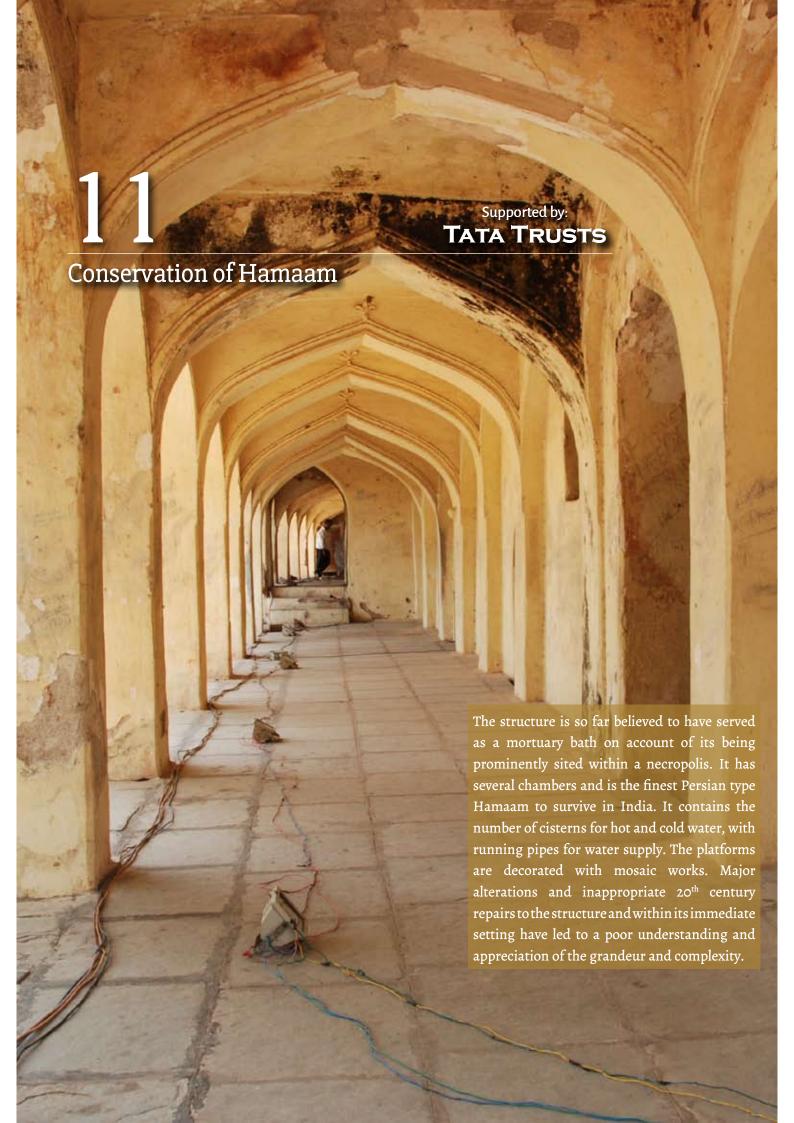
The restoration of the Idgah by revealing original architectural elements that had been obliterated; a sense of pride was visible amongst local communities, over 60000 of whom came to the Idgah for Eid prayers in 2015. .

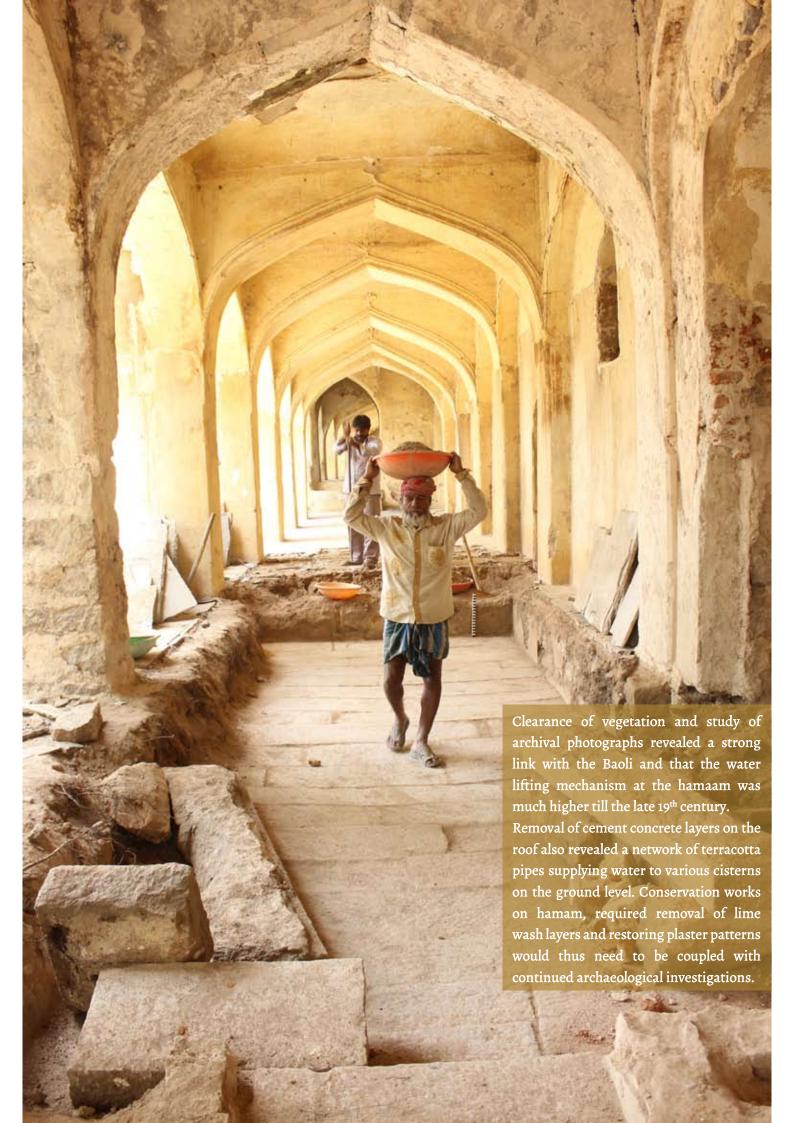






Restoration of ornamental incised lime plasterwork after removal of 20<sup>th</sup> century paint layers





## Conservation of Internal Surfaces

### **OUTCOME:**

- · The internal surface had been severely damaged due to water seepage. There were signs of decay at almost every portion of the internal surface of the monument. Initial investigations had further revealed that layers of modern inappropriate repairs were made in cement.
- The internal platform on the eastern side was covered with a layer of cement concrete and plaster which had developed cracks. On removal of the cement, missing stone details on the platform were revealed.
- · Dismantling of loose plaster, cement and removal of distemper have revealed the original plaster layers. These had grooves and arch-bands on the edges of the archways.
- · Several sealed openings were re-opened to reveal niches for lamps, doorways etc.
- · The octagonal projected dome to the east side showed deterioration of plaster and hence the loose plaster was dismantled and restored using traditional lime mortar and techniques.
- · The cement flooring was dismantled from the internal platform and the original lime concrete was revealed below.
- · On removal of the cement, missing stone details of arch and coping of the platform were revealed. These missing arch and coping stones will be restored to the building.

### **NEXT STEP:**

- The missing architectural elements such as stones from the platform and other portions of the monument are required to be reinstated.
- · The internal surface needs to be re-plastered with lime mortar as per the original details and mouldings revealed.
- · The openings are required to be restored to their original form.
- · The external surface on all the sides needs to be studied for exposure of original details and openings.



## **Roof Repairs**

The roof of the Hamaam was covered with rampant vegetation growth causing ingress of water into the monument and resulting in major damage to the internal plaster.

### **OUTCOME:**

- · On inspection, the roof was found to be covered with layers of cement concrete and the lime concrete below had developed cracks at various places with roots penetrating deep into it.
- · At the onset vegetation was scientifically removed from the roof.
- The excess layers of cement concrete, which weighed around 150 tonnes, were removed and the base was repaired at necessary portions.
- · During dismantling of the newer layers two vertical Terracotta pipes leading from the roof into the monument and a series of pipes were revealed on the roof. The connection proved that the water was stored in two water tanks on the north side of the hamaam, which were filled using the Persian pulley system from the Baoli to the north of Hamaam. This was then distributed from the roof level into different cisterns in the monument.
- · The roof consists of many openings of different shapes mostly circular and square. While removing the new concreting from the roof, it was revealed that most of the original openings were hexagonal in shape. The original profiles of the openings were retained and stone edging was provided to these openings before applying lime concrete.
- The loose plaster from parapet walls, the central dome roof and octagonal projected roof were dismantled and traditional lime plaster was applied to the external surface.
- · Traditional lime concrete, six inches thick was laid to adequate slope on the roof using traditional tools and techniques.

### **NEXT STEP:**

It would be important to determine the covering of the openings on the roof ensuring proper light and ventilation while restricting rain water access into the monument.

(Left) Removal of cement from the roof; (Right) Laying of traditional lime concrete on the roof after dismantling of cement





# Flooring

The arcaded corridor on south had limestone flooring, which is modern and was covered with cement – showing signs of damage and deterioration. Modern repairs had been carried out in cement which led to further damage to the underlying lime plaster. Vegetation growth was also seen in many portions of the surface.

### **OUTCOME:**

The paving stones in the arcaded corridor were dismantled to reveal the original level of the flooring – over two feet below existing levels.

### **NEXT STEP:**

It would be critical to restore the original floor level though this would require significant alteration of earth levels in the surrounding zone to ensure water does not drain into the structure.

### **IMPACT:**

The roof has been restored and the Terracotta pipes conserved and covered to prevent further deterioration. It has helped in long term preservation of the monument by the removal of excess lime and cement concrete thereby reducing the weight on the monument. Major conservation works on the structure will be carried out through 2016.

Eastern chamber of hamam after dismantling of modern cement and plaster layers; (Below) Dismantling of cement from the platform of the eastern chamber









# Conservation of Grave Mosque

Conservation on another Mosque (14) in the complex, located to the south east of the tomb of Jamshed Quli Qutb Shah, was taken up in 2015.

### **OUTCOME:**

- · The roof was repaired and the external surface which had signs of deterioration was re-plastered.
- · The internal surface was cleaned and there was a need for final finish of the surface.
- $\cdot$  The details on the front facade the minarets, the battlements and the ornamentation needed repairs at several portions.
- · Finials which were missing on the minarets were reinstated.

### IMPACT:

Conservation works on the structure have been completed and a plinth protection with landscaping of its setting will be carried out together with landscape works in the Sultan Quli's garden enclosure.

(Left) The Grave Mosque - before conservation works; (Top Right) Repair of ornamental plaster work; (Bottom Right) Restoration of minarets







## Conservation of Tomb No. 15

Located to the west of the tomb of Ibrahim Quli set within the cluster of 10 monuments in the south west portion of the site, works were taken on Tomb No. 15, in 2014 to arrest the further deterioration of the monument. This included repair of the roof and necessary structural repairs.

### **OUTCOME:**

- · The ornamental details on the columns, arches, arch crowns and the internal surface were restored.
- · To ensure no water ingress, stones were placed on the existing openings for rain water spouts.
- · The missing portions of the edging stones on the upper and lower plinth were restored with matching texture.
- To ensure long term preservation, granite stone slabs were laid with lime mortar over a layer of base lime concrete on the flooring of the monument and plinth.
- The existing plinth wall was covered with cement pointing which was showing signs of damage. Cement was removed and the wall was plastered with lime mortar.
- · The steps, which were earlier missing, were re-instated on the eastern side of the tomb.

#### **IMPACT:**

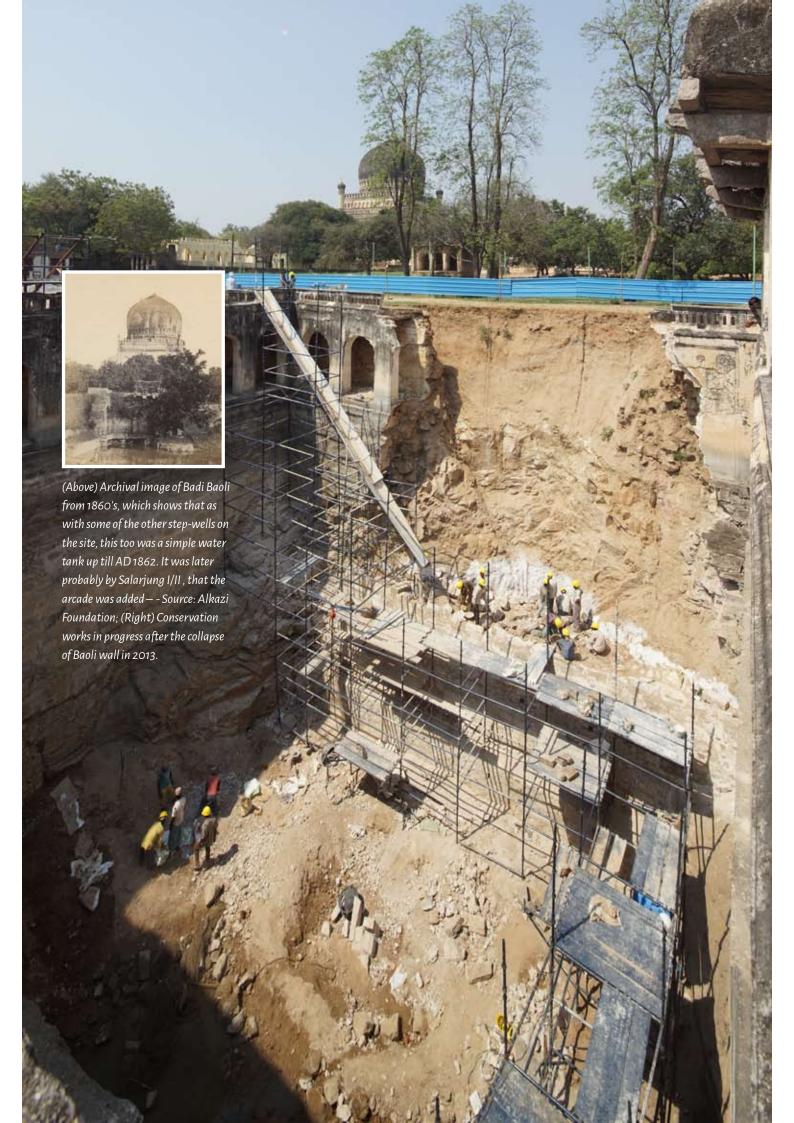
Though one of the minor structures in the complex, major conservation works were required to be undertaken here to ensure long term preservation and to reinstate missing structural elements.

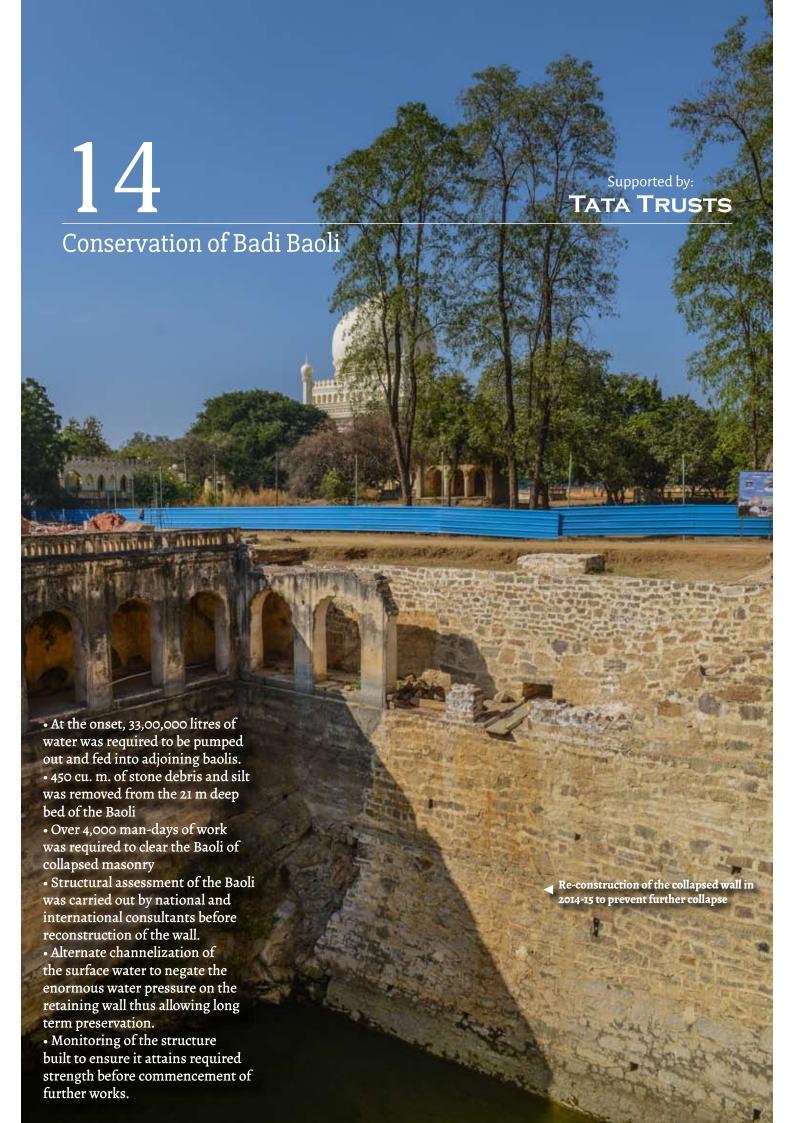












# Deccan Park

As per the MoU, the Deccan Park needs to be integrated with the Qutb Shahi Heritage Park. The 200 meter wide frontage would serve as the main entry to the Heritage Park and house visitor facilities including parking, amphitheatre and site interpretation centre as per the approved master plan for the complex.

The existing modern inappropriate temporary sheds and other facilities such as toy train etc. needs to be dismantled. Modern deep water tanks have been built in the Deccan Park which pose health and safety hazards for visitors and need to be removed.

### **OUTCOME:**

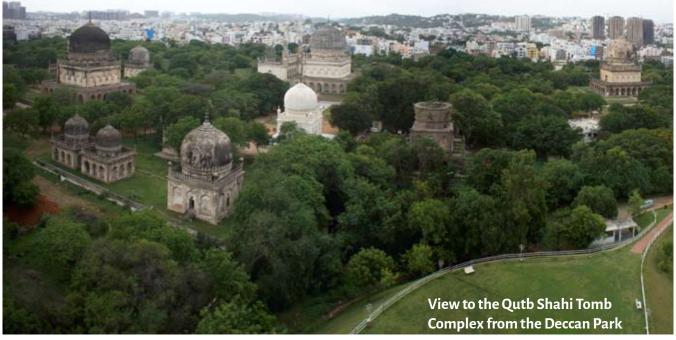
- · Discussions have been held with the Quli Qutb Shahi Urban Development Authority the current custodian of the site for permission to commence works.
- The Commissioner Greater Hyderabad Municipal Corporation (GHMC) visited the site for review of the proposed development of the area.
- · GHMC City Planner reviewed the existing structures of the site and submitted report to authorities for further perusal.
- · Meetings were held with the Chief City Planner and Additional Chief City Planner, GHMC on the proposed development of the site following removal of inappropriate structures.

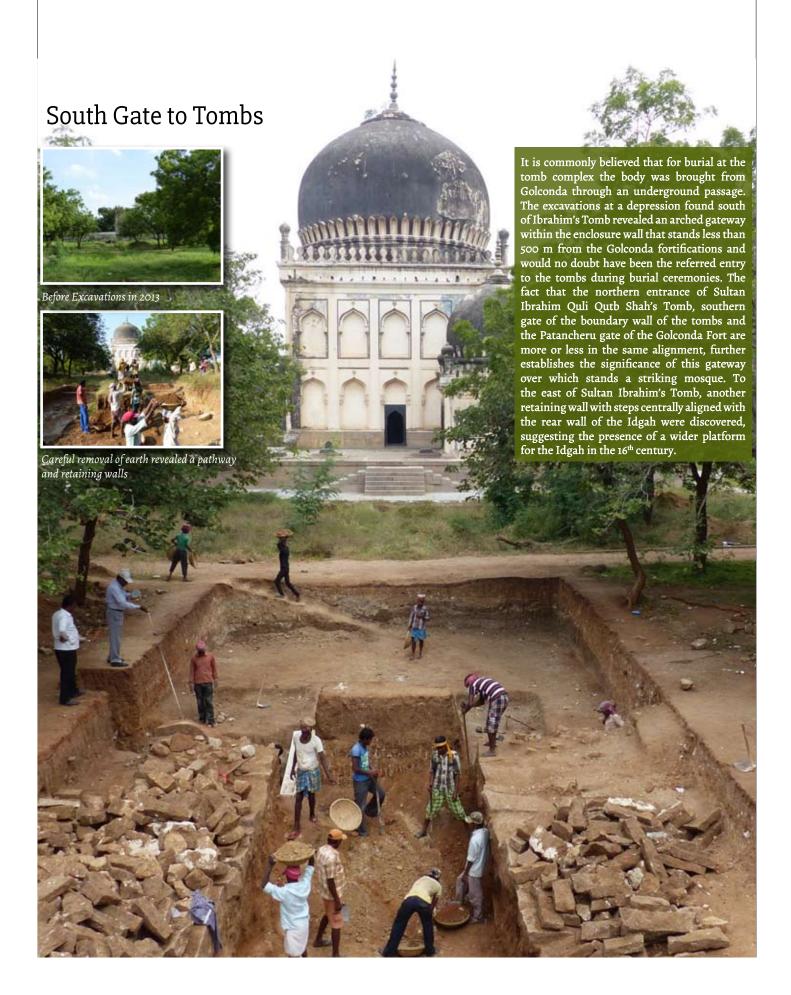
### **NEXT STEPS:**

The discussions are to be further carried out with the Quli Qutb Shah Urban Development Authority and Ministry of Urban Development, Govt of Telengana through 2016 to commence works.



(Above) Mr. Somesh Kumar, Commissioner (GHMC) and AKTC Team during a site visit to Deccan Park





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## Excavation of the Area North of Hamaam

This area was excavated in the year 1969 – 71. However, due to neglect it was buried again in debris and vegetation. Careful scientific exploration revealed the remains of a mosque with habitation around it. The careful exploration revealed rooms, Terracotta pipes, cisterns etc.. For better understanding and determination of the nature of the remains, a further detailed excavation of the region was necessary.

### **OUTCOME:**

- · Over 20000 square meters of area was carefully explored engaging over 2000 man-days of manual excavation.
- Excavation of area around adjoining to the existing sub terrain chamber referred to in past scholarship as 'Summer Palace' was excavated and the remains were cleared and exposed. This revealed the existence of water tanks interconnected with earthen pipes traces of which are still intact. Large rooms and courtyards enclosing the tanks were also exposed.
- The area north of the Hamaam was cleared of all the filling and excess earth. This revealed a new courtyard with arcaded corridor to the south of the ruins of the mosque exposed last year.
- · In order to reach the working level of the Qutb Shahi period, over 1000 cum of the earth dumped in the area following the excavation of the 1969-1971 was removed. During the clearance, a piece of octagonal dressed stone pillar, not in situ was also noticed.
- · On removal of the debris, it exposed the remains of several water tanks on raised platform built in ashlar masonry. A waste water channel originating from one of these tanks leads to the boundary wall which segregates the area of the fourth king (Muhammad Quli Qutb Shah) from the fifth king.
- The western side of the Baoli also had a series of such tanks made in ashlar masonry, definitely used for water storage and possibly washing the shrouds spread over the tombs.
- · North of these tanks, a complex with 14 rooms and a water tank, with some poor quality materials was exposed. Adjacent to it another six rooms with a well have been unearthed. All of them are made of one or two courses of stones.
- · A miniscule char-bagh pattern pathway with courtyard was also discovered to the north of the mosque area exposed. This also had a lone standing 100 years old earthen wall.
- · Further north, remains of collapsed wells, tanks and courses of dry masonry walls were exposed depicting interim settlements probably for the militia.

### **IMPACT**:

The exposure of these archaeological remains has confirmed the presence of structures other than tombs thus enhancing understanding and interest in the site.











Supported by:



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# Conservation of Archaeological Remains

The area north and west of Hamaam needed to be properly consolidated and conserved for proper presentation of the area. Conservation works needed to be carried out carefully ensuring long term preservation of the structures.

### **OUTCOME:**

- The existing walls and columns of the mosque, rooms and corridors were raised in random rubble masonry up to 3 feet high using traditional lime mortar.
- · The existing corridors and the floor of the rooms were covered with lime concrete laid to adequate slope for water drainage ensuring long term preservation.
- · The existing walls were cleaned and re-pointed with lime mortar.
- $\cdot \ The \ ground \ surface \ was \ dressed \ to \ proper \ slope \ ensuring \ drainage \ of \ water \ into \ the \ existing \ Baoli.$
- $\cdot$  Missing portions of the dressed stones in tanks and corridors were replaced with stones of matching texture.

### **IMPACT:**

The conservation and consolidation works of the remains have ensured long term preservation. Grading of the earth towards the Baoli has ensured water conservation in the site revealing the original intent of the strategic location of the Baoli to collect rain water in this otherwise dry region.







(Below) Conservation, using traditional materials and carried out by master craftsmen, followed the archaeological excavations to ensure long term preservation of the site. The terracotta pipes, being very fragile were covered with geo textiles and sand in order to ensure their safety.



### Blue & White Porcelain

Amongst the antiquities are a few blue and white Chinese pottery pieces belonging to the Wanli period (1573–1620 AD) in China and subsequent periods. The rule of Chinese Emperor Wan li roughly coincides with the period of Muhammad Quli Qutb Shah (1580-1611 AD). After the entry of Europeans in to the trade of Chinese pottery, Masulipatnam became an important centre for supplying the ware to later Qutb Shahi kings and Nizams.

### Celadon

Also found were fragments of Celadon-ware known in China as Qinci (greenish pottery) is popular in Asian countries as poison plates, as it was widely believed to possess the quality to detect poison in food either by changing its colour or splitting it into two. This attributed quality made it one of the most trusted and sought after item. On the basis of various colour and shades, the pottery has been categorised in to olive green, grass green, and sea green.

### Tiles

During scientific trenching at the site, several pieces of glazed tiles were found of colours like blue, turquoise, yellow, green, orange, grey and brown. Several tombs and monuments during the Qutb Shahi dynasty were covered with tiles, like the famous Badshahi Ashurkhana, tomb of Ibrahim Quli Qutb Shah and tomb of Mohd. Qutb Shah. But several tiles on these monuments have now gone missing. Tile samples were tested at the universities of Oxford and Turin to understand the tile composition and glaze providing better understanding of tile production process.

### **Glazed Pottery**

Glazed pottery coated with a thin layer of film glaze has been reported from Outb Shahi Tombs. The pottery is divided into two on the basis of the materials by which it was made. The first group was made of sandy friable materials of whitish colour with moderate cohesive strength. The second variety is known as terracotta glazed ware in which the body is made of ordinary earthen ware and then dipped into a glaze solution so that the entire earthen body is covered with glaze. Noteworthy shapes reported are dishes, bowls, vases, trays, surahis and jars.

## Landscape

Several studies were carried out last year including the peer review of the landscape master plan prepared by M Shaheer. A detailed analysis was also carried out to study the slope analysis, existing vegetation, contours and elevation and existing drainage of the site. It was agreed that the landscape works would be undertaken together with conservation works in 3 phases.

The discovery of the enclosure wall around the tombs of Sultan Quli further helped in appropriate development of the landscape design for the south west corner. The levels of the area within the enclosure and outside were decided based on the trial trenching made adjacent to the plinth wall of the monuments looking for the dressing on the stones which would have originally been exposed.

### **OUTCOME:**

- · Following the archaeological excavations revealing the enclosure wall of Sultan Quli's Tomb garden, the landscape master plan for this area was revised to incorporate discovered features.
- · Landscape architect, M Shaheer sensitively proposed grading of earth levels north of Ibrahim's Tomb to ensure portions of the discovered enclosure wall remained above ground and visible.
- The central location of the tomb within the enclosure wall lent itself to a char-bagh landscape layout and the building of the central pathway of the southern side was commenced.
- · Over 1000 cubic meters of filled earth was removed manually to reach the original levels of within the enclosure and the landscape design was developed accordingly to the levels determined. Sample of the local stones for laying the pathways were finalised and samples of the design for the pathway was approved. 40-50 mm thick Tandoor stones were laid to slope and pattern over a layer of recycled cement concrete held by retaining brick wall on the sides connecting the tombs of Jamshed Quli, Sultan Quli and the south side of the enclosure wall.
- · 40-50 mm thick Tandur stone over a layer of recycled cement concrete is being laid for the pathways along the enclosure wall as per the Landscape design.
- · The plinth protection of the tombs of Sultan Quli Qutb Shah, Jamshed Quli Qutb Shah and Kulsoom Begum were dismantled to restore original earth levels and re-laid to adequate slope outwards as per a carefully designed pattern.





## Plantation

The northern and southern sections of the Qutb Shahi Heritage Park are to be developed as ecological zones with dense native vegetation. Towards this objective, since 2014 a mapping of all trees has been carried out.

### **OUTCOME:**

- $\cdot$  Over 2000 saplings of 27 local varieties were procured to establish an on-site plant nursery.
- $\cdot$  300 saplings of local sturdy varieties were planted along the northern edge of the complex which otherwise was covered with garbage from the households.
- $\cdot$  The existing plants are being treated properly and parasitic plants are being removed from the site.

### **NEXT STEPS:**

In 2015 additional planting is proposed in areas outside the central archaeological zone.

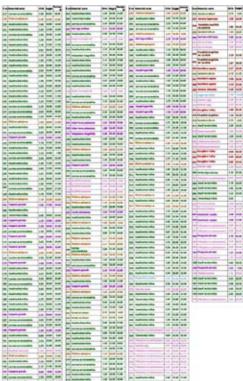






(Below) In depth tree survey and documentation has been carried out during 2014-15; (Bottom) The 70 tree species on the site have been mapped and photo-documented measuring and recording the height of the tree, girth of its bark and the size of its canopy











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Qawwali at the Qutb Shahi Heritage Park as a part of the 3-day long international conference: Engaging Hyderabad with Conservation

# Conference: Engaging Hyderabad with Conservation

The conference on "Engaging Hyderabad with Conservation" was organised from 10-12 December at Salarjung Museum with the support of the Ford Foundation in order to bring together various stakeholders in the city's conservation and cultural fields and to allow the conservation efforts at the Qutb Shahi Heritage Park to benefit from inputs from relevant stakeholders.

The Plenary session of the conference included speech by former AP Chief Secretary, Mr. Narender Luther; keynote address by Mr Papa Rao, advisor to Chief Minister of Telangana; address by Dr Amareshwar Galla of International Institute of Inclusive Museum; Mr Venkatesham, principal secretary to Government of Telangana and Mr Sajjad Shahid of Centre for Deccan Studies.

Mr. Luther released a Prestel publication "Heritage of the Mughal World" that documents projects of the AKTC on Mughal sites in India, Pakistan and Afghanistan.

There were more than 150 participants from different institutions and organizations i.e. Department of Archaeology and Museum officials, Archaeological Survey of India officials, Salarjung Museum professionals, Hyderabad University and other academic institutes, History and architectural students, heritage enthusiasts, members of civil society groups and representatives from media.

The conference had 18 speakers (3 international and 15 national) and 5 chairpersons covering wide range of subjects like protection of historic monuments, linkages between urban heritage legislation, development pressures, appropriate future planning and contextual social environments, community engagement with case studies from Rajasthan, Mumbai, West Bengal, Bidar, Golconda and Hyderabad.

Cultural evenings included *mushaira* by Dr.Jaweed Kamaal and group and *ghazal* by Poorva Guru focused on poetry of *Dakhni* poets from Gujrat, Bijapur and Golconda under the patronage of Mohammad Quli Qutb Shah.

Qawwali at the Qutb Shahi Heritage Park by Fariduddin Ayaaz and Abu Muhammad group was attended by over 2000 people. The *qawwals* have been associated with Dargah Hazrat Shah Khamosh in Hyderabad and performed exclusively on the repertoire of *Dakhni Dargahi* traditions and *kalaams* of Hazrat Amir Khusrau.

The conference was successful in meeting its objectives of getting different stakeholders – civil society, government officials, experts, academics, amongst others - with knowledge and informed opinions to discuss the issues affecting the built heritage in the city of Hyderabad in an inclusive manner.









## **PROJECT TEAM**

## **PUBLIC AGENCIES 2015**

## Ministry of Tourism & Culture,

### Govt. of Telengana

- Mr. B.P. Acharya, IAS, Principal Secretary, YAT&C
- Mr. B. Venkatesham, IAS, Secretary, YAT&C
- Mrs. Sunita Bhagwat, IFS, Addl. Chief (PMU) (I/c)
- Mr. B. Srinivas, IFS, Addl. Chief (PMU)

## Department of Archaeology & Museum,

### Govt. of Telengana

- Mrs. N.R. Visalatchy, IPoS, Director
- Mr. Md. Raheem Sha Ali, Deputy Director Engineering
- Mr. P. Bramahachari, Deputy Director Technical
- Dr. K. Padmanabha, Assistant Director Technical/Museums
- Mr. B. Narayana, Assistant Director,
   Engineering & I/c Director (Qutub Shahi Tombs)
- Mr. Azeem Osman, Consultant Engineer
- Mr. T.Ch. Nancharaiah, I/c Conservation Asst. (Qutub Shahi Tombs)

### Project Technical Committee

- Dr. Gamini S Wijeysuriya, ICCROM
- Mr. M.H Talebian, ICOMOS, Iran
- Mr. R.C. Agarwal, Former DG, ASI, Delhi
- Mr. Sajjad Shahid, Independent Expert
- Mr. Govinda raj Emmadi, I/c Executive Director, South Zone Tourism Advisory Council.
- Mr. Srinivas Rao, Director Heritage Wing, GHMC.
- Mr. N Taher, Superintending Archaeologist, Hyderabad, Archaeological Survey of India
- Mr. Ch. Babji Rao, Asst. Superintending Archaeologist, Hyderabad, Archaeological Survey of India







(Above) Mr Papa Rao (Advisor to Chief Minister of Telangana), Mr Venkatesham (Principal secretary to Government of Telangana) and Mr Ratish Nanda (CEO, AKTC) at Salarjung Museum; (Middle) Mrs. Sunita Bhagwat (Addl. Chief, Ministry of Tourism) addressing the audience during the AKTC Conference; (Bottom) Mr. N Taher (Superintending Archaeologist, ASI) presenting his paper during the conference.

## Greater Hyderabad Municipal Corporation

- Mr. Somesh Kumar, IAS, Commissioner
- Mr. B Janardhan Reddy, IAS, Commissioner
- Mr. N Ravi Kiran, Additional Commissioner
- Mr. S. Devender Reddy, Chief City Planner
- Mr. Srinivas Rao, Additional Chief City Planner & Director, Heritage wing
- Mr. Khalid Sarwar, City Planner
- Mr. Ashwini Kumar, Superintending Engineer, Projects, Central Zone
- Mr. Pradeep Reddy, Executive Engineer
- Mr. Lachiram, Executive Engineer
- Mr. Venkat Reddy, Asst. Engineer



(Above) Mr. Somesh Kumar (Commissioner, GHMC) with AKTC Team during his site visit to Qutb Shahi Heritage Park

## Quli Qutub Shah Urban Development Authority

- Mr. Somesh Kumar, IAS,
   Special Officer Commissioner & Administrator
- Mr. B Janardhan Reddy, IAS, Administrator
- Mr. Chandra Mohan, Secretary
- Ms. M. Lalitha, Assistant Director of Horticulture

### Mandal Revenue Office

- Mrs. Chandra Kala, MRO, Shaikpet Mandal
- Mr. V Vamshimohan, MRO, Golconda Mandal

### Salar Jung Museum

- Mr. Nagendra Reddy, Director
- Mr. Veerender, Dy. Curator
- Mr. Ahmad Ali, Dy Director

& I/c Manuscript Section

# **PROJECT TEAM**

## QUTB SHAHI HERITAGE PARK, HYDERABAD

### Aga Khan Trust for Culture

- Mr. Ratish Nanda, CEO
- Mr. Rajpal Singh, Chief Engineer
- Dr. K.K. Muhammed, Project Archaeological Director
- Ms. Jyotsna Lall, Senior Programme Officer
- Mr. Yoshowant Purohit, Project Manager
- Mr. K. Ganesh Reddy, Project Support Officer
- Ms. Poornima Balakrishnan, Project Architect
- Ms. Nitya Khendry, Architect
- Ms. Archana S Akhtar, Sr. Programme Officer, Design & Outreach
- Mr. Somak Ghosh, Finance Manager
- Mr. Deepak Padhi, Programme Officer, Monitoring & Evaluation
- Ms. V. Sridevi, Finance Officer
- Ms. Lipi Bharadwaj, Project Photographer
- Mr. Rajendra Patnaik, Office Secretary
- Mr. M.V. Bharathi Prasad, Site Engineer
- Mr. Vinod Kumar, Field Supervisor
- Mr. Izhar Ahmed, Field Supervisor
- Mr. P Srinu, Consultant Field Supervisor
- Mr. Mohd. Ayaz Khan, Consultant-Archaeologist
- Mr. Shaik Sayajuddin, Consultant-Archaeological Draughtsman



(Above) Peer review being conducted by national and international experts from the field of conservation, archaelogy, landscape historians with AKTC Team; (Below) Mrs. N.R. Visalatchy, Director (DAM), and Dr. Muhammed, Project Archaeological Director (AKTC) addressing a school group at the Tomb Complex.

## **Principal Consultants**

- Late Prof. M Shaheer, Shaheer Associates, Landscape Architects
- Mrs. Asiya Khan, Consultant for Tree Survey
- Mr. Stuart Tappin, Stand Consulting, Structural Engineer
- Mrs. C H Sridevi, Teja Land Surveyors
- Mr. Srinivas Kunapareddy, Video Consultant

