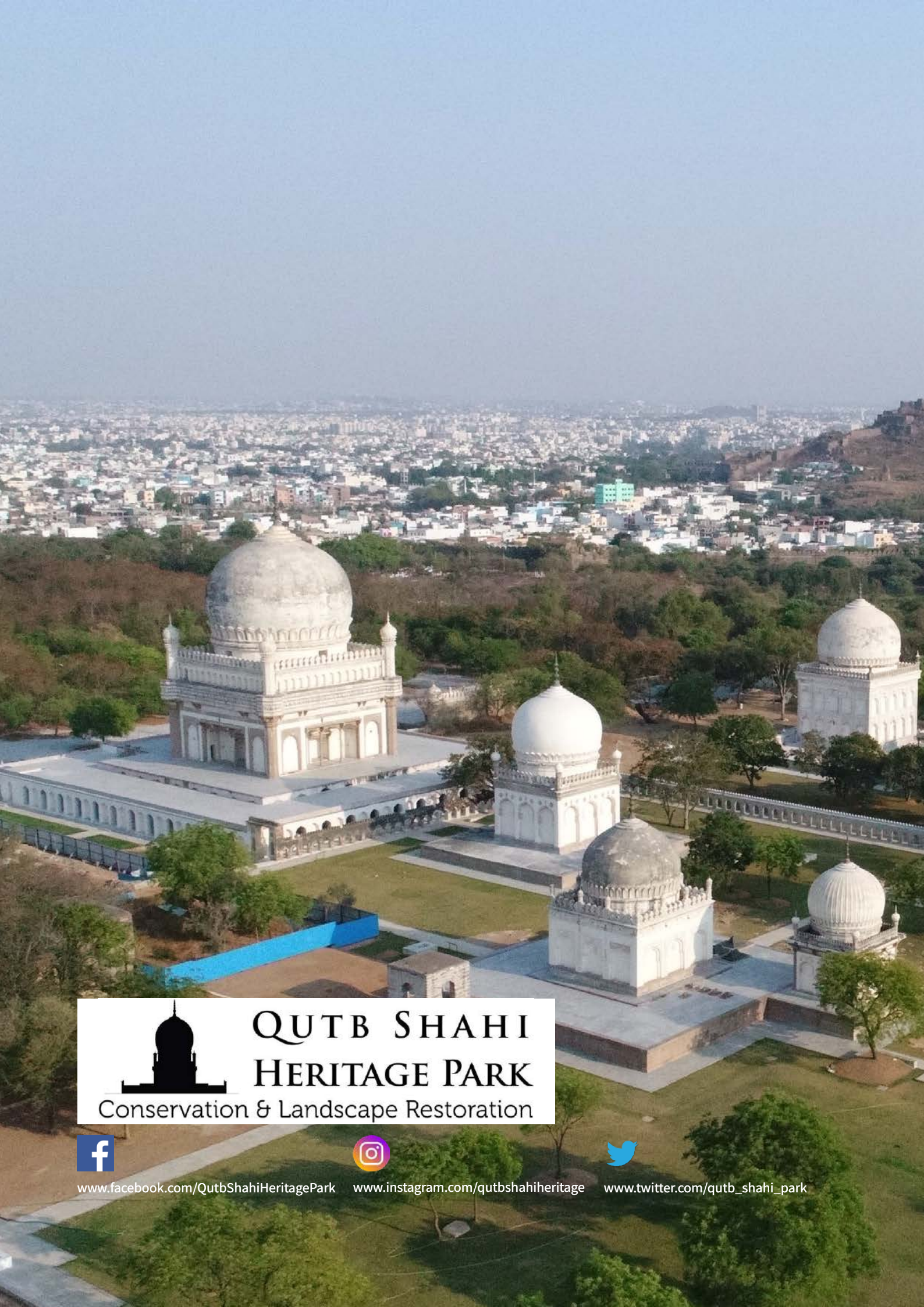
AGA KHAN DEVELOPMENT NETWORK

QUTB SHAHI HERITAGE PARK

CONSERVATION & LANDSCAPE RESTORATION

ANNUAL REPORT –2020



QUTB SHAHI HERITAGE PARK

Conservation & Landscape Restoration

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Qutb Shahi Heritage Park

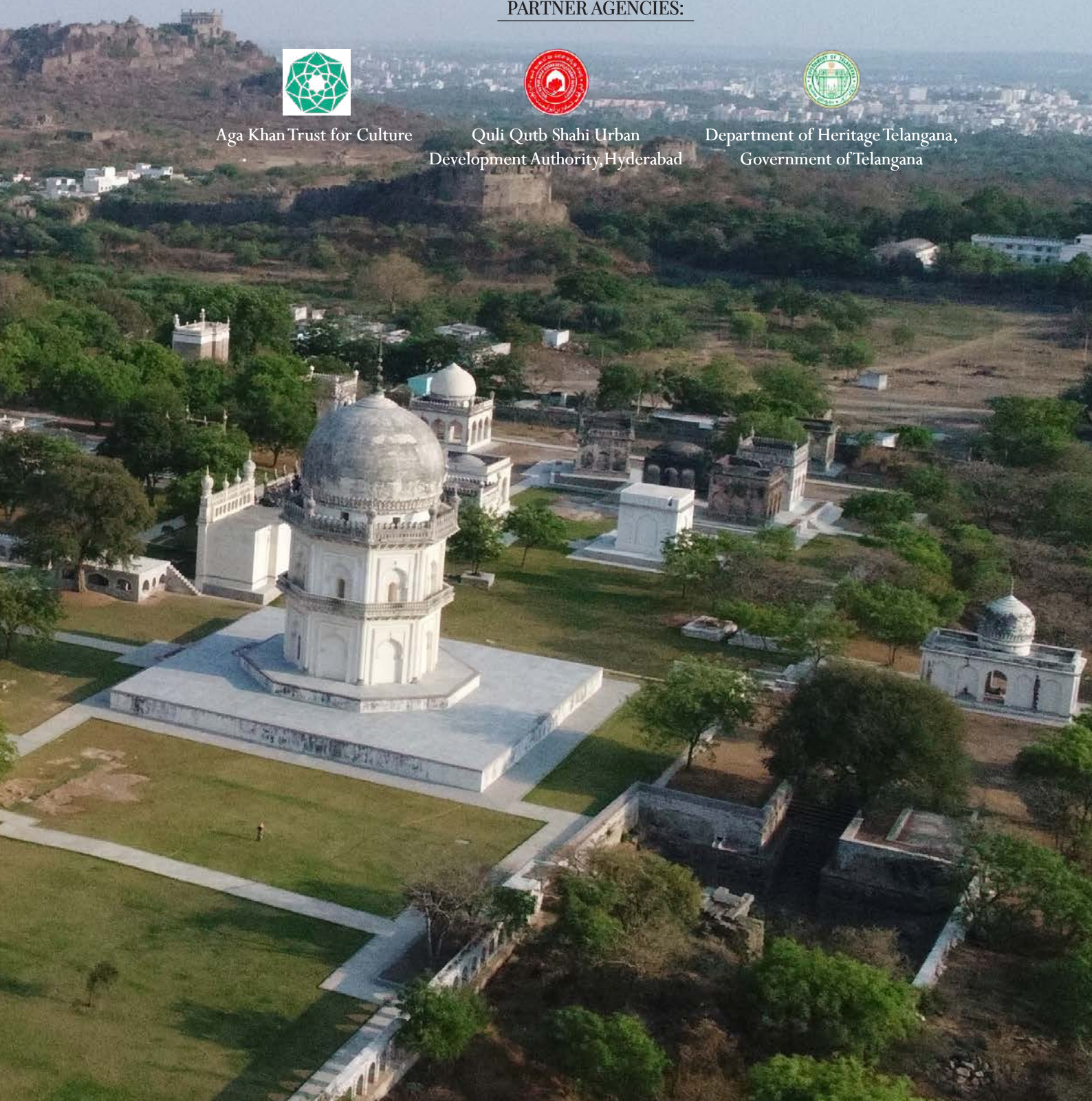
Conservation of the almost 100 monuments and landscape restoration of the 106 acre necropolis demonstrates a model for people centric urban development of an archaeological site of international significance under a non-profit People Public-Private Partnership framework.

PARTNER AGENCIES:

Aga Khan Trust for Culture

Quli Qutb Shahi Urban Development Authority, Hyderabad

Department of Heritage Telangana, Government of Telangana










Content

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Department of Heritage Telangana, Government of Telangana

Quli Qutb Shahi Urban Development Authority, Hyderabad

Aga Khan Trust for Culture

SUPPORTED BY

SWADESH DARSHAN
Scheme of Government of India

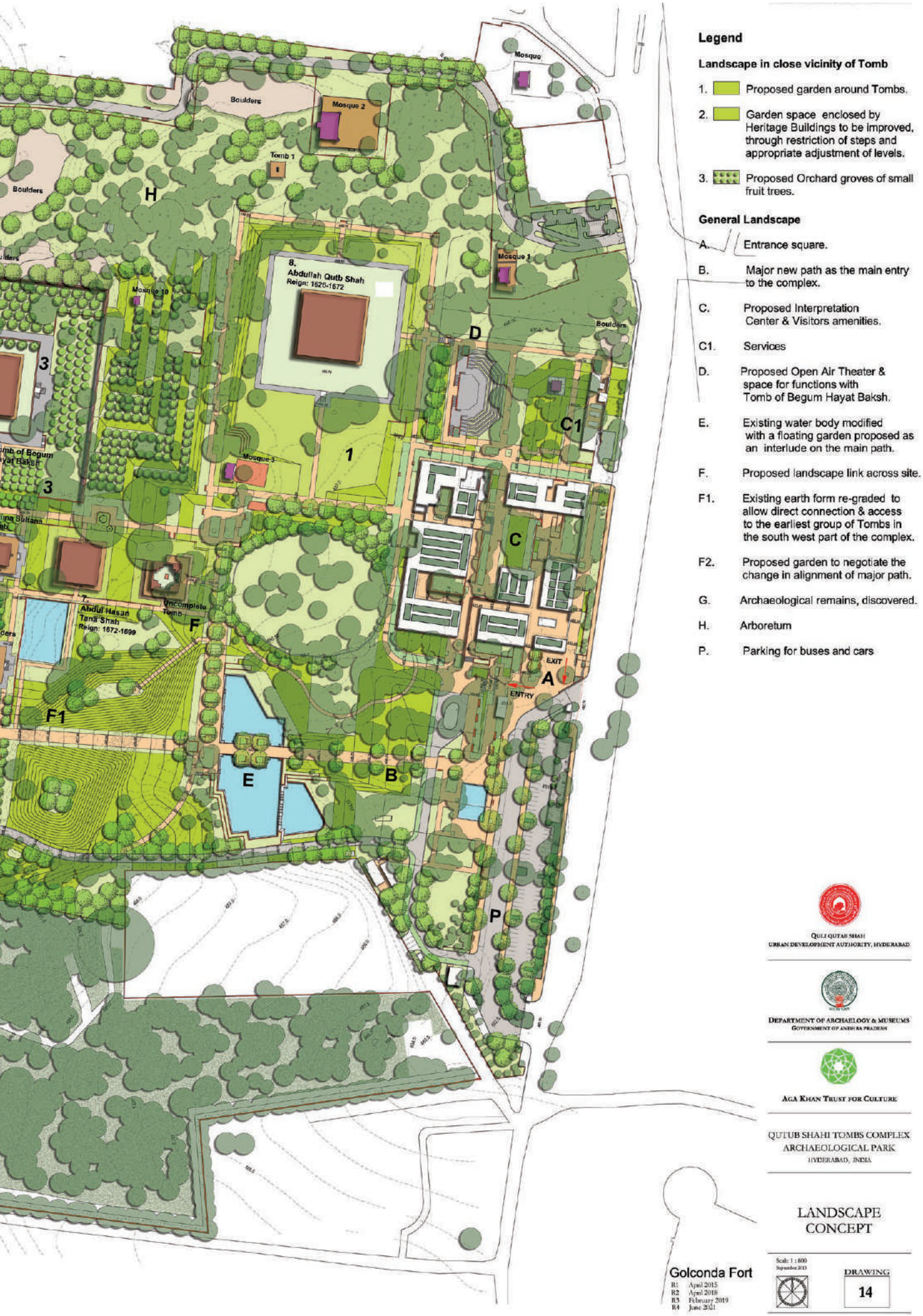
TATA TRUSTS

IndiGo Reach

U.S. Ambassador's Fund for Cultural Preservation

Qutb Shahi Heritage Park is listed on the tentative World Heritage List. Major conservation and landscape restoration works are being undertaken here since 2013 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 100 structures mausoleums, funerary mosques, step-wells/ water structures, a Hamam, pavilions, garden enclosures – all built during the reign of the Qutb Shahi dynasty which ruled the Hyderabad region for 169 years in the 16th – 17th centuries.



Legend

Landscape in close vicinity of Tomb

1. Proposed garden around Tombs.
2. Garden space enclosed by Heritage Buildings to be improved, through restriction of steps and appropriate adjustment of levels.
3. Proposed Orchard groves of small fruit trees.

General Landscape

A. Entrance square.

B. Major new path as the main entry to the complex.

C. Proposed Interpretation Center & Visitors amenities.

C1. Services

D. Proposed Open Air Theater & space for functions with Tomb of Begum Hayat Baksh.

E. Existing water body modified with a floating garden proposed as an interlude on the main path.

F. Proposed landscape link across site.

F1. Existing earth form re-graded to allow direct connection & access to the earliest group of Tombs in the south west part of the complex.

F2. Proposed garden to negotiate the change in alignment of major path.

G. Archaeological remains, discovered.

H. Arboretum

P. Parking for buses and cars

QULI QUTAB SHAH
URBAN DEVELOPMENT AUTHORITY, HYDERABAD

DEPARTMENT OF ARCHAEOLOGY & MUSEUMS
GOVERNMENT OF ANDHRA PRADESH

AGA KHAN TRUST FOR CULTURE

QUTUB SHAHI TOMBS COMPLEX
ARCHAEOLOGICAL PARK
HYDERABAD, INDIA

LANDSCAPE CONCEPT

R1 April 2015
R2 April 2018
R3 February 2019
R4 June 2021

Scale 1 : 800
September 2013

DRAWING
14









Executive Summary

For the inter-disciplinary team at the Aga Khan Trust for Culture, it has been a privilege to assist the Department of Heritage, Government of Telangana, and the Quli Qutb Shah Urban Development Authority to conserve, secure, enhance the significance of this unique 16th century necropolis. We have been able to achieve mutual objectives in establishing a model conservation initiative with the support of Tata Trusts, the Ministry of Tourism, Government of India's grant under the Swadesh Darshan scheme, and, in 2020, support from IndiGo airlines, US Ambassadors Fund for Cultural Preservation, amongst other partners. In 2020, His Excellency Ambassador Kenneth Juster marked the completion of two monuments conserved with the US AFCP grant – the mausoleums of courtesans Taramati and Premamati.

(Above) Mr. Kenneth Juster, US Ambassador to India, with Mr Ratish Nanda, CEO, AKTC (India) at the event marking the completion of conservation works at the Mausoleums of Taramati and Premamati.

2020, and indeed much of 2021, has been defined by the Covid 19 pandemic. However, during this extraordinarily difficult time, over a hundred craftsmen continued to reside at the site, following Covid protocol and with all their necessities taken care of. They were thus instrumental, together with the architects, engineers, supervisors, to meet 2020 targets for the project.

The significant conservation works carried out at the Mausoleum of Abdullah Qutb Quli Shah, Muhammad Qutb Shah, Hayat Bakshi Begum – each towering over 40 m high are detailed in this report. Also, works of similar complication, rigour and intensity have been carried out on several of the 100 monuments that dot the 106 acre complex. Master craftsmen employed here have used traditional tools, building craft techniques and traditional materials as used by their forefathers in the 16th – 17th centuries to repair, restore and even reconstruct missing architectural elements from these buildings.

Significantly, while most monuments have continued to stand in the complex, their garden settings have been completely obliterated in the 20th century. The historic values of the gardens not understood and in planting, pathways, addition of fountains, railings- treated as a municipal park. Since 2013, archaeological excavations, scientific clearance of earth, study of archival photographs have enabled us to couple this important conservation effort with restoring the setting of the monuments, restoring original ground levels, slopes to lead rainwater into the baolis, planting fauna favoured by the Qutb Shahi's. Significantly, the landscape effort has to ensure that no underlying archaeology is damaged, and no tree lost – in-fact, several significant landscape elements have been discovered, including garden enclosures and aqueducts.

(Below) Historians and experts discussing the conservation works at the Qutb Shahi Heritage Park.

As part of the landscape master plan, ecological buffer zones, planned to be planted with over 20000 native tree species have been planned on the northern, southern and western edges of the 106-acre complex.

Though the necropolis comprises a vast site, with around 100 monuments to be conserved and 106 acres to be carefully landscaped, the challenge here has not been the scale of the project but repetitive litigation by vested interests. At the onset of the project, less than a fortnight after the January 2013 MoU, the Wakf Tribunal had halted or stayed the project. Almost a year later, and three additional monuments collapsed, the inappropriate stay was withdrawn or vacated. Since then, the same set of litigants have filed several

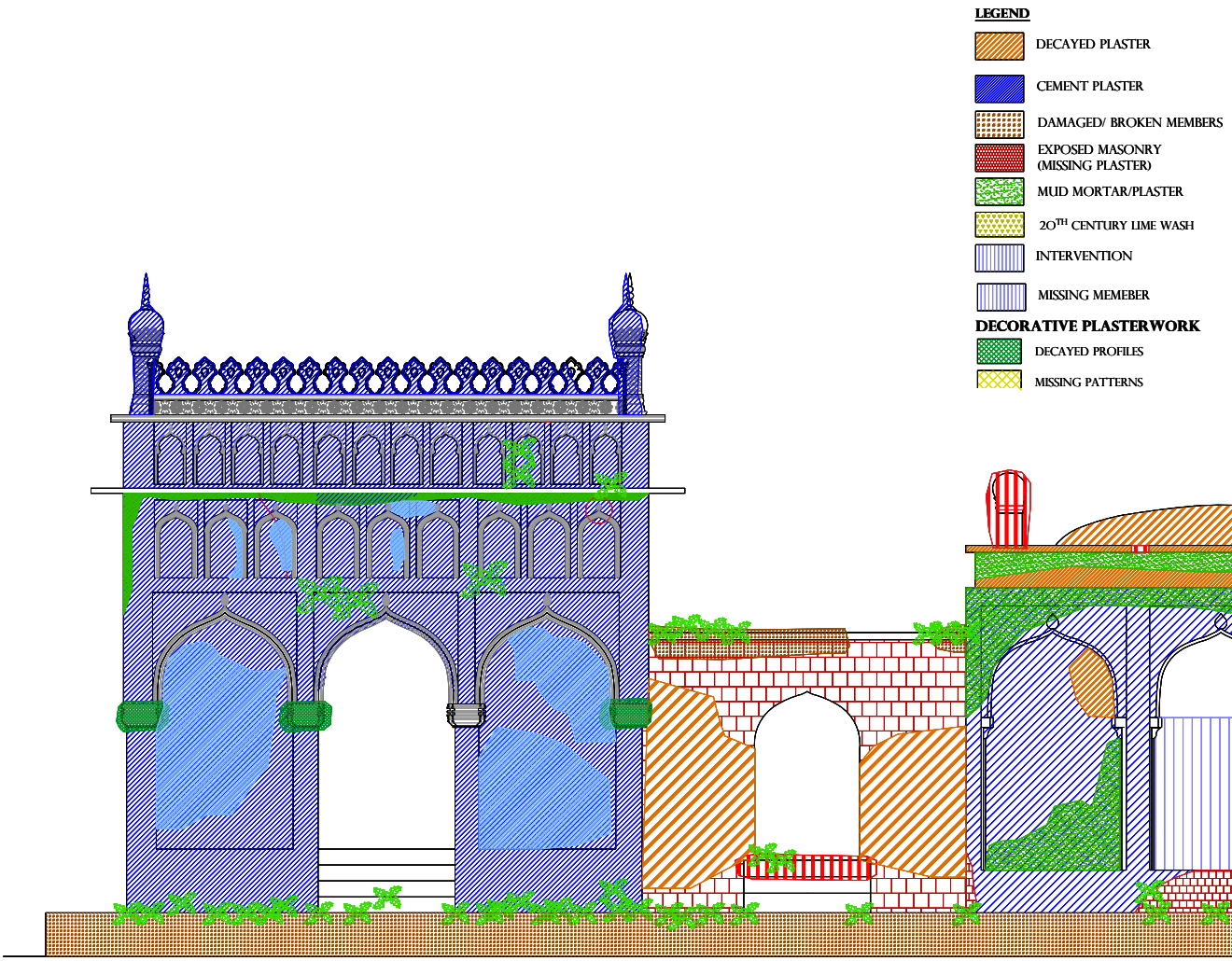
litigations and earlier this year, the Wakf Tribunal once again stalled or halted the construction of the planned Interpretation Centre. No doubt, this stay shall also be vacated but precious months have already been lost awaiting the wheels of justice to start spinning!

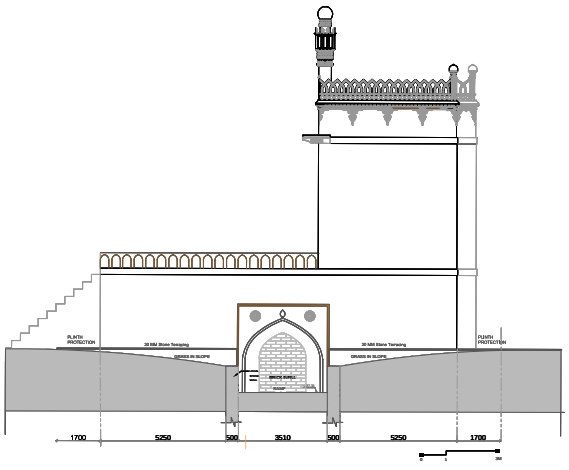
The planned Interpretation Centre is a sunken building located at the entrance of the Deccan Park and will lead to an enhanced understanding of Hyderabad's Qutb Shahi heritage.

Engagement with the Government of Telangana has expanded in Hyderabad with the AKTC team now engaged in documenting the Badshahi Ashoorkhana and undertaking conservation at the Paigah tombs as well. In 2020, in partnership with UNESCO New Delhi office, AKTC organised a training programme for urban conservation for municipal engineers from across Telangana.

As the conservation and landscape restoration efforts at the Qutb Shahi Heritage Park come to a close by 2023-4, aspirations of the Government of Telangana for the site include restoring the historic pedestrian linkage to Golconda Fort – only a few hundred meters to the south as well as securing the World Heritage designation for both these sites. If achieved these will result in significant boost in visitor numbers to Hyderabad.

(Right) Shri. V Srinivas Goud, Hon'ble Minister for Tourism is being explained the proposed Qutb Shahi Interpretation Centre by Mr Yoshowant Purohit, Project Manager, AKTC at the Foundation Stone Laying ceremony.


LEGEND
DECAYED PLASTER
CEMENT PLASTER
DAMAGED/ BROKEN MEMBERS
EXPOSED MASONRY (MISSING PLASTER)
MUD MORTAR/PLASTER
20TH CENTURY LIME WASH
INTERVENTION
MISSING MEMEBER
DECORATIVE PLASTERWORK
DECAYED PROFILES
MISSING PATTERNS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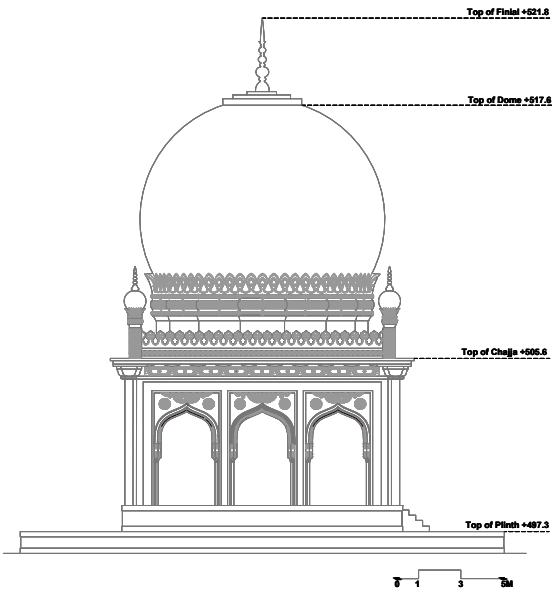
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Top of Dome +517.6
Top of Chajja +505.6
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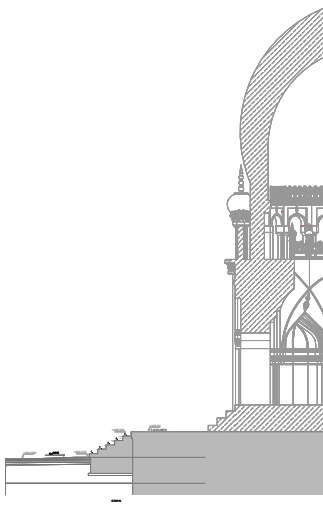
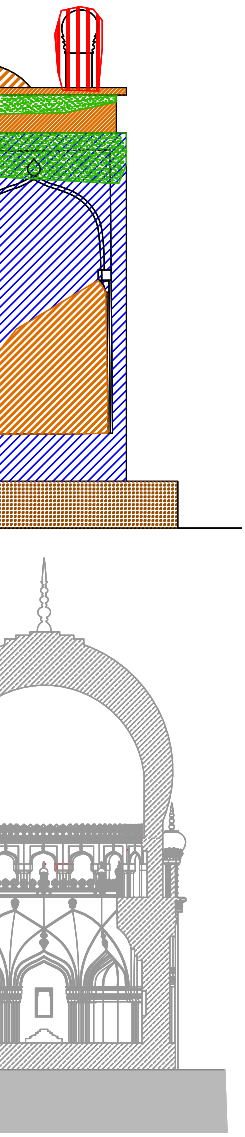
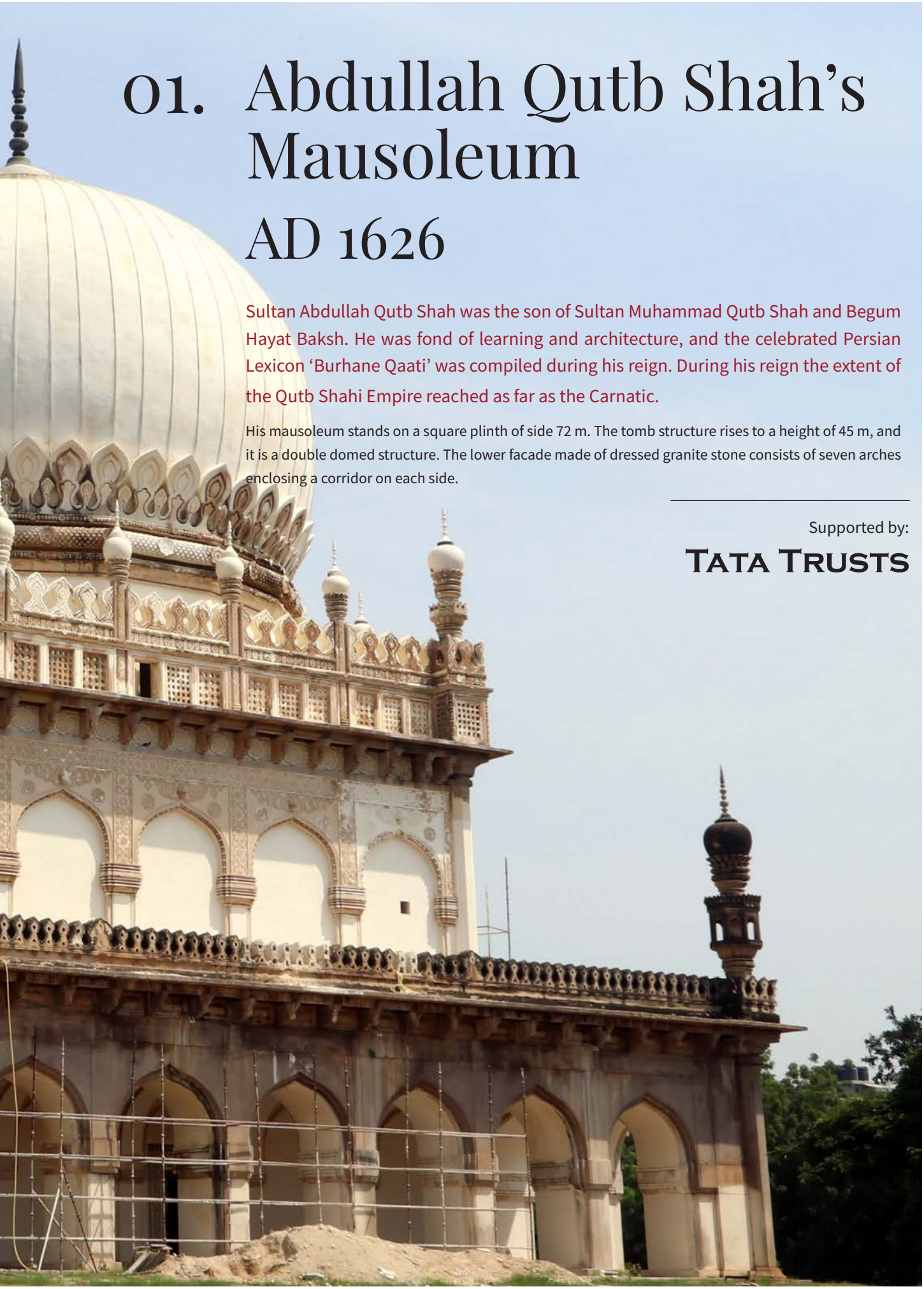


Architectural Documentation



Conservation works being undertaken at the Qutb Shahi Heritage Park are based on detailed documentation, condition assessment, archival research, archaeological excavations, and coupled with landscape restoration of the complex.

3D Laser Technique was used for detailed documentation of the archaeology and the various monuments at the site. Comparative photos depicting the change in the monument following the restoration of details have been done for all the works. In addition, comparative analyses of archival images with the present-day images has helped us reveal the original profile of the buildings and understand the changes in the landscape of the site. Photography of the site is being carried out regularly to record the changes in the complex following the conservation, archaeological exploration and landscape restoration of the complex.



01. Abdullah Qutb Shah's Mausoleum

AD 1626

Sultan Abdullah Qutb Shah was the son of Sultan Muhammad Qutb Shah and Begum Hayat Baksh. He was fond of learning and architecture, and the celebrated Persian Lexicon 'Burhane Qaati' was compiled during his reign. During his reign the extent of the Qutb Shahi Empire reached as far as the Carnatic.

His mausoleum stands on a square plinth of side 72 m. The tomb structure rises to a height of 45 m, and it is a double domed structure. The lower facade made of dressed granite stone consists of seven arches enclosing a corridor on each side.

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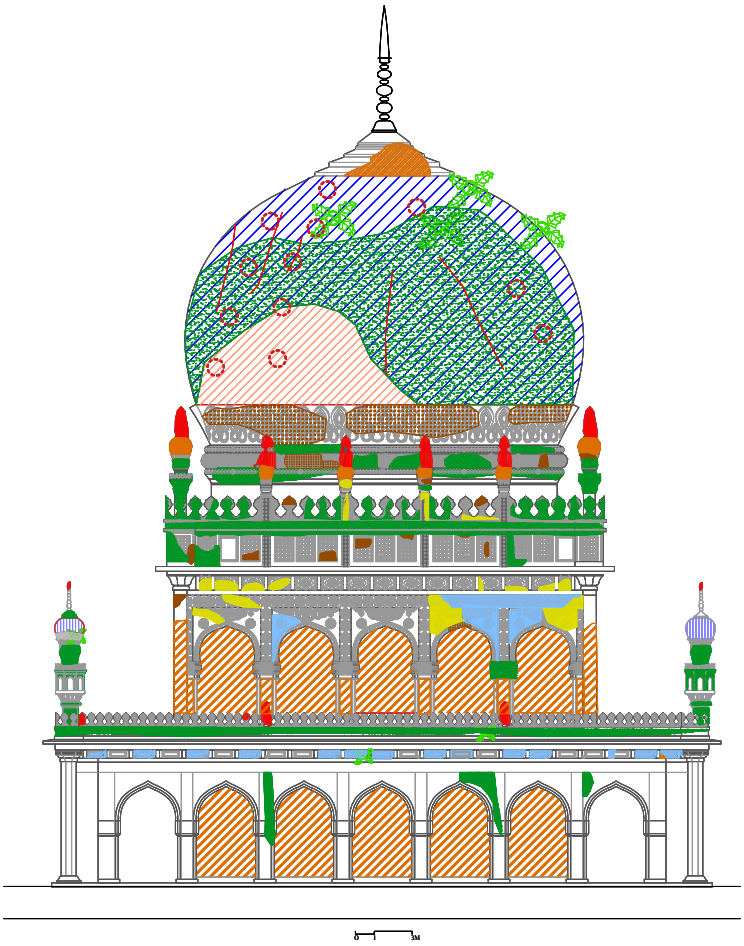
ARCHITECTURAL DOCUMENTATION

A detailed condition assessment of the internal and external portions of Abdullah Qutb Shah's mausoleum was carried out before commencement of works to precisely assess the extent of damage on multiple portions of the mausoleum.

An illustrative restoration for the damaged and missing ribs on the dome surface was prepared using the remnants of the original ribs and it helped in restoration of ribs accurately.



LEGEND

- CRACKS IN THE PLASTER
- DECAYED PLASTER
- FLAKING OF FINISHING LAYER
- INTERVENTION
- MISSING MEMBERS
- CEMENT PLASTER
- DAMAGED/ BROKEN MEMBERS

DECORATIVE PLASTERWORK

- DECAYED PROFILES
- MISSING PATTERNS

WATER PROBLEMS

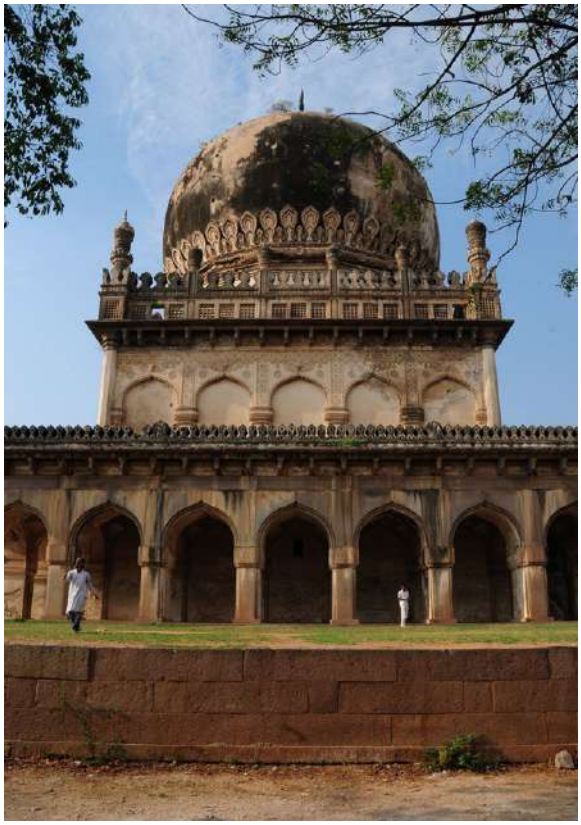
- WATER SEEPAGE

SURFACE DEPOSITS

- ALGAE

SURFACE DEPOSITS

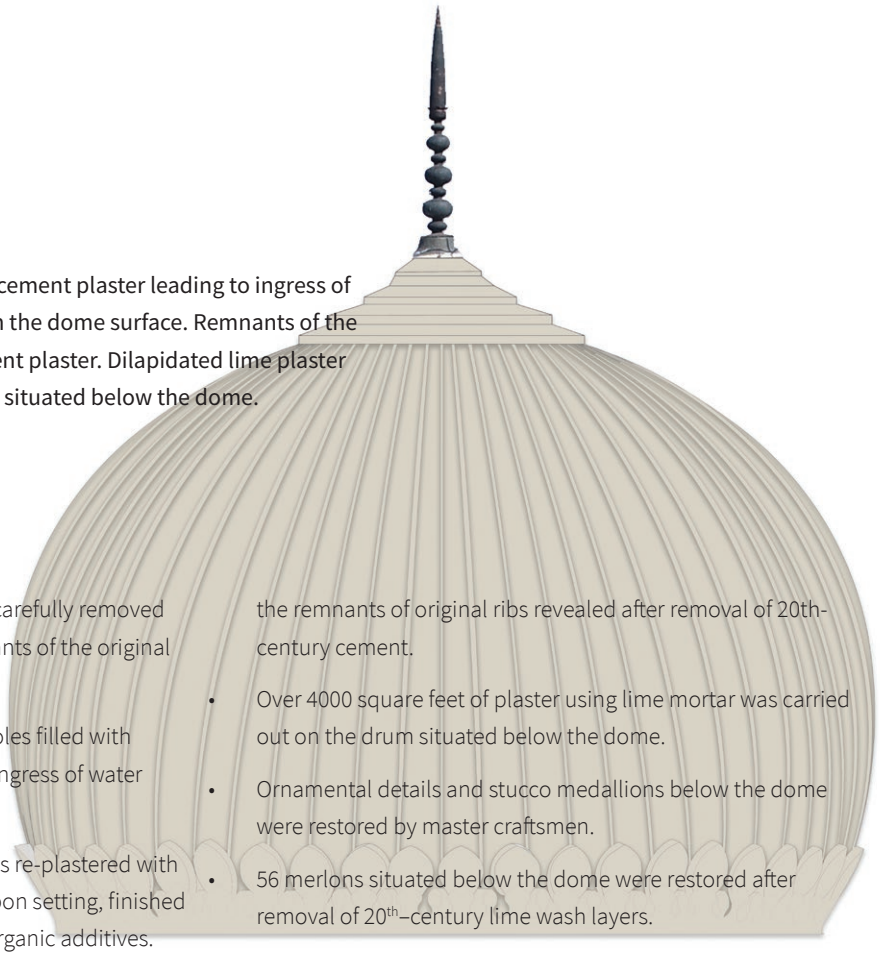
- VEGETATION
- HOLES IN STONE MASONRY FILLED WITH CEMENT



(Left) Architectural drawing depicting the condition assessment of issues affecting the Mausoleum of Abdullah Qutb Shah. (Right) Mausoleum of Abdullah Qutb Shah - before conservation

DOME

Dome was found covered with a thick layer of cement plaster leading to ingress of rainwater and growth of deep rooted plants on the dome surface. Remnants of the original ribs were visible after removal of cement plaster. Dilapidated lime plaster was found on the 16 sided drum ands merlons situated below the dome.



ACTION TAKEN:

- A 3-inch-thick layer of cement plaster was carefully removed from the dome surface exposing the remnants of the original ribs.
- Deeply rooted plants were removed and holes filled with rubble and lime mortar to prevent further ingress of water causing damage to the dome masonry.
- Over 13000 square feet of dome surface was re-plastered with a 3-inch-thick layer rich lime mortar and upon setting, finished with a thin layer of lime putty mixed with organic additives.
- 56 ribs were restored covering the dome surface matching the remnants of original ribs revealed after removal of 20th-century cement.
- Over 4000 square feet of plaster using lime mortar was carried out on the drum situated below the dome.
- Ornamental details and stucco medallions below the dome were restored by master craftsmen.
- 56 merlons situated below the dome were restored after removal of 20th–century lime wash layers.

(Clockwise from left) Dismantling of 20th-century cement plaster from dome surface to reveal the original ribs underneath; Restoration of missing ribs coupled with plastering of dome surface carried out by master craftsmen; Restoration of merlons situated below dome
(Top) Illustrative restoration of 56 historic ribs revealed during investigation at dome

Before Conservation

After Conservation

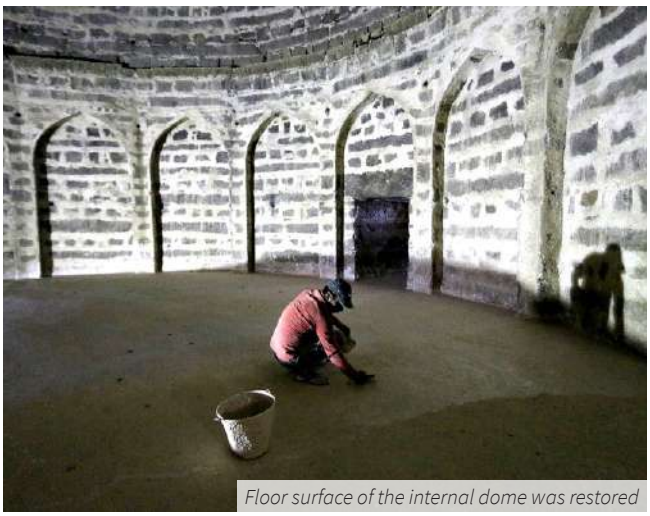
INTERNAL DOME & TERRACE

The internal dome showed no signs of deterioration or water ingress and required minor repair works. The flooring of the internal dome was found in a dilapidated condition with multiple 1-inch-deep depressions.

Middle terrace of Abdullah Qutb Shah's Mausoleum had a 20th- century cement concrete layer added during the 20th-century repairs. On close inspection it was observed that later added cement concrete and missing rainwater spouts was leading to the rainwater seeping into the lower arcade.

ACTION TAKEN:

- Pointing of dome masonry was carried out in multiple portions.
- Coating of internal wooden beams spanning the ceiling was done with linseed oil for prolonged preservation.
- Floor surface of the internal dome was covered with a layer of lime concrete laid in appropriate slope and cured for many days to achieve a smooth finish.
- 20th-century cement concrete was dismantled on the middle terrace as it was leading to seepage of rainwater into the lower arcade and adding excess load on the structure.
- Removal of deep-rooted plants roots was carefully carried out and holes were filled with lime mortar before the laying of traditional lime concrete.
- Traditional lime concrete was laid in an appropriate slope to drain out rainwater away from the structure. Ramming and curing were carried out continuously for a week to achieve smooth finish which would help rainwater drain away, and minimize absorption of rainwater into the structure below.
- Cleaning of openings for waterspouts, fabrication in granite and installation of missing rainwater spouts on middle terrace were carried out before the monsoons.



Floor surface of the internal dome was restored

Installation of missing water spouts at the upper plinth

20th century cement concrete from the middle terrace was dismantled

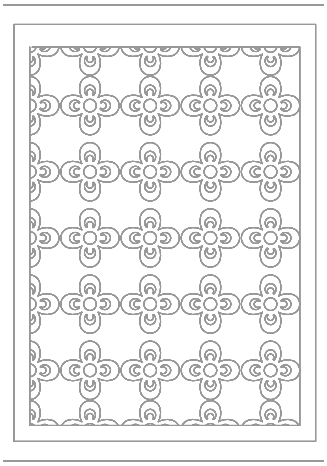
Traditional lime concrete laid in an appropriate slope

PARAPET

The minarets and the intricate lattice screens on the parapet of the mausoleum were found to be partially damaged or missing. Most of the finials present on top of them were also observed in a dilapidated condition. Covered with layers of cement, these minaret shafts also showed signs of deteriorated stucco.

ACTION TAKEN:

- Cement layers from the minars at the mausoleum were removed and replaced with traditional lime plaster.
- Damaged and missing finials atop the minars were reconstructed based on in-situ evidence.
- Missing and broken details on the minars were restored using traditional lime plaster and finished in lime punning by master craftsmen.
- Framework for the missing portions of the lattice screens was constructed using local stone pieces of matching sizes and finished with lime mortar matching the original design and finished with a thin layer of lime putty applied by the lime craftsmen.
- Damaged moulding bands, floral medallions and ornamental stucco details were restored by master craftsmen.



(Above) Missing or broken portions of the minars, battlements and other details on the parapet were successfully restored by master craftsmen; (Below-left) Reconstruction of missing portions of lattice screens at the parapet level using local stone pieces; (Below-middle) Detailed documentation of the existing evidence; (Below-right) Mastercraftsmen restored the lime stucco details on the reconstructed portions of the lattice screen

MIDDLE PARAPET

Battlements on the parapet above the eaves were severely damaged, partly broken in many portions and over 35 battlements were found missing. Minarets on the parapet above the eaves were partly damaged with original finials missing on all the corner minarets.

ACTION TAKEN:

- Damaged battlements were restored on the parapets using lime mortar and finished with lime punning.
- Damaged moulding bands situated below the battlements were carefully restored by craftsmen.
- Minarets situated on corners of the middle parapet were repaired coupled with restoration of original ribs revealed after the removal of the 20th – century cement plaster.
- Missing finials were casted in rich lime mortar based on the archival evidence and installed by master craftsmen.
- Ornamental stucco patterns in the shaft of minarets were restored.
- Flaked plaster layers were removed from the internal side stepped surface of the parapet wall and repaired using traditional lime mortar.

Taking a cue from archival images, 20th-century plaster layers were removed from the bulb of the minar at Abdullah Qutb Shah's mausoleum, to reveal the historic ribs underneath. Mastercraftsmen have repaired the ribs using traditional lime mortar.

Before Conservation

During Conservation

After Conservation

FACADE RESTORATION

The external surface below the projected stone eaves on principal facades at the upper terrace level of the mausoleum is embellished with highly ornate lime stucco including highly intricate floral medallions. Major portions of the medallions, arch mouldings, and stucco ornamentation were obfuscated with later added layers of cement and multiple portions were found damaged. A number of stone eaves were found damaged on the southern façade.

ACTION TAKEN:

- Repairs and restoration works were carried out on the upper portion of the external façade of the mausoleum where broken, damaged or missing stucco details, merlons, medallions and floral bands were restored using traditional lime plaster and finished with a coat of lime punning based on the existing in-situ evidence.
- The floral band running along the lower terrace was restored using traditional lime mortar and finished using lime punning based on the existing in-situ evidence.

(Above)Restoration of original ornamental stucco medallions underneath the projected eaves below the terrace carried out by traditional lime craftsmen; (Below) Moulding bands, ornamental stucco and arch crowns restored using traditional lime mortar

INTERNAL CHAMBER

The internal surface below the dome had visible signs of deterioration accentuated by 20th-century repairs carried out using cement. The details on the internal surface below the parapet on principal facades of the mausoleum such as merlons, medallions and the flower band were found to be damaged or missing. Many portions were found covered with cement plaster and multiple layers of lime wash.

ACTION TAKEN:

- 60 feet tall scaffolding was erected inside the internal mausoleum.
- Repairs on the blind arches situated below the internal dome were carried out using traditional lime mortar.
- 20th-century cement and white-wash layers were carefully removed to reveal the original appearance of gallery.
- Plaster repairs were followed by finishing with a thin 1 mm layer of punning, which consists of lime putty mixed with organic additives.
- Evidences of black colour in grooves of arches were revealed and missing paint was restored based on the existing site evidence.
- Moulding bands surrounding the blind arch gallery were scraped to remove cement patches and were subsequently repaired with lime mortar by craftsmen.
- Ornamental arch crowns were carefully scraped off removing the multiple layers of whitewash and restored using lime mortar.
- Cement plaster was carefully removed from the recessed arched bays and low heights vaults situated on all four sides inside the mausoleum.
- Ornamental details, moulding bands, arch crowns and original lattice screens were repaired by master craftsmen using rich lime mortar. Final finish on plaster repairs was done using a 1 mm thin smooth layer of slaked lime putty mixed with organic additives.
- Traces of black colour were revealed in the moulding bands and ornamental architectural elements inside the mausoleum.
- Metal door have been installed on the narrow alcove leading to the stairwell for visitor management.
- Multiple layers of 20th-century paint were meticulously removed from the lower dressed stone plinth situated above the historic granite flooring.

Ornamental stucco details and moulding bands were restored inside the internal mausoleum matching the existing evidence

INTERNAL CEILING

Domed internal ceiling was found covered with a layer of cement plaster. Traces of original color were revealed on the ceiling medallion and missing paint was restored based on the existing site evidence.

ACTION TAKEN:

- Ceiling medallion was documented along with removal of 20th-century cement plaster and multiple layers of whitewash.
- Ornamental stucco details were restored by master craftsmen using rich traditional lime mortar to conserve the ornamental ceiling medallion.
- 20th– century cement plaster has been removed and lime mortar has been used to plaster the domed ceiling.


After Conservation

Realignment of the stones lining the plinth wall as per original design

PROJECTED PLINTH

The projected plinth 18 metres away from the main structure comprises of dressed stone wall lining rising upto a height of 2.0 metres. The stone masonry was damaged on the west and north side with stones bulging out. The coping stones were also missing over the vertical wall.

ACTION TAKEN:

- Upon the removal of cement concrete, resetting of plinth protection as per appropriate width suggested by landscape master plan was carried out.
- Construction of a 5 feet wide plinth protection was carried out along the perimeter of the lower arcade followed by installation of 100 mm thick granite stone slabs and edging stone was done by stone craftsmen.
- Removal of concrete slab and installation of hand dressed granite stone steps situated on the southern plinth was carried out.
- Existing stones lining the plinth wall on four sides were realigned as per the original levels.
- A total of 145 missing coping stones lining the projected plinth wall were hand dressed and installed by stone craftsmen.
- Over 40000 cubic feet of earth laid in on the projected plinth in appropriate slope to channel rainwater away from the structure.
- Plinth protection around the perimeter of projected plinth has been completed. On the northern and western sides and works are ongoing on the remaining sides.

NEXT STAGE:

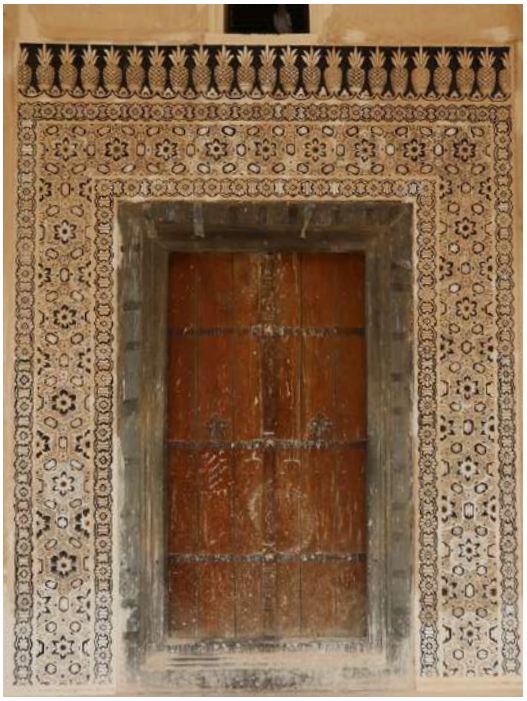
Plinth protection on all the sides will be completed on all sides along with appropriate grading of the abutting earth to drain storm water away from the monument.

CORRIDOR

The existing corridor consisted of stone flooring laid on cement mortar. Wall and ceiling surfaces inside the arched corridor were found in a dilapidated condition due to water ingress from terrace above and accentuated by 20th-century repairs using cement.

ACTION TAKEN:

- 20th century stone flooring laid in contextually inappropriate layout with cement mortar was dismantled in the arcade surrounding the mausoleum.
- Plaster repairs inside the arcade on all four sides was carried out using rich lime mortar by master craftsmen.
- Ornamental ceiling medallions, moulding bands and plastered surfaces on the walls and ceiling of arched bays were found partially or completely damaged due to ingress of water from terrace above. These were restored using rich lime mortar and finished with lime putty mixed with organic additives.
- Scraping of 20th-century whitewash and enamel paint layers on the Western, Eastern and Southern doorways embellished with stucco patterns has been meticulously carried out.
- Repair of damaged stucco patterns on the doorways was followed by painting of missing portions by an art conservator to restore the original appearance of the principal entrances leading to the internal mausoleum.



(Right) Ornamental stucco frieze around the stone doorway jambs were meticulously restored by skilled craftsmen based on original evidence

IMPACT:

Restoration of internal and external facades has helped in long term preservation of the monument by removal of 20th century cement thereby reducing the seepage of water on the monument. Installation of lime concrete on the terrace has stopped the water ingress into the structure coupled with installation of stone waterspouts, will prolong life of the mausoleum. Realignment of historic stone plinth wall and installation of missing coping on the projected plinth and meticulous restoration of ornamental stucco, medallions and floral bands has reinvigorated the original architectural appearance. These conservation efforts have, in turn, helped reveal the character of the structure as intended by the original builders.

LANDSCAPE RESTORATION

Abdullah Qutb Shah's Mausoleum

Garden layout, planting and earth levels have been heavily altered on the west and northern sides of the mausoleum due to incessant earth filling and the construction of main approach path inside the tombs from the southern side in the 20th- century.

ACTION TAKEN:

- Base work for the plinth protection around the raised plinth wall of mausoleum of Abdullah Qutb Shah has been completed.
- Installation of granite stone for the plinth protection abutting the projected plinth of has commenced on the northern side.
- Works on the pathways for landscape on the west and north sides of Abdullah's Tomb have commenced with construction of brick edging walls.

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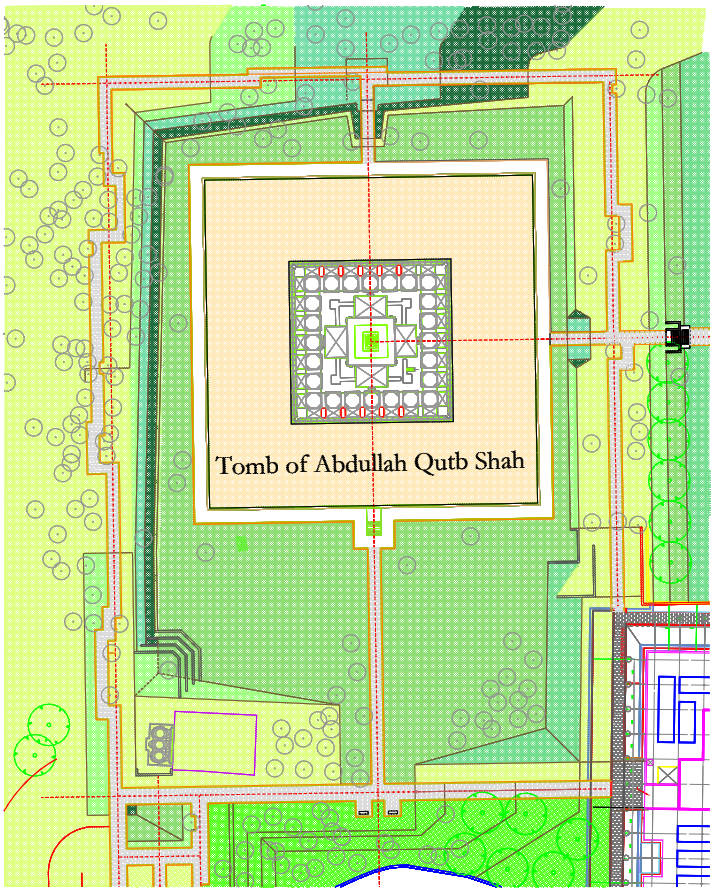
Basework for pathways towards north of Abdullah Qutb Shah's mausoleum

NEXT STAGE:

- Base work for the pathways including laying of plain cement concrete will be finished.
- Installation of 50 mm thick tandur stone flooring on the pathways and installation of 8-inch-thick edging stone will be carried out.
- Grading of earth as per the landscape scheme will be carried out.



IMPACT:

Restoration of the immediate landscape around the majestic tomb of Abdullah Qutb Shah, would enhance the setting of the location. This would help in better understanding the historic landscape which existed in the 17th century while making the space useful for local communities and visitors.

CONSERVATION

02. Muhammad Qutb Shah's Mausoleum

The sixth ruler of the Qutb Shahi dynasty, Sultan Muhammad Qutb Shah ruled from 1611 to 1625 CE. He was the nephew and son-in-law of Muhammad Quli Qutb Shah having married Muhammad's daughter Hayat Bakshi Begum.

His mausoleum has suffered from inappropriate alterations, neglect, and vandalism throughout the 20th century. This has aggravated the decay and led to a loss of ornamental stucco medallions and moulding bands.

Conservation works being undertaken here aims to revive the original architectural integrity of the monument, which has been lost, and enhance the architectural significance of the monument. Traditional tools and techniques will be used by local craftsmen to recover the lost grandeur of this important monument and restore the tomb to its former glory.

Supported by:

IndiGo Reach

FACADE RESTORATION

The external surface below stone parapet and above the blind arches is embellished with highly ornate floral stucco medallions. Major portions of the floral medallions below the stone parapet and above the blind arches are damaged and missing. Large portions of the medallions, arch mouldings, and stucco ornamentation were obfuscated with later added layers of cement and multiple portions were found damaged. Stone waterspouts were found missing on the stone parapet.

ACTION TAKEN:

- Extensive scaffolding was erected around the lower external facade and restoration of the band of highly ornate stucco floral medallions was carried out.
- Over 340 floral medallions were reinstated on the western and southern facades and finished with a 1 mm thin layer of lime putty mixed with organic additives.

NEXT STAGE:

- Plaster repairs and restoration of ornamental medallions and stucco will be carried out on the middle façade of the mausoleum. 30 mm thick granite stone slabs were laid in approved layout and appropriate slope in lime mortar. Installation of missing hand dressed stone will be carried out on the western projected plinth. Restoration of damaged floral medallions situated below the eastern external façade will be completed. Multiple layers of 20th-century paint will be meticulously removed from the lower dressed stone plinth situated above the historic granite flooring.

Restoration of floral medallion band on the facade by skilled craftsmen

(Above) Ornamental moulding bands situated above the projected arch gallery were restored using lime mortar

INTERNAL CHAMBER

The internal surface below the dome had visible signs of deterioration caused by 20th-century repairs carried out using cement. The details on the internal surface below the parapet on principal facades of the mausoleum such as merlons, medallions and the flower band were found to be damaged or missing. Many portions were found covered with cement plaster and multiple layers of lime wash.

ACTION TAKEN:

- 50 feet tall scaffolding was erected inside the internal mausoleum.
- Repairs on the blind arches situated below the internal dome were carried out using traditional lime mortar.
- 20th century cement and white-wash layers were carefully removed to reveal the original appearance of gallery.
- Plaster repairs were followed by finishing with a thin 1 mm layer of punning, which consists of lime putty mixed with organic additives.
- Evidence of black colour in grooves of arches were revealed and missing paint was restored based on the existing site evidence.
- Moulding bands surrounding the blind arch gallery were scraped to remove cement patches and were subsequently repaired with lime mortar by craftsmen.
- Ornamental arch crowns were carefully scraped off removing the multiple layers of whitewash and restored using lime mortar.
- Cement plaster was carefully removed from the recessed arched bays and low heights vaults situated on all four sides inside the mausoleum.
- Ornamental details, moulding bands, arch crowns and original lattice screens were repaired by master craftsmen using rich lime mortar. Final finish on plaster repairs was done using a 1 mm thin smooth layer of slaked lime putty mixed with organic additives.
- Traces of black colour were revealed in the moulding bands and ornamental architectural elements inside the mausoleum.
- Extensive scaffolding was erected in the internal vaults of the mausoleum and dismantling of 20th-century cement plaster coupled with removal of whitewash layers was carried out.
- Re-plastering of the arched vault in traditional lime mortar was carried out on all four sides inside the internal chamber.
- Metal door have been installed on the narrow alcove leading to the stairwell for visitor management.

INTERNAL CEILING MEDALLION

Internal ceiling was found covered with multiple layers of lime wash. Major portions of ornamental ceiling medallion were found covered with cement. Traces of original color were revealed on the ceiling medallion and missing paint was restored based on the existing site evidence.

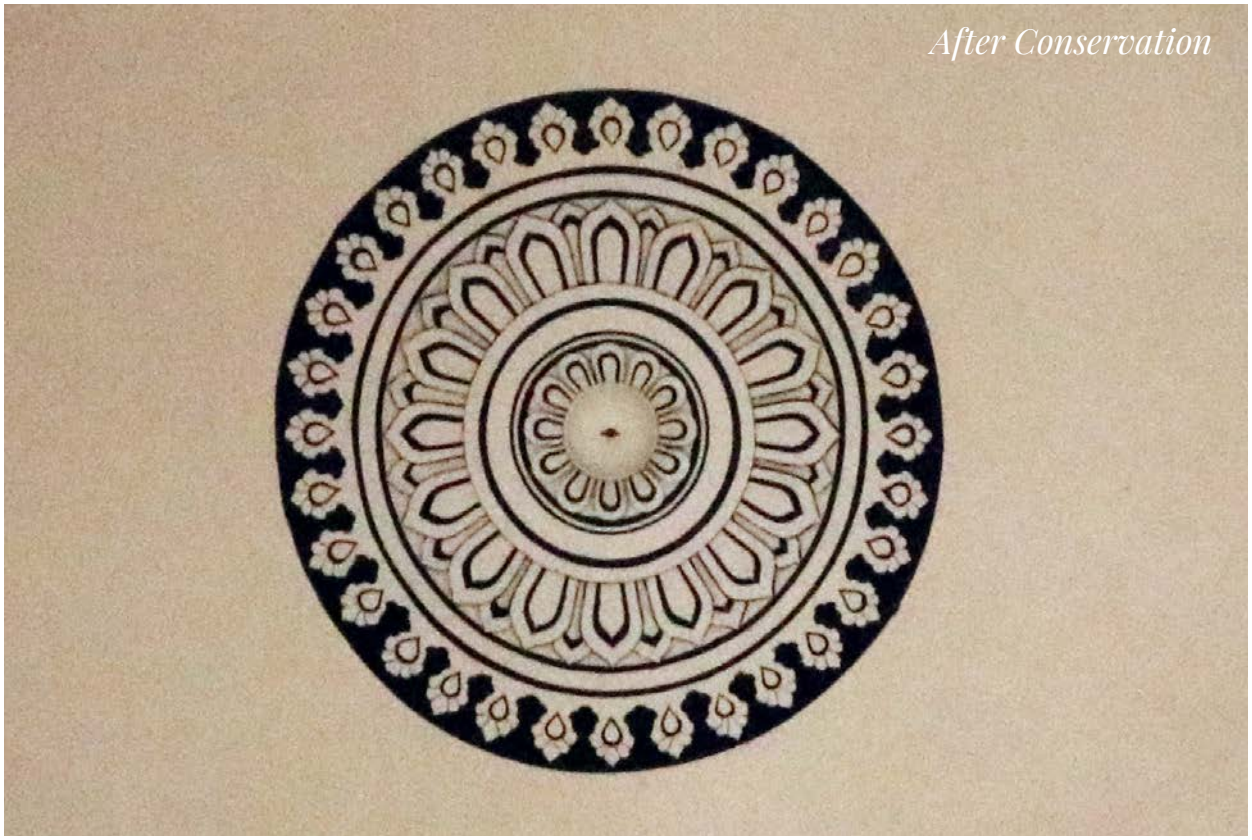
ACTION TAKEN:

- Pulverized lime plaster from the internal ceiling medallion was carefully removed and missing ornamental stucco was restored matching the existing evidence at site by master craftsmen using rich traditional lime mortar and finished with a 1 mm thin layer of lime punning. A total of 56 missing floral leaf patterns were restored based on the existing evidence at site.
- Restored stucco patterns were finished with a 1 mm thin layer of matured lime mixed with organic additives

Restoring the ceiling medallion based on in-situ evidence

Final lime punning of the medallion

Before Conservation



After Conservation

CORRIDOR

The existing flooring before conservation was 20th-century stone flooring installed in cement mortar. Wall and ceiling surfaces inside the arched corridor were found in a dilapidated condition due to water ingress from terrace above and accentuated by 20th-century repairs using cement.

ACTION TAKEN:

- 20th century cement layer and dilapidated lime plaster has been carefully dismantled from the wall and ceiling surfaces of arched corridor followed by re-plastering of the surfaces in rich lime mortar coupled with the restoration of mouldings and stucco ornamentation by master craftsmen.
- Dismantling of damaged plaster from blind arches, pilaster and capital bands were undertaken followed by re-plastering and finishing with a 1 mm thin layer of lime putty mixed with organic additives.
- Dismantling of 20th-century stone flooring laid in cement inside the corridor was carried out.
- Ornamental ceiling medallions on the ceiling of arched bays in the corridor were found to be pulverized, dismantling of the same was carried out carefully and re-plastering in traditional lime mortar and finished with lime putty to match the original design by traditional lime craftsmen. Over 24 of these large sized ceiling medallions were restored.

(Right) 20th century inappropriate stone flooring being dismantled by craftsmen

SITE OUTREACH

03.Site Signage

The conservation and landscape works that have been undertaken at the Qutb Shahi Heritage Park has generated a considerable interest amongst government, conservation community, academics, researchers, visitors to the site as well as in the citizens of Hyderabad. Following this, the project has made conscious efforts in not only sharing the project's works through various site walks and regular reporting with government officials and donor agencies, but also with the help of explanatory site signage and a robust social media strategy.

ACTION TAKEN:

- Large format information signage summarizing the conservation philosophy and works have been installed outside all the major monuments on which work has been undertaken or ongoing. These explain the before conservation state of these monuments and informs the visitors about the conservation approach and works that will be undertaken on those structures.
- Having undergone significant landscape restoration works, there are special signage which have been placed on strategic locations to inform the visitors about the changes in the monuments' setting.
- The team also uses the project's social media handles, viz., Facebook, Instagram and Twitter to share the project's activities with the online community.

NEXT STEPS:

- The project will have an exhaustive project website assimilating the various activities and works.

04. Sultan Quli Qutb Shah's Garden Tomb

Based on evidence of a 16th-century historic arcade surrounding the garden around the tomb of Sultan Quli Qutb Shah, a portion of six arches with battlements was marked on the recently restored enclosure wall situated to the north-east corner of forecourt of Muhammad Quli Qutb Shah.

ACTION TAKEN:

- Six arches Missing have been reconstructed using the traditional honeycomb brick shuttering on the north-east corner, thus reinstating the sense of enclosure envisaged by the original builders.
- Battlements and ornamental mouldings matching the existing on eastern arcade have been meticulously restored along a major portion of arcade to reinstate the original appearance.

- The discovery of the 16th century enclosure wall and reconstruction of the arcade in portions above the wall beneath through 2017-18, established a sense of enclosure and formality to the tomb gardens. The north east corner of the garden enclosure, however, was largely obfuscated with the addition of modern layers to the extent of creation of modern garden features.
- Landscape works here commenced in partnership with Department of Heritage Telangana, Govt. of Telangana and were implemented by the Aga Khan Trust for Culture. The landscape work is being supported by Swadesh Darshan Grant, Ministry of Tourism, Govt. of India.
- Reinstatement of the enclosure wall on the north east portion marks the completion of the restoration of mausoleum of Sultan Quli's garden enclosure. This shall help envisage the enclosed garden which was largely disturbed in recent years thus establishing the intent of the original builder.

LANDSCAPE RESTORATION

05. Hayat Bakshi Begum's Mausoleum

Hayat Bakshi Begum, better known as Ma Saheba, took a prominent part during the reign of three Qutb Shahi rulers. She was the daughter of Muhammad Quli Qutb Shah, wife of Muhammad Qutb Shah, and mother of Abdullah Qutb Shah. Her mausoleum is a replica of the mausoleum built for her husband, both in terms of sheer scale and size.

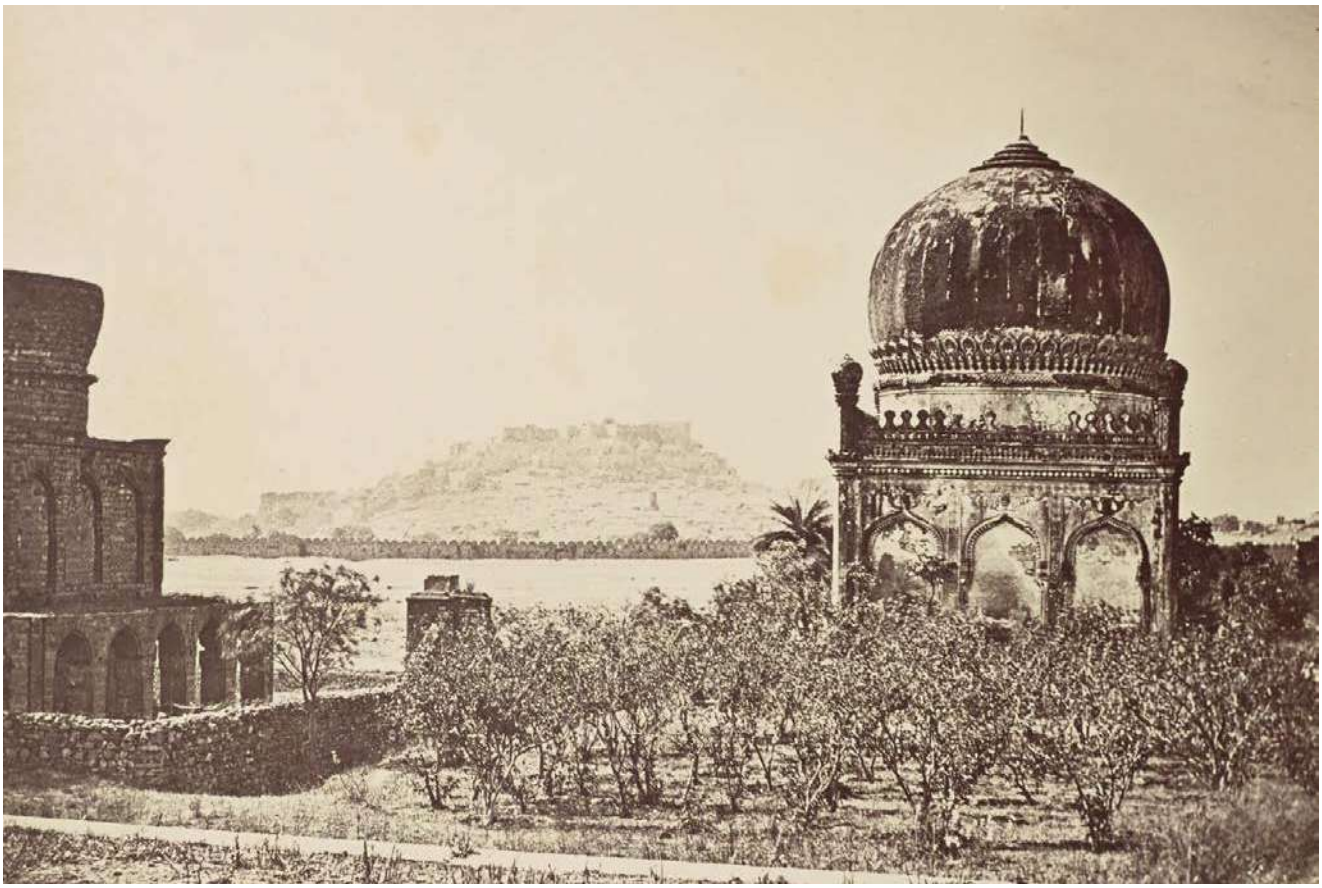
In late 2018, conservation works commenced with the removal of later added cement plaster layers. All conservation works on the external facades and internal wall surfaces were completed in 2019.

The historic landscape around projected plinth of the royal mausoleum had been largely altered with additions of inappropriately constructed plinth protection and raised levels of earth during 20th-century alterations around the projected plinth.

Supported by:

SWADESH DARSHAN

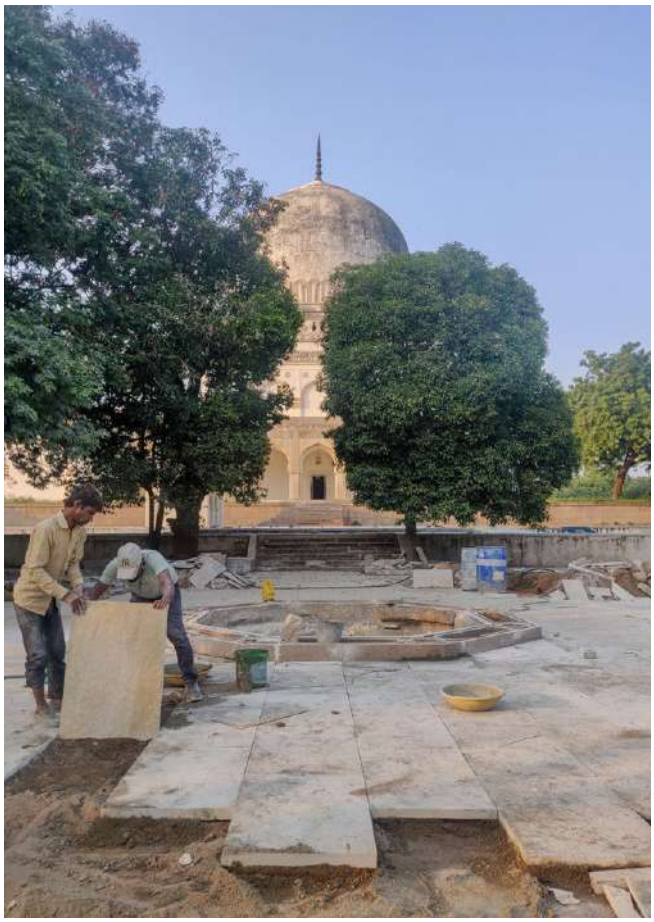
Archival image from 1860s showing orchard planting to the north of Hayat Bakshi Begum's mausoleum. ***Image Source:*** *Alkazi Foundation*



ACTION TAKEN:

- The plinth protection on the northern side of the raised plinth around mausoleum of Hayat Bakshi Begum has been completed with 100 mm thick granite stone slabs laid over a 100 mm thick PCC retained in brick walls. Edges have been finished with eight-inch-thick, rough granite stone blocks.
- Random rubble stone steps to access the raised plinth protection on the south west side has been provided. This will connect the pathway on the east of Tomb of Mohammed Qutb Shah with the raised plinth protection.
- Random rubble masonry walls to accommodate the earth levels have been built on the south west corner while ramps have been made for connection of pathways.
- 1.9-meter-wide pathway laid with tandur stone has been built along the raised plinth protection wall of the mausoleum on Hayat Bakshi Begum on the south side.
- A plaza has been developed on the south side of the mausoleum with tandur stone flooring around the existing ashlars masonry tank.

Pathways and plazas being developed as part of the landscape masterplan near the Mausoleum of Hayat Bakshi Begum



IMPACT:

Restoration of the immediate landscape setting to the north of the Mausoleum of Hayat Bakshi Begum would enhance the setting of the location. This would help in better understanding the historic landscape which existed in the 19th century while making the space useful for local communities and visitors.

CONSERVATION

06. Funerary Mosque of Hayat Bakshi Begum

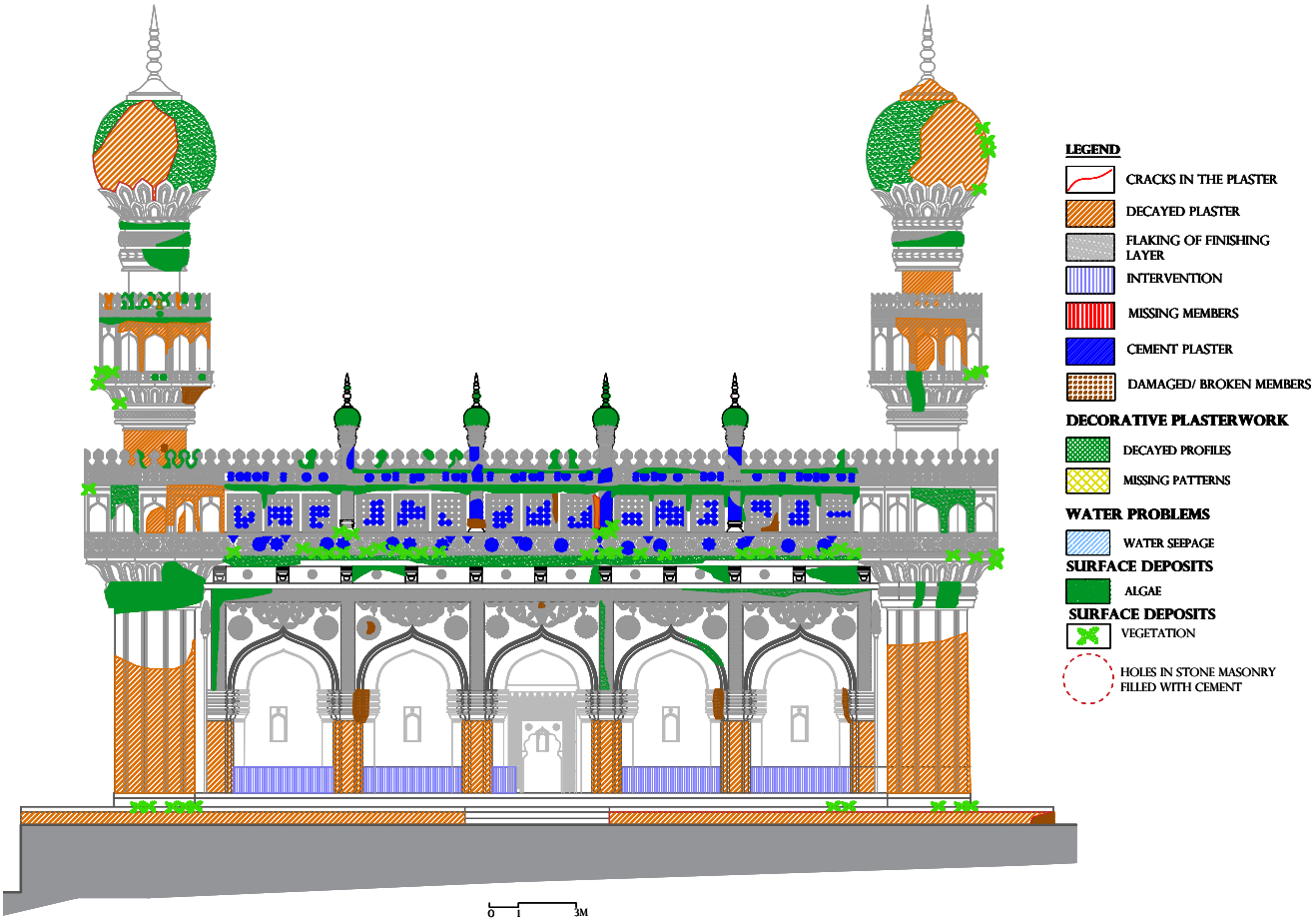
The funerary mosque of Hayat Bakshi Begum is the grandest mosque on site. It has a rectangular plan with monumental and ornate corner minarets. Except the western façade all other three facades are quite somber in appearance. Internal layout of the mosque consist of series of blind arches on north , south, west side and an arcade on the East side.

(Above) The conservation works were preceded by high level of documentation and followed by removal of 20th-century cement mortar and concrete. Repairs were done using traditional lime mortar.

Supported by:
TATA TRUSTS

ARCHITECTURAL DOCUMENTATION

Prior to commencement of conservation works, required time has been devoted to completing the archival research, detailed architectural documentation and material investigations. Precise architectural drawings have been made coupled with detailed condition assessment comprehensively mapping the extent of damage to the structure and surface details.



Architectural documentation depicting the assessment of damage on the eastern facade of funerary mosque of Hayat Bakshi Begum

Process of removal of 20th century paint layers from the basalt stone arch crown

INTERNAL WALL SURFACES

The internal wall and ceiling surfaces depicted visible signs of deterioration caused by perennial seepage of rainwater from terrace above. The details on the internal domes and squinches were found to be damaged or missing. Many portions were found covered with cement plaster and multiple layers of lime wash. Moulding bands on masonry columns were majorly damaged. Stucco moulding details on the niches of internal walls have been obfuscated with later added plaster layers. 20th–century stone flooring laid in cement mortar was removed to reveal the original levels of the dressed stone skirting lining the internal walls.

ACTION TAKEN:

- 20th century enamel paint was meticulously removed from the mouldings, stone and stucco arch crowns.
- Removal of paint from stone arch crowns revealed the original appearance.
- Original moulding details were revealed on internal arched niches during removal of 20th-century plaster layers and were restored using rich lime mortar by traditional craftsmen.
- Missing stucco embellishment inside the mihrab on western wall was reinstated by traditional lime craftsmen.
- Repairs on the blind arches situated below the internal dome were carried out using traditional lime mortar.
- 20th century cement and white-wash layers were carefully removed to reveal the original appearance of gallery.
- Plaster repairs were followed by finishing with a thin 1 mm layer of punning, which consists of lime putty mixed with organic additives.

Ornamental stucco details were restored on the internal wall surfaces

(Above) Dismantling of 20th century cement concrete on the middle terrace;
(Below) Traditional lime concrete was laid in appropriate slope

TERRACE

Terrace was covered with a 20th- century cement concrete layer added during the modern repairs. On close inspection, it was observed that later added cement concrete and missing rainwater spouts was leading to the rainwater seeping into the structure below.

ACTION TAKEN:

- 20th century cement concrete was dismantled on the terrace as it was leading to seepage of rainwater into the lower arcade and adding excess load on the structure.
- Traditional lime concrete was laid in an appropriate slope to drain out rainwater away from the structure. Ramming and curing were carried out continuously for a week to achieve smooth finish which would help rainwater drain away.
- Cleaning of openings for projected waterspouts, fabrication in granite and installation of missing seven rainwater spouts were carried to channel rainwater away from the structure.

(Above) North-West corner minaret showed signs of deterioration due to ingress of rainwater and accentuated by usage of cement in later carried out repairs. The plaster on the battlements was flaking and in some portions masonry was visible. Precast cement medallions in floral and geometric patterns were inappropriately added during the 20th century repairs and needed to be replaced. Finials on intermediate minarets on the parapet were damaged and missing in some portions.

MINARETS & PARAPET

ACTION TAKEN:

- Work on the two lofty corner minarets started with removal of 20th-century cement plaster from the bulbs at a height of 110 feet and repaired with traditional lime mortar followed by final finishing with lime putty.
- Repairs were carried out on the damaged portions of projected band with rhombus shaped decorative stucco, double tier ring of battlements,minaret shaft above upper arch gallery on both the minarets.
- Plaster repairs were carried out on the upper and lower arched gallery of both the minarets and finished with lime putty mixed with organic additives.
- Parapet on the eastern side of the mosque is highly ornate consisting of lattice screens minarets and floral medallions. Ornamental stucco medallions rope shaped bands and geometric medallions inside the lattice screens situated were reinstated after dismantling of 20th-century pre- cast cement medallions. A total of 196 ornamental geometric and floral stucco medallions were restored
- Highly ornate minaret shafts on eastern parapet were restored matching the existing evidence using rich lime mortar and finished with a thin layer of matured lime putty.
- Missing finials on top of intermediate minarets were casted in rich lime mortar and installed by craftsmen. Damaged finials were repaired with finely grinded lime mortar and finished with matured lime putty.

FACADE RESTORATION

The external wall surfaces were found covered with dilapidated lime plaster and 20th century cement

ACTION TAKEN:

- 20th-century cement layers were carefully removed from the north, west and south facades and repaired using traditional lime mortar and finished with matured lime putty mixed with organic additives.
- Damaged portions of the eastern chajjas and supporting beam below were repaired in rich lime mortar and finished with lime punning.
- Scraping of 20th-century whitewash was carried out on the principal façade below the eastern chajjas and repairs on moulding and capital bands were carried out.
- Dilapidated plaster has been dismantled from the internal and external facades, replaced with traditional lime mortar along with the application of lime putty mixed with organic additives.
- Stucco medallions, mouldings and capital bands on the eastern façade below the projected eave were restored matching the existing design by lime craftsmen using finely grinded lime mortar and finished with a layer of matured lime putty mixed with organic additives.
- Metal gates have been installed on the south and north stair well to manage visitor access.

(Left) Inappropriate 20th century cement was removed from the facade;
(Right) Ornamental stucco lattice screens were restored matching the existing evidence

PROJECTED PLINTH

The existing plinth protection abutting the mausoleum before conservation works was covered with 20th century cement concrete and the edging stone lining the plinth was displaced from its original position.

ACTION TAKEN:

- Existing stones lining the plinth wall on four sides have been realigned as per the original levels. The edging was reset with outward directed slopes and damaged pieces were replaced coupled with reconstruction of base masonry wall in rich lime mortar.
- Plinth protection around the perimeter of projected plinth has been completed.
- Base lime concrete was laid on the projected plinth on all four sides. 30 mm thick slabs of granite will be installed on the projected plinth.
- Installation of over 4000 sq feet of 30 mm thick granite stone slabs has been carried out in approved layout and appropriate slope to channel rainwater away from the structure and withstand the visitor footfall in future.

NEXT STAGE:

Granite stone flooring of approved layout will be installed inside the mosque using lime mortar in appropriate slope.

Displaced coping stone on plinth edge being reinstated in their original position

IMPACT:

Restoration of internal and external facades has helped in long term preservation of the monument by removal of 20th century cement thereby reducing the seepage of water on the monument. Laying of traditional lime concrete on the terrace has stopped the water ingress into the structure coupled with installation of stone waterspouts, will prolong life of the mausoleum. Realignment of hand chiseled edging stone on the perimeter of projected plinth coupled with installation of granite. Meticulous restoration of ornamental stucco, medallions and floral bands has reinvigorated the original architectural appearance as envisaged by the original builders. These conservation efforts have in turn helped reveal the character of the structure as intended by the original builders, which were periodically obfuscated by later additions.

LANDSCAPE RESTORATION

Earth levels have been largely altered on the west and northern sides of the mausoleum due to incessant earth filling and the construction of peripheral earth pathway in the 20th – century. An inappropriate plinth protection was made at higher level covering portions of dressed stones on the north and western edge of the projected plinth of the monument.

ACTION TAKEN:

- Excess earth filling from the north and the west sides were removed based on the physical evidence at site.
- The final levels for plinth protection was agreed and approved in site inspection with the Department.
- Base work for the plinth protection around the around the northern and western projected plinth wall has been completed for installation of final layer of stones.
- Installation of granite stone for the plinth protection abutting the projected plinth has completed on the north and west sides.

NEXT STAGE:

- 100 mm thick granite stone would be laid in pattern and slopes draining surface water away from the monument.
- 200 x 200 mm thick local granite stones would be fixed along the edge of the plinth protection.
- Grading of local earth away from the monument will be carried out for adequate channelization of storm water.

Supported by:

SWADESH DARSHAN

07. Mausoleums of Taramati and Premamati

COMPLETION OF CONSERVATION WORKS

The twin mausoleums of Premamati and Taramati - Abdullah Qutb Shah's wives or courtesans - are striking monuments and of great significance. Bulbous domes, intricate stucco ornamentation, finely inscribed gravestones, and grand stone plinths define their architectural character.

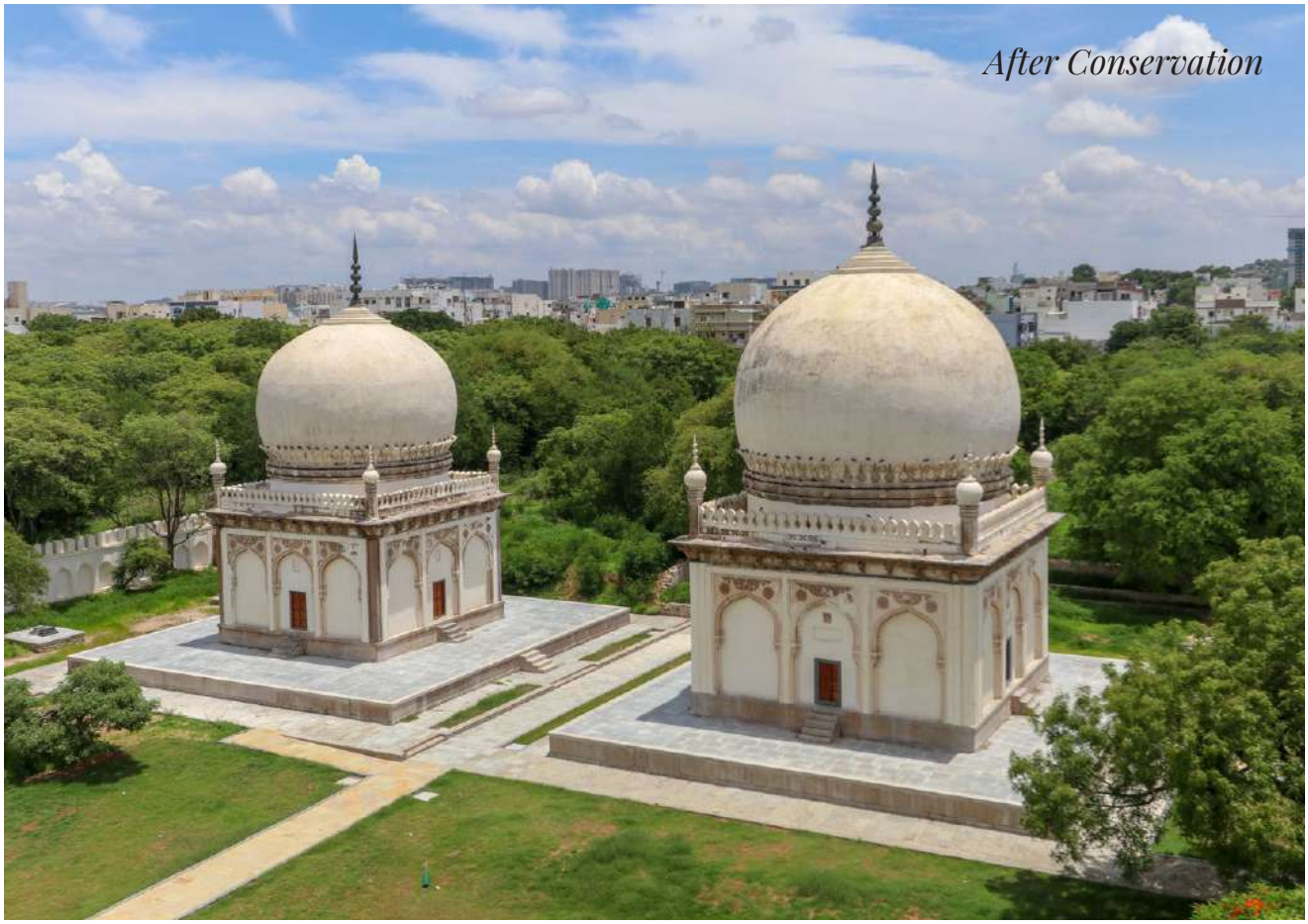
Conservation works undertaken on these structures with the support of the US Ambassadors Fund for Cultural Preservation have required reconstruction of the collapsed plinths, restoration of missing stucco plaster, and careful repair of structural cracks.

Traditional building materials and craftsmen – masons, stone-carvers, metalsmiths, amongst others – have worked with traditional tools and building craft traditions to ensure the authenticity of material, form, and design.

Coupled with the conservation works on the monuments, the landscape setting of these twin mausoleums was also restored and effectively integrated with the larger setting.

Supported by:

U.S. Ambassador's Fund
for Cultural Preservation



H.E. Kenneth I. Juster, U.S. Ambassador to India kindly agreed to preside at the completion ceremony for conservation works on Premamati and Taramati's mausoleum on 10 March 2020 in the presence of Shri. B. Narayana, Deputy Director, Department of Heritage, Government of Telangana and Shri. Ratish Nanda, Chief Executive Officer, Aga Khan Trust for Culture.

Stucco works were missing or cemented over, and were restored in traditional lime mortar by skilled craftsmen using traditional lime mortar. Similarly damaged copper finial of Taramati's tomb was reinstated on the structure. On both the tomb structures, 20th century cement plaster was carefully and scientifically removed. Removal of cement also revealed hidden layers of mouldings and stucco ornamentation. Most of the minarets and battlements at the mausoleums parapet were meticulously restored to reinstate historic architectural character.

The cement plinths of the monuments were replaced with traditional granite stone blocks – to ensure long term preservation of the structure. Stone carvers were required to create missing stone blocks lining the projected plinth for the twin mausoleums and coping stone placed above the plinth – carefully matching the original.

Peer Reviews

Since 2013, several international peer reviews for conservation, landscape and archaeological works have been conducted to discuss ongoing works and seeking the opinion of diverse stakeholders – archaeologists, conservation architects, engineers, administrators, historians, authors, amongst others. These peer reviews have not only informed the project's works but also provided guidance for an approach to the conservation, consolidation and presentation of the monuments as well as for any future undertakings.

AKTC facilitated a series of peer reviews by noted international and national conservation experts to ensure acquiescence with the globally accepted conservation norms.

Due to the ongoing pandemic, the peer review which was scheduled for 2020 had to be postponed. Thus, a peer-review publication comprehensively documenting the conservation methodology adopted for the conservation of the nine monuments under the TATA trust grant is being developed which will outline the conservation strategy adopted to execute a model conservation project by ensuring integrity and retaining the authenticity of the site, enhancing visitor experience, and improving management. It will highlight the crafts-led approach embraced for the complex without restoring to conjecture.

(Top Image) In 2015, Gamini Wijesuriya, ICCROM, Rome conducting the conservation peer review; (Below Left) Mr. Sajjad Shahid along with Mr. Rahimsha Ali. Retd. Deputy Director, Department of Heritage Telangana reviewing the conservation works; (Below Centre) Landscape design peer review being conducted with Prof. M Shaheer, the landscape architect with James Wescoat; (Below Right) In 2016, Dr. Padmanabhan, Deputy Director, Department of Heritage Telangana along with Dr. K P Rao, professor, dept of History, University of Hyderabad and Dr. RC Agarwal, (retd) Joint Director, ASI reviewing the archaeological excavations.

08. Funerary Mosque

The internal wall and ceiling surfaces had visible signs of deterioration caused by perennial seepage of rainwater from terrace above. The details on the internal walls and parapet were found to be damaged or missing. Many portions were found covered with cement plaster and multiple layers of lime wash.

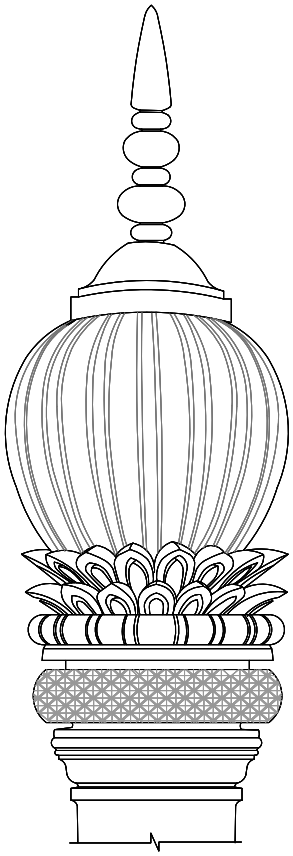
INTERIORS & FACADE

The internal wall and shallow domed ceiling surfaces was found covered with dilapidated lime plaster and 20th-century cement. The external wall surfaces were found covered with dilapidated lime plaster and 20th-century cement.

ACTION TAKEN:

- Cement plaster was removed from the internal wall and ceiling surfaces and repaired with traditional lime mortar and finished with lime putty.
- Damaged mouldings and ornamental bands were restored inside the mosque and finished with lime putty mixed with organic additives.
- Dismantling of deteriorated 20th century cement plaster was carried out followed by repairs in traditional rich lime mortar.
- Part of the external southern façade had exposed masonry and lime plaster on the other sides were damaged, therefore dismantling of the damaged plaster along with re-plastering in traditional lime mortar was carried out.
- Finishing of repairs was carried out using a thin layer of matured lime putty mixed with organic additives.

Craftsmen carried out repairs on the internal surface using traditional lime plaster after removal of inappropriate 20th century cement



MINARETS & PARAPET

All minarets on the parapet minaret showed signs of deterioration due to usage of cement in later carried out repairs. The plaster on the battlements was flaking and in some portion's battlements were found missing. Finials on intermediate minarets on the parapet were damaged and north-west corner minaret was found missing.

ACTION TAKEN:

- Restoration of ribs on the bulb of the minaret located at the parapet level coupled with repairs of other ornamental details was undertaken by master craftsmen.
- Corner minarets at the parapet level had evidence of an existing finial. Therefore matching finials casted in lime mortar by master craftsmen was installed on all four minarets.
- Missing minaret on the north-west corner was reconstructed matching the existing evidence using rubble masonry and lime mortar and finished with lime putty mixed with organic additives.
- Ornamental battlements were found in damaged condition and repairs were carried out using traditional mortar and finished with a 1 mm thin layer of lime putty mixed with organic additives.
- Damaged ornamental stucco on intermediate minaret shafts was carried out traditional craftsmen.

Reconstruction of missing minaret on north-west corner was completed based on the existing evidence. Rubble masonry and lime mortar was used to reconstruct the minaret, and finished with a layer of lime putty mixed with organic additives

TERRACE

Terrace was covered with a cement concrete layer added during the 20th-century repairs. On close inspection, it was observed that missing rainwater spouts was leading to the rainwater seeping into the structure below.

ACTION TAKEN:

- 20th century cement concrete was dismantled on the terrace as it was leading to seepage and adding excess load on the structure.
- Traditional lime concrete was laid in appropriate slope to drain out rainwater away from the structure. Ramming and curing were carried out continuously for a week to achieve smooth finish which would help rainwater drain away.
- Installation of two missing rainwater spouts on the western parapet was carried to channel rainwater away from the structure.

PLINTH

The existing plinth protection abutting the mausoleum before conservation works was covered with a thick layer of 20th century cement concrete.

ACTION TAKEN:

- The mosque had a later added extended plinth a in cement concrete and rough stone which was demolished.
- A 4-inch-thick granite stone flooring of approved layout and appropriate slope was installed on the plinth protection around the monument.
- Thick edging stone in granite was installed around the edge of recently installed plinth protection.

Stone craftsmen installed a plinth protection around the funerary mosque

CONSERVATION

09. South-west tomb cluster

Located to the west of the mausoleum of Ibrahim Quli Qutb Shah stands a cluster of 13 monuments, smaller in scale but no less intricate or significant. Major conservation works have been carried out on seven tombs for restoring the historic architectural character and remove inappropriate 20th-century alterations.

TOMBS 10, 11, 12

These are three adjoined small arched structures situated on a raised plinth platform situated in the cluster of low height tombs in the south-west corner of the project site. There were visible signs of water ingress from the terrace and deep- rooted plant growth leading to leakage of water inside the structure. Layers of cement plaster had been added to the internal and external facades during the previous repairs.

Layers of cement plaster had been added to the internal and external facades during the previous repairs. Mouldings and capital bands were repaired in cement and covered with whitewash. Ceiling plaster was found in a dilapidated condition on account of perennial water seepage. Layers of cement plaster had been added to the parapet during the previous repairs. Major portions of parapet were found damaged due to lack of waterspouts.

ACTION TAKEN:

- Plaster repairs were carried out on external as well as internal surfaces using traditional lime mortar on all the three mausoleums, followed by finishing with 1mm thin layer of matured lime putty mixed with organic additives.
- Damaged capital bands on the pilasters on arched openings on tomb 10 were restored by master craftsmen.
- Dismantling of southern arched opening on tomb blocked by 20th-century repairs on tomb 10 was carried out to reveal the original appearance. Few masonry stones were revealed to be projecting from opening and masonry columns in, lime mortar were made on both end of the arched opening to conceal the exposed masonry.
- A sole minaret existed at the parapet level on the north-east corner of parapet at Tomb 10. Based on the in-situ evidence, re-construction of the other three corner minarets were carried out by master craftsmen matching the existing design.
- Restoration of missing mouldings bands around the tripartite arch façade of Tomb 10 and 12 was carried out by traditional craftsmen in rich lime mortar.
- Dismantling of damaged plaster on shallow domes above terrace was followed by re-plastering with lime mortar and finishing with a thin layer of lime putty mixed with organic additives.
- Dismantling of pink coloured cement mortar layer on Tomb 12 below the chajja level was followed by plaster repairs using traditional lime mortar
- Damaged capital bands on the southern, northern and western external and internal facades of Tomb 12 were meticulously restored by master craftsmen using rich lime mortar.
- Dismantling of flaked plaster layer on ceiling of internal dome was followed by re-pointing of masonry joints on the ceiling of Tomb 12 using rich lime mortar.
- Dismantling of cement plaster layer on wall surfaces inside Tomb 12 was followed by plaster repairs using rich lime mortar and finishing with lime putty mixed with organic additives.
- Dismantling of dilapidated lime plaster from the internal wall and ceiling surfaces of Tomb 11 and repairs were carried out using traditional lime mortar.
- Damaged moulding bands were restored by lime craftsmen and the partially damaged moulding bands on the northern external facades were restored matching the existing evidence at Tomb 11.
- Cement concrete was removed from the terrace of three monuments and site cleared of debris.
- Damaged parapet on the northern and southern parapets of Tomb 11 were reconstructed using stone masonry and finished with lime plaster covered with a thin layer of lime putty mixed with organic additives.
- Installation of 10 missing stone waterspouts projecting away from the parapet wall was carried on Tomb 11 and Tomb 12 by stone craftsmen.
- Missing granite chajja stones were installed on the western parapet of Tomb 12.

Plaster repairs on tomb 10

Internal surface of tomb 12 restored

Cement plaster dismantled from the shallow domes

The arches and capital bands on tomb 12 were repaired

CONSERVATION

10. Mausoleums 3 & 4

Tomb No. 3 and 4 are twin tombs- tripartite arched structures constructed on individual raised plinths situated in the cluster of low height tombs in the south-west corner of the project site.

There were visible signs of water ingress from the terrace and deep-rooted plant growth leading to leakage of water inside the structure. Layers of cement plaster had been added to the internal and external facades during the previous repairs. Mouldings, arch crowns, stucco medallions were found severely damaged and missing on the internal and external facades. Stone beams and brackets supporting the projected eaves were found missing on the north-eastern corner below the parapet. Major portion of parapet wall was found missing.

EXTERNAL & INTERNAL WALL SURFACE

Layers of cement plaster had been added to the internal and external facades during the previous repairs. Mouldings and capital bands were repaired in cement and covered with whitewash. Ceiling plaster was found in a dilapidated condition on account of perennial water seepage.

There were visible signs of water ingress from the terrace and deep-rooted plant growth leading to leakage of water inside the structure. Parapet was found missing on south, west and eastern side of terrace on Tomb 03. Chajjas were found missing on the north-east corner of the parapet.

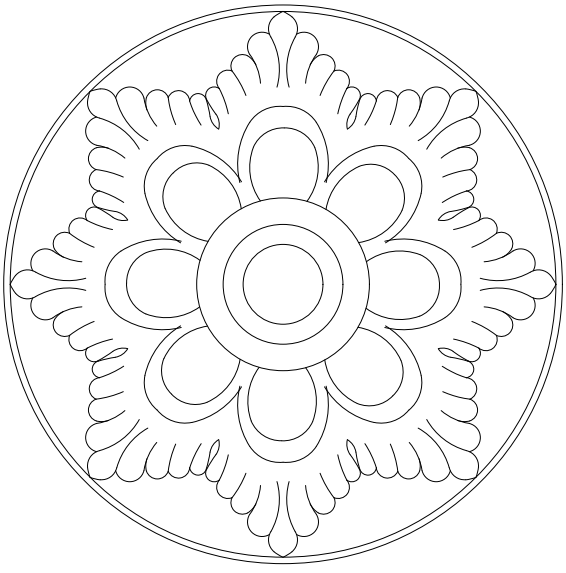
ACTION TAKEN:

- Removal of plant roots from the ceiling and wall surfaces caused because of perennial water seepage was carried out and the holes were filled with lime mortar.
- Dismantling of 20th-century cement plaster was carried out from the internal wall and ceiling surfaces.
- Plaster repairs are being done using traditional lime mortar on the internal wall and ceiling surfaces.
- Damaged moulding bands are being restored by craftsmen using rich lime mortar.
- Damaged floral medallions and mouldings on the external facades have been restored by master craftsmen.
- Damaged oblong moulding bands below the chajja have been restored matching the design in lime mortar and finished with matured lime putty mixed with organic additives.
- Missing hand dressed stone beams and chajjas have been prepared and installed below the eastern and northern parapet by stone craftsmen.
- 4 chajja stones found missing on the north-east corner were hand dressed and installed by stone craftsmen.
- A number of stone chajjas below the western parapet were found to be misaligned. They were set in their original position.
-

(Left) Plaster repairs were carried out at the internal surface of the tomb; (Right) Missing details on the facade were restored based on in-situ evidence

NEXT STEPS:

- Reconstruction of missing parapet, laying of traditional lime concrete on terrace and installation of 30 mm thick granite flooring inside the tombs will be carried out.



Mastercraftsmen reinstating ornamental stucco ceiling medallion at a tomb using rich lime mortar. A true size stencil was made based on the existing evidence, and the design was transferred onto lime plaster for restoration of damaged portions

Restoration & Reconstruction

Conservation works on the monuments situated in the Qutb Shahi Heritage Park involves a comprehensive process of safeguarding the historic fabric on available material and scientific evidence. Conservation includes enhancing the cultural importance by even reversing the inappropriate repairs with modern materials undertaken through the 20th century. These have defaced the architectural character and in some cases obliterated the original form and details.

Restoration and Reconstruction are required in situation where the damage to the structures through persistent deterioration is to be rectified or stopped and an enhanced understanding of building architectonics is important. The decisions for conservation approach and the level of intervention is determined by a conservation peer review.

In no case, during conservation works aimed at prolonging the life of the monuments leads to conjecture, thereby honouring the authenticity of materials and architectural integrity.

Traditional craftsmanship is encouraged by engaging local artisans and craftsmen thereby promoting traditional techniques and generating livelihood.

LANDSCAPE RESTORATION

11. Mausoleums of Fadma Khanum & Mirza Nizamuddin Ahmed

The historic landscape around both the monuments has been largely altered with additions of modern bitumen road on the northern side and filling up of earth in the 20th- century. Level of plinth abutting the tombs had been raised inappropriately by filling of earth.

Supported by:

SWADESH DARSHAN


Laying of PCC for installation of plinth protection


Laying brick walls for pathways


Construction of masonry retaining walls


Base concrete for construction of retaining walls

ACTION TAKEN:

- A detailed landscape plan for the area was carefully developed to accommodate the steep level drops in area abutting the incomplete tombs of Fadma Khanum and Abdullah Qutb Shah. Revisions to the design were carried out simultaneously after reviewing the site levels and discovery of original plinth protection walls.
- It was decided that these monuments be treated as ruins and would form an important part of the structural studies of the monuments.
- North and south bounding pathways around both the monuments will be developed as a part for the larger network of pathways accessing the monuments.
- Base works for the pathways on the north and south side of the incomplete mausoleums have been completed. 50 mm-thick tandur stone slabs are being laid.
- Original plinth protection levels for the tombs of Abul Hasan Tanashah and Fadma Khanum were determined and appropriate connection to the bounding pathways on the north and south were proposed.
- Base work for the plinth protection of Abul Hasan Tanashah has been completed.

NEXT STAGE:

Installation of 50 mm- thick tandur stone flooring on the pathways and installation of 8-inch-thick edging stone will be carried out.

LANDSCAPE RESTORATION

12. Hamam: Forecourt

Cement concrete in enormous quantities was laid along the 100 meters span of south façade of Hamam in the 20th century along the southern edge of the entire structure thereby altering the original ground levels. To accommodate the 2.0 metre drop of internal flooring from the west to the eastern edge of the façade, plinth protection and pathways on the forecourt for this structure with connecting ramps and plaza were proposed. The aqueduct running from the west to the east on the southern side of Hamam was decided to be covered partially and exposed towards the east side. All conservation works at Hamam have been completed.

Immediate landscape to the south of Hamam had undergone drastic transformation due to contextually inappropriate alterations including construction of a cement concrete road and incessant filling of earth in the 20th-century had drastically altered the original ground level and obfuscated the historic aqueduct abutting the southern arcade.

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ACTION TAKEN:

- Pathway leading from the south eastern corner of Hamam up to the north east corner of the 16th- century enclosure wall was completed.
- Masonry enclosure around the existing tamarind tree located at the south east corner of Hamam was constructed.
- The aqueduct running along the south east corner of Hamam was covered with geo textile cloth to restrict ingress of earth from top.
- Plinth protection on the southern façade of Hamam and the serai was completed.
- The entrance court to Hamam around the Tamarind tree located at the south east corner has been completed along with the pathway connecting to the plaza north east of the mausoleum of Muhammed Quli Qutb Shah.
- The aqueduct running along the southern façade of Hamam and the Serai was covered with 100 mm thick- rough granite blocks in portions where the proposed levels of pathway and plinth protection were above the top level of the aqueduct. Portions where the top of the aqueduct was higher than the proposed pathways were exposed for visitor information.


Repairs on the aqueduct discovered on removal of filled earth

6.4 meters wide plinth protection was finished with 100 mm thick natural rough granite stones with the grading towards the aqueduct. Care was taken that the historic water channel running at the south of Hamam is not affected and is being covered with granite stone slabs

IMPACT:

Restoration of the immediate landscape setting abutting the Hamam arcade will help in enhanced understanding the historic landscape while making the access to the forecourt of Muhammad Quli Qutb Shah's mausoleum and north-western portion of the site both accessible and useful for local communities and visitors. Original levels of Hamam were revealed enhancing the grandeur of the monument. Water draining towards the aqueduct would ensure adequate surface water drainage which would eventually be collected in the Badi Baoli, thus conserving water for future use.

During Landscape Restoration

LANDSCAPE RESTORATION

13. Commander's Mausoleum

The conservation work on Commander's mausoleum was completed towards the end of 2018 and opened for public in January 2019. Landscape development works have been carried out periodically since then.

The area to the south of Commander's mausoleum forms a significant junction between the landscape development being done on one end to connect to the major access path from the main entrance plaza, cutting across the lake from Deccan Park area into the tombs complex. A detailed garden layout has been developed for this area incorporating the levels as well as the axial pathways from Deccan Park leading to the main approach pathway up to the mausoleum of Sultan Quli – the point of origin of the Tombs complex. Landscape development with construction of pathways in the area to south of Commander's mausoleum was carried out in 2020.

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Before Landscape Restoration

Construction of masonry steps by stone craftsmen

Installation of tandur stones on the pathways

ACTION TAKEN:

- Pathways connecting the plaza with the tombs of Fatima Sultana, hakims and Commander further south have been completed along with appropriate earth grading.
- Base work for the cement concrete road linking the entrance plaza to the mausoleum of Muhammad Quli Qutb Shah has been carried out to ensure vehicular movement for services into the complex. Construction of thick masonry walls on the edge of the road has been completed by stone masons.
- Construction thick masonry edging walls for the proposed cement concrete road has been completed.
- Installation of tandur stone on the pathways constructed to south of Commander's tomb have been carried out by stone craftsmen.

LANDSCAPE RESTORATION

14. Visitor Amenities

The landscape development works have been completed in 1st Phase since 2018 and are nearing completion in the Phase 2 with works already commenced on the 3rd Phase of the complex masterplan. Based on the need analysis and site conditions, adequate provision of seating facilities needed to be provided apart from the informal seating areas such as the planter walls and earth retaining walls. Apart from this, public toilets are being constructed for providing a safe and dignified convenient public amenity inside the Qutb Shahi Heritage Park

Supported by:

SWADESH DARSHAN

ACTION TAKEN:

- A comprehensive analysis was undertaken at the site to identify the potential locations of the benches. Locations were marked based on to admire strategic views and needs, however, without hampering monument views from locations.
- Two designs of benches have been approved for installation – one with stone piers beneath stone slabs, the other is a solid stone bench.
- Most of the solid stone benches will be placed in the core heritage zone while the benches with piers will be placed along the peripheral walkway and the entrance zone.
- Over 30 solid stone benches have been installed in Phase1 and Phase 2.
- 25 stone benches with piers and slabs have been placed along the peripheral walkway on the northern side of the complex.
- Random rubble stone masonry at superstructure of the toilet blocks have been completed.
- Necessary revisions have been made to the drawings to mitigate the levels and adequate sewage system have been incorporated.
- Installation of metal roofing frame above the ashlar walls has been completed and finishing of internal brick walls at the toilet block near mausoleum of Muhammad Quli Qutb Shah is ongoing.

NEXT STAGE:

- Construction of the visitor amenities will be completed in 2021.
- Installation of solid benches will be completed in Phase 2 and Phase 3 by the end of 2021.
- Benches with piers will be installed in demarcated areas of the Deccan Park area.
- Floor finishing around the benches to be completed with kerbstones as per approved design.

LANDSCAPE RESTORATION

15. Plantation

(Above) Plantation within the enclosed garden of Sultan Quli Qutb Shah's mausoleum

A panel discussion was organized at QSHP to set the planting principles and finalization of species for the Core Heritage Zone and Ecological zones. This was attended by city-based historians, horticulturists and landscape experts along with architects.

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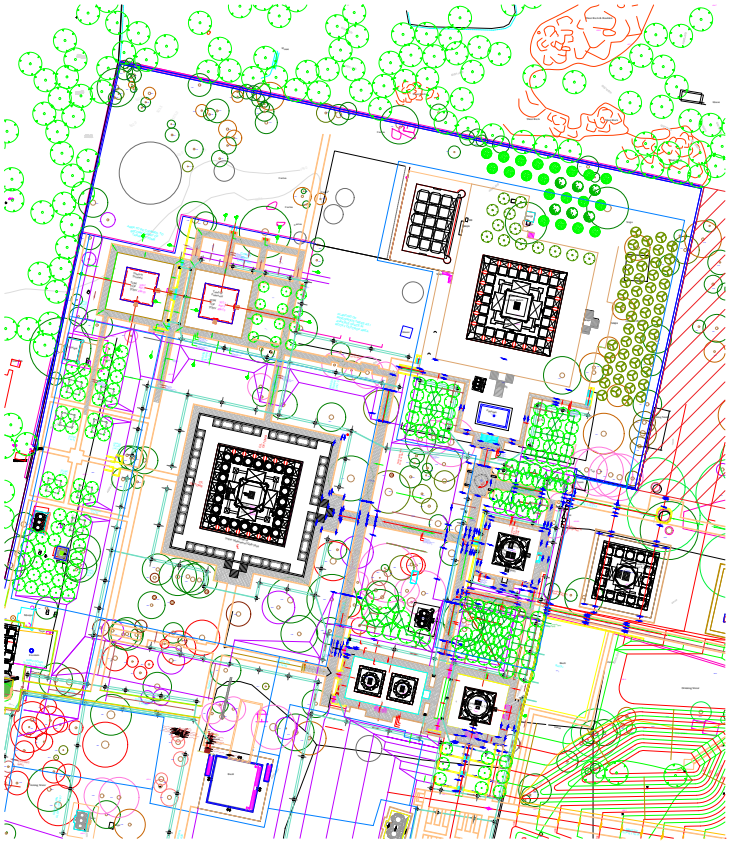
ACTION TAKEN:

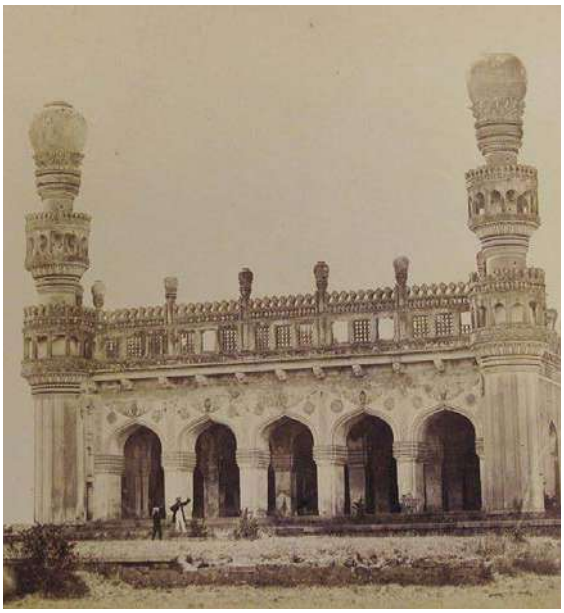
- Native species to be planted to revive the original character of the site. Emphasis would be given to plants with greater ecological value, viz., butterfly and bee friendly trees etc.
- A well-designed irrigation system should be developed across the complex to sustain the plantation and green cover, especially during the dry spells.
- Landscape features such as bunds, embankments etc. should be developed in the ecological zones and the less accessible areas to hold the excess rainwater. This can be used for irrigation of the nearby areas during hot summers.
- Several local species have been identified for plantation in the coming years in the demarcated areas, in correlation with the landscape masterplan.
- Orchards with local fruit bearing trees such as Chikoo, Ber, Palash, Jamun, Reetha, Mulberry etc. should be planted in pockets to aid ecological development.
- Large trees like Imli, Banyan, Thorney shrubs to be planted along the northern periphery of the site to discourage waste dumping activities and encroachments.
- Dense plantation/Urban afforestation to be undertaken in identified pockets such as the north side of the mausoleums of Abdullah Qutb Shah, Hayat Baksh Begum, north peripheral walkway.
- Plantation, ground cover along the north peripheral walkway should be design ed in a manner to ensure low maintenance.
- Slow growing trees such as Amla should be planted in the archaeological zone on the north side of the complex after removal of invasive Subabool plants.

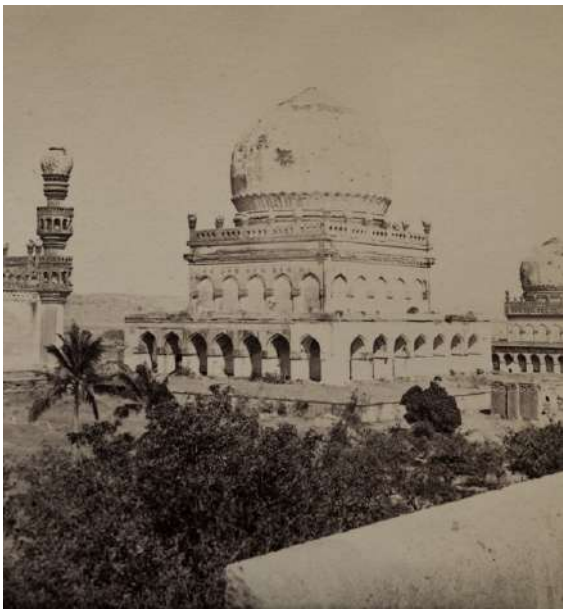
NEXT STEPS:

- Following a phase-wise identification of the saplings, plantation will be carried out in the core heritage zone in early 2021.
- Similar exercise will be carried out in the north and south ecological zones after the first spell of abundant rains during monsoon.

(Left) Landscape development including plantation planned around the mausoleum of Muhammad Qutb Shah
(Right) Plantation of citrus plants in the forecourt of Muhammad Quli Qutb Shah's mausoleum







Archival Images from 1860s showing various monuments across the Qutb Shahi Heritage Park
Source: *Alkazi Foundation*

Archival Research

The archival research conducted in the various national and international museums, libraries provided not only a thorough timeline of the evolution of the site but also a sequence of conservation works carried out. It is pertinent to know the 20th- century interventions carried out on the structures. Prior to commencement of conservation works, required time was devoted in completing the archival research coupled with detailed architectural documentation and material investigations.

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 Heritage Park 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 Tombs. As part of the archival research and gain a better understanding of the site, a team of conservation architects and archaeologist have investigated these records , prior to conservation works that took place at the site. An architectural study was conducted to identify and date over 100 monuments on the site in a chronological order that would help understand the site's expansion and change in its architectural landscape under each of the eight kings.

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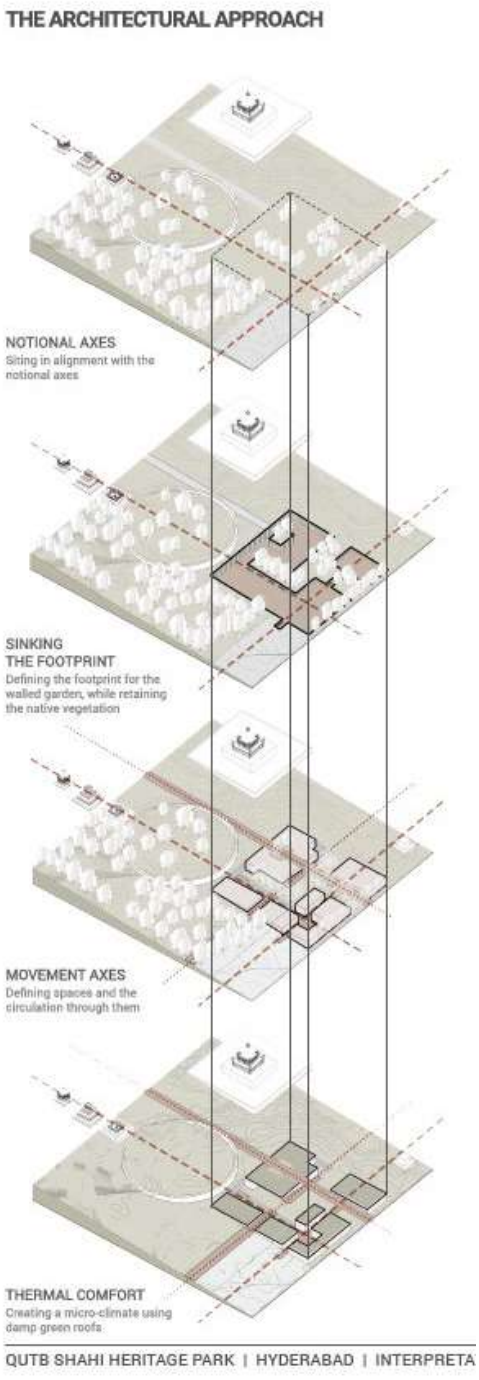
16. Qutb Shahi Interpretation Centre



To enhance the experience of visitor to the Qutb Shahi Heritage Park and the adjoining Golconda Fort, an Interpretation Centre was proposed and approved in the entrance zone of the complex, located in the Deccan Park area.

After finalization of design and submission of necessary documents to Telangana State Tourism Development Corporation (TSTDC), quotations were called for by TSTDC and the contractor for the same was shortlisted by the Government. Construction works have since then commenced in March 2020, by the appointed contractor, at the proposed Interpretation Center.

The ongoing pandemic and the excessive rains have been deterrent to the works being undertaken causing delays. The entire construction site was inundated in the September - October rains. The works could resume only in December after clearance of the deluge.

DESIGN OBJECTIVES:

INFORM / ENGAGE

The design pays obeisance to the to the poetry of the monuments in the deccan park. The plinth as a recurring leitmotif has been instrumental in informing the design of the centre. The centre attempts to be sensitive to the historic context by being a " non building

RE-LEARN

The centre borrows from & re-interprets historical elements from the architectural vocabulary employed in the sultanate; yet has a distinct identity that is relevant to the present day.

LAYERS OF INFORMATION

The centre uses local skills and materials in a contemporary interpretation. The design aims to combine modern day engineering and hand crafts of the immediate region. A narrative that is deeply rooted in its context.

CONTEMPORARY INSERT

Adaptive / flexible

The intervention sits lightly within the solid rubble walls that are reminiscent to the architectural system in the park. The intent is to sit lightly within a shell, accentuating the strength of the old structures.

SUSTAINABLE

High value - Low tech

The intervention adopts innovative environmental strategies to create a highly effective, low maintenance system that encourages social, economic and environmental sustainability.

Foundation Stone Laying Ceremony

The Interpretation Centre, proposed in the Deccan Park zone of the Qutb Shahi Heritage Park would enhance the visitor understanding. AKTC submitted the approved design and other tender documents for commencement of works. Telangana State Tourism Development Corporation (TSTDC) has undertaken the construction of the Centre under the Swadesh Darshan Grant of Govt. of India secured by the AKTC in 2017. AKTC will serve as project managers.

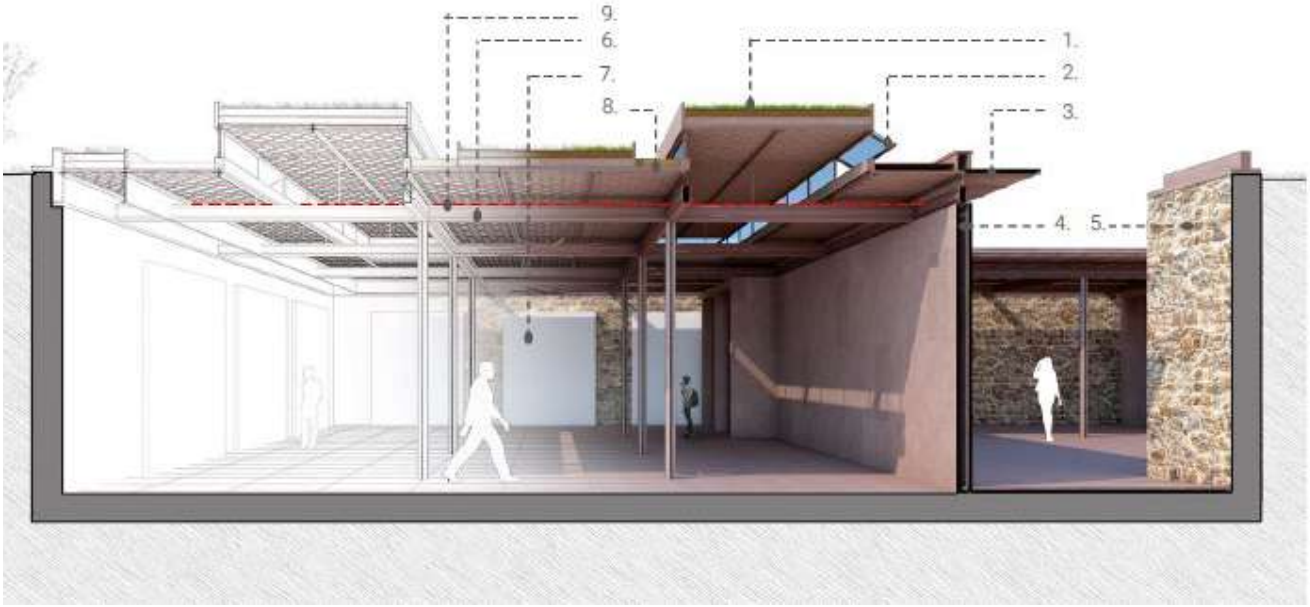
ACTION TAKEN:

- Shri K Taraka Rama Rao, Hon'ble Minister for Municipal Administration & Urban Development laid the foundation stone of the Interpretation Centre to mark the commencement of works in presence of Dr. V Srinivas Goud, Hon'ble Minister for Youth Services, Tourism & Culture, Archaeology, Govt. of Telangana, Sri. Mahmood Ali, Hon'ble Minister of Home Affairs, Government of Telangana, Jenab Asaduddin Owaisi, Hon'ble Member of Parliament (LS), Sri. K.S. Srinivasa Raju, IAS, Principal Secretary to Govt. of Telangana, In-charge Youth Advancement, Tourism & Culture, Members of the Telangana Legislative Assembly, Sri. P Gopinath and Sri. Kausar Mohiuddin, TSTDC and government officials.
- The dignitaries were keen to understand the design and expressed satisfaction on the spaces being developed.
- Revival of the historic connectivity of Qutb Shahi Heritage Park with the Golconda Fort for greater tourist inflow was also highlighted to the Hon'ble Ministers.

Qutb Shahi Interpretation Centre will:

- Ensure an enhanced visitor experience by explaining the key significance of the site, in this case both Golconda Fort and the Qutb Shahi tombs.
- An essential tourist amenity and facility for visiting school children and scholars.
- Will increase tourist numbers and time spent by visitors at sites significantly.
- Share knowledge gained as a result of the decade long conservation effort focused on the site.

1. Damp, green roofing system
2. Operable skylight/ventilator
3. Stone chajjas for shading
4. Granite dry wall
5. Composite rubble masonry Walls
6. Structural ms framework
7. Free Standing display panels
8. Rainwater pebble trenches
9. Integrated services



RCC footings have been casted in gallery block

Building Construction

(Top) Underraft water proofing layer has been been installed in the Multipurpose-cum-Administration block. (Bottom-left) Team AKTC along with the architects and engineers reviewing the construction work. (Bottom-right) A prototype is being constructed to understand the joinery details of the Qutb Shahi Interpretation Centre

ACTION TAKEN:

- Plain cement concrete has been laid and footings have been constructed in the proposed multipurpose and administration block.
- Plain cement concrete has been laid in the main gallery block.
- Revisions to the structure as well as services were made with higher safety factors following the heavy rains.
- The entire design is being vetted by an external agency for additional design security.
- A prototype is being built for a typical portion of the structure ensuring all the major construction details are covered. This will enhance understanding the steel joinery details and nature of the composite structure.
- Two reviews have been carried out at site with the Principal Architects, Studio Lotus - Delhi, structural consultants at the site, while several virtual meeting were carried out with the consultants for finalization of services and issue of GFC.
- The contractor has provided the necessary shop drawings for fabrication of the main structure and they have been appropriately modified to ensure safety.
- Regular inspections of the site in being carried out.

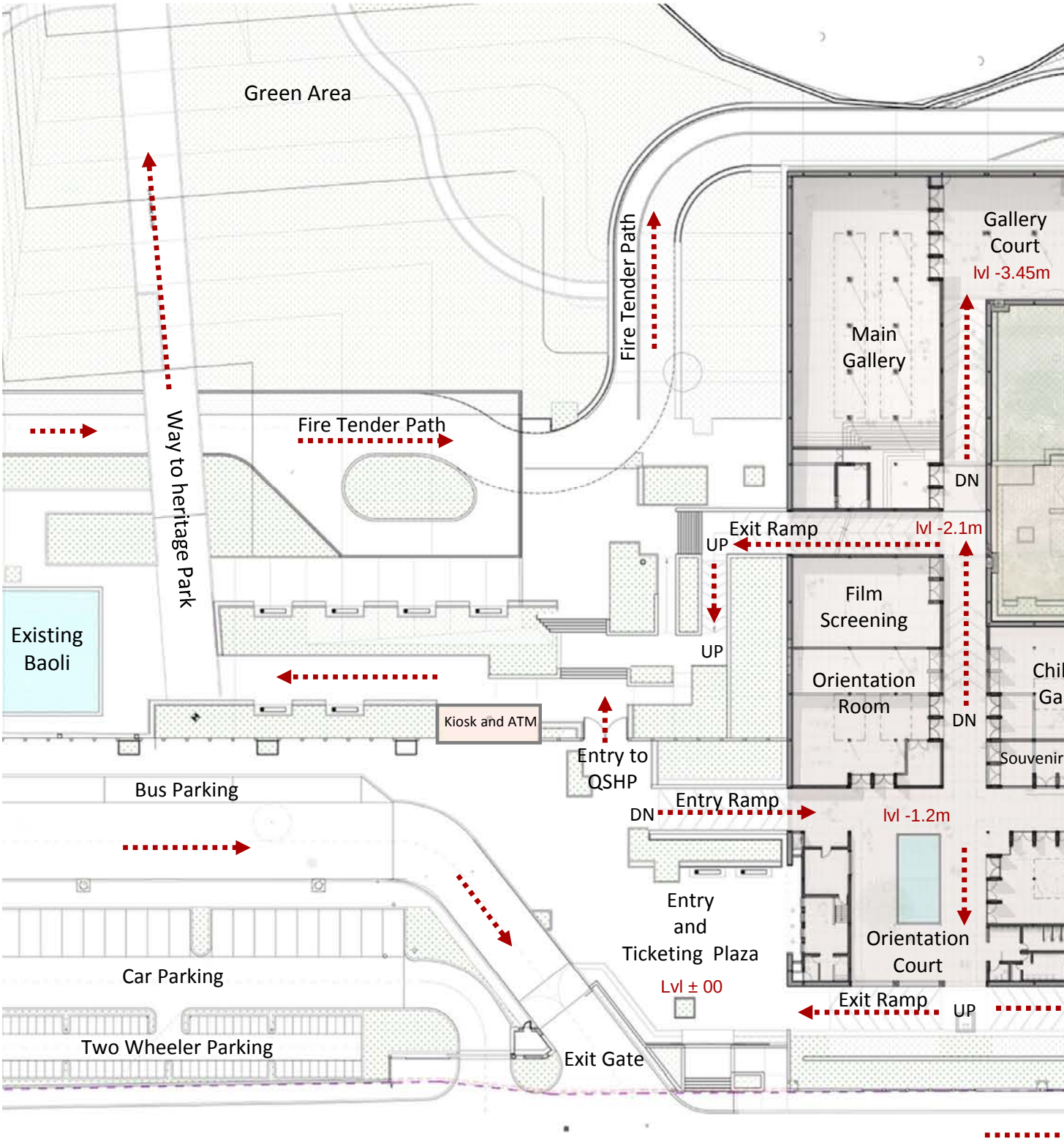
PCC below raft being laid in the Admin and Multipurpose block

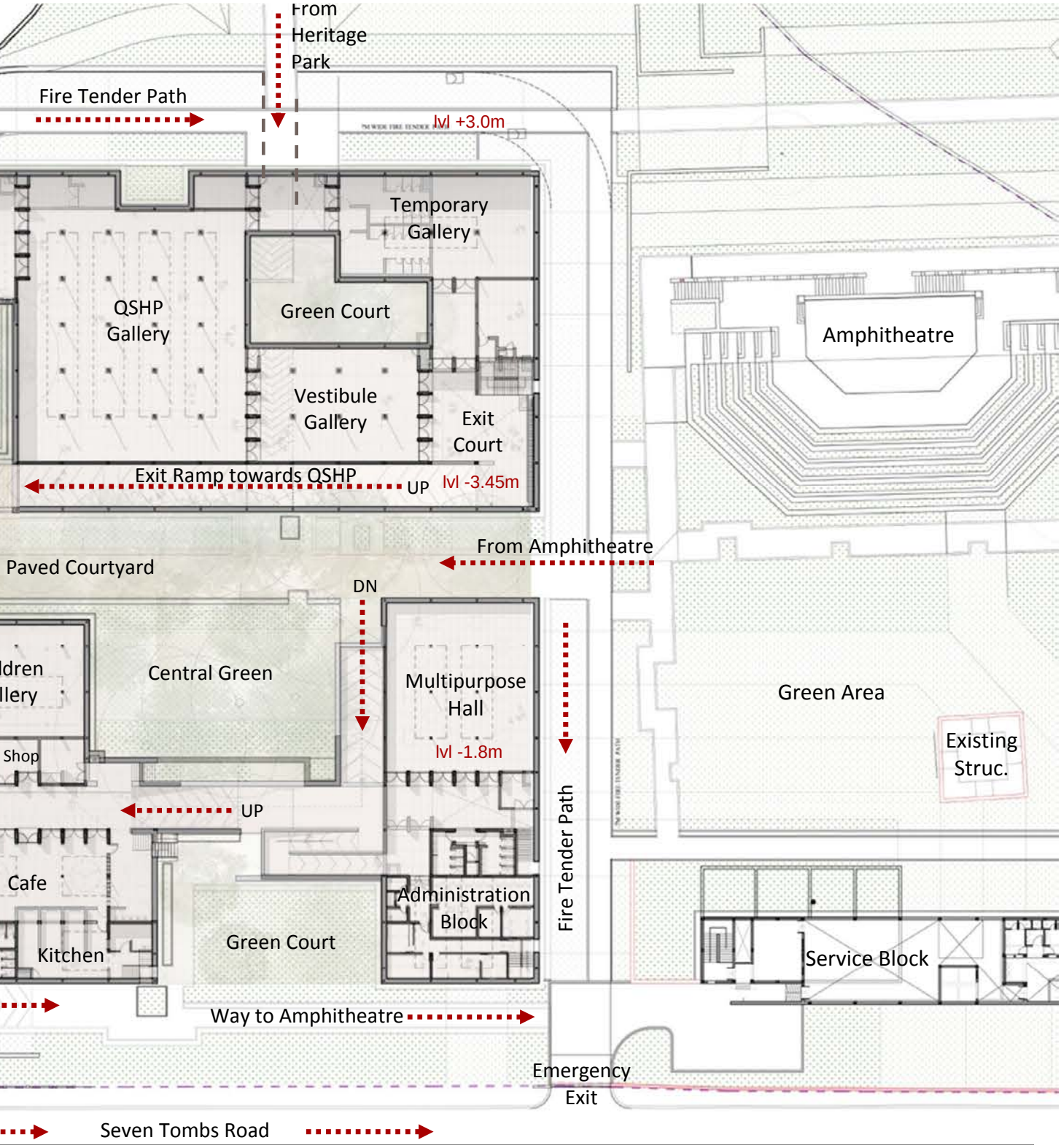
Team from Studio Lotus inspecting the works at site.

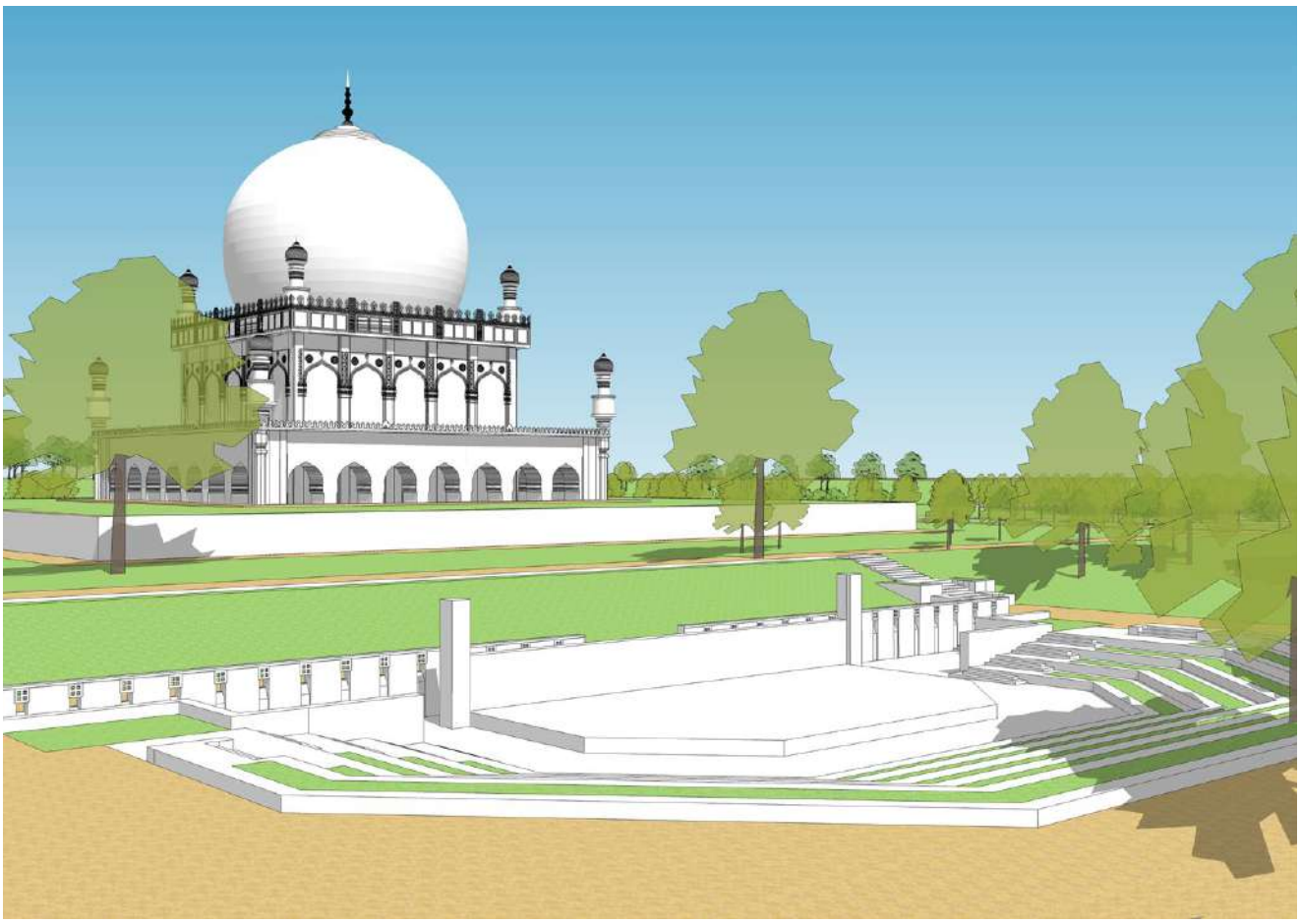
A true scale prototype was built to understand the joinery details and clear any issues arising during construction

NEXT STAGE

- Completion of the prototype with installation of granite stone slabs to be completed.
- Fabrication of steel frame coupled with the casting of raft footings for the entire structure will be carried out in the Multipurpose hall and Admin block.
- RCC works followed by structural steel works to be completed in the Galleries and other blocks.
- Major structural works on the entire structure would be completed next year and finishing works would be ongoing.


Green Area
Way to heritage Park
Fire Tender Path
Fire Tender Path
Gallery Court
lvl -3.45m
Main Gallery
DN
Exit Ramp
lvl -2.1m
UP
UP
Film Screening
Orientation Room
DN
Existing Baoli
Kiosk and ATM
Entry to QSHP
Souvenir
Bus Parking
DN
Entry Ramp
lvl -1.2m
Entry and Ticketing Plaza
Lvl ± 00
Orientation Court
Car Parking
Exit Ramp
UP
Two Wheeler Parking
Exit Gate


From
Heritage
Park
Fire Tender Path
lvl +3.0m
Temporary
Gallery
QSHP
Gallery
Green Court
Amphitheatre
Vestibule
Gallery
Exit
Court
Exit Ramp towards QSHP
UP
lvl -3.45m
From Amphitheatre
Paved Courtyard
DN
Central Green
Multipurpose
Hall
lvl -1.8m
Green Area
Existing
Struc.
Shop
UP
Fire Tender Path
Cafe
Administration
Block
Kitchen
Green Court
Service Block
Way to Amphitheatre
Emergency
Exit
Seven Tombs Road



17. Parking & Amphitheater

Supported by:

SWADESH DARSHAN

The Parking and Amphitheater together with the Interpretation Centre form part of the Entrance zone for the 106 acres Qutb Shahi Heritage Park. Construction works at the parking and amphitheater have been carried out in throughout 2019-2020.

Base works for the Parking was completed along with the layout and installation of concrete kerbs for final finishing. Similarly, base works for the front boundary wall separating the Parking from the rest of the Deccan Park was constructed for finishing work. Major finishing works in the Amphitheater was completed including installation of 125 mm thick granite stones in the seating, stage and aisles.

(Left) Tying of Reinforcement mats for the car parking area before laying of final road finish; (Below) Construction of stone steps and the stage area at the amphitheater

ACTION TAKEN:

- The final layer of M 30 grade RCC was laid at the parking including the entry, exit and the road leading to service entry.
- All works at the Amphitheater have been completed except for the bounding pathways where the finishing needs to be corrected.
- Finishing Works have commenced for the construction of the front boundary wall which is built using solid granite stone blocks interlocked using stainless steel dowels.

NEXT STAGE:

Construction of proposed boundary wall will be completed coupled with the remaining works, such as 40 mm thick granite flooring in the parking area. The bounding pathways of the Amphitheater will need to be finished with Tandur stone installed to pattern and slope as per the drawings. Adequate provision for storm water drainage will need to be provided for the Amphitheater.

LANDSCAPE RESTORATION

18. Deccan Park

A detailed garden layout has been developed for the Deccan park including a prominent lake with an axial pathways from Deccan Park leading to the main approach pathway up to the mausoleum of Sultan Quli – the point of origin of the Tombs complex.

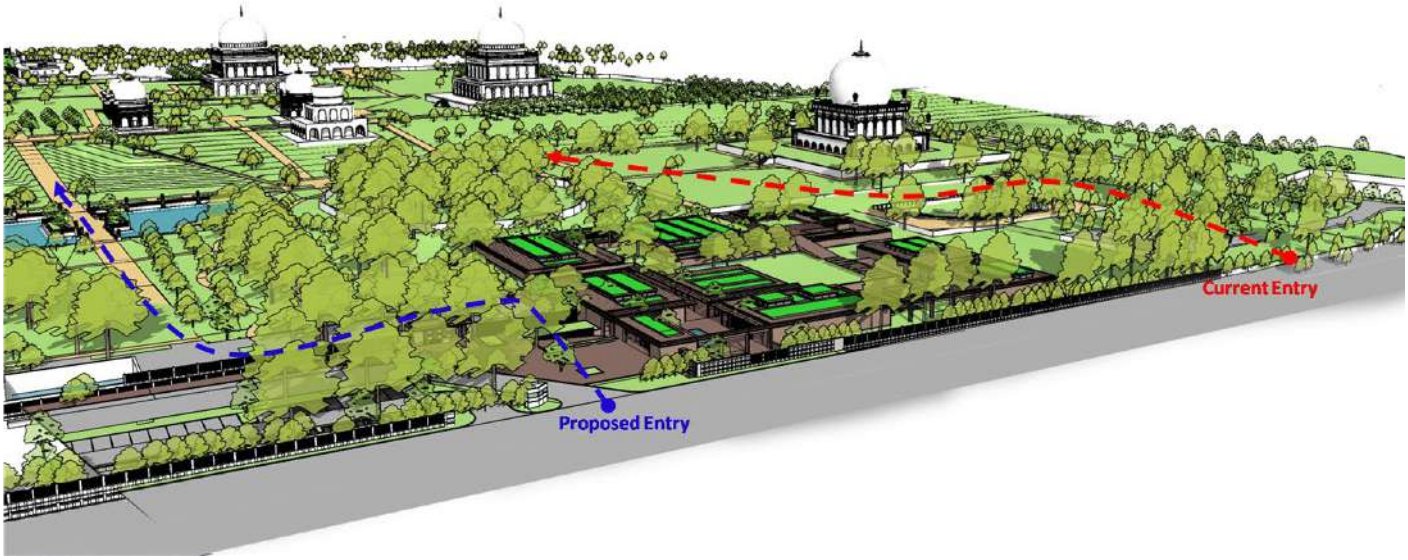
ACTION TAKEN:

A total station layout was carried out before cutting across the mound.

NEXT STAGE:

The later built mound will be cut through for the main walkway and the steep slopes of the mound would be made linear while retaining a portion of the mound for viewing purpose.

(Below) Schematic render showing the current and proposed visitor entry to the Qutb Shahi Heritage Park through Deccan Park



LAKE DEVELOPMENT

Water is one of the most beautiful and meaningful features of the landscape development. The baolis at the site inspire us to have a similar kind of feature in the Deccan park area.

The present water-body is in the deteriorated condition. The idea is to retain the outline profile of the water-body and create a shallow lake in the region which not only make the serene experience for visitors when they walk towards the archaeological zone but also control the micro-climate of the area. The lake also acts as a transition element from activity zone to the archaeological zone.

OUTREACH

19. Dissemination of Project Learnings

Every year, the project engages with academic institutions, cultural organizations, civil society, opinion makers, conservation professionals, students, policy makers who are keen to learn from the experiences or replicate the project model or its elements in their work areas.

Due to the nationwide COVID lockdown and the project site being closed to the visiting public till October 2020, the number of visits to the project site were limited.

After the lockdown norms eased in Hyderabad, the Aga Khan Trust for Culture started conducting heritage walks at the Qutb Shahi Heritage Park every alternate Saturday to inform the public about the conservation and landscape restoration of this historic necropolis.

1. In February 2020, guided by project's conservation architects, the team initiated weekend heritage walks through the site to explain the conservation works undertaken at the Qutb Shahi Heritage Park.
2. Mr Prashant Banerjee, Conservation Architect explaining the works undertaken at the site.
3. Mr Yoshowant Purohit, Project Manager explaining the project to Ms. Meenakshi Sharma, DG (Tourism), who visited the site and reviewed the landscape restoration works on 21 December, 2020.
4. The smaller signages installed all over the site showcase the 'before-after' transformations at the Qutb Shahi Heritage Park.
5. Her Royal Highness, Princess Maha Chakri Sirindhorn, and the Thai Ambassador to India, H.E. Mr. Chutintorn Gongsakdi were given a site walkthrough by the AKTC team, along with Mr. B.Narayana, Deputy Director(Engg.), Department of Heritage Telangana.
***(Image credit:** Department of Heritage Telangana)*

OUTREACH

20. Project Technical Committee Meetings

Project Technical Meetings under the chairmanship of the Secretary to the Government of Telangana, Department of Youth Advancement, Tourism and Culture is regularly carried out to ensure effective implementation of the Project. All the key stakeholders along with independent heritage experts also attend the meeting. Several key decisions are taken in accordance with the prevailing norms along with information on the advancement of works at the Qutb Shahi Heritage Park.

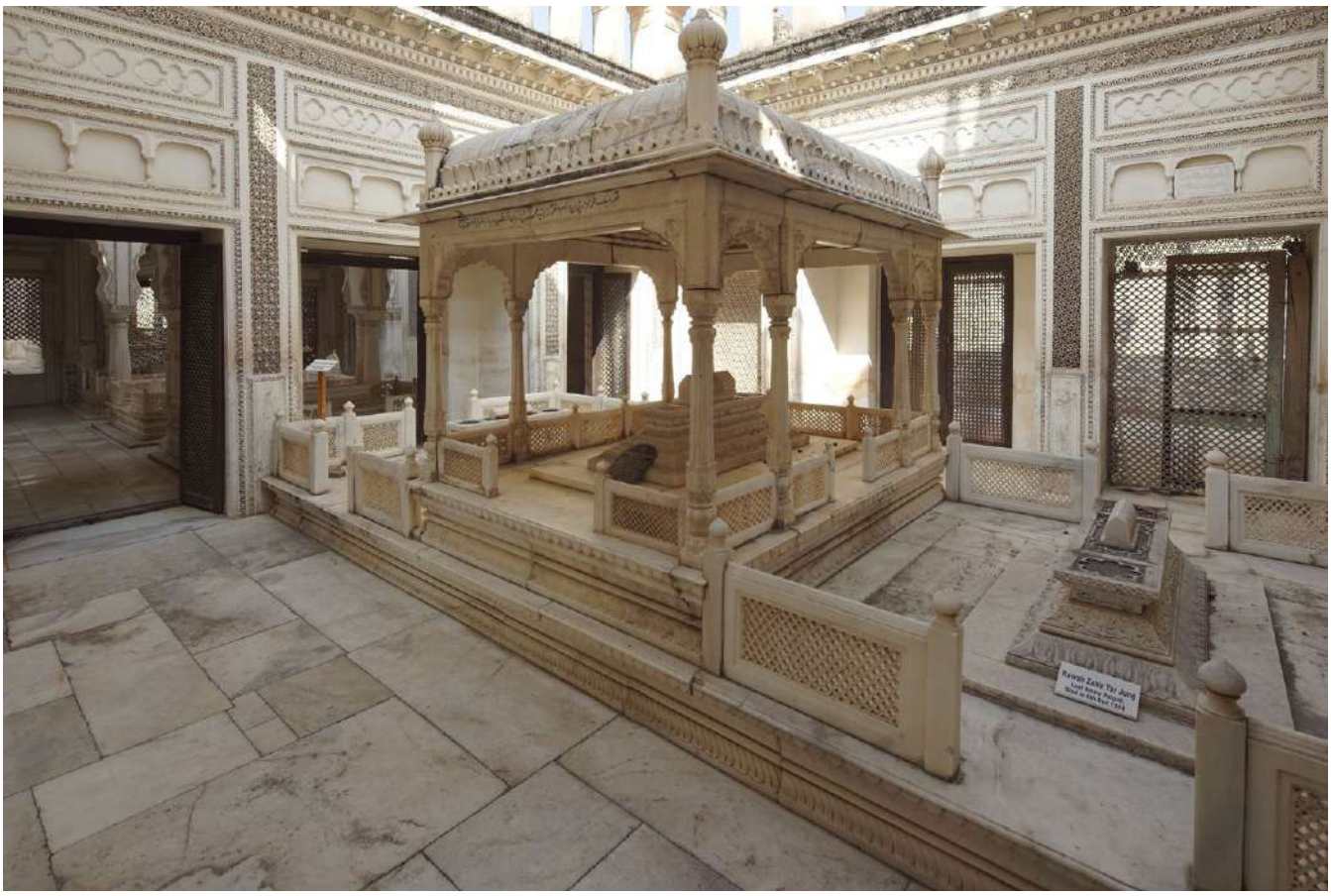
Joint site Inspections are carried out by the Department of Heritage Telangana by officials of rank Asst. Directors or above. A detailed inspection of all the conservation and landscape works are undertaken along with the review of the future works to be carried out.

ACTION TAKEN:

- In lieu of the pandemic, only two Project Technical Meetings could be undertaken in July 30th and October 19th.
- Both were held under the aegis of Shri. KS Srinivas Raju, Hon'ble Secretary.
- On 30th July, the Hon'ble Secretary visited the tomb complex and reviewed the works being carried out. This included the conservation works and the landscape development as well. He was also informed of the construction progress of the Interpretation Centre. Several key decisions on works and the issues of delay in payments were highlighted.
- On 19th October, in the meeting held at the chamber of Shri. KS Srinivas Raju, decisions on the development of Deccan Park area was discussed. Issues related to storm water accumulation in the excavated site of Interpretation Centre and ineffective Municipal Storm water drainage line was discussed and actions were planned for resolution of the issue. Decisions on the adequate utilization of the funds under the Swadesh Darshan grant from the Ministry of Tourism, Govt. of India was also discussed.
- Joint Inspections were carried out by the Deputy Director (Engg), Department of Heritage Telangana on January 17th, September 2nd and October 20th . A thorough site inspection of the site was undertaken with attention to all the conservation and landscape works carried out at the site, the future works to be undertaken along with other issues at site such as encroachments and site boundary walls damaged due to the excessive rains in September, October.

Project Technical Committee

- **Mr. K S Srinivasa Raju**, IAS, Secretary to the Government of Telangana, YAT&C.
- **Mr. B Venkatesham**, IAS, Secretary to the Government of Telangana, YAT&C.
- **Mr. B Narayana**, Dy. Director, Department of Heritage Telangana.
- **Mr. N Narsingh**, Asst. Director, Department of Heritage Telangana.
- **Mr. A. Raju**, Office Superintendent, Department of Heritage Telangana.
- **Ms. Smita S Kumar**, I/c Superintendent Archaeologist, ASI, Hyderabad Circle.
- **Dr. Debendranath Bhoi,** Asst. Superintendent Archaeologist, ASI, Hyderabad Circle.
- **Mr. Kamal Hassan**, Asst. Archaeologist, ASI, Hyderabad Circle
- **Mr. Boinapally Manohar**, Managing, Director, TSTDC.
- **Mr. A. Ashok Kumar**, Superintendent Engineer, TSTDC.
- **Mr. Ch. Parsavedi**, Asst. Executive Engineer, TSTDC
- **Mrs. Lalitha**, Assistant Director (Horticulture), QQSUDA
- **Mr. Sajjad Shahid**, Independent Expert
- **Mr. Ratish Nanda**, Chief Executive Officer, AKTC,
- **Mr. Yoshowant Purohit**, Project Manager, AKTC
- **Mr. Ganesh Reddy**, Manager Operations, AKTC
- **Mr. Prashant Banerjee**, Project Manager-Conservation, AKTC



21. Paigah Tombs

Built in the 18th-century, the small complex of the Paigah tombs is a unique ensemble of intricately carved mausoleums with no comparative site anywhere in the world. The Paigah tombs are the resting place of the Paigah family of Hyderabad. Known for their undoubted loyalty to the Nizams, the Paigah's were one of the most influential and powerful nobles of the time.

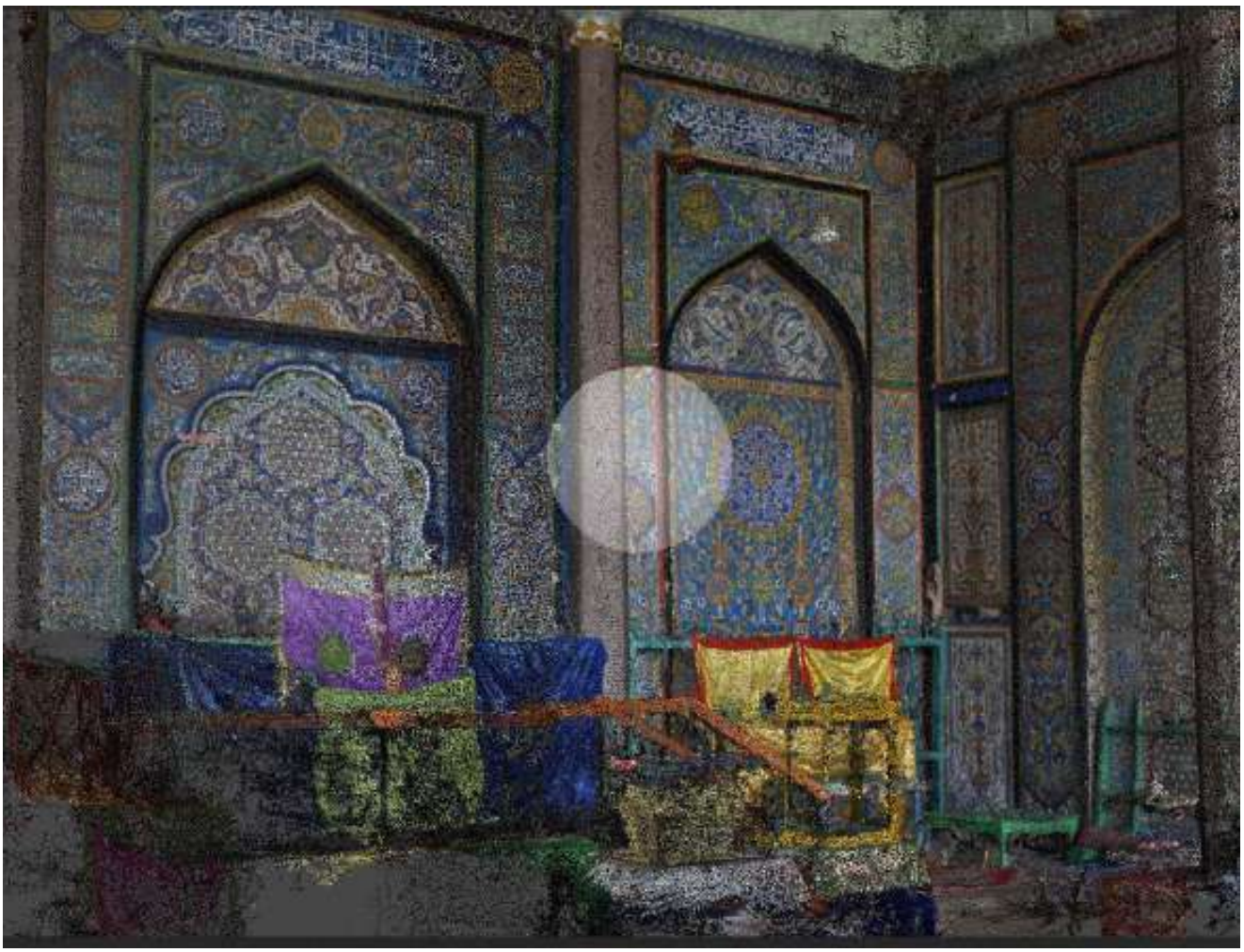
Under the Swadesh Darshan grant AKTC is carrying out landscape works and design development at Paigah Tombs. Further, on the request of the Director, Department of Archaeology, AKTC consented to also the conservation works at the famed Paigah tombs. Conservation works and landscape development has been commenced in 2019.

ACTION TAKEN:

- Detailed architectural documentation of the mausoleums followed by condition assessment was carried out by AKTC before commencement of work on-site. Through inspection it was realized that most of the structures are stable in terms of structure, but severe deterioration of built fabric is visible which can soon be aggravated causing major structural damage. Major condition which are the point of concern include extensive water seepage, capillary rise, damaged ornamental lime stucco and broken lattice screen.
- As per the MoU signed with the Department of Heritage Telangana (erstwhile Department of Archaeology and Museums) and other government agencies in December 2017, conservation works on the tombs were commenced under the day-to-day supervision of the Director, Heritage Telangana and the Technical Committee chaired by the Secretary to Government of Telangana.
- Phase I of the project has been commenced with restoration of tomb of Ghansimiyan and Sama Khana located in South-East corner of the site. Conservation works at these monuments aim to restore the missing architectural features and replace inappropriate repairs in cement with traditional materials and techniques, ensuring mitigation of water ingress and prolong the life of the monument.
- Most unique architectural element on the site are intricate lattice screens casted in terracotta and lime mortar, which are partly damaged on missing. In order to prevent further damage to the lattice screens, a temporary support has been provided.
- Further, proposed works to be undertaken include detailed inspection of the terraces followed by dismantling of 20th century cement terracing along with stitching of structural cracks and laying of lime concrete terracing to appropriate slope, restoration of ornamental stucco and other plaster repairs. Also, completing the remaining conservation works in Sama Khana and Tomb of Ghansimiyan.

NEXT STAGE:

A re-development plan for the overall works to be carried out at site is being prepared in partnership with the Department of Heritage Telangana. This plan will outline conservation and landscape works to be undertaken and will include the current progress and challenges and be submitted.

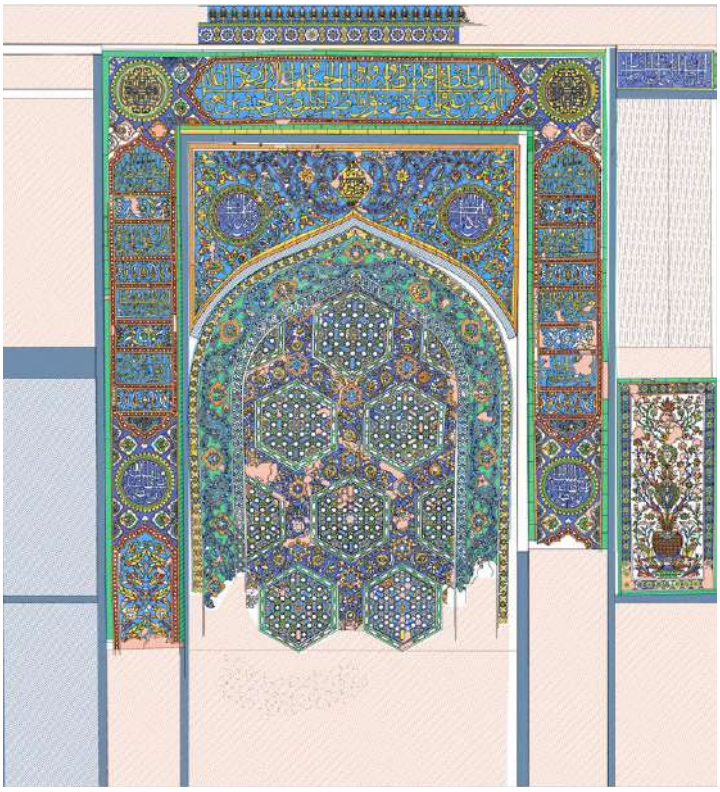


22. Badshahi Ashoorkhana

Badshahi Ashoorkhana is one of the finest buildings of the Qutb Shahi era, its construction was started by Muhammad Quli Qutb Shah in 1592-93 AD and completed in 1596-97 AD and was further embellished by Abdullah Qutb Shah. The original part of the building is the central hall which consisting five blind arches, this portion was built by Muhammad Quli Qutb Shah whereas the extension of the halls and embellishment of the blind arches with tiles in geometric pattern was carried out during Abdullah's Reign. The tile-work consists of highly refined geometric, floral and arabesque designs in a varied colour palette consisting of blue, white, yellow, green and terracotta

Complex of Badshahi Ashoorkhana also consists of three other heritage structure – Niqar Khana, Naqar Khana and the arched gateway.

AKTC has commenced the documentation and condition assessment of the site which will help in creating a valuable database and also to quantify the work required to be undertaken. Along with this a redevelopment plan is being prepared which will detail out the conservation works and landscape development.



ACTION TAKEN:

- Persian tiles ornamenting the five blind arches is the most intrinsic architectural element of the complex and was majorly damaged during the floods in 1908. After the floods, synthetic paints were used to fill colours in the missing portions due lack of funds and technical know-how. This addition has defaced the integrity of the original design and needs to be reversed. An extensive exercise of documenting each tile manually along with its condition has been carried out over the period of one year. Thermal imaging cameras have been used to highlight the areas beneath tiles with excessive water seepage in a rainbow-coloured palette. This documentation has been further digitised to create a reference database for adopting an appropriate methodology for restoration work.
- As per the MoU signed with the Department of Heritage Telangana (erstwhile Department of Archaeology and Museums) and other government agencies in December 2017, conservation works on the tombs were commenced under the day-to-day supervision of the Director, Heritage Telangana and the Technical Committee chaired by the Secretary to Government of Telangana.
- Emergency repairs have been carried out on the structure by AKTC upon request of the Department of Heritage Telangana who had been approached by the members of the community to carry out emergency repairs as the roof was leaking and seepage of water from the western wall was damaging the 400-year-old enamelled tiles. The roof and external walls were repaired in 2018 by master craftsmen under the supervision and guidance of conservation architect for mitigating future deterioration.
- Also, a detailed documentation for the Naqqarkhana, the elaborate timber structure located near the arched gateway of the whole complex has been documented and condition assessment for the same is being carried out along with development of an adaptive re-use proposal.

NEXT STAGE:

A re-development plan for the overall works to be carried out at site is being prepared in partnership with the Department of Heritage Telangana. This plan will outline conservation and landscape works to be undertaken and will include the current progress and challenges and be submitted.

Public Agencies - 2020

Government of Telangana

- **Mr. Somesh Kumar, IAS, Chief Secretary to Government of Telangana**
- **Mr. K. S. Srinivas Raju, IAS, Secretary to the Government of Telangana YAT&C Department**
- **Mr. Arvind Kumar, IAS, Principal Secretary to the Government of Telangana, MA & UD Department**
- **Mr. M Raghunandan Rao, IAS, Secretary to the Government of Telangana, YAT&C. Department**
- **Mr. B. Venkatesham, IAS, Secretary to the Government of Telangana YAT&C Department**
- **Mr. Lokesh Kumar D.S., IAS, GHMC Commissioner**
- **Mr. Rahul Raj P S, IAS, Administrator, QQSUDA**

Department of Heritage Telangana:

- **Mr. K. S. Srinivas Raju, IAS, Director, Department of Heritage Telangana**
- **Mr. B. Narayana, Deputy Director, Engineering**
- **Mr. N. Narsingh, Assistant Director, Engineering**
- **Mr. A. Raju, Office Superintendent**
- **Mr. Balaraju, Senior Assistant (Qutub Shahi Tombs)**
- **Mr. K.Charan Babu , Site Supervisor ,Engineering**
- **Mr. Aditya, Junior Assistant (Qutub Shahi Tombs)**
- **Mr. Ch. Subhash, Senior Caretaker (Qutub Shahi Tombs)**
- **Mr. T.Ch. Nancharaiah, Consultant (Qutub Shahi Tombs)**
- **Mr. Junaid, Site Supervisor (Qutub Shahi Tombs)**

Quli Qutb Shahi Urban Development Authority (QQSUDA)

- **Mr. P. Badarinath, Secretary**
- **Mr. Mallikarjunudu, Secretary**
- **Mrs. M. Lalitha, Assistant Director of Horticulture**
- **Mr. Guruveera, Chief Engineer**

Telangana State Tourism Development Corporation (TSTDC)

- **Mr. Boinapally Manohar, Managing Director**
- **Mr. Shankar Reddy, Executive Director Projects**
- **Mrs. Saritha Galla, Superintending, Engineer**
- **Mr. Ashok Kumar, Superintending, Engineer**
- **Mr. Samiuddin, Superintending Engineer**
- **Mr. Ch. Parshavedi, Deputy Executive Engineer**
- **Mr. Damodar Reddy, Executive Engineer**
- **Mr. Ajay, Executive Junior Engineer**
- **Ms. Aliya, Assistant Architect**

Aga Khan Development Network

- **Mr. Ratish Nanda, CEO**
- **Mr. Rajpal Singh, Chief Engineer**
- **Ms. Jyotsna Lall, Director Programmes**
- **Ms. Archana S Akhtar, Senior Programme Officer**
- **Mr. Somak Ghosh, Finance Manager**
- **Mr. Deepak Padhi, Programme Officer, Monitoring & Evaluation**
- **Mr. KP Singh, Chief Horticulturist**
- **Mr. Yoshowant Purohit, Project Manager**
- **Mr. K. Ganesh Reddy, Manager Operations**
- **Mr. Prashant Banerjee, Project Manager - Conservation**
- **Mr. Faneendra Nath, Project Engineer**
- **Ms. Poojan Kumar, Project Architect**
- **Ms. Neha Tambe, Conservation Architect**
- **Ms. Natasha Khaitan, Architect**
- **Ms. V. Sridevi, Finance Officer**
- **Ms. Lipi Bharadwaj, Project Photographer**
- **Mr. Rajendra Patnaik, Office Secretary**
- **Mr. Vinod Kumar, Field Supervisor**
- **Mr. Izhar Ahmed, Field Supervisor**
- **Mr. Arshad Jamil, Consultant, Site Engineer**
- **Mr. M. Rajesh, Office Chauffeur**

Experts:

- **Shaheer Associates,** Landscape Consultants
- **Mr. Sajjad Shahid,** Advisor
- **Studio Lotus, Architects, Qutb Shahi Interpretation Center**
- **Mr. Shafeeq Rehman Mahajir,** Legal Consultant, Brainstorm Legal Advocates
- **Mr. Sree Rama,** Lantek Engineering Consultants
- **Ms. Poornima Balakrishnan,** Consultant – Conservation Architect
- **Mr. Srinivas,** Videovilla, Videography Consultant

All photographs in the report have been taken by the AKTC project team.