



AGA KHAN TRUST FOR CULTURE



The notion of culture as an asset rather than a drain on resources was still a new concept in many parts of the world when the Aga Khan Trust for Culture was established. Culture was still considered a luxury in an era of unmet social and economic needs. The sad result was that both tangible and intangible cultures were succumbing to decay or decline.

In creating the Aga Khan Trust for Culture, I sought to address the problems facing Muslim societies, which are experiencing war, demographic, economic and environmental challenges, as well as the effects of global homogenising forces, and to work to protect our heritage, the anchor of our identity and a source of our inspiration.



The Aga Khan Trust for Culture is the cultural agency of the Aga Khan Development Network. It seeks to identify contemporary architectural expressions of quality, engages in the physical and social revitalisation of communities and, through education and cultural initiatives

in the realms of music and the arts, seeks to properly position the greatness of the cultures of the Muslim world in our global cultural heritage. The Trust aims to leverage the unique transformational power of culture to improve socio-economic conditions prevailing in many Muslim populations – communities that often have a rich cultural heritage but that live in poverty.

The Trust has shown how culture can be a catalyst for development even in the poorest and most remote areas of the globe. From Afghanistan to Zanzibar, from India to Mali, the Trust's support to historic communities demonstrates how conservation and revitalisation of the cultural heritage – in many cases the only asset at the disposal of a community – can provide a springboard for social development.

We have also seen how such projects can have a positive impact well beyond conservation, promoting good governance and the growth of civil society, providing economic opportunities, greater respect for human rights and better stewardship of the environment.

The power of culture is that it can improve and unify an entire nation. And it can reveal that nation at its best to the outside world. It is therefore my sincere wish that the endeavours of the Trust have a catalytic effect on the revitalisation of communities – raising incomes, restoring pride, improving the quality of the arts and, most importantly, restoring hope.

His Highness the Aga Khan

- Aga Khan Trust for Culture programmes:**
- Aga Khan Historic Cities Programme Projects - (HCP)
 - Aga Khan Award for Architecture - (AKAA)
 - ArchNet, www.archnet.org - (ArchNet)
 - Aga Khan Program for Islamic Architecture - (AKPIA)
 - Aga Khan Music Initiative in Central Asia - (AKMICA)
 - Museum Projects - (Museums)

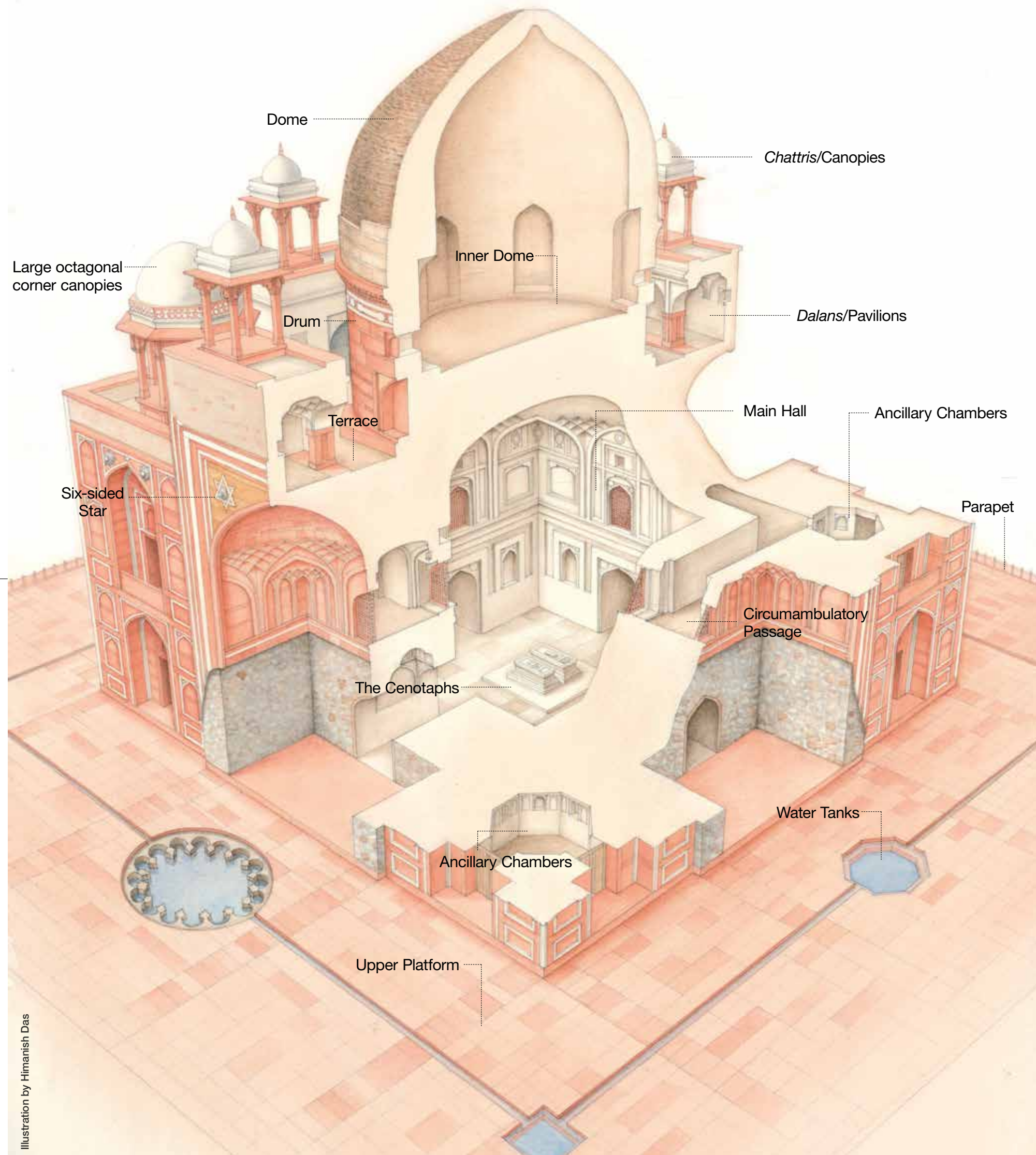


Illustration by Himanish Das

Conservation of Tomb of Abdur Rahim Khan I Khanan c.2014-2017

“... the architects of the Taj Mahal derived their inspiration, from two buildings at Delhi which predetermined it in certain aspects of its conformation. These are the mausoleum of Humayun and the Tomb of Abdur Rahim Khan I Khanan, ...the later one is proof that the type of architecture they represent had not been forgotten during this interval...”

Moreover, in view of the fact that Rahim’s Tomb was erected only a few years before the Taj is also an indication that the style they typify was being revived and again coming into favour. On the traditions therefore of Humayun’s Tomb on the one hand, and with the experience gained from that of the Khan I Khanan’s Tomb on the other, Shah Jahan’s architects evolved the masterpiece of the builder’s art.”

INDIAN ARCHITECTURE, ISLAMIC PERIOD, PERCY BROWN, 1968

About InterGlobe Foundation

With a vision to promote India’s heritage and culture, InterGlobe Foundation sees a great opportunity in undertaking efforts in promoting India’s tangible and intangible heritage and culture. We believe that heritage conservation not only seeds a sense of identity in the communities but also fulfills our responsibility of passing on our rich heritage into the hands of generations to come. With this objective in mind, InterGlobe Foundation joined hands with Aga Khan Trust for Culture for conservation of Rahim’s Tomb and revival of his literary works through publications, exhibitions and films. The conservation initiative at Rahim’s Tomb is an endeavor to revive the art and artistry of a person of such magnified stature and to ensure a new lease of life for the grand mausoleum that inspired the Taj Mahal. We are hopeful that our collaborative efforts would garner great interest amongst the visitors and create more awareness of our past.

For more information on the project, visit: www.nizamuddinrenewal.org
 For regular updates Like us on: <https://www.facebook.com/NizamuddinRenewal>
 Inquiry: info@nizamuddinrenewal.org



In Partnership With



1627AD

The monumental mausoleum was built by Rahim for his wife making this the first ever Mughal tomb built for a lady. Rahim was himself buried here in AD 1627



1923AD

Major repair works using Delhi Quartzite stone masonry were undertaken to stabilize portions of the tomb



1986AD

The Delhi Quartzite stone plinth similar in design to Humayun's Tomb was replaced inappropriately with sandstone paving at a lower level; thus compromising the structural stability of the foundation.



2004AD

The repairs in the ancillary chambers and main hall was carried out in cement-surkhi plaster disfiguring the original details and patterns.

2014AD

Commencement of conservation works on the tomb of Abdur Rahim Khan I Khanan by Aga Khan Trust for Culture in partnership with Archaeological Survey of India and InterGlobe Foundation



Built as a tomb for Rahim's wife, the mausoleum is also known as a precursor to the famed Taj Mahal

1598AD



1847AD

Rahim's Tomb, depicted in the Asrar-us-Sanadid (1847) by Sir Syed Ahmed Khan with the garden enclosure walls, an impressive gateway and much of the stone intact. The gateway, enclosure walls have since been lost as has much of the stonework.



1978AD

Further conservation works were undertaken by the ASI including excavation of the platform and restoring some missing sandstone to the tomb.



2003AD

The Delhi Quartzite plinth was re-set and garden levels raised by 18". The lower plinth paving was also replaced with red sandstone at a much lower level exposing the foundations.



2006AD

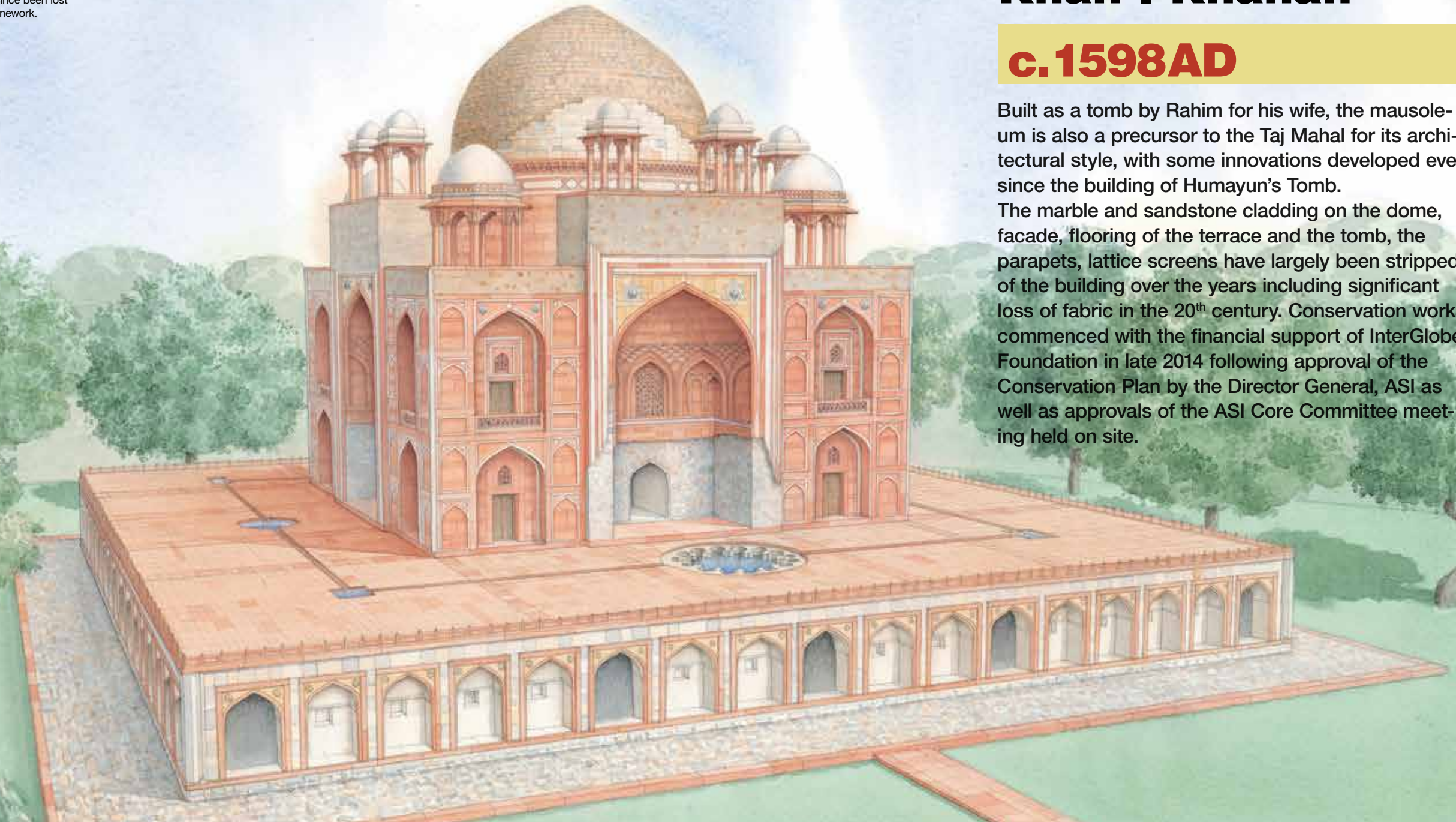
The repairs in the lower arcade and corner alcoves was carried out in cement-surkhi plaster over the ornamental incised lime plasterwork.

Understanding the Tomb of Abdur Rahim Khan I Khanan

c.1598AD

Built as a tomb by Rahim for his wife, the mausoleum is also a precursor to the Taj Mahal for its architectural style, with some innovations developed ever since the building of Humayun's Tomb.

The marble and sandstone cladding on the dome, facade, flooring of the terrace and the tomb, the parapets, lattice screens have largely been stripped of the building over the years including significant loss of fabric in the 20th century. Conservation works commenced with the financial support of InterGlobe Foundation in late 2014 following approval of the Conservation Plan by the Director General, ASI as well as approvals of the ASI Core Committee meeting held on site.





2016

Humayun's Tomb World

Heritage Site:

- | | |
|------------------------------|----------------------------------|
| 1. Barber's Tomb | 6. Arab Serai Bazaar |
| 2. Nila Gumbad Garden-Tomb | 7. Mirza Muzaffar Hussain's Tomb |
| 3. Afsarwala Tomb and Mosque | 8. Chotta Batashewala |
| 4. Bu-Halima's Garden-Tomb | 9. Mughal Tomb |
| 5. Isa Khan's Garden-Tomb | 10. Lakkarwala Burj |
| | 11. Sundarwala Mahal |
| | 12. Sundar Burj |

World Heritage Site of Humayun's Tomb **EXTENDED**

c.2016AD

Humayun's Tomb and the other contemporary 16th-century garden tombs within the property form a unique ensemble of Mughal era garden-tombs. The monumental scale, architectural treatment and garden setting are outstanding in Islamic garden-tombs. Humayun's Tomb is the first important example in India, and above all else, the symbol of the powerful Mughal dynasty that unified most of the sub continent.

With the 2015 recognition that "Humayun's Tomb and the other contemporary 16th-century garden tombs within the property form a unique ensemble of Mughal-era garden-tombs," AKTC in 2016 proposed, through the ASI, to UNESCO, for 16th-century garden tombs standing in Sundar Nursery, such as Lakkarwala Burj, Sundar Burj, Mirza Muzaffar Hussain's Tomb, Sundarwala Mahal, 'Unknown Mughal Tomb', Chota Batashewala Tomb and Nila Gumbad's garden setting, to be included in a further extension of the World Heritage Site boundaries and Rahim Khan-i-Khanan's tomb be included within the Buffer Zone.





India still has a long established building craft traditions which can play an important role in the conservation of Monuments. Employment of crafts persons should be (for)... restoration and reproduction of geometric designs as well as restoration and reproduction of designs of historic interiors.
 – ASI National Policy for Conservation, 2014



Supervision
 A team of engineers experienced in conservation works and conservation architects monitor, supervise and guide the craftsmen on daily basis to ensure quality and appropriateness of the conservation works. The 1923 ASI Conservation Manual explicitly forbids any conservation work if experienced supervisors are not available.



Restoring Decorative Motifs

Careful cleaning
 Layers of soot and lime-wash had obliterated the 17th century patterns in most parts of the structure but especially in the main tomb chamber. In order to ensure no damage occurs to the underlying plaster patterns, craftsmen took over a year to clean the domed ceiling with soft and moist toothbrushes – with spectacular results.



Incised Plasterwork
 The central chamber and five ground level arches on each façade, are ornamented with intricate incised plaster patterns. Original patterns were carefully consolidated and preserved prior to removing 20th century cement layers and restoring missing portions in lime mortar.



Stone Craftsmanship
 Master stone carvers used traditional tools and building crafts to carefully match the work of their forefathers. At Rahim's Tomb, each of the 68 arches on the ground level have a different carved motif on each side. Where one was missing, these motifs were restored as per the original design.



Cleaning the Main Hall

Using Lime Mortar
 Lime mortar, prepared from limestone, returns to its natural chemical composition and thus is long lasting with only the minimum, maintenance and effort. However, preparation of lime mortar requires several weeks and stringent conditions. Additives such as fruit-pulp, lentil, jaggery ensure that patina to lime mortar returns within a few years of its application.



Repairing structural failure

Stitching the Cracks:
 Unequal settlement in the crypt had led to serious structural cracks all the way to the top of the dome. Master craftsmen using traditional building techniques repaired the cracks over a year long period. This required significant underpinning of the foundations and lime grout in the masonry.



Rahim's Tomb Conservation Process

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

- The Florence Charter, 1981, Article 15

The conservation works at Rahim's Tomb have been guided by national and international charters but especially with the 2014 National Policy for the Conservation of Monuments and the Manual on Conservation by John Marshall – both of the Archaeological Survey of India. Writing the Conservation Manual for the ASI in 1923, John Marshall stressed that *'repairs be attempted only in cases where its advisability is undoubted, and where special funds can be provided for the purpose'*. In 2014, InterGlobe Foundation generously offered to fund the conservation of the mausoleum as well as an associated cultural programme. All conservation works are being undertaken at Rahim's tomb utilizing *'available traditional craftsmanship in the country and the use of traditional building materials and skills as an integral part of the conservation process'*. All repairs have focussed on imparting *'stability and to prevent loss of original material'*. The conservation effort have primarily aimed to *'prolong the life'* of the mausoleum while preventing any further *'damage and deterioration'* by *'minimising the impact of external agents of decay (natural and human induced) on its setting, structure and material'*. All efforts to conserve Rahim's mausoleum will aim to *'retain its value and significance, its authenticity and integrity, its visual connections to and from the monument, and to sustain a truthful representation of its original / historic appearance'*.



1. Identify the Place

The need for extensive conservation and landscape works in Abdur Rahim Khan I Khanan's Tomb was felt necessary to ensure long term preservation, enhance visitor understanding and experience of the Tomb and cultural heritage of Rahim. Detailed structural analysis was carried out of the building at the crypt, plinth, foundation, chambers and dome. Investigative *'tell-tales'* installed at various locations on the building to assess any movements.



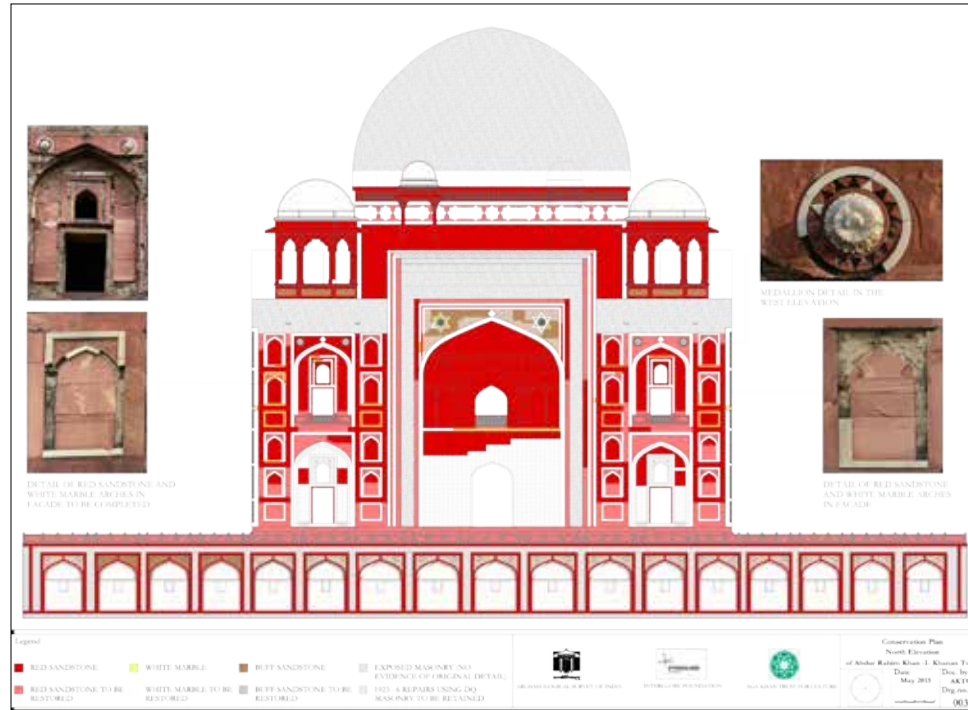
2. Documentation & Research

Through 2014, exhaustive recording, architectural documentation, condition assessment, structural assessments, surveys and research exercise was carried out by the multi-disciplinary project team as a precursor to the Conservation Plan that forms the foundation for the project.



3. Statement of Significance

Prior to outlining the conservation philosophy it was considered essential to define the significance as is understood by the project team. This is to be read in conjunction with the Statement of Outstanding Universal Value as per the nomination dossier.



4. Conservation Philosophy

The conservation works preceded by high standards of recording to be undertaken are focused on restoring the *'spirit and feeling'* of the space with an emphasis on craftsmanship, interpretation and supervision. A stone by stone analysis of each facade was carried out to identify the various decorative elements on each facade and to better understand the patterns of cladding in its entirety, as it would have been. The analysis informed the conservation philosophy for the restoration of the facade and stone blocks are being restored where considered necessary and where evidence of stone patterns leaves no doubt of original cladding details.

5. Peer Review

Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on those in charge of the work. Additionally, being a related place to the WHS, it is considered essential that the conservation works are on a regular basis reviewed by independent experts in addition to ASI Core Committee and AKTC officials.



6. Conservation Plan

Implementation of works commenced only after the approval of the conservation plan by the ASI Core Committee. Following the completion of the project, Conservation Plan (text, photographs and drawings) will be available on the project website and thus accessible worldwide.



7. Implementation

Conservation works commenced only on the basis of adequate financial resources being available for the successful implementation of this project. The project has access to technical staff, national and international experts. In order to ensure quality of craftsmen, no conservation works are being tendered – all works being carried out by master-craftsmen employed by the project. Similarly traditional materials – sandstone & lime – are procured and prepared with quality assurance.



8. Supervision

Conservation works are being carried out in keeping with the conservation plan and are guided by Engineers with over three decades of conservation experience and by experienced conservation architects. A conservation architect and a jr. engineer are present at all times during conservation works and are assisted by field supervisors.

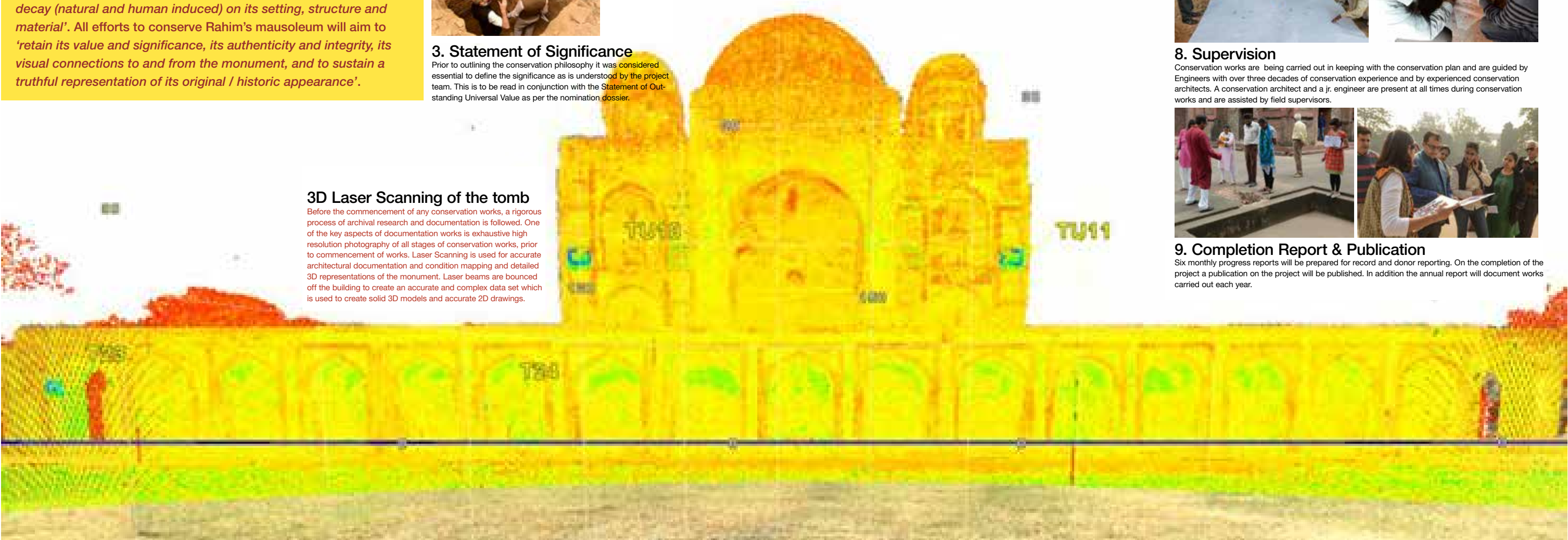


9. Completion Report & Publication

Six monthly progress reports will be prepared for record and donor reporting. On the completion of the project a publication on the project will be published. In addition the annual report will document works carried out each year.

3D Laser Scanning of the tomb

Before the commencement of any conservation works, a rigorous process of archival research and documentation is followed. One of the key aspects of documentation works is exhaustive high resolution photography of all stages of conservation works, prior to commencement of works. Laser Scanning is used for accurate architectural documentation and condition mapping and detailed 3D representations of the monument. Laser beams are bounced off the building to create an accurate and complex data set which is used to create solid 3D models and accurate 2D drawings.



Conservation Challenges at Rahim's Tomb



The tomb interiors have cement layers that has not only disfigured the decorative incised plasterwork but also significantly disfigured the historic architectural character. The cracks in the vaults and domed surfaces have been inappropriately filled in with cement mortar in places. On the four corners of the principal tomb chamber stand domed ancillary chambers, and as with the principal tomb chamber, they are profusely decorated using incised plasterwork. Layers of plain cement-surkhi plaster repairs have been carried out in these chambers disfiguring original elements. Decorative incised plasterwork has been restored where original patterns can be deciphered or have disintegrated.

Decayed Ancillary Chambers



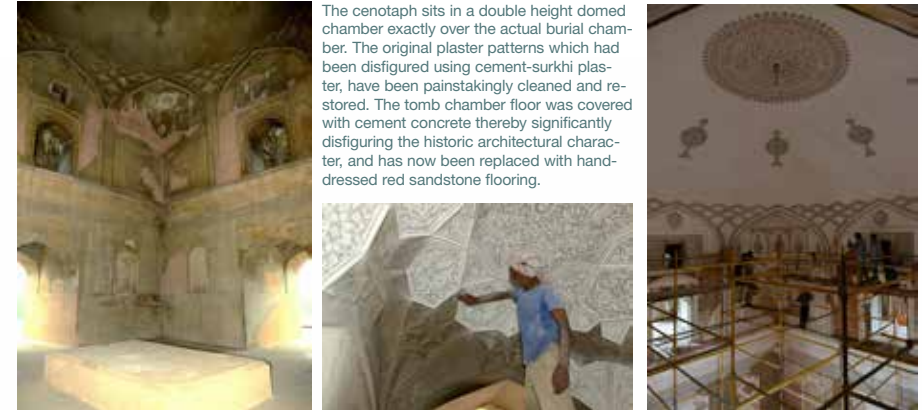
The cement-concrete layer laid on the terrace will be carefully and manually removed as it has been causing water percolation to the lower levels. This will be replaced with a traditional lime concrete laid to original levels and slopes, ensuring long term preservation of the structure. The four corners of the roof have large octagonal canopies that stand on a raised platform. These have been covered with unnecessary layers of cement plaster/concrete, disfiguring their original character and missing elements. In the centre of the four sides stand low vaulted dalans, suffering due to water percolation from the roof above. As with Humayun's Tomb, over each of the four dalan's stood two canopies each, but now only one on the northern face can be found standing. Stone elements of the missing canopies were found at the site, and careful documentation of the stones suggests that four more canopies can be built using the pieces.

Terrace Repairs



The tomb is crowned with a double dome, where the outer dome would have originally been clad with marble serving as a protective layer for the underlying masonry. This was stripped in the 19th century exposing the underlying random rubble masonry. The inner layer of the dome is in brick masonry and had significant deep cracks. Following a detailed assessment and studies by structural engineer and ASI-AKTC committee on their cause, conservation works were undertaken which included re-plastering. An important next step is addition of marble to the dome as a protective layer and important architectural element.

Dome



The cenotaph sits in a double height domed chamber exactly over the actual burial chamber. The original plaster patterns which had been disfigured using cement-surkhi plaster, have been painstakingly cleaned and restored. The tomb chamber floor was covered with cement concrete thereby significantly disfiguring the historic architectural character, and has now been replaced with hand-dressed red sandstone flooring.

Principal Tomb Chamber



Restoring Main Facade

On account of the mausoleum being used as a quarry in the 18th century, marble and sandstone blocks have been stripped from here, and the structure presents a ruinous appearance. With the protective stone cladding removed from large parts of the structure, the building is today in a poor state of preservation. Major repairs to portions of the building have been carried out in the 20th century that have ensured preservation. These repairs are being retained as examples of good repairs.



In the centre of the southern facade the steps leads to the grave chamber. Unlike at Humayun's Tomb the domed chamber is supported on columns and has a circumambulatory passage all around it. Major structural cracks were seen in the roof of the chamber and heavy settlement of the flooring of the passage – both of which required emergency repairs to be undertaken to ensure structural stability.

Repairing Structural Failure



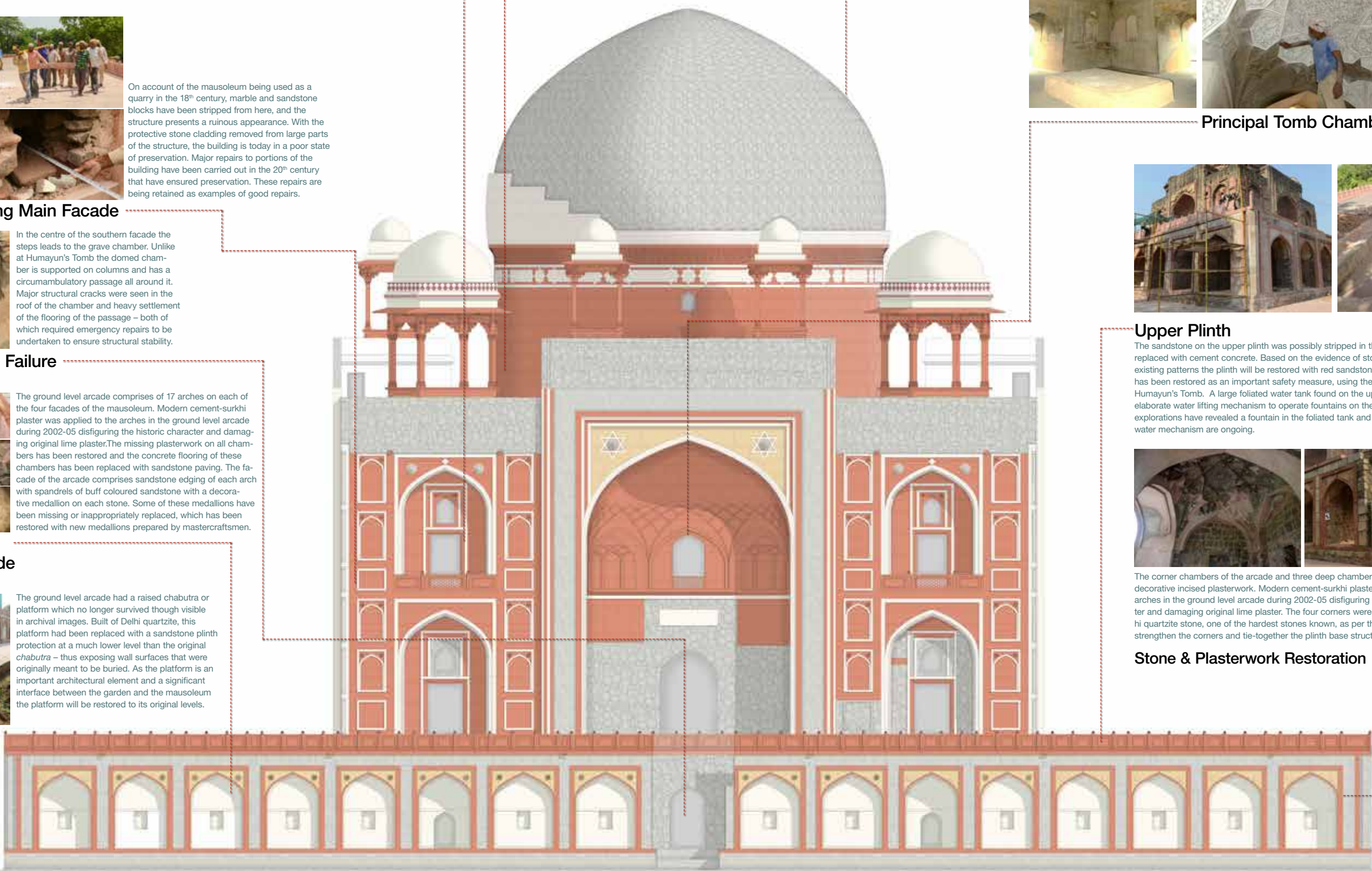
Ornamental Plasterwork of Lower Arcade

The ground level arcade comprises of 17 arches on each of the four facades of the mausoleum. Modern cement-surkhi plaster was applied to the arches in the ground level arcade during 2002-05 disfiguring the historic character and damaging original lime plaster. The missing plasterwork on all chambers has been restored and the concrete flooring of these chambers has been replaced with sandstone paving. The facade of the arcade comprises sandstone edging of each arch with spandrels of buff coloured sandstone with a decorative medallion on each stone. Some of these medallions have been missing or inappropriately replaced, which has been restored with new medallions prepared by mastercraftsmen.



Original fabric of Lower Plinth

The ground level arcade had a raised chabutra or platform which no longer survived though visible in archival images. Built of Delhi quartzite, this platform had been replaced with a sandstone plinth protection at a much lower level than the original chabutra – thus exposing wall surfaces that were originally meant to be buried. As the platform is an important architectural element and a significant interface between the garden and the mausoleum the platform will be restored to its original levels.



Upper Plinth

The sandstone on the upper plinth was possibly stripped in the 18th century and replaced with cement concrete. Based on the evidence of stone thickness and existing patterns the plinth will be restored with red sandstone. The sandstone parapet has been restored as an important safety measure, using the same patterns as Humayun's Tomb. A large foliated water tank found on the upper plinth suggested an elaborate water lifting mechanism to operate fountains on the terrace level. Further explorations have revealed a fountain in the foliated tank and further studies on the water mechanism are ongoing.



The corner chambers of the arcade and three deep chamber are plastered with decorative incised plasterwork. Modern cement-surkhi plaster was applied to the arches in the ground level arcade during 2002-05 disfiguring the historic character and damaging original lime plaster. The four corners were restored using Delhi quartzite stone, one of the hardest stones known, as per the original details to strengthen the corners and tie-together the plinth base structurally.

Stone & Plasterwork Restoration



Installing sandstone lattice screens

2014



Manual cleaning of tomb interiors



Cleaning of the Main Tomb's ceiling

Soft cleaning of ornamental motifs and plasterwork



Retoring the missing ornamental motifs



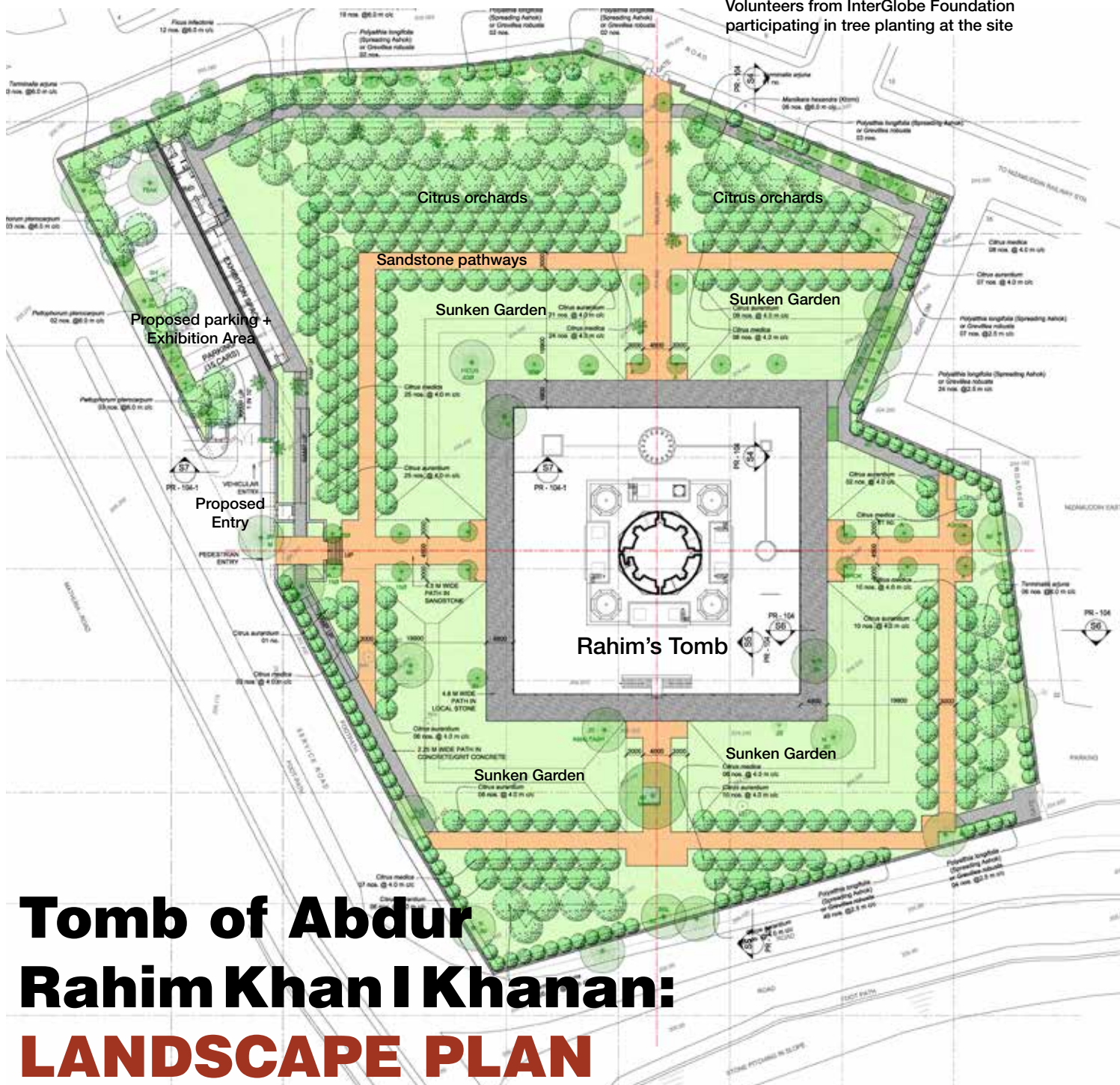
Tomb of Abdur Rahim Khan I Khanan: **MAIN HALL**

2016

Rahim's grand mausoleum would have been a garden tomb as with Humayun's Tomb and Taj Mahal. Scientific clearance of earth was carried out in an effort to reveal any foundations of enclosure walls, remains of garden pathways, water features etc. Having found no archaeological evidence of the same, and in view of this a minimal charbagh has been proposed. Though the original landscape setting has been lost, an indication of how grand the northern gardens would have been is provided by the revelation of rooftop tanks. Rahim, who is known to have built elaborate water lifting structures in Burhanpur would have no doubt incorporated such a system here. In the space available a small formal garden is to be created to allow visitor movement and views to the monument. The garden will be planted with a citrus orchard and other plants known to have been favoured by the Mughals.



(Top) Excavation of Delhi Quartzite lower plinth revealed the original garden levels; (Bottom) Volunteers from InterGlobe Foundation participating in tree planting at the site



Tomb of Abdur Rahim Khan I Khanan: LANDSCAPE PLAN