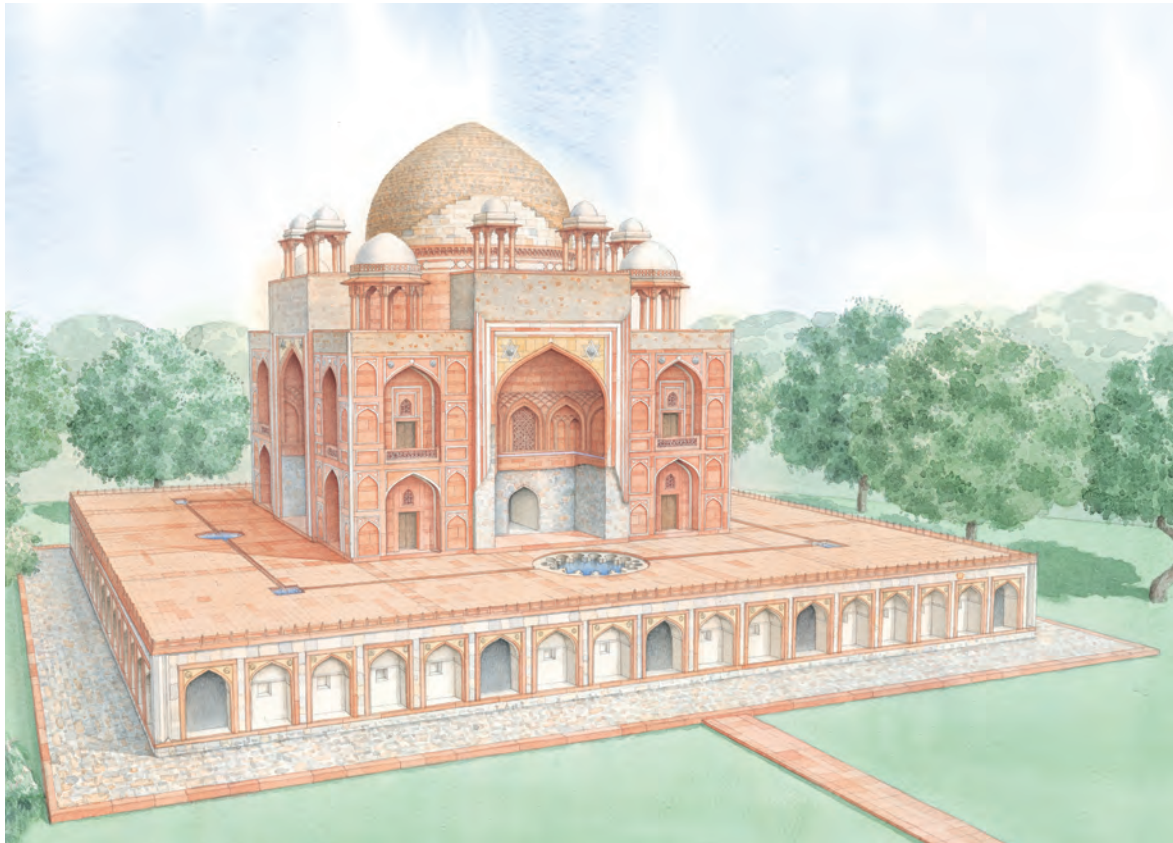




AGA KHAN TRUST FOR CULTURE

**Humayun's Tomb - Sundar Nursery - Hazrat Nizamuddin Basti
URBAN RENEWAL INITIATIVE**



TOMB OF ABDUR RAHIM KHAN I KHANAN

CONSERVATION & CULTURAL REVIVAL

*undertaken in partnership with
Archaeological Survey of India
and*





BUILDING HIS WIFE'S MAUSOLEUM

Standing only a few hundred yards south of the mausoleum of emperor Humayun is the monumental tomb built by Abdur Rahim Khan-I Khanan for his wife – MahBanu. Built in 1598 AD, this would be the first monumental tomb built for a lady in Mughal times and, on his death, Rahim was also buried in the mausoleum he had built for his wife.

The architectural design of Rahim's mausoleum derives from the architectural style established at Humayun's Tomb. Here too stands an arcaded ground level platform in the centre of which stands the double storied principal tomb chamber capped by a double dome. As with Humayun's mausoleum, the rubble masonry structure is clad with red sandstone with white marble inlay and the dome would have been clad only in marble. Like Humayun's Tomb, this would also have been enclosed within arcaded enclosure walls – lost to rapid urbanisation in the 20th century.



CONSERVATION

Rahim was one of Emperor Akbar's nine most important ministers, known as the *navratans* (nine gems), and was renowned for his military prowess, skill as an administrator, scholarly pursuits, such as the translation of the Ramayana and poetry. Rahim was best known for the Hindawi couplets composed by him, known as '*dohas*', significant for its literary teachings. Despite the historical, architectural and archaeological significance of the structure, by the 21st century Rahim's Tomb was in a ruinous condition with a risk of complete collapse. Though an estimated six million people drive past the mausoleum annually, very few are aware that the ruin is the tomb of the legendary Rahim.



Writing the Conservation Manual for the ASI in 1923, John Marshall stressed that '*repairs be attempted only in cases where the availability of funds 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 culminating in publications, concerts and academic symposiums. This first ever corporate sponsorship of conservation at any of India's national monuments enabled the Archaeological Survey of India (ASI) and the Aga Khan Trust for Culture (AKTC) to plan the required conservation effort and ensure long term preservation of this significant and prominently located structure.

Conservation works at Rahim's Tomb were preceded with the successful completion of a major conservation effort at Humayun's Tomb, enabling the multi- disciplinary ASI-AKTC team to establish a model conservation process for the Indian context while adhering to established national and international conservation guidelines.

(Top) Documenting and studying Rahim's cultural contributions and disseminating this knowledge through publications, films, music recordings, heritage walks; (Centre) 3D laser scanning of the structure to create accurate architectural drawings; (Bottom) Artist's rendition of the Main Tomb chamber after its conservation.

An archival research and architectural documentation programme initiated at the onset of the conservation effort utilised state-of-art technology such as 3D laser scan surveys to map even microscopic cracks and enable structural analysis. Archival images revealed that the ASI had undertaken major repairs here in 1923, 1978 and 2003.

Studies also revealed that contrary to popular belief, missing stone from the wall surfaces and paving of Rahim's Tomb was not all taken for Safdarjung's Tomb. At most, the marble from the dome of Rahim's Tomb could have been removed for use at Safdarjung's tomb but this too requires further research. Archival images from the 20th century reveal greater quantities of original stone surviving both on wall surfaces and paving. A combination of poor construction, neglect and vandalism in the 20th century is now considered to have led to significant deterioration and large portions of stone going missing from Rahim's Tomb.

The understanding gained from a yearlong effort led to the writing of a Conservation Plan. The Plan was peer reviewed and approved by the Director General, Archaeological Survey of India in September 2014 enabling the Aga Khan Trust for Culture to commence works soon thereafter.

At the very onset, wide and deep cracks in the crypt, first floor and within the dome of the mausoleum required emergency repairs. Master craftsmen using traditional tools and building crafts worked with traditional materials – stone and lime mortar – to fill the cracks and restore the profile of the vaulted roofs and arched openings. However, it was realised that the cracks had been caused due to unequal foundations provided to the building in the 17th century - requiring complex and risky underpinning of the foundations. Profusion of cracks were recorded on the upper floors and in the double dome and required careful repairs over several months.

With structural deterioration, portions of the ground level arcade had collapsed; these portions have been carefully reconstructed with similar stone. The 4 meter tall arcade has also been provided a sandstone parapet to ensure safety of visitors. In a design unique to this structure, each arch of the arcade boasts of a different medallion; in cases where both medallions were found missing, only the standard circular profile could be provided.

On each façade are five chambers on the ground level and each of these is profusely ornamented with incised plaster patterns of varying designs. As with the plain plaster of the remaining 12 arches, the lime plaster had been replaced or even plastered over with the pink cement-*surkhi* during earlier repairs. This inappropriate modern plaster was catalysing deterioration and was thus carefully removed in 2016 from both the ground level arcade and other portions of the structure – such as the tomb chamber and roof. All original incised plaster patterns were consolidated and missing portions restored by master craftsmen using tools, techniques and materials used by their forefathers four centuries ago.

With the original quartzite stone paving seen in 1923 images removed from the plinth protection of the arcade and later replaced with sandstone at a lower level, the foundations of the arcade were found to be dangerously exposed by over 40 cm. The more recent sandstone paving is now being removed and will be replaced with the authentic quartzite stone blocks –laid to the original steep slope to ensure quick disposal of rainwater away from the structure.



(Top) Mastercraftsman restoring the missing ornamental patterns of the lower arcade in incised lime plaster; (Centre) Craftsmen restoring the lower facade of the tomb; (Bottom) Main Tomb Chamber ceiling during conservation, where the walls and alcoves were cleaned using soft brushes and water.



Careful cleaning of 20th century paint and lime-wash (distemper) layers from the principal tomb chamber revealed the most intricate incised plaster patterns – in bands, medallions and roof level blind arcade in the cubicle central tomb chamber. Almost miraculously, the original surfaces – marble-like in appearance – had largely survived. In small portions where these intricate plaster patterns had been replaced by plain modern plaster, they were carefully restored.

As with Humayun’s Tomb, here too the roof has four corner canopies and eight central canopies. Of the eight central only one remains standing though collapsed stone fragments of several others have remained on the roof – requiring effort to rebuild as many of collapsed canopies as possible.



Conservation works are yet to be undertaken on the dome and the lofty arches of the façade where all or much of the stone cladding is respectively missing. This has led to significant deterioration of the masonry. The underpinning in 1923 by the Archaeological Survey of India, carried out using quartzite rather than sandstone, has no doubt been the only reason the structure has not collapsed and as such will be retained. Following another round of structural assessment conservation efforts here are likely to require modern technology – such as tie-rods – to prevent further movement. Following this stone cladding where missing could be restored to the central arches where evidence of original patterns and design remains. Similarly, on the four corners of the façade, stone blocks where missing will be restored.

Conservation works will be completed in 2018.



PEER REVIEW

Every conservation effort should be supported by independent peer reviews. This need is however much greater for prominent, significant buildings and where major repairs are planned to be undertaken. It is planned to conduct at least 50 independent peer reviews during the course of the conservation effort – seeking opinion of diverse stakeholders – archaeologists, conservation architects, engineers, administrators, historians, authors, amongst others. 30 such reviews have already been held and have helped inform the conservation effort.

LANDSCAPE

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.

It is proposed to shift the principal visitor entrance to the west where proper road access is available and 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) Following recommendations of the structural engineer and ASI reviews, craftsmen consolidated the foundation of the Tomb; (Centre) Craftsmen repairing deep cracks in the crypt; (Bottom) Regular meetings were held of AKTC and ASI to review the progress of conservation works. Peer reviews with over 30 professionals were held at site to discuss the conservation approach and have informed the conservation effort

Watercolour illustrations by Himanish Das

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