

# HISTORIC PRESERVATION THEORY AND PRACTISE

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## HUMAYUN'S TOMB – Critical Assessment of the Restoration

by Aga Khan Trust for Culture



Humayun's Tomb is one of the most important structures that introduced the Persian Style of architecture to India. The structure was constructed at the center of the charbagh (four-fold style of landscape architecture) in 1569 by a Persian architect Mirak Mirza Ghiyas. The tomb was declared UNESCO's world heritage site in 1993 for being the first structure to introduce the charbagh style of landscape architecture and for being the first grand mausoleum in India. Over the years, many changes have been made to the structure as well as the charbagh, depending on the authorities or the people maintaining the complex. Some of the changes have also been the result of the important events that have taken place in the history of India. This paper talks about how the recent restoration of the complex by the Aga Khan Trust for Culture(AKTC) has negatively affected the preservation of the important historic events that took place in and around the complex.

The Aga Khan Trust for Culture, founded in 1988 and registered in Geneva, Switzerland is a private, non-denominational, philanthropic foundation. It was founded by His Highness Aga Khan, the founder of Aga Khan Development Network and the 49th hereditary Imam ( Spiritual leader) of the Shia Imami Ismaili Muslims.<sup>1</sup> AKTC, in partnership with the Archaeological Survey of India (ASI), started its work in India by restoring the gardens of Humayun's Tomb as a gift on the occasion of the 50th anniversary of the Independence of India in 2004. Upon the successful completion of the restoration of the gardens, H.E Dr. Manmohan Singh, the then Prime Minister of India, encouraged the incorporation of more public-private partnerships to maintain and restore the national heritage. As a result, in 2007, an agreement with the Archaeological Survey of India and Public Works Department enabled AKTC to return to the

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<sup>1</sup> His Highness Aga Khan has done a lot of works in preserving Muslim Architecture."His Highness the Aga Khan's Biography." Biography of His Highness the Aga Khan. <http://www.akdn.org/about-us/his-highness-aga-khan-0>.

historic Nizamuddin area to undertake an Urban Renewal Initiative. Some of the important structures of the Nizamuddin area are Humayun's Tomb, Nila Gumbad, Isa Khan's garden tomb, Arab Serai gateways and other adjoining monuments. The goal of this Urban Renewal Initiative was to create a 100-acre city park by conserving the historical monuments of the area while also improving the living conditions of the people of Nizamuddin Basti - a repository of seven centuries of living culture. Their aim was to prove that culture plays an important part in the development of a society. The initiative also makes a case for returning to traditional craft based approach for the conservation of historic monument. Experts of different fields have been involved in this project. Ratish Nanda and Sangeeta Singh were the conservation architects from AKTC, Jahnwiji Sharma, the first architect engaged by the Archaeological Survey of India responsible for World Heritage Sites, A.G. Krishna Menon, an architect representing the Indian National Trust for Art and Cultural heritage (INTACH), Rajpal Singh, the project manager, Balbir Singh, the archaeological engineer, and Atar Singh, the principle stone craftsman on the site. Their approach focussed towards bringing back the appearance of the complex to the time when it was originally constructed in 1569. But this approach has negatively affected the history related to the site between 1569 and 2007. This can be observed by understanding the important historical events as well as past restorations that have taken place in the Tomb along the years.

Humayun's Tomb had started deteriorating in just a few years after its construction. This started when the Mughal empire's capital center shifted from Delhi to Agra in 1556. Following that, the decline of the Mughals and the resulting lack of available funds for the expensive upkeep of the vast gardens, in 1556, accelerated the deterioration of the garden.

The British started arriving in India in 1600. After the capture of the last Mughal emperor Bahadur shah in the Indian Rebellion of 1857 and the execution of his three sons, the British

completely took over Delhi. Few years after the British rule, they seemed to be missing the landscape that they had gotten used to in their country.

" *For the British in India, "like tea, gardens offered colonials reassurance in situations of stress".*

*Wherever the British went, Ms. Herbert wrote, they took with them, as part of their "cultural baggage", their love of gardens and their view of what a garden should look like - "and nowhere was this more evident than in India".* <sup>2</sup>

As a result, they started converting the Mughal charbaghs into a British landscape, which consisted of flat gardens and uniformly planted bushes, some of which can still be found in the gardens of Taj Mahal. Lord Minto, the Governor General (1807-1813), responsible for the changes in TajMahal, is believed to have ordered the same alterations to take place in Humayun's Tomb. The



English garden-style roundabouts replaced the square central tanks of the Charbagh garden in 1860

four central square pools were replaced by circular beds and the trees were planted in the flower beds. The evidence can be seen in the image.

According to the "First Report" of the Curator of Ancient Monuments in India in 1882, the garden had lost all the character of the garden and was lent out in patches to cultivators, who were mostly the descendants of the Kings of Delhi, who grew cabbages and tobacco there. Also, the surrounding walls and gateways were in a state of ruin. <sup>3</sup>

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<sup>2</sup> TheNatWorld. "The Roots of a British Legacy | The National." The National. 2013. <http://www.thenational.ae/news/world/south-asia/the-roots-of-a-british-legacy>.

<sup>3</sup> "Preservation of National Monuments: ... Report of the Curator of Ancient Monuments in India for ... : India Curator of Ancient Monuments , Henry Hardy Cole : Free Download & Streaming : Internet Archive. <https://archive.org/details/preservationnat02colegoog>.

These restorations were done by the Governor General and the Viceroy of India, Lord Curzon. It was on January 6, 1899, that Lord Curzon arrived in India to become the youngest ever Viceroy at the age of 39. He was one of the few British officials who made a positive impact in the history of India. Lord Curzon was responsible for organizing a famine relief. He also started the national irrigation system, attempted into preventing poor farmers from getting into debt, reformed the police and education systems and promoted the restoration of ancient Indian monuments. Humayun's Tomb and the surrounding complex were among the monuments restored by Lord Curzon. Lord Curzon greatly admired the architecture of India. Between 1903 to 1909, Lord Curzon attempted to change the British changes made to the charbagh and ordered to remove the excess vegetation of cabbage and tobacco, thereby restoring the original garden. He ordered the reconstruction of the gateways and enclosing walls and developed a planting scheme in 1915 emphasizing the central and diagonal axis of the charbagh by planting trees.

This google map shows the restoration of the charbagh when it was completed in 2014. It can be seen that there are no definite trees that are emphasizing the central and diagonal axis of the charbagh.



**Site Plan showing the absence of plantations emphasizing the vertical and diagonal walkways. Source - Google Maps**

The restoration project of the garden by AKTC under Ratish Nanda, the principle conservation architect, included reinstating the walkways and conserving the edging stones, repairing, extension and activation of the irrigation system, establishing water sources for the water channels and irrigation system, conserving, repairing and rebuilding the water system, re-leveling the planted zones and revitalizing them

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with species and plantations that confirm to the customs and patterns of Mughal sources. There is no mention in the ICOMOS report and the UNESCO's World heritage report that the irrigation system was introduced in the tomb by the Mughals. But it is known that the irrigation system was introduced in India by Lord Curzon during his time as the Governor of India. Now this leads me to believe that the AKTC might not be sure as to who introduced the irrigation system. If they were trying to bring the monument back to the Mughal Period, they should not have restored the irrigation systems. And if they were trying to retain the changes made by Lord Curzon, they should have conserved the plantations done by Lord Curzon. Hence, it can be said that the ambiguous objective of the restoration of the garden has mixed up the history of the tomb complex.

Another important contribution that Humayun's Tomb made to the history of India was during the Partition of India in August 1947 after India gained its independence ( in August 1947). Red Fort and Humayun's Tomb, in Delhi, became the refugee camps for the Muslims who were migrating to the newly formed Pakistan. The tomb complex operated for five years as a refugee camp and it significantly damaged not only the gardens, but also the water channels and the principle structure. In order to avoid further damage, the Public Works Department (PWD) encased the cenotaphs within the mausoleum in bricks. There was also a significant water ingress during that time and the tomb structure was failing to stop the leaking. As a result, the PWD ordered for the cement to be poured over the places that were causing leakage.

In 1960, the Archaeological Survey of India (ASI) undertook the responsibility of managing the heritage monuments in India and attempted to restore the damages done to the structure during the refugee camp. The ASI made four attempts at repairing and restoring the damages made to the tomb before it was undertaken by AKTC. In order to understand how the restoration by

AKTC resulted into muddling with the historic past represented by the tomb, it is important to know how the AKTC team restored the tomb. The reason for why they attempted to restore the structure a certain way would be discussed after understanding the restoration project.

The AKTC team which included Ratish Nanda and Sangeeta Singh, the conservation architects from AKTC, Jahnwaj Sharma, the first architect engaged by the Archaeological Survey of India responsible for World Heritage Sites, A.G. Krishna Menon, the architect representing the Indian National Trust for Art and Cultural heritage (INTACH), Rajpal Singh, the project manager, Balbir Singh, the archaeological engineer, and Atar Singh, the principle stone craftsman on the site, carried out an extensive research. The research comprised of detailed documentation using 3D Laser scanning technology. An exhaustive conditions assessment carried out by the above-mentioned AKTC team revealed that the tomb and its surrounding structures were in a relatively stable state. The deterioration included water seepage from the terrace, material deterioration on the facade of the tomb, the tiles on the kiosk on the roof of the tomb had chipped off, the dome of the tomb had significant damage and water leakage. According to the AKTC team, the architectural details used by the Mughals had been compromised by "the previous repairs in the 20th century", as they mention it, carried out using inappropriate modern materials. Hence, they aimed the conservation work at regaining the architectural integrity of the structure by using the traditional methods of construction with the help of the locally skilled artists, masons, stone carvers, plasterers and tile makers.<sup>4</sup>

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<sup>4</sup> "AKTC - Humayun's Tomb Conservation | Aga Khan Development Network." AKTC - Humayun's Tomb Conservation | Aga Khan Development Network. <http://www.akdn.org/publication/aktc-humayuns-tomb-conservation>.

For the mausoleum, water seepage from the roof was one of the major concerns. To solve this issue, a million kilos of cement concrete, which was placed there in the 20th century to prevent water ingress, was removed by the craftsmen to discover buried architectural elements. After removing the concrete, the masons had carefully filled the joints in the marble before the plasterers repaired the inside of the dome. According to the report of AKTC on the project brief, the stone paving of the lower plinth was restored after removing 40,000 square feet of concrete and manually resetting the stone blocks, which weighed up to about 2500kilos. The sandstone terrace, which had sunk over time (perhaps because of the weight of the concrete), also required an uplifting. It could be said that the sinking of this entire terrace could have happened when a large amount of concrete was laid here in order to prevent water seepage during the PWD's attempt to prevent water seepage and the four other attempts made by the ASI to do the same. A new layer of cement was added to the floor every time the water seeped through. In turn, this did not improve the situation but actually damaged the structure causing more water seepage, since the cement has the ability to hold water. This caused major cracks in the structure since the different layers of cement could not bond well and the addition of water in those layers resulted in the uneven seepage of water. These structural cracks were carefully stitched together before



Concrete removal on terrace. Source : "Humayun's Tomb Complex Restoration | Plan | Archnet."

[http://archnet.org/sites/6396/media\\_contents/75761](http://archnet.org/sites/6396/media_contents/75761)

resetting 5400 square meters of sandstone to original shapes and patterns. The stone carvers, under the authority of Atar Singh, the principle stone craftsman, also lifted about 3700 square meters of stones that were found under the previous cement repairs made to the terrace. The



resetting of some of the stone blocks required up to 15 craftsmen. The stone paving was laid on the terrace by following the patterns that were present before the restoration of the 20th century. In addition, the slope for the rainwater flow was maintained.<sup>5</sup>

The restoration of the contrasting red and white patterns on the surface of the tomb, achieved by red sandstone and marble inlay, was an important part of the tomb. Each stone of the facade was analyzed in order to determine if they needed to be repaired and replaced by the principle stone craftsman, Atar Singh. Each stone was worked on manually by the stone carvers in order to achieve the level of perfection to match the original finish of the stone. The masons used the traditional building techniques to repair the 42 arched recesses of the garden enclosure wall that had collapsed in the 20th century.

The Northern and Eastern pavilions, the Southern and Western gateways and the ground facade of the tomb, were significantly damaged by the nearly 15cm thick cement plaster that was applied on their stone masonry during the restoration in the 20th century. In order to restore these structures, all of the cement plaster was removed and around 20,000 square meter of wall and ceiling surfaces were plastered by lime mortar. This lime mortar was prepared in a lime wheel with additives such as molasses, egg whites, fruit pulp or marble dust. This lime plaster, according to the original Mughal construction technique found in the archival files of the ASI, as researched by the AKTC team, was applied in layers with the outermost layer of 1mm thickness, in order to make it look like marble. One of the other important intervention was the removal of

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<sup>5</sup> "AKTC - Humayun's Tomb Conservation | Aga Khan Development Network." AKTC - Humayun's Tomb Conservation | Aga Khan Development Network. Accessed October 16, 2016. <http://www.akdn.org/publication/aktc-humayuns-tomb-conservation>.

the cement plaster and the restoration of the decorative star-shaped patterns of the 68 mini-mausoleums on the ground level, where 160 Mughal family members were buried.

The AKTC gave significant importance to using traditional craft based methodology in the conservation of the patterns and decorative works on the building. AKTC's aim is to not only conserve the building, but also conserve the culture and the art that has been passed through generations to the people living in the Basti. But a lot of that art had been forgotten. Hence, craftsmen from Uzbekistan were called to teach that art of making tiles to the people of Basti, so that they could work on the tiles on the roof canopies of Humayun's Tomb. This conservation process took four years for its completion. Not only did this process teach the local residents the art of tile making, but it also expanded their opportunities for employment. Since Humayun's Tomb was made by Indians, some of the Indian influences that can be seen are the chhatris (canopies). These used to be covered by blue glazed tiles which had deteriorated over the years, but are now restored by the local craftsmen using a similar tile making technique. Even though the amount of the ornamental plasterwork and the ceramic tile does not cover a huge portion of the restoration, it holds a significant importance for the visitors, since they allow the visitors to understand the design intentions of the Mughal builders.<sup>6</sup>

With the help of this Urban Renewal Initiative, AKTC not only aims to conserve the built heritage but also aims to conserve the cultural heritage of the Nizamuddin Basti. The success of the conservation of the heritage monuments increased the number of tourists coming to the place, which in turn has helped in improving the employment opportunities for the people of

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<sup>6</sup> "Humayun's Tomb - Sundar Nursery - Hazrat Nizamuddin Basti Urban Renewal Initiative."  
[http://www.akdn.org/sites/akdn/files/media/publications/2013\\_03\\_-\\_aktc\\_-\\_india\\_-\\_humayuns\\_tomb\\_-\\_reviving\\_history\\_rebuilding\\_lives.pdf](http://www.akdn.org/sites/akdn/files/media/publications/2013_03_-_aktc_-_india_-_humayuns_tomb_-_reviving_history_rebuilding_lives.pdf).

Nizamuddin Basti. The living standard of the people has improved because of the various socio-economic initiatives carried out by AKTC such as early childhood care and development, education, health, landscaping neighborhood parks, cultural revival, sanitation, housing improvement , waste management, street improvements, vocational training and environmental impacts.

In November 2009, the research project on " Aspects of Authenticity in Architectural Heritage Conservation " at Heidelberg University's Cluster of Excellence " Asia and Europe in a global Context" occasioned an on-site meeting of several conservation experts on Humayun's Tomb including Ratish Nanda and Sangeeta Singh, the conservation architects from AKTC, Jahnwiji Sharma, the first architect engaged by the Archaeological Survey of India responsible for World Heritage Sites, A.G. Krishna Menon, an architect representing INTACH, the project manager, the archaeological engineer , the principle stone craftsman on the site, Wim Denslagen, architectural historian and the architectural historian from Heidelberg University, Niels Gutschow.<sup>7</sup> In this meeting, Ratish Nanda states that they hoped to recreate the original spirit and get back to the original architectural character of the building. Just to do that and increasing the employment opportunities on the Basti, the philosophy that they adapted to restore the tomb negatively affected the history related to the structure. Their main goal for the restoration of the tomb was to bring back the material authenticity of the structure. To do that, they even replaced the old and ruined stones for new red sandstone. Ratish Nanda insisted on using handcrafted stones and hand cut stones instead of using machines. He explained that when they worked with hand cut stones in the garden tomb six years ago, the new hand carved stone looked as if they

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<sup>7</sup> An entire discussion among these people can be found in Weiler, Katharina, and Niels Gutschow. *Authenticity in Architectural Heritage Conservation: Discourses, Opinions*. Place of Publication Not Identified: Springer, 2016.

were 500 years old. He stated that the hand cut stone had patina coming on them very quickly and claimed that after the restoration of the tomb is over, people would not be able to tell the difference between the new and the old stones. What Ratish Nanda claims as achieving material authenticity of the structure seems very much like an art of imitating. The material does not remain authentic if the original material is removed or worse, when people fail to identify it for its long lasting authenticity, and confuse it for a new stone. John Ruskin talks about restoration in *The Lamp of Memory*, 1849, " ...so essential to my mind, that I think a building cannot be considered as in its prime until four or five centuries have passed over it; and that the entire choice and arrangement of its details should have reference to their appearance after that period, so that none should be admitted which would suffer material injury either by the weather-staining, or the mechanical degradation which the lapse of such a period would necessitate."<sup>8</sup> According to Ruskin's philosophy, it can be said that even though Ratish Nanda and his team were trying to achieve " material authenticity " by using the same stones and building techniques used by the Mughals, it was lost the moment similar new stones were installed in the structure to look and deteriorate exactly like the old stones.

Ratish Nanda, Sangeeta Singh and their team of AKTC could have also aimed for a different purpose. More important than "restoring the material authenticity of the structure" was to preserve the important historic events that the Humayun's Tomb has seen in its centuries of lifespan. Ratish Nanda, Sangeeta Singh and all the experts involved in the restoration of the structure should have thought about the consequences of changing the entire physical fabric of the structure to what they thought would have been. It is important to be sensitive to not only the structure but also to the physical, political and historical context. William Morris talked about

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<sup>8</sup> Ruskin, John. *The Seven Lamps of Architecture*. (London: Smith, Elder, and Co., 1849) pp. 162-182.

Restoration in "Manifesto of the Society for the Protection of Ancient Buildings" - "... But those who make the changes wrought in our day under the name of Restoration, while professing to bring back a building to the best time of its history, have no guide but each his own individual whim to point out to them what is admirable and what contemptible; while the very nature of their task compels them to destroy something and to supply the gap by imagining what the earlier builders should or might have done. Moreover, in the course of this double process of destruction and addition, the whole surface of the building is necessarily tempered with; so that the appearance of antiquity is taken away from such old parts of the fabric as are left, and there is no laying to rest in the spectator of what may have been lost; and in short, a feeble and lifeless forgery is the final result of all the wasted labour".<sup>9</sup> This philosophy goes completely against the restoration project by AKTC.

All things considered, it can be seen that AKTC, through their Urban Renewal Initiative, succeeded in improving the living standards of people of Nizamuddin Basti, increased the number of tourists visiting the place and also brought the structure back to what it could have been for the most part. The project can be considered successful in terms of economic aspect and the implementation of a craft-based approach. On the other hand, had their approach been different, they could have succeeded in also preserving the rich history that Humayun's Tomb carried with it.

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<sup>9</sup> "Restoration," in *The Atheneum*, n. 2591, (June 23, 1877), 807

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