



AGA KHAN TRUST FOR CULTURE

Humayun's Tomb - Sundar Nursery - Hazrat Nizamuddin Basti
URBAN RENEWAL INITIATIVE
Delhi, India



REVIVING HISTORY, REBUILDING LIVES

PROJECT BRIEF

March 2013



INTRODUCTION

In 1997, to celebrate the 50th anniversary of India's independence, His Highness the Aga Khan offered to restore the garden of Humayun's Tomb, marking this as the Aga Khan Trust for Culture's first association with the World Heritage Site.

Building on these successes, in 2007 an agreement with the Archaeological Survey of India, the Municipal Corporation of Delhi and the Central Public Works Department enabled the Aga Khan Development Network to return to the historic Nizamuddin area to undertake an Urban Renewal Initiative. The initiative has since led to the conservation of over 30 monuments; work towards creating a 100-acre city park by sensitively landscaping the Sundar Nursery - Batashewala Complex; and significant improvements to the quality of life for the residents of Hazrat Nizamuddin Basti - a repository of seven centuries of living culture.

The project aims to serve as a model for civil society engagement in urban development. It also seeks to demonstrate that culture is a significant tool for development and makes the case for a return to a traditional craft-based approach to the conservation of India's monumental buildings.

Project activities have expanded far beyond those envisaged in 2007. The expansion has been made possible by co-funding from new partners, significant amongst which are the Sir Dorabji Tata Trust, Ford Foundation, World Monuments Fund, the United States Ambassador's Fund for Cultural Preservation, the Embassy of the Federal Republic of Germany, Sir Ratan Tata Trust, the Delhi Urban Heritage Foundation, as well as the Municipal Corporation of Delhi.

The project implementation is undertaken by a multidisciplinary team comprising of a wide range of expertise, including architects; civil, structural, hydraulic and electrical engineers; historians; conservation and landscape architects; educators; doctors and public health specialists; monitoring and evaluation experts; horticulturists and ecologists; designers; project managers, administrators and finance specialists. The team is guided by specialised consultants and includes almost a hundred residents of Hazrat Nizamuddin Basti who have been trained to take up significant responsibilities.

RE-THINKING CONSERVATION

In the early 14th century, Hazrat Nizamuddin Auliya, the revered Sufi saint, who preached Sufi teachings of love, pluralism and tolerance, was buried in the Hazrat Nizamuddin Basti. Since it is considered auspicious to be buried near a saint's tomb, seven centuries of tomb building here has made this one of the densest ensemble of medieval Islamic buildings.

Although some important structures have been lost in recent years, many remain, including several garden-tombs contemporary to Humayun's Tomb-garden. The outstanding universal value of the Humayun's Tomb complex therefore lies not

Hazrat Nizamuddin Basti (top), Sundar Nursery (centre) and Isa Khan's Tomb (bottom) stand in close proximity to the Humayun's Tomb World Heritage Site. Urban improvements, landscaping, ecological restoration, socio-economic development are coupled with conservation of over 30 monuments that dot the project area.

only in its own intrinsic value, but because it constitutes an ensemble of 16th century garden-tombs, all of which are undergoing much needed conservation work as part of this urban renewal initiative.

At the onset of the project, it became clear that in order to restore the historic character and architectural integrity of the many monuments that dot the project area, 20th century repairs, carried out using inappropriate modern materials such as cement, would have to be removed and replaced with traditional building materials applied as per the original builders' intention and using the traditional craft skills that made these buildings significant.

Conservation works have revived a craft-based approach. Stone carvers, masons, plasterers, glazed tile makers, brick layers, art conservators and carpenters work alongside architects and engineers. Craftsmen are encouraged to match the work of their forefathers using traditional tools, building traditions and materials. Over 200,000 man-days of employment have been logged by master craftsmen.

The project aims to establish a model conservation process for the Indian context that, in addition to the emphasis on utilising building craft traditions, is based on exhaustive documentation using state-of-art technology such as 3D laser scanning, archival research spanning centuries of accumulated materials, peer review by independent national and international experts and high levels of supervision.

Humayun's Tomb: The mausoleum and attached structures, such as the gateways, pavilions and enclosure walls, have required major conservation works to restore the architectural integrity of the structures. A million kilos of cement concrete laid here in the 20th century - ostensibly to prevent water ingress - was removed from the roof by craftsmen using hand tools. Similarly, over 200,000 square feet of lime plaster was applied in areas where this had either been lost or replaced in recent times with cement plaster that was accelerating deterioration.

The stone paving of the lower plinth was restored after the removal of over 40,000 square feet of concrete and the manual re-setting of stone blocks, which weighed in excess of 2500 kilos each. The sandstone paving of the upper floor also needed to be restored to its historic pattern while ensuring an adequate slope to drain rainwater.

Ornamental star-shaped ceiling patterns in lime plaster, which cover 1.6 percent of the façade have been painstakingly restored by specially trained craftsmen. The restoration of the tile-work on the canopies on the roof required a four-year phase of experimentation and training in which master craftsmen from Uzbekistan trained youth from the Hazrat Nizamuddin Basti in the art of tile making - which had been lost in India. The tile making has since created economic opportunities for the Basti's youth. Though ornamental plasterwork and ceramic tiles cover a miniscule area, the impact on their restoration is significant, allowing visitors to understand the original design intentions of the Mughal builders.



Conservation works at Humayun's Tomb, such as repairing the sandstone platform (top), replacing 20th century cement flooring with original stone paving (centre) and restoring glazed tiles to the canopies (bottom) are carried out by craftsmen using traditional tools, materials and building techniques.



Some of the other major works undertaken at Humayun's Tomb include the reconstruction of collapsed portions of the enclosure walls, restoration of the partially collapsed north-east pavilion and structural repairs to both the western and southern gateways.

Nila Gumbad: Although this earliest Mughal era structure in Delhi stands adjacent to the Humayun's Tomb Garden, in the 1980s a road was built bifurcating Nila Gumbad from the Humayun's Tomb site. Luckily, a solution for this challenge was found: land provided by the Railways has allowed the road to be relocated to the east of Nila Gumbad, thereby restoring historic linkages. Conservation works on the structure will include restoration of the missing tile-work and restoration of at least half the garden.



Isa Khan's Garden Tomb: Isa Khan's tomb, which pre-dates the building of Emperor Humayun's tomb, is significant for its profuse ornamentation – glazed tiles, plasterwork, stone elements such as finials and lattice screens.

Conservation works in the Isa Khan's garden tomb enclosure included: reconstruction of the collapsed portions of the gateway; structural repairs to the garden retaining wall; restoration of the 2.5 m high finial on the dome; major structural repairs to the Mosque; de-silting of a well discovered here, amongst others. Stone finials to the canopies as well as the tiles that covered the canopy are to be restored.

The discovery that the outer garden was originally four feet below the levels of the garden that surrounds the tomb required 125,000 cubic feet of earth to be manually removed to restore historic levels. This revealed several hundred terracotta objects, in addition to architectural elements that have been reused.



Batashewala Complex: Standing north of the Humayun's Tomb-garden are two contemporary Mughal tomb-gardens. Following the transfer to the ASI of the 17 acres of land on which the structures stand, conservation works commenced in 2012. Reconstruction of collapsed portions of the enclosure wall, major structural repairs on the three monuments and restoration of the gardens are now planned.

As part of the larger project, linking the Batashewala Complex to the adjoining Humayun's Tomb complex and Sundar Nursery monuments is proposed. The combined sites would create a heritage zone of unmatched scale, value and visibility in the city of Delhi.

Sundar Nursery Monuments: Three of the nine Mughal era structures that stand within the Sundar Nursery are considered to be of national significance. Major conservation works that have included restoration of ornamental patterns at the Sundarwala and Lakkarwala Burj; major structural repairs to Sundarwala Mahal and the Mughal Garden pavilion; reconstruction of the collapsed portions of the arcaded platform, amongst others. Using traditional building materials and

Proposed works at Nila Gumbad (top) will include restoring the tilework and connectivity to Humayun's Tomb for visitors. At Isa Khan's Tomb significant works included revealing the sunken garden (centre) and restoring the ornamental plasterwork (bottom).

techniques, master craftsmen have worked towards restoring the design intention of the Mughal builders as well as the architectural integrity of the monuments that had been marred by inappropriate past repairs. The recently discovered foliated Lotus Pond is to be restored to its original function.

Hazrat Nizamuddin Baoli: Built in the early 14th century, the water from this step-well is considered holy by millions of pilgrims who visit here annually. Following its partial collapse in 2008, the Baoli was repaired in an operation that proved to be quite challenging. Structural conservation was coupled with the removal of over 10 metres of accumulated debris and the construction of alternate housing for 18 families that lived on the roof of the Baoli. Since 2010, conservation works are being undertaken on four monuments abutting the Baoli.

Chausath Khamba: The plan of this unique 16th century marble building inspired the Emperor Shah Jahan's Diwan-i-khas in the Red Fort. In one of the most complex conservation efforts ever undertaken, every marble block from each of the 25 domes has been taken down by master craftsmen to remove the iron dowels that have rusted and damaged marble. The dowels are being replaced with stainless steel prior to fixing the repaired marble pieces back in their original position. In the process, metre-deep cracks in the underlying masonry are being carefully stitched and repairs to the marble pieces are being carried out.

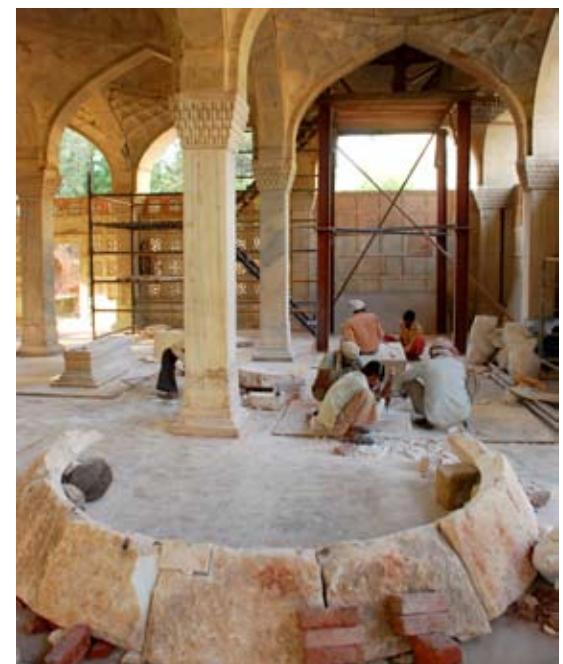
The forecourt has been sensitively landscaped to create a performance venue for traditional music performed here during the annual Urs ceremony of Hazrat Nizamuddin Auliya and Hazrat Amir Khusrau Dehlavi.

IMPROVING QUALITY OF LIFE

Hazrat Nizamuddin Auliya's teachings of love, pluralism and tolerance are as relevant today as they were in the 13th century. Despite seven centuries of cultural heritage legacy, a socio-economic survey conducted at the onset of the project revealed surprisingly poor development parameters amongst the families resident here. To address these issues, the project has coupled conservation with socio-economic initiatives aimed at improving the quality of life for residents.

Early Childhood Care & Development: The ECCD initiatives being undertaken as part of the project aim to facilitate the holistic development of children and prepare them for their transition to school. With regular monitoring, awareness and care it is hoped that the children's development is ensured. Towards this objective, a maternal and child health centre has been established and regular training programmes held for *anganwadi* workers.

Mughal Pavilion (top) was in a state of collapse prior requiring major conservation works. Conservation works at the baoli (centre) to repair collapsed portions were coupled with a sensitive relocation initiative wherein alternate houses were built for 18 families. Each of the 25 domes at Chausath Khamba (bottom) need to be dismantled for conservation.





Education, Health, Urban improvement initiatives aim at improving Quality of Life for local communities.

Education: The education interventions cover preschool, school going, adolescents and adults. At the Municipal primary school, the programmes aim to provide quality education to the 630 children enrolled. Major renovations of the school building have been coupled with faculty development, the placement of community teachers and improved school management, which has led to increased enrolment and attendance. Computer courses are regular and street computer kiosks have been set up to ensure improved access to computers.

An arts programme featuring regular music and visual arts classes and a community theatre group that conducts performances and initiating discussions on pertinent issues has fulfilled national curriculum objectives.

Health: Over 55000 free-of-cost tests have been carried out at the pathology laboratory set up at the Municipal polyclinic to improve access to health facilities. Advanced equipment for the Eye & ENT clinic and the appointment of a gynaecologist and a paediatrician have improved maternal and child-health diagnoses. A recently established community health programme employs 50 health workers trained from the Basti to identify vulnerable individuals and ensure that the vulnerable access required health facilities in a timely manner.

Landscaping Neighbourhood Parks: The Hazrat Nizamuddin Basti remains one of the most densely populated settlements in Delhi. Although five acres of parks have existed for some time, the spaces were occupied by rag-pickers and drug dealers. Only two percent of the resident population were accessing park spaces. Following sustained community consultation, a landscape scheme for these parks was prepared and implemented. Parks have been developed for specific uses, such as a children's play area, a screened park for the exclusive use of women (in addition to an exclusive gymnasium provided on request of the women), a park for community events and a play field for youth-related activities. The parks are now managed by the community with AKTC support.

Cultural Revival: Nizamuddin has a rich legacy of Sufi traditions, including the music and poetry associated with the 13th century legendary poet-composer Hazrat Amir Khusrau Dehlavi. The project has focused on documenting, interpreting and disseminating the legacy of this cultural icon, whose literature, music and beliefs have been possibly the most influential impact on present day *Hindustani* culture and music. The programme includes research, archiving, documentation, audio-visual exhibitions, fellowship programmes and performances to celebrate and propagate plurality.

Sanitation: In addition to the millions of annual pilgrims who visit the Dargah, the initial surveys revealed that 19% of resident families did not have *in the home* toilets. Two community toilets have now been built providing a clean and safe facility, especially for women, separate bathing and washing areas and child-friendly seats. A management group comprising of users has been established.

Housing Improvement: The highly dense and rapid pace of construction in the Basti has led to inappropriate construction methods and poor light, ventilation and sanitation within homes. Through a cost sharing system with residents, AKTC has intervened in several houses to carry out structural and design repairs as well as the retrofitting of homes.

In order to enhance the setting of Chausath Khamba complex, which serves as an event *sehan* for the basti, a pilot initiative is envisioned that will improve external elevations for structures abutting the monument.

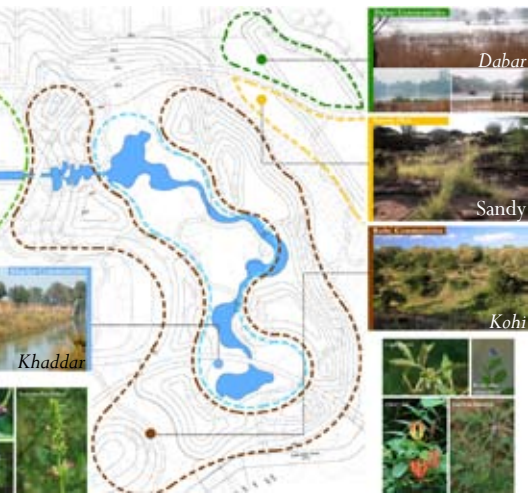
Waste Management: The high population density, presence of a large number of commercial establishments including restaurants and meat shops, as well as the high number of pilgrims visiting the Hazrat Nizamuddin Basti, results in a huge quantity of waste generation. As part of the effort to improve the urban environment of the Basti, the project is now undertaking an initiative to facilitate solid waste management. Door-to-door waste collection has led to visible improvements and a healthier environment, though much remains to be done.

Street Improvements: Rehabilitation of civic open spaces seeks to enhance the area's value and significance in terms of history, places of spiritual importance and recreation. In 2009, physical surveys were carried out to document and analyze the urban setting, prepare urban design guidelines and identify possibilities for street improvements and potential model projects. As a result, carefully designed street improvements are being implemented by the South Delhi Municipal Corporation on all Basti streets.

Vocational Training: With only one percent of youth in the Basti able to access vocational training opportunities, this has been seen as a significant need from the onset. A career development centre has now been established to prepare youth for the retail sector and computer related professions. For those with no prior education, courses in the building crafts, hospitality and service industry are organised. Over 600 youth have already been trained; 50 percent have accepted work placements outside the Basti. Over 400 women have been trained in crafts such as *aari* embroidery, crochet, tailoring, embroidery, paper cutting. Many of them are now collectively preparing a variety of products and generating valuable income for their families.



Cultural events such as Dastangoi and street plays performed by local youth attract many first time visitors and raise awareness on health, environment, sanitation issues. Street improvements will enhance the urban environment and local youth learning traditional crafts such as glazed tile making (bottom) have secured economic opportunities.



ENVIRONMENT

Sundar Nursery Development

Sundar Nursery, earlier known as Azim Bagh (great garden) in Mughal times, was established in the 20th century to propagate plants for the New Delhi. Under 10 percent of what is now Sundar Nursery was utilized as an active nursery at the onset of this Urban Renewal project.

The landscape master-plan now aims to create a major landscaped space of truly urban scale, deriving inspiration from the traditional Indian concept of congruency between nature, garden and utility, coupled with environmental conservation. In addition to the formal landscape in the setting of the Mughal era monuments, a micro-habitat zone is being created for flora that occupies Delhi's ridge, river edge, plains and other specialised zones such as desert and marshy areas.



To streamline nursery functions, almost 20 acres remain for exclusive nursery functions operated by the Central Public Works Department, with these nursery beds now accessible by the new peripheral road. Portions of land used for dumping construction rubble have now been converted into micro-habitat zones to showcase Delhi's diverse ecology for educational and recreational purposes

Edged by nine *kohi* mounds, the microhabitat zone aims to replicate Delhi's original landscape so it can become a tool for increased environmental awareness amongst the 300,000 school-kids who visit the adjoining Humayun's Tomb annually. Planted with saplings collected from rich natural habitat zones has ensured the careful assembly of the several difficult-to-source species which, in Delhi, have been replaced by commercially viable ones. The ridge replicated by the *kohi* is bounded by *khaddar* or riverine tracts as well as *dabar* or flooded marshy areas.



Over 1800 trees now recorded on a Geographic Information System (GIS) include over 200 species. Biodiversity studies carried out at Sundar Nursery in 2012 documented 54 species of resident birds and 24 species of butterflies on the site. To secure bird habitat the landscape design includes spaces such as dense under-growth for ground nesting birds; shallow water ponds for birds that live off the water; sandy banks for birds that burrow to nest and hundreds of high canopy trees, fruit trees and flowering plants now planted here to increase available nesting spaces for birds and improved city environment.

Since 2008, over 20,000 plants including over 200 tree species have been planted at Sundar Nursery. Landscaped portions include designated bird habitat areas and formal gardens (centre) abutting Mughal era monuments. Formally laid nursery beds (bottom) with independent vehicular access have enhanced nursery functions.

For more information please visit www.akdn.org or contact the Aga Khan Trust for Culture, P.O. 3253, Hazrat Nizamuddin East, New Delhi 110013 Email: info@nizamuddinrenewal.org Follow on: www.nizamuddinrenewal.org or Facebook: www.facebook.com/NizamuddinRenewal

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