



AGA KHAN TRUST FOR CULTURE

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



SABZ BURJ

CONSERVATION

In partnership with
Archaeological Survey of India



HAVELLS



1984

BACKGROUND

Standing immediately to the north-eastern edge of the sacred landscape defined by the Dargah of Hazrat Nizamuddin Auliya, the Sabz Burj today stands in a traffic island at the crossing of Lodhi Road and Mathura Road, west of Humayun's Tomb.

Though the domed mausoleum bears no date and it is not recorded who lies buried here, the architectural style - harmonious geometric proportions expressed in perfect symmetry and pishtaqs framing the arched topped by an onion shaped dome with the façade ornamented with tile work - is Timurid and similar octagonal structures are seen across Central Asia. The architectural style can be dated to the 1530's, making Sabz Burj one of the earliest monuments standing within the significant World Heritage ensemble of Humayun's Tomb complex and the Sunder Nursery monuments.



2017

Here, the central chamber is connected through four axial passages to the lofty pishtaqs in the main outer faces, which alternate with smaller half octagonal arched niches in the narrower faces. As with Humayun's Tomb, Sabz Burj has a double dome with the outer dome and the tall drum covered with tiles. The intricate ornamentation on the outer façade is unique for Delhi monuments and shows great variety in the application of geometric and interlacing patterns in red, white and black in incised plasterwork, highlighted in several fields with tiles.



2021

The square interior is divided by a cornice into a comparatively low wall zone with shallow niches and a transition zone of four high arched windows and four squinches defining the corners. Originally the entire interior wall surface would have been painted, off which the painted ceiling has survived – making it the most significant feature of Sabz burj. Here gold and lapis have been profusely used in delicate patterns and in a dynamic manner with the quality of the paintings being confident and skilful.

Dr Ebba Koch has noted, '... the effect of the painted ceiling is close to the illuminated frontispieces with a dark blue background in 15th century Timurid book painting ... such highly decorated vaults using lapis lazuli and gold are known in royal buildings of Timurid architecture but their decoration tends to be organised in sections. A coherent decorative system such as at Sabz Burj is rare. The closest forerunner, executed not in paint but in tile mosaic is the mausoleum of Turabeg Khanum in Turmenistan, a monument which 'stand among the greatest architectural masterpieces of the Islamic World'. Dr Koch further suggests that, 'Its elegant sophisticated design and the precious brilliant decoration suggested that the building was a royal commission - who else would have been able to afford such a fine vault with lapis lazuli and gold pigmentation'.

(top): Courtesy Ebba Koch: By 1984, much of the times on the dome had fallen or lost their glaze.(centre): tilework on the dome was restored by the Archaeological Survey of India in 1985-6.

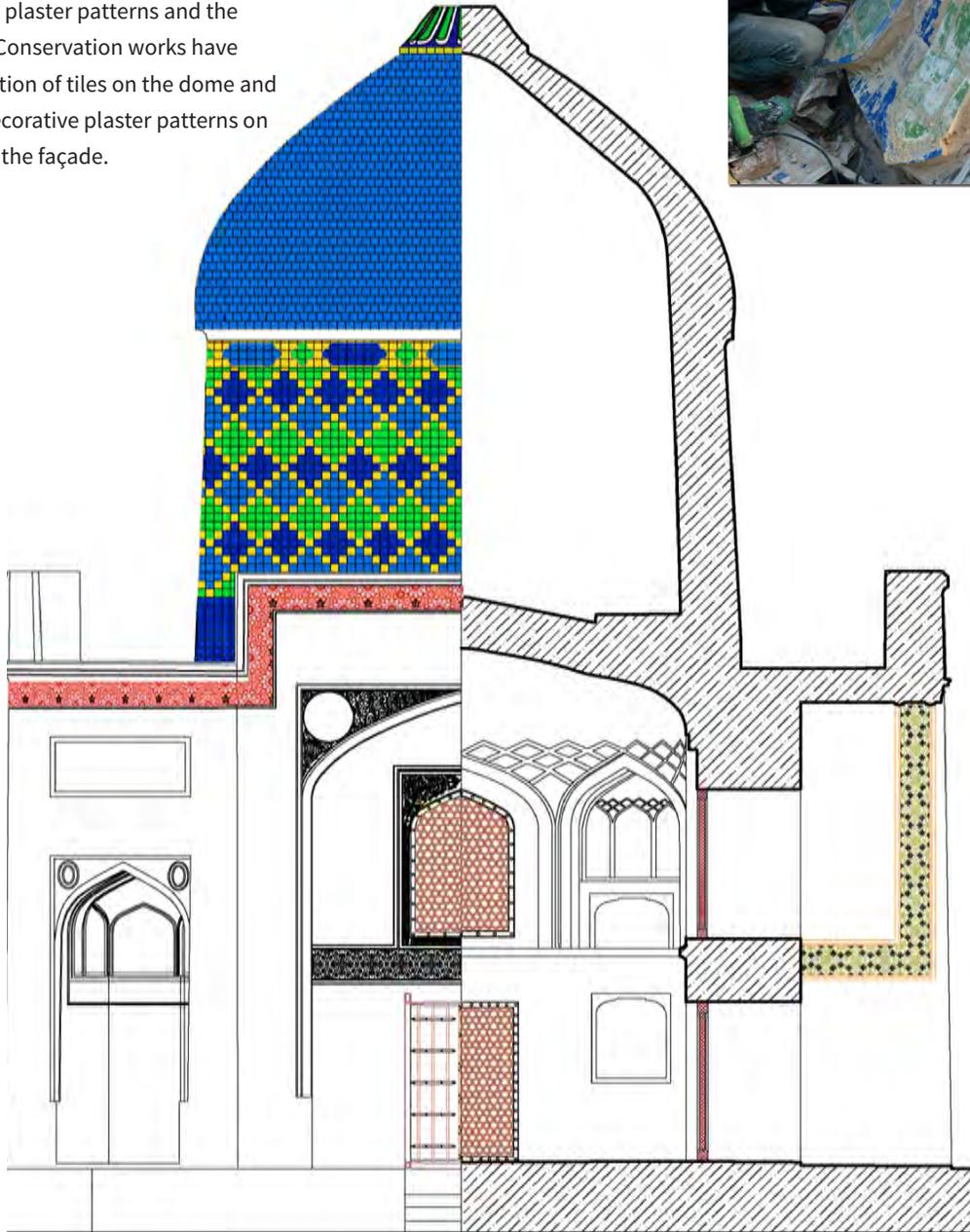
(Bottom): The present conservation effort has included replacing the 1986 tiles on the dome to stop water penetration and restore tiles on the drum where these were missing.

Image : Mayank Austen Soofi

The 36 square meter domed ceiling has five prominent colours, lapis blue forms the background for the flower design, the red created with red lead is often seen in Mughal painting while yellow earth or peeli maati is also used. Lavish used of pure gold that has survived in specks was applied over a beige undercoat. Black is used prominently for the bold and confident lines.

SABZ BURJ

Conservation effort at Sabz Burj (2017-21) were preceded by archival research, architectural documentation, structural and condition assessment of the building, its ornamental tilework, incised plaster patterns and the painted ceiling. Conservation works have included restoration of tiles on the dome and drum and the decorative plaster patterns on all eight sides of the façade.



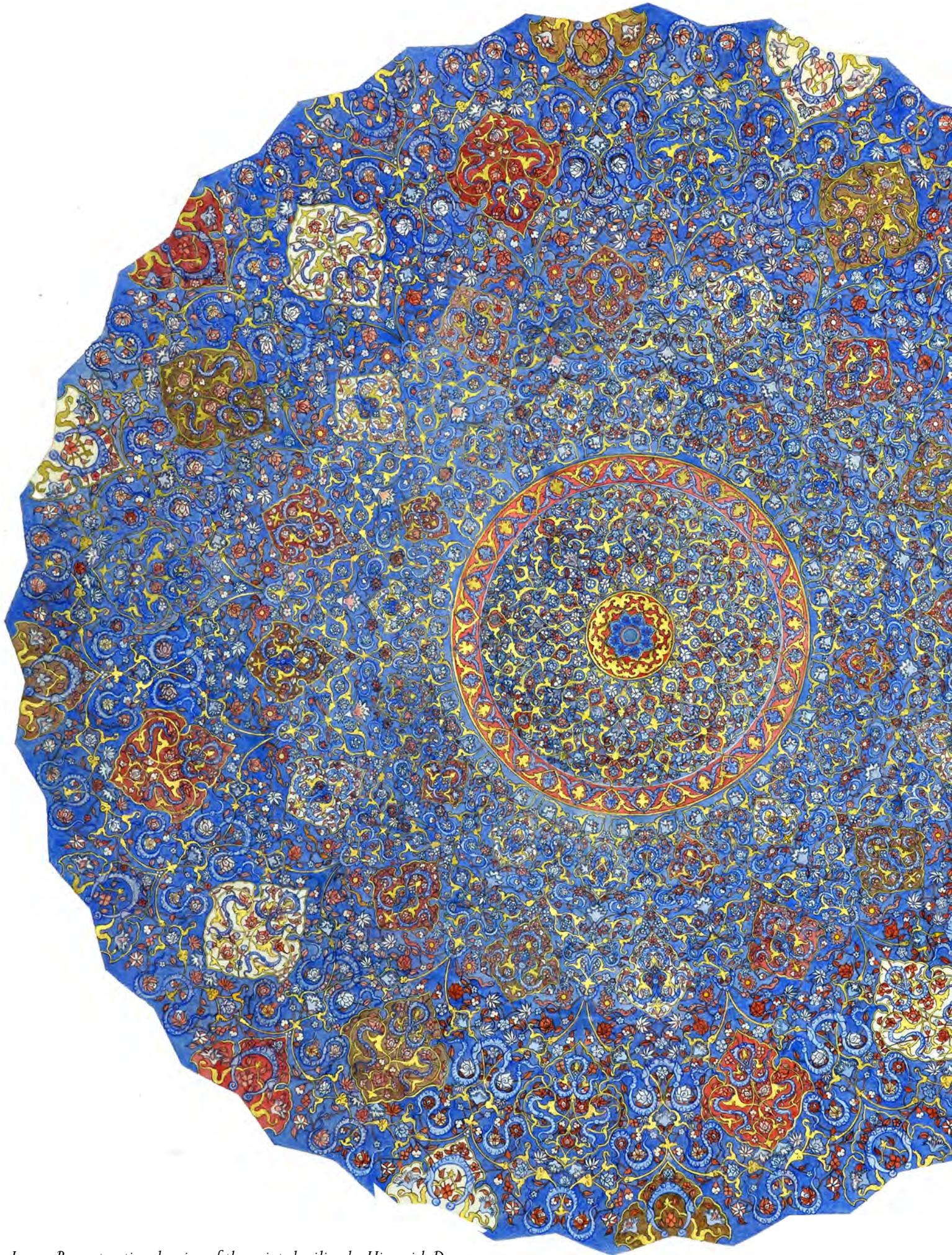
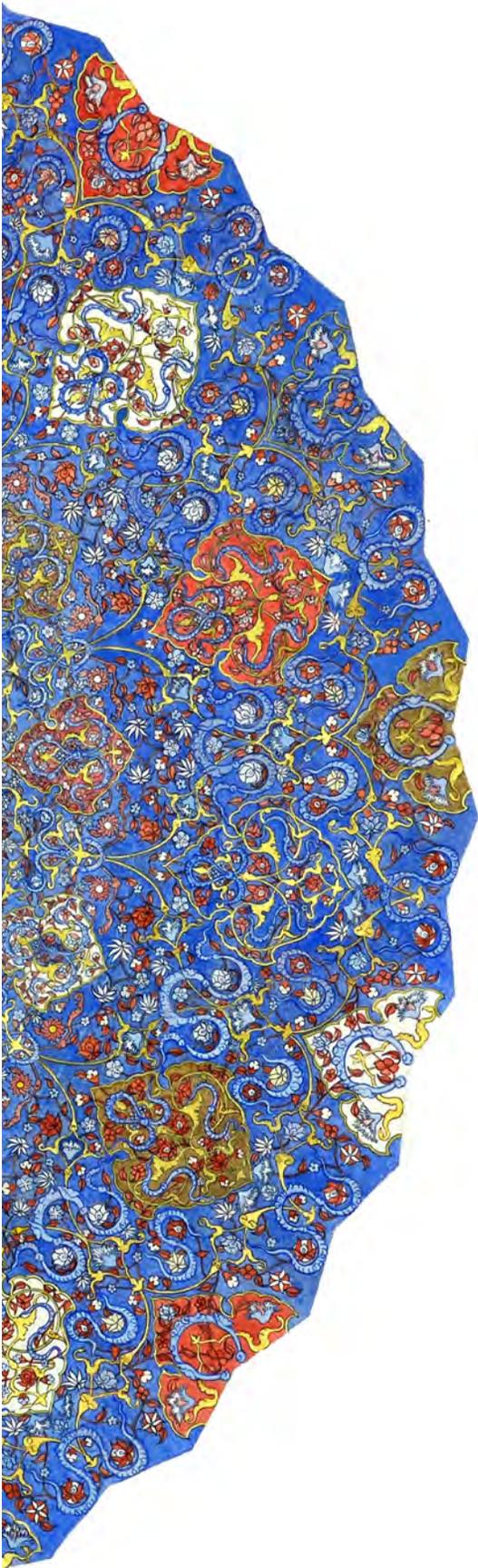


Image: Reconstruction drawing of the painted ceiling by Himanish Das



On removal of 20th century paint and plaster layers, a most incredible and rare painted ceiling was revealed. The 16th century painters used pure gold, lapis, red ochre to create a series of delightful floral motifs, often seen on later day miniature paintings and even textiles.

This ceiling is amazing and sensational! You are making a wonderful contribution in uncovering this rare Timurid inspired patterns. I can only say again: 'what has been uncovered is sensational'... — a ceiling with pure late Timurid ornament — it is as if we look right into the 16th century!

- Professor Ebba Koch



Sabz Burj was used as a Police Station in the early 20th century, the painted interiors plastered over, much of the incised plaster decoration of the façade lost and replaced with cement layers. By the 1980's much of the tile work on the dome had fallen away and was re-tiled with modern tiles fixed with cement mortar. The Mughal splendour turned to ruin. Since 2017 – 2021, with the support of Havells, conservation works here have been undertaken by an inter-disciplinary Aga Khan Trust for Culture team under the supervision of the Archaeological Survey of India.

CONSERVATION

Sabz Burj stands prominently at the entrance to the UNESCO World Heritage Site and as with Humayun's Tomb, would have originally stood within an enclosed garden. As with the conservation effort at Humayun's Tomb, here too, the principal objective has been to ensure authenticity of material, form and design while ensuring the integrity of the monument is retained for future centuries.

Following systematic and scientific documentation of the monument, archival research and condition mapping to understand the extent and nature of the decay. The conservation effort has been undertaken by master craftsmen using traditional materials, building craft techniques to replace 20th century interventions. Alongside, specialist art conservators led by Anupam Sah have painstakingly removed cement plaster to reveal the painted ceiling – now considered to be the earliest painted ceiling for any Mughal structure.

Glazed Tilework

Sabz Burj, or 'green dome', is identified by the glazed tiles that cover the lotus finial, the onion-shaped dome and the tall drum. Such profuse ornamentation is not seen in any other monument of Delhi. The lotus finial atop the dome is ornamented with green tiles while the dome has turquoise blue. The drum has a repetitive pattern of lapis blue, turquoise blue green and yellow – all in equal measure. In addition, some of the incised plaster patterns have embedded green tiles.

Archival images from the 1970's reveal that many of the tiles of the dome had fallen away and only a fraction of those remaining had their turquoise blue glaze retained. As such, in the 1980's the ASI removed all existing tiles from the dome and replaced these with lapis blue tiles. The 1980's tiles were made with terracotta rather than using a quartz base used by the 16th century builders. Owing to the variation in composition and their being fixed onto the dome with cement, the 1980's layer allowed water retention and caused extensive loss of painted ceiling on the domed ceiling below. Large portion of tilework on the drum had also been lost, though there had as yet been no attempt at restoring these tiles.



(Top): the Lotus finial atop the dome boasts of the green (sabz) coloured tiles that lend the structure its name. (Centre): the craft of glazed tileworks was revived during the conservation of Humayun's Tomb and craftsmen have painstakingly restored missing tiles on the drum of Sabz Burj. (Bottom): the missing sandstone lattice screens have been restored to all four arched openings of the monument.

Turquoise tiles of the hue found at Sabz Burj have been used also at Humayun's Tomb and several other structures in the complex including Mirza Muzzafar's mausoleum, Isa Khan's Tomb, Arab Serai gateway. During 2008-11, in undertaking the restoration of tiles on the canopies of Humayun's Tomb, over 20000 samples needed to be tested prior to achieving the physical and chemical composition used for the 16th century tiles of all colours.

At Sabz Burj, the 1980's tiles and all cement mortar was removed and the dome exposed for several months to allow the dampness to dry out prior to restoring tiles matching the original 16th century tiles, fixed with lime mortar. While all original tiles on the drum were retained, even when these had lost their glaze, missing tiles on the drum were restored.

To prevent any rainwater ingress into the masonry, 20th century layers of cement concrete were removed from the roof and the terrace relaid with lime concrete to their original levels and slopes.

Ornamental Plasterwork

The facades of the octagonal mausoleum are profusely decorated with incised plasterwork, finished with natural colours and red polychromy. Each of the eight sides has a unique pattern and style of ornamentation, with the spandrels of the arches decorated with medallions bearing Quranic inscriptions in incised plasterwork. The incised plaster had disintegrated due to age and rainwater penetration and parts replaced with cement mortar in the 20th century – in turn further accelerating decay of the surviving lime plaster patterns.

Though several patterns are visible on the façade, each unique, enough of the original patterns had survived to enable architects to discern the original pattern and thus enable its complete restoration.

Sandstone lattice screens

Though recorded up till the early 20th century, the sandstone lattice screens within the four arched openings above the doorways and within the eastern, western and northern door frames have now been missing for decades. Replaced with unsightly metal grills, their loss had disfigured the historic character of the monument.

Stone carvers, using hand tools and techniques passed down over centuries have prepared sandstone jallies now restored to all the openings. Significantly, these also prevent the entry of birds into the tomb chamber.



The Sabz Burj boasts of a variety of intricate incised plaster patterns of floral and geometric design. Missing incised plaster decorative patterns have been restored on the basis of available evidence on each of the eight facades.

Painted Ceiling and Main Chamber

At the onset of conservation works, faint traces of a painted ceiling were visible on the domed ceiling, below 20th century plaster layers. Erection of scaffolding within the 25 feet high domed chamber allowed a closer inspection and revealed an intricately painted ceiling with floral patterns and motifs, later identified to have been painted with real gold and lapis lazuli.

The ceiling seems to have been covered with plaster in the 20th century, possibly when the structure was used as a police station and later attempts at removing sections of this plaster with a chisel caused further loss of painted surfaces.

Art conservators spent three years in a most painstaking scientific cleaning to remove plaster and chemical layers to reveal the total extent of the surviving painted ceiling – the earliest existing painted ceiling for a Mughal era structure. Never before seen myriad patterns in blue, red and gold have been now revealed. The significant painted ceiling can be associated with royal patronage for the mausoleum and indicates the Sabz Burj to be a mausoleum of an important Mughal royal.

Unfortunately, water ingress from the dome above has permanently damaged much of the peripheral edge of the domed ceiling. On account of the high value and significance of the painted ceiling, the conservation effort stopped at revealing the original painted surface and no attempt at restoration of missing portions was attempted. However, based on the condition mapping of the ceiling patterns by the AKTC team, architect Himanish Das has produced a painting depicting the full extent of the painted ceiling.

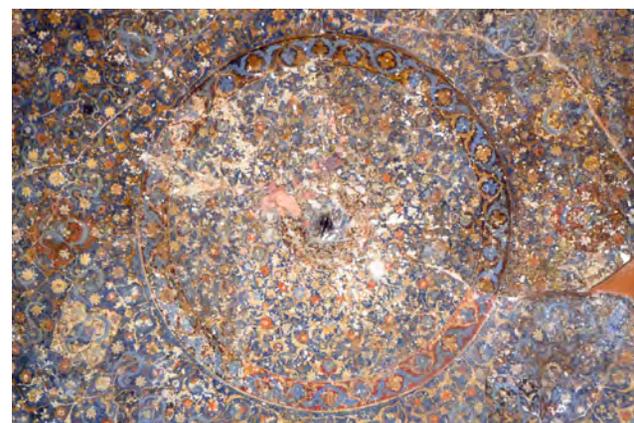
The wall surfaces of the inner chamber were originally completely covered with similar paintings. However, removal of cement plaster here has revealed only small patches of original paintings, with the rest having been lost forever.

Completion of conservation works at Sabz Burj have been marked by Havells also providing for illumination of the monument, thus defining the skyline for an important heritage zone.

Corporate Social Responsibility

In 2017, the Ministry of Corporate Affairs, Government of India accepted the use of CSR funds for conservation of heritage buildings. With almost 80% of conservation funds being utilised for employment of craftsmen and procurement of local material such as lime mortar and stone, conservation was seen to fulfil many government objectives and also to create a sustainable economic resource. Havells support for the conservation of Sabz Burj is the first instance of a national monument conserved with CSR funds. Completion of conservation works at Sabz Burj have been marked by Havells also providing for illumination of the monument, thus defining the skyline for an important heritage zone.

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



The most significant and unique element is the domed ceiling, painted, amongst other elements with real gold and lapis. Here considerable effort was required to be made by conservators to reveal the painted ceiling and the peripheral edge was found to have been lost due to water ingress. In view of this being amongst the earliest surviving painted ceiling in India.