



History of Architecture-III

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Module –I Imperial style Architecture

history

- **Origin and Importance:** Built in the late 12th century by Qutb-ud-din Aibak, it's one of the earliest mosques built in India.
- **Syncretism in Design:** The mosque incorporates elements from Hindu and Jain temple architecture, often with reclaimed materials and motifs, which gives it a distinct aesthetic that combines Islamic design principles with regional elements.



plan

1. Basic Layout and Orientation

Rectangular Plan: The mosque follows a rectangular layout of 212ftx150ft.

Orientation: It is oriented westward toward Mecca. The western wall is emphasized as the qibla wall, which includes the mihrab (a niche indicating the direction of prayer).

Axial Symmetry: The layout is organized along a central axis, from the main entrance to the qibla wall, guiding the movement and experience of the worshippers.

2. Courtyard and Prayer Hall

Central Courtyard: The mosque has a large open courtyard at the center measuring 141ftx105ft. This courtyard serves as a communal space and reflects the Islamic architectural emphasis on openness and light.

Prayer Hall: The prayer hall is located along the western side, aligned with the qibla. It's covered by a series of arches and vaults, which are supported by Hindu and Jain temple columns. Towards western side the arrangements of pillars were made more spacious in a series of bays with a shallow domed ceiling. (corbel dome)

In 1199, a screen of arches were added made from red sand stone. It had 5 arches, central measuring 45ft height with span of 22ft. Side arches measures 25ft height.

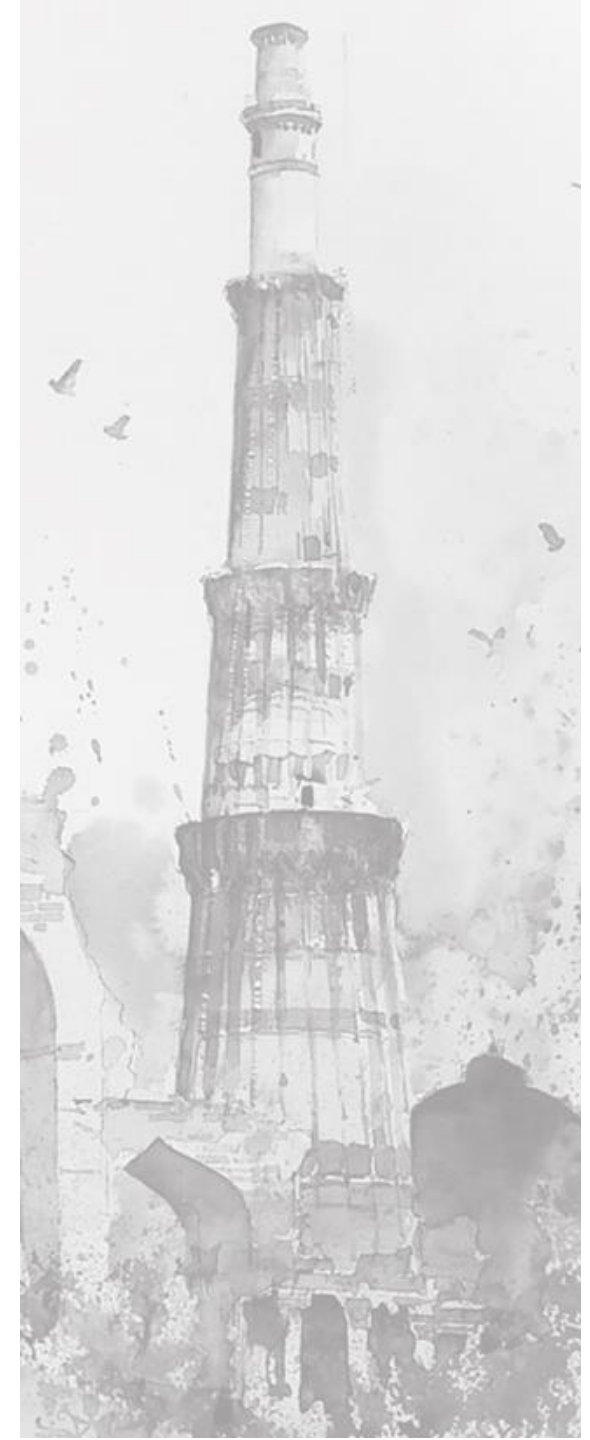


plan



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Qutub complex



History & purpose

- Built in 1193 Qutb-ud-din Aibak, the Qutub Minar was originally intended to signify the victory of Islamic rule over Northern India. Successive rulers, including Iltutmish and Firoz Shah Tughlaq, added to its structure.

1. First Level (Foundation and Initial Structure)

- Built by: **Qutb-ud-din Aibak**, founder of the Delhi Sultanate.
- Time Period: Around 1193-1199 AD.
- Details: Aibak began the construction, completing only the first story. His design laid the foundation for a monumental minaret, inspired by the Minaret of Jam in Afghanistan. The lower portion is built with red sandstone and features intricate carvings.



History & purpose

2. Second and Third Levels

- Built by: **Shams-ud-din Iltutmish**, Qutb-ud-din Aibak's successor and son-in-law.
- Time Period: Around 1220 AD.
- Details: Iltutmish completed the second and third stories, continuing the use of red sandstone. These levels feature more elaborate decorative elements, including floral motifs and Quranic inscriptions. The structure's tapering shape continues as it ascends, following the style of the original design.



History & purpose

3. Fourth Level

- Built by: **Firoz Shah Tughlaq**, ruler of the Tughlaq dynasty.
- Time Period: Around 1368 AD.
- Details: The fourth story was added after the minaret was damaged by lightning. Firoz Shah Tughlaq not only repaired the tower but also added this new level, incorporating both red sandstone and white marble. The use of white marble on this level marked a departure from the all-sandstone design of the lower stories.

4. Fifth Level

- Built by: Also Firoz Shah Tughlaq.
- Time Period: Around 1368 AD.
- Details: Along with the fourth story, Firoz Shah also added the fifth and final story. This level, too, includes white marble, enhancing the tower's visual contrast. The added stories reflect the Tughlaq style, with simpler and more massive elements compared to the intricacy of the earlier floors.
- The minar has also undergone repairs due to subsequent lightning strikes and earthquakes. For instance: Sikandar Lodi repaired it in 1503.



Dimensions and Scale

Height:

The Qutub Minar stands at approximately 72.5 meters (238 feet), making it one of the tallest brick minarets in the world.

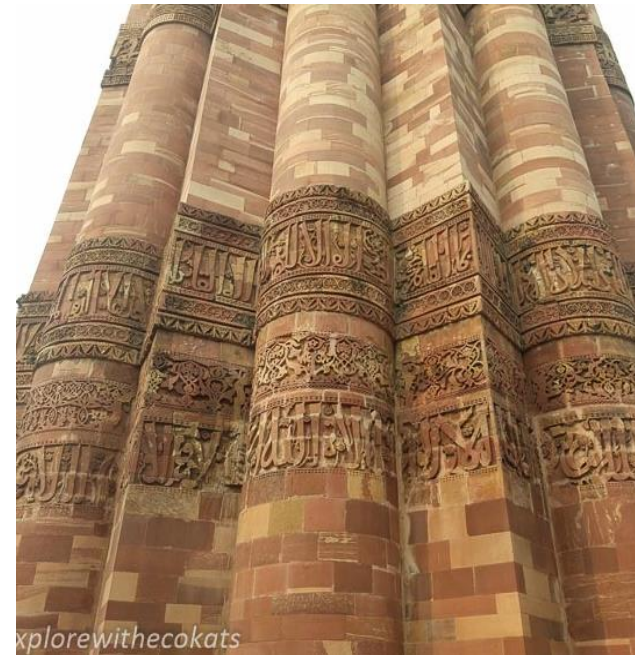
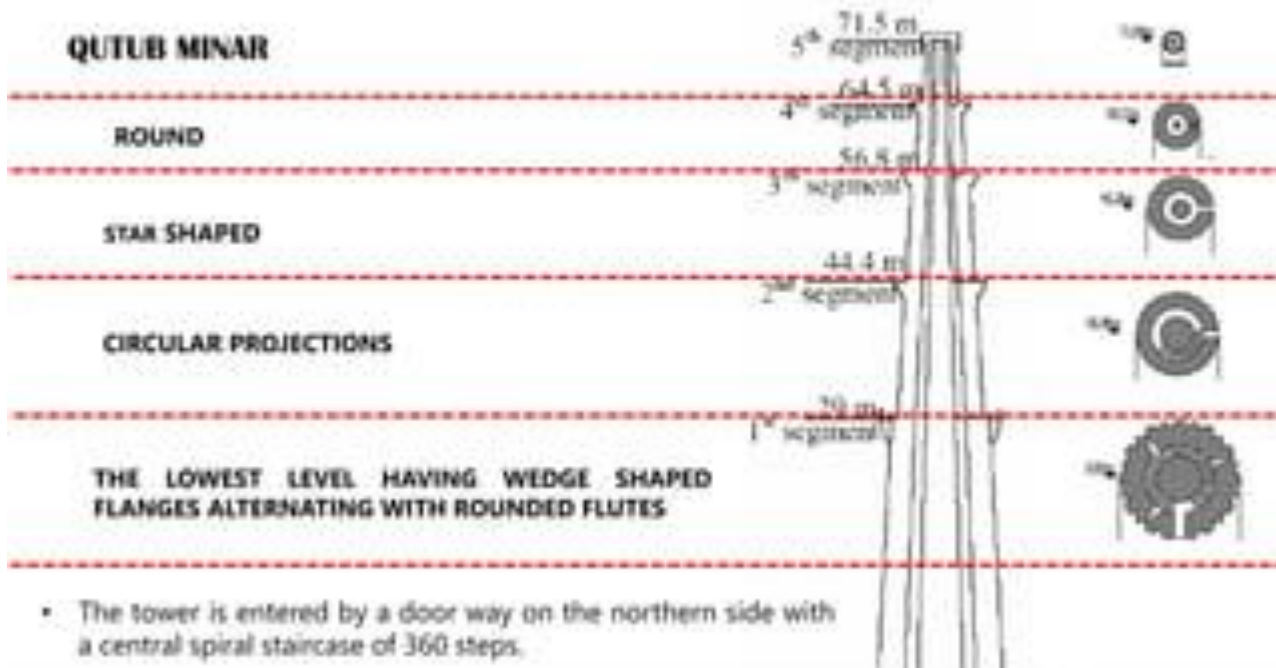
Diameter:

- At the base: It has a diameter of around 14.3 meters (47 feet)
- At the top: The diameter tapers to about 2.7 meters (9 feet).
- Floors/Storeys: The structure has five distinct storeys, each with a balcony encircling the minaret. First three storeys are made of red sandstone.
- The fourth and fifth floors incorporate white marble and sandstone, reflecting changes over time.

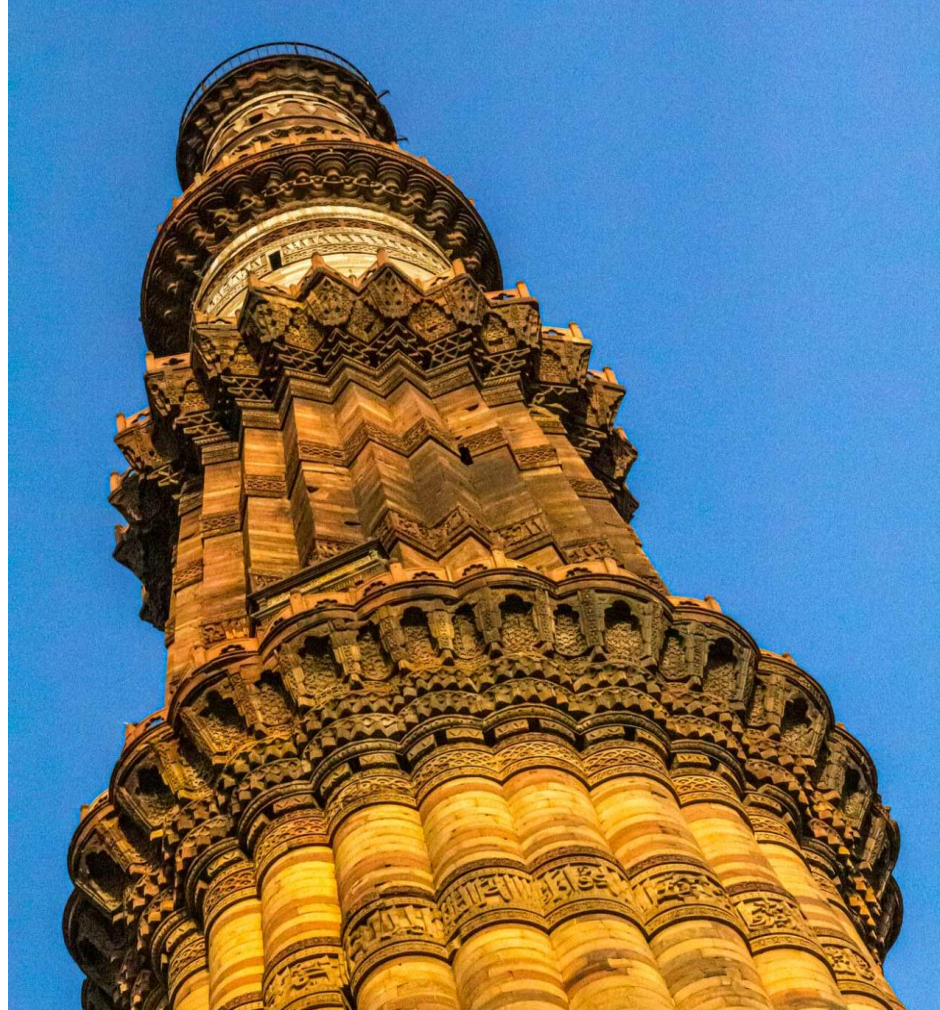
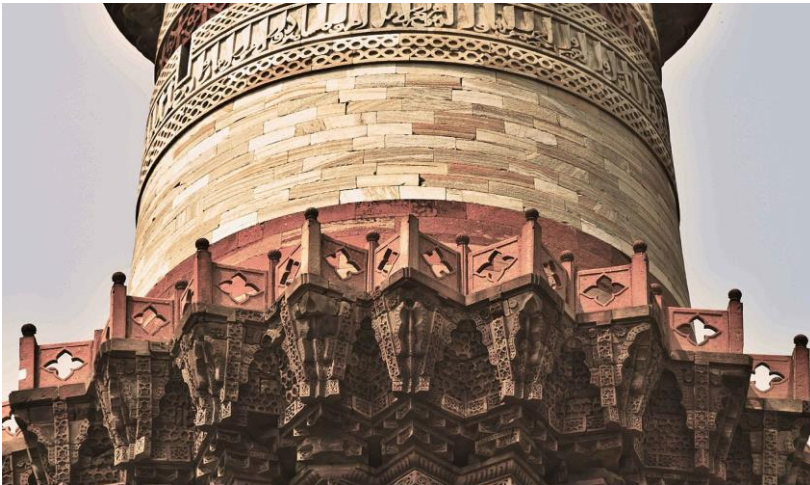


Architectural & Structural Features

- **Design Style:** The Qutub Minar follows Islamic architecture with intricate carvings, Arabic inscriptions, and geometric motifs. You can highlight the use of calligraphy and floral patterns, typical of Indo-Islamic architecture.
- **Tapering Structure:** The minaret's tapering form (thicker at the base, narrowing as it rises) provides stability, which is an essential structural solution for a tall structure on a narrow base.
- **Balconies and Brackets:** Each level has a protruding balcony supported by intricately carved brackets. This provides not just an aesthetic element but also a structural function by breaking the wind force.



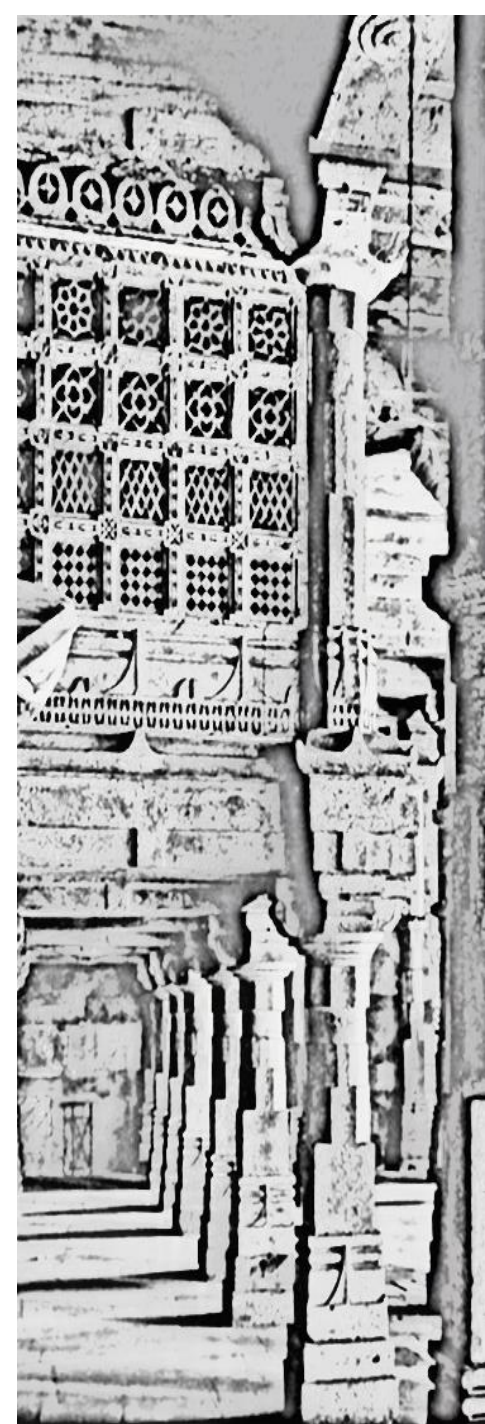
- Earthquake Resilience: The tapered shape, circular base, and thick stone walls contribute to its stability against seismic activity. It's an excellent example of structural resilience for tall towers.
- Foundation: The depth and width of the foundation (believed to be several meters) are crucial to its stability, as it compensates for the height and potential wind loads.



Module –II Provincial style Architecture

JAMA MASJID AHMEDABAD

- There were numerous reasons which conditioned the character of the provincial styles, one of which was the Muslim powers and their practice of arts at Delhi.
- When a province remained closely associated to the central power which was the Muslim dynasty, their effect on architecture grew strong, while this influence is less noticeable for the distant parts of the country.
- Due to local artist indigenous art provincial style was growing strongly architectural wise but did not make a prominent effect in distant countries.
- Another reason behind the development of provincial style in India was the migration of experienced foreign craftsmen to the court of different Muslim rulers.



MASJID INTRODUCTION

- Built in :1424 AD and built by Sultan Ahmed Shah
- When it was constructed it was largest mosque and it has entrance from three different directions.

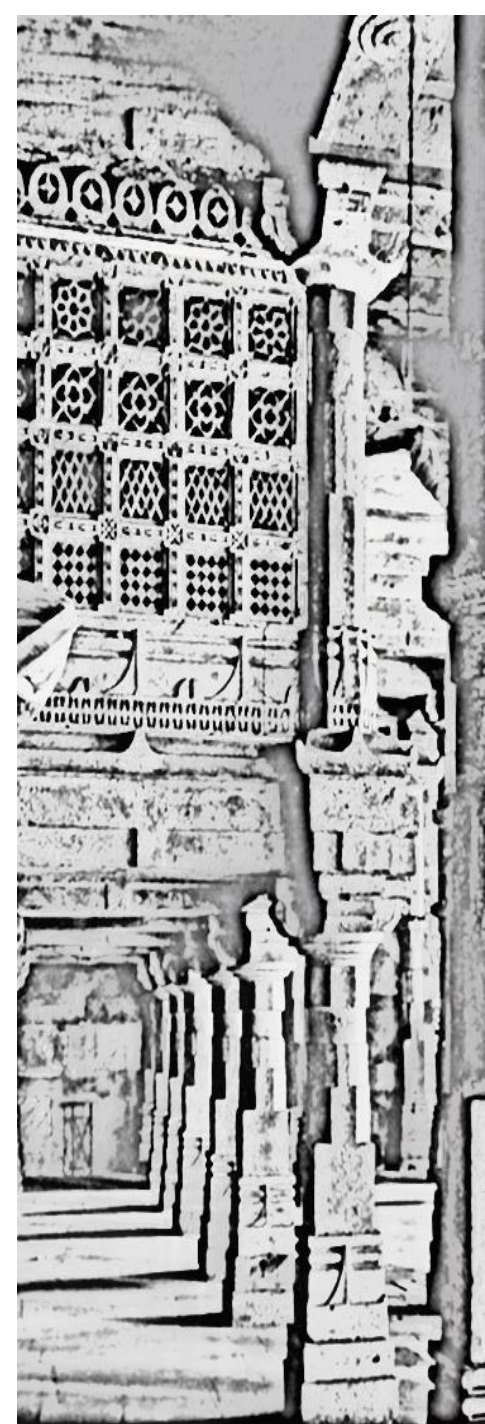
PLAN

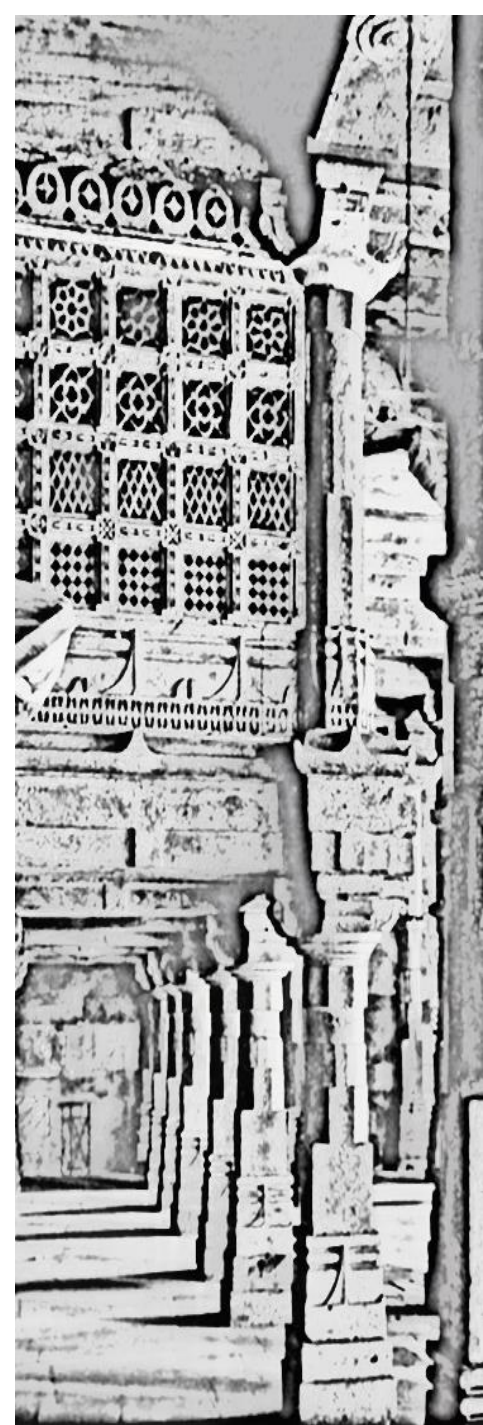
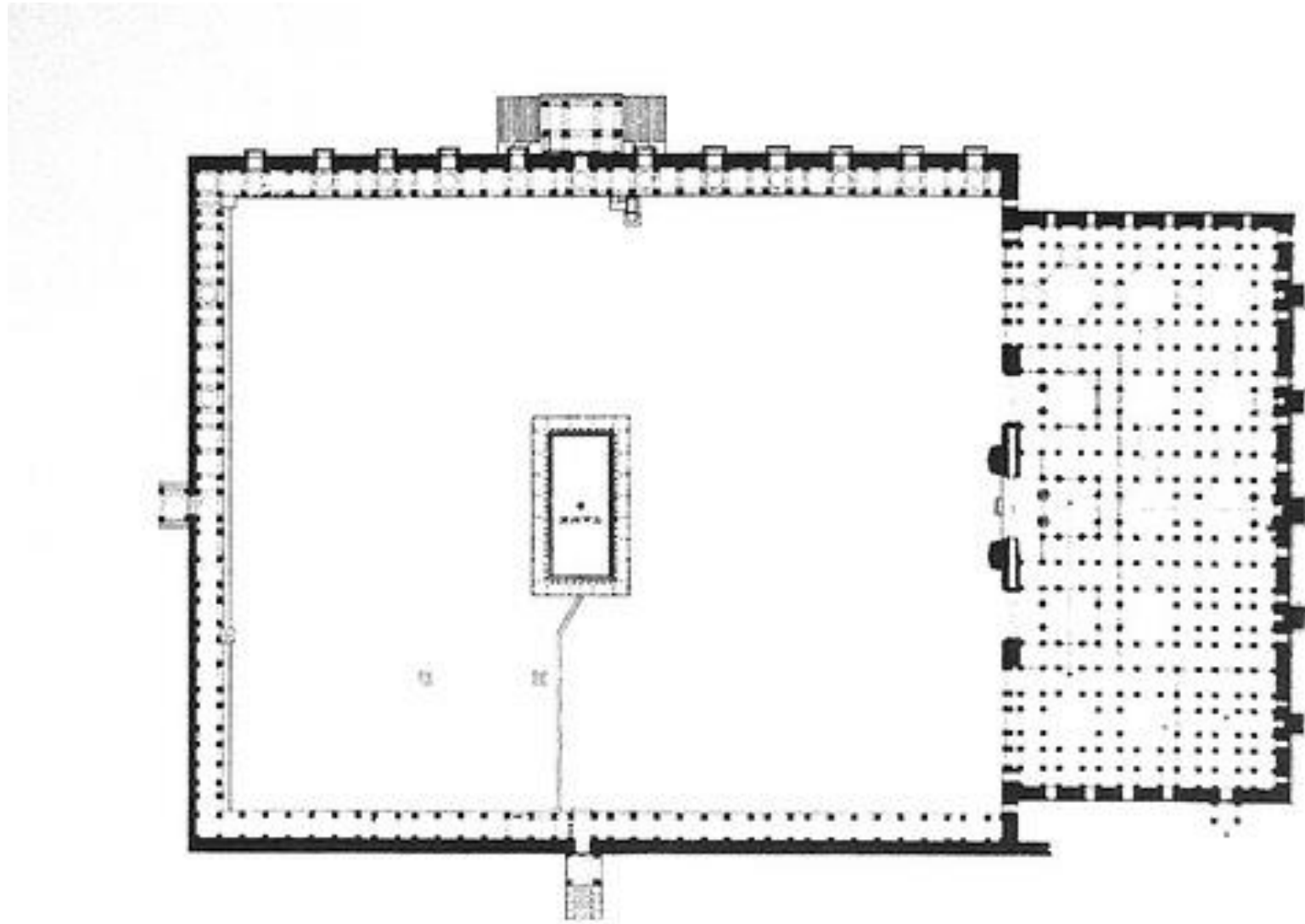
Courtyard:

- It is rectangular in plan
- Mosque is centred on a large rectangular courtyard measuring 75m long and 66m wide.
- Courtyard is lined with a three colonnade on three sides.
- Centre of the courtyard has water basin for ablution.

Prayer Hall:

- It is rectangular in plan measures 210'x95'.
- Two main minarets flanking the main arched entrance way, the minarets are collapsed in the 1819 earthquake only the lower portion remains.



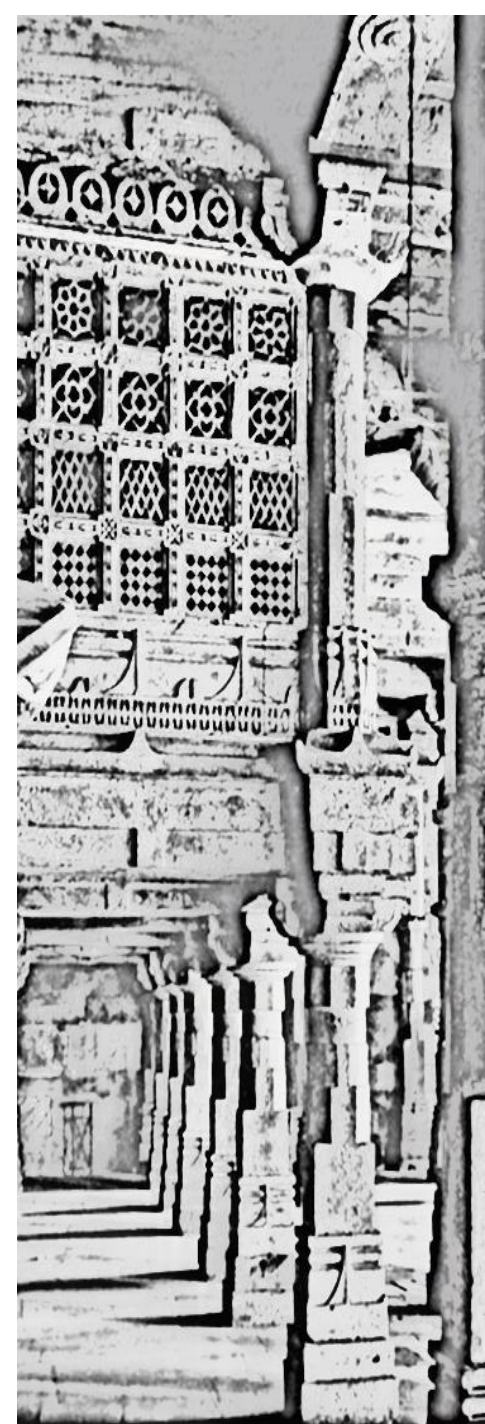


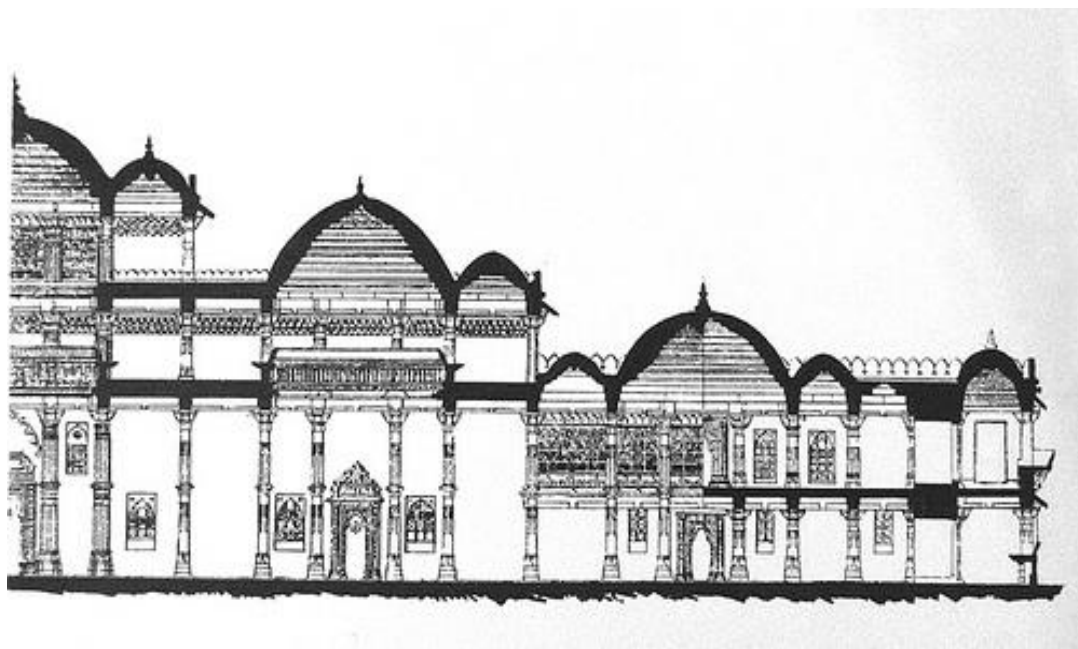
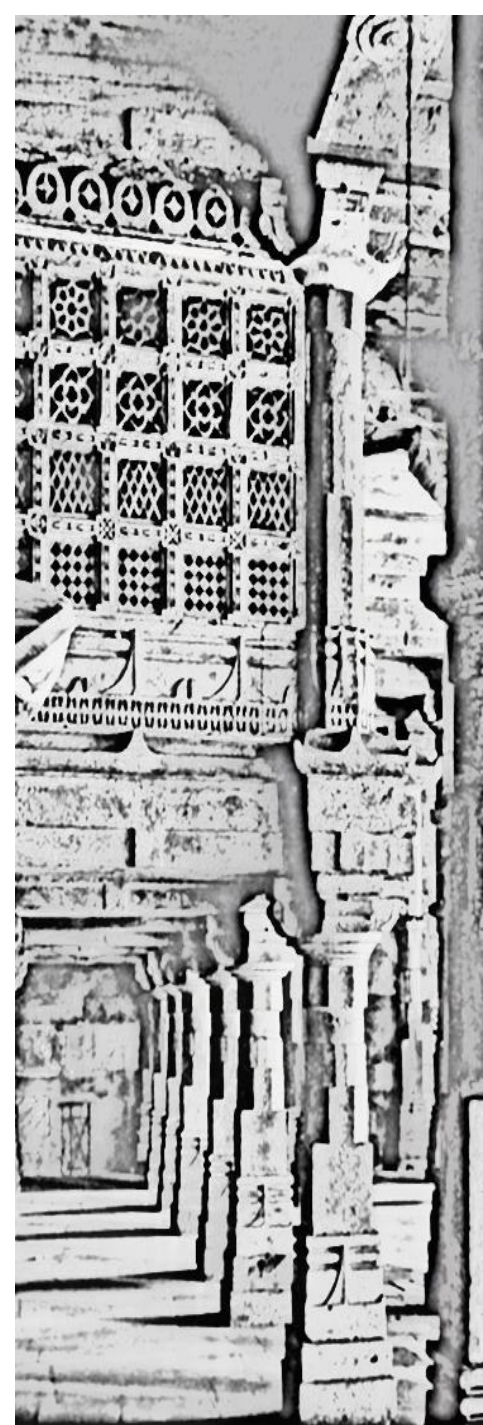
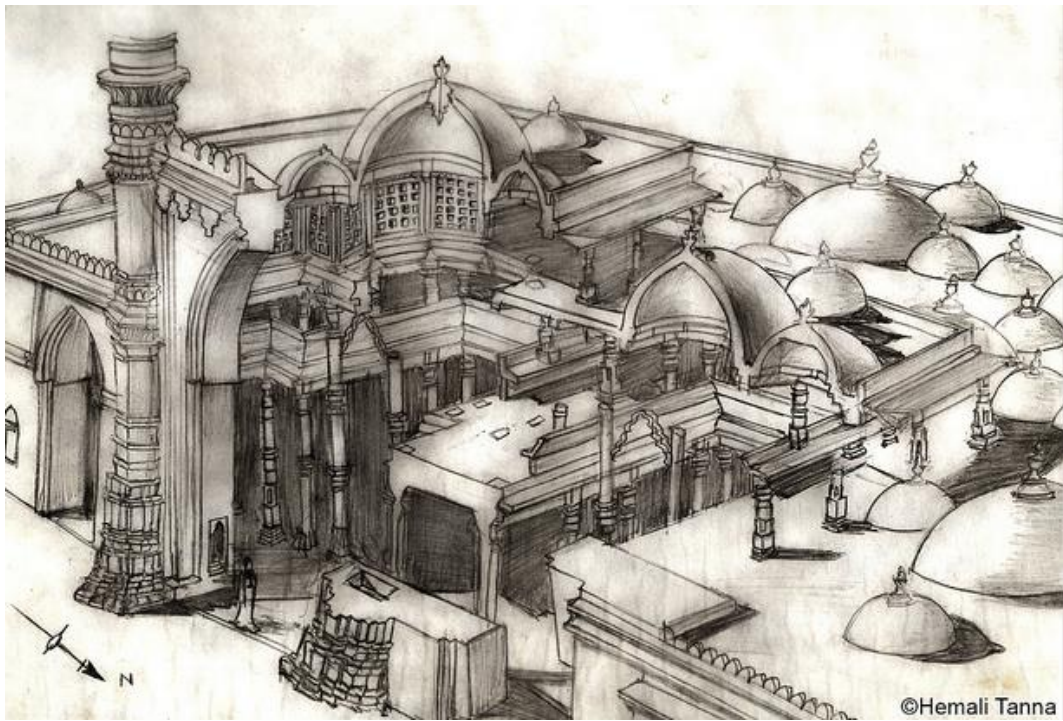
- The prayer hall have 260 columns and carved with the form of a bell hanging on a chain.
- It is covered with 15 domes.
- Flooring is marble in prayer hall.
- The whole structure is constructed using yellow sandstone.
- The central compartment of the nave rises upto 3 storey and side aisles rises 2 storey and the rest structures are single storey.

Dome:

Dome in the mosque are given various shaped like the central domes are carved like a lotus flowers, closely related to the typical jain temples.

- Pierced stone screen(jail) is placed in between the two pillars of the central openings.





IBRAHIM RAUZA BIJAPUR

Ibrahim Rauza, designed by the Persian architect Malik Sandal, reflects the sophistication and artistry of the Adil Shahi dynasty.

1. Platform Layout:

- The entire complex is built on a rectangular platform measuring approximately 110 meters (360 feet) by 55 meters (180 feet).
- The platform raises the structures above ground level, protecting them from water damage during the monsoon season and enhancing their visibility.

2. Two Main Structures:

• Tomb (Western Side):

- The tomb houses the cenotaphs of Sultan Ibrahim Adil Shah II, his wife, and family members.
- The actual graves are in the underground crypt, while the cenotaphs are placed in the main chamber.
- Rectangular in plan measures 115'x82' each side
- Height measures 79'

• Mosque (Eastern Side):

- A fully functional mosque used for prayers.
- It mirrors the tomb in size and symmetry.
- Rectangular in plan measures 115'x82' each side
- Height measures 79'



3. Pathways and Gardens:

- The complex was originally surrounded by lush Persian-style Charbagh gardens, divided into four quadrants by pathways.
- The pathways led directly to the tomb and mosque, symbolizing a journey toward spirituality.

4. Dome Dimensions:

- The central dome of the tomb has a diameter of approximately 10 meters (33 feet).
- It rises to a height of around 24 meters (80 feet) from the base of the tomb.
- The mosque's central dome is slightly smaller but equally elegant, with its proportions perfectly complementing the tomb.

5. Minarets:

- Each of the four corner minarets is approximately 24 meters (80 feet) tall.
- They taper gracefully and are adorned with intricate carvings.

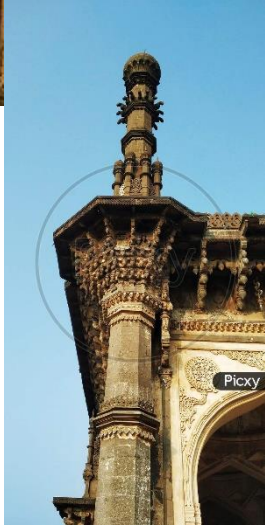
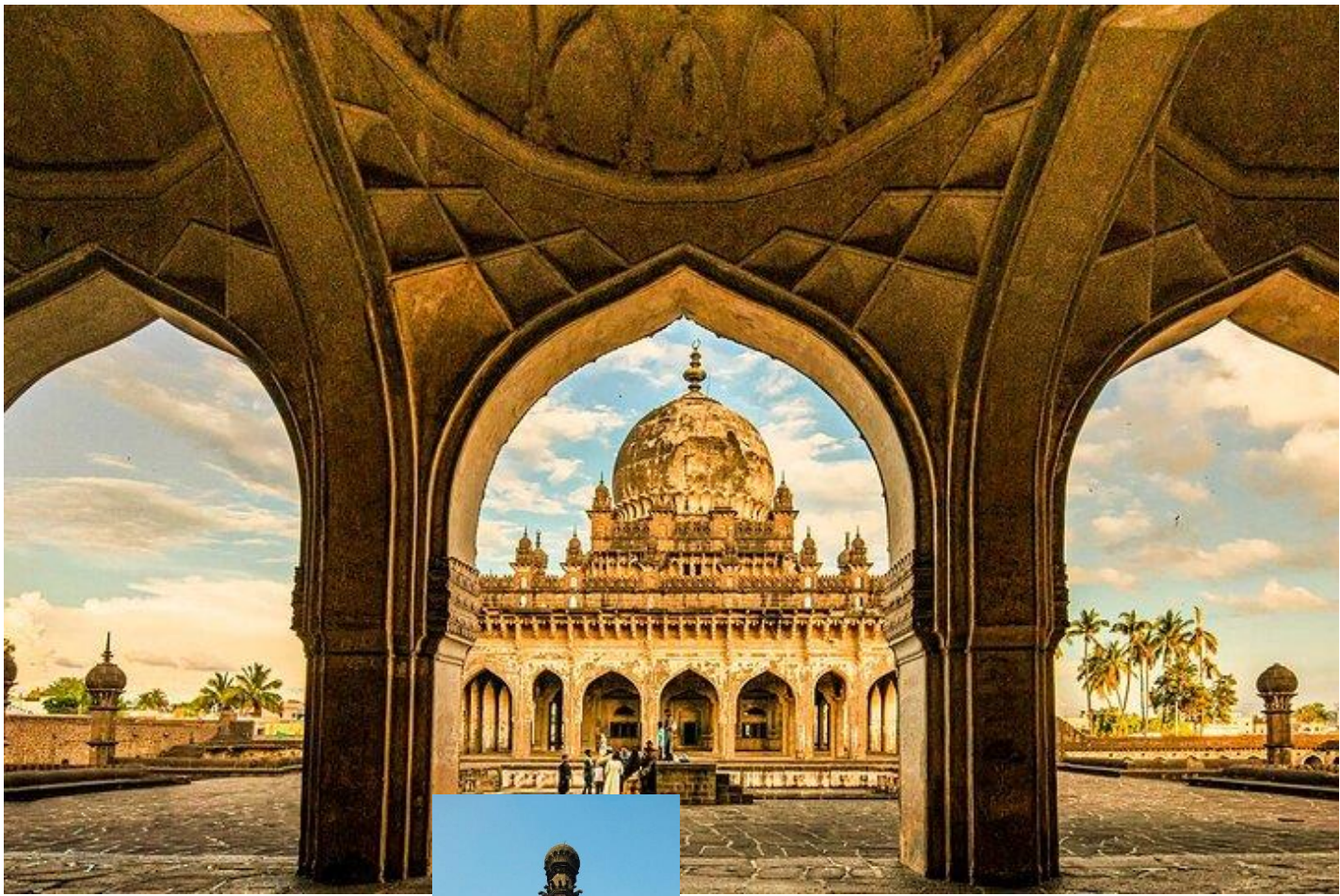
6. Walls:

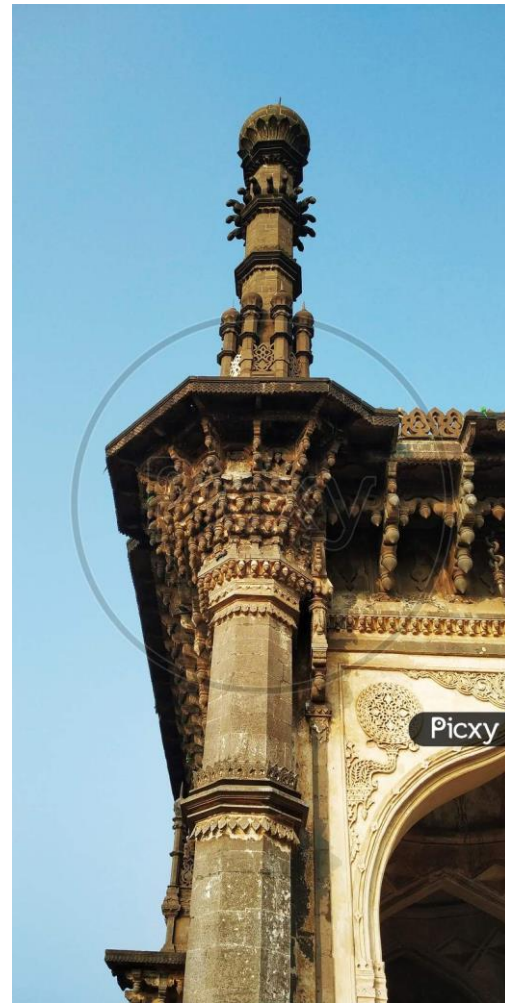
- The walls of the tomb and mosque are around 2.5 meters (8 feet) thick, providing insulation and structural stability.

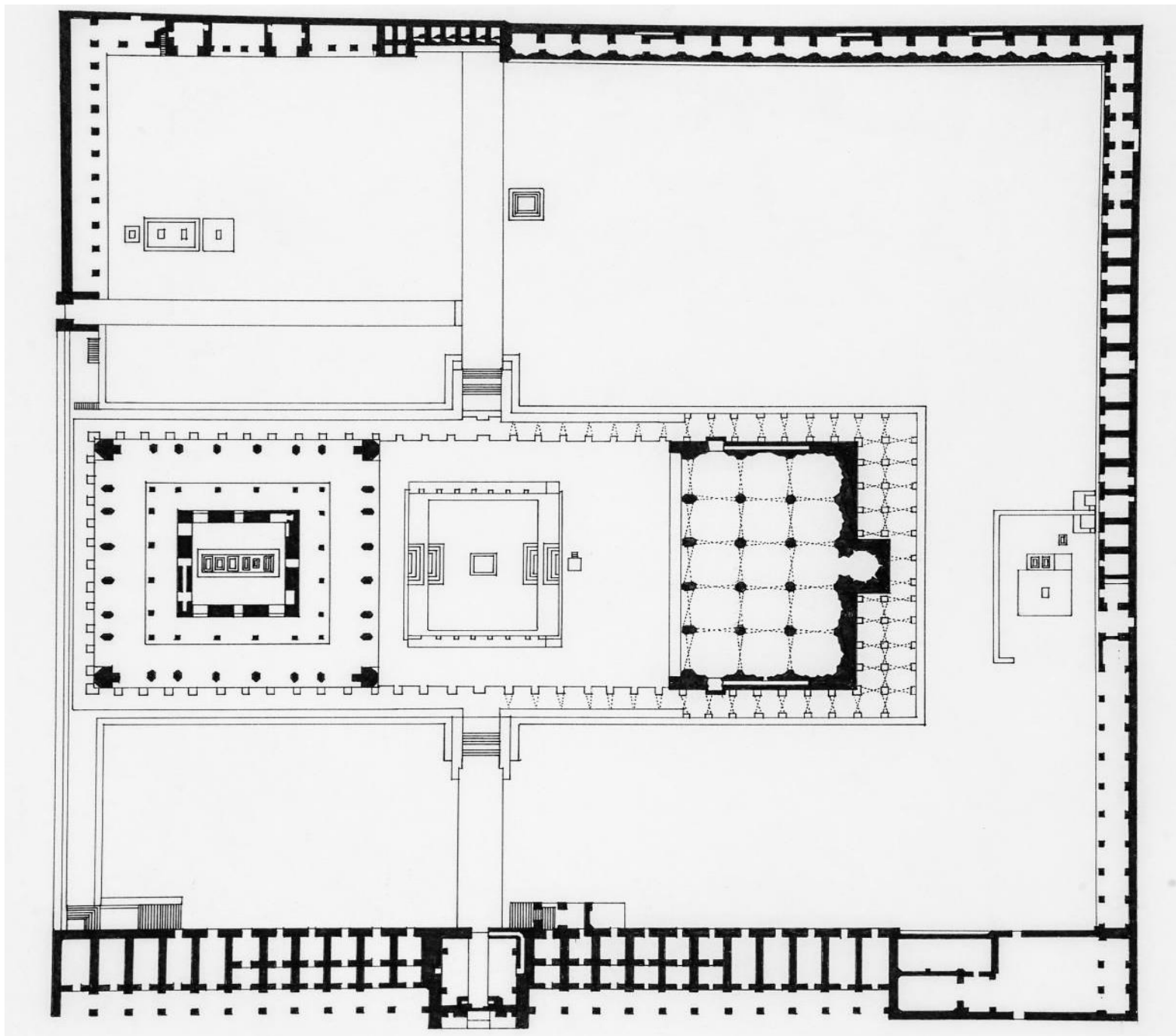
4. Rooms and Bays:

- The tomb features a single square chamber, with the cenotaphs placed at the center.
- The mosque has three bays, with the central bay being larger and crowned by the dome.









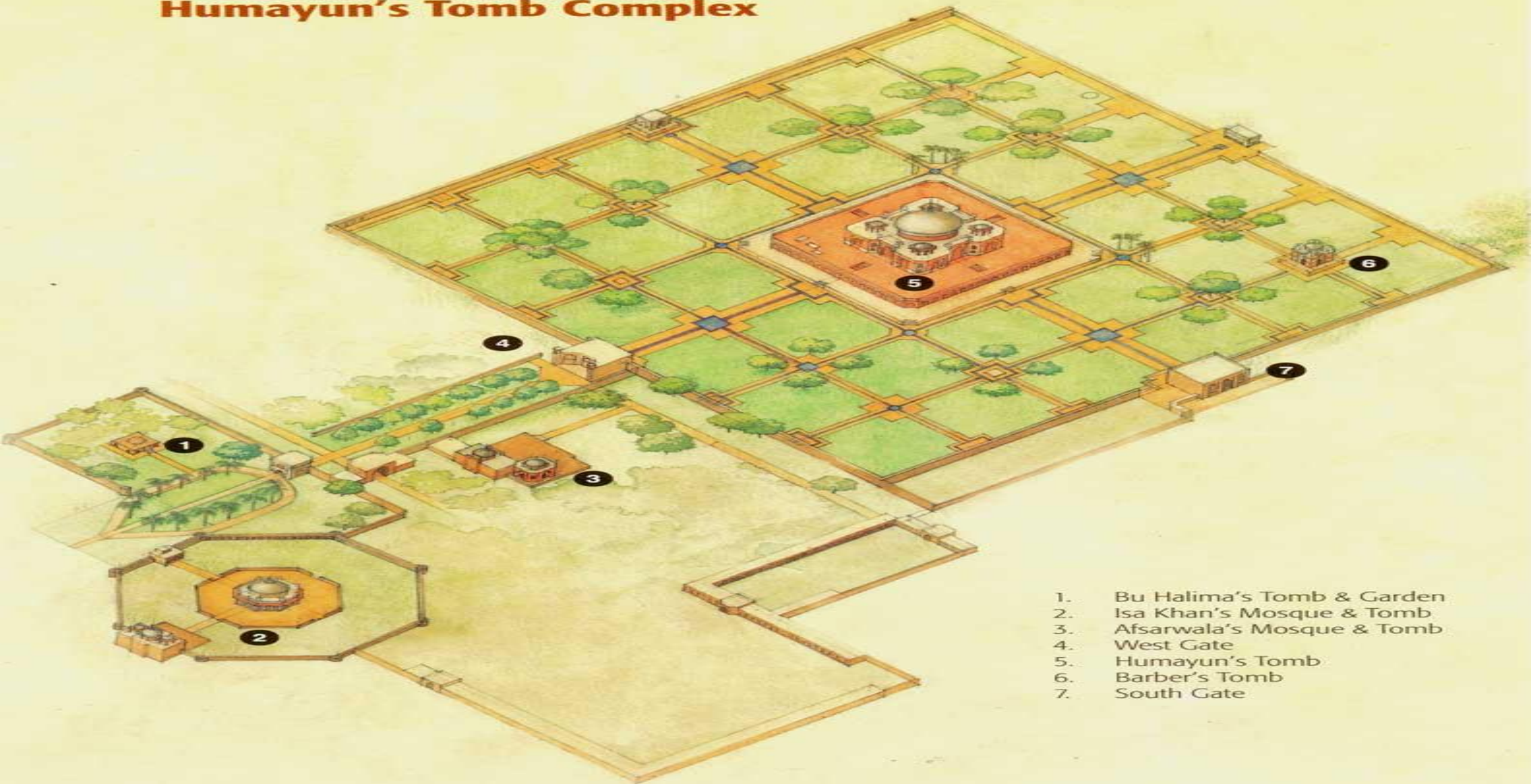
Module –III Mughal style Architecture

INTRODUCTION

- Humayun's tomb is the tomb of the Mughal Emperor Humayun in Delhi, India.
- The tomb was commissioned by Humayun's first wife Bega Begum (Haji Begum) in 1569-70, and designed by Mirak Mirza Ghiyas, a Persian architect chosen by Bega Begum.
- It was the first garden-tomb on the Indian subcontinent,
- It was also the first structure to use red sandstone at such a scale.
- The tomb was declared a UNESCO World Heritage Site in 1993, and since then has undergone extensive restoration work, which is complete.



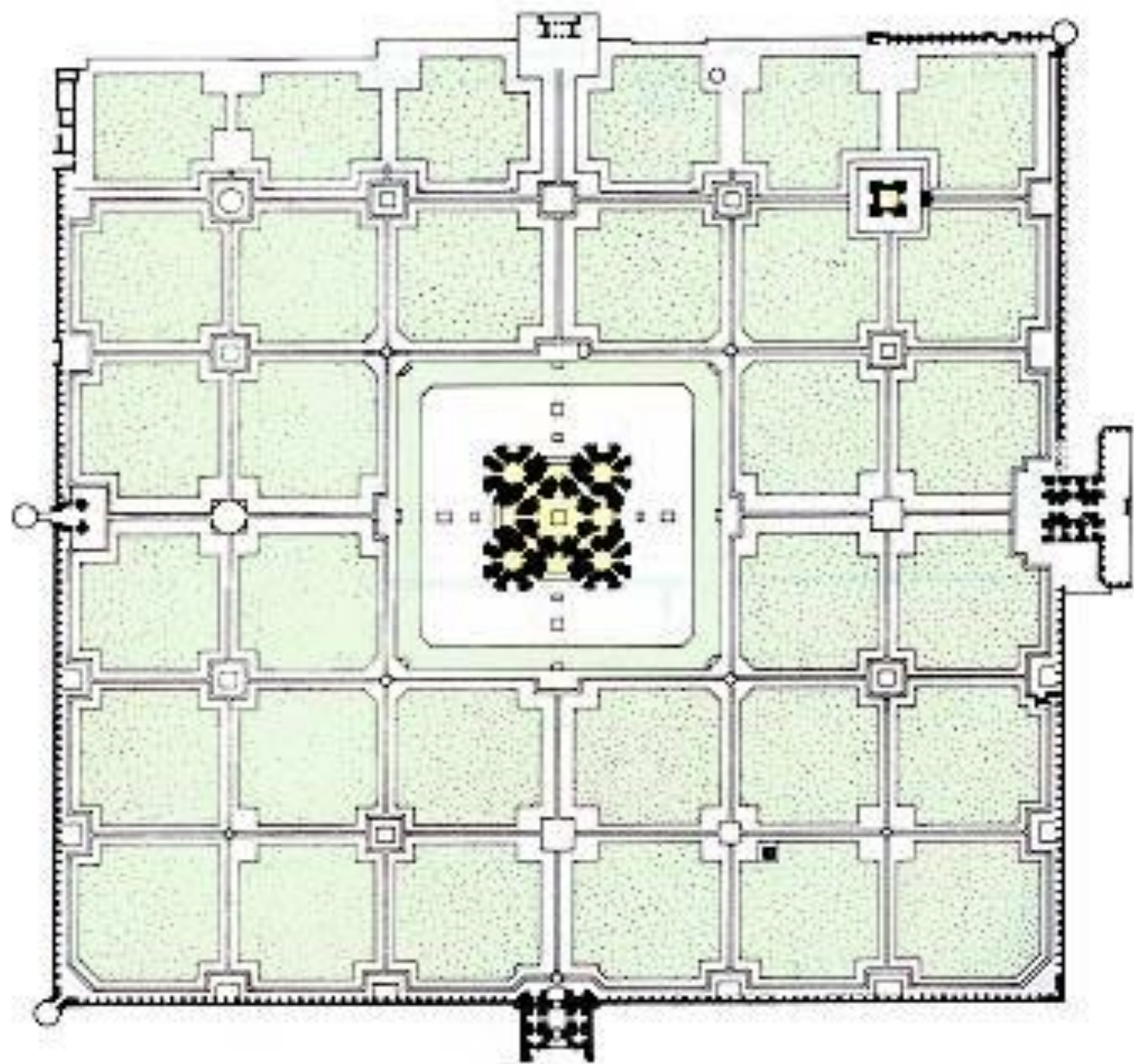
Humayun's Tomb Complex



INTRODUCTION

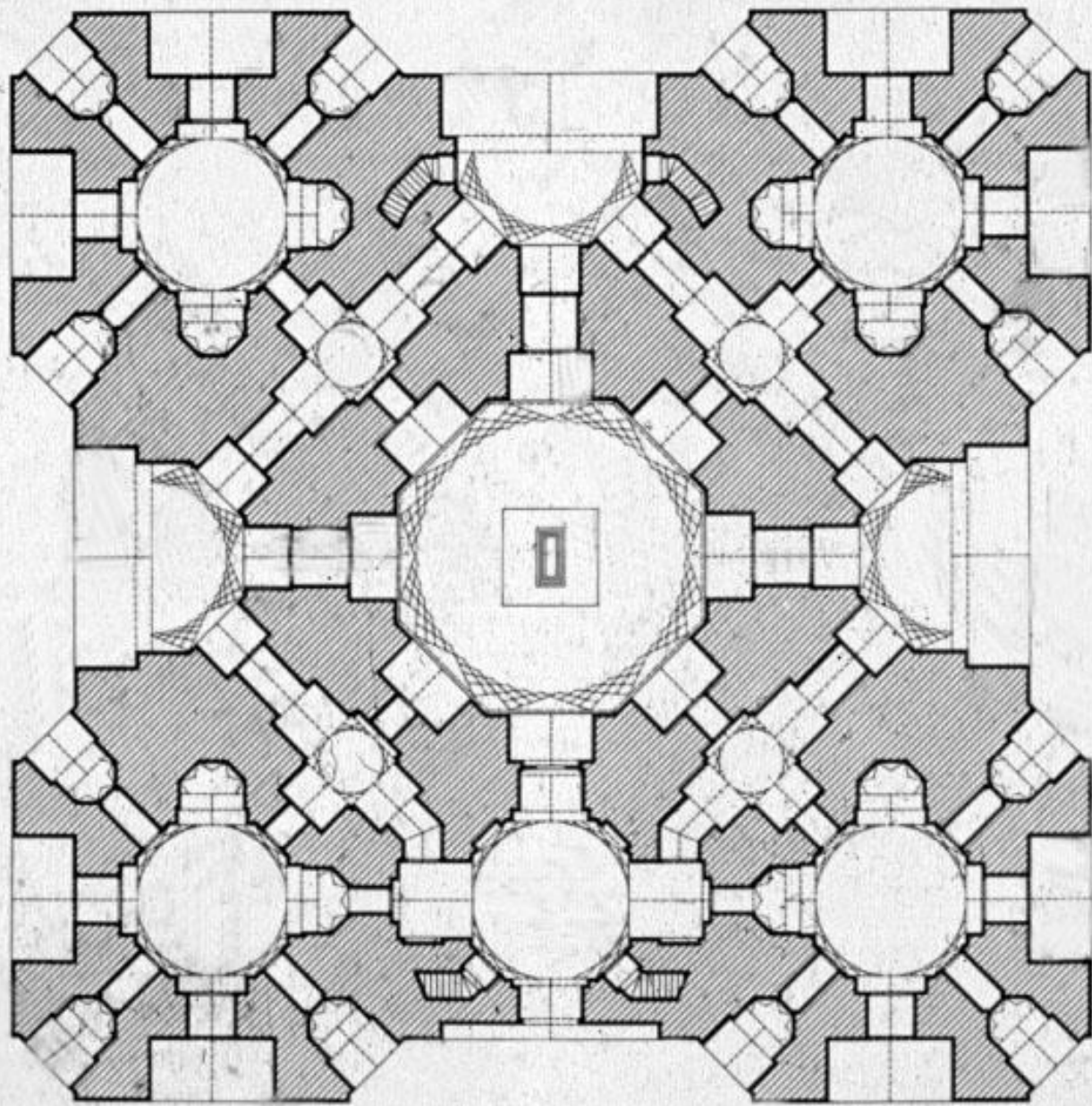
- Inspired by Persian architecture; the tomb reaches a height of 47 metres (154 ft) and is 91 metres (299 ft) wide.
- It was the first Indian building to use the Persian double dome on a high neck drum, and is topped by 6 metres (20 ft) high brass finial ending in a crescent.
- The double or 'double-layered' dome, has its outer layer which supports the white marble exterior, while the inner part gives shape to the cavernous interior volume.
- As a contrast to the pure white exterior dome, rest of the building is made up of red sandstone, with white and black marble and yellow sandstone detailing, to relieve the monotony.



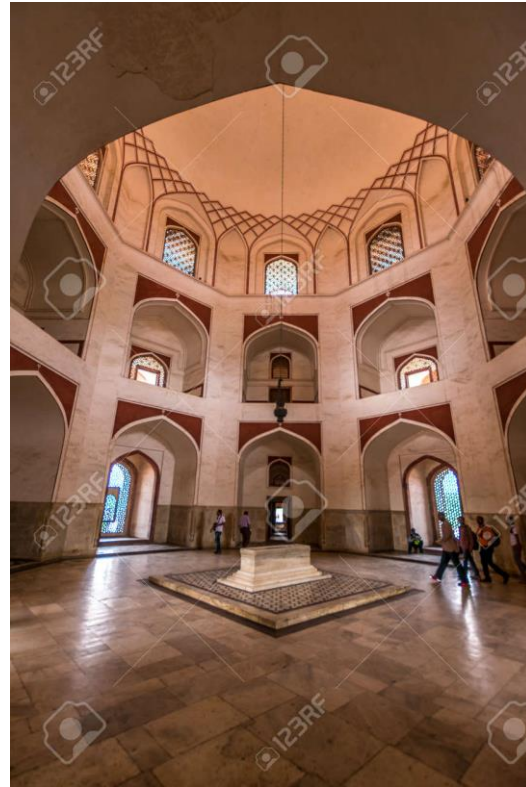


- The tomb sits at the center of a plinth, about 21 feet (7m) high.
- The top of its central dome reaches 140 feet from the ground.
- The dome is double-layered; the outer layer supports the white marble exterior facing, while the inner one defines the interior volume.
- The rest of the tomb is clad in red sandstone, with white marble ornamentation.
- The symmetrical and simple designed on the exterior is in sharp contrast with the complex interior floor plan, of inner chambers, which is a square plan',
- Where two-storyed vaulted chambers radiate from the central, double-height domed chamber.
- It can be entered through an imposing entrance on the south, which is slightly recessed, while others sides are covered with intricate *jaalis*, stone lattice work.
- Underneath this white dome in a domed chamber , lies the central octagonal the burial chamber containing a single cenotaph, that of the second Mughal Emperor, Humayun aligned on the north-south axis, as per Islamic tradition,





- The real burial chamber of the Emperor, however lies further away in an underground chamber, exactly beneath the upper cenotaph, accessible through a separate passage outside the main structure, which remains mostly closed to visiting public.
- This burial technique along with *pietra dura*, a marble and even stone inlay ornamentation in numerous geometrical and arabesque patterns, seen all around the facade is an important legacy of the Indo-Islamic architecture, and flourished in many later mausolea of the Mughal Empire, like the Taj Mahal, where again we find twin cenotaphs and exquisite 'pietra dura' craftsmanship.



Module –IV Arrival of British Early colonial period Architecture