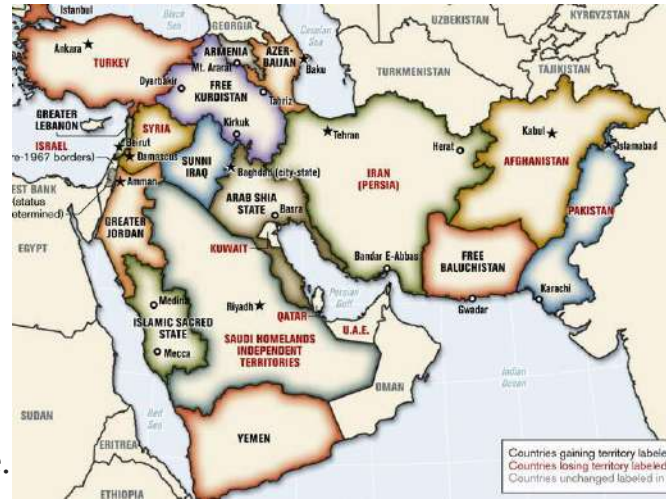


Islamic Architecture In India

Introduction: Islamic architecture can be defined as a building tradition of Muslim population of the middle east and any countries where Islam has been dominant from 7th century on.

Geographical condition:

- The Muslims originally were from the nomadic 'Sahara desert tribes. They were called as 'Saracenic by the Greeks and Romans.
- The religion spread all over the countries which adopted Muslim Religion in :- Arabia, Egypt, Persia, Syria, Palestine, Spain, Pakistan and Northern India.
- The style developed in India is known as Indo-Muslim or Indo-Islamic architecture.



Geological condition:

- The building materials used for construction of domes were bricks and were externally covered with plaster in Persia, stone in Egypt and India, Redstone in India, according to availability of material as lime stone was available in Cairo.
- Plaster was commonly used for wall decoration in Egypt and Spain.

Climatic condition:

- Most of the countries have hot climate. Hence to protect from severe heat, sheltering arcades were provided.
- Windows were small and usually filled with intricate geometric designs.
- The mosques in India are provided with wide spreading eaves on the roof to ensure coolness.
- Flat roofs of dwelling houses were very useful to enjoy the cool breeze in evening.

Religious condition:

- Earliest mosque for Friday prayer were square enclosed surrounded by reeds and oriented towards Kaaba at Mecca.
- Surface decoration provided in all mosques by beautiful geometric design called **Arabesque** (meaning foliage) and text from **Quran**.
- Islamic ornament was non sculptural.

Social condition:

- Women quarter (harem) are separated from portion accessible to male visitor.
- The harem mostly provided on upper floor.
- Window towards the road side provided with wooden lattice for privacy to enable the occupants "to see but not to be seen".

DEVELOPMENT OF INDO ISLAMIC ARCHITECTURE

The Islamic architecture which is erected with both Indian and Islamic architectural Elements. After the advent of Islam in India, some Islamic architecture elements reached here and by incorporating them on the buildings with the prevailing Indian architecture element, a new style came out which is known as Indo-Islamic architecture.

MATERIALS

- The use of lime was very limited in India before.
- For brickwork, mud was used and stone block were laid dry and secured with each other with iron clamps.
- But on the arrival of Muslims in India, the lime was very extensively used not only for binding purposes but also as plaster for making the surface for incised decoration and encaustic enamel work.
- The lime mortar, an adhesive medium, was prepared by mixing, gaj-i-sharin (gypsum, sweet limestone), shurki, Shirish (reed glue), urad dal, san (hemp – a plant whose fibres are used for making ropes).
- The mixture of the lime mortar gets ready for its use after twenty one days only and takes longer period to set but once it is dried it becomes harder than a stone.

Indian Architecture Elements:

- Lintel
- Pillars
- Conical corbelled dome.

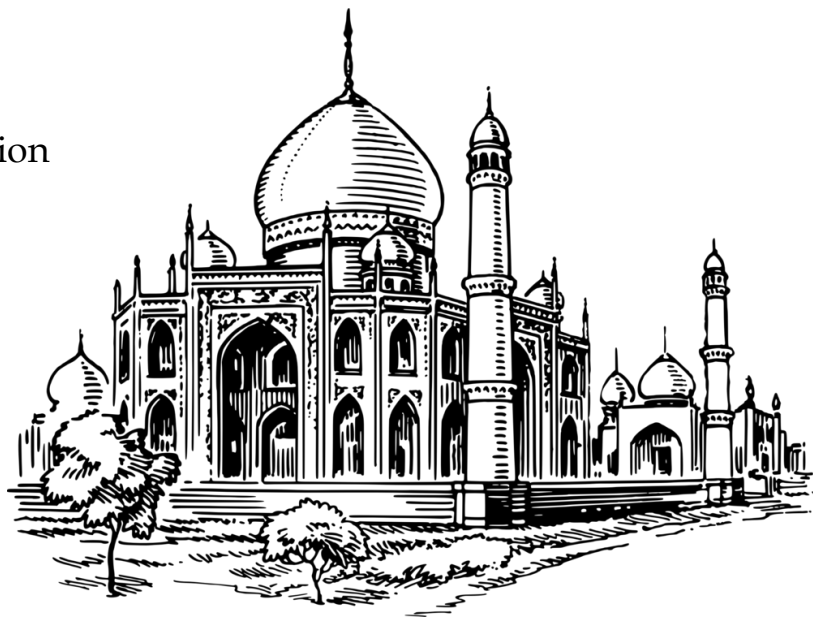
Islamic Architecture Elements:

Islamic architecture is the combination of Persian and Central Asian architecture elements consisting bulbous (blub shape) dome, high drum/ neck building elements, huge Iwan, high platform, thick walls containing passages and staircase in some cases, char-bagh pattern, water channels etc.

Characteristics Features:

In Islamic architecture invention concentrate in three major construction

- The Mosques or Masjids
- Tombs
- The Palaces



BUILDING TERMINOLOGY:

MOSQUE : ISLAMIC PLACE OF WORSHIP.

JAMI: A place for offering Friday prayer. It has a large open court surrounded by arcades or colonnades to ensure protection from heat of sun with a fountain or tank in the centre.

MADARSAH: Public school containing lecture halls, library, residences for students and teachers in addition to the mosque for prayer. →

CASBAH/ CITADIL: A fortress.

HAMAM: A structural design for hot bathhouse.

CARVANSERAI: A roadside inn for travellers.

MAUSOLEUM: A tomb or monument.

RAUZA: A large mausoleum which also includes a mosque as a separate building. It is contained within a spacious square enclosure, forming an attractive garden called Rauza.

DARGAH: Important tomb of nobles.

Khans: These are the inns or serais where travellers took rest. It's a two storeyed buildings- the ground floor for stabling camels and first floor for residences of the travellers.

The Pointed Arch: The architecture symbol of hands joined in prayer pointing towards heaven or Mecca indicating all the things in universe meet in only one God (Allah).

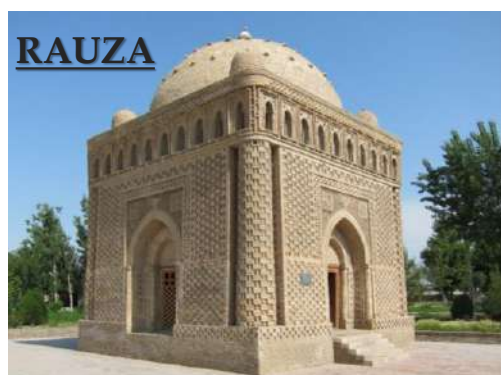
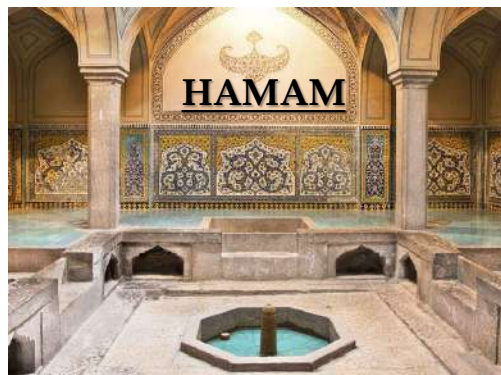
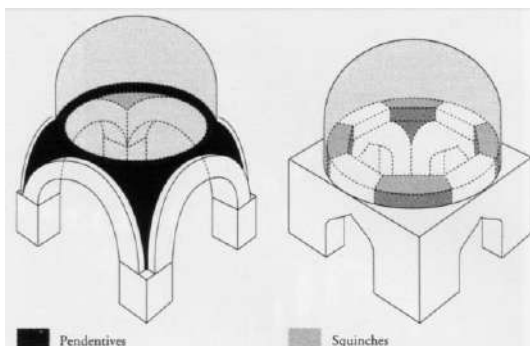
ELEMENTS:

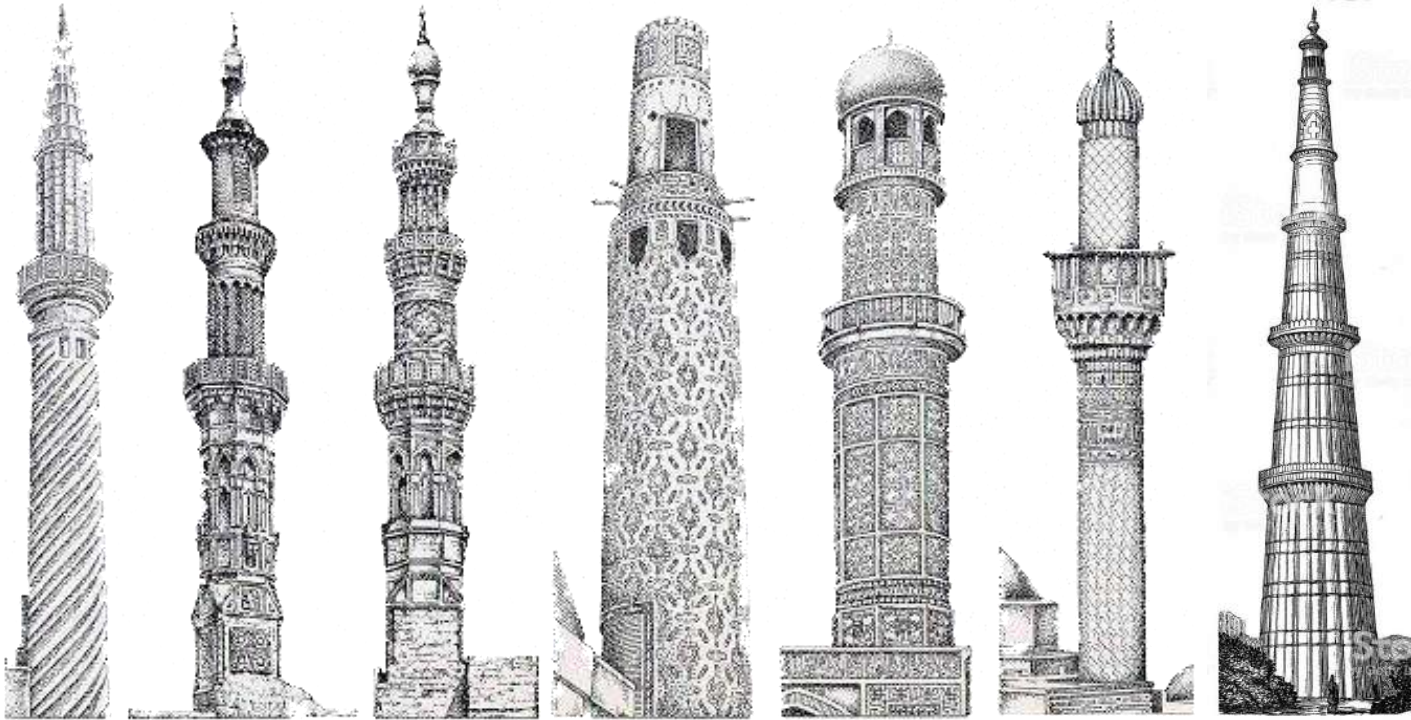
Elements of Islamic architecture may be identified with the following design elements, which were inherited from the first mosque built by Allah:

- Minarets or towers
- Iwan
- Mihrab
- Arches
- Courtyards (sahn)
- Prayer area hall
- Domes and cupolas
- Squinches

SQUINCHES:

A straight or arched structure across an interior angle of a square tower to carry a superstructure such as a dome.





MINARETS or MINARS: A large tall tower in or continuous to a mosque arch stair leading up to one or more balconies. Also from which the faithful are called to prayer at fixed times.

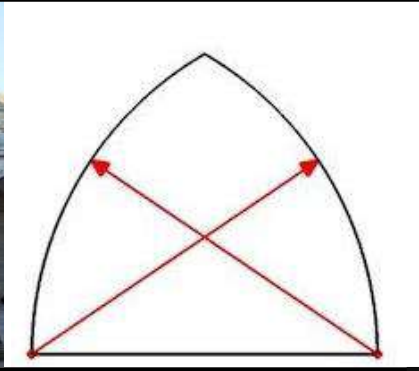
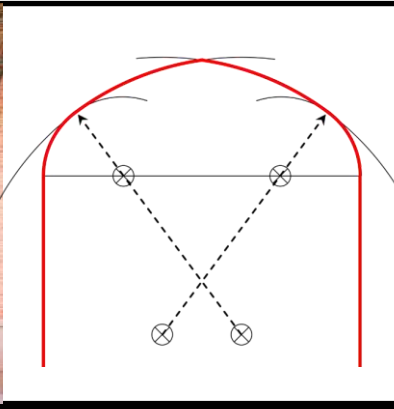
IWAN: In India it is on eastern side of mosque and is decorated beautifully with mosaic, glazed tiles, calligraphy on (entrance gate) motifs; elaborated into a pillared hall forming the sanctuary with wall at back containing arch shaped niche called "Ihrab".



MIHRAB: semi-circular niche in the wall of a mosque that indicate the qibla (direction for prayer).



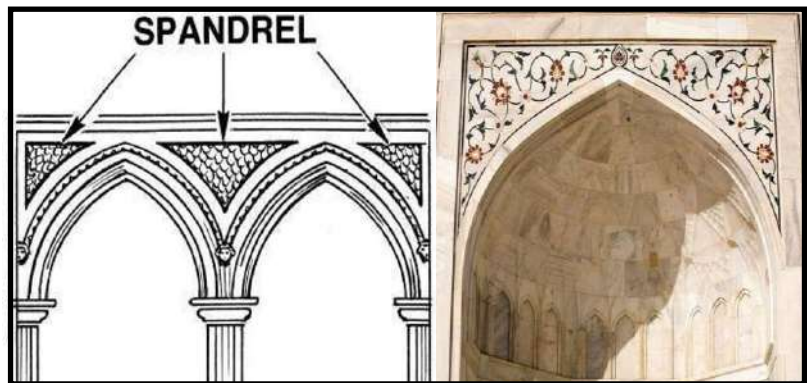
ARCHES: Arches are the structure that spans a space while supporting weight. The most important form of opening was the pointed arch which were principally two and four centred.



Water pound for wazu : In the centre of the courtyard there is a water pound in every mosque for wazu (washing face, hands and foot before performing prayer). It is so important in Islam that it is considered as key to the doors for heaven or house of Allah.



Spandrel: This is upper cornered triangular space on the both sides of an arch of the Iwan which is decorative with geometrical designs, inverted lotus, arabesque designs or with calligraphy.



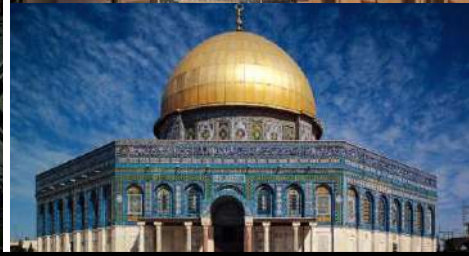
Courtyards(sahn): Is a fundamental feature and can be seen as different variations. According to their function the courtyards were cloistered and arcaded and the sides were punctuated with gateways, prayer chambers or arched porches (iwans).



Prayer area halls: main area to perform congregational pray.



Domes And Cupolas: Domes were widely used throughout the Islamic world. Persia, Mughals and Egypt domes tended to be pointed in contrast to the hemispherical Turkish version.



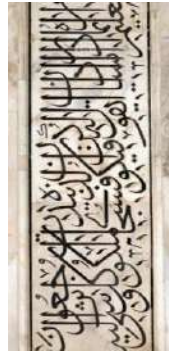
Maqsura: A portion of sanctuary is enclosed by a screen forming a compartment for women (Zenana).

Mimbar: A pulpit where imam delivers Quran.

Dikka: A reading desk from which priest or "imam" reads Koran.



Arabesque: is known as 'Tauriq' in Arab which means foliage. This is a purely Islamic form of decoration which means interlacing stems, lines. The lines are flat or curved, pointed and smooth but never isolated.

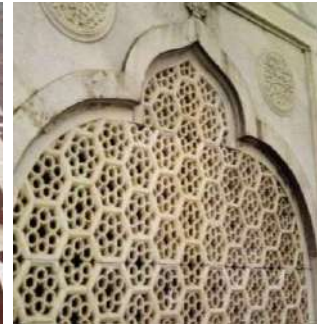
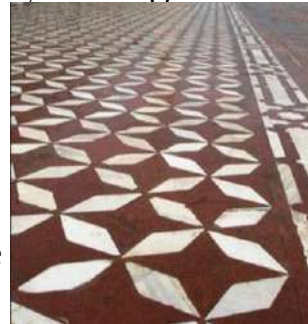


Calligraphy: has been inscribed on the monuments and during Mughal period. It got great attention. The inscriptions are written in Arabic and Persian language by using different script. It is created on the monuments by this way that the size of the words of the lowest band and highest band look alike because the size is increasing upward.

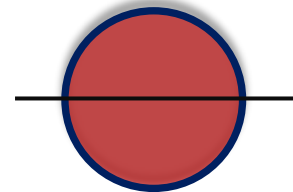
Finials: The domes of the buildings have been crowned with beautiful finials either in rubble masonry, marble or metal showing purna-kalasha, lotus, etc. One on the other and also a symbol of plenty and creativity.



Geometrical Designs: The monuments especially of Mughal period have been decorated with geometrical designs (square, circle, stars, etc) on the drum of dome, façade, spandrels as well as on the flooring of the main of medallions e.g. Inverted lotus, star of david, circle, arabesque design, etc. Geometry also seen to be spiritual like:



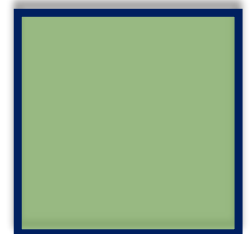
The Circle and it is centre at which all Islamic patterns begin. It emphasizes one god.



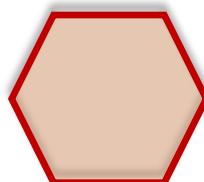
The triangle symbolises human and the principles of harmony.



The square is the symbol of physical experience and the physical world or materiality.



The hexagon symbolises heaven.

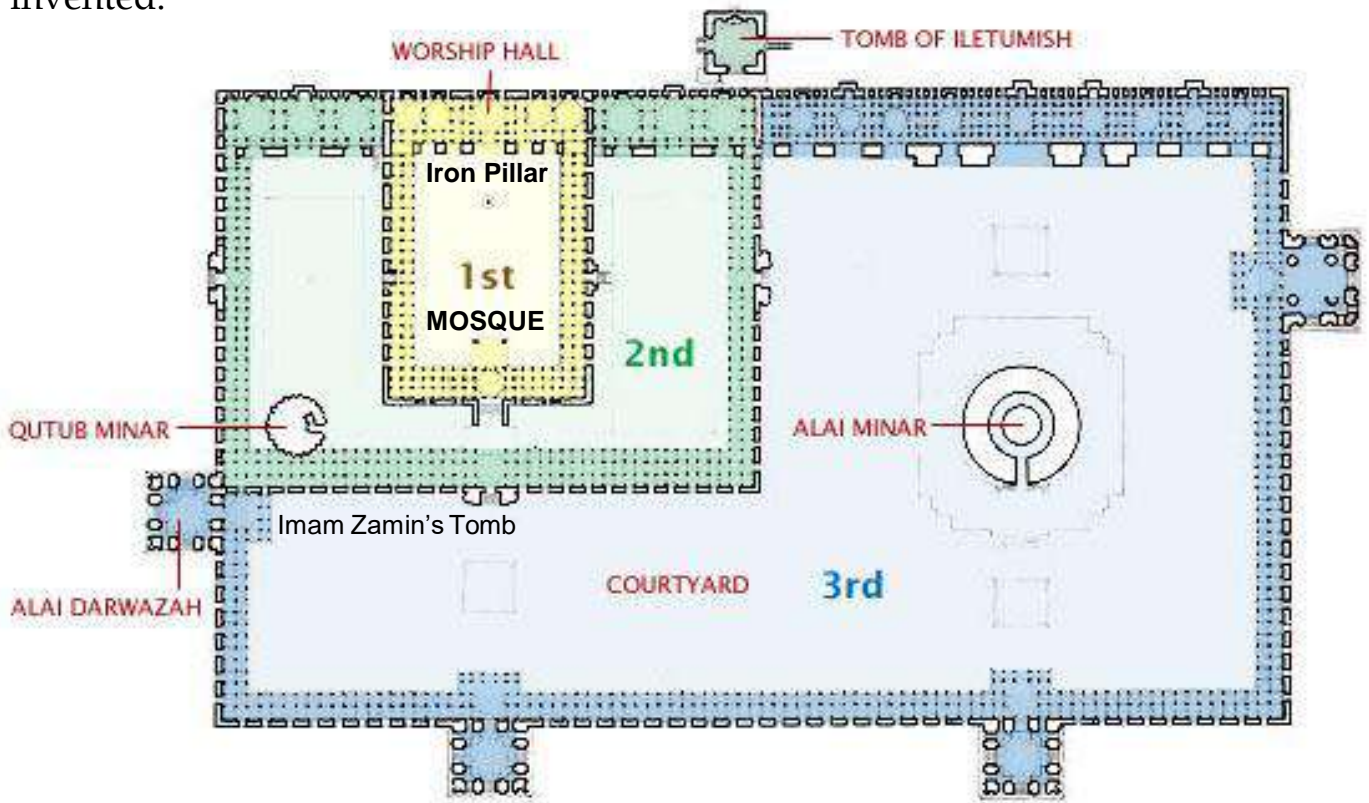


The star symbolises the spread of Islam.






Qutab Complex

Introduction: The Qutub complex was built by Qutub Ud-Din Aybak (reg. 1206 - 1211) who established the first Islamic sultanate in the Indian subcontinent in Delhi in 1192. The Qutub complex was created with the dismantling and reassembling of the 27 existing Hindu and Jain temples on the site. It is the oldest form in Islamic architecture according to Muslim tradition, the call to prayer was invented.



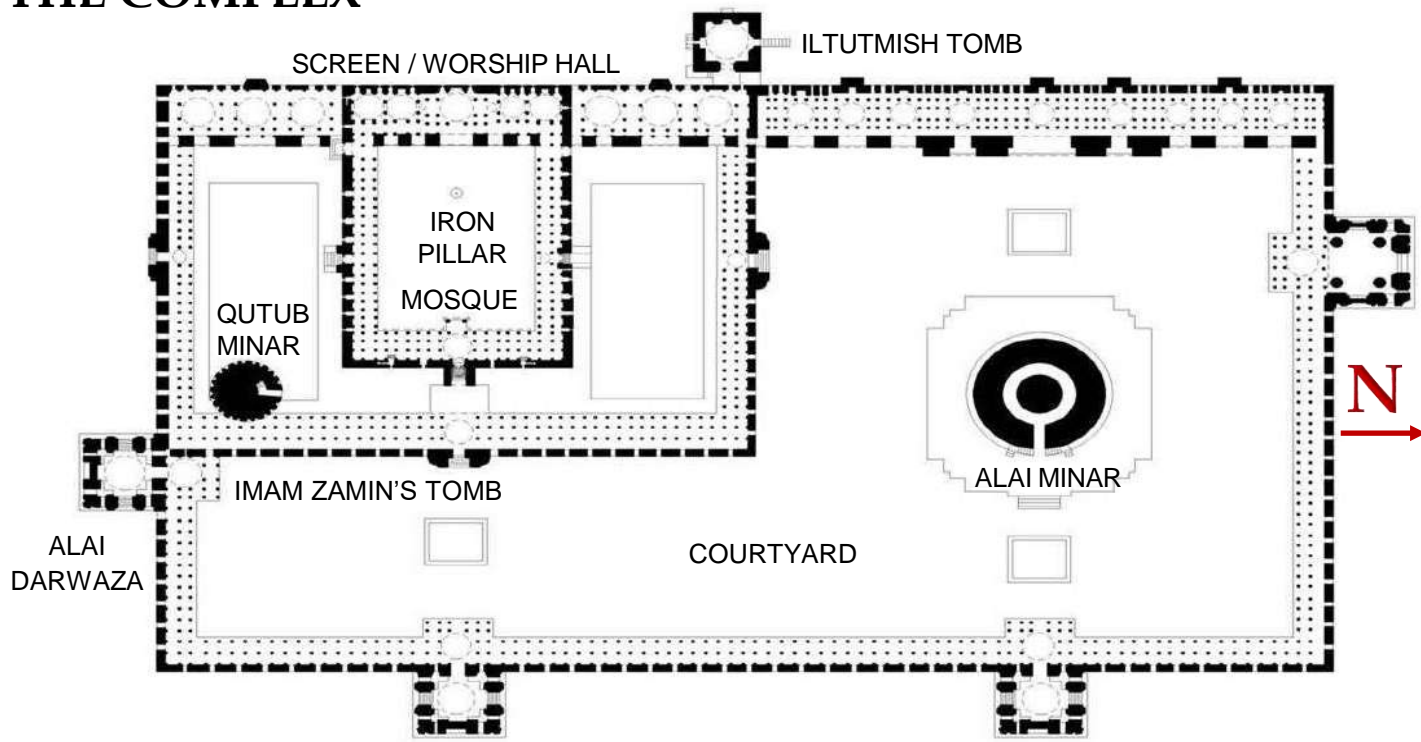
Qutub Minar is the tallest brick minaret in the world and an important example of Indo-Islamic architecture. The tower is in the Qutub complex in south Delhi, India. Qutub complex also includes a group of monuments:

- Qutab Minar
- Quwwat-ul-Islam Mosque
- The Tomb of Iltutmish
- The Alai Minar
- Alai Darwaza
- Screen
- Iron Pillar
- Imam Zamin's Tomb
- Alauddin's Tomb and the Madrasa or school.

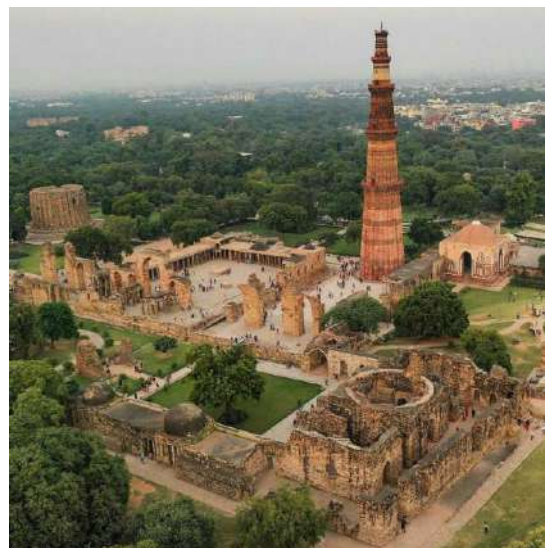
	Qutub-ud-Din Aibak (1192-1206)
	Iltutmish (1211-1236)
	Alauddin Khilji (1296-1316)

Qutub-ud-din Akiba built Quwwat ul Islam Mosque, to the north-east of Minar in AD 1198. The Tomb of Iltutmish (AD 1211-36) built in AD 1235. Ala-ud-din Khiji constructed Alai Darwaza, the southern gateway of the Quwwat-ul-Islam Mosque in AD 1311. Ala-ud-din Khiji built a madrasa the south-west of Qutub Minar to impart religious education to the children. He also commenced the construction of the Alai Minar with the intention of making it twice the size of earlier Minar. It is the north of Qutub Minar.

THE COMPLEX



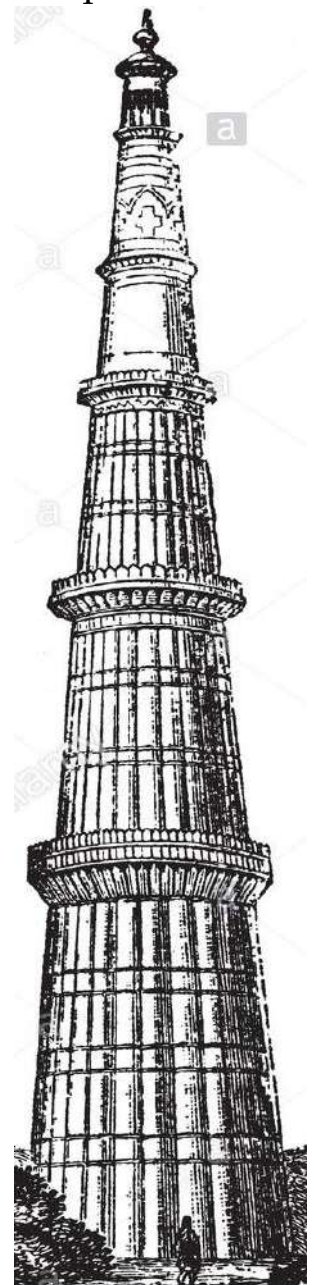
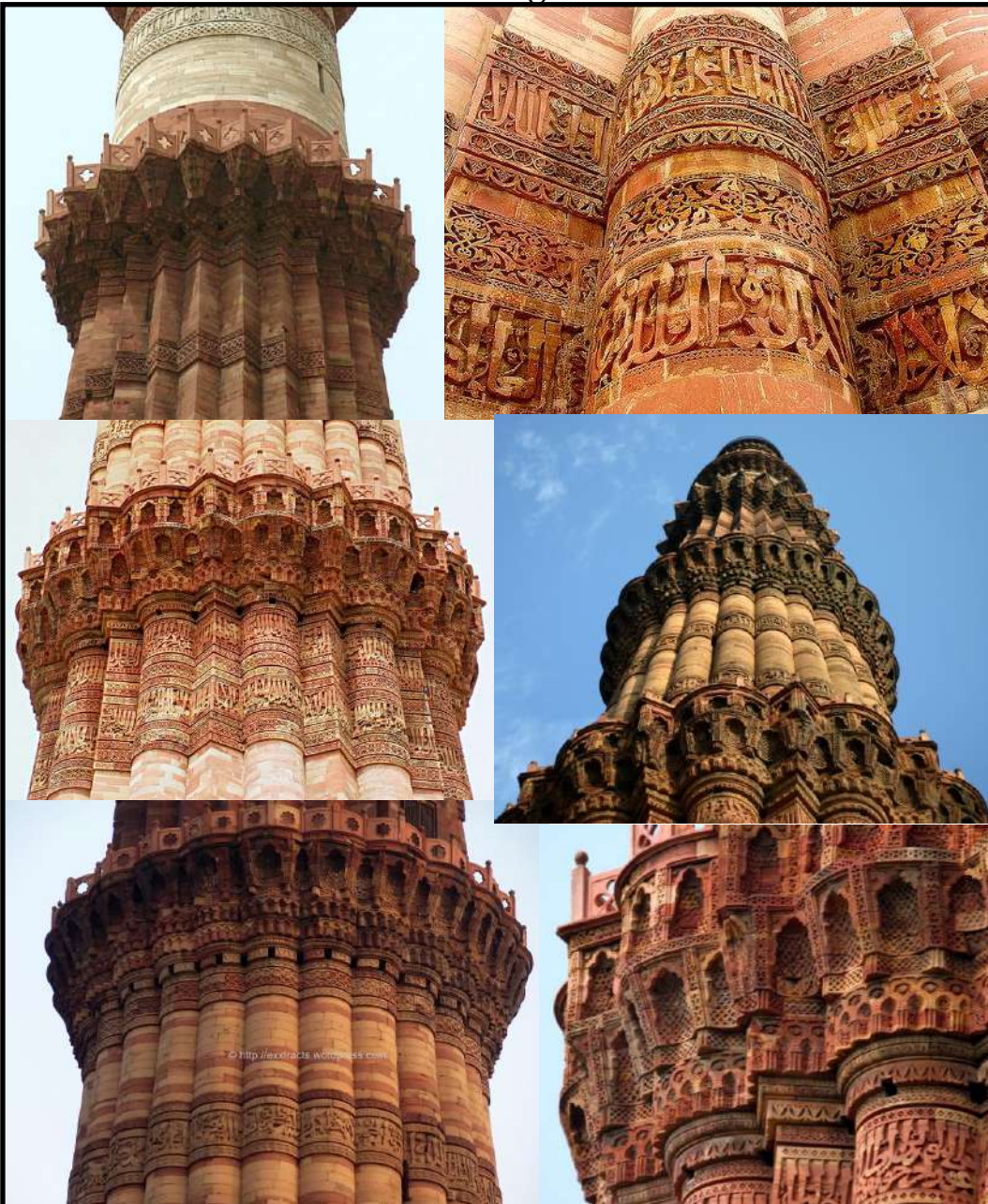
- Qutub complex consists of a mosque and two minarets enclosed within a series of cloistered precincts.
- This rectangular complex measures about 235 m (north-south) by 155 m (east-west) along the exterior.
- It was entered via four monumental gates along the north, east and south walls, of which only the southern gate (Alai Darwaza) remains.
- The mosque, known as the Qutb or Quwwat ul Islam Mosque, occupies the southwest corner of the complex.
- It consists of rectangular enclosures, all the later work of Aibak's successors.
- The Qutb Minar (minaret) stands in the southeastern part of this enclosure.
- The unfinished Alai Minar (minaret) stands in the northeastern part of the complex.
- A tall screen wall with pointed archways runs along the western edge of the precinct, creating a qibla wall for the prayer spaces.
- In addition to these elements, the complex also contains several smaller buildings: the Tomb of Iltutmish, Alau-Din Khalji's madrasa, and the Imam Zamin Mosque.

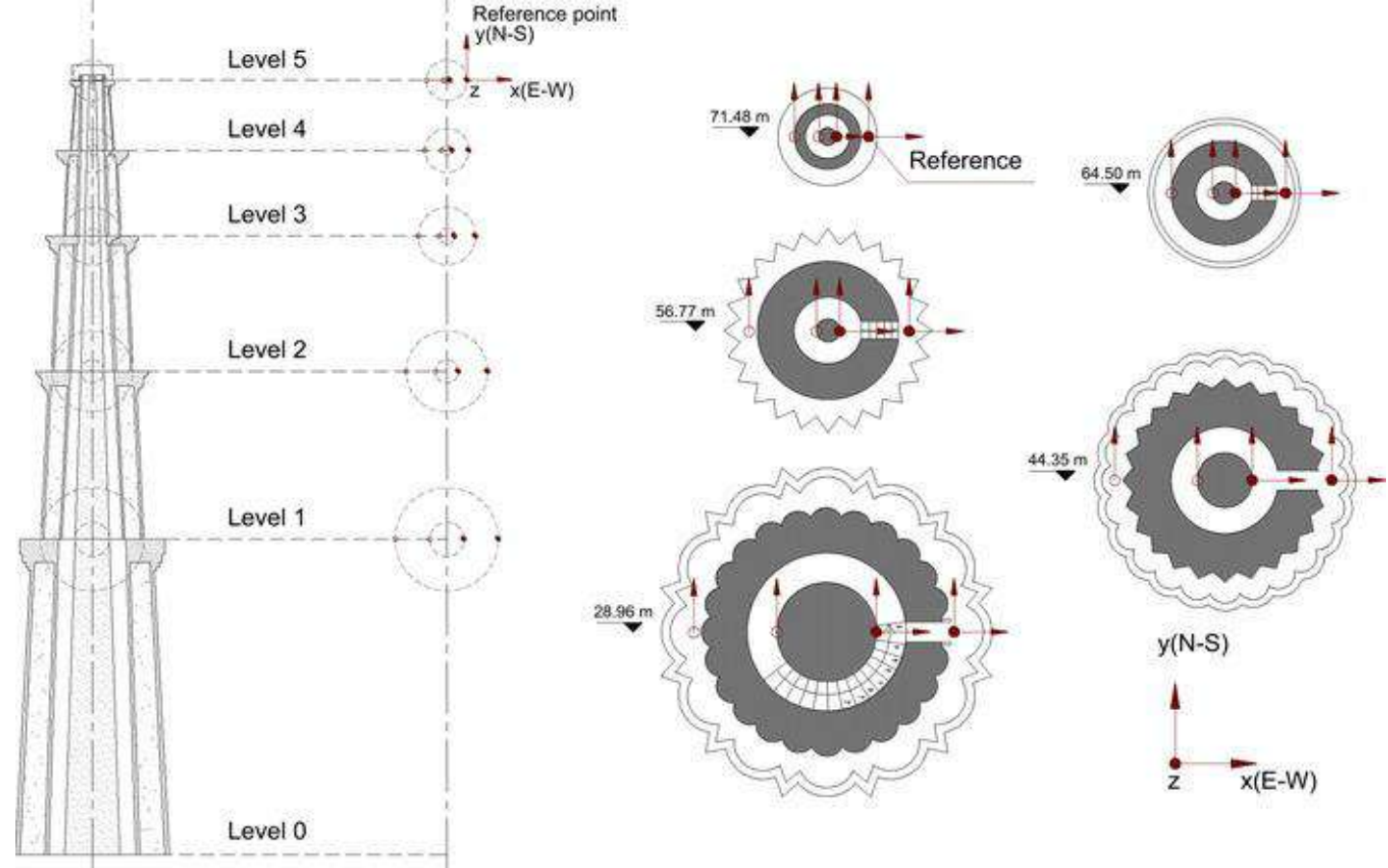


QUTAB MINAR

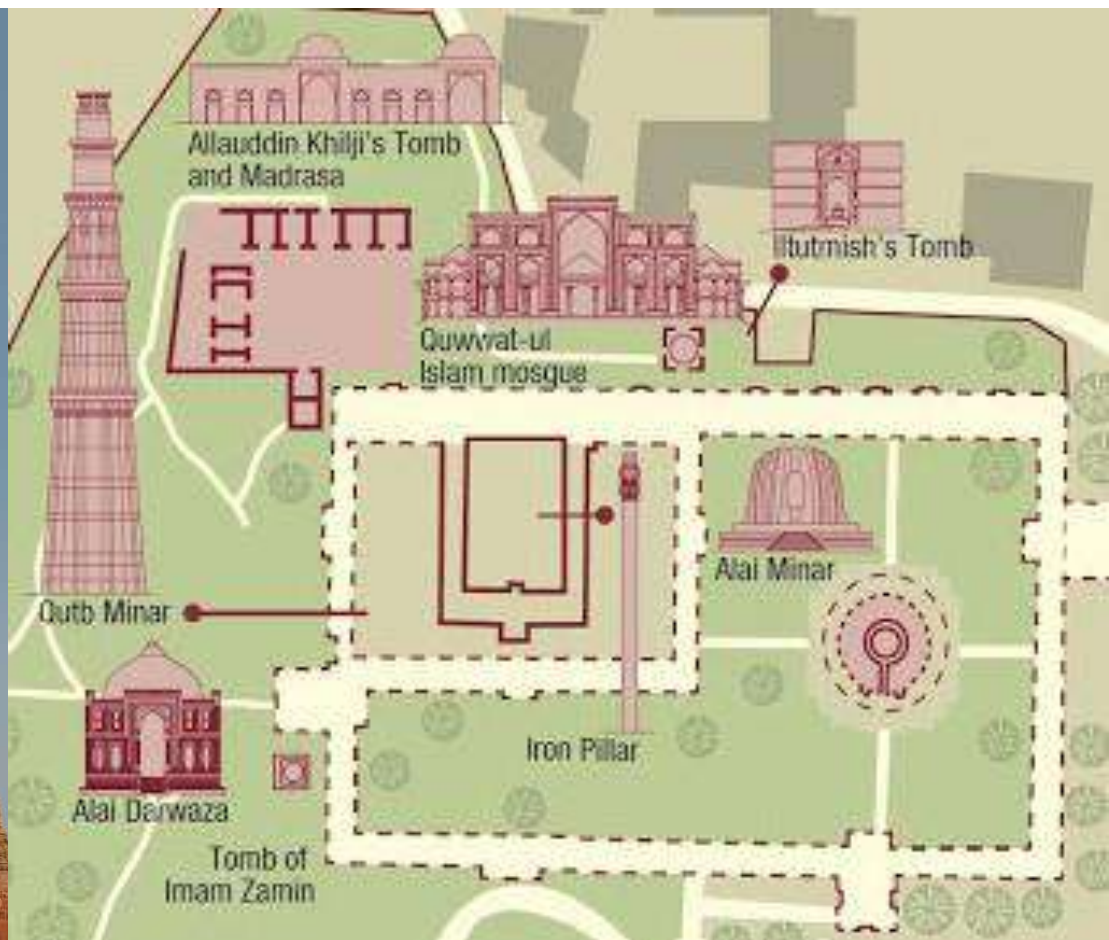
The construction of Qutub Minar was commissioned by Qutub-ud-Din Aibak, the founder of the Delhi Sultanate in 1193 AD. Aibak's successor Shams-ud-din Iltutmish added three more storeys to complete the tower.

- Qutub Minar is a 73 meter (240 feet) tall tapering tower with a diameter measuring 14.32 meters (47 feet) at the base and 2.75 meters (9 feet) at the peak.
- Inside the tower, a circular staircase with 379 steps leads to the top for a spectacular view.
- The Minar is made of red sandstone covered with intricate carvings and verses from the Quran.
- The Minar comprises several superposed flanged and cylindrical shafts, separated by balconies carried.
- The first three storeys are made of red sandstone; the fourth and fifth storeys are of marble and sandstone.
- All the storeys have a balcony that circles the Minar with stone brackets for support.
- The Minar is decorated throughout with floral motifs and arabesque.





Sectional Plan at different Levels



View and Site Plan

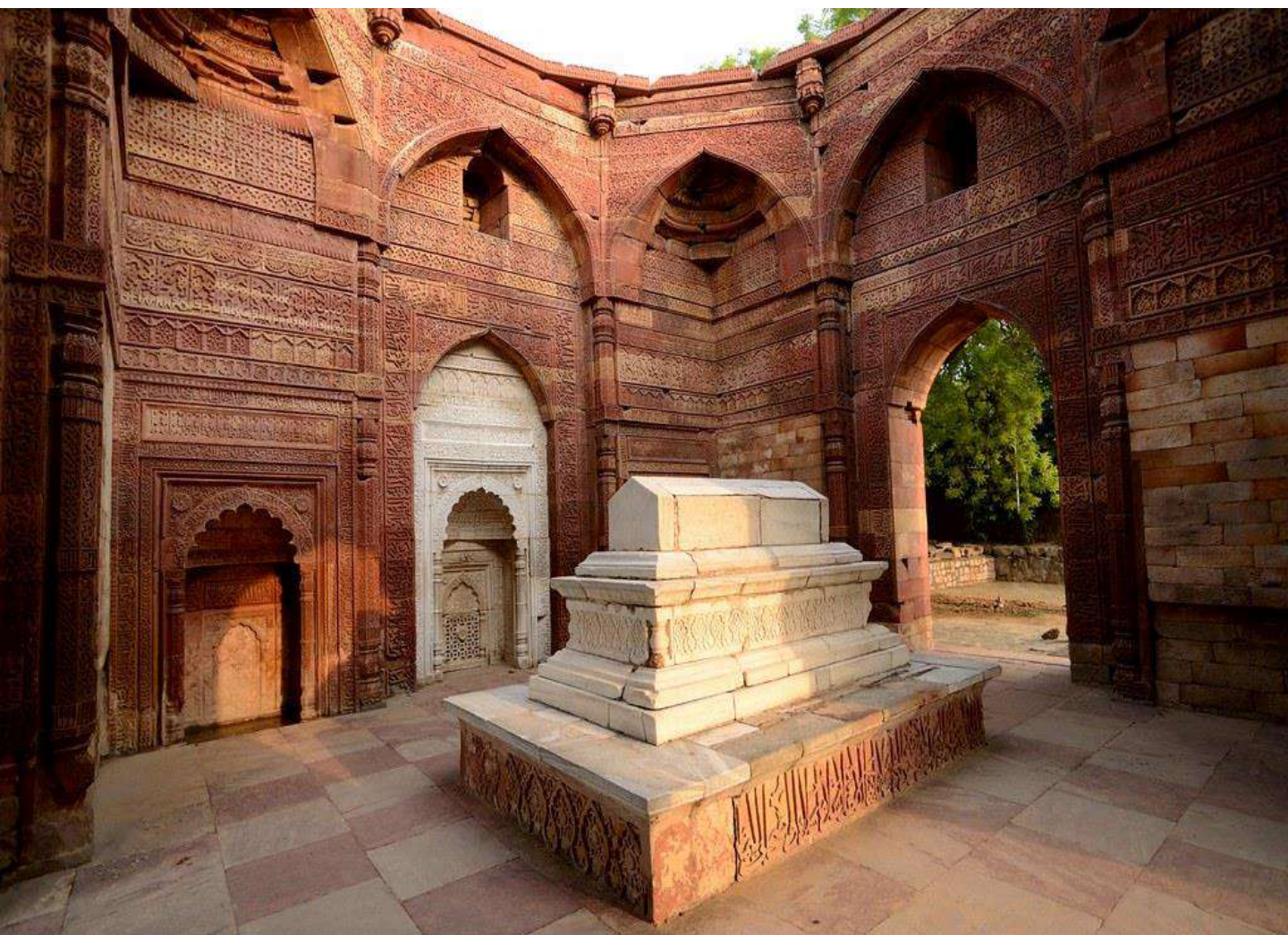
Quwwat-ul-Islam Mosque

- To mark his victory over Rai Pithora, Qutub-ud-Din Aibak built the Quwwat-ul-Islam Masjid (Might of Islam) in 1192 which was completed in 1198.
- It is the earliest extant mosque in India, having a rectangular court.
- The court is enclosed by cloisters which were erected with carved columns and other architectural members from the 27 Hindu and Jain temples, which were later demolished with the help of elephants.
- The rectangular platform measures 65.2 meters (214 foot) in length and 45.4 meters (149 foot) in width.
- In 1199 AD, after the completion of the mosque, a large stone screen was erected on the western side.
- It consisted of a central arch, rising to the height of 16 meters (52 foot, 6 inches) and with width of 6.7 meters (22 foot).
- There are two more smaller arches, one on each side of the central arch, and with the same design as the central one.
- The walls and pillars are having intrinsic Hindu architectural motifs.



The Tomb of Iltutmish

- It is located in the complex Tomb, northwest to the Iron Pillar.
- Iltutmish died in 1236, but had his tomb built a year earlier in 1235.
- It is made of red sand stone, situated northwest of the minaret.
- It is a landmark in Indo-Islamic architecture.
- It is believed to have had a dome which was later damaged.
- There are 3 entrances on all 3 sides, but the west, which was for the mihrabs.
- It is a simple square chamber of 42' side, covered originally by a circular dome that was carried on a form of squinch arch.
- Dome was constructed using concentric rings, but collapsed due to excessive span. Inside is decorated and elaborated with Quranic verses and geometrical patterns interspersed..
- Marble is used in mihrab and cenotaph.
- Exterior is relatively plain, but interior is richly decorated.
- A square hall of 30' side, its walls are relieved with white marble insertions.
- The most interesting feature is the first appearance in India of the 'Squinch'.
- This consists of projecting a small arch across the upper side of the corners of the square room, turning it into an octagon, then repeating the process to turn it into a 16 sided base in which a dome can rest.



The Alai Minar

- Ala-ud-Din wanted to build a second tower of victory twice as high as Qutab Minar but when he died the tower had reached only 24.5 meters and later no one was willing to continue his over ambitious project.
- It stands to the north of the Qutab Minar and the mosque.
- It was supposed to have ramps instead of stairs.
- Windows are at regular quadrant heights, for a gradual ramp to be made.



Alai Darwaza

It is the southern gateway of the Quwwat-ul-Islam mosque, and is a gem of Islamic architecture in India.

It was built by Alla-ud-din Khilji in 1311.

It is 17.2m square and pierced by arched openings that echo the contour of the covering dome.

The arch to the north is semi-circular while the others are of pointed horse shoe shape.

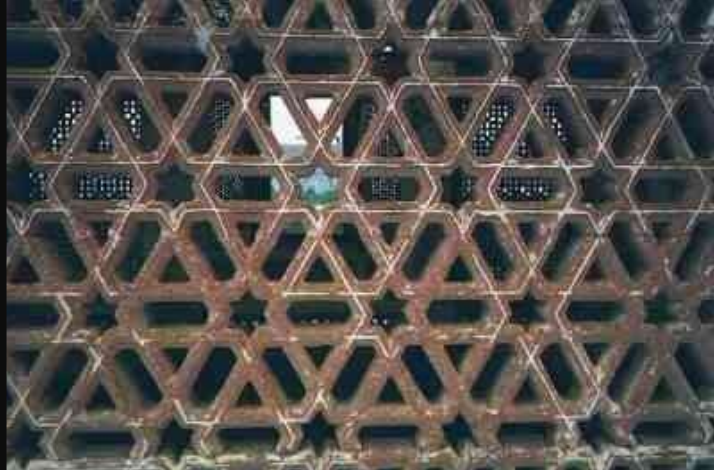
It has intricate carvings in red sandstone and marble.

It has red stone jali screens.

A single storeyed structure, it gives an impression of being double-storied from outside.

The Alai Darwaza is the first true dome constructed in India.

The plinth on each side is beautifully carved with floral and geometrical designs in both white marble and red sandstone.



Iron Pillar

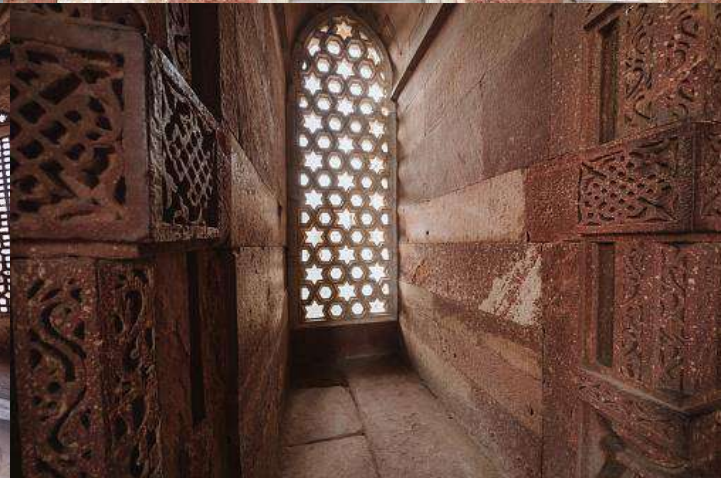
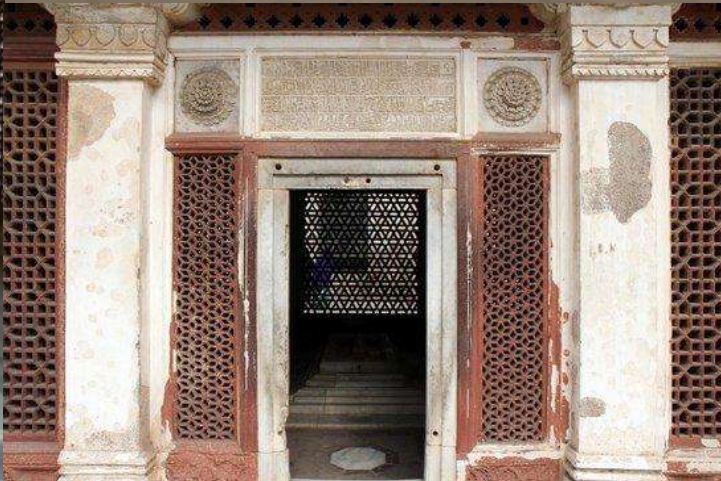
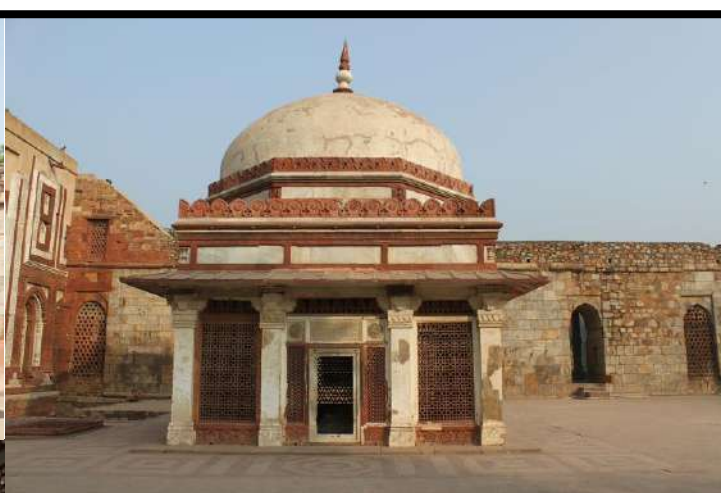
- The Iron Pillar dates back to the 4th century BC.
- It bears inscriptions that dedicate it as a flagstaff to honour the Hindu god Vishnu and in memory of Gupta king Chandragupta II (375-413 AD).
- The pillar is a symbol of the progress of metallurgy in ancient India.

- It is made of 98 percent wrought iron and has survived 1,600 years without rusting.
- The Iron Pillar from Delhi 7.3 m tall, with one meter below the ground; the diameter is 48 centimetres at the foot, tapering to 29 cm at the top, just below the base of the wonderfully crafted capital.
- It weighs approximately 6.5 tones, and was manufactured by forged welding.
- Garuda idol at top missing.



Imam Zamin's Tomb

- This tomb was made in the memory of Mohammad Ali, Imam zamin.
- Its on the east of alai darwaza.
- Its 7.3m square.
- It is surmounted by a sandstone dome rising from an octagonal drum, the lodhi style.
- It is decorated with double row of kangooras and marble panelling above the chajja.
- The tomb has no integral connection with the Qutub group. But it still stands there without any damage and that's worth praise



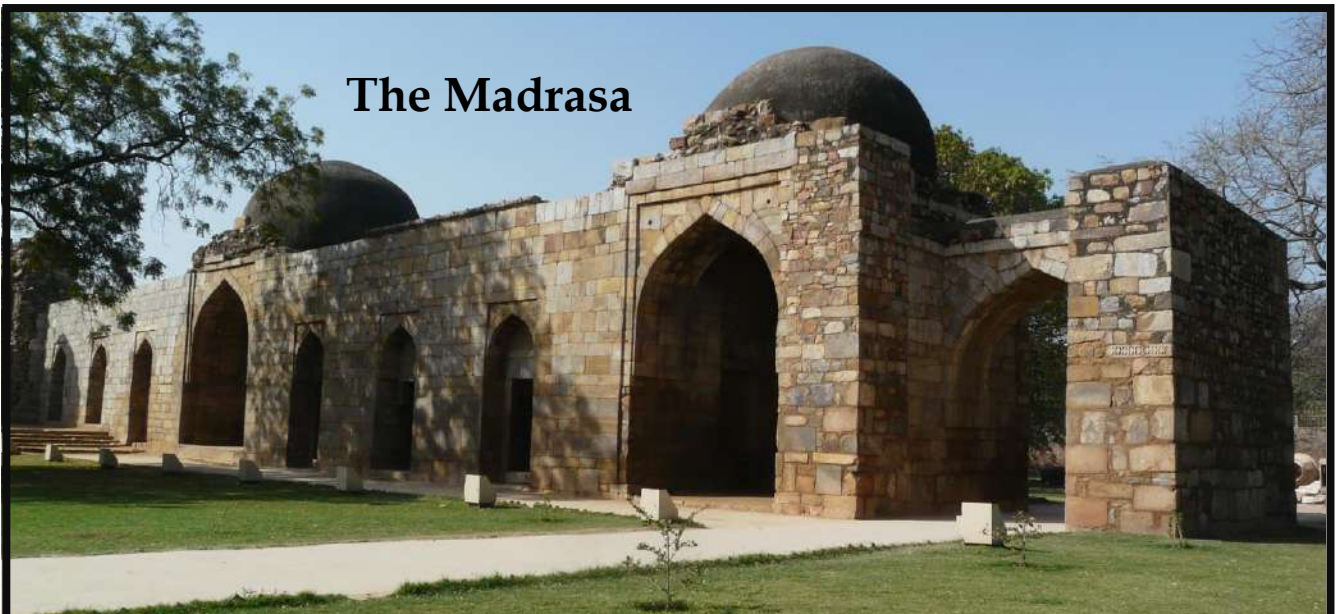
Alauddin's Tomb

- It is on the south side of the court.
- It is a square structure with no dome now.
- There are only remains of a boldly projecting portico.
- It was combined to the madrasa, probably a Saljuqian tradition-being its first appearance in India.

The Madrasa

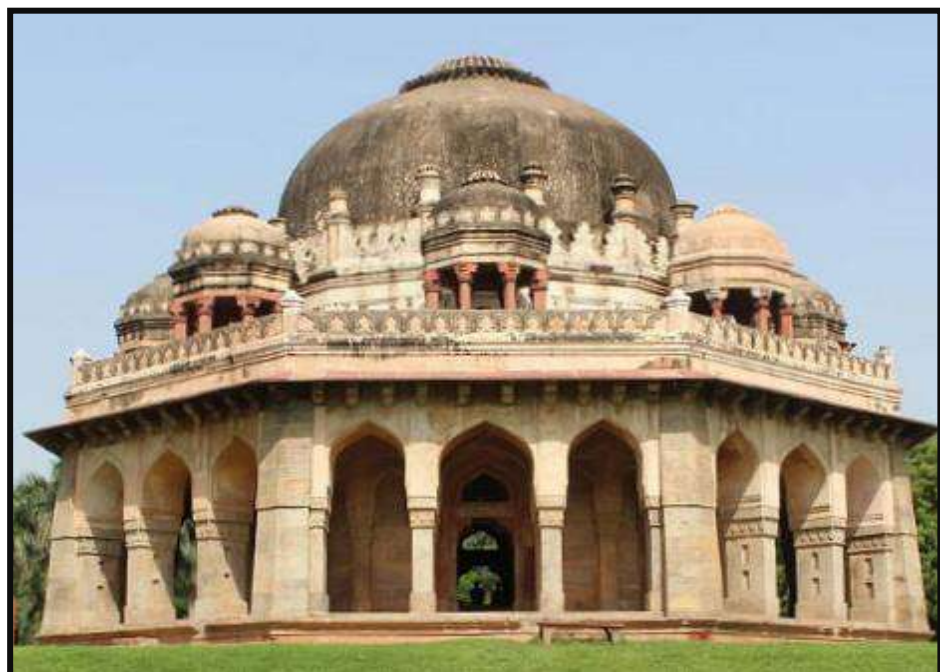
- It is located in south west of the mosque.
- It is built around a quadrangular court entered on the North through a triple gateway.
- Alauddin constructed this madrasa, but few historians say that it was Iltutmish who made it.

The Madrasa

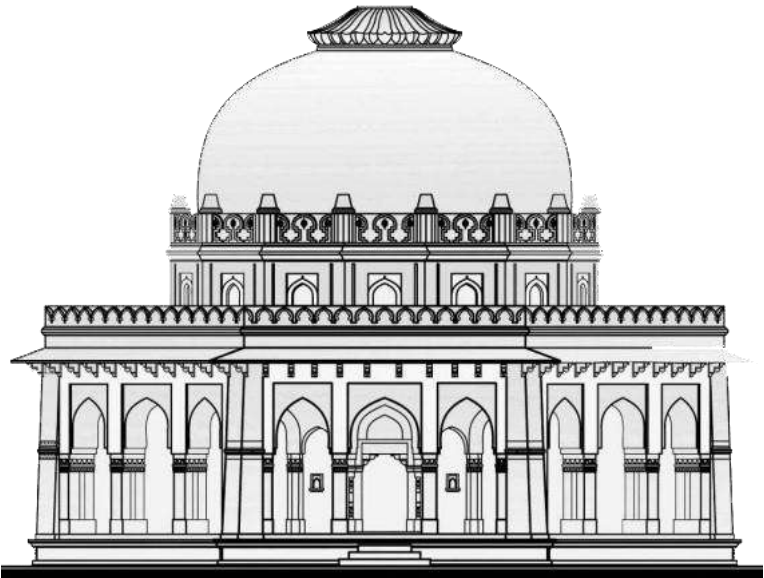


Lodhi Tomb

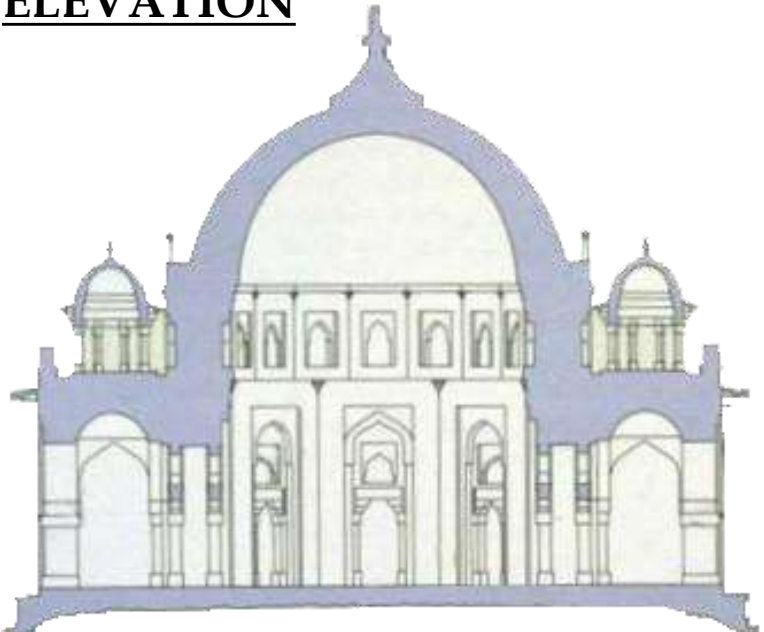
- The Tomb of Sikandar Lodi was inspired in parts by the tomb of Muhammad Shah.
- The Tomb of Sikandar Lodi is located in and is a part of the Lodhi Gardens in Delhi, India.
- It has octagonal design and the architectural style is Indo-Islamic.
- The tomb is the first garden tomb in Indian subcontinent and is India's earliest surviving enclosed garden tomb.



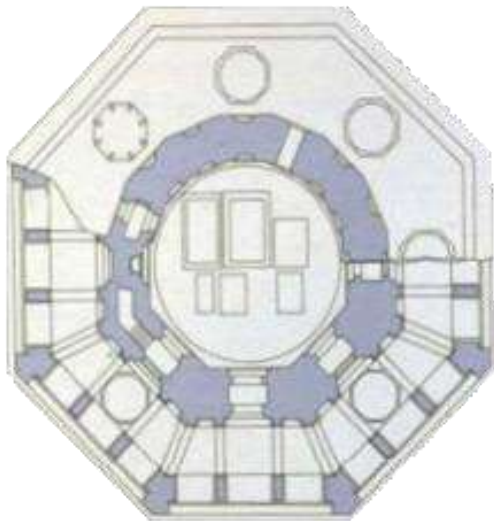
- The tomb is enclosed within a fortified complex (entered from a south facing gateway) with the main entrance having two umbrella shaped domes (pavilions) which was designed to preserve the symmetry and relative proportions of the body of the building.
- Both pavilions on the square platform in the front have remains of blue tiles.
- The tomb is situated in the middle of a large garden and tall boundary walls.
- Tomb chamber is surrounded by a wide veranda with carved pillars with each side pierced by three arches and the angles occupied by sloping buttresses.
- Tomb walls have Mughal architectural designs and many foreign languages have been inscribed on the walls.
- The tomb is decorated with enamelled tiles of various colours.
- Crowning the head of the mausoleum is a single dome with a lotus finial at the top.
- The interior is ornamented with tiles beneath which is a single tomb.
- The compound outside has an open air mosque built into the western wall with a paved platform for holy men to offer prayers for the soul of the sultan.



ELEVATION



SECTION



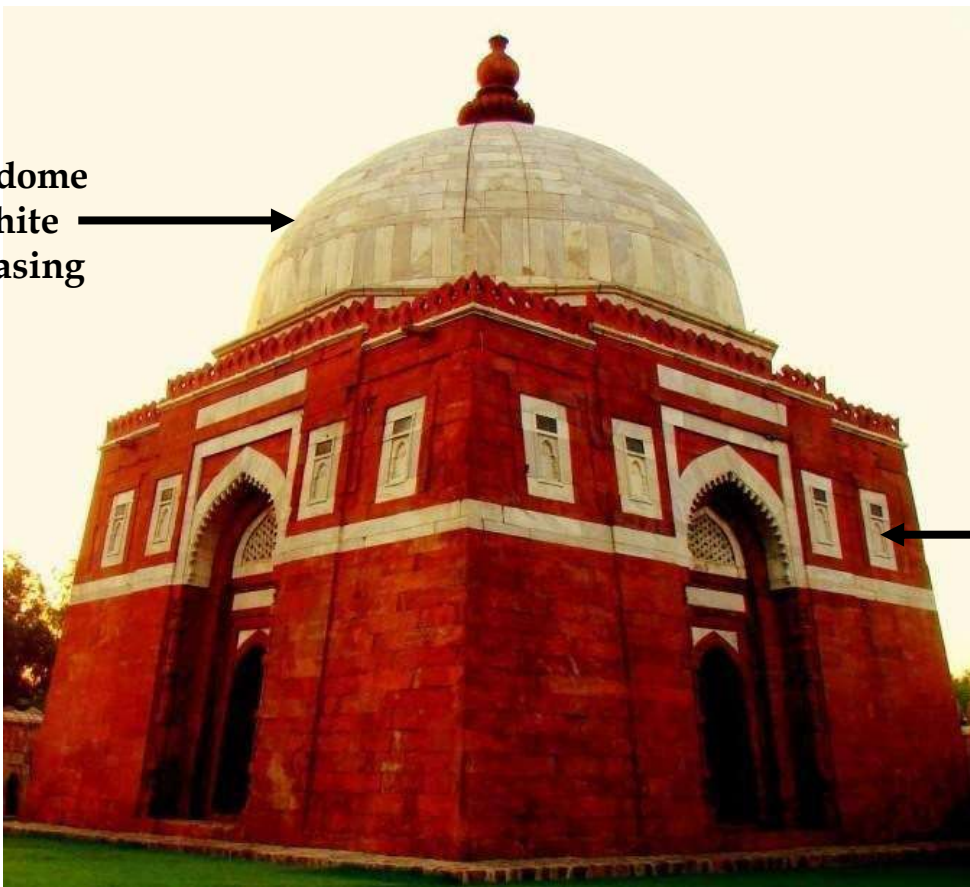
PLAN

Tomb of Ghiya-ud-din Tughlag.

- It is also known as a Fortress Tomb.
- Tomb of Ghiya-ud-din Tughlaq is situated in the south of the fortress of Tughlaqabad within the fortress boundary.
- The fortress boundary is located at southern (main) entrance of Tughlaq Abad Fort.
- It is built by Ghiyas-ud-din Tughlaq in AD 1325 within an unusual irregular pentagonal fortified enclosure.
- The plan was dictated by the contours of the hillock just outside the southern gates of the fortress over which this barbican-like structure was planted.
- The tomb is connected to the fortress by a 228.6 m long causeway, that was supported by 26 piers and arches and crossed over the artificial lake connecting his Tomb with his Fort, but today lake or water reservoir is dry scrubland.
- Within the Court and diagonally placed is the Tomb of Ghiya-ud-din Tughlaq seen as a square shaped rubble like stonework structure with the absence of any decorations or carvings on its exterior portion, however, the interior is overlaid with red sandstone and a decorative white marble.
- Distinctive 75 degree camber of its outer walls, (20 sq metres) area of tomb and Height of tomb is 24 metres.
- The interior diameter 10.41 metres while the exterior diameter measures 13.41 metres and it is dressed with a pointed dome that rests on the intersection of small arched corners.
- Constructed in the midst of an artificial lake.
- The courtyard of the tomb consisted of some underground chambers.
- White marble panel and white marble blind alcove at upper part of the structure.
- The most characteristic feature of this is the mixed attitude of the Hindu builder to the arched form of construction and the lintel and beam method.
- In spite of using true arch to span the openings, a redundant stone lintel was installed just below the springing of the arch.
- The Dome is crowned with the KALASA pinnacle and hence depicts Hindu architectural influences as seen in Hindu Temples.



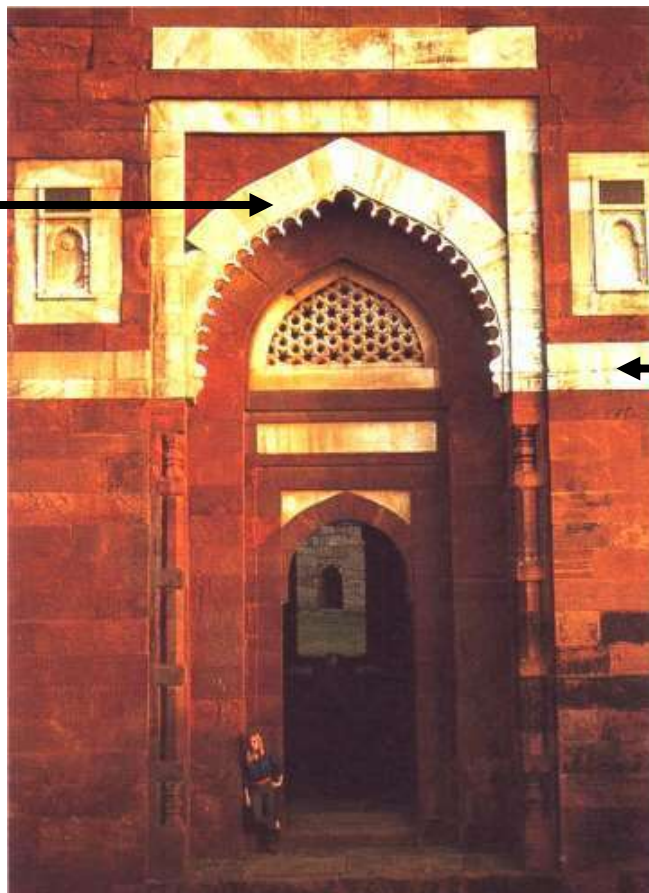
Covered dome
with white
marble casing



Blind
Alcove

Kalasa over the Muslim dome

Intrados of the arch
has lotus bud/
fringe design.
Apex is slightly
ogee type of Arch

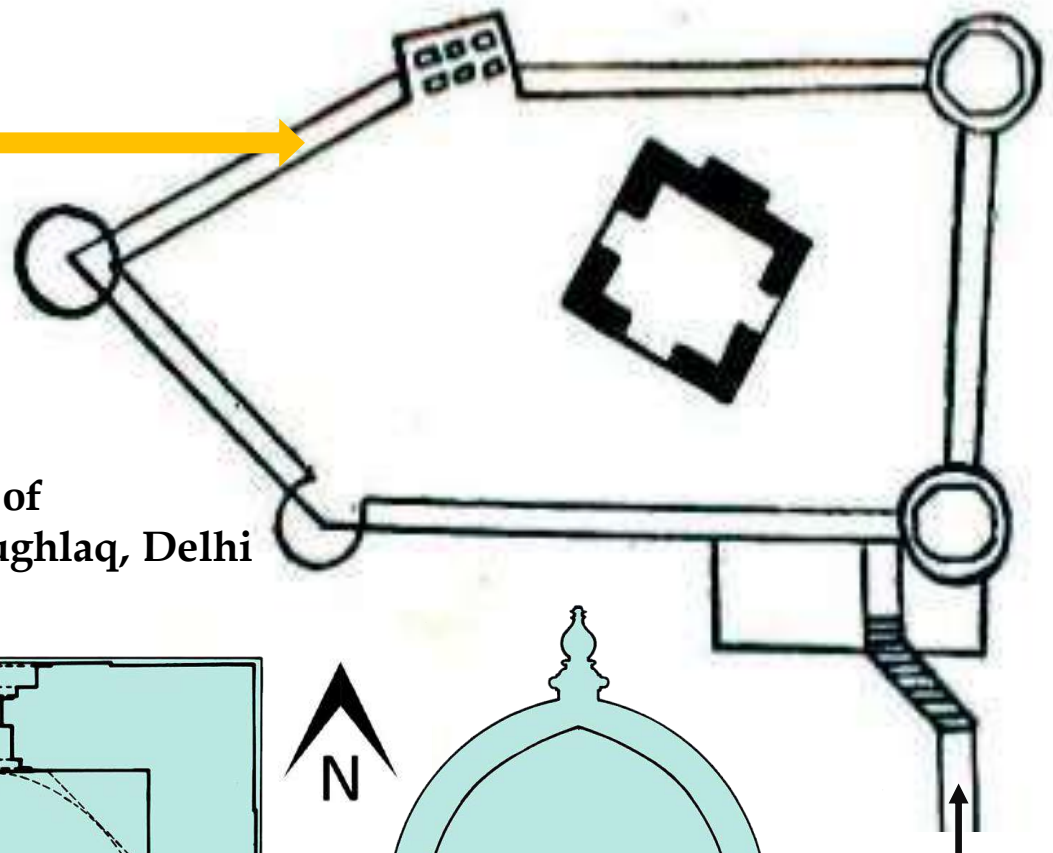


Stone Lintel

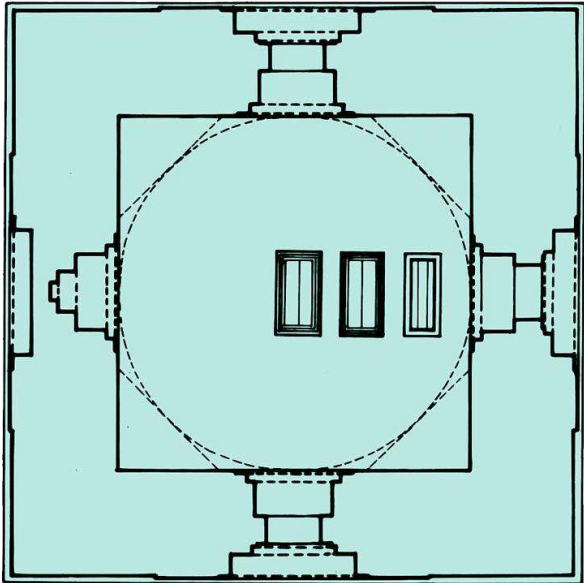
Entrance of the Tomb of Ghiyas-ud-din Tughlaq, Delhi

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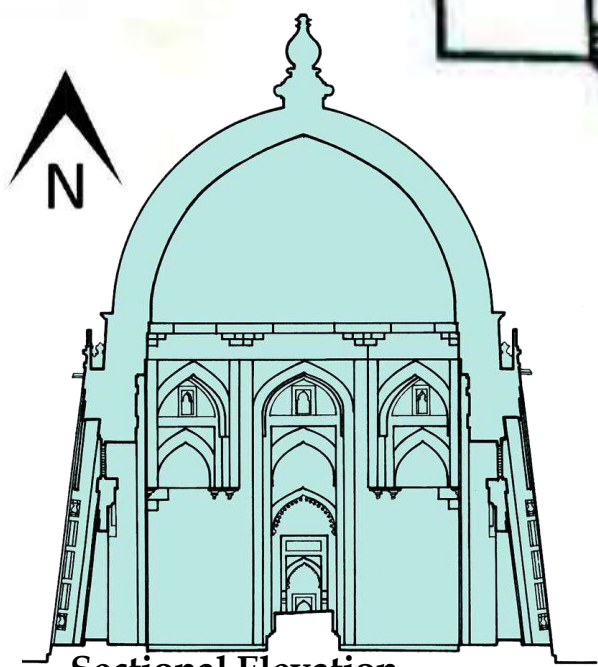
Irregular pentagon in plan.
The layout was dominated by the topography of the land.



Plan of the Tomb of Ghiyas-ud-din Tughlaq, Delhi



PLAN



Sectional Elevation

Elevated cause way connection



Provincial Styles

The Indo-Islamic Architecture after 12th century AD began to evolve, adding to it the local flavour of the provisional kingdom of Bengal, Gujarat, Jaunpur, Golconda, Malwa and the Deccan. Thus, leading to development of provincial style of architecture.

Features Provincial Style Of Architecture:

❑ **Jaunpur style (1376-1479 AD):** The main feature of Sharqi mosques is the huge rectangular pylon (gateway) with arches. Through these arches, we entered the three main mosques in Jaunpur: Atala Masjid, Jama masjid and Lal Darwaza.

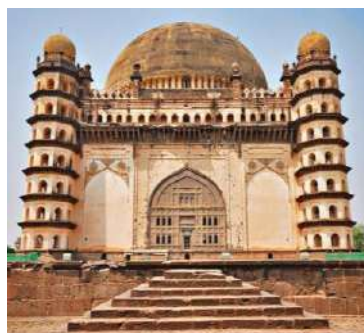
- They are made of stone and have fine carving and latticework. Unlike the Delhi mosques of the same period, there are no minarets.
- The unique feature of the buildings here is the use of bold and forceful characters painted on huge screens in the centre and side bays of the prayer hall.
- Pylons built on the facade to accentuate entrances.
- Arches are of the 'depressed four centred' or Tudor.
- The builders were never certain of the curves and contours of the arches, which wavered weakly in the larger examples.
- The predominantly Hindu masons and artisans were more comfortable with the pillar, beam and bracket (trabeated) system of construction which was frequently used.
- The pillars have square monolithic shafts with bands across the middle. The same bands above form the capital out of which clusters of brackets emerge. These have a feel of rough execution.



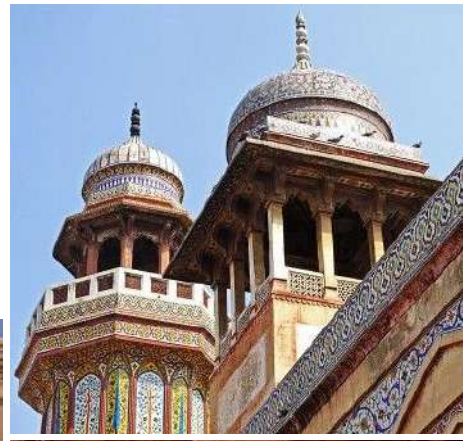
❑ **Bijapur or Deccan style (1490-1656 AD):**

Indo Islamic architecture in Bijapur, a city in the state of Karnataka flourished under the Muslim rulers in the medieval period. This city first experienced its Islamic architecture in the end of 13th century.

- A special feature of the Bijapur style was the treatment of its ceilings, which were without any apparent support.
- Iron clamps and a strong plaster of mortar were used to give strength to the buildings. The walls were decorated with rich carvings.



- The number of mosques, tombs and palaces which were unique in the use of 3-arched facade and bulbous dome, which were almost spherical and with a narrow neck.
- It emphasizes minarets in preference to multiple or large domes, beautifying monuments through surface decoration and artistic parapets e.g. Gol Gumbaj, the mausoleum of Adil Shah, in Bijapur.



- The main feature of the building art were the dome, in which buildings of average proportions. They were almost spherical in shape, and rises out of a band of conventional petals at its base.
- These forms were repeated to the turrets to provide an ornamental finishing, surmounted the principal angles of the minarets.



- This specific Bijapur arch was had four-centre.



- In the Islamic architecture of Bijapur province, they used cornice as architectural ornament in most of the buildings which were famous for their remarkable size and projection.
- Apart from their separate architectural style, the Indo Islamic architectures of Bijapur province were also famous for their sculptural element.
- The patterns which they used to decorate their buildings were from plastic art, so individual in character.
- Among these different sculptures, one important and famous pattern was the arch spandrils, consisting of a voluted bracket holding a medallion, and above the arch was a foliated finial all singularly graceful.
- Several other sculptures were either carved in stone or moulded in stucco with this typical design such as conventional hanging lamps, running borders, and interlaced symbols.

Conclusion

- The influence of Indo-Islamic architecture of Delhi on the provincial style depended on the distance of the province from Delhi and the association of the rulers of the province with that of Delhi. However, the local architects retained certain flavours of the local architectural traditions as well.
- The building art varied by the reasons like availability of local materials, building techniques and even climatic conditions.

Jama Masjid - Jaunpur

- Jami Masjid is the largest and the most ambitious of the Jaunpur mosques. Built by Husain Shah in A.D. 1470.
- Repeats many of the essential features of the Atala Masjid on a larger scale.
- The entire structure is raised on a plinth 16'-20' in height and approached by a steep but imposing flight of steps.

□ Courtyard

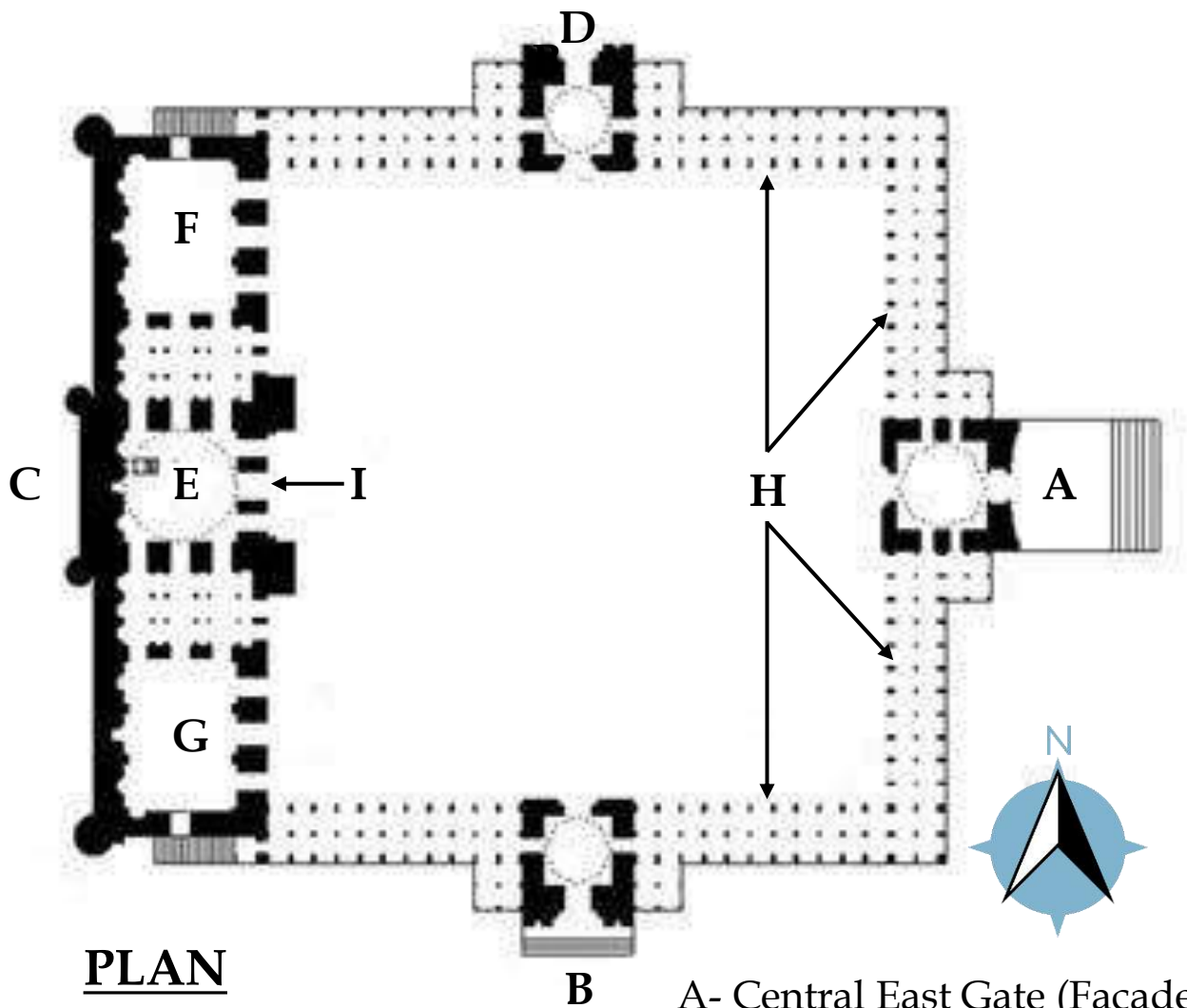
- The courtyard is a square of 210' side.
- Surrounded by cloisters on three sides and sanctuary on the west.

□ Cloisters

- Cloisters are two storeys high.
- There are two aisles, in width as opposed to the more spacious 5 aisles in Atala Masjid.
- In the centre of each cloister is an entrance hall covered by a dome.

□ Sanctuary

- In the centre of the sanctuary facade is a pylon 85' high and 77' wide at the base.
- The arcaded wings of the side aisles are seen on both sides of the pylon with the roofs of the two halls which form the transepts above them.
- The interior consists of the nave of 38' side.
- The clerestory arcade is open to light the interior of the dome.
- On both sides of the nave are pillared side aisles with an upper storey. This has its openings filled in with stone jalis to provide a private area for the royal ladies.
- Beyond the side aisles on both sides are two great vaulted halls, each 50' long, 40' wide and 45' high.
- The interior of these halls have 3 *mihirabs* each on the western wall, opposite which are the archways which open into the courtyard.
- To achieve such a large column less space, the builders first threw across the 40' space a framework of two transverse ribs at wide intervals in the middle and two wall ribs or 'formerets' at each end. On this permanent centring were laid the infilling or 'severies' of flat stones fitting on the backs of the ribs.
- To counteract the thrust of such a large vault, the side walls, from the haunches of the ribs to the foundation were made up to 10' thick.
- Such a large column less space is a rare occurrence in Indian architecture.
- Its plan, similar to previous Sharqi mosques, consists of a long rectangular prayer hall occupying the western side of a colonnaded courtyard.
- The prayer hall is centred around a square sanctuary, covered by a dome that measures 11.4 meters in diameter.
- Windows pierced into the dome's drum illuminate the interior. On either side of the sanctuary are barrel-vaulted galleries that are accessed from three arched openings along the courtyard facade.



B

A- Central East Gate (Facade)

B- South Gate

C- West Façade

D-North Facade

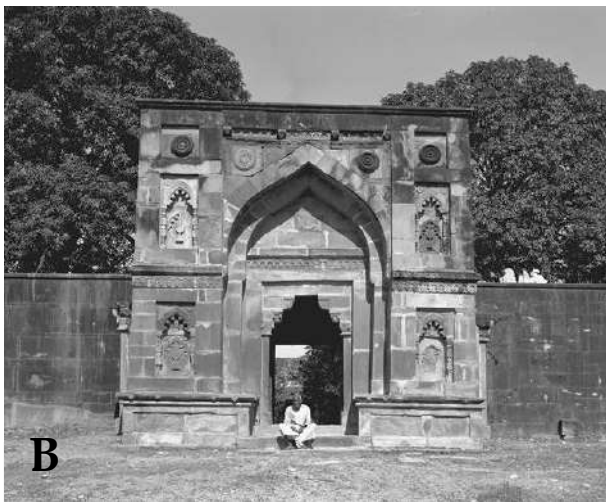
E-Domed Chamber-Interior

F-North Wing of the Prayer Room

G-South Wing of the Prayer Room

H-Corridors

I-Central Iwan



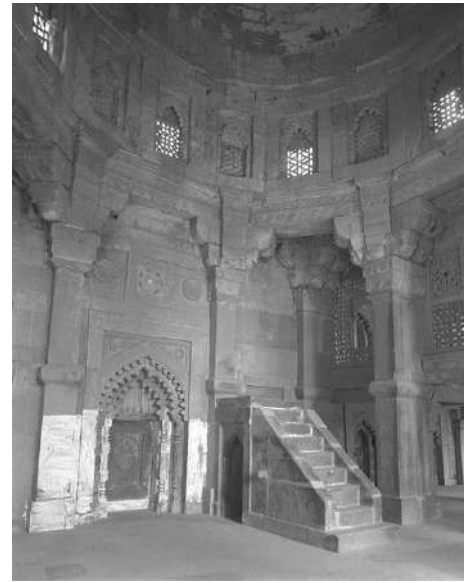
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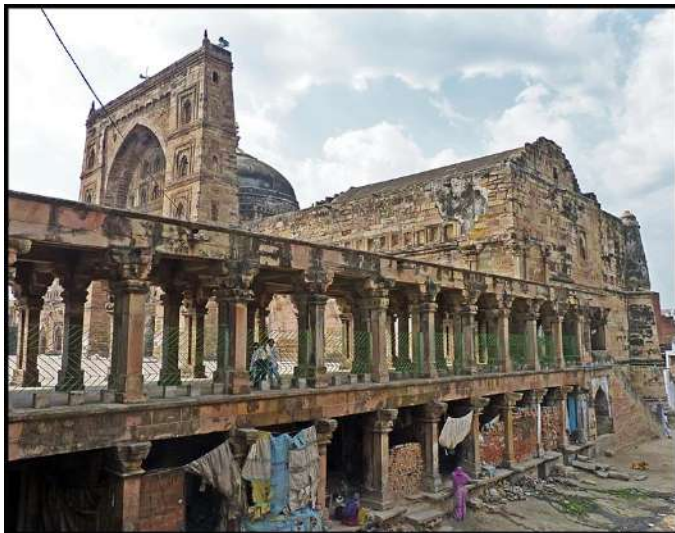
C



A



PRAYER HALLS

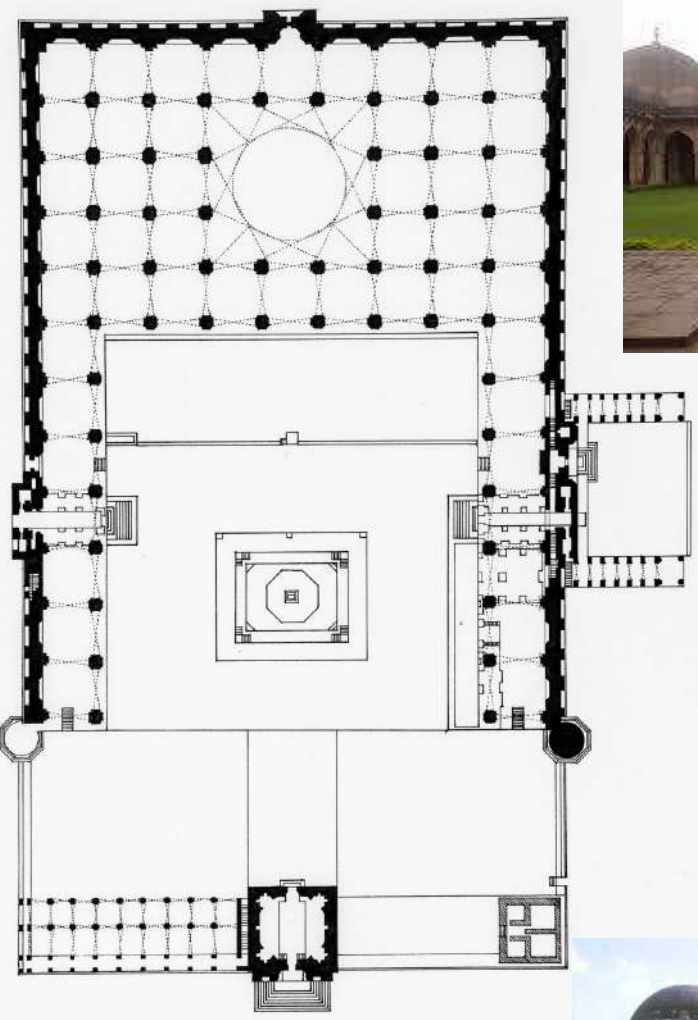


CLOISTERS

Jama Masjid - Bijapur

- Built in Bijapur during the reign of Ali Adil Shah, the Jami Masjid at Bijapur clearly shows the connection with the Bahmani style of the previous century.
- The structure was never completed as it lacks the two minarets which were supposed to flank the exterior of its eastern entrance, the whole part being left unfinished.
- An entrance gateway was added later by the Mughal Emperor Aurangzeb.
- Other features such as the ornamental merlons above the parapet of the courtyard are also missing.
- The structure covers a rectangle 450' X 225'.
- The exterior has been treated by introducing two storeys of arcades recessed into the wall, the lower one being ornamental while the upper one is open and discloses an arched corridor running across the entire back and sides of the exterior.
- The courtyard is a square of 155' side, contained on three sides by seven arches on each side.
- On the west, this arcade shows a central opening emphasized by foliations forming the facade of the sanctuary.
- A wide and deep cornice supported on brackets projects above this arcade.
- Above the middle of the sanctuary the arcaded square clerestory rises which supports the dome which is no longer stilted but hemispherical in shape with a metal finial crowned by the crescent symbol.
- The interior of the sanctuary is a large hall 208' X 107', divided into five aisles by arches on large masonry piers.
- The nave is a square of 75' diameter contained within 12 arches.
- The arches intersect at the top to form an octagonal cornice for supporting the base of the dome.
- Around the nave are the square bays of the aisles whose ceilings are built on the same principle as the nave but modified to suit their smaller size.
- Ornamentation has been kept to a minimum, being of a broad and restrained order and any plastic treatment is of an architectonic nature, more for accentuating a line or space than for embellishment.
- An incongruous ornament, in the form of a mural design in relief was added at a later date but is confined to the mihrab arch.
- Construction of the mosque began in the city's eastern quarter, in 1576 under Ali Adil Shah.
- It is the largest mosque of Bijapur, covering an area of 54,250 square feet.
- The main entrance gate is from the east, though the north gate is used more frequently.
- The ground plan is a large rectangular structure measuring 492 by 262 feet (150 by 80 meters) with a square courtyard of 164 feet (50 meters).
- A passage from the eastern gate leads into the courtyard, which has fountains and a large reservoir in the centre.
- The perimeter walls are articulated on the exterior by two orders of superimposed arches.

- The lower ones are ornamental while the upper ones form a continuous open gallery that runs along three sides of the mosque and courtyard.
- The arches of the gallery facing the courtyard have fine proportions and simple lines.
- There are also several windows of pierced stone-work carved in a variety of pattern.
- The prayer hall on the west side has a facade of seven bays, each bay having an arched opening.
- The arches are equal in size, while the central arch is delineated through delicate arabesque patterns in stucco.
- The prayer hall is crowned by an elegant, well-proportioned dome.
- It has a diameter of 57 feet (17.4 meters) and rises to 120 feet (36.6 meters) from the ground.



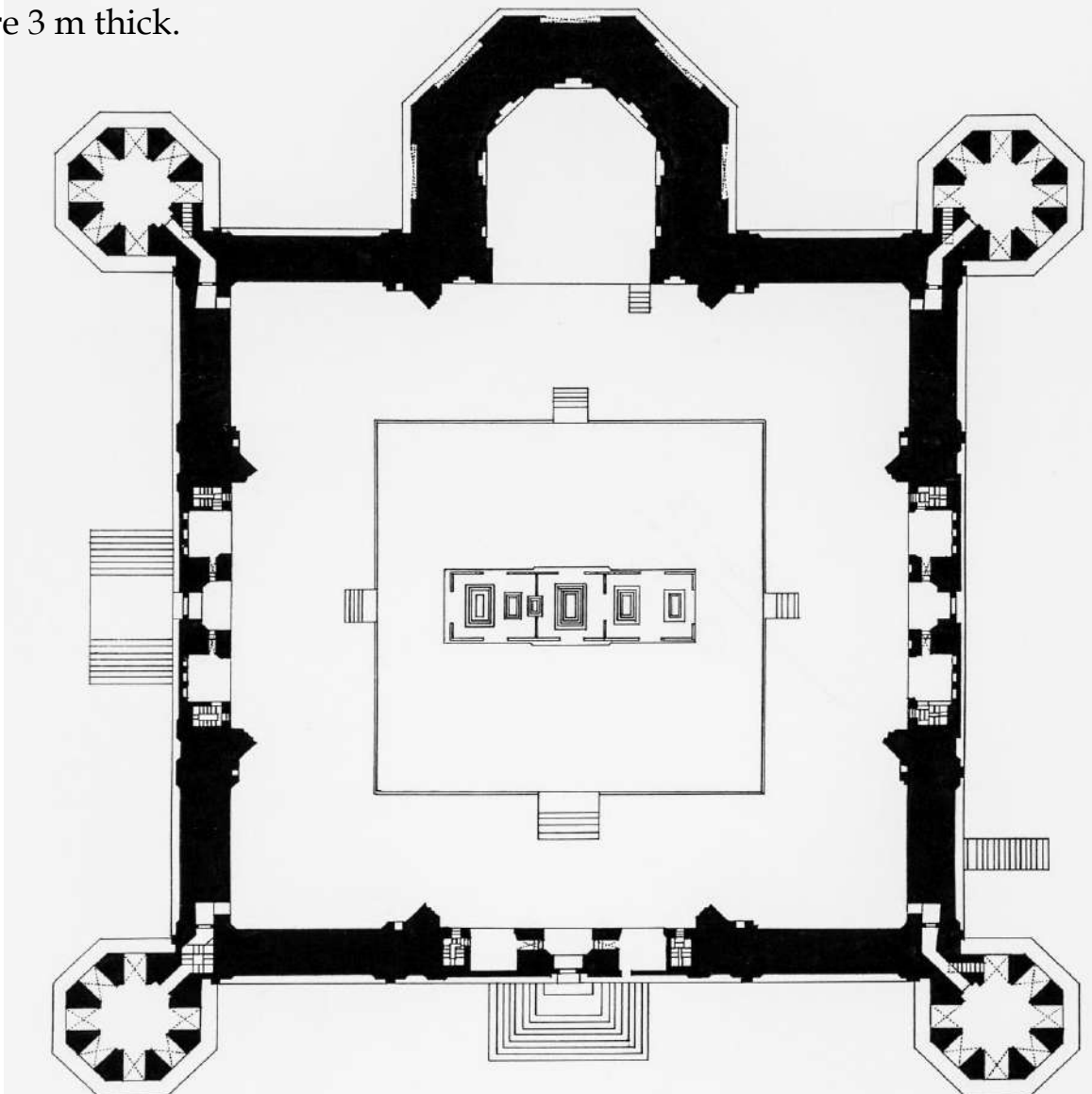
Gol Gumbaz - Bijapur

Surroundings

- The mausoleum is part of a bigger complex.
- The other buildings in the complex are a mosque (to the west), a gateway called Naqqar Khana (drum house) and a dharmshala or rest-house.
- Gol Gumbaz is one of the biggest single chamber structures in the world.
- The central dome is the second largest in the world (the largest being the dome of St Peter's Basilica in Rome) which stands unsupported by pillars measuring at 38 meters in diameter and covering an area of 1700 sq m with 51 meters in height.
- The structure is composed of a cube, 47.5 metres (156 ft) on each side, capped by a dome 44 m (144 ft) in external diameter.
- The walls are 3 m thick and 30.5 m in height. The measurement from the interior is 41m on each side.

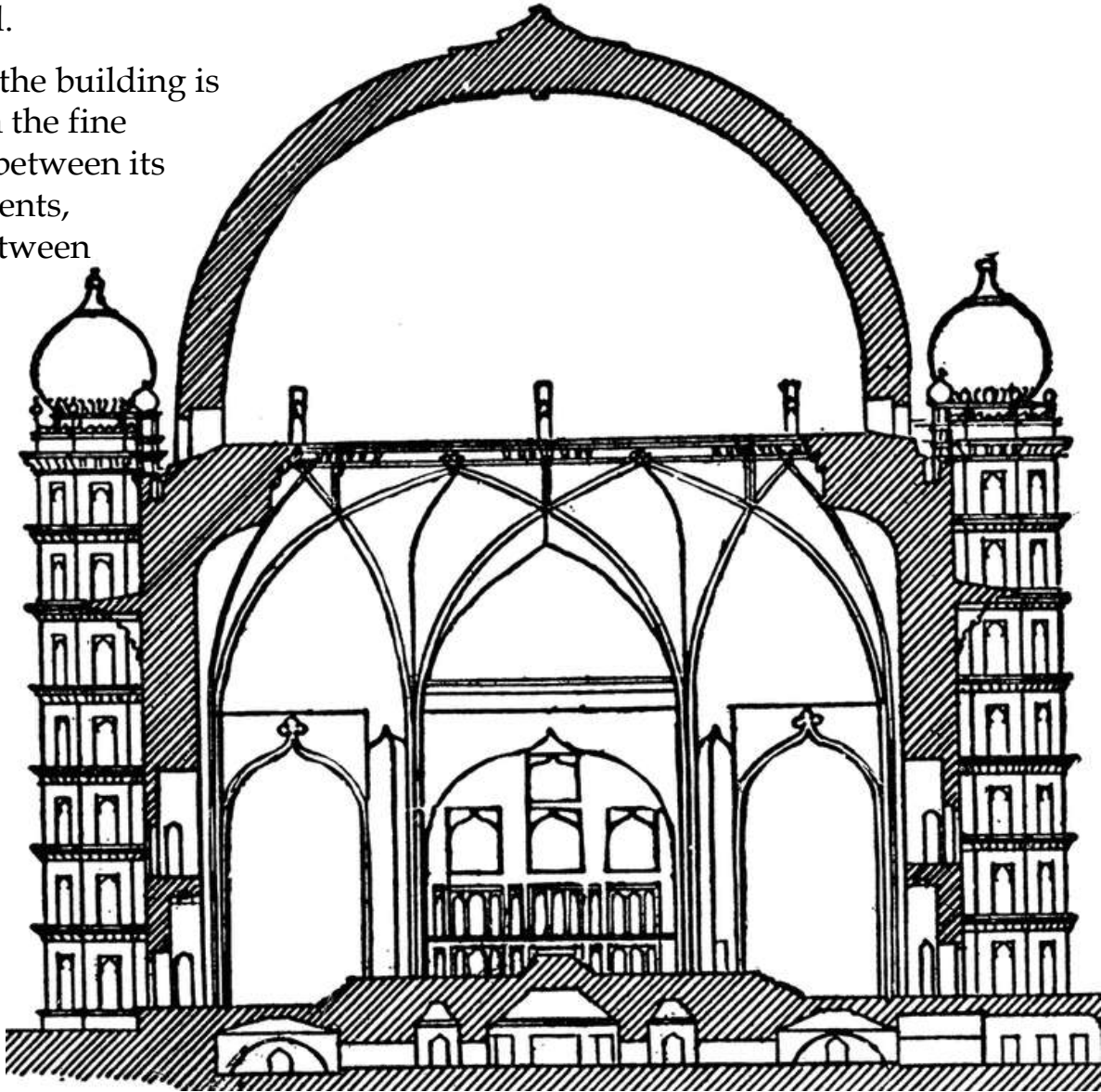
PLAN

- At each of the four corners of the cube, is a dome-capped octagonal tower seven stories high with a staircase inside.
- The upper floor of each opens on to a round gallery which surrounds the dome.
- A small annex to the north side might have been intended as a resting- place for his mother, but it is a later, unfinished addition.
- The walls are 3 m thick.



- "Eight intersecting arches created by two rotated squares that create interlocking pendentives" support the dome.
- The eight high pointed arches bisect in the interior of the cube at regular intervals.
- There are six openings at its base. The low drum below the dome is encircled by a foliated band.

- The effect of the building is derived from the fine proportions between its various elements, especially between the cubical part below and the domed part above.



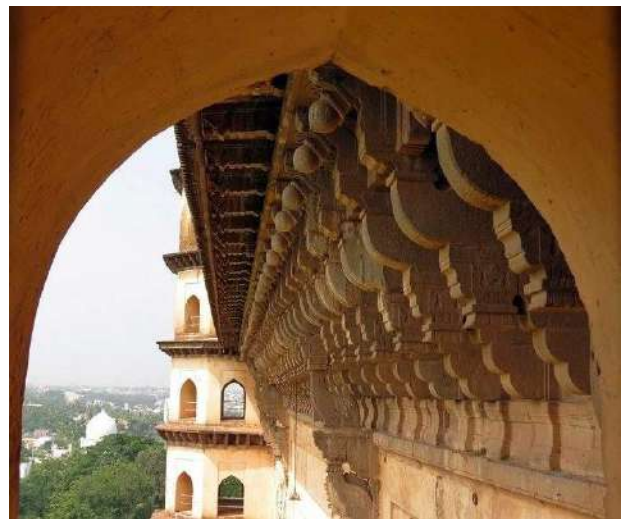
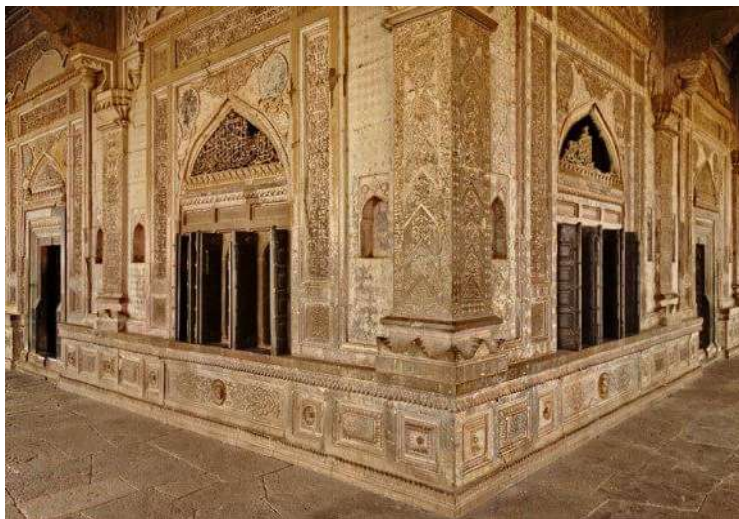
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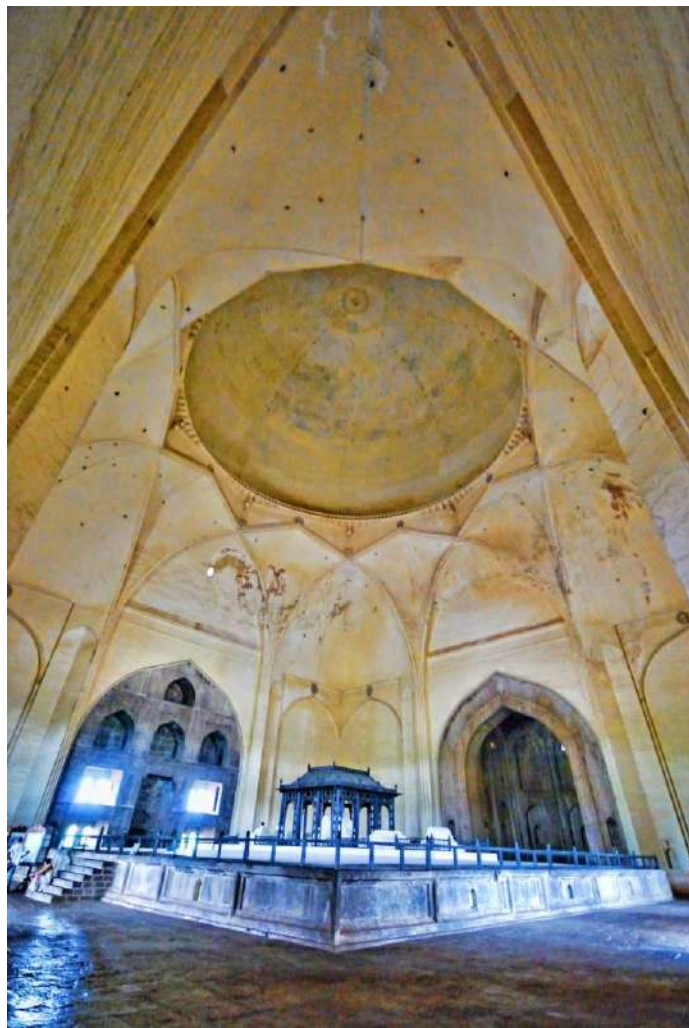
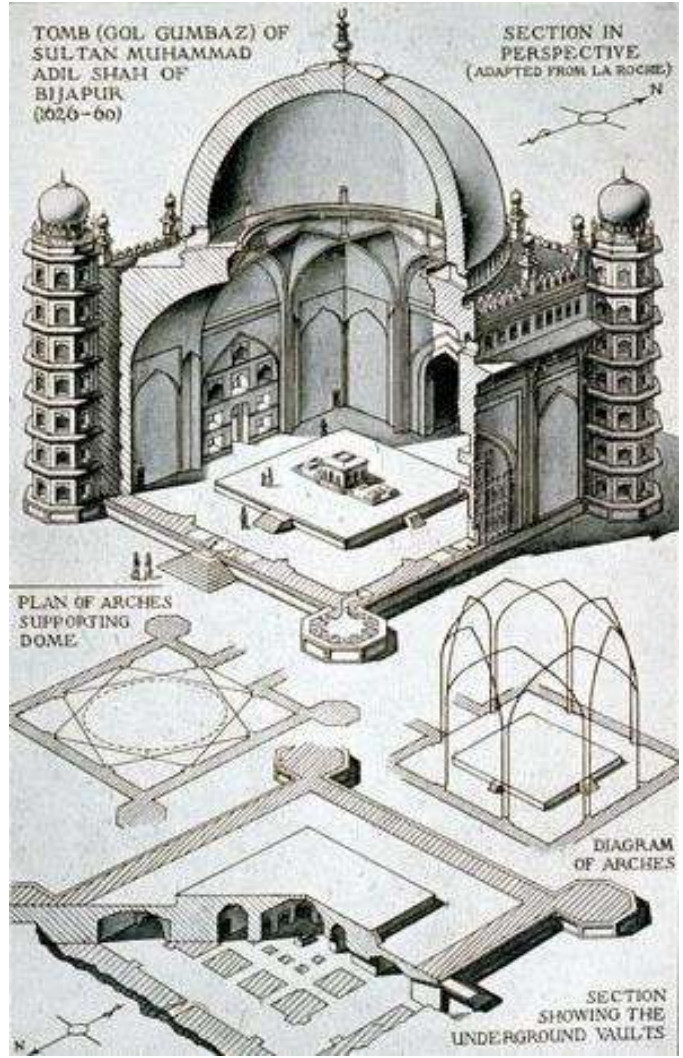
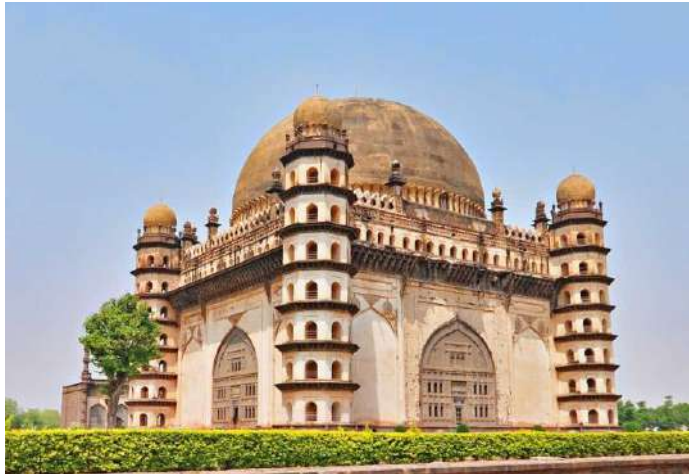
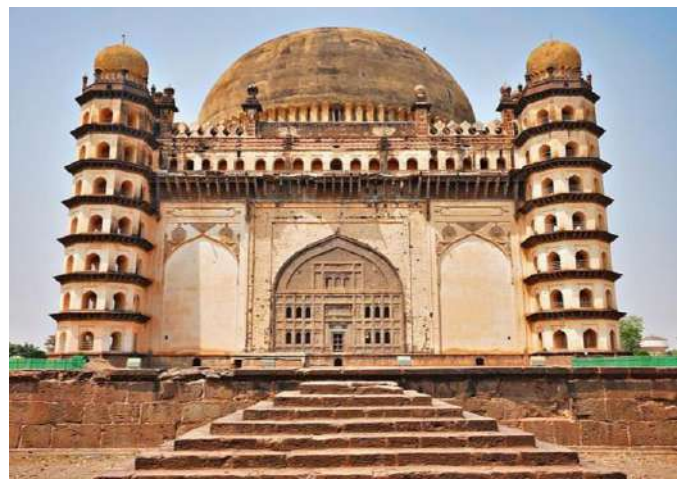
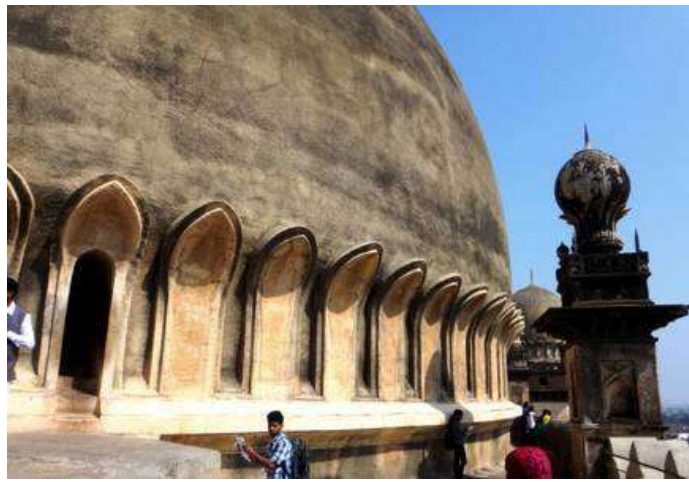
- Inside the mausoleum hall, is a square podium with steps on each side.
- In the middle of the podium, a cenotaph slab on the ground marks the actual grave below.
- A very strong circular foundation was discovered in the basement that resembled the circular opening of the dome above. But this foundation supports only a platform and a light wooden pavilion.
- The real graves are in the basement, which can be accessed by a staircase below the entrance on the west.
- The south door is the main entrance to the tomb.
- They have a large central arch, above which is a cornice of grey basalt and a row of small arches carrying a second line of plain work crowned by a balustrade 6 feet high.
- The use of groined compartments or pendentives, which counteract the outer thrust of the dome.

- The interior of the dome converges with the edge of the circle by about 4 m so that part of the weight falls on the intersecting arches that bear and neutralize any other exterior forces.
- The base of the monumental dome of the Gol Gumbaz is carved with beautiful petals that cover the drum.
- Horizontal courses of brick have been used in the construction of the dome which has a flat section at its crown. It has been cemented with lime and has a total of six openings at the base.
- It is in the eighth storey is a broad gallery around the dome which hangs out at around 11 feet. It can be reached by means of winding staircase in the four towers.
- The cornice and parapet of the building is the most distinct characteristic of the facade. The cornice rests on highly carved stone corbels that project to about 3 m from the wall. The cornice supports the parapet, which has a row of arched openings and leaf-shaped walls. On the exterior side of the structure there are three great blind arches. The central arch is the widest of all and is decorated with wooden panels (chajja) and has a small rectangular entrance and three rows of windows with arches.

The Whispering Gallery

- Inside, at the base of the dome is the 'Whispering Gallery, where even minute sounds can be heard clearly 37 metres away.
- A particular attraction in this monument is the central chamber, where every sound is echoed seven times.





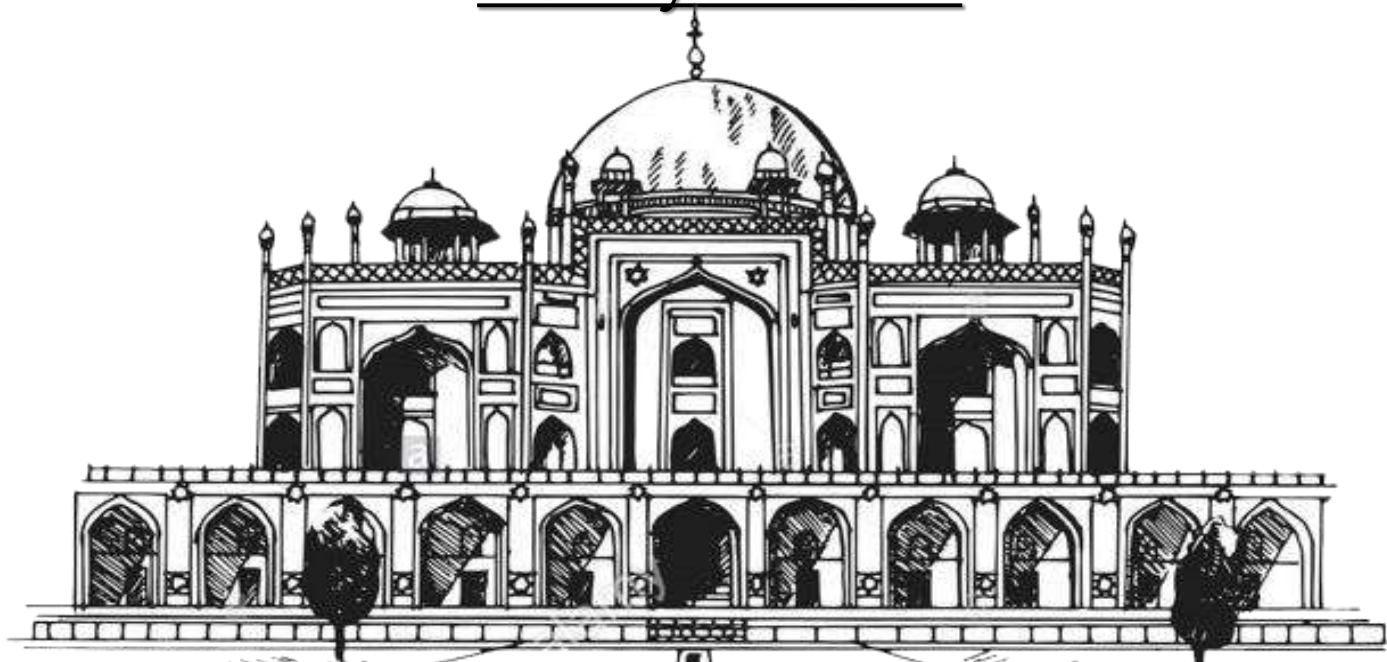
Mughal Architecture

Mughal architecture is the type of Indo-Islamic architecture developed by the Mughals in the 16th, 17th and 18th centuries. It developed the styles of earlier Muslim dynasties in India as an amalgam of Islamic, Persian, Turkic and Indian architecture. Mughal buildings have a uniform pattern of structure and character, including large bulbous domes, slender minarets at the corners, massive halls, large vaulted gateways, and delicate ornamentation; "grandiose architecture was the most visible of the ways that the Mughals used to assert their sense of superiority.

Characteristics- Mughal architecture incorporates Indian elements with Persian and Islamic elements. Some features common to many buildings are:

- Large bulbous onion domes, sometimes surrounded by four smaller domes.
- Use of white marble and red sandstone.
- Use of delicate ornamentation work, including pachin kari decorative work and Jali-latticed screens.
- Monumental buildings surrounded by gardens on all four sides.
- Mosques with large courtyards.
- Persian and Arabic calligraphic inscriptions, including verses from the Quran.
- Large gateways leading up to the main building.
- Iwans on two or four sides.
- Use of decorative chhatris.

Humayun Tomb



INDIA

