

FASCINATING OF INDO ISLAMIC ARCHITECTURE

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ABSTRACT

This research paper is about the history of Islamic architecture in India, its significance and architectural importance over the period of time. The various parts or regions of the India are stated separately and their particular architectural techniques are specified thoroughly.

Keywords: Pre Mughal-Phase, Portico, Sanctuary, Cloisters, Merlons.

I. INTRODUCTION

The Delhi Sultanate Phase (Pre-Mughal Phase) and the Mughal Phase are the two major phases of Islamic architecture in India. Due to the differing natures of the governmental settings of the two eras of Islamic history in India, two unique architectural styles emerged the content with your own material. Your introduction should clearly identify the subject area of interest. The Delhi Sultanate period encompasses the formative age of Islamic architecture in India. Because of the structure of the state, in which the king in Delhi had only a loose grip over a federal system of vassal states that were frequently at odds with one another and even with the monarchs in Delhi, each region in India evolved its own distinct provincial style. The Mughal Empire was far more centralised, and as a result, a more united, national architectural style arose under the Mughals. Islamic architecture in India also achieved its pinnacle because to the Mughal empire's stability and richness.

II. IMPERIAL STYLE

Qutb-ud-Din Aibak, a former slave of Muhammad Ghuri who had been put as Governor in Delhi and claimed independence following Ghuri's death, founded the Slave Dynasty.

Qutb-ud-Din Aibak and his son-in-law, Shams-ud-Din Iltutmish, were in charge of the construction during this dynasty. The main structures are :

- Quwwat-ul-Islam Mosque ,
- Tomb of Nasir-ud-Din Mohammed
- Qutub Minar
- Arhai Din ka Jhompra
- Tomb of Shams-ud-Din Iltutmish

1. QUTUB-UL-ISLAM MOSQUE

The ancient Hindu fortification of Qila Rai Pithora was built by Qutb-ud-Din Aibak. Built on the foundation of a demolished Hindu temple. The plinth was extended to accommodate a 150' X 212' rectangle. The stylobate was then surrounded on all sides by a wall with cloisters.



Figure 1: Qutub-ul-islam

Three aisles separated the cloisters. Composed of Hindu temple pillars stacked one on top of the other to obtain the appropriate height. The sanctuary was located in the cloister's western section. The pillars were rearranged into a series of bays with small domed roofs to make the space more open. The courtyard is 105' x 141' and is

encircled by cloisters. The iron pillar with the Garuda design removed from its pinnacle sits in front of the sanctuary's centre. A screen with an arched façade was built to the front of the sanctuary in 1199. The screen is a stone wall that is 50 feet tall in the centre, 108 feet wide, and 8 1/2 feet thick. The screen is perforated by five arches: a 45' high centre arch with a 22' span, and two smaller 25' high arches on either side. Each smaller arch had a clerestory above it, which served only as decoration and had little bearing on the sanctuary beneath it.

Floral devices and Quranic passages have been carved onto the facade. Because the arches are corbelling rather than real arches, we know they were created by local workers following verbal orders from a Muslim clerk of works. The Buddhist caves of Bihar's Barabar Hills and Sarnath's Stupas may have influenced the arch's ogee shape.

2. QUTUB MINAR

Qutb-ud-Din Aibak built it near Quwwat-ul-Islam Mosque in 1200. The tower stands at a height of 238 feet. The tower had four stories and a domed roof when it was built. A storey has been erected as a result of the renovations. The tower is accessed by a north-facing doorway that leads to a spiral staircase. In terms of plan, each level has a unique layout.

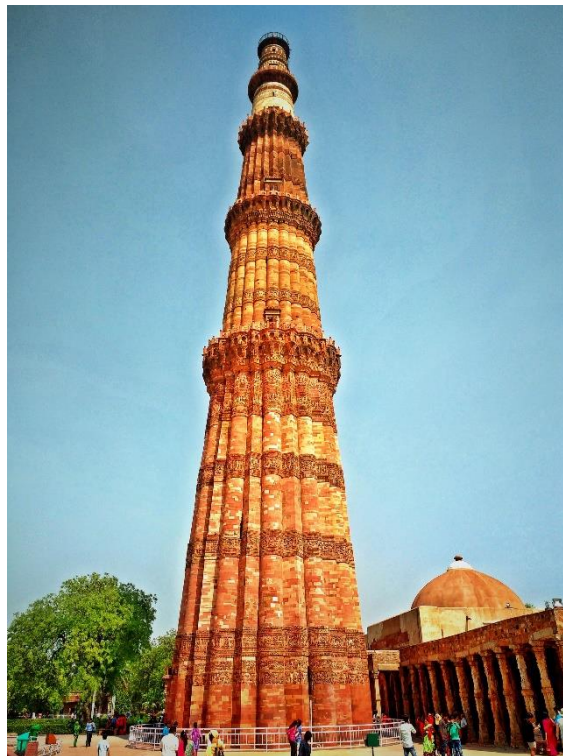


Figure 2: Qutub Minar

Alternate wedge-shaped and circular projections on the first floor. Circular projections on the second storey, The third floor is designed like a star and The fourth level is a circle. Each floor is surrounded by a balcony. The merlons known as kanjuras were originally depicted on the balcony's railing.

The balconies are supported by stalactite vaulting, which is made up of clusters of small arches with brackets in between, and is inspired by temple ceiling tracery.

III. JAUNPUR STYLE

The Tughlaq king in Delhi bestowed the title 'Malik-ush-Sharq' (King of the East) to the Governor of Jaunpur, the Sultanate's eastern region. As a result, the dynasty was known as the Sharqi dynasty. Jaunpur became a prominent hub of Islamic art, architecture, and learning under the Sharqi rulers, a university town known as 'Shiraz-i-Hind' after the Iranian city of Shiraz. When Delhi's Sikander Lodi reconquered Jaunpur, the majority of the style's structures were demolished, leaving just five mosques. Sultan Shams-ud-Din Ibrahim was largely responsible for the development of the style (1402- 36).

Pylons, which are erected on the facade to highlight entrances and other features, are a typical sight. Arches with 'Fleur-de-Lys' fringes are of the 'depressed four centred' or 'Tudor' kind. The curves and outlines of the arches, which swayed slightly in the bigger instances, were never certain to the builders. The pillar, beam, and bracket (trabeate) form of construction, which was widely utilised, was more familiar to the largely Hindu masons and artisans. Square monolithic shafts with bands across the centre characterise the pillars. The capital is made out of the same bands as above, from which clusters of brackets arise. These have a sloppy feel to them. Atala Masjid, Khalis Mukhlis Masjid, Jhangiri Masjid, Jaunpur's Jami Masjid and Lal Darwaza are the main structures.

1. ATALA MOSQUE

Built in 1408 by Shams-ud-Din Ibrahim on a foundation laid 30 years previously by Firuz Shah Tughlaq. Built on the foundations of the Atala Devi temple, which was constructed using elements from earlier temples. The mosque served as a model for all following mosques in the design. The mosque is made out of a 177' square courtyard with three cloisters and the sanctuary on the fourth (western) side. The entire mosque is a 258' square. Cloisters are large, measuring 42' long and split into five aisles. Two lower floor aisles are divided into a number of cells, each with a pillared portico facing the street, to accommodate guests and merchants. Each cloister has three entry portals, one in the centre, one on each side, and the northern and southern ones are topped with domes.



Figure 3: Atala Mosque

The entrance to the nave is articulated by a tall pylon, 75' high and 55' broad at the base, in the centre of the sanctuary facade. The sanctuary nave's entry doorway and the windows that illuminate it are housed in an 11' deep arched recess on the pylon. The fundamental feature of the construction (and the style as a whole) is the arched pylon, which is echoed by smaller pylons on either side of the central one, as well as on the cloister gateways. The sanctuary's interior has a 35' X 30' central nave with pillared transepts on either side. A hemispheric dome protects the nave from the elements. The inner nave is split into three sections vertically. The first level features three mihrabs and a lofty pulpit, as well as arched entrances to the transepts that create the room's sides.

The sanctuary's back wall is worth investigating for its treatment. The outside design of the qibla is complicated by the fact that it resolves into an immense wall with no apertures. The vast plane of this wall is broken up by three extensions, each of which corresponds to one of the interior's main compartments and coincides with the domes. A tapering turret is on each projection's corner, with a bigger duplicate in each of the building's corners.

2. JAMI MASJID AT JAUNPUR

Husain Shah built it in 1470. On a greater scale, it replicates many of the main aspects of the Atala Masjid. The entire edifice is erected on a plinth 16'-20' in height, with a steep yet substantial flight of stairs leading up to it.

The courtyard measures 210' in length and width. On three sides, there are cloisters, and on the west, there is a sanctuary.



Figure 4: Jami Mosque, Jaunpur

Cloisters are two-story structures. They are just two aisles wide, as compared to the five aisles of Atala Masjid. Each cloister has a dome-covered entrance hall in the centre. A pylon 85' high and 77' broad at the base stands in the centre of the sanctuary facade.

The roofs of the two rooms that compose the transepts are visible above the arcaded wings of the side aisles on both sides of the pylon. The interior consists of a 38' side nave. The clerestory arcade is open to let light into the dome's interior. There are pillared side aisles with an additional storey on both sides of the nave. To offer a secluded place for the royal women, the apertures have been filled up with stone jalis. Two large vaulted rooms, each 50' long, 40' broad, and 45' high, are located beyond the side aisles on both sides. On the western wall of each of these halls are three mihrabs, which are opposite the archways that lead to the courtyard. The builders built a structure of two transverse ribs at broad intervals in the centre and two wall ribs or 'formerets' at either end to produce such a big columnless room. The infilling or 'severies' of flat stones fitting on the backs of the ribs were set on this permanent centering.

IV. GUJARAT STYLE

Gujarati style is the most prominent of all Indian regional styles. The prolific production of architecture in this region is due to two factors:

- The strong Ahmed Shahi dynasty's egotism, which desired to surround themselves with architectural proof of their supremacy.
- The availability of skilled indigenous labourers. Of all the regional styles, the Gujarat style is the most original to India. Many of the structures are replicas or adaptations of nearby Hindu and Jain temples.

There are three key phases in the style:

The First period (First half of the 14th Century A.D.):

The demolition of temples was followed by the reconversion of the construction components, as is common. The structures of this time period appear to be formative and exploratory. Many structures were constructed with materials salvaged from Hindu temples. The pillars were usually left alone, while the walls were constructed of ancient masonry, sometimes utilising stones salvaged from temples and recut to fit the needs.

The Second period (First half of the 15th Century A.D.):

We find the work in this time reaching early completion, with slightly uncertain aspects. In the buildings, there is greater directing authority and more design certainty. After Sultan Ahmed Shah, this period is known as the Ahmed Shahi period.

The Third period (Second half of the 15th Century A.D.):

This is the style's most spectacular feature. Sultan Mahmud I Begarha was in charge of much of the progress during this period (1458-1511).

Main buildings of Gujarat style are:

Jami Masjid or Adina Masjid at Patan, Jami Masjid at Bharuch, Jami Masjid at Cambay, Jami Masjid at Ahmedabad, Teen Darwaza, Bai Hari Wav, Sidi Sayyid Masjid, Jami Masjid at Champanir

1. JAMI MASJID AT BHARUCH

It is most likely from the beginning of the 1300s. It was mostly made of temple materials and was designed and built according to mosque principles. A courtyard with three entrances on three sides and a sanctuary in the west make up this structure. The sanctuary is of the open pillared style, meaning there is no front screen of arches. It's nothing more than an ornate loggia or verandah. The sanctuary's 48 pillars are all bracket-shaped. They're positioned to divide the chamber into three divisions, one for each of the three temple mandapas from which the pillars were removed. The sanctuary's walls were built using stone cut specifically for this purpose, and are thus the oldest example of unique masonry work in this style. The stones were recut or reconditioned after being mined from old temples.



Figure 5: Jami Mosque, Bharuch

On the inside of the western wall, there are three mihrabs and a series of arched windows with stone tracery created in the indigenous style. With the Islamic pointed arch added under the lintel, the mihrabs are replicas of niches seen in Hindu temples. Three huge domes and ten smaller domes are supported by beams on the sanctuary roof. Cusped and other geometrical designs, similar to those found on temple roofs, are used to decorate square sunk coffered ceilings. The actual manufacturing, with the exception of some direction and oversight from Muslim overseers, is the work of local artisans who had probably never seen a mosque before.

2. JAMI MASJID AT AHMEDABAD

Sultan Ahmed Shah constructed it in 1423. It is regarded as the pinnacle of mosque design in western India. The sanctuary is where the majority of the architectural impact is felt. The courtyard measures 255' X 220' and is flagged. With the screen in the centre and the portico on the wings, the architect has united the two types of sanctuary façade, the screen of arches and the pillared portico.

The contrast between the volume and solidity of the wall surface and the depth and airy lightness of the colonnade is created by the juxtaposition of the two parts. On either side of the great central archway are huge moulded buttresses of minarets, the upper sections of which have long vanished. On either side of the centre archway are two smaller archways. The internal colonnade, with its engrafted arch leaping gently from its thin columns, is directly visible through the doorway in the shadows.



Figure 6: Jami Mosque Ahmedabad

The sanctuary is a 210' X 95' hypostyle hall. It is made up of around 300 thin pillars with an average intercolumniation of 5'. The columns are symmetrically positioned across the hall's long axis to form 15 bays,

each of which is topped by a dome and linked to the next by a columned interspace. The nave's centre compartment has three floors, while the lateral aisles have two and the rest of the hall is single storeyed.

V. MUGHAL ARCHITECTURE

Babur founded the Mughal Empire in 1526. Due in part to the empire's riches and established political conditions, as well as the emperors' artistic inclination, the Mughal era constitutes the most opulent phase of Islamic architecture in India. Mughal architecture prospered throughout the reigns of the dynasty's first five 'Great Mughals,' Babur, Humayun, Akbar, Jahangir, and Shah Jahan, but decreased following Aurangzeb's reign. Akbar (1556-1605) and his grandson Shah Jahan (1627-1658) were the most prolific builders of the dynasty, with a transitional period under Jahangir (1605-1627). The style may be split into two phases: an earlier phase during Akbar's reign when buildings were primarily made of red sandstone, and a later phase during Shah Jahan's reign when structures were primarily constructed of marble.

The Mughal style of architecture had no provincial or regional expressions due to the empire's centralised governmental framework, and was an imperial style only mildly influenced by local influences. Persia, as well as indigenous Gujarati and Rajasthani forms, are key inspirations in the Mughal style.

1. HUMAYUN'S TOMB

The earliest notable Mughal structure in India. Built in 1564 by Haji Begum, Emperor Humayun's wife, eight years after the emperor's death in Delhi, in the area of the emperor's built city of Din Panah. Mirak Mirza Ghiyas, a Persian, was the architect. The mausoleum is located in a large, square park-like enclosure, offering privacy and a fitting setting. Each of the four sides of the enclosure has a magnificent doorway, the western being the main entrance with an embowed archway framing the view of the tomb. The garden is divided into square and rectangular divisions with flowery parterres, flagged walkways, and pavements.

The lines and spaces leading up to and harmonising with those of the core building are meticulously conceived and proportioned to constitute an important element of the overall composition. The core structure is built on a 22-foot pedestal. The platform's sides are arcaded, with each archway leading to a tiny chamber for guests and their accompanying personnel. The tomb, which is square in shape and has a 156' side, is in the centre of the platform. Each face has the same elevation, with a central rectangular fronton enclosing an arched recess and surrounded by embowed wings, each relieved by a smaller but similar arched alcove. The marble dome, which stands at 140 feet tall, is topped by a cluster of pillared kiosks with cupola roofs on each side.



Figure 7: Humayun's Tomb

The burial chamber's interior is divided into a series of compartments, with the biggest in the centre housing the emperor's cenotaph and lesser ones at each angle housing members of his family. Each chamber has an octagonal design and is connected to the others by diagonal passageways. The interior is lit by clerestory windows with perforated screens set into the arched recesses of the façade. The architectural style can be described as a synthesis of Persian and Indian influences, with the Persian influence visible in elements such as the arched alcove in the façade and the shape of the dome, as well as the interior room arrangement, and the Indian influence visible in the kiosks and cupolas.

The logical relationship of the plan to the interior and exterior design, the perfection of the proportion and relative locations of the numerous parts, and the combination of red sandstone with white marble for emphasis

all contribute to the structure's architectural appeal. The dome is India's first double dome, i.e. a dome with two shells, one supporting the marble casing and giving the outside a high form, and the other built lower to establish a better proportion with the area below.

2. TOMB OF ITMAD-UD-DAULA

Itmad-ud-Daula, a prominent nobleman and Jahangir's father-in-law, had a palace built for him at Agra in 1626. The construction reflects a transitional period with a new interpretation of architectural art in its most delicate and refined form, ignoring scale and stressing exquisite workmanship. The building is surrounded by a 540' square perimeter with red sandstone entrances. The white marble tomb edifice is in the middle of a formal landscape with lawns, parterres, flagged walks, tanks, and fountains.

The mausoleum has a 70' square layout with a central building and large octagonal towers in the style of minarets flung out from each angle.



Figure 8: Tomb of Itmad-ud-daula

Above the roof, a tiny pavilion or upper level rises. On the upper half, there are three arched openings on each side, as well as cornices on brackets and a broad eave. The ground storey's interior is made up of a succession of chambers and hallways that correlate to an enclosed verandah that surrounds the centre chamber with the cenotaph. The pavilion above is a square chamber with exquisite marble tracery screens on the walls. The walls are finely coloured with inlaid stones, with minimal relief work in the decoration. In contrast to the traditional technique of opus sectile, a marble intarsia of varied colours, the inlay work was done using a new system called pietra dura, in which hard and rare stones such as lapis, onyx, jasper, topaz, cornelian, and the like were inserted in the marble in beautiful foliations.

3. DEEWAN-E-AAM AT DELHI FORT

The Diwan-i-Aam, or Hall of Public Audience, was formerly a square courtyard encircled by colonnades with the hall on the eastern side. Aside from the main hall, the remainder of the supporting structures are vanished. The hall is a sandstone structure with dimensions of 185' X 70'. Its façade is made up of a 9-arched arcade with double pillars between each arch and a set of four pillars at each corner, totaling 40 pillars. The basic rear wall has a huge oblong recess.

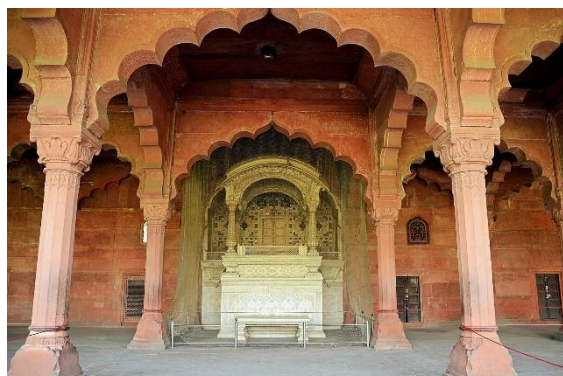


Figure 9: Deewan-e-aam At Red Fort

Despite the fact that the building is made of sandstone, it was most likely initially coated in a shell plaster overlay that was ivory polished by Rajputana artisans. The alcove in the back wall where the emperor sat in state and where the famed Peacock Throne was put on special occasions is a notable aspect of the interior. The alcove above the throne is decorated with a sequence of motifs in pietra dura depicting western topics, such as 'Orpheus with His Lute,' an original example of Florentine inlay.

4. TAJ MAHAL

The Taj Mahal, which was constructed by Shah Jahan in Agra as a tomb for his spouse Mumtaz Mahal, is regarded as the pinnacle of Mughal architecture in India. The Taj Mahal was reportedly inspired by two sources: Humayun's Tomb in Delhi, which was erected around 50 years before the Taj Mahal, and the lesser-known tomb of Khan Khanan, which was built a few years before the Taj Mahal. The tomb structure itself is merely a tiny part of the overall architectural concept. The entire complex is laid out in the shape of a massive rectangular enclosure that is 1900' X 1000' and is orientated north-south. A square garden with a 1000' side occupies the centre space, leaving two oblong rectangles at the north and south ends.

The southern end has a network of roadways and service homes, but the northern end, which abuts the Jumna River, has a raised terrace with the tomb construction and several auxiliary structures. A high boundary wall surrounds the garden and terrace areas, with octagonal pavilions at each corner and a magnificent entry doorway in the centre of the southern side.

On the south side of the doorway are courtyards, stables, outhouses, and other amenities, as well as a mart for supplies. The overall pattern demonstrates how much care went into the design before any building started. The building was built to be approached from both the road and the river, with the initial view from the road being framed like a painting by the beautiful archways of the entry hall, and the first view from the river being supplemented by its reflection in the river.



Figure 10: Taj Mahal

The formal garden was designed to compliment the main building. Water streams with fountains and an elevated lotus pool were used to reflect the structure from different perspectives. With the tomb building in the centre and two detached minor edifices on the eastern and western ends, the buildings on the northern terrace comprise the scheme's major architectural emphasis. The western edifice is a mosque, whereas the eastern structure, known as the jawab or response, is a copy that was erected for symmetry but has no religious purpose.

The central tomb building, the composition's focal point, is elevated 22' high on a plinth. It has a square layout with an 186' side and chamfered sides. With a marble cupola on each corner, the form is continued up to a height of 108'. A bulbous dome rises above this, bringing the structure's overall height to 187'. A three-stage minaret, capped with a kiosk reaching to a height of 137', rises from each corner of the plinth, enhancing the architectural impression.

The structure's concept and proportions are straightforward; for example, the breadth of the façade is equal to its height, and the height of the façade in the centre is equal to the height of the dome, making the top of the parapet above the central alcove in the façade the composition's focal point.

The dome is the composition's crowning element. The feature is shaped like a globe, with the bottom section truncated by the drum on which it sits and the curves on the higher part rising tangentially from the finial's foliated base. The dome is of the double dome form, since it has two shells.

The bigger dome and the smaller cupolas at its base are from two separate architectural traditions: the larger dome is Persian, while the smaller cupolas with unrestricted bases are indigenous. The face joints of the masonry of the minarets are countersunk, creating a rustication not seen elsewhere in the edifice. The burial chamber's interior is a replica of Humayun's Tomb, with an octagonal central hall connected by radiating tunnels to secondary rooms in the angles.

VI. CONCLUSION

The Delhi Sultanate period encompasses the formative age of Islamic architecture in India. The ancient Hindu fortification of Qila Rai Pithora was built by Qutb-ud-Din Aibak. The stylobate was then surrounded on all sides by a wall with cloisters. Composed of Hindu temple pillars stacked one on top of the other to obtain the appropriate height. The sanctuary was located in the cloister's western section. The iron pillar with the Garuda design removed from its pinnacle sits in front of the sanctuary's centre. Floral devices and Quranic passages have been carved onto the facade. They are just two aisles wide, as compared to the five aisles of Atala Masjid. Each cloister has a dome-covered entrance hall in the centre. The clerestory arcade is open to let light into the dome's interior. The infilling or 'severies' of flat stones fitting on the backs of the ribs were set on this permanent centering. Gujarat Style. Gujarati style is the most prominent of all Indian regional styles. The prolific production of architecture in this region is due to two factors:

The strong Ahmed Shahi dynasty's egotism, which desired to surround themselves with architectural proof of their supremacy. Of all the regional styles, the Gujarat style is the most original to India. The demolition of temples was followed by the reconversion of the construction components, as is common. We find the work in this time reaching early completion, with slightly uncertain aspects. In the buildings, there is greater directing authority and more design certainty.

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