

IMAM BARA COMPLEX -THE MONUMENT OF AWADH ARCHITECTURE

Abstract

The abstract about the ancient architecture and their construction style .This chapter belongs to the awadh architecture which is a mixture of Mughal and British architecture and its cover mainly Lucknow region of Uttar Pradesh. The aim of the chapter is to study and explain the awadh architecture and its style through the Bada Imambara complex , Lucknow .The objective of the chapter is to study ancient architecture and the importance of monuments. Bara Imambara is one the oldest and famous monuments of the awadh architecture just like Taj Mahal is for Mughal architecture.bara Imambara have very unique concept,that it constructed by food material and also it have one big hall without RCC .One of the famous idiom "diwaro ke bhi kaan hote hai". Is shown in this building .Nowadays ASI takes care of this .

Keywords: Imam Bara, Asfi Imam Bara Complex, Keystone Principle.

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I. OVERVIEW

The term “Imam Bara” typically refers to a type of Shia Muslim Congregation Hall and shrine, and one of the most famous Imam Baras in India is in Lucknow, Uttar Pradesh. The Bara Imambara is a significant historical and architectural landmark in Lucknow, known for its grandeur and historical importance. The Imam Bara complex is an excellent example of Mughal architecture with a blend of **Indo-Islamic style**. It is renowned for its central hall, which is one of the largest arched construction without support beams. The main hall also known as “Asfi mosque”. The Bara Imambara serves as a place of worship and for Shia Muslims during religious ceremonies, especially during Muharram. Especially when processions are organized. Efforts have been made to preserve and maintain the historical integrity of the Bara Imambara. It has been designated as a protected monument by the Archaeological Survey of India. The Bara Imambara stands as a testament to the architectural prowess of its time and continues to be an important cultural and historical landmark in Lucknow, attracting visitors from all over the world.



Figure 1

II. HISTORY TIMELINE

- 1. Indus Valley 3300bc- 1300:** Indus valley civilization was an ancient urban civilization that thrived in the region of present-day Pakistan and north west India from approximately 3300BC to 1300 BCE, known for its advanced urban planning, sophisticated drainage system and enigmatic script.
- 2. Vedic Period 1500bc-500:** The Vedic period in ancient India, spanning roughly from 1500 BC to 500 BCE, was characterized by composition of the sacred text known as the Vedas and the emergence of early Hindu religious and philosophical period.
- 3. Buddhist Architecture 250bc-750ad:** Buddhist Architecture is marked by its emphasis on tranquility, simple elegance, and the use of symbols, seen in structures like stupas and monastic complexes, reflecting the core values of Buddhism.

4. **Jain Architecture 1000ad – 1300ad:** Jain Architecture is characterized by intricate craftsmanship, ornate temple designs, and attention to non-violence, reflecting Jainism's principles of ahimsa and spirituality.
5. **Hindu Architecture 300ad – 1750ad:** Hindu architecture is renowned for its symbolism, intricate temple structures, and devotion to deities, reflecting the diverse and spiritual aspects of Hinduism.
6. **Indo-Islamic Architecture 1200 Ad- 1800ad:** Indo-Islamic Architecture is a fusion of Islamic Design elements with Indian Architectural traditions, exemplified by intricate domes, arches and decorative motifs, showcasing the synthesis of culture influences in Indian sub continents.
7. **Colonial Architecture 1600ad -1947ad:** The architectural style and influences of the colonial power, such as British, Spanish, or Portuguese, in the region they colonized, often combining elements of European and local Design.

III.ABOUT ARCHITECTURE

Architecture is the art and science of designing and constructing buildings, spaces, and environments that fulfill both functional and aesthetic needs. Its primary purpose is to create spaces that enhance the quality of human life, facilitate various activities, and respond to cultural, social, and environmental contexts.

1. **Historical Perspective:** Architecture has a rich history that spans millennia. Different architectural styles and movements have emerged over time, reflecting the cultural, technological, and social changes of their eras. From ancient civilizations like the Egyptians and Greeks to the Renaissance and modern architecture, the field has evolved significantly.
2. **Architectural Styles:** Different regions and periods have produced distinct architectural styles. These styles are characterized by specific design elements, construction techniques, and cultural influences. Examples include Gothic, Baroque, Art Deco, Modernism, and Postmodernism.

IV.ANCIENT ARCHITECTURE

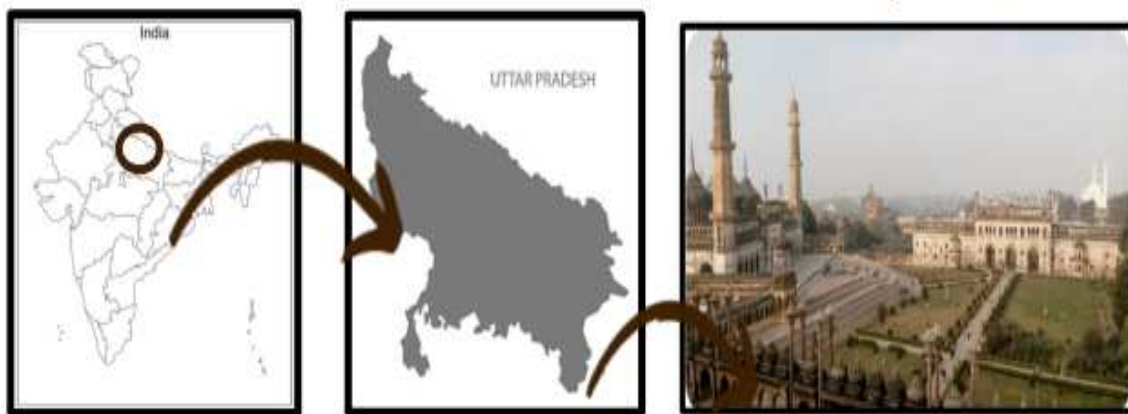
History refers to the study of past, encompassing all records human events, societies, cultures, and civilizations. It is a multidisciplinary field that seeks to understand and interrupt the developments and interactions of human being over time. Until history repeats itself and another discovery as significant and startling as that of the existence of the Indus valley civilization is made any history of Indian architecture must inevitably begin from the time when the earliest known wave of immigrants settled in modern Sindh and Punjab.

1. Our history of Islamic Architecture opens in the same region where some four thousand years ago the Indus valley folks had built the earliest known civilization. An episode in the history of India and Islam, a triumph without result.
2. Throughout the history Architecture has played a crucial role in shaping cultures, reflecting societal values, and advancing human civilization.

3. As our understanding of materials, technology, and environmental sustainability evolves, Architecture continues to adapt and innovate creating structure that one more efficient, aesthetically pleasing, and responsive to the needs of both people and planet.

V. HISTORY OF AWADH

Awadh & Awadh Architecture: Asafuddaula the fourth nawab of Awadh shifted his capital to Lucknow. Under his patronage and direction, Lucknow became the center of a poetic school, a sophisticated lifestyle, and also a religious expression that's surpassed most of the developments that had hitherto occurred in the subcontinent at that time. He was keen to develop Lucknow as new cultural center.



Source: - Map of India

Source: - Map of India

Figure 2

In the second half of the eighteenth century the rulers of Awadh created a full-fledged court and capital at Lucknow. It rivalled and even surpassed the Mughal capital for its political pretensions and the wealth and sophisticated artistic worlds. The cultural elite of the Awadh court both cultivated the existing forms of court life and also created new schools of poetry, music, dance, drama and art. Many of the styles and forms of the Mughal court were adopted and enriched with regional variations. The year 1784 might have passed as any other year in the history of Awadh (in present-day Uttar Pradesh) if not for a terrible famine that struck the region that year. So severe were its effects that not only the common people, but even most of the noblemen were reduced to penury. People had no jobs and no food to eat. At that time, the Nawab of Awadh, Asaf-ud- Daulah, came up with a brilliant way of generating employment for the rich and the poor alike. He did not want to give out free doles to jobless workers and believed that people needed to earn a living and not depend on charity, so he decided to build the biggest prayer hall in the country, an imam bara. The imam bara would need many workers and all the people working on it and their families would be fed by the Nawab. The Nawab employed more than 20,000 men for the construction of the complex. Soon, they started their work — digging, laying bricks, carving stone and wood, carrying earth. It is said that the common people would erect the walls during the day, and on every fourth night, the noblemen would bring down whatever was constructed. For their efforts, the nobility also received payments. This ensured that the work lasted and common people did not starve while the unskilled aristocrats were also employed

and their much-needed anonymity thoroughly maintained — this was the Nawab’s way of making sure that no one in his kingdom was ever out of work. (Yes, quite ingenious and generous this Nawab was!) The famine lasted eleven long years. And to continue to generate employment, the construction also continued for the period the famine lasted. Despite the repetitive building and breaking, the Bara Imambara, also called the Asafi Imambara after the Nawab, turned out to be magnificent. It was neither a mosque nor a mausoleum, but was meant to be a prayer hall where the community could congregate for mourning during Muharram. It rivalled Mughal architecture, and even today, the imambara is thronged with crowds who get mystified by the grandeur and exquisiteness of this mega monument.

This Imam bara is also known as Asafi Imam bara and it is the most important religious monument of Shia Muslims of Lucknow. BaraImambara, Romi Gate, Daulat Khana and Bibiyapur Kothi are the most prominent constructions done by him. Gradually the Imambaras became the primary religious and social centers of the Shias. It is also part of the Shia’s religious as well as social performances. The Shia kings and nobles built many large Imambaras for public use. Some of these are very small while others are large monumental buildings and complexes. The building took many years in its completion. Near about two hundred laborers’, masons and skilled men worked for years on this building. It cost one and a half crore rupees. Kifayatullah Shah Jhanadabadi was the main architect of the Imambaras.

VI. INTRODUCTION

1. Asfi Imam Bara Complex:

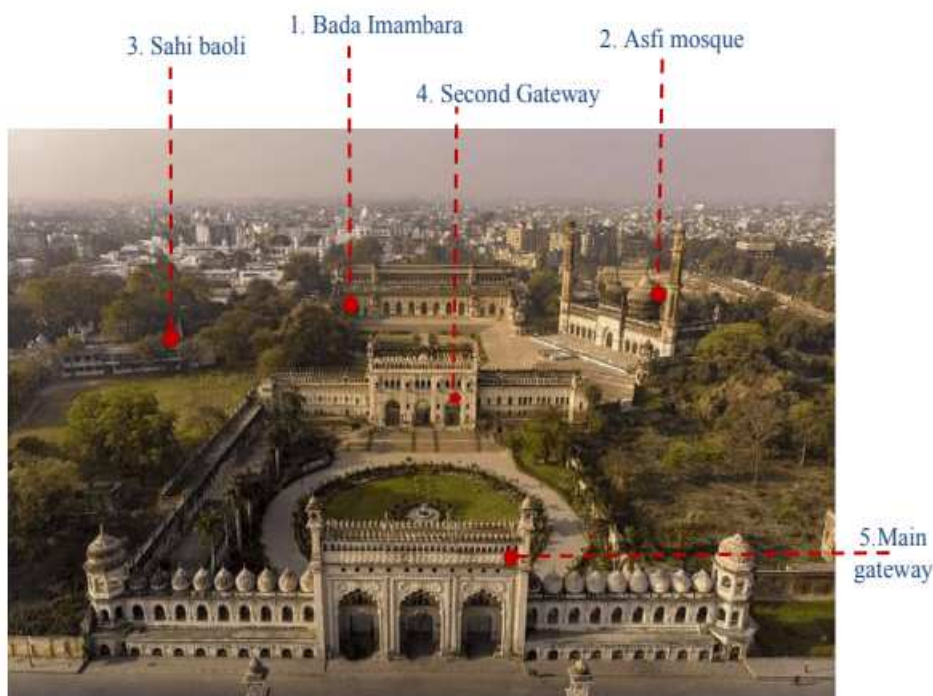


Figure 3: Bada Imambara complex view

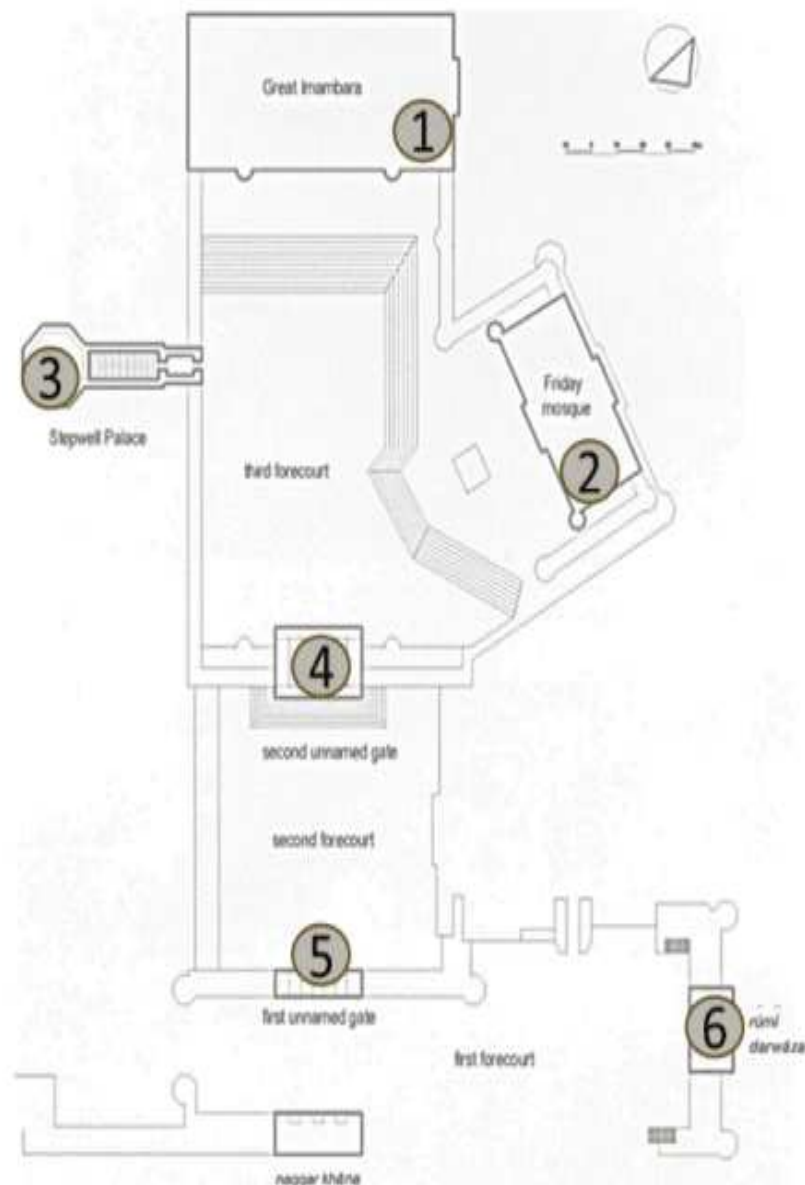


Figure 4: Bada Imambara complex Plan

The “BARA” means Big so we called Baraimam bara and it known as bhul bhuliya in local language .The historian writer **P.C.Mukherje**, said *“On the whole, the building art of Lucknow as of Indo -Saracenic in general, has some principles of its own...they aim to produce not only useful, but ornamental and tastefully regulated buildings which while filling all the wants of native life have such a margin left as to allow the means of luxury and to supply a beautiful sight.”*

The images of plan and the view of the Imambara complex shows the full planning of the complex. The two-entrance gateway located in center which are very decorative.In the complex of Imambara there is one Asfi mosque, Sahi Baoli ,center hall and the Bhul Bulaiya. The entrypoint of Bhool Bhulaiya is from the left side of the main building. On the east of the main building is a three-storey building, which is called the summer house. The western gate of Asifi Imamabaras is called Romi Darwaza or Turkish

Gate and it is said that it is a copy of one of the gates of Constantinople (Qustuntunia).
“Bara imam bara is complex with many architecture Awadhi monuments.”

The monumental buildings such as tombs, Imambaras, and mosques reflect the traditional elements of architecture. The ethnicity of ancient architectural elements used in religious monuments has stayed the same over the years. In this style of architecture, the buildings have intricate details within the domes, tall minarets with cupolas, fish as a decorative element in the entrance gate, a high plinth base, cloisters, arches, arcades, and kiosks. The architectural confetti of the Mughal empire in Lucknow came from 1775 to 1800 under the Nawabs-Asaf -Ud-Daula and Sadat -Ali- Khan.

2. Entrance Gateway



Source: - Author

Front side of main entrances gateway



Source: - Author

Front side of main 2nd entrances gateway

In imam bara complex there have two entrances gateway on North- south axis. Gateways have triple arched and 9 cups. The entrance gateways carry each other like this the first gateway leads from the first courtyard to the second. Second courtyard is square in plan. Second gateway is like first, lead to the main court with the Imam bara placed on the south end of the quadrangle. The image of the entrance gateway shows the beauty of the gate in which we see the art and Back side of main entrances gateway



Source: - Author

Figure 5: Back side of main entrances gateway

artists work together. The entrance gateways use for safety propose. The triple arched gateway protects the entire complex as the soldier were standing at top of the gateway and look after the place.

3. About Halls



Source: - Google image

Figure 6: Back side of main entrances gateway

The main building of the imambara is a three-storeyed building constructed on a raised platform that one can enter through one of the two arched gateways separated by a grassy courtyard. It is one of the architectural wonders of that era. There are three halls under the one roof -**China dish, Perisan hall and Khrbooza Hall or Melon Hall also known as Indian hall**. The Perisan hall known as central hall, it is said to be the largest vaulted chamber in the world. Except for the galleries in the interior, there is no woodwork in the entire structure. It is now used by Shia Muslims for the purpose of Azadar.

4. **Central hall :** The central hall is the largest. The hall has the length of 50m and width of 16m. The ceiling is constructed at the height of 15m. The main feature of the ceiling is that there are no columns to support it. Also, no beams, iron rods or a girder were used to support the ceiling. The eight other halls are small and surround the central one. Bara Imambara has one of the largest halls in the world, with a unique feature being that it doesn't have any external support of wood, iron, or stone beams. In fact, the roof of its central hall is a result of interlocking bricks without any beam or girder for prayer purposes, it was decided that a big central hall would be built without any columns or pillars! It's a very large structure, and building it by conventional means would have required columns to bear the load of the ceiling, including the mammoth dome.
 - For such a massive structure, the absence of pillars sounded almost impossible. But then the great architect who was working on the imambara had a brainwave and he decided to create eight chambers in such a way that all of them have different roof heights and lend support to each other.
 - The space above and below these chambers is like a magic maze that supports the massive dome on top of the Imambara.
 - The famous Idioms – **“Diwaro ke bhi Kaan Hote Hai”**, this idiom is famous because the center hall walls in second floor are such that the voice whisper at one corner heard at another corner of the wall. the acoustic is equally marvelous of the hall.
5. **China hall:** It is square in plan became octagonal at in mid-level and 16 sides at top level. It is one of the standing places for queen. This hall made as such that queen was saw every person or function but the persons did not see the queen.
6. **Khabooza hall or Indian Hall:** This hall roof look like watermelon and the decoration also reflects like Kharbooza. The roof of halls is common and flat and one piece. In this hall the entrance is big or larger than the others hall.



Source: Google image

China hall



Source: Google image

Indian hall



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----- The decorative ceiling

The cantilever balcony with wooden railing is built in all four sides of the hall.

The arch entrance gives aesthetic look to the hall and provide full sunlight into the hall. No need to the artificial light.

Source: - Google image

Figure 7: Central or Persian hall

7. **About Bhoor Bhulaiya:** This unique architectural design gave birth to the famous Bhul Bhulaiyya, which is a network of narrow passageways that, when negotiated correctly, wind their way to the upper floor, leading eventually to the rooftop balcony. This strange labyrinth has about a thousand passageways and 489 identical doorways. Some passages have dead-ends, some have steep drops and some others lead to the entrance of exit points. Only one passageway leads to the rooftop balcony. If one gets into the labyrinth, it would be easy to get lost in its numerous passageways and it might take a while before one has figured the way out! Thus, one of the largest existing mazes in India, the Bhul Bhulaiyya, though created for practical purposes, has become the showstopper of the imambaras! Within three huge halls named China Hall, Persian Hall, and Kharboza Hall lies the highlight of Bara Imambara, a series of labyrinths known as BhulBhulaiya. Bhulbhulaiya (Labyrinth), an amazing maze of 20 feet thick walls. In the right hand above Picture show the gate or entry pattern in the internal side at bhul bhuldiya . the below picture shows the gallery of the bhul bhulaiya .



Source: - Author

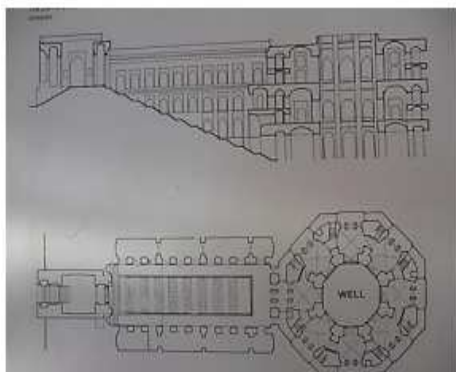


Source: - Author

- 8. About Sahi Baoli:** The monument has a five-storey Baoli or step well and is also known as Shahi Hammam. On the left of the main building is the exquisite seven-level Shahi Baoli, out of the five storeys, three are submerged in water while two are above. Initially dug as a well during the construction. As it was a perennial source of water, a guest house was built around it later. During the days of the nawabs, the heat-stricken citizens of Lucknow went to Shahi Baoli in the summer months for its cool breeze. The baoli is at an angle of 45 degrees to the main gate of the imambara. What's interesting is that it offers a secret view of the visitors! Because of the angle in which it was constructed, and the alignment of one of the windows of the building, the water of the Baoli reflects the shadow of the visitors.

When the British came to India, the guards of the Nawab could see the red uniforms of the British soldiers at the main gate reflected in the clear water of the baoli — much like the CCTV that watch over people's gates these days.

In below the plan and section of the Sahi Baoli, which shows that the plan of shi baoli is in octagonal and the well as surrounded by the void halls, in both side the cheneaging rooms or rest room for sahi peoples. the section represents the all floors of sahi baloi and shows the details of its arches. The view in image shows the material and the one-point perspective of theShai baoli.



Source: - Google image

Plan and section of tsahi baoli



Source: - Author

Perspective View of Sahi Baoli

9. **About Asafi Mosque:** On the right side of the main edifice is a flight of stairs that leads to a plinth on which stands the three-domed Asafi mosque. Surrounded by intricate minarets, the mosque has two large prayer halls and eleven arched doors. The mosque faces Mecca, the holiest city in Islam. It was also built as part of relief measures. With sculptured domes and minarets, the mosque provides a most splendid look and many thousands of people of Lucknow come here on Friday to offer namaz. There's also a story about how a secret tunnel was created in the mosque, which goes all the way to Delhi. It's believed that this secret tunnel was later sealed by the British after some of their soldiers went looking for royal treasure there and never came back. Asafi Masjid was constructed inside the bara imambara by Nawab Asaf-ud-Daulah. No iron material was used in the construction of the mosque. The mosque is located to the right of the bara imambara gate.



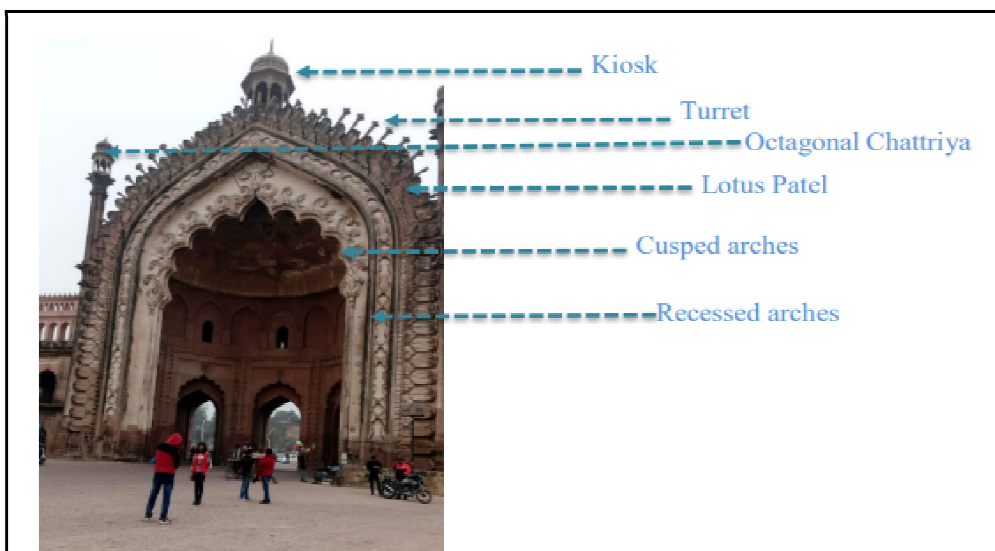
Source: - Author

10. **About Rumi Darwa:** The Rumi Darwaza known as Turkish Gate, The Rumi Darwaza, which stands sixty feet tall. The darwaza is distinct from the Mughals in terms of architectural style and materials used. The design consists of a big arch and on top of that, there is a half-spherical dome resting on half-octagonal plan. The gate is built using thin burnt clay bricks and lime-crushed brick aggregate mortar (Lakhori and Surkhi respectively, which was prevalent during the rule of Nawabs in the 18th century). The gate boasts of intricate carvings of flowers



Source: - Author

The 60-foot-tall gateway has a close resemblance with the Sublime Porte, Bab-i-Humayun in Turkey and is referred to as The Turkish Gate.



Front View

VII. ABOUT CONSTRUCTION MATERIAL

Bio-binding material: The material used to raise the mammoth structure was gathered from nature. Bara Imam bara is made up of Lakhori bricks or Badshahi bricks. Traditional lime mortar is a mixture of unique masala comprising choona, surkhi, urad dal, sheera (molasses), or jaggery or honey. Farez (tree gum), was used to fix the Lakhori bricks together. The roof of the Imambara is made up of rice husk which makes this Imambara a unique building.

It was constructed during 18 centuries using a variety of traditional construction materials commonly employed in Mughal architecture. These materials include:

- 1. Lakhauri Bricks:** The primary building materials for Bara Imambara is lakhauri bricks, which are smaller in size compared to regular bricks and are commonly used in Mughal architecture.
- 2. Lime Mortar:** Lime mortar was used as a binding material for the bricks. It was mixed with other substances to create strong and durable mortar.
- 3. Stone:** The structure features the use of stone for certain architectural elements like doorframes, arches, and decorative motifs.
- 4. Gypsum:** Gypsum plaster was used for finishing the walls and creating intricate designs and decorations.
- 5. Wood:** Wood was used for various interior and structural components, including doors, ceilings, and support beams.
- 6. Tila (Oil):** Some accounts suggest that a specific type of oil was used in the construction to strengthen the bricks and mortar.
- 7. Pulverized Rice Husk:** Some traditional accounts also mention the use of pulverized rice husk mixed with the mortar for additional strength.

VIII. CONSTRUCTION TECHNIQUE OF IMAM BARA

The bara imam bara was constructed using a unique construction technique that has made it an architectural marvel. The main hall of the imam bara, known as the Asaf Ali mosque is particularly famous for its innovative construction method. The technique employed is often referred to as the “Keystone principle.”

Here’s how the techniques of Imam bara worked:

- 1. Keystone Principle:** The main hall of the Bara Imam bara is an enormous arched structure with a central hall that spans 50 meters in length and 15 meters in height. What makes this structure unique is that it does not use beams, girder, or pillars to support the massive arched roof.

2. **Load Distribution:** The weight of the large arched roof is evenly distributed through the use of the keystone principle. The arches are designed to exert horizontal pressure on the walls. The outward thrust of the arches is balanced by the weight of the walls themselves, and this equilibrium supports the roof.
3. **Brickwork:** Lakhauri bricks, which are smaller and lighter than regular bricks, were used in the construction. These bricks were placed in a unique interlocking manner to distribute the weight and stress evenly.
4. **Vaulted Ceilings:** The roof of the central hall is made up of vaulted ceilings, which are a series of intersecting arches. These vaults add to the strength of the structure.
5. **Thakurdwaza:** Horizontal beams called “thakurdwaza” or “false doors” were incorporated into the structure. These beams help distribute the load evenly and also serve an architectural purpose.
6. **Hidden passages:** The construction includes a network of hidden passages and corridors within the walls. These passages were used during the construction to remove the wooden scaffolding and are now open for visitors to explore.

The bara imam bara is a remarkable example of architectural ingenuity, where the absence of traditional supports and the use of keystone principle have allowed this massive structure to stand for centuries.

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