

An Overview of Mughal Architecture in the Indian Subcontinent and Momentous Tomb Structures of an Incredible Era

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Abstract

Mughal architecture is a blend of Indo-Islamic-Persian style that originated in the Indian Subcontinent amid the Mughal reign (1526-1857). This new style fused the components of Islamic workmanship and design, which had been acquainted with India during the Delhi Sultanate (1192–1398) and had delivered incredible landmarks, for example, the Quṭab Mīnār, with highlights of Persian craftsmanship and architecture. Mughal landmarks are found mostly in north India, yet there are likewise many remains in Pakistan. In the era of Emperor Bābar (1526), was the first ruler of the Mughal dynasty in the Indian subcontinent. They introduced new architectural elements and structures and took inspiration from early dynasties like *Khiljī*, *Tughlaq*, *Sayyid*, *Lodhī*, and also from the Persian Empire. Initially, Mughal structures depended on post-and-beam development but later on they started the use of arches and domes in their structures. Massive forts, palaces, and tombs were constructed with amazing craftsmanship in the early Mughal period.

Keywords: Mughal, Architecture, Craftsmanship, Incredible, Dynasty.

Introduction

In the Indian subcontinent, architecture came into prominence and gained a reputation in the Mughal era. Emperor Bābar (1526) defeated Ibrāhīm Lodhī in the battle of Pānipat and started the erection of a grand mosque structure at Pānipat. After that every Mughal emperor took a keen interest in the field of architecture and in this period the architecture of the Indian Subcontinent reached its glory. Bābar ruled for a short time, so the construction in this period was limited. But he was very fond of gardens. Mughal architecture reached its glory amid the rule of Akbar. Marvelous structures and new architectural elements were introduced in this period. Constructions were usually done in red sandstone initially. The establishment of Fatehpur Sikrī at Agra is known as the crowning architectural legacy of Mughal emperor Akbar and one of the best examples of Mughal structures, constructed in red sandstone. (Plate.1) Fatehpur Sikrī is a fortified city that served as the capital of the Mughal Empire from 1571 to 1585. ¹ Another remarkable built structure in Fatehpur Sikri is the Jāmi'ā Masjid, which is also known as the great grand mosque in India. (Plate.2)



Plate.1 Fatehpur Sikrī at Agra, India.

Source: <https://www.holidify.com/places/agra/fatehpur-sikri-photos-1015.html>, (accessed 1st October 2020).



Plate.2 Jāmi'ā Masjid at Fatehpur Sikrī, India.

Source:

<https://whc.unesco.org/en/list/255/gallery/&index=1&maxrows=12>, (accessed 1st October 2020).

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¹ Arun Bhargava, Architecture during Mughal Period, October 14, 2019, <https://gradeup.co/mughal-architecture-pdf-i>, (accessed 29th September, 2020).

The constructions in this era were highly decorated and reflected some traditional elements of Hindu architecture like kiosks, *chātris*, *Kalash*, etc. Numerous public buildings, palaces, mosques, and tombs were situated in this city. The grand gateway at the south of this congregational mosque famously known as Buland Darwāzāh (victory gate) shows the glory and splendor of Mughal architecture. This massive gateway was constructed in red sandstone with detailing of white marble. It is reached through a series of steps. The entrance of this glorious gateway is adorned with various architectural elements; a huge domical arch having Qur'ānic inscriptions at the front, and a row of kiosks with cupolas at the top in white marble give dignity to the entrance. Slender turrets and perforated *jālis*² were also used in the adornment of the structure. (Plate.3)



Plate.3 Buland Darwāzāh of Jāmi'ā Masjid at Fatehpur Sikrī, India.

Source:

<https://www.culturalindia.net/monuments/buland-darwaza.html>, (accessed 1st October 2020).

This magnificent mosque of Fatehpur Sikrī also bears a beautiful tomb of a Sufi saint at one corner. This tomb is of a famous Sufi saint Shaikh Salīm Chishtī. This tomb was elegantly constructed in white marble between 1571 to 1580. Emperor Akbar had constructed this tomb to give respect and honor to Shaikh Salīm Chishtī, as he was blessed with the heir by the blessings of the saint. As an act of veneration and honor to the saint, Akbar named his son Salīm who became the fourth Mughal emperor and was famously known by his title Jahāngīr (the conqueror).³

Shaikh Salīm Chishtī was a successor of a famous Sufi saint of Ajmīr Sharīf known as Khawājah Mau'in-ud dīn

Chishtī. The tomb of Shaikh Salīm Chishtī is built on a platform and can be reached through some steps. This beautiful white-marbled tomb showcases the brilliance and excellence of craftsmanship of the Mughal era. Perfectly carved perforated *jālis* or marble screens with intricate patterns were the chief features of this tomb. The tomb consists of a domical structure having a broad *chajjā* which is supported by spectacular brackets that were also made of marble. Numerous people came here every year to seek the blessing of this spiritual tomb and fulfill their desire for children. People came here to pray here for their desire for a child and tie a thread on the *jāli* of the window.⁴ (Plate.4) The architectural structures during the Mughal reign were richly decorated and massively constructed, which also reflects the power and splendor of the emperor. They built structures of extraordinary excellence and refinement in the history of Islamic architecture.

Many evident examples of Mughal architecture are also found at the Red Fort at Delhi constructed in the mid-17th century in the reign of Shāhjahān. (Plate.5) This massive fort complex was built completely with red sandstone with a variety of buildings in it. Marvelous palaces with projecting balconies, indoor canals, and *ḥammāms*⁵, enchanting gardens designed in geometrical layouts, and mosques were the prime structures of this fort.⁶ *Diwān-i Khāṣ*⁷ a hall made of white marble and *Diwān-i 'Ām*⁸ a large hall for the public consisting of sixty pillars were also included in this grand fort and increased the grandeur of this complex.⁹



Plate.4 Tomb of Shaikh Salīm Chishtī in Jāmi'ā Masjid at Fatehpur Sikrī, India.

Source: https://www.makemytrip.com/travel-guide/fatehpur_sikri/tomb-of-sheikh-salim-chisti-monuments.html, (accessed 3rd October 2020).

⁴ Ibid., (accessed 3rd October, 2020).

⁵ *Ḥammām* means bath. This term is specifically used for Turkish luxurious baths.

⁶ "Red Fort", *Encyclopedia Britannica*, December 28, 2018, <https://www.britannica.com/topic/Red-Fort>, (accessed 3rd October, 2020).

⁷ *Diwān-i Khāṣ* is known as the Hall for private audience.

⁸ *Diwān-i 'Ām* is known as the Hall for public audience.

⁹ "Red Fort", *Encyclopedia Britannica*, December 28, 2018, <https://www.britannica.com/topic/Red-Fort>, (accessed 3rd October, 2020).

² *Jāli* means grill. Perforated *jālis* or marble grills were the chief feature of Islamic architecture, with intricate carving details and patterns.

³ "Tomb of Shaikh Salīm Chishtī in Fatehpur Sikrī", *Monuments in Fatehpur Sikrī*, https://www.makemytrip.com/travel-guide/fatehpur_sikri/tomb-of-sheikh-salim-chisti-monuments.html, (accessed 3rd October, 2020).

Scrolling vines and blossoms, gems, and various precious stones in greens, blues, and gold decorate Mughal structures. For the Mughal emperors, a tomb was a chance to pay tribute to the dead show the grandeur of the ruler, and communicate their radiance. The glorious tombs of imperial members of Mughals like the Tāj Maḥal, the tomb of I'timād al-Daulah, tombs of Humāyūn and Akbar were additionally amazing compositional trials in the history of tomb architecture of the Mughals.

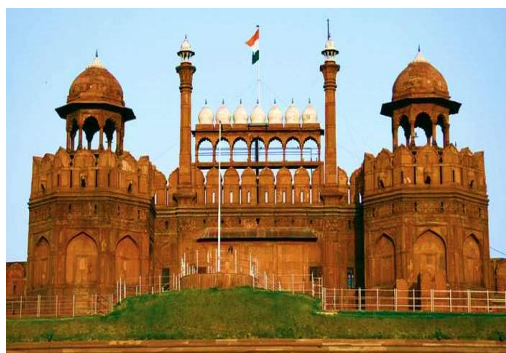


Plate.5 Red Fort at Delhi, India.

Source: <https://www.holidify.com/places/agra/fatehpur-sikri-photos-1015.html>, (accessed 3rd October 2020).

The tomb of Emperor Akbar is located in Sikandra and spreads over an area of 119 acres. It was completely built in red sandstone and white marble from 1605 to 1618.¹⁰ (Plate.6) Emperor Akbar ordered to building of his tomb during his life and this tomb is constructed incorporating symmetrical sections in structures that made it one of the best examples of a garden tomb. A beautiful four-fold garden setting was provided to the plan due to Akbar's love for gardens. The tomb is adorned with beautiful panels of marble inlays offering a range of floral, arabesque, and geometrical patterns. The gateway also possesses panels containing Qur'ānic inscriptions. The structure consists of a four-story building incorporating various architectural features such as sandstone pavilions, arcades, kiosks, minarets, and arches.

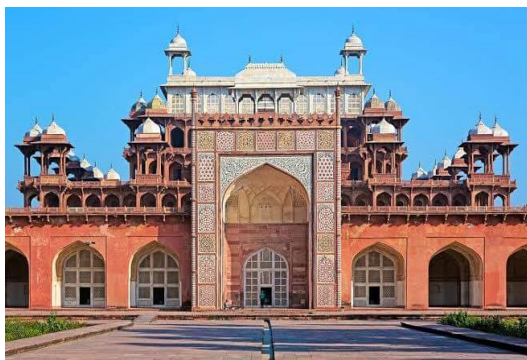


Plate.6 Tomb of Akbar, Sikandra.

Source: <https://www.visitnt.com/agra-tours/akbars-tomb.html>, (accessed 7th October 2020).

¹⁰ "Akbar's Tomb", <https://www.visitnt.com/agra-tours/akbars-tomb.html>, (accessed 7th October,2020).

Humāyūn's mausoleum is also considered one of the finest examples of a garden tomb of the Mughal era. (Plate.7) This tomb was built by the orders of Humāyūn's Persian queen Ḥamīdah Bānū Baigam from 1556 to 1569 after the demise of the emperor. It was commissioned and designed by a Persian architect Mirāk Mīrzā Ghīyāth and became an inspiration for numerous significant Mughal architectural monuments, also for the magnificent memorial tomb Tāj Maḥal. This marvelous tomb was constructed in an area of about 25 acres.¹¹ It consists of a domical structure with a fringe of pillared kiosks or *chātris* inspired by Indian architecture. It is completely constructed in red sandstone and white marble. The use of a bulbous dome and double dome is the chief feature of this mausoleum, inspired by Persia and introduced in India for the first time. This royal mausoleum is a square-shaped plan but it looks like an octagonal structure because of its chamfered edges.

This tomb is also enclosed within a garden in a *chahārbāgh*¹² layout which is inspired by the gardens of paradise described in the Holy Qur'ān. It is a type of garden divided into four equal sections through water channels or canals. The tomb structure is standing in between these four-fold gardens and consists of a *bārādārī*¹³. Humāyūn's mausoleum is also known as the "dormitory of Mughals" because it also contains the bodies of other fifty members of the imperial family, as they are also buried here¹⁴. (Plate.8)

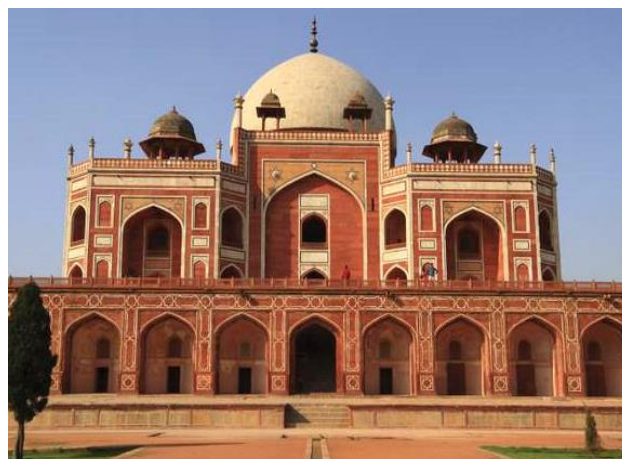


Plate.7 Humāyūn's Tomb at Delhi, India.

Source: <https://www.britannica.com/topic/Humayuns-Tomb>, (accessed 7th October 2020).

¹¹ Farhat Afzal, "Humāyūn's Tomb-A masterpiece of Mughal Era", https://www.academia.edu/38762456/Humayuns_Tomb_A_Masterpiece_of_the_Mughal_Era, (accessed 7th October, 2020).

¹² *Chahārbāgh*: four-fold garden (a garden which is divided into four sections and all sections are connected through water channels is known as *Chahārbāgh*).

¹³ *Bārādārī* means a pillared pavilion having twelve openings.

¹⁴ "Humāyūn's Tomb", *Encyclopedia Britannica*, <https://www.britannica.com/topic/Humayuns-Tomb>, April 26, 2018, (accessed 7th October, 2020).



Plate.8 Humāyūn's Tomb at Delhi, India.

Source:

https://www.academia.edu/38762456/Humayuns_Tomb_A_Masterpiece_of_the_Mughal_Era, (accessed 7th October 2020).

This mausoleum was constructed deliberately nearest to the *dargāh* of a renowned Sufi saint Nizām al-Dīn Auliā', as the Mughals had great reverence and devotion to the *Chishtiyā* Silsilā'.¹⁵ This massive structure covers other monuments as well. It also contains a *baoli*, a stepped well, and 'Arab Sarāī'. This Sarāī is also known as a guest house, it was built for the attendants and craftsmen working for the mausoleum. Humāyūn's Tomb is also known as Humāyūn's Tomb complex, as it contains various architectural structures related to the Sultanate and Mughal dynasties. One of the most marvelous structures in the Humāyūn's Tomb complex is the tomb and mosque of 'Isā Khān built in 1547-48 CE. (Plate.9) He was a respected person in Afghanistan from the Sur dynasty. He was also the courtier of Shīr Shāh Surī. Other architectural structures here include Bū Halīma's tomb and garden, Nīlā Gumbad, Barber's Tomb (Nāī kā Gumbad), Afsar wālā tomb and mosque.¹⁶ The concept behind the luxurious and overly ornamented mausoleums of the Mughal imperials was to pay tribute to the deceased and also show the splendor and royalty of the emperor.

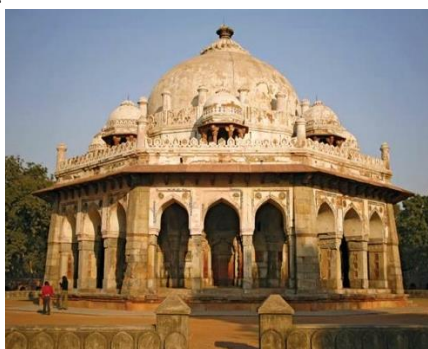


Plate.9 Mosque and tomb of 'Isā Khān at Humāyūn's Tomb complex in Delhi, India.

Source: Paul Prescott/Shutterstock.com

<https://www.britannica.com/topic/tomb>, (accessed 15th October 2020).

¹⁵ Nehal Rajvanshi, "Humāyūn's Tomb: In the Memory of an Emperor", May 20, 2020, <https://www.livehistoryindia.com/amazing-india/2020/05/20/humayuns-tomb>, (accessed 7th October, 2020).

¹⁶ Farhat Afzal, Humāyūn's Tomb-A masterpiece of Mughal Era, Acadmia.com, https://www.academia.edu/38762456/Humayuns_Tomb_a_Masterpiece_of_the_Mughal_Era, (accessed 7th October, 2020).

The period of Shāhjahān, who got the throne in 1628 is believed to be the most glorious period of the Mughal dynasty. Shāhjahān introduced a series of marvelous and resplendent architectural structures in Delhi. Amid his reign, the city was enclosed within walls. He constructed a magnificent palace for himself in the middle of the city, which houses his private palace and administrative structures.¹⁷

One of the most celebrated and outstanding architectural marvels of Shāhjahān is the Magnificent Tāj Maḥal. It is considered one of the most luxurious and glorious tombs in the history of the tomb architecture of the great Mughals. Tāj Maḥal is a memorial tomb commissioned by Shāhjahān in memory of his beloved consort Arjumand Bānū Baigam, famously known by the title of "Mumtāz Maḥal" given by the emperor. Various architects were commissioned to plan this memorial tomb but the chief architect was Ustād Aḥmad Lāhawrī, he was an Indian architect of Persian descent. This grand tomb complex was designed and planned according to the Mughal's taste and aesthetics.

The five principal features of this grand tomb complex are the main gate, garden, mosque, *jawāb* (literally means "answer" i.e.. the building that mirrors the mosque), and the mausoleum. The construction of the Tāj Maḥal started in 1632 in Agra and it was completed in almost twenty-two years. More than twenty thousand workers were commissioned and employed from India, Persia, and the Ottoman Empire and also from Europe to construct this massive tomb complex. The beautiful structure of this grand mausoleum is spread over the land of forty-two acres which is seventeen hectares. The building is built on a raised platform or plinth that is almost seven meters in height. Four large facades are planned in this structure; each facade has a wide central arch.¹⁸ (Plate.10)

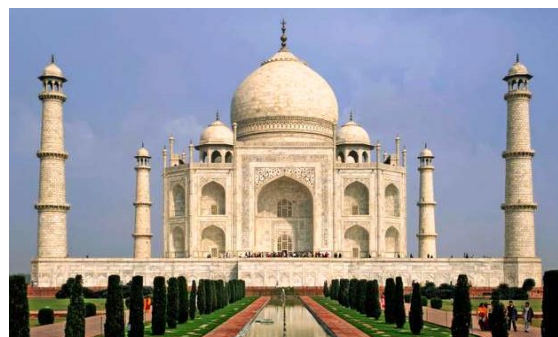


Plate.10 The memorial tomb of Tāj Maḥal in Agra, India.

Source: <https://www.britannica.com/topic/Taj-Mahal>, (accessed 28th October 2020).

¹⁷ Rai Farhatullah, "Mughal Architecture", *Acadmea.edu*, April 16, 2018, https://www.academia.edu/37824273/Mughal_Architecture, (accessed 12th May, 2019).

¹⁸ "Tāj Maḥal", *Encyclopedia Britannica*, March 13, 2020, <https://www.britannica.com/topic/Taj-Mahal>, (accessed 28th October, 2020).

The top of the mausoleum has a huge double shell bulbous dome in Persian style, which also took inspiration from the tomb of Humāyūn. This grand bulbous dome reaches a height of about two hundred and forty feet which is seventy-three meters. This magnificent mausoleum is entirely constructed in white marble that gives a milky white texture to the structure and shows various tones and hues when reflected with natural sunlight and moonlight.

Four elongated minarets of around ninety-eight feet in height were also constructed around the mausoleum to provide a perfect aesthetic of balance and symmetry to the structure. The interior of the tomb consists of an octagonal chamber also made up of pure white marble. Inside this octagonal chamber, the cenotaph of empress Mumtāz Maḥal along with the cenotaph of the emperor Shāhjahān are situated. Their real graves are lying under the tomb, at ground level¹⁹.

The interior of the mausoleum is adorned with low-relief carvings and ornamented with *pietra dura*²⁰ semiprecious stones inlay in marble including jade, amethyst, crystal, turquoise, lapis lazuli, etc. The adornment of the mausoleum also involves Qur'ānic verses in a beautiful calligraphic manner, inscribed on various parts of the structure. The calligraphy was done under the supervision of Ustād Amānat Khān al-Shirāzī.²¹ (Plate.11) The most significant feature of this magnificent mausoleum is its ornamentation which shows the perfection of the craftsmanship and sense of aesthetics of the ruler.

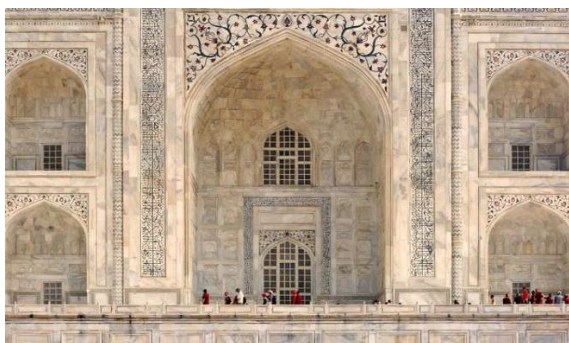


Plate.11 Marble portal of the Tāj Maḥal with calligraphic details.

Source: <https://www.britannica.com/topic/Taj-Mahal>, (accessed 28th October 2020).

The magnificent Tāj Maḥal is one of the most expensive and beautiful tombs in history. Its massive construction and extremely expensive ornamentations reflect the

¹⁹ "Tāj Maḥal", *Encyclopedia Britannica*, March 13, 2020, <https://www.britannica.com/topic/Taj-Mahal>, (accessed 28th October, 2020).

²⁰ *Pietra Dura* is an Italian technique, in which semiprecious natural stones and gems are inlaid in marble.

²¹ "Tāj Maḥal", *Encyclopedia Britannica*, March 13, 2020, <https://www.britannica.com/topic/Taj-Mahal>, (accessed 28th October, 2020).

grandeur and splendor of the Mughal dynasty. This monument of Islamic art and architecture is of great importance but unfortunately, now it is becoming a subject of negligence. Due to the negligence of the authorities and environmental changes, this mausoleum has lost its sparkle and faced a lot of damage. There are also some other tombs in Agra, which are lesser known and neglected now but they are of great historical importance as they also related to the imperial family.

There are three other tombs of Mughal queens, also situated near the southwestern and eastern corners of the Tāj Maḥal complex in Agra. (Plate.12) Among these three mausoleums, two of them are situated near the (*jalā'u khānāh*) forecourt of the complex. One of them is the tomb of Fatehpuri Maḥal Baigam. (Plate.13) She built the well-known Fatehpuri mosque at the very end of Chandni Chowk in Delhi in 1650. The second tomb is located opposite Fatehpuri Baigam tomb. This tomb is also of a Mughal queen Akbar Ābādi Baigam belongs to Akbar Ābād. She was also known by the title of A'izāz al-Nisā' Baigam given by her majesty Shāhjahān.²²



Plate.12 Ariel view of the Tāj Maḥal complex.

Source:

<https://vagabondimages.in/2020/04/05/lockdown-reads-walking-down-the-agras-necropolis-in-the-shadow-of-the-taj/>, (accessed 1st November 2020).

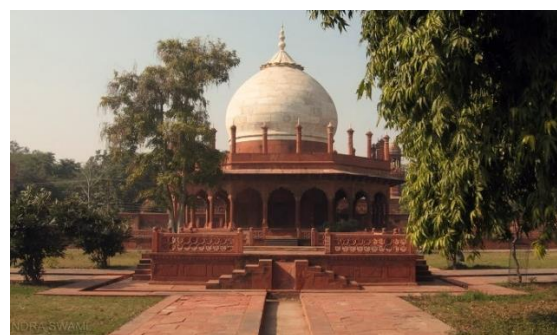


Plate.13 Mausoleum of Fatehpuri Baigam near Tāj Maḥal complex.

Source:

<https://vagabondimages.in/2020/04/05/lockdown-reads-walking-down-the-agras-necropolis-in-the-shadow-of-the-taj/>, (accessed 1st November 2020).

²² Walking down the Agra's necropolis, in the shadow of the Tāj, *Vagabond Images*, April 5, 2020, <https://vagabondimages.in/2020/04/05/lockdown-reads-walking-down-the-agras-necropolis-in-the-shadow-of-the-taj/>, (accessed 1st November, 2020).

Both mausoleums are similar in structure, size, shape, and design. They are situated outside and attached to the walls of the Tāj Maḥal complex. They are completely designed and constructed with all the common features of Mughal tomb architecture. The main buildings of both mausoleums are constructed on a plinth, in the octagonal-shaped chamber and the top consists of a huge bulbous dome inspired by Persian architectural style. Both mausoleums when constructed were also surrounded by the famous *chahārbāgh* garden settings of the Mughals. Those gardens are now completely dried and destroyed due to the lack of care and attention from the current authorities. Red sandstone and white marble was used for the construction of these mausoleums. The graves of the empresses are situated inside the octagonal chambers and they are entirely constructed in white marble. The main domes at the top of both mausoleums are also covered in white marble as it indicates the link of the deceased from the royal family.

The third tomb situated near the Tāj Maḥal complex is also of a queen of Shāhjahān. This tomb is of Sati al-Nisā' Baigam and it is located very close to the tomb of Fatehpurī Baigam.²³ (Plate.14) This mausoleum is a little different as compared to other tombs of queens mentioned above. It is entirely constructed in red sandstone; there is no use of white marble in this tomb. The dome is also constructed simply in red sandstone. The platform too is not too much raised as compared to other mausoleums. The mausoleum also lacks the traditional Mughal *chahārbāgh* garden settings and water canals.

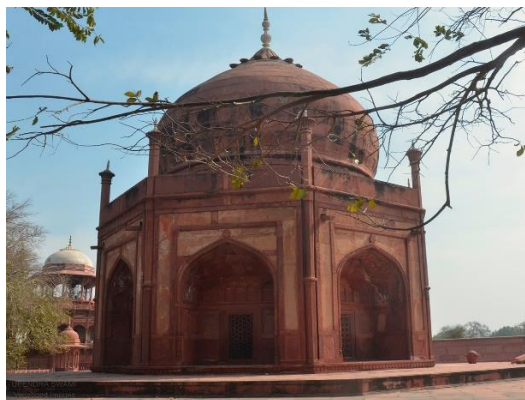


Plate.14 Tomb of Sati al-Nisā' Baigam near Tāj Maḥal Complex.

Source:

<https://vagabondimages.in/2020/04/05/lockdown-reads-walking-down-the-agras-necropolis-in-the-shadow-of-the-taj/>, (accessed 1st November 2020).

²³ Arjun Kumar, "A walk around the Tāj reveals Shāh Jahān's affection for his queens", *The Economic Times*, March 4, 2010, <https://economictimes.indiatimes.com/magazines/travel/a-walk-around-the-taj-reveals-shahjahans-affection-for-his-queens/articleshow/5639068.cms?from=mdr>, (accessed 1st November, 2020).

Agra is blessed with numerous Mughal monuments and tombs. With their perfect architectural features, highly expensive ornamentations, and construction materials, Mughal monuments are still admired and appreciated. There is another tomb in Agra related to an important personality the tomb of Mirza Ghiyāth al-Dīn famously known as I'timād al-Daulah. Mirza Ghiyāth al-Dīn or Ghiyāth Baig was a noble person who came from Persia. Soon he became important in the royal court and became a chief treasurer of Akbar's empire. He was the father of Mahar al-Nisā' Baigam who later became the wife of Akbar's son Jahāngīr. Soon she became a powerful member of Jahāngīr's court and because of her intimate beauty and impressive skills she got the title of Nūr Jahān or Nūr Maḥal means "the light of the palace".²⁴

Ghiyāth Baig became stronger in the Royal court when Jahāngīr became an emperor after the death of his father Akbar. He became the chief minister (*Wazīr*) of Emperor Jahāngīr and got the title of I'timād al-Daulah. He died in 1622 and then his daughter started to build a mausoleum entirely in white marble in the memory of her beloved father. I'timād al-Daulah's tomb is an extremely ornate edifice with intense carvings and designs more than the Tāj Maḥal. (Plate.15) A poise and calm location was selected for the construction of this mausoleum near the bank of the river Yamuna. The delicate and finest tomb of I'timād al-Daulah is standing in the middle of a classical *chahārbāgh* garden on the bank of river Yamuna; here some other tombs of an imperial family member were also situated as Prince Parvaiz, Afzal Khān, etc. The structure of this grand mausoleum looks like a fully ornate jewel box placed in the lush green garden. The mausoleum was built around 1625 and became a perfect example of Islamic architecture with numerous architectural features and designs. The tomb of I'timād al-Daulah also known as the "Baby Tāj Maḥal" it became an inspiration for the Tāj Maḥal complex.²⁵

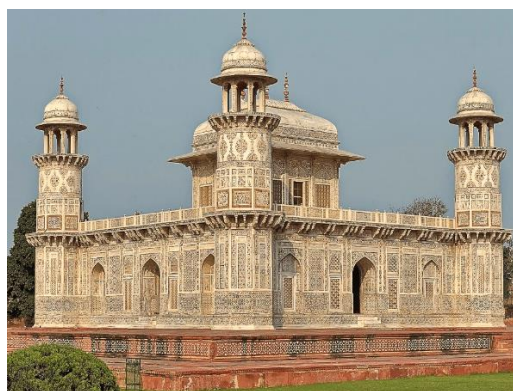


Plate.15 The tomb of I'timād al-Daulah at Agra, India.

Source: <https://blog.msc-sahc.org/meet-the-baby-taj-mahal-in-agra-the-itmad-ud-daulahs-tomb/>, (accessed 3rd November 2020).

²⁴ "Meet the Baby Tāj Maḥal in Agra-The I'timād ud Daulah's tomb", *SACH Histructural*, March 20, 2019, <https://blog.msc-sahc.org/meet-the-baby-taj-mahal-in-agra-the-itmad-ud-daulahs-tomb/>, (accessed 3rd November, 2020).

²⁵ Ibid., (accessed 3rd November, 2020).

The tomb is justly famous for being the first tomb in India entirely constructed in Marble. It is extremely adorned with *pietra dura* inlay work with the use of various precious natural stones and gems. The structure was constructed on a plinth built in red sandstone. The top of the building consists of a flat kiosk or flat-top pavilion inspired by Persian architectural style, instead of the bulbous double dome created in other Mughal tombs. This pavilion is surrounded by four minarets having a small dome or *chātris* at the top. The use of intricate perforated *jālis* in geometric and arabesque patterns is one of the significant features of this tomb. Various designs including the flora and fauna, depicting the cypresses, wine glasses, and abstract geometric and arabesque patterns were used for the adornment of the structure inside as well as the outside. The mausoleum consists of nine chambers. The cenotaph of I'timād al-Daulah and his consort Aṣmat Baigam are constructed in the central chamber and both cenotaphs are constructed entirely in marble²⁶. (Plate.16)



Plate.16 Interior of the tomb of I'timād al-Daulah at Agra, India.

Source: <https://blog.msc-sahc.org/meet-the-baby-taj-mahal-in-agra-the-itmad-ud-daulahs-tomb/>, (accessed 3rd November 2020).

Superstructure flat top pavilion, four large minarets attached around all four corners of the tomb, *Chajjās* on the top of the minarets, use of the arch, use of blind arch or blind niches on each wall of the tomb with intricately carved marble screens or perforated *jālis* are some striking architectural features of this marvelous mausoleum.

A huge diversity of buildings was constructed during the reign of the Mughals. Mughal sovereigns became the reason for the most glorious and spectacular constructions in the Indian subcontinent. The massive structures with various varieties, built in that period were; gates, forts, gardens, mausoleums, mosques, palaces, public buildings, and tombs, etc.

Mughal emperors were extremely inspired by the Persian architectural styles. The architecture produced

under their supervision has become a brilliant combination of both the Hindu and Muslim styles. It reflects the beauty, fineness, and craftsmanship of Persian architectural features. Mughal Architecture is famously known as the Indo-Islamic architecture. Many architectural elements were borrowed or inspired by Persian and Hindu architecture. These elements were used in Mughal architecture in a little modified way.

The excess use of tile work in the construction, the establishment of *i'wān*²⁷ as a basic feature of forts and mosques, four-fold gardens or *chahārbāgh* (garden that is divided into four sections through water channels or canals) a garden setting usually provided to the mausoleums of the imperial family member and the use of domes and *muqarnas* were the chief features which are highly inspired by the Persian architecture. The use of corbel arches and highly decorated carved piers and columns with hand-painted natural designs and patterns are some common characteristics of Persian architecture that were utilized by the Mughals. Some other architectural elements like cupolas, *chātris*, *chajjās*, and *jharokās*²⁸ were also inspired by Hindu architecture²⁹.

The most important feature of the Mughal architectural structure were their huge pointed domes, double dome or bulbous dome, minaret or *minār*³⁰, slender turrets, palace halls or *i'wān*, *muqarnas*, cupolas, carved piers, columns, pilasters, *bārādari*, grilled fence, various types of arches, intricately carved marble screens or *jālis*, domed pavilions, plinth or parapet and their marvelous massive gateways. Slender turrets were also used at the corners of the building.

Initially, red sandstone was used widely in the construction of buildings during the Mughal era. After some time, white marble inlays and white marble surfaces were also used in their architecture. It enhanced the beauty of the structures. The excessive use of red sandstone with white marble inlays in patterns shows the perfect symmetry of Mughal architecture. Rather than the hemispherical domes, Mughal architects introduced slightly pointed domes.

Initially, shallow domes were used during the Sultanate period. Later on, domes became a dominant element of Islamic architecture. Double shell dome or double dome was introduced in the early Mughal period. This dome is bulbous in shape and became a prominent element of Mughal structures. Their domes were the key element of their architecture usually covered completely in white marble.³¹

²⁷ *I'wān* means huge halls. Two type of *i'wān* were constructed in the royal palaces one is for public and the other one is for the chief guests of the emperor.

²⁸ *Jharokā* means projecting balconies.

²⁹ Rai Farhatullah, "Mughal Architecture", *Academia.edu*, April 16, 2018, https://www.academia.edu/37824273/Mughal_Architecture, (accessed 12th May, 2019).

³⁰ *Minār* is a pillar usually constructed at the top of the building.

³¹ Ahmed Sanusi Hassan, "Typology study of domes in Islamic Architecture of North India", *University Sains Malaysia*, 2019,

²⁶ "I'timād ud Daulah", *Agra Development Authority*, <http://www.adaagra.in/Itmadula.html>, (accessed 3rd November, 2020).

Squinches were used during the Sultanate period for the transformation of the square to a circular domical formation of the structure. Whereas *Muqarnas* were used by Mughal architects. *Muqarna* is a type of ornamented corbel widely used in Islamic architecture; especially it is used to decorate mosques. In some circumstances or architecture, *muqarnas* have a resemblance with stalactites.³²

Domes and arches were constructed by using baked bricks. In some structures, these bricks were covered with plaster to give a smooth surface or texture. The facades of the buildings were constructed with fine-cut stone masonry and rough rubble stone was usually used for the construction of walls. They adorned their buildings with semiprecious natural stones and gems. Carved and inlaid stonework including shallow relief of flora and fauna patterns with intricate detailing is also a chief characteristic of Mughal architecture. One of the most amazing features of Mughal architecture is its gardens. The layout of the gardens was truly inspired by the Persian classical gardens style according to the concept of paradise gardens described in the Qur'ān. These *chahārbāgh* gardens were designed in vast areas. They are divided into four equal sections through water canals, which also grant space for tombs and palaces. Gardens were usually designed for the leisure, pleasure, and relaxation of imperial family members.

One of the significant distinctive highlights of the Mughal structures is their ornamentation as contrasted to the basic structures of the past Muslim leaders of India. Mughal emperors were very fond of lavish ornamentations and decorations of the buildings. Buildings constructed in this period were extremely decorated with costly ornamenting material, like marble inlays, *pietra-dura* work, and use of precious natural stones including jade, amethyst, lapis lazuli, crystal, turquoise and mirror work, etc. Among all the Mughal rulers of the Indian subcontinent, Shāhjahān adorned and brightened his architectural structures with highly expensive ornamentations.³³

In every work of Islamic art and architecture, surface decoration is the most significant factor. Curved and frequently interweaved lines, of which the arabesque is the most common form of Islamic design, wooden ceilings, calligraphy, mosaics, frescos, stucco tracery, and mirror work, etc. all techniques were used in the ornamentation of these structures. The utilization of splendid hues portrays practically the entirety of the best creations. In Islamic art, the representation of living

beings, especially of human beings is prohibited. Extremely stylistic forms of floral designs and geometric patterns are created for the adornment of the structures. While the disallowance against delineating living structures isn't contained in the Qur'ān, it is generally felt that the non-authentic character of Islamic trimming has its source in the conventional religious forbiddance against emulating God's works.

Conclusion

These magnificent Mughal monuments like the Tāj Maḥal, tomb of I'timād al-Daulah, Quṭab Minār, Buland Darwāzāh, Quwwat al-Islam mosque, Tughlaqābād Fort, Fatehpur Sikrī, Panch Maḥal, Ālāh Ābād Fort, Lāl Qal'āh, Jodhā Bāī's palace and many more, have glorified the architecture of Indian subcontinent. Not only in India, there are numerous marvels of Mughal architecture situated in Pakistan as well, like the Lahore Fort, Bādshāhi Mosque, Masjid Wazīr Khān, Shāhi Hammām, Tomb of Jahāngīr, Tomb of Nūr Jahān, Tomb of Dā'i Angā and many other tombs of Sufi saints. Mughal-built heritage is without question a perfect source of inspiration for various edifying architectures. Through massive constructions, lavish adornments and utilization of expensive materials Mughal emperors built their distinct legacy in the history of architecture.

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³² Rai Farhatullah, "Mughal Architecture-Salient Features", *Academia.edu*, April 16, 2018, https://www.academia.edu/37824273/Mughal_Architecture, (accessed 12th May, 2019).

³³ *Ibid.*, (accessed 12th May, 2019).