Taj Mahal Architecture & Mughal Empire in India

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Abstract
The Taj Mahal stands as an architectural marvel and a timeless symbol of love, commissioned by Emperor Shah Jahan in memory of his wife, Mumtaz Mahal. This paper explores the historical and cultural significance of the Taj Mahal within the broader context of Mughal architecture and imperial rule. It examines the evolution of Mughal architectural styles, highlighting the influence of Persian, Central Asian, and Indian elements in the design of the Taj Mahal. Key structural and artistic components, such as the Charbagh garden, Hasht Bihisht layout, and intricate material hierarchy, are analyzed to demonstrate their symbolic and functional roles. Additionally, the paper discusses the socio-political impact of the Mughal Empire, its artistic legacy, and the challenges posed by modern environmental threats to this iconic monument. By delving into the historical context and architectural innovations of the Taj Mahal, this study aims to underscore its enduring significance as both a cultural heritage site and a masterpiece of Mughal artistry.
Keywords: Historical Monument of India; Islamic Art and Architecture; Mughal Architecture

Abstrak
Taj Mahal berdiri sebagai keajaiban arsitektur dan simbol cinta abadi, yang ditugaskan oleh Kaisar Shah Jahan untuk mengenang istrinya, Mumtaz Mahal. Artikel ini mengeksplorasi signifikansi historis dan budaya Taj Mahal dalam konteks yang luas antara, arsitektur Mughal dan kekuasaan imperiumnya. Artikel ini meneliti evolusi gaya arsitektur Mughal, menyoroti pengaruh elemen Persia, Asia Tengah, dan India dalam desain Taj Mahal. Komponen struktural dan artistik utama, seperti taman Charbagh, tata letak Hasht Bihisht, dan hierarki material yang rumit, dianalisis untuk menunjukkan peran simbolis dan fungsionalnya. Selain itu, artikel ini membahas dampak sosial-politik Kekaisaran Mughal, warisan artistiknya, dan tantangan yang ditimbulkan oleh ancaman lingkungan modern terhadap monumen ikonik ini. Dengan menyelidiki konteks historis dan inovasi arsitektur Taj Mahal, studi ini bertujuan untuk menggarisbawahi signifikansinya yang abadi sebagai situs warisan budaya dan mahakarya seni Mughal.
Kata Kunci: Arsitektur Mughal; Bangunan Bersejarah India; Seni dan Arsitektur Islam;

INTRODUCTION

The Taj Mahal stands as one of the most renowned architectural masterpieces in the world, celebrated for its breathtaking beauty and profound historical significance. Commissioned by Emperor Shah Jahan in 1631 in memory of his beloved wife, Mumtaz Mahal, the Taj Mahal epitomizes the artistic and cultural achievements of the Mughal Empire. This magnificent mausoleum, constructed using white marble and adorned with intricate inlays of semi-precious stones, reflects a harmonious blend of Persian, Indian, and Islamic architectural traditions.

Beyond its aesthetic grandeur, the Taj Mahal serves as a testament to the Mughal dynasty's sophisticated urban planning, engineering expertise, and artistic patronage. The structure follows the Hasht Bihisht (eight-paradise) architectural concept and is set within a meticulously designed Charbagh garden, symbolizing the Islamic vision of paradise. As a significant cultural and historical monument, it continues to captivate scholars, architects, and visitors from around the world.

This paper aims to explore the architectural brilliance of the Taj Mahal within the broader context of Mughal architecture and imperial rule. It will examine the influences that shaped its design, analyze the key elements of its construction, and discuss its enduring

legacy. Furthermore, the study will address the modern challenges faced by this UNESCO World Heritage site, including environmental threats and preservation efforts. Through this exploration, the paper seeks to highlight the Taj Mahal's role not only as an architectural wonder but also as an enduring symbol of love, power, and artistic excellence.

The Mughals in India became a great dynasty after 12th century onwards. Reaching a peak of his majesty in the early 18th century after successfully conquered from Kabul to Aurangabad north-east of Bombay (Mumbai). As well from the Arabian Sea to the Gulf of Bengal. Moreover, There were three Muslim great empires at the same time in the early modern period such safavid in Iran and the Ottoman in the Near and Middle East and the Balkans.

Interestingly, the Mughals were the most significant politically, the most influential culturally, and the last in a sequences of Muslim dynasties. For this extraordinary achievement of Mughals in many aspects, the British stated themselves as successor to the Mughals, to validate their colonial rule in India, even more that since 1877 Queen Victoria was addressed '*kaisar-I Hind'* empress of India.

The Mughal emperors had been victorious controlling the land of Indian subcontinent in a long term over in the hands of its rulers who had very high credibility, among them are:

Zahiruddin Muhammad Babur

He was the founder and the first emperor of the Mughal dynasty in the Indian subcontinent. On the other side Babur was a direct descendant of emperor Timurlane. He was born in Andijan (Fergana valley) in modern Uzbekistan. His father Umar Sheikh Mirza was a governor of Fergana. For Babur's dexterity and agility to govern the throne, his father designated him as his continuer of Fergana in its capital Akhsikent in 1494 at the age of twenty.

In operating the wheel of his government, Babur has many tricks to enlarge the scope of his power. Unfortunately, in 1501 his efforts to recapture both of reigns (Fergana & Samarkand) went in vain as he was defeated by Muhammad Syaibani Khan.

In 1504, he occupied Kabul, which was under the reign of Ulugh Beg II's successor. Furthermore, he decided to build an intimate relation with Safavid ruler Ismail I and subsequently re conquered parts of Turkistan. In 1508 Babur asserted supreme rulership over the Timurids, Chaghatai Turks, and Mongols by adopting the title *padishah* (padshah, in India badshah). This normally translated as 'emperor' became the official designation of the Mughal rulers.

After being disappointed failure in dominating Samarkand back, Babur shifted his attention to India, while it was under Ibrahim lodi (Afghan Lody dynasty). Successfully, Babur defeated Ibrahim Lodi at the first time battle Panipat in 1526 and established Mughal empire. He faced opposition from Rana Sanga, who at first promised to support Babur defeat Ibrahim Lodi. The Rana provided an army Rajput and Afghans to force Babur out of India. Nevertheless, the Rana was defeated in Battle of Khanwa after which he was poisoned to death by his own allies.

Babur married for several times and had been blessed with notable sons like Humayun, Kamran Mirza, and Hindal Mirza. After going through a long journey in maintaining power, Babur died in 1530 in Agra and was succeeded by Humayun. He was first buried in Agra but as per his wishes his body transferred to Kabul and re buried.

Still, this biography does not explain Babur's remarkable career as an adventurer and sovereign, and how he came to write his memoirs, the *Baburnama*, an autobiography that would be reputable at any time, but is particularly remarkable for a central Asian prince of the 16th century.

Humayun

Humayun had a complete name as Nasiruddin Humayun the second ruler of the Mughal empire, Humayun was ousted by his local rival, the Afghan Sher Shah Sur, and had take refuge in Iran with Shah Tahmasp for some twelve years before he could reconquer Hindu-stan from Kabul in 1555. This stopover intensified the Mughal connection with Persian culture and further inspired the eccentric Humayun to enrich the Mughal myth of kingship, which he had begun to develop in India, with borrowings from ancient Indian concepts.

The historian Badauni tells us that when Humayun was in Bengal he adopted the practice of casting a veil over his crown: he would then remove it, and people were to exclaim "light has shone forth"[1]. A side from strange court settings, Humayun also designed highly original buildings: a wooden boat palace consisting of four floating four-arched pavilions, joined to form a central pool between them[2]. Humayun's stay in Iran also had a decisive impact on Mughal painting. By the time he left, his host Shah Tahmasp had lost his early interest in painting. For that, Humayun could bring to India some of the incredible masters who had worked on the shah's great illustrated manuscript, the shahnama-I shahi, completed in the late 1530[3]

A few months after he had conquered Delhi in 1556, he fell down the stairs of his mighty library, very drunk, as well as addicted to opium and died. His son Akbar (the great) was born in 1542 and thus settled his replaced his father throne not even fourteen years old, without any of the skills a ruler requires. However, his spirit and intelligence enabled the Mughal empire to quickly become the strongest kingdom in the entire history of India [4]

Akbar

Akbar was not only a warrior and ambitious ruler, but also a philosopher and a mystic[5]. Despite of his military and charismatic figure, Akbar also had immense love to art and truly hold special attention to music, poetry, and painting as well as architecture. He conducted the exploration with his father from Kabul to India. There was a given lessons in painting, which latter gave rise in useful contribution to the establishment of the Mughal school of painting. The peak of Akbar's political power extends between the years 1569 to

[1] Badauni 1898/1973 vol.1 p.573
[2] Khwandamir 1940, pp.37-40
[3] Houghton shahnama
[4] Cary-welch et al.compare him with the Indian king Asoka,1987,15
[5] Smith 1917,348,349

1572. In this time, the construction of the capital *Fateh pur Sikri* (the city of victory) also occurred. The glory of the Akbar era is inseparable from support of highly capable noble, in particular his friend the liberal thinker and historian Abu Fazl 'Allami. In terms of architecture, Akbar was a great builder. He covered India with fortresses and residences and also erected tombs and mosques. Akbari architecture synthesized central Asian and regional Indian building traditions into a new universal Mughal empire style, expressed in red-sandstone and highlighted with white marble on a scale not imitated until the reign of his grandson, Shah Jahan[6]

Jahangir

Prince Salim Jahangir was born on 31 August 1569 in Fatehpur Sikri from a married couple Akbar and his wife Mariam uz Zamani, daughter of raja Bharmal of Amber[7]. Prince Salim succeeded to the throne on Thursday, 3 November 1605, eight days after his father's death[8]. Jahangir kept on politically more or less on the line of Akbar. He widened the contacts with Europe: aside from the Jesuits, from 1615 to 1619 he had resident at his court Sir Thomas Roe, sent by James I to negotiate trade privileges for the English [9]. Jahangir's notable achievements were in literature, the arts and science. In architecture the rein of Jahangir was a period of refinement and new experiments, with emphasis on decoration in varying techniques. The tom appeared as the most prominent building feature, starting with Jahangir's own highly original project for his father's mausoleum at Sikandra, Agra[10].

SHAH JAHAN AND HIS REMARKABLE INVENTION OF TAJ MAHAL

Prince Shahjahan was born in the night between Wednesday-Thursday 1st Rabi al-tsani 1000/16th January 1592 in the capital of Lahore. Shahjahan was a great-grandson of Zahiruddin Muhammad Babur (1483-1530), who founded the Mughal Empire in India after defeating Sultan Ibrahim Lodi at the battle of Panipat in 1526. The Emperor Akbar (1542-1605) named him sultan Khurram. Under Shahjahan's regime, the Mughal empuire experienced its term of greatest prosperity and stability. In the after of 18th century the historian Khafi Khan looked back on it as a golden age[11]. Shahjahan's beloved spouse was Arjumand Banu Begum (Mumtaz Mahal), which subsequently his dedicated love was manifested in a visual magnificent architecture to commemorate his wife's demise. On the night of Friday 9th Rabi-awwal 1021/10th May 1612, Shahjahan's marriage ceremony was held with Arjumand Banu Begum (lady Mumtaz Zamani), and the celebrations continued for a whole month.

Under Shahjahan's patronage poetry in Persian came into its own in the *sabq-I Hindi*, 'the Indian style', flourished by Iranian poets who flocked to the Mughal court in search of more generous and supportive patronage than that of the Safavids[12]. However, in his foreign politics ShahJahan was not so successful as within his realm. His ambition to

[6] Koch 2002a, pp43-69

[7] jahangir (1909–1914). *The Tūzuk-i-Jahangīrī Or Memoirs Of Jahāngīr*. Translated by Alexander Rogers; Henry Beveridge. London: Royal Asiatic Society. p. 1

[8] The Internationalization of Portuguese Historiography". *brown.edu*. Archived from the original on 14 May 2017. Retrieved 23 October 2017

[99] Roe 1926/1990

[10] Koch 2002a,pp.70-92

[1111] Khafi khan 1869-1925, pt I, pp. 739-40,757-58

[12] Losensky 1998, pp.3-7, 40-42, 198-202

extend Mughal power north to Balkh and Badakhshan ended in 1646 in failure, and his later reign was surrounded by the first signs of decline. When the emperor fell ill in 1657, his son Aurangzeb Bahadur waged a savage war for the succession. *Dara Shikoh* became the fierce libel alleged by Shah Jahan in the public sphere. As a result, Shahjahan was imprisoned in the Agra fort until his death in 1666.

Taj Mahal construction project of the tomb:

Emperor Shahjahan expressed his love to his beloved wife Mumtaz Mahal after her demise on Wednesday 17th June 1631 by erecting the spacious mausoleum (rauza). The various components utilized to create the tombs are examined. The components are included:

1. The use of Charbagh (the garden that reflects heaven)
2. The complex use of the Nine-fold Hasht Bihist plan
3. Hierarchy of materials used

So, in this regard, the writer try to deeply elaborate the components above to be discussed in this paper.

THE USE OF CHARBAGH (THE GARDEN THAT REFLECTS HEAVEN)

Charbagh was simply translated from Urdu means, four (Char) gardens (bagh). This feature of design in architecture was first used to balance symmetry and the use of simple forms of geometry to produce Persian gardens. The main principle of the charbagh is to classify a square garden into four symmetrical parts by use of two transverse pathways in the middle. These individual parts are subsequently divided further into smaller symmetrical squares to plant flowers. Waterways is also fused generally on the same axis as the pathways leading to the graveyard and on the around of gardens. Furthermore, waterways normally located for these gardens near river sources to generate a water irrigation system. These waterways served two purposes:

- ✓ To keep the gardens hydrated
- ✓ To reduce the temperatures of the hot air climate found in India by means of water fountains at various intervals

Briefly, Indeed the combination of balanced two great construction (Charbagh and Tomb "Taj") reflected a visual imagination for death connected to life in paradise and earth linked to the heaven[13]

The complex use of the Nine-fold Hasht Bihist plan

The overall plan of the Taj Mahal is a square with chamfered corners, which creates an irregular octagon similar to the plan of Humayun. The central two-storey hall contains the cenotaphs of Mumtaz and ShahJahan . The clarity of the nine-part plan (hasht bihisht) and the direct passage to each of chambers is similar to that of Itmad ud Daulah. The basic layout is divide to nine parts by four intersecting construction lines. The phrase *hasht bihisht*, meaning "eight paradises", that has been interpreted as a reference to the eight rooms surrounding the space. [14]

HIERARCHY OF MATERIALS USED

Material in construction is important for serving both color and texture to a composition. The primary construction materials used in Mughal mausoleums are red sandstone and white marble and sometimes decorated with glazed tile. The aim of the

[13] Secret creation of Taj Mahal, author Danny Aijian, Selena Anders, P 9 (International Journal of Architectural Research Voluem 4March 2010)

[14] Ibid P 11

decoration as well as colors used is to convey a message, or to enhance an effect. White marble was chosen as a core material to the tombs exclusively because around 1577-1579 white marble structures were limited seriously to the tombs enshrining important saint. The Taj Mahal is dressy as a whole in white marble ornament and impressed with semi-precious stones

The use of inlaid stones is again simplified on the façade of the Taj Mahal and found in greater profusion on the interior. The use of red-sandstone and white marble inlay is made use of in the flanking mosque and pavilion as well as the gateways. At the Taj very little difference in tonal value on the appearance of the Taj conveys a sense of spirituality and harmony. However, the value contrast of the red-sandstone and green gardens to the white of the buildings creates a dramatic due in part to the contrast between light and dark. Using only a few rich tactile materials, which are enhanced by natural light they created a strong mystical ambience.

CONCLUSION

Taj Mahal create a charming nuance to who visited its magnificent architecture. The combination of the components are making a sense of harmony and peacefulness that it can be visualized the strong building, attractive color patterns and systematic concept of structure. Moreover, these are the magnificent wonderful concept also described the performer who dedicate all the efforts to manifest it as a prove of the love and affection. However, the air pollution and waste from industrial firms can be the cause of serious damage for the grandeur of its architectural mausoleum by degrees. The Mughals emperor copied this conceptual framework from Persian design that inherited memorable art and architecture.

Shahjahan devoted all of his abilities to erect memorable monuments as a form of love for his wife Arjumand Banu Begam. As a connoisseur of art, he also has a close kinship with architects and craftsmen as well as calligraphers who subsequently work together in arranging the visual form of the splendor of the Taj Mahal tombs. The wonder of Taj Mahal is an incomparable symbol of love dedicated by the great emperor Jahangir to his inseparable wife and granted as one of the Seven Wonders of the World recorded by UNESCO since 1983.

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