Mughal Aesthetics: arabesque and geometric splendour of two 17th century tombs

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Abstract - The Mughal era in India is an important part of the history of India. The period between 1526 A.D to 1857 A.D is well remembered and many works of art and architecture along with miniature paintings, found across the world, bear testimony to the artistic splendour of the times. The Mughals have made a major contribution to India's visual art practices and left behind a plethora of patterns and traditions. This article briefly elucidates the details of two 17th century tombs from the Mughal era, I'timad-ud-daulah's tomb and Emperor Akbar's tomb at Sikandra, both at Agra in North India. The focus in on the Islamic arabesque and geometric patterns in the designs and the stunning effect it creates for the onlooker who visits the tombs. An attempt has been made to understand some of the motifs and patterns on the monuments while understanding the arabesque and geometric patterns of Islamic art.The evolution of Mughal architectural decoration along with its related concepts are elucidated *vis-a-vis* the two tombs at Agra.

Index terms:- Mughal art, Mughal tombs, Akbar's tomb, I'timad-ud-daulah's tomb, arabesque, geometric patterns, Islamic art.

Introduction: *Mughal art in India*

The Mughals, whose first emperor Zahiruddin Babur (r. 1526-1530) was a descendant of Timur from Central Asia. The Mughals who ruled India upto its formal dissolution in 1857, have left behind a rich legacy of art and architecture. Spread across the important Mughal cities of Delhi, Lahore, Agra and Fatehpur-Sikri are the architectural marvels. However their paintings are now available across India and the world, in museums, libraries and private collections. Mughal art had its own idiom with artists being part of the Mughal atelier, who were brought from Persia and mingled with the local talent thus creating a syncretic art - Indo-Islamic. The Mughal emperors were patrons of art and great architecture though differing in taste and preferences. Testimony to this are the mausoleums, forts, palaces and the decorations on them. Also the gardens or *baghs* that were laid out in Kashmir Valley. The motifs used were floral and geometric patterns were combined with calligraphy. Fauna was also an important element in Mughal compositions in painting after Jahangir visited the Kashmir valley with Ustad Mansur (flourished 1590-1624) who created awesome reproductions of animals. The tombs or mausoleums being discussed here are the ones of Emperor Akbar and Mughal Vizier I'timad-ud-daulah, Mirza Ghiyas Beg, both from the 17th century, situated at Agra near Delhi, having amazing embellishment with arabesques and geometric patterns.

The Islamic arabesque: *meaning and motif*

The arabesque has a special meaning. Both technically and theologically. The Cambridge dictionary defines it as ''a type of design based on flowers, leaves, and branches twisted together, found especially in Islamic art''. The arabesque is basically a form of decoration. It is based on a rhytmic pattern of scrolling and interlacing foliage, tendrils or plain lines[1]. Jessica Rawson defines it as 'a foliate ornament used in the Islamic world typically using leaves derived from stylised half palmettes which were combined with spiralling stems'[2]. The 'arabesque' is a French term derived from Italian word *arabesco* meaning Arabic style. The design can be 'tiled' or repeated seamlessly to create an endless pattern in the

eyes of the viewer. The arabesques made in the West are based on either ancient Roman ornament or derived from Islamic art. The patterns are used to mostly decorate architecture and seem to disapper under a framing edge without an ending. The plant scroll motifs were mostly prevalent in the places taken over by Isalmic conquests. Later on after the Mongol invasions the Chinese decorative element also became part of it[2]. The earliest forms have no sense of realism, one cannot make out the vegetal species being represented; leaf forms emerged sideways from the stem and were called half palmetttes. From around the 16th century, the species could be identified as in Ottoman art[3].

Figure 1: Ferhat-Pasha mosque arabesque, Banja Luka, Bosnia.

The arabesque is both art and science. The design is not only pleasing to the eye but also symbolic. A similarity exists in arabesque designs from different region indicating that there is a common denominator in the mathematics used to construct the arabesque. Arabesque art depictions, mostly combined with geometry and calligraphy have 3 types, the first is about the principles that govern the order of the world. The second type is based on the flowing nature of vegetal froms, representing the feminine life giving force[6]. The third type is the mode of Islamic calligraphy. It is also called the *art of the spoken word*. Many proverbs and passages from the Holy Quran can be seen in arabesque art. It is seen widely on important Islamic buildings. The coming together of these three forms create the arabesque in its entirety. The art is not just mathematically precise but beautiful and symbolic as noted by scholars of Islamic art worldwide.The medieval period was when a distinct Islamic art idiom emerged featuring the arabesque. As mentioned the Mongol invasion of the 13th century in Western Asia saw many Chinese motifs incorporated in Islamic art. By the 16th century Islamic style vegetal patterns developed in Europe. In 16th and 17th century the Ottoman-Turkish, Safavid-Persian and Mughal-Indian empires executed complex patterns with naturalistic flower designs on their art and architecture. Dominique Clevenot, an expert on Islamic architeture conjectures that the vegetal form reflects the Islamic view of nature nourished by the descriptions of 'Garden of Felicity'.

The geometric pattern: *symmetry and harmony*

Islamic art is diverse and made up of stunning patterns mostly, due to the absence of figures, which could make it an object of worship, which is prevented in Islam. However the core of the art is symmetry and harmony. There is an effort to convey the structure of everything through pattern. Geometry is an important element, it is thought of as a sacred geometry with an inner and outer meaning. Geometric forms have a built in symbolism.The principles include the basics of what makes objects structurally sound yet pleasing to the eye. 21st century Islamic artist from Saudi Arabia, Dana Awartani says about the art ''The idea of symmetry, harmony and structure is always at its core. When you look at the art of illumination, at first you may think that the artist has taken transfigure. ''Geometric patterns convey a certain aura of spirituality or at least other-worldliness, without relating to any specific doctrine'' - David Wade, 2006.

The geometric element 'square' has equal sides and represents the important elements of nature, earth, air, fire and water. The physical world is symbolised by a circle that inscribes the square and would collapse upon itself without any of the four elements. Many Islamic designs are based on squares and circles, interlaced to form complex patterns. A common motif is the 8 pointed star made of 2 squares, one rotated 45 degrees with respect to the other. Another basic shape is the polygon, mostly pentagon and octagon[5]. Islamic artwork is found in *jaali* work or trellis, tilings, woodwork, *kilim*s or rugs, leather book bindings, metalwork, *shakaba* stained glass, *muqarnas* or vaults near domed ceilings and ceramics.

Islamic artist Richard Henry notes – ''Throughout the ages mystics & theologians have used geometry as a contemplative focus, as it enables the viewer a vision of the underyling order of both the cosmos and the natural world . The cyclical movement of heavenly bodies, which Plato described as the 'music of the spheres', finds its Earthly reflection in the natural complete creative freedom and created a random series of flower motifs. But if you actually examine the layout they are based on, you see proportional spirals that are repeated throughout the design. Nothing is ever random, no pattern is ever composed without obeying the laws of harmony. This is one of the main principles of Islamic art as a whole. The reason for this is the philosophy of trying to embody and convey the harmony and structure of everything on this earth through pattern''[4].

It is mentionable here that Islamic art was assimilated in the regions wherever nations came in touch with Islam. The aim of Islamic art was not to just decorate but transform or

symmetries found throughout nature and most strikingly within the world of flowers, the proportions of which are governed by simple geometric laws. The origin of the word 'cosmos' is adornment (from which we derive the modern word 'cosmetics') and the adornment of sacred buildings with both floral and geometric patterns makes the viewer sensitive to the subtle harmonies uniting the natural world around us with the cosmos''.

Dominique Clevenot says of Islamic geometry as being depictive of the development of mathematics. He goes on to say that the Quranic *sura* titled 'The Bees' specifies that the geometric perfection of the honeycombs is a tribute to the Divine Intelligence from where they originate, as per al-Ghazali, an authority on Islam. He also adds ''..... Geometry belongs to a superior truth, beyond the reach of earthly concerns. The omnipresence of starred polygons in ornamentation tempts the spectator to imagine that they were intended to evoke the heavens or astral bodies''[9]

It is relevant to mention here that the art of calligraphy attained a major ornamental role from the 10th and 11th centuries in Islamic architecture. It is called *khatt* in Arabic. The works apperared during this time in *kufic* script,

an angled type, in various forms like foliated *kufic* where the letters themselves adopt vegetal forms and the vacant spaces are filled with arabesques. Mostly passages from the Holy Quran are used depending on the space they occupy like; inside a mausoleum, on a cenotaph, over a *mihrab,* curve of an arch or around a minaret. Sometimes the date of construction, the meaning of the edifice, the person who commissioned it or poetic texts can be found on Islamic monuments[9].

Two 17th century Mughal tombs: An *Emperor and* a *Prime-minister's mausoleums*

Tomb of Emperor Akbar

Emperor Akbar (r. 1556-1605) was the third Mughal emperor. He is remembered for his powerful administration, *Din-e-ilahi,* a syncretic faith he envisaged and his patronage of arts and learning. His tomb at Sikandra, near Agra was started to be built befor his death. It has used the art of mosaic very beautifully. The tomb has one gate at the southend of the 837 square yards of the *charbagh* (square garden which reflects Paradise). Emperor Akbar who started to build the tomb which was completed in 1613 under his son emperor Jahangir. The tomb has stone-mosaic designs for both exterior and interiror decoration, as seen at Jahangiri Mahal at the Agra Fort and Jami Masjid, Fatehpur-Sikri. The corners of the tomb has four white minarets in marble, the gate has an inscritption calligraphed by Abdul Haq, who later went on to work on the Taj. The tomb is built on a plinth of about1,109 sq. feet with octagonal *chattris* at the corners and pavillions over the four portals. The gate of the tomb has a unique floral arabesque[8]. The 'pishtaq'(a formal gateway to emphasise a structure's presence) has been decorated with inlay designs at the plinth which adds a special mystique to the structure.

Emperor Akbar, miniature painting, 17th century, MFA, Boston, U S A

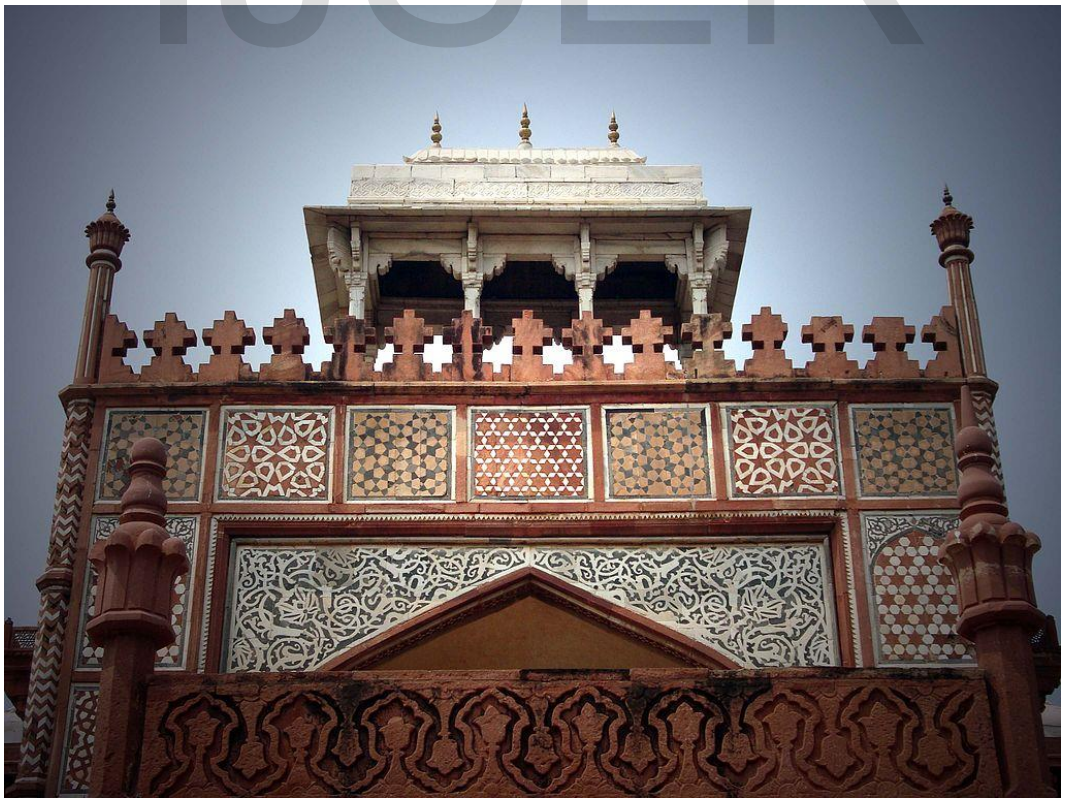
The word *mosaic* is derived from the Greek ''Mosaikun'' meaning *polish.* Mosaic has been undrstood as an arrangement of pieces of different coloured stones or other materials in a certain order to from a particular design, mosaics can be glass-mosaics, marble-mosaic or ceramic-mosaic. The art has existed since ancient times, the ancient Greeks used it for ornamentation, and it was a part of Roman decorative art of ceilings, walls and pavements. This art was patronised by Emperor Constanine of Byzantium which was founded as a Greek colony in 660 B.C. Byzantium was renamed Constantinople, now Istanbul as we know it. The art spread to Western Europe, Asia Minor, Syria, Iraq, parts of Persia and North Africa. Early Islamic art was inspired by Byzantine art. Mosaic art in India is seen at the Alai Darwaza constructed in Delhi by Alauddin Khilji during the Sultanate era. Later Mughal artists used locally manufactured glazed tiles though it is conjectured that glass mosaic material might have been brought from Aleppo. The tomb of Emperor built between 1605 and 1612, has the mosaic technique on the Southern gateway and central archway on each side of the main building. Different coloured stones have been used; white marble and red sandstone for a dazzling effect. The spandrels of the false arches are also very ornate. There are oblong inlays of Abri stones in the carved marble, geometrical design has ben made along the whole height of the archway in a beautiful way. The tessalated style has been used in the whole exterior of the southern gateway and northen

facades, in geometrical designs in red, yellow, white, black and green stones, including the *swastika* pattern. The spandrels of the arches have mosaic work in alternate panels. Also the spandrels have dainty arabesque patterns in black, white marble and red stone. Marble inlay work is called *parchin-kari* in Persian and the term was in use in India as well[7]. It is mentionable here that there is a 'Kanch Mahal' built by Emperor Jahangir in the premises, east of the main entrance, which was a guest house for royal women, also used as a hunting lodge. This beautiful structure also has arabesques and stucco sculptures, *jharokhas* reminding one of Rajasthan's havelis; an admix of Indo-Islamic art and architecture. The building had glazed tiles and glass pieces in colours of blue, green and orange on its exterior, hence the name Kanch Mahal.

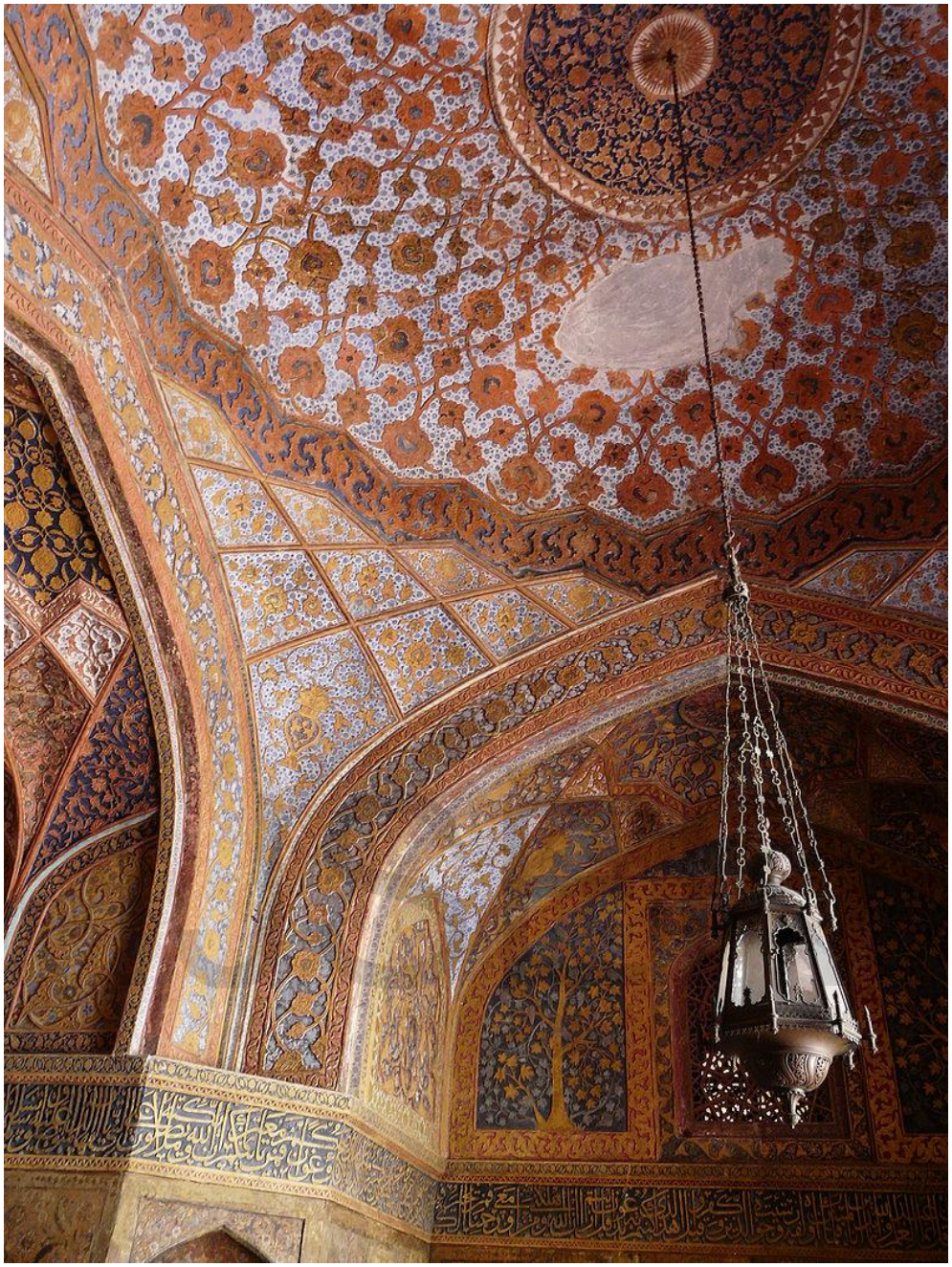
Coming back to the tomb of Emperor Akbar; the second-storey hall has three surviving marble dados at the Western gateway. Each white marble dado is outlined with black marble linings against a backdrop of red sandstone. The white marble slab has an ornate inlaid floral border. Black marble and *abri* stones of a brownish-yellow colour have been used for inlaying the 8-pointed star is the key of the design, first been inlaid with 8 pointed *abri* pieces, the interior point of each having a hole which might have had a precious or semi-precious stone. Within it another 8 pointed star of white marble is inlaid further with another 8 pointed star of this marble. Inside this black piece it appears that some other circular stone of brilliant red might have been used. The tomb has glazed tiles on the third-storey cupolas; which are tessalated tiles in geometrical patterns having straight and curved lines with a floral border. The star pattern dominates[7]. The ''muqarna'' is another decorative element used at the tomb. *Muqarna*s, an important element in Islamic architecture was introduced around the 10th century in Egypt and Persia, are sometimes called ''honeycomb vaulting'. It is used for a sense of flow and depicts the transition from a wall to a domed ceiling or half-domed entrances. It is conjectured that the *muqarna*s symbolise a transition zone between two worlds and the cells reminds us of the complexity of creation and the Creator[9]. Arabesques in different colours and compositions have been used on the *muqarnas* at the tomb for a spectacular visual effect.

The illustrations here depict some of the arabesques and geometric patterns at the tomb. Islamic art across the world follows similar principles and one can understand the universality of the art by studying these medieval tombs in Agra. In these magnificent tombs one can see harmony, beauty and symmetry. Overall there is a sense of something other-wordly and of a higher plane. The underlying unity of all creation is aesthetically conveyed.It is mentionable here that the arches and archways are also symbolic of vastness and expansiveness of the sky, a walking through, into something new. Both these Mughal tombs have used the arch both structurally and in embellishment as part of the overall design.

Tomb of Emperor Akbar, 17th century, Agra.

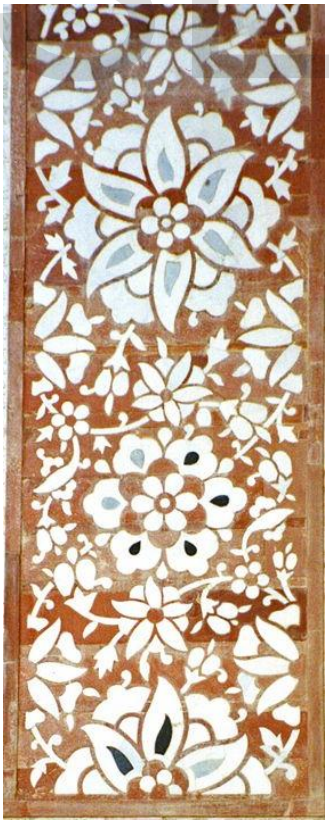


Detail, tomb of Emperor Akbar, 17th century, Agra.

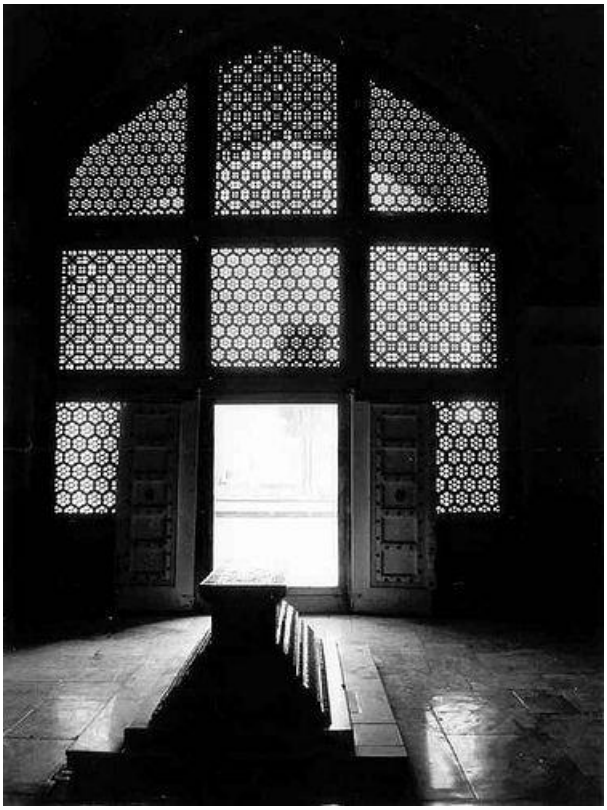


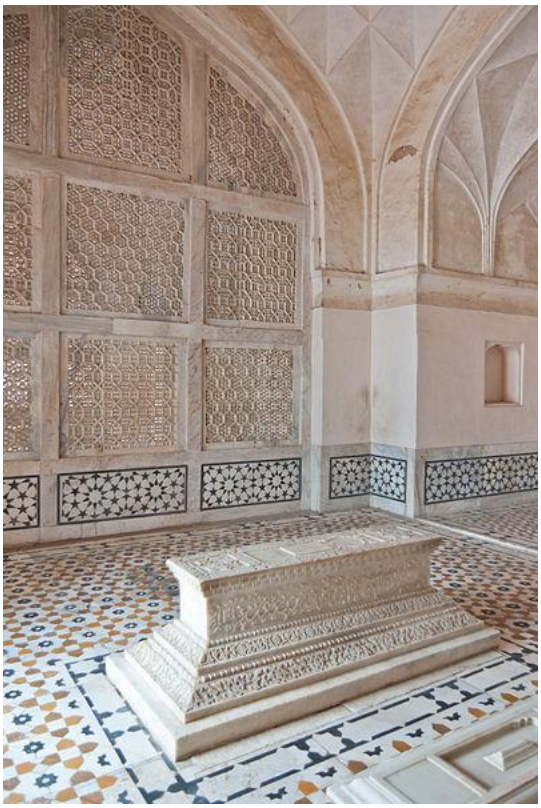
"Muqarna", calligraphy at tomb of Akbar, 17th century, Sikandra, Agra.

"Muqarna", tomb of Akbar, 17th century, Sikandra, Agra.



Inlay panels on South Gate, tomb of Akbar, 17th century, Agra.





Jaali work, near tombs at Akbar complex, 17th century, Agra.

Facade at tomb of Akbar, 17th century, Sikandra, Agra.

Tomb of Itimad-ud-daulah

Mirza Ghiyas Beg , a Persian offcial earned the title *I'timad-ud-daulah* or 'Pillar of the empire' for his services to the Mughal empire. He was appointed as *diwan* for the province of Kabul. He was also Grand Vizier under Emperor Jahangir (1611 -1622 A.D), and his daughter was Empress Nurjahan (consort of Emperor Jahangir). His mausoleum commissioned by Empress Nurjahan at Agra has superb decorations and is a landmark in Mughal architecture. The tomb which is entered from the west through a gate stands in a *charbagh* with the Jamuna river on the east. The *chattris* at the corners of the plinth are raised on octagonal bases[8].The tomb structure has ornate mosaic designs and inlay work which fascinates everyone who visits the monument.

Architecture of Emperor Jahangir's period was one of transition, reflection and experimentation, notes Ebba Koch, authority on Mughal architecture. The edifices had highly decorated exteriors and interiors. The walls had deep panels with aframework of bands. The docoration used various materials in intersting ways; sandstone carving, white marble,stone interasia, painted stucco and tile work. The *chinikhana* motif was well used where decoration is in small pseudo or real niches. It is mentionable here that the rooms on the gound floor of this exquisite tomb of I'timad-ud-daulah at is arranged according to the nine-fold plan or *hasth-bihisht*[10] which literally means 'eight heavens' in Persian. As per the Encyclopedia Iranica 2012, it is a Timurid-Persianate type of floor plan consisting of a central hall surrounded by eight rooms.

This pristine tomb is made of white marble with decorations on the mausoleum in stone mosaic. The tessallated type (repeated use of asingle shape, without gaps or overlapping) is done on some exterior panels. This tomb heralded a new phase in Mughal architecture by the use of white marble instead of red sandstone. Sliced semi precious stones were laid in socket like spaces in the marble. The eastern gateway is of red sandstone and has bold inlay work with white marble pieces. Geometrical designs and wine vases are depicted. The chevron patterns on the pilasters and floral arabesques on the spandrels are like the ones at the tomb of Akbar. Sides of the red sandstone plinth of the main building has inlaid work in a star pattern like Fatehpur Sikri. The entire exterior of the main building has inlay work in geometric, floral and are intertwined with vases, dishes, cypress tres etc. which very Persian in appearance. Pavements and dados in the interior of the tomb also depict inlaid designs with star patterns. A decorative floral scroll in inlaid on the pavement of the upper storey hall . There is ornate inlay on the pavement slabs on which the porphyry cenotaphs rest. Agate, jasper, *khattu* has been used for inlay. Black marble and yellow porphyry also used including *firoza, lajward, suleimani* etc; similar use is seen on the four attached towers. Inlay is seen similar as at Emperor Akbar's tomb, identical designs are in the marble slabs as at the Western gateway, where inlaid borders are identical in design[7]. The tomb which has curved arabesques on the spandrels also has niches decorated with different types of vessels and flower vases showing strong Persian influence. Probably depicting containers of wine and honey for the true believers in ''Paradise''[8]. Also reminds one of the Mughals in court as seen in their miniature paintings.

I'timad-ud-Daulah, painting, 18th century.

Tomb of I'timād-ud-Daulah, 17th century, Agra.

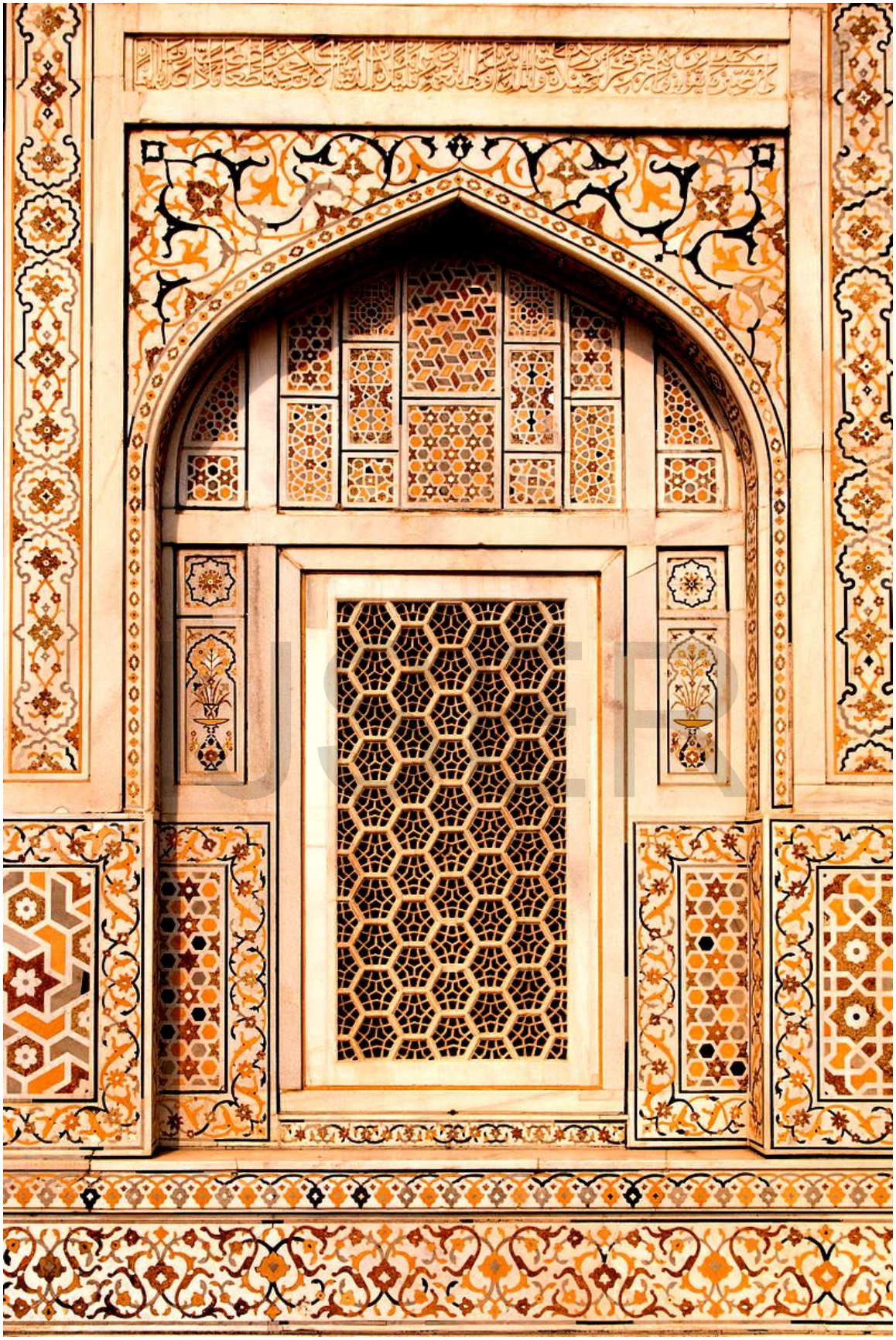
***Muqarna, ceiling detail,** Tomb of I'timād-ud-Daulah, 17th century, Agra.*

Detail, tomb of I'timād-ud-Daulah, 8-point star pattern with 5 point in each corner, 17th century, Agra.

Detail, tomb of I'timād-ud-Daulah, a quarter of each 8-point star is shown in each corner; half stars along the sides, 17th century, Agra.

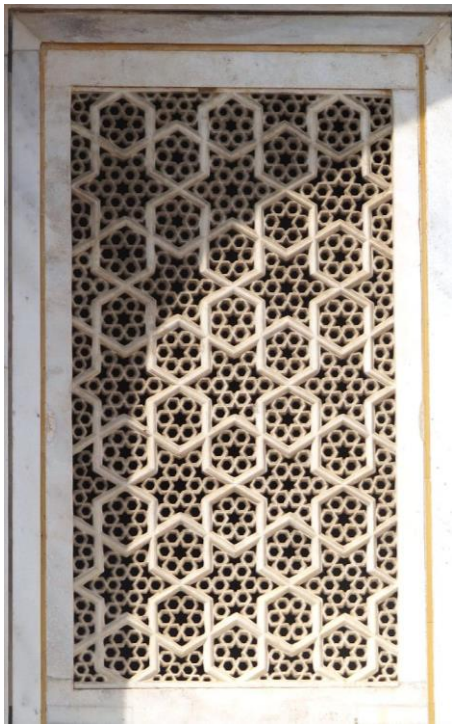
Ornate flower vases and vessels, set in a cusped arch pattern, tomb of I'timād-ud-Daulah,17th century, Agra.

Detail, tomb of I'timād-ud-Daulah, a quarter of each 6-point star is shown in each corner; half stars along the sides, 17th century, Agra.



Part of facade with floral arabesques, geometric patterns and calligraphy, tomb of I'timād-ud-Daulah, 17th century, Agra.

Facade, tomb of I'timād-ud-Daulah, 17th century, Agra.



Jaali design with 6 point stars, tomb of I'timād-ud-Daulah, 17th century, Agra.

Gate with arabesques on spandrels, Tomb of I'timād-ud-Daulah, 17th century, Agra.

Arabesques on exteriors, brackets, towers, tomb of I'timād-ud-Daulah, 17th century, Agra.

References and image attributions

1. Fleming, John; Honour, Hugh (1977). *Dictionary of the Decorative Arts*. New York : Viking Books.

2. Rawson, Jessica(1984), *Chinese Ornament: The Lotus and the Dragon*, London : British Museum Publications.

3. https://en.wikipedia.org/wiki/Arabesque(accessed 20th July 2019)

4. http://www.alartemag.be/en/en-art/the-crucial-role-of-geometry-in-islamic-art/mallika Bouiassa -27th July 2013 (accessed 22nd July 2019)

5. Department of Islamic Art- *"Geometric Patterns in Islamic Art."* In Heilbrunn Timeline of Art History. New York: The Metropolitan Museum of Art, 2000–. http://www.metmuseum.org/toah/hd/geom/hd_geom.htm (October 2001) (accessed 22nd July 2019)

6. *The spiritual search of art over Islamic architecture with non-figurative representations*/ Ar. Sayed Ahmed, Journal of Islamic Architecture Volume 3 Issue 1 June 2014.

7. Nath, R(1989) *Colour decoration in Mughal architecture –India and Pakistan*, Jaipur : The Historical research Documentation Programme, 2nd rev ed.

8. Hoag, John.D(1977), *Islamic architecture*, New York : Harry N.Abrams Inc.

9. Tabbaa, Yasser (1985). The Muqarnas Dome: Its Origin and Meaning. In Muqarnas III: An Annual on Islamic Art and Architecture, edited by Oleg Grabar. Leiden: E.J. Brill.

10. Koch, Ebba(1991) *Mughal architecture*: *an outline of its history and development*, Munich : Prestel Verlag.

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