

## The Taj: An Architectural Marvel or an Epitome of Love?

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**Abstract:** On Saturday 7<sup>th</sup> July 2007, the New Seven Wonders Foundation, Switzerland, in its new ranking, again declared the Taj Mahal to be one of the Seven Wonders of the World. The Taj Mahal is not just an architectural feat and an icon of luminous splendour, but an epitome of enormous love as well. The Mughal Emperor Shahjahan (1592-1666) built the Taj Mahal, the fabulous mausoleum (*rauza*), in memory of his beloved queen Mumtaz Mahal (1593-1631). There is perhaps no better and grander monument built in the history of human civilization dedicated to love. The contemporary Mughal sources refer to this marvel as *rauza-i-munavvara* ('the illumined tomb'); the Taj Mahal of Agra was originally called *Taj Bibi-ka-Rauza*. It is believed that the name 'Taj Mahal' has been derived from the name of Mumtaz Mahal ('Crown Palace'). The pristine purity of the white marble, the exquisite ornamentation, use of precious gemstones and its picturesque location all make Taj Mahal a marvel of art. Standing majestically at the southern bank on the River Yamuna, it is synonymous with love and beauty. This paper highlights the architectural design and beauty of the Taj, and Shahjahan's dedicated love for his beloved wife that led to its construction.

**Key words:**

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### INTRODUCTION

It is universally acknowledged that the Taj Mahal is an architectural marvel; no one disputes its position as one of the Seven Wonders of the World, and it is certainly the most fêted example of the considerable feats of Mughal architecture. Emperor Shahjahan built this wonderful white marble (*sang-i marmar*) tomb in memory of his beloved queen, Arjumand Banu Begum, an inseparable companion. The white marble was transported by road from the quarries of Makrana, Rajasthan, more than 400 kilometres away from Agra. Shahjahan's reign is synonymous with the age of marble and the climax of the Mughal architectural style (Kumar 2001: 60). The uniqueness of the Taj is fundamentally based on its appropriate use of marble and other precious stone. Shahjahan had the vision and organised all efforts to build the most impeccable and unique memorial with the help of the brilliant architect Ustad Ahmad Lahori and other master craftsmen of his time. The unexcelled architect of the Taj Mahal was one of the greatest architects (*mi'mar*) of the seventeenth century who designed the Taj with its graceful feminine appearance. The mausoleum features identical shapes that are well balanced, including bulbous or guava-shaped (*Amrudi shakl*) domes, arches and four minarets (Begley & Desai 1989: 65, 175-76).

However, even hard marble does not last forever, and can be worn out. Atmospheric pollution is causing physical and aesthetic damage to the Taj Mahal. Various atmospheric pollutants affect upon the built-up structures of the Taj, and more recently, the fumes from the nearby industries are getting deposited on the stone surface, which started fading the marble (Kumar 2001: 96; Ashurt 2012: 156-57; The guardian 2 December 2010). The Mathura Oil refinery, 40 kilometres away from Agra, released chemicals like sulphur that cause acid rain, eroding marble throughout the Taj complex. Combined with oxygen and moisture, sulphur dioxide settles on the surface of the tomb and oxidizes the marble, forming a fungus that experts call 'marble cancer'. This is combined with high levels of suspended particulate matter, dust and exhaust, yellowing the Taj Mahal (Barbara 2007: 37; Eric 2006: 219; The guardian 2 December 2010). Thus, the environmental pollutants are causing irreparable destruction.

Nevertheless, the Government of India has responded appropriately to protect the Taj Mahal from environmental pollution. By the order of the Supreme Court of India, many factories and other harmful plants were forced to close, and CNG-powered vehicles were encouraged to reduce the air pollution. Moreover, one million *Tulsi* plants were planted near the Taj Mahal to clean the atmosphere, due to their ability to discharge high amounts of oxygen. However, the application of *Multani Mitti*, also known as Fuller's Earth, has spoiled the mausoleum, instead of protecting its beauty, and its patches have disfigured the monument. In response to the damages caused, Mathura Refinery planted 167,000 trees in the adjacent areas and 115,000 trees in Agra region adjoining Taj Mahal. However, the various efforts undertaken to protect the monument from the disaster since the early 1990s have proved inadequate (Hindustan Times, 17January 2008 & 27January 2009; The Hindu, 5 January 2011).

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### **Shahjahan's Early Life:**

The Emperor Shahjahan's noble lineage is linked in the ninth generation to Amir Taimur Gurgan (1336-1405). Shahjahan was the great-grandson of Zahiruddin Muhammad Babur (1483-1530), who founded the Mughal Empire in India after defeating and killing Sultan Ibrahim Lodi (r. 1517-1526) at the battle of Panipat in 1526. Jagat Gusain, the mother of the Emperor Shahjahan, was the daughter of Raja Uday Singh, known as Mota Raja son of Raja Maldev, who was distinguished among the dignified rulers of India (Kambo 2004:17).

Prince Shahjahan was born in the night between Wednesday-Thursday 1<sup>st</sup> Rabi al-Thani 1000/16<sup>th</sup> January 1592 in the capital of Lahore. The Emperor Akbar (1542-1605) gave him the name Sultan Khurram. Following the practice of devising chronograms from auspicious dates by one of the poets obtained the year of birth from the following verses:

(*Lami'a aftar-i-alamgir* = 1000)

'A flash from the world-pervading Sun'

According to the Arabic numerals, it works out thus:

Lam 30+ mim 40+ ain 70+ alif 1+ hamza 1+ alif 1+ hamza 1+ fe 80 + te 400 + alif 1+ be 2 + hamza 1 + ain 70+ alif 1+haza 1+ lam 30+ mim 40+ gaf 20 + ye 10 + re 200= 1000

Another poet composed this chronogram:

*Shah-i-rui-i-zamin wa shah-i-jahan* = 1000 (Jahangir 2006: 19; Kambo 2004: 17)

'The king of the face of the earth and the king of the World'

According to the Arabic numerals, it works out thus:

Shin 300 + alif 1 + he 5 + re 200 + waw 6 + ye 10 + ze 7 + mim 40 + ye 10 + nun 50 + waw 6 + shin 300 + alif 1 + he 5 + jim 3 + he 5 + alif 1 + nun 50= 1000

From his early days Khurram was the most beloved grandson of Emperor Akbar, who supervised his early education and career. The signs of brilliance and intelligence were visible in his personality from childhood, foretelling the future greatness of his life. According to Mughal practice, the Qur'an was placed in the lap of the prince at the age of four years, four months and four days. He showed great interest in the arts of learning of different languages and disciplines, and acquired mastery over Persian language and literature. Besides other areas of studies, he learnt the art of military training and the use of weaponry, which was an essential requirement of princely training. Within a short time he gained acumen as a professional soldier, and gained mastery over the theory and practice of military science. Even during his training he proved himself to be one of the finest commanders of his time (Kambo 2004: 26; Bakshi & Sharma 1999: 2).

Soon Prince Khurram became a favourite of his father, Emperor Jahangir (r.1605-1627), and was assigned various administrative duties. He received many royal favours and demonstrated his gallantry in feats during various wars. In 1607 he was awarded the *mansab* (rank) of 8,000 *zat* (foot soldiers) and 5,000 *sawar* (horses) with royal banner and drums along with a *jagir* (land grant) at Hisar Firoza, which was usually bestowed on the crown prince (Bakshi & Sharma 1999: 2, 29). On 5<sup>th</sup> Muharram 1021/8<sup>th</sup> March 1612, Emperor Jahangir promoted the rank of the prince to 10,000 *zat* and 5,000 *sawar* and assigned the command of Deccan to the prince, who showed his acumen and successfully completed the task of conquering the province. Upon this great victory the Emperor bestowed upon him on 11<sup>th</sup> Shawwal 1026/12<sup>th</sup> October 1617, the title of 'Shahjahan' (king of the world) with an exceptional rank of 30,000 *zat* and 20,000 *sawar*. This unique rank of a Mughal prince was never awarded to any other member of the imperial family (Bakshi & Sharma 1999: 2, 50-51).

Shahjahan's brilliant career was marked with great success in a series of hazardous and significant expeditions which brought peace in the empire. Due to his resounding victories over the imperial enemies, he became beloved of Emperor Jahangir. However, many become jealous of the prince, and created a wide chasm between father and son. The Emperor's consort Nurjahan intrigued against Shahjahan to eliminate him from power, and was to promote the control of her own son in-law, Shahryar (Shahjahan's half-brother) over the imperial throne. The queen's hatred of Shahjahan compelled him into an open rebellion against the Emperor Jahangir for five years. During these wilderness years, he wandered in a miserable situation through the imperial territories. Eventually, on 21<sup>st</sup> Safar 1037/31<sup>st</sup> October 1627 Mahabat Khan submitted to Shahjahan and asked forgiveness, heralding a new period of good fortune for the latter (Kambo 2004: 82).

### **Shahjahan's Marriage to Arjumand Banu Begam:**

Arjumand Banu Begam ('Begam' means 'Honourable Lady') was the daughter Abul Hasan, known as Asaf Khan. The family of Mirza Ghiyas Beg, son of Khwaja Muhammad Sharif Razi, the grandfather of Arjumand Banu, a man of noble lineage, travelled in abnormal circumstances to India with his family under the benevolent care of Malik Masud, a merchant prince, in 1577 (Kambo 2004: 29; Chowdhuri 1937: 373). However, he got employment under the benign patronage of Emperor Akbar. Due to his meritorious services, diligent nature, and literary taste he was raised to high status under Emperor Jahangir and came to be known as I'timad al-Daula. His daughter Mihrun-Nisan (Nurjahan), a noted beauty, became the consort of Emperor Jahangir, and his son Asaf Khan was held in high esteem after the death of his father (Kambo 2004: 29; Chowdhuri 1937: 373). The

mother of Mumtaz Mahal was a daughter of Mirza Ghiyas al-Din Ali Qazwini, also known as Asaf Khan, and held the position of *Mir Bakhshi* (Lord Chancellor) under Emperor Akbar (Kambo 2004: 30).

Arjumand Banu Begam was born on 19<sup>th</sup> Rajab 1001/21<sup>st</sup> April 1593, and grew under the care of her parents and grandparents. At the age of fourteen years, four months and twenty-three days she was betrothed to prince Khurram on 7<sup>th</sup> Zil Hijjah 1015/5<sup>th</sup> April 1607. The ceremony was performed with great pride, and the Emperor himself put the ring on the finger of Arjumand Banu Begam (Lahori 1872: 386,388; Kambo 2004: 29-30, 161; Qazwini Or 173: fol. 43a, quoted in Begley & Desai 1989: 1; Chowdhuri 1937: 374).

On the night of Friday 9<sup>th</sup> Rabi al-Awwal 1021/10<sup>th</sup> May 1612, Shahjahan's marriage (*nikah*) ceremony was held with Arjumand Banu Begum (Lady Mumtaz al-Zamani), and the celebrations continued for a whole month. The age of Shahjahan was twenty lunar years, eleven months and nine days; Mumtaz al-Zamani's age was nineteen years, seven months and twenty-five days. On this auspicious occasion Emperor Jahangir himself took keen interest in every event to make the celebrations as grand as possible. The Emperor tied the marriage tiara (*sihra*) of dazzling pearls to the bridegroom with his own hand, and the celebration lasted for about a month (Khan 1868: 67-8; (Lahori 1872: 389; Qazwini Or 173: fol. 48b; Kambo 2004: 33; Begley & Desai 1989: 4; Chowdhuri 1937: 374).

Emperor Jahangir, in his memoir *Tuzuk-i-Jahangiri*, endorsed Prince Khurram's marriage:

As I had sought the daughter of I'tiqad Khan [Asaf Khan], son of I'timadu-d-daulah, in marriage for Khurram, and the marriage festival had been arranged for, I went on Thursday 18 Khurdad, [6<sup>th</sup> Rabi al-Thani 1021/6<sup>th</sup> June 1612] to his house and stayed there one day and one night. He (Khurram) presented offerings (to me) and he gave jewels to the Begams, and to his mothers (including stepmothers) and to the female servants of the *harem*, and dresses of honour to the *Amirs* (Jahangir 2006: 224-25).

Muhammad Amina Qazwini in his *Badshah-Nama* records Shahjahan's glorious marriage with Arjumand Banu Begam, and giving her the title 'Mumtaz Mahal':

And after the nuptials and marriage, in accordance with the custom and practice of the rulers of this house of the Caliphate, who, when they wish to distinguish with greater honour one from among those who grace the royal bedchamber of fortune, bestow an appropriate title, His Majesty the King of lofty fortune, finding that incomparable Lady, whose auspicious real name was Arjumand Banu Begam, to be of weighty dignity in the balance of capability and of perfect assay against the touchstone of experience; and finding also, in respect of her appearance of beauty, that she was chief and elect (*mumtaz*) from among the women of the time and the ladies of the universe, he gave her the title Mumtaz Mahal Begam, so that it may on the one hand serve as an indication of the pride and glory of that select one of the age, and on the other, that the real illustrations name of that reputed one of this world and the hereafter, befittingly may not occur on the tongues of the common people. And in this book of auspicious contents, she shall be mentioned either as Her Majesty the Queen (Mahd-'Ulya), or as Mumtaz al-Zamani (Qazwini Or 173: fol. 49b; Begley & Desai 1989: 5-6).

The marriage of Shahjahan and Mumtaz Mahal was an exemplary one; they both loved each other to the grave. Departing from the customary practice of princes around the world, Shahjahan was so ardently infatuated with her that he had no place for any other love; in every aspect of life Shahjahan never separated from her. She shared all his responsibilities, and escorted him throughout the whole realm, in peace and war. The first child from the Lady Mumtaz al-Zamani was Hur al-Nisa Begam born at Akbarabad (Agra) on Saturday 8<sup>th</sup> Safar 1022/ 30<sup>th</sup> March 1613, but she died on Wednesday 29<sup>th</sup> Jamad al-Awwal 1025/14<sup>th</sup> June 1616 at Ajmer. Their pretty daughter Jahanara was born at Heeni on 21<sup>st</sup> Safar 1023/1<sup>st</sup> April 1614 during the Mewar campaign, and Roshanara was born at Burhanpur on 2<sup>nd</sup> Ramadan 1026/24<sup>th</sup> August 1617, when Shahjahan was campaigning against Malik Ambar (Jahangir 2006: 326-28; Lahori 1872: 386-390; Kambo 2004: 40; Chowdhuri 1937: 376 ).

#### ***Death of Emperor Jahangir and Shahjahan's Succession to the Throne:***

The Emperor Jahangir died on Sunday 28<sup>th</sup> Safar 1037/8<sup>th</sup> November 1627 at Rajori due to a severe asthma attack. Hearing this sad news, Shahjahan hurriedly marched towards Agra and reached there on 26<sup>th</sup> Jamad al-Awwal 1037/2<sup>nd</sup> February 1628. Shahjahan ascended the throne at an auspicious time on 7<sup>th</sup> Jamad al-Thani 1037/13<sup>th</sup> February 1628, with the support of Asaf Khan, his father-in-law, who assumed the title Abu Muzaffar Shihabuddin Muhammad Sahib-Qiran Thani Padshah Ghazi (Kambo 2004: 83, 90-91). On enthronement day, having concluding all his imperial duties in the Hall of Audience, he rushed to the *zanana* (the ladies' quarters in the palace), where his consort Arjumand Banu had prepared a grand ceremony to welcome her lord. She showered upon him gold and silver coins, and distributed alms sumptuously. She also presented to Shahjahan trays of rare diamonds and pearls from Iran and India. A similar custom was followed by Princess Jahanara and other imperial ladies. The Emperor offered Arjumand Banu two lakh (200,000) of *ashrafi* (golden coins) (approximately equal to USD 3,488,000), six lakh rupees (USD 6,231,240), and settled on her an annual allowance of 10 lakh of rupees (USD 10,385,400). Jahanara received one lakh *ashrafi*, (USD 1,744,000) four lakh rupees (USD 4,154,160) and an annual allowance of six lakh rupees (USD 6,231,240). The princes and princesses also received suitable gifts and allowances according to their age and status (Kambo 2004: 91-92; Lahori 1872: 96-97).

As consort, Mumtaz Mahal occupied an eminent position and played a significant role in imperial affairs. She was the paragon (*mumtaz*) of the age, in chastity, modesty, decency and purity of conduct. Shahjahan used to discuss important state affairs with her, a scenario having a precedent in Islam with the Prophet Muhammad's relationship with Khadijah, but a model rarely implemented in practice in the history of civilizations. She was a prudent and sagacious lady, fit to be the royal consort. She used to help widows, orphans, and the needy and other helpless people. She became the people's queen, who helped girls to arrange their marriages by the state. Mumtaz Mahal was so generous and prudent that she received love and affection from the ladies of the *harem*. Among her numerous qualities, she was known to be very devout in her religious duties (Lahori 1872: 388; Kambo 2004: 96; Chowdhuri 1937: 377-78).

#### **Death of Mumtaz Mahal:**

In the beginning of the glorious and magnificent reign of Emperor Shahjahan an astonishing event took place: the sudden death of Mumtaz Mahal. In nineteen years of married life she gave birth to fourteen children, eight daughters and six sons. Among them seven died in childhood and seven survived. On Tuesday 16<sup>th</sup> Zil Qa'da 1040/16<sup>th</sup> June 1631 the symptoms of labour appeared, and after passing half of the night of Wednesday 17<sup>th</sup> June 1631, a daughter, Gauharara Begam, was born after thirty long and painful hours of labour. Sensing the worsening condition of the queen, her daughter Jahanara communicated this news through Dara Shikoh to summon the Emperor, who hurriedly presented himself at her bedside. The Gentle Lady opened her eyes and having recommended her admirable children, honourable parents, and relations and kinsmen, with one and a half hours of the night remaining, she responded to the call of Allah (Lahori 1872: 385; Qazwini Or 173: fols. 232b, 233a; Kambo 2004: 159-61). Sa'ida Khan, known as Bebadal Khan, composed the following chronogram on her death:

*Jai-i-mumtaz Mahal jannat bad* (= 1040) (Kambo 2004: 161; Kanwar 1975: 195).

'May the abode of Mumtaz Mahal be paradise'

Jim 3 + alif 1 + ye 10 + mim 40 + mim 40 + te 400 + alif 1 + ze 7 + mim 40 + he 8 + lam 30 + jim 3 + nun 50 + te 400 + be 2 + alif 1 + dal 4 = 1040

#### **Temporary Burial in the Zainabad Garden:**

Her body was temporarily buried in the Zainabad Garden at Burhanpur, opposite the River Tapti. Due to excess sorrow and pain, the Emperor wore white dress and did not come for a whole week at the balcony (*jharoka*) for public audience. The Emperor constantly uttered that:

If the business of government and important affairs of the Caliphate, which have been entrusted to us from the office of Divine Decree, had not been thrust upon us [damangir = entrusted] and if the world-Creating God had not charged us with the protection of honour of sovereignty, which entails the custodianship of the world and the protection of humanity, as well as causing the flourishing affairs of the world and the administration of important matters for common good—if all these had not become incumbent and obligatory in accordance with the creed of perfect wisdom, we would have abandoned kingship and taken up sovereignty over the world of seclusion. And having distributed among over worthy offspring of the whole of this vast kingdom which the Exalted God, may his pomp and grandeur be glorified, has conferred on us by his very generosity, without anyone else's obligation, we would have spent the rest of our precious life in offering prayers to the Real God. During this period of intense grief, the secluded Emperor continued to mouth the couplet:

The name and fame of kingship has caught hold of our skirt;

Otherwise, the horizons would be in tumult from our misfortune (Qazwini Or 173: fol. 233a quoted in Begley & Desai 1989: 13).

On Thursday 25<sup>th</sup> Zil Qa'da 1040/25<sup>th</sup> June 1631, the Emperor went to the grave to recite *al-Fatiha*. He made an oath that as long as he was in the city he would visit the tomb (*mazar*) every Friday (Kambo 2004: 160; Qazwini Or 173: fol. 233b quoted in Begley & Desai 1989: 13). Two years after this agony, he gave up all pleasures of worldly life. On the day of marriage, Eid and other festive occasions organized in Royal Palace (*daulat-khana*), when he would not see his late wife, the 'blossoming moon', his eyes would shed drops of sorrow. After this heart-breaking incident and due to excessive weeping, his eyes needed spectacles. Because of grief and sorrow, within a few days of his wife's death, more than one-third of his beard turned grey (Kambo 2004: 160; Lahori 1872: 385-388; Chowdhuri 1937: 379-80). Begley & Desai 1989: 13, 19-20).

#### **Body of the Queen Taken to Akbarabad:**

On Friday 21<sup>st</sup> Jamadil Awwal 1041/15<sup>th</sup> December 1631, the body of the late Queen Mumtaz al-Zamani was dispatched to Akbarabad, accompanied by Prince Sultan Shah Shuja, *Umdat ul- Muluk* Wazir Khan, and Sitti al-Nisa Khanam, the chief Lady-in-Waiting; all along the processional route food and alms were given to the poor; the road to the capital was laden with food, drinks and coins dispensed to the poor and needy. After the completion of that mission, they reached Akbarabad on 15<sup>th</sup> Jamad al-Thani 1041/8<sup>th</sup> January 1632 for re-interment (Kambo 2004: 161; Lahori 1872: 402-403; Qazwini Or 173: fol. 241a; Chowdhuri 1937: 380-81;

Begley & Desai 1989: 42-43). It was decided that the late Queen should be buried in a heaven-like piece of land (*sarzamin-i-bihisht-a'in*) located towards the south, on the bank of the river Jamuna, which belonged to Raja Man Singh; this was selected as the burial place (*madfan*). The Raja as a gesture of his sincerity and commitment bequeathed the said land and believed this to be the basis of real happiness. Due to utmost religious care however, Shahjahan granted in exchange (*'iwad*) a splendid house (*khan-i-'ala*) from the crown estate (*khalisa-sharifa*). The *mutasaddiyan* ('overseers') hastily covered the top of the grave (*turbat*) to conceal it from the public gaze (*nazar*) (Qazwini Or 173: fol. 235a; Lahori 1872: 402-403; Begley & Desai 1989: 41-44).

### Foundation of the Tomb:

Emperor Shahjahan built the Taj Mahal, the splendid mausoleum (*rauza*) for his beloved wife and consort Mumtaz Mahal after her death on Wednesday 17<sup>th</sup> June 1631 CE. The contemporary Mughal sources refer to this marvel as *rauza-i-munavvara* ('the illumined tomb'). The history of the Taj is systematically recorded in Persian court histories, literary works, surviving royal *framin* ('official documents'), historical and Qur'anic inscriptions on the Taj Mahal itself, and European travel accounts. Shahjahan's reign witnessed the construction of numerous historical buildings including the fabulous Taj Mahal. The foundation-laying of the Taj with minor details is recorded in the court chronicles from the 6<sup>th</sup> regnal year. The European traveller Peter Mundy visited Agra in 1632 when the foundation works of the Taj were in progress (Qazwini Or 173: fol. 235b; Lahori 1872: 403; Kambo 2004: 363-66; Farman to Raja Jai Singh, dated 20 September 1632; 3 February 1633; 28 December 1633 and 30 June 1637(Bikaner, Rajasthan State Archives, S. Nos. 27, 35; Jaipur, Kapad Dwara Collection); Begley & Desai 1989: xxx, 162-73; Mundy 1919: vi, 213; Hudson 2006: 6).

In the case of the Taj, the plans were laid out and a suitable site located for acquisition of a plot of land on the southern bank of river Jamuna, a mile eastwards from the south-eastern corner of the sandstone Red Fort. The whole site covered an area of about 2000' by 1000' and its uneven and rough environs were levelled at first by removing the mounds and rocky hillocks. For the purpose of providing a solid foundation of an elegant mausoleum (*rauza*), an area of 400' by 400' was also dug to a depth of 44' to the water level (Kanwar 1976: 94).

The work on the mausoleum began in Jamad al-Thani 1041/January 1632, and 20,000 workers laboured for 20 years to build it (Kambo 2004: 452; Begley & Desai 1989: 44). Tavernier, a French traveller, is said to have witnessed the beginning and completion of the Taj Mahal (Tavernier 1678: 50). Most writers put the estimated cost at 50 lakhs (5 million) rupees (USD 51,927,000) (Lahori 1872, II: 330; Kanwar 1976: 87-91; Begley & Desai 1989: 79, 81,138). The most skilled architects, inlay craftsmen, calligraphers, stone-carvers and masons came from all across India and lands as distant as Persia and Turkey. The master mason was from Baghdad, who built the splendid mausoleum on the plan of a Baghdadi octagonal (*tarah-i-musamman-i-Baghdadi*). Another expert, Ismail Khan Afendi, who specialized in building the double dome, was called from Turkey. Similarly, an inlay specialist was brought from Delhi. The agates were imported from Yemen, the cornelian came from Arabia, amethyst from Persia, malachite from Russia, the turquoises from upper Tibet, diamonds from Central India, the onyxes from Deccan and garnets from Bundel Khand. Thus Mumtaz Mahal's final resting-place was ornamented like a queen's jewel-box (Din 1951: *The Illustrated Weekly of India*, December 30; Nath 1972: 88; Kanwar 1976: 100-101; Begley & Desai 1989: 66).

The exceptional beauty of the Taj Mahal is also skilfully derived from the use of domes, minarets, calligraphy, ornamental inlays and more than everything else the breath-taking symmetry of its overall structure. The domes in the Taj are modified bulbous structures (*Amrudi shakl*; 'guava shape'). Similarly, instead of creating a sense of symmetry through the use of cascading smaller domes, the Taj relies on one main and two smaller domes. However, the image of cascading domes is retained in the form of a number of dome shaped *chhatris* symmetrically scattered all around the main structure, which in turn complement the overall symmetry of the whole. It is amazing that the entire foundation platform and tomb were completed in six years from January 1632, and the inner decoration was finished by around Rajab 1048/December 1638. By 17<sup>th</sup> Zilqa'dah 1052/7<sup>th</sup> February 1643, the construction of the entire complex was finished and decoration work continued until 1057/1647. In 1652, after an arduous span of 20 years, the entire work of the 42-acre (17-hectare) Taj complex was completed. Although no definitive date of the Taj's completion is listed in the literature, a letter from Prince Aurangzeb to Emperor Shahjahan on 3<sup>rd</sup> Muharram 1063/4<sup>th</sup> December 1652 leads us to believe that the structure must have been completed sometime prior to the rainy season of 1652 (Aurangzeb 1930: 78-9; Kanwar 1975: 195-96; Kanwar 1979: 11; Begley & Desai 1989: xliii, 65, 175-76).

The most striking segment of the exalted tomb is the white central dome (*gunbad*), built of marble of rare quality. One connoisseur of architecture described the dome in the following words:

Resting in the middle of a wide plinth 23 feet (7 metres) high, the mausoleum proper is of white marble that reflects various hues according to the intensity of sunlight or moonlight. It has four nearly identical facades, each with a wide central arch rising to 108 feet (33 metres) and chamfered (slanted) corners incorporating smaller arches. The majestic central dome, which reaches a height of 240 feet (73 metres) at the tip of its finial, is surrounded by four lesser domes. The acoustics inside the main dome cause the single note of a flute to reverberate five times. The interior of the mausoleum is organized around an octagonal marble chamber

ornamented with low-relief carvings and *pietra dura*; therein are the cenotaphs of Mumtaz Muhal and Shah Jahan. These false tombs are enclosed by a finely wrought *filigree* marble screen. Beneath the tombs, at garden level, lie the true sarcophagi. Standing gracefully apart from the central building, at each of the four corners of the square plinth, are elegant minarets (*Encyclopædia Britannica*. 2009. Available at: <<http://search.eb.com/eb/article-9070996>> (last accessed November, 2012).

Allama Iqbal pays an ideal tribute to the beauty of the Taj Mahal:

*Husn-i-alam sozi al-Hamra wa Taj*

*Aan ki az qudsiyan girad kharaj*

The world-shattering elegance of Alhamra and Taj,

Receive tribute even from the angels themselves.

The elegance of the Taj is also remembered by the Arabs:

*Dam'ah al-hubb ala Khad al-Zaman*

The Symbol of the Ever-lasting Love

Shakeel Badaoni, a modern Urdu poet, pays an unintended tribute to the beauty of the Taj Mahal:

*Ek shahanshah ne banwa ke hasin Taj Mahal*

*Sari duniya ko muhabbat ki nishani di hai*

By erecting the beautiful Taj Mahal

An emperor has given the whole world an ideal of love

### ***The Calligrapher of the Taj Mahal:***

The chief calligrapher of the Taj Mahal was Abdul Haq Shirazi, known as Amanat Khan, whose contribution is clearly recorded both in the court history and by his two signatures on the tomb. His inscriptions include historical and Qur'anic verses. The Emperor Shahjahan awarded him the title of Amanat Khan, with a cash donation of 20,000 rupees (USD 2,077,08) along with an increase to the *mansab* (rank) of 900 *zat* and 200 *sawar* on 1<sup>st</sup> Zil Hijjah 1041/19<sup>th</sup> June 1632 at Agra (Lahori 1872, I: 366-428). It is possible that the honour may have been given to him along with his appointment as calligrapher to the Taj Mahal. Amanat Khan's signature is inscribed in the domed hall completed in 1045/1635-36 (Lahori 1872, II: 8; Kambo 2004: 489). He received promotions and higher ranks from the Emperor on various occasions, including the gift of an elephant and a robe of honour on 1<sup>st</sup> Sha'ban 1047/19<sup>th</sup> December 1637. His great achievements were the inscriptions on Akbar's tomb at Sikandra, the Madrasa Shahi Mosque in Agra city, and the Sarai Amanat Khan near Lahore (a large caravanserai at the old Mughal highway to Lahore). He was active in the art of calligraphy until the last days of his life. The inscriptions inside the Taj Mahal witness his charismatic calligraphy until around 1048/1638. He died in 1054-55/1644-45 (Lahori 1872, II: 133-34, 310, 737).

### ***The Architect of the Taj Mahal:***

The unexcelled architect of the Taj Mahal, the Red Fort and the Jami Masjid of Delhi was Ustad Ahmad Lahori, one of the greatest *mi'mar* (architects) of the seventeenth century. He was known as Ahmad Mi'mar Lahori for his superb qualities—an accomplished engineer and an excellent professional in various sciences, including astronomy, geometry and mathematics. Due to his distinction and expertise in the field of architecture he became the chief architect of Shahjahan (1628-1658), who bestowed upon him the honorary title of *Nadir al-'Asr* ('the wonder of the age') in 1044/1634-35, as claimed by his second son Lutf Allah (titled *Muhandis*, 'engineer') (Nadvi 1933: 258-60; Nadvi 1971: 299; Chaghtai 1937: 200-205; Ahmad 1956: 330-35; Kanwar 1979: 11-15; Begley & Desai 1989: xli, 261-65; Hudson 2006: 89).

The early life of Ustad Ahmad is not known, but Shahjahan's historiographer records the name of Ustad Ahmad and Hamid as the chief architects of the new capital of Shahjahanabad, Delhi, built during 1639-48. They were the planners and designers of the new imperial city. Muhammad Salih Kambo's *Amal-i-Salih* records the foundation-laying of Shahjahanabad:

On Friday night, 25<sup>th</sup> Zilhijja, 19<sup>th</sup> Urdu Bihisht, the 12<sup>th</sup> regnal year corresponding to 1048 [29<sup>th</sup> April 1639] at an auspicious time, Ustad Ahmad and Hamid, who were distinguished architects of great merit, laid the foundation after a unique plan which had never been seen by anyone in any part of the world, under the supervision of Ghairat Khan, governor of the place, and superintendent of this work (Kambo III 1946: 28; *Tarikh-i-Shahjahan*. MS. No. 4343 in Nadvi 1971: 297; Khan 1904: 28).

In the early 1930s, Qadi Mahmud Khan of Bangalore coincidentally discovered a small collection of Muhandis's poem, *Diwan-i-Muhandis*, in his family collection. He sent it to Saiyid Sulaiman Nadvi, a reputed Islamic scholar, for verification and evaluation (Khan 1943, 4<sup>th</sup> April: 30, *The Illustrated Weekly of India*, Bombay). For the first time the critical study of *Diwan-i-Muhandis* was conducted by Saiyid Sulaiman Nadvi on the life and career of the great architect family of Ustad Ahmad, who designed a legend in the Taj Mahal. But the official historians of Shahjahan do not mention his name alone as the architect of the Taj Mahal; they also record the names of the supervisors in charge of the project (Mulla Murshid Shirazi, known as Makramat Khan, and Mir Abdul Karim, also called Ma'mur Khan) (Nadvi 1933: 258-60; Ahmad 1956: 331-334; Nath 2013, 75).

In *Diwan-i-Muhandis*, Lutf Allah describes his family and the wonders of the art of his father and two brothers ('Ata Allah and Nur Allah), who had pursued their father's career as engineers and architects. According to Lutf Allah, his father was not a simple mason, but an architect of repute and an authority on well-known works of mathematics, including Ptolemy's renowned work on astronomy, *Al-Mijasti*, and had mastered Euclidean geometry from Khwaja Nasiruddin Tusi's *Tahrir al-Uklidis* (Chaghtai 1937: 202; Nadvi 1933: 330-31; Kanwar 1979: 12-13; Begley & Desai 1989: xli-xlii).

As Lutf Allah asserted:

Ahmad Mi'mar, who in his art was one hundred paces ahead of the experts, was familiar with writings and discourses of that art, and was aware of its forms and details. He had full authority of the sciences of the stars and was acquainted with the mysteries and elucidations of *al-Mijasti*. From the benevolent Emperor he received the title *Nadir al-'Asr* (the wonder of the age). He was the king's architect, his view carried credibility in that auspicious presence. When the royal banner was planted at Agra, he enjoyed royal favours from him. By the command of the world-conquering king, he built the mausoleum (*rauza*) of Mumtaz Mahal. Again by the authority of the king of countless armies (Shahjahan), the wise and talented Ahmad built the unequalled Fort of Delhi, which had no match. These two astonishing edifices, which I have depicted, and the qualities of which have been comprehensively defined by my pen consist of only one out of his many gifts, merely a pearl out of his mine of pearls (Nadvi 1933: 279, 300-301; Chaghtai 1937: 202-203; Begley & Desai 1989: 270-71).

Ustad Ahmad Mi'mar enjoyed a high position and was accredited as an admirable builder, designer and surveyor. This was acknowledged in an anonymous letter written to 'Umdat al-Mulk Nawab Jafar Khan (d.1081/1670), the Mughal governor of Punjab in 1055/1645-46. He was subsequently promoted to be Shahjahan's minister in 1057/1647-48, and became Alamgir's minister in 1074/1663 (Nadvi 1933: 204, 279; Kanwar 1979: 13; Begley & Desai 1989: 263).

Ustad Ahmad died in 1059/1649. His family were reputed to have lived in Herat before moving to Lahore. Being a resident of Lahore, Ustad Ahmad may have developed good rapport with Mir Abdul Karim, one of the supervisors of the construction of the Taj Mahal. Mukramat Khan, the public works minister, was a close friend of Abdul Karim. The former was also a good scholar and became the tutor of Ata Allah, the eldest son of Ustad Ahmad (Ahmad 1956: 331-32, 340-44; Begley & Desai 1989: xlii).

### Conclusion:

Shahjahan 'the Magnificent' zealously devoted his time, energy and wealth to build the Taj Mahal and make it a reality in memory of his beloved queen Mumtaz Mahal. He was a true connoisseur of art and architecture at a level higher than any other of the sumptuous Mughal Emperors in the Indian Subcontinent. It is not a work of sheer inspiration but it took a great deal of perspiration to create what can be called, to borrow a phrase from William Blake, 'this fearful symmetry'; the dimensions are very accurately calculated. The beauty of the Taj Mahal lies with the glory of Mumtaz Mahal, whose mausoleum blossoms with a never-fading garden of Persian flowers. The most striking character of the Taj is its graceful feminine appearance. The Mughal architect Ustad Ahmad Lahori played a unique role in designing the luminous marvel of the Taj Mahal, demonstrating his astonishing skill in attaining wonderful symmetry in every respect and skilfully rendering the persona of Arjumand Banu Begam ('Mumtaz Mahal') to an amazing degree. The marvel of Taj Mahal is an unsurpassed epitome of love. Nevertheless, despite being a UNESCO World Heritage Site since 1983, this world-renowned monument is fading due to neglect; extra care and urgent attention is needed to preserve this wonder of the world.

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