

AN ARCHITECT LOOKS AT THE TAJ MAHAL LEGEND

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In their book TAJ MAHAL-THE ILLUMINED TOMB, Wayne Edison Begley and Ziyaud-Din Ahmad Desai have put together a very commendable body of data and information derived from contemporary sources and augmented with numerous photo illustrations, chroniclers' descriptions, imperial directives plus letters, plans, elevations and diagrams. They have performed a valuable service to the community of scholars and laymen concerned with the circumstances surrounding the origin and development of the Taj Mahal.

But these positive contributions exist within a framework of analysis and interpretation that distorts a potential source of enlightenment into support for fantasy and misinformation that has plagued scholarship in this field for hundreds of years, thus obscuring the true origin of the Taj Mahal complex. The two basic procedural errors that they make is to assume that the dated inscriptions are accurate and that court chroniclers are behaving like objective historians.

As an architect, my principal argument with the authors is their facile acceptance of the compact time frame that they uncritically accept for the coming into being of the Taj from conception to its first Urs (anniversary) of the death of Mumtaz and the completion of the main building. Construction processes that had to consume substantial blocks of time are condensed into a few months. They feel justified in relying on what evidence is available, but fail to consider the objective needs of construction. They regret the loss of what, they say, must have been millions of Mughal state records and documents produced each year on all aspects of the Taj's construction. They do not consider that the lack of drawings, specifications and records of payment may be due to their not being generated at the time. Nor do they consider Shahjahan's potential for deception as to when and by whom it was built. Yet they point out Shahjahan's careful monitoring of the contents of court history:

"Shajahan himself was probably responsible for this twisting of historical truth. The truth would have shown him to be inconsistent and this could not be tolerated. For this reason also, the histories contain no statements of any kind that are critical of the Emperor or his policies, and even military defeats are rationalized so that no blame

could be attached to him. ... effusive praise of the Emperor is carried to such extremes that he seems more a divinity than a mortal man." (p. xxvi)

With the court chroniclers' histories carefully edited, and with the great scarcity of documents we are fortunate to have four surviving farmans or directives issued by Shahjahan to Raja Jai Singh of Amber-the very same local ruler from whom the Emperor acquired the Taj property. On the basis of these farmans, the court chroniclers and a visiting European traveler, we learn that: (i) Mumtaz died and was buried temporarily at Burhanpur on June 17, 1631; (ii) her body was exhumed and taken to Agra on December 11, 1631; (iii) she was reburied somewhere on the Taj grounds on January 8, 1632; and (iv) European traveler Peter Mundy witnessed Shahjahan's return to Agra with his cavalcade on June 11, 1632.

The first farman was issued on September 20, 1632 in which the Emperor urges Raja Jai Singh to hasten the shipment of marble for the facing of the interior walls of the mausoleum, i.e., the Taj main building. Naturally a building had to be there to receive the finish. How much time was needed to put that basic building in place?

Every successful new building construction follows what we call in modern-day construction a "critical path". There is a normal sequence of steps requiring a minimum time before other processes follow. Since Mumtaz died unexpectedly and relatively young (having survived thirteen previous child-births), we can assume that Shahjahan was unprepared for her sudden demise. He had to conceive, in the midst of his trauma, of a world class tomb dedicated to her, select an architect (whose identity is still debated), work out a design program with the architect, and have the architect prepare designs, engineer the structure and mechanical systems, detail the drawings, organize the contractors and thousands of workers, and prepare a complex construction schedule. Mysteriously, no documents relating to this elaborate procedure, other than the four farmans have survived.

We cannot assume that the Taj complex was built additively with the buildings and landscaping built as needed. It was designed as a unified whole. Begley and Desai make this clear by their analysis of the grid system that was employed by the designer to unite the complex horizontally and vertically to into a three-dimensional whole. If one did not "know" that it was a solemn burial grounds, one would believe that it was designed as a palace with a delightful air of fantasy and secular delights of waterways and flowering plants. Could it be that this is Raja Jai Singh's palace, never destroyed, converted by decree and some minimum face-lifting to a Mughal tomb?

Assuming that Shahjahan was galvanized into prompt action to initiate the project on behalf of his deceased beloved, we can safely assume that he needed one year minimum between conception and ground-breaking. Since Mumtaz died in June 1631, that would take us to June 1632. But construction is said to have begun in January 1632.

Excavation must have presented a formidable task. First, the demolition of Raja Jai Singh's palace would have had to occur. We know that the property had a palace on it from the chronicles of Mirza Qazini and Abd al-Hamid Lahori. Lahori writes:

"As there was a tract of land (*zamin*) of great eminence and pleasantness towards the south of that large city, on which before there was this mansion (*manzil*) of Raja Man Singh, and which now belongs to his grandson Raja Jai Singh, it was selected for the burial place (*madfan*) of that tenant of paradise.[Mumtaz]" (p. 43)

Measures would have to be taken during excavation of this main building and the other buildings to the north to retain the Jumna River from inundating the excavation. The next steps would have been to sink the massive foundation piers, put in the footings, retaining the walls and the plinth or podium to support the Taj and its two accompanying buildings to the east and west plus the foundations for the corner towers, the well house, the underground rooms, and assuming the complex was done at one time, all the supports for the remainder of the buildings throughout the complex. To be conservative in our estimate, we need at least another year of construction which takes us up to January 1634.

But here is the problem. On the anniversary of the death of Mumtaz, each year Shahjahan would stage the Urs celebration at the Taj. The first Urs occurred on June 22, 1632. Though construction had allegedly begun only six months earlier, the great plinth of red sandstone over brick, 374 yards long, 140 yards wide, and 14 yards high was already in place! Even Begley and Desai are somewhat amazed.

Where was all the construction debris, the piles of materials, the marble, the brick scaffolding, the temporary housing for thousands of workers, the numerous animals needed to haul materials? If "heaven was surpassed by the magnificence of the rituals", as one chronicler puts it, then nothing should have been visible to mar the exquisite panorama that the occasion called for.

But by June 1632, it was not physically possible that construction could have progressed to completion of excavation, construction of all the footings and foundations, completion of the immense platform and clearing of all the debris and eyesores in preparation for the first Urs.

Begley and Desai have little use for the testimony of the European travelers to the court of Shahjahan. But they consider Peter Mundy, an agent of the British East India Company, to be the most important source on the Taj because he was there shortly before the first Urs at the new grave site, and one year later at the second Urs.

It was Mundy who said that he saw the installation of the enameled gold railing surrounding Mumtaz's cenotaph at the time of the second Urs on May 26, 1633. But there is no way that construction could have moved ahead so vigorously from January 1632 to May 1633 as to be ready to receive the railing. After all, the railing could not have stood forth in the open air. It means that the Taj building had to be already there. It

must have been immensely valuable since the cost of the Taj complex was reported to be fifty lakhs, while the cost of the gold railing was six lakhs of rupees. The gold railing was removed by Shahjahan on February 6, 1643 when it was replaced by the inlaid white marble screen one sees now.

An alternate interpretation of events regarding the railing is that Shahjahan revealed the gold railing of Raja Jai Singh at the first or second Urs. In 1643 he appropriated it for himself and put in its place the very fine marble screen with its inlaid semi-precious stones, a screen that was not nearly as valuable as the gold railing.

If Shahjahan's construction and interior adornment of the Taj are in question, what rework of the Taj can we attribute to him? The inscriptions were undoubtedly among the few rework tasks that he was obliged to do. He may also have removed any obvious references to Hinduism in the form of symbolic decor that existed.

The book's plate illustrations show that the inscriptions are almost always in a discrete rectangular frame which renders them capable of being modified or added to without damaging the adjacent material. In my judgement the black script on the white marble background seems inappropriate esthetically in the midst of the soft beige marble that surrounds it. By adding the inscriptions Shahjahan probably sought to establish the credibility of its having been his creation as a sacred mausoleum instead of the Hindu palace that time will undoubtedly prove that it was.

Based on the latest inscriptions dated 1638-39, which appear on the tomb, the authors estimate a construction period of six years. Six years in my judgement is simply not enough time. As reasonable approximation of the total time required to build the Taj complex, we can consider Tavernier's estimate of twenty-two years. Although he first arrived in Agra in 1640, he probably witnessed some rework or repair. The time frame of twenty-two years may have been passed on to him by local people as part of the collective memory from some previous century when the Taj was actually built.

The issue of repairs is taken up by the authors in their translation of the original letter of Aurangzeb to his father dated December 9, 1652. He reports serious leaks on the north side, the four arched portals, the four small domes, the four northern vestibules, subchambers of the plinth, plus leaks from the previous rainy season. The question the authors do not raise is: Would the Taj, being at most only thirteen years old, already have shown symptoms of decay? Wouldn't it be more reasonable to believe that by 1652 it was already hundreds of years old and was showing normal wear and tear.

Who built the Taj? The authors say it was Ahmad Ustad Lahori, chief architect for Shahjahan. They base this belief mainly on the assertion by Luft Allah, the son of Lahori, in a collection of verses, that Shahjahan commanded Lahori to build both the Taj and the Red Fort at Delhi. As evidence this is quite weak.

The court historians are unfailing in their praise for the Emperor's personal participation in his massive architectural projects and they are never lacking in glorifying his sterling

character. But the European travelers have other things to say about his personality and his inability to focus on anything for long except his lust for women. Nor is the object of his supposed great love either tender or compassionate. It seems that both "lovers" were cruel, self-centred and vicious. To believe that out of this relationship, with the support of Shahjahan's alleged great architectural skills, came what many consider to be the most beautiful building complex in the world, is sheer romantic nonsense.

While Begley and Desai are sceptical of the Taj Mahal's being a consequence of romantic devotion, they yield not an inch in asserting its Mughal origin. They support this traditional view by overlooking some key problems:

1. Consider the identical character of the two buildings on either side of the Taj main building. If they had different functions—one a mosque, the other a guest residence—then, they should have been designed differently to reflect their individual functions.
2. Why does the perimeter wall of the complex have a Medieval, pre-artillery, defense character when artillery (cannons) was already in use in the Mughal invasions of India? [Why does a mausoleum need a protective wall in the first place? For a palace it is understandable.]
3. Why are there some twenty rooms below the terrace level on the north side of the Taj facing the Jumna River? Why does a mausoleum need these rooms? A palace could put them to good use. The authors do not even mention their existence.
4. What is in the sealed-up rooms on the south side of the long corridor opposite the twenty contiguous rooms? Who filled in the doorway with masonry? Why are scholars not allowed to enter and study whatever objects or decor are within?
5. Why does the "mosque" face due west instead of facing Meccah? Certainly, by the seventeenth century there was no problem in orienting a building precisely!
6. Why has the Archaeological Survey of India blocked any dating of the Taj by means of Carbon-14 or thermo-luminescence? Any controversy over which century the Taj was built could easily be resolved. [Radiocarbon dating of a piece of wood surreptitiously taken from one of the doors gave 13th century as a possible date. But more data is needed.]

If Shahjahan did not build the Taj for the love of Mumtaz, then why did he want it? His love for Mumtaz was evidently a convenient subterfuge. He actually wanted the existing palace for himself. He appropriated it from Raja Jai Singh by making him an offer he could not refuse, the gift of other properties in exchange. He also acquired whatever was precious within the building including the immensely valuable gold railing.

By converting the complex into a sacred Moslem mausoleum he insured that the Hindus would never want it back. Shahjahan converted the residential quarters to the west of the main building to a mosque simply by modifying the interior of the west wall to create

a mihrab niche. He added Islamic inscriptions around many doorways and entries to give the impression that the Taj had always been Islamic. Sure enough, the scholars have been silent or deceived ever since.

Yet, we must thank Begley and Desai for having assembled so much useful data and translated contemporary writings and inscriptions. Where they failed is in accepting an apocryphal legend of the Taj for an absolute fact. Their interpretations and analyses have been forced into the mold of their bias. It would be well to take advantage of their work by scholars and laymen interested in deepening their knowledge of the Taj Mahal to read the book while keeping an open mind as to when and by whom it was built.

Added note:

A leading Indian architect, former professor of architecture at Mysore University adds: There are fundamental problems with the current theory of Islamic Architecture in India of which the following may be noted.

(1) Unlike in the case of Hindu architecture, where there are literally hundreds of works on Vastu in several Indian languages, there seem to be almost no texts or manuals on Islamic architecture. It is difficult to see how a great school of architecture lasting 600 years could flourish without any technical literature.

(2) Hindu architectural practices and traditions are maintained by thousands of mason families, especially in South India. These are known as Vishwakarmas or Vishwa Brahmanas. They are greatly in demand all over the world. No such Muslim families are known.

(3) There are no standards of units and measurements for Islamic architecture in India. It is inconceivable that great works of architecture could come up without them. This is an objective requirement.

TAJ MAHAL-The Illumined Tomb, an anthology of seventeenth century Mughal and European documentary sources, by W.E. Begley and Z.A. Desai: Published by the University of Washington Press, Seattle and London, 1989 (The Aga Khan Program for Islamic Architecture).

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