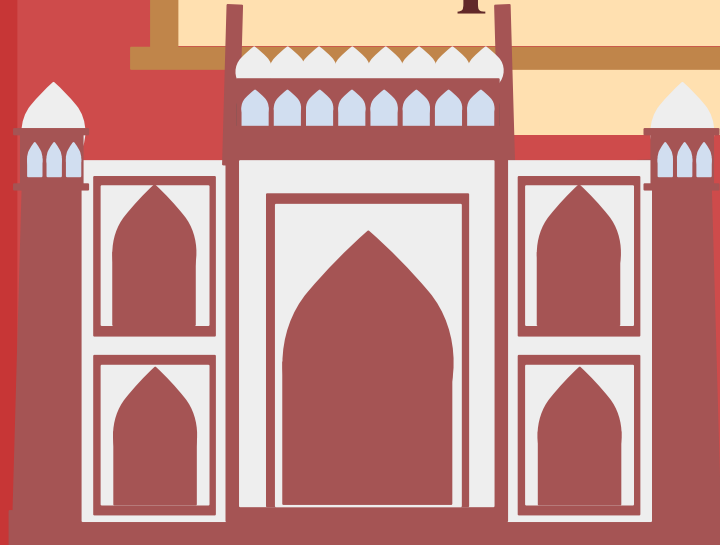


Annual Project:2022-23

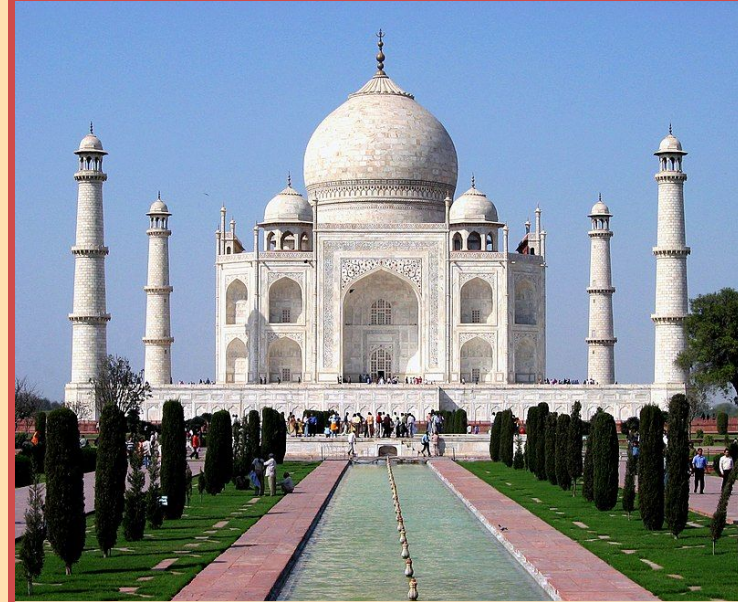
Deep Dive Club:Taj Mahal

By Veer Dahiya



1. Introduction:

- A mausoleum complex, situated on the southern right bank of Yamuna River. (Agra, UP)
- Built by Mughal Emperor Shah Jahan to immortalize his wife Mumtaz Mahal. (1631)
- It was declared a UNESCO World Heritage Site in 1983.
- Construction started in 1632 and completed in 1653.
- Major Attraction for visitors - symmetry, structural beauty, intricate calligraphy, inlaid gemstones and magnificent gardens.
- Initial Name:- “Roza-e-Munavvara” means unique building. Later renamed by Shah Jahan as “Taj Mahal”.
- Previous Year, I covered the History of construction, Layout, Gardens and Gateways of Taj Mahal



Courtesy: <https://en.wiktionary.org>

2. Architecture of Taj Mahal:

- Chief architect is Ustad Ahmad Lahori
- Blend of Indian, Persian and islamic styles.
- Inspired by timurid and mughal buildings
- Two main decorative features are Pietra dura and Arabic Calligraphy.
- Pietra Dura stone's colours are Lapis Lazuli, jade, crystals, turquoise, etc.
- Verses from Quran were inscribed by Amanat Khan-al-Shirazi.
- One of the inscriptions on the sandstorm gateway is known as Day break.



Courtesy: <https://in.pinterest.com>



Courtesy: <https://commons.wikimedia.org/>

3. Mathematics in Taj Mahal:

- Golden ratio is reflected on its central arch, height of window inside the arch and in the height of the main area below the dome.
- Perfect Symmetry. Perfect example of line symmetry, as the minarets, the whole complex can be divided in half.
- Built using Geometry, that was ahead of their time.
- Height of all windows and doors is same.
- All four minarets are all same in height.
- The mausoleum is on a raised square base, with the tomb in the middle of it.



Courtesy: <https://www.facebook.com>



Courtesy: <https://www.toppr.com/>

3. Mathematics in Taj Mahal:

- Squares and extended hexagons are combined to form regular octagons.
- Entire structure was built on ninety feet foundation, with 30 feet filled o sand
- Hole in some of the stones are hexagonal. (Drainage)
- The Taj's floor design layout, follows the eight level principles, which matches eight levels of heavens.
- The four minerats are tilted outward so that the dome won't destroy if they fall.
- The monument appears large when you enter, as you approach, it shrinks in size
- Tile Mosaic is art in which pictures are made on wall with coloured tiles and carved.
- Total area of the complex is 6.9 hecter



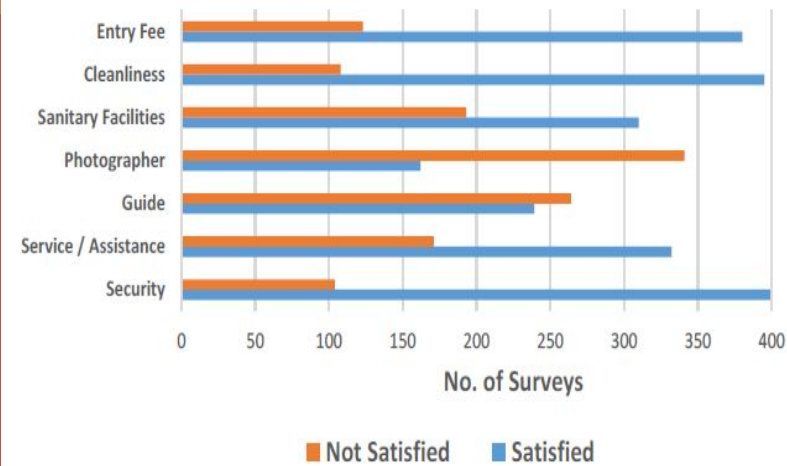
Courtesy: <https://www.mozai.co.uk/>



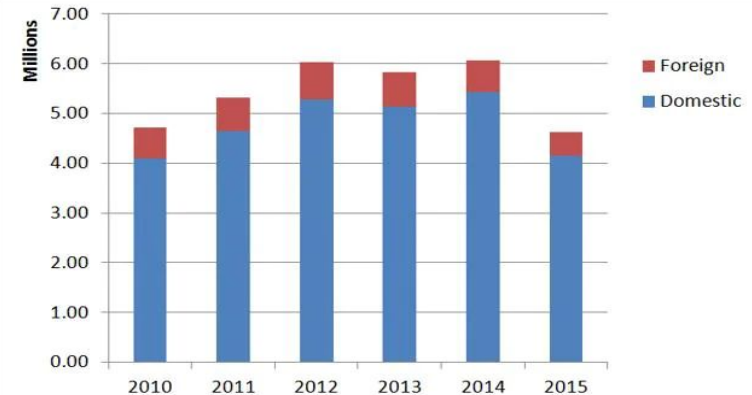
Courtesy: <http://www.joansharma.com/>

4. Economy of Taj Mahal:

- Highest revenue generating monument in India.
- It has collected 132 crore in selling tickets last 3 years. (ASI)
- During COVID time, the revenue collecting was rupees 9.5 crore in 2019-20.
- It contributes 24% of ASI's total revenue from entry tickets. (2019-22)
- Entry fee is rupees 50 for Indians.
- Entry fee for foreigners is rupees 1100.
- Free entry for children upto 15 years.



Courtesy: <https://academicjournals.org>

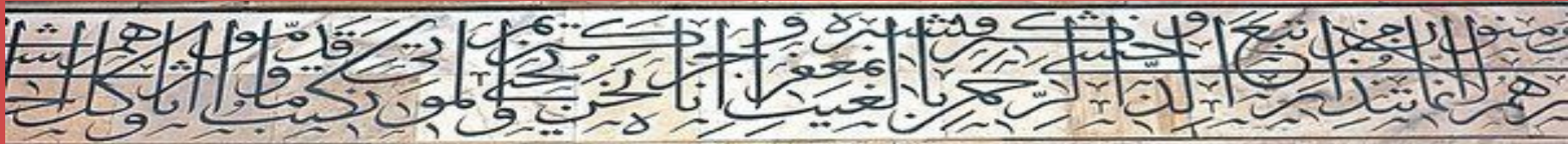


Source: India Tourism Statistics, Ministry of Tourism

Courtesy: <https://www.hindustantimes.com/>

5. Facts of Taj Mahal:

1. It was built to honour the favourite wife of Shah Jahan.
2. Islamic calligraphy inscriptions on the great gate which says “O soul, you are as rest. Return to the Lord in peace with him and he at peace with you.” -- Amanat Khan Shirazi
3. In 2007, people all over the world voted the Taj Mahal as one of the new seven wonder of the world.
4. The Taj Mahal’s calligrapher signed his work.
5. The gravesite is the only part that is not perfectly symmetrical.
6. The Taj Mahal “hides” during World war II and war between India and Pakistan in 20th century.



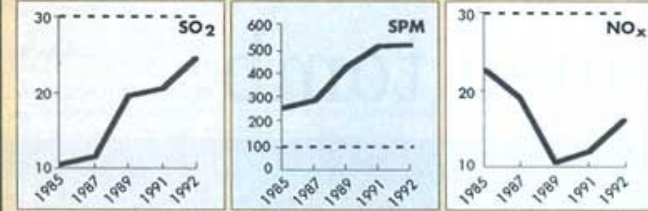
Courtesy: <https://www.quora.com/>

6. Effect of Pollution on Taj Mahal:

- Taj Mahal has been subject of neglect and decay.
- Restoration was carried at beginning of 20th century by Lord Curzon.
- Air pollution has damaged its facades.
- A number of measures have been taken to protect it.
 1. Closing of some nearby factories.
 2. Installation of pollution control equipments.
 3. Creation of parkland and buffer zone around the complex.
 4. Banning nearby vehicular traffic

POISONED AIR

In Agra, the concentration of sulphur dioxide (SO_2) and suspended particulate matter (SPM) in the air is increasing rapidly, while that of oxides of nitrogen (NO_x), after having been reduced by more than half by 1989, is climbing up again.



Annual mean value in micrograms per cubic metre
Source: Central Pollution Control Board.

--- Government-set norm

Courtesy: <https://www.downtoearth.org.in/>

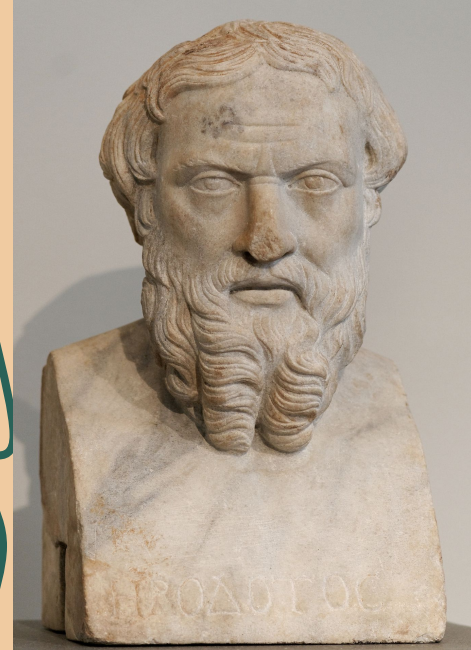
Money Club

Topic: Taj Mahal



1. Introduction:

- Many people have helped to make the Taj Mahal we see today.
- Mainly, 3 professions can be acquired by a person who is intrigued by Taj Mahal
- The Career options are:
 1. Historian
 2. Restorer
 3. Archaeologist
- In such job opportunities, there is a high demand (like restorer) and some which are not required right now (like archaeologists).
- These job opportunities are chosen in a larger spectrum, which cover all monuments, as well as documentation and teaching (which means these jobs aren't only required in case of monuments).



Courtesy: <https://en.wikipedia.com>

2. Requirements for a Historian:

Step 1: Only way to become a historian is to opt for Arts/Humanities as your stream.

Step 2: You can get used to or get an idea with certificate courses, such as:-

1. The Modern world, Part One: Global History from 1760 to 1910 (1-3 months)
2. Military History of the Classical Greek World (2 and a half hours)

Step 3: You need to have some educational qualifications like:- (3-4 years)

1. B.A with Majors in History
2. B.A in Ancient Indian Culture

Top Colleges in India :

1. Miranda House College in Delhi
2. Wilson College in Mumbai

Top Colleges Abroad:

1. Oxford University in US
2. Cambridge University in US

Salary:

Rs.5,00,000-Rs.10,00,00,000
per year

3. Requirements for a Archaeologist:

Step 1: Only way to become a archaeologist is to opt for Humanities as your stream and score at least 50% in the 12th.

Step 2: Planning your career as an Archaeologist in 12th will give you a lead and you can try out these books:

- A history of India through 75 objects
- The archaeology of Hindu rituals, Temples and the establishment of the gods

Step 3: You need to have some educational qualifications like:(These courses last 3-4 years)

1. First, B.A Course in Ancient History
2. Then, Masters in Archaeology

Top Colleges/Recruiters in India :

1. ASI (Archaeological Survey of India)
2. University of Mysore

Top Colleges abroad:

1. Stanford University in US
2. Leiden University in Netherlands

Salary:

Rs.50,000-Rs.8,00,000
per month

4. Requirements for a Restorer:

Step 1: You can choose any stream of your choice, but after 12th, you need to get a Bachelor's degree in any related subject like history, archaeology, anthropology.

Step 2: You can go look for job in various organisations or get a:

1. Master's Degree
2. Ph.D program in Art Conservation

Top Colleges in India:

1. Kurukshetra University in Haryana
2. University of Allahabad in Uttar Pradesh

Top Colleges abroad:

1. European University Viadrina
2. State Academy of Fine Arts Stuttgart in Germany

Step 3: After a Degree or a PHD, you can apply to jobs, but it will take a lot of experience in the process of restoration, touching up on details and even documentation of the process

Salary:
Rs.5,000-Rs.20,000
per project

Hobby Club:

Chess



References:

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Thank You!