THE MAJESTIC TAJ MAHAL

Architect: Emperor Shah Jahan
Location: Agra, India
Time: 1626 to 1648
Building type: Islamic tomb
Construction system: bearing masonary, inlaid marble
Construction material: white marble
Climate: desert
Context: park setting
Style: islamic
Typical features: onion-shaped domes, flanking towers
Height: the mausoleum 57m,
the central inner dome 24.5m
the outer shell of the dome 61m

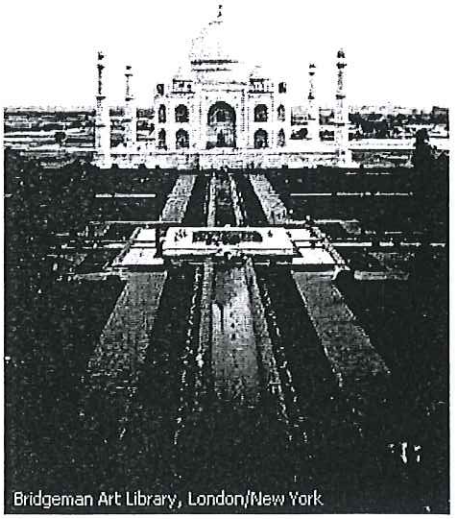


FIG. 7 THE TAJ MAHAL

The gardens of the Taj Mahal, located in Âgra, are an example of 17th-century Islamic architecture. The use of symmetry and pattern is evident in the relationship between sun and shade, plants and water, and light and dark. The effect is that of a Persian rug leading to the entrance of the famous mausoleum.

TO people all over the world, the Taj Mahal is synonymous with India. It is regarded as one of the eight wonders of the world and some Western historians have noted that its architectural beauty has never been surpassed. Renowned for its magnificence and aesthetic beauty, it counts among man's proudest creations and is invariably included in the list of the world's foremost wonders. As a tomb, it has no match upon earth, for mortal remains have never been housed in greater grandeur.

The Taj Mahal was constructed over a period of twenty years, employing twenty thousand workers. It was completed in 1648 at a cost of 32 million rupees.

The Taj stands on a raised, square platform (186 x186 feet). The architectural design uses the interlocking arabesque concept, in which each element stands on its own and perfectly intergrates with the main structure. The Mausoleum of the Taj Mahal stands in a formally laid-out walled garden entered through a pavilion on the main axis.

WARM UP

1.Have you ever heard of the Taj Mahal?
2. Do you know anything about it ?
3. Why is it often called "elegy in marble"?
4. What is a mausoleum ? Do you know any other famous mausoleums ?

READING

1. Read the text about the Taj Mahal. Translate it with the help of the dictionary.

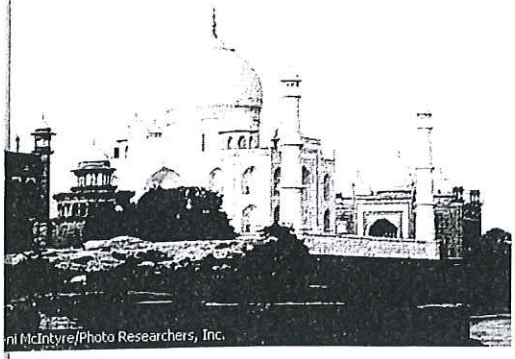


FIG. 8: TAJ MAHAL, INDIJA
he Taj Mahal, designed as a tomb for the wife of a 17th-century Mughal emperor, was constructed by about 20,000 workers from 1632 to 1648 in Âgra, a city in northern India. The massive domed structure was constructed in the Indo-Islamic style, using white marble and inlaid gems. At each corner is a *minaret* (prayer tower), and passages from the Koran, the Muslim holy book, adorn the outside walls. The bodies of the emperor and his wife remain in a vault below the building.

The tomb, raised on a terrace and first seen reflected in the central canal, is entirely sheathed in marble, but the mosque and counter- mosque on the transverse axis are built in red sandstone.

The four minarets, set symmetrically about the tomb are scaled down to heighten the effect of the dominant, sligtly bulbous dome. The mosques, built only to balance the composition are set sufficiently far away to do no more than frame the mausoleum. In essence, the whole riverside platform is a mosque courtyard with a tomb at its centre. The great entrance gate with its domed central chamber, set at an end of the long watercourse, would in any other setting be monumental in its own right.

(Abridged from: A History of Architecture. P 624., Sir Banister Fletcher.)

VOCABULARY

1. Find words in the text which mean :

A) the part of a building that is made of stone and cement

B) having the shape of an onion

C) an imaginary line through the centre of an object, around which the object turns

D) a tall thin tower, usu forming part of a mosque, from which Muslims are called to prayer

E) a space without a roof enclosed by walls, esp. forming part of a castle, large house, hotel, etc.

F) a round roof with a circular base, usu a part of a cathedral

G) the condition which exists when two opposites are equal or in correct proportions

2. You can find the following collocations in the text :

architectural beauty
onion-shaped domes
entrance gate
central chamber
main structure

Can you think of some other possible collocations with the words given above ?

GRAMMAR : PREPOSITIONS

1. Try to fill in the prepositions in the text. Then read it and learn more about the construction materials.

The principal construction materials.... the earlier times were *wood* and *masonry- brick, stone or tile, earth and mud*, and similar materials. The Romans also used a natural cement called *pozzolana*, made ....*volcanic ash*, that became as hard as stone .... water. The Greeks and Romans sometimes used *iron rods* or *clamps* to strengthen their buildings. The columns..... the Parthenon in Athens, for example have holes drilled in them .....*iron bars* that have now rusted away.

A brick is baked or dried clay used .... building and masonry is the part.... a building that is made.... *stone and cement.*

Stone is a hard solid mineral substance that is not metallic. *Limestone* and *sandstone* were commonly used construction materials .... earlier times.

Limestone is a type ...white rock, containing Calcium, used .... a building material and ....making *cement.*

Sandstone is a type....rock formed.....grains .....sand tightly pressed together.

2.Insert the correct preposition where needed !

1. Materials in a structure are subject various stresses.
2. Many great buildings of earlier times were constructed the basis of experience.
3. They were built much greater strength than modern standards require.
4. Every structure built civil engineer is unique.
5. These experiments will result new methods of constructions.
6. Vertical and horizontal forces must be equal each other.

3. Decide which prepositions to use with the following expressions.

a mixture consisting .....
plated.....gold
distance .....the quarry and the river
built.....logs
dealing.....quantitiy
filled.... sand
machines ..... work
keep....balance
separated ..... joints
bringing structure ..... realization
take.....account
being aware.....

EXTEND YOUR KNOWLEDGE !

Both metric and non-metric systems of measurement are used in Britain. The metric system is always used in a scientific context but it is much less widely used in the USA.

Non-metric measures with approximate metric equivalents:

Length :

1 inch (in) = 25,4 millimetres

1 foot (ft) =30,48 centimetres

1 yard (yd) =0,914 metre

1 furlong=201.17 metres

1 mile= 1.609 kilometers

Area :

1 square(sq) inch = 6.452 sq centimetres

1 sq foot = 929.03 centimetres

1 sq yard = 0,836 sq metre

1 acre = 0.405 hectare

1 sq mile = 259 hectares / 2.59 sq kilometres

Weight :

1 ounce (oz) = 28.35 grams

1 pound (lb) = 0.454 kilogram

1 stone (st) = 6.356 kilograms

1 hunderweight (cwt) = 50.8 kilograms

1 ton = 1016.04 kilograms

Capacity (British):

1 pint (pt) = 0.568 litre

1 quart (qt) = 1.136 litres

1 gallon (gal) = 4.546 litres

Capacity(American):

1 US pint = 0.473 litre

1 US quart = 0.946 litre

1 US gallon = 3.785 litres