

## 6<sup>th</sup> – Buildings, Blocks and Books



### **The Iron Pillar:**

The iron pillar at Mehrauli, Delhi is a remarkable example of the skill of Indian crafts persons. It is made of iron, 7.2 m. high, and weighs over 3 tonnes. It was made about 1500 years ago. We know the date because there is an inscription on the pillar mentioning a ruler named Chandra, who probably belonged to the Gupta dynasty.

### **Buildings In Bricks And Stone:**

The skills of our crafts persons are also apparent in the buildings that have survived, such as stupas. The word stupa means a mound. While there are several kinds of stupas round and tall, big and small, these have certain common features. Generally, there is a small box placed at the centre or heart of the stupa. This may contain bodily remains (such as teeth, bone or ashes) of the Buddha or his followers, or things they used, as well as precious stones, and coins. This box, known as a relic casket, was covered with earth. Later, a layer of mud bricks or baked brick was added on top. And then, the dome like structure was sometimes covered with carved stone slabs. Often, a path, known as the pradakshina patha, was laid around the stupa. This was surrounded with railings. Entrance to the path was through gateways. Devotees walked around the stupa, in a clockwise direction, as a mark of devotion. Both railings and gateways were often decorated with sculpture.

Some of the earliest Hindu temples were also built at this time. Deities such as Vishnu, Shiva, and Durga were worshipped in these shrines. The most important part of the temple was the room known as the garbhagriha, where the image of the chief deity was placed. It was here that priests performed religious rituals, and devotees offered worship to the deity. As at Bhitargaon, a tower, known as the shikhara, was built on top of the garbhagriha, to mark this out as a sacred place. Building shikharas required careful planning. Most temples also had a space known as the mandapa. It was a hall where people could assemble.

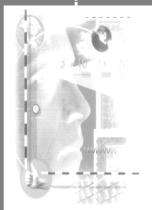
### **How Were Stupas And Temples Built?**

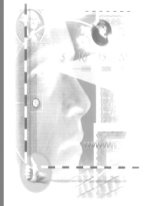
There were several stages in building a stupa or a temple. Usually, kings or queens decided to build these as it was an expensive affair, first, good quality stone had to be found, quarried, and transported to the place that was often carefully chosen for the new building. Here, these rough blocks of stone had to be shaped and carved into pillars, and panels for walls, floors and ceilings. And then these had to be placed in precisely the right position.

Kings and queens probably spent money from their treasury to pay the crafts persons who worked to build these splendid structures. Besides, when devotees came to visit the temple or the stupa, they often brought gifts, which were used to decorate the buildings. For example, an association of ivory workers paid for one of the beautiful gateways at Sanchi.

### **Painting:**

Ajanta is a place where several caves were hollowed out of the hills over centuries. Most of these were monasteries for Buddhist monks, and some of them were decorated with paintings. As the caves are dark inside, most of these paintings were done in the light of torches. The colours, which are vivid even after 1500 years, were made of plants and minerals. The artist who created these splendid works of art remains unknown.





### The World Of Books:

Epics are grand, long compositions, about heroic men and women, and include stories about gods. A famous Tamil epic, the silappadikaram, was composed by a poet named Ilango, around 1800 years ago. It is the story of a merchant named Kovalan, who lived in Puhar and fell in love with a courtesan named Madhavi, neglecting his wife Kannagi. Later, he and Kannagi left Puhar and went to Madurai, where he was wrongly accused of theft by the court jeweller of the Pandya king. The king sentenced Kovalan to death. Kannagi, who still loved him, was full of grief and anger at this injustice, and destroyed the entire city of Madurai.

Another Tamil epic, the Manimekalai was composed by Sattanar around 1400 years ago. This describes the story of the daughter of Kovalan and Madhavi. These beautiful compositions were lost to scholars for many centuries, till their manuscripts were rediscovered, about a hundred years ago.

Other writers, such as Kalidasa, wrote in Sanskrit.

### Recording and Preserving Old Stories:

A number of Hindu religious stories that were in circulation earlier were written down around the same time. These include the Puranas. Purana literally means old. The Puranas contain stories about gods and goddesses, such as Vishnu, Shiva, Durga or Parvati. They also contain details on how they were to be worshipped. The Puranas were written in simple Sanskrit verse. Two Sanskrit epics, the Mahabharata and Ramayana had been popular for a very long time.

### Stories Told By Ordinary People:

Ordinary people also told stories, composed poems and songs, sang, danced, and performed plays. Some of these are preserved in collections of stories such as the Jatakas and the Panchatantra.

### Writing Books on Science:

This was also the time when Aryabhata, a mathematician and astronomer, wrote a book in Sanskrit known as the Aryabhatiyam. He stated that day and night were caused by the rotation of the earth on its axis, even though it seems as if the sun is rising and setting everyday. He developed a scientific explanation for eclipse as well. He also found a way of calculating the circumference of a circle.

### Literature

#### Compositions In Sanskrit

Sanskrit is the forerunner of a large number of Indian languages. Several works of religious and literary significance were composed in this language, for instance, the Vedas. The Rig Veda was composed in Vedic Sanskrit an early form of the language. It is a collection of prayers offered to various gods like Varuna, Agni and Surya. The other Vedas that followed are the Yajur Veda the Sama Veda, and the Atharva Veda. Apart from these, there are the Vedangas, the Aranyakas and the Upanishads. The two great epics, the Ramayana and the Mahabharata, are the religious cornerstones of the faith of the Hindus even today. There are 18 main puranas, which deal with myths, legends, religious rites and customs. The most outstanding poet of the Gupta period was Kalidasa. His works, like the

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Abhignanshakuntalam, Meghaduta and Ritusamharam are known for the rich quality of their poetry.

### Writings In Pali and Prakrit

The language most used by the common people during the ancient period was Pali. The Tripitakas, e.i., the Sutta Pitaka, the Abhidhamma Pitaka and the Vinaya Pitaka, are three important Buddhist texts that contain the teachings of the Buddha. They are known as Sutras in Sanskrit and Suttas in Pali. The Jataka Tales is a large collection of fables, and the characters are mainly talking animals.

### Art And Architecture

#### Pre-Mauryan Art

The remain of the Indus civilization reveal the practical nature of the people then- they believed that the value of a thing depended on its usefulness rather than mere beauty. This approach was reflected in their well-planned towns with elaborate drainage systems.

#### Mauryan Art

##### Palaces

Megasthenes has given detailed description of the palace of Chandragupta Maury. It was built of intricately carved wood.

##### Pillars And Capitals

Towering pillars or columns were erected with beautiful capitals crowning them. (capitals are pieces of sculpture on top of pillars.) Each pillar was made of a single piece of sandstone and highly polished. The capitals were usually sculptures of animals like horses, bulls or lions.

##### Cave Temples

Cave temples, or Chaityas, were hewn out of rock for prayer and to house Buddhist monks. A number of Chaityas were created in western and southern India. The cave at Karle (near Pune) is the finest of all. Many Chaityas have ornate pillars and stupas inside them. Sometime a cave monastery proved too small to house all the monks. And so, a complex of caves grew over centuries. The complex of caves at Ajanta, near Aurangabad, is the best example of this type of architecture.

##### Sculpture

Pillars were made of sandstone and were so highly polished that they shine. These pillars had life-like figures of animals carved on their capitals. The lion capital at Sarnath is India's national emblem today. Two schools of sculpture evolved in northern India-the Gandhara school of art and the Mathura school of art. The Gandhara Buddhas had Greek features, and were made of grey sandstone. The Mathura school of art preferred to use red sandstone and the statues of Buddha were smaller with Indian features.

##### Music And Dance

Indian music, is believed to have its origin in the chanting of the hymns of the Sama Veda. In the 1st century BCE, a textbook on dance, drama and music was compiled. This is attributed to Bharata and is called the Bharatanatyashastra. Musical instruments like the veena, flute and drum were used in ancient India.

##### Science

In ancient times, science and religion were linked. Aryabhata and Varahamira were two outstanding scholars of astronomy. Aryabhata is believed to have



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discovered the causes of solar and lunar eclipses. He is one of the earliest to have realized that the Earth revolved around the sun and the other way round. He also estimated the circumference of the Earth. Varahamihira explained the movements of the planets. Bhaskaracharya knew about gravity about 1200 years ago, and wrote down his finding in the Suryasiddhanta.

### Mathematics

The people of the Indus Valley must have had some knowledge of mathematics to have built the well-planned cities they did. They also had a uniform and accurate system of weights and measures. Later the Aryans needed to do mathematical calculations for their Vedic rituals. Vedic mathematics dealt with arithmetic, geometry and algebra. The greatest contribution to mathematics by India has been the idea of zero.

### Medical Sciences

Impressive advances were made in ancient India in medicine, especially in the fields of plastic surgery, removal of cataracts and dental surgery. Sushruta was a great surgeon of that time. Ayurveda is a branch of medicine that relies on herbal medicines to cure illness. Today ayurvedic medicine is practiced throughout the world. Another major contribution of ancient India to the world was the practice of yoga.

