

Ancient Hindu Achievements

Not only is Hindu civilization one of the oldest and most advanced, it is also a vital precursor and contributor to western civilization. The links to the West begin with language. Many western languages, including English, are known as 'Indo European' languages; this reflects the fact that the world's oldest and most sophisticated language, Sanskrit, was the precursor to Greek, Latin, and many modern European tongues.

As outlined below, Hindus also developed many of the basic principles of mathematics, science, medicine, and astronomy.

The following are comments made by eminent western scientists and philosophers about the Hindu civilizations contributions to mankind:

Albert Einstein: We owe a lot to the Indians, who taught us how to count, without which no worthwhile scientific discovery could have been made.

Mark Twain: India is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend, and the great grand mother of tradition. Our most valuable and most instructive materials in the history of man are treasured up in India only.

French scholar, Romain Rolland: If there is one place on the face of the earth where all the dreams of living men have found a home from the very earliest days when man began the dream of existence, it is India.

Hu Shih, former Ambassador of China to USA: India conquered and dominated China culturally for 20 centuries without ever having to send a single soldier across her border.

Some specific historical achievements of Hindus are as follows:

In the field of Astronomy:

- > Indian astronomer, Aryabhatta was the first to have propounded the theory that the earth was a sphere in the 5th century.
- > Aryabhatta introduced certain new concepts, like Aryabhatta's new epicyclic theory, the sphericity of the earth, its rotation on its axis and revolution around the sun, the true explanation of eclipses and methods of forecasting them with accuracy, and the correct length of the year were his outstanding contributions.
- > Indian astronomer, Brahmagupta, estimated in the 7th century that the circumference of the earth was 5000 yojanas. A "yojana" is around 7.2 kms. Calculating on this basis we see that the estimate of 36,000 kms as the earth's circumference comes quite close to the actual circumference known today.

Navigation:

- > The art of Navigation was born in the river Sindhu 6000 years ago. The very word "Navigation" is derived from the Sanskrit word "Navgatih". The word navy is also derived from Sanskrit "Nou".
- > India's maritime history predates the birth of western civilization. The world's first tidal dock is built at Lothal around 2300 BC during the Harappan civilization, near the present day Mangrol harbour on the Gujarat coast.

Education:

- > The world's first university was established at Takshashila (northwest region of India) in approximately 700 BCE. Another large university was established at Nalanda around 500 AD.

Mathematics:

- > Ancient Hindus provided the concept of zero to the world. In early Sanskrit texts and in Pingala's Chandra Sutra (200 AD), "zero" is called "Shunya". Later, Bhaskarācharya (400-500 AD) showed that any number divided by zero becomes infinity and infinity divided by any number remains infinity
- > Baudhayana gave the "Pythagoras theorem" centuries before the Greeks in 800 BC.
- > Pingala (400 BC) invented the binary number system which is the basic of computer operations
- > In addition to the concept of zero, the place-value system, the decimal system was developed in India as early as 100 BCE.
- > Ancient Hindus had also developed prefixes for raising ten to powers as high as fifty-three. "The Indian place-value numeration with zero sign ranks among humanity's fundamental discoveries.
- > Pi, the ratio of the circumference of a circle to its diameter, is stated to be approximately equal to three in the 600 BCE Sanskrit text Baudhayana Sulba Sutra. In 497 AD, Aryabhata calculated the value of pi as 3.146, as a ratio of 62832/2000.

Games:

- > The game of chess was developed in India and was originally called Astapada (sixty-four squares). Later this game came to be known as "Chaturanga" (four corps). In 600 AD this game was learned by Persians who named it "Shatranj".