
Ancient India: Indus Valley Civilization

Ancient India was known to be the largest, wealthiest and the oldest out of all the civilizations prior to the sixteenth century. Although ancient India is often overlooked and it is not regarded with much importance compared to civilizations such as ancient Greece and ancient Egypt, even though the ancient Indians have made several groundbreaking discoveries, and their rich culture and history have shaped the modern day society. Before ruled over India in the seventeenth century, India was the richest civilization as they had more than twice the amount of money the entire world had. Ancient India has had the most significant impact in the world as the ancient Indians found new discoveries in mathematics, science, astronomy, and medicine.

The mathematicians that lived in ancient India have left a great mark in the subject of mathematics. The single-digit numbers that are used in today's world were created in ancient India. The ancient Indians have used these numbers for over 2,000 years. The Indian mathematician, Aryabhata is known to be the first person to create the number zero and he also created the negative numbers that are commonly found in math. If the Indian mathematicians had never created the number zero, then there would have been no double digit numbers. Without the number zero, the subject of mathematics would have not been able to exist as writing numbers would have not been possible. Aryabhata, the famous Indian mathematician was also the person that created the decimal system. His invention of the decimal system revolutionized the development of mathematics. The basics of algebra, calculus, trigonometry and many other mathematical concepts were all created by the great minds of the Indians. The ancient Indians are also credited for creating the binary system. The binary number system is made up of two numbers, one and zero and it is used to create computer programs.

The doctors that lived in ancient India are responsible for creating the system of healing known as Ayurveda. Ayurveda is a treatment method that relies on using herbal and organic treatment to fight diseases and illnesses. The main principle of Ayurveda is to balance the mind, body, and spirit so the mind can heal a person's body naturally without the need of chemicals or surgery. The ancient Indians wrote their knowledge about this ancient form of medicine in the Vedic texts about 5,000 years ago. Even to this day, millions of people in India are using Ayurveda to cure diseases and many people living in North America are turning to Ayurveda as an alternative form of treatment. The spiritual practice of Yoga was also created in ancient India. Yoga is a special workout aimed at maintaining and improving well-being and health. Yoga is practiced worldwide by millions of people today and it was the ancient Indians that gave the gift of yoga to the world. Meditation is another practice that is used by millions of people to release stress and to achieve a calm state of mind. The knowledge of meditation came from the Hindu scriptures that were written about 5,000 years ago. In the year 800 BCE, several developments in medicine and surgery had been made. Sushruta, a doctor wrote a medical book that completely described the human anatomy. Inside of the book, there were hundreds of surgical procedures described and explained in full detail. He also invented many new surgical equipment, surgeons use today. Sushruta is also credited for doing the first ever surgery. The first surgery he ever did on a person was a cataract surgery and it was successful. Sushruta had gained a lot of public attention and in fact, Greek doctors and philosophers came to India just to learn how to do a surgery from him. In addition, the Ancient Indians are also credited for inventing plastic surgery. It was primarily the doctors and scientists of ancient India that

discovered the basics and advanced the world's knowledge in medicine.

The ancient Indians have also made major contributions to the subject of science. The most significant scientific discovery made by the Indians was the Heliocentric theory. Aryabhatta, the Indian scientist and mathematician used his knowledge about mathematics to further ancient India's knowledge in astronomy. He discovered that the earth was a sphere, not flat and he also discovered that the earth rotated around the sun. The sages that lived in during that time period were also the ones to discover that the actual number of the planets in the solar system.

The ancient Indians are also responsible for explaining how gravity works. Brahmagupta, an Indian scientist explained how gravity worked 1000 years before Isaac Newton was even born. The astronomers and mathematicians living in this civilization were the first people to accurately calculate the number of days it took for earth to completely orbit the sun. In other words, they discovered the total number of days in a year centuries before the European astronomers figured it out. The scientists that lived in ancient India are also responsible for creating the first atomic theory the world has ever seen. Kanad, a scientist proposed that atoms are invisible to naked eye and that they are indestructible. He did more research and found out that atoms are either in state of constant movement or in a state of no movement.

The ancient Indians have also created many new inventions. Shampoo is known to be invented in India as the Indians used plant extracts and other types of herbs to wash their hair. When the European colonists came to India, they found out about this method and they spread the new invention of shampooing to the western world. The ancient Indians were the first people to invent the flush toilet. Several homes in the Indus Valley civilization had a working toilet inside of them. The Indus Valley civilization is also very well known for having an exceptional sewage and water management built underground. The ancient Indians are also known for inventing clothing as natural fibres such as cotton, and wool were first found in the Indus Valley civilization. Before the invention of cotton, people wore animal skin as a source of clothing. The strategic brain game known as chess was another of ancient India's most famous inventions. This game was invented in the 6th century AD and the popularity of the game led it to quickly spreading to all parts of the world including China and Europe. The ancient Indians were also masterminds in creating different types of metals. The Indians were the first people to create high quality steel. Wootz steel, a common steel that was used to manufacture swords was known to be one of the most greatest metals was invented by the Indians. Their knowledge about metals allowed the ancient Indians to create more powerful and advanced weapons which gave them an advantage in warfare. The ancient Indians are also credited for creating the world's first earth globe. Making a globe out of metal was known to be an impossible task before these artifacts were discovered during the 1980's in India. Ancient India has been commonly known as the first civilization to mine gold and silver. A large amount of gold and silver that were used to build palaces in ancient Greece were mined by the miners living in India at that time. The ancient Indians are also credited for building the Taj Mahal. The Taj Mahal was built by the Mughal Emperor whose name was Shah Jahan. He built the palace to honour his favourite wife who died. The Taj Mahal is known to be the most exceptional work of architecture created by the ancient Indians and it is also one of the new seven wonders of the world.

Ancient India has also had a tremendous impact in the world of religion. Hinduism, Buddhism, Jainism, and Sikhism, four of the world's most common religions all originated in ancient India. Approximately one billion people in the world follow Hinduism and it is the third most commonly followed religion and it is also the oldest religion in the world. Even though 95% of all Hindus live

in India, Hindus can be found everywhere as there is an estimated 297, 200 Hindus living in Canada and over 2 million Hindus are living in America. The language ancient Indians spoke and wrote in is known as Sanskrit. Sanskrit is known as the oldest and the most ancient language in the world as this language was spoken by the Indians as far back as 3500 years ago. This language has impacted the world as many words that are used in languages today have originated from the ancient language of Sanskrit. Around 400 words that are spoken in English have come from the language of Sanskrit. This is why Sanskrit is known to be the mother of all the languages.

If there is one civilization that has affected the world the most, it would be certainly be ancient India. The intelligent people that lived in this civilization have made several revolutionary discoveries that have shaped the world humanity lives in today. The great mathematicians that lived during this time period created the entire basis of mathematics. If it was not for them, then numbers would have not been able to exist. Albert Einstein, a world renowned physicist once said, 'We owe a lot to the Indians, who taught us how to count, without which no worthwhile scientific discovery could have been made.' Just like mathematics, the ancient Indians have also left a great mark in the subject of science. They create several theories that explained how the earth works. The Indians also came up with several inventions that people use today without even noticing about India's contribution to these inventions. Ancient India's rich culture has also had a tremendous impact in the world.