

◀ An artist of the Gupta Empire painted this delicate image of the Buddha.

# The Achievements of the Gupta Empire

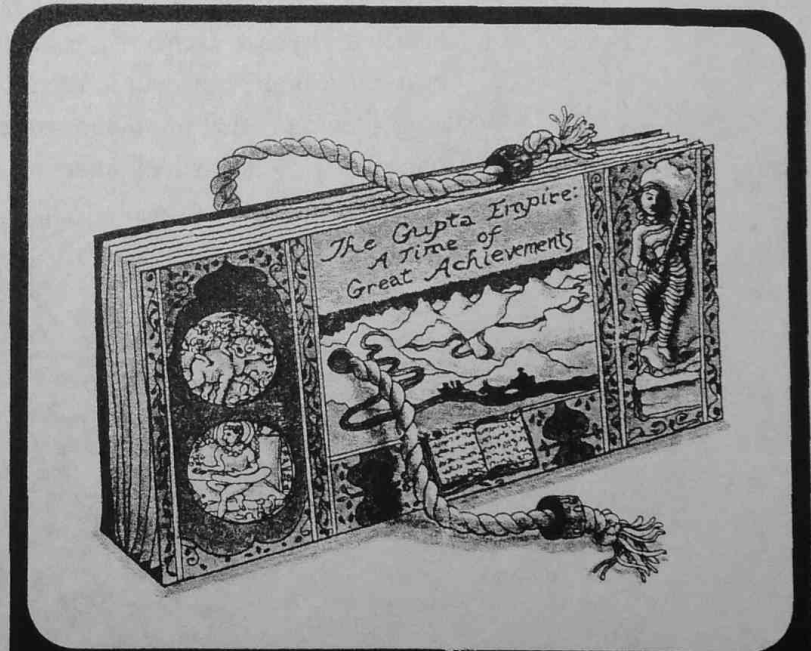
## 18.1 Introduction

In Chapter 17, you learned how India was unified for the first time under the Mauryan Empire. In this chapter, you will explore the next great Indian empire, the **Gupta Empire**.

The Guptas were a line of rulers who ruled much of India from 320 to 550 C.E. Many historians have called this period a **golden age**, a time of great prosperity and achievement. Peaceful times allow people to spend time thinking and being creative. During nonpeaceful times, people are usually too busy keeping themselves alive to spend time on inventions and artwork. For this reason, a number of advances in the arts and sciences came out during the peaceful golden age of the Gupta Empire. These achievements have left a lasting mark on the world.

Archeologists have made some amazing discoveries that have helped us learn about the accomplishments of the Gupta Empire. For example, they have unearthed palm-leaf books that were created about 550 C.E. Sacred texts often appeared in palm-leaf books. These sacred texts are just one of many kinds of literature that Indians created under the Guptas.

Literature was one of several areas of great accomplishment during India's Golden Age. In this chapter, you'll learn more about the rise of the Gupta Empire. Then you'll take a close look at seven **achievements** that came out of this rich period in India's history.



Use this illustration of a palm-leaf book as a graphic organizer to help you learn more about Indian achievements during the Gupta Empire.

## 18.2 The Rise of the Gupta Empire

After the Mauryan Empire fell in about 187 B.C.E., India broke apart into separate kingdoms. For the next 500 years, these smaller kingdoms fought each other for land and power. Beginning around 320 C.E., a second great empire arose in India: the Gupta Empire.

The empire began under Chandragupta I. He and his family, the Guptas, united the northern kingdoms by conquering them through war. They also formed alliances by arranging marriages with the sons and daughters of other rulers.

The Gupta line of kings lasted until 550 C.E. At the height of their power, the Guptas ruled most of northern India. Their empire was the largest India had known since the days of the Mauryas.

In some ways, the Gupta Empire was similar to the Mauryan Empire. The Guptas set up a central government to oversee the empire. A council helped the king make decisions. The council was made up of advisors and members of the royal family.

Unlike the Mauryas, the Guptas gave local areas a great deal of independence. The empire was divided into large areas called **provinces**. The provinces were ruled by royal governors. Within the provinces, town leaders could make many of their own decisions.

The Guptas' ruling strategy helped them to stay in power for nearly 230 years. Generally peaceful times and the empire's stability encouraged growth in the arts and sciences. The result was a "golden age" that produced some of the greatest advances in Indian history. Let's look at seven areas of great achievement under the Guptas.

**province** a territory that is part of a country or an empire



During their reign, Gupta kings were often shown on coins.

### 18.3 Universities

The period of the Gupta Empire was a time of great learning. The Guptas built many colleges and universities throughout the empire. Some universities were Hindu, and some were Buddhist. The schools were open primarily only to males. However, teachers' daughters were allowed to attend.

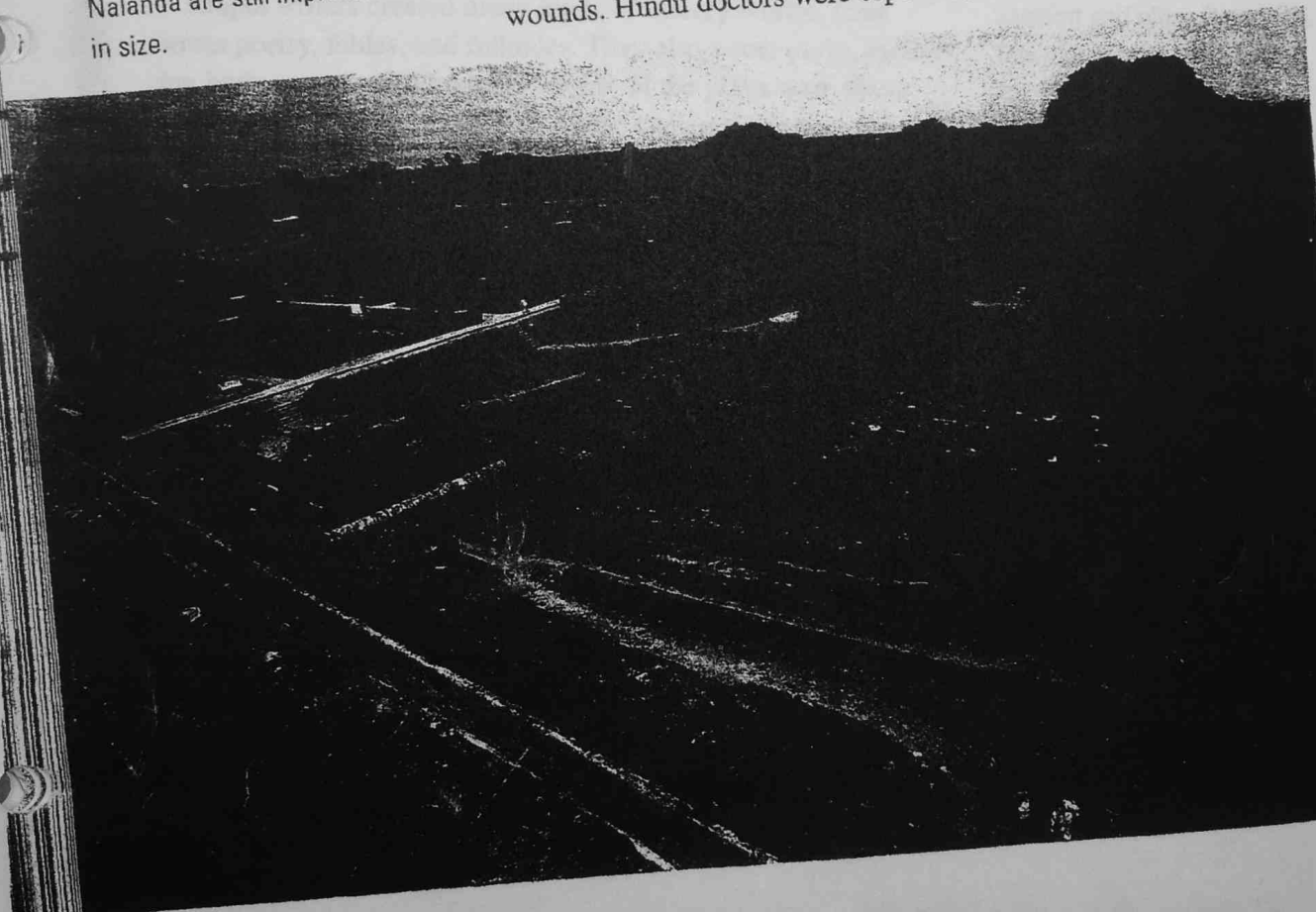
Hindu universities provided the upper classes with religious training. Students attended classes in religion, mathematics, astronomy, chemistry, and Sanskrit. They could also learn sculpture, painting, music, and dancing.

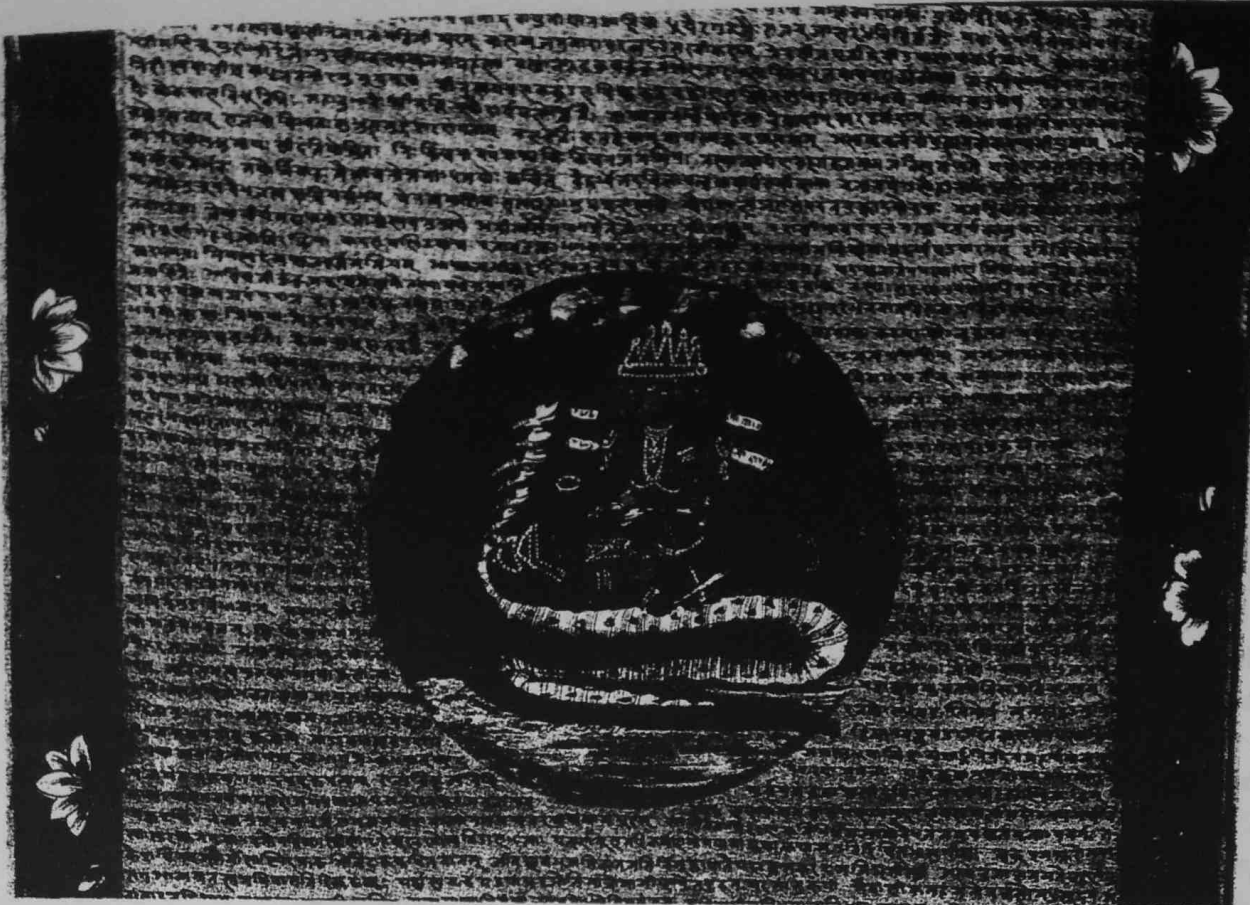
The most famous university was the Buddhist school at Nalanda. The school had eight colleges and three libraries. It also had a hospital and a **monastery**. Students were instructed in Buddhist and Hindu philosophy. They also studied logic, grammar, and medicine.

Students of medicine learned the practices of the day. They were trained how to question patients about their physical problems. They learned how to make cures from bark, roots, leaves, and minerals. They used the front claws of giant ants to stitch up wounds. Hindu doctors were especially skilled at surgery.

**monastery** a home for monks

The ruins of the University of Nalanda are still impressive in size.





## 18.4 Literature

Gupta writers created many kinds of literary works. They wrote poetry, fables, and folktales. They also wrote plays, including both comedies and dramas. Some of the plays were about historical and political subjects. Large audiences gathered to watch the performances.

There were other forms of writing as well. Scholars and lawyers wrote about Hindu law and religion. Some of the great Sanskrit literature took shape during this time. The *Puranas* ("Ancient Lore") described many Hindu legends. These sacred texts had been passed down orally for generations. They were first gathered together and recorded under the Guptas. The *Mahabharata* ("Great Work"), a poem composed over hundreds of years, reached its final form during the Gupta era. Its themes relate to Hindu values and the battle between good and evil.

The *Bhagavad Gita* ("Song of the Lord") is part of the *Mahabharata*. It is one of the most beautiful and beloved works of Hinduism. In this poem, Prince Arjuna is taught basic truths of Hinduism by Krishna, an earthly form of the deity Vishnu.

Some Gupta literature spread far beyond India. Gupta sacred texts influenced cultures as far away as Greece and Persia (present-day Iran). The famous Arabian tale about Aladdin and his magic lamp was inspired by a Gupta folktale.

Manuscripts were written in Sanskrit and often illustrated. This manuscript page is from the *Bhagavata Purana*.

Detail of an Ajanta cave  
painting pictures a procession  
of elephants.



### 18.5 Painting

The Gupta Empire is famous for its beautiful paintings. For noble (wealthy) families, painting was an important part of life. No home was complete without a painting board or easel. Popular subjects included deities and other religious topics. Nobles also hired artists to paint pictures of their families and of royalty. Some paintings highlighted the wealth and luxury of noble life. The paintings were often done on long **scrolls**.

Perhaps the greatest ancient Indian paintings are those known as the Ajanta cave **murals**. The murals cover the walls of the 30 caves that make up an ancient Buddhist monastery in central India. The paintings are done in rich, bright colors like red, purple, and green. Artists made the paints from minerals and clay.

Some of the Ajanta murals show scenes from the Buddha's life. Some portray stories that reflect Buddhist values, such as love and understanding. Many of the paintings are graceful images of kings, queens, musicians, and dancers. Others show animals and hunters in the forest. The woodland scenes are decorated with flowers, trees, and fancy patterns. Gupta artists painted all these subjects with a sure and delicate hand.

**scroll** a roll of a material like  
paper or papyrus  
**mural** a wall painting

### 18.6

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## 18.6 Sculpture

Another area of great artistic achievement in the Gupta Empire was sculpture. Sculptors created statues out of stone, wood, bronze, and terra-cotta clay. Many of these statues portrayed the Buddha or Hindu deities. Some showed scenes from important people's lives. Many sculptures were created to stand on their own. Others were carved into the walls of temples and caves.

Gupta sculptures portrayed the human form simply and gracefully. One fine example is a sculpture of the river deity, Ganga. She is riding on the back of a sea monster. In her left hand she holds a water jug. The statue's lines are rounded and elegant. Her dress, jewelry, and hair are carved in beautiful detail. Her expression is quiet and thoughtful.

A temple statue of the Buddha reflects the same attention to beauty and detail. The Buddha is seated on a highly decorated seat. His hands and legs are smoothly crossed. His expression is calm and peaceful. The sculptor used lowered eyes and a calm face to portray the Buddha's wisdom.

These sculptures of the river deity, Ganga, (below) and the Buddha (left) are typical of Gupta sculptures.



## 18.7 Metalwork

One of the most amazing accomplishments of the Gupta Empire was its metalwork. Gupta kings controlled huge mines of gold, copper, and iron. Metalworkers made gold and copper coins. They engraved the coins with pictures honoring Gupta rulers. The coins often highlighted the rulers' wealth and their achievements in art, politics, and war.

Gupta metalworkers were also famous for their ironwork. An iron pillar at a place called Meharauli is an impressive and mysterious example of their skill. The pillar is made of solid iron. It stands 25 feet tall and weighs about 13,000 pounds. The sides are engraved with a story that describes the accomplishments of a Gupta emperor. The iron is almost rust-free after 1,600 years in the rain and sun. No one knows how Gupta ironworkers acquired such advanced metalworking skills.

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## 18.8 Mathematics

Earlier Hindu mathematicians had created a way of writing whole numbers using the numerals 1 through 9. Gupta mathematicians made further advances. For example, they used the decimal system to write numbers. The decimal system uses 10 basic numerals that have different values depending on their "place." In the number 105, for instance, 1 is in the "hundreds place" and means 100. The system also works for fractions. In the decimal 0.10, 1 means one tenth. Note the zeros in these examples. Hindu mathematicians were the first to treat zero as a number. Many calculations are impossible without the zero.

In later centuries, Arabs learned the Indian system of numbers and spread it to Europe. As a result, Europeans called this way of writing numbers "Arabic numerals." A better name is "Hindu-Arabic numerals," because the system began with the ancient Indians. We still use this system today.

One of the most famous Gupta mathematicians was a man named Aryabhata. He combined mathematics and astronomy to make important discoveries. He figured out that a year was exactly 365.258 days long. He calculated the approximate size of Earth. He proposed that planets were spheres (shaped like balls). And he was one of the earliest scientists to suggest that Earth spins on its axis (an imaginary line through Earth's center).

Mathematics had immediate practical uses as well. For example, Gupta builders used mathematics to design more complex structures.

The use of mathematics allowed ancient Indians to build complex structures such as this temple.





## 18.9 Roads

Gupta rulers encouraged trade by creating a huge system of well-built roads. The roads were built with care and precision. Engineers first cleared the pathway of plants, trees, and rocks. Then they filled in any holes. Finally, they smoothed the ground until it was level. The finished roads were made of hard-packed dirt.

The roadways were designed for safety and comfort. They were built a few feet off the ground. Ditches, or canals, ran along either side. These features helped prevent flooding during the rainy monsoon season. Water would simply run off the road and into the ditches.

Signs along the roadway told travelers where they were. They also marked off the distances so people could figure out how far they had traveled. Rest houses gave travelers a place to relax or spend the night. Wells provided water for drinking and cooking.

The empire's roads greatly benefited trade. They allowed traders to move easily from city to city within the empire. Traders could also move goods from the middle of the country to important waterways. From there, the goods could be shipped and sold to other countries. The roads also connected India to China and the lands east of the Mediterranean Sea.

The Karakoram Highway connects northern Pakistan with China.

