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Planned Cities on the Indus

TERMS & NAMES

- subcontinent
- monsoon

MAIN IDEA

The first Indian civilization built well-planned cities on the banks of the Indus River.

WHY IT MATTERS NOW

The culture of India today has its roots in the civilization of the early Indus cities.

SETTING THE STAGE The great civilizations of Mesopotamia and Egypt rose and fell. They left behind rich histories, but the current cultures in those areas have few links to their predecessors' ancient glories. Farther east, in India, another civilization arose about 2500 B.C. Historians know less about its origins and the reasons for its eventual decline than they do about the origins and decline of Mesopotamia and Egypt. Yet many characteristics of modern Indian culture can be traced to that early civilization.

The Geography of South Asia

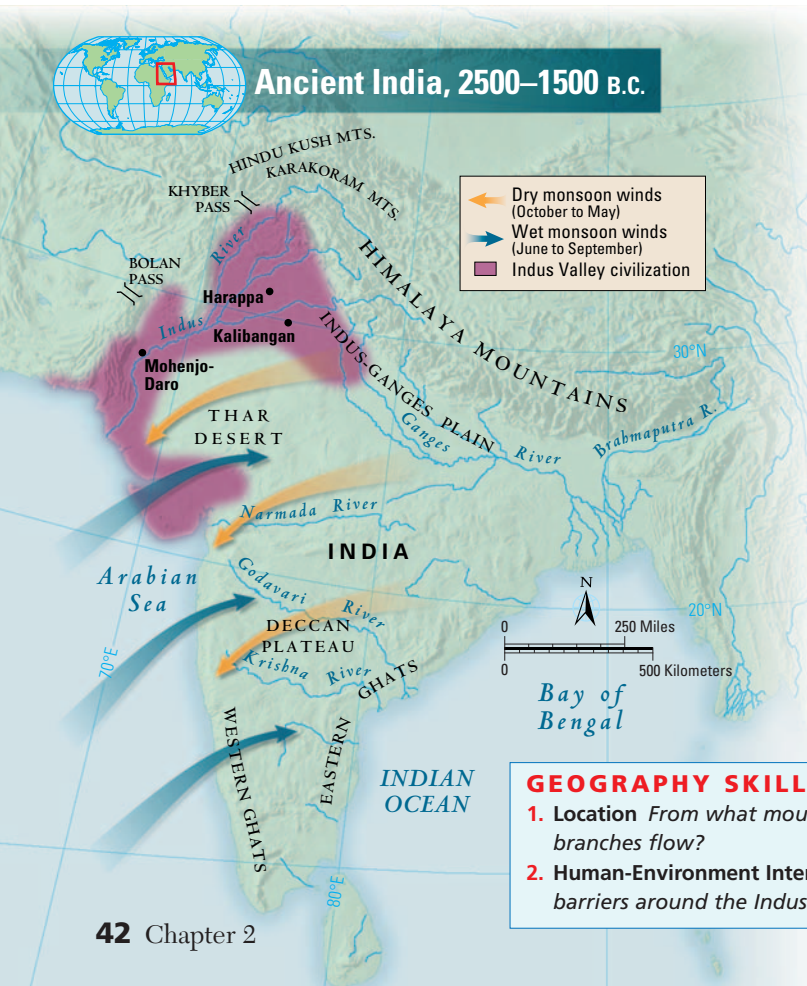
A wall of mountains—the Hindu Kush, Karakoram, and Himalaya ranges—separates South Asia from the rest of the continent. As a result, geographers often refer to the land mass that includes what is now India, Pakistan, Nepal, and Bangladesh as a **subcontinent**—the Indian subcontinent.

Rivers, Mountains, and Monsoons The mountains guard an enormous flat and fertile plain formed by two rivers—the Indus and the Ganges (GAN-jeez). These

two rivers and the lands they water make up a large area that stretches 1,500 miles across northern India and is called the Indus-Ganges Plain.

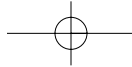
Below this plain, the southern part of the subcontinent is a peninsula that thrusts south into the Indian Ocean. The center of the peninsula is a high plateau cut by twisting rivers. This region is called the Deccan (DEK-uhn). A narrow border of lush, tropical land lies along the coasts of southern India.

Seasonal winds called **monsoons** dominate India's climate. From October to May, winter monsoons from the northeast blow dry air across the country. Then, in the middle of June, the winds shift. Spring monsoons blow from the southwest, carrying moisture from the ocean in great rain clouds.



GEOGRAPHY SKILLBUILDER: Interpreting Maps

1. **Location** From what mountain ranges do the Indus River and its branches flow?
2. **Human-Environment Interaction** What landforms presented natural barriers around the Indus Valley?



THINK THROUGH HISTORY

A. Identifying

Problems What environmental challenge did the farmers of the Indus Valley face that the Sumerians and Egyptians did not?

Environmental Challenges The civilization that emerged along the Indus River faced many of the same challenges as the ancient Mesopotamian and Egyptian civilizations. The Indus River flows southwest from the Himalayas to the Arabian Sea. As in Mesopotamia and Egypt, yearly floods spread deposits of rich soil over a wide area. Unlike the Nile floods, however, the floods along the Indus were unpredictable. The river sometimes changed its course. Unlike both the Mesopotamians and the Egyptians, the people of the Indus Valley had to cope with the cycle of wet and dry seasons brought by the monsoon winds. If there was too little rain, plants withered in the fields and people went hungry. Too much rain, and floods swept away whole villages.

The world's tallest mountains to the north and a large desert to the west presented natural boundaries between the Indus Valley and other areas. As in Egypt, the natural barriers helped protect the Indus Valley from invasion. At the same time, the Indus River provided a link to the sea. The river allowed valley inhabitants to develop trade with distant peoples, including the Mesopotamians.

Civilization Emerges on the Indus

Historians know less about the civilization in the Indus Valley than about those to the west. They have not yet deciphered the Indus system of writing. Evidence comes largely from archaeological digs, although many sites remain unexplored, and floods probably washed away others long ago. At its height, however, the civilization of the Indus Valley influenced an area much larger than either Mesopotamia or Egypt.

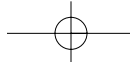
Earliest Arrivals No one is sure how human settlement began in India. Perhaps people who arrived by sea from Africa settled the south. Northern migrants may have made their way through the Khyber Pass in the Hindu Kush mountains. Archaeologists have found evidence in the highlands of agriculture and domesticated sheep and goats dating to about 7000 B.C. By about 3200 B.C., people were farming in villages along the Indus River.

Planned Cities Around 2500 B.C., while Egyptians were building pyramids, people in the Indus Valley were laying the bricks for India's first cities. Archaeologists have found the ruins of more than 100 settlements along the Indus. The largest cities were Kalibangan, Mohenjo-Daro, and Harappa. (Indus Valley civilization is sometimes called Harappan civilization, because of the many archaeological discoveries made at that site.)

One of the most remarkable achievements of the Indus Valley people was their sophisticated city planning. The cities of the early Mesopotamians were a jumble of buildings connected by a maze of winding streets. In contrast, the people of the Indus laid out their cities on a precise grid system. Cities featured a fortified area called a citadel, which contained the major buildings of the city. There were also separate residential districts. Buildings were constructed of oven-baked bricks cut in standard

The citadel arises out of the ruins of Mohenjo-Daro.



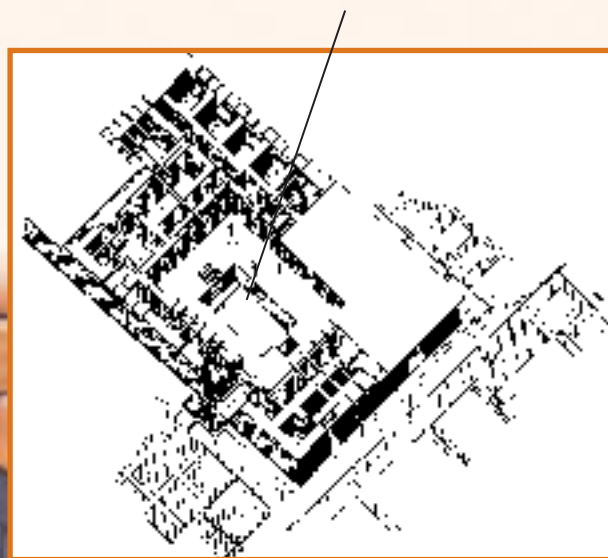


Plumbing in Mohenjo-Daro

From the time people began living in cities, they have faced the problem of plumbing: how to obtain clean water and remove human wastes? In most ancient cities, people retrieved water from the river or a central well. They dumped wastes into open drainage ditches or carted them out of town. Only the rich had separate bathrooms in their homes.

By contrast, the Indus peoples built extensive and modern-looking plumbing systems. In Mohenjo-Daro, almost every house had a private bathroom and toilet. No other civilization achieved this level of convenience until the 19th and 20th centuries. The toilets were neatly built of brick with a wooden seat. Pipes connected to each house carried wastewater into an underground sewer system.

The swimming pool–sized Great Bath in Mohenjo-Daro was probably used for ritual bathing or other religious purposes. Private dressing rooms, some with their own toilets, surrounded the pool.



In their private baths, people took showers by pouring pitchers of water over their head.

Plumbing Facts

- The ancient Romans also built sophisticated plumbing and sewage systems. Aqueducts supplied Roman cities with water.
- In the 17th century, engineers installed a series of water wheels to pump water for the fountains of Versailles, the palace of French king Louis XIV. The water was pumped from a river ten miles away. This was the first water-supply system powered by machine rather than gravity.
- The first flush toilet was patented in 1775 by Alexander Cumming, a British mathematician and watchmaker.

Wastes drained through clay pipes into brick sewers running below the streets. These sewers had manholes, through which sanitation workers could inspect the drains and clean out the muck.

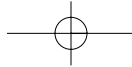
Connect to History

Making Inferences What does the attention the Indus people gave to the plumbing and sewer systems suggest about their culture?

 SEE SKILLBUILDER HANDBOOK, PAGE R16

Connect to Today

Researching Find out how water is supplied and wastewater disposed of in your home or community. Is your home connected to a municipal system? If so, when was this system built and how does it function? If not, how does your home system work? How does the system in your home or community compare to what was used in Mohenjo-Daro?

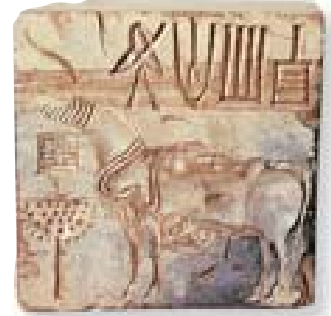


sizes, unlike the simpler, irregular, sun-dried mud bricks of the Mesopotamians. Early engineers also created sophisticated plumbing and sewage systems. These systems could rival any urban drainage systems built before the 19th century. The uniformity in the cities' planning and construction suggests that the Indus peoples had developed a strong central government.

Culture and Trade Archaeological evidence shows that Indus civilization was generally stable. The uniform housing suggests that social divisions in the society were not great. Artifacts such as clay and wooden children's toys suggest a relatively prosperous society that could afford to produce nonessential goods. Finally, few weapons of warfare have been found, suggesting that conflict was limited.

Religious artifacts reveal links to modern Hindu culture. Figures show what may be early representations of Shiva, a major Indian god. Other figures relate to a mother goddess, fertility images, and the worship of cattle. All of these became part of later Indian civilization.

Stamps and seals made of carved stone were probably used by Indus merchants to identify their goods. These show that the Indus peoples conducted long-distance trade. Indus seals found in Sumer, and Sumerian objects found in the Indus Valley ruins, reveal that the two civilizations traded a great deal. Trading began as early as the reign of Sargon of Akkad, around 2350 B.C., and continued until 2000 B.C.



Many Indus seals depict animals, especially cattle. This seal depicts a long-horned bull.

Mysterious End to Indus Valley Culture

Around 1750 B.C., the quality of building in the Indus Valley cities declined. Gradually, the great cities fell into decay. What happened? Some historians think that the Indus River changed course, as it tended to do, so that its floods no longer fertilized the fields near the cities. Other scholars suggest that people wore out the valley's land. They overgrazed it, overfarmed it, and overcut its trees, brush, and grass.

As the Indus Valley civilization neared its end, around 1500 B.C., a sudden catastrophe may have helped cause the cities' downfall. Archaeologists have found the remains of 38 bodies in the ruins of Mohenjo-Daro, seemingly never buried. Their presence suggests that residents may have abandoned the city after a natural disaster or an attack from human enemies. As Chapter 3 explains, the Aryans, a nomadic people from north of the Hindu Kush mountains, swept into the Indus Valley at about this time. Whether they caused the collapse of the first Indus civilization or followed later is not known.

Indian civilization would later grow again under the influence of these nomads. At this same time, farther to the east, another civilization was arising. It too was isolated from outside influences, as you will learn in Section 4.

THINK THROUGH HISTORY

B. Analyzing

Causes What factors may have contributed to the decline of the Indus Valley civilization?

Section 3 Assessment

1. TERMS & NAMES

Identify

- subcontinent
- monsoon

2. TAKING NOTES

Create a two-column chart like the one below. In the left column, list the environmental conditions faced by the people of the Indus Valley. Next to each condition, in the right column, put a plus sign (+) if it was a benefit or a minus sign (–) if it was a drawback.

Environmental Condition	Benefit or Drawback

3. DRAWING CONCLUSIONS

What evidence has led historians to the following beliefs about Indus civilization?

- The cities were run by a strong central government.
- Indus people carried on trade with Sumer.
- Society was generally peaceful and stable.

Choose one of these conclusions and provide a different explanation based on the evidence.

4. THEME ACTIVITY

Science and Technology

Create a "Wall of Remarkable Indus Valley Achievements." Working in teams, write a paragraph about how your team's designated achievement simplified or complicated the Indus people's lives. Include an illustration or a cartoon.