

Name: _____

Part 1

Instructions: Answer the following questions using information from the **Looking at Natural Resources and Rivers** presentation.

1. What three river valleys in India and China were home to some of the world's earliest civilizations?
 - a. _____
 - b. _____
 - c. _____

2. Which religions and philosophies developed in these river valleys?
 - a. _____
 - b. _____
 - c. _____

3. The main cities of the Indus Valley civilization were _____ and _____.

4. The most important crops in ancient India and China were _____
_____.

5. What are ecosystem goods? _____
_____.

6. What are three examples of ecosystem goods in India and China? _____

_____.

7. What are ecosystem services? _____
_____.

Name: _____

8. What are three examples of ecosystem services in India and China? _____

9. Why is the Huang He also called the Yellow River? _____

10. Give several examples of river materials used in ancient China. _____

11. What was the most important part of ancient Chinese economy in the valley of the Huang He? _____

Part 2

Instructions: Complete the following chart. Write down an ecosystem good (natural resource) in the first column. Next, give examples of how that natural resource helped shape ancient Indian and/or Chinese civilizations in these categories: the economy (how to make money), the government (what laws they had), religion (who or what people worshipped), and culture (how the resource was used, for example, food, art). (1 point for each cell in each row)

The first resource, silk, has been completed as an example. (You might not have an answer for every category.)

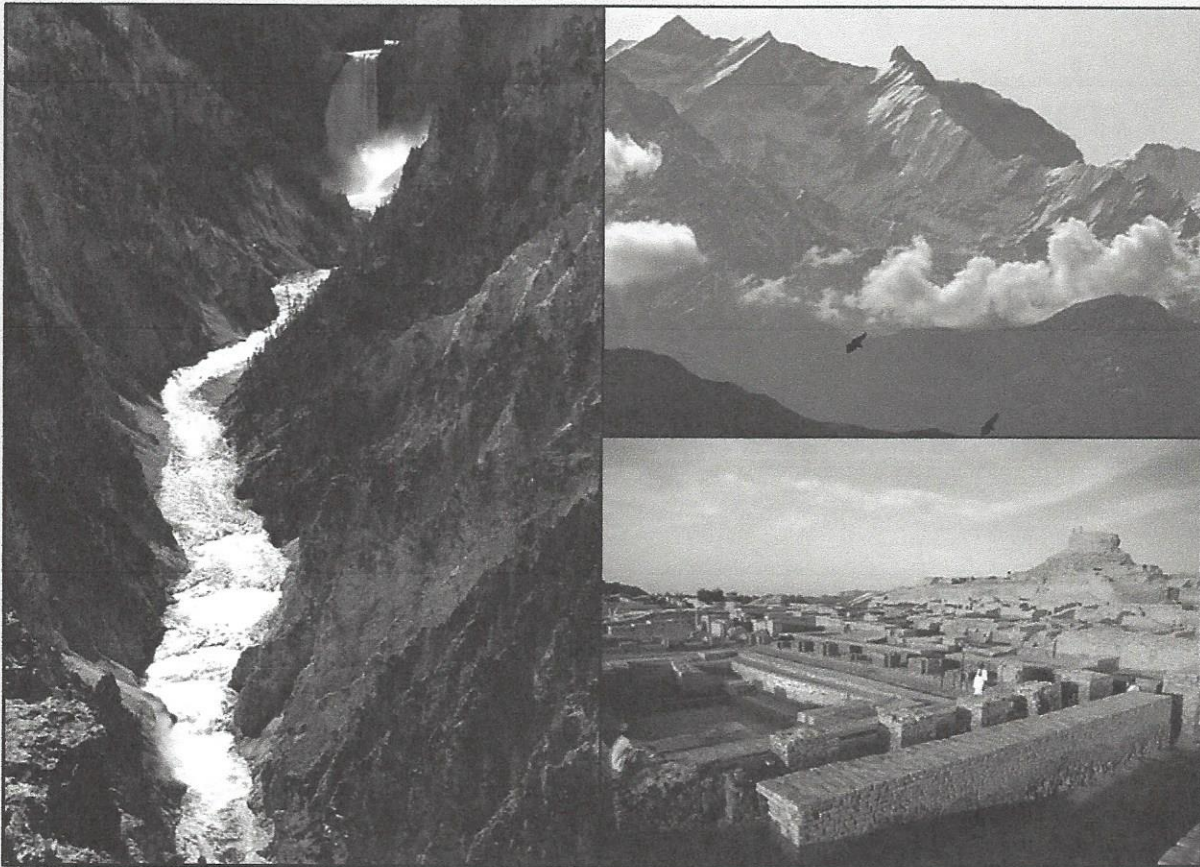
Natural Resource	Economy	Government	Religion	Culture
Silk (silkworms)	They sold and traded silk.	Leaders controlled trade.		Silk cloth was highly prized by the wealthy.

Name: _____

Natural Resource	Economy	Government	Religion	Culture

VA #9 Looking at Natural Resources and Rivers

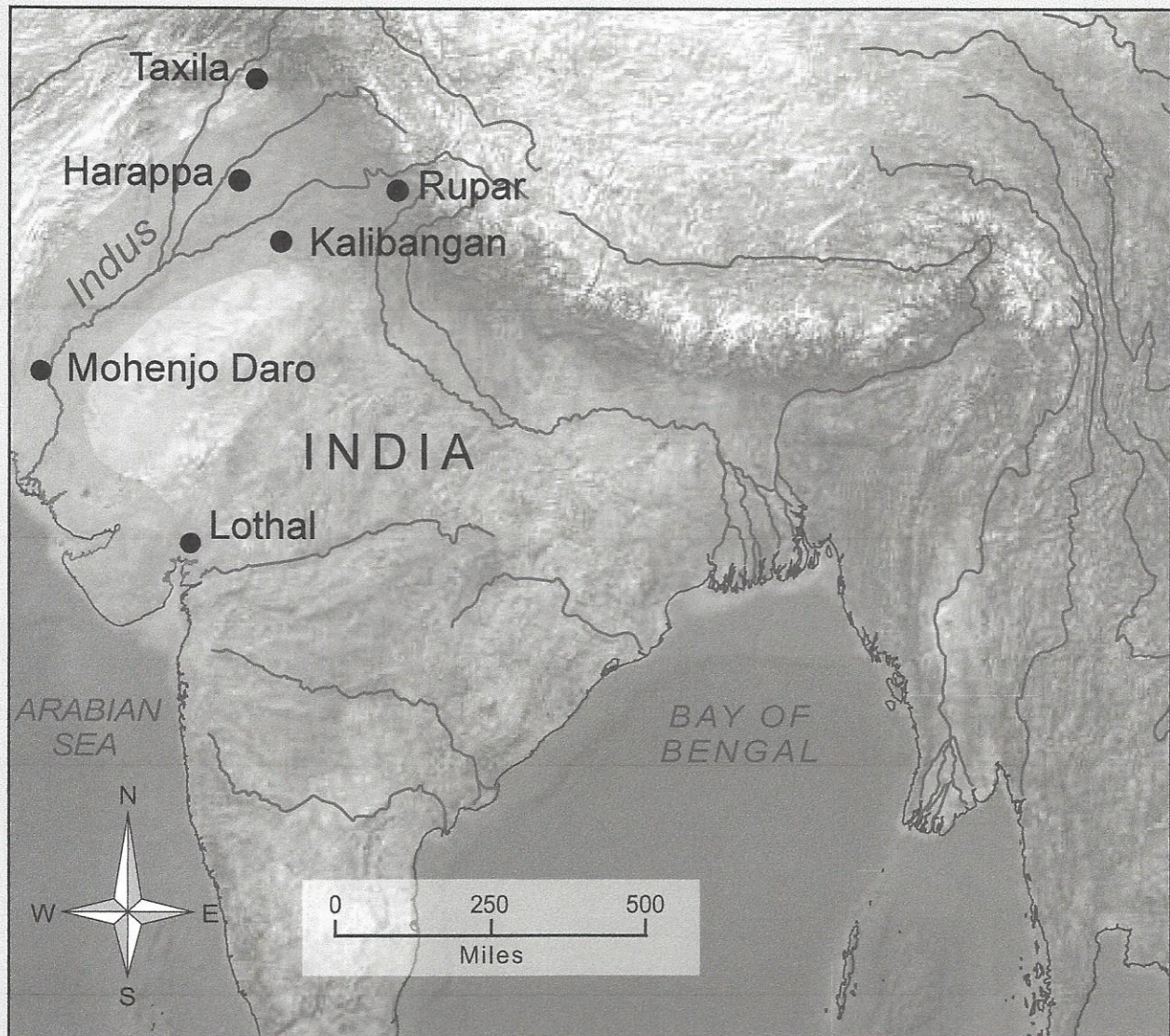
The following presentation identifies the importance of water and major river systems to human life and ancient civilizations in India and China, and provides examples of the natural resources upon which early civilizations in these areas relied.



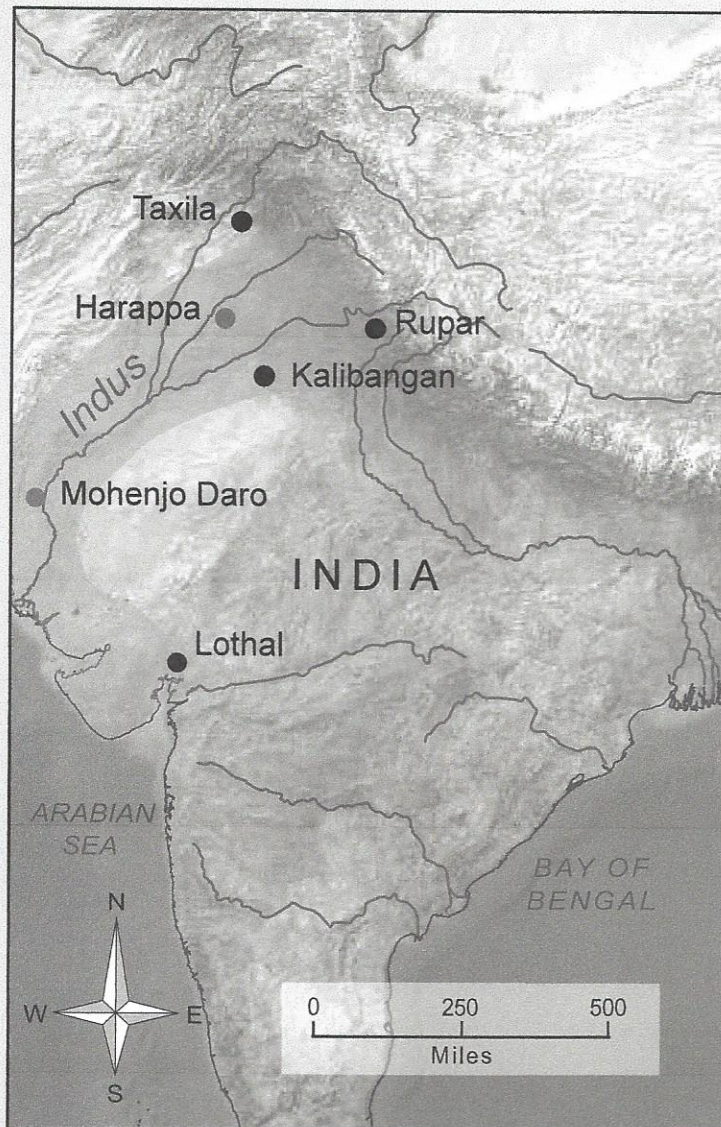
VA #10 Natural Resources and Rivers

The Indus, Ganges, and Huang He



VA #11 The Indus River Valley—Suited for Civilization

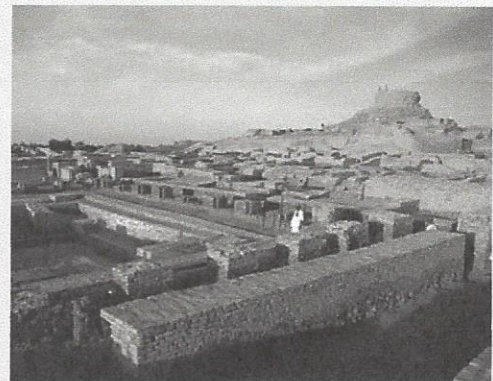
VA #12 Early Indus River Valley Civilization



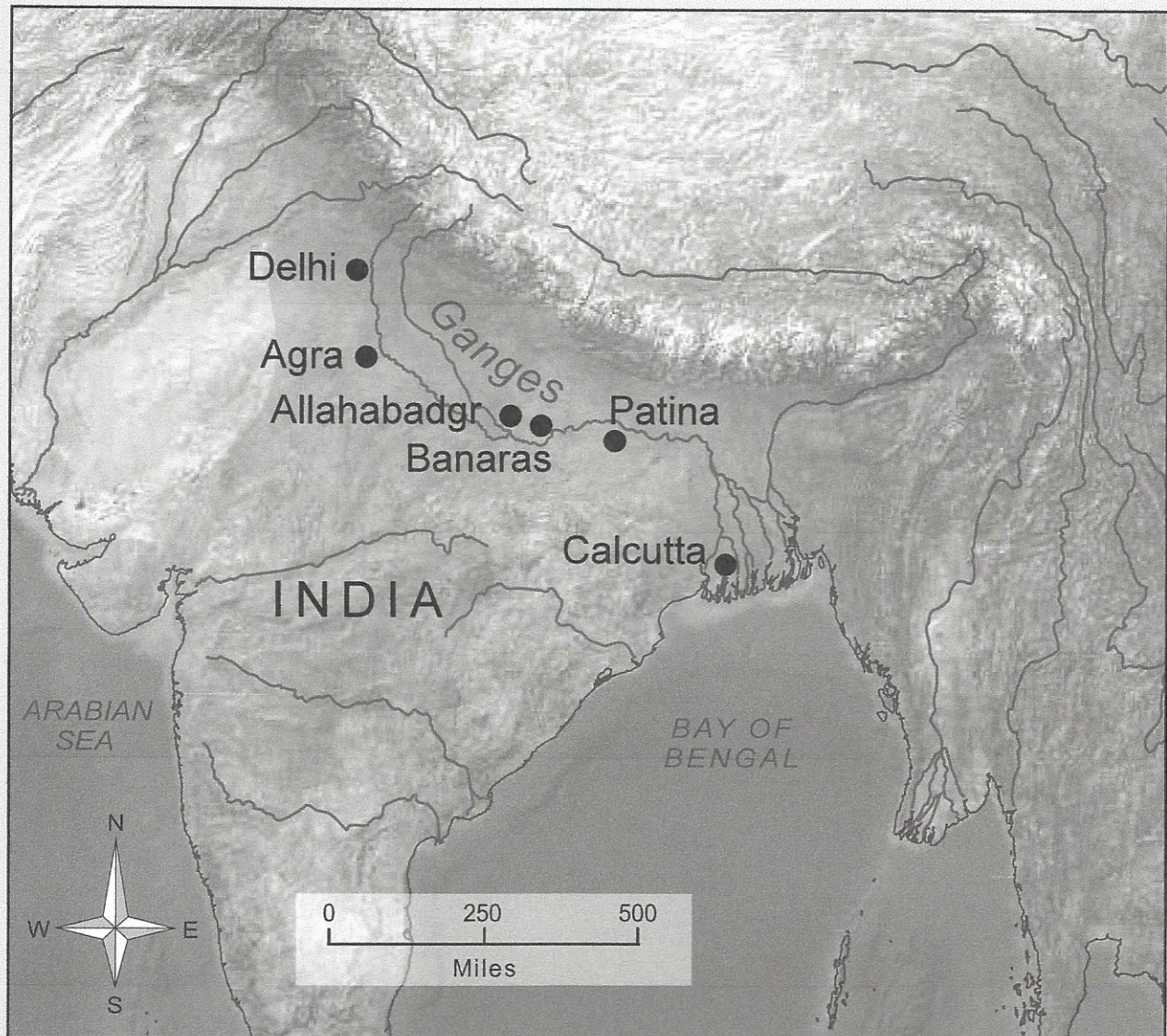
Major Cities:

Harappa and Mohenjo Daro

The excavated city of Mohenjo Daro is located in modern day Pakistan.



VA #13 Early Settlements Along the Ganges



VA #14 The Indus and Ganges River Valleys

Ecosystem Goods:

- Indus and Ganges rivers: fresh water and fish
- Himalaya Mountains: forests of cedar trees
- Floodplains: fertile, alluvial soil, good for growing crops, such as wheat, barley, millet, peas, sesame seeds, dates, and cotton
- Rivers: soil, mud for bricks for building houses and walls



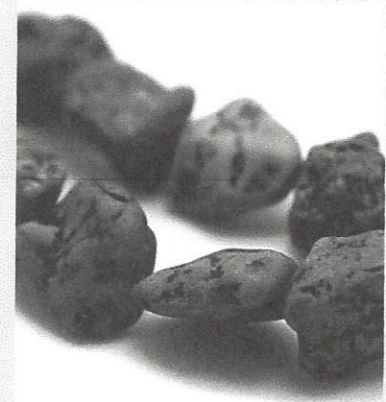
Millet



*Himalaya
Mountains*

VA #15 Natural Resources: Indus and Ganges River Valleys

- Thar Desert: gemstones (lapis lazuli, turquoise)
- Animals: water buffalo

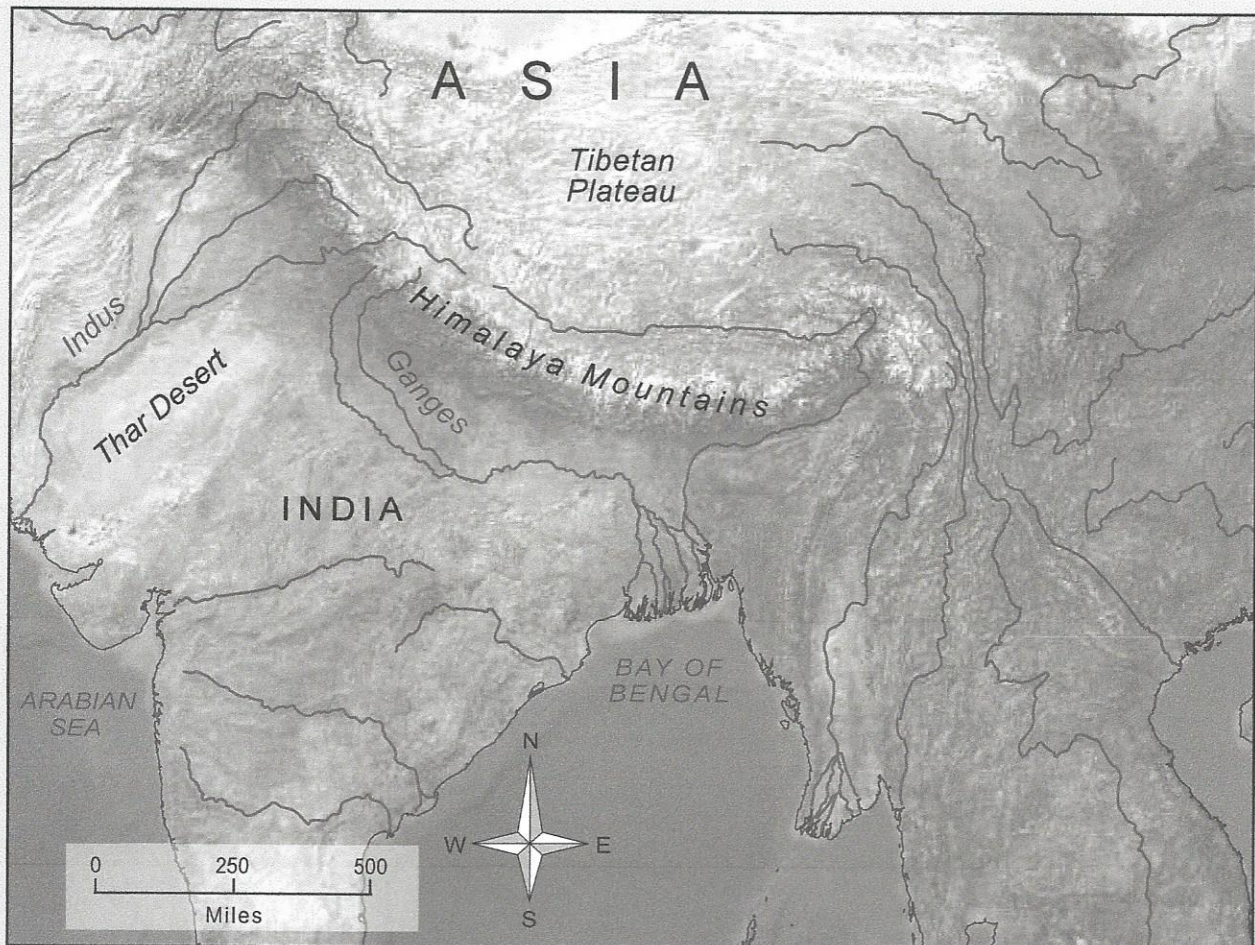


Turquoise

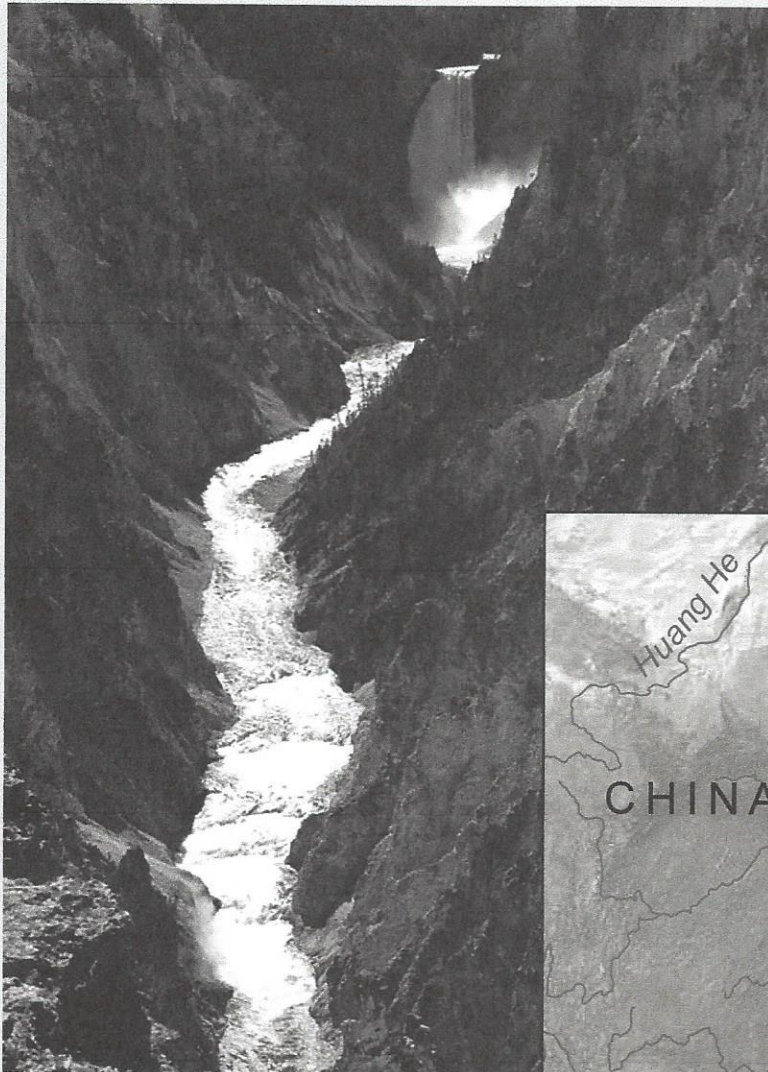
Water buffalo

VA #16 Ecosystem Services

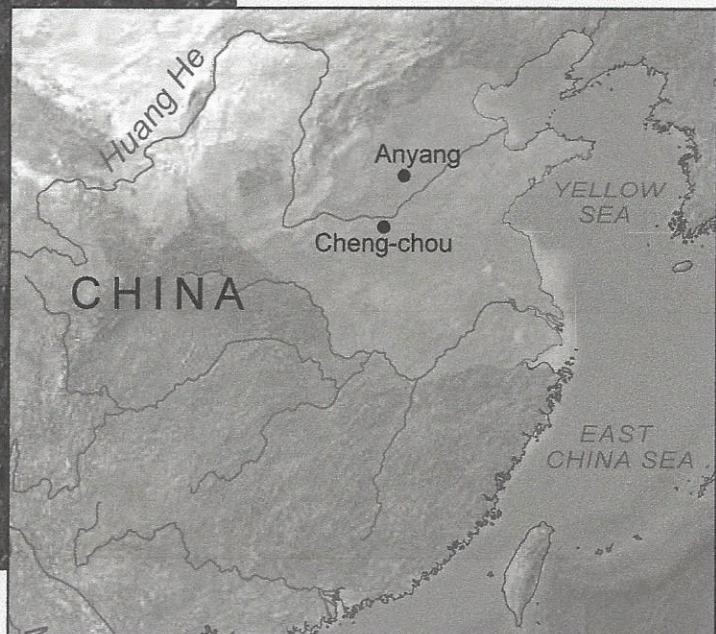
- The Indus and Ganges rivers: transportation
- Himalaya Mountains: protection, climate
- Monsoon rains: fed the rivers



VA #17 The Huang He River Valley



This is a map of the area that was controlled by the Shang Dynasty, along with a picture of the Huang He River cutting its way through the mountains.



VA #18 Natural Resources of the Huang He Valley 1

Ecosystem Goods:

- Huang He River: water for crops, animals, and humans; fish
- Fertile ("loess") soil: agriculture, clay
- Pine trees: buildings, carvings used for decoration



Wood carving

VA #19 Natural Resources of the Huang He Valley 2

- Silk worms: silk fabrics
- Jade: jewelry
- Bronze: ritual vases and vessels
- Animals: sport (hunting), labor



Bronze mask

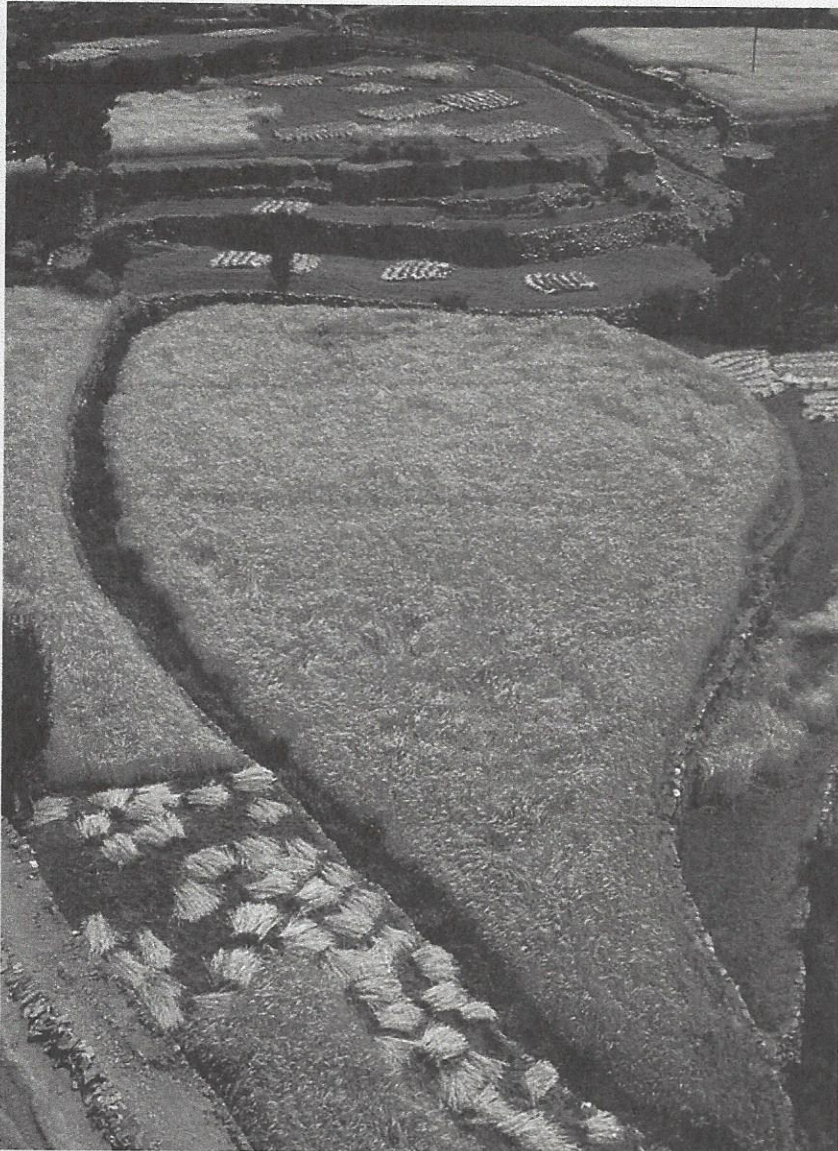


Silk worms



Jade mask

VA #20 Natural Resources of the Huang He Valley 3



The most important part of the Chinese economy was agriculture. People used water from the Huang He River. Farming was considered sacred. Some farmers burned crops to please the gods or communicate with them. The main crops were millet, wheat, barley, and later, rice.

Wheat farming

Lesson 3

Looking at Natural Resources and Rivers Script

Visual Aid #9: Looking at Natural Resources and Rivers

The following presentation identifies the importance of water and major river systems to human life and ancient civilizations in India and China, and provides examples of the natural resources upon which early civilizations in these areas relied.

Visual Aid #10: Natural Resources and Rivers

Some of the world's earliest civilizations began in the river valleys of Asia. Not only did water from the rivers sustain the lives of humans and animals, but the water also supported the establishment of cities and culture. People struggled to control trade on the river and water. The people fought and established governments and capital cities along the banks of the Ganges and Huang He rivers. The religions of Hinduism and Buddhism, and the philosophy of Confucianism, were born in these river valleys. People considered rivers sacred. Millions of people still travel long distances to bathe in the Ganges. These rivers were the source of entire civilizations.

Visual Aid #11: The Indus River Valley—Suited for Civilization

The valley of the Indus River, with its many tributaries and large delta, was ideally suited to be the site of one of the world's earliest civilizations, that of the Harappa Culture.

Visual Aid #12: Early Indus River Valley Civilization

The Indus River Valley civilization had more than these two cities, but these—Harappa and Mohenjo Daro—were the largest. At one point Harappa had a population of more than 50,000, and Mohenjo Daro a population of 30,000. Because the Saraswati River dried up around 1800 BCE and the Indus changed its course, some of the ruins of these ancient cities are now located several miles away from a river. The cities were once on riverbanks.

Visual Aid #13: Early Settlements Along the Ganges

The land in the Ganges River Valley was covered with jungle thousands of years ago, but the people who built the first cities along the river cleared the land to grow many different crops, such as rice, wheat, barley, and cotton. All of the cities in the valley are located where rivers meet, at curves of the river, or in the delta, as is Calcutta.

Visual Aid #14: The Indus and Ganges River Valleys

The Indus and Ganges river valleys provided many natural resources for the people who first settled there. The most important ecosystem goods, or materials in nature that humans need, were from the rivers themselves: fresh water, fertile soil from deposits left when the water overflowed its banks, and the crops and other plant and animal life supported by these systems. The Himalaya Mountains offered cedar trees, which people in the Indus Valley transported on the river and then used to build granaries for storage and boats for trade and transportation. Millet, along with cotton, barley, peas, and sesame seeds, were, and still are, important crops in India (also China). Millet is a grain, which is the seed of a grass, that can be made into flour for bread or cooked into a hot cereal or porridge.

Visual Aid #15: Natural Resources: Indus and Ganges River Valleys

The water buffalo is an example of an animal that was domesticated and used for labor (usually pulling carts or ploughs) in ancient India. Some animals, such as the cow, were considered sacred because they gave milk to people. Gemstones, such as lapis lazuli and turquoise, are found in the Thar Desert.



Looking at Natural Resources and Rivers Script (continued)

Visual Aid #16: Ecosystem Services

Many aspects of rivers (such as the soil deposition provided during floods and the use of rivers for transportation) are good examples of ecosystem services—functions and processes in natural systems that support or produce goods and help sustain human life, economies, and cultures. Rivers provided transportation for ancient civilizations, mountains provided protection and a natural barrier to the north, and monsoon rains provided moisture for crops. Moving goods over water is much cheaper and easier than moving them over land.

Visual Aid #17: The Huang He River Valley

The Huang He, or Yellow River, was simply known as “The River” for much of Chinese history. This was the site of the first recorded dynasty in China, the Shang, about 4,000 years ago. The river became known as the Yellow River because the loess—the sandy, fertile grit in the water—turns it a yellowish color. This loess is the best source of fertile soil, too, which created a prime place for the growth of wheat, barley, millet, and rice.

Visual Aid #18: Natural Resources of the Huang He Valley 1

The Huang He provided essentials for survival—most importantly, water for crops and for humans and animals to drink. Further, the river gave the people fish and other water animals and plants to eat. The loess soil was used both for agriculture and as a material from which to build clay homes. Pine wood from the forests of the Huang He Valley was used for building and creating beautiful and intricate carvings. Some of the best carvings in the world are from this region.

Visual Aid #19: Natural Resources of the Huang He Valley 2

Other natural resources in the Huang He Valley, such as silk, bones, jade, and bronze, became very important in Chinese history and culture. People in China may have known how to produce silk 8,000 years ago, but it was definitely in production by the Shang Dynasty. The silk trade became a large part of the Chinese economy because it was heavily traded. Ritual vessels and vases were created out of bronze and jade, a soft stone that became a favorite material for jewelry and all kinds of ceremonial objects and other artwork.

Visual Aid #20: Natural Resources of the Huang He Valley 3

Crops grew really well in the fertile soil of the Huang He Delta. All of the crops were dependent on water from the Huang He.

VA #22 Sacred Rivers

The Indus and Ganges rivers are mentioned in many sacred scriptures of Hinduism:



"Ganga [the river goddess] cast each of [her sons] into the Ganges at birth, so that they could quickly return to heaven."

*Quote from
Mahabharata, Book 16*

"Sindhu [the Indus River] in might surpasses all the streams that flow. Varuna [a god] cut the channels for thy forward course, O Sindhu, when thou ranst on to win the race. Thou speedest o'er precipitous ridges of the earth, when thou art Lord and Leader of these moving floods."

"Like floods of rain that fall in thunder from the cloud, so Sindhu rushes on bellowing like a bull."

"Flashing and whitely-gleaming in her mightiness, she moves along her ample volumes through the realms. Most active of the active, Sindhu unrestrained, like to a dappled mare, beautiful, fair to see."

"So have I praised its power, mighty and unrestrained, of independent glory, roaring as it runs."

Quotes from the Rig Veda, Book 10

The Indus River Valley

Two great civilizations, the Harappan and the Aryans, began in the valley of the Indus over 4,000 years ago. The Indus River begins in the Himalaya Mountains and empties into the Arabian Sea. The Indus is one of the world's longest rivers. Today, the Indus River runs through the modern-day nations of India and Pakistan.

The Harappans (2600 BCE–1900 BCE)

The first civilization along the Indus was the Harappan civilization. The Harappans established two large cities, Harappa and Mohenjo Daro, and many smaller towns. The Harappans lived next to the Indus River. They used the river's resources: fresh water for drinking, bathing, watering crops and animals, trade, and fishing. Each year, the monsoon rains caused the river to flood and create fertile soil. The Harappans were excellent farmers. They grew wheat, barley, cotton, dates, and melons. These were the first people in the world to make cotton cloth, too.

The Harappans built their houses and other buildings out of bricks made from river clay. Clay pipes brought clean water to their houses. Their cities were very clean. The Harappans

used wood from the nearby mountains to build ships for trade. The Harappans burned wood in ovens for warmth and cooking. The people of this early civilization used flint to create blades and other tools. The people mined for gemstones, such as lapis lazuli and turquoise, in the Thar Desert. The Harappans traded goods with nearby peoples.

The Harappans were very organized and had the first planned cities in world history. They even created a writing system, but no one alive today can read it. The people of this civilization worshipped river spirits. The Harappans buried food with the dead so the dead could have something to eat in the afterlife.

Harappan civilization ended around 1700 BCE. Nobody knows why, but many think changes in nature played a part. There is

evidence of a big earthquake.

The Saraswati, which ran parallel to the Indus River, dried up. People could no longer grow crops in this area and they had to move. Around this same time, people called the Aryans started coming to the valley from the north. Some of them settled along the Indus River.



Harappan seal

The Ganges River Valley

The Ganges River is the longest river in India. It runs through the nations of India and Bangladesh. About 10% of the world's population lives in the valley of the Ganges—that's 600 million people! The Ganges begins in the Himalaya Mountains. Several other rivers join the Ganges in the middle of its course.

The Aryans (1500 BCE–800 BCE)

At first, only small nomadic groups lived by the Ganges River. People fished and brought their animals to drink the water. Around 1500 BCE, a group from the north called the Aryans started moving to the Ganges River from the Indus River. The people wanted to settle by the Ganges, but jungles were growing by the river. Aryan farmers had to clear jungle first so they could plant crops, such as wheat, rice, and cotton. The climate was warm, and the soil was fertile.

The Vedas were the holy books of the Aryans. These writings formed the beginnings of Hinduism, the main religion of India. Many verses in the Vedas celebrate the natural resources of the Ganges River. The Aryans believed that the Ganges was a goddess sent from Heaven. Even today people in India believe the Ganges is sacred. They travel far to bathe in the river and drink its water. Aryans worshipped other nature gods, too. The Aryans believed the monsoon rains would not come unless Varuna, the sky god, had defeated a great dragon. Aryans believed the gods controlled natural forces.

Prayaga was one of the earliest cities established on the Ganges. Aryans built this city where the Ganges and Yamuna rivers meet. Aryans brought a new language, known

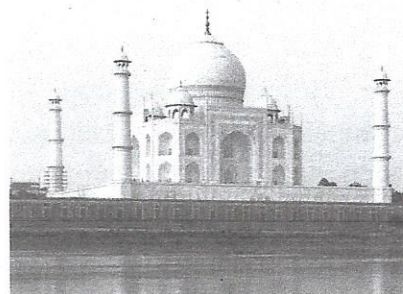
as Sanskrit, to India. They also brought horses and horse-drawn chariots, cattle, and pottery. The Aryans studied the stars to find the best

time to plant crops, such as wheat and barley. Prayaga was later renamed Allahabad.

Varanasi was another important city established by the Aryans. At Varanasi the Ganges flows north rather than south. Because of this, people thought it must be a sacred spot. Varanasi became a silk capital after traders brought silkworms to the city several thousand years ago.

Yet another important city was Pataliputra, now Patna. It became the capital of the Mauryan Empire. Patna became famous for its rice. The Mauryan Empire controlled almost all of India. Their control started with the river.

The Mauryan leaders knew they had to have power over trade and water. The first Mauryan emperor, Chandragupta Maurya, bought the whole Indus Valley from the Macedonian general Seleucus for 500 elephants! Is that a good deal?



Taj Mahal, Agra, India

Comparing the Indus and the Ganges

Lesson 4 | page 1 of 2

Name: _____

Part 1

Instructions: Answer the questions below about the river you studied with the help of your group. Answer the questions about the other river using the information shared by your classmates.

Questions about the Indus:

1. What kind of resources did the Harappans have?

2. What kind of cities did the Harappans have?

3. Why did this civilization end?

Questions about the Ganges:

1. What is the longest river in India?

2. What did Aryans bring to the Ganges valley?

Comparing the Indus and the Ganges

Lesson 4 | page 2 of 2

Name: _____

3. What religion did the Aryans practice?

Part 2

Instructions: Use information from the lesson to fill in the diagram below.

