

People and Empires in the Americas



Essential Question

How did early American civilizations influence future societies and cultures before the arrival of Europeans?



About the Photograph: This photograph shows the ruins of Machu Picchu, an ancient Inca city high in the Andes Mountains. It was all but forgotten for hundreds of years before its rediscovery in 1911.

In this module you will learn about the first Americans and the complex cultures that arose in Mesoamerica, the Andes, and North America in the period before contact with Europeans.

What You Will Learn ...

Lesson 1: The Earliest Americans	484
The Big Idea The cultures of the first Americans, including social organization, developed in ways similar to other early cultures.	
Lesson 2: Early Mesoamerican Civilizations	490
The Big Idea The Olmec created the Americas' first civilization, which in turn influenced later civilizations.	
Lesson 3: Early Civilizations of the Andes	498
The Big Idea In the Andes Mountains, various groups created flourishing civilizations.	
Lesson 4: North American Societies	503
The Big Idea Complex North American societies were linked to each other through culture and economics.	
Lesson 5: Maya Kings and Cities	509
The Big Idea The Maya developed a highly complex civilization based on city-states and elaborate religious practices.	
Lesson 6: The Aztecs Control Central Mexico	516
The Big Idea Through alliances and conquest, the Aztecs created a powerful empire in Mexico.	
Lesson 7: The Inca Create a Mountain Empire	525
The Big Idea The Inca built a vast empire supported by taxes, governed by a bureaucracy, and linked by extensive road systems.	

Explore ONLINE!



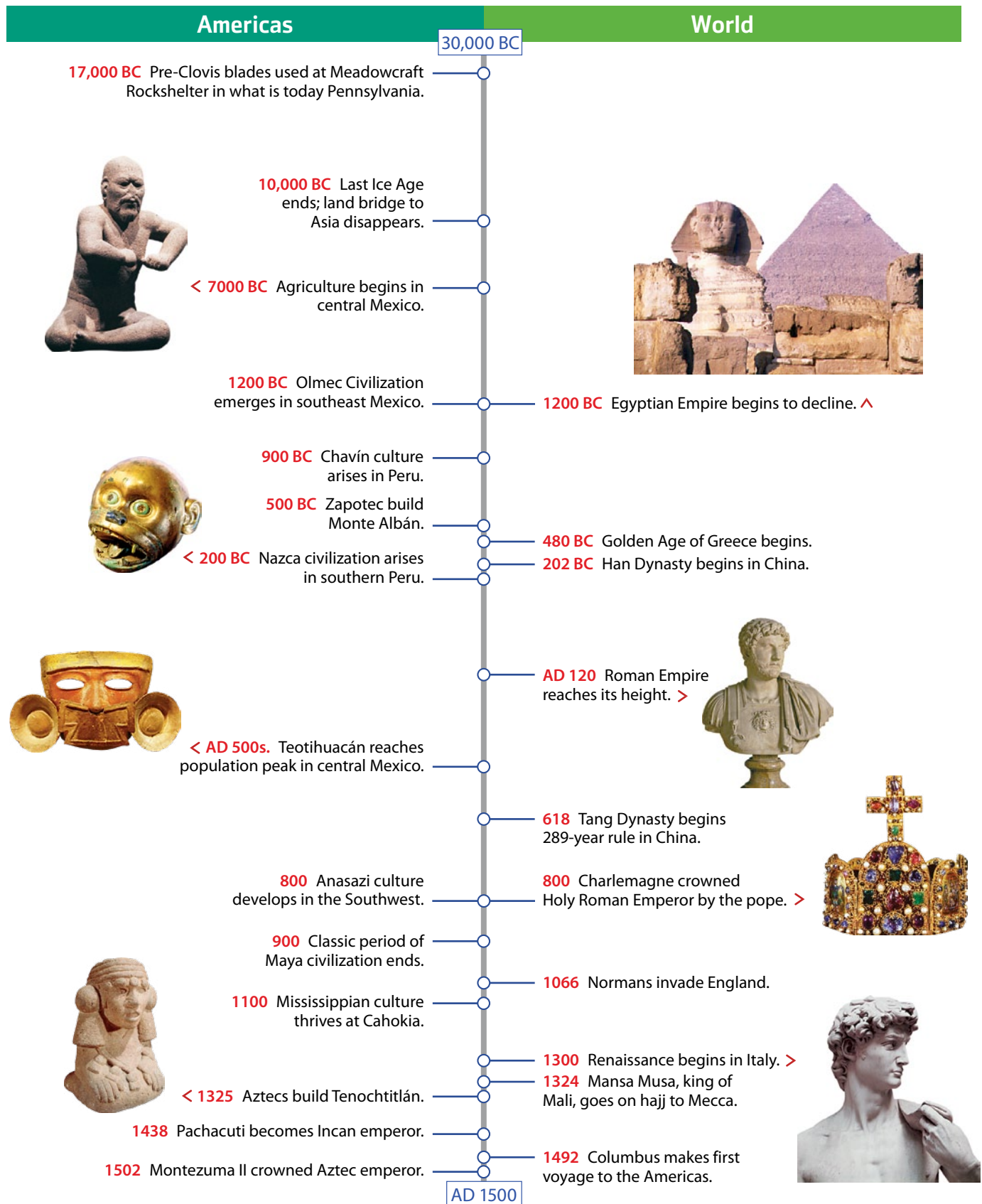
VIDEOS, including...

- Secret Mounds of Pre-Historic America

- ✓ Document-Based Investigations
- ✓ Graphic Organizers
- ✓ Interactive Games
- ✓ Image Compare: Comparing Nazca Lines
- ✓ Carousel: Aztec Calendar

Timeline of Events 30,000 BC–AD 1500

Explore ONLINE!





The Earliest Americans

The Big Idea

The cultures of the first Americans, including social organization, developed in ways similar to other early cultures.

Why It Matters Now

The Americas' first inhabitants developed the basis for later American civilizations.

Key Terms and People

Beringia
Ice Age
maize

Setting the Stage

While civilizations were developing in Africa, Asia, and Europe, they were also emerging in the Americas. Human settlement in the Americas is relatively recent compared to that in other parts of the world. However, it followed a similar pattern. At first the ancient people of the Americas survived mainly by hunting. Over time, they developed farming methods that ensured a more reliable supply of food. This in turn led to the growth of the first civilizations in the Americas.



This illustration shows what some of the earliest people to migrate to the Americas may have looked like.

A Land Bridge

The American continents include North and South America. They are connected and span two hemispheres, from the frigid Arctic Circle in the north to the icy waters around Antarctica in the south. Although this land mass narrows greatly around modern-day Panama, it stretches unbroken for about 9,000 miles. This large and rugged land is isolated

from the rest of the world by vast oceans. Yet, thousands of years ago, the Americas were connected by a land bridge to Asia, called **Beringia**. Hardy Ice Age people migrated from Asia to the Americas over this land bridge. However, the Americas were not unoccupied. Recent evidence shows that people had arrived much earlier, possibly by boat.

Peopling the Americas The first Americans arrived sometime toward the end of the last **Ice Age**, which lasted from roughly 1.9 million years ago to about 10,000 BC. Huge sheets of moving ice, called glaciers, spread southward from the Arctic Circle. They covered large portions of North America. The buildup of glaciers locked up huge amounts of the earth's water. It lowered sea levels and created a land corridor between Asia and Alaska across what is now the Bering Strait.

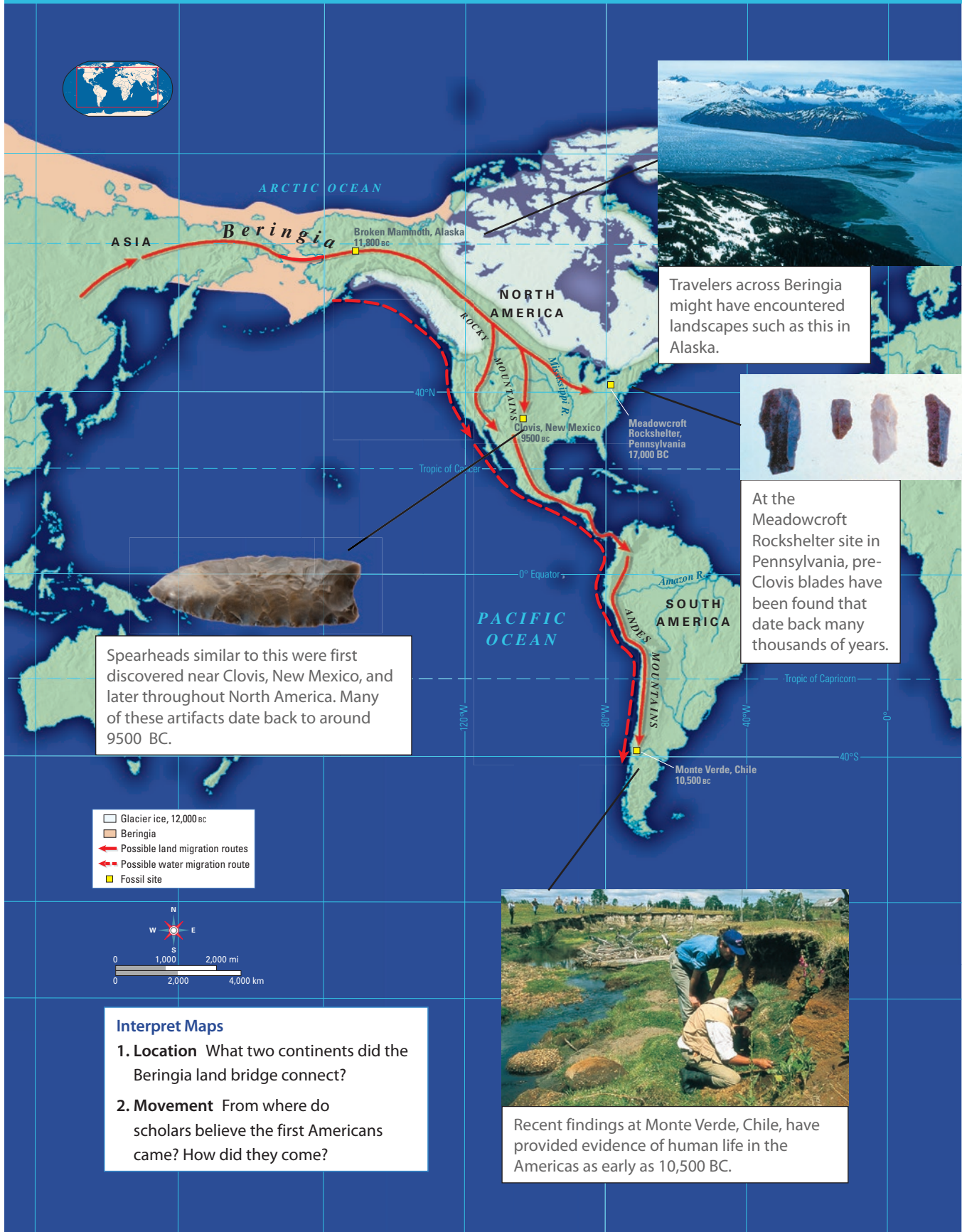
Herds of wild animals from Siberia, including mammoths, migrated across the plains of the Beringia land bridge. Gradually, Siberian hunters followed these animals into North America. They most likely were unaware that they were entering a new continent. These migrants became the first Americans.

No one knows for sure when the first Americans arrived because there are no written records or other available sources to consult. Some scholars contend that the migration across the land bridge began as early as 30,000 BC. Others argue it occurred as late as 10,000 BC. For years, many researchers have regarded the discovery of spearheads dating back to 9500 BC near Clovis, New Mexico, to be the earliest evidence of humankind in the Americas.

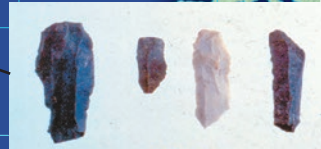


Hunters killed mammoths and other large mammals using a spear-throwing device that gave them greater force and accuracy in hurling the spear from a distance.

Possible Migration Routes, 30,000–10,000 BC



Travelers across Beringia might have encountered landscapes such as this in Alaska.

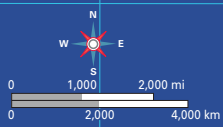


At the Meadowcroft Rockshelter site in Pennsylvania, pre-Clovis blades have been found that date back many thousands of years.



Spearheads similar to this were first discovered near Clovis, New Mexico, and later throughout North America. Many of these artifacts date back to around 9500 BC.

- Glacier ice, 12,000 BC
- Beringia
- Possible land migration routes
- Possible water migration route
- Fossil site



Interpret Maps

1. **Location** What two continents did the Beringia land bridge connect?
2. **Movement** From where do scholars believe the first Americans came? How did they come?



Recent findings at Monte Verde, Chile, have provided evidence of human life in the Americas as early as 10,500 BC.

Many other pre-Clovis sites, from Texas to Brazil, reinforce what archaeologists learned at Monte Verde, Chile, near the southern tip of the Americas. Researchers there have found evidence of human life dating back to 10,500 BC. Underneath this site—a sandy bank near a creek—archaeologists discovered pieces of animal hide and various tools. They also found a preserved chunk of meat and a single child’s footprint. The evidence at Monte Verde suggests that the first Americans arrived well before the Clovis era. To reach southern Chile at such an early date, some experts believe, humans would have had to cross the land bridge at least 20,000 years ago.

As more archaeological finds are examined, new theories emerge about the peopling of the Americas. Some scholars have proposed that people may have paddled from Asia to the Pacific Coast in small boats. A skull discovered near Mexico City has recently been dated to about 11,000 BC, making it the oldest skull ever found in the Americas. Some scientists studying the skull believe that it is related to the Ainu people of Japan and that these descendants of the Ainu reached the Americas by island-hopping on boats.

Reading Check

Analyze Issues

Why do scholars disagree about when the first Americans arrived?

Historical Source

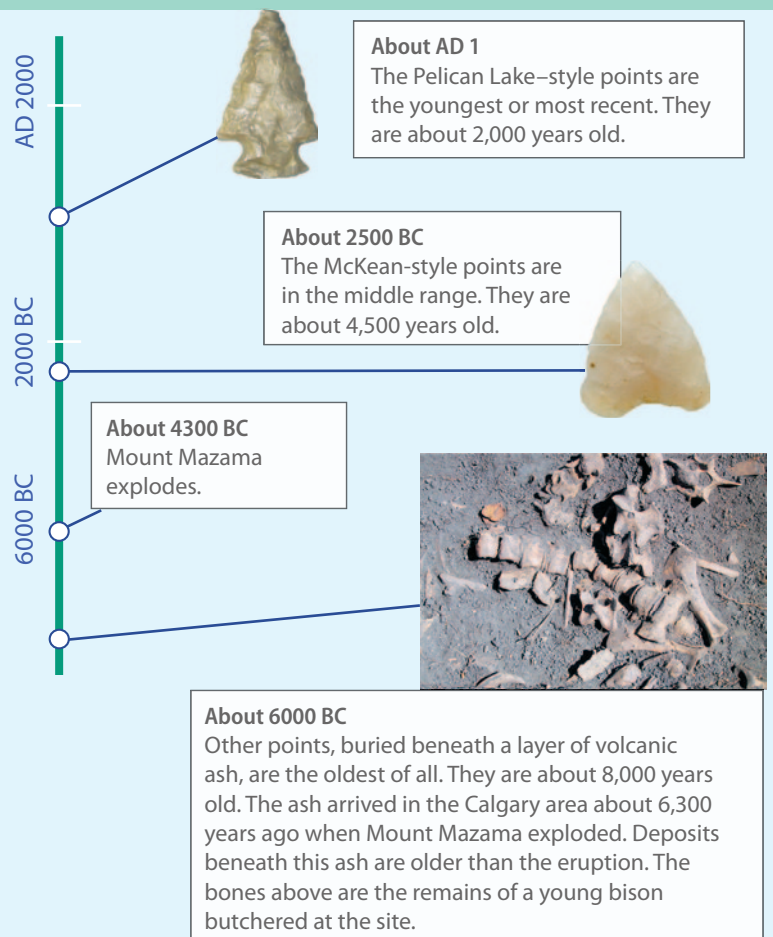
A Bison Kill Site

The first hunters roaming North America hunted mammoths, deer, and bison. Researchers found the bones of bison at a kill site near Calgary, Alberta, in Canada. This kill site is believed to have been in use for more than 8,000 years.

Different layers of remains and artifacts have been found at the kill site, with different kinds of points—spears, arrows, knives, and so forth. The different styles of points can tell archaeologists about the age of a site and its various layers. Weapons and tools such as those shown here were used to kill and butcher animals for the hunters and their families to consume.

Analyze Historical Sources

What resources besides food might animals have provided to early hunters and their families?



Hunters and Gatherers

Questions remain about how and when the first Americans arrived. What appears more certain—from the discovery of chiseled spearheads and charred bones at ancient sites—is that the earliest Americans lived as hunters. Perhaps their most challenging and rewarding prey was the mammoth. Weighing more than seven tons, this animal provided meat, hide, and bones for food, clothing, shelters, and tools.

Following the Game Eventually, large animals like the mammoth were overhunted and became extinct. Hunters soon turned to smaller prey, such as deer and rabbits, for their survival. They also fished and gathered edible plants and fruits. Because they were hunters, the earliest Americans found it necessary to move regularly in search of food. Whenever they did settle in one place for a short time, prehistoric Americans lived in caves or temporary shelters in the open air.

With the end of the Ice Age, around 12,000 to 10,000 years ago, came the end of land travel across Beringia. As the great glaciers melted, sea levels rose. The ancient land bridge disappeared under the Bering Strait. By this time, however, humans inhabited most regions of the Americas. Wherever they roamed, from the grassy plains of the modern-day United States to the steamy tropical forests of Central America, the first Americans adapted to the variety of environments they inhabited. In doing so, they carved out unique ways of life.

Reading Check

Analyze Effects

How did the earliest Americans adapt to the loss of large animals?

Agriculture Creates a New Way of Life

Gradually, the earliest Americans became more familiar with plant foods. They began to experiment with simple methods of farming. Their efforts at planting and harvesting led to agriculture. This dramatically changed their way of life.

The Development of Farming Around 7000 BC, a revolution quietly began in what is now central Mexico. There, people began to rely more on wild edible plants, raising some of them from seeds. By 5000 BC, many had begun to grow these preferred plants. They included squashes, gourds, beans, avocados, and chilies. By 3400 BC, these early farmers grew **maize**, or corn. Maize soon became the most important crop. This highly nourishing crop flourished in the tropical climate of Mexico. There, a family of three could raise enough corn in four months to feed themselves for a long time.

Gradually, people settled in permanent villages in the Tehuacan (tay•wuh•KAHN) Valley, south of present-day Mexico City. These people raised corn and other crops. The techniques of agriculture spread over North and South America. However, it is believed that people in some areas, such as Peru and eastern North America, may have discovered the secrets of cultivating local edible plants independently.

Over the next several centuries, farming methods became more advanced. In central Mexico native farmers created small islands in swamps and shallow lakes by stacking layers of vegetation, dirt, and mud.



Maize, or corn, was one of the most important crops in the Americas.

The Effects of Agriculture

Before Agriculture	After Agriculture
People hunted or gathered what they ate.	People enjoyed a more reliable and steady source of food.
Families continually moved in search of big game.	Families settled down and formed larger communities.
Groups remained small due to the scarcity of reliable sources of food.	Humans concentrated on new skills: arts and crafts, architecture, and social organization.
Humans devoted much of their time to obtaining food.	Complex societies eventually arose.

Interpret Charts

How might the establishment of agriculture have helped humans to develop new skills and interests?

Reading Check

Make Inferences

Why might the development of agriculture be characterized as a turning point in human history?

They then planted crops on top of the island soil. The surrounding water provided irrigation. These floating gardens were very productive, yielding up to three harvests a year.

Farming Brings Great Change In the Americas, as in other regions of the world, agriculture brought great and lasting change to people's way of life. The cultivation of corn and other crops provided a more reliable and expanding food supply. This encouraged population growth and the establishment of large, settled communities. As the population grew, and as farming became more efficient and productive, more people turned their attention to nonagricultural pursuits. They developed specialized skills in arts and crafts, building trades, and other fields. Differences between social classes—between rich and poor, ruler and subject—began to emerge. With the development of agriculture, society became more complex. The stage was set for the rise of more advanced civilizations.

Lesson 1 Assessment

1. **Organize Information** Complete the chart with the effects. Which effect do you think had the greatest impact on the Americas?

Beringia land bridge forms.	→	
Experiments with farming begin.	→	

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.

3. **Make Inferences** What can you infer about the development of early farming?

4. **Summarize** How did human beings come to the Americas?

5. **Analyze Effects** What sorts of changes did farming bring?

6. **Evaluate** Why do you think early Americans, isolated from the rest of the world, developed in ways similar to other early humans?



Early Mesoamerican Civilizations

The Big Idea

The Olmec created the Americas' first civilization, which in turn influenced later civilizations.

Why It Matters Now

Later American civilizations relied on the technology and achievements of earlier cultures to make advances.

Key Terms and People

Mesoamerica
Olmec
Zapotec
Monte Albán

Setting the Stage

The story of developed civilizations in the Americas begins in a region called **Mesoamerica**. This area stretches south from central Mexico to northern Honduras. It was here, more than 3,000 years ago, that the first complex societies in the Americas arose.

The Olmec

Mesoamerica's first known civilization builders were a people known as the **Olmec**. They began carving out a society around 1200 BC in the jungles of southern Mexico. The Olmec influenced neighboring groups as well as the later civilizations of the region. They often are called Mesoamerica's "mother culture."



Many large carved heads such as this one have been found by archaeologists in two major Olmec centers along the Gulf Coast of southern Mexico.

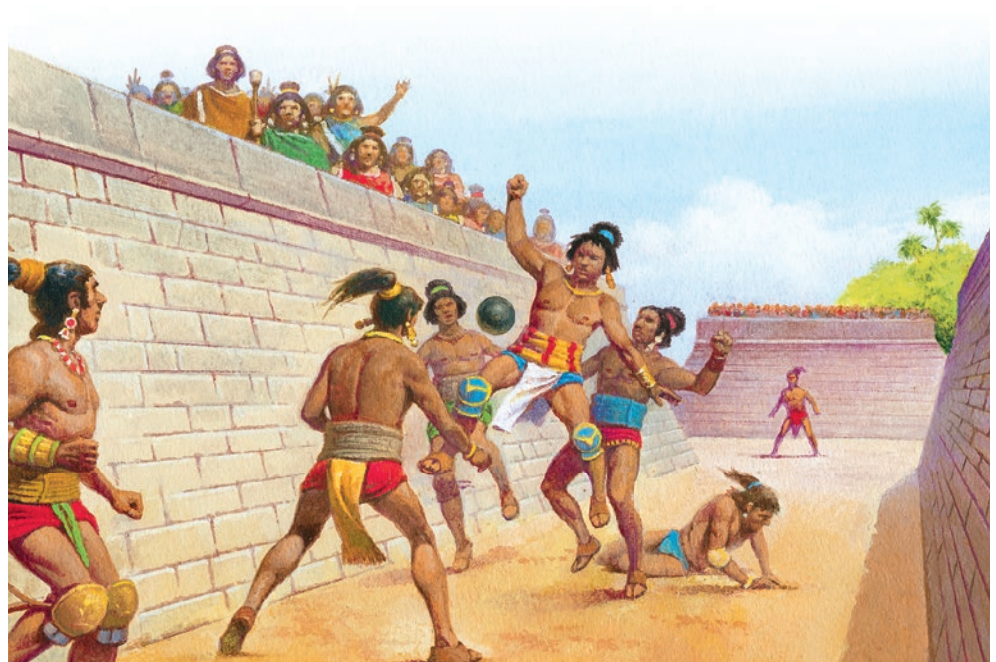
The Rise of Olmec Civilization Around 1860, a worker clearing a field in the hot coastal plain of southeastern Mexico uncovered an extraordinary stone sculpture. It stood five feet tall and weighed an estimated eight tons. The sculpture was of an enormous head wearing a headpiece. (See History Through Art: Olmec Sculpture) The head was carved in a strikingly realistic style, with thick lips, a flat nose, and large oval eyes. Archaeologists had never seen anything like it in the Americas.

This head, along with others that were discovered later, was a remnant of the Olmec civilization. The Olmec emerged about 1200 BC and thrived from approximately 800 to 400 BC. They lived along the Gulf Coast of Mexico, in the modern-day Mexican states of Veracruz and Tabasco.

Gulf Coast Geography On the surface, the Gulf Coast seemed an unlikely site for a high culture to take root. The region was hot and humid and covered with swamps and jungle. In some places, giant trees formed a thick cover that prevented most sunlight from reaching the ground. Up to 100 inches of rain fell every year. The rainfall swelled rivers and caused severe flooding.

However, the region also had certain advantages. There were abundant deposits of salt and tar, as well as fine clay used in making pottery. There were also wood and rubber from the rain forest. The hills to the north provided hard stone from which the Olmec could make tools and monuments. The rivers that laced the region provided a means of transport. Most important, the flood plains of these rivers provided fertile land for farming.

The Olmec used their resources to build thriving communities. The oldest site, San Lorenzo, dates back to around 1150 BC. Here archaeologists uncovered important clues that offered a glimpse into the Olmec world.



The Olmec ball game was one of the first team sports in history.

Olmec Society At San Lorenzo, archaeologists discovered earthen mounds, courtyards, and pyramids. Set among these earthworks were large stone monuments. They included columns, altars, and more colossal sculpted heads, which may have represented particular Olmec rulers. These giant monuments weigh as much as 44 tons. Some scholars think that Olmec workers may have moved these sculptures over land on rolling logs to the river banks. From there, they may have rafted the monuments along waterways to various sites.

To the east of San Lorenzo, another significant Olmec site, La Venta, rose around 900 BC. Here, researchers discovered a 100-foot-high mound

[Explore ONLINE!](#)

Olmec Civilization, 900 BC



Interpret Maps

- 1. Movement** Judging from the map, what was one way in which the Olmec spread their influence?
- 2. Movement** What difficulties might the Olmec have encountered in developing their trade routes?

of earth and clay. This structure may have served as the tomb of a great Olmec ruler. Known as the Great Pyramid, the mound also may have been the center of the Olmec religion. Experts believe the Olmec prayed to a variety of nature gods.

Most of all, they probably worshiped the jaguar spirit. Numerous Olmec sculptures and carvings depict a half-human, half-jaguar creature. Some scholars believe that the jaguar represented a powerful rain god. Others contend that there were several jaguar gods, representing the earth, fertility, and maize.

Trade and Commerce Archaeologists once believed that sites such as La Venta were ceremonial centers where important rituals were performed but few people lived. In recent years, however, experts have begun to revise that view. The Olmec appear to have been a prosperous people who directed a large trading network throughout Mesoamerica. Olmec goods traveled as far as Mexico City to the north and Honduras to the south. In addition, raw materials—including iron ore and various stones—reached San Lorenzo from faraway regions. This trade network helped boost the Olmec economy and spread Olmec influence.

Decline of the Olmec For reasons that are not fully understood, Olmec civilization eventually collapsed. Scholars believe San Lorenzo was destroyed around 900 BC. La Venta may have fallen sometime around 400 BC. Some experts speculate that outside invaders caused the destruction. Others believe the Olmec may have destroyed their own monuments upon the death of their rulers.

Reading Check
Make Inferences
In what ways did the Olmecs' environment help in the creation of their civilization?

Zapotec Civilization Arises

By the time Olmec civilization had collapsed, another people—the **Zapotec**—were developing an advanced society to the southwest, in what is now the Mexican state of Oaxaca (wuh•HAH•kah). Though they showed traces of Olmec influence, the Zapotec built a unique civilization.

Peoples of the Oaxaca Valley Oaxaca is a rugged region of mountains and valleys in southern Mexico. In the center of the state, three valleys meet to form a large open area known as the Oaxaca Valley. This valley has fertile soil, a mild climate, and enough rainfall to support agriculture. As a result, various peoples have made the Oaxaca Valley their home, including the ancient Zapotec.

For centuries the Zapotec lived in scattered villages throughout the valley. By 1000 BC, however, one site—San José Mogote—was emerging as the main power in the region. At this site, the Zapotec constructed stone platforms. They also built temples and began work on monumental sculptures. By 500 BC they had developed early forms of writing and a calendar system.

The Zapotec Flourish at Monte Albán Around 500 BC, Zapotec civilization took a major leap forward. High atop a mountain at the center of the Oaxaca Valley, the Zapotec built the first real urban center in the Americas, **Monte Albán**. This city, with its commanding view of the entire valley, grew and prospered over the next several centuries. By 200 BC, Monte Albán was home to around 15,000 people. The city eventually would reach a peak population of almost 25,000.

From AD 250 to AD 700, Monte Albán was truly impressive. At the heart of the city was a giant plaza paved with stones. Towering pyramids, temples, and palaces, all made out of stone, surrounded this plaza. There was even an observatory for observing the stars to establish a calendar. Nearby was a series of stone carvings of corpses. Their facial features show an Olmec influence.

Global Patterns

Pyramids

A number of ancient peoples used pyramids for temples, tombs, and observatories. The Egyptians built pyramids as tombs. Their pyramids had smooth sides and came to a point. In contrast, the pyramids built by the Zapotec at Monte Albán have stepped sides, with flat tops that served as platforms for temples.



Reading Check
Compare How does Monte Albán's population compare to the populations of today's major cities?

For more than a thousand years the Zapotec controlled the Oaxaca Valley and the surrounding region. Sometime after AD 600, the Zapotec began to decline. Some scholars believe they may have suffered a loss of trade or other economic difficulties. As with the Olmec, the fall of Zapotec civilization remains a puzzle.

The Early Mesoamericans' Legacy

Although both the Zapotec and Olmec civilizations eventually collapsed, each culture influenced the Mesoamerican civilizations that followed.

The Olmec Leave Their Mark The Olmec contributed much to later Mesoamerican civilizations. They influenced the powerful Maya. Olmec art styles, especially the use of the jaguar motif, can be seen in the pottery and sculpture of later peoples in the region. In addition, future Mesoamerican societies copied the Olmec pattern of urban design.

The Olmec also left behind the notions of planned ceremonial centers, ritual ball games, and an elite ruling class. And while there is no clear evidence that the Olmec used a written language, their descendants or a related people carved out stone symbols that may have influenced later glyph writing.

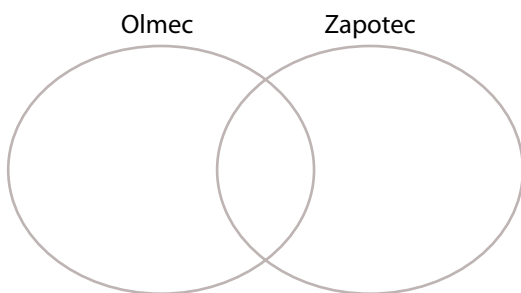
Zapotec Contributions The Zapotec left behind their own legacy. It included a hieroglyphic writing system and a calendar system based on the movement of the sun. In addition, the Zapotec are noted as the Americas' first city builders. Monte Albán combined ceremonial grandeur with residential living space. This style influenced the development of future urban centers and became a hallmark of Mesoamerican civilizations.

As the Zapotec and Olmec flourished and then declined, civilizations were also taking shape in South America. Along the rough and mountainous terrain in what is now Peru, ancient peoples came together. There, they created more advanced and complex societies.

Reading Check
Summarize
What do you consider to be the Olmecs' most important contributions to later cultures?

Lesson 2 Assessment

- 1. Organize Information** Use a Venn diagram to record the characteristics that were similar and different among the Olmec and Zapotec. What was one of the most important characteristics that they shared?



- 2. Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.
- 3. Analyze Causes** Why did Olmec civilization collapse?
- 4. Analyze Effects** What were some important Zapotec contributions to later cultures?
- 5. Analyze Causes** What factors made the Oaxaca Valley a likely place for civilization to develop?
- 6. Compare** What were some similarities between the Olmec and Zapotec cultures?

Olmec Sculpture

Around 1200 BC, the Olmec civilization appeared in southeastern Mexico. Over the next several hundred years, its culture spread into the Valley of Mexico and into parts of Central America. The Olmec are especially known for their huge sculptures of heads and their small, finely crafted stone carvings. Much of their art reflects a fascination with the jaguar.

OLMEC HEAD ▶

The Olmec Center at San Lorenzo, Honduras, contains several huge carved heads. Some of them are 9 feet high and weigh about 40 tons. The heads may be portraits of Olmec leaders or of players in a sacred ball game. The stone used for the sculptures came from a site more than 250 miles away. The Olmec transported this stone over mountain ranges, rivers, and swamps.



◀ JAGUAR FIGURE

The Olmec created many carvings of beings that were part human, part jaguar. Peter Furst, in "New Light on the Olmec" in *National Geographic*, explains why: "You can almost call the Olmec the people of the jaguar. In tropical America, jaguars were the shamans [medicine men] of the animal world, the alter ego [other identity] of the shaman." Olmec jaguar art greatly influenced later Mesoamerican cultures.



▲ OLMEC ALTAR

This Olmec altar has a carved figure at the base situated at the mouth of a cave. This figure's elaborate headdress shows that he is a ruler. The ruler holds a rope that winds around the base of the altar and binds a carved figure at the back. Scholars believe that the altar was used as a throne.



◀ JADE FIGURE

Many Olmec figurines are made of this beautiful blue-green stone, a fact that puzzled scientists for decades because they believed that no jade deposits existed in the Americas. However, in May 2002, a scientist discovered what he believes to be an ancient Olmec jade mine in Guatemala.

Critical Thinking

1. Hypothesize The Olmec probably did not use the wheel. How do you think the Olmec transported the stone for the huge head sculptures?

2. Compare and Contrast Mount Rushmore in the United States also shows giant stone heads of leaders. Use an encyclopedia to find out how Mount Rushmore was created. What are similarities and differences between the way Mount Rushmore was made and the way the Olmec heads were made?



Early Civilizations of the Andes

The Big Idea

In the Andes Mountains, various groups created flourishing civilizations.

Why It Matters Now

Like the early Andean civilizations, people today must adapt to their environment in order to survive.

Key Terms and People

Chavín
Nazca
Moche

Setting the Stage

While civilizations were emerging in Mesoamerica, advanced societies were independently developing in South America. The early cultures of South America arose in a difficult environment, the rugged terrain of the Andes Mountains.

Societies Arise in the Andes

The Andes Mountains stretch about 4,500 miles down the western edge of South America, from Colombia in the north to Chile in the south. After the Himalayas in southern Asia, the Andes is the next highest mountain range in the world. The Andes has a number of peaks over 20,000 feet in elevation. South America's first civilizations emerged in the northern Andes region, in Peru.

Settlements on the Coastal Plain Peru was a harsh place to develop a civilization. The Andes are steep and rocky, with generally poor soil. Ice and snow cover the highest elevations year-round. Overland travel often is difficult. The climate is also severe: hot and dry during the day, and often freezing at night.

Between the mountains and the Pacific Ocean lies a narrow coastal plain. Most of this plain is harsh desert where rain seldom falls. In some places, however, rivers cross the desert on their path from the mountains to the sea. It was in these river valleys that the first settlements occurred.

Between 3600 and 2500 BC, people began to establish villages along the Pacific coast. These first inhabitants were hunter-gatherers who relied on seafood and small game for their survival. Around 3000 BC, these people began to farm. By 1800 BC, a number of thriving communities existed along the coast.

The Chavín Period The first influential civilization in South America arose not on the coast, however, but in the mountains. This culture, known as the **Chavín** (chah•VEEN), flourished from around 900 BC to 200 BC. Archaeologists named the culture after a major ruin, Chavín de Huántar, in the northern highlands of Peru. This site features pyramids, plazas, and massive earthen mounds.

Chavín culture spread quickly across much of northern and central Peru. Archaeologists have found no evidence of political or economic organization within the culture. Thus, they conclude that the Chavín were primarily a religious civilization. Nevertheless, the spread of Chavín art styles and religious images—as seen in stone carvings, pottery, and textiles—shows the powerful influence of this culture. Ancient Peruvians may have visited Chavín temples to pay their respects. They then carried ideas back to their communities. The Chavín are believed to have established certain patterns that helped unify Andean culture and lay the foundation for later civilizations in Peru. Thus, like the Olmec in Mesoamerica, the Chavín may have acted as a “mother culture” in South America.

Reading Check

Contrast

How did the environment of the Andes region differ from that of much of Mesoamerica?

History in Depth

Headhunters

The striking images on their pottery indicate that the Nazca may have been headhunters. In numerous ceramic and textile designs, Nazca artisans depict the taking of human heads, probably from enemies in combat. Taking and displaying the head of an enemy was considered a way of increasing the strength and well-being of a community.



History in Depth

Nazca Lines

Etched on the plains of southeastern Peru are more than 1,000 drawings of animals, plants, humans, and geometric shapes. Most of them are so large that they can be recognized only from the air. Scientists believe that the Nazca people made the drawings between 200 BC and AD 600. Since the lines were discovered in 1927, people have proposed many theories about their purpose, including the following:

- The Nazca people worshiped mountain or sky gods and created the drawings to please them.
- The lines indicated where surface water entered the plain and marked elevated land between ancient riverbeds.
- The lines are a huge map that marks the course of underground aquifers, or water sources. (This is the most recent theory.)

Size of the Nazca Lines

Many of the Nazca drawings are huge. Some of the wedges (below) are more than 2,500 feet long. The hummingbird (right) is 165 feet long. The Nazca people probably created small model drawings and used math to reproduce them at such a vast scale.



Durability of the Nazca Lines

This spider was created more than 1,000 years ago. It survived because the region has little erosion. The plains are one of the driest regions on earth with only 20 minutes of rain a year. Also, the ground is flat and stony, so wind rarely carries away the soil.




Nazca Water Cult

Some scholars think the lines were linked to a Nazca water cult, or religion. The straight lines may have led to ceremonial sites. The animals may have been symbols. For example, according to traditional beliefs, the hummingbird (above) represents the mountain gods. The mountains were a main source of water.


Interpret Visual Sources


- 1. Form and Support Opinions** Do you think the purpose of the Nazca lines had something to do with water? Why or why not?
- 2. Evaluate** What might be the next step for researchers who wish to prove or disprove the aquifer theory? What are potential positive and negative consequences of such an action?

Early Civilizations, 1200 BC–AD 700

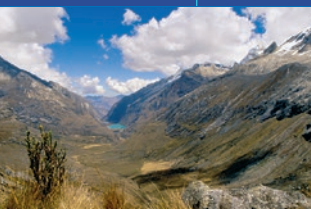


The map shows the locations of four early civilizations: Chavín (purple), Moche (yellow), Nazca (red), and Olmec (orange). The Olmec civilization is located in Meso-America, near the Gulf of Mexico. The Chavín, Moche, and Nazca civilizations are located in the Andes region of South America. The map includes labels for the Gulf of Mexico, Caribbean Sea, Atlantic Ocean, Pacific Ocean, Amazon River, and Andes Mountains. It also shows the Tropic of Cancer, the Equator, and the Tropic of Capricorn. A legend in the top right corner identifies the civilizations by color. A scale bar at the bottom left shows distances in miles (0, 500, 1,000) and kilometers (0, 500, 2,000). A compass rose is also present.





The region in which the Olmec arose included lush forests. Numerous rivers in the region provided fertile farming land.



The environment of the Andes region was harsh. Its dry terrain made farming difficult, which the Nazca overcame through irrigation.

Interpret Maps

- Place** Along what mountain range did the early South American civilizations arise?
- Human-Environment Interaction** What advantages did the Olmec have over the early civilizations of the Andes?

Other Andean Civilizations Flourish

Around the time Chavín culture declined, other civilizations were emerging in Peru. First the Nazca and then the Moche (MOH•chay) built societies that flourished in the Andes.

Nazca Achievements The **Nazca** culture flourished along the southern coast of Peru from around 200 BC to AD 600. This area is extremely dry. The Nazca developed extensive irrigation systems, including underground canals, that allowed them to farm the land. The Nazca are known for their beautiful textiles and pottery. Both feature images of animals and mythological beings. They are even more famous, however, for an extraordinary but puzzling set of creations known as the Nazca Lines.

Moche Culture Meanwhile, on the northern coast of Peru, another civilization was reaching great heights. This was the **Moche** culture, which lasted from about AD 100 to AD 700.

The Moche took advantage of the rivers that flowed from the Andes Mountains. They built impressive irrigation systems to water their wide range of crops, which included corn, beans, potatoes, squash, and peanuts. According to Peruvian archaeologist Walter Alva, the Moche enjoyed a variety of foods. These included both fish and game.

Moche tombs uncovered in the recent past have revealed a civilization with enormous wealth. Archaeologists have found beautiful jewelry crafted from gold, silver, and semiprecious stones. The Moche were also brilliant ceramic artists. They created pottery that depicted scenes from everyday life. Moche pots show doctors healing patients, women weaving cloth, and musicians playing instruments. They also show fierce soldiers, armed with spears, leading enemy captives. Although the Moche never developed a written language, their pottery provides a wealth of detail about Moche life.

Nevertheless, many questions about the Moche remain. Experts still do not fully understand Moche religious beliefs. Nor do they know why the Moche fell. Like many early cultures of the Americas, the Moche remain something of a mystery awaiting further archaeological discoveries.

Unlike the lands you will read about in the next module—which were unified by the spread of Islam—the Americas would remain a patchwork of separate civilizations until the early 16th century. Around that time, the Europeans would begin to arrive and bring dramatic and lasting changes to the American continents.

Reading Check

Analyze Issues

How were archaeologists able to gain so much information about the Moche without the help of a written language?

Lesson 3 Assessment

- Organize Information** Use the chart to show the achievements that the early Mesoamerican cultures shared.

Chavín	Nazca	Moche

Did they have any similar achievements?

- Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.
- Analyze** Why was Peru a difficult place for a civilization to develop?
- Compare** How was the Chavín culture like the Olmec culture?
- Draw Conclusions** How did the Nazca and the Moche adapt to their environment in order to build flourishing societies? Give evidence.



North American Societies

The Big Idea

Complex North American societies were linked to each other through culture and economics.

Why It Matters Now

Traditions and ideas from these cultures became part of the cultures of North America.

Key Terms and People

potlatch

Anasazi

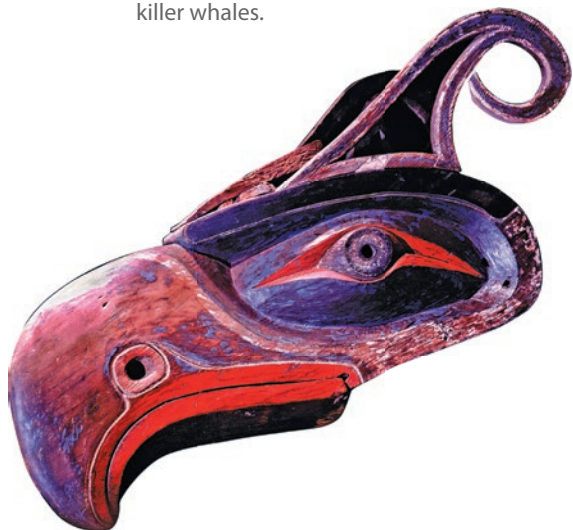
pueblo

Mississippian

Iroquois

totem

This headdress was used by the Kwakiutl in religious ceremonies. Carved of red cedar and painted, it shows a thunderbird, the highest of the spirits in the Kwakiutl religion. Like a huge eagle, the thunderbird flew high in the sky. When it was hungry, it swooped down to catch and eat killer whales.



Setting the Stage

Between 30,000 and 12,000 years ago, hunter-gatherers migrated across the Bering Strait land bridge from Asia and began to populate the Americas. Migrating southward, those first Americans reached the southern tip of South America by somewhere between 12,000 and 7000 BC. At the same time, they began to spread out east and west across North America. Over the centuries, the early North American peoples adapted to their environment, creating a very diverse set of cultures.

Complex Societies in the West

In some ways, the early North American cultures were less developed than those of South America and Mesoamerica. The North American groups created no great empires. They left few ruins as spectacular as those of ancient Mexico or Peru. Nevertheless, the first peoples of North America did create complex societies. These societies were able to conduct long-distance trade and construct magnificent buildings.

Cultures of Abundance The Pacific Northwest—from Oregon to Alaska—was rich in resources and supported a sizable population. To the Kwakiutl, Nootka, and Haida peoples, the most important resource was the sea. They hunted whales in canoes. Some canoes were large enough to carry at least 15 people. In addition to the many resources of the sea, the coastal forest provided plentiful food. In this abundant environment, the Northwest Coast tribes developed societies in which differences in wealth created social classes. Families displayed their rank and prosperity in an elaborate ceremony called the **potlatch** (PAHT-lach). In this ceremony, they gave food, drink, and gifts to the community.

Accomplished Builders The dry, desert lands of the Southwest were a much harsher environment than the temperate Pacific coastlands. However, as early as 1500 BC, the peoples of the Southwest were beginning to farm the land. Because of the climate, competition for farmland sometimes

North American Culture Areas, c. 1400





Cliff Palace, Mesa Verde, had 217 rooms and 23 kivas.

led to conflicts. Among the most successful of the early farmers in this area were the Hohokam (huh•HOH•kuhm) of central Arizona. They used irrigation to produce harvests of corn, beans, and squash. Their use of pottery rather than baskets, as well as certain religious rituals, showed contact with Mesoamerican peoples to the south.

A people to the north—the **Anasazi** (ah•nuh•SAH•zee)—also influenced the Hohokam. They lived in the Four Corners region, where the present-day states of Utah, Arizona, Colorado, and New Mexico meet. The Anasazi built impressive cliff dwellings, such as the ones at Mesa Verde, Colorado. These large houses were built on top of mesas—flat-topped hills—or in shallow caves in the sheer walls of deep canyons. By the AD 900s, the Anasazi were living in **pueblos** (PWEHB•lohs), villages of large, apartment-style compounds made of stone and adobe, or sun-baked clay.

The largest Anasazi pueblo, begun around AD 900, was Pueblo Bonito, a Spanish name meaning “beautiful village.” Its construction required a high degree of social organization and inventiveness. The Anasazi relied on human labor to quarry sandstone from the canyon walls and move it to the site. Skilled builders then used a mudlike mortar to construct walls up to five stories high. Windows were small to keep out the burning sun. When completed, Pueblo Bonito probably housed about 1,000 people and contained more than 600 rooms. In addition, a number of underground or partly underground ceremonial chambers called kivas (KEE•vuhs) were used for a variety of religious practices.

Reading Check

Hypothesize

Why do you think no great empires developed in North America?

Many Anasazi pueblos were abandoned around 1200, possibly because of a prolonged drought. The descendants of the Anasazi, the pueblo peoples, continued many of their customs. Pueblo groups like the Hopi and Zuni used kivas for religious ceremonies. They also created beautiful pottery and woven blankets. They traded these, along with corn and other farm products, with plains Indians to the east, who supplied bison meat and hides. These nomadic plains tribes eventually became known by such names as the Comanche, Kiowa, and Apache.

Mound Builders and Other Woodland Cultures

Beyond the Great Plains, in the woodlands east of the Mississippi River, other ancient peoples—the Mound Builders—were creating their own unique traditions. Beginning around 700 BC, a culture known as the Adena began to build huge earthen mounds in which they buried their dead. Mounds that held the bodies of tribal leaders were often filled with gifts, such as finely crafted copper and stone objects.

Some 500 years later, the Hopewell culture also began building burial mounds. Their mounds were much larger and more plentiful than those of the Adena. Some of the Hopewell mounds may have been used for purposes other than burials. For example, the Great Serpent Mound, near Hillsboro, Ohio, may have played a part in Hopewell religious ceremonies.

The last Mound Builder culture, the **Mississippian**, lasted from around AD 800 until the arrival of Europeans in the 1500s. These people created thriving villages based on farming and trade. Between 1000 and 1200, perhaps as many as 30,000 people lived at Cahokia (kuh•HOH•kee•uh), the leading site of Mississippian culture. Cahokia was led by priest-rulers, who regulated farming activities. The heart of the community was a 100-foot-high, flat-topped earthen pyramid, which was crowned by a wooden temple.

These Mississippian lands were located in a crossroads region between east and west. They enjoyed easy transportation on the Mississippi and Ohio rivers. Items found in burial mounds show that the Mississippians had traded with peoples in the West and, possibly, Mesoamerica. Similar evidence shows that they also came into contact with peoples from the Northeast.

Eastern Woodland Tribes Build Alliances The eastern woodland tribes developed a variety of cultures. These peoples often clashed with each other over land. In some areas, tribes formed political alliances to ensure protection of tribal lands. The best example of a political alliance was the **Iroquois** (IHR•uh•kwoy), a group of tribes speaking related languages living in the eastern Great Lakes region. In the late 1500s, five of these tribes in upper New York—the Mohawk, Oneida, Onondaga, Cayuga, and Seneca—formed the Iroquois League. According to legend, Chief Hiawatha helped to create this league. His goal was to promote joint defense and cooperation among the tribes.

Reading Check

Draw Conclusions

Of what value would a political alliance be to an individual tribe?



Great Serpent Mound runs some 1,300 feet along its coils and is between 4 and 5 feet high.

Cultural Connections

The Iroquois alliance was a notable example of a political link among early North American peoples. For the most part, however, the connections between native North Americans were economic and cultural. They traded, had similar religious beliefs, shared social patterns, and spread ideas.

Trading Networks Tie Tribes Together Trade was a major factor linking the peoples of North America. Along the Columbia River in Oregon, the Chinook people established a lively marketplace that brought together trade goods from all over the West. And the Mississippian trade network stretched from the Rocky Mountains to the Atlantic coast and from the Great Lakes to the Gulf of Mexico.

Religion Shapes Views of Life Another feature that linked early Americans was their religious beliefs. Nearly all native North Americans believed that the world around them was filled with nature spirits. Most Native Americans recognized a number of sacred spirits. Some groups held up one supreme being, or Great Spirit, above all others. North American peoples believed that the spirits gave them rituals and customs to guide them in their lives and to satisfy their basic needs. If people practiced these rituals, they would live in peace and harmony.

Native American religious beliefs also included great respect for the land as the source of life. Native Americans used the land but tried to alter it as little as possible. The land was sacred, not something that could be bought and sold. Later, when Europeans claimed land in North America, the issue of land ownership created conflict.

Shared Social Patterns The family was the basis for social organization for Native Americans. Generally, the family unit was the extended family, including parents, children, grandparents, and other close relatives. Some tribes further organized families into clans, or groups of families descended from a common ancestor. In some tribes, clan members lived together in large houses or groups of houses.

Global Patterns

Iroquois Women

Iroquois society was matrilineal. This means that all Iroquois traced their descent through their female ancestors. Clans of the mother controlled property, held ceremonies, and determined official titles.

The ability to grant titles to men was handed down from mother to daughter. The most important title given to men was that of “sachem,” the peace, or civil, chief.

A council of sachems met once a year to decide on war and peace and other important matters. Since sachems could not go to war, they appointed warriors to lead a war party. Thus, in a way women had a say in warfare in the Iroquois tribes.

Common among Native American clans was the use of **totems** (TOH•tuhmz). The term refers to a natural object with which an individual, clan, or group identifies itself. The totem was used as a symbol of the unity of a group or clan. It also helped define certain behaviors and the social relationships of a group. The term comes from an Ojibwa word but refers to a cultural practice found throughout the Americas. For example, Northwestern peoples displayed totem symbols on masks, boats, and huge poles set in front of their houses. Others used totem symbols in rituals or dances associated with important group events such as marriages, the naming of children, or the planting or harvesting of crops.

There were hundreds of different patterns of Native American life in North America. Some societies were small and dealt with life in a limited region of the vast North American continent. Other groups were much larger and were linked by trade and culture to other groups in North America and Mesoamerica. Peoples in Mesoamerica and South America also lived in societies that varied from simple to complex. You will read about three of these cultures—the Maya, the Aztec, and the Inca—in the next three lessons. They would develop very sophisticated ways of life.

Reading Check

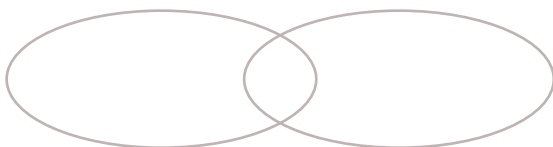
Make Inferences

What artificial symbols are used by nations or organizations in a way similar to totems?

Lesson 4 Assessment

- 1. Organize Information** Use the chart to compare the effect of the environment on the development of the cultures of the Northwest Coast and the Southwest.

Northwest Coast Southwest



Write a paragraph to explain how the effects were different.

- 2. Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.
- 3. Summarize** For what purpose did the Mound Builder cultures use earthen mounds?
- 4. Analyze Causes** Why might location have been important to the power and wealth of the Mississippian culture?
- 5. Compare** In what ways did the peoples of North America share similar cultural patterns?
- 6. Develop Historical Perspectives** Why did societies in North America interact with each other?



Maya Kings and Cities

The Big Idea

The Maya developed a highly complex civilization based on city-states and elaborate religious practices.

Why It Matters Now

Descendants of the Maya still occupy the same territory.

Key Terms and People

Tikal
Pacal
glyph
codex
Popol Vuh



Maya jade death mask, seventh century AD

Setting the Stage

In the early centuries AD, most North American peoples were beginning to develop complex societies. Further south, the peoples of Mexico and Central America were entering into the full flower of civilization. A prime example of this cultural flowering were the Maya, who built an extraordinary civilization in the heart of Mesoamerica.

Maya Create City-States

The homeland of the Maya stretched from southern Mexico into northern Central America. This area includes a highland region and a lowland region. The lowlands lie to the north. They include the dry scrub forest of the Yucatán (yoo•kuh•TAN) Peninsula and the dense, steamy jungles of southeastern Mexico and northern Guatemala. The highlands are further south—a range of cool, cloud-wreathed mountains that stretch from southern Mexico to El Salvador.

While the Olmec were building their civilization along the Gulf Coast in the period from 1200 to 400 BC, the Maya were also evolving. They took on Olmec influences, blending these with local customs. By AD 250, Maya culture had developed into a flourishing civilization. Over time the Maya established cultural patterns and political and economic structures that were similar to those of later civilizations, such as the Aztecs and the Incas.

Urban Centers The period from AD 250 to 900 is known as the Classic Period of Maya civilization. During this time, the Maya built spectacular cities such as **Tikal** (tee•KAHL), a major center in northern Guatemala. Other important sites included Copán, Palenque, Uxmal, and Chichén Itzá (chee•CHEHN-ee•TSAH). Each of these was an independent city-state, ruled by a god-king and serving as a center for religious ceremonies and trade. For example, **Pacal** the Great ruled Palenque in the 600s. During his reign many great buildings were constructed, such as the Temple of

Mesoamerican Civilizations, 200 BC–AD 1521



Interpret Maps

- 1. Region** Which civilization occupied the Yucatán Peninsula?
- 2. Region** What other civilization areas were eventually incorporated into the Aztec area?

Inscriptions, where he was laid to rest. Many other Maya cities featured giant pyramids, temples, palaces, and elaborate stone carvings dedicated to the gods and to important rulers. Tens of thousands of people lived in residential areas around the bustling city center.

Archaeologists have identified at least 50 major Maya sites, all with monumental architecture. For example, the Temple IV pyramid at Tikal stretched 212 feet into the jungle sky. In addition to temples and pyramids, each Maya city featured a ball court. In this stone-sided playing field, the Maya played a game that had religious and political significance. The Maya believed the playing of this game would maintain the cycles of the sun and moon and bring life-giving rains.

Agriculture and Trade Support Cities

Although the Maya city-states were independent of each other, they were linked through alliances and trade. Cities exchanged their local products such as salt, flint, feathers, shells, and honey. They also traded craft goods like cotton textiles and jade ornaments. While the Maya did not have a uniform currency, cacao (chocolate) beans sometimes served as one.

As in the rest of Mesoamerica, agriculture—particularly the growing of maize, beans, and squash—provided the basis for Maya life. For years, experts assumed that the Maya practiced slash-and-burn agriculture. This method involves farmers clearing the land by burning existing vegetation and planting crops in the ashes. Evidence now shows, however, that the Maya also developed more sophisticated methods, including planting on raised beds above swamps and on hillside terraces.

Kingdoms Built on Dynasties Successful farming methods led to the accumulation of wealth and the development of social classes. The noble class, which included priests and the leading warriors, occupied the top rung of Maya society. Below them came merchants and those with specialized knowledge, such as skilled artisans. Finally, at the bottom, came the peasant majority.

Reading Check

Draw Conclusions

What does the ability to construct complex buildings reveal about a society?



Stone panel carved by Maya artists, 8th century BC.

The Maya king sat at the top of this class structure. He was regarded as a holy figure, and his position was hereditary. When he died, he passed the throne on to his eldest son. Other sons of the ruler might expect to join the priesthood.

Religion Shapes Maya Life

Religion influenced most aspects of Maya life. The Maya believed in many gods, and they considered their rulers to be godlike. There were gods of corn, of death, of rain, and of war. Gods could be good or evil, and sometimes both. Gods also were associated with the four directions and with different colors: white for north, black for west, yellow for south, red for east, and green in the center. The Maya believed that each day was a living god whose behavior could be predicted with the help of a system of calendars. The Maya depicted their gods or rulers in art such as through carved statues and bowls, which were made of wood, stone, obsidian, or jade.

Religious Practices The Maya worshiped their gods in various ways. They prayed and made offerings of food, flowers, and incense. They also pierced and cut their bodies and offered their blood, believing that this would nourish the gods. Sometimes the Maya even carried out human sacrifice, usually of captured enemies. At Chichén Itzá, they threw captives into a deep sinkhole lake, called a *cenote* (say•NO•tay), along with gold, jade, and other offerings. The Maya believed that human sacrifice pleased the gods and kept the world in balance. Nevertheless, the Maya's use of sacrifice never reached the extremes of some other Mesoamerican peoples.

Math and Religion Maya religious beliefs also led to the development of the calendar, mathematics, and astronomy. The Maya believed that time was a burden carried on the back of a god. At the end of a day, month, or year, one god would lay the burden down and another would pick it up. A day would be lucky or unlucky, depending on the nature of the god, so it was very important to have an accurate calendar to know which god was in charge of the day.

The Maya developed a 260-day religious calendar, which consisted of thirteen 20-day months. A second 365-day solar calendar consisted of eighteen 20-day months, with a separate period of 5 days at the end. The two calendars were linked together like meshed gears so that any given day could be identified in both cycles. The calendar helped identify the best times to plant crops, attack enemies, and crown new rulers.

The Maya based their calendar on careful observation of the planets, sun, and moon. Highly skilled Maya astronomers and mathematicians calculated the solar year at 365.2420 days. This is only .0002 of a day short of the figure generally accepted today! The Maya astronomers were able to attain such great precision by using a math system that included the concept of zero. The Maya used a shell symbol for zero, dots for the numbers one to four, and a bar for five. The Maya number system was a base-20 system. They used the numerical system primarily for calendar and astronomical work.



A detail from the Maya Codex Troano

Reading Check

Make Inferences

How are math, astronomy, and calendars related?

Written Language Preserves History The Maya also developed the most advanced writing system in the ancient Americas. Maya writing consisted of about 800 hieroglyphic symbols, or **glyphs** (glihfs). Some of these glyphs stood for whole words, and others represented syllables. The Maya used their writing system to record important historical events, carving their glyphs in stone or recording them in a bark-paper book known as a **codex** (koh•dehks). Only three of these ancient books have survived.

Other original books telling of Maya history and customs do exist, however.

Maya peoples wrote down their history after the arrival of the Spanish. The most famous of these books, the **Popol Vuh** (POH•pohl Voo), recounts the Highland Maya's version of the story of creation. "Before the world was created, Calm and Silence were the great kings that ruled," reads the first sentence in the book. "Nothing existed, there was nothing."

Mysterious Maya Decline

The remarkable history of the Maya ended in mystery. Unlike the Han dynasty and the Roman Empire, evidence does not show that social unrest caused the Mayan Empire to end. Yet, like the Han dynasty and Roman Empire, the Mayan Empire did face invaders. In the late 800s, the Maya suddenly abandoned many of their cities. Invaders from the north, the Toltec, moved into the lands occupied by the Maya. These warlike peoples from central Mexico changed the culture. The high civilization of Maya cities like Tikal and Copán disappeared.

No one knows exactly why this happened, though experts offer several overlapping theories. By the 700s, warfare had broken out among the various Maya city-states. Increased warfare disrupted trade and produced

DOCUMENT-BASED INVESTIGATION Historical Source

The Popul Vuh

"Then let the emptiness fill! they said. Let the water weave its way downward so the earth can show its face! Let the light break on the ridges, let the sky fill up with the yellow light of dawn! Let our glory be a man walking on a path through the trees! "Earth!" the Creators called. They called only once, and it was there, from a mist, from a cloud of dust, the mountains appeared instantly."

—From the Popol Vuh

Analyze Historical Sources

What beliefs did the Maya have about the creation of the earth?

Rise and Fall of the Maya

Traits of Civilization	Strength Leading to Power	Weakness Leading to Decline
Religious beliefs and theocracy	United culture that is loyal to the king	Many physical and human resources funneled into religious activities
Independent city-states with their own power	Wealthy and prosperous urban centers	Frequent warfare occurs between city-states
Intensive agriculture	Production of more food feeds a larger population	Population growth creates need for more land

Interpret Charts

- Analyze Effects** Which trait aids in building a sense of loyalty to the ruler?
- Draw Conclusions** How can intensive agriculture be both a strength and a weakness?

Reading Check

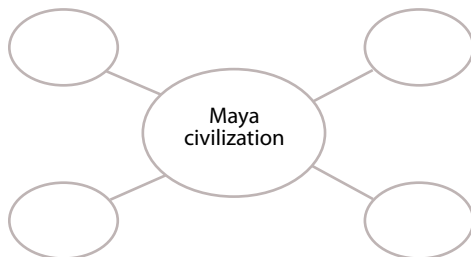
Analyze Causes
Why did the Maya civilization decline?

economic hardship. In addition, population growth and overfarming may have damaged the environment, and this led to food shortages, famine, and disease. By the time the Spanish arrived in the early 1500s, the Maya were divided into small, weak city-states that gave little hint of their former glory.

As the Maya civilization faded, other peoples of Mesoamerica were growing in strength and sophistication. Like the Maya, these peoples would trace some of their ancestry to the Olmec. Eventually, these people would dominate the Valley of Mexico and lands beyond it, as you will learn in Lesson 6.

Lesson 5 Assessment

- Organize Information** Use the web diagram to describe the characteristics of Maya civilization.



How are the characteristics of Maya civilization like those of a typical civilization?

- Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.
- Evaluate** What was the basis of Maya life?
- Contrast** What three explanations have been given for the collapse of the Maya civilization, and how were they different from those of the Roman Empire and Han dynasty?
- Analyze Effects** Why was trade important to the Maya civilization?
- Draw Conclusions** How important do you think the development of advanced mathematics was in the creation of the Maya calendar, and why was it important to Mayan religion?

Maya Architecture

Mayan architects created beautiful and monumental structures. The buildings are artistic in structure, as well as in ornamentation. The style and complexity of the ornamentation varies by region, but narrative, ceremonial, and celestial themes are common. Archaeologists and tourists alike are still awed by Maya architecture.

These large structures seem to be designed for ceremonial or religious purposes and dominate the landscapes of the cities. The most recognizable structures are the pyramids, but there is much more to the artful Maya architecture.



▲ DETAILING

One characteristic of Maya architecture is the exterior and interior ornamental detailing. This two-headed jaguar throne was found at Uxmal. It represents the jaguar god of the underworld, one of the many Maya gods. An ancient Maya manuscript lists over 160 gods.



▼ STELE

Another form of Maya art was the stele (STEE-lee), which is an inscribed or carved marker that is often used to mark special dates or as a building marker. This stele is in the Maya city of Copán and is part of a series of finely carved commemorative steles in the great plaza. The 13th king is represented on most of the steles in ceremonial clothing.





BALL COURT ▲

Ball courts were a feature of ancient Maya cities. The games held deep religious significance, and the same artistic detail is found in the ball courts as in other religious structures. The court shown here is at Chichén Itzá in modern Mexico. It is 545 feet long and 223 feet wide, and it is the largest in the Americas. The ornate hoop is 20 feet off the ground.

The exact rules and method of scoring the game are unknown. However, inscriptions indicate that players could not use their hands or feet to move a solid rubber ball, and that members of the losing team might be sacrificed by beheading.

◀ PYRAMID

Archaeologists have found pyramids at many Maya cities. Pyramids were religious structures and, as in Egypt, could be used as tombs. The pyramid shown here is known as Temple I in the Maya city of Tikal. It is the tomb of Ha Sawa Chaan K'awil, a Tikal ruler. The pyramid is about 160 feet tall. Another pyramid in the city is 212 feet tall. In fact, the Tikal pyramids were the tallest structures in the Americas until 1903, when the Flatiron Building was built in New York City.

Critical Thinking

1. Make Inferences What does the size and ornamentation of Maya architecture indicate about their society?

2. Compare and Contrast What are some examples of large-scale architecture in the United States? What do they indicate about our culture?



The Aztecs Control Central Mexico

The Big Idea

Through alliances and conquest, the Aztecs created a powerful empire in Mexico.

Why It Matters Now

This time period saw the origins of one of the 20th century's most populous cities, Mexico City.

Key Terms and People

obsidian
 Quetzalcoatl
 Triple Alliance
 Montezuma I
 Montezuma II



This wall hanging is a replica of the Aztec sun stone.

Setting the Stage

While the Maya were developing their civilization to the south, other high cultures were evolving in central Mexico. Some of the most important developments took place in and around the Valley of Mexico. This valley, where modern Mexico City is located, eventually became the site of the greatest empire of Mesoamerica, the Aztec. The Aztecs were preceded by two other important civilizations that traced their ancestry to the Olmec and Zapotec. You learned about the Olmec and Zapotec in Lesson 2.

The Valley of Mexico

The Valley of Mexico, a mountain basin about 7,500 feet above sea level, served as the home base of several powerful cultures. The valley had several large, shallow lakes at its center, accessible resources, and fertile soil. These advantages attracted the people of Teotihuacán (tay•oh•tee•wah•KAHN) and the Toltecs. They settled in the valley and developed advanced civilizations that controlled much of the area.

An Early City-State The first major civilization of central Mexico was Teotihuacán, a city-state whose ruins lie just outside Mexico City. In the first century AD, villagers at this site began to plan and construct a monumental city even larger than Monte Albán, in Oaxaca.

At its peak in the sixth century, Teotihuacán had a population of between 150,000 and 200,000 people, making it one of the largest cities in the world at the time. The heart of the city was a central avenue lined with more than 20 pyramids dedicated to various gods. The biggest of these was the giant Pyramid of the Sun. This imposing building stood more than 200 feet tall and measured close to 3,000 feet around its base. The people of Teotihuacán lived in apartment-block buildings in the area around the central avenue.

Teotihuacán became the center of a thriving trade network that extended far into Central America. The city's most valuable trade item was **obsidian** (ahb•SIHD•ee•uhn), a green or black volcanic glass found in the Valley of Mexico and used to make razor-sharp weapons. There is no evidence that Teotihuacán conquered its neighbors or tried to create an empire. However, evidence of art styles and religious beliefs from Teotihuacán have been found throughout Mesoamerica.

After centuries of growth, the city abruptly declined. Historians believe this decline was due either to an invasion by outside forces or conflict among the city's ruling classes. Regardless of the causes, the city was virtually abandoned by 750. The vast ruins astonished later settlers in the area, who named the site Teotihuacán, which means "City of the Gods."



Quetzalcoatl was a god for many ancient Mexican civilizations.

Toltecs Take Over After the fall of Teotihuacán, no single culture dominated central Mexico for decades. Then around 900, a new people—the Toltecs—rose to power. For the next three centuries, the Toltecs ruled over the heart of Mexico from their capital at Tula. Like other Mesoamericans, they built pyramids and temples. They also carved tall pillars in the shape of armed warriors.

In fact, the Toltecs were an extremely warlike people whose empire was based on conquest. They worshiped a fierce war god who demanded blood and human sacrifice from his followers. Sometime after 1000, a Toltec ruler named Topiltzin (toh•PEELT•zeen) tried to change the Toltec religion. He called on the Toltec people to end the practice of human sacrifice. He also encouraged them to worship a different god, **Quetzalcoatl** (keht•sahl•koh•AHT•uhl), or the Feathered Serpent. Followers of the war god rebelled, however, forcing Topiltzin and his followers into exile on the Yucatán peninsula. There, they greatly influenced late Mayan culture. After Topiltzin's exile, Toltec power began to decline. By the early 1200s, their reign over the Valley of Mexico had ended.

Reading Check

Make Inferences

Why might the followers of the war god rebel against Topiltzin?

In time, Topiltzin and Quetzalcoatl became one in the legends of the people of the Valley of Mexico. According to these legends, after his exile from Tula, the god traveled east, crossing the sea on a raft of snakes. He would return one day, bringing a new reign of light and peace. The story of Quetzalcoatl would come back to haunt the greatest empire of Mexico, the Aztecs.



The Pyramid of the Sun dominates Teotihuacán's main highway, the Avenue of the Dead.

The Aztec Empire

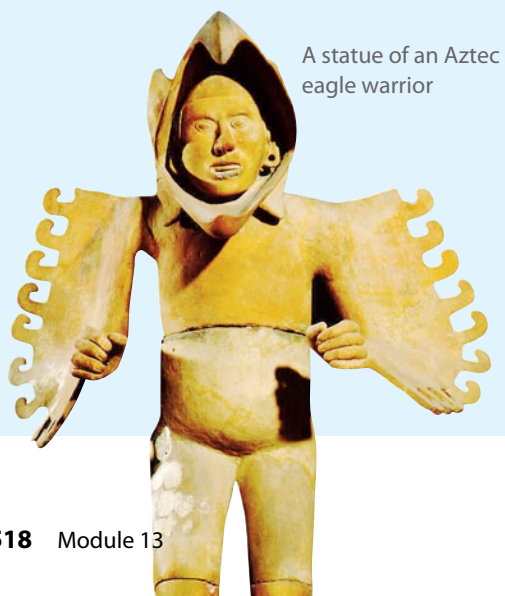
The Aztecs arrived in the Valley of Mexico around AD 1200. The valley contained a number of small city-states that had survived the collapse of Toltec rule. The Aztecs, who were then called the Mexica, were a poor, nomadic people from the harsh deserts of northern Mexico. Fierce and ambitious, they soon adapted to local ways, finding work as soldiers-for-hire to local rulers.

According to one of the Aztec legends, the god of the sun and warfare, Huitzilopochtli (wee•tsee•loh•POHCH•tlee), told them to found a city of their own. He said to look for a place where an eagle perched on a cactus, holding a snake in its mouth.

Historical Source

An Aztec Legend

These words capture part of the Aztec legend of Huitzilopochtli.



A statue of an Aztec eagle warrior

*“The place where the eagle screams,
where he spreads his wings;
the place where he feeds,
where the fish jump,
where the serpents
coil up and hiss!
This shall be Mexico Tenochtitlán
and many things shall happen!”*

—Crónica Mexicayotl

Analyze Historical Sources

Based on what you read from the legend, what geographic feature would be in close proximity to Tenochtitlán?

They found such a place on a small island in Lake Texcoco, at the center of the valley. There, in 1325, they founded their city, which they named Tenochtitlán (teh•noch•tee•TLAHN).

Aztecs Grow Stronger Over the years, the Aztecs gradually increased in strength and number. In 1428, they joined with two other city-states—Texcoco and Tlacopan—to form the **Triple Alliance**. This alliance became the leading power in the Valley of Mexico and soon gained control over neighboring regions. By the early 1500s, they controlled a vast empire that covered some 80,000 square miles stretching from central Mexico to the Atlantic and Pacific coasts and south into Oaxaca. This empire was divided into 38 provinces. Its population may have been between 5 and 15 million people.

The Aztecs based their power on military conquest and the tribute they gained from their conquered subjects. The Aztecs generally exercised loose control over the empire, often letting local rulers govern their own regions. They did demand tribute, however, in the form of gold, maize, cacao beans, cotton, jade, and other products. If local rulers failed to pay tribute or offered any other kind of resistance, the Aztecs responded brutally. They destroyed the rebellious villages and captured or slaughtered the inhabitants.

Nobles Rule Aztec Society At the height of the Aztec Empire, military leaders held great power in Aztec society. Along with government officials and priests, these military leaders made up the noble class. Many nobles owned vast estates, which they ruled over like lords, living a life of great wealth and luxury.

There were two other broad classes in Aztec society, commoners and enslaved persons. Commoners included merchants, artisans, soldiers, and farmers who owned their own land. The merchants formed a special type of elite. They often traveled widely, acting as spies for the emperor and gaining great wealth for themselves. The lowest class, enslaved persons, were captives who did many different jobs.

The emperor sat atop the Aztec social pyramid. Although he sometimes consulted with top generals or officials, his power was absolute. The emperor lived in a magnificent palace, surrounded by servants and his wives. Visitors—even nobles—entered his presence in bare feet and cast their eyes down so as not to look at him.

Reading Check
Compare
How were the
Aztecs' methods of
controlling the empire
like those of other
empires you have read
about?

Global Patterns

Warriors and Animal Symbols

Some of the highest-ranking Aztec leaders were eagle warriors. In battle, they wore eagle costumes in honor of the sun god, Huitzilopochtli, who often took the form of an eagle.

The use of animal symbols by warriors was a widespread practice in ancient times. The eagle was a favorite among Roman soldiers because

they thought it symbolized victory. In many cultures, warriors adopted an animal so that they would inherit the animal's qualities. Celtic fighters, for example, wore boars' heads on their helmets so that they, like the boar, would be strong and fearless. Similarly, many African warriors adopted the lion for its fighting ferocity.

Tenochtitlán: A Planned City

By the early 1500s, Tenochtitlán had become an extraordinary urban center. Much of the building up of the city and some of its growth were achieved under **Montezuma I** (mahn•tih•ZOO•muh). With a population of between 200,000 and 400,000 people, it was larger than London or any other European capital of the time. Tenochtitlán remained on its original island site. To connect the island to the mainland, Aztec engineers built three raised roads, called causeways, over the water and marshland. Other smaller cities ringed the lake, creating a dense concentration of people in the Valley of Mexico.

Streets and broad avenues connected the city center with outlying residential districts. The canals that intersected with these roadways allowed canoes to bring people directly into the city center. Canoes also brought goods from the farthest reaches of the empire to the economic heart of the city, the huge market of Tlatelolco (tlah•tehl•AWL•koh). Visitors to the market also found a great deal of local agricultural produce on display, including avocados, beans, chili peppers, corn, squash, and tomatoes. Most of the fruits and vegetables sold at the market were grown on *chinampas*, farm plots built on the marshy fringes of the lake. These plots, sometimes called floating gardens, were extremely productive, providing the food needed for a huge urban population.

At the center of the city was a massive walled complex filled with palaces, temples, and government buildings. The main structure in the complex was the Great Temple. This giant pyramid with twin temples at the top, one dedicated to the sun god and the other to the rain god, served as the center of Aztec religious life.

Religion Rules Aztec Life

Religion played a major role in Aztec society. Tenochtitlán contained hundreds of temples and religious structures dedicated to the approximately 1,000 gods that the Aztecs worshiped. The Aztecs adopted many of these gods, and religious practices related to them, from other Mesoamerican peoples. For example, the Aztecs worshiped the Toltec god Quetzalcoatl in many forms. They saw him as the god of learning and books, the god of the wind, and a symbol of death and rebirth. The Aztecs pictured Quetzalcoatl not only as a feathered serpent, but also as a pale-skinned man with a beard.

Religious Practices Aztec religious practices centered on elaborate public ceremonies designed to communicate with the gods and win their favor. At these ceremonies, priests made offerings to the gods and presented ritual dramas, songs, and dances featuring masked performers. The Aztec ceremonial calendar was full of religious festivals, which varied according to the god being honored.

Sacrifices for the Sun God The most important rituals involved a sun god, Huitzilopochtli. According to Aztec belief, Huitzilopochtli made the sun rise every day. When the sun set, he had to battle the forces of evil to

Reading Check

Draw Conclusions

How strong do you think the economy of the Aztec Empire was, based on the descriptions of Tenochtitlán? Explain your response.

The Market at Tlatelolco

Hernando Cortés, the Spanish conqueror of Mexico, noted that the market at Tlatelolco was twice the size of the market at Salamanca, the Spanish city where he had attended university.

“ . . . [T]here are daily more than sixty thousand souls, buying and selling, and where are found all the kinds of merchandise produced in these countries, including food products, jewels of gold and silver, lead, brass, copper, zinc, stone, bones, shells, and feathers. . . . Everything is sold by a kind of measure, and, until now, we have not seen anything sold by weight. There is in this, square a very large building, like a Court of Justice, where there are always ten or twelve persons, sitting as judges, and delivering their decisions upon all cases which arise in the markets.”

—Hernando Cortés,
from *Hernando Cortés his five letters
of Relation to the Emperor Charles V,
Volume I*

Tenochtitlán—a Bustling City

Bernal Díaz, one of Cortés’s soldiers, was amazed to find a bustling urban center in the heart of Mexico.

“When we saw all those cities and villages built in the water, and other great towns on dry land, and that straight and level causeway leading to Mexico, we were astounded. These great towns and cues [pyramids] and buildings rising from the water, all made of stone, seemed like an enchanted vision. . . . Indeed, some of our soldiers asked whether it was not all a dream.”

—Bernal Díaz,
The Conquest of New Spain

Analyze Historical Sources

How do the descriptions by Cortés and Díaz of city life in the Aztec Empire differ? Are they both credible sources? Explain.

get to the next day. To make sure that he was strong enough for this ordeal, he needed the nourishment of human blood. Without regular offerings of human blood, Huitzilopochtli would be too weak to fight. The sun would not rise, the world would be plunged into darkness, and all life would perish. For this reason, Aztec priests practiced human sacrifice on a massive scale. Each year, thousands of victims were led to the altar atop the Great Temple, where priests carved out their hearts using obsidian knives.

Sacrificial victims included enslaved persons, criminals, and people offered as tribute by conquered provinces. Prisoners of war, however, were



This mural, in the National Palace in Mexico City, shows Quetzalcoatl in many forms.

Reading Check

Summarize

Why did the Aztecs take so many war captives?

the preferred victims. As a result, the priests required a steady supply of war captives. This in turn pushed the Aztec military to carry out new conquests. In fact, the Aztecs often went to war not to conquer new lands but simply to capture prisoners for sacrifice. They even adapted their battle tactics to ensure that they took their opponents alive.

Problems in the Aztec Empire

In 1502, a new ruler, **Montezuma II**, was crowned emperor. Under Montezuma II, the Aztec Empire began to weaken. For nearly a century, the Aztecs had been demanding tribute and sacrificial victims from the provinces under their control. Now, with the population of Tenochtitlán growing ever greater, Montezuma II called for even more tribute and sacrifice. A number of provinces rose up against Aztec oppression. This began a period of unrest and rebellion, which the military struggled to put down.

Over time, Montezuma II tried to lessen the pressure on the provinces. For example, he reduced the demand for tribute payment by cutting the number of officials in the Aztec government. But resentment continued to grow. Many Aztecs began to predict that terrible things were about to happen. They saw bad omens in every unusual occurrence—lightning striking

History in Depth

The Aztec Calendar

The Aztec system of tracking the days was very intricate. Archaeologists believe that the Aztec calendar system was derived from the Maya system. The Aztecs followed two main calendars: a sacred one with 13 months of 20 days and an agricultural or solar one with 18 months of 20 days. (Notice that this comes to 360 days. The Aztecs then had an unlucky five-day period known as *nemontemi*, making their solar calendar 365 days long.) Every 52 years, the two calendars would start on the same day, and a great ceremony of fire marked the occasion.



Aztec Gods

The Aztecs worshiped many different gods. They were a vital part of the Aztec calendar and daily life. The Aztecs paid tribute to different gods depending, in part, on the day, week, month, year, and religious cycle of the Aztec calendars. The god shown here is a sun god, Tonatiuh.



Aztec Sunstone

Originally located in the main ceremonial plaza of Tenochtitlán, the Aztec calendar stone measures 13 feet in diameter and weighs 24 tons. It was uncovered in Mexico City in 1790. The Sunstone, as it is called, contains a wealth of information about the days that began and ended the Aztec months, the gods associated with the days, and many other details.

This is an artist's rendition of the inner circle of the Sunstone. In the center is the god Tonatiuh.

The four squares that surround Tonatiuh are glyphs, or symbols, of the four ages preceding the time of the Aztecs: Tiger, Water, Wind, and Rain.

In the ring just outside the symbols of the previous ages, 20 segments represent the 20 days that made up an Aztec month. Each day had its own symbol and a god who watched over the day. The symbol pointed to here is Ocelotl, the jaguar.

Interpret Visual Sources

1. Hypothesize Why do you think the Aztecs put Tonatiuh, a sun god, in the center of the Sunstone? Explain your reasons.

2. Compare and Contrast How is the Aztec calendar different from the calendar we use today? How is it similar?

Rise and Fall of the Aztecs

Traits of Civilization	Strength Leading to Power	Weakness Leading to Decline
Religious beliefs and theocracy	United culture that is loyal to the emperor	Many physical and human resources funneled into religious activities
Powerful army	More land, power, and prisoners for religious sacrifices	Need for prisoners changes warfare style to less deadly and less aggressive
Empire of tribute states	Provides wealth and power and prisoners for religious sacrifice	Tribute states are rebellious and need to be controlled

Interpret Charts

1. Draw Conclusions How was the tribute system both a strength and a weakness?

2. Clarifying How are the army and religious beliefs linked in the Aztec Empire?

Reading Check

Make Inferences

Why would cutting the number of government officials reduce the need for tribute money?

a temple in Tenochtitlán, or a partial eclipse of the sun, for example. The most worrying event, however, was the arrival of the Spanish. For many Aztecs, these fair-skinned, bearded strangers from across the sea brought to mind the legend of the return of Quetzalcoatl.

Further south in the high mountain valleys of the Andes, another empire was developing, one that would transcend the Aztec Empire in land area, power, and wealth. Like the Aztecs, the people of this Andean empire worshiped the sun and had large armies. However, the society they built was much different from that of the Aztecs, as you will see in Lesson 7.

Lesson 6 Assessment

1. Organize Information What steps did the Aztecs take to establish an extensive empire in such a relatively short period of time?



2. Key Terms and People For each key term or person in the lesson, write a sentence explaining its significance.

3. Evaluate How did the Aztecs rule their empire, and do you think it was effective?

4. Find Main Ideas On what was Teotihuacán's power and wealth based?

5. Summarize How were the Aztecs able to overcome the problems associated with Tenochtitlán's island location?

6. Analyze Effects How did the Aztecs' growing empire and need for victims for sacrifice lead to problems?



The Inca Create a Mountain Empire

The Big Idea

The Inca built a vast empire supported by taxes, governed by a bureaucracy, and linked by extensive road systems.

Why It Matters Now

The Incan system of government was similar to some socialist governments in the 20th century.

Key Terms and People

Pachacuti
ayllu
mita
quipu

Setting the Stage

While the Aztecs ruled in the Valley of Mexico, another people—the Inca—created an equally powerful state in South America. From Cuzco, their capital in southern Peru, the Inca spread outward in all directions. They brought various Andean peoples under their control and built an empire that stretched from Ecuador in the north to Chile in the south. It was the largest empire ever seen in the Americas.



Incan textiles such as this one were a common form of art among early cultures in South America.

The Inca Build an Empire

Like the Aztecs, the Inca built their empire on cultural foundations thousands of years old. Ancient civilizations such as the Chavín, Moche, and Nazca had established a tradition of high culture in Peru. They were followed by the Huari and Tiahuanaco cultures of southern Peru and Bolivia. The Chimú, an impressive civilization of the 1300s based in the northern coastal region once controlled by the Moche, came next. The Inca would create an even more powerful state, however, extending their rule over the entire Andean region.

Incan Beginnings The Inca originally lived in a high plateau of the Andes. After wandering the highlands for years, the Inca finally settled on fertile lands in the Valley of Cuzco. By the 1200s, they had established their own small kingdom in the valley.

During this early period, the Inca developed traditions and beliefs that helped launch and unify their empire. One of these traditions was the belief that the Incan ruler was descended from the sun god, Inti, who would bring prosperity and greatness to the Incan state. Only men from one of 11 noble lineages believed to be descendants of the sun god could be selected as Incan leaders.

Pachacuti Builds an Empire At first the Incan kingdom grew slowly. In 1438, however, a powerful and ambitious ruler, **Pachacuti** (pah•chah•KOO•tee), took the throne. Under his leadership, the Inca conquered all of Peru and then moved into neighboring lands. By 1500, the Inca ruled an empire that stretched 2,500 miles along the western coast of South America. The Inca called this empire “Land of the Four Quarters.” It included about 80 provinces and was home to as many as 16 million people.

Pachacuti and his successors accomplished this feat of conquest through a combination of diplomacy and military force. The Inca had a powerful military but used force only when necessary. They were also clever diplomats. Before attacking, they typically offered enemy states an honorable surrender. They would allow them to keep their own customs and rulers in exchange for loyalty to the Incan state. Because of this treatment, many states gave up without resisting. Even when force was used, the Inca took a similar approach. Once an area was defeated, they made every effort to gain the loyalty of the newly conquered people.

Reading Check

Evaluate

Do you think that Pachacuti's methods for unifying conquered lands were effective? Explain.

BIOGRAPHY

Pachacuti

(c. 1391–c. 1473)

As the second son of the Incan ruler Viracocha, Pachacuti did not expect to succeed to the throne. However, when Cuzco was attacked in 1438, Viracocha and Pachacuti's older brother fled the city. Pachacuti stayed and drove off the attackers. He then proclaimed himself the new Incan ruler.

Pachacuti, whose name means “World Transformer” or “Earthshaker,” ruled for 33 years. During that time, he drew up the plans for the rebuilding of Cuzco and established the Incan system of government.



Incan Government Creates Unity

To control the huge empire, the rulers divided their territory and its people into manageable units governed by a central bureaucracy. The Inca created an efficient economic system to support the empire and an extensive road system to tie it together. They also imposed a single official language, Quechua (KEHCH•wuh), and founded schools to teach Incan ways. Certain social groups were identified by officially dictated patterns on clothing. All of these actions were calculated to unify the variety of people controlled by the Inca.

Incan Cities Show Government Presence To exercise control over their empire, the Inca built many cities in conquered areas. The architecture of government buildings was the same all over the empire, making the presence of the government apparent. As in Rome, all roads led to the capital, Cuzco. The heart of the Incan empire, Cuzco was a splendid city of temples, plazas, and palaces. “Cuzco was grand and stately,” wrote Cieza de León. “It had fine streets, . . . and the houses were built of solid stones, beautifully joined.” Like the Romans, the Inca were masterful engineers and stonemasons. Though they had no iron tools and did not use the wheel, Incan builders carved and transported huge blocks of stone, fitting them together perfectly without mortar. Many Incan walls still stand in Cuzco today, undisturbed by the region’s frequent earthquakes.

Incan Government The Incan state exercised almost total control over economic and social life. It controlled most economic activity, regulating the production and distribution of goods. Unlike the Maya and the Aztecs, the Inca allowed little private commerce or trade. Yet the Inca network of internal trade routes helped unite and strengthen the vast empire.

The Incan social system was based on an age-old form of community cooperation—the ayllu (EYE•loo). The **ayllu**, or extended family group, undertook tasks too big for a single family. These tasks included building irrigation canals or cutting agricultural terraces into steep hillsides. The ayllu also stored food and other supplies to distribute among members during hard times.

The Inca incorporated the ayllu structure into a governing system based on the decimal system. They divided families into groups of 10, 100, 1,000, and 10,000. A chief led each group. He was part of a chain of command. That chain stretched from the community and regional levels all the way to Cuzco, where the Incan ruler and his council of state held court. In general, local administration was left in the hands of local rulers, and villages were allowed to continue their traditional ways. If a community resisted Incan control, however, the Inca might relocate the whole group to a different territory. The resisters would be placed under the control of rulers appointed by the government in Cuzco.

The main demand the Incan state placed on its subjects was for tribute, usually in the form of labor. The labor tribute was known as **mita** (MEE•tuh). It required all able-bodied citizens to work for the state a certain number of days every year. Mita workers might labor on state

farmlands, produce craft goods for state warehouses, or help with public works projects. Later, the Spanish adopted the mita labor practice but changed it to a system of forced labor.

▶ Explore ONLINE!

South American Culture Areas, 100–1535



Interpret Maps

- 1. Place** The lands of which earlier South American cultures were included in the Incan Empire?
- 2. Human–Environment Interaction** Look at the shape and terrain of the Incan Empire. What problems related to geography might occur in controlling the land?

Historians have compared the Incan system to a type of socialism or a modern welfare state. Citizens were expected to work for the state and were cared for in return. For example, the aged and disabled were often supported by the state. The state also made sure that the people did not go hungry when there were bad harvests. Freeze-dried potatoes, called *chuño*, were stored in huge government warehouses for distribution in times of food shortages.

Public Works Projects The Inca had an ambitious public works program. The most spectacular project was the Incan road system. A marvel of engineering, this road system symbolized the power of the Incan state. The 14,000-mile-long network of roads and bridges spanned the empire, traversing rugged mountains and harsh deserts. The roads ranged from paved stone to simple paths. Along the roads, the Inca built guesthouses to provide shelter for weary travelers. A system of runners, known as *chasquis* (SHAH•skeys), traveled these roads as a kind of postal service, carrying messages from one end of the empire to the other. The road system also allowed the easy movement of troops to bring control to areas of the empire where trouble might be brewing.

Government Record-Keeping Despite the sophistication of many aspects of Incan life, the Inca never developed a writing system. History and literature were memorized as part of an oral tradition. For numerical information, the Inca created an accounting device known as **quipu**, a set of knotted strings that could be used to record data. The knots and their position on the string indicated numbers. They also used a device that functioned almost like a calculator that may have made division and using fractions possible. Additionally, the colors of the strings represented

different categories of information important to the government. For example, red strings were used to count warriors; yellow strings

Reading Check

Make Inferences

Of all of the methods used to create unity, which do you think would be most successful? Why?

were used to count gold. However, the meanings of the colors changed depending on the general purpose of the quipu.

Some historians believe that the Inca also developed an elaborate calendar system with two types of calendars, one for night and one for day. They were used primarily for religious purposes. Like the calendars of the Maya and the Aztecs, the two calendars provided information about the gods whom the Inca believed ruled the day and time.

Religion Supports the State

As with the Aztecs, religion was important to the Inca and helped reinforce the power of the state. The Inca worshiped fewer gods than the Aztecs. The Inca focused on key nature spirits such as the moon, the stars, and thunder. In the balance of nature, the Inca saw patterns for the way humans should relate to each other and to the earth. The primary Incan god was a creator god called Viracocha. Next in importance was the sun god, Inti. Because the Incan ruler was considered a descendant of Inti, sun worship amounted to worship of the king.



Machu Picchu lies some 8,000 feet above sea level on a ridge between two mountain peaks.

Rise and Fall of the Inca

Traits of Civilization	Strength Leading to Power	Weakness Leading to Decline
Religious beliefs and theocracy	United culture that is loyal to the emperor	Many physical and human resources funneled into religious activities
Major road systems	An interconnected empire that is easier to control	Enemy could also use roads to move troops
Type of welfare state with huge bureaucracy	Able to care for all people during good and bad times	People struggled to care for themselves with the elimination of the welfare state

Interpret Charts

1. Form and Support Opinions In your opinion, which of the three traits leading to power was the most valuable? Briefly discuss your reasons.

2. Compare Which trait did you find repeated in the Maya and Aztec empires?

Religious Practices Incan priests led the sun-worship services, assisted by young women known as *mamakuna*, or “virgins of the sun.” These women, all unmarried, were drafted by the Inca for a lifetime of religious service. The young women were trained in religious activities, as teachers, spinners, weavers, and beer makers. Young men, known as *yamacuna*, also served as full-time workers for the state and in religious activities. Sacrifice of llamas and exchange of goods were a part of the religious activities. The goods were distributed by the priests to the people as gifts from the gods.

Great Cities The Temple of the Sun in Cuzco was the most sacred of all Incan shrines. It was heavily decorated in gold, a metal the Inca referred to as “sweat of the sun.” According to some sources, the temple even had a garden with plants and animals crafted entirely from gold and silver. In fact, gold was a common sight throughout Cuzco. The walls of several buildings had a covering of thin gold sheeting.

Although Cuzco was the religious capital of the Incan Empire, other Incan cities also may have served a ceremonial purpose. For example, Machu Picchu, excavated by Hiram Bingham in 1912, was isolated and mysterious. Like Cuzco, Machu Picchu also had a sun temple, public buildings, and a central plaza. Some sources suggest it was a religious center. Others think it was an estate of Pachacuti. Still others believe it was a retreat for Incan rulers or the nobility.

Reading Check

Compare and Contrast How were the Inca and Aztecs alike?

Discord in the Empire

The Incan Empire reached the height of its glory in the early 1500s during the reign of Huayna Capac. Trouble was brewing, however. In the 1520s, Huayna Capac undertook a tour of Ecuador, a newly conquered area of the empire. In the city of Quito, he received a gift box. When he opened it, out flew butterflies and moths, considered an evil omen. A few weeks later, while still in Quito, Huayna Capac died of disease—probably smallpox.

After his death, the empire was split between his sons, Atahualpa (ah•tah•WAHL•pah) and Huascar (WAHS•kahr). Atahualpa received Ecuador, about one-fifth of the empire. The rest went to Huascar. At first, this system of dual emperors worked. Soon, however, Atahualpa laid claim to the whole of the empire. A bitter civil war followed. Atahualpa eventually won, but the war tore apart the empire. As you will learn, the Spanish arrived in the last days of this war. Taking advantage of Incan weakness, they would soon divide and conquer the empire.

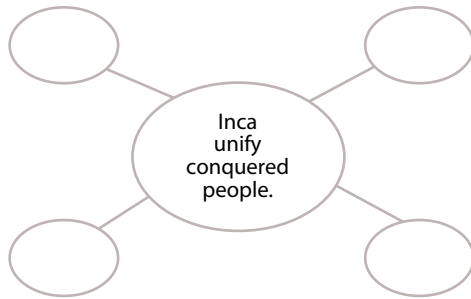
Reading Check

Evaluate

Do you think that splitting the Incan Empire led to its fall? Explain

Lesson 7 Assessment

1. **Organize Information** Use the web diagram to show how the Inca unified the people they conquered.



Which of the Inca's methods were accepted by the conquered people?

2. **Key Terms and People** For each key term or person in the lesson, write a sentence explaining its significance.
3. **Draw Conclusions** How were the Inca able to conquer such a vast empire, and how did they create unity among diverse peoples in their empire?
4. **Form Generalizations** What role did the mita play in building the Incan Empire?
5. **Analyze Motives** Why do you think the Inca used the ayllu system as the basis for governing in the empire?
6. **Compare and Contrast** How were Incan and Aztec religious practices similar? How were they different?

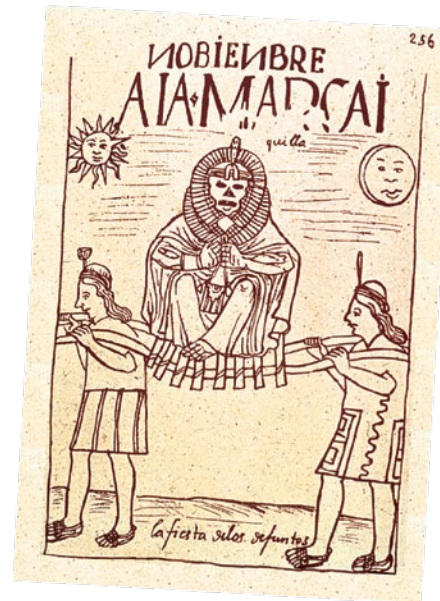
Incan Mummies

For the Inca, death was an important part of life. The Inca worshiped the spirits and the bodies of their ancestors. They believed in an afterlife, and tombs and the mummies they held were considered holy.

Like the Egyptians, the Inca embalmed their dead to preserve the body. The mummies were bundled with offerings of food, tools, and precious items to help them in the afterlife. These “mummy bundles” were then buried or put in an aboveground tomb to be worshiped. Mummies have been found from many different social classes, and, as you will read, not all of them died natural deaths.

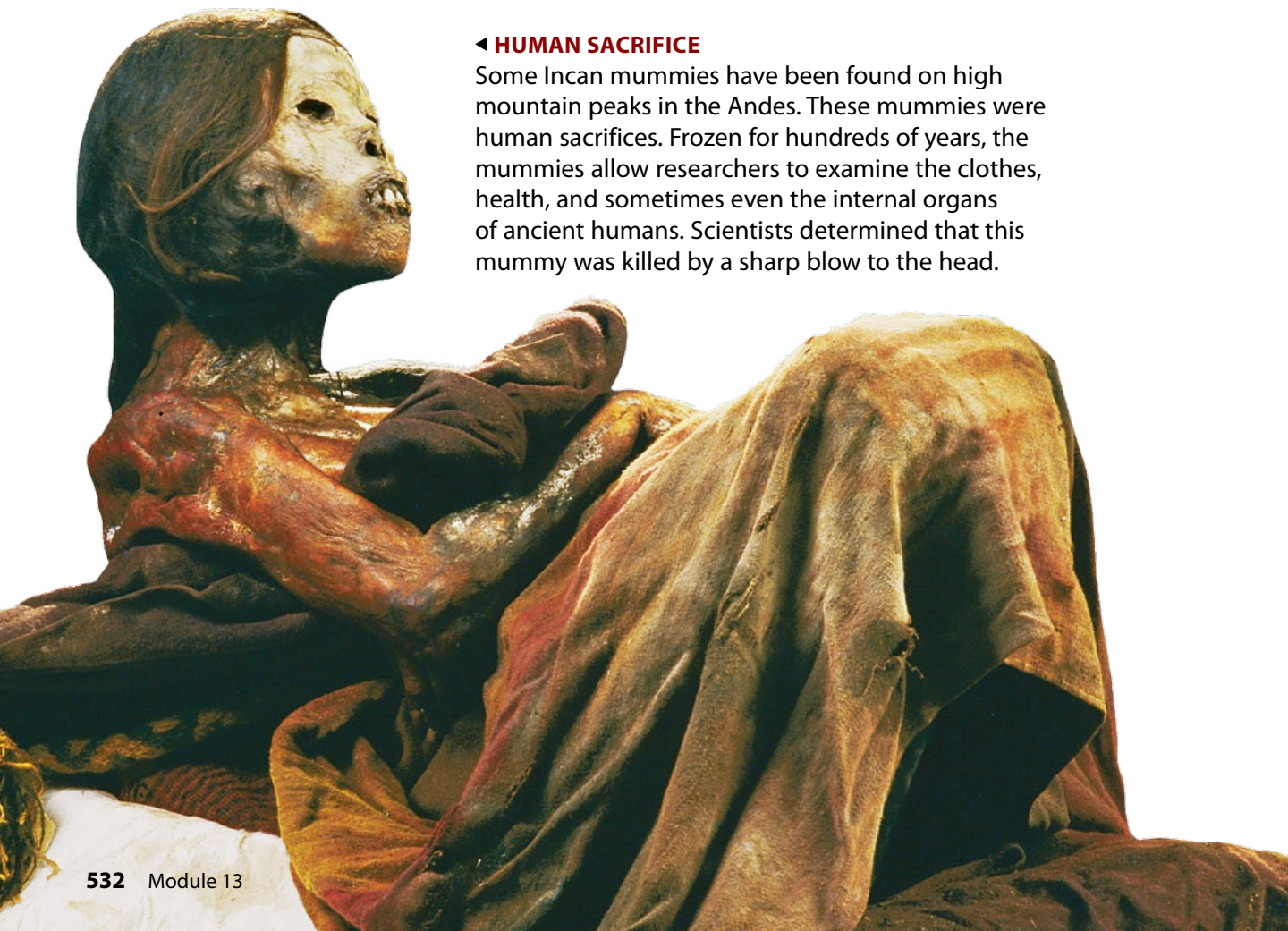
ROYAL TREATMENT ►

The mummies of Incan rulers were among the holiest objects of Incan religion. The mummies were actually treated as if they were still alive. They had servants, maintained ownership of their property, were consulted as oracles, and were taken to major festivals or to visit other mummies. The mummy shown at right in a 16th-century Spanish codex is being transported in the same manner as the living royalty.



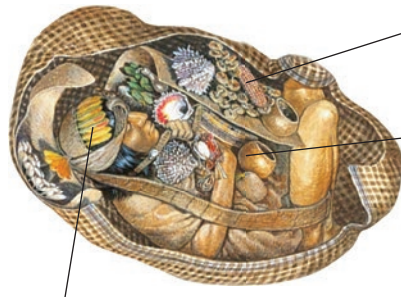
◀ HUMAN SACRIFICE

Some Incan mummies have been found on high mountain peaks in the Andes. These mummies were human sacrifices. Frozen for hundreds of years, the mummies allow researchers to examine the clothes, health, and sometimes even the internal organs of ancient humans. Scientists determined that this mummy was killed by a sharp blow to the head.



MUMMY BUNDLES ▶

At a site known as Puruchuco, just outside of Lima, Peru, archaeologists discovered a huge Incan cemetery. Some of the mummies unearthed were wrapped in layers of cotton. The outside of the bundle might have a false head made of cloth like the one shown on the right. Inside the bundle were the mummy, religious offerings, and personal items. The illustration shown below re-creates the inside of an actual bundle that archaeologists unwrapped.



Corn, or maize, was the Inca's most important crop and is often found in Incan burials.

The Inca used gourds as bowls and containers. The gourds found in this bundle held food and cotton.

This man wears a feathered headdress that indicates high social standing.

**▲ GIFTS FOR THE DEAD**

The Inca sometimes placed mummies in aboveground tombs called *chullpas*. Descendants of the mummy would bring offerings of food and precious goods to honor their ancestor. This mummy is shown as it might have appeared in its tomb.

Critical Thinking

- 1. Make Inferences** What do Inca mummification practices suggest about Inca culture?
- 2. Form and Support Opinions** Why do you think mummification is not a common practice in the United States today?

AN INCAN GRAVEYARD

The Puruchuco graveyard lies beneath a shantytown in Peru called Tupac Amaru. In 1999, when archaeologists discovered the extent of the site, it was about to be bulldozed. Archaeologists began an emergency recovery effort.

- The remains of over 2,000 men, women, and children were recovered.
- The site may contain as many as 10,000 individuals.
- Some bundles contained up to seven bodies and weighed as much as 400 pounds.
- Between 50,000 and 60,000 artifacts were recovered.
- One of the mummy bundles became known as the "Cotton King." The mummy was wrapped in about 300 pounds of raw cotton.
- The Cotton King's bundle contained 70 artifacts, including food, pottery, animal skins, and sandals. Footwear was not common among the Inca, and sandals were a status symbol.



Module 13 Assessment

Key Terms and People

For each term or name below, briefly explain its connection to the early peoples and civilizations of the Americas.

1. Beringia
2. Olmec
3. Zapotec
4. Chavín
5. Moche
6. Mississippian
7. Iroquois
8. Montezuma I
9. Montezuma II
10. mita

Main Ideas

Use your notes and the information in the module to answer the following questions.

The Earliest Americans

1. Why was corn an important crop to early peoples?
2. What were the main differences between hunter-gatherer societies and those based primarily on agriculture?

Early Mesoamerican Civilizations

3. How did the Olmec influence the Zapotec civilization?
4. How did the Olmecs' location contribute to the development of their civilization?

Early Civilizations of the Andes

5. In what ways did the Chavín influence other peoples?
6. How did the Nazca and Moche develop rich farmland?

North American Societies

7. Why were Native American societies in North America so diverse?
8. What were the three things that most Native Americans in North America had in common?

Maya Kings and Cities

9. What role did religion play in Maya life?
10. What were three major achievements of the Maya civilization?

The Aztecs Control Central Mexico

11. How did the Aztecs build and control their empire?
12. Why did the Aztecs sacrifice human beings to their gods?

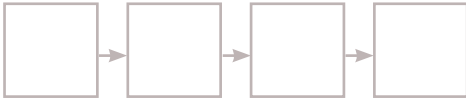
The Inca Create a Mountain Empire

13. List three ways in which the Incan government involved itself in people's lives.
14. How did Incan religion reinforce the power of the state?

Module 13 Assessment, continued

Critical Thinking

1. **Compare** In a sequence diagram, show how the early Americans' way of life developed through several stages.



2. **Summarize** What environmental challenges did the first Americans face?
3. **Draw Conclusions** Why do you think the Olmec or Zapotec civilizations might have declined?
4. **Make Inferences** What geographic factors would have made interactions between early Mesoamerican and Andean civilizations difficult?
5. **Formulate Historical Questions** Study the information on the Mound Builders again. What questions might you ask to gain a better understanding of these cultures?
6. **Compare and Contrast** Compare the religious beliefs of the Maya, the Aztecs, and the Inca. How were they similar? How were they different?
7. **Make Inferences** What can you infer about the values of the Inca from the fact that the government provided care for citizens who were aged or unable to care for themselves?
8. **Evaluate** The Maya, Aztecs, and Inca had very similar cultures but also were unique. Do you think that this statement is accurate? Consider their government, economy, art, and religion. Give reasons for your answer.

Engage with History

In this module you examined how killing a mammoth would help you survive and discussed the difficulties of living in a hunter-gatherer society. Now that you have read the module, discuss why the early Americans moved from a hunting to a farming existence. In what ways was food gathering easier in an agricultural society?

Focus on Writing

Write a three-paragraph essay comparing and contrasting American Indian civilizations in North, Central, and South America, such as the Maya, Aztecs, Inca, Pueblo, and Eastern Woodland peoples.

As you plan your essay, consider the following:

- government
- interactions with the environment
- economy
- social life

Multimedia Activity

Write a documentary film script about the Mayan, Aztec, and Incan civilizations, describing cultural patterns, the spread of American cultures, and political and economic structures. Compare and contrast these elements for each group. Provide a definition of *cultural pattern* in your script, and include examples of the following:

- cultural patterns among the Aztec, Maya, Inca, and other peoples of the Americas
- how American cultures spread
- ways in which their political and economic structures were similar and different



MULTIMEDIA CONNECTIONS



The Maya developed one of the most advanced civilizations in the Americas, but their story is shrouded in mystery. Around

AD 250, the Maya began to build great cities in southern Mexico and Central America. They developed a writing system, practiced astronomy, and built magnificent palaces and pyramids with little more than stone tools. Around AD 900, however, the Maya abandoned their cities, leaving their monuments to be reclaimed by the jungle and, for a time, forgotten.

Explore some of the incredible monuments and cultural achievements of the ancient Maya online. You can find a wealth of information, video clips, primary sources, activities, and more through your online textbook.

“Thus let it be done!
Let the emptiness be filled!
Let the water recede and
make a void, let the earth
appear and become solid; let it
be done . . . “Earth!” they said,
and instantly it was made.”



The Popol Vuh

Read the document to learn how the Maya believed the world was created.



Destroying the Maya's Past

Watch the video to learn how the actions of one Spanish missionary nearly destroyed the written record of the Maya world.



Finding the City of Palenque

Watch the video to learn about the great Maya city of Palenque and the European discovery of the site in the eighteenth century.



Pakal's Tomb

Watch the video to explore how the discovery of the tomb of a great king helped archaeologists piece together the Maya past.

Copyright © 2018 by Houghton Mifflin Harcourt Publishing Company

All rights reserved. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage and retrieval system, without the prior written permission of the copyright owner unless such copying is expressly permitted by federal copyright law. Requests for permission to make copies of any part of the work should be submitted through our Permissions website at <https://customer-care.hmhco.com/permission/Permissions.html> or mailed to Houghton Mifflin Harcourt Publishing Company, Attn: Intellectual Property Licensing, 9400 Southpark Center Loop, Orlando, Florida 32819-8647.

Portions © 2010 A&E Television Networks, LLC. All rights reserved.

HISTORY® and the HISTORY® H Logo are trademarks of A&E Television Networks, LLC. All rights reserved.

Unless otherwise indicated, all maps © Maps.com LLC

Printed in the U.S.A.

If you have received these materials as examination copies free of charge, Houghton Mifflin Harcourt Publishing Company retains title to the materials and they may not be resold. Resale of examination copies is strictly prohibited.

Possession of this publication in print format does not entitle users to convert this publication, or any portion of it, into electronic format.

ISBN 978-0-544-66822-5

1 2 3 4 5 6 7 8 9 10 XXXX 25 24 23 22 21 20 19 18 17 16

4500000000 C D E F G