



GUIDED READING The Earliest Americans

A. Determining Main Ideas As you read about the earliest Americans, take notes to answer questions about their way of life.

The earliest Americans lived as hunters and gatherers.

According to most experts, when and how did the first Americans arrive in North America?
 As large animals became extinct, how did hunters adapt to this change in their environment?

The earliest Americans began to experiment with simple methods of farming.

- 3. How did farming develop in what is now central Mexico?
- . 4. What crops grew well in the tropical climate of Mexico?

Agriculture dramatically changed peoples' way of life.

- 5. How did farming affect where people lived?

 6. How did farming affect the structure of society?
- **B.** Clarifying On the back of this paper, explain how the following terms and names relate to the earliest Americans.

Beringia

Ice Age

maize





GUIDED READING Early Mesoamerican Civilizations

A. Summarizing As you read about early Mesoamerican civilizations, fill out the charts by writing notes that describe aspects of the Olmec and Zapotec civilizations.

	Olmec	
1. Geography/Environment		
2. Urban design		
		·
3. Economy		
4. Achievements/Legacy		

	Zapótec
5. Geography/Environment	
6. Urban design	
7. Language	
,	
8. Achievements/Legacy	

B. Writing Descriptive Paragraphs On the back of this paper, write a brief paragraph to describe the city of Monte Albán.

Name		Date	
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GUIDED READING Early Civilizations of the Andes

A. Comparing and Contrasting As you read this section, fill in the chart to compare three early civilizations that developed in the Andes.

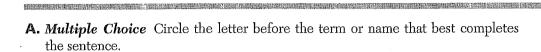
Civilization	Environment	When Flourished	Aspects of Culture
1. Chavín			
2. Nazca			
3. Moche			

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BUILDING VOCABULARY

The Americas: A Separate World



- 1. The people who built the first known civilization in the Americas were the (a) Chavín (b) Nazca (e) Olmec.
- 2. The civilization that etched more than 1,000 drawings on the plains of southeastern Peru was the (a) Moche (b) Zapotec (c) Nazca.
- 3. The land bridge that once connected the Americas to Asia is called (a) Mesoamerica (b) Beringia (c) Nazca.
- 4. The first real urban center in the Americas was (a) Monte Albán (b) Chavín (c) Moche.
- 5. The people who built a unique civilization that thrived from about 500 B.C. to about A.D. 600 in the Mexican state of Oaxaca were the (a) Nazca (b) Moche (c) Zapotec.
- **B.** Completion Select the term or name that best completes the sentence.

Beringia Moche	Mesoamerica Zapotec	Maize Chavín	Ice Age Olmec
1. The area of land from on the Americas arose	central Mexico to northe		the first civilizations
2. The period of time bet portions of North Ame	ween about 1'.9 million te erica is called the last		glaciers covered large
3. The first influential civi	ilization in South Americ	a was the	•
4. By 3400 B.C. early farm or corn.	ners in what is now centr	al Mexico were gro	wing,
	ny civilization that flouris vas the		n coast of Peru from about
γ .			•
Writing Write a paragra have in common.	ph identifying the follov	ving names and tell	ing what they
Chavín Nazca	Moche		

C





SKILLBUILDER PRACTICE Distinguishing Fact from Opinion

To identify facts, look for information such as events, dates, and statistics that can be proven to be correct. To identify opinions, look for judgments, beliefs, and feelings a writer or speaker expresses. Read the passage below about the Nazca culture. Then beside each number at the bottom of the page, write fact if the underlined phrase with that number is a fact. Write opinion if the phrase is an opinion. (See Skillbuilder Handbook)

[1] One of the most baffling enigmas of archaeology lies spread on the arid plain of the [2] Nazca region, between the Pacific coast of southern Peru and the Andean foothills. It is made up of strange [3] lines stretching across the desert as far as the eye can see, incomprehensible geometric shapes and huge . . . birds and fantastic animals, [4] looking as though they had been drawn by a giant's hand.

[5] The puzzle is made even more intriguing by the fact that often the complete figures [6] can only be seen from an altitude of above 1,000 feet. Understandably, [7] there are some people who imagine that they must have been made by unknown extra-terrestrial beings, who came to earth some thousands of years ago and made

contact with pre-Columbian peoples.... Unless one is prepared to close one's eyes to the facts as they are known today, [8] it is hard to imagine beings of higher intelligence traveling at the speed of light....

The extraordinary dryness of the plain has protected the ancient Nazca people's [9] strange designs for at least 1,500 years; in a normal climate it is unlikely that they would have lasted until now. [10] The lines are in fact two parallel rows of pebbles, containing iron and iron oxides. Too little rain has fallen to wash the pebbles out of place down the centuries.

from *The World's Last Mysteries* (Pleasantville, New York: *Reader's Digest*, 1978), 281–282.

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1.	6.
2.	7
3	8.
4	9.

10.





GEOGRAPHY APPLICATION: PLACE The Mystery of Poverty Point

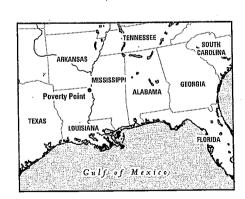
Directions: Read the paragraphs below and study the maps carefully. Then answer the questions that follow.

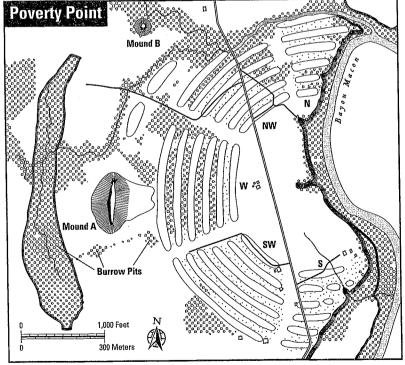
In the 1840s and 1850s, a group of settlers along the Bayou Macon River in northeast Louisiana suffered from crop failures and fever. The United States government sent supplies and aid by boat. This settlement became known as Poverty Point. Approximately 100 years later, evidence of a mysterious settlement dating back to 1500 B.C. was discovered there, and the name Poverty Point stuck to the unearthed remains.

This strange culture left behind an assortment of flint blades, tools, and dart points, but the largest artifact is the massive set of earthworks spread out along the Bayou Macon. The United States Army discovered the earthworks by airplane in 1952 when a flight over the region revealed six long lines set one inside another in an enormous semi-circle. These earthworks, though worn by time, are approximately 75 feet wide at the base, 10 feet

high, and 125 feet apart from crest to crest. The length of all the ridges put together would equal nearly seven miles. One archaeologist estimates that it probably took 35-40 million fifty-pound baskets to build the earthworks. Though this culture apparently had no writing, no architecture, no agriculture, and only the crudest of tools, they constructed the most elaborate and complex set of earthworks in the Americas.

Poverty Point is believed to be a type of ceremonial center in which people from outlying areas came to participate in religious, political, or social activities. The project required a degree of centralized planning and design. Because of this, many questions remain about Poverty Point. Who were these ancient people? How could they build such a complex and formally designed project? Why did they build these earthworks?





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Interpreting Maps

1. How did this archaeological site get the name Poverty Point?
2. Examine the map. Aside from the earthworks, what other remnants are evident at Poverty Points
3. How might archaeologists infer that the people at Poverty Point needed "centralized planning and design" to build the earthworks?
4. What might the relative location of the earthworks and river indicate?
5. What is the difference in feet between the longest ridge and the shortest ridge?
6. What are the dimensions of this site measured in feet?
7. Describe the layout and features of the ridges. What do you think was the purpose of these ridges?



PRIMARY SOURCE The Habitation of Monte Verde

by Lewis Lord

This magazine article reports a discovery made in February 1997 that sheds light on how long ago the Americas were inhabited. How did this new information add to what is known about the habitation of the Americas?

cholars call them "benchmarks," discoveries that redefine much of what's known about a subject. When a finding involves the first chapter of American history—the eons before Europeans arrived—kookiness can go out the window along with scholarship. Take the issue that captivated the 19th-century academic journals: Who built the thousands of abandoned mounds that settlers came upon in the Ohio and Mississippi valleys, including one as big as the Great Pyramid of Egypt? Vikings did, some experts insisted. Other scholars credited Phoenicians, or Welshmen, or refugees from Atlantis, or the lost tribes of Israel. Some dreamed up a master race annihilated by Indian savages. Settlers liked that theory; it seemed to justify the treatment that they themselves were inflicting on the Indians. A benchmark report finally came in the 1880s. The mounds were built, the Smithsonian's Bureau of Ethnology declared, by the ancestors of a people that many Americans deemed too primitive to build anything: the Indians.

That debate ended. But others continued—like how many people lived in the New World that Columbus found. In 1939, an influential report set the hemisphere's entire population in 1492 at 8.4 million, including only 900,000 above the Rio Grande—a finding in line with Alexis de Tocqueville's cheerful claim that the Europeans settled "an empty continent." That estimate more aptly fit a later population, one that white men's diseases had reduced by 50 to 90 percent. A detailed 1966 analysis by anthropologist Henry Dobyns suggested that pre-Columbian America had between 90 million and 112 million people; by contrast, probably no more than 70 million lived in Europe. How early? Last week, a group of archaeologists confirmed that a child's footprint found next to an ancient hearth at a site in southern Chile called Monte Verde was left 12,500 years ago. The scientists thus established a new benchmark for habitation in the Americas. Monte Verde, they agreed, is 1,300 years older than the previous standard, set in the 1930s by the finding of stone spear points near Clovis, N.M.

But in shedding light on one mystery—when did people first inhabit the Americas?—the Monte Verde scholars complicated another: How did the first Americans get here?

The earliest Americans, according to a theory supported by the Clovis discovery, came from Asia when ice covered much of North America and the seas were shallow. They crossed a land bridge between Siberia and Alaska and headed south through the Yukon, down an ice-free corridor. The land bridge and the ice-free corridor existed simultaneously about 12,000 to 14,000 years ago. That window gave the migrants 1,000 or more years to reach Clovis, a reasonable distance to cover in a millennium minus roads or wheels. Southern Chile, however, would have been a

Southern Chile, however, would have been a stretch. Perhaps the ancestors of Monte Verde's settlers left Asia much sooner. Archaeologists, in fact, hope to establish that other artifacts found at the site are 33,000 years old. Or maybe the migrants moved much faster, perhaps traveling by boat along the nearby Pacific shore. Some experts doubt that the earliest Americans had such maritime skills. But who would have imagined that Indians could build Indian mounds?

Lewis Lord, "Ancient Puzzles and New Ones," U.S. News & World Report (February 24, 1997), 9.

Discussion Questions

Determining Main Ideas

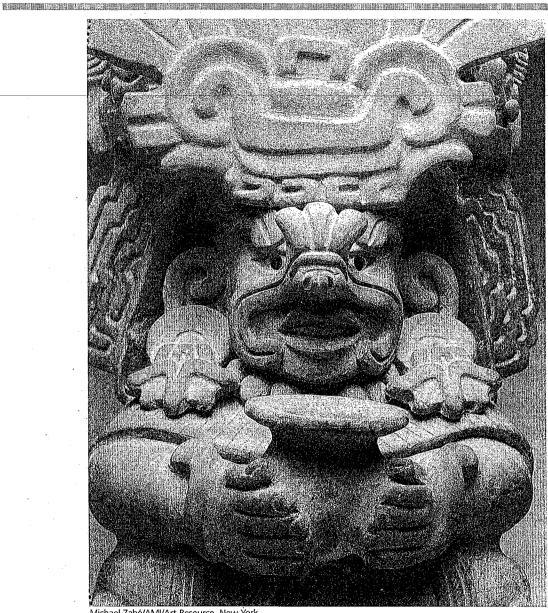
- 1. How did archaeologists initially determine the approximate time period when people inhabited the Americas?
- 2. According to archaeologists, how long ago did people live in Monte Verde?
- 3. Analyzing Causes and Recognizing Effects
 Why did archaeologists in 1997 establish a new
 benchmark for habitation of the Americas?
- 4. **Making Predictions** Do you think new benchmarks for habitation in the Americas might be established in the future? Why or why not?





PRIMARY SOURCE Zapotec Urn

This stone urn—a vase with a footed base or pedestal—comes from Limatlan, Oaxaca, and represents the Zapotec god Cocijo. What details do you observe as you study the urn?



Michael Zabé/AMI/Art Resource, New York.

Research Options

- 1. Using Research in Writing Find out about the Zapotec god Cocijo. Then write a paragraph to describe what you find out and share your information with your classmates.
- 2. Comparing and Contrasting Locate pictures of stone carvings from another Mesoamerican society—the Olmec. Discuss with your classmates similarities and differences in style and craftsmanship between this Zapotec urn and one of the Olmec sculptures you find.





PRIMARY SOURCE The Excavation of a Moche Tomb

from "Tales from a Peruvian Crypt" by Walter Alva and Christopher B. Donnan

On February 16, 1987, looters raided the richly decorated tomb of a Moche ruler buried in the Lambayeque River valley near Sipán, Peru. Before all of the artifacts of scientific value were stolen or destroyed, Peruvian archaeologist Walter Alva directed an archaeological survey of the site. As you read an account of this survey by Alva and another participant, think about what valuable information the tomb yielded.

17e began by making a contour map of the three pyramids and what remained of their ramps and adjacent plazas. The small pyramid, where the tomb had been found, was riddled with looters' tunnels, but in some places, the piles of dirt they had excavated helped preserve the original contours. The tunnels also enabled us to examine the internal construction. The pyramid and the rest of the complex evidently had been built and rebuilt over a long period of time, undergoing many changes as the various parts were enlarged. The small pyramid seems to have gone through six phases, beginning in the first century A.D. and ending about 300. Although the burial chamber had been gouged out of shape, we were able to determine that it had originally been roofed with large wood beams, which had decomposed. To our great surprise, we were

able to uncover some of the tomb's contents that had been missed by the original looters and the subsequent gleaners. Clearing along one side of the chamber, we found the remains of a large, gilded copper crown decorated with metal disks; four ceramic jars modeled in the shape of human figures; and a cop-

per mask with inlaid turquoise eyes. In excavating these, we also discovered a heavy copper scepter forty inches long, pointed at one end and bearing a three-dimensional architectural model on the other. The model depicted a platform with a balustrade, surrounding an open-front building with one back wall and a peaked roof supported by posts. Seventeen double-faced human heads decorated the roof ridge, while depicted in relief on the wall was a supernatural creature, half feline and half reptile. . . .

Knowing that the pyramid would be further plundered once we left, we decided to open up a new

section to methodical excavation, choosing a tenby-ten-meter (1,076-square-foot) area near the summit. Here we came upon a place where the mud brick had been carved out and refilled in ancient times. Digging down, we found eight decomposed wood beams, similar to those that had roofed the looted burial chamber. Buried beneath these, in the debris of what had been a small rectangular chamber, we found 1,137 ceramic bowls, jars, and bottles. They portrayed a variety of human figures: warriors holding war clubs and shields, nude prisoners with leashlike ropes around their necks, musicians with drums, and seated figures wearing beaded pectorals (biblike coverings). Some were arranged in symbolic tableaux, for example, musicians and prisoners ringing and facing noble personages....

The discoveries that subsequently emerged surpassed our dreams.

Even as these offerings were being excavated, we discovered a second, larger rectangular area that appeared to have been carved into the pyramid and refilled. As we carefully excavated this, we found, about thirteen feet below the original surface of the pyramid, the skeleton of a man

wrapped in a cotton shroud. He lay stretched out on his back and wore a gilded copper helmet. Over his right forearm, which rested on his chest, was a round copper shield. A little below we found the remains of seventeen parallel beams that, we dared hope, lay over a major, undisturbed burial chamber. The discoveries that subsequently emerged surpassed our dreams. Buried in the chamber were the remains of a wood coffin that contained the richest grave offerings ever to be excavated scientifically in the Western Hemisphere. The body of a man between thirty-five and forty-five years of age had been laid to rest with a feathered headdress,

banners of cloth with gilded copper decorations, beaded pectorals, nose ornaments and necklaces of gold and silver, ear ornaments of gold and turquoise, face coverings of gold, a gold backflap and a silver backflap that would have been hung from the belt, and countless other precious objects. In his right hand the deceased had held a gold and silver scepter topped with a large rattle, and in his left hand, a smaller scepter of cast silver. In relief on the rattle, which was shaped like an inverted pyramid, were scenes of an elaborately dressed warrior subjugating a vanquished opponent. The sculpted head of the smaller scepter echoed this theme. . . .

During the excavation of the warrior priest's tomb, we located another suspected tomb elsewhere on the pyramid. We held off excavation until work on the earlier find was nearly complete. The knowledge we gained made it easier to anticipate the sequence of excavation. Again we found the residue of a plank coffin containing the rich burial of a man between thirty-five and forty-five years old. Among his grave goods was a spectacular headdress ornament of gilded copper, in the form of the head and body of an owl from which arched long bands with. suspended bangles, representing the feathered wings. Nearby we found the remains of four other individuals: a male between fourteen and seventeen years of age, two females in their late teens or early twenties, and an eight- to ten-year-old child. Buried with the child were a dog and a snake. . . .

The looted tomb, the two excavated tombs, and the sacrificial offerings all seem to date to about A.D. 290. While excavating the offerings, we found a fourth, somewhat earlier tomb containing the remains of a man between forty-five and fifty-five years old, also richly endowed with grave goods, including a necklace of gold beads in the form of spiders on their webs, anthropomorphic figures of a crab and a feline, scepters, an octopus pectoral

with gilded copper tentacles, and numerous other ornaments and objects. Nearby we found the body of a young, sixteen- to eighteen-year-old woman next to a sacrificed llama. This tomb may also have belonged to a warrior priest, but not all the identifying elements are there. Possibly, this is simply because it dates to an earlier period than the depictions we have of the sacrifice ceremony, which are all from after A.D. 300.

Moche civilization collapsed suddenly, probably as a result of one or more of the natural cataclysms that periodically devastate coastal Peru—earthquake, flooding, or drought. The Moche had no writing system, so they left no records we can hope to decipher. They disappeared before Europeans reached the New World and could leave us evewitness accounts. Yet with the scientific excavation of these royal tombs, we have gained an intimate portrait of some of their most powerful words. Work at Sipán continues, now at a promising location near the tomb of the old priest. As we dig more deeply, we look forward to our next encounter.

from Walter Alva and Christopher B. Donnan, eds., Royal Tombs of Sipán (Los Angeles: Fowler Museum of Cultural History, University of California, 1993). Reprinted in Natural History, May 1994, 26-34.

Activity Options

- 1. Developing Historical Perspective With your classmates, plan a museum exhibit of some of the Moche artifacts found in the pyramid. What artifacts would you include? How would you arrange them? What would you call the exhibit?
- 2. Categorizing Make an illustration of a Moche artifact described in this article. Then work with your classmates to create a bulletin board display of recovered artifacts.



LITERATURE SELECTION $from\ Mexico$ by James A Michener

This novel by American author James A. Michener is set in Mexico in the 1960s. The narrator, Norman Clay, is a journalist who travels to Mexico to report on a bullfight and to learn more about his Mexican roots. In this excerpt, Clay recalls a conversation he had with his father about their Indian ancestors. As you read, be aware that Toledo is a fictional city in Mexico and that the Builders and the Altomecs are fictional peoples who are a composite of several different ancient Indian cultures.

When I was about ten years old and living once more at the Mineral, my father who, as an engineer and a scientist, was interested in speculating on historical might-have-beens, said: "At breakfast when we were talking about the choices the men sometimes have to make, you told me: 'It doesn't matter.' Well, making the proper choice can matter, Norman, and I want you to remember an excellent example of how a decision that must at the time have seemed of no consequence turned out to be vitally significant." To demonstrate this, he reached for a stick with which he drew in the sand a Y, saying:

"This will stand for a decision that had to be made about four thousand years ago by some people from eastern Asia, probably from Siberia, who crossed over the Bering Strait and hiked southward through Alaska and the western United States." (In later years I often wondered how my father could have known about this migration of our Indian ancestors, because during his time the relics of this Siberian trek had not yet been uncovered in Alaska; perhaps he was merely guessing. Of course, on one point he was quite wrong; we now know that the migrations from Asia took place not four thousand years ago but more like twenty thousand or possibly forty.)

"These Indians wandering south from Alaska came at last to San Diego," my father explained, "and they held a council to discuss what to do next. Some said, 'Let's continue down the coastline, because we've been doing that for three hundred years and it's familiar territory,' but others argued, 'Let's leave the coastline and strike out inland.' The upshot was that each group went its own way. No one could have foretold that one group had made a brilliant choice and that the other had chosen disaster." I remember looking at the two arms of the Y and asked, "Which one did right?"

"Visualize the map of California," he said, "and think."

I tried to do this, but all I could remember was the map in my Mexican schoolbook, and it showed California merely as one of the lands stolen from Mexico by the United States, so I could not deduce the point my father was trying to make.

"Was the arm pointing to the sea the good one?" I asked.

"It led to California Baja," my father said grimly, and I instantly recalled what I had learned about that brutal, barren peninsula of heat and waterless sand. "Centuries later, when the Spaniards explored that desolate land, they found that the Indians who had gone there had degenerated close to the animal level. They lived almost without what we call a culture—no houses, not even clothing. They had no decent food and almost no water, and although the ocean about them was full of fish, they had never learned how to catch them. They were as pathetic as human beings can be and still live."

My father continued: "The other Indians chose the arm leading inland, and ultimately they reached the rich and fertile lands and, later, gold. They built three of the greatest civilizations of ancient times—the Aztecs of Mexico, the Maya of Yucatán and Guatemala and the Incas of Peru."

We stood for some minutes in silence. Then my father concluded his lecture with a statement that haunts me still, forty years after it was uttered: "You say choice means nothing? Norman, if your Indian ancestors had gone west you might now be an idiot. Thank your stars they came down through Toledo, for with the courage and the intelligence you inherited from that crowd you can become anything you wish."

Since my father's death scholars have concluded that the Indians who made the right choice reached the high valley of Toledo about twenty thousand



years ago, but, as I said before, some argue it might have been as much as forty thousand years ago. At any rate, from a level thirty feet below the bottom of our pyramid, archaeologists have excavated charcoal remains that radium analysis puts at not less than five thousand years old, while along the edges of the prehistoric lake that once filled the entire valley others have dug up the skeletons of elephants killed by spears at least fifteen thousand years ago. I have spent many idle hours, on plane trips or when my eyes were too tired to read, trying to visualize these ancient Indians of the primitive period, and at times they have seemed very real to me. Fifteen thousand years before the birth of Christ they had developed some kind of civilization in the high valley. They chipped out rude spear points for hunting and carved dishes for serving food. We know little about them, but they must have feared the gods, worshipped the sun, and wondered about the accidents of death and birth. From the day of my first talks on this subject with my father I never forgot that where I lived at the Mineral, men had been living for thousands of years, and you could not say that of Richmond, Virginia or Princeton. Therefore, when in the early years of the seventh century a certain tribe of Indians gained control of the high valley, its members, some of whom we now know by name, seemed to me almost like close relatives, and when the story is told that sometime around the year 600 one of these men became leader of the tribe and began building the great pyramid, he becomes so real that he fairly shouts at me from the distant past, and the fact that the oral traditions of Toledo indicate that he was one of my ancestors gives me great pleasure.

In the year 600 the high valley looked pretty much as it does today. The last volcano had erupted some four thousand years earlier; the fantastically old lake had finally dried up; and the mountains stood exactly as they do today. In the intervening years the great piles of rock have lost possibly an inch and a half in height, due to wind erosion, but prob-

ably no more.

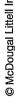
Far to the north, still living in caves along jungle rivers, hid the uncivilized tribes who were eventually to develop into the Altomecs and the Aztecs, but in these years they were of no consequence. To the south, living in splendid palaces decorated with silver, gold and jade, were the Mayas, whose gaudily dressed messengers sometimes reached the high valley to arrange treaties of commerce. In the valley

itself my ancestors were well established, a tribe of slim, fairly tall, dark-skinned Indians who had no real name but who were known throughout central Mexico simply as the Builders, for they had the capacity to construct finer edifices than any other peoples in the area. They knew how to quarry huge blocks of rock and transport them for miles, and they could make bricks with which to build their lesser structures.

Shortly after the year 600 a leader with a new kind of vision gained control of the tribe. He was Ixmiq, and today in Toledo a statue and a yearly festival honor his name. He had a tightly controlled personality that was ideal for exerting leadership, so for nearly fifty years he ruled unchallenged, and this gave him time to accomplish many important projects.

Waiting for an auspicious day on the calendar, he announced to his council, "I have in mind to erect a holy place for our gods ten or twenty times larger than any we have attempted before." Before his advisers could protest he added, "And we shall build it not here in the city but in a special area that shall hereafter be reserved for holy rites." He forthwith led his elders from the rude palace, which then occupied the site of today's cathedral, and took them in a northerly direction some distance from the city to where the pyramid now stands. Using piles of stones, he directed his men to lay out what seemed to them a gigantic square, but which was only about half the size of the pyramid as we now know it. His councilors protested that such a building was impossible to build, but Ixmiq insisted on its construction.

His workmen spent two years scraping away the loose earth until they reached firm earth or solid rock. He then divided the tribe into several units, which were assigned particular duties, and appointed a captain for each. Some went to live at the quarries and remained there for thirty years, passing their entire lives chipping rock. Others were the transport teams, who, with constantly increasing skill, mastered the trick of moving twenty- and thirty-ton rocks into position. Most of the men worked at the pyramid itself, inching the great blocks into position and then filling in the central portion of the structure with basketfuls of rubble, so that year by year the structure rose more impressively, and always with a flat top that grew smaller as the pyramid grew in height. These were years of peace in the high valley, nearly six centuries going





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by without an arrow being shot against an enemy, so that it was not imprudent for Ixmiq to assign his people to widely scattered areas and to a task that utilized the efforts of the entire community. When the huge pile had reached the intended height, it was leveled off and its spacious flat top was laid in huge blocks that took six years to work into place. Then a beautiful wooden altar was constructed so that when a priest stood at it he faced east. Four gods shared the altar and their statues lined it, with their faces turned to the west. The most important was the god of rain, for he was responsible for the flowers and the grain. Next came the sun god, the goddess of earth and a mysterious god who represented flowers, poetry, music, statesmanship and the family, and was carved in the form of a serpent with a bird's head and scales of

The pyramid of Ixmiq was a monument to peace and in the fortieth year, when it neared completion, the ceremonies that consecrated it were testimonials to peace and to one of the gentlest societies that ever existed in Mexico, or indeed, anywhere else on the American continents. The dedication ceremonies, insofar as we can reconstruct them from old carvings, consisted of prayers, dancing, the offering of hundreds of thousands of flowers, and a gigantic feast that lasted for three days. It is notable that for the first four hundred and fifty years of this pyramid's existence not a single human life was sacrificed on this altar, or lost in any other way, except for the occasional case later on when some drunken priest or reveler accidentally tumbled from its height and broke his neck.

It was a pyramid of joy and beauty, a worthy monument to the benign gods and to the farsighted man who had built it. In City-of-the-Pyramid, as the area came to be called, irrigation projects brought water from the hills down to the flat land, where flowers and vegetables were grown in abundance. Honey was collected from bees kept among the flowers, and turkeys were raised both in enclosures and in large guarded fields. Fish were available in the rivers and were kept in ponds.

The Builders dressed well in cloth made of cotton, hemp and feathers, while leaders like Ixmiq ornamented themselves with gold and silver carved with religious symbolism, which workmen also applied to some of the finest pottery ever made in the Americas. Many little statues have come down to us, representing one or another of the four major deities, and each seems to be a god whom a family could have cherished. When I was a boy we had in our home a clay figure of the earth goddess, and she was a delightful fat little woman smiling and making the land fruitful with her blessing. Whenever we looked at her we felt good, and I can think of no primitive gods that were gentler than those of Toledo. I know of few civilizations that came so close to providing an ideal life for their people. . . .

I stress these matters because throughout my adult life I have been irritated by people who glibly suppose that Spaniards brought civilization to Mexican people who had previously been barbarians, when this was clearly not the case.

In the year 600 the civilizations of Spain and Mexico were roughly comparable, except for the fact that the former had profited from the invention of the wheel, the development of the alphabet and the knowledge of how to smelt hard metals. In any event I choose to measure advances in civilization by noting such things as soundness in the organization of the state, the humaneness of the religion, the care given to the indigent, the protection of trade, the advances in sciences such as astronomy, and the cultivation of music, dancing, poetry and other arts. In these vital respects my ancestors in City-of-the-Pyramid were just about even with my ancestors in Spain and infinitely far ahead of all who shivered in caves in what would become Virginia.

Activity Options

- 1. Comparing and Contrasting With a group of classmates, analyze Michener's portrait of the Builders. Discuss which elements of their culture are similar to actual Mesoamerican cultures you have read about.
- 2. **Drawing Conclusions** Use a world map to trace the two routes that Norman Clay's Indian ancestors took from eastern Asia. Then estimate how many miles they migrated to their respective destinations.





HISTORYMAKERS The Zapotec Culture

Ancient Artists

"It was Tomb Seven which yielded the greatest returns during the first week of work at Monte Albán and proved to be one of the most important archaeological discoveries ever made in America."—archaeologist Alfonso Caso, reporting the first excavation at the Zapotec site Monte Albán

In the Oaxaca Valley in southern Mexico, the modern Zapotec people live amid the glorious creations of an earlier age. In 1932, archaeologist Alfonso Caso, desiring to learn more about the ancient Zapotec, began digging at their age-old home of Monte Albán.

Caso soon discovered several Zapotec mounds raised above the valley floor. Researchers now conclude that Monte Albán was a working city from about 600 B.C. to about A.D. 700. This time span includes three different periods of Zapotec culture.

The first period lasts from 600 B.C. to 100 B.C. and includes two important finds. The Mound of the *Danzantes* (dancers) is a pyramid that houses relief sculptures of human males in twisted shapes. At first they were thought to be dancers—thus the name of the mound. Now, researchers think that they may represent the corpses of peoples in the valley that the Zapotec conquered.

The other important find from the first period is of two stone columns, or steles. Some of the marks on these stones are the bars and dots used centuries ago in Mexico for counting. Others reflect the 260-day calendar commonly used in this area. The pillars also bear the oldest writing found in the Americas. As yet, no one has been able to understand Zapotec writing. It appears to include both symbols for sounds and symbols representing ideas. Some of the carvings show human heads upside down. Among the ancient peoples of Mexico, showing a head upside down indicates defeat or death.

The second period of Monte Albán dates from 100 B.C. to A.D. 200. It includes Mound J, an arrow-shaped platform that may have been used as an observatory. The third period is from A.D. 200 to 700. Dating from this time are spectacularly painted tombs and carved stone relief sculptures.

After this time, Monte Albán was abandoned, though researchers do not know why. Some say that local resources of wood and fertile land may have been used up. While the reason is unclear, it is certain that the town was not entirely forgotten. Though

the Zapotec no longer used the site, a neighboring people apparently thought it was still a spiritually powerful place. A group called the Mixtec buried their dead in the old Zapotec tombs. In addition, the artifacts found in another Zapotec relic called Tomb Seven are of Mixtec origin. These items are made of gold, silver, turquoise, black marble, and obsidian, a glasslike rock formed by volcanoes.

Even though the Zapotec abandoned Monte Albán, they continued to live at other sites. They apparently moved their religious center to nearby Mitla. This town was farther removed from the Mixtec, who were now entering the valley. The Zapotec turned a hill near Mitla into a fortress and began expanding the town. Buildings dating after A.D. 1200 show a new stage in Zapotec art. The outside faces of these new structures included complex patterns of geometric figures made of raised stone.

These ancient sites still retain a hold on the modern Zapotec people. In his report on the first digging at Monte Albán, Caso made that clear. At the base of a stairway in Monte Albán, he found a pottery bowl with five shallow plates that had once held food. He judged the age of the pottery to be only about 50 years old. He thought the food might be a sacrifice to the ancient gods. In Mitla he found one of the ancient ruins graced with

a wreath of flowers of the kind . . . still used by the Indians in their burial ceremonies, and the remnants of a wax candle which some pious soul had lighted to appeal to the gods of Mictlán (the realm of the dead). . . .

Questions

- 1. **Summarizing** What are the three periods of Monte Albán?
- 2. *Making Inferences* Why did the Zapotec abandon Monte Albán?
- 3. **Drawing Conclusions** Do the ancient Zapotec sites have any interest to the Zapotec people today? Explain.





HISTORYMAKERS The Chavín Culture

Uniting the Andes Peoples

"Chavín did, for the first time, join the various valley cultures in a set of common cultural practices related to religion. It therefore set the stage for later political [union] of the various valley polities into larger, inclusive empires."—anthropologists Kenneth Feder and Michael Alan Park

wo miles above sea level, in an ancient town in Peru, stands a remarkable pillar made of granite. Carved onto it is a human form with a jaw that has the sharp fangs of a great hunting cat and has snakes for hair. Called the Smiling God, the statue is thought to be the center of an ancient religion. Thousands of years ago, many different Native American peoples lived in what is now Peru. Each of these peoples developed in relative isolation. Those living on the coast had little contact with those in the high mountains nearby, and groups living in different mountain valleys had little communication. However, there is evidence of a growing cultural exchange over time. Coastal groups had long built U-shaped structures for religious ceremonies. These now began appearing in the mountains. On the other hand, mountain dwellers had for many centuries used the llama for heavy work. Llamas now began to appear in greater numbers on the coast. Around 900 B.C., the religious practices of a group of mountain people began to spread throughout the area. These people were named the Chavín after one of their chief sites, Chavín de Huantar, in central Peru. What united the people of the Chavín culture was not military conquest but religion. The Chavin religion centered on creatures that were part human and part animal. The Smiling God described above was one.

The walls of Chavín de Huantar are decorated with other versions of the Smiling God. In addition, along one side are 14 eagles that have a jaguar's fangs. They lead to another room that is home to the Staff God. This figure also has a jaguar's face and snakes for hair. He gets his name from two outstretched arms, each of which holds a long staff. Some think that the figure represents a sky god linked to the movements of the stars and planets. The Chavín also changed this temple over the years. It was enlarged, and a long walkway was added. Furthermore, the site of Chavin de Huantar shows evidence that it was a complex community in which people lived near the temples.

Chavín de Huantar was not the only temple center for this culture. Archaeologists have found other versions of the Staff God far from that site. For example, a similar figure was discovered in Bolivia, near Lake Titicaca. The people who built these other temples used the materials at hand. Chavin de Huantar was made of stone, but in the coastal areas temples were made of mud-dried brick. One site has evidence of human sacrifice. A female skeleton was buried beneath the carving of a cat's head and paws. Other locations have pyramids that include carvings of cats, snakes, and humans. Unlike Chavín de Huantar, these places do not give any indication that people lived there. They seem

to be only religious sites.

The culture is revealed in more than just statues. There is also a common tradition of pottery that evolved. Many pots are decorated with cat fangs. In the early years, stoneware was either dark red, brown, or gray. Most common are open bowls and bottles; some pieces were deeply cut or scored for decorations. Later pieces are different. Bottles have longer, thinner, and more delicate spouts. Some later pieces have flower decorations. Others are made in the shape of humans, animals, or fruits. Many of the later pots are also decorated in more than one color. After 200 B.C., the Chavin culture faded. Researchers have yet to learn why. The unity brought to northern and central Peru disappeared. Now, only the stones and pieces of pottery remain to tell of their hidden past.

Questions

- 1. Drawing Conclusions How did geography keep the ancient Native Americans of Peru isolated from one another?
- 2. Comparing and Contrasting Which figure may have been more important, the Smiling God or the Staff God? Explain.
- 3. Making Inferences How did people in particular communities adapt the Chavín buildings to local resources?



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CONNECTIONS ACROSS TIME AND CULTURES Patterns of Human Settlement: Early Civilizations



As you learned in this chapter, the earliest Americans developed flourishing civilizations in Mesoamerica and in the Andes Mountains of South America. Although the rise of civilization in the Americas is relatively recent compared with the development of civilization in other parts of the world, it followed a similar pattern. To identify this pattern, complete the activities below.

1. Prospering agric	sultural villages and surpluses of food helped lead to the rise of	
civilizations. Gi	e some examples from the rise of civilization in the Americas.	
_	ost scholars, civilizations share five characteristics. Give examples	
of each of these	characteristics from early civilizations in the Americas.	
Advanced Cities:		
Specialized Work	ers:	<u> </u>
Record Keeping:		
Complex Institution	ns:	<u> </u>
Advanced Techno	ogy:	
3. As the economy	becomes more specialized, social classes begin to emerge. Describe	
•	ure in Olmec culture.	
4. As populations	rew, religion became more organized. Describe some religious	
	ere followed by some of the earliest American civilizations.	
5. Identify other w	ays in which the rise of civilization in the Americas parallels the	
	ays in which the rise of civilization in the Americas parallels the vilizations in different parts of the world.	







SCIENCE & TECHNOLOGY $High\ Tech\ Dating$ Techniques



Archaeologists use soil meters and satellite pictures to figure out where to dig and instruments such as picks and sieves to uncover artifacts. But their next task is often even more challenging—determining the age of what they find.

Cientists have developed a wide range of methods for determining the age of items discovered during archaeological digs. This process is called archaeometry and is made up of two different types of dating: relative dating and absolute dating. Relative dating gives scientists information about how old an object is as compared to other objects. For instance, bones found in a particular dig site can be dated in comparison to each other by measuring the amount of fluorine in them. Fluorine from underground water slowly seeps into buried bones. Therefore, those with large amounts of fluorine in them would be considered older than bones with small amounts of fluorine.

Absolute dating measures the age of an object in years. The absolute dating method used depends on the type of artifact being examined. Items that were alive at one time must be dated differently than objects such as stone tools.

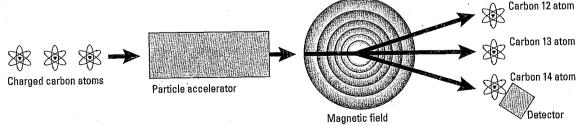
The most common method of dating the remains of plants, animals, and humans is called radiocarbon dating. This technique determines the age of former living things by measuring the amount of carbon left behind. All living things absorb two kinds of carbon atoms from the atmosphere when they are alive: carbon 12 and carbon 14, which is known as radiocarbon. In living human beings, for example, radiocarbon is constantly decaying, but it is always being replaced by food provided by plants. However, when a human being dies, the replenishment of radiocarbon stops.

Archaeologists know that the ratio of carbon 12 to carbon 14 slowly decreases from a dead person at a uniform rate. For example, scientists know that half the radiocarbon disappears after 5,700 years. Therefore, archaeologists can accurately determine the age of a specimen by measuring the amount of carbon 12 and carbon 14 left in the remains. This method works well for organisms that have died within the past 50,000 years.

A more recent technique has been developed in which scientists use a particle accelerator to actually count individual atoms of carbon 14 and carbon 12. This method allows for accurate dating of extremely small objects that are up to 60,000 years old. Modern technology has provided archaeologists and paleontologists with a wide variety of precise tools to find, uncover, and date artifacts. Further use of satellites, computers, digital photography, and sophisticated electronic devices will continue to help archaeologists understand the past.

Questions

- 1. **Determining Main Ideas** What is the most common method of dating plants, animals, and human remains?
- 2. Clarifying How do archaeologists determine the dates of artifacts in relation to each other?
- 3. **Drawing Conclusions** Would the remains of a living thing have more or less carbon 14 in it after being buried for 10,000 years? Why?



A particle accelerator shoots carbon atoms into a magnetic field. A detector then counts the carbon 14 atoms to determine the amount of radiocarbon.

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RETEACHING ACTIVITIES The Earliest Americans

Determining Main Ideas

Choose the word that most accurately completes each sentence below. Write that word in the blank provided.

Tehuacan Valley Beringia mastodon arts and crafts food maize extinct trading hunting cotton building trades Ice Age sabre-tooth tiger

1. The ancient peoples of the Americas survived at first by _____ 2. The land bridge that connected the ancient Americas to Asia was known as _ 3. The first people arrived in the Americas toward the end of the last _____, which lasted from roughly 1.6 million to about 10,000 B.C. 4. Early Americans' most challenging prey was the _____ 5. Animals that were overhunted and virtually disappeared from their habitats were thought to have become ___ 6. A revolution in _____ _____, which began in central Mexico around 7000 B.C., changed the way of life in the Americas. quickly became the most important crop in the early Americas. _____, south of present-day Mexico City, was the site where several permanent villages were established. 9. The cultivation of crops brought about a more reliable and expanding supply of __ 10. Improved farming eventually allowed some people to turn to non-agricultural pursuits such as ___ and _____





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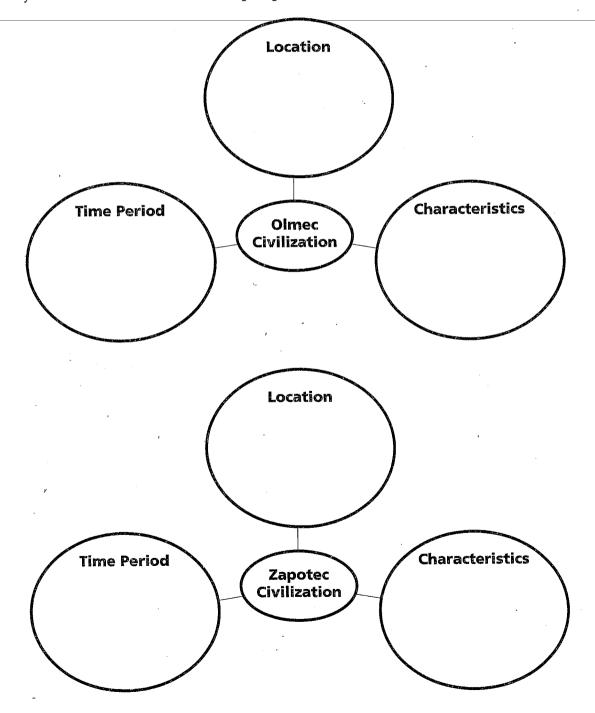


RETEACHING ACTIVITIES Early Mesoamerican Civilization



Determining Main Ideas

Complete the following web diagrams on two early Mesoamerican civilizations. Write your answers within each oval in the space provided.





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reteaching activities $Early\ Civilizations$ of the Andes

Multiple Choice

Choose the best answer for each item. Write the letter of your answer in the blank.

	1ine rugged mountain range that stretches	2. Ine Nazca culture is known for its beautiful
	down-the-western-edge-of-South-America-is	a. textiles and pottery.
	a. the Rockies.	b. rugs.
	b. the Hindu Kush.	c. scenery.
	c. the Himalayas.	d. paintings.
	c. the Himalayas. d. the Andes. 2. South America's first civilizations emerged in a. Brazil. b. Peru. c. Argentina. d. Chile. 3. The first inhabitants to establish villages along the Pacific coast in South America were a. soldiers. b. traders. c. hunter-gatherers. d. farmers. 4. The first important civilization that arose in the South American mountains was a. the Zapotec civilization. b. the Nok culture. c. the Chavín culture. d. the Olmec culture.	d. paintings. 6. The unusual patterns of line drawings found on the plains of southeastern Peru belonged to the a. Mayan culture. b. Chavín culture. c. Moche culture. d. Nazca culture. 7. The culture that thrived on the northern coast of Peru was the a. Moche culture. b. Chavín culture. c. Incan culture. d. Nazca culture. 8. Much of the detail known about the life of the Moche comes from a. written records. b. their pottery. c. oral histories. d. cave paintings.
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