

Toward Civilization

Prehistory—3000 B.C.

Chapter Preview

- 1 Understanding Our Past
- 2 The Dawn of History
- 3 Beginnings of Civilization



2 million B.C.

Early people first begin using stone tools, similar to this scraper and arrowhead.



30,000 B.C.

Stone Age people create cave paintings that show the animals they hunt. The Chauvet cave paintings in France, above, are the oldest ever found.

CHAPTER EVENTS

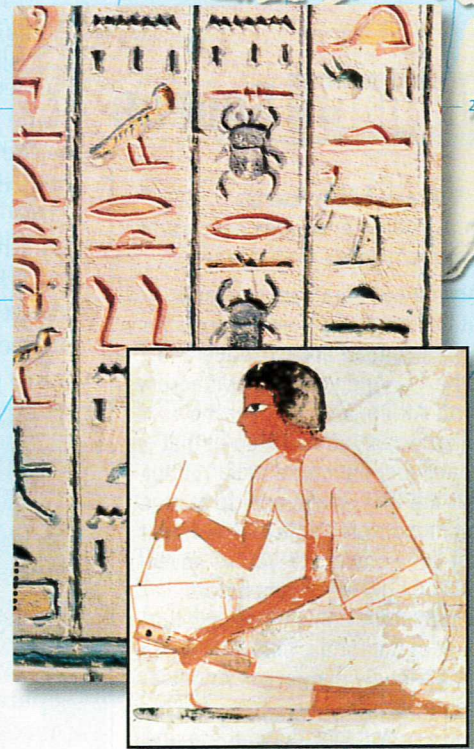
2 million B.C.

35,000 B.C.

27,000 B.C.

River Valley Civilizations

The earliest civilizations rose in fertile river valleys of Africa and Asia.



18,000 B.C.

During the last ice age, huge glaciers spread across parts of Europe, Asia, and North America.

9000 B.C.

During the Neolithic agricultural revolution, people begin to grow their own crops and settle in farming villages. This ancient mortar was used to grind wheat into flour.

3000 B.C.

River valley civilizations emerge. As Egyptians (above) and others develop writing, they will preserve a written record of their history.

19,000 B.C.

11,000 B.C.

3000 B.C.

Reading Focus

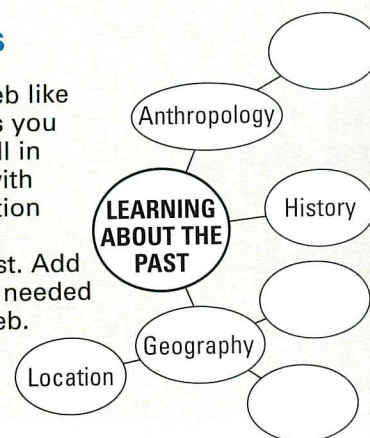
- How are geography and history linked?
- How do anthropologists and archaeologists find out about early peoples?
- How do historians try to reconstruct the past?

Vocabulary

geography
latitude
longitude
prehistory
anthropology
culture
archaeology
artifact
technology
historian

Taking Notes

Make a concept web like the one at right. As you read the section, fill in each blank circle with important information about how experts learn about the past. Add as many circles as needed to complete the web.



Main Idea

Geographers, archaeologists, anthropologists, and historians work to unravel human history.

Primary Source

A View of the Earth

An astronaut describes how world geography looks from space:

"As you eat breakfast you look out the window . . . and there's the Mediterranean area, Greece and Rome. . . . And you go down across North Africa, and out over the Indian Ocean and look up at that great subcontinent of India . . . out over the Philippines and up across that monstrous Pacific Ocean, that vast body of water—you've never realized how big that is before.

You finally come up across the coast of California, and you look for those friendly things, Los Angeles and Phoenix and on across to El Paso. . . . You look down there and you can't imagine how many borders and boundaries you cross, again and again and again, and you don't even see them."

—Russell L. Schweickart, quoted in *The Overview Effect* (White)

Skills Assessment

Primary Source Based on this reading, how is looking at the world from space different from looking at a world map?

Setting the Scene Austen Layard was sure that the large mounds held hidden secrets. In 1845, he hired workers to dig trenches in what is today Iraq. Day by day, they inched deeper into the hot desert sands.

One morning, Layard's foreman Awad ran toward him, yelling. Layard rushed to see what the diggers had found. He was amazed to see a huge stone head emerging from the sand. Excitement spread through the camp as the diggers unearthed a giant statue. Layard soon realized that they had begun to uncover remains of the Assyrians, known only from stories in the Bible. As Layard and others found additional evidence, they slowly pieced together a picture of these people who had lived some 3,000 years before.

Thanks to the work of scholars like Austen Layard, we know a lot about how people lived in different times and places. Among these scholars are people who study geography—the stage on which all human history takes place.

Geography and History

Geography is the study of people, their environments, and the resources available to them. By showing how people lived in different times and places, geographers have added to our knowledge of human history. Often, geographers must draw conclusions from limited evidence. For example, tons of river mud found in the ruins of an ancient city may indicate that the city was wiped out by a flood. Similarities in language and art in widely separated regions may suggest that there was once contact between the two places.

Five themes sum up the impact of geography on the human story. They are location, place, human-environment interaction, movement, and region.

Location Location tells where a place is on the surface of the Earth. You can locate any place on a map using latitude and longitude. **Latitude** measures distance north or south of the Equator. **Longitude** measures distance east or west of the Prime Meridian, an imaginary line that runs north to south through Greenwich, England. For example, you can locate the city of Seoul, South Korea, at 37° N latitude and 127° E longitude. These numbers give its exact location.

Relative location—where one place is located in relation to another—is sometimes more important than exact location. For example, ancient Athens was located on the eastern Mediterranean Sea, near much older

civilizations in Egypt and the Middle East. This relative location influenced the Athenians' way of life because they acquired valuable skills and ideas from their neighbors.

Place Geographers describe places in terms of their physical features and human characteristics. Physical features of a place include landforms, bodies of water, climate, soil quality, resources, and plant and animal life. Human characteristics include where most people live and their economic activities, religious beliefs, and languages.

Human-Environment Interaction Since the earliest times, people have interacted with their environment. That is, they have shaped and been shaped by the places in which they lived. Early farmers used water from rivers to irrigate their crops. Much later, European settlers in the Americas cut down trees to clear land for farms. As technology has advanced, we have changed the environment in more complex ways. Today, roads slice through deserts, and canals link distant bodies of water.

Movement The movement of people, goods, and ideas is another key link between geography and history. In early times, people followed herds of deer or buffalo on which they depended for food. In more recent times, people have migrated, or moved, from farms and villages to cities in search of jobs. Others have fled from war or religious persecution.

In ancient times, as today, traders have carried goods from one part of the Earth to another. Ideas also move, carried by people like missionaries or settlers. Today, communications satellites and television cables carry ideas faster and farther than ever before.

Region Geographers divide the world into many types of regions. Some regions are based on physical characteristics, such as location. The Gulf States, for example, are those countries bordering the Persian Gulf. They are part of a larger region of southwestern Asia, which we often call the Middle East. Regions may also be defined by political, economic, or cultural features. Culturally, the Gulf States are part of two larger regions, the Arabic-speaking world and the Muslim world.

Geography Makes a Difference

Geographic features such as landforms, climate, and natural resources have helped to shape a wide variety of human cultures. This reindeer herder in Siberia (below) lives a far different life from that of these rice farmers in Vietnam (left).

Theme: Geography and History Identify two cultural differences shown in these photographs. How might geography contribute to these differences?



Connections to Today

History in a Garbage Dump

Can a 10,000-year-old garbage dump be a gold mine? It can—to an archaeologist. Prehistoric trash provides valuable clues as to how people lived long ago. For example, heaps of gnawed bones may show which animals people hunted or raised for food.

More recently, members of the University of Arizona Garbage Project gathered at the Fresh Kills landfill in New York—the world's largest garbage dump. Using a giant drill, the students dug deep into the rotting mounds. At 35 feet, they found newspapers, grass clippings, and hot dogs from 1984. At 60 feet, the drill had reached debris from the 1940s. From each layer, the team carefully collected and labeled samples. Despite the foul smell, the garbage hunters agreed that the landfill was full of “wonderful things.”

Theme: Continuity and Change Name two things that you threw away in the last day. What clues might these items give to future anthropologists?

How Do We Know?

The search for the human past has led all over the globe and far back to prehistoric times. **Prehistory** refers to the long period of time before people invented systems of writing. Prehistoric people had no cities, countries, organized central governments, or complex inventions.

Anthropology About 200 years ago, scholars began studying the origins and development of people and their societies. Today we call this field of study **anthropology**. Modern anthropologists specialize. Some examine the origins of human life. Others focus on the variety of human cultures. In anthropology, **culture** refers to the way of life of a society that is handed down from one generation to the next by learning and experience.

Archaeology A specialized branch of anthropology is called **archaeology** (ahr kee AHL uh jee), the study of past people and cultures. Archaeologists find and analyze the material remains of human cultures to learn about prehistoric people and to add to the written records of historical times.

Archaeologists study **artifacts**, objects made by human beings. Artifacts include tools, weapons, pottery, clothing, and jewelry. By analyzing artifacts and other items, archaeologists draw conclusions about the beliefs, values, and activities of our ancestors. Writer Agatha Christie, who was married to an archaeologist, described how people of the past speak to us through artifacts:

“‘With these bone needles we sewed our clothes.’ ‘These were our houses, this our bathroom, here our system of sanitation!’ . . . ‘Here, in this little jar, is my make-up.’ ‘All these cook-pots are of a very common type. You’ll find them by the hundred. We get them from the potter at the corner.’”

—Agatha Christie, *Come, Tell Me How You Live*

Archaeologists at Work Analyzing ancient artifacts is difficult, but archaeologists have devised many useful techniques. In the 1800s and early 1900s, archaeologists picked a likely site, or place, and began digging. The farther down they dug, the older the artifacts they found. Some long-buried objects crumbled as soon as they were exposed to light and air. Today, scientists have ways to preserve such fragile artifacts.

By studying thousands of items, archaeologists have traced how early people developed new technologies. **Technology** refers to the skills and tools people use to meet their basic needs. The first stone tools, for example, were crudely made with jagged edges and rough surfaces. Stone tools from later times are smooth and polished, showing improved skills.

Archaeologists today also make detailed maps locating every artifact they find. By analyzing this evidence, they can tell what went on at different locations within a site. Flint chips, for example, might suggest the workplace of a toolmaker.

Technology and the Past Archaeologists use modern technology to study and interpret their findings. Computers can be used to store and sort data or to develop accurate site maps. Aerial photography can reveal patterns of how people used the land. Techniques for measuring radioactivity help chemists and physicists determine the age of objects.

Geologists, or experts on earth science, help archaeologists date artifacts by determining the age of nearby rocks. Botanists and zoologists, experts on plants and animals, examine seeds and animal bones to learn about the diet of early people. Experts on climate determine what conditions early people faced on the plains of Africa or in ice-covered parts of Europe. Biologists analyze human bones as well as bloodstains found on old stone tools and weapons.

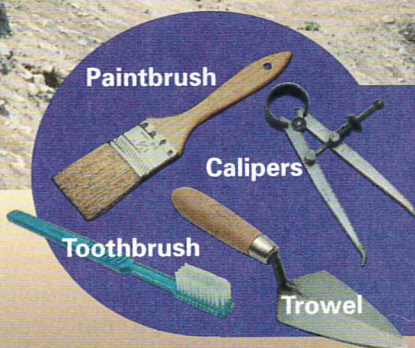
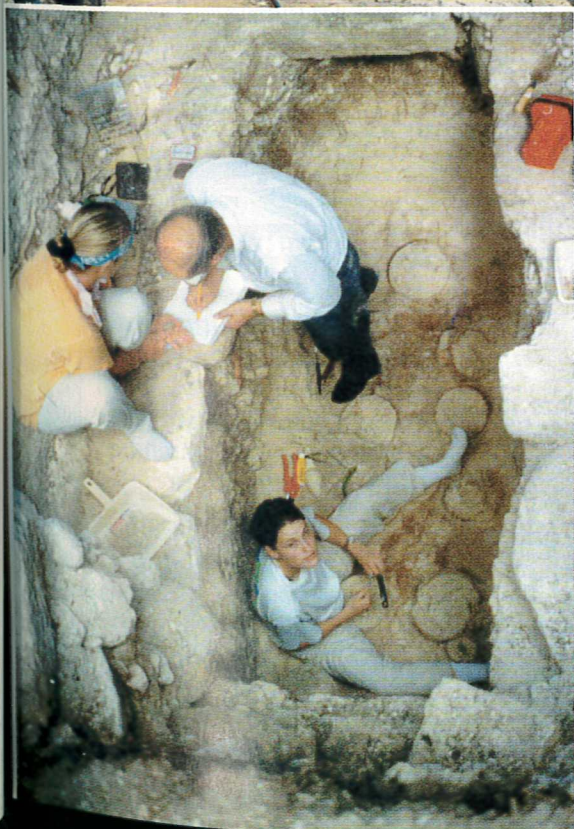
UNEARTHING THE PAST

Sweat runs down your forehead and into your eyes. It stings. Slowly, you stand up from where you've been kneeling in the dirt and wipe your face. You volunteered to spend your first summer after high school helping archaeologists at a dig in Mexico. Squinting against the bright sun, you wait for your eyes to adjust. . . .



You turn and you see a serene face on an urn that you helped excavate this morning. You feel a sense of pride as you realize that you have helped unearth a piece of the past.

You hear distant murmurs in English and Spanish, and you can pick out an occasional word. Louder are the clink of metal hammers on rock and the crunch of shovels in soft earth. These are the sounds of an archaeological dig.



You gather your tools, lying scattered about you. You use the trowel to dig up an artifact, brushes to gently brush away dirt, and then calipers to measure it. You take great care, because you are unearthing ancient treasure.

Your eyes focus on a pit just in front of you. Archaeologists are examining a burial chamber. They are sketching and mapping the find. Precise records are needed for later analysis.

Portfolio Assessment

The sun dips below the horizon, and you are through for the day. Alone in your tent, you pick up paper and pen and start a letter home. You explain how you have reached your decision about whether to volunteer at another dig next summer.



Global Connections

What Year Is It?

Most nations today use a standard calendar that dates events from the birth of Christ. This calendar, sometimes called the Christian Era calendar, uses B.C. to stand for dates before the birth of Christ and A.D. for dates after the birth of Christ. Some modern books use C.E., or "common era," instead of A.D.

The Christian Era calendar, however, is not the only calendar used in the world. The year 2000 on the Christian Era calendar overlapped the Muslim year 1371, the Chinese year 4637, and the Jewish year 5761. In some cultures, people use the standard dates for everyday use and traditional dates for holidays and religious ceremonies.

Theme: Diversity What are the advantages of all nations using the same dating system?

Historians Reconstruct the Past

While archaeologists have uncovered useful information about the past, most of what goes into a textbook like this one comes from the work of historians. **Historians** study how people lived in the past. Like archaeologists, historians study artifacts, from clothing and coins to artwork and tombstones. However, they rely even more on written evidence.

About 5,000 years ago, some people in different parts of the world began to keep written records. That event marked the beginning of recorded history. Although these early records are often scanty, they do give us a narrative of events, as well as a number of names and dates. Historians carefully study written evidence, such as letters or tax records. **Historians** of the recent past also use such evidence as photographs or films.

Historical Detection Like a detective, the historian must evaluate the evidence to determine if it is reliable. Do records of a meeting between two officials tell us exactly what was said? Who was taking notes? Was a letter writer really giving an eyewitness report or just passing on rumors? Could the letter even be a forgery? The historian tries to find the answers.

Historians then must interpret the evidence, explaining what it means. Often, the historian's goal is to determine the causes of a certain development or event, such as a war or an economic collapse. By explaining why things happened in the past, the historian can help us understand what is going on today and what may happen tomorrow.

Generally, historians try to give a straightforward account of events. Sometimes, though, their personal experiences, cultural backgrounds, or political opinions may affect their interpretations. At times, historians disagree about what the evidence proves. Such differences can lead to lively debates.

The "Great" and the "Small" The first historians began writing thousands of years ago. These early historians wrote mostly about the deeds of well-known and powerful people such as monarchs, religious leaders, politicians, and generals.

Today, historians still write about famous people whose actions have had wide influence. Yet other historians are studying the lives of ordinary people. How did farmers or workers earn a living? What holidays did they celebrate? What was family life like? The answers to such questions have increased our understanding of the past.

SECTION 1 Assessment

Recall

1. **Define:** (a) geography, (b) latitude, (c) longitude, (d) prehistory, (e) anthropology, (f) culture (g) archaeology, (h) artifact, (i) technology, (j) historian.

Comprehension

2. (a) What are the five themes of geography? (b) Give two examples of how people interact with their environment.
3. How do anthropologists and archaeologists learn about the lives of prehistoric people?

4. What kinds of evidence do historians use to study the past?

Critical Thinking and Writing

5. **Linking Past and Present** Historians and archaeologists have worked to piece together the human story from prehistory up to today. Why do you think it is important for us to understand our past?
6. **Connecting to Geography** How can bodies of water play an important role in shaping human society and economy?

Activity

Learning From Artifacts

Make a list of four or five artifacts that are in your classroom right now. Then, describe what these artifacts might tell archaeologists of the future about education in our time.