How did the prehistoric societies of early New Mexico shape our modern world?

Timeline of Events

11,000 B.C.

10,000 B.C.

9,000 B.C.

8,000 B.C.

9,000 B.C.–9,000 B.C.
Clovis culture develops.

9,000 B.C.–8,000 B.C.
Folsom culture develops.

This photograph of Navajo Indians passing through Canyon de Chelly was taken by Edward S. Curtis in 1904. It is one of more than 2,000 images included in his 20-volume The North American Indian. Curtis studied and photographed at least 80 tribes in his travels throughout the country. How do the Navajo riders compare to their surroundings?
Chapter 2

Comprehension Strategy

Preview for a Purpose

In Chapter 1, you learned that good readers preview text before they read. In this chapter, you will learn to preview for different purposes.

You will preview to check facts about prehistoric people. You will also preview to predict and answer questions about the first groups of people in New Mexico.

- **8,000 B.C.–200 B.C.** Cochise culture develops.
- **200 B.C.–A.D. 1200** Ancestral Pueblo (Anasazi) people live in Southwest.
- **A.D. 1200** Athabascan people (Navajo and Apache) migrate to the Southwest.
- **A.D. 1300** Spanish explorers arrive in New Mexico.
Thousands of years ago, small bands, or groups, of people roamed the land in what is now New Mexico. They were nomads, which means they moved from place to place. They were constantly on the move in search of food. They gathered plants and hunted large animals like the mammoth.

The First People Arrive

Scientists do not agree on when the first people came to North America or how they got here. Most agree, however, that people were living in the area we know as New Mexico around 11,000 B.C. Because the people who lived here did not leave any written records, they are called prehistoric. Without diaries, newspapers, pictures, or letters, how do we know about them? What can we discover about their lives? How do we even know they were here?

As you read in Chapter 1, we can study artifacts for clues about the people who used them. Animal remains can also give us clues about what animals lived at a certain time. By carefully studying these clues, we can piece together New Mexico’s history.

Archaeology is the study of past people and cultures through a careful examination of artifacts. Over a long period of time, wind blows dirt over things people leave behind. Sometimes plants grow on top of them or water pushes mud over them. Archaeologists unearth, or excavate, artifacts and study them to learn how people lived in the past.
Examples of these manmade items include spear tips, pottery, jewelry, and baskets. Archaeologists also look for the remains of ancient homes, burial sites, and garbage dumps. They want to learn as much as they can about how people once lived.

Since prehistoric people did not have written records, archaeology is one of the few ways to learn about ancient cultures. European explorers were the first to write down information about the indigenous people they met. Indigenous means native. The journals kept by explorers describe the customs, dress, and practices of native peoples. Many of these historical records exist today.

The First Groups

Prehistoric people are divided into two groups—Paleo people and Archaic people. Archaeologists call the first people to live in North America Paleo people or Paleo Indians. Paleo means ancient.

Paleo People

Historians are not entirely sure when Paleo people first arrived in North America. They estimate it was at least 12,000 years ago. It was the end of the last ice age (a long, cold period of time when snow and ice covered most of the earth). Temperatures were much colder than they are now. Ocean waters were frozen in huge sheets of ice called glaciers. The sea level was lower and more land was exposed. As a result, many scholars believe that the first people in North America walked across the land from Asia to North America, following the animals they hunted.

The Paleo people traveled south from the area we know as Alaska. They spread throughout North and South America. When they came to what is now New Mexico, they found a land much different than it is today. By the time they arrived here, glaciers had started to melt, creating rivers and lakes. Some areas of New Mexico that are now dry desert were covered with swamps, forests, and grasslands.

Few Clues Left Behind

Artifacts such as stone tools and the skeletons of large animals tell of the existence of Paleo people. Because of their constant movement, Paleo people left few other clues behind. Archaeologists do not know what the houses of Paleo people looked like or even if they had houses. And Scientists do not know if Paleo people had a written language. Scholars think knowledge and traditions were likely passed from generation to generation through storytelling.
Discovery at Folsom
The first evidence of Paleo people in New Mexico was discovered in northeastern New Mexico. In 1908, George McJunkin, a former slave and cowhand discovered some very large animal bones on the ranch where he worked. He believed the bones to be the remains of an extinct animal.

McJunkin tried for years to get archaeologists to visit the ranch, but no one came until the late 1920s. By then, McJunkin had died. The archaeologists who finally went to the site were amazed at what they found. Deep in a pit were the bones of several giant bison. Lodged in some of the bones were spear points. The spear points—called Folsom points—were evidence that humans killed large bison for food.

Big-Game Hunters
The abundance of plants and animals was good for the people because it provided them with a source of food. They hunted large animals, such as woolly mammoths, giant ground sloths, saber-tooth tigers, large bears, and giant bison. Paleo people traveled in small family groups. When they killed an animal, they set up camp, butchered the animal, and moved on in search of another meal. They did not stay in one place very long.

Scientists believe mastodons lived mostly in the eastern United States and in lowland regions with warmer climates.

What Do You Think
Archaeologists use the term kill site to describe the areas where ancient animal remains are found. What other artifacts do you think might be found at kill sites?
The Clovis Point
Twenty years after McJunkin discovered the ancient kill site in northeastern New Mexico, a teenaged Boy Scout named Ridgley Whiteman made a similar discovery near Clovis. However, the bones Whiteman found turned out to be that of a mammoth. In addition to the bones, Whiteman also uncovered a spear point that became known as the Clovis point.

The Clovis point was bigger than the Folsom point and had a leaf-like shape with a long, slender point. Because the Clovis points were bigger, archaeologists decided that the Clovis people were here before the Folsom people. Bigger spear points meant that the Clovis people were hunting larger animals than the Folsom people. Why do you think this meant the Clovis people were probably here first?

Clovis and Folsom People
The Clovis and Folsom people are Paleo people. They are believed to be some of the earliest people to have lived in what is now New Mexico. The artifacts they left behind tell a story about hunters who used rock or animal horns to chip away the edges of stones to make spear points. The people tied the points to strong, thin sticks to make spears. In addition to hunting animals, the Clovis and Folsom people probably gathered seeds, roots, nuts, and other wild plants to eat.

<table>
<thead>
<tr>
<th>Group</th>
<th>Time Period (approximate)</th>
<th>Artifacts Found</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clovis</td>
<td>9,500–9,000 B.C.</td>
<td>• Bones of a mammoth • Stone spear tips (called Clovis points)</td>
<td>Near present-day Clovis in eastern New Mexico</td>
</tr>
<tr>
<td>Folsom</td>
<td>9,000–8,000 B.C.</td>
<td>• Bones of giant bison • Spear tips smaller than the Clovis point (called Folsom points)</td>
<td>Near present-day Folsom in northeastern New Mexico</td>
</tr>
</tbody>
</table>

What Do You Think?
Other Clovis points were discovered later in various locations across North America—some as close as Colorado and some as far away as Arkansas and Pennsylvania. What do you think these discoveries reveal about Paleo people?
What Became of the Paleo People?

Something happened to the Paleo people. Much of the population disappeared by 8,000 B.C. Some scientists believe the people killed most of the animals and moved to another area. Other scientists believe a drought led to the extinction, or disappearance, of the large animals. The Paleo people who did not move in search of a new food source likely starved. Many scientists think a combination of these theories explains what happened to the Paleo people.

Adapting to a Changing Climate

Around the time the Paleo people disappeared, the climate slowly became warmer and drier. Plants and animals either adapted to the new climate or died. For example, some species of trees, such as spruce and birch, began growing at higher elevations in the mountains of New Mexico. This was because they could not survive in the warming climate of the lower elevations. New kinds of grasses and shrubs began to grow at lower levels. Large animals, such as the mammoth, could not adapt and therefore became extinct. Other species, such as the bison, adapted to the new environment.

Archaic People

Archaic people came after the Paleo people. Since no written records were left behind to tell us about the people who lived here after the Paleo people, we do not know anything about their language or what they called themselves. Today, archaeologists call them Archaic people.

The Archaic people were not as nomadic (referring to people who wander from place to place) as the people before them. They tended to live in one place for at least part of the year. They built seasonal housing along waterways. They hunted smaller animals such as deer, elk, and rabbit. Because they built shelter near water, Archaic Indians also fished. Additionally, Archaic Indians lived in larger groups, and they began trading with people in different areas.

Following the Seasons

Archaic people lived in different places during different seasons. In the spring and early summer, they lived around lakes and marshes and hunted buffalo, deer, antelope, elk, moose, rabbits, and birds. They also ate lizards, insects, mice, gophers, collected duck eggs, and fished for trout. The people also gathered cattail plants, sunflower seeds, and seeds from Indian ricegrass. They ate the bulrush, sego lily bulbs, and other plant roots.

In the late summer, they moved to mountain valleys and higher mesas, where it was cooler. They gathered acorns, pine nuts from piñon trees, and berries from juniper trees. They hunted animals and dried the meat for winter.

During the fall, they lived in the deserts, where they found lots of berries, nuts, and seeds. In the winter, they moved to the foothills, so they could be closer to the animals they hunted. They returned to these same camps every year. As a result, they left behind more artifacts than the Paleo people.
The Earliest Farmers
Archaeologists know that Archaic people began farming. They dug canals to move water from rivers to irrigate their crops. Growing their own food gave them more control over their lives because they became food producers rather than food collectors. This shift happened over thousands of years. It allowed the people to develop a surplus of food for use during times when it was scarce.

No longer on a constant quest for food, people began to develop a more complex society and a culture. Culture, which is the beliefs and customs of a group of people, distinguishes one group from another.

As the Archaic people changed from a nomadic to a more settled life, they began to develop art forms, such as basketry, pottery, and sculpture. They also created more advanced tools and methods for hunting, butchering, and storing food. Additionally, archaeologists have found evidence of religious beliefs and practices.

Pithouses Provided Shelter
Because travel was seasonal, Archaic people built homes they could return to year after year. The earliest-known housing was called a pithouse. Indians dug into the earth to make the floor and then constructed the walls and roof from branches and grasses, or sometimes animal hides. Often, the people built their pithouses near their fields, and some of these houses were used to store crops. In addition to storing crops, Archaic Indians buried tools they could use the next year. Thousands of years later, archaeologists uncovered these tools along with ancient seeds and the remains of various crops.

American Indians learned to use the land to survive. What clues about their lives might these people have left behind?

The First People
Improved Hunting Tools
One of the most important discoveries dating to the Archaic period is a tool called the atlatl. Archaic people used it to throw their spears farther and faster. The atlatl is a stick about 18 inches long with a grip on one end and a bone or antler hook on the other. A hunter attached a spear to the hook and then held the spear and the atlatl together in one hand, at shoulder level. The hunter then thrust the atlatl overhead from back to front to release the spear. Hunting with an atlatl made it much easier for Archaic people to catch prey.

Basket Makers
Researchers also found remains of baskets and netting that were likely used to store seeds and other foods. Plant fibers, especially agave and yucca fibers, were used to make baskets, sandals, mats, ropes, string, and thread. From the rope and string, the people made nets, snares, and traps. They wove rabbit skins and even small mouse skins and bird feathers into the yucca fibers to make soft robes. It took more than 1,000 mouse skins to make one robe!

Grinding Seeds
During the summer, Archaic people collected wild seeds, nuts, and berries. They used the seeds to make flour, which could then be used to make other foods. Manos and metates were used to grind seed into flour. A mano was a small stone the people held in their hands. They rubbed the mano against a larger, flatter stone called a metate. The seeds were crushed into flour by grinding the mano over the metate.

The Cochise Culture
The Archaic people who lived in what is now New Mexico are often referred to as the Cochise Culture or the Desert Archaic Culture. The Cochise people are named for the ancient lake they lived near. The lake is now a dry desert basin called the Willcox Playa. It covers parts of eastern Arizona and western New Mexico.

Unlike other Archaic groups, the Cochise lived in caves and rock shelters. However, they made baskets, nets, mats, sandals, wooden clubs, digging sticks, and atlatls just like other groups during the same period. The Cochise people also used manos and metates to grind corn.
Know

1. What primary source contribution did George McJunkin make to the history of New Mexico?
2. Name two groups of prehistoric peoples that lived in New Mexico.
3. Describe how prehistoric people may have been able to reach New Mexico from Asia.
4. Where did the Archaic people build their seasonal housing?
5. What improvement to hunting tools was made by the Archaic people?

Apply

6. Explain how George McJunkin's early life prepared him for his discovery. Give at least one example.
7. Compare how the Paleo and Archaic civilizations developed in New Mexico.
8. Discuss changes in the environment that may have led to the disappearance of the Paleo and Archaic peoples.
9. Describe how the Archaic people adapted to their environment and were able to become less nomadic.
10. How did the use of the atlatl improve hunting for Archaic people?

Analyze

11. Compare George McJunkin's early education with your own education.
12. Imagine that the prehistoric people of New Mexico had electricity. How would they have developed differently?
13. Historians have several theories about what happened to the Paleo people. What do you think happened? Support your views with analysis of the evidence in the lesson.
14. Imagine you needed to build a settlement in New Mexico. What kind of area would you choose? Consider the geography and climate of the area. Prepare a settlement plan and explain your reasons for choosing the location.
15. Would the atlatl be useful in hunting today? Why or why not?
The Mogollon, a cliff-dwelling tribe, defend themselves from an attack by enemies.
How do the cliffs provide protection for the Mogollon people?

Like the Paleo people before them, the Archaic people gradually disappeared. In their place, three other prehistoric cultures developed in the Southwest. These cultures were the Hohokam, the Mogollon, and the Ancestral Pueblo. All three groups created agricultural communities that were much larger and more successful than the earlier groups. They are best known, however, for their unique housing, basketry, and pottery. Because the Hohokam people lived in what is now Arizona, this lesson will focus only on the Mogollon and the Ancestral Puebloan people.

Mogollon People

The Mogollon people are named for the Mogollon Mountains in southwestern New Mexico. That is where archaeologists first found pieces of pottery the Mogollon left behind. The people are believed to be the earliest full-time farmers. They grew corn, squash, and several varieties of beans. They also grew tobacco and cotton.

The Mogollon people grew food in small gardens. They also planted crops on mesas. They depended on mountain rains to water their gardens and crops. Because they lived in mountains and valleys, they could not build large irrigation canals. Instead, they collected rainwater in small dams and then carried the water to their crops. They also redirected water from nearby streams to their fields.
Although farming provided most of their food, the Mogollon still depended on hunting and gathering. They hunted turkey, deer, and rabbits. They are believed to be among the first groups to develop and use the bow and arrow for hunting instead of the atlatl. They collected seeds, berries, nuts, and plants. Because mountain fruits ripened at different times of the year, the Mogollon people always had fresh fruit.

**Village Life**

Most Mogollon villages were made up of pithouses built on the side of the mountain that received the most rain. Because they were built into the ground, pithouses provided natural protection from extreme heat and cold. The structures were built around a separate pit structure called a *kiva*, which was used for ceremonies.

Kivas were large, round rooms lined with stones. In the center of the kiva floor was a tiny hole called a sipapu. Ancestral Pueblos believed the sipapu was a passageway from the underworld. They believed the first human beings came into the world through this passageway. They also believed that after someone died, their kachina, or spirit, could live on by going back to Mother Earth through the sipapu. Although the main purpose of the kivas was religious, they were also used as a gathering place for the men of the village. Women rarely entered kivas.

**What Do You Think?**

Why do you think the Mogollon hunted with bows and arrows instead of atlatls? What do you think changed that led to the development of new hunting tools?

*The Mogollon often built their homes on the high side of a mountain. What made the location shown in this photo suitable for building a home?*
From Pithouse to Pueblo
As time passed, Mogollon housing changed. The people started to build homes with stone, brick, and clay. They also built multi-room apartment houses that were sometimes three stories high. Some of these houses had 40 to 50 rooms encircling a plaza. This type of housing is called a **pueblo**. It was the term used by Spanish explorers to describe the Indian villages they encountered.

Although the Mogollon built pueblos, archaeologists believe the Ancestral Pueblo people were the first to create the pueblo style. They think the Mogollon learned to build pueblos and kivas from the Ancestral Pueblo people.

The Fate of the Mogollon
As with the prehistoric people before them, no one knows exactly what happened to the Mogollon people. Some think they moved to a different area. Others think they joined with the Ancestral Puebloans who lived in the Four Corners area. Still others believe they stopped living together as a group and spread throughout the region.

Mogollon Pottery
Today, the Mogollon are best known for the pottery they left behind. The pottery was made from clay rolled into thin strips and then coiled into different pot shapes. The inside and outside of the pots were smoothed over and covered with a coat of clay. After baking in an oven, the pots were decorated with pictures of everyday scenes. Some show men hunting or farming, and some show people dancing. What might these pictures tell us about the Mogollon culture?

Like their housing, Mogollon pottery changed as the years passed. Their most famous pottery is white with black decorations. It was made by a group that lived along the Mimbres River in what is now southern New Mexico. Archaeologists named this black-on-white pottery “Mimbres.”

The images on Mogollon pottery provide clues about the way people lived. What clues does this bowl give us about the Mogollon?
CIVILIZATIONS OF THE WORLD

Several centuries before the Mogollon and Ancestral Pueblo Indians were living in what is now New Mexico, other ancient civilizations were developing around the world. Like the ancient peoples of New Mexico, these other groups in the eastern and western hemispheres relied on farming and trade to survive. Most of the ancient groups lived in river valleys where there was fertile soil and a water supply. They also built extensive irrigation systems that enabled year-round farming and a steady food supply.

PEOPLE OF THE EASTERN HEMISPHERE

At least 12,000 years ago, people began living in the Middle East in a place called Mesopotamia. Mesopotamia means “between the rivers” in Greek. Several civilizations emerged in this area between the Tigris and Euphrates rivers in what is now the country of Iraq.

Cradle of Civilization

Mesopotamia is considered the “cradle of civilization” because it was here that the world’s first cities were created along with farming, irrigation, and wheeled transportation. Additionally, the Sumerian and Babylonian people who lived here were the first to develop writing and written laws.

On the other side of the Arabian Peninsula and across the Red Sea, the ancient Egyptians were the first to use paper. They made it from the fibers of the papyrus plant found in the Nile River Valley where they lived. The Hebrew people came from this region as well. They left their mark by introducing monotheism, or the belief in one god. Their beliefs led to the development of the world’s three main religions—Judaism, Christianity, and Islam. Most ancient civilizations, including those in New Mexico, believed in many gods. The belief in many gods is called polytheism.

Centralized Government

Each of these civilizations also developed centralized governments. A centralized government is one that is run from a central location. This type of government is lead by one ruler or king whose job it is to create laws and establish order among the people. The Sumerians and Babylonians were led by a king. In Egypt, the chief ruler was called the pharaoh. Although the Hebrew people had kings, God was their central authority.

<table>
<thead>
<tr>
<th>Civilization</th>
<th>Time Period</th>
<th>They lived in...</th>
<th>Notable Achievements</th>
</tr>
</thead>
</table>
| Sumerians    | 3500 B.C.–1400 B.C. | Mesopotamia | • Cuneiform writing on clay tablets  
• Creation of independent cities  
• Multiplication tables  
• Giant temples called ziggurats to honor their gods |
| Babylonians  | 1900 B.C.–539 B.C. | Mesopotamia | • Code of Hammurabi: laws regulating trade and family matters, and establishing punishments for crimes based on the concept of an “eye for an eye”  
• Tower of Babel temple and the Hanging Gardens of Babylon |
| Egyptians    | 3500 B.C.–330 B.C. | Nile River Valley in Egypt | • Hieroglyphic writing, first on stone tablets and then on papyrus paper  
• Great pyramids to honor their gods  
• A numbering system similar to what we use today  
• A calendar based on phases of the moon  
• Mummies, which gave people a greater understanding of the human body |
| Hebrews      | 1800 B.C.–600 B.C. | Mesopotamia, Egypt, and Canaan (present-day Israel) | • Monotheism  
• The 10 Commandments establishing a moral code of laws |

Ancient artists created this clay relief (sculpture) of an Assyrian king.
Social Structures
The populations of the eastern hemisphere were organized into social groups. The king was always at the top of this social pyramid. Beneath the king were priests and landowners, followed by commoners (such as traders, merchants, and skilled craftsmen), and at the bottom of the social structure were slaves and soldiers.

Trade Connections
Because they all lived along rivers that reached the sea, the people of the eastern hemisphere traded with each other and other parts of the world. For example, historians call Egypt the “crossroad of the world” because it was easy to get to from parts of Africa, Southern Europe, the Middle East, and Asia. The Egyptians were some of the first people to build ships that could sail on the rough waters of the Mediterranean, Aegean, and Red seas. They also sailed their ships along the Atlantic Coast of Africa.

How do you know that the United States has a centralized government?

What Do You Think?
duties to help the community survive. In Aztec society, for instance, warriors had a high standing. Scholars believe the people lived in small communities outside of cities. Cities were built as religious centers where people gathered for special ceremonies. However, the Aztec city of Tenochtitlán (ten oh cheet lan) (present-day Mexico City) was home to thousands of people.

Pyramids and Mounds

The ancient people of Central America built huge pyramids in their cities to worship their many gods. The Mayan, Toltec, and Aztec peoples all left some of these great structures behind. One of the most famous is Chichén Itzá on the Yucatán Peninsula in present-day Mexico. The pyramids served as tombs for leaders and for other high-ranking individuals like priests. A unique feature of the Mayan culture were the upright stone columns that stood nearby their pyramids. These columns are covered with hieroglyphics (a writing system that used picture symbols). Archaeologists think the writings are about the Mayan past and possibly their calendar.

The Mound Builders of North America got their name from the huge mounds of earth they built as tombs for their people. Many of their mounds still exist today and are found in areas between the Appalachian Mountains and the Mississippi River from the Great Lakes all the way to the Gulf of Mexico. According to archaeologists, the pyramids and mounds were built without the benefit of the wheel or work animals, such as the mule.

Trade Networks

Some of the objects uncovered in the pyramids and mounds of these ancient people suggest far-reaching trade networks. Shells, shark teeth, and volcanic glass are evidence that the Mound Building people traded with far-away tribes. Additionally, temples sitting atop mounds found near the Gulf of Mexico suggest that there was contact between some Mound Builder groups and the Mayan, Toltec, or Aztec peoples.

Shared Language

Researchers believe the Toltec and Aztec peoples might have shared a common language—Nahuatl (nah waht l). They also believe the Aztecs may have some connection to North American natives. The Nahuatl language belongs to the same language family as a language common among Indian groups of North America.

The Aztec used their knowledge of the planets and stars to create calendars.

<table>
<thead>
<tr>
<th>Mayan 1,200 B.C.—A.D. 1530</th>
<th>Toltec A.D. 1000–A.D. 1200</th>
<th>Aztec A.D. 1100–A.D. 1521</th>
<th>Mound Builders 1,000 B.C.—A.D. 1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>They lived in...</td>
<td>Present-day southern Mexico and the Central American countries of Guatemala, Belize, El Salvador, and Honduras</td>
<td>Present-day northern Mexico and the Yucatán Peninsula</td>
<td>Present-day central Mexico</td>
</tr>
<tr>
<td>Notable Achievements</td>
<td>• Hieroglyphic writing • Pyramids • Observatories for studying the planets and stars • Knowledge of math • Calendar based on the movement of the sun • Use of metal tools to help build pyramids and observatories</td>
<td>• Metal sculpture using copper and gold • Chichén Itzá pyramid • Calendar • Hieroglyphic writing</td>
<td>• The city of Tenochtitlán, or “Great Temple,” a double pyramid for their two most important gods. • Used knowledge of math and astronomy to create a calendar. • Schooling for boys to become warriors</td>
</tr>
</tbody>
</table>

The First People
The Ancestral Pueblo People

The first Pueblo people of New Mexico have been known by many different names since archaeologists first learned about them. The most common name is the Anasazi, which is a Navajo word for “ancient enemy” or outsider. Today, Pueblo cultures say this is a negative name. They prefer the name Ancestral Puebloans, which means ancient ones or people who came before the modern Puebloans.

The Ancestral Pueblo lived in New Mexico around the same time as the Mogollon. They lived along the San Juan River in the Four Corners region. Today’s modern Pueblo Indian cultures, such as the Zuni, Hopi, Acoma, and Laguna, are the descendants of the Ancestral Pueblo.

Skilled Farmers and Builders

Like the Mogollon, the Ancestral Pueblo lived in an area where it was difficult to build an irrigation system. High mesas and deep canyons marked the land around them, so they planted in both areas. Then, if one set of crops failed, they still had another set of crops. Of all their crops, corn, or maize, was the most important. The people grew corn of all colors, from blue and yellow to pink and purple. Some was even speckled. Ancestral Puebloans used corn for important ceremonies and to make many kinds of food.

Despite the difficult landscape, the Ancestral Pueblo built an effective irrigation system. They channeled runoff from the canyon walls and redirected it through gullies to their fields. Their irrigation system resulted in plentiful harvests, which helped feed their growing population.

Dry Farming

The Ancestral Pueblo had to be creative to deal with their harsh environment. In addition to irrigation, they developed a farming technique called dry farming. This method worked well in the high elevations where the early Pueblo people lived. Snow and rain were more abundant at altitudes above 6,000 feet.

Dry farming took advantage of the moisture left in the soil by the melting snow and occasional rain. To prevent moisture from escaping, Pueblo farmers left behind clumps of dead plants. This helped to pool water and runoff. Over the years, some crops adapted to the low moisture. These crops grew well during periods of good moisture and did not grow during times of drought.
Pueblo Social Structure

In Puebloan culture, women had a lot of power. Most Pueblo tribes were *matriarchal*. This means that all property was owned by and inherited from the mother. When a daughter married, she and her new husband moved into her mother’s home. For a woman, divorce was as simple as putting her husband’s belongings outside the door.

Even in this matriarchal society, labor was shared between men and women. When it came to religious and government authority, men had more power. For example, chiefs were usually men, and kivas were places for men.

Pueblo Housing

A stable food supply helped the population grow. Housing a large population, however, was a challenge. The Ancestral Pueblo met the challenge with a new form of housing. Like the Mogollon, the early Puebloans settled in pithouse villages near their fields. Puebloan pithouses, however, had cone-shaped roofs, which made them different from the other groups. Eventually, they began to build pueblos. At first, the structures were used for storage. But gradually, they became bigger single-family dwellings and then multi-room, multi-level homes where many people could live.

Pueblos were built aboveground with hand-cut stone. Rooms were grouped together with shared walls and also stacked on top of one another. The resulting structure was like an apartment building with several terraced levels. Ladders connected each level to the next. Rooms within a pueblo were sometimes quite large and could be entered through doorways or through holes in the floors and ceilings.

One family typically occupied several connecting rooms in a pueblo. Additional rooms for a family were built on top of the rooms they already had. Each pueblo also had at least one kiva for religious ceremonies or male gatherings.

Protection and Storage

As a means of protection, rooms on the ground floor of a pueblo did not have doors or windows. Instead, the Puebloans extended a ladder through a hole in the ceiling of the room above and climbed down. The ladders could easily be removed in case of enemy attack. Ground-level rooms were most often used to store grain and crops.

Ancestral Puebloans built round rooms, called kivas, for religious ceremonies and male gatherings. Why do you think there are so many in the pueblo pictured here?

Ancestral Puebloan women used pots to carry water from nearby rivers and streams to their homes.
Chapter 2

The largest and most well-known early Puebloan community was at Chaco Canyon. It is estimated that the population in the canyon ranged from 2,000 to 5,000 people. At its height around A.D. 1000 there were as many as 5,000 people living there in 400 pueblo villages. The largest of the pueblo villages was Pueblo Bonito. It was five stories high and had between 600 and 800 rooms. Archaeologists also discovered more than 30 kivas there. The pueblo is in the shape of a huge semicircle with all the kivas and other rooms stretching away from the central plaza.

The Great North Road

A more recent discovery at Chaco Canyon is a network of roads. The road system is known as the Great North Road and includes about 400 miles of roads. It is best seen by airplane. The Great North Road connects Pueblo Bonito to several other large pueblos in the canyon. The roads also appear to connect to other settlements outside of Chaco Canyon. The discovery of artifacts from cultures in Arizona, Utah, Colorado, and Mexico suggest that the roads were trade routes that reached the Gulf of Mexico and the Pacific Ocean. However, archaeologists are not sure if the roads were used only for travel and trade or if they had some other purpose.

Linking the Past to the Present

In 1977, a researcher who was studying ancient petroglyphs (art carved on a wall) in Chaco Canyon made a discovery. She noticed how the sunlight, shining between two huge rocks, fell upon two spiral-shaped symbols on a rock wall. During repeated visits to the site, she observed how the sunlight moved across the symbols. On the first day of summer (the summer solstice), the sunlight ran through the center of the symbol. On the first day of winter (the winter solstice), two parallel rays of sunlight fell on opposite edges of the spiral. On the first day of spring and the first day of fall, the sun cast its light through the center of the smaller spiral. Researchers call the site the Sun Dagger. Many experts believe the Ancestral Pueblo used the Sun Dagger to mark the change of seasons. Over the next 10 years, many tourists and researchers visited the site to see the Sun Dagger. The path leading to the site became so worn down that the two huge rocks slipped, and the Sun Dagger disappeared. In 1996, the site was placed on the list of the world’s Most Endangered Monuments.
**Pueblo Art**

In addition to being farmers and builders, the Ancestral Pueblo were skilled craftsmen. During the time the Ancestral Puebloans lived in pithouses, they made only baskets. They were used for food storage, cooking, and for carrying water. Around the time they built irrigation systems and pueblos, they also started to create pottery. By the time the Puebloans had built places like Chaco Canyon, they were creating elegant pottery, jewelry, and clothing. They also carved petroglyphs and painted pictographs on rocks and cliffs. Their designs and pictures showed hunters, animals, and other important parts of the world around them.

**An Ancient Mystery**

The Ancestral Puebloans lived well for hundreds of years. But sometime during the 13th century, the rain stopped. There had never been much rain where they lived. Then, for 23 seasons, there was less and less. Without water, their crops died and there was not enough food for everyone. Disease may have spread through their land, and the people may have fought among themselves or with other Indians.

The Ancestral Puebloans left their villages and moved to mesas to the south and to the west. They created new villages in places that the Spanish later called Hopi, Zuni, and Acoma. Most of the early Puebloans then moved to the Rio Grande Valley, where they created dozens of new pueblos. These groups, as well as the Navajo and Apache Indians, were in New Mexico when the Spanish arrived in the 1530s.

**Cliff Dwellings**

Archaeologists believe the pueblos of Chaco Canyon were abandoned around A.D. 1150. Rather than building new pueblos on open mesas or in canyons, the Puebloans began building shelters on cliff ledges often hidden from view in the forest. The ruins of such cliff dwellings can be seen in the Gila National Forest in southeastern New Mexico. The ruins are of five interconnected caves built on a cliff ledge 150 feet off the ground. Researchers believe the caves housed 10 to 15 families. The caves offered good shelter and protection from invaders because they were surrounded by thick forest.

There are as many as 17,000 petroglyphs at the Petroglyph National Park on Albuquerque’s west side.
**Study Rock Art**

The picture on the left shows ancient Egyptian hieroglyphics. The picture on the right shows ancient Native American rock art found in New Mexico. Compare the two images and answer the questions.

<table>
<thead>
<tr>
<th>OBSERVE</th>
<th>EVALUATE</th>
<th>CONCLUDE</th>
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<tbody>
<tr>
<td>• What symbols do you see in each of the images?</td>
<td>• What might the symbols represent? • What differences do you see in the rock art from the different regions?</td>
<td>• After evaluating the rock art, do you think the two ancient groups had a connection. Why or why not?</td>
</tr>
</tbody>
</table>
Know

1. How did the Mogollon people water their crops?
2. Who are believed to be the first people to create pueblo-style housing?
3. In what parts of the eastern hemisphere did ancient people live? In what parts of the western hemisphere did ancient people live?
4. Describe dry farming.
5. Tell about the Pueblo social structure.
6. What connected Chaco Canyon to surrounding pueblos?
7. In what part of New Mexico did the Mogollon people live? In what part of New Mexico did the Ancestral Puebloan people live?

Apply

8. Describe at least one advantage of living in the mountains.
9. Restate how Mogollon housing may have been influenced by the Ancestral Pueblo.
10. Compare how ancient people of the eastern hemisphere lived to how ancient people of the western hemisphere lived.
11. Summarize the farming and irrigation techniques of the Ancestral Pueblo.
12. How does the role of Pueblo women compare to the role of women today?
13. Discuss what archeologists have learned about the possible purpose of the Great North Road.
14. How might similarities between ancient civilizations indicate a possible connection?

Analyze

15. Water is still a precious and limited resource in New Mexico today. How have New Mexicans addressed this challenge? Give three examples.
16. Given their similar housing styles, what can you conclude about the possibility of a relationship between the Mogollon and Ancestral Pueblo?
17. What achievements from the ancient eastern and western hemispheres are still used today?
18. Besides farming, what other kinds of work do you think are best suited to New Mexico's environment? Explain your reasoning.
19. What is your theory about why the Ancestral Pueblo had a matriarchal society?
20. Evaluate how trade routes today compare to ancient trade routes.
21. Imagine you live in prehistoric New Mexico. Your society shares some common features with surrounding civilizations, but has some of its own unique features. Describe your society. Address the following questions:
   • Where do you live?
   • What do you eat?
   • What type of housing do you have?
   • What are your religious beliefs?
   • How is your society organized?
The last two groups of New Mexico’s native people are the Navajo and Apache. These names were given to them by other Indians and European explorers. However, both the Navajo and Apache called themselves Diné, meaning “the people.” They call their homeland Dinetah. Historians and scholars call them Athabascan because that is the name of the language they share.

Nomadic Hunter-Gatherers

Not all native people in New Mexico lived in pueblo villages when the first European explorers arrived in the 1500s. The Diné were nomadic. They spent much of the year moving from place to place. Some Diné planted crops but did not settle down like the Mogollon or Ancestral Pueblo.

There are a number of different ideas about when the Diné first came to New Mexico. Many scholars believe they came here from Canada around A.D. 1200. Others think they arrived around the same time as Spanish explorers. Some scholars think these newcomers may have fought with the Ancestral Puebloans and driven them out of their villages. Others say the evidence left behind does not support this belief. They point out that the pueblos were abandoned; they did not appear to be burned or destroyed by warfare.
Trading and Raiding

While the relationship between the Diné and the Ancestral Puebloans is unknown, the Diné certainly interacted with the Pueblo Indians. They often traded, exchanging animal hides and dried meat for corn, cotton, and tools. During lean times, however, the Diné raided Pueblo villages and Spanish settlements. They stole food, weapons, tools, and even women and children. Repeated raiding of Pueblo villages eventually led to warfare with the U.S. Army.

During more peaceful times, the Diné learned much from the Pueblo Indians. They learned to farm and to make crafts. It would be years, however, before the Diné, especially the Navajo, became the skilled craftspeople they are today. Despite these shared experiences, the Diné developed two distinct cultures.

The Navajo

The Navajo lived in the Colorado Plateau region between the San Juan and Little Colorado rivers. Today, they are the largest group of Native Americans in present-day New Mexico. In fact, the Navajo Nation is the largest reservation in the country. It includes land in northeastern Arizona, southwestern Utah, and northwestern New Mexico. According to the U.S. Census, the Navajo are the second-largest Native American tribe in the United States. The Cherokee tribe is the largest.

When they first came to the Southwest, the Navajo relied on hunting and gathering. Eventually, they adopted farming practices from the Pueblo people and became more settled. Later, they got sheep, goats, and horses from the Spanish. As a result, growing corn and sheepherding became important parts of Navajo culture. Still, they remained nomadic, so their settlements were only temporary.

Navajo Housing

The hogan was the main form of Navajo housing. In Navajo language, hogan means “the place home.” Hogans were made from logs, mud, and brush. At first, most hogans were cone shaped, but in time, hogans were built with five or more sides. They had no windows, and the doorway always faced east to catch the first morning light.

According to tradition, the location of a hogan was important. Hogans could not be built near gravesites, old battlefields, or trees hit by lightning. Logs used to build hogans also could not be from trees struck by lightning. This would bring bad luck or evil spirits into the home. Similar to the earlier pithouse, a hogan served as a home and also as a place for ceremonies. Today, most hogans are used only for ceremonies, but they are still built with the same care and attention to detail as they were centuries ago.

A Navajo woman sits in front of a hogan, a home built of logs, mud, and brush.
Sand Paintings

The Navajo are a very religious people. Of course, this is no different from other Indian groups as well as the Christian missionaries who came to New Mexico. From the earliest times, the Navajo sought harmony and a balance in nature.

Even today, when there is unbalance, such as sickness, ceremonies are held. A Navajo who is ill asks for a curing ceremony. Medicine men come to the sick person’s hogan and make colorful, detailed sand paintings on the floor. The sand paintings have sacred meaning that helps cure the sick. A Navajo chanter, or medicine man, performs the ceremony with the help of up to 15 assistants. Four main colors are used in sand paintings—white, blue, yellow, and black. These colors symbolize the Four Sacred Mountains that mark the borders of Navajoland.

Blessingways

Blessingways are a central part of Navajo curing ceremonies. They are songs, or chants, that help keep the Navajo people in balance with the universe. Blessingways are performed to bless and protect a home. They are also performed to protect expecting mothers and during ceremonies celebrating passage to womanhood.

Medicine man and shaman are terms used by non-Indians to describe a spiritual leader or “priest” in native cultures. The Navajo who performs spiritual ceremonies such as the curing ceremony is called a hatáálii in the Navajo language.
The Apache

The Apache Indians are similar to the Navajo in that they share the Athabascan language and call themselves Diné. Like the Navajo, they relied on hunting and gathering when they came to the Southwest from Canada. They learned some farming methods from Pueblo Indians and traded with them. However, they also attacked and raided Pueblo villages during tough times.

The Apache were known for being fierce warriors. Many Pueblo Indians feared them. It is believed that their name comes from a Zuni word for enemy—ápachu. Spanish explorer Don Juan de Oñate changed the name to Apache.

The first Apache Indians to arrive in the Southwest separated into bands and spread throughout the region. The Jicarilla Apache found a home in central and eastern New Mexico. Mescalero Apache bands were driven into southern New Mexico between the Rio Grande and Pecos River. Other bands of Apache, such as the Chiricahua, moved into southern Arizona and northern Mexico.

Nomadic Lifestyle

The Apache were hunter-gatherers. They hunted animals such as deer, rabbits, and buffalo within their territory. They gathered wild berries, roots, cactus fruit, and seeds of the mesquite tree. When food and game were scarce, some Apache resorted to raiding neighboring tribes.

Apache housing was temporary since they were constantly on the move. They built two types of shelter—teepees and wickiups. A teepee was a cone-shaped tent covered in animal skins. Teepees could easily be taken apart and moved.

A wickiup was different. It was an oval-shaped hut. Its frame was made by bending thin branches of green wood to create a dome. The wickiup was covered with brush, grass mats, or animal hides, depending on the time of year it was built. Covering the wickiup with animal hides helped to block cold winter winds.

A fire pit was usually dug in the center of the wickiup with a smoke hole in the roof. Unlike teepees, wickiups were not taken down when the Apache moved. They left the wickiups behind.

Tribal Unity

One characteristic that separated the Apache from other Indian tribes was their lack of unity. The Apache organized themselves into bands. A band was an extended family of about 20 to 30 people. A warrior with good leadership qualities and military skill usually led the band. However, the leader did not make all the decisions. Most decisions were made by consensus, or agreement, among all members of the band. But each band of Apache was independent. Except in times of war, the separate bands did not come together to form a united tribe.

Two Apache women use fire to cook their food.
Religious Practices

Religion may not have been as important to the Apache as it was the Navajo. But because getting sick was such a great difficulty, the curing ceremony was one of the most important rituals. The curing ceremony was performed by a shaman. A shaman sang songs to help restore a patient’s harmony with the spirit world. The shaman’s power to heal was well respected. As a result, a good shaman often had more influence over the people than a tribal leader.

In addition to the shaman, the curing ceremony included masked dancers who dressed in elaborate costumes. Over the years, the Apache adopted some of the religious beliefs and practices of other groups with whom they were in contact. As a result, Apache religion today is a mixture of Navajo, Pueblo, and Christian traditions.

Modern Apache

Several Apache reservations exist in the Southwest today. In New Mexico, there are two main Apache bands—the Jicarilla Apache and the Mescalero Apache. The Jicarilla Apache live on a reservation in Rio Arriba and Sandoval counties in northwestern New Mexico. The larger Mescalero tribe lives on a reservation in Otero County in south-central New Mexico.
Know

1. Describe how the Diné interacted with the Pueblo Indians.
2. What religions had an influence on today’s Apache religion?
3. Name three ways the Diné used the land.
4. What religious tradition from the early Navajo still exists today?

Apply

5. Create a two-column chart. On one side, describe the positive interactions between the Diné and the Pueblo Indians. On the other side, describe the negative interactions between the Diné and the Pueblo Indians.
6. How did other religions shape today’s Apache religion?
7. Describe the differences between the way the Ancestral Pueblo and the Diné used the land.
8. Describe a Navajo curing ceremony.

Analyze

9. In your opinion, did the interactions between the Diné and the Pueblo Indians have more of a positive or negative impact? Explain your answer.
10. What can you conclude about how different cultures affect each other?
11. Describe how the Navajo and Apache people used the land. How does their use of land compared to our modern use? Provide at least two examples to support your answer.
12. Does your family have any traditions for dealing with illness?
Consider Point of View

People have different points of view on the events and topics from history. For example, some people might think the Apache way of life was better, and others might prefer the Navajo way of life. We can better understand history when we consider many points of view.

Look at the two pictures showing a major U.S. city. One picture is taken from the ground. The other is taken from above. The people who took the photos had different points of view of the same city.

Write About Point of View

1. Choose a classmate. Write a paragraph about an event that happened in your class or at school from your classmate’s point of view. Try to think about how they saw the event and how he or she felt about what happened.

2. Share your paragraph with your classmate. Do they agree with what you wrote about how he or she felt? Edit your writing to better show your classmate’s point of view.

Apply Points of View to History

Choose a topic from New Mexico’s history. You may want to skim over future chapters from this book to get some ideas. Research the topic and prepare to share your ideas about the topic in a group discussion. Talk about how different groups of people saw or still see the same event. Because there are different points of view about every event in history, it is important to listen to many voices.
Key Idea Review

Lesson 1
1. How do archaeologists learn about prehistoric people?
2. List some characteristics of the Paleo people.
3. How did the Archaic people differ from the Paleo people?

Lesson 2
4. How did the Mogollon people use the land?
5. Pick two ancient civilizations of the world and compare them to the Mogollon and Ancestral Pueblo people.
6. What advances did the Ancestral Puebloans make in how they lived?
7. Explain the significance of Chaco Canyon to our understanding of the Ancestral Puebloan people.

Lesson 3
8. Describe how the Diné lived.
9. Discuss three important facts about the Navajo culture.
10. In what ways are the Apache different from the Navajo?

Comprehension Strategy

Preview for a Purpose
Reading without a purpose is like going on a road trip without a map. Good readers always set a purpose for reading. One way to do this is by previewing.

Choose another book you are reading for school. Choose one of the strategies from this chapter to use as you read a section of the book. After using the strategy, write about how it helped you understand what you read. Also tell whether or not you would like to use the strategies again to help you read.