

◀ Prehistoric paintings of bulls were found in a cave in Lascaux, France.

Investigating the Past

1.1 Introduction

Welcome to the world of ancient history! Studying history involves investigating what happened in the past and why. **Ancient history** concerns the distant past, from the earliest humans through the first great civilizations.

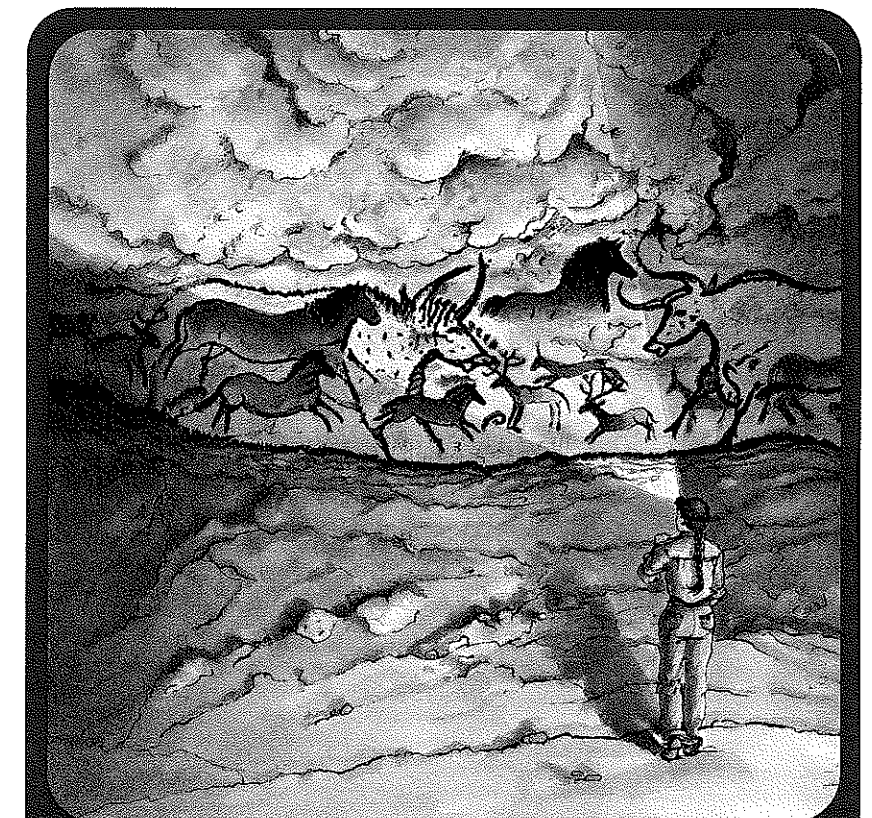
How can we learn about events that happened so long ago? People who study history are a lot like detectives conducting an investigation. They ask questions, study the evidence for clues, and form hypotheses (educated guesses).

Our investigation of the ancient past starts near the very beginning of human history. What was life like long, long ago?

One of the most amazing clues about what life was like long ago was discovered by four teenagers at Lascaux, France. On September 12, 1940, the four boys found a cave. All over the walls and ceiling of the cave were paintings of animals. The paintings seemed to be very old. Who had created them? What did they mean?

How would you solve a mystery like this one? The clues are centuries old, and the witnesses are gone. An expert detective might help, but whom should you ask?

In this chapter, you'll meet three kinds of experts who study the past: **archeologists**, **historians**, and **geographers**. Then you'll look at some fascinating examples of cave art to see what this evidence can teach us about life long ago.



Use this graphic organizer to help you learn more about how scientists investigate the past.

1.2 Detectives Who Study the Past

Scholars who study human society are called *social scientists*. Many social scientists can help us study the past. Among these “history detectives” are archeologists, historians, and geographers.

artifact an object made or used by people in the past

Archeologists: Digging Up the Past Archeologists study the past by examining objects that people have left behind. These **artifacts** are anything made or used by people, such as clothing, tools, weapons, and coins. When archeologists discover a place that has artifacts, they ask, Who lived in this place? When did they live? What were they like? Then they study the artifacts for clues.

Archeologists carefully study artifacts for clues about the past.



Historians: Recording the Past Historians are the recorders of the past. Human beings have been around a very long time. Historians are most interested in the last few thousand years, when people began leaving written records. The first question historians ask is, What happened in the past? To find out, they study all kinds of artifacts and documents. They read diaries and letters. Besides asking what happened, they try to understand why events happened the way they did.

Geographers: Mapping the Past

Geographers study natural features of the Earth, such as water, landforms, plants, and animals. They also look at humanmade features, such as towns, roads, bridges, and dams. They can help us answer questions like these: Where did people live? How did they use their environment to survive? Geographers often create maps to show what they have learned.

Social scientists who study prehistoric history face a unique challenge because there is very little evidence from prehistoric times. There are huge gaps of time for which there is no evidence at all. This means that scientists can look at the same evidence and come up with different answers, or theories, about how humans came to be.

1.3 Cave Art: Treasures of the Past

Cave paintings like those at Lascaux, France, provide clues about what life was like in **prehistoric** times, before writing was invented. Caves with paintings thousands of years old have been found all over the world. The paintings show what animals roamed the Earth. They show how people hunted. Often they offer hints about what people believed.

Many of the rooms that are decorated with paintings are deep inside the caves. Scientists guess that cave artists used torches as they worked in these dark places. Some of the paintings are very large and taller than a person. Some were done on high ceilings. Scientists guess that prehistoric artists built scaffolding, or planks raised above the floor, to reach the highest places.

Caves have also provided clues in the form of artifacts. Scientists have found lamps for burning animal fat, bits of rope, and tools for painting and engraving. Cave paintings and artifacts are amazing treasures, because they can help answer many questions about how ancient humans lived. But, as you will see, they also raise new questions for scientists to puzzle over.

prehistoric before written history

Cave painters developed different methods for applying paint to the walls of a cave. This museum exhibit shows one such technique.



ritual relating to a ceremony, such as a religious ceremony

1.4 Cave Painting of a Human

This painting was found inside the cave at Lascaux in France. It was painted between 11,000 and 18,000 years ago.

The painting shows a scene from a hunt. The man is about to be gored (pierced by the horn of an animal). The animal, which is a wooly mammoth or a bison (a kind of buffalo), is wounded. It has a spear in its side, and its insides are spilling onto the ground. The man is lying in front of it. He is wearing a mask that looks like a bird. Next to him is a long stick with a bird on top. The stick is probably a spear thrower, a kind of handle used to hurl a spear.

Paintings of humans are rare in cave art. Notice that the man is drawn simply, like a stick figure. The animal is much more realistic.

Most social scientists think this painting was created as part of a hunting **ritual**. The artist may have been asking for a successful hunt. Or the painting might be a record of an actual event or simply a decoration.

This hunting scene may show items used in special ceremonies. Notice the man's bird mask and the bird on top of the stick.



1.5 Cave Painting of Animals

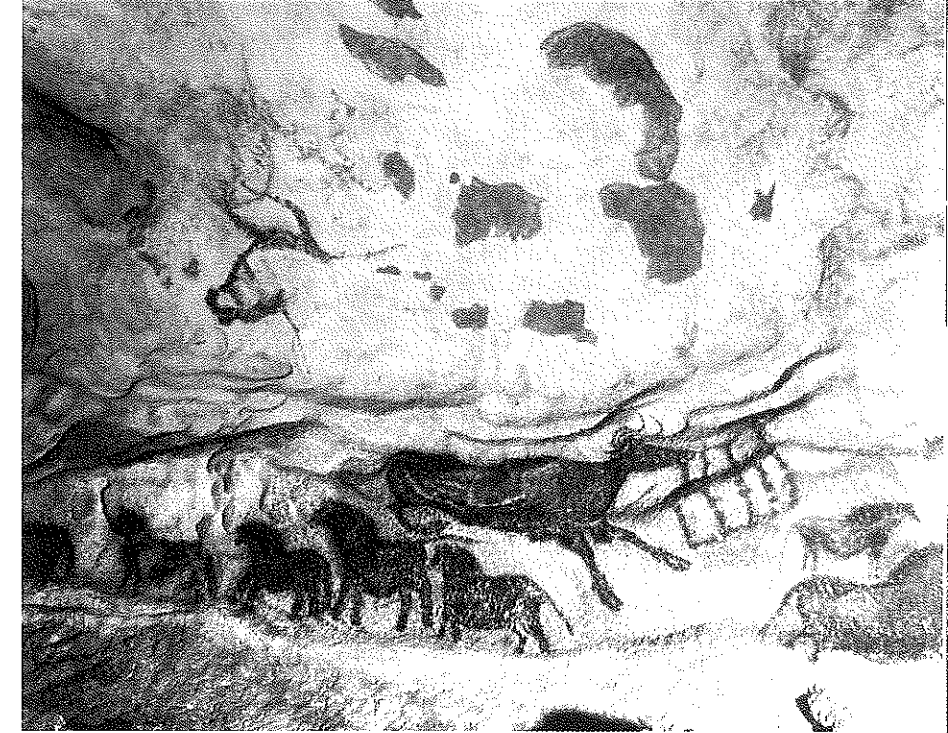
This painting is a copy of one found at Lascaux. The part of the cave where the painting was found was closed to protect the art.

The painting was created about 17,000 years ago. It shows many prehistoric animals, such as bulls, bison, and horses.

The painters used the cave's uneven walls as part of their composition. At the lower left, a ledge juts out from the wall.

The artists painted horses to look as if they are running along it.

Scientists have many ideas about why animal paintings were created. Some believe that the artists tried to capture the "magical powers" of certain animals. Some think the painters believed in spirits and created the art to honor or influence them. Some speculate that the cave was a place of worship and that paintings were used in rituals or ceremonies.



Look at the bull in the center of this painting. Do you see how its neck is stretched out, as if the bull is running away?

1.6 Cave Painting of Shapes and Handprints

This painting was found in a cave in Argentina, South America. It shows a circular shape, a sticklike animal, and several handprints.

Paintings of shapes and handprints are fairly common in cave art. Their meaning, though, is a bit of a mystery. Many scientists believe that the handprints were the way an artist signed a painting. Some think geometric shapes had special meanings in rituals.

Researchers tried singing inside one painted cave in France. They discovered that the sound was loudest in the areas that were painted. They guess those areas were used for special gatherings.



The handprints in this cave painting are very small. Prehistoric people were probably much smaller than people are today.



The horse carved on this spear thrower looks full of energy.

1.7 Spear Thrower

This prehistoric spear thrower was found in France. Made from a reindeer antler bone, it is 10 inches long. It was probably made about 18,000 years ago.

The spear thrower has a leaping horse carved into the top. The artist engraved, or carved, hundreds of tiny dashes to show details in the horse's head. The artist must have cared a great deal about decorating this important hunting tool.

Some scientists believe that the artist carved the horse for decoration. It could have been a good-luck charm to protect the hunter or make him or her more successful. It might have been related to the hunter's name. Or it could have been a way of identifying the clan that the hunter belonged to.

1.8 Clay Sculptures

These clay sculptures of two bison were found in a low room, deep inside a cave in France. They were made about 10,000 to 14,000 years ago. They are 23 inches long. The artist sculpted them from gold-colored clay. Carved lines show details such as the animals' faces, coat markings, and the fringe of fur below their powerful necks.

Scientists have two main ideas about why these sculptures were created. One is that the sculptures showed that the cave belonged to a certain clan. The other idea is that they were used in an important ceremony that was held deep inside the cave. It might have been a coming-of-age ceremony to show that a child had become an adult. One clue that supports this idea is that footprints of young people have been found near the sculptures.



These clay sculptures may offer clues about the people who made them and why they made them.

1.9 Cave Art Tools

The prehistoric tools and materials you see here include two piles of colored, rock-hard minerals and a grindstone for grinding the minerals. There are also a sculptor's pick and an engraving tool.

Scientists study tools like these and try to guess how they were used. For example, scientists believe that cave artists made paints by grinding colored minerals into powder. They probably mixed the powder with animal fat or vegetable oil to create various colors.

You've already seen how prehistoric artists engraved some of their art. For painting, they might have used brushes made of moss, fur, or human hair. They may also have blown paint through hollow bird bones to create softer textures, such as shaggy winter coats on horses.



Cave artists used tools made of sharpened stones to sculpt and engrave objects and cave walls.

1.10 Chapter Summary

In this chapter, you've learned how archeologists, historians, and geographers are like detectives who solve the mysteries of the past: they ask questions, study the evidence for clues, and form hypotheses. You've also studied examples of prehistoric cave art to find clues about how people lived long ago.

No one knows for sure why these colorful images and sculptures were created. Some might simply have been decorations. Others might be records of important events. Or they may have been used in rituals or to influence or honor the spirit world.

Scientists are always learning more about the distant past. Are you ready to join them by studying clues and weighing the evidence? In the next chapter, you'll explore the first hominids and how they lived.