



Chapter 1

Investigating the Past

How do social scientists interpret 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 amazing clue about life long ago was discovered at Lascaux (lah-SKOH), France, by four teenagers. On September 12, 1940, the boys found a cave. Covering the walls and ceiling of the cave were paintings of animals. The paintings seemed 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 long gone. You might need the help of an expert detective, but who would that be?

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



This scientist examines an ancient painting that was found in a cave in California.

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

archaeologist an expert who studies the past by examining objects that people have left behind

historian an expert who studies and records the past

geographer an expert who studies and creates maps of Earth's natural and human-made features

artifact an object made or used by people in the past

prehistoric before written history

Archaeologists look for artifacts to learn about 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 **archaeologists**, **historians**, and **geographers**.

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

Historians: Recording the Past Historians are the recorders of the past. Human beings have been around for such a long time that historians tend to focus mostly on the last few thousand years, when people began leaving written records. Historians want to answer this question: 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 in the past, historians try to understand why events happened the way they did.

Geographers: Mapping the Past

Geographers study the natural **features** of Earth, such as water, landforms, plants, and animals. Geographers also look at human-made features, such as towns, roads, bridges, and dams. These scientists help us answer such questions as: 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—a lack of evidence from this period. In fact, huge gaps of time have no evidence at all. Therefore, scientists may 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. Some paintings show what kinds of animals roamed the Earth and what methods people used to hunt them. Often, the paintings offer hints about people's beliefs.

Many of the rooms decorated with paintings are deep inside the caves. Scientists guess that cave artists used torches to work in these dark places. Some paintings are very large in size and taller than a person's height. Some paintings are found 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 bits of rope, lamps for burning animal fat, and tools for painting and engraving. Cave paintings and artifacts are amazing treasures that can help answer many questions about how humans lived in ancient times. But, as you will see, these treasures also raise new questions for scientists to puzzle over.

Cave painters developed a variety of 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

The painting below was found inside the cave at Lascaux, 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, a woolly mammoth or a bison (a kind of buffalo), is wounded. There is a spear in its side, and the animal's insides spill to the ground. The man lies in front of the wounded animal. He wears a mask that looks like a bird. Next to the man 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 the simple drawing of the man, like a stick figure. The animal is much more realistic.

Many social scientists think that this painting was created as part of a hunting **ritual**. The artist may have been asking for a successful hunt. It is also possible that the painting is a record of an actual event, or it may simply be 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 image is a copy of one found at Lascaux. The real painting lies in a part of the cave that has been 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 the horses to look as though they were running along it.

Scientists have many ideas about why animal paintings were created. One idea is that the artists were trying to capture the "magical powers" of certain animals. Another idea is that the painters believed in the spirit world and were creating art to honor or influence their gods. Some scientists speculate that caves were places 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 the neck stretches out, as though the bull were running away?

1.6 Cave Painting of Shapes and Handprints

This painting is 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 handprints were a way for artists to sign their paintings. Some scientists think that **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 painted areas. Their guess is that those areas were used for special gatherings.

The handprints seen in this cave painting are very small. Prehistoric people were probably smaller in size 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 measures 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. But the carving may have been a good-luck charm to protect the hunter or make him or her more successful. It may have had some relation to the hunter's name. Or it may 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 measure 23 inches in length. 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 idea is that the sculptures were a sign that the cave belonged to a certain clan. The other idea is that the sculptures were used in an important ceremony held deep inside the cave. Perhaps it was a coming-of-age ceremony to show that a person had passed from childhood to adulthood. 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 their reasons for creating them.

1.9 Cave Art Tools

The prehistoric materials and tools you see here include two piles of colored, rock-hard minerals and a grindstone used 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 may have used brushes made of moss, fur, or human hair. They may even 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 grind minerals for paints and to sculpt and engrave objects and cave walls.

Chapter Summary

In this chapter, you've learned how social scientists investigate the past by using clues they find to form hypotheses.

Detectives Who Study the Past Social scientists might be archaeologists who examine artifacts that people have made and left behind, historians who study the written records that people began to leave in the last few thousand years, or geographers who look at the natural and human-made features of Earth.

Cave Art Caves have provided clues to the past for social scientists. Cave paintings and sculptures thousands of year old have been found all over the world. Artifacts also have been discovered in caves. The art and artifacts provide information about how people lived long ago.

Cave Art Tools Cave artists used sharp stones to grind colored minerals into powder. They mixed the powder with animal fat to create paint. They may have used moss, fur, hollow reeds, or their own hair as paintbrushes.