

MERIT BADGE SERIES



ARCHAEOLOGY



BOY SCOUTS OF AMERICA

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Who Are Archaeologists?

Archaeologists are detectives who study how people lived in the past. They figure out what happened, when, how, and why. Using the clues that people left behind, they try to understand how and why human culture has changed through time.

Archaeologists do their work, in part, because they want to satisfy their curiosity. Like all of us, archaeologists love to find out about other people, other places, and other times. We all benefit from their studies because archaeologists like to share their discoveries with the public. They provide answers to our questions about the past.

Knowing about those who lived before us is important because the people of the past helped to make us who we are today. The beginnings of our knowledge can be found in the things people knew and did thousands of years ago. Our languages and our ways of doing things—that is, our cultures—have been passed down through the ages.

We are only the most recent generations to inhabit Earth. Human culture has been enriched by all of the generations of people who lived, worked, and enjoyed life before us. As we learn about these ancestors of ours, we also learn about ourselves and how we got to be the way we are. By studying the past, we can learn much about the present.



A *culture* is the way of life shared by a group of people and passed down from one generation to the next. The people of a given culture have the same language and similar customs, beliefs, ceremonies, habits, food preferences, and so on.

What Archaeologists Study

The word *archaeology* comes from the Greek word *archaios*, meaning “ancient,” and the Latin *logia*, meaning “to talk or write about”—that is, to study. Archaeologists study the material remains of past cultures—the things people left behind—to learn how people lived and how cultures have changed through time.

Archaeology is a branch of a larger science called *anthropology*—the study of human beings. While anthropologists are concerned with all aspects of human makeup and behavior, archaeologists focus on the things people left behind, such as artifacts, that help tell the stories of the past.

Much of archaeology is the study of people who did not leave a written history of their experience, or who left records in languages that we no longer understand. Even so, these people have left clues about themselves. Evidence of their existence may take the form of *artifacts* such as stone or metal tools, or pieces of broken pottery. Or we might find signs of human activity called *features*, such as rocks arranged in circles, or earth blackened by campfires from long ago, or trenches that show where walls once stood.



Bits and pieces of the human past have survived through the centuries. These prehistoric Caddoan artifacts provide information about vanished peoples and cultures.



The Great Sphinx at Giza in Egypt, with a pyramid in the background



The Great Hall at Grand Portage National Monument in Minnesota. The original structure was built in 1784 and was later reconstructed using information learned through archaeology.

Many archaeologists specialize in studying groups of people who lived thousands of years ago. Some study the civilizations that built the great pyramids in Egypt and the temples in Greece, South America, and Asia. Some archaeologists are interested in ancient hunters whose spear points pierced the sides of mammoths in the American Southwest. Others devote their careers to studying the remains of early humans found in Africa.

Archaeologists also unravel puzzles about people who lived much closer to our own time. We get clues from items found in sunken ships, forgotten farmsteads, buried villages, and traditional American Indian gathering places.

Archaeologists study both historic and prehistoric cultures. What's the difference between history and prehistory? Prehistory deals with the time before people learned to write, beginning when humankind appeared on this planet and ending when people started to make written records of their activities.

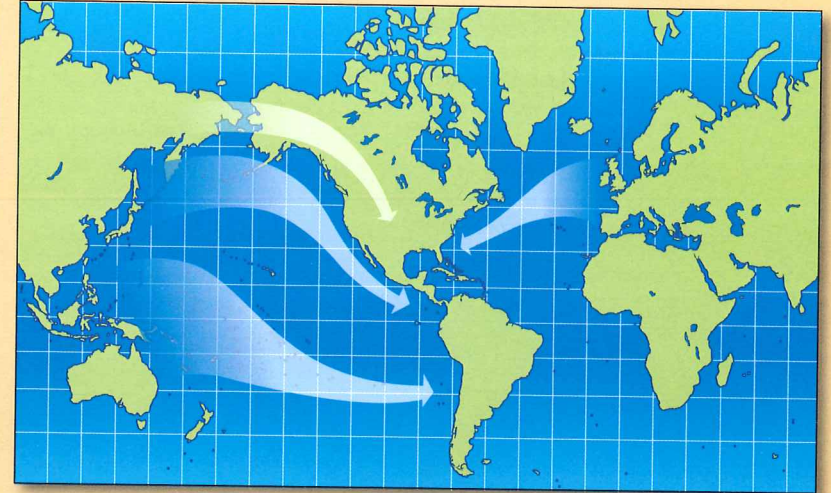


The discovery of artifacts and settlements abandoned relatively recently—in historic times—helps tell us what happened to the people who made or built them.

Who Were the First Americans?

Recent excavations in South Carolina may provide evidence that people lived in the Americas earlier than scientists once believed. Archaeologists long thought the first human beings in the Americas were the Clovis people who crossed a land bridge over the Bering Strait into Alaska. Scientists believe these hunters of mammoths lived at the end of the last Ice Age, about 12,000 or 13,000 years ago. At South Carolina's Topper site, however, archaeologists have found stone tools, including small, simple chisels, that are older than the tools made and used by the Clovis people. The finds and their early dates suggest humans may have arrived in North America earlier than previously believed and may have come from many directions.

Named for the amateur archaeologist who discovered it, Topper is the site of a prehistoric quarry that was a source of chert, a flintlike rock used to make tools and arrowheads. Work there is directed by Al Goodyear, an archaeologist with the University of South Carolina. Excavation began in the early 1980s and still continues. Much of the work is done by volunteers, including teenagers, who come to the site each spring. Goodyear says it is possible evidence will be found showing that people were in the area of the Topper site long before the last Ice Age. "We may be in for some surprises," he says.



Instead of walking from Asia into Alaska, suggests one theory, prehistoric immigrants might have sailed across oceans to reach the New World. The first settlers on the eastern American coast might have been seafarers from Europe, members of the ancient Solutrean culture of Spain and France. During the height of the Ice Age, these sailors could have followed an ice shelf that stretched from Ireland to Nova Scotia. As they crossed the Atlantic Ocean, they would have hauled their boats up onto the ice occasionally to rest, hunt and fish, or take shelter from storms.

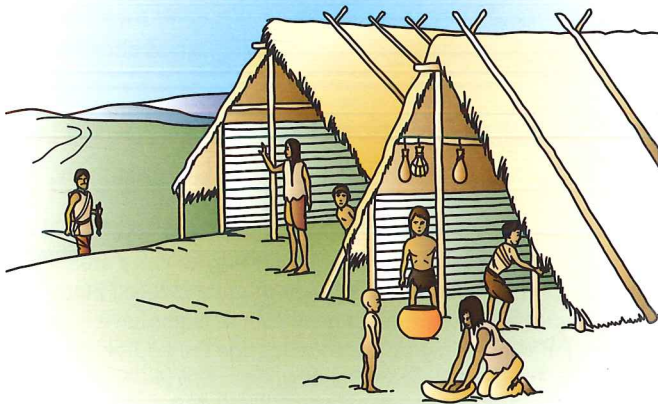
Artifacts and Relationships

Archaeological artifacts are any items that have been made, used, or changed by people. Examples include stone tools, arrowheads, pottery, utensils, coins, bottles, and jewelry.

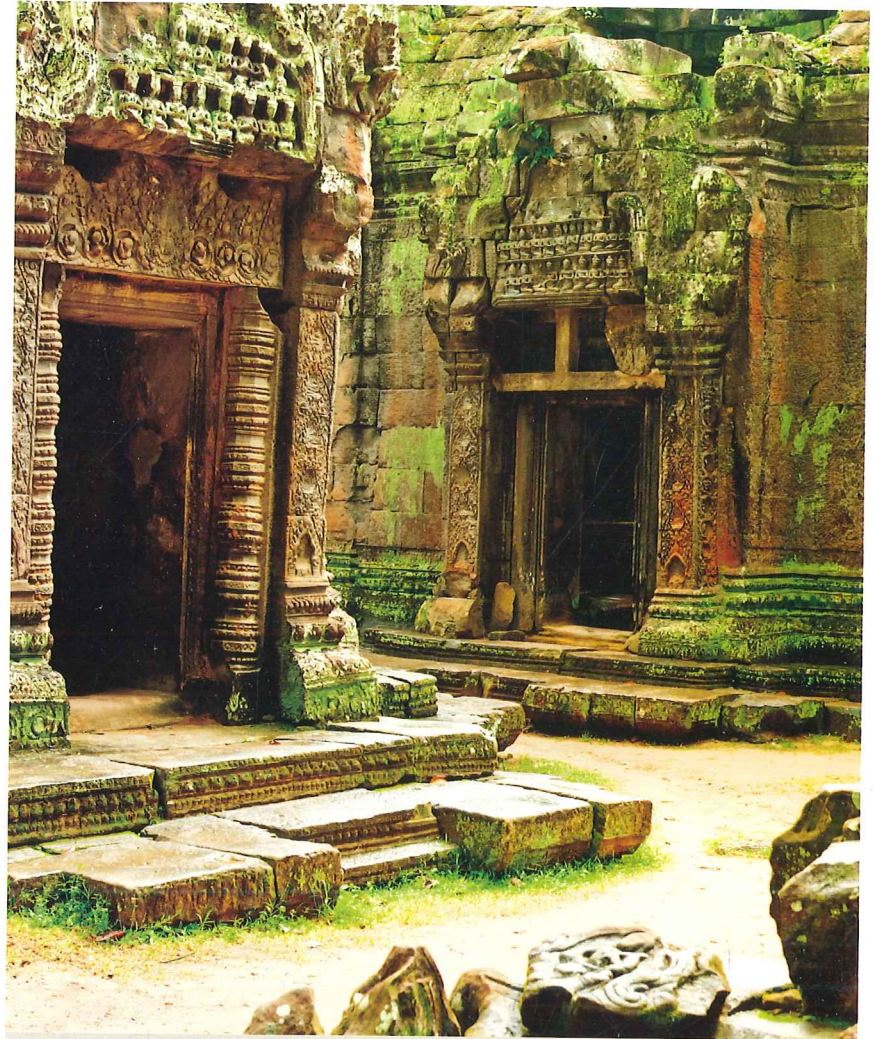
Artifacts typically are portable and easy to carry around. The items were perhaps lost by their original owners. Many have been broken and thrown away. Some might have been hidden for safekeeping or placed alongside the bodies of their owners in burial sites. To archaeologists, artifacts—and the *relationships* between artifacts, features, and where the items are found—are windows into the lives of the people who lived at or used that place.

This idea of relationships between objects is important. Think of all the little parts that go together to make a wristwatch. If you take the individual parts out of a watch and study each one separately, will that tell you how the watch functions? No. You must look at all of the parts in place inside the watch to see how they work together. The same is true of archaeological sites. Like a watch, an archaeological site is a complicated package that must be opened carefully and studied as a whole if we are to make sense of it.

A researcher who looks at only a few stone tools and a few kernels of corn might find that, by themselves, the artifacts reveal little. However, if the tools are found in a room with features such as a hearth or fire pit and artifacts such as a grinding stone and other stone tools, as well as food storage pits, the researcher might conclude that the place was a prehistoric living area. A few kernels of corn found in a space that did not have a hearth or any other artifacts would suggest that the room was probably a storeroom.



Compared with an isolated find, artifacts found together at a site can provide more information about the people who lived there.



The study of artifacts and the sites where they are found can reveal much about the everyday activities of the past. We can learn where people lived, how they got their food, and what they wore. Archaeological findings may also explain some of the important events in the lives of people long dead—a war or a ceremony, for instance, or a major fire or flood. Such discoveries can help us to understand what shaped entire civilizations.

Related Sciences

Several related sciences help to shine a light into the past. *Geologists* study Earth itself and how it changes over time. They examine the clues revealed by rocks, soil, and the shape of the land. Geologists are interested in the forces that form the physical features of the land and alter the land's appearance.

Paleontologists examine fossils of dinosaurs and ancient vegetation. They dig for fossils to learn about animal and plant life of long ago, and they share their findings by writing reports and creating museum exhibits.

Fossils are the stonelike remains of living things that developed as minerals from the soil slowly replaced the chemicals in the dead animals or plants.

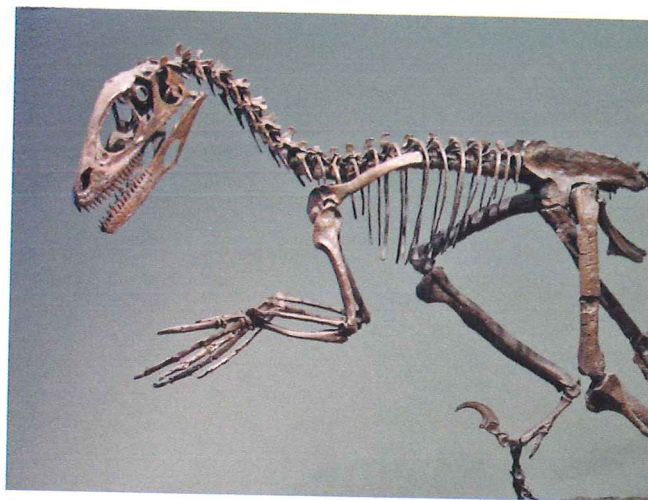
Scientists caution you not to be misled by the movies or television shows you may have seen that show prehistoric humans hurling spears at dinosaurs. They believe that this could never have happened because there were no people on Earth when dinosaurs lived.



To help you keep these “ologies” straight, here’s a simple list:

- Anthropology—the study of humans in the widest sense
- Archaeology—the study of past human activities and cultures based on the things people left behind
- Geology—the study of rocks, soil, and terrain
- Paleontology—the study of fossils of ancient animals and plants

The study of history also is often useful in archaeology. One way to think of history is that it is the past revealed through written records. Journals, newspapers, shopping lists, legal papers, books, and letters are only a few of the sources of information historians draw upon to re-create moments of the past. Archaeologists may use written records to locate sites, to find out how artifacts were made and used, and to expand their understanding of earlier times. Even when they are investigating prehistoric sites, they may research the historic record for clues to the more distant past.



Paleontologists study dinosaurs, such as this *Deinonychus*, and other life forms from the distant past. This skeleton can be seen at the Field Museum in Chicago.

Archaeologists may draw upon the knowledge and methods of other specialties and sciences, too. Among these are architecture, astronomy, art, biology, botany, chemistry, geography, and physics.