

Information on Archeological Specialists

Archeologist Archeological teams are often led by archeologists. Archeologists study the remains of ancient human societies and cultures. These remains include buildings, artwork, tools, and pottery. Archeologists first determine where an ancient society is likely to be buried. They then dig through the earth and uncover, or *excavate*, the remains. They are careful not to damage the objects and to accurately record where the objects are found. Archeologists then carefully examine the objects to learn about what life was like in that ancient society.

Botanist Botanists that specialize in archeology study ancient pollen found in soil and rocks. Botanists remove the fossilized pollen with acid or by adding a liquid that causes the pollen to float to the surface. They then try to identify the plant from which the pollen came. Botanists use this information to describe the types of *vegetation*, or plants, that grew in a particular area thousands of years ago. They can also determine whether plants were wild or cultivated (farmed) and the types of food ancient people ate.

Chemist Chemists that specialize in archeology determine how old ancient objects are. One dating process they use is called *radiocarbon dating*. This technique can reveal the age of plants and animals that existed up to 50,000 years ago. A second method is called *potassium-argon dating*. This process can date rocks and fossils from more than 3.5 million years ago. Chemists can also identify unknown chemical substances to help determine the types of materials ancient people used in their daily lives.

Geologist Geologists describe and explain the changes in the earth's surface that occur over time. For example, geologists might discover a fossil of a sea creature in an area that is all land and conclude that the land was once covered by water. They can also determine the material from which a rock is made and explain how it was formed. This information can help scientists discover where ancient people got the stone to make their tools. Geologists can also trace the geologic movement of stone from one location to another.

Linguist Linguists study language. Some linguists compare ancient languages to look for similarities among them. This comparison helps linguists determine whether the speakers lived in the same geographic region. This information can help archeological specialists trace the movement of ancient peoples from one area to another. Other linguists work to translate ancient writings. These writings provide important information about the ancient cultures from which they came.

Paleoanthropologist Archeological teams are often lead by paleoanthropologists. Paleoanthropologists study the biological and cultural development of humans. To learn about the biological evolution of humans, paleoanthropologists study the skeletal remains of human ancestors, or *hominids*. They examine bodies that have been preserved in ice or peat moss, and fossilized imprints left by early creatures. Paleoanthropologists often focus on the size and shape of skeletal remains such as teeth, skulls, and other bones. These remains can reveal information on the size, sex, and age of a hominid when he or she died.