

Lecture Summary

People have a lot of “unique” ideas about what anthropologists do, especially archaeologists and physical anthropologists. Their ideas are often based on television and movies - Indian Jones, Laura Croft, or the popular CSI shows. I am often asked if I've heard about the recent dinosaur find - as if I had anything to do with dinosaurs, which became extinct 60 million years before even our earliest ancestors emerged! This week we will discuss what archaeologists and paleoanthropologists actually spend their time doing, i.e. the methods they use to help answer questions about our evolutionary history.

Methods in Paleoanthropology

Paleoanthropologists mostly rely on archaeology to build theories. Archaeologists use four general kinds of evidence to learn about the past: artifacts, ecofacts, fossils, and features.

Artifacts

Anything that is made or modified by a human is an artifact-the computer you are using right now is an artifact. We are surrounded by artifacts most of which we will lose or throw away, which is how things enter the archaeological record. Under the right conditions some items will survive for future archaeologists but many will not. The most common artifacts of the past are stone tools or lithics. From what we currently know, humans first started using stone tools approximately 2.5 million years ago. Some groups still use stone tools today (e.g. grinding tools). Another common artifact is ceramics, items made from baked clay. Humans first started making ceramics approximately 10,000 years ago and since then they have been widely used. Wood and bone artifacts are also found (e.g. in tools for hunting, hide-working, cooking, and butchering) but most do not survive in the archaeological record so we don't know how long people have been manipulating these materials for use. We also find glass and metal in more recent times.

A tray of pottery sherds from a Bronze Age site in Cyprus (although it looks like a bunch of junk) can actually tell us quite a bit about when the site was occupied and by whom.

Ecofacts

Ecofacts are natural objects that have been used or affected by humans. Bones that are left over from a human's lunch, for example, or pollen left from plants that humans have used. Along with artifacts, ecofacts can provide further insight into prehistoric human activity.

Fossils

Fossils are relatively rare but extremely important in terms of human evolution. A fossil can be an impression of organic material into a stone, e.g. a leaf or insect. Or it may exist as the hardened remains of the animal's skeleton. When an animal dies, the organic material of the body begins to deteriorate. However, part of the body is made of mineral material and that part is more likely to remain.