

How do we know about the human past?

In this chapter, you will learn about how archaeologists reveal the remains of past human societies and interpret what they find. We will look at the increasingly important question of who owns the past. We will consider the terrible destruction that is being visited on the past through looting and the destruction of sites. We will conclude by examining some newer approaches to archaeological research.

CHAPTER OUTLINE

What Is Archaeology?

- Surveys
- Archaeological Excavation
- Archaeology and Digital Heritage

How Do Archaeologists Interpret the Past?

- Subsistence Strategies
- Bands, Tribes, Chiefdoms, and States

Whose Past Is It?

How Is the Past Being Plundered?

What Are the Critical Issues in Contemporary Archaeology?

- Archaeology and Gender
- Collaborative Approaches to Studying the Past
- Cosmopolitan Archaeologies

Chapter Summary

- For Review
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- Suggested Readings

Anthropologists who study the human past are of two different kinds. As we have seen, paleoanthropologists study the hominin fossil record, from its earliest beginnings through the appearance of our own species. Although archaeologists also sometimes study human skeletal remains, archaeology focuses primarily on the archaeological record—material evidence of human modification of the physical environment. Beginning with humble stone tools, the archaeological record encompasses many classes of artifacts (pottery, metalwork, textiles, and other technological developments) and nonportable material culture (architecture, irrigation canals, and ancient farm fields). This is why archaeology is sometimes called “the past tense of cultural anthropology” (Renfrew and Bahn 2008, 12). Archaeology makes many contributions to anthropology. Although it may not supply the kind of ethnographic details that are revealed by research among living groups, it does provide great time depth and reveals evidence of past forms of human culture that can no longer be seen today.

What Is Archaeology?

Archaeologists study the material remains left by our ancestors to interpret cultural variation and cultural change in the human past. What kinds of analytical tools do archaeologists use? Renfrew and Bahn (2008, 17) suggest that four kinds of objectives have guided archaeology at different times over its history. First came traditional approaches that focused on *reconstructing the material remains* of the past by putting together pots, reassembling statues, and restoring houses. Later came the goal of *reconstructing the lifeways*—the culture—of the people who left those material remains. Since the 1960s, however, a third objective has been *explaining the cultural processes* that led to ways of life and material cultures of particular kinds. This has been the focus of what came to be known as *processual archaeology*.

Processual archaeologists “sought to make archaeology an objective, empirical science in which hypotheses about all forms of cultural variation could be tested” (Wenke 1999, 33). They integrated mathematics into

their work, using statistics to analyze the distribution of artifacts at a site, the transformations of artifact usage over time, or the dimensions of trade networks. Their interest in human adaptations to various environments in the course of cultural evolution led to an interest in the field of cultural ecology, in which cultural processes must be understood in the context of climate change, the variability of economic productivity in different environments, demographic factors, and technological change. As a general rule, processual archaeologists downplayed explanations in which people play an active role as agents who are conscious to a greater or lesser degree of what is happening around them and whose activities contribute to cultural maintenance or change.

In recent years, however, archaeologists have begun to ask different questions—leading to a fourth kind of objective. Many have concluded that processual archaeology neglected human agency and the power of ideas and values in the construction of ancient cultures. A variety of new approaches, which are sometimes called *postprocessual* or *interpretive archaeology*, stress the symbolic and cognitive aspects of social structures and social relations. Some postprocessual archaeologists focus on power and domination in their explanations of certain aspects of the archaeological record; they draw attention to the ways that archaeological evidence may reflect individual human agency and internal contradictions within a society. Other postprocessual archaeologists point out that similar-looking features can mean different things to different people at different sites, which is why it can be seriously misleading to assume that all cultural variation can be explained in terms of universal processes like population growth or ecological adaptation. (We will look at varieties of postprocessual archaeology at the end of this chapter.) At the same time, increasingly precise archaeological methods and subtle archaeological theorizing are worthless if there is nothing left to study. By the twenty-first century, the looting and destruction of archaeological sites had reached crisis proportions. Archaeologists have come to recognize that stewardship of the remains of the human past may be their most pressing responsibility (Fagan and DeCorse 2005, 25).

Archaeologists identify the precise geographical locations of the remains of past human activity from local sites of human habitation to the wider regions in which these sites were once embedded. Archaeologists pay attention not only to portable artifacts of human manufacture but also to nonportable remnants of material culture, such as house walls or ditches, which are called *features*. They note the presence of other remains, such as plant residues or animal bones connected with food provisioning, which are not themselves artifacts

archaeology A cultural anthropology of the human past focusing on material evidence of human modification of the physical environment.

archaeological record All material objects constructed by humans or near-humans revealed by archaeology.

site A precise geographical location of the remains of past human activity.

artifacts Objects that have been deliberately and intelligently shaped by human or near-human activity.

features Nonportable remnants from the past, such as house walls or ditches.

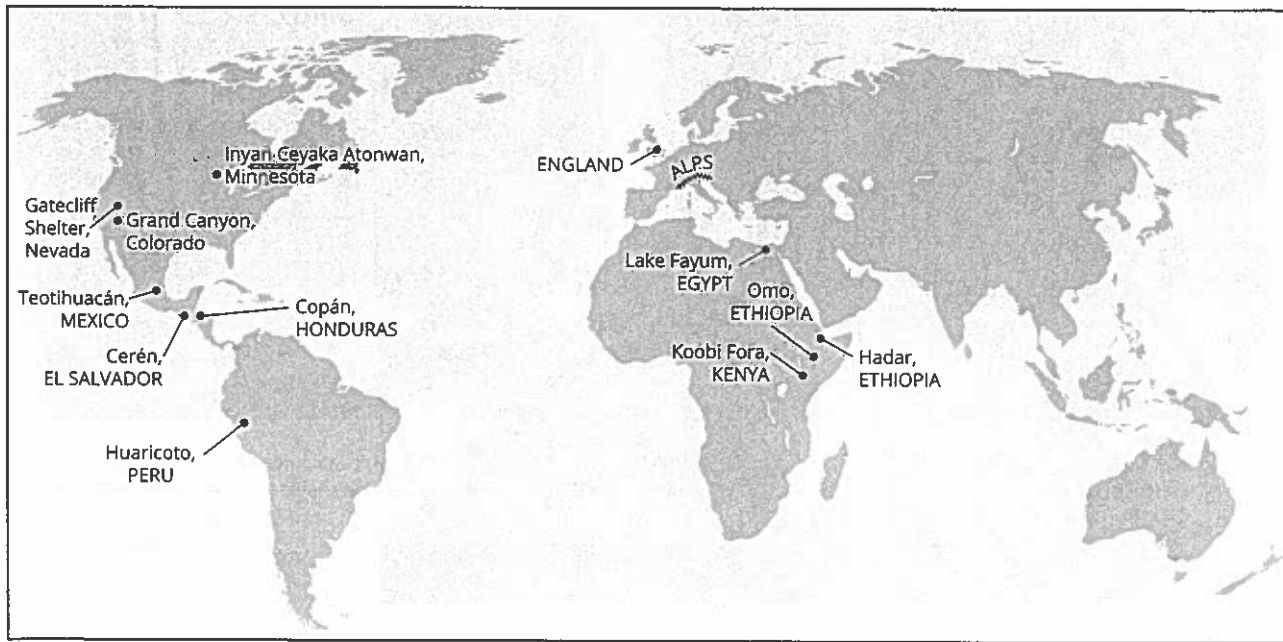


FIGURE 6.1 Major locations discussed in Chapter 6.

but appear to be the byproducts of human activity (these are sometimes called *ecofacts*). When archaeologists study sites through survey or excavation, they carefully record the immediate *matrix* (e.g., gravel, sand, or clay) in which the object is found and its *provenance* (sometimes spelled *provenience*), which is the precise three-dimensional position of the find within the matrix. They also record exactly where each kind of remain is found, along with any other remains found near it and any evidence that the site may have been disturbed by natural or human intervention. Sometimes they do small-scale excavation, using a shovel to dig small pits over a large area. This strong emphasis on the *context* in which artifacts are found makes scientific archaeology a holistic undertaking. Archaeological sites are important scientifically if they contain evidence that answers key questions about human migration or settlement in certain places at particular times, even when the sites themselves yield none of the elaborate artifacts valued by museums and private collectors.

Archaeologists must know what to look for to identify sites and the remains that can serve as evidence. They have to think about the kinds of human behavior past populations are likely to have engaged in and what telltale evidence for that behavior might have been left behind. Sometimes the artifacts themselves tell the story: a collection of blank flint pieces, partly worked flint tools, and a heap of flakes suggest that a site was used for flint-tool manufacture. Other times, when archaeologists are unclear about the significance of remains, they use a method called **ethnoarchaeology**, which is the study of the way

present-day societies use artifacts and structures and how these objects become part of the archaeological record. Archaeologists studying how contemporary foraging people build traditional shelters—what kinds of materials are employed and how they are used in construction—can predict which materials would be most likely to survive in a buried site and the patterns they would reveal if they were excavated. If such patterns turn up in sites used by prehistoric foragers, archaeologists will already have important clues to their interpretation.

However, archaeologists must not overlook the possibility that a variety of natural and human forces may have interfered with remains once they are left behind at a site. An important source of information about past human diets may be obtained from animal bones found in association with other human artifacts; but just because hyena bones, stone tools, and human bones are found together does not in itself mean that the humans ate hyenas. Careful study of the site may show that all these remains came together accidentally after having been washed out of their original resting places by flash flooding. As we saw in the last chapter, being able to tell when processes like this have or have not affected the formation of a particular site is the focus of taphonomy.

Even in ideal situations, where a site has lain relatively undisturbed for hundreds, thousands, or millions

ethnoarchaeology The study of the way present-day societies use artifacts and structures and how these objects become part of the archaeological record.



FIGURE 6.2 One of the most spectacular archaeological discoveries in recent years was the so-called Ice Man. He froze to death in an Alpine glacier more than 5,000 years ago. His remains were exposed only in 1991 as the glacier melted.

of years, not all kinds of important human activity may be represented by preserved remains. Wood and plant fibers decay rapidly, and their absence at a site does not mean that its human occupants did not use wooden tools. The earliest classification of ancient human cultural traditions in Europe was based on stone, bronze, and iron tools, all of which can survive for long periods. Baked clay, whether in the form of pottery, figurines, or naturally occurring deposits that were accidentally burned in a fire, is also quite durable. Fire also renders plant seeds virtually indestructible, allowing important dietary clues to survive.

Extreme climates can enhance artifact preservation. Hot, dry climates, such as those in Egypt or northern Chile, hinder decay. Sites in these regions contain not only preserved human bodies but also other organic remains such as plant seeds, baskets, cordage, textiles, and artifacts made of wood, leather, and feathers. Cold climates provide natural refrigeration, which also hinders decay. Burial sites in northern or high-mountain regions with extremely low winter temperatures may never thaw out once they have been sealed, preserving even better than dry climates the flesh of humans and animals, plant remains, and artifacts made of leather and wood. This is well illustrated by the spectacular 1991 discovery of the so-called Ice Man, who had frozen to death in an Alpine glacier 5,300–5,200 years ago (Figure 6.2). Eyes, brain, and intestines were preserved in his dried-up body, together with his clothing, the wooden handles of his flint knife and copper ax head, an unstrung bow, two arrows, and a dozen extra shafts (Sjovold 1993).

As we saw in Chapter 5, ancient DNA can survive for tens of thousands of years in bones, teeth, or hair preserved in permafrost or in cool caves; and laboratory

analyses are revealing information about the genomes of extinct species, including hominins. Techniques have also been developed to extract proteins and fats from archaeological remains. Collagen protein from bones can be used to identify species to which ancient bones belonged, and the ratio between stable isotopes of carbon and nitrogen in bone collagen can indicate the amount of meat in the human diet (Brown and Brown 2013, 162). Ancient fat molecules can also be recovered from ceramic fragments or other materials and can be analyzed as biomarkers of leaf wax, muscle, or milk residues, again providing insights about past diets (Brown and Brown 2013, 162).

Occasionally, archaeological sites are well preserved as a result of natural disasters, such as volcanic eruptions (Figure 6.3). Similarly, mudslides may cover sites and protect their contents from erosion, whereas waterlogged sites free of oxygen can preserve a range of organic materials that would otherwise decay. Peat bogs are exemplary airless, waterlogged sites that have yielded many plant and animal remains, including artifacts made of wood, leather, and basketry as well as the occasional human body. Log pilings recovered from Swiss lakes have been useful both for reconstructing ancient sunken dwellings and for establishing tree-ring sequences in European dendrochronology.

Surveys

Sometimes research takes archaeologists or paleontologists to museums, where scholars with new theories, new evidence, or new or more sophisticated techniques can reexamine fossils or artifacts collected years earlier

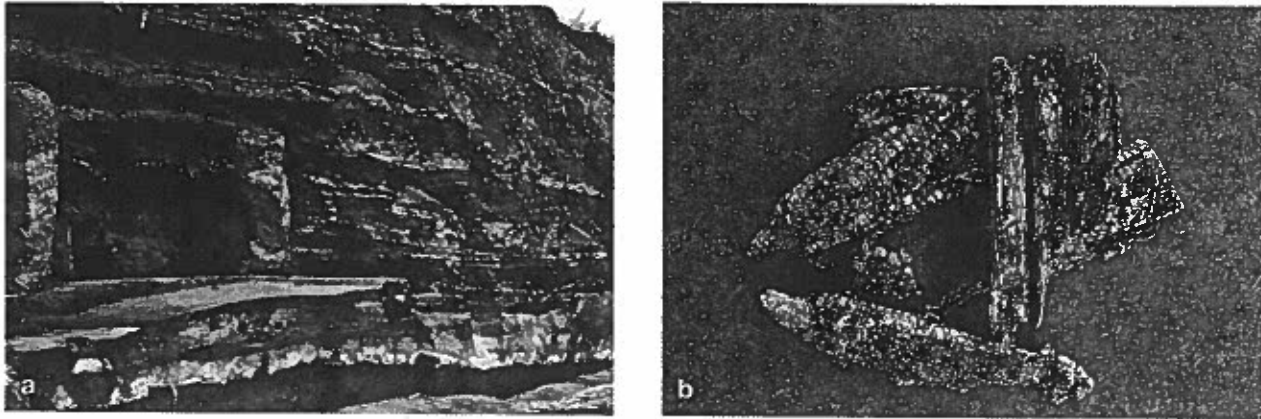


FIGURE 6.3 Some archaeological sites are well preserved as a result of natural disasters. This adobe house in Cerén, El Salvador (a), was buried under several layers of lava following a series of volcanic eruptions. Sometimes organic remains leave impressions in the soil where they decayed. These remains of a corn crib and ears of corn from Cerén (b) are actually casts made by pouring dental plaster into a soil cavity.

to gain new insights. Often, the research problem requires a trip to the field. Traditionally, this meant surveying the region in which promising sites were likely to be found and then excavating the most promising of them—literally digging up the past. As archaeologists have increasingly come to recognize, however, excavations cost a lot of money and are inevitably destructive. Fortunately, nondestructive remote-sensing technologies have improved significantly in recent years. Survey archaeology can now provide highly sophisticated information about site types, their distribution, and their layouts, all without a spadeful of earth being turned (Figure 6.4). Surveys have other advantages as well, as archaeologists Colin Renfrew and Paul Bahn (2008) remind us: “Excavation tells us a lot about a little of a site, and can only be done once, whereas survey tells us a little about a lot of sites, and can be repeated” (79). As the kinds of questions archaeologists ask have changed, larger regions—entire landscapes, contrasting ecological zones, trading zones, and the like—are increasingly of interest. And for this kind of research, surveys are crucial.

Surveys can be as simple as walking slowly over a field with eyes trained on the ground. They are as important to paleontologists as to archaeologists. For example, paleontologist Donald Johanson and his colleagues discovered the bones of “Lucy” when they resurveyed a locality in the Hadar region of Ethiopia that had yielded nothing on previous visits (see Chapter 5). Between the previous visit and that one, the rainy season had come and gone, washing away soil and exposing Lucy’s bones. Had Johanson or his colleagues not noticed those bones at that time, another rainy season probably would have washed

away Lucy’s remains (Johanson and Edey 1981). Of course, Johanson and his team were not in Hadar accidentally; they had decided to look for sites in areas that seemed promising for good scientific reasons. Archaeologists ordinarily decide where to do their field surveys based on previous work, which can give them clues about where they will most likely find suitable sites. Local citizens in the region who may know of possible sites are also important sources of information.

Aerial surveys can be used for mapping purposes or to photograph large areas whose attributes may suggest the presence of otherwise invisible sites. For example, when contemporary crops are planted in fields that were once used for other purposes, seeds sown over features such as buried walls or embankments will show growth patterns different from the plants around them, casting a shadow that is easily seen in aerial photographs (Figure 6.5). Black-and-white aerial photography is the oldest and cheapest form of aerial reconnaissance and provides the highest image resolution. Infrared photography and remote-sensing techniques using false-color, heat-sensitive, or radar imaging can sometimes produce better results. In 1983, for example, archaeologists used false-color Landsat imagery to discover a vast, previously unknown network of ancient Mayan fields and several other important sites in Yucatán, Mexico. Archaeologists continue to experiment with satellite imaging technology, which is developing at an extraordinary rate. However, the resolution of images from satellites is not yet

survey The physical examination of a geographical region in which promising sites are most likely to be found.

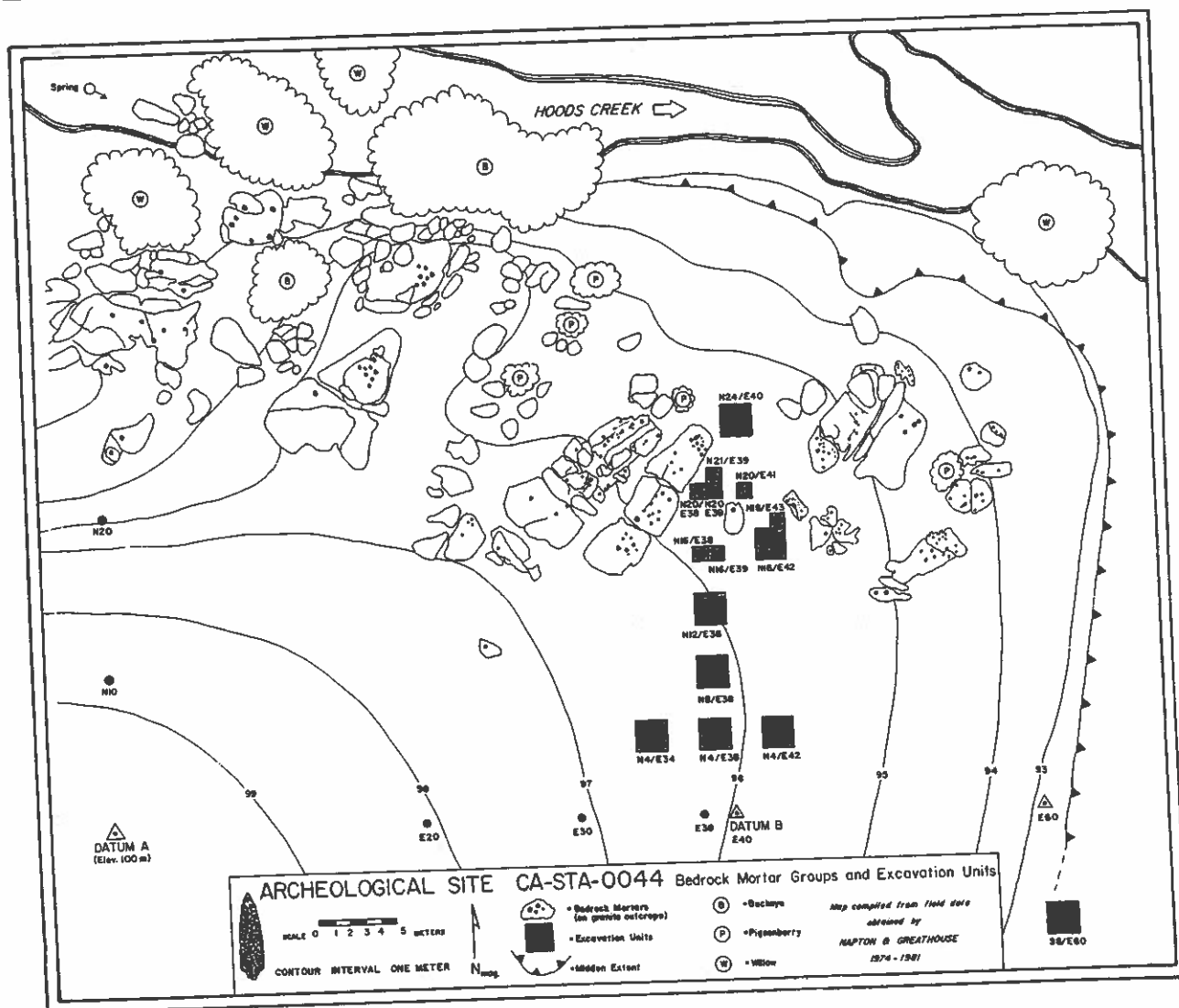


FIGURE 6.4 The final map representing an archaeological site usually combines several kinds of information. This map of a site in California includes cartographic data, data from aerial photography, and data photographed on the site itself.

as good as that of conventional aerial photography, and satellite images can be extremely expensive.

Another remote-sensing technology called LiDAR (light detecting and ranging) uses laser beams to penetrate heavy forest vegetation, providing high-resolution images of hidden archaeological features like ancient roads or settlements. LiDAR surveys in Central America "demonstrate that some ancient Mesoamerican sites are far more extensive and complex than was thought possible following popular sociopolitical models" (Chase et al. 2012, 12918; see also Preston 2013).

Thanks to modern technology, archaeologists can also learn a lot about what is beneath a site's surface without actually digging. Some machines can detect buried features and gravitational anomalies using echo sounding or by measuring the electrical

resistivity of the soil. Magnetic methods can detect objects made of iron or baked clay, and metal detectors can locate buried metal artifacts. In recent years, ground-penetrating radar (GPR) has become more readily available for archaeological use. GPR reflects pulsed radar waves off features below the surface. Because the radar waves pass through different kinds of materials at different rates, the echoes that are picked up reflect back changes in the soil and sediment encountered as well as the depth at which those changes are found. Advances in data processing and computer power make it possible to produce large three-dimensional sets of GPR data that can be used effectively to produce three-dimensional maps of buried archaeological remains. GPR is very useful when the site to be studied is associated with people who forbid the excavation of human remains.

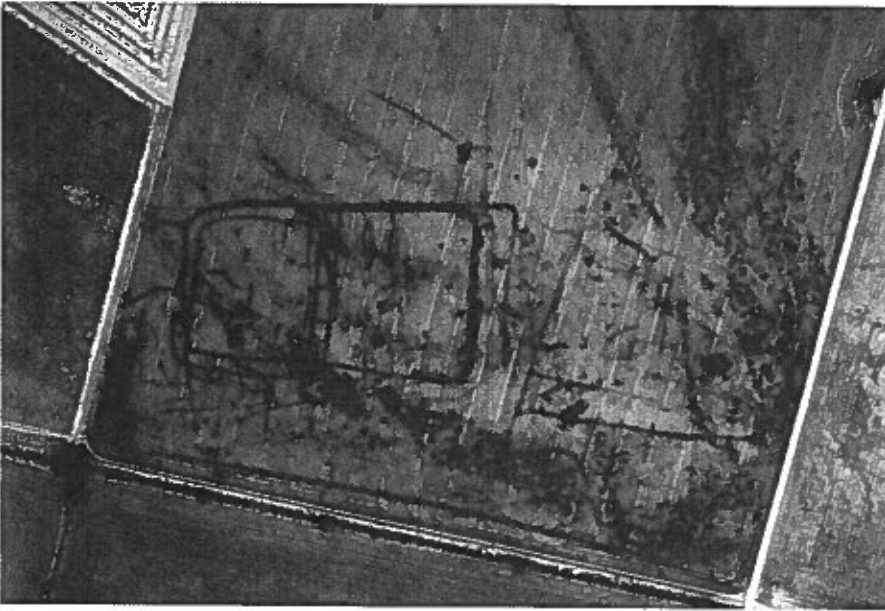


FIGURE 6.5 From the air, buried walls, ditches, and other features of a site may be more easily revealed than from the ground. Here, buried features became visible as the barley in this field grew.

Geographic Information Systems (GIS) is also becoming increasingly important in archaeological research. A GIS is a “computer-aided system for the collection, storage, retrieval, analysis, and presentation of spatial data of all kinds” (Fagan and DeCorse 2005, 188). In essence, a GIS is a database with a map-based interface. Anything that can be given a location in space—information about topography, soil, elevation, geology, climate, vegetation, water resources, site location, and field boundaries, as well as aerial photos and satellite images—is entered into the database, and maps can be generated with the information the researcher wants. At the same time, statistical analysis can be done on the database, allowing archaeologists to generate new information and to study complex problems of site distribution and settlement patterns over a landscape. GIS is being used to construct predictive models as well. That is, if certain kinds of settlement sites are found in similar places (close to water, sheltered, near specific food sources), then a GIS for an area can make it possible to predict the likelihood of finding a site at a particular location whose environmental characteristics are in the database. For archaeologists, the drawback to this kind of predictive modeling is a tendency to place a very heavy weight on the environmental features as determining human settlement patterns. It is easy to measure, map, and digitize features of the natural environment. Social and cultural modifications or interpretations of the environment, however, are equally important but more difficult to handle using GIS methods.

Archaeological Excavation

When archaeologists or paleoanthropologists need to know “a lot about a little of a site,” as Renfrew and Bahn put it, excavation is necessary. **Excavation** is the systematic uncovering of archaeological remains through removal of the deposits of soil and other material covering and accompanying them (Renfrew and Bahn 2008, 580). It is important to remember that excavation is a form of destruction and a site, once excavated, is gone forever. Archaeologists today will excavate only a small part of a site on the assumption that future archaeologists will have better techniques and different questions if they return to the same site. Some sites are shallow, with only one or a few levels. Other sites, especially deposits in caves that were used for centuries by successive human groups or urban sites going back thousands of years, are far more complex. In either case, however, excavators keep track of what they find by imposing on the site a three-dimensional grid system that allows them to record stratigraphic associations.

As Renfrew and Bahn (2008, 107) point out, a multilayered site contains two kinds of information about human activities: contemporary activities that take place horizontally in space and changes in those activities that take place vertically over time. Artifacts and features associated with one another in an undisturbed context

excavation The systematic uncovering of archaeological remains through removal of the deposits of soil and other material covering them and accompanying them.



FIGURE 6.6 Graduate and undergraduate students work to excavate a series of stair-step units at the Paleoindian Hudson-Meng site (25SX115), Sioux County, Nebraska. All artifacts and features are recorded photographically and in writing, as are the stratigraphic layers that are exposed.

provide evidence for contemporary activities. As excavators uncover one stratum after another in sequence, they gradually reveal evidence for changes in human activities over time (Figure 6.6). The more levels of occupation at a site, the more likely it is that some of the levels will have been disturbed by subsequent humans, other animals, or natural forces. It then becomes the excavator's job to determine the degree of disturbance that has occurred and its effect on the site.

Only on shallow sites are archaeologists likely to expose an entire occupation level; this procedure is prohibitively expensive and destructive on large, multileveled sites. Archaeologists often use statistical sampling techniques to choose which portions of large, complex sites to excavate, aiming for a balance between major features and outlying areas (see Figure 6.4).

As the excavation proceeds, researchers record photographically and in writing all artifacts and features discovered and the stratigraphic layers exposed. Such record keeping is especially important for structures that will be destroyed as digging continues. Loose soil

is sifted to recover tiny artifacts such as stone flakes or remains of plants or animals. Flotation methods allow archaeologists to separate light plant matter that will float, such as bits of wood, leaves, fibers, some seeds, stems, and charcoal, from heavier items that sink, such as rocks, sand, bones, pottery, and chipped stone. Everything is labeled and bagged for more detailed analysis in the laboratory.

Work on an archaeological dig ranges from the backbreaking shifting of dirt to the delicate brushing away of soil from a key fossil or artifact. Each dig brings special challenges. Archaeologist Robert Wenke (1999) describes his team's daily routine during the first 3 months of a 6-month field season as they searched for evidence for the emergence of agriculture after 7000 B.C.E. at a site on the southern shore of the Fayum lake in Egypt:

We began by making a topological map of the area we intended to work in. We then devised a sampling program and collected every artifact in the sampling units defined, that is, in the hundreds of 5 × 5 meter squares in our study area. The average temperature during much of this work was over 40°C (104°F), and by mid-day the stone tools were often so hot we would have to juggle them as we bagged them. Afternoons were spent sorting, drawing, and photographing artifacts, drinking warm water, and drawing each other's attention to the heat. (84)

Most of the labor of cleaning, classifying, and analyzing usually takes place in laboratories after the dig is over and frequently requires several years to complete. Researchers clean the artifacts well enough for close examination—but not so well that possible organic residues (grain kernels inside pots, traces of blood on cutting edges) are lost. They then classify the artifacts according to the materials out of which they are made, their shapes, and their surface decoration, if any, and arrange them in typologies, using ordering principles similar to those employed for fossil taxonomies. Once the artifacts are classified, researchers analyze records from the dig for patterns of distribution in space or time. It is important to underline that individual records of the excavation—notebooks, drawings, plots of artifact distributions, photographs, and computer data—are as much part of the results of the excavation as the materials excavated.

Archaeologist Ian Hodder has argued that archaeology would benefit if discovery were not separated from interpretation in this way. For this reason, he advocates "interpretation at the trowel's edge": that is, "bringing forward interpretation to the moment of discovery" (Hodder 2010, 12) by making it possible for analytic

specialists and interested groups of various kinds to converse with excavators working in the trenches, and by building specialist labs on the site itself. For instance, over a three-year period, a group of anthropologists, philosophers, and theologians were brought to the Neolithic site of Çatalhöyük, Turkey, where Hodder directs research. "The dialogue between different specialists in religion in the context of grappling with the data from a particular archaeological site has opened up new lines of inquiry and new perspectives on religion and its origins" (Hodder 2010, 27; see *Anthropology in Everyday Life*, page 193).

As you will recall, the artifacts and structures from a particular time and place in a site are called an *assemblage*. Cultural change at a particular site may be traced by comparing assemblages from lower levels with those found in more recent levels. When surveys or excavations at several sites turn up the same assemblages, archaeologists refer to them as an "archaeological culture." Such groupings can be very helpful in mapping cultural similarities and differences over wide areas during past ages.

The pitfall, however, which earlier generations of archaeologists did not always avoid, is to assume that archaeological cultures necessarily represent real social groups that once existed. As Hodder demonstrated in 1982, archaeological cultures are the product of scientific analysis. Hodder's ethnoarchaeological research among several contemporary ethnic groups in eastern Africa showed that artifact distributions do sometimes coincide with ethnic boundaries when the items in question are used as symbols of group identity. He found, for example, that the ear ornaments worn by women of the Tugen, Njemps, and Pokot groups were distinct from one another and that women from one group would never wear ear ornaments typical of another. However, other items of material culture, such as pots or tools, which were not used as symbols of group identity, were distributed in patterns very different from those typical of ear ornaments. Such artifact distribution patterns could be misinterpreted by future researchers and result in a misleading archaeological culture.

Questions about the correspondences between archaeological cultures and present-day cultures are important to archaeologists because they would like to use archaeological evidence to explain cultural variation and cultural evolution. Burning questions for many prehistoric archaeologists concern when and why small bands of foragers decided to settle down and farm for a living and why some of these settlements grew large and complex and came to dominate their neighbors whereas others did not. Patterned distributions of artifacts offer

clues about groups of people who might have been responsible for these developments (as we will see in Chapter 7); however, we need to remember the risks of associating these distributions too literally with real past societies.

Archaeology and Digital Heritage

We noted earlier that advances in data processing and computer power had improved the quality of data obtained by archaeologists from ground-penetrating radar and GIS; in fact, computerization and digital information storage have become important in all areas of contemporary archaeology. In recent decades a digital revolution has swept individuals and institutions into a global digital mediascape, and some archaeologists have begun to reflect on the challenges and the opportunities associated with these changes. Cutting-edge digital technology offers the "the potential of connecting data to spatial coordinates, fleshing out site and landscape, and rendering simulated pasts in photographic detail, all on the scale of world-building—as complete a model of the past as possible; a 'digital heritage'" (Olsen et al. 2012, 88). However, Olsen and his colleagues emphasize that these dazzling possibilities must not blind archaeologists to the fact that the creation and management of digital heritage depends on the successful negotiation among archaeologists, digital experts, and various communities for whom the digital heritage is meaningful; it also involves serious tinkering with the hardware and software to make online access to digital heritage sites as unproblematic as possible. Olsen and his colleagues describe this as the hard work of mediation; that is, of "work done in the spaces between old things and the stories they hold in the present" (89).

Digital documentation and storage requires decisions to be made concerning what to keep and what to discard, which was also the case with traditional management and preservation of archaeological materials. However, archaeologists who digitize their archives have often found it difficult to connect different kinds of digital records with one another. Often this is because different digital technologies operate according to different data standards. Olsen and his colleagues (2012) argue that data standards are necessary, but that archaeologists must be mindful of the choices they make in setting up such standards: "just as there

digital heritage Digital information about the past available on the Internet. It can include a range of materials from digitized documents and photographs to images of artifacts to video and sound recordings.

is a reality that standards and knowledge infrastructures strive to maintain, there is a politics of memory that they render invisible" (108). Digital media make it possible to connect "analog" hand-drawn maps and sketches of artifacts with digitized maps and photographs, linking them back to the original artifacts in storerooms and sites in environment. However, most archaeologists "often only get one chance at translating the things and their relations that are displaced by excavation" (Olsen et al. 2012, 110). Moreover, preserving connections between digital and analog materials depends on preserving "our ability to retrace the linkages" between one and the other (Olsen et al. 2012, 111). One way archaeologists are working to resolve these issues is the digital archaeological record, which aims at "broadening the access to a wide variety of archaeological data" by establishing standards for digital systems of archaeological data storage and retrieval (<https://www.tdar.org/why-tdar/access/>).

On the positive side, current digital media enable more extensive forms of interaction with varied forms of archaeological data than were possible in the past. For example, an important area of contemporary archaeology in the United States involves the identification and documentation of traditional cultural property (TCP) sites affiliated with Native American or Native Hawaiian groups. Olsen and his colleagues point out that digitally documented data about TCP sites is much richer than traditional written documentation, bringing together maps, photographs, video excerpts, and handwritten notes. Indeed, "Without digitally-mediated engagements with sites such as TCPs it would be difficult to register those very qualities that define them as significant" (Olsen et al. 2012, 129).

At the same time, concern remains about the sustainability of digital formats currently in use. In addition, as digital heritage resources become increasingly accessible on the Internet, via open-source and Creative Commons agreements, outside groups are permitted to engage with digital heritage sites, and some may challenge the authority of archaeological interpretations. But such engagements can be a source of strength, not merely a threat (see box on page 214 on Çatalhöyük for a comparable example). Olsen and his colleagues (2012) conclude: "Just as analog media in deteriorating archives require attention, the networks constituting digital information and documents and sustaining their preservation require curatorial work to maintain. This creates new responsibilities for sustaining our digital heritage,

new rules for manifesting the past . . . a combination of practices that are orderly and consistent as well as open and creative (134).

How Do Archaeologists Interpret the Past?

Subsistence Strategies

Human beings construct their ecological niches by inventing ways of using their relationships with one another and with the physical environment to make a living. *Subsistence* is the term often used to refer to the satisfaction of the most basic material survival needs: food, clothing, and shelter. The different ways that people in different societies go about meeting subsistence needs are called **subsistence strategies**.

Anthropologists have devised a typology of subsistence strategies that has gained wide acceptance (Figure 6.7). The basic division is between food collectors, or *foragers* (those who gather, fish, or hunt), and food producers (those who depend on domesticated plants or animals or both). The strategies followed by food collectors depend on the richness of the environments in which they live. Small-scale food collectors live in harsher environments and are likely to change residence often in search of resources, as the Ju/'hoansi traditionally did (see EthnoProfile 11.4). By contrast, complex food collectors live in environments richly endowed with dependable food sources and may even, like the indigenous peoples of the northwest coast of North America, build settlements with permanent architecture. As we shall see, archaeological evidence shows that some of the first food producers in the world continued food collection for many generations, raising a few crops on the side and occasionally abandoning food production to return to full-time foraging.

Food producers may farm exclusively or herd exclusively or do a little of both. Those who depend on herds are called *pastoralists*. As can be seen in Figure 6.7, conventional classifications of herding peoples allot them a somewhat marginal status alongside farmers, a judgment reflecting the perceptions of settled peoples. However, new high-tech analytic methods, coupled with new efforts to compare the archaeologies of pastoral peoples from different parts of the world, are altering this understanding, "replacing cultural stereotypes with a diverse range of material evidence that has revealed how ancient pastoral nomads lived, organized, and fully participated in many of the traditions we refer to as 'civilization'" (Honeychurch and Makarewicz

subsistence strategy Different ways that people in different societies go about meeting their basic material survival needs.

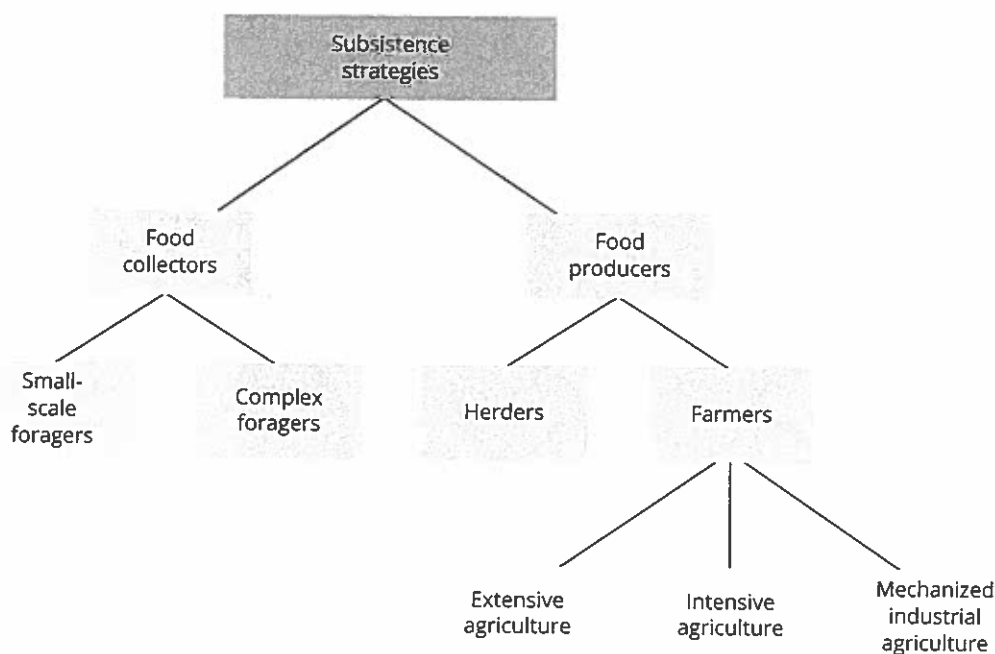


FIGURE 6.7 Subsistence strategies.

2016, 342). For example, the traditional question in past research on pastoralism has been the origin of animal domestication, but the newer work is investigating “subsequent processes involving enhancement of livestock management strategies, which contributed to the emergence of more intensive forms of pastoralism and pastoral nomadism” (Honeychurch and Makarewicz 2016, 343).

Comparative work carried out in different regions and landscapes now shows that “Mobile herding, in its various expressions, is but one possible outcome of the long-term processes of coevolution and co-community between animals and human beings initiated with if not before, the domestication of wild animals” (Honeychurch and Makarewicz 2016, 343). Incorporation of herd animals into subsistence practices probably emerged more than once, taking on different patterns in different landscapes. In the millennia following domestication, mobility and settled life existed side by side, and might be taken up by members of the same community at different times, as we will see in Chapter 7. In addition, skills and knowledge in herd management practices improved over time, and it can be seen in material remains of houses, corrals, deliberately constructed mounds of stone, landscape modifications such as dams or storage spaces for water, and rock carvings. People with herds also developed craft skills that allowed them to transform animal products like wool or leather into high-value goods. Overall, households with herds seem to have maintained a “multi-resource and multi-purpose

pastoralism,” which afforded an impressive degree of productive flexibility. Hence, Honeychurch and Makarewicz conclude that their “nomadic” movements “may not have been principally an adaptation to a marginal environment but instead a flexible response” (2016, 344–47). Archaeologists now contribute to contemporary efforts by ethnographers and others to defend the rights of indigenous herders, highlighting the roles they have long played in managing grasslands and demonstrating that the so-called pastoral nomad is “an innovative social agent, an architect of political complexity, and a modern-day actor who is well-suited to the contemporary globalized world” (Honeychurch and Makarewicz 2016, 352).

Traditional classifications of subsistence strategies involving dependence on domesticated plants acknowledge a range of variation (see Figure 6.7). Some farmers depend primarily on human muscle power plus a few simple tools such as digging sticks or hoes or machetes. They clear plots of uncultivated land, burn the brush, and plant their crops in the ash-enriched soil that remains. Because this technique exhausts the soil after two or three seasons, the plot must then lie fallow for several years as a new plot is cleared and the process repeated. This form of cultivation is called *extensive agriculture*, emphasizing the extensive use of land as farm plots are moved every few years (see Figure 6.8). Other farmers use plows, draft animals, irrigation, fertilizer, and the like. Their method of farming—known as *intensive agriculture*—brings much more land under

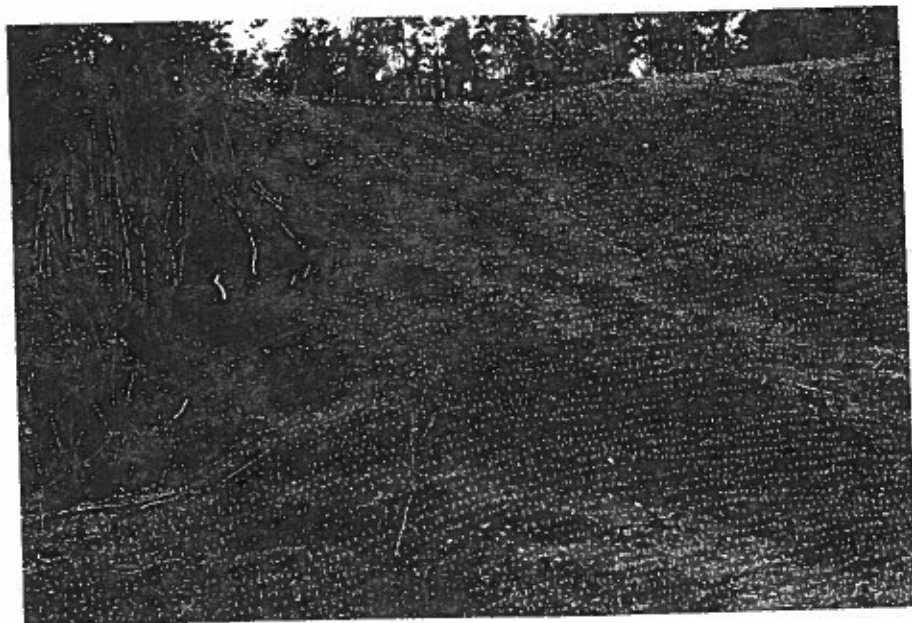


FIGURE 6.8 Extensive agriculture, sometimes known as *swidden* or *slash-and-burn horticulture*, requires a substantial amount of land, since soils are exhausted within a couple of years and may require as many as 20 years to lie fallow before they can be used again.

cultivation at any one time and produces significant crop surpluses. Finally, *mechanized industrial agriculture* is found in societies in which farming or animal husbandry has become organized along industrial lines. Agribusiness “factories in the field” or animal feedlots transform food production into a large-scale, technology-dependent industry of its own.

Bands, Tribes, Chiefdoms, and States

A key task facing early anthropologists was to measure and classify the range of variation in forms of human society over time and across space, as well as to explain cultural and social change over time. In particular, accounting for the origin of the state was a key preoccupation of nineteenth-century anthropology, as seen, for example, in the work of the American Lewis Henry Morgan. Morgan was struck by certain patterns he found, in which particular forms of social and political organization seemed regularly to correlate with particular forms of economic and technological organization, which he called “the arts of subsistence.” Morgan’s book *Ancient Society*, published in 1877, summarized the basic orientation of what became known as *unilineal cultural evolutionism*: “The latest investigations respecting the early condition of the human race are tending to the conclusion that man-kind commenced their career at the bottom of the scale and worked their way up from savagery to civilization through the slow accumulations of experimental knowledge” (Morgan [1877] 1963, 3).

By the early twentieth century, the extravagant claims of some unilineal schemes of cultural evolutionism led most anthropologists to abandon such theorizing. Key critics in Britain were social anthropologists A. R. Radcliffe-Brown and Bronislaw Malinowski. Radcliffe-Brown argued that the evidence about social forms in past periods of human history was so incomplete that all such schemes amounted to little more than guesswork. Malinowski and his students used detailed ethnographic information to explode popular stereotypes about so-called savage peoples. In the United States, Franz Boas was highly critical of the racist assumptions in unilineal evolutionary schemes. He and his students worked to reconstruct the histories of indigenous North American societies. They were struck by the links among neighboring societies, especially by the ways in which people, ideas, rituals, and material artifacts regularly flowed across porous social boundaries. Boas was quick to note that if borrowing, rather than independent invention, played an important role in cultural change, then any unilineal evolutionary scheme was doomed.

After World War II, archaeologists and cultural anthropologists in North America worked to combine archaeological and ethnographic information about a range of human societies to construct models of cultural evolution that would capture key turning points in social change while avoiding the assumptions about race and progress that had marred earlier attempts. By the 1960s they had produced economic and political classifications of human social forms that mapped onto

TABLE 6.1 Formal Categories Used by Anthropologists to Classify the Forms of Human Society

CATEGORY	DESCRIPTION
Band	A small, predominantly foraging society of 50 or fewer members that divides labor by age and sex only and provides relatively equal access for all adults to wealth, power, and prestige.
Tribe	A farming or herding society, usually larger than a band, that relies on kinship as the framework for social and political life; provides relatively egalitarian social relations but may have a chief who has more prestige (but not more power or wealth) than others. Sometimes called a <i>rank society</i> .
Chiefdom	A socially stratified society, generally larger than a tribe, in which a chief and close relatives enjoy privileged access to wealth, power, and prestige and that has greater craft production but few full-time specialists.
State	An economic, political, and ideological entity invented by stratified societies; possesses specialized government institutions to administer services and collect taxes and tributes; monopolizes use of force with armies and police; possesses high level and quality of craft production. Often developed writing (particularly in early states).
Empire	Forms when one state conquers another.

each other in interesting ways. As archaeologist Matthew Johnson (1999) summarizes,

cultural anthropologists Elman Service and Morton Fried . . . have been particularly influential on archaeologists. Service gives us a fourfold typology ranging along the scale of simple to complex of band, tribe, chiefdom, and state. Fried offers an alternative [political] scheme of egalitarian, ranked, stratified and state [societies]. . . . Both start and stop at the same point (they start with "simple" gatherer-hunter societies, though their definitions of such societies differ, and end with the modern state). They both also share a similar methodology. (141; see also Wenke 1999, 340–44; Table 6.1)

The band is the characteristic form of social organization found among foragers. Foraging groups are small, usually numbering no more than 50 people, and labor is divided ordinarily on the basis of age and sex. All adults in band societies have roughly equal access to whatever material or social valuables are locally available, which is why anthropologists call them "egalitarian" forms of society. A society identified as a tribe is generally larger than a band, and its members usually farm or herd for a living. Social relations in a tribe are still relatively egalitarian, although there may be a chief who speaks for the group or organizes certain group activities. The chief often enjoys greater prestige than other individuals, but this prestige does not ordinarily translate into greater power or wealth. Social organization and subsistence activities are usually carried out according to rules of kinship (see Chapter 12).

However, many societies of foragers, farmers, and herders have developed what Elman Service (1962) called "pantribal sodalities" (113). Sodalities are "special-purpose groupings" that may be organized, on the basis of age, sex, economic role, and personal interest. "[Sodalities] serve very different functions—among them police, military, medical, initiation, religious, and recreation. Some sodalities conduct their business in secret, others in public. Membership may be ascribed or it may be obtained via inheritance, purchase, attainment, performance, or contract. Men's sodalities are more numerous and highly organized than women's and, generally, are also more secretive and seclusive in their activities" (Hunter and Whitten 1976, 362). Sodalities create enduring diffuse solidarity among members of a large society, in part because they draw their personnel from a number of "primary" forms of social organization, such as lineages (Figure 6.9).

band The characteristic form of social organization found among foragers. Bands are small, usually no more than 50 people, and labor is divided ordinarily on the basis of age and sex. All adults in band societies have roughly equal access to whatever material or social valuables are locally available.

tribe A society that is generally larger than a band, whose members usually farm or herd for a living. Social relations in a tribe are still relatively egalitarian, although there may be a chief who speaks for the group or organizes certain group activities.

sodalities Special-purpose groupings that may be organized on the basis of age, sex, economic role, and personal interest.



FIGURE 6.9 Members of the Oruro, Bolivia, devil sodality dance.

The **chiefdom** is the first human social form to show evidence of permanent inequalities of wealth and power, in addition to inequality of status, or position in society. Ordinarily, only the chief and close relatives are set apart from the rest of society; other members continue to share roughly similar social status. Chiefdoms are generally larger than tribes and show a greater degree of craft production, although such production is not yet in the hands of full-time specialists. Chiefdoms also exhibit a greater degree of hierarchical political control, centered on the chief and relatives of the chief, based on their great deeds. Archaeologically, chiefdoms are interesting because some apparently remained as they were and then disappeared, whereas others went on to develop into states. A **state** is defined as a stratified society that possesses a territory that is defended from outside enemies with an army and from internal disorder with police. States, which have separate governmental institutions to enforce laws and to collect taxes and tribute, are run by an elite who possesses a monopoly on the use of force.

chiefdom A form of social organization in which a leader (the chief) and close relatives are set apart from the rest of the society and allowed privileged access to wealth, power, and prestige.

status A particular social position in a group.

state A stratified society that possesses a territory that is defended from outside enemies with an army and from internal disorder with police. A state, which has a separate set of governmental institutions designed to enforce laws and to collect taxes and tribute, is run by an elite that possesses a monopoly on the use of force.

As we shall see in Chapter 7, most archaeologists who use this general evolutionary scheme to help them interpret their findings reject the lockstep determinism that gave nineteenth-century cultural evolutionism such a bad name. Indeed, to the extent that the term *evolution* has come to refer to goal-directed, deterministic cultural processes, many archaeologists might prefer to describe what they do as *cultural history* or *prehistory* since these terms leave room for openness and contingency in human affairs, explicitly acknowledging that human cultural development does not move on rails toward a predestined outcome.

Given these qualifications, can knowledge about bands, tribes, and chiefdoms continue to be of value to anthropologists? For one thing, most archaeologists who use these categories do not think of them as sharply divided or mutually exclusive categories but, rather, as points on a continuum. Indeed, a single social group may move back and forth between more than one of these forms over time. Most anthropologists would probably agree that knowledge about human cultural prehistory is important in helping us understand what it means to be human, even if our more immediate research interests do not focus on prehistory itself. For example, knowledge that gender relations in band societies tend to be egalitarian and that human beings and their ancestors lived in bands for most of evolutionary history has been important to feminist anthropologists; knowledge that nation-states and empires are recent developments in human history that came about as a result of political, technological,

and other sociocultural processes undermines the assumptions of scientific racism.

At the same time, anthropologists may continue to be interested in why certain kinds of developments came about in one place and time rather than another. Prehistorians notice that there were numerous settled villages in southwest Asia 10,000 years ago but only a few of them became cities or city-states. Some band-living hunter-gatherers settled down to become farmers or animal herders in some times and places; some of their neighbors, however, managed to find a way to continue to survive by gathering and hunting in bands right up until the end of the twentieth century. Indeed, in parts of the world, like Afghanistan, tribal organizations continue to thrive, and attempts to establish centralized states regularly fail. Archaeology, history, and ethnography can help explain why these developments have (or have not) occurred by seeking to identify social structural elements and cultural practices that may enhance, or impede, the transformation of one kind of social form into another. Nor is classification an end in itself. Today's archaeologists do not see the categories of band, tribe, chiefdom, and state as eternal forms through which all societies are fated to pass. Instead, these are understood as theoretical constructs based on available evidence and subject to critique. Their main value comes from the way in which they give structure to our ignorance.

As we will see, especially in Chapter 16, intensified processes of globalization in the late twentieth and early twenty-first centuries have revitalized the interest of many anthropologists in cultural borrowing, vindicating the Boasians' claims about the porous nature of social boundaries and the cultural adaptability of which all human societies are capable. At the same time it has become clear that not all kinds of movements across social and cultural boundaries are equally easy or equally welcome everywhere. Anthropologists continue to pay attention to those structural features of contemporary societies—such as political boundaries between nation-states and international economic structures—that continue to modulate the tempo and mode of cultural, political, and economic change.

Whose Past Is It?

As a social science discipline, archaeology has its own theoretical questions, methodological approaches, and history. In recent years, archaeologists have explicitly had to come to terms with the fact that they are not the only people interested in what is buried in the ground, how it got there, how it should be interpreted, and to

whom it belongs. In some cases, archaeological sites have come to play an important role in identity formation for people who see themselves as the descendants of the builders of the site. Machu Picchu in Andean Peru, the Pyramids in Egypt, the Acropolis in Athens, Great Zimbabwe in Zimbabwe, and Masada in Israel are just a few examples of ancient monuments that have great significance for people living in modern states today. The meanings people take from them do not always coincide with the findings of current archaeological research. At the same time, these sites, and a great many others, have become major tourist destinations. Geographically remote Machu Picchu, for example, now receives about 300,000 tourists per year, a number that is both impressive and worrisome, since the constant movement of tourists may be doing permanent damage to the site (Figure 6.10). Nations, regions, and local communities have discovered that the past attracts tourists and their money, which can provide significant income in some parts of the world. The past may even



FIGURE 6.10 Although Machu Picchu is a spectacular example of human ingenuity and achievement, it has had to endure increasing pressure from visitors who come to admire it. The Peruvian government has proposed closing the Inca trail during the rainy season to protect the sites.

be mobilized by the entertainment industry: for example, increasingly popular "time capsule" sites invite tourists to visit places where local people wear costumes and carry out the occupations associated with a "re-created" past way of life.

Nevertheless, not all peoples welcome either archaeologists or tourists. For example, as former colonies became independent states, their citizens became interested in uncovering their own past and gaining control over their heritage. This has often meant that the artifacts discovered during archaeological research must stay in the country in which they were found. In addition, citizens of these states are now asking museums in Western countries to return cultural property—substantial quantities of material artifacts—removed long ago by colonizers. There seems to be little question that objects of special religious or cultural significance should be returned to the places from which they were taken. Some objects, for example, were considered sacred by their makers and were not intended for public view but have been openly displayed in public museums for many years. Is displaying such objects in public, even among people who do not believe in their sacredness, disrespectful to their makers? Is it just another way of representing the political power of the current owners? Renfrew and Bahn (2004, 552) suggest that the matter may be more complex:

[One can] ask whether the interest of the great products of human endeavor does not in fact transcend the geographical boundaries of modern-day nationalism. Does it make sense that all the Paleolithic handaxes and other artifacts from Olduvai Gorge or Olorgesailie in East Africa should remain confined within the bounds of the modern nations where they have been found? Should we not all be able to benefit from the insights they offer? And is it not a profound and important experience to be able, in the course of one day in one of the world's great museums, to be able to walk from room to room, from civilization to civilization, and see unfolded a sample of the whole variety of human experience?

But artifacts are not all that have come out of the ground over the course of a century and a half of archaeological research. Human skeletal material has also been found, usually recovered from intentional burials. For archaeologists and biological anthropologists, this skeletal material offers important data on past patterns of migration, disease, violence, family connections, social organization and complexity, technology, cultural beliefs, and many other phenomena. Constantly improving analytical techniques are increasing the quality of data that can be extracted from skeletal remains, making

this material even more valuable. Yet, these may be the remains of ancestors of peoples now living in the area from which the bones were removed, peoples who do not believe that the dead should be disturbed and have their bones analyzed.

This has been a particularly important issue for archaeology in the United States because most of the collections of skeletal materials (and sacred objects) came from Native American populations. Many, although not all, Native Americans are deeply angered by the excavation of indigenous burials. That the bones of their ancestors end up in museums, laboratories, and universities embodies for them the disrespect and domination that has been the lot of indigenous Americans since Europeans first arrived. Thus, their objections have both religious and political dimensions. These objections were recognized in the Native American Graves Protection and Repatriation Act (NAGPRA), passed by the U.S. Congress in 1990.

First, NAGPRA requires all federal agencies and institutions that receive federal funds to inventory all American Indian and Native Hawaiian human remains in their possession, as well as funerary objects, sacred objects, and "objects of cultural patrimony." These institutions must establish whether these remains or objects have a connection with any living indigenous groups. Should a connection be found, the institutions are required to notify the appropriate American Indian or Native Hawaiian group and offer to return, or "repatriate," the materials in question. In addition, if indigenous groups believe that they have a connection to remains held by an institution, they may request repatriation of those remains, even if the institution is not convinced by their claims (Figure 6.11).

Second, NAGPRA protects American Indian graves and cultural objects on all federal and tribal lands (it does not extend protection to sites on private lands). The act also requires that anyone carrying out archaeological research on federal or tribal lands must consult with the Native American people who are affiliated or may be affiliated with those lands regarding the treatment and disposition of any finds.

NAGPRA has made it necessary for archaeologists to take seriously the rights and attitudes of native peoples toward the past. Although this has led to disagreements, it has also led to compromise, collaboration, and recognition of shared concerns. As Fagan and DeCorse (2005) put it, "no archaeologist in North America, and probably elsewhere, will be able to excavate a prehistoric or historic burial without the most careful and sensitive preparation. This involves working closely with native peoples in ways that archaeologists have not imagined until recently. Nothing but good can come of this" (504).

FIGURE 6.11 Ceremony for reburial of remains of Eyak Indians in Cordova, Alaska. The bones were released by the Smithsonian Institution under NAGPRA.



Among the positive consequences of NAGPRA have been cooperative agreements with Native American groups that are interested in developing their own museums and archaeological and historical research programs. In other cases, tribal councils or other representatives have been willing to allow archaeologists and biological anthropologists to study excavated bones or to make extremely accurate copies of them before returning them for reburial. Attempts are being made to establish working relationships based on mutual respect for the positions of all sides—respectful treatment of the ancestors and sacred objects as well as the concerns of science and education. The situation remains uncertain, however. Changes in tribal council membership can lead to changes of policy positions regarding archaeology.

One case that has involved extensive legal action is that of Kennewick Man (also called the Ancient One), an 8,500-year-old skeleton found in the state of Washington in 1996, six years after the passage of NAGPRA (Figure 6.12). Since initial examination seemed to indicate that the remains belonged to a nineteenth-century white settler, scholars were surprised when the skeleton received a radiocarbon date of 9300 B.P. More study seemed essential to resolve the matter, but the U.S. Army Corps of Engineers intended to return the remains to the Umatilla tribe for reburial. Eight anthropologists sued the Corps of Engineers for permission to study the bones, contending that the bones could not be linked to any living tribe. The Umatilla insisted, however, that their traditions held that they had occupied the land from the beginning of time, which meant that the bones belonged to one of their

ancestors and should be returned to them. In 2002, a magistrate found in favor of the scientists, but four tribes and the U.S. Department of the Interior appealed the decision. In February 2004, a U.S. court of appeals upheld the magistrate's decision, and a 10-day study of the skeletal remains was carried out in July 2005. Since 1998, the remains have been kept at the Burke Museum of Science on the campus of the University of Washington in Seattle, Washington, under control of the U.S. Army Corps of Engineers (<http://www.burkemuseum.org/kennewickman>).

In the years since the discovery of the Kennewick skeleton, much has changed in the relations between archaeologists and Native American peoples. As we noted in Chapter 4, the development of ancient DNA analysis has made possible the tracing of past population movements and mixtures in many parts of the world, including the Americas. An important milestone was the analysis of the genome of the Anzick-1 child, the age of which was dated to around 12,600 years old. This burial was found on private land and therefore not covered by NAGPRA, but as we saw, the researchers still checked to verify that no indigenous group had claimed the remains. The researchers also personally contacted representatives of nine Native American tribes living near the Anzick site to explain their research, and they encountered no objections. Some tribal members did ask that the remains be reburied, and Rasmussen and his colleagues reported that the Anzick family is working to honor this request (Rasmussen et al. 2014, 228). As of January 30, 2017, the remains of Kennewick Man (Ancient One) were still being kept at the Burke Museum. But the museum's web page now stated that the remains had been confirmed



FIGURE 6.12 Biological anthropologist Douglas Owsley of the Smithsonian Institution, examining various features of the right femur of the Kennewick Man skeleton to try to determine the original position of the body in the ground.

by DNA testing to be Native American, and that tribes claiming him as their ancestor were authorized to use NAGPRA to gain possession of the remains. However, on December 16, 2016, President Obama signed legislation, known as the WIIN Act, that would supersede the NAGPRA process. According to the website, the WIIN Act “prompts The Army Corps of Engineers to transfer control of the remains to the Washington State Department of Archaeology and Historic Preservation (DAHP) within 90 days of December 16, 2016, on the condition that DAHP return the remains to the claimant tribes. The Burke Museum will continue to care for the remains until directed to transfer them by DAHP. When the remains are returned to the Tribes, they will be reburied” (<http://www.burkemuseum.org/blog/kennewick-man-ancient-one>).

Indigenous people in the United States are not the only ones concerned with the disposition of human remains unearthed by archaeologists and others. In Australia, Aboriginal people have successfully pressed

for the return of the remains of their ancestors, remains that were often collected unethically, sometimes through grave robbing and even murder. In recent years, the Australian government has established programs for the repatriation of cultural material and human remains that are held in Australian museums or other institutions and has worked to secure the repatriation of Aboriginal remains from outside Australia. The Australian Archaeological Association has supported these initiatives.

According to the Australian government:

The aim of the program is to repatriate all ancestral remains and secret sacred objects from the eligible museums to their communities of origin. The four specific objectives are to: identify the origins of all ancestral remains and secret sacred objects held in the museums where possible; notify all communities who have ancestral remains and secret sacred objects held in the museums; arrange for repatriation where and when it is requested; appropriately store ancestral remains and secret sacred objects held in the museums at the request of the relevant community. (Department of Communications, Information Technology, and the Arts 2005)

How Is the Past Being Plundered?

Many people in the world were shocked and appalled in March 2001, when the extremist Taliban government of Afghanistan decided to destroy the Bamiyan Buddhas, two giant sculptures carved into the face of a cliff about 1,500 years ago (Figure 6.13). Although almost no Buddhists live in Afghanistan today, these sculptures had long been part of the cultural heritage of the Afghan people. Despite world condemnation of this decision that included a delegation from the Islamic Conference representing 55 Muslim nations, the Taliban insisted that these human images were impious and destroyed them, along with even older objects in the national museum. This act shocked many people, perhaps not only because it seemed so narrow-minded and thoughtless but also because the statues were irreplaceable examples of human creative power. To make sense of such destruction, anthropologists speak of *heritage regimes* in which material remains like the Bamiyan Buddhas are seen to be entangled in political and economic activities, primarily as these are managed by nation-states (Geismar 2015, 72). Defenders of the continued protection of the Buddhas accept the appropriateness of a heritage regime in which such material objects are seen to be as universally valuable



FIGURE 6.13 (a, b) Many people in the world were shocked when the Taliban leaders of Afghanistan blew up the 1,500-year-old statues of the Buddha despite worldwide requests to save these examples of the heritage of the Afghan people.

and deserving of protection, either by nation-states or by international organizations like UNESCO. However, Geismar explains that the Taliban followers who destroyed the Buddhas may be understood as participating in an *antiheritage movement*, which “negates the very idea of heritage itself” (Geismar 2015, 80). Therefore, their destruction of the Buddhas cannot simply be reduced to an extreme form of Islamic iconoclasm. Rather, Geismar insists, this destructive action is better viewed as an effort by the Taliban in particular to install “a politics around the governance of culture at the center of its own regime” (Geismar 2015, 80). She cites a Taliban representative who argued that “the Buddhas were destroyed in the wake of a UNESCO visit to Kabul, which made clear that the international community was prepared to spend money to preserve heritage but not to support starving Afghans in the region” (Geismar 2015, 80–81).

These Taliban actions are unusually blatant and violent, but antiheritage resistance comes in a variety of forms. For example, many family members of

individuals who died in the attacks on the World Trade Center on September 11, 2001, struggled with government officials about how that event should be memorialized in the September 11 Memorial and Museum. Geismar quotes Chip Colwell-Chanthapongh, who criticized the museum not only for failing to consult with the families of the victims but also for engaging in questionable practices in its management of the victims’ remains (Geismar 2015, 81). Such well-publicized challenges, however, are few compared to the much more widespread destruction of the human past on a daily basis, as a consequence of land development, agriculture, and looting for sale to collectors.

Nevertheless, destruction of the human past on a much greater scale goes on every day as a consequence of land development, agriculture, and looting for sale to collectors. The construction of roads, dams, office buildings, housing developments, libraries, subways, and so on has enormous potential to damage or destroy evidence of the past. As mechanized agriculture has spread across the world, the tractors and deep plows tear

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Rescue Archaeology in Europe

*In the United States, Cultural Resources Management (CRM) archaeology plays an important role in carrying out research on archaeological sites threatened by road building or other infrastructure projects. In Europe, these issues are the focus of a field originally called "rescue archaeology" after World War II, but which has been called "preventive archaeology" since 1979. The term comes from the French *archéologie préventive*, which aims to prevent the destruction of archaeological sites (analogous to the way that "preventive medicine" aims to prevent outbreaks of dangerous disease). The term originated in France but is now used in scientific policy debates throughout Europe. Preventive archaeology was inspired by CRM in the United States, but developed differently in different parts of Europe. In the following excerpt from his essay "Rescue Archaeology: A European View," French archaeologist Jean-Paul Demoule explains how changing political and economic policies in France and other European countries in recent years undermined previous understandings about the role of the state in the protection of archaeological heritage.*

The gradual introduction of a competitive market for preventive archaeology was initially undertaken without real debate, some countries not being immediately affected, while others considered it an inevitable fate (Oebbecke 1998). However, discussion on the issue has gradually been mobilized, especially across multiple European agencies or programs. Two conceptions compete, reflecting two visions of the state. On one hand, in the tradition of the Enlightenment and the French Revolution, the nation is a community of citizens, united by a common destiny, and which manages goods and services, among other elements. On the other hand, there is only a multitude of individuals; consumers, with no links to one another, who choose to buy or not buy goods and services from producers in competition.

For partisans of private, commercial archaeology, developers are clients, for whom they need to be as

efficient as possible. This is why preventive archaeology is often referred to as developer-led archaeology (Bradley et al. 2010) or developer-funded archaeology, as if it were the developer who decided on the excavation. This view has created a kind of archaeology that has allowed for unprecedented development of the production of archaeological data, the end result of which is sometimes viewed as a gold rush. At the same time, in an attempt to regulate the market of archaeology, it is considered appropriate that archaeologists organize themselves in professional associations, along the model of the Register of Professional Archaeologists in the United States. This is, in fact, the case in the United Kingdom with the Institute for Archaeologists (formerly the Institute of Field Archaeology; <http://www.archaeologists.net>). A code of ethics is supposed to define the rights and duties of these archaeologists, including respect for the basic rules of scientific research (<http://www.concernedhistorians.org/content/ethicarcha.html>). A public authority is also to define standards (see Willems & Brand 2004) and exercise quality control. However, this practice is complicated by the fact that control of archaeological work a posteriori is hardly possible because the excavated site no longer exists. This overall vision thus underpins the organization of archaeology in a number of European countries, and it has been explicitly defended in various articles (e.g., Thomas 2002; Wheaton 2002; Carver 2007; Aitchison 2009; van den Dries 2011, among others).

For those who oppose the development of private commercial archaeology, developers are not clients. They are companies whose projects are often designed to make money and who endanger the archaeological heritage of a nation's citizens. This is why they must pay a tax, designed to help compensate for the destruction and to preserve a part of the archaeological information. It is therefore the state—as an emanation of the community of citizens—that must organize these preventive excavations through public research institutions responsible for defining national research programs and publishing the results of the excavations. In fact, the development of preventive archaeology is due to the reinforcement of state legislation and has nothing to do with the interests of private companies to carry out the work. The codes of ethics have no binding value (and mainly concern a Protestant cultural ethos).

The notion of commercial competition in archaeology is based on a fundamental misunderstanding.

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In fact, developers do not want to buy the best archaeology possible but seek only the company that will release their land as soon as possible at the least cost. If competition exists in the scientific field, it is to produce not the cheapest research possible, but instead the best research possible. And if private research exists in general, the quality of its production (a drug, an aircraft, a weapon, etc.) can be controlled *a posteriori*. Furthermore, private research tends to focus on more profitable products. This is why private pharmaceutical research, for example, focuses on the profitable diseases of rich countries—at the expense of unprofitable diseases in poor countries.

Note as well that the excavations of private companies are rarely published adequately, if at all. Moreover, in the United States, for example, the private archaeologists of Cultural Resource Management, which account for perhaps more than 50% of the ~12,000 professional archaeologists in the country, very rarely attend scientific meetings such as the Annual Meeting of the Society for American Archaeology. The term professional archaeologist, which private archaeologists give themselves, is also questionable because it implies that academic archaeologists are not professionals. Furthermore, the purely economic logic of private archaeological companies makes them sensitive to economic fluctuations. As such, hundreds of British archaeologists have lost their jobs because of the global financial crisis that started in the fall of 2008, as have 80% of private Irish archaeologists and a significant number in Spain (Schlanger and Aitchison 2010). In contrast, national public institutions allow for the practice of homogeneous scientific standards for the study and publication of excavations, and they offer

a guarantee of employment. This is why the model of private commercial archaeology has been criticized by a number of archaeologists (Cumberpatch and Blinkhorn 2001; Demoule 2002a,b, 2011; Chadwick 2003; Kristiansen 2009; Schlanger and Salas Rossenback 2010). In any case, it seems impossible to separate the real practices of archaeology from their ideological backgrounds (Pluciennik 2001, Hamilakis and Duke 2007, Kolen 2010, Bernbeck and McGuire 2011). The economic crisis since 2008 has demonstrated both the weakness of a model based solely on the market and the need for state regulations. Moreover, some economists had already announced these weaknesses before the crisis (Stiglitz 2003), and as early as 2004, the European Union had become aware of the limits of the market for public services of general interest (Green Pap. 2004). . . .

For the past four decades, thanks to preventive archaeology and growing legislative protection, Europe has experienced an unprecedented explosion of knowledge about its own past. . . . This explosion of data has also revolutionized the very approach to archaeology: it is no longer the study of isolated sites, but the study of whole territories, something that has been enabled by excavation prior to major development projects. . . . Nevertheless, a certain number of essential questions concerning preventive archaeology are still under debate. . . . The ability of preventive archaeology to produce compelling and useful knowledge for our reflection on trajectories of the past, as well as on the futures of human societies, supports its existence and the efforts made for its continued practice.

Source: Demoule 2012, 618–22.

across settlement sites and field monuments. Although construction, development, and agriculture cannot be stopped, they can be made more sensitive to the potential damage they can do.

Unfortunately, such cannot be said for looting and the market in stolen antiquities. There is nothing really new about looting—the tombs of the pharaohs of Egypt were looted in their own day—but the scale today surpasses anything that has come before. It is safe to say that any region of the world with archaeological sites also has organized looting, and the devastation looters leave behind makes any scientific analysis of a site impossible. We have seen how important it is for archaeologists to record the precise placement

of every object they excavate. When that context is destroyed, so is the archaeological value of a site. “In the American Southwest, 90% of the Classic Mimbres sites (c. 1000 C.E.) have now been looted or destroyed. In southwestern Colorado, 60% of prehistoric Anasazi sites have been vandalized. Pothunters work at night, equipped with two-way radios, scanners, and lookouts. They can be prosecuted under the present legislation only if caught red-handed, which is almost impossible” (Renfrew and Bahn 2008, 563). Looters steal to make money. Buyers, including museums and private collectors, have been willing to overlook the details of the process by which ancient objects come into their hands. Although museum owners have taken some

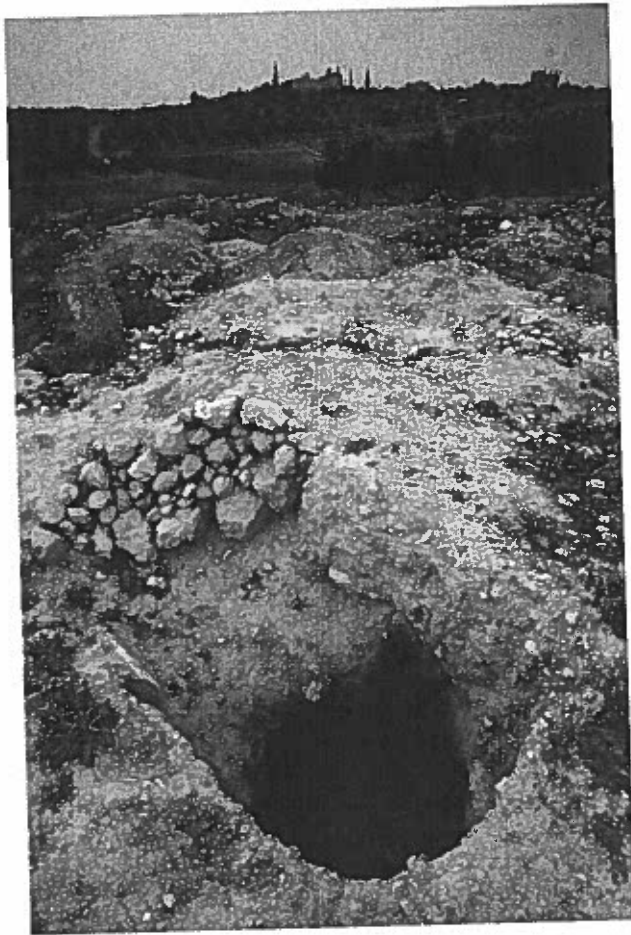


FIGURE 6.14 The looting of archaeological sites continues to be a serious problem because the heritage of the world's people is destroyed.

steps to make sure that they purchase (or accept as gifts) only objects that have been exported legally from their countries of origin, private collectors remain free to feed on the illegal destruction of the heritage of the world's people (Figure 6.14).

In the United States, one sign of progress has been a series of legislative actions at the federal, state, and local levels that require the consideration of environmental and cultural factors in the use of federal, state, or local funds for development. At the most basic level, projects involving federal land or federal funds (highway funds, e.g.) must file an Environmental Impact Assessment, which includes attention to cultural resources—the material record of the human

feminist archaeology A research approach that explores why women's contributions have been systematically written out of the archaeological record and suggests new approaches to the human past that include such contributions.

past—located in affected sites. To meet this federal requirement, the archaeological specialty of cultural resource management (CRM) was developed. CRM is an attempt to ensure that cultural resources threatened by projects are properly managed—"recorded, evaluated, protected, or, if necessary, salvaged" (Fagan and DeCorse 2005, 483). CRM is a multimillion-dollar undertaking, the major source of employment for archaeologists, and is practiced by private companies, federal agencies, universities, and individuals. The legal grounds for CRM developed out of a concern with conservation, rather than research. Over time, however, it has become clear that CRM archaeology contributes in a very significant way not just to the preservation of the past but also to basic archaeological research and theory. In this way, we see again how archaeologists have become the stewards of the past, a task that will require great energy and all their skill.

What Are the Critical Issues in Contemporary Archaeology?

As we have seen, contemporary social issues lead archaeologists to rethink how they study the human past. We now consider three examples of contemporary archaeology that illustrate these developments.

Archaeology and Gender

By the 1980s, awareness of the unequal treatment of women in modern European and American societies had led archaeologists (both women and men) to examine why women's contributions had been systematically written out of the archaeological record. Building on anthropological studies of living people, feminist archaeology rejected biological determinism of sex roles, arguing that cultural and historical factors were responsible for how a society allocated tasks and that this allocation could change over time. The goal was to develop a view of the past that "replaces focus on remains with a focus on people as active social agents" (Conkey and Gero 1991, 15).

Feminist archaeology did not depend on new technological breakthroughs in excavation methods to pursue this goal. Rather, using what they already knew about living human societies, together with available historical documents, feminist archaeologists asked new kinds of questions. For example, Joan Gero (1991) drew

attention to male bias in discussions of the oldest, best-known collections of human artifacts: stone tools. Gero showed how traditional archaeological discussion of stone-tool technologies focused on highly formalized, elaborately retouched, standardized core tools. This focus, together with the assumption that such tools were made by men to hunt with, turns men and their activities into the driving force of cultural evolution. It simultaneously downplays or ignores the far more numerous flake tools that were probably made and used by women in such tasks as processing food or working wood and leather. Gero cited ethnographic and historical reports that describe women as active makers of stone tools, including more elaborate core tools, exposing as false the supposition that women are not strong or smart enough to produce them.

Gero then applied her findings to her analysis of a multilayered site at Huaricoto in highland Peru. The lowest occupation level at Huaricoto dates from a period in which the site was a ceremonial center visited by foragers who apparently made elaborate biface (two-sided) core tools out of imported stone in a workshop on the site. The most recent occupation level dated from a later period, when the site was no longer a ritual center but had become a residential settlement whose inhabitants used many flake tools made of local stone for a variety of subsistence tasks. Gero (1991) pointed out that "the flake tool performs many of the same actions unceremoniously that bifaces perform in a ritualistic setting" (184). She suggests that the change from ceremonial center to village settlement probably involved a shift not in the use of stone tools but rather in their social significance: male status may have been connected with stone-tool production during the early period but had probably become connected with some other kind of prestige goods instead (perhaps ceramics or textiles) by the later period. Stone tools continued to be made and used, but they were utilitarian flake tools, and their makers and users were most likely women.

Insights from feminist archaeology inform more recent work in **gender archaeology**, which "addresses the needs of contemporary gender studies for an understanding of how people come to understand themselves as different from others; how people represent these differences; and how others react to such claims" (Joyce 2008, 17). Contemporary gender studies asks, for example, why archaeologists often assume that the meanings of artifacts from all societies across space and over time should be interpreted in terms of a universal male-female division. As Rosemary Joyce observes, "The experiences of people in the contemporary

world are actually a good deal more varied than those expected under the normative two-sex/two-gender model" (18). Gender archaeologists have found that new questions can be asked about variation in sex, gender, and other kinds of human difference in past societies if attention shifts away from the universals and focuses instead on detailed contextual features of specific archaeological sites.

Focusing on site-specific details affects the kinds of interpretations that archaeologists make. First, the meaning of a common artifact, whether found in a household rubbish dump or in a burial site, cannot be assumed to remain unchanging over time. This insight was central to Gero's reinterpretation of stone tools and their use at Huaricoto. Gero's approach also illustrates a second point: archaeological analyses that focus on the highly elaborated artifact can downplay or ignore patterns that would be visible if all relevant artifacts, ordinary and extraordinary, are considered. Joyce argues that Paleolithic figurines depicting females with exaggerated breasts and bellies have been misunderstood. Because of a widely shared assumption that *all* figurines depicting human females had to be "fertility symbols," archaeologists have tended to ignore other contemporary figurines that did not easily fit such an interpretation. For example, the 30,000-year-old central European Paleolithic site of Dolní Vestonice yielded figurines representing animals and human males as well as human females; moreover, the only figurines depicted wearing woven clothing were some of the female figurines (Figure 6.15). Since most female and all male figurines lacked any representation of clothing, archaeologists now suggest that the female figurines with clothing represent a few women at this time and place who "gained individual status from their skill at producing textiles" (Joyce 2008, 15). This interpretation is strengthened by evidence from contemporary burials that clothing of men and women was not differentiated by gender and did not resemble the images of clothing portrayed on figurines (Joyce 2008, 15).

Third, Joyce (2008) stresses the need for archaeologists to think of material artifacts "as having had lives of their own . . . made, used, and discarded, and during which people's experiences and associations with them would have varied" (28). Focusing on the social lives of individual artifacts shifts attention away

gender archaeology Archaeological research that draws on insights from contemporary gender studies to investigate how people come to recognize themselves as different from others, how people represent these differences, and how others react to such claims.



FIGURE 6.15 Sculpture head of woman, Dolní Věstonice. The Dolní Věstonice site in the Czech Republic has yielded extensive numbers of figures, some of which seem to represent women of status.

from artifacts to the individuals who made those artifacts and highlights the variety of motivations they may have had for making them the way they did. It also draws attention to the likelihood that all images were not accepted at face value but instead offered “a means for the circulation of propositions that might be contested” (16). As a result, the same images might well have meant different things to different members of the social group that produced or used them. This approach provides “a critical basis for challenges to orthodox interpretations that might otherwise ignore complexities in human societies now as much as in the past” (16,17).

The value of such an approach is displayed in the work of bioarchaeologist Sandra Hollimon, who was faced with interpreting remains of Chumash burials in California. As Joyce explains, contemporary Chumash culture traditionally recognized a third gender—“two-spirited” men whose status is neither male nor female.

Moreover, as is the case in a number of Native American societies, such two-spirited individuals were often skilled craftspeople, who were given baskets in exchange for their work. Hollimon first expected that the graves of two-spirited individuals would stand out from the graves of women or other men because they would contain male skeletons accompanied by baskets. It turned out, however, that baskets were found together with the skeletal remains of both women and men. This prompted Hollimon to wonder if gender distinctions were not important in Chumash mortuary practices. She looked for other patterns of difference in the remains and discovered a typically female form of spinal arthritis in the skeletons of two young males. This form of arthritis was associated with regular use of digging sticks, typically women’s work, but also the work of two-spirited men.

These two particular male skeletons had been buried both with digging stick weights and with baskets, which strengthened the conclusion that they belonged to two-spirited males. However, digging sticks and baskets were tools traditionally associated with Chumash *undertakers*, who could be either two-spirited men or postmenopausal women. Hollimon concluded that the *status* of undertaker apparently was more significant in Chumash burial practices than the *gender* of the individual being buried. “In Chumash society, these people helped the spirits of the dead make the transition to their next stage of life. To be able to do this, they needed a special spiritual status. This special status was limited to those whose sexual activity could not lead to childbirth” (Joyce 2008, 60). The lesson is clear: “not finding three burial patterns led to a realization that sex may not have been the most significant basis for the identity of these people. . . . Genders were not permanent categorical identities, but rather distinctive performances related to sexuality that could change over a person’s life” (61).

Collaborative Approaches to Studying the Past

Janet Spector was one of the first archaeologists in the United States to initiate a collaborative research project with the descendants of the people who once occupied the sites she excavated. Her work in Minnesota is an example of historical archaeology (Figure 6.16)—the study (in this case) of post-European contact sites in North America. Like other feminist archaeologists, Spector (1993) wanted to shift attention from the artifacts to the people who made them, from a preoccupation with active men and passive women to a more realistic assessment of active women and men and from a focus on the remains as evidence of European contact to what these remains suggested about “Indian responses or resistance to European expansion and domination” (6).

historical archaeology The study of archaeological sites associated with written records, frequently the study of post-European contact sites in the world.

Archaeology as a Tool of Civic Engagement

Barbara J. Little and Paul A. Shackel (2007) use the term *civic engagement* to refer to an important direction in contemporary archaeology. Civic engagement in archaeology refers to involvement and participation in public life, especially in directing people's attention to "the historical roots and present-day manifestations of contemporary social justice issues." Civic engagement also refers to connecting archaeologists and the work they do to the communities that are connected in one way or another to archaeological sites and the history they embody.

One example of civic engagement comes from Virginia and the site of one of the most famous episodes in U.S. popular history—the arrival in 1607 of English colonists who founded Jamestown and the supposed interactions of Chief Powhatan, John Smith, and Pocahontas. Martin Gullivan and Danielle Moretti-Langholtz (2007) have been involved with the first archaeological excavation at Werowocomoco, the site of the Powhatan chiefdom. This research has shed light on the history of Native life at the site from its founding in about 1200 C.E. to its abandonment by Powhatan in 1609 because the English colonists were too close. The research has been strongly engaged with the wider communities of Virginia, especially Native communities. The history of Native peoples in Virginia is a troubled one, in which the more prominent biracial divide between whites and African Americans seemed to overwhelm the Native presence. Indeed, in 1924, people of Native descent were defined by the Racial Integrity Act legally as "colored persons," the same category used for people of African descent. Interracial marriage was prohibited, and Native children were forced to attend schools for "colored persons."

The sting of the Racial Integrity Act, which remained in force until 1968, is still felt in Virginia's indigenous community. Native people were denied the right to self-identify as Native people, making it impossible for them to enter the civic arena as representatives of their respective communities. Despite the fact that the Pamunkeys and Mattaponis had long-held reservation lands within the commonwealth, official state policy maintained that there were no longer indigenous Indians in Virginia. (Gullivan and Moretti-Langholtz 2007, 54)

Finally, during the 1980s, eight Indian tribes were recognized by the Virginia Commonwealth, and when NAGPRA became law in 1990, representatives of the tribes worked closely with archaeologists in the reburial of remains that had been held in collections.

Engagements of this kind with descendant communities served as the foundations of the Werowocomoco research project: "from its inception, the WRG [Werowocomoco Research Group] has worked toward a model of archaeological research on Native sites in the Chesapeake that includes close Native collaboration at every stage" (Gullivan and Moretti-Langholtz 2007, 58). Indeed, when the WRG found the site they believed to be Werowocomoco, they requested a meeting with

the Virginia Council on Indians to ensure that tribal leaders would have the information about the site and the excavation before it was announced to the public. Members of the WRG met privately with the tribal chiefs to introduce them to the research team and the owner of the property on which the site had been found. They also outlined a long-term plan to study the site with the close involvement of the Native communities. A visit to the site was scheduled, and a Native advisory board was established. Tribal representatives presented their perspectives on the site and its history. "Though these perspectives varied, several tribal leaders expressed a powerful connection to Werowocomoco as the historic center of the Powhatan chiefdom and as a modern place for renewing Virginia Indians' influence on representations of the Native past. Others encouraged us to pursue research that focuses on the power and social complexity of the Powhatan chiefdom during the years prior to 1607" (Gullivan and Moretti-Langholtz 2007, 59–60).

The research team shares all information with the advisory board, including minutes from meetings and financial reports. In recent years, some Virginia Indians have gotten involved in the excavations themselves. Among other things, this has had the effect of enabling one member of the Pamunkey Tribal Council to have a better understanding of the archaeological research process when evaluating CRM proposals made to the tribe. On days set aside for public visitation, partners from the Pamunkey tribe speak with visitors about the excavations and about their feelings regarding archaeological research involving their ancestors (Gullivan and Moretti-Langholtz 2007, 61).

But many archaeologists involved with community engagement want to go beyond public outreach. As archaeologists engage with a wide range of publics and present their research, new topics and ways of discussing old topics may emerge, and some of those discussions may contradict existing historical narratives. "Taking archaeological practice from civic engagement and toward social justice, conceived of as equity, honesty, and tolerance across segments of a society, represents a difficult challenge that we have not begun to master" (Gullivan and Moretti-Langholtz 2007, 61). Gullivan and Moretti-Langholtz think that the research at Werowocomoco has the potential to expand the restrictive narratives about Native peoples in Virginia that have dominated public and academic discourse and to challenge the received stories of the past. Their research alone was not sufficient to push this transformation, but by giving descendant populations a central role in the recovery of the history of their ancestors, it opened a place for new discussions regarding the Native past. Such discussions may help create an indigenous archaeology, one in which Native peoples "become full partners in representations concerning their past" (Gullivan and Moretti-Langholtz 2007, 62). This is a route for archaeology to follow in contributing to social justice in the wider societies in which archaeologists work. ■

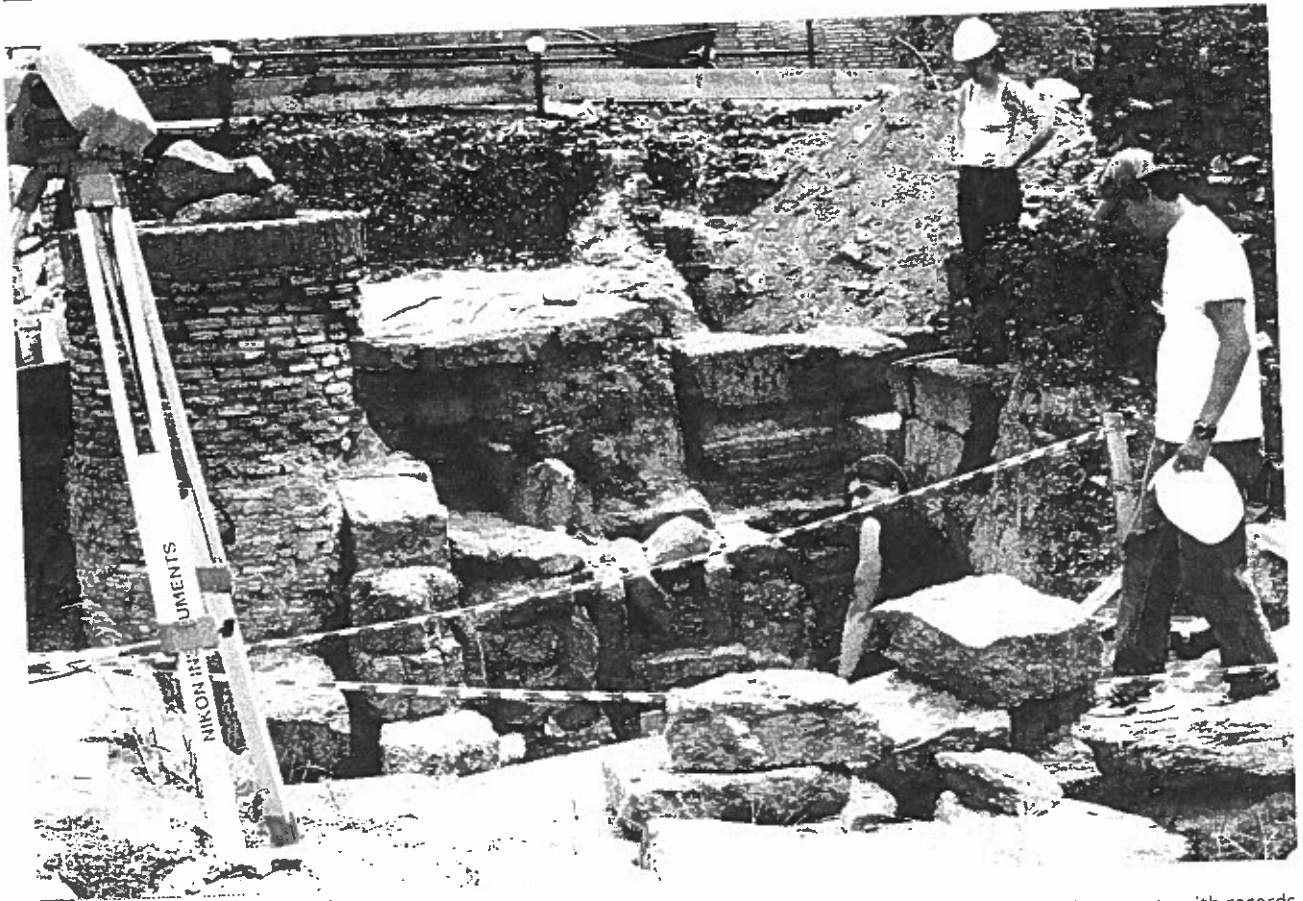


FIGURE 6.16 Historical archaeologists, shown here excavating in the Roman Forum, supplement written documents with records of settlement patterns, structures, and artifacts, which reveal valuable information about the past that was never written down.

In 1980, Spector and her team began to dig at a site near Jordan, Minnesota, known by the Dakota as *Inyan Ceayak Atonwan*, or "Village at the Rapids." She examined historical documents that referred to the site for clues about what tasks were carried on by men and women at the site, as a guide to what kinds of material remains to look for. After several seasons, concerned that her work might be meaningless or offensive to the Dakota, Spector met a Dakota man who was a descendant of a man named Mazomani, one of the original inhabitants of the Village at the Rapids. Eventually, other descendants of Mazomani visited the site. By the 1985–1986 season, Dakota and non-Dakota were collaborating in teaching Dakota language, oral history, ethnobotany, ecology, and history at the site while digging continued. A Dakota elder conducted a pipe ceremony at the site shortly before the field season began, which symbolized for Spector the Dakota people's permission to work there.

Since the early 1980s, collaborative archaeological research of this kind has become increasingly common. Renfrew and Bahn (2008), for example, report on a

multidisciplinary research project inside Kakadu National Park in the Northern Territory of Australia that began in 1981. Archaeologists wanted to learn more about the earliest occupation of tropical Australia, which began more than 23,000 years ago, and Kakadu National Park was an ideal place to look: the park contains a number of rockshelters filled with rich material traces of ancient human occupation, including rock paintings as old as those found in European caves such as Lascaux. Archaeologists wanted to build on previous work and to test the proposal made by an earlier researcher, George Chaloupka, who argued that the rock art in the region reflected changes in the environment triggered by rising sea levels (Renfrew and Bahn 2008, 521).

But Rhys Jones, the team leader from the Australian National University, knew that the site was legally owned by the local Aborigine community, whose permission would be needed before any excavation could begin. The Aborigine community was willing to give permission for the project, but they wanted to ensure that the dig was carried out in a way that was responsible and

respectful. They insisted that one member of the community supervise the project, primarily "to protect the diggers from doing something that could bring practical or ritual danger: the totemic geography of a region contains some 'dangerous places,' into which archaeologists might stray through ignorance" (Renfrew and Bahn 2008, 521). The archaeologists also had to agree to complete work at one site before moving on to another and to return all disturbed areas to the condition in which they had been prior to the excavation. But Aboriginal involvement in the project did not stop there. "Senior Aborigine men representing the relevant groups accompanied the team on field trips and carefully monitored the excavations, while trainee Aboriginal rangers helped in the laboratory, and were instructed in archaeological procedures" (Renfrew and Bahn 2008, 522). When the project was completed, the researchers did indeed find evidence that verified Chaloupka's hypothesis, but two other findings were perhaps even more exciting. The first was the discovery of plant remains as much as 6,000 years old, preserved thanks to the unusual microclimate present in one rockshelter. The second came from a second rockshelter and consisted of pieces of red ochre, a pigment used by ancient human populations in many parts of the world. These pieces were 53,000 years old, had been worked by hand, and might have been the sources of pigment for some of the rock art. Renfrew and Bahn (2008) judge this project "very successful" (528), and one measure of its success was the way it provided a model—as did Spector's work—of finding a way to do archaeology while working together with an indigenous community that had its own stake in the way the project was carried out, as well as in the outcome.

Cosmopolitan Archaeologies

A variety of far-reaching changes have swept the world since the end of the Cold War in 1989. As we will see in later chapters, these changes have affected the way all anthropologists do research, and archaeologists are no exception. Collaborative projects between local communities and archaeologists have become increasingly common in recent years, but these collaborations themselves have been affected by a number of broader changes. For example, global tourism has mushroomed, and huge numbers of tourists from all over the world now want to visit archaeological sites such as Machu Picchu or Kakaku National Park, both of which have been named UNESCO World Heritage Sites.

As we saw in the case of Machu Picchu, a lot of money can be made managing flows of wealthy tourists

to well-known cultural heritage sites (see Figure 6.10). When tourist traffic threatens to destroy such sites, therefore, it is not merely the ruins themselves that are at stake; so are the livelihoods of local people and governments. Moreover, powerless minorities with traditional connections to these sites frequently find themselves shoved aside as national and international institutions step in and take over. In the past, most archaeologists tried to do their research while avoiding local legal and political involvements, hoping to achieve "a 'do no harm' model of coexistence" (Meskell 2009, 5). Today, many archaeologists have adopted the view that their first obligation should be to those local (and often marginalized) people with traditional connections to the archaeological sites where they work. But more and more archaeologists are finding that this kind of single-minded commitment is increasingly problematic because they and their local allies must find a way to deal with a range of other local and global stakeholders who have their own, often conflicting, ideas about how cultural heritage should be managed.

Like many contemporary cultural anthropologists (see Chapter 8), some archaeologists have been moved by these struggles to question a view of the world that divides it up into a patchwork quilt of distinct, neatly bounded "cultures," each of which embodies a unique heritage that must be protected from change at all costs. Again, like many of their cultural anthropologist colleagues, these archaeologists have concluded that the only way forward is to cultivate a "cosmopolitan" point of view. For many cultural anthropologists, cosmopolitanism means being able to move with ease from one cultural setting to another. Cultural anthropologists regularly develop cosmopolitan skills and awareness as they move in and out of fieldwork situations. Moreover, people everywhere—tourists, immigrants, or refugees, for example—have crafted a variety of different kinds of cosmopolitan skills to cope successfully with movement from one cultural setting to another. As you will see later, these movements have become the focus of new "multisited" forms of ethnographic research.

For archaeologists, adopting a cosmopolitan orientation means giving up universalistic assumptions about the meaning of the past. It means acknowledging, for example, that preservation of material artifacts may in fact sometimes go against the wishes of local groups with close connections to those artifacts. Dealing with

cosmopolitanism Being able to move with ease from one cultural setting to another.

such challenges means that cosmopolitan archaeologists will no longer be able to avoid involvement in legal and political debates about the future of cultural heritage, even as they come to recognize that their views may carry less weight than the views of other stakeholders. "Cosmopolitans suppose . . . that all cultures have enough overlap in their vocabulary of values to begin a conversation. Yet counter to some universalists, they do not presume they can craft a consensus" (Meskell 2009, 7).

Archaeologist Chip Colwell-Chanthaphonh (2009), for example, asks "Can the destruction of heritage ever be ethically justified? If so, by what principle, why, and under what conditions?" He speaks of "the preservation paradox"—that is, "the concept of preservation is itself culturally conceived," with the result that "one group's notion of cultural preservation can be another group's notion of cultural destruction" (143). Colwell-Chanthaphonh describes disagreements about the ethics of preservation of artifacts valued in different ways by different groups in the American Southwest. Commitment to a "salvage ethic" led nineteenth-century collectors to "rescue" sculptures that the Zuni purposefully left to deteriorate in sacred shrines. "This is the core of the salvage ethic, the urge to 'preserve' objects by physically protecting them. But for the Zunis, such acts that aspired to cultural preservation were in fact acts of cultural destruction" (Colwell-Chanthaphonh 2009, 146).

Conflict over whether to preserve or to destroy ancient rock carvings is an issue that divides the Navajo people and the Hopi people, both of whom have lived in the American Southwest for a very long time. Hopi people wish to preserve these rock carvings, which they regard as "monuments to Hopi history, proof of ancestral homelands and clan migrations" (Colwell-Chanthaphonh 2009, 149). Navajo people, however, regard all ruins from the past, including these rock carvings, as products of human evil or the activity of witches. Contact with the rock carvings is believed to cause sickness or other misfortunes and curing ceremonies involve the destruction of the carvings. These days, moreover, the Hopi and Navajo peoples are far from being the only groups who assign meaning to carvings and ancient ruins in the American Southwest (Figure 6.17). As Colwell-Chanthaphonh (2009) points out,

the ancient ruins of Chaco Canyon in New Mexico are at once a Hopi ancestral site, a locus of Navajo spiritual power, a ritual space for New Agers, an archaeological and scientific resource, a National Historical Park of the United States, and a UNESCO World Heritage Site. . . . Clearly, in anthropological as much as ethical terms, such a complex convergence of people,

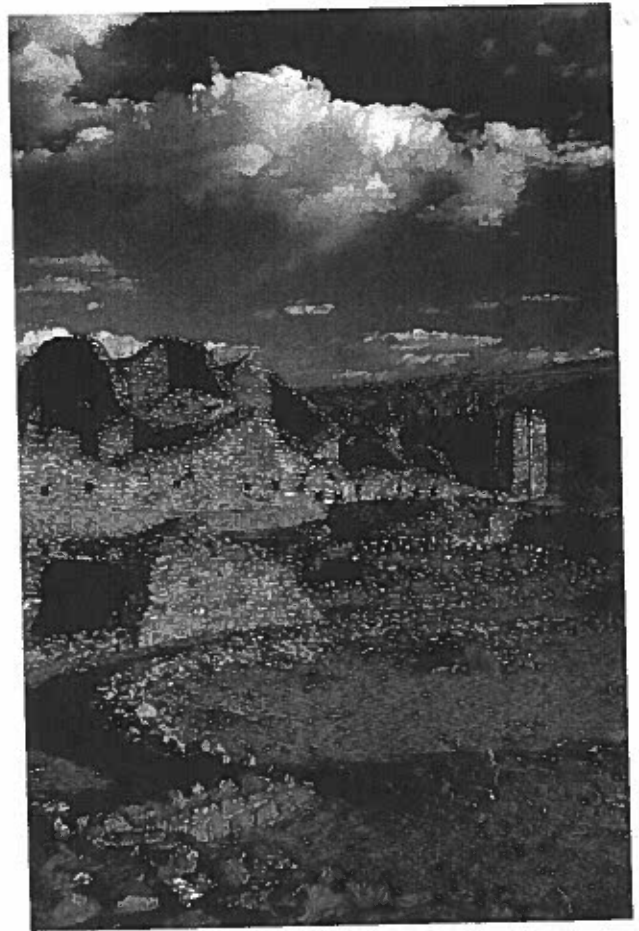


FIGURE 6.17 Preservation and use of material artifacts or ruins, such as the ruins at Chaco Canyon in New Mexico, can be complicated by the range of different and sometimes opposed interests that different groups bring to them.

communities, and institutions cannot be reduced to just intra-nationalist, nationalist, or internationalist claims. The key ethical problem . . . is not so much categorizing rights but trying to illuminate the relationships. (2009, 151)

This is the reason a cosmopolitan approach appeals to him: "we must develop a sophisticated understanding of how heritage works from the individual level, to the community, to the nation and beyond it. . . . A just solution cannot simply pick out the rights of one group but must instead interweave these multiple values" (2009, 152). Colwell-Chanthaphonh recommends what he calls "the principle of complex stewardship": that is, "we should maximize the integrity of heritage objects for the good of the greatest number of people, but not absolutely" (160). To maximize the integrity of heritage objects would support those who want objects preserved. Concern for the good of the greatest number, however, would mean that the positions of

other stakeholders with different views would also be included and might carry great weight, especially if they outnumbered the preservationists. Even then, however, the majority position might not necessarily carry the day because special consideration would need to be given to those whose ancestors made the objects or who are closely connected to them in other ways. The

principle of complex stewardship is not a ready-made solution to disputes about the management of cultural heritage; rather, it is "a frame archaeologists can use to begin deliberations on ethical predicaments" (Colwell-Chanthaphonh 2009, 161). Finding solutions, for cosmopolitans, involves negotiations whose outcome cannot be predicted in advance.

Chapter Summary

1. By the end of the last Ice Age, cultural variation, not biological species differences, distinguished human populations from one another. Archaeologists interpret cultural variation and cultural change in the human past. Archaeology has changed focus over time, from reconstructing material remains or lifeways of past human groups to explaining the cultural processes that led to particular kinds of material culture to emphasizing the role of human agency and the power of ideas and values in the construction of past cultures.
2. Archaeologists trace patterns in past human cultures by identifying sites and regions of human occupation and by recovering artifacts, features, and other remains of human activity from these sites. In all cases, they are concerned with recording information about the context in which these remains are found.
3. The survival of archaeological remains depends on what they were made of and the conditions they experienced over time. Very dry and very cold climates and oxygen-free, waterlogged settings preserve many organic remains that would decay under other circumstances. Natural catastrophes, such as mudslides and lava flows, sometimes bury sites and preserve their contents remarkably well. Ethnoarchaeology and taphonomy are two methods archaeologists use to help them interpret the meaning of the remains they find.
4. Before archaeologists begin their work, they survey the region they are interested in. Surveys, whether on the ground or from the air, can yield important information that cannot be gained from excavations. Excavations are done when archaeologists want to know a lot about a little of a site. The style of excavation depends on the kind of site being excavated. As the excavation proceeds, archaeologists keep careful records to preserve contextual information. Much of the final analysis of the remains is carried out in laboratories, but some archaeologists promote the integration of discovery and analysis by bringing theorists to excavations in progress to engage in "interpretation at the trowel's edge." Storage and retrieval of archaeological data in digital databases presents challenges and also offers rich possibilities.
5. Artifacts and structures from a particular time and place in a site are grouped together in assemblages; similar assemblages from many sites are grouped together in archaeological cultures. Archaeological cultures are constructed by archaeologists to reflect patterns in their data, so they cannot be assumed to represent specific ethnic groups that existed in the past. Archaeologically reconstructed societies are classified using a taxonomy of forms of human society that was developed in conjunction with cultural anthropologists in the middle of the twentieth century. Its major categories are bands, tribes, chiefdoms, and states.
6. In recent years, many archaeologists have rethought their traditional methods. Feminist archaeologists explored why women's contributions have been systematically written out of the archaeological record. Gender archaeologists have questioned the assumption that a male-female gender division is universal and have asked instead how variation in sex, gender, and other kinds of difference can be inferred from archaeological remains of past societies. Collaborative forms of archaeological research have increasingly involved cooperation between scientists and members of groups with past or current connections to the sites under investigation. In recent years, however, archaeological sites and artifacts have become the target of claims by a number of additional groups, including local

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