

# SECTION F

## Bonus Issues and Debates

### ISSUES AND DEBATES

#### F.1.

#### What Do Professors and CRM Archaeologists Think of Each Other?

When I (G.T.G.) was teaching my first archaeological methods course at a local community college but making most of my living doing contract archaeology, I arranged for the class to tour a site being excavated by a nearby university. The archaeologist running the excavation graciously showed the students around, explaining what was coming to light. Toward the end of the tour the professor turned to the class and described how exciting it was for him to be an archaeologist, closing with the remark that if he had to spend his life following around bulldozers like those contract archaeologists, he'd find something else to do for a living. Meanwhile, looking at the student units that were barely penetrating the root zone after weeks of excavation because of the decision to individually map each artifact, I could only think that working at this glacial pace would drive me crazy!

Attitudes like these illustrate just a little of the disrespect academic and CRM archaeologists have had for each other as the nature of archaeology has changed in recent decades. When the CRM boom hit in the 1970s and archaeological contract firms began to be established, academic archaeologists generally regarded the contracting archaeologists as having a lower level of competence than their professorial or curatorial colleagues. They remembered the early days of salvage archaeology when sites that were threatened with destruction either by construction projects or by the environment were excavated hastily, often as a volunteer effort, with the artifacts from the sites sometimes languishing in their original field bags, never being cataloged or analyzed. Reports, if they were produced at all, were often cursory. Although there also was a long history

of successful “salvage projects” like the Glen Canyon or Navajo Reservoir projects, the whole business of being paid to do archaeology outside the context of a museum or university seemed distasteful to many in academic circles.

As CRM grew and the number of projects being conducted in that environment exploded, dissatisfaction with the lack of published reports on CRM projects developed. There were suspicions that the profit motive in archaeological businesses led to short-cutting field methods and loss of important information. Indeed, there have been problems with reporting CRM archaeology, as well as problems with unethical contractors employing substandard methods to save money. It is true, as well, that some reports were never written because funding for the work dried up when a proposed construction project was abandoned. Nevertheless, many excellent projects with published reports, and important methodological and theoretical advances, have originated with CRM.

CRM archaeologists, on the other hand, have criticized academic archaeologists for focusing their work only on the big and rich sites, ignoring the smaller sites that may actually contain more important information about the day-to-day operation of past cultures. Laws like the National Environmental Policy Act, which require archaeological sites to be considered in the environmental process (see Table 1.1), oblige archaeologists to look at the full range of sites in a project area. Many sites that might have been overlooked on academic projects have been found to be very important, indeed. For example, CRM archaeology in Arizona has changed our entire perspective on the Hohokam prehistoric system. Chapter 1’s case study, “The Pueblo Grande Project: An Example of Multidisciplinary Research in a Compliance Setting,” discusses one of these projects.

Many contracting archaeologists also have criticized college and university archaeologists for not training their students to perform in the consulting world, where many of them will find

employment after graduation. This is discussed further in this section (see F.7, “Can Academia Train Archaeologists for the Twenty-first Century?”). At the beginning of the CRM boom, students who aspired to careers in contracting were not considered serious students, and even today some students report that their professors say things like “If you have to settle for work in CRM, . . .”

Fortunately, the situation has changed since the early 1970s. While there are still some hold-outs on both sides of the issue, there is today a great deal of cooperation and mutual respect. In all fairness, too, it should be pointed out that a significant number of academic archaeologists in the early 1970s embraced CRM and saw it as the natural extension of the programs they had been trained in—the programs that conducted the Glen Canyon Project, some of the River Basin surveys, and the archaeological surveys at UCLA and UC Berkeley. These academic archaeologists were strong supporters of CRM from the beginning. Several anthropology programs, like the one at Sonoma State University in California and the one at Indiana University of Pennsylvania where Neusius teaches, offer programs and advanced degrees in CRM or applied archaeology. Some anthropology departments, also have research units that do CRM projects. The value of CRM reports is becoming more evident, and these documents are being used in large regional syntheses. Indeed, many CRM projects both large and small include significant partnerships between private companies and academic archaeologists. Some firms are going further, setting up not-for-profit foundations to allow them to conduct grant-funded research that augments or complements their CRM work.

Today the disrespect between CRM and academic archaeologists is decreasing, to the benefit of all types of archaeology. While there is still some uneasiness in the relationship between CRM and academic archaeologists, attitudes are changing, and challenging careers can be found in both areas.

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### F.2.

#### The Curation Crisis

Sometime in the early 1980s an archaeologist received a phone call from another consulting archaeologist who was closing his office and leaving town. The consultant had some boxes of artifacts, and the first archaeologist could come pick them up if he wanted; otherwise the materials would be put out with the trash. The first archaeologist did pick up the boxes and took them to a storage bay that he had rented to house such collections. Unfortunately, this was not an isolated incident.

Ethical archaeologists today know that they are responsible for the artifacts they collect as part of the research process. Unscrupulous people, however, have conducted excavations without any thought of what would become of the collections after the contractors were paid for their work. The laws requiring excavation of archaeological sites as part of the environmental process sometimes have been silent about the disposition of the artifacts collected. Certainly funding for the care of artifact collections has not been routinely provided. Although this is a nationwide problem, California provides a particularly dramatic example. Since 1971, archaeologists in that state have been required to perform excavations as mitigation of impacts to archaeological sites under the California Environmental Quality Act (CEQA). Early in the process, archaeologists were able to put some of the collections they had made in existing museums or give them to anthropology departments at local universities, often in exchange for a small fee. Soon, however, the receiving institutions filled what little space they had available and were unable to take further collections. As a result, many archaeological consulting firms in

California have accumulated sizable collections of artifacts, photographs, field notes, analysis files, and computer disks, for which they often must rent storage space.

This is a problem for several reasons. First, the storage arrangements are not really permanent, as the preceding example indicates. Second, the conditions under which the collections are stored are generally far from optimal for the survival of the information contained in the collections. Although most of the material in these collections is quite sturdy, being primarily stone tools, flakes, and other items that have survived centuries or millennia in the ground, the paper records and the cataloging information are at risk with improper storage. Perishable artifacts also are in jeopardy. Catalog numbers can be eaten off the artifacts by silverfish, and paper catalogs can deteriorate. Storage on wooden shelves can be a problem, because over time gases that are emitted by the shelving can attack the paper in the collections, as well as the containers that house parts of the collections. Finally, the point of doing the data recovery excavations in the first place is to ensure the survival of information from the site. For the collections to yield new information, however, they must be available to researchers. Although many firms that have artifacts in storage would like to make them available to other researchers, the fact is that coordinating times to access the collections can be daunting. In some cases a search for material means going through all the collections in a given storage facility until the desired material is found.

CRM collections are not the only ones in danger, however. At many universities individual

archaeologists did their own research and brought back collections for further study. In some universities a museum took responsibility for the collections, cataloging them, managing them, and facilitating access to them. In many cases, however, the professor simply brought the collection back to her office or lab. When the research was done, the artifacts might be shuffled off to a basement or closet, and then, when the professor died or retired, they were often forgotten. Generally such collections were rediscovered when someone was looking for space. If the person finding the artifacts appreciated them for what they were, they might continue to be cared for. Many, however, wound up in a Dumpster.

When I was teaching a graduate seminar on the San Diego Presidio, I tasked the students with locating the collections from the university's excavations at the site between 1965 and 1975. Repeated inquiries produced no concrete results—no one knew where the collections were. Finally, at the end of the semester, one student found the collections shrink-wrapped to wooden pallets in a room off one of the parking structures—hardly adequate storage for irreplaceable artifacts. Indeed, it has been suggested that collections at universities are those in the greatest danger of being lost.

As you might suspect, this problem is not restricted to California. Part of the problem is that the sheer number of collections has grown tremendously since CRM archaeology developed in the 1970s. The collections at the University of Arizona's Arizona State Museum grew by over 900 percent between 1970 and 1990, from about 950 standard archival boxes to 8624. In the next 10 years that number doubled again (Thompson 2000). Archaeological material has clearly accumulated faster than the space for its care has been made available.

The federal government became interested in the problem of curation in the 1980s and in 1990 developed guidelines for the care of federally owned material. Known as 36CFR79 (Title 36 of the Code of Federal Regulations, Section 79), these regulations specify storage conditions, materials for containers, type of paper appropriate for written records (acid-free paper), and guidelines concerning accessibility for research. While almost no institutions met all

the requirements set forth in 36CFR79, the goals listed in the guidelines made museums and other curation facilities aware of best practices in collection storage and use.

The same concern that spawned 36CFR79 also led the federal government to delve into the status of federal collections. The U.S. Army Corps of Engineers developed the Mandatory Center of Expertise for the Curation and Management of Archaeological Collections in Saint Louis, Missouri. Teams were sent out by the Corps of Engineers to locate and evaluate the condition of collections from Department of Defense lands. Some were safe and sound on the shelves of museums, but others were found in warehouses, bunkers, and consultants' store-rooms. The teams are working on moving inadequately curated collections to repositories that can better care for them. They have also provided assistance to museums and other institutions with federal collections in terms of planning to bring facilities in line with 36CFR79 guidelines.

One of the institutions that received some planning help from the Corps of Engineers Mandatory Center of Expertise is the San Diego Archaeological Center, a grassroots nonprofit organization that was founded to care for archaeological collections from the San Diego region (Figure F2.1). Established as a committee in 1989, the San Diego Archaeological Center opened as a collections management facility in downtown San Diego in 1998. It started with contracts to care for some U.S. Navy collections, but soon it acquired collections from private environmental work as well. In 2002 the center established a relationship with California's state park system and moved to an old school adjacent to the San Pasqual Battlefield State Park Visitor Center. The San Diego Archaeological Center, which is the first and (to our knowledge) still the only such privately established facility to take steps to deal with the problem of all the uncurated collections, continues to grow and prosper in its new location, adding federal, state, city, and private collections. Not only are artifacts at the center used in research, but the center director has developed a number of exhibits, both at the center and in other public locations such as San Diego's airport and public libraries, based on center collections. An educational outreach



**FIGURE F2.1** The storage area at the San Diego Archaeological Center. Note the labeled, acid-free boxes of various sizes and the locked cabinet for more secure storage.

program geared for schoolchildren is also offered through the center.

Other facilities are opening, and some existing facilities are being enlarged to meet the current standards for care of archaeological collections. Indian tribes also have opened cultural centers that serve as curation facilities, and various universities have become involved in

curation efforts. For example, at Indiana University of Pennsylvania, where Neusius teaches, never-curated collections from transportation projects have been gathered for proper inventorying, cataloging, and repackaging. Under a contract with PENNDOT, the Pennsylvania Department of Transportation, university students and staff ensure that these collections are put in order and then send them to the Pennsylvania State Museum for long-term storage.

Nevertheless, there is still a backlog of collections in danger of being lost, either through actual discard of the material or through its deterioration. Collections in existing museums are also in danger. With the current budget problems, some states have considered closing state museums and museums affiliated with state colleges and universities, with no thought of what would become of the artifacts. Museums are also facing hard times, as the sagging economy dries up some of their traditional sources of donations. Some have considered trying to shed archaeological collections as a way to save on staff time and museum space. Although many archaeologists, administrators, and politicians are aware of the curation crisis, the problem is far from being solved.

## ISSUES AND DEBATES

### F3.

#### **A Local Reaction to NAGPRA: The Kumeyaay Cultural and Repatriation Committee**

It's a crisp fall afternoon in the San Ysidro Mountains of northern San Diego County. I (G.T.G.) am sitting in a chair in a room of one of the tribal buildings of the Santa Ysabel

Reservation. Teenagers work at computers in an adjoining room, part of the reservation education program, and the fragrant smell of beans and stew wafts in from the nearby kitchen. I am about

to describe the work I have been doing to delegates from 12 reservations. My project at the Scripps Estates site in La Jolla involved moving some disturbed burials from a private lot on the site so that the landowner could build a house there, and the group I am about to speak to is the Kumeyaay Cultural and Repatriation Committee.

The Native American Graves Protection and Repatriation Act (NAGPRA) is mentioned repeatedly in the text. This law, passed in 1990, protects Native American and Native Hawaiian burials on federal land, including burials discovered in the course of excavations on federal land, and gives Native peoples the opportunity to claim those remains for reburial. It also requires all museums, universities, and other institutions that have archaeological or ethnographic collections and that receive federal funding to inventory their holdings and determine whether they have Native American burials (or any Indian bone), grave goods, sacred items, or "items of cultural patrimony." An item of cultural patrimony is something that has special significance or importance to an entire tribe or group rather than being an individual's property. Native American and Native Hawaiian groups are to be notified of the items in a collection and are given the opportunity to request repatriation (return of ownership and control) of the material.

With the passage of the NAGPRA, many tribes realized that there was going to be a flood of paperwork as part of the notification process of the law. San Diego County has more Indian reservations than any other county in the country, and 12 of these are Kumeyaay. For institutions that had items identified as coming from Kumeyaay territory, that meant the notification would go to each of these reservations and, conceivably, more than one of them could file a claim for the particular items listed in the notice. In 1997 the Kumeyaay Cultural and Repatriation Committee (KCRC) was formed to facilitate the NAGPRA process and to provide a united front for the 12 Kumeyaay reservations. Each reservation sends delegates to the KCRC, and each tribal council passed resolutions authorizing KCRC to represent its members in matters of repatriation.

KCRC has been active in reviewing notifications, examining collections, and requesting material. Members have traveled to Washington, D.C.,

to view material at the Smithsonian Institution, and they have visited other museums as well. Remains have been returned to them and have been reburied with appropriate attention. KCRC has also been active in California politics. Frustrated that some museums that did not receive federal funds did not have to comply with NAGPRA, they helped write and lobbied heavily for the passage of a California version of NAGPRA. California NAGPRA was passed in 2001 and, among other things, extended the provisions of the federal legislation to institutions that receive state funding. It also established the Repatriation Oversight Commission to facilitate the implementation of the law. Another thing California NAGPRA accomplished was to give tribes that are not recognized by the federal government a mechanism by which to participate in the repatriation process. The federal version of the law applies only to tribal groups that the federal government has recognized, although unrecognized tribes can authorize recognized tribes to request material on their behalf. The issue of recognized versus unrecognized tribes is a complicated one that revolves around which groups signed treaties and which didn't. Also, some tribes have lost their "recognized" status with the federal government as a result of programs designed to encourage assimilation into the European American mainstream.

Even with KCRC acting as a voice for the Kumeyaay on repatriation issues, sentiment toward archaeology and archaeologists is divided in the Indian community. Some traditionalists believe, based on the custom of burning a person's property as part of tribal funeral rites, that all artifacts are equivalent to grave goods and should be reburied. Others, who view archaeology as a reasonable enterprise that can help them learn about their past, don't insist on the return of entire archaeological collections, although they are adamant that human bone, burial goods, and sacred items be returned. Helping to build understanding between KCRC and the archaeological community is a program that Dr. Lynn Gamble of San Diego State University has established with a federal NAGPRA grant. This program brings three representatives of the KCRC together with three archaeologists to discuss specific collections

and the objects in them that might be subject to NAGPRA claims by the Kumeyaay. As one of the archaeologists in that program, I have found it to be a personally enriching experience in which there has been some genuine communication about some difficult issues. I think the two sides understand each other a little better as a result of the meetings.

An important ongoing issue for KCRC is the disposition of the La Jolla remains. Several institutions holding La Jolla burials (see Chapter 7) have argued that there is not sufficient evidence of cultural affiliation between those burials and the Kumeyaay. This argument is based on a difference between the physical type of the La Jolla burials and that of living Kumeyaay, as well as burial practice (the La Jollans practiced flexed

inhumation, or burial of the body, while the Kumeyaay cremated their dead), and differences in material culture (the presence of pottery and small projectile points among the prehistoric Kumeyaay and their absence on La Jolla archaeological sites). The Kumeyaay say their traditions hold that they were created in the San Diego area and that any archaeological remains in the area are those of their ancestors, regardless of any changes in culture or head shape that have occurred over time. Archaeologically, there are good arguments on both sides of the issue, though I think the evidence for continuity is strongest. Meanwhile, the KCRC is vigorously pursuing the goal of repatriating these burials so that they can rest in the ground again.

## ISSUES AND DEBATES

### F4.

#### Why Is the Kennewick Case So Significant?

In 1996 many human bones, including a skull, were found washing out of the bank of the Columbia River near Kennewick, Washington. The county coroner consulted James Chatters, an archaeologist/physical anthropologist who often consults on forensic cases involving skeletal materials in the area. Chatters took the usual measurements, made the usual observations, and concluded that these skeletal materials were those of a male Caucasoid who had died between the ages of 40 and 55. He also noticed that this man had had a rough life. For example, a large object had penetrated his right hip, and the bone had healed over the wound site. Chatters first presumed that the wound had been caused by a bullet or a piece of shrapnel, but an X-ray image

showed that the object wasn't metal. Then a CT scan revealed a stone spear point with a distinctive leaf shape! The man whose bones had been found had been injured by a point, made by hunters living on the Columbia Plateau between 9000 and 4500 years ago! Chatters was intrigued. Could a white settler have been injured with a stone point that was thousands of years old? Was this a bizarre recent murder? On the other hand, if this was a white person, why did the teeth show the heavy wear and lack of cavities typical of Native American hunter-gatherers because of their high-grit, low-carbohydrate diet? At this point, Chatters took a small scrap of bone from the skeleton to the University of California–Riverside Radiocarbon Laboratory. When the bone sample

was dated as between 9200 and 9500 years old, a major controversy was ignited.

As indicated earlier, human skeletal material of this age is rare. A skeleton as complete as the Kennewick specimen is even rarer. Moreover, the features of the skeleton are different from those of contemporary Native Americans, which is why Chatters originally thought he was looking at the bones of a white settler or even a modern Washingtonian. These skeletal materials can be grouped with other early skeletons that have crania narrower and longer than is typical of Indian populations found today in the Americas. Detailed knowledge of the features of the Kennewick cranium—features that most closely resemble Polynesians, southern Asians, and the Ainu of Japan—could provide important clues to the source of early migrations into the Americas

(Figure F4.1). As older consensus positions on early settlement seem to be unraveling in the face of new data, a skeleton like Kennewick is a scientific prize. You might expect that it would be the focus of careful study.

However, the story is not that simple. The Kennewick bones were recovered on land retained for flood control purposes by the U.S. Army Corps of Engineers. This meant that all federal laws and regulations about the handling of skeletal materials had to be considered. Notably, the Native American Grave Protection and Repatriation Act of 1990 (NAGPRA) appeared to apply. Among other things, this law states that when Native American skeletal remains are recovered on federal property, possibly affiliated tribes must be contacted and the remains offered to them for reburial. Study of the remains beyond



**FIGURE F4.1** Possible reconstruction of the Kennewick man's facial features.



determination of affiliation is not allowed unless granted by the tribes. Once the early date for the Kennewick bones had been obtained, it seemed reasonable to consider the Kennewick skeleton Native American. Five days after the radiocarbon results were made public, the Corps announced its intent to repatriate the remains to an alliance of Northwest Indian tribes: the Umatilla, the Yakima, the Nez Perce, the Wanapum, and the Colville. The Umatilla, taking the lead, insisted that Chatters turn over the bones and stop immediately any further study, including scheduled DNA testing and examination by Smithsonian Institution staff. To the tribes, this was a matter of sovereign rights and respect for the dead. Over some protest that the remains were not really Native American, the Corps took possession of the bones and proceeded with plans to turn them over to the tribes.

Before the tribes had received the remains, however, eight prominent physical anthropologists and archaeologists sued the federal government, stopping the NAGPRA process. At issue was whether the government had violated NAGPRA by ignoring evidence that the skeleton might not be affiliated with the tribes, thus nullifying any tribe's right to prevent scientific study of the materials. Also at issue was whether the Corps burial of the discovery site along the Columbia River without allowing further scientific excavation and study violated the National Historic Preservation Act (NHPA), which requires the federal government to prevent destruction of cultural resources in its undertakings. Since its inception, this complicated case has had many twists and turns.

Before ruling on the matter, the judge ordered the government to carefully reconsider all the issues, especially those of affiliation. Biological and cultural studies done at this time reestablished that physically the Kennewick individual did not closely resemble modern Native Americans, although Polynesian and South Asian affiliations rather than European were suggested. Archaeological studies indicated connections between the tribes and people in the area as long ago as 5000 BC, while linguistic evidence indicated that the tribes' ancestors had been present in the region for at least 2000 years. Indian oral traditions that they had always been in the area also were considered.

In early 2000 the government agencies reaffirmed the position that the Kennewick bones were Native American based on their age and on tribal oral traditions, and in September 2000 the agencies indicated that they still believed NAGPRA required them to repatriate the remains to the tribal coalition. Many physical anthropologists and archaeologists questioned the validity of this decision, which did not take into account all the evidence the government itself had gathered. The court also found much fault with the government's reasoning, ruling that NAGPRA did not apply because the skeleton was not Native American and that the scientists who brought suit could study the remains. The court also determined that burial of the discovery site had violated NHPA. This opinion was issued at the end of August 2002, but before the required protocols for study of the remains could be approved and investigations could begin, the government appealed the decision. This stopped study once again. Then in February 2004, the Ninth Circuit Court of Appeals upheld the original court's decision. This decision was not appealed, but changes in the statute itself are now being sought. Meanwhile, this skeleton is finally being studied.

There is no single position about the Kennewick case held by all archaeologists or among all Indians. Indeed, the case is significant precisely because it encapsulates many policy issues that students of North American archaeology need to consider. In the court case itself, the issue was not whether scientific and scholarly interests outweigh descendant's rights or about respecting nonscientific as well as scientific ideas concerning the past. The question was whether the government followed NAGPRA appropriately. With respect to human remains, NAGPRA establishes what most archaeologists believe—when direct descent is evident, the descendants should have the primary say with respect to disposition. Many archaeologists see the NAGPRA process as a way to balance possibly competing interests in human skeletal material.

The Kennewick case also is muddled by facile references to modern racial types such as Indian, white, and Asian. Most anthropologists question whether biological races are meaningful ways to explore human variation, noting that there is relatively little covariation among traits

and, thus, more variation within racial categories than between. In forensic cases, scientists can assess certain cranial characters with a view to making a guess about the population from which an individual came. Yet in the Kennewick case, we don't know enough about the configurations and distributions of human populations 10,000 to 12,000 years ago to make much sense out of a racial type. This is why scientists want to study the skeleton in the first place!

Ultimately, this case may help all concerned parties to sort out difficult issues, but the court decisions so far have only muddied the waters. Indians may feel that progress in recognizing their rights has been lost. Government officials may remain confused about how to apply NAGPRA. Moreover, some archaeologists are concerned about the implications of the court's classification of the remains as non-Native American. They would prefer a category designated "unaffiliated

Native American remains," and NAGPRA in fact acknowledges that procedures for such a category should be developed. The important questions here are very hard to answer. Should Native Americans have sovereign rights over all pre-Columbian human and cultural materials or just some? How are we to determine the descendants for people who inhabited North America many millennia ago? What is to be done if affiliation cannot be established? Also, what was the intent of NAGPRA, and how should it be applied by government agencies? The Kennewick case should remind us of the continuing need for fair and balanced policy and procedures. Many of the issues we must confront with respect to human skeletal remains have not been resolved. Hopefully, as the Kennewick case and reactions to it continue to unfold, we will both develop better policy and learn more about the complex peopling of the Americas.

## ISSUES AND DEBATES

### F.5.

#### Was There Cannibalism in the Prehistoric Southwest?

Cannibalism is a controversial topic. In early 2005 as Walt Disney Pictures was filming sequels to its hit Johnny Depp film *Pirates of the Caribbean: The Curse of the Black Pearl*, a controversy arose over the incorporation of a scene depicting Carib Indians roasting Depp's character on a spit. A Carib leader called for a boycott of the filming because he claimed the historical accounts of cannibalism were made up by Europeans in part to justify their conquest of the Caribs. Other members of the leader's group, however, disagreed with him and worked on the film in various capacities. If a film scene

in an area with historical accounts of cannibalism can stir controversy, imagine what can happen with respect to archaeological claims of cannibalism in the northern Southwest where there is no historical mention of the practice, and there are many Native descendants!

Archaeologists, noting patterns of burning and cut marks on bits of human bone, have made just that suggestion in the past. Indeed, the earliest case dates back to 1902 (Hill 2001). Some archaeologists have questioned the various cases over the years, and many Native Americans in the Southwest do not accept the

archaeological evidence at all. They point out that the Pueblo people have a reputation for being peaceful. The controversy continues.

There are several important studies that point to the practice of cooking humans within Ancestral Pueblo territory. Spurred by an interest in possible Neanderthal cannibalism, Tim White, of the University of California, examined bones from a pueblo below Mesa Verde in southwestern Colorado. Much of his 462-page book, *Prehistoric Cannibalism at Mancos 5MTUMR-2346* (White 1992), is devoted to how cannibalism can be recognized in the archaeological record, and it is an excellent example of using the scientific method to address such questions about the past. After developing criteria, he applies them systematically to bone samples from the site, documenting numerous examples of human bone that showed evidence of cooking and cutting. In all, remains from nearly 30 individuals were identified as having been cooked.

More recently, Christy and Jacqueline Turner (1999), in their book *Man Corn: Cannibalism and Violence in the Prehistoric American Southwest*, examine the case for cannibalism at 76 sites. Using criteria that include cut marks, breakage, abrasion from contact with an anvil stone, burning, missing vertebrae, and a phenomenon called “pot polish,” presumably caused by stirring of the bones while they were being boiled in a ceramic vessel, they find 30 solid examples of evidence for cannibalism. The Turners explain this practice as a result of the presence among the Ancestral Pueblo people of Toltecs from Mesoamerica, who engaged in human sacrifice and cannibalism. This is an element of their book that is even more controversial than the assertions that the Anasazi cooked people in the past.

The conclusions drawn by White and Turner and Turner have not been universally accepted either by scientists or by the public, and they have met particularly strong objections from Southwestern Indians. Some people argue that the supposed cut marks are the result of animal gnawing, that the burning may be related to ritual, as may the breakage. For example, it is often suggested that the evidence points not to cannibalism but to customs that included the execution and dismemberment of witches

(Whitze 2001). Unfortunately, much of the debate was carried out in the popular press rather than in scholarly journals, and many derogatory things were said, particularly about those who argued that Ancestral Pueblo cannibalism was demonstrated by the examples cited.

Despite the continued criticism, White and the Turners appeared to have made a strong case for the assertion that human remains were cooked and cut up in the Four Corners region in the past. The argument for actual eating of flesh was circumstantial, however. Excavations at a site called Cowboy Wash, located about 40 miles (65 km) west of Mesa Verde, provided some solid evidence, in the form of a protein, for the ingestion of human flesh by humans (Marlar et al. 2000). Myoglobin is a protein found in meat, and each species of mammal produces a distinct kind of myoglobin. The archaeologists who excavated the site submitted a human coprolite from the site for analysis. The analyst, Richard Marlar, a molecular biologist, found human myoglobin in that coprolite. Interestingly, myoglobin is not found in the tissues of the intestinal track and would not have been shed by the person who produced the feces. It could only have come from ingested human flesh. In addition, human myoglobin was detected in residue from cooking pots. Marlar performed a control test on other coprolites and artifacts from contemporaneous sites in the vicinity and did not detect any myoglobin. The archaeologists had suspected cannibalism because of the broken, cut, and burned human bone at the site, bone that met the criteria set forth by White and the Turners.

Even the myoglobin data have been questioned, however. Some have argued, for instance, that the coprolite was that of a dog that had scavenged human flesh from exposed corpses. There was, indeed, evidence of violence, and unburied dead are a possibility. The dog hypothesis, even if correct, does not explain the myoglobin in the cooking vessels.

So the controversy rages unabated. Although indeed many Indians in the area are unhappy with the entire topic of cannibalism research, this is not a universal feeling. Terry Knight, of the Ute Mountain Ute Reservation, the tribal elder who oversaw the excavation for the tribe, is quoted as saying: “Like any other

civilization, there were good, productive people, and there were bad people” (Verrengia 2000). This raises an important point. Saying that there is evidence of cannibalism among the Anasazi is

not the same as saying the Anasazi were cannibals, any more than evidence suggesting the Donner party ate human flesh to survive makes all frontier Americans cannibals.

## ISSUES AND DEBATES

### F.6.

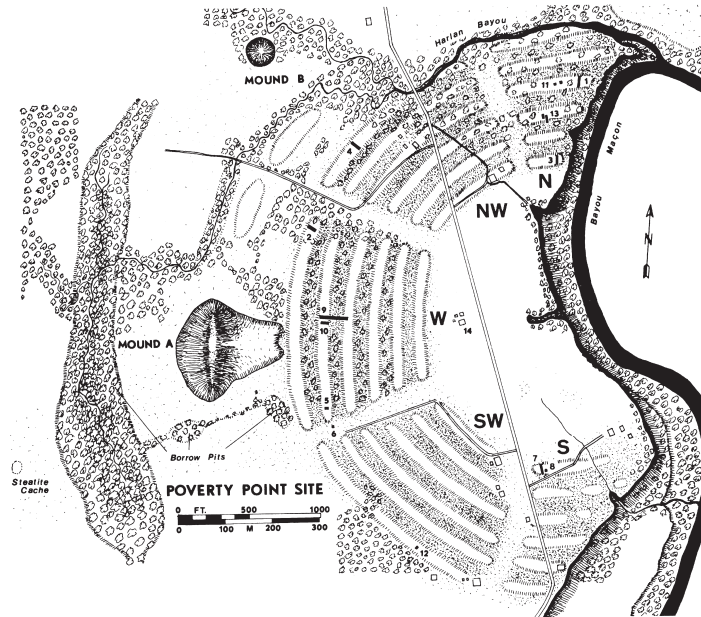
#### Ridges, Aisles, and the Map of Poverty Point

Poverty Point is one of the best-known archaeological sites in eastern North America. Dated to the Late Archaic, the earthworks at this site are not North America’s oldest, but they dwarf any other construction until Middle Woodland times. Archaeologists have variously interpreted this site as a vacant ceremonial center, as a great town at the center of a ranked polity, as the location of regional trade fairs, and as a more modest community inhabited by impressively talented stoneworkers. Whatever the correct interpretation, this site’s plan, with its six open, concentric rings and large irregular Mound A to the west, is instantly recognizable to most North American archaeologists (Figure F6.1). Yet an understanding of the site plan at Poverty Point has been less straightforward than this statement might suggest, and small but possibly significant modifications from the most widely known map may be warranted (Kidder 2002a).

On one foray in his boat *Gopher*, C. B. Moore, who was an early explorer of earthworks, visited Poverty Point. During the winter of 1911–1912, Moore did not notice the rings, but he thought there were six mounds at the site arranged in the shape of a “rude circle” (Moore 1913:67). In fact, the concentric ridges or rings were not noticed until the 1950s, when archaeologist James Ford noticed them in aerial

photographs. Ford believed that Moore and others had missed the rings because they covered so much area. This is a believable explanation to anyone who has visited Poverty Point. Without the park’s aid in marking the ridges, their low height would make them hard to see as they stretch out across an area more than three-quarters of a mile in diameter!

The well-known plan of Poverty Point comes mainly from the map Ford drew by tracing features on an enlarged aerial photograph. Since trees covered parts of the rings in the photograph, we know some estimation was involved. Ford’s map was published in 1954 (Ford 1954) and revised slightly two years later (Ford and Webb 1956). A still later version (Webb 1977), that is shown in Figure F6.1, has become the most familiar. These maps all showed six highly symmetrical, concentric rings that faced east, with the large Mound A to their west and the smaller Mound B toward the northwest, though the ring configuration evolved from subtly octagonal to circular. The rings were nearly identical in size and were divided into five sectors by radiating breaks or aisles. The sectors, labeled North, Northwest, West, Southwest, and South, have been used to sort materials recovered. Some have proposed significant differences between site activities or possibly kin groups based on these sectors.

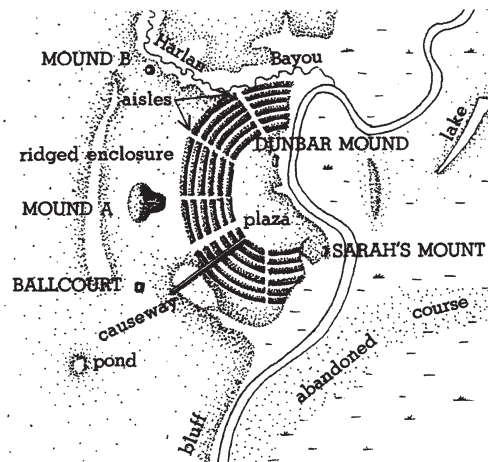


**FIGURE F6.1** The familiar site plan of Poverty Point based on tracings of aerial photographs.

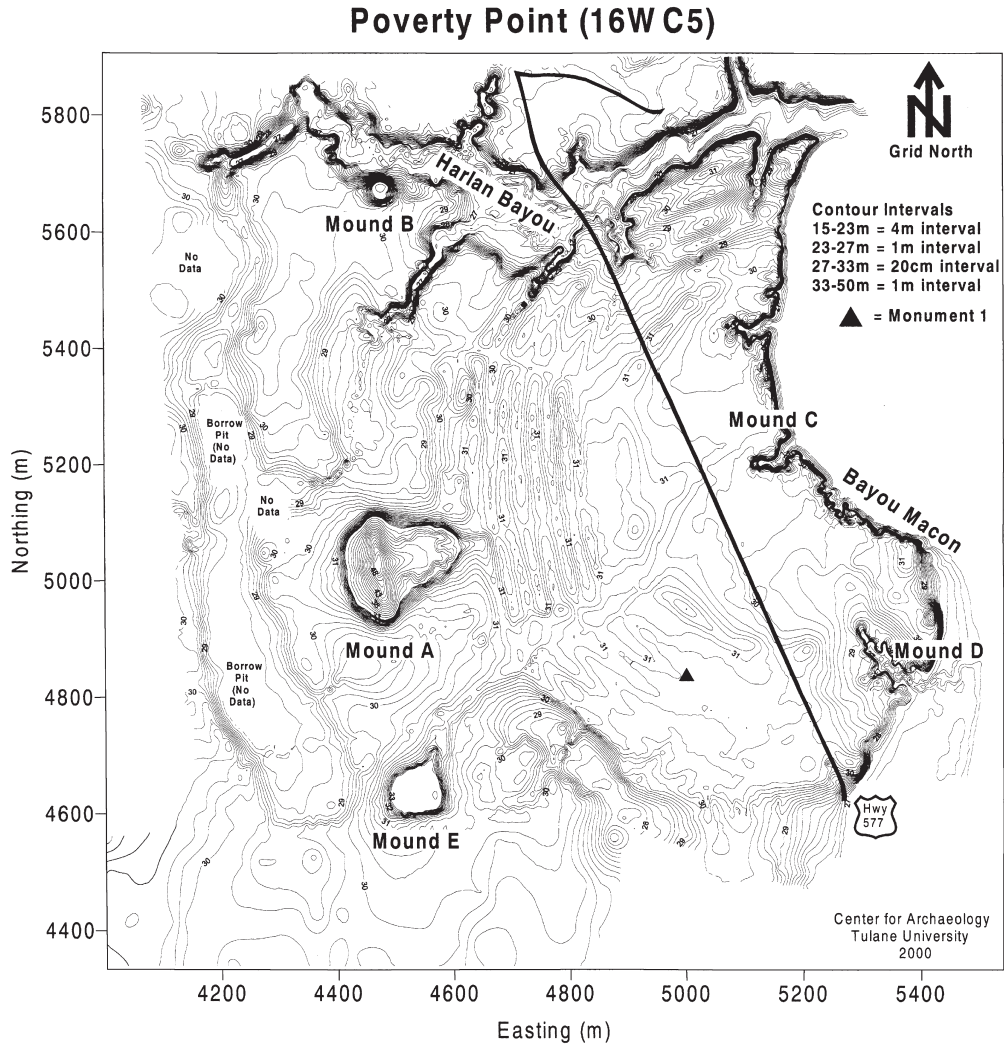
Maps of this site have emphasized symmetry, regularity, and planning of the aisles and ridges. These characteristics fit well with the idea that Poverty Point was a planned community built more or less at once. Excavations show that people lived at the site before the rings were built and that they lived on the rings themselves. Nevertheless, the regularity of the site plan also has been thought by many to have a symbolic significance. For example, Gibson (2000) suggests that the rings were built to follow a cosmological blueprint for which 6 is a sacred number. Another popular idea is that alignments in the site plan can be associated with astronomical events (e.g., Brecher and Haag 1980).

Yet by the 1980s, archaeologists working at the site suspected that the standard site plan maps ought to be revised. Work at this time resulted in several additions to the site plan but little change in its overall symmetry and regularity (Gibson 1984). Three additional mounds were recognized, and the Motley Mound to the north was perceived as part of the site. Note Dunbar Mound, Sarah's Mound, and Ballcourt Mound in

Figure F6.2, as well as a fifth aisle bisecting the west section of rings. The eastern edge of the site also was found to be much more irregular than is indicated on earlier maps, and one section that has a gentle, stepped slope down to the bayou is



**FIGURE F6.2** Updated basic plan of Poverty Point.



**FIGURE F6.3** Contour map of the Poverty Point site based on topographic data gathered between 1999 and 2000.

apparently not natural, but the result of prehistoric earthmoving. Finally, the existence of a causeway traversing the Southwest ring segment and a depression between the rings and the Ballcourt Mound was also noted. Amazingly enough, given the site's importance, a detailed topographic map of the entire Poverty Point site was not attempted until 1999–2000 (Kidder 2002a). The sheer size of the site as well as limited resources had kept completion of this task out of reach. However,

Total Data Station mapping equipment, which records point coordinates directly into a computer file and is now standard in cartography, has made the process more efficient. The topographic map of Poverty Point generated in this manner is based on 10,385 data points (Figure F6.3).

Review of the new map tends to confirm the additions made to the site plan in the 1980s but raises several questions. Both Ring 2 and the south segment are not evident topographically,

while other segments vary in their visibility. These deviations from the traditional plan probably are due to repeated plowing. On the other hand, the aisle usually shown between the Northwest and North ridge segments does not appear. This absence is not easy to explain unless such an aisle never existed. More importantly, this topographic map argues against the kind of symmetry and regularity suggested in earlier maps. Indeed, Figure F6.3 may appear confusing in comparison to the neat drawings of Figures F6.1 and F6.2.

Clearly the mapping of Poverty Point is a work in progress. It is important to realize that

topographic survey gives us one type of data that must be interpreted and then tested against other sources of information. Many questions remain about the plan of Poverty Point. Should the standard site plan be modified to drop the northern aisle? Should the plan show less symmetry and regularity? If the plan were considered to be less symmetrical, what would be the significance for propositions about cosmology and astronomy? Ultimately, what does the site plan tell us about the organization of the community and the reasons for earthwork construction? With this amazing site, as in all good research, the more we learn, the more questions we have.

## ISSUES AND DEBATES

### F.7.

#### Can Academia Train Archaeologists for the Twenty-first Century?

As the twentieth century closed, archaeologists throughout North America began to realize how much the discipline had changed since the 1970s as a result of legislation designed to better protect and preserve cultural resources. Besides increased resource protection and increased knowledge about the past, these laws have led to the growth of CRM archaeology. As one archaeologist has pointed out, this growth really represents success—both success in creating new jobs in the field and success in influencing public policy concerning archaeological sites (Snow 2000). In addition, of course, techniques have changed as new ways of gathering information have been developed.

A sometimes forgotten result of our success is that archaeologists need different skills now than they did 40 years ago. Today, the market for professional archaeologists is largely outside

academia, and the M.A. rather than the Ph.D. is the degree required for entry into the profession. In addition, many people with bachelor's degrees find work as archaeological technicians in the field and laboratory phases of CRM projects. Despite frequent lack of mutual respect noted in Section F.1, most of today's archaeology students are likely to work in the CRM industry, either temporarily or permanently. Are academic departments reflecting this situation, or are the curricula offered still focused on producing members of the professoriat? Many North American archaeologists agree that traditional curricula do not provide sufficient training, but there is active debate about what specific changes ought to be made, and curricular reform is just beginning (Krass 2000).

On the one hand, many academics continue to express concern about adopting a strictly

vocational focus in archaeological curricula. They argue that archaeology students pursuing CRM careers still need to develop background knowledge about diverse cultures and to understand the theoretical debates taking place within the discipline. Otherwise the CRM work they do will add little to our understanding of the past. On the other hand, the disparaging view of CRM archaeology held by some of the professoriat is clearly flawed (Schuldenrein 1998a, 1998b). Public archaeology is not a second-rate form of archaeology practiced only by the least capable of archaeologists. Instead, increasingly, it is the main context for doing archaeology in North America (Altschul and Patterson 2010; McGimsey and Davis 2000). Archaeologists' concerns about the overall quality of CRM work cannot be addressed by ignoring the field when training student archaeologists.

While debate continues, attempts to address curricular reform have begun. In 1998, the Society for American Archaeology held a workshop at Wakulla Springs in Florida, bringing together archaeologists who taught undergraduate and graduate students and archaeologists who worked for government agencies and CRM firms to discuss how curricula should be changed. These discussions resulted in the development of the principles for curricular reform (see Table 14.1) as well as an invitation to the professional and student archaeological communities to comment on these via the SAA website. Topics identified by these principles as important in the education of archaeologists include the stewardship of archaeological resources, the diverse stakeholders in archaeology, the social relevance of archaeology, archaeological ethics, communicating effectively, basic archaeological lab and field skills, and real-world and problem-solving experience. The SAA also published a

discussion of the key issues involved in how archaeology should be taught in the twenty-first century (Bender and Smith 2000). The grant-funded project called M.A.T.R.I.X. (Making Archaeology Teaching Relevant in the XXI Century), which is intended to provide aids to develop undergraduate and graduate courses in archaeology, is another outgrowth of these SAA initiatives. Individual departments also have begun to respond by developing new curricula. Today, resources for developing appropriate courses are available on the web (<http://www.indiana.edu/~arch/saa/matrix>).

Discussion among archaeologists about what these principles mean for the development of archaeology curriculum is ongoing (Neusius 2009), and it will be interesting to see how changes are incorporated over the next few decades. Because of the way course and curricular revision must proceed at a university, one cannot realistically envision a complete revamping of curricula overnight. Instead, a few new courses can be added, internship experiences can be offered, and the content of existing courses can be modified to include materials not presented in the past. If you are reading this text as part of a course on North American archaeology, you may very well have an example of how an existing course might be updated effectively in how your instructor has handled the course. Certainly, we have tried to write this text to allow an instructor to introduce topics such as those indicated in the principles of curricular reform. If you pursue archaeology, you can also make sure to select courses and experiences that combine to give the broad training and perspective you will need if you work in North America. The future of archaeology in North America is bright, but its practitioners must be prepared for the complexities of twenty-first century practice.