the nation 'to uncover information regarding malnutrition, premature deaths, and other human afflictions' (Riding-In 1992:26-27) (citing Vine Deloria, Jr., "A Simple Question of Humanity: The Moral Dimensions of the Reburial Issue," Native American Rights Fund Legal Review Fall 1989, p. 5). Finally, it should be noted that under some tribal religious views, scientific testing of human remains is considered inappropriate behavior (Marsh 1992:92).

8. A recent case illustrates the potential problems for Indian tribes seeking to protect sacred ancestral sites under the NHPA. In Pueblo of Sandia v. United States, the Pueblo of Sandia and various environmental groups brought an action against the United States and a National Forest Service supervisor, alleging that the Forest Service failed to comply with the National Historic Preservation Act in its evaluation of Las Huertas Canyon in the Cibola National Forest. The Forest Service had concluded that the canyon did not constitute a traditional cultural property and it promulgated a new management strategy for the area. The Forest Service relied on a report by one expert, although there were conflicting opinions by experts testifying on behalf of the Pueblo that indicated that the canyon was a traditional cultural property. The District Court upheld the conclusion of the Forest Service, although it was later overruled by the Tenth Circuit, which held that the Forest Service's efforts "were neither reasonable nor in good faith." See Pueblo of Sandia v. United States, 50 F.3d 856 (10th Cir. 1995). On remand, the experts will most likely develop their reports and a final determination will be made as to the legal status of Las Huertas Canyon.

After decades of archaeological research during which Native American oral traditions were virtually ignored as a source of information about the past, archaeologists are once again turning to oral traditions as a means of enhancing scientific interpretations of the past. Much of this change is a result of recent legislation, at the federal and state levels, mandating repatriation and the inclusion of Native American traditional cultural properties as an integral part of historic preservation activities. This change has immense potential for positive collaborations between archaeologists and Native Americans, as well as for developing more comprehensive and inclusive interpretations of the past. At the same time, it is fraught with problems of misuse and misunderstanding.

In this paper we briefly address some of the issues that underlie the process of collaboration between archaeologists and Native Americans. Assumptions, methods, relevancy, and expectations differ for both groups. Collaboration requires mutual
understanding and respect, and it is with this in mind that we outline some similarities and differences that should be considered by archaeologists when using oral traditions in research. First, we discuss the nature of knowledge in oral tradition and archaeology, followed by the structures of Native American oral tradition and the archaeological record that are in some ways similar and in others different. We then address the issue of relevance that archaeology may or may not have to Native American oral tradition and the relevance of oral tradition to archaeology. Time and space, which provide a fundamental framework in archaeology, often have different meanings in oral traditions, and this can be difficult to reconcile in a scientific framework. We discuss research methodologies and the uses of oral tradition in archaeological research. We conclude with a statement concerning the need for respect and sensitivity in the research of oral traditions.

Nature of Knowledge in Oral Tradition
and Archaeology

As archaeologists begin to incorporate Native American oral traditions into archaeological research once again, it is important to recognize that oral traditions and archaeology represent two separate but overlapping ways of knowing the past. There is no doubt that a real history is embedded in Native American oral traditions, and that this is the same history archaeologists study. Oral traditions contain cultural information about the past, carefully preserved and handed down from generation to generation within a tribe. The archaeological record contains material remains of past human behavior that provide physical evidence for many of the same events and processes referred to in oral traditions. Oral traditions and archaeology both have inherent but different limitations, which is why combining them in research can create knowledge that goes beyond what is possible using either source by itself. In this respect, oral traditions have a potential to assist archaeologists in the interpretation of the archaeological record, and archaeology can be useful in the corroboration of oral tradition, such as in court cases regarding land claims or water rights. However, the utility of archaeology to enhance Native American oral tradition in traditional cultural contexts is limited and often irrelevant.

Oral traditions are narrative statements about the world as known by the group that maintains and transmits that knowledge from person to person. For scientists, including archaeologists, theory does the same thing; it is a statement about how the world works. In many ways, oral tradition is akin to scientific theory. Both oral traditions and theory are subject to change when circumstances warrant. Oral tradition incorporates new experiences by layering new information into existing oral narratives. In this way, the new collective experience becomes incorporated into knowledge about how the world works. In science, a theory is modified as a result of the learned experience from research.

One of the fundamental differences between oral tradition and science is how observations and measurements are made and interpreted. There is really no way to adequately translate and interpret into English, for example, how Zuni observations lead to conclusions about the world. English simply lacks the critical concepts needed to characterize Zuni thought processes in this regard. Suffice it to say that Zuni observations and measurements are based on the workings of a group of people operating within a holistic environmental and societal framework. Western science, on the other hand, breaks things down into discrete observational units and measurable variables that can then be recombined for analysis even in cross-cultural contexts.

Despite differences in the way archaeologists and Native Americans observe and interpret the world, they both value the archaeological record as preserved in sites. This does not, however, automatically translate into Native Americans valuing the interpretations of the archaeological record by scientists.

Structures of the Archaeological Record and Oral Tradition

Oral traditions and archaeology are both palimpsests of history, analogous to a piece of parchment written on one or more times after the initial writing was erased, but where traces of the earlier uses remain to the present day. Oral traditions incorporate the cultural knowledge of many ancestors at multiple levels of signification. Similarly, archaeological sites incorporate a stratigraphic record of past human behavior embedded in artifacts and archaeological deposits. In many ways, the structures of the archaeological record and oral tradition are remarkably similar; both exist in the present and contain information about the past.

The archaeological record has these characteristics. While traces of earlier land use and the features on the landscape are difficult to read, they offer insight into the past and societal changes that have occurred over the centuries (Crawford 1953). Except under exceptional circumstances, the archaeological record is a cumulative and compressed record of both past events and the natural and cultural forces that shaped the world. In most instances, this record is a naturally and culturally modified version of the combined events that produced the present-day landscape.

Oral tradition is also a palimpsest relating knowledge transmitted in the present to earlier times, expressing the collective remembrance of generations. These are memories of past natural and cultural events and the deeds of people. Memories relevant to present-day life are compressed into oral tradition. As the stock of memories increases, some may be forgotten, discarded, or modified as new memories are added and circumstances warrant. The end result of this process is a palimpsest—a record in which traces of earlier events show through into the present.
Whereas the archaeological record reflects the material remains of past inhabitants, oral tradition reflects the way in which a specific culture defines itself through its past and the way it relates to the world in its present form. The archaeological record, as interpreted by archaeologists, depends on fixed and known space and time references. Oral tradition, on the other hand, conjoins many events where a fixed time and space are often neither implied nor necessary. As a record relevant to the present, oral tradition need not be embedded in specific and linear time frames, nor need places and events be firmly fixed at the precise location they occurred.

Despite the structural similarities between the archaeological record and Native American oral tradition, they are two separate ways of knowing the past. Because oral traditions and archaeology derive from two different sources of knowledge about the past, different standards apply to how information is collected, evaluated, and used. The two sources of knowledge do converge in a broad sense on certain issues and themes, however, such as migrations, warfare, residential mobility, land use, and ethnic co-residence. Both oral traditions and archaeology have inherent limitations, which is why combining them in research can create knowledge that goes beyond what is possible using either source by itself.

**Issue of Relevance**

It strikes us that there are numerous examples of archaeologists using oral tradition to enhance archaeological interpretations of the past, but few examples of the reverse. While oral tradition can be very illuminating for archaeologists, most archaeology has little meaning to Indians as a way to enhance oral tradition itself within a traditional cultural context. Archaeology’s relevance to Native Americans has very practical aspects to it. It is useful as an adjunct to oral tradition and can be used to support tribal rights litigation, such as land or water claims, where scientific information can corroborate a tribal claim in the western context of a courtroom (Ferguson 1995a, 1995b; Hart 1995). In addition, tribes use archaeology as a means to help establish cultural affiliation under the provisions of the Native American Graves Protection and Repatriation Act and other repatriation legislation when they are making claims for the return of cultural items from museums (Bray and Kil lion 1994; Zedeno and Stoffle 1995), and protecting religious freedom (Anyon 1996). In some cases, archaeology can also be used by tribes to correct history. Perhaps one of the best examples of archaeology supporting the Native American view of a historical event is the archaeology of the Little Big Horn battlefield (Fox 1993). In this case, archaeology not only supports the tribal oral tradition, it clearly debunks the western historical tradition about this battle. In most cases, however, the ability to link a specific event in this way is not possible because of the nature of the archaeological record and oral tradition.

Recently, there has been a renewal of interest by scholars in the historicity of Native American oral traditions (e.g., Wiget 1982; Teague 1993; Bahr et al. 1994). Indicative of this work is Lynne Teague’s analysis of O’odham and Hopi oral traditions, oriented toward increasing our understanding of the cultural events and processes of the period before documentary history in southern Arizona. Teague (1993:436) concludes that “oral histories can be shown to conform to archaeological evidence to an extent not easily attributed to after-the-fact explanation for the presence of numerous ruins in the region. These histories reflect direct knowledge of events in prehistoric Arizona.” Her article represents the renewed respect archaeologists are beginning to afford Indian accounts of that history.

This juxtapositioning of archaeology and oral tradition, as well as the great difference in the interpretations of archaeology and oral tradition, reminds us that, as Tesse Naranjo (1993) has recently pointed out, Native American oral traditions are often axiomatic rather than hypothetical. Whereas scientists search for exclusive and universal truths, Native Americans use their oral traditions to attain a multiversal understanding of the past that simultaneously operates on many different levels of meaning. In this regard, we return to the observation that oral traditions and archaeology are both palimpsests of history in that oral tradition incorporates the cultural knowledge of many ancestors at multiple levels of signification and the archaeological record incorporates a stratigraphic record of past human behavior embedded in artifacts and deposits. Both oral traditions and archaeology thus constitute sources of knowledge that have intricate structures that must be systematically and carefully analyzed in terms of their own internal logic in order to use them in scholarly research.

The difference between Indian and archaeological views of an archaeological site is very apparent in the case of a site in west-central New Mexico. This site illustrates the links between archaeology and oral tradition. It is also illustrative of the relevance of oral trad to archaeology but the lack of relevance of archaeology to the oral tradition itself.

For Zunis, this site is known as Kia’ma:kya. It was here that the Zunis fought a people called the Kia’na:kwe. The battle is said to have lasted for four days, with the fight being joined each day until the Zuni were victorious. It is also where Cha’a:kwa had corralled all the world’s game animals, and from where, each day, she would let the animals out to graze, only to corral them each night within the enclosure at Kia’ma:kya. After the last great battle between the Zunis and the Kia’na:kwe, the gates of the enclosure were opened and since that day game animals have freely roamed the earth.

The Kia’na:kwe and Kia’ma:kya have an important place in Zuni oral traditions. The Zuni celebrate the Kia’na:kwe in a quadrennial ceremony. Although this ceremony has not been performed in recent years, some members of the group
responsible for it continue to have fond memories of the dance and have discussed revitalizing it. Approximately five years ago a group of religious leaders, at least one of whom has responsibilities for the Kia'na:kwe, visited the site as part of a larger tour of the area. When they reached Kia'ma:kya, they immediately identified it as the site of the Kia'na:kwe and began to discuss these stories in detail.

To archaeologists, this site is known as Fort Ataque. It is described as a basil masonry pueblo, measuring approximately 160 by 80 m, with rows of rooms surrounding a large central plaza and a number of depressions reminiscent of kivas. The outer wall is continuous except for a gap in the west side. Ceramics date the occupation to sometime in the A.D. 1200s and perhaps the early 1300s (Fowler, Stein, and Amony 1987:145–146). It has not been excavated.

Some points of the Zuni oral tradition about this site are of interest to archaeologists. Kia'ma:kya appears to have been one of the most recently occupied pueblos in the area, an area in which at least one other nearby contemporary site has evidence of violence and where burned rooms with fully intact assemblages on the floor were excavated (McGimsey 1980:38–42). Such archaeological deposits have been interpreted as evidence of warfare. According to LeBlanc (1996), Zuni became the preeminent Puebloan group in the area by the A.D. mid-1300s. Here, archaeology and oral tradition relate the history of the area to similar events such as warfare and residential abandonment, but describe these events in quite different ways. Here, oral tradition can be used by archaeologists as corroborating evidence for the archaeological record and thus has relevance for archaeologists. The Zuni, however, have made no use of the archaeology to corroborate their oral traditions. It simply is not necessary because archaeology has no relevance in this aspect of Zuni oral tradition. While few archaeologists would argue the interpretation that this site is ancestral Zuni, there is no known way for archaeologists to derive the oral tradition of the Kia'na:kwe and Cha'kwena from the archaeological record. Because of their different approaches to understanding the past, the meaning of this site is radically different to the Zuni and to archaeologists.

Issues of Time and Place

For archaeologists, time is a fundamental measure of the antiquity of archaeological remains set along an inflexible linear projection. As such, it can be used to measure rates of organizational and technological change in times past, topics of great interest and relevance to archaeologists. In oral tradition, however, such a strict measure of time has little relevance. For some Native Americans, the past is a way to know the present, and, as such, something that happened centuries ago can have as much or more relevance to present-day issues as an event that happened last year. The length of time separating these events is not as important as the relevance of these events to present-day identity and life. As a record of relevance to the present, oral tradition need not have specific time referents.

Similarly, places and events in oral tradition need not always be firmly fixed at the precise location they occurred. As knowledge becomes incorporated into oral tradition, it is sometimes associated with a place or places that are within the current land use area of a tribe, whether or not the placement is “accurate” in a western historical or scientific sense. Although precise location and temporal placement are sometimes critical in oral traditions, at other times spatio-temporal frames of reference are less important than the didactic relevance of an account to modern people. In contrast, in archaeology temporal ordering and accurate provenience are always critical to developing an understanding of past behavior.

Methodologies for Using Oral Traditions in Scholarly Research

Studies by Pendergast and Meighan (1959), Eggan (1967), Wiget (1982), and Echo-Hawk (1994) have unequivocally demonstrated that real history is embedded in Native American oral traditions. As Eggan (1967) pointed out, anthropologists now have more data and better historical controls than earlier generations. Consequently, it should now be possible to analyze social and cultural data in a more sophisticated manner to develop the means to segregate history from other aspects of oral traditions. Vansina (1985) presents a rigorous methodology for incorporating oral traditions in historical research. Such methodologies need to be more fully incorporated into archaeological method and theory to establish the scholarly basis for using oral traditions in historical research.

Good scientific research proceeds using a methodology based on the falsification of hypotheses. The whole is broken down into analytically meaningful parts, which are then quantitatively reconstituted in ways that provide meaning to the archaeological record. In essence, archaeologists disprove what they can and then try to explain the residual hypotheses. This scientific methodology may not be appropriate for the research of oral traditions, where more humanistic, holistic, and qualitative approaches are sometimes warranted. Applying a humanistic rather than a scientific methodology in the use of oral traditions should be done in a manner that meets high scholarly standards while maintaining the integrity and context of the subject matter.

Uses of Oral Tradition and Archaeological Research

Archaeologists are interested in learning about the past. Native Americans are interested in maintaining the cultural traditions they inherited from their ancestors
who lived in the past. For Native American tribes with strong oral traditions, the primary sense of history comes from narratives, stories, and accounts as told by tribal elders. In this context, archaeology constitutes a potential secondary source of supplemental information about tribal heritage, albeit one that may be limited in its relevance.

Archaeology can also be used by tribes to achieve their own political and legal goals in relation to the larger United States society. Archaeological data can be used to help document land claims and water rights and to manage tribal cultural resources on state and federal lands. A small but increasing number of Native Americans are coming to believe that archaeology can be used constructively to validate tribal history.

In recent years, archaeologists have been called on to expand their professional activities with respect to historic preservation. They have been asked to collect information about traditional cultural properties and sacred places as well as historic archaeological sites of interest to particular tribes. Native American oral traditions contain essential information about cultural values and beliefs pertaining to traditional cultural places, natural features, specific sites, and landscapes that are important cultural resources for Native Americans (e.g., Kelley and Francis 1994; Roberts, Begay, and Kelley 1995). In order to meet the legal mandates for historic preservation, contemporary archaeologists must either work with oral traditions or coordinate their work with other researchers who are working with this source of information. This creates an ethical and methodological imperative for archaeologists to work closely with Native Americans so that the information needed to manage tribal cultural resources properly can be collected and reported in an appropriate manner.

Need for Respect and Sensitive Issues in the Research of Oral Traditions

Indiscriminate references to oral traditions as “myths and legends” are demeaning to Native Americans. Such references perpetuate a false dichotomy that implies that oral traditions are less valid than scientifically based knowledge. Oral traditions and scientific knowledge both have validity in their own cultural context. Scientific knowledge does not constitute a privileged view of the past that in and of itself makes it better than oral traditions. It is simply another way of knowing the past.

Archaeologists need to have respect for sources of knowledge about the past that are unique to Native Americans. Even in situations where oral traditions are not used in archaeological research, archaeologists should be more sensitive to both the inherent limitations of scientific knowledge and the ways that oral traditions can transcend scientific knowledge with respect to cultural heritage.

Sometimes archaeologists publish findings that contradict Native American oral traditions (Deloria 1995). This need not be done in a belligerent manner that directly challenges oral traditions. Rather, archaeologists should strive to place their conclusions in a cultural and intellectual context that will help Native Americans better understand the nature of scientific knowledge and other archaeologists better understand the nature of oral traditions. By respecting the values of Native American oral traditions, archaeologists will lay a foundation for Native Americans to respect the values of scientific knowledge and for scientists to respect the values of oral traditions in ways that do not demean either approach to understanding the past.

Oral traditions are intimately connected with Native American religious beliefs and knowledge, much of which are esoteric in nature. For this reason, it is essential for archaeologists to collaborate with tribal cultural advisers regarding the use of oral traditions in archaeological research. Tribal cultural advisers are needed to determine what aspects of oral traditions are appropriate for use in scholarly research, to help interpret the results of research, and to guide decisions about what information from oral traditions is appropriate for publication. Reducing oral traditions to a written form has a cultural impact that needs to be considered in research. As Whitely (1988:xxvi) has observed, written texts turn oral traditions into fixed literary images widely disseminated in the larger American society in a manner that Native Americans cannot control. This is a critical concern when sacred knowledge is misappropriated for scholarly research, and a dynamic oral tradition is reduced to a static point of reference.

The preferences of each tribe regarding the use of oral traditions in archaeological research should be respected. Some tribes encourage the use of oral traditions in archaeological research. The Hopi Tribe is one of these, especially when this research is done by researchers working in collaboration with Hopi cultural advisors (Dongoske, Ferguson, and Jenkins 1993). Hopi cultural advisers are the best judge of what aspects of oral traditions constitute historical information and what aspects constitute esoteric religious knowledge that should remain confidential.

The Navajo people have an abundance of oral traditions that coincide with and complement contemporary archaeological research. The store of Navajo traditional knowledge can enhance archaeology and the Navajo Nation by furthering our understanding of the past. Many Navajo people are fascinated by the oral traditions that ground historical stories in the context of places that can still be seen in contemporary landscapes. An important part of the physical counterpart of stories are the ruins studied by archaeologists. The Navajo Nation therefore recommends that archaeologists augment their scientific conclusions with Navajo oral traditions. To facilitate this approach, the Navajo Nation Historic Preservation Department is developing ways for the Navajo people to interface with the science of archaeology.

The Hualapai Tribe places great value on the oral traditions of its elders. These oral traditions constitute an important part of the cultural heritage of the Hualapai
people. When Hualapai culture is the subject of research, it is the Hualapai people who are the experts. Consequently, the Hualapai Tribe prefers that research using oral traditions be conducted by tribal members so that sensitive information can be controlled and the tribe can be sure it is used for appropriate purposes.

Others tribes, such as the Zuni, are reticent about the use of oral traditions in scholarly research. At present, the Zuni Tribe does not encourage the use of oral traditions in scholarly research, except in a very limited fashion by researchers employed by the tribe and for purposes Zuni cultural advisers feel are acceptable to tribal cultural sensitivities. This makes it imperative for scholars researching oral traditions to consult with the tribe.

Conclusion

We have briefly examined the nature of knowledge and the structures of Native American oral traditions and the archaeological record, the relevance of archaeology to Native Americans, the relevance of Native American oral traditions to archaeology, and the need for mutual respect and sensitivity. Remarkably, the structures of oral tradition and the archaeological record are in some ways quite similar. Both are palimpsests: archaeology, of material remains, and oral tradition, of the collective memory of generations. Although their structures are similar, their uses and the contexts of their use are quite different. It is here that the issue of relevance becomes acute, since it is the contextual relevance of oral traditions and archaeology that is most likely to expose the differences between Native Americans and archaeologists. American archaeology, inherently relevant to archaeologists, is often assumed by them as being relevant to Native Americans. This may or may not be the case, and it certainly cannot be assumed. Archaeology may have use as a means to bolster a tribal claims case or help establish cultural affiliation, but it rarely if ever has any relevancy in oral tradition used in its traditional cultural context. On the other hand, the relevance of oral tradition, inherent to many Native Americans, often has relevancy to an archaeologist only as corroborative information. This is a serious issue for archaeologists to consider.

Some Native Americans think that in the past archaeologists have mined archaeological sites to collect the artifacts that form the basis of archaeological research. There is an increasing concern that archaeologists now want to mine oral traditions to interpret the archaeological record. There is also growing anxiety that unless tribal members fully collaborate in the research process, this approach will result in continued cultural exploitation.

To allay these fears, and to create a positive working relationship between archaeologists and Native Americans in the use of oral traditions, we recommend that the following suggestions be implemented by archaeologists. First determine, by asking tribal officials, whether or not a tribe wants its oral traditions used in archaeological research. If a tribe wants its oral traditions used in archaeological research, then archaeologists need to establish the parameters of that use with Native American cultural advisers and tribal officials at the outset of the research. Tribal cultural advisers are subject specialists who should be compensated for their time and expertise, as are other professional researchers. If a tribe does not want oral tradition used in archaeological research, then archaeologists should acknowledge this in the scientific report. Finally, archaeologists should encourage tribal review of archaeological research, especially if it uses oral traditions.

This paper is a compilation of two previous papers; the authors are listed alphabetically. The first is "Native American Oral Traditions and Archaeology," by Roger Anyon, T. J. Ferguson, Loretta Jackson, and Lillie Lane, SAA Bulletin 14(2):14-16. The second is a paper by Roger Anyon and Philip Vicenti entitled "Oral Tradition and Archaeology: History, Science, and Knowledge," presented at the annual meeting of the American Anthropological Association in San Francisco, 1992.