HISTORY IS IN THE LAND
Multivocal Tribal Traditions in Arizona's San Pedro Valley

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With a Foreword by Robert W. Preucel

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ONE VALLEY, MANY HISTORIES
An Introduction

ONE EARLY MORNING IN THE
autumn of 1989 Bill Doelle stood hunched over a car hood studying
maps of the San Pedro Valley, figuring the best way to survey more than
121 km (75 mi) of open desert. Daunted by the prospect, the archaeol-
ogist, at the very least, knew he was not the first to come to the valley
hoping to understand its history. A century before, in the 1880s, the
legendary anthropologist Adolph F. Bandelier traveled to the valley
to map several large ruins. Anthropologist Jesse Walter Fewkes then
came in 1908 to investigate the platform mounds in the valley, and
geographers Carl Sauer and Donald Brand studied settlement patterns
in 1929. In the 1930s Byron Cummings of the University of Arizona
began the first formal excavations in the San Pedro, soon followed
by the work of Charles Di Peso of the Amerind Foundation, a private
museum, in the 1940s and 1950s. Bill Doelle knew how E. B. Sayles,
Ernst Antevs, and Emil Haury in 1955 began excavating a site near the
international border after a local rancher named Ed Lehner noticed
some bones eroding from the edges of a wash. These archaeologists
found 13 Paleoindian points in context with nine mammoth skele-
tons, 11,000 years old. Yet Bill aimed to do something unique because,
unlike these previous researchers, he wanted to grasp the river valley
in its entirety—to understand how villages through time were related
to one another and linked to agricultural practices, wildlife resources,
and the vast and ancient cultural systems of North America's Greater
Southwest.

The work began with patience. Bill Doelle initiated a partnership
with scholars Allen Dart and Henry Wallace, and they decided to focus
on the richest cultural and natural zones of the valley, covering more
than a kilometer on each side of the San Pedro River. They recruited
dozens of volunteers to work with the Center for Desert Archaeology,
enthusiastically devoting their weekends to walking the land back and
forth in 20-m (6-ft) intervals. When volunteer archaeologists spotted
fragments of pottery or rows of cobbles, they stopped and
The San Pedro Embayment Project

The San Pedro Embayment Project was the beginning of the San Pedro Embayment Project, which provided the information needed to study and understand the region. The study was conducted in collaboration with researchers from elsewhere. The purpose of the study was to gather information about the region and to develop a better understanding of the processes that shape the landscape.

The study was conducted using various techniques, including field measurements, aerial photography, and satellite imagery. The results of the study were used to develop a better understanding of the region and to inform future research.

In conclusion, the San Pedro Embayment Project was a valuable contribution to our understanding of the region. The results of the study will be used to inform future research and to improve our understanding of the processes that shape the landscape.
The Tohono O'odham, Hopi, Zuni, and Western Apache peoples all have ancestors who lived in the San Pedro Valley in the past. These Native Americans maintain distinct oral traditions that provide an anthropological context for interpreting the history and archaeology of the San Pedro Valley. Previous research in the San Pedro Valley was focused on scientific archaeology and documentary history, with a conspicuous absence of Native American voices. This created an interpretive silence that excluded the unique perspectives of descendant communities. The San Pedro Ethnohistory Project was designed as collaborative research with four Indian tribes to redress this situation by visiting archaeological sites, studying museum collections, and interviewing tribal members to collect traditional histories. The information gathered during the project is arrayed in this book with archaeological and documentary data to interpret the histories of Native American occupation of the San Pedro Valley.

This project is the first concerted effort to record tribal traditions relating to the San Pedro Valley and integrate them with ethnohistoric and archaeological information. The resulting multivocality of Native American histories provides a significant humanistic context for the public interpretation of scientific data. Collaboration between Native Americans and archaeologists has yielded results that would not be obtainable if traditional history and archaeology were not investigated in tandem. The results of this project will be of interest to Native Americans, archaeologists, anthropologists, historians, and the general public interested in the southwestern United States. The research themes explored in the project—migration, warfare, social identity, subsistence ecology, and population dynamics—are all important issues in the archaeological study of the past. These themes were examined using a conceptual framework of cultural landscapes that seeks to understand how land is perceived by individuals given their particular values and beliefs. Studying how Native Americans situate themselves in the historical time and geographical space of the San Pedro Valley helps ground how places and landscapes have the power to symbolize and recall the past.

This particular project began in 1999, when Bill Doelle and Henry Wallace invited T. J. Ferguson and Roger Anyon to design a project to work with interested tribes to research ethnohistory relating to the San Pedro Valley. Organized through the Center for Desert Archaeology, a private nonprofit organization in Tucson, Arizona, Bill, Henry, T. J., and Roger met with a series of tribes to determine their interest in the proposed research. During these meetings, the Tohono O’odham, Hopi, Zuni, and a consortium of the San Carlos and White Mountain Apache tribes decided to participate in the project (Fig. 2). With the support of the tribes, the Center for Desert Archaeology prepared and submitted a grant proposal to the National Endowment for the Humanities that was funded in 2001. When work on the project began, Chip Colwell-Chanthaphonh received a fellowship at the Center, and he joined T. J. and Roger as a principal investigator on the project. Research with cultural advisors from the four tribes took place over the next three years.
Chapter 1

Native Americans and African Americans

...
out Indian artifacts to embellish exhibits and boost their symbolic capital (Berlo 1992). The relationship between archaeologists and Native Americans in the Southwest grew more complex and at times ambiguous and distant as science was coupled with the growing heritage tourism and Indian art trade. The rise of a new paradigm called "processual archaeology" sought to turn the study of the past from a humanistic pursuit of culture histories into an objective science of universal laws. In practice, although processual archaeology credited Native peoples for their remarkable technological achievements, the unwavering archaeological commitment to empirical positivism ultimately served to alienate living Native peoples from their own history (Trigger 1986:312–319).

By the late 1960s, when archaeologists were deeply enraptured with processual archaeology, Native Americans had solidified a powerful political movement that reached out to a "supratribal consciousness" (Cornell 1988). Although Native peoples had long resisted the scientific appropriation of their ancestors' bodies and belongings, Native American protests of how archaeology was conducted gained a certain degree of legitimacy and a measure of public notice (Fine-Dare 2002). The complaints were manifold but fundamentally grounded in the suggestion that for many American Indians archaeological excavations and collections constitute a desecration of their ancestors and a disrespect for their contemporary beliefs (Hubert 1994). One of the most vocal critics of anthropological endeavors was and remains Vine Deloria, Jr., whose _Custer Died for Your Sins_ censures researchers for their self-centered use of Indians as scientific objects, failing to address the needs of living people, and presuming to speak for Indians (and not even doing a good job of it). Deloria (1988:95) argues that anthropological research benefits only the anthropologist and asks, "Why should we continue to be the private 2006 for anthropologists? Why should tribes have to compete with scholars for funds when the scholarly productions are so useless and irrelevant to real life?" The intellectual critique of anthropology was turned into social action when several well-publicized protests interrupted excavations and museum operations (Echo-Hawk and Echo-Hawk 1994). Trigger (1980:870) lamented that even as Native American resentment became progressively evident in the late 1960s, most archaeologists had still "not begun seriously to assess archaeology's moral and intellectual responsibility to native people."

As archaeology became ever more controversial Native peoples sought to increase their control over ancestral heritage resources. In the decades following the passage of the National Historic Preservation Act of 1966 several tribes established their own cultural resource management programs, including the Zuni, Hopi, Tohono O'odham, and Apache tribes. As tribes hired non-Indian archaeologists to work with tribal members, positive new relationships were forged, creating more balance between scientific and tribal values (Anyon et al. 2000; Downer 1997). In some instances these relationships were built upon the research that archaeologists provided during the litigation of land and water rights as well as the support for the tribal management of cultural resources. In the crucible of tribal historic preservation programs archaeologists began to demonstrate that archaeology could be practiced in a manner both relevant to and respectful of tribal goals and values.

By the early 1980s the political and social problems created by standard anthropological practice could no longer be legitimately ignored by the profession as a whole. With the help of outside critics like Deloria and inside paladins like Trigger, archaeologists and Native peoples increased their sometimes contentious dialogue. Throughout the 1980s Native peoples gained a powerful voice and more control over the disposition and interpretation of their heritage. In November 1990 this movement led Congress to enact the Native American Graves Protection and Repatriation Act (NAGPRA), which required all museums that received federal funding to produce inventories and summaries of the human remains and sacred objects in their collections, distribute this information to federally recognized tribes, and allow the tribes to determine the ultimate disposition of those objects with which they had a demonstrated cultural affiliation (Brey 2001; Mihesuah 2000). NAGPRA also established Native American ownership and control over human remains, sacred objects, and objects of cultural patrimony discovered on federal or Indian land after 1990, and this irrevocably impacted the way archaeologists pursue research and store collections. NAGPRA dramatically shifted the relationship between Native Americans and archaeologists by reallocating the power and control over how archaeology is conducted, distancing anthropologists from a position of final authority. Beyond repatriation, NAGPRA has had the unintentional but significant effect of forcing different interest groups to work together, during which they have discovered common concerns and new kinds of mutually beneficial research (Dowdall and Parrish 2003; Kelly 2000; Killion and Molloy
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**Methodology**

Research was conducted using a qualitative, exploratory approach. A literature review was conducted to gather background information on the topic of the project. Interviews were conducted with key stakeholders, including experts in the field. Data analysis involved thematic coding of the interview transcripts. Results were presented in a narrative format, highlighting key findings and implications.
Western Apache participation in the project was organized as a
consortium of the San Carlos and White Mountain Apache Tribes,
with the San Carlos Apache Tribe acting as the lead tribe. Jeanette
Cassa served as a tribal researcher, assisted by Seth Pilsk. In lieu of
constituting a formal research team, different sets of tribal members
were assembled to participate in project research based on their geo-
graphical knowledge and cultural expertise. San Carlos Apache tribal
members participating in fieldwork included Phoebe Aday, Vernelda
Grant, Howard Hooke, Sr., Rosalle P. Talgo, and Stevenson Talgo.
Ramon Riley from the White Mountain Apache Tribe also participated
in fieldwork. Tribal review was accomplished by consulting Jeanette
Cassa and Seth Pilsk and meeting with the Elders Cultural Advisory
Council of the San Carlos Apache Tribe.

FIELDWORK

Fieldwork was conducted in a free-flowing dialogue that
generally started with archaeologists describing what they knew about
archaeological sites and culture history, followed by questions and
discussions with tribal research participants. Research participants
were then given the opportunity to explore sites at their own pace. The
original plan of fieldwork was to spend two days with tribal research
teams visiting archaeological sites in the San Pedro Valley. The ration-
ale was to provide a common experience for research participants
from all four tribes to facilitate the discussion of tribal histories as
they intersect with the accounts of other tribes. As the fieldwork
unfolded this plan of work was modified to include additional field
trips requested by the Tohono O'odham Nation and fieldwork to
research Apache place-names requested by the San Carlos Apache
researchers. The set of archaeological sites visited by all tribal research
participants included a platform mound at Flieger Ruin, a Hobokam
and Sobaipuri site at Alder Wash, migrant Pueblo settlements at the
Davis Ranch Site and Reese Ruin, a Sobaipuri village at Gayabonipita,
and a Spanish presidio at Terrenate (fig. 4).

With few exceptions, there were always two to four researchers
participating in fieldwork, and this meant that there were generally
multiple discussions going on as research participants walked across
archaeological sites examining the features of interest to them. Each
researcher recorded information in handwritten field notes (fig. 5). In
order to provide a coherent record, at the conclusion of fieldwork these
notes were compiled into a single document, which was subsequently
curated at the Museum Foundation and 55 artifacts from 17 sites.

This study is part of the project initiative, the Arizona Southwest Research Institute for the examination and analysis of cultural landscapes. The project is funded through a grant from the National Science Foundation, with additional support from the Arizona Historical Society and the University of Arizona. The project aims to address the challenges of cultural heritage conservation and management in the region.

**Institutional Research**

Including thoughts about landscape, history, and cultural traditions, the project seeks to provide a framework for understanding the cultural landscapes of the region. The project is led by a team of experts in cultural heritage, landscape architecture, and landscape ecology, who are working together to develop a comprehensive approach to cultural heritage conservation.

**Figure 6: Historic Areas in Southeastern Arizona**

This figure illustrates the historic areas in southeastern Arizona, highlighting the importance of cultural landscapes in the region. The areas are marked with symbols, and the map provides a visual representation of the cultural heritage sites.

**Figure 5: Pueblo Vortex (cenote) extract from Topcan**

This figure shows a photograph of the Pueblo Vortex, a cenote located in Topcan. The photograph provides a visual representation of the site and its cultural significance.

**Figure 4: Main Waterhole**

This figure illustrates the main waterhole in the region, highlighting its importance as a cultural landscape. The figure provides a visual representation of the waterhole and its surrounding environment.
curated at the Arizona State Museum (Appendixes 1 and 2). Most of these artifacts came from the sites visited during fieldwork, and this provided tribal researchers with an enhanced understanding of the material basis of past life at these sites. The study of artifacts provided a productive way to clarify and extend discussions about tribal history that were initiated during fieldwork. Significantly, our tribal research colleagues did not treat artifacts as static and inert things of little consequence but as living forces that shaped their sense of identity and world order (Colwell-Chanthaphonh 2004a).

**Interviews**

Interviews were conducted with members of each of the participating tribes to collect additional information and perspectives about tribal history associated with the San Pedro River valley (fig. 7). A schedule of questions was used to guide the interviews, using an open-ended conversational technique that allowed the people being interviewed to address additional topics that came to mind as the San Pedro Valley was discussed. The focus of the interviews was on the collection of qualitative rather than quantitative data.

Follow-up interviews with many of the people who participated in fieldwork were conducted to discuss their thoughts about the San Pedro Valley after they returned home and had time to reflect on what they had seen. The tribal research teams also identified fellow tribal members who are knowledgeable about tribal history, and these people were interviewed to expand the base of knowledge for the project. Many of the interviews took place in the homes of tribal members; others were conducted in tribal offices or Elderly Program buildings. The interviews were documented with handwritten notes that were later word processed and provided to tribal research teams for review. The choice of being interviewed individually or collectively in a group was left up to the people being interviewed. During the interviews maps and photographs of sites and artifacts were used to direct attention to the topics being discussed. Because petroglyph sites were too remote to visit during fieldwork, slides of petroglyphs and pictographs in the San Pedro Valley were shown to and discussed in group interviews of research teams during visits to the Center for Desert Archaeology.

On the Tohono O’odham Reservation Interviews were conducted with José Enriquez, Joseph Enriquez, and Edmund Garcia, all of whom participated in the fieldwork. Additional O’odham interviews were conducted with Lena R. Ramon, Patrick J. Franco, and Anita E.
Research Themes

The research on this topic involves exploring the intersection of computer science and education. The aim is to understand how technology can be integrated into educational settings to improve learning outcomes. This research could contribute to the development of innovative teaching methods and tools for educators.

Project Expeditions

- **Objective**: The project aims to develop a new educational platform that integrates interactive simulations and virtual reality experiences to enhance learning.
- **Methodology**: A mixed-methods approach is used, combining quantitative data collection through surveys and qualitative data through interviews and observations.
- **Expected Outcomes**: The project expects to create a comprehensive learning tool that can be applied in various educational settings, improving student engagement and understanding.

Public Education

Information and data are widely available through various sources, including online platforms, social media, and traditional media. However, interpreting this information requires critical thinking skills. It is important to evaluate the credibility of sources and the accuracy of the data presented.

Chapter 1

One Year Many Histories
recently published numerous theoretical and empirical studies documenting the importance of migration in explaining culture change in the ancient past (e.g., Duff 1998; Mills 1998; Spielmann 1998; Stone 2003; Woodson 1999). In the San Pedro Valley Native American traditional histories help answer a number of questions that archaeologists have posed. These questions include, How did migrations from the Hopi-Kayenta region into the San Pedro Valley influence the development of platform mound settlements? What role did migration out of the San Pedro Valley play in the subsequent development of O'odham, Hopi, and Zuni? How important is the San Pedro Valley in the early migration of the Apache peoples in southern Arizona?

The role of violence and warfare in the ancient past is a topic of substantial interest in southwestern archaeology (Haas and Creamer 1993, 1996, 1997; Jett 1964; LeBlanc 1999; Linton 1944; Wilcox and Haas 1994; Woodbury 1959; Wright 1976). Archaeologists have come to realize that competition for resources and other conflicts occasionally led to incidents of violence that had a profound impact on the settlement patterns of various regions at different times. The defensible location and architectural structure of many settlements in the San Pedro Valley suggest that concerns about potential violence may have been an important factor in where people located themselves on the landscape and how they built their settlements. This is particularly true for sites associated with Puebloan immigration after A.D. 1200, notably Reeve Ruin. Whether or not there are traditional histories of conflict in the oral traditions of the O'odham, Hopi, and Zuni is thus a pertinent research question of substantial interest. Information about Apache perspectives on the warfare and raiding described in documentary history is also useful in providing a richer interpretation of the past in both the San Pedro Valley and larger southwestern region (Basso 1993).

Social identity in the ancient past is an important research issue because it has both theoretical implications for anthropological research and practical implications in cultural resources management and historic preservation (e.g., Crown 1994; Ferguson 2004; Hays-Gilpin and Hill 2000; Stark 1998; Upham et al. 1994). There are often significant differences in the types of past social groups recognized by Native Americans and archaeologists and the means by which these groups are discerned. Whereas Native Americans often understand the past in terms of clans and other ancestral kin groups, archaeologists commonly understand the past in terms of abstract archaeological cultures (Dongoske et al. 1997). Both of these perspectives have cultural and intellectual validity in the contexts in which they are used. Our interest in understanding what ancient groups Native Americans recognize as inhabiting the San Pedro Valley was coupled with exploring how these groups are identified in the archaeological record. This provides important information about social identity and how it can be recognized through ceramics and other forms of material culture.

Subsistence ecology is a long-standing research issue in Americanist archaeology, and substantial amounts of data have been collected about this subject (Archer and Hastorf 2000). In the San Pedro Valley Native American perspectives on subsistence ecology offer new outlooks that archaeologists may find useful in their research. Of particular interest is the comparison of ancient agricultural and more recent subsistence ecologies associated with the valley (Buskirk 1986; Hadley et al. 1991). This information will help archaeologists and the general public understand the similarities and differences in how various peoples have used the San Pedro Valley in the past and present.

Population dynamics are an integral component in explaining what people did in the past and why (Cordell et al. 1994; Dean et al. 1994; Hill et al. 2004). There is no question that the various peoples who occupied the San Pedro Valley in different periods all experienced dynamic changes in population size, density, and distribution. Whether or not Native American traditions exist to supplement archaeological information about these population dynamics is thus an important topic. In addition, Native American accounts about the interaction between the Subapuri and Apache will augment the relatively meager and partial documentary history that is available.

Detailing Native American traditional histories regarding migration, warfare, social identity, subsistence ecology, and population dynamics in the San Pedro Valley is important in and of itself. While the investigation of some research themes proved to be more productive than others, the information gathered during the project will be valuable for archaeologists and anthropologists seeking to expand the sources of knowledge used in the development of scholarly hypotheses regarding past social relations and settlement patterns. This project is also significant in part because it was structured to redress the false dichotomy raised between "history" and "science" (Schmidt and Patterson 1995). In so doing we redress the legitimacy of a historically informed archaeology by documenting alternative Native
The data collected in this study indicated that the majority of American parents who describe their family orientation as traditional place a high value on the nuclear family and view the nuclear family as the ideal family structure. However, despite the emphasis on the nuclear family, many American families have extended family members living together, which adds complexity to the definition of the family unit.

In this study, the term "extended family" was used to refer to families that include extended family members living together in the same household. The extended family unit is a common feature in American society, and it is often characterized by strong ties among family members and a strong sense of community.

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LANDSCAPES AS HISTORY AND
SITES AS MONUMENTS

A Theoretical Perspective

THEORETICAL FRAMEWORK

used to study tribal ethnohistories in the San Pedro Valley is predicated on understanding cultural landscapes as history and archaeological sites as monuments. Although the project area encompasses a single watershed in southern Arizona, the cultural and historical connections between this area and the tribes participating in the project are embedded in a much larger region. Each of the tribes uses cultural landscapes in the construction of contemporary social identity and in the retention and transmission of historical knowledge. The cognition of these cultural landscapes entails concepts of time and space that ground traditional history in specific geographical settings. Anthropological theories about cultural landscapes have gained currency in recent years, especially those that relate to the archaeological record (Ashmore and Knapp 1999; Basso 1996; Bender 1998; Head 1993; Kuchar 1993; Mitchell 1994; Morphy 1995; Van Dyke and Alcock 2003; Young 1988; Zedeno 1997). Here we discuss how we use this literature to better understand what the tribal cultural advisors we worked with were telling us about their history and culture.

The word landscape was introduced into the English language in the late sixteenth century as a technical term used by painters to describe depictions of rural scenery (Hirsch 1995:2). As commonly used today, the term landscape continues to evoke a painterly view or pictorial representation of natural scenery. Cultural landscapes are more than natural vistas, however, in that they have an intellectual component, reproduced through local practice and beliefs, that is as important as their visual aspect.

The Dynamics of History and Place in
Cultural Landscapes

The cultural landscapes of the Tohono O'odham, Hopi, Zuni, and Western Apache incorporate vast geographical areas and considerable time depths. While each group has a unique cultural landscape
Chapters 2 and 3

The effects of cultural and social dimensions on information systems development

Part of the study was to investigate the impact of different cultural and social dimensions on information systems development. The study aimed to identify how these dimensions influence the design and implementation of information systems. The research was conducted in five different countries: Japan, India, Brazil, France, and Germany. Each country was selected based on its cultural and social characteristics, which were expected to have a significant impact on information systems development.

The results of the study showed that cultural and social dimensions had a profound influence on information systems development. For example, in Japan, the focus was on group decision-making and consensus, while in Brazil, the emphasis was on personal initiative and individual achievement. These differences were reflected in the design and implementation of information systems. The study also highlighted the importance of understanding cultural and social dimensions in the development of information systems.

In conclusion, the study demonstrated that cultural and social dimensions play a critical role in information systems development. Future research should continue to explore the impact of these dimensions, with a particular focus on developing methodologies that can effectively address the challenges posed by cultural and social diversity.

References


and sky. So long as the human consciousness remains within the hills, canyons, cliffs, and the plants, clouds, and sky, the term landscape, as it has entered the English language is misleading. "A portion of territory the eye can comprehend in a single view" does not correctly describe the relationship between the human being and his or her surroundings. This assumes the viewer is somehow outside or separate from the territory he or she surveys. Viewers are as much a part of the landscape as the boulder they stand on. (Silko 1986:84, emphasis in original)

Native American cultural landscapes are history because they situate tribal members in time and space. The villages where Hopi ancestors lived during their migrations, for example, designate the geography through which they journeyed when traversing the land to fulfill their destiny at the Hopi Mesas (Kuwaniwisgwa and Ferguson 2004). When Hopi people visit ancestral sites the history of their migrations is thus evoked. In this sense landscapes are intrinsically historical because they express, as Marshall Sahlins (1981:5) wrote of history, "value in a temporal mode." Accordingly, our Native colleagues do not primarily view ancestral places as scientific resources, as discrete, functional, and mundane archaeological sites. These localities are instead revered as monuments, sacred structures that recall and symbolically commemorate the past. When valued as monuments the fundamental significance of archaeological sites does not derive from their scientific research potential but from their role as enduring physical evidence of where ancestors dwelled in relation to where descendants now reside. The use of archaeological sites as monuments—in part because of their palpable time depth—facilitates the persistence of cultural memory over long periods of time (Bradley 1998:85-100). The meaning of these archaeological monuments is thus as much what they portend for life in the present as what they signify about life in the past.

In some instances the very form of the land itself was shaped during events believed to have occurred in the past, especially events surrounding the actions of spiritual beings. In such an instance the land itself is part of the memory of the past and forms the historical consciousness realized in people's present-day lives (Dinwoodie 2002:60). The ability to identify places in oral narratives with geographic locations is a form of historical validation. Past and present coexist, and ancient stories are one with current existence (SchAAFama 1997:13; Young 1987:4-7). For instance, Tohono O'odham traditions regarding the distant past are recalled in relation to ancient Hopi plaza mound sites. The culture hero U'itoi (Elder Brother) is implicated, as is his creation and destruction of the Huhugam who lived in these ancient villages (Bahr et al. 1994). In this conceptual and physical landscape the realms of spiritual beings, ancient ancestors, and the contemporary configuration of the land converge in the cultural present.

Cultural landscapes are created and maintained by cultures that instill values, beliefs, and historical memory in the people belonging to a community. Cultural landscapes, consequently, can be sustained for long periods without physical use. Even after a long absence the cultural processes of memory and history renew links with places that may have been forgotten, irregularly visited, or occupied by others (Morphy 1993:239-240). "We remain a part of any place we visit," Pueblo scholar Rina Swentzell (1998:144) has written, "any place we breathe or leave our sweat." This is not a reinterpretation of landscape but a process of discovery and revelation in which ancestral presence is tangible and immutable.

Landscapes and people cannot be separated; one entails the other. As Andrea Smith (2003:346) has noted, "Knowledge of place is not subsequent to perception but is an ingredient in perception itself." The processes through which cultural landscapes are created and maintained are part and parcel of the processes by which culture instills values, beliefs, and historical memory in people belonging to a community. Keith H. Basso (1996:7) observes that perceiving and talking about landscapes is "a venerable means of doing human history...a way of constructing social traditions and, in the process, personal and social identities." For example, as Basso points out, named locales connect the Western Apache to their ancestors and to the ancestral landscape that is embodied in the place-name and preserved as part of the present-day terrain.

Learning about the past by moving through and experiencing a landscape reproduces the connection between the ancestral past and the land itself (Morphy 1995). Because places and landscapes embody the ancient past for American Indians, talking about them provides a way to share this past with others, thus projecting the past into the contemporary world (Ferguson and Aynon 2001). This process provides American Indians with an alternative approach to history.
The character of time and space:

A model of cultural landscapes

Understanding cultural landscapes is important for understanding the past. Cultural landscapes are the result of human activity and reflect the cultural and economic history of a region. They can be found in a variety of forms, including physical features like towns and cities, as well as social and cultural features like language and traditions.

Understanding cultural landscapes helps us to better understand the history of a region and the people who have lived there. It can also help us to appreciate the diversity of human experience and the many ways in which people have shaped their environments.

Cultural landscapes can be studied using a variety of methods, including archaeology, historical research, and survey. These methods can help us to uncover the stories of the past and to learn more about the people who have lived there.

Cultural landscapes are a valuable resource for understanding the past and for shaping our understanding of the present. They can help us to appreciate the complexity of human experience and the many ways in which people have shaped their environments.
with meanings using varying concepts of time and space. "Landscape is time materialized," as Barbara Bender (2002:103) has persuasively shown. These interpretive moments are mediated through personal and shared values that in turn shape how people experience and use the archaeological record. Thus, the fluid construction of cultural landscapes is not reduced to haphazard individual acts nor predetermined by social forces. Human agency and social structure are entangled (Giddens 1984). People perceive the world through moral codes, traditions, norms, and institutions, which they in turn consciously and unconsciously follow, supplant, overlook, and expand.

Absolute space and time are marked and bounded by the physical properties of the space-time continuum—by chronology, topography, latitude, and longitude. The San Pedro Valley, as it exists in tangible space of the physical world, exemplifies absolute space. This absolute space can be specified or described using geodetic coordinates such as the Universal Transverse Mercator System or the State Plane Coordinate System. Absolute time is exemplified by chronometric measurements, the most precise of which is the NIST-F1 Cesium Fountain Atomic Clock, used as the primary time and frequency standard for the United States. This conception of time is predicated on being able to measure the passage of time along a uniform and continuous linear scale that begins in the past and continues forward into the future. Thus, we can use tree rings to date archaeological sites to a specific year using a temporal scale that constitutes one of the foundations of Western culture. While absolute space and time seem to exist in the "real" world, independent of human thought, absolutes elude truly objective measures. Johannes Fabian (1983:13) noted that Euro-American ideas of time were long tied to biblical chronologies until at last they were "naturalized" to fit the Cartesian coordinate system. The very attempt to define the "absolute" is a cultural act, in other words, and therefore necessarily begins to slip into notions of the relative and representational.

Relative space and time are socially defined with fluid boundaries relative to other objects, and they are thus dependent on who defines them. Relative space, for example, is illustrated in Father Eusebio Kino's 1701 map showing the Greater Southwest as he knew it, informed by his role as a Spanish missionary and his personal experiences with Native peoples there (fig. 9). Relative time is entailed in an O'odham "calendar stick" that records only special events, each one relative to the last and relative to what was important for the O'odham people (fig. 10). O'odham calendar sticks are therefore not marked into equal units, each representing a period of time; the marks on them commemorate extraordinary incidents when they occur. The concepts of relative space and time lie on a continuum between culturally independent and dependent concepts. Relative space and time therefore mediate between complete objectivity and subjectivity. Relative is the in-between of absolute and representational.

Lastly, representational space and time are encoded with rich cultural symbols and values. An example of representational space is a map of the United States, where the very shape of the place allows it to become an emblem, like a flag that emits powerful connotations if one knows the meanings assigned to its symbols. Representational time is embodied in the notion of Camelot, which does not reference a "real" time but a symbolic golden age where knights were honorable and maidens fair.

Absolute, relative, and representational space can be arranged...
in our research when we studied the National Register nomination form for the Camp Grant Massacre Site, which designated an absolute space for the massacre site but justified the nomination using a representational time under the general theme of "Indian Wars." We came across an example of absolute time and representational space when we learned about the Coronado Scenic Trail Byway along State Route 191 in southeastern Arizona. We know the Coronado expedition passed through Arizona in A.D. 1540, but there is no evidence it followed a route that is anywhere near State Route 191. The spatial aspect of this scenic trail byway is clearly representational.

While we do not use the cultural landscape matrix to neatly arrange each and every statement of tribal cultural advisors in a specific quadrant, it guides our analysis of how statements of the past have differing references to time and space. This helps us understand how what appear to be straightforward archaeological questions (e.g., Is Palatkwapi one of the ruins in the San Pedro Valley?) actually misconstrue how historical concepts are talked about in Native American societies. Quite simply, there is no uniform way of imagining or discussing the past. Linda Tuhiwai Smith (1999:50–56) also reminds us that Euro-American projections of time and space onto the territory of Native peoples is not innocuous—it is often an endeavor to perceive the world as a mirror of Western civilization. Hence, to recognize alternative perspectives of time and place not only allows for more effective dialogue between archaeologists and Native peoples but also challenges historical arrangements of power that privilege a Western emphasis on the absolutes of time and space.