Yanawant
Paiute Places and Landscapes in the Arizona Strip

Volume One
Of
The Arizona Strip Landscapes and Place Name Study

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Of
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BLM Representative and Southern Paiute Elders

Most importantly, the authors wish to express their sincere gratitude to all of the Southern Paiute people who participated in the study. To all of the involved tribal chairpersons and especially the tribal representatives who participated in the field work, we express our more heartfelt thanks for taking the time away from their families and busy schedules to share their knowledge of traditional life and cultural resources in the Arizona Strip. Without the collaboration and participation of Southern Paiute elders and experts, this study could not have been done. They deserve an equal share of the credit for the data and findings contained in this report.

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Southern Paiute Elders and UofA Ethnographers

Foreword

The title of this volume, *Yanawant*, reflects a traditional term which has been glossed to mean the traditional Southern Paiute territory that encompasses the lands currently called by the Anglo term Arizona Strip. The Paiute term conveys a world of information about traditional social and political structure. Much of this discussion has been presented in previous BLM cultural resource reports, so it is available, but not reprinted here. A map of traditional territory and a few thoughts from past analysis are provided in this foreword.

The traditional social and political structure of the Southern Paiutes can best be described as a nation or one tribe; however, both terms fail in different ways to convey key aspects of traditional social organization. The Southern Paiute nation was organized around a system of local residential bands headed by chiefs, groups of bands organized into shared resource-base districts headed by a chief, and very large regional collections of districts headed by subtribal chiefs. They were all under the leadership of a high chief who represented some ultimate social-political-religious functions. Here we are most interested in the subtribal areas, their leadership, and a theory regarding their ecological purpose.

Subtribes

Just below the level of the Southern Paiute nation as a whole, there were two or more large socio-political divisions, each encompassing a number of neighboring districts (See Map A). The divisions would have included geographically contiguous districts having particularly close ties of economic exchange, intermarriage, and political cooperation. The evidence for these intermediate-scale political divisions within the Southern Paiute nation is sketchy, however, past research suggests that prior to about 1825 there may have been two divisions; a western subtribe called *paran'|ɣitsiŋ*^{w} (Sapir 1910:3, herein rendered as *Paranayi*)] and an eastern subtribe that derives from a native designation that Jacob Hamblin recorded as *Yanawant* (Stoffle and Dobyns 1983a, 1983b; Stoffle et al. 1991:7-8; Brooks 1950:27; Little 1881).

Paranayi Subtribe

The term *Paranayi* loosely translates into "marshy spring people" (Hodge 1910:202) or "people with a foot in the water" (Palmer 1928:11; Kelly 1934:554) and refers specifically to the Paiute people who lived in the Pahranagat Valley-Meadow Valley-Moapa Valley riverine oasis. Although the name has been used by some scholars as a band name for the Pahranagat Valley Paiutes, it is evident that the aboriginal use of the term was much broader.

The water referred to in the designation flows down the Pahranagat Valley, Meadow Valley Wash, and on to join with the Muddy River. This, in turn, joins with the Virgin River, and then flows into the Colorado River. From the Colorado River back upstream to the headwaters of Pahranagat Valley and Meadow Valley ran the ribbon-like oasis where people cultivated food

crops. We now know that the area contained a network of spiritual places and traveling paths under ground in the hydrological system where water babies moved.

The Muddy River appears to have been the headquarters of this subtribe. The western division of the Southern Paiute nation seems to have been too populous and too wide ranging to be properly labeled a district. Therefore, *Paranayi* might properly be considered one of two subtribes constituting the Southern Paiute nation, where the term "subtribe" is used in a purely technical sense to indicate that the tribe formerly consisted of western and eastern components.

Previous studies (Stoffle and Dobyns 1983a, 1983b) suggest that, when Euro-American colonization of southern Nevada began, the entire western and southern portion of the Southern Paiute nation was known as *Paranayi*. Within this great geographical area were a number of districts (a concept discussed more later) including the Moapa/Paranagat, Las Vegas, Pahrump/Ash Meadows, and Chemehuevi districts.

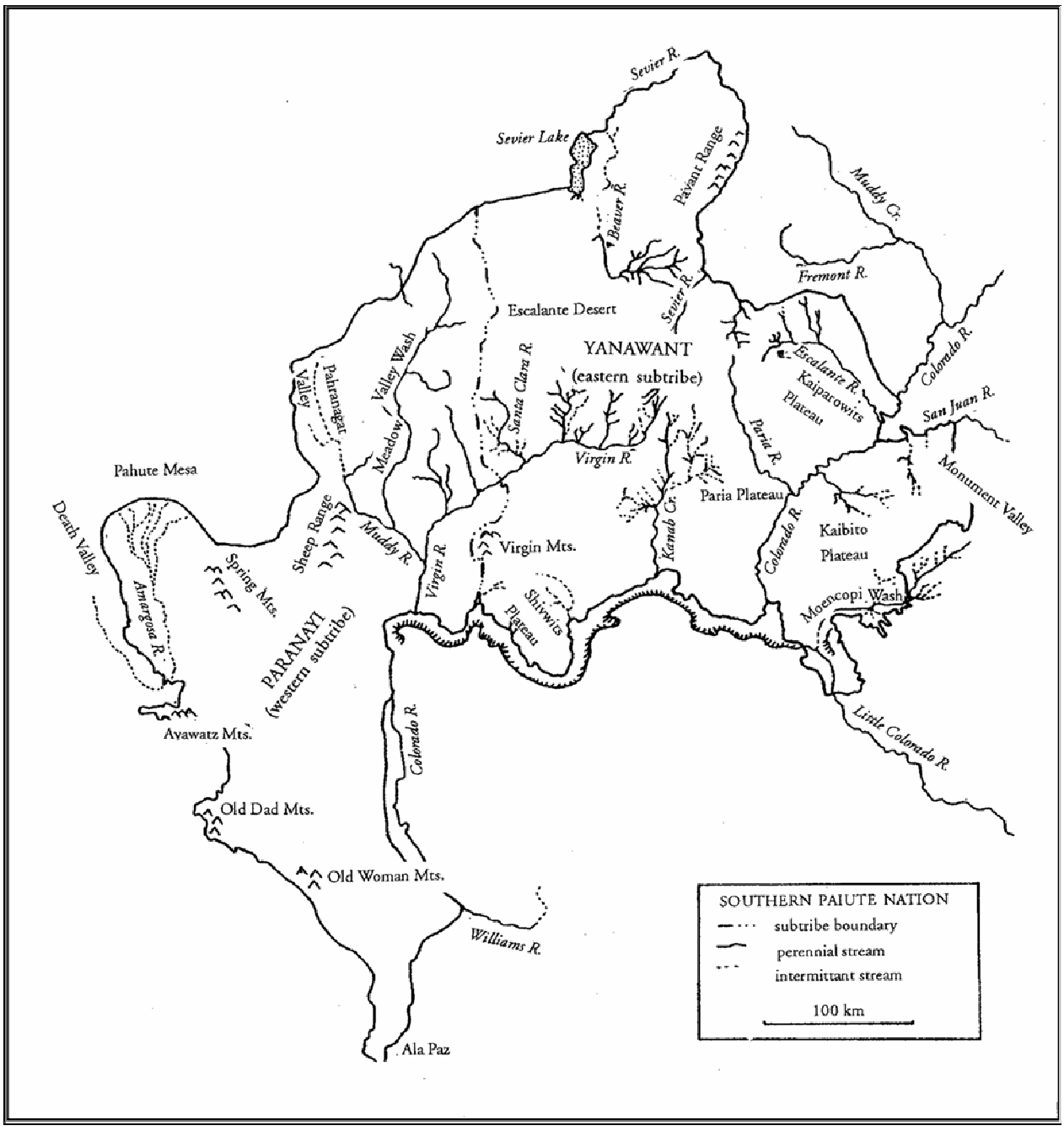
Yanawant Subtribe

Southern Paiutes inhabiting the higher altitude plateaus of southern Utah and northern Arizona planted their summer crops primarily in the Santa Clara River oasis, the Virgin River near the Santa Clara tributary, and all along Kanab Creek. Paiute farmers grew maize and other crops on sand-bar fields along the Colorado River. The San Juan Southern Paiute people may have stayed south of the larger stream, planting in oases along the San Juan River and its tributaries, at Paiute Canyon, and the springs and wash floodplains along the Echo Cliffs to the Moenkopi area near Tuba City (Bunte and Franklin 1987:30). The eastern subtribe may have been self-labeled *Yanawant* (Brooks 1950:27).

The Santa Clara Paiute people in the 1850s used a term for themselves that English speakers recorded as *Yanawant* with several variant spellings. For example, Jacob Hamblin used the term *Yanawant* for the Indian people of the region. He attributed this usage to the Indian people themselves, including their overall Chief Tutsigavits. Hamblin quoted the chief as saying "I want all the Yamnawants to love the Mormons all the time," (Corbett 1952:84). In his mid-1850s narratives, Hamblin often referred to the Yanawants: "the Yannewants were much alarmed," (Hamblin 1951:18); "a good feeling prevailed among the Yanwants as they call themselves," (Little 1969:39); I started for Great Salt Lake City in company with Thales Haskell and Tut-se-gavit (the Yamnawant Chief)," (Corbett 1952:114; Hamblin 1951:27).

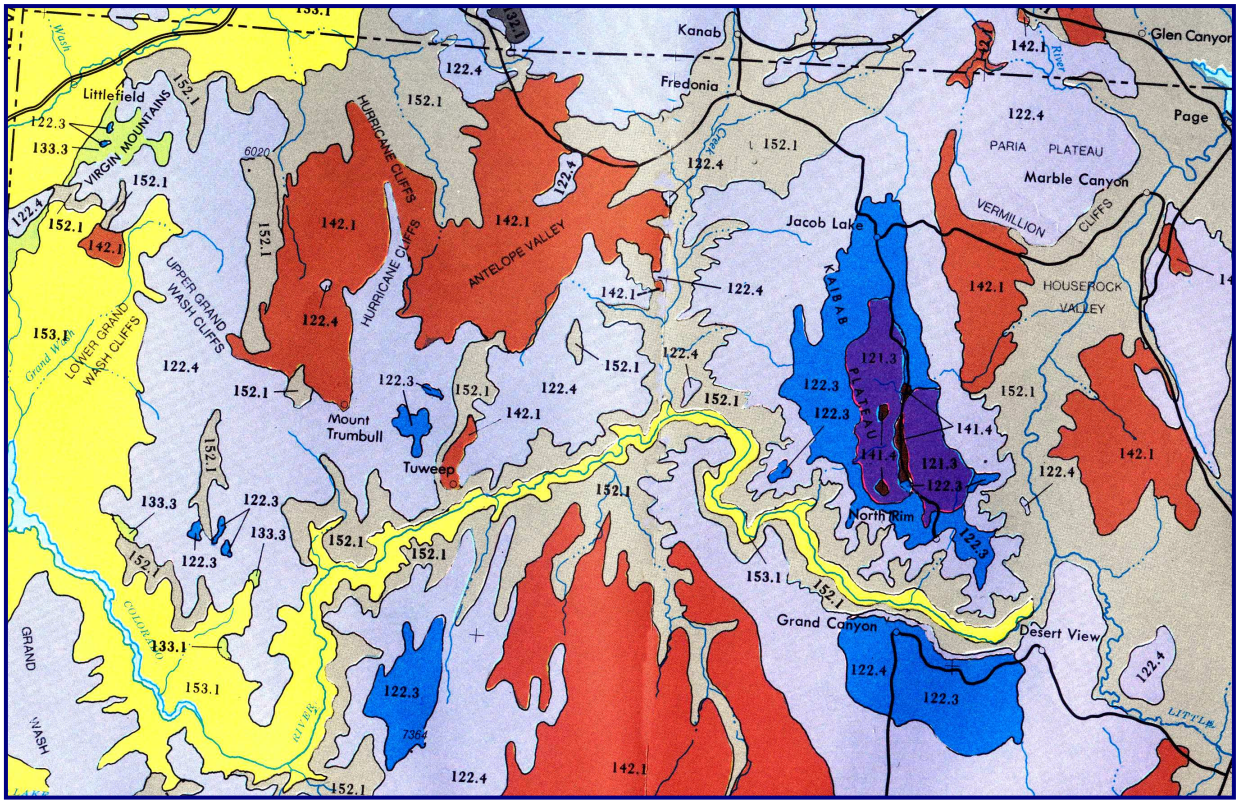
Yanawant Ecology

The relation between ecosystems and socio-political units becomes evident in both the structure and naming of these subtribes and in the structure of the districts. The key contributions that riverine oases made to Southern Paiute subsistence caused certain major streams to be geographically central to traditional life. It is important to note, however, that socio-political units do not always exactly fit the natural boundaries of ecosystems.



Map A The Southern Paiute Nation

Yanawant is a very special area in terms of ecology. The following vegetation zone map indicates this biogeographical complexity. As researchers we have know for years that the Southern Paiute districts (see Chapter One - Figure 1.2) were oriented in such a way to include similar portions of the Yanawant ecosystem. More specifically all districts had a zone for permanent settlements based on irrigated farming. All districts also had upland zones for hunting and gathering of higher elevation plants. They also tended to have sandy zones and grasslands for growing Indian Rice Grass (w*aii*) and hunting antelope. Only recently have we as academic-based researchers begun to understand the ecological logic underlying the social structure of the sub-tribes.



Biotic Communities of Northern Arizona

Yanawant with its social organization based in part on a network of band and district chiefs had within it many redundant ecological zones. We now believe that this redundancy provided all of the Indian people within the subtribe with *resiliency* (Berkes, 1998). Thus if a drought, fire, or pest infestation were to reduce or even eliminate a certain resource in one area, information of this threat to the local people would be conveyed through the chief system to others. The other chiefs would be responsible for either sending replacements for the missing food stuffs to the local people now without those resources or permitted those people to travel to another specified district to gather the missing resources. The high chief would have overseen this process to assure that the resolution of the problem was equitable for all the people of his subtribe. We

believe that the Paiute social system involving as it did a networked hierarchy of chiefs was developed in part to resolve serious environmental perturbations impacting local groups.

This is a resource topic of great significance for the AZ BLM because the large cultural landscapes, whether they are based on the distribution of food or spirituality, would have functioned to equitably distribute these resources. The high chief system would, in turn, have been the ecological management system needed to resolve serious perturbations. We believe this is a research topic which will go far in developing common understandings that can serve as a basis of cooperative tribal and agency management.

Preface

This report is the product of a study funded by the Bureau of Land Management (BLM) entitled, *The Arizona Strip Cultural Landscape and Place Name Study*. The study has five main objectives: (1) to provide an overview of American Indian Cultural Landscapes and their relevance for federal agency practices, (2) to describe the ethnographic, historic, and cultural bases for Southern Paiute communities' access to particular sites within the Arizona Strip, (3) to identify Numic place names, trails, and stories associated with selected cultural landscape sites within the Arizona Strip, (4) to include descriptions of the cultural significance of natural resources and physical environmental features at selected cultural landscape sites, and (5) to determine the need for future studies based on gaps identified in the historic and ethnographic record. The study is intended to serve as a foundation for identifying and managing Native American resources, cultural sites and cultural landscapes on the Arizona Strip.

This report is organized in two volumes. The first volume is entitled *Yanawant – Paiute Places and Landscapes in the Arizona Strip*. The second report is entitled *Yanawant – Paiute Places and Landscapes in the Arizona Strip*, and it draws upon historical accounts, diaries, and oral histories to document Southern Paiute occupation and use of the Arizona Strip from the time of European and Euro-American contact until the middle of the twentieth century. The volume also includes Paiute names for 148 places on and in the vicinity of the Arizona Strip

Volume One (this report), is focused on direct interviews with Southern Paiute people at places in the Arizona Strip. These locations were chosen to represent kinds of places that are culturally significant to Southern Paiute people. These include rock art sites, archaeology sites, springs, rivers, canyons, mountains, lava flows, and areas with special vistas. These places were chosen by representatives of the involved tribes, AZ BLM staff, and the project director at the Bureau of Applied Research in Anthropology at the University of Arizona. This is a first study of its kind funded by the AZ BLM and so a study goal was to see what kinds of contemporary cultural importance would be assigned by Indian people to kinds of places. It was thus impossible to go to all places of cultural significance in the Arizona Strip so the study lays a foundation for more comprehensive studies in the future.

Some kinds of places, such as historic period sacred sites, like the 1890 Ghost Dance site in Kanab Creek, were not visited because they had both been studied and reported on or because of access difficultly. Other sites such as prehistoric and historic Indian burial areas were neither visited nor discussed because of cultural sensitivity. Such sites are scattered across the Arizona Strip and eventually should be formally studied and become part of the BLM cultural sensitivity data base.

Indian people say that the world is integrated and connected. This simple statement reflects a complex system of place to place relationships that are the foundation of cultural landscapes. These cultural landscapes provide explanation and meaning for many places that would otherwise not be understood strictly by isolated analysis. This effort has been able to bring

place interpretation and analysis to the level of local landscapes. The number of interviews needed to provide such analysis was not available for all areas of the Arizona Strip so only two local landscapes are discussed in this report of findings. The highlighted local landscapes, however, do document that this level of cultural analysis is there for future analysis.

Local landscapes are integrated into larger scale and to some degree more culturally importance landscapes. None of these larger landscapes have been presented in this report, even though we know they do exist based on previous studies in the region. Eventually, future studies can document most of the culturally significant places, the primary local landscapes, and the key large scale cultural landscapes. The larger landscapes, such as the path to the afterlife traveled by the deceased as a part of the Cry ceremony and ceremonial trails to interethnic ceremonial areas, are shared with other American Indian ethnic groups, specifically the Hualapai, Havasupai, and Hopi, who eventually need to be formally involved in studies of places and cultural significance in the Arizona Strip.

The BLM and neighboring Federal and State land management agencies will not be able to fully manage these cultural resources until they are placed into the cultural landscapes which explain them and give them cultural meaning. At some point, Southern Paiute tribal governments and elders desire to become partners with these Federal land management agencies in the management of the traditional cultural resources that exist in Yanawant.

Chapter One
Introduction to the Study

by
Richard Stoffle
and
Kathleen Van Vlack

This report is one of two contributions to a larger study funded by the Bureau of Land Management (BLM) entitled, *The Arizona Strip Cultural Landscape and Place Name Study.* That study has five main objectives: (1) to provide an overview of American Indian Cultural Landscapes and their relevance for federal agency practices, (2) to describe the ethnographic, historic, and cultural bases for communities' access to particular sites within the Arizona Strip, (3) to identify Numic place names, trails, and stories associated with selected cultural landscape sites within the Arizona Strip, (4) to include descriptions of the cultural significance of natural resources and physical environmental features at selected cultural landscape sites, and (5) to determine the need for future studies based on gaps identified in the historic and ethnographic record. The larger study is intended to serve as a foundation for identifying and managing Native American resources, cultural sites and cultural landscapes on the Arizona Strip.

This report contributes to each objective of *Arizona Strip Cultural Landscape and Place Name Study*. Whereas the first volume of this study principally utilizes ethnohistoric documents and oral histories as a means of achieving a special perspective on each of the study objectives, this second volume's methodology emphasizes field interviews conducted at particular places identified as being culturally significant to Southern Paiute people. Together the two reports contribute to a fuller understanding of all study objectives.

1.1 The BLM Resource Management Plan

The Cultural Landscape and Place Name study was designed to inform and contribute to the Arizona Strip Resource Management Plan of the Grand Canyon-Parashant National Monument, the Vermilion Cliffs National Monument and other areas managed by the BLM in the Arizona Strip (hereinafter referred to as the RMP). A draft of the RMP was completed in early 2004. This date was prior to the scheduled completion date for this Cultural Landscape and Place Name study, and consequently the planning office of the BLM requested an Initial Assessment. That report which was entitled *Initial Findings from the Arizona Strip Cultural Landscape and Place Name Study, August 21-24, 2003 and October 23- 26, 2003* (Stoffle et al 2004) was based on field interviews and tiering (see below) and was designed to help inform BLM actions with regard to Southern Paiute issues and concerns in the management area.

The Federal Land Policy and Management Act of 1976 directs the BLM to develop maintain, and when necessary to revise land use plans to provide for the appropriate use of

public lands. An RMP use plan that describes broad, multiple-use guidance for managing public lands and mineral estates is developed with public and tribal involvement in the planning process. The planning process is further guided by BLM regulations (43 CFR 1600) and regulations prepared by the Council on Environmental Quality (40 CFR 1500).

The Arizona Strip RMP planning process began in the spring of 2002 with a series of Public Scoping Meetings, which were used to determine relevant *planning issues* in the management area. These are issues of wide public concern. By contrast, *management concerns* deal with more specific resource management and land use issues. These concerns and issues sometimes overlap (Bureau of Land Management and National Park Service 2002).

The Initial Assessment report highlighted Southern Paiute tribal management concerns which the tribal governments believe should be included in the RMP. Their concerns largely fell under the umbrella of general management concerns but larger planning issues were presented as well. It should be noted however that this Initial Assessment document did not address all American Indian issues and concerns that can arise regarding the management of resources within the study area. This report should instead be viewed as a tool for developing strategies to address both present and future management concerns and issue regarding resources found within the Arizona Strip. Furthermore, this Initial Assessment document informs the purpose, significance, and mission statements outlined in the Arizona Planning Bulletin of December 2002 (Bureau of Land Management and National Park Service 2002) regarding Native American involvement in the management of the Arizona Strip.

Figure 1.1 Southern Paiute Elder with UofA Ethnographer

1.1.2 Tiering:

The RMP and this study were informed by various studies, some of which were conducted under the National Environmental Policy Act (NEPA) and Environmental Impact Statements (EIS). These studies are done in consultation with stakeholders who are potentially impacted by the decision making process. The federal government requires that research being prepared for an EIS not unnecessarily duplicate previous studies. This is a process called *tiering*, which involves building one study upon another to reach a conclusion regarding what resources are present in the potentially affected environment and what impacts to those resources may result from the proposed project.

The types of questions asked in the course of this cultural landscape and place study, and to some extent even the exact survey instruments, have been used over recent decades during a number of projects and ethnographic studies situated at the edges of the Arizona Strip. These projects all involved persons from the current University of Arizona ethnographic team and Southern Paiute people and tribes currently involved in the study.

The following is a list of more than a dozen reports that have been used for tiering during this study:

- 2004 *Traditional Resource Use of the Flagstaff Area Monuments*, (Toupal and Stoffle 2004).

- 2000 *Ha'tata (The Backbone of the River): American Indian Ethnographic Studies Regarding the Hoover Dam Bypass Project*. Report prepared for the Federal Highway Administration. Incorporates research results from the Phase I (1998) and Phase II (2000) field projects (Stoffle, et al. 2000d).

- 2000 *Ethnographic Assessment of Kaibab Paiute Cultural Resources in Grand Staircase-Escalante National Monument, Utah.* Report prepared for the Kaibab Paiute Tribe and the U. S. Department of the Interior, Bureau of Land Management, Grand Staircase-Escalante National Monument (Stoffle, et al. 2000a).

- 1995 *Southern Paiute Ecoscape Perspectives: Applied Ethnographic Study of Cultural Resources at Zion National Park, Utah and Pipe Spring National Monument, Arizona* (Stoffle, et al. 1995b).

- 1995 *Itus, Auv, Te'ek (Past, Present, Future) Managing Southern Paiute Resources in the Colorado River Corridor* (Stoffle, et al. 1995a).

- 1995 *Tumpituxwinap: Southern Paiute Rock Art in the Colorado River Corridor* (Southern Paiute Consortium. 1995b).

- 1994 *Piapaxa 'Uipi (Big River Canyon): Ethnographic Resource Inventory and Assessment for Colorado River Corridor, Glen Canyon National Recreation Area,*

Utah and Arizona, and Grand Canyon National Park, Arizona (Stoffle, et al. 1994).

- 1990 *Uatah (fields where we plant all the time): Shivwits Southern Paiute Water Use Along Tunakwint, the Santa Clara River* (Stoffle, et al. 1990a).

- 1988 *San Juan Tribe of the Southern Paiute People: Beliefs Regarding Traditional Lands and Cultural Resources* (Stoffle and Halmo 1988)

- 1983 *Puaxant Tuvip*: *Utah Indians Comment on the Intermountain Power Project, Utah Section of Intermountain Adelanto Bipole I Proposal* (Stoffle and Dobyns 1982).

- 1980 *Kaiparowits Coal Development and Transportation Study* (Stoffle et al. 1982).

- 1978 *Kaibab Paiute History: The Early Years* (Stoffle and Evans 1978)

1.2 Regulatory and Historical Background

When entering into consultation with Native American people, there are three levels of guidance that shape the process. These levels serve to guide how tribes engage in the identification and assessment of resources on public lands and define the range of potential agency roles in that process.

The first level of guidance derives from the historic context of the people and the land. The Southern Paiutes maintain that their Creator gave the land to them, and therefore they have a divine obligation to care for it. Although aboriginal title to the area was legally extinguished at the time that the United States Government took possession of the land, and further extinguished by the Indian Claims Commission, the obligation of stewardship felt by the Southern Paiute people cannot be extinguished. These lands are closely connected to the historic memory (see Chapter Three) of the Southern Paiute people, and carry within them many generations of Southern Paiute tradition.

The second level of guidance is the regulatory framework of the United States Government. American Indian Tribal governments have a long-standing legal and political relationship with the United States Government and its federal agencies. Treaties and agreements have established the foundation for government-to-government relationship between tribes and federal agencies. The legal environment has created the requirement of consultation with affiliated tribes based on this government-to-government relationship. Federal agencies consult with tribal governments under the directive of Executive Order 13175 (November 6, 2000), Consultation and Coordination with Indian Tribal Governments, which defines agencies legal obligations of consultation. This Executive Order (EO) also enhances other regulatory requirements such as the American Indian Religious Freedom Act (1978), and Executive Order 13007 concerning Indian Sacred Sites (May 24, 1996). These regulations serve as further guidance to agencies as to their relationships with American Indian Tribes. Since the model of Consultation and Coordination with Indian Tribal Governments was first proposed by EO 13084

(May 19, 1998; revoked by EO 13175), this model has been adopted by the Nellis Air Force, Department of Energy – Nevada Operations, the U.S. Forest Service (USFS), Desert National Wildlife Refuge Complex of the U.S. Fish and Wildlife Service, and the Federal Highways Administration.

The third level of guidance stems from the relationship between the tribes and the agency. In order to conduct research in the Arizona Strip that meets the consultation requirements previously discussed relation to historical and legal guidelines, it is important that Indian people be partners in the process. In the book, *American Indians and the Nevada Test*, the term consultation is used to "describe a process by which American Indian peoples with aboriginal or historic ties to public lands are identified and brought into discussions about cultural resources in those lands" (Stoffle, et al. 2001a: 22). Consultation is a term that has broader legal standing and is recognized in the United States, Canada and much of the western world (Stoffle 2000). Consultation can be accomplished in many ways, but its success relies on the understanding of all interested parties. For example, in addition to the agency learning from the tribes, the tribes learn about agency mandates, processes, and culture through public documents, site visits, meetings and face-to-face interactions with agency representatives.

1.2.1 General Consultation

General consultation allows for the establishment of permanent relationships between American Indian groups that have ties to the managed lands and resources, and the federal agencies that have the legal responsibility for managing them. General consultation works best when it is based on extensive research concerning cultural resources that Indian people have identified within the lands of concern; that is to say, general consultation should be based on a strong foundation of culturally diverse information (Stoffle, et al. 2001a: 23).

General consultation has many advantages. It can occur in the absence of a specific project proposal involving the partner agency or a third (private or public) party. It can occur when the agency and the involved Indian people feel it is best not to be constricted by either time or issue. Another advantage of general consultation is that it produces a broad and continuously growing cultural resource information base, which becomes extremely useful when management and mitigation decisions must be made on short notice (Stoffle, et al. 2001a: 23). As stated in *American Indians and the Nevada Test Site* (2001), general consultation is the "only way to build true and stable partnerships between federal agencies and American Indians," (Stoffle, et al. 2001a: 24).

1.2.2 Specific Consultation

Federal agencies that lack government-to-government relationships with Native American tribes usually begin with general consultation as the first step in the consultation process. After general consultations, it is expected that project specific negotiations can and will arise. These latter negotiations bring opportunities to modify and improve existing partnerships through the specific consultation process.

Specific consultations can address issues such as the disposition of artifacts that are protected by the Native American Graves Protection and Repatriation Act (NAGPRA). NAGPRA is a Federal law that was passed in 1990.

> NAGPRA provides a process for museums and Federal agencies to return certain Native American cultural items -- human remains, funerary objects, sacred objects, or objects of cultural patrimony -- to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on Federal and tribal lands, and penalties for noncompliance and illegal trafficking. (National Park Service 2004).

Specific consultations can also be used to identify and respond to the impacts of small-scale development projects, changes in the interpretation of resources, and policies regarding inadvertent discoveries. Typical cultural resource studies are delineated into the following categories: (1) ethnoarchaeology, (2) ethnobotany, (3) ethnozoology, (4) rock art, (5) traditional cultural properties, (6) ethnogeography, and (7) cultural landscapes. These cultural resources tend to be studied separately so Indian tribes can send individuals with special knowledge about the topics. Specific consultations tend to be limited by the scope of the specific law that is being complied with, and by the proposed activity that is being evaluated.

Both general and specific consultations are linked with ecosystem management. Indian people consider traditional cultural properties, power places, sacred sites, and many natural resources to be inextricably linked to parts of an ecosystem and therefore perceive that proper ecosystem management must consider these traditional values.

Cultural resource studies are one tool available to help inform agency management about Native American concerns within a management unit. The Arizona Strip Cultural Landscape and Place Names Study has been designed as specific consultation, which will inform the BLM about some of the concerns the Southern Paiute people have regarding the Arizona Strip.

1.3 Culturally Affiliated Tribes

In order to identify, protect, and manage cultural resources, government agencies find it useful to identify the tribes that are *culturally affiliated* (i.e. culturally connected) with the lands and resources within a management area such as the Arizona Strip. Federal agencies use the term *cultural affiliation* in various ways for different purposes. American Indian tribal governments and cultural resource department also have their own definitions of this term.

At the broadest level *cultural affiliation* means a portion of land has become *culturally central* to an American Indian ethnic group. Connections between the Indian people and the land may have been established before Europeans arrived (pre-1492), while Europeans were occupying and claiming the land (pre-1848), and/ or during the historic period following 1849.

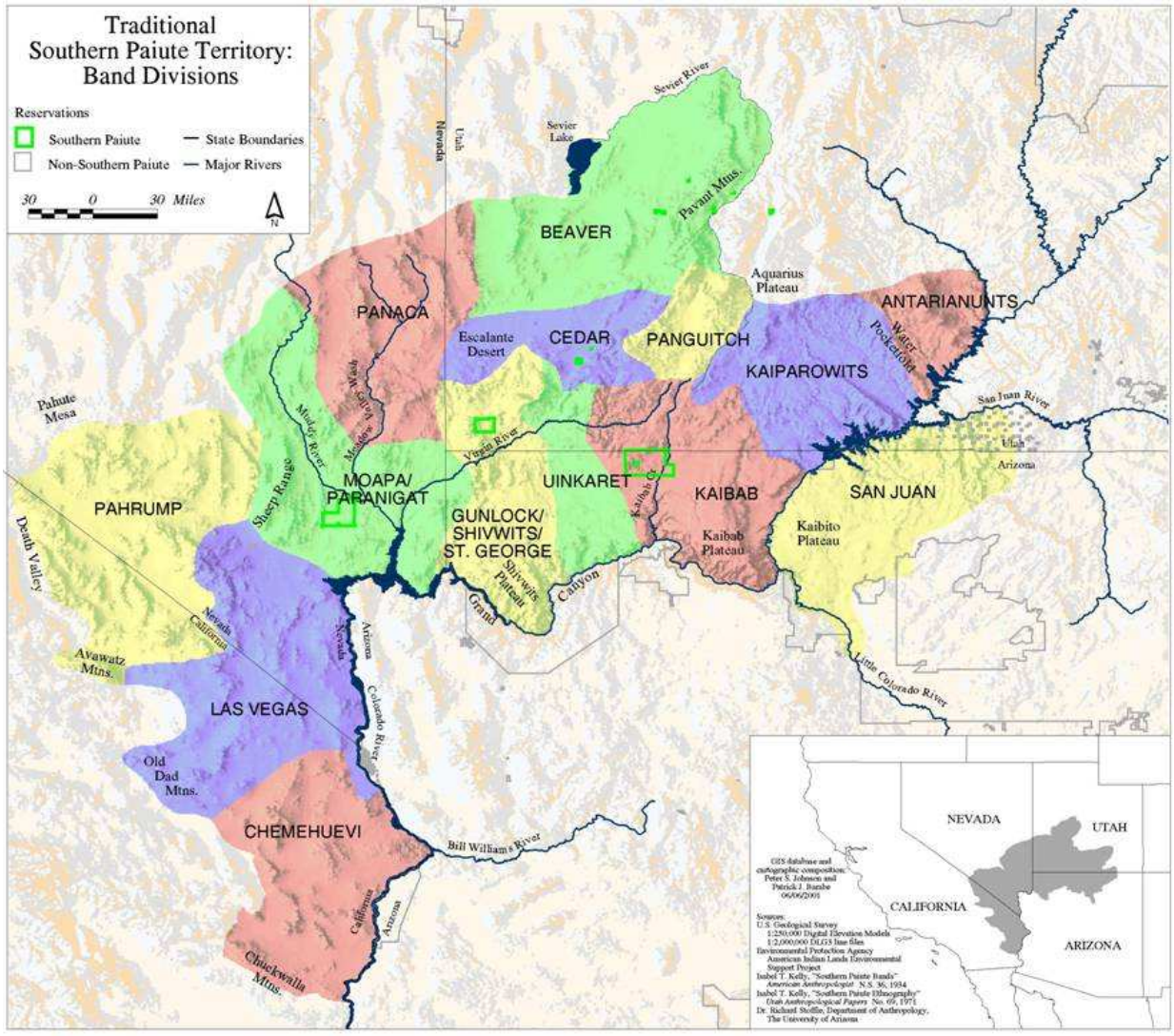


Figure 1.2 Traditional Southern Paiute Territory

A narrow but sometimes useful distinction between *culturally affiliated* (which was established in the more distant past) and *traditionally associated* (which can be a more recent connection) has been used by some federal agencies. The National Park Service (NPS) has defined these terms as:

> *Traditionally Associated* - For purposes of these Management Policies, social/ cultural entities such as tribes, communities, and kinship units are "traditionally associated" with a particular park when "The entity regards the park's resources as essential to its development and continued identity as a culturally distinct people; and The association has endured for at least two generations (40 years); and The association began prior to the establishment of the park. See "Evaluation and Categorization" 5.1.3.2; and "Ethnographic Resources" in the Cultural Resource Management Handbook.
> (Department of the Interior 2001)

> *Culturally Affiliation* - means that there is a relationship of shared group identity that can be reasonably traced historically or prehistorically between a present day Indian tribe or Native Hawaiian organization and an identifiable earlier group. (Native American Graves Protection and Repatriation Act 1990).

It is also important when seeking consultation from American Indian people that *aboriginal title* is recognized. Aboriginal title refers to land possessed by a particular tribe (actually ethnic group) up until the United States government acquired title (Sutton 1985). *Map A* shows the aboriginal territory of the Southern Paiute ethnic group, documenting that the Southern Paiute people are culturally affiliated with all of the lands of the Arizona Strip. The present report does not directly address the Arizona Strip cultural affiliation of all potentially affiliated American Indian peoples; however, it does bring forth through systematic ethnographic interviews and document analysis, a fuller understanding of where and how the Southern Paiute people are connected with the places and resources of this cultural landscape.

The traditional and aboriginal lands of the Southern Paiute people were greatly impacted by the encroachment of Europeans. Although all traditional lands are still perceived as belonging to the Southern Paiute people, they have been divided into tribes, which in turn have been allocated a very small portion of traditional land. The map represents the territories of the thirteen bands of Southern Paiute people as identified by Isabel Kelly (1934) and later revised to fourteen by the BARA research team (1999). These bands exist in contemporary times as eight federally recognized tribes, and one unrecognized tribe:

- The Chemehuevi Indian Tribe
- The Colorado River Indian Tribes[1] (CRIT)
- The Kaibab Band of Paiute Indians
- The Las Vegas Indian Tribe
- The Moapa Paiute Tribe
- The Pahrump Paiute Tribe[2]
- The San Juan Paiute Tribe[3]
- Twenty-nine Palms band of Paiute Indians[4]
- The Paiute Indian Tribe of Utah[5] (PITU)
  - Shivwits Band

[1] The Colorado River Indian Tribes is a composite tribe which includes Mojave, Navajo, Hopi, and Chemehuevi peoples.

[2] The Pahrump Paiute Tribe has not been Federally Acknowledged at the time of this report. They are an organization seeking tribal status.

[3] The San Juan Paiute Tribe was formally acknowledged in 1990.

[4] The 29 Palms Band of Paiute Indians were long thought to be Mission Indians by the Federal Government but are currently identified as Chemehuevi. For more information see *Chemehuevi People of the Coachella Valley* Trafzer, Clifford, Luke Madrigal, and Anthony Madrigal 1997Chemehuevi People of the Coachella Valley. Coachella, CA: Chemehuevi Press..

[5] The Paiute Indian Tribe of Utah was established by Congress on April 3, 1980. The new composite tribe included five formerly independent Paiute bands which had been terminated. See Bureau of Indian Affairs Bureau of Indian Affairs 1982 Proposed Paiute Indian Tribe of Utah Reservation Plan. Washington D.C.: United States Department of the Interior, Bureau of Indian Affairs and Holt, Ronald 1992Beneath These Red Cliffs: An Ethnohistory of the Utah Paiutes. Albuquerque, NM: University of New Mexico Press. for further discussion.

Indian Peaks Band
Cedar City Band
Kanosh Band
Koosharem Band

Ideally, all tribes would like to participate as full partners in all consultations within their traditional territory. This is sometimes not possible due to expedience, scheduling conflicts, lack of funding, or lack of tribal resources. When it is not possible for tribes to participate as full partners, it is still desirable that all reports and findings be sent to the tribes for Tribal Council review and approval. For example, this study is designed to solicit input from the four tribes in closest proximity to the Arizona Strip[6]. While the site visits and interviews will only involve these four tribes, a draft of the report will be sent to all of the Southern Paiute tribes for review and tribal approval. This methodology is used in order to ensure that all tribes participate in decisions regarding their homeland.

1.4 Conducting Site Visits

The fundamental question that must be addressed in any consultation is, "What is out there?" It is not the role of the tribal governments to directly provide the answer, but they will send cultural experts who can identify various cultural resources in the areas of concern. Tribal government leaders can also appoint representatives to a consultation committee that can help to compile an inventory of cultural resources.

Whenever possible, American Indian cultural resource studies should be conducted separately because tribes and Indian groups will send different types of cultural specialists based on what is to be studied. For example, an Indian person who may be able to speak at length about archaeological sites may know little about the ethnobotany of the area. A recent analysis of ethnobotanical responses documents that such knowledge is unevenly distributed in Southern Paiute society today varying by individual, gender, and age (Stoffle, et al. 1999). Knowledge about resources such as rock peckings and paintings may be held by religious specialists rather than by Southern Paiute people in general (Stoffle, et al. 2000b).

Over the past three decades Southern Paiute people helped developed a list of studies that they believe need to be conducted in order to have a complete and accurate American Indian assessment of a region. Below is the list of studies that they recommended (American Indian Writers Subgroup 1996):

- Ethnoarchaeology: The interpretation of the physical artifacts produced by the ancestors of the Southern Paiute people.

- Ethnobotany: The identification and interpretation of the plants used by Indian people.

- Ethnozoology: The identification and interpretation of the animals used by Indian people

[6] These tribes are the Kaibab Band of Paiute Indians, The Moapa Band of Paiute Indians, The Paiute Indian Tribes of Utah, and the San Juan Paiute Tribe.

- Rock Art: The identification and interpretation of traditional Indian paintings and rock peckings

- Traditional Cultural Properties: The identification and interpretation of places of central cultural importance to a people. (Indian people often refer to these places as “power places”)

- Ethnogeography: The identification and interpretation of variability and continuity of physiographic features such as soil, rocks, water, and air in relation to the cultural and epistemological frameworks of Indian people.

- Cultural Landscapes: The identification and interpretation of spatial units that are culturally and geographically unique areas for American Indian people.

This list was suggested by and agreed upon by Southern Paiutes, Owens Valley Paiutes, and Western Shoshone tribes who are culturally affiliated with lands currently occupied by the Nevada Test Site. The list of seven specific studies can be applied as well to other traditional lands such as the Arizona Strip.

In addition to the overarching question of “What is out there?” Southern Paiute people feel three additional issues must be assessed. These issues are:

(1) What is the natural condition of this portion of the Southern Paiute traditional territory and the resources it contains?

(2) What environmental conditions have changed due to non-Indian activities?

(3) What impacts will the land management alternatives proposed in the current RMP have on the existing characteristics of the natural environment?

Prior to the onset of Euro-American encroachment, Indian people had full responsibility for resource management decisions of the natural environment and the specific methods through which they cared for traditional lands. It is important to understand that when Indian people talk about the “natural state” of their traditional lands, they are typically referring to environmental conditions that resulted from traditional management before pre-contact times.

1.5 Fieldwork Activities and Place Identifications

In order to identify culturally important places and resources within the Arizona Strip, ethnographers from the Bureau of Applied Research in Anthropology (BARA) made four field trips with Southern Paiute representatives to particular sites within the Arizona Strip. The first session of fieldwork took place from August 21-24, 2003, the second session of fieldwork occurred from October 23- 26, 2003, the third session occurred May 21-24, 2004 and the final field work session occurred August 16- 19, 2004 (for a detailed chronology of field work activities please see Appendix A).

BLM representatives, Southern Paiute cultural representatives and BARA ethnographers visited each of these sites. BARA ethnographers designed the August and October 2003 field sessions as scoping trips having two purposes. The first purpose was to introduce the study to the Southern Paiute people, specifically those people from the Cedar City Band of the Paiute Indian Tribe of Utah, and the Kaibab Band of Paiute Indians. The second purpose was to identify the kinds of places and resources that should be included in the studies.

1.6 Summary of Interviews

BARA ethnographers collect information about natural resources, places, and landscapes by using both formal and informal interviews techniques. This report is primarily based on 136 interviews conducted at field sites occurring in the Arizona Strip. Table 1 presents the number of formal and informal interviews by the field study where they were conducted. Most interviews were guided by the use of an interview instrument, but informal interviews occurred when formal interviews were not possible or appropriate.

Table 1.1 Formal and Informal Interviews Conducted during Four Field Sessions

Trip	Formal	Informal	Total
1	***3***	***10***	***13***
2	***18***	***7***	***25***
3	***34***	***7***	***41***
4	***48***	***9***	***57***
Total	**103**	**33**	**136**

Informal interviews are defined as a conversation between an ethnographer and cultural representative during which information specific to the project is shared and recorded. Informal interviews and discussions can occur for various reasons. Probably the most common reason is that the ethnographer and the cultural representative are walking to or from a place that is being studied. Either the place or the conversation may elicit a response that is relevant to some cultural dimension of the study. In most cases the information is offered at a time when it is difficult to record it, and the ethnographer instead records a personal account of the conversation. Informal interviews are a common and important source of cultural information and have occurred throughout the initial stages of this study.

The number of formal interviews conducted with survey instruments during both trips is summarized in Table 2 where they are cross-tabulated by the location of interview and the kind of survey instrument utilized. Interviews occurred at 14 places that were selected to represent a range of kinds of Indian places that exist in the Arizona Strip and the specific recommendations of the involved Indian tribes. The places visited were also chosen to represent the spatial length and breadth of the Arizona Strip area. Most interviews were specifically focused on the place being evaluated and so the site form was used. The Cultural landscape form can be used anywhere inasmuch as the location of the interview does not impact the network of perceived connections. Only two rock art places were visited and this very specific form was utilized there to understand Indian evaluations of both these sites and rock art sites in general.

Table 1.2 Formal Interviews by Location Where Conducted and Form Used

Location	Site Form	Landscape Form	Rock Art Form	Total
Twin Point	*10*	*0*	*0*	***10***
Little Springs	*6*	*0*	*0*	***13***
Nampaweap	*0*	*0*	*6*	***6***
Toroweap	*0*	*6*	*0*	***6***
Horse Valley	*7*	*0*	*0*	***7***
Willow Gathering Site	*7*	*0*	*0*	***7***
Diamond Butte	*4*	*2*	*0*	***6***
Little Black Mountain	*0*	*0*	*7*	***7***
Condor Release Site	*9*	*0*	*0*	***9***
Signature Rock	*9*	*0*	*0*	***9***
West Bench Pueblo	*9*	*0*	*0*	***9***
Jacob's Pool	*9*	*0*	*0*	***9***
San Juan Paiute Homestead	*3*	*0*	*0*	***3***
Marble Canyon	*0*	*9*	*0*	***9***
Total	**73**	**17**	**13**	**103**

Confidence in interview findings increases with the number of interviews that occur at a place. In general, four interviews with the same form are required at each place for a minimal confidence level to be achieved. Except for San Juan Paiute Homestead, where only three formal interviews were conducted, all other sites visited have satisfactory to high confidence levels. In the latter case however, the strong historic, ethnographic, and cultural connections of each San Juan cultural representative make the former point mute. (See Chapter 4 for further details).

1.7 Data Collection Instruments

The BARA team uses a variety of formal data collection instruments to record cultural data provided by Indian people. The three primary instruments (see Appendix B) were used during this study.

- *The Site Survey Instrument*, which focuses on the cultural, religious, traditional and other uses of site-specific resources a tribe or person has or had with a specific location.

- *The Rock Art Survey Instrument*, which focuses on rock art panels and their use and significance to the interviewee and their tribe.

- *The Cultural Landscape Survey Instrument*, which also incorporates maps, identifies locate cultural landscapes, paths, and connections between localized portions of the entire area and also contextualizes the study area within the cultural landscape.

BARA ethnographers developed these instruments through trial and error over a period of more than a decade. The primary goal was to have instruments that would elicit information on specific kinds of resources while allowing a "progressive contextualization" (Vayda 1983) of resources when the instruments were used together. In addition to these survey instruments, BARA has also progressively developed instruments for looking at other particular resources such as plants or animals. Each was developed with the aid of Indian people (Stoffle, et al. 1995b: ; Stoffle, et al. 1994: ; Stoffle, et al. 1990b).

The Site Survey Instrument is *place-specific* and is used to record site use history and types of ethnographic resources associated with site use including water, plants, animals, minerals, landforms, and archaeological remains. With this form, the ethnographer can elicit detailed information on material, behavioral, and spiritual connections among resource types, and between each resource and a place. It was used initially in the Zion National Park and Pipe Spring National Monument Study (Stoffle, et al. 1995b). The "Zion form" has since been successfully applied in several federally funded projects that involved tribes in the West and Midwest regions of the United States.

The Rock Art Survey Instrument is used when petroglyphs or pictographs are the dominant resource at the site. This instrument provides a finer grained analysis of this kind of site than the Site Instrument.

BARA ethnographers designed the *Landscape Survey Instrument*, with input from agencies that needed a way to manage much larger areas of integrated cultural phenomena. At the federal policy level such efforts correspond with the concept of *ecosystem management* (Yaffee, et al. 1996). The landscape instrument frames place and resource-specific information in a broader regional and more abstract cultural context. With this instrument, we investigate origin and migration traditions, ethnic group settlement and land use history, and specific use patterns of the natural topography. Data on trail systems, including travel across land and by water, ceremonial trails associated with songs, drum circles, dreaming, pilgrimages, and individual quests, are crucial to unraveling complex cultural connections between places and resources.

Experienced ethnographers administer these forms in a private session with indigenous cultural experts. The interviews are kept private in order to allow people to speak freely without fear of reprisals, and to ensure that all individual viewpoints are collected without a dominant voice overriding others. After these viewpoints are collected, they are analyzed, drafted into a report, and submitted for tribal review before final publication. Through this process, the individual voices receive community agreement that the report represents a tribal perspective.

Figure 1.3 UofA Ethnographers and Southern Paiute Elders at Toroweap Overlook

1.8 About the Bureau of Applied Research in Anthropology

BARA was founded in 1952 as the Bureau of Ethnic Research, charged with the responsibility to monitor the socio-economic welfare of Native American communities in Arizona. In 1982, BARA changed its name and vastly expanded its research and training mission. Currently, the BARA faculty is comprised of sixteen state-funded and project-funded academic professionals organized around six different programs. For each program there exists a set of research activities consistent with the BARA mission, as well as corresponding academic courses and student participation that contribute in an integrated fashion to BARA's commitment to applied training.

The BARA ethnographic team involved with this study directs a program called Native American Cultural Resource Revitalization. Consistent with BARA's founding mission, to monitor the welfare and well being of Native American groups in Arizona, this program focuses on the national need to assure the preservation of Native American cultures and languages. A long history of misguided policy-making and disregard for native cultures in this country has created marginalized and dependent peoples with severe economic disadvantages and little control over their own destiny. Recent legislation, such as the American Indian Religious Freedom Act of 1978 and the Native American Graves Protection and Repatriation Act of 1990, has attempted to redress the situation and establish new policy paths that emphasize tribal empowerment and cultural respect. BARA has contributed to these new directions by developing

standard procedures that assure the full participation of Native American tribes in the process of identifying and controlling their comprehensive cultural resource inventories. In this program, BARA researchers facilitate the interaction of tribes with government agencies and private organizations. Through the use of ethnography, BARA professionals have assisted communities in the reconstruction of their cultural histories, made Geographic Information Systems (GIS) technologies available to tribes wanting to identify and maintain their cultural landscapes, and worked to address language shift through the development of dictionaries and the promotion of language literacy on reservations.

This program also has contributed to the development of cultural resource theory within applied anthropology and has generated genuine, mutually respectful, and productive partnerships between the University and Native American tribes. One of BARA's most consistently supported research programs; the Native American Cultural Resource Revitalization has received long-term funding from tribes, the National Park Service, the Department of Energy, the Department of Defense, the Bureau of Reclamation, National Science Foundation, and other entities.

Research Team Qualifications

Dr. Richard Stoffle

Dr. Stoffle is a senior cultural anthropologist at BARA. Dr. Stoffle has worked on American Indian environmental issues since 1976, when he participated in the first American Indian social impact assessment in the United States. This project was for an Environmental Impact Study of the Devers-Palo Verde Power-Line proposed to run from the Buckeye Atomic power plant near Phoenix, Arizona to the Palo Verde substation of Southern California Edison in California. Since that first study, Dr. Stoffle has worked successfully with more than a hundred American Indian tribes and most federal agencies to represent Indian environmental issues in land management decisions. Dr. Stoffle has a record of scholarly publications and research reports, which are available on request. Recent articles that reflect his current scholarly partnerships with Indian people (Stoffle, et al. 1999: ; Stoffle, et al. 2000e) His most recent co-edited book (Stoffle, et al. 2001a) is a model of long-term research and consultation with Numic-speaking tribes and organizations in Nevada, California, Utah, and Arizona.

Alex Carroll

Ms. Carroll is a Ph.D. candidate the University of Arizona with a major in sociocultural anthropology and a minor in archaeology. Her interests include place, performance and ritual, social memory, the politics of representation associated with Native American images, events and processes, and the means through which American Indian voices can appear in their own histories. She is currently working on her dissertation on the 1890 Ghost Dance. Ms. Carroll has been working for the Bureau of Applied Research in Anthropology for five years. She is currently in the process of publishing an Indian history of central Nevada that was co-written with Nieves Zedeno and Richard Stoffle entitled, *Ancient Voices, Storied Places: Themes in Contemporary Indian History.*

Fletcher Chmara-Huff

Mr. Chmara-Huff holds a BA with honors in anthropology from the University of Arizona. He has been working for the past three years with Dr. Stoffle in the Bahamas on a project studying people's attachments to the environment. He has also worked on a number of Native American cultural resource projects with Southern Paiute people. His senior honors thesis concerned the history of the Pahrump Band of the Southern Paiute and their relationship with their traditional territory. He will be starting in the Department of Geography in 2004 to study Southern Paiute Cultural Landscapes

Aja Martinez, BA

Ms. Martinez is an undergraduate student in Anthropology and English at the University of Arizona. She will soon be entering graduate school at the University of Arizona in the Rhetoric, Composition and the Teaching of English program. Over the past two and a half years she has worked with Dr. Stoffle on several projects including a NSF funded project in the Bahamas, and the Bureau of Land Management's Arizona Strip Cultural Landscape and Place Name project.

Kathleen Van Vlack

Ms. Van Vlack is a graduate student the American Indian Studies program at the University of Arizona. Her plan of study is focused on American Indian ecology and co-adaptation. She received her BA in anthropology from the University of Arizona. Over the past three years, she has worked with Dr. Stoffle on numerous research projects. She has worked on a NSF funded project in the Bahamas studying people's cultural attachments to the environment. She has worked on multiple cultural resource projects with Southern Paiute people.

Chapter Two
Modeling American Indian Landscapes

by

Richard Stoffle

When focusing on Native American concerns about places for the purpose of adopting a Resource Management Plan (RMP), it is important to understand why something may be important. There are sometimes misunderstandings between agencies and Native American people because of different epistemologies of the world. The Euro-American viewpoint is one partially based on the notion that the world is inert, waiting for people to apply forces of change. This chapter will explain for the reader the fundamental principles of universal order held by Native American people in order to elucidate the reasons that things that might seem mundane to Euro-Americans are important to Native Americans.

Everything is connected. This epistemological premise has been expressed by Indian people during the past twenty-seven years of cultural resource studies conducted by ethnographers who are currently at The University of Arizona (UofA). Today, this complex issue seems to be at a watershed; the Geographic Information System (GIS) ArcView provides a broad spatial frame of analysis that permits visual representations of places, connections, and place relationships. Cultural landscape models and theories developed in the past ten years provide the intellectual foundation for interpreting the connections. Scholars are listening to American Indian people about the centrality of ceremonies in their culture, and have completed a host of narrow footprint projects all over the southern Nevada region. By piecing together the landscape puzzle (Dewey-Hefley, et al. 1998), we are able to view and better understand the variety of local and regional connections within a single database. Individual study findings also begin to make sense at the regional level because the same ethnographers, using the same data gathering instruments, have conducted these studies and are familiar with findings outside the scopes of the individual studies.

The purpose of this chapter is to provide a regional overview and model concerning how major types of cultural resources and places are connected. The focus of the analysis is southern Nevada, but full analysis requires a discussion of places in Arizona, California, Utah and Wyoming (Figure 2.1). Generally, all places being considered are located in what is the proto-historic territory of the Indian people who speak the Numic language (specifically Southern Paiutes, Western Shoshone, and Owens Valley Paiutes); but where it is appropriate and data permits, the analysis includes Indian people who speak the Yuman language (specifically the Mohave and Hualapai)[7]. The analysis builds on all previous studies available to the authors, but

[7] The Numic branch of the Uto-Aztecan language family is also spoken by the Mono, Utes, Northern Paiutes including Bannock, Panamint, Comanche, Kawaiisu, and Tubatulabal Silver, Shirley, and Wick R. Miller 1997 American Indian languages : cultural and social contexts. Tucson: University of Arizona Press. the Quechan, Maricopa, Diegueno (Kumeyaay), Kiliwa, Paipai, and Cocopa along the lower Colorado and the Havasupai and Yavapai in the upper Colorado also speak the Yuman branch of the Yuman-Cochimi language family (Silver and Miller 1997: 374). Yuman and Numic are not mutually intelligible.

is especially informed by recent cultural landscape studies funded by the U.S. Air Force (USAF), the Department of Energy (DOE), and the Federal Highway Administration (FHWA) in Nevada[8]. The chapter serves as an intellectual frame for understanding research findings presented in this USFS report.

2.1 The Basic Concepts

There are five basic concepts that need to be introduced so that the reader can better interpret the American Indian observations and findings of this report. The first concept is at a most fundamental cultural level called *epistemology*, or sometimes simply designated by the term *beliefs*. It is about power, *puha* in Paiute, and how this energy force defines, influences, and connects natural resources, people, and places. The second concept is that of *elements of the universe*, which are the basic components from which the world is composed. The third concept is that of *making and using tools*. Especially important here is the cycle of use including ritual deposition. The fourth concept is about *place*. This term is used technically, and reflects an extensive professional literature. Finally, connections require an organizational frame; therefore, in this essay we have chosen the fifth concept of *cultural landscapes*. Landscapes are less well understood than places, but this essay makes an attempt to bring specific American Indian observations together within this analytical frame.

2.1.1 Puha

The concept of puha, which generally translates as power or energy, seems to best match and explain the notion of connection, which is inherent in American Indian interpretations of the meanings associated with people, places, and resources. Puha is a concept about one of the prime forces of existence. It came into being with the Original Creation and was placed in everything. Epistemologically, puha is why everything is alive, has a will, and is capable of action.

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[8] Dozens of technical reports constitute the body of data supported by these agencies but see especially for the DOE Stoffle, Richard W., María Nieves Zedeño, and David B. Halmo, eds.

2001a American Indians and the Nevada test site : a model of research and consultation. Washington, D.C.: Government Printing Office, Zedeño, María Nieves, Richard W. Stoffle, Genevieve Dewey-Hefley, and David Shaul

1999 *Storied Rocks:* American Indian Inventory and Interpretation of Rock Art on the Nevada Test Site. Tucson, AZ: Bureau of Applied Research in Antropology, The University of Arizona.; for FHWA Stoffle, Richard W., Fabio Pittaluga, Tray G. Earnest, Amy Eisenberg, John Amato, and Genevieve Dewey-Hefley

1998 Pah hu wichi (From Big Spring Running Down): Big Spring Ethnographic Asssessment, US 95 Corridor Study. Pp. 147. Tucson, AZ: Bureau of Apppled Research in Anthropology, The University of Arizona., Stoffle, Richard W., María Nieves Zedeño, Amy Eisenberg, Rebecca S Toupal, Alex K. Carroll, Fabio Pittaluga, John Amato, Tray G. Earnest, and Genevieve Dewey-Hefley

2000d *Ha'tata* (The Backbone of the River): American Indian Ethnographic Studies Regarding the Hoover Dam Bypass Project. Report Prepared for CH2M Hill Inc. and the Federal Highway Administration, Central Lands Highway Division. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.; Nellis Air Force Base and Bombing Range Stoffle, Richard W., María Nieves Zedeño, Jaime K. Eyrich, and Patrick Barabe

2000e The Wellington Canyon Ethnographic Study at Pintwater Range, Nevada. Tucson, AZ: Bureau of Applied Research in Anthropology, The University of Arizona..

Figure 2.1 Numic Territory as Illustrated in the Handbook of the North American Indian Vol. 11 (Sturtevant, et al. 1986)

The best way to understand how the world is connected in Numic and Yuman culture is to begin with the concept of a *living universe.* The idea of a living universe is easy to say but less easy to fully understand for some non-Indian peoples. Today, people who emigrated from Europe to the United States seem to have special problems coming to grips with the concept of a living universe. It was once not so (Westwood 1987) and may not be true for all Euro-Americans today (Swan 1990). Barbara Adam maintains that when Europeans disconnected themselves

emotionally, sensually, and intellectually from nature, they set the course of our environmental mistakes, which have led to our current ontological insecurity (Adam 1998).

The living universe is an *epistemological foundation* of Numic and Yuman culture, or what Rappaport (1999: 263-271, 446) calls an *ultimate sacred postulate*. These terms simply mean that the concept of a living universe is so basic in Numic and Yuman culture that you cannot understand many other aspects of culture without first fully recognizing this concept. A living universe is alive in the same way that humans are alive. It has most of the same characteristics as humans. The universe has physically discrete components that we will call *elements* and something like energy that we will call *puha.* These are a few general statements that we can make about puha:

- It exists throughout the universe but, like differences in human strength, puha will vary in intensity from element to element.

- It varies in what it can be used for and it determines what different elements can do.

- It is networked, so that different elements are connected, disconnected, and reconnected in different ways, and this occurs largely at the will of the elements that have the power.

- It originally derives from Creation and permeates the universe like spider webs in a thin scattering and in definite concentrations where life is also clustered.
- It exists and can move between the three levels of the universe: upper (where powerful anthropomorphic beings live), middle (where people now live), and lower (where super-ordinary beings with reptilian or distorted humanoid appearance live).

According to Miller (1983), puha is diffused everywhere in continuous flux and flow, which is not haphazard because, as an aspect of memory, puha is rational. From all available evidence, the routes of concentrated puha within the generalized dispersion are web-like, moving both in radial patterns and in recursive concentric ones, that is, out from the center and back again.

Numic and Yuman speakers were most successful when their movements and the arrangements of their lives duplicated those of puha. Without recognizing its full significance, many scholars have noted this web- or net-like character (Miller 1983). The attraction of puha for life is such that any gathering will concentrate it, and a closed dance circle can contain it for some time. After such a concentration, puha apportions itself among the participants, going along with them as each takes separate trails radiating away from the central location. For this reason, trails in the Great Basin are sacred according to Miller's field interviews (1983).

According to Bean (1976: 408) for Yuman speakers "power in the universe is best understood in terms of four basic philosophical assumptions: (1) power is sentient and the principal causative agent in the universe; (2) power is distributed differentially throughout the

three realms of the universe and possessed by anything having 'life' or the will 'to act'; (3) the universe is in a state of dynamic equilibrium in relation to power; and (4) man is the central figure in an interacting system of power holders." Bean suggests that there are two types of power a Yuman speaker can acquire: individually acquired power (or knowledge), and traditionally acquired power (or that held by priests or shamans). All power must continually be employed by man to maintain the dynamic equilibrium or harmony of the universe; power is a balancing force.

2.1.2 Elements of the Universe

The elements of the universe include types of air, water, rocks, minerals, topographic features, plants, and animals. Each element and its various types have different personalities, intensities of power, and networked relationships with people and other elements. Fowler and Liljeblad (1986: 451) note that:

> The Northern Paiutes believed that power (*puha*) could reside in any natural object, including animals, plants, stones, water, and geographic features, and that it habitually resided in natural phenomena such as the sun and moon, thunder, clouds, and wind.

It is important to note that this concept is not "animism", which implies that the natural elements are inert but possess human-like souls. While spirits do exist in Indian cosmology, the spirits reside in equally alive natural elements. So water babies live in water, and both are equally alive. Elements have their own existence separate from spirits that may inhabit them. Some elements have their own life but contain no spirits. Elements of the universe make their own relationships, much like people do and for somewhat similar reasons based on purpose and attraction. New relationships between elements result in a shifting and concentrating of the spider webs of power.

The elements of the universe each have a personality, much like humans who vary in disposition and character. Elements are attracted to people and other elements. They can negotiate relationships, sharing power in some relationships and denying it in others. Crystals, according to Miller (1983), are described as crying stones that represent crystallized thought and memory. Levi (1978, cited in Miller) reports that some Yuman-speaking people regard them as living rocks, which are either male or female, depending on their inner tint. People are aware that crystals grow, and some say that each bed of crystals has a large central one that serves as their leader. Obsidian is viewed by Numic people as broken fragments of the body of spirit beings and thus, is often found at the foot of rock art panels (Loendorf 1993).

A first principle of proper human behavior is that, since all elements of the universe are alive and have power, people need to establish appropriate relations with these elements in order to survive and in order to help maintain the balance of the universe. Thus, there is a common admonition that is heard by every Numic and Yuman child from their parents, that before you pick, touch, or hunt, you must explain your actions to the element with which you are establishing a relationship. Do not move a stone without asking permission. A plant will not give medicine or nourishment unless you explain why you want to pick it. Animals killed without

their permission will not give themselves to you again. Never speak loudly on the mountain or throw rocks in the water. Think of why things are as they are before you change them for your own needs. Rituals accompany all changes in relations between humans and elements of the universe in order to maintain balance.

2.1.3 Making and Using Tools

In Western European thought, tools are almost always secular; just inanimate things to be made, used, bought, sold, and when no longer useful, discarded as trash. Only a few tools, those associated with direct religious ceremony, are sacred. Such tools tend to begin life as secular objects and have to be transformed through ceremony into sacred objects. Such tools are often desanctified so they can become trash and retired accordingly. Numic and Yuman people begin the life cycle of tools by talking to the natural resources from which the tool is to be made. The toolmaker personally selects a raw material for making a tool. In the case of quarries, it may be a stone source that has been visited by his people since the beginning of time. People care for plants by burning, pruning, and replanting, in order to make them happy and more fertile. So a stand of plants can be an old friend of those who use it and perhaps have cared for it for generations.

Walker (1999: 384) notes: "Ethnography suggests that, by imbuing life force into inanimate matter, ritual activities conducted during the manufacture, distribution, use, and reuse of certain objects have a direct bearing on whether such objects have afterlives." Indian elders have observed in numerous occasions that ritual initiates the process of making a tool. A toolmaker talks to the plant, animal, stone, or mineral and explains his/her need for help in some life task. If it is a man making a bow and arrow, then he needs to establish a relationship with the stone that provides the arrowhead, the reed that makes the arrow shaft, the tree that makes the bow, the bush that provides the sap for glue, the mineral that adds power to the arrow as paint, the bird that provides feathers for the fletching, and the animal who provides the sinew. All of these elements continue to have power and willfulness after they have agreed to be used in the making of the bow and arrow. In fact, it is the combined power of these elements working together with the hunter that makes for a successful hunt. Thus, the living bow and arrow are partners in acquiring energy for the hunter, his/her family, and their community.

The bow and arrow have a life cycle for they, like humans, wear out and become unable to continue to perform their chosen tasks (Figure 2-2). When this occurs, they are respectfully laid to rest as old partners who can no longer function in the tasks for which Indian people made them. As observed by Walker (1999: 385):

> Ethnography suggests that the action of ritually discarding an object creates a "gateway" through which objects cross from the everyday to the spiritual realms. This process is analogous to human death. Similar to the animated essences (spirit, soul) released when people die, many objects also have essences that are released in discard rituals.

The process of returning the bow and arrow to the earth completes a cycle that is required in all relationships between humans and elements of the universe. The act of returning the bow and

arrow is accompanied by ceremony and completes a covenant (or partnership) that was first negotiated by the toolmaker when each component of the bow and arrow was in its natural state. Balance is achieved if every stage in this life cycle of the tool is moved though in a proper fashion. Tools are returned to the earth in places where they would like to be. Sometimes they go back to the quarry that was the home of the stone for the arrowhead, the marsh where the bird and cane came from, or the mountain where the hard bow-wood came from. A cave or prominent topographic feature may be the place of return and ceremony, to directly thank the central sources of power that provided energy for all elements including the toolmaker. Whatever place is chosen, the end of the life cycle of a tool is a critical event and the place for disposition or burial is chosen with care. When the same place is used again and again as the place where certain types of tools are returned to the universe, these objects occur there in unusual numbers.

Numic people often make new tools and return them to the land as an offering of thanks. A tool may be a perfectly made object that is never used but is instead returned to the quarry that has always provided the people with tool stone. Such a knife was found inside a rock crevice near the quarry on the NTS and is now reburied as a Native American Graves Protection and Repatriation Act (NAGPRA) item (Stoffle, et al. 1996: 49). Or it may be a woman's grinding stone that is shaped and used during her first menses ceremony and returned to the mountain that gives such stones, as was suggested by Indian people who assessed the First Menses petroglyph site on Hot Creek Valley (CNTA) (Arnold, et al. 1997: 31-36; Stoffle, et al. 2000c). Offerings also may be medicine plants, animal parts, or other objects that are given to a cave as ceremonial thanks for the knowledge of how to use resources in curing, or for a wish granted (e.g., Zedeño, et al. 1999: 110). These offerings of thanks serve to maintain balance but, unlike retired tools, they have never been used.

The archaeological consequence of having a place where ceremonial deposition has occurred over long periods is that both used tools and unused tools are intermixed. According to Bean (1976: 415), power might be put, by a person having power, into a place for ritual disposition of tools. A shaman, for example, might protect a sacred place outside his village where ritual paraphernalia are stored by putting power there. Ceremonially produced deposits of objects are recognized in the archaeological literature and are clearly considered as different from other kinds of archaeological deposits. Archaeologists who study ritual deposits have coined the term "ceremonial trash" (Walker 1995).

So, an unusual concentration of tools found in a special place is a culturally based indicator that the tools were placed there as part of one or more ceremonies. These objects are intended to remain in their final resting place because each object is a part of a life cycle or offering of thanks that must be maintained to sustain balance in the world. These are ceremonial objects needed in an ongoing ceremony, as indicated during NAGPRA (1990) consultations with Numic-speaking groups (Stoffle, Zedeño, and Halmo 2001). If one of these ceremonially placed objects is removed from its chosen location, the world is jeopardized. Only by replacing the object where it belongs forever can the ceremony continue and balance be restored.

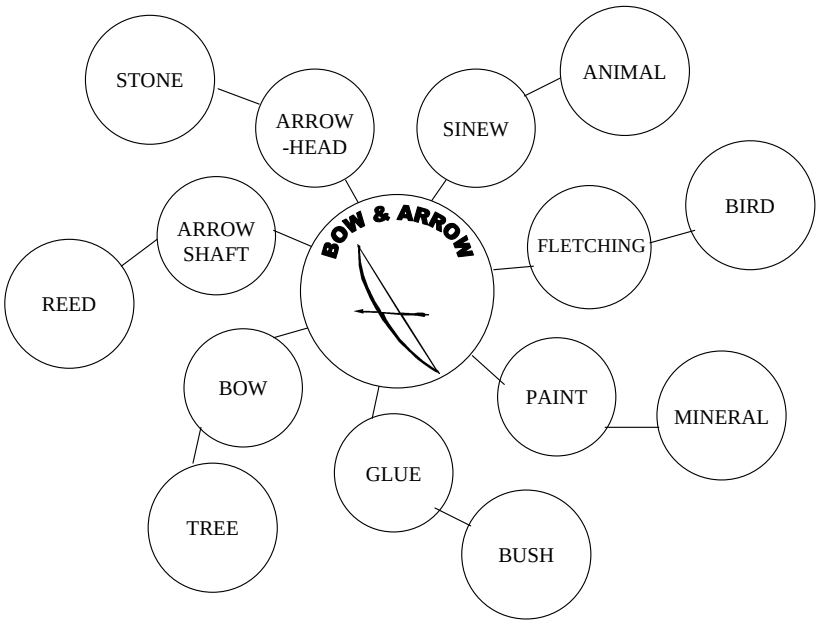

Figure 2.2 Elements of a bow and arrow

2.1.4 Places (Landmarks)

The concept of power argues that the fundamental meaning of a place derives from the power(s) it exhibits. Humans are attracted to these powerful places and incorporate them into their culture. Tilley (1994: 24) describes the process by which places acquire meaning as they become crystallized out of the environment through the production and recognition of meanings in particular places and through events that have taken place. He further believes that places are fashioned out of the landscape through the recognition of significant inherent natural qualities rather than simply being culturally produced. In other words, the land talks to humans.

It has been noted before in this essay that in Numic and Yuman culture, power is dispersed in a network of relationships among the elements of the universe -- relationships that most resemble spider webs. At various points in this web, power is concentrated producing powerful places, which are then recognized and commemorated by humans. Zedeño (2000) observes that places are “made” because they are the loci of human interactions or nature experiences. Therefore, power is cumulative; it accumulates at a place as people live or re-live those experiences.

Powerful places tend to attract other powerful elements. So, for example, during UofA studies of storied rock sites (rock peckings and paintings) Indian people tend to look first at the rock on which the painting and peckings occur, and then look around for medicine plants. The basic assumption of interpretation is that the place had to be powerful before the rock paintings

or peckings were made there. An interesting observation is that Indian tobacco often grows out of the cliff face where rock pecking occur. Indian tobacco was observed growing out of pecked cliffs during our studies at five southern Nevada sites: on the cliff face above Gypsum Cave on the flank of Sunrise Mountain, on the volcanic edge of Buckboard Mesa on the Nevada Test Site, on the volcanic cliffs in the Pahranagat National Wildlife Refuge, on a rock constriction in Wellington Canyon on NAFB, and at a pecking site in the Black Mountains near Hoover Dam. The presence of a medicine plant growing out of a pecked panel is seen as a sign that the place has power; why else would such a powerful plant choose to grow on the face of a cliff. And why else would Indian people or "little people" have chosen the rock face for making peckings. Indian people recognize and respect the power of a place and so they bring objects there for ceremonial disposition. Thus, a powerful place can be identified by (1) its basic form, (2) its proximity to other powerful elements, and (3) the presence of ceremonial offerings or symbols like storied rocks.

Fowler (1992) observes for the Northern Paiutes of Stillwater Marsh that puha flowed and continues to flow through the Earth in its waters, all of which were seen as linked in vast underground networks. In the past, Indian doctors and water spirits were able to travel through these water networks by entering springs or lakes. Ordinary people made offering to springs, including hot springs, in recognition of this power. This is a prime way the world is linked according to all Yuman and Numic peoples.

2.1.5 Cultural Landscapes

Cultural landscapes are spatially larger cultural phenomena than places. In fact, cultural landscapes are composed of various types of places that are connected in various ways. Even though we have contributed seven academic essays on this topic (Dewey-Hefley, et al. 1998: ; Stoffle, et al. 1997b: ; Stoffle, et al. 2000b: ; Toupal, et al. 2001: ; Zedeño 1997: ; 2000: ; Zedeño, et al. 1997) and have organized with Indian people three presentations at professional meetings, we believe there are still important methodological, analytical, and theoretical issues to be resolved before cultural landscapes are as well understood as places.

The concept of cultural landscape derives from the notion that people’s historical memory is anchored on the land, that their cognition of the land is shared among them today, and that it is transferred over generations. In this respect landscapes build on the concept of place. A landscape, as a set of connected places, constitutes another type of cultural phenomena. All human groups develop and come to share cultural landscapes. The concept implies that many cultural groups or ethnic groups can hold different, even conflicting, images of the same land (Barth 1969). The imagery of the land that is held by a people is seen as being a result of their past experiences with the land and other cultural perspectives of the people themselves.

Cultural landscapes can be nested (Stoffle, Halmo, and Austin 1997; Tilley 1994). They exist at different scales but are integrated into a whole. For many American Indians these levels include, from broadest to narrowest scale (1) an eventscape; (2) a Holy Land, (3) songscapes, (4) regional landscapes, (5) ecoscapes, and (6) landmarks. The topographic criteria associated with these categories of landscapes range from their fit with the natural terrain (i.e., an ecoscape) to a

spiritual landscape that exists in terms of its own criteria with minimal reference to the topography of the land (i.e., a songscape).

A cultural landscape differs from a special place to which one or more human groups have attached specific cultural meanings. Central to the concept of a cultural landscape is the notion that not all places within it have the same cultural value or power. The places within a landscape may derive their value from the type of experiences or interactions they have had with people and the natural phenomena (Zedeño 2000). Tilley (1994) distinguishes between the concepts of place and landscape with the former emphasizing difference and singularity, and the latter encompassing commonalities or relationships among singular locales and events. Viewed in its entirety and from the perspective of a human group, a cultural landscape should make sense as a kind of culturally defined area or region, having a common logic that makes it culturally distinctive.

It is important to remember that different ethnic groups may attach more than one cultural landscape to a place, a phenomenon we call "cultural landscape layering." Each layer often has very different cultural meanings. One landscape layer may be composed of places visited by a spiritual being, which taken together comprise where this being visited during its life. Another landscape layer may involve an historic event such as a forced march following military conquest such as the trail of tears for the Cherokees, the march to Bosque Redondo for the Navajos, or the march to Fort Independence for the Owens Valley Paiutes and Shoshones.

2.2 The Nevada Regional Model

Although this RMP is in the planning stages for the Arizona Strip, it is illustrative to look at studies conducted outside of this area. This is useful because, a) the landscape study has not been completed at the time of this report and, b) the Nevada regional model can have theoretical applications to a variety of places, including the Arizona Strip management area.

When we step back and look at the entire southern Nevada region from the perspective of major types of Numic speaking people, a clear pattern of place and landscape distribution and connection emerges. There are places that have a central purpose or role in the lives of Numic and Yuman people. These places regularly have certain characteristics and are connected in predictable ways with other types of places to form landscapes illustrating a culturally-based logic of place and landscape.

Three general types of places in the southern Nevada region are the focus of this analysis (1) creation places, (2) ceremonial places, and (3) residences. Ceremonial places have two subtypes: those created and used for (a) acquiring puha and (b) using puha for balancing ceremonies and healing. Each of these types and subtypes of Indian places is discussed in terms of its puha, elements, location, and landscape. From this analysis initial *place logic* begins to emerge. There is a temporal aspect to the place logic. The proto-historic place logic seems to be an old pattern that extends back in time, perhaps for thousands of years (Whitley 1999).

When Europeans, their diseases, and animals arrived in the western United States, the balance and distribution of elements and places changed. Cattle ate Indian plants, mines were carved out of the mountains, thousands of people died, immigrants forced Indian people away from their homes and ceremonial places, and traditional ceremonies were deemed illegal. Historic place logic, consequently, has been influenced by non-traditional factors in the environment. After Euroamericans arrived, Indian people had to rethink the land in an effort to rebalance the world.

2.2.1 Creation Places

American Indian people all have a place where they were created. At this place and for a s urrounding distance of many miles, the land was formed, elements were distributed, places of power were established, and the area became a single landscape for a particular group of Indian people. They were given by the Creator the rights and obligations to maintain and be sustained by these lands and resources. While not an exact conceptual translation, Spicer (1957) suggests that the European concept of Holy Land best fits that of Indian Creation Lands.

This Indian view of where they came from contrasts with non-Indian origin theories that attribute American Indian origins to somewhere else, especially Asia. Indian people express the opinion that such theories are designed to distance them from their Holy Lands and cause them to be just another immigrant in North America.

Creation established a birthright connection between an Indian people and a portion of the total land in North America. The birthright connection differs from other types of land connections derived from conquest or purchase in that it can never be taken away. It is a bond defined by God. So the concept of being created somewhere is associated with the idea that you have somewhere that is and always will be exclusively yours. For this reason most Indian people have an origin place for their ethnic group and one for their local group. This is a concept that is difficult to explain to non-Indians in whose epistemology a people can only be created once. The debate is so fundamental that it has been the foundation for others to doubt the authenticity of any Indian Creation story.

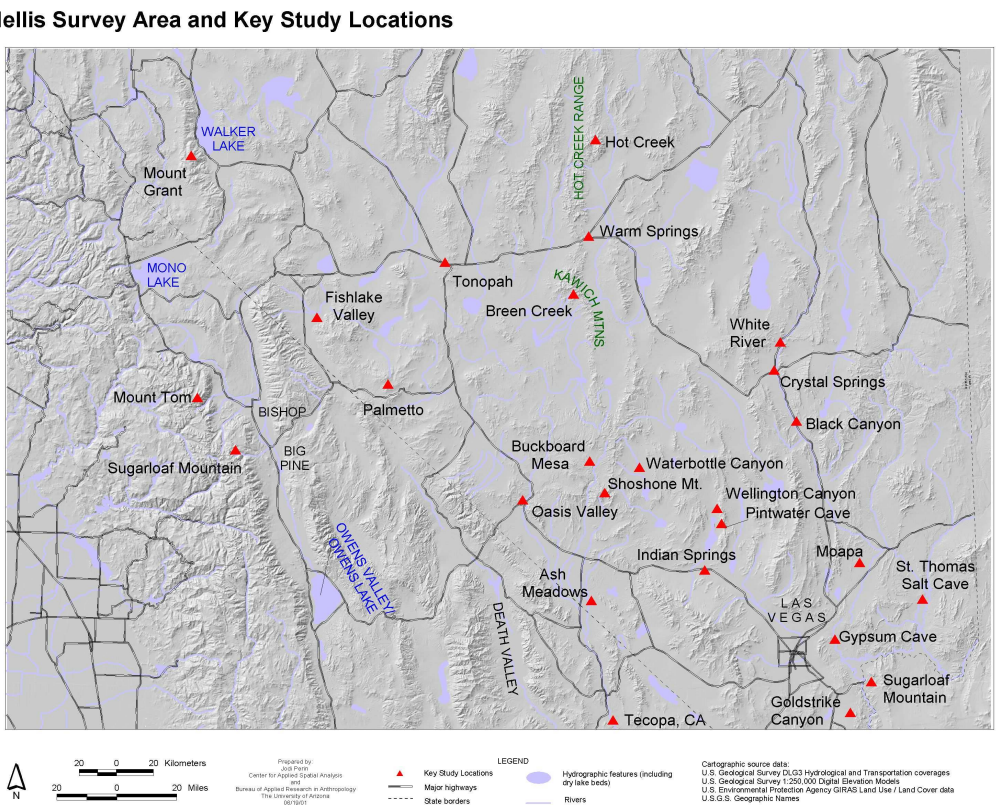

Figure 2.3 Place connections identified in southern Nevada, April 2001.

Origin places tend to be the tallest peak in the mountain range that produces the most convectional rainfall. All members of an ethnic group will agree that they, and usually all the rest of human kind, were created near the Origin Mountain. It serves as a symbol of their unity and common relationship to the Holy Land. When asked where they were created, however, most Indian people will give a second location. This place tends to be a prominent peak in the district where their local group lives. The following are the major peaks, mountain ranges, and one or more secondary creation places where local people originated. These are presented for the four ethnic groups involved in this study:

- Kura'ngwa, (Mt. Grant, Wassuk Range, Nevada) for Northern Paiutes
  - Job Peak, Stillwater Range (for Toidikadi, Cattail Eaters)

- Nuvagantu, 'where snow sits' (Mt. Charleston, Spring Mountains, Nevada) for Southern Paiutes
  - Coyote's Jaw – Pahranagat Valley (for Pahranagat and Moapa Paiutes)

- Coyote Valley, between Mt. Tom and Sugarloaf Mt., Sierra Nevada, California (Owens Valley Paiutes) (Figure 2.2)
  - Pavatoya've; Big Mountain (Mt. Tom, Sierras) for Bishop Paiutes
  - Mt. Whitney (for Lone Pine Paiutes)

- Big Pine Glacier (for Big Pine Paiutes)

- Wi Kahme, the Highest Mountain Range (Spirit Mountain, Newberry Mountains, Nevada (for all Yuman speaking peoples)

Figure 2.4 The Sierra Mountains south of Coyote Valley, creation place of the Owens Valley Paiute people.

It is easy to fall into the western intellectual trap of essentializing Indian concepts. This is especially true when talking about origin places. This happens in two ways. First, it is assumed that the peak or mountain of origin is the exact place of Creation. This normally is not the case because Creation is perceived as occurring nearby. Powerful actors such as creator beings (e.g. wolf and coyote) may actually live in caves on the mountain, but the forces of power are represented more in other elements, such as the amount of water produced when the mountain range talks with the clouds and brings down the rain and snow. Second, it is easy to view the power that makes the peak a creation place as emanating solely from its own dramatic structure, rather than viewing the peak as deriving its power from being on a special mountain range. The mountain range is the major source of power rather than the peak, which only serves as the symbol of creation.

One way we can illustrate this phenomenon of the physical and spiritual relationship between water and puha is through the University of Nevada-Reno's climate web site [http://www.wrcc.dri.edu/pcpnfreq.html]. Precipitation Frequency Maps can be displayed graphically to show the water-generating capacity of all places in the west. When these maps are consulted they document that the above Creation places are major water generators. The Spring Mountains, for example, generate more water than any other of the Great Basin ranges.

Other examples include the Wussak Range, which is a major water generator and also the western boundary of a major natural lake (Walker Lake). There, Kura'ngwa was the first mountain to emerge after the world was covered with water. A fire on its top may have been a volcano. Sage hen fanned the water back to save the fire, then rabbit helped the people get the first fire for the Paiutes (Mooney 1896: 1050-1051; Steward 1933: 323). Job's Peak is not only associated with the Stillwater Marsh and the origin of the Toidikadi, Cattail Eaters, but it was where the split between the Paiutes and Shoshone occurred (Lowie 1924: 204-205). The Coyote's Valley area is associated with that portion of the Sierra Nevada Mountains that contains the primary water sources for the Owens Valley River.

The Newberry Mountains and Wi Kahme are a stunning example of the water-mountain connection. When the Creator made the channel of the Colorado River he piled the earth in a single place forming the mountain of Wi Kahme and the Newberry Mountains. At the junction of the river and mountain, where the earth from a thousand miles of channel and the water from an even larger region come together, all human kind was created. So there is a close physical and spiritual tie between the amount of water and power in Indian origin places. The origin stories further identify the essential roles of animals, plants, winds, and minerals in function of the world.

2.2.2 Ceremonial Places

The concept of ceremonial places is used in this essay to refer to the concentration of powerful elements and space that serves to attract a specific type of Indian ceremony. Thus defined, ceremonial places are bounded by topography and universal elements. While there is a range of ceremonies in Numic and Yuman culture, we are most interested in those that are mutually interactive with the environment.

Evidence of puha in the environment is very important in defining a place for a ceremony. Unlike origin places that critically involve the element of water production and elevation as key aspects of their place logic, evidence of volcanic activity, unique topographical features, plants, animals and vistas are critical in the place logic of ceremonial places. There are two kinds of ceremonial places discussed here (1) places where puha is acquired and (2) where puha is used. The latter is divided into (a) places where ceremonies to balance the world are conducted, (b) healing places, (c) places on the way to ceremony, and (d) synergy places. Balancing ceremonies are to help everything from the planet to the local area achieve a state properly defined at Creation. Healing ceremonies are to help people and groups.

Places for Acquiring Puha

Individuals are born with puha, which is unequally distributed among them. Why this occurs is not clear. One suggestion derives from the observation that nothing ever dies. Within the concept of the living universe, there is only room for things to change state. So an elder who has recently passed on may reappear as a bluebird or eagle. A rabbit who has passed on may come back as a person. Most transformations are among animals, but theoretically one could be made between animals and plants, and between either of them and natural elements. According

to Powell's 1870s Northern Paiute interviews (Fowler and Fowler 1971), in mythic times the progenitors of today's people were called the Numwad. They spoke the Numic language and these human ancestors were rocks, trees, sagebrush, birds, and people (for living rocks see Lowie 1924: 24-26, 159, 235). In an epistemology where no form of life is valued above another, all transformations are logical.

> The unequal distribution of puha among humans and animals could derive from the transference of puha across life forms. If a person or an animal acquires an unusual amount of puha during their life, then perhaps this concentration of puha carries on to the next state of life imbuing it in turn with differential puha. In Shoshone culture, for example, the hummingbird is very powerful. It derives this power because it contains the spirit of a medicine man. So we have evidence of puha moving across life forms. Can the puha of a humming bird transform into a child thus imbuing it with a higher capacity for acquiring power during its life? Powell was told that a Northern Paiute medicine man would talk about an illness until a hummingbird sang a song in his head, then he would begin the curing (Fowler and Fowler 1971). They also call the helpful south wind Pa'-vai yo-ga sha'-gai-yu or Hummingbird (Fowler and Fowler 1971). Corbin Harney (1995), a Western Shoshone spiritual leader, has written about his special relationships with hummingbirds. So perhaps life forms are always intertwined.

Children are born from a thread of life that began in Creation and will continue forever. Babies are seen as totally sentient. They can, for example, know if their mother has left them and decide to leave this world. They also can be convinced to remain in the world by explaining that they are still loved by other family members. The baby makes the decision. Similarly, elderly persons can move back and forth between the afterlife, deciding whether or not to remain alive in this world or alive in the next.

Puha comes to people at any time in their life. It often manifests itself in dreams. One Southern Paiute religious leader was twelve years old when he went to sleep while herding sheep and dreamed himself in the afterlife. There he talked with deceased family members and observed their environment. He shared this experience and was told that it was possible that he would become a religious leader. It was an uncomfortable responsibility that he would not formally assume until his mid-50s. The Numic term for Shaman is Puh'aganti, which means "having power" – power to doctor, to heal, or to harm by spiritual means (Laird 1976). Either a man or woman can have this power.

As a part of becoming an adult male or female, a rite-of-passage was required. For boys, these involved vision quests and for girls, a first menses ceremony was needed. Both transitions involve temporary separation from normal society, food and water restrictions, isolation, and instruction by adults. During the male ceremony the individual often experienced a vision and acquired access to a spirit helper. Such a helper was there to be drawn on if a more intense supernatural experience were to be desired by the individual. Most adults never made the transition to religious practitioner, but exposure to the spirit helper during rites of passage was common. To be formally a shaman is to remove oneself from the normal activities of society, so most people consciously turn away from acquiring further supernatural power.

The path to puha at the level of a Puh'aganti was difficult and dangerous for the person and so was often chosen late in life. Laird (1976) notes that it generally took several years of spending much time by one's self and meditating upon mysterious events. Persons went to a magic cave to learn a song, but the shaman had to dream it over and over before it was learned (Laird 1976). Perhaps this delay was to allow the person to be certain he/she was willing to use the song, because to be a medicine person involved personal risk, and many were overwhelmed by the power of their spirit helper who inadvertently caused harm to their patients. Such Puh'aganti were often killed because they had lost control over their powers or those powers that flowed through them to the patients (Fowler and Fowler 1971: ; Sohn 1997).

Rites-of-Passage Places

The transition to adulthood involves more than just isolation, hardship, and education. It occurs at a place, and from the place comes puha. In a sense, to become an adult in Numic or Yuman society is to be a person who knows about puha to such an extent that they can behave properly towards it and use it in some contexts. Men are taken to places where stone materials are provided by a mountain and are taught how to talk with the stone so it will use its puha towards the task of hunting. Women are taken to a stream and taught how to talk to a willow so it will add its puha to make a basket strong. To make even the basic items of life, such as arrows and baskets, may require the negotiation of relationships with half a dozen elements each of which must be satisfied that they have been talked to and treated properly before they agree to share and combine their puha to make the object strong and effective. To be an adult is to know something of how to negotiate these relationships.

Vision quest places are generally viewed as being a part of male rites-of-passage. In southern Nevada, only a few sites are documented as having the necessary cultural conditions for vision quests including being open, elevated, and not readily accessible. All of these are associated with volcanoes, obsidian, basal flows, basal boulders, medicine plants, mountains, and vistas. Tobacco, for example, is always present. Animals such as mountain sheep, rattlesnakes, and eagles are often present. Water may or may not contribute to the place logic. Examples of vision quest sites are:

- Buckboard Mesa (Scrugham Peak), Nevada Test Site, Nevada
- Shoshone Mountain, Nevada Test Site, Nevada

Buckboard Mesa is a basal flow formed by a central volcano called Scrugham Peak. A few miles to the south is Shoshone Mountain, which has a vision quest site located on the north slope of the mountain. In addition to having a clear vista centered on Scrugham Peak (Figure 2.5), the site is distinguished by a covering of various kinds of tephra including obsidian missiles that cooled in the air after expulsion (perhaps from Scrugham Peak). These missiles are pure obsidian [Pi'ji-u in Northern Paiute] and vary in size from half-inch diameter marekanites, or Apache Tears, to four-inch by eight-inch obsidian bombs.

Figure 2.5 Scrugham Peak and Buckboard Mesa from Shoshone Mountain

The vistas begin at the rim of a prominent place and there are rock cairns commemorating a successful vision. Large basaltic boulders [Tu-ca-po-go-tub in Northern Paiute] seem to be a place for information about the vision to be recorded. On the side of the boulders is a slight grinding slick where medicine plants were ground, apparently as a part of preparations before and/or after the vision.

Both vision quest sites are a part of the large Timber Mountain caldera, the outer edge of which establishes the topographic boundary for what must be one of the more important ceremonial ecoscapes in the western United States. Across 40-mile Canyon from Shoshone Mountain is a ceremonial deposit area for Pinto Basin points, estimated to be from 6,000 to 8,000 years old. Also in the caldera is Water bottle Canyon, a ceremonial area having tonal rocks with offering holes located along a narrow canyon, bow and arrow shaft trees, and a place for training and observing the stars. Nearby was found a Clovis point estimated to be 11,000 years old. It has been argued that Indian people have been visiting these places in the caldera for ceremonial purposes for more than ten thousand years.

Women become adults during First Menses rites-of-passage. These sites are very different from the vision quest places, occurring down in canyons, near water, and having both abundant supplies of medicine and food plants nearby. Unlike the vision quest sites, there is no evidence that the place logic of First Menses places involves vistas, volcanoes, obsidian, or basalt flows. Similar to the vision quest sites, there are seemingly few First Menses sites. Only one prominent First Menses place in the southern Nevada region has been documented, although, there are other candidate locations having similar place logic that are not part of any ethnographic study. Just west of Bishop, California, for example, is the Chalfant Petroglyph site

with a running stream and "vulva-glyphs" pecked in the tuff cliffs (cf. Whitley 1996). As described below, these are very characteristic of First Menses sites. As with the vision quest sites, the number of First Menses sites in the region seems a rather small for such an important and common event.

The First Menses site is located along the eastern flank of the Hot Creek Mountains (Figure 2.6). A dominant characteristic of the site is topography; it lies in a small gently eroded sandstone canyon, which opens to the east. The canyon is constricted at the entrance where there is bright red/orange sandstone. It opens up in the middle to white sandstone, and narrows again as it disappears into the mountain, resembling the reproductive parts of a woman's' body, according to Indian participants who visited the site. There are hundreds of rock peckings and paintings on the sandstone walls including many "vulva-glyphs," a signature symbol of the site and ceremony (Figure 2.7). A deposit of sandstone rocks the size and shape of a woman's grinding stone has eroded out of one portion of the canyon. The grinding stones are used during the ceremony and then given back to the mountain as an offering of respect and appreciation.

Figure 2.6 First Menses site in the Hot Creek Mountains.

There are pine trees all around the canyon, and just to the east is a moderate stream surrounded on both sides by large sage plants. To conduct the ceremony, a woman must build her own small home, and each day cut sage and pile it up beside the home. When the sage is above the top of the home, the woman sits on it. The instructions she receives from elder women include how to "whip" the pine trees. A long pole, which is used for this purpose, rests in one tree. The woman is told to use the pole to bring down almost-ripe pinecones, and to break the small ends of all branches on the tree so they will grow back thicker next year. Medicinal tea also grows throughout the site and is used during the ceremony.

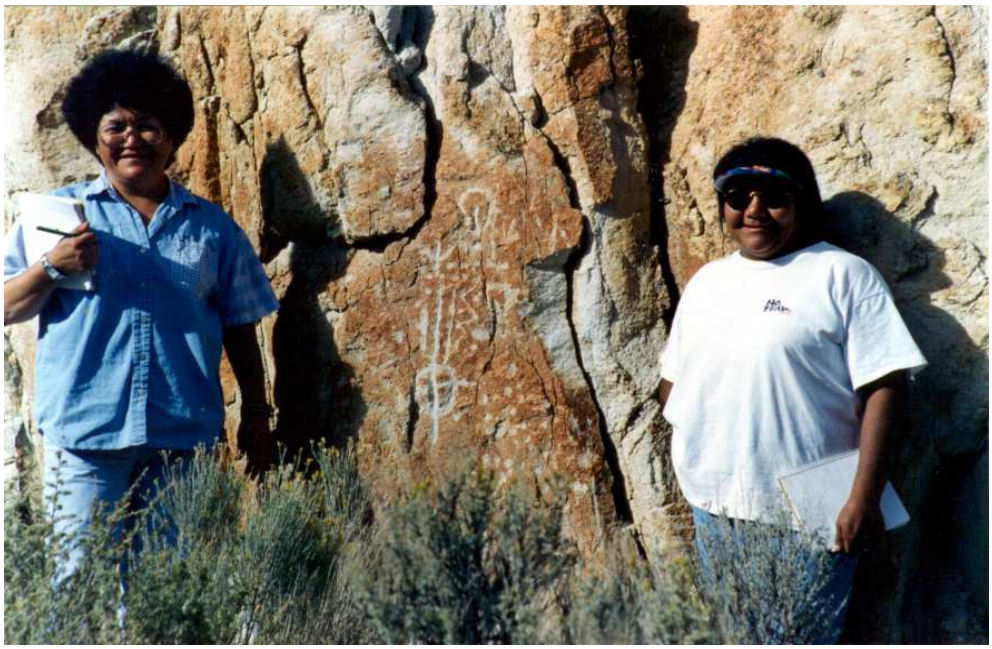

Figure 2.7 Vulva-glyph at First Menses site in the Hot Creek Mountains.

The woman must bath each day with water from the stream, so a large, running water supply is an essential feature of the site. Nearby, is a spring that was occupied regularly as a permanent residence by families. It probably served as a ceremony support center during First Menses activities. An eagle's nest is near the village, around which is evidence of many specialized use areas.

Shaman Power Places

Seeking power can be a life-long activity. After becoming an adult, a person can seek additional puha by ceremonially visiting different of kinds of places where types of puha are known to be concentrated. Persons went to such places initially for more power in the form of knowledge, songs, or spirit helpers. During the life of a person, especially a Puh'aganti, his/her puha normally would have to be renewed or modified by another visit to a power place.

Two major types of places listed below and discussed in this essay are caves located in the side of a major mountain range and volcanic areas near water:

- Pintwater Cave, Pintwater Range
- Shaman Cave, Sheep Range
- Gypsum Cave, Sunrise and Frenchmen Mountains
- Toquima Cave, Toquima Mountains, Nevada
- Black Canyon, Pahranagat Valley

Liljeblad (1986) states that caves, which remain sacred for the shamanistic power quest, are believed to have served formerly as entrances to the legendary underground pathway. Each of the caves had its own purpose. The Southern Paiutes knew Gypsum Cave as Song Cave. It was a

place where doctors would go to learn all they needed to know. According to an elder Paiute woman (Inter-Tribal Council of Nevada. 1976: 127), Gypsum Cave is big and black inside, where the one to receive information must go alone, seeing nothing – no light of any kind to guide him. During his sleep, Shinau-av would tell him the things he wanted to know. He would learn the path to find herbs, and the recipe to make them into medicines for different sicknesses. He would get tribal stories and learn about Indian beliefs. He would hear the tunes and songs of the Paiute tribe. When the cave was excavated, archaeologists found a room deep within the cave where the walls were totally covered with reflective gypsum crystals that they called the mirror room. Little people also lived in the cave, but it is not clear whether they had a role in imparting puha.

Laird (1976:38-39) recorded a Chemehuevi Paiute's description of a big cave (perhaps either Pintwater or Lemans Cave) in Nevada where a shaman acquired his various songs, powers, and familiars (spirit helpers). The cave was notable in that it had a will of its own and would reject those whom it did not like. The unwanted intruder would keep on walking deeper into the cave but without his knowledge he would be turned around and would find himself coming out the way he came in. The willfulness of a cave is illustrated also by one in the Spring Mountains, which can change a person's gender if it wants, and if one stays too long, he/she will come out as a mountain sheep.

There is a volcanic butte in the middle of an extensive riverine oasis filled with clear fast flowing artesian springs, creeks, lakes, and marshes. This is Pahranagat Valley and it was the traditional home of large irrigated agricultural villages and extensive fishing areas. The area so impressed Paiute people that they wrote poetry about it calling it the Beautiful Valley (Fowler and Fowler 1971: 125). The people of the valley and those living along the Muddy River were related as a single district and together they had their own origin place called Coyote's Jaw, a peak in the mountains surrounding the valley. At the narrow, southern end of the valley is an old Pleistocene lake bordered by a 15-foot tall, continuous white band at the base of the cliffs; this is the origin place for the redtail hawk.

> In this setting is a special puha place for rain shaman. The volcanic butte at Black Canyon, north of this site, also has the place logic of a rain shaman power place including volcanic activity, lots of flowing water, a small narrow canyon constricting the water flow, tobacco plants growing out of the cliff faces, and vistas. It is a place of great power in a valley of great power. Along the cliff faces are numerous large and unusual peckings. These seem of great antiquity but portions have been re-pecked, thus documenting repeated use. The Mountain Sheep images are interpreted by Indian people as symbolic of the normal spirit helper of the rain shaman. Also present is the symbol of an unusual helper - a water baby. Normally, water babies are not used as spirit helpers because they are so powerful and unpredictable (see Liljeblad 1986: 653 for a summary of water babies). On this volcanic butte, however, a powerful rain shaman can connect with water babies and concentrate great puha for his rain making ceremonies. Indian people say that visitors from far away came to this site, because the top of the butte is covered with large stone houses where they stayed. This may be the major rain shaman site in the region.

Places for Using Puha for World Balancing and Healing

People use puha for different ceremonies. The places where they use puha, consequently, are specific to supporting particular ceremonies. Four such places are (a) those where ceremonies to balance the world are conducted, (b) those for healing, (c) those on the way to ceremony, and (d) places of synergy.

Places for Balancing Ceremonies

Humans use puha to maintain the balance of the world. This section describes two kinds of balancing ceremonies: those in which many people participated to address a problem of great magnitude, and those of a more personal nature where the problems of a few individuals was the focus. The place logic for each type of ceremony is different, despite both having a common goal of maintaining and restoring balance.

> Puha is acquired by people to be used for specific purposes. The world in all of its complexity does change, often for the worst. There are natural problems caused by droughts, wildfires, and earthquakes. Human society is similarly disrupted by wars, diseases, and starvation. While some people may have an evil purpose for their puha, it was placed here at Creation to be used for keeping the world in balance. When an imbalance affects many people and much of the earth, large-scale ceremonies are needed.

The round (circle) dance was one of the more common of these large-scale balancing ceremonies. Hulkrantz (1986: 634) maintains that issues of cataclysms and world renewal are imbedded in the round dances of the Western Shoshone. The ceremonial round dance has been called one of the most important socio-religious events in the Great Basin (Park 1941: 198 cited in Hulkrantz 1986). A pole is in the center of the round dance, potentially serving as the axis of the world that carries the universe and connects man with God (Hulkrantz 1986: 634).

Powell and Dellenbaugh described a Southern Paiute round dance held outside of Kanab, Utah on January 6, 1872. The entire Kaibab Paiute band was camped together. This would have amounted more than 200 people (Stoffle and Evans 1976). At the center of the dance circle was a cedar tree that had been stripped of all its branches except a tuff at its top. The entire band formed a large circle around the tree and danced and sang. In the center of the circle stood a man who was the custodian of the songs and a poet himself. He would first recite a piece and then all the dancers would sing it. There were original songs created by him and ones handed down over generations (Dellenbaugh 1962: 178).

The term round dance denotes a kind of balancing ceremony that involves a number of structurally and functionally discrete ceremonies. In the 1870s, Powell (Fowler and Fowler 1971: 248) recorded that the Northern Paiutes had two kinds of ceremonies: those that lasted for one night or Tu-ma'-sai-gai, and those lasting multiple nights or Tu-ni-ta-ma. Many of these were timed to correspond with a peak harvesting time, but others (Pa-va-tyi-yas'-so-wa) were held at each season. A priest (Po-i-na-vi) would be elected by his local group to serve for life as the person in charge of each ceremony, which also involves a singing master (Ho-vi-a-agi-yu). Powell recorded a similar pattern for Shoshones but divided theirs into two lists of ceremonies:

the first set is associated with snow, rain, hunting, and war, and the second set is associated with spring, summer, autumn, and winter seasons. The Shoshone have both a priest and a singing master (Fowler and Fowler 1971: 270), and their ceremonies can involve 300 participants (Harris 1940: 53-54). To this list Powell adds for the Utes the Sun Dance (Ta'-vwi-Wepa-ga) and the Love Dance (Ni-odes We-paga) (Fowler and Fowler 1971: 168).

How much and what kinds of puha are needed to define a place for a round dance? The place logic of round dance ceremonies is much different than for other ceremonies discussed in this essay. For example, the topography of a round dance should be relatively open and accessible so that hundreds of dancers can hold hands and create the large circle of the dance. Because most ceremonies last multiple days, there should be a support village where food is stored and prepared, and where a powerful religious leader resides. A large and stable water supply is needed for the participants, including for a sweat lodge, or a hot springs should be nearby so that people can be mentally, spiritually, and physically cleanse themselves before and after the ceremony. The place should have sufficient puha to support the needs of the ceremony, which as Miller (1983) points out, concentrates the puha that is at the place with the puha brought by the participants that is supplied by the sacred paints used in the ceremony, and generated by the dancing and singing.

The place logic of a round dance precludes proximity to very powerful places like song caves or volcanic buttes in water. Obsidian and crystals should not occur naturally nearby because these are too strong for the youth who participate in the ceremony. Neither medicine nor food plants occur there because these are needed in such large amounts during the ceremony that they have to be brought in by the participants. Red and white paint sources do not need to be near by because they too have to be brought to the location. The isolation and vistas of vision power acquisition sites are not valued in these rather accessible public ceremonies where all participants are looking at the central pole and each other. So round dances should be held at a place with sufficient power to assist the ceremony, but the power should not be so strong as to threaten the health of a wide range of community members that would be present.

The following locations are examples of where round dance ceremonies occurred. It is important to note that there are so many types of round dances a full listing of locations is probably impossible, but future research should specify the special place logics for sub-types of round dances.

- Pigeon Spring near Palmetto, Nevada for Northern Paiute - Shoshone
- Grass Spring, Arizona for Hualapis- Southern Paiute

Pigeon Spring and Grass Spring fit the place logic just described. These places exhibit yet another important place characteristic – they have always been used for ceremonies. It seems surprising that ethnographic descriptions of round dances assume they can be held anywhere, when in fact the puha of place is so important in the success of the ceremony. Once ceremonies are successful at a place, then people will return to it again and again. Harris (1940: 58) found among the White Knife Shoshone, that puha was obtained in localities

recognized as reservoirs for specific powers. Each locality conferred only one kind of power so that no confusion could result. During field studies with the San Juan Paiutes, Stoffle, Bunte, and Franklin (Bunte and Franklin 1987: ; Stoffle N.D.) were taken to round dance circles, which had persisted for decades since being used even though having been made in soft earth. These exact circles had been used again and again – it was, after all, where successful round dances occurred.

Another type of round dance was the Ghost Dance (Stoffle, et al. 2000b). Vennum (1986: 693) maintains, based on a music analysis, that the Ghost Dance is typical of the many circle dances in the Great Basin that predated the movement. Logically a round dance of such importance would be performed on or near an already established balancing ceremony place. Ghost Dance ceremonies were performed at both Pigeon Spring and Grass Springs (Dobyns and Euler 1967: ; Zanjani 1994).

Places for Individual Healing

The puha that emerges from a place can be used to heal individuals and small groups. The power of the place is often supplemented by the presence of medicine plants, minerals, winds, and even vistas, which are naturally either attracted to a powerful place or are in some way apart of its creation. During the curing ceremony puha is channeled from the spirit world by the Puh'aganti to the patient thus adding to the puha that is in the healer, the materials used in the curing, and in the patient.

A healing place can contribute to a cure by being where the doctor takes the patient for the cure, or where the doctor goes to gain insight into the illness and the cure. In the latter case, according to a 1870s Shoshone account told to Powell (Fowler and Fowler 1971: 245), at sunrise the doctor retires to the mountain, forest, or some other lonely place and communes with the Spirits of the gods, perhaps taking a potion or a sweat [bath].

Hot springs and Doctor Rocks are two examples of healing places, each with a common place logic. Both places are recognized as strong sources of healing puha that can be seen in their structure and form – the heat of the spring, and the shape and composition of the Doctor Rock. A Puh'aganti is required in both places to facilitate the cure. Powerful minerals like paint and obsidian are used in the ceremony. Sometimes the Puh'aganti cuts incisions into the body of a patient with a specially made and prepared sharp knife or obsidian flake. The Ute name for this knife is To-pi, or black knife (Fowler and Fowler 1971: 53-57). Obsidian flakes can be the blood of powerful spirits. Some Paiute Puh'agantis use a special obsidian with green bands of color in it.

Hot springs are places of healing and purification. Sohn (1997) calls this hydrotherapy. Artesian springs usually have streams that create riparian ecosystems that support abundant plant life, representing a healthy balanced life and contributing plants for curing. The connection between hot springs, which was documented by Fowler (1992: 171) for the Northern Paiutes, is reflected in the Owens Valley origin story for all the hot springs in the region. According to an Owens Valley Paiute elder woman, during Creation "the sun fell…and it fell into the hot springs, the water over there [Coso Hot Springs], and made all the different hot springs all over" (Clark

1999: (1)52:05). The splash that resulted from the sun falling in the hot springs spread toward the north, east, and south. All of the hot springs in this region, consequently, are connected by a simultaneous creation as well as by underground waterways, including:

- Coso Hot Springs
- Warm Springs
- Tonopah Hot Springs
- Oasis Valley Hot Springs
- Tecopa Hot Springs
- Goldstrike Canyon Hot Springs

Doctor Rocks have a special composition, shape, and place. They are almost always out-of-place, or what geologists call eccentrics. They are unique boulders not especially like others around them. They can be large, but must be accessible to a sick person who climbs on top of them. Doctor Rocks do not need water or plants nearby, but these resources must be on the medicine trail to and from the place of curing. Doctor Rocks are recognized by the place logic and their own structure as powerful anomalies. Some of the best known Doctor Rocks are:

- Eagle Head Doctor Rock, Utah
- Doctor (or Power) Rock, Buckboard Mesa Area, Nevada Test Site
- Doctor (or Power) Rock, Walker River
- Doctor (or Power) Rock, Ruby Valley

The Puh'aganti requests the power of the rock in the Indian language as he and the patient walk towards the rock. An offering is brought to supplicate the rock. The offering tends to be something that is appreciated by the patient. Eagle Head Doctor Rock has a deep offering hole that serves as the eye of the eagle. The patient reaches deeply into the eye and retrieves the previous offering. It is either a small stone or a large stone; both can fit into the fist size eyehole. The offerings are deposited down slope of the Eagle Head – small ones on one side, large ones on the other. This offering deposit is about 30 feet long and about 3 feet deep reflecting thousands of cures at this spot. No other type of offering was observed. The patient then places an offering in the eye and lays on the rock. The Puh'aganti talks more with the rock pleading for assistance and hearing the response. The patient is told to keep good thoughts and open himself to the puha of the rock. Cure ceremonies last most of a day.

Doctor rocks and hot springs always receive an offering. In recent years, money has been offered at the Doctor Rocks in Walker River and Ruby Valley. This practice has created a question of "payment" and thus, authenticity, similar to that raised by non-Indians about paying the Puh'aganti. Traditionally, the hot springs were approached with a pretty stone. These were brightly colored and smooth. When the people arrived the stones were placed on the gravel floor of the Hot Spring making them beautiful, which both the people and the hot springs appreciated (Stoffle, et al. 1996). The pattern of providing offerings to places is similar to that of offerings provided to the Puh'aganti. Whether it is money (Fowler 1992: 177) or the skin of a humming bird (Harris 1940: 59), the offering was/is not payment for services rendered as much as it was/is a sign of respect and gratitude.

Places for Coming from and Going to Ceremonies

No person would just walk up to a powerful cave and go inside any more than one would pick a medicine plant expecting a cure, or hammer a pecking into a basalt cliff without first explaining the purpose of the action and asking for permission. When the ceremony place is networked into a landscape, the whole area is too powerful to just approach. Thus, there are stopover places on the way to and from powerful landscapes. These places are located along trails used to enter the area of the puha place.

In general, these stopover places are within a day's walk from the place where the power is to be acquired or the ceremony is to be conducted. They are along a well-traveled trail, but at a location where the trail is constricted, such as through a narrow canyon, for example:

- Wellington Canyon, Pintwater Range, NV – to Pintwater Cave, NV
- Keyhole Canyon, Eldorado Mountains, NV – to Sugarloaf Mountain, AZ
- Petroglyph Wash, Black Mountains, AZ – to Sugarloaf Mountain, AZ

These can be dry places with no water at all, since the traveler would carry drinking water. In fact, dry places may be necessary because one would not want water babies to have access to them in these places. Typically, the traveler would remain for a single night before leaving for the ceremonial area early the next day. Knotted string symbols, the traditional communication tool of the Puh'aganti, typically are found among the pecking and paintings at these stopover places.

Places of Synergy

Sugarloaf Mountain, along the Black Canyon of the Colorado River (Figure 2.6), is a special hub of ceremonial activity. It was also a place to acquire power, use power, and share power. It was a central inter-ethnic place used by Hualapai, Southern Paiutes, and Mohave people. In order for ceremonies to occur here, hot springs, song caves, turquoise deposits, and *ompi* (red) paint sources on the Paiute side of Black Canyon would have to be used in conjunction with Sugarloaf Mountain, crystal deposits, medicine stones, and vistas on the Hualapai side. The raging Colorado River, the lifeblood of the Earth, flows through this landscape where it is constricted by the volcanic lava flows that formed Black Canyon. This ceremonial landscape has a complexity of many kinds of puha, which are in dangerous quantities having been accumulated in this one place.

Mary Douglas observed in *Purity and Danger* (1966) that there are cultural categories of things, behaviors, and places that logically and culturally must be kept separate. When these forces are combined, they form a dangerous situation. Although some types of these combinations are regularly avoided, people often used inappropriate combinations of forces as a vehicle for achieving supreme power (see for example, her account of Lele Pangolin cult in Douglas 1966: 169-174). Such combinations of forces are viewed by Eliade in his analysis of shamanism (Eliade 1958, cited in Douglas 1966:169) as an essential aspect of shamanistic power and practice.

We have made this brief sojourn into the ethnographic literature on this point because the complexity of puha at this site poses a problem in our analysis. Sugarloaf Mountain is an important place within our study region that simply defies categorization in terms of the puha and ceremony model presented here. The places and universal elements that constitute the ceremonial landscape centered on Sugarloaf Mountain create a dangerous situation such as that described by Douglas and Eliade. It is a place that Indian people say was used for types of ceremonies (acquiring puha in visions, balancing ceremonies including a Ghost Dance, and individual healing). These are ceremonies that this analysis suggests have mutually exclusive place logics. On top of Sugarloaf are distinct ritually cleared areas that are too big for individual vision quest areas and too small for a round dance with hundreds of people. There are no rock cairns indicating successful vision quests, and yet all Indian people who reached the top of the mountain said that such activities would have occurred there. There is one human-like stick form pecked into a central upright boulder. No other rock paintings or pecking occur for miles around, yet about 8 to 10 miles in two directions are major rock pecking assemblages with thousand of images. Across the Black Canyon, are major turquoise and *ompi* (red) paint mines that were used for thousands of years, as evidenced by their depth and the pottery types found in them, yet there are no turquoise offerings or red paint figures anywhere in the area until the pecking sites are reached.

Sugarloaf Mountain is very steep, inaccessibly perched a thousand feet above the Colorado River, and thus potentially dangerous to people; yet elders from many tribes climbed to the top, or as far as possible, saying they were attracted to the place. They view it as a place of healing. One tribal leader stood on the top and heard his relatives singing in Hualapai. There are virtually no artifacts, yet the base of the mountain has thousands of healing stones that are palm size, smooth, oval quartz used by all the groups for hot healing. We call these *geofacts* because all the Indian people identified them as carefully made tools of healing that the mountain made for them.

A rattlesnake was observed by a number of elders during a site visit; they spent part of the day talking with it and marveling at what it said. Mountain sheep went to the area each day, and most mornings during the site visits, a large herd greeted the elders. Hawks flew around the mountain daily, and Indian tobacco was abundant.

From the top of Sugarloaf Mountain to the north, one can see the gaping mouth of Song Cave (Gypsum Cave), the most important source of songs in the region. It is a powerful cave and connected directly with activities at Sugarloaf according to Indian people. Immediately across the Black Canyon from Sugarloaf is Goldstrike Canyon hot springs. The last portion of this narrow, stream-filled canyon slices through hot mineral sources that emerge from the sides and bottom producing a mineral bath and shower, and adding a hot stream flow to the Colorado River. The hot springs were used by Indian people for cleansing before and after ceremonies in the Song Cave and on Sugarloaf Mountain, but there is not one shrine, rock pecking, or painted symbol in the canyon.

Figure 2.8 Sugarloaf Mountain, the Colorado River, and Black Canyon

If the Sugarloaf Mountain ceremonial landscape defies categorization, then perhaps the categories are wrong. Douglas (1966: 165-166) suggests that meticulous cataloguing of rituals is utterly beyond the scope of objective scholarship. This limitation does not occur because fieldwork is missing but, because such categories work best when you know less about religion. She maintains that religious practices are so complex and heterogeneous they cannot be modeled as is being proposed in this essay. While respecting her concerns, our efforts to model the place logic of ceremonies continues. Perhaps it is possible that Sugarloaf is the case that proves the point. In fact, Sugarloaf is perceived Indian people as being special simply because it is so unusual. The known dangers of these accumulated forces need to be recognized, according to Indian people but only with proper preparation, ceremonies at entrance sites, and guidance from powerful religious leaders, perhaps from more than one ethnic group, in order to increase the prospects of a successful ceremony at Sugarloaf Mountain.

2.2.3 Residence Places

Puha seems to be logically attached to places where it is to be used or acquired by Indian people, but how is it attached to places where people lived? There are many kinds of residences used by Indian people in the proto-historic and historic period. This analysis simply looks at the place-logic for the residences of three high chiefs and local chiefs during this period. A pattern that emerges from our analysis is that residences are located much differently than places for acquiring and using puha.

The high chiefs and the district chiefs regularly had permanent residences. These places are only known from the historic record and so may or may not reflect a proto-historic pattern. It

is hypothesized that where external influences were slight, the historic chief residences do reflect an earlier place logic.

Chiefs lived away from places where power is acquired and used in ceremony. We do not know the exact relationship between powerful places, world elements, and residential sites, but we have a theory that they are mutually exclusive. Children should not play around these places and things. The relationship seems so special that Steward (1938: 94) observed that one family was referred to at a place called Ta:kanawa (Takapai, obsidian = nawa; or close to) which was also near a hot springs.

Chiefs lived in places that were beneficial and safe as a residence for many kinds of people. Irrigated agriculture often is associated with a Chief's residency. There should be other types of food around or near by – pine nuts or grass seeds; antelope or deer, and even fish. There may be a place to bury the dead nearby because the Chief often oversaw funerals. Some said the chief had the last song before reaching the afterlife. The dead are not buried at power spots, except under special conditions. Instead, puha is brought to their graves in the form of obsidian and quartz that is broken into small flakes and placed on the graves.

It is important to consider what may have been a difference between the pro-historic residences and those that occurred in the historic period. The former probably were always removed from power places and followed a cultural logic presented in this essay. On the other hand, during the historic period most high-chiefs and many people had adapted a dual residency pattern. One residency was where they wanted to live from a traditional perspective and would follow that logic of place, and the other was a survival place needed because Indian people had to deal with the presence and land-logic of the European immigrants. The chiefs especially had to move between the best water, irrigated agricultural villages and those of labor camp. They added to their long list of obligations labor negotiator for the people they represented. The following are some of the Chief residency places:

- Breen Creek, Kawich Mountains (Chief Kawich)
- Palmetto, Fish Lake Valley (Chiefs Big Mouth Tom, and Harry)
- Ash Meadows, Pahrump Spring, Potosi in Spring Mountains (Chief Tecopa)
- Corn Creek (various local Chiefs)

Chief Kawich lived in Breen Creek but he also had a home near Belmont where he served to facilitate or at least buffer the boundary between an increasingly larger gathering of his people and the growing white community. On a family scale, a Shoshone family who had a normal farm/ranch in Eden Creek also had a home at Warm Springs, which they occupied while their child was at the Warm Springs school. Thus, the basic logic of where a home should be became more complex during the historic period. When white miners took over a traditional farming site, often sites that were not ideal had to be selected in regions of refuge. Such sites often did not reflect traditional Chief residence place logic.

Corn Creek is an interesting place because it is both a focus of this study and a type of residency that is on the way to more powerful places. It is discussed in detail in the next chapter, but a few points can be usefully made here. Corn Creek is an oasis spring like those in Ash

Meadows. The archaeology of the place documents thousands of years of occupation, with agriculture being here in the proto-historic period. It probably never was the residence of a high chief because it is proximal to such residencies in the Las Vegas and Pahrump areas. Instead Corn Creek was a place that probably served travelers most of the time. Being near the place where all Southern Paiutes were created probably caused it also to be a place for ceremonial pilgrims as well as people going from ecological zone to ecological zone to gather food. It fits the residency place logic of the high chief residencies, but probably constitutes a special case because of being close to areas of ceremony. It may be considered as a ceremonial support community, a concept that should be developed by future research.

2.3 Conclusion

This essay is designed to initiate certain types of discussions about Numic and Yuman epistemology and the logic of places. Being based on contemporary Indian interviews, it helps rethink the American Indian cultural ecology of the western United States. We, like Clifford Geertz (1963: 8), applaud Steward's theoretical insights that only portions of the environment interact with portions of a people's cultural system. Similarly, we also agree with Geertz's (1963: 10-11) criticism of Steward's theory as mere prejudice when *a priori* he maintains that the environment is most likely and exclusively to interact with a people's basic subsistence system. Geertz's ecology studies demonstrated that a people's religious system can be responsive to the environment. This current analysis makes a similar point.

To conclude this essay, there are a couple of points that should be considered in future American Indian cultural ecology studies. These points may serve to broaden and open the frame of analysis of cultural ecology studies. Like Geertz (1963: 11), we maintain that the amount of past growth and the present state of culture and society that is attributable to ecological processes is something that should be determined, if at all, at the end of inquiry, not at the beginning of it.

2.3.1 Inter-ethnic Uses

Places of power are usually culturally important to more than one American Indian ethnic group, so often places are shared. This is the case for the Zuni Salt Lake in New Mexico and the Hopi Salt Mine in the Grand Canyon near the mouth of the Colorado River. Similarly, places can hold similar meanings for different ethnic groups, for example, the travertine spring upstream on the Little Colorado River is viewed by both the Hopi and the Zuni as their origin place. Paiute-Hualapai connections are strong and lasting. They jointly used the Sugarloaf Mountain cultural landscape and the Lava Falls culture landscape - both along the Colorado River where it is constricted by extensive volcanic activity. These two ethnic groups have a common path to the afterlife and sing each other to there during the Cry Ceremony along this shared songscape.

Ethnic travelers went great distances to jointly participate in ceremonies. Ghost Dance ceremonies were shared in 1890s by Paiutes and Hualapai in northern Arizona (Dobyns and Euler 1967; Stoffle et al. 2000). Both the Hopi and the Navajos people visited these dances. The year-long Ghost Dance at Chemehuevi involved dancers of many tribes, according to George Laird who participated in the dances. Among the other dancers were Havasupai, the Hualapai, and certain northern tribes including the Paran'nigiwi (water steppers from Pahranagat Valley)

who live along the Virgin River in Nevada and the Sivitsiwi who could be either the Coso California Paiutes or the Shoshones (Laird 1976: 45, 138). On April 27, 1889 Chief Kawich was visited at his second residence near Belmont, Nevada by a delegation of Navajos, Utes, and Arapahoe (Belmont Courier April 27, 1889). This visit was apparently to discuss the Ghost Dance, which it appears that Chief Kawich contributed to and perhaps led in his district.

2.3.2 Traveling to Puha Spots

It is important to note that distance is not a limiting factor when it comes to an individual Indian person traveling to a power place for the purpose of acquiring spiritual power, new guidance, or renewal of their own powers. In fact, it can be argued that the farther and harder the journey the more positive the effect on the person. For example, the O'odham Salt Trail journey is designed to be difficult. It is even made more difficult than it needs to. At the end the travelers arrives at the ocean (the Sea of Cortez) and then instead of resting after a grueling pilgrimage, he runs along the ocean until receiving the desired vision, song, or medicinal advice (Underhill, et al. 1997: 37-69).

Running can be both a way of traveling for a man seeking power or a vision, but it a way of achieving the vision, as we see in the O'odham salt trail pilgrimage. How far is far. Tarahumaras runners were observed in 1894 by Carl Lumholz as running 170 miles a day without stopping (Nabokov 1981: 165). As late as 1924, Ernest Seton observed a man who routinely covered 70 miles a day, seven days a week, bearing a heavy mailbag (Nabokov 1981: 166). In 1903, 60 running men appeared at Zuni Pueblo carrying bundles of sacred reeds, saplings, and mud wrapped in cornhusks. In their hands were tortoises. They were completing a four-day running pilgrimage, which had covered 120 miles (Nabokov 1981: 107). Among the pueblos, running is associated with rain and water spirits. Among the Mohave in 1886 John Bourke heard about one Panta-ca who took less than twenty-four hours to cover nearly 200 miles. Bourke paid another Mohave for a 21-mile run through heavy sand and it was completed in three and a half hours (Nabokov 1981: 17). Chemehuevi runners moved through space without time elapsing (Laird 1976) because they were able to move back and forth between spiritual and physical planes of existence.

2.3.3 Shifting Place Logic

When Europeans arrived they took away places where ceremonies had been conducted and forced Indian people to select new places for ceremony that did not fully meet the appropriate place logic. Pahranagat Valley was lost to outsiders in 1865 and two villages of Indian people were soon massacred. The First Menses site in Hot Creek could not be used after 1869 when the area became the Morey mining district and a camp was established. By 1873 the town had a stamp mill, post office, boardinghouse, saloons, blacksmith shop and daily stage service to Belmont and Eureka (Paher 1970: 353). The locations of ceremonies also were shifted because the Federal government declared them illegal acts after the Ghost Dance of 1890. Thereafter most ceremonies were either discontinued or relocated to regions of refuge.

Sugarloaf Mountain was taken over by the Boulder Dam project in 1932. Gypsum Cave was excavated by Harrington over the protests of the Puh'aganti who were worried that it would

become angry and cease talking with them. One excavator fulfilled this expectation when he took a sledge hammer into the mirror room and broke all the crystals. Fifty years later an angry Paiute religious leader being interviewed at Gypsum Cave, said that it was still angry and most of the spirit helpers had left. These encroachments forced Puh'agantis to move ceremonies. What was formerly conducted at Gypsum Cave was moved to Pintwater Cave. This shift in location caused Wellington Canyon, in the Pintwater Range, which had formerly been a place for preparing to go and return from Pintwater Cave, to become a balancing ceremony place.

Shoshone Mountain and Scrugham Peak were withdrawn from the public domain in 1941 closing access to the major regional vision quest site. Atomic testing has impacted portions of this area and a proposed Wind Turbine project threatens to physically destroy the main vision quest site on Shoshone Mountain. It is not certain that vision quests have been conducted for most males since the area was withdrawn.

2.3.4 Re-centering Theory

The Numic people of the study area have been characterized by Steward (1938: 46) as having a practical culture whose core was centered on gastric issues. This theory has guided ethnographic and archaeology work in the study region since then (Zeanah and Simms 1999: 118-140). The current essay not only documents the presence of complex ceremonial patterns, but also demonstrates how they are networked across the landscape. It provides a new theory of puha to explain where Indian people in the study region went for ceremony and why they were attracted to certain places and not others. If this theory is correct, then the study of residential and gastric use areas dramatically fails to account for the culture meanings and uses of most topographic features and universal elements of the study region.

By re-centering the cultural theory of the Numic and Yuman people from gastric to placed-based ceremony, we provide an avenue for totally rethinking the cultural ecology of land and Indian culture. There is now a new epistemology of connections to consider. Indian people who have shared their cultural interpretations of place during the past three decades maintain that this is the richness of their environmental adaptations to this land since Creation and it constitutes the core of their culture and contemporary ethnic identity.

Chapter Three
Cultural Affiliation and Historic Memory in the Arizona Strip

by
Alex K. Carroll

The Arizona Strip refers to 3.5 million acres of land located in the northeastern region of the state of Arizona. This body of land is bound on the south by the Colorado River and on the north by the Utah State boundary line. The Arizona Strip is a dramatic land that is visually captivating and both physiographically and culturally complex. This land is comprised of plateaus, the unforgettable Vermilion Cliffs along the northeastern boundary of the Kanab Plateau, and several major waterways including the Paria, Colorado, and Virgin Rivers. Traveling northeast to west along the Arizona Strip, one encounters the Paria Plateau and the Paria River, followed by the Colorado River and the Kanab Plateau, which is bound by the Utah border on the north and the Colorado River on the south. On the northeastern side of Kanab Plateau and House Rock Valley stand the Vermilion Cliffs (Altschul 1989:7).

The Arizona Strip is a *geographical space* that has captivated the imaginations of multiple generations of explorers including Dominguez and Escalante (1776; see Bolton 1950), Jedidiah Smith (1826; see Morgan 1953) John Wesley Powell (1869; see Powell 1957), Edward Palmer (Palmer 1876), and Niel M. Judd (Judd 1918; 1919). Similarly, it is a physical space that archaeologists, cultural anthropologists, and representatives of government agencies have increasingly assumed responsibility for analyzing, interpreting, and managing (for a systematic overview see/ Altschul, 1989). In particular, the development of cultural resource management (CRM) positions in the BLM, NPS and USFS has significantly increased anthropological research of the Arizona Strip (Altschul 1989:66). While each of these avenues of exploration contributes to scholarship of this area, these studies are not in themselves complete. What often remains understated in literature is that the Arizona Strip is first and foremost a dwelling place in addition to being a *geographical space*. The Arizona Strip is the physical, sociocultural, and spiritual home of the Southern Paiutes who have continuously inhabited portions of the Great Basin and Colorado Plateau for thousands of years.

The principal aim of this chapter is to augment knowledge of the Arizona Strip and cultural affiliation studies rather than to merely reproduce extant archaeological, historic, and ethnographic compendiums. In this process, we demonstrate that the Arizona Strip has historically been dominated by space studies, and that place-oriented studies can enhance knowledge of cultural attachments to the 3.5 million acres of land north of the Grand Canyon. This chapter provides an overview of *geographical space* studies of the Arizona Strip while also examining the particular cultural attachments of Paiute people to the Arizona Strip as a *dwelling place.* Lastly, this chapter unpacks Southern Paiute people's *historic memories* of cultural attachments to their traditional homelands that extend back thousands of years.

3.1 Place and Space Studies

In order to understand contemporary cultural attachments of the Southern Paiutes to the Arizona Strip it is necessary to examine the epistemological framework that has historically shaped archaeological and ethnographic studies of this region. Two concepts contribute significantly to the analysis of these cultural attachments: First, the phenomenological concept of *dwelling in place* and second, the concept of *historic memory*, which has been utilized by scholars representing diverse schools of thought including cultural studies, post-colonialism, and postmodernism. These concepts are presented as epistemological tools to broaden discourse and knowledge of indigenous attachments to the Arizona Strip. The purpose of these explorations is to deepen knowledge of cultural attachments in the Arizona Strip rather than to merely highlight heuristic differences.

Until recently, cultural anthropologists, archaeologists and land managers have examined the cultural attachments to the Arizona Strip through the theoretical lens of *geographical space*. Historically this theoretical perspective has shaped scholars' basic assumptions about relationships between people and natural environments, and consequently the questions as well as the methods employed in research projects. Such ideas have strongly influenced the thinking throughout the field of anthropology. As a result, few anthropologists have ever studied place as a phenomenon unto itself. During the nineteenth and twentieth centuries, place was frequently depicted as a backdrop of cultures and societies rather than a constituting element of cultural practices, ideas, beliefs, and identities. Hirch (1995:1) asserts that the concept of landscape "functioned as a standard framing devise in the classic monographs of the 'British school' of social anthropology." Within these parameters, a belief in essential natures and essential cultures prevailed. In current scholarship the notion of societies and cultures as fixed, bounded, and essentialized units of analysis have become the targets of sustained critiques.

Social constructivism represents one alternative to some of the essentialist conceptions advanced by earlier works wherein the significance of places derives from cultural inscription practices. Berger and Luckmann (1966) clearly articulate the basis of this position stating,

> *Man is biologically predestined to construct and to inhabit a world with others. This world becomes for him the dominant and definitive reality. Its limits are set by nature, but once constructed, this world acts back upon nature. In the dialectic between nature and the socially constructed world the human organism itself is transformed. In this same dialectic man produced reality and therefore produces himself.*

Particularly important are place studies that address the environmental dimensions of native experiences of place. Scholars including Peterson (2001:125) and Brierwert (1999) are at the forefront of this effort. Peterson (2001:125) states,

> *On a symbolic and ideological level, being native means that one's personal and cultural identity is tied up with a particular place, with its geographic features and, as many Native American traditions suggest, the wellbeing of the non-human persons that share it.*

In a similar vein, Århem demonstrates that place, religion, ecological ethics, and identity are co-constructed via constant engagement with places and community members (Århem 1997). Scholars are also demonstrating increased interest in the use of places as individual and social memory devises (e.g. Basso 1996; Climo 2002). The theoretical approaches that have begun to emerge from anthropological, philosophical, and geographical studies provide the theoretical bases for unpacking cultural attachments to the Arizona Strip.

3.1.2 Concepts of Space

In western thought, the environment is frequently described through the conceptual frameworks of space and place. "By space is meant a neutral, pre-given medium, a *tabula rasa* onto which the particularities of culture and history come to be inscribed, with place as a presumed result" (Basso 1996:14) In addition to viewing spaces as empty canvases upon which humans can inscribe their interests, space is frequently perceived as a distance, obstacle, or empty zone that separates those areas that have already been collectively infused with significance via their physicality or the alterations that humans have evinced therein. The view that space is socially constructed is a dominant theme amongst many scholars. According to Yi-Fu Taun (1977), "these spaces are socially produced and they produce the social." Doreen Massey (Massey, 1993) provides a more encompassing explanation, maintaining that "spaces are created out of the vast intricacies, the incredible complexities, of the interlocking and the non-interlocking, and the networks of relations at every scale from the local to global."

In contrast to the alleged *tabula rasa* of space, Merleau-Ponty (1964) and Casey (1996) maintain that matter and places are pregnant in form (Merleau-Ponty 1964:12), meaning, and relations to natural and human phenomena. We come to know place through sensory embodiment (Casey 1996; Merleau-Ponty 1964). In addition, "Place, rather than being a product or portion of space, is as primary as the perception that gives access to it" (Casey 1996:16). Perception occurs "'within a certain horizon [which we experience] in action [pratiquement] rather than by 'posing' them or explicitly knowing them" (Merleau-Ponty 1964:12). In other words, place is an all-encompassing field through which we arrive at knowledge. From this perspective, space is a social construct that measures disengagement from place, rather than an indication of another phenomenon in its own right. For Casey (1996:17), there are multiple ways to be in place. These include "staying in place," "moving within a place" and "moving between places." These relations demonstrate that one's engagements to place are simultaneously subject to change, yet all-encompassing.

3.1.3 Space Studies of the Arizona Strip

In *Man, Models and Management,* Atschul and Fairley (1989) have assembled a thorough compendium to profile the traditional archaeological, ethnographic and ethnohistoric studies of the Arizona Strip. This synopsis of geographical space studies is written chronologically, beginning with Exploratory Studies (1776-1920), followed by Descriptive Studies (1920-1965) and Cultural Resource Management Studies (1966-Present). In the following section is a brief recapitulation of their findings. For a complete rendition, we recommend consulting *Man, Models and Management* (Altschul 1989).

Atschul and Fairley's (1989) review opens with a summary of investigations conducted by explorers with no former knowledge of the Arizona Strip. including Dominguez and Escalante (1776; see Bolton, 1950), Jedidiah Smith (1826; see Morgan 1953) John Wesley Powell (1869; see/ Powell, 1957 684), Edward Palmer (Palmer, 1876), and Niel M. Judd (Judd 1918; Judd 1919). These men share the distinction of being the first non-indigenous people to physically record their impressions of the Arizona Strip. Beginning with Powell, explorers also recorded detailed impressions of the indigenous inhabitants whom they encountered in their travels through this region (Altschul 1989:54).With the backing of the Smithsonian, Neil M. Judd (1926) made the first systematic study of prehistory of the Arizona Strip through six consecutive excavations (Judd 1926). Of particular interest to the present project is the fact that Judd spent his 1918 season studying House Rock Valley and the Walhalla Plateau (Judd, 1918; Judd, 1919, Judd 1926). Judd maintained that cultural continuity existed between prehistoric inhabitants of the Arizona Strip and the contemporary indigenous groups of the Four Corners.

During the 1920s-1930s, archaeological analysis of the Arizona Strip advanced notably (Altschul 1989:55). Alfred Kidder organized the Pecos Conference, where formal chronologies and standardized professional language were officially adopted. The system of classification which includes (1) Basketmaker (later renamed Anasazi), (2) Mogollon, (3) Hohokam to reflect cultural manifestations in the Southwest, and (4) Virgin to reflect a "Nevada sub-branch" are terms with currency even today. Significantly, *in situ* theorists maintain that contemporary Numic–speaking indigenous groups are related to prehistoric ethnic groups rather than representing a separate or new population. Details on the *in situ* theory of development are provided in detail in Part 3 of this chapter, which propounds a theory of Numic historic memory. Atschul and Fairley (1989:55) note that Neil Judd's 1923 reconnaissance of the North Rim of the Grand Canyon represents the sole archaeology effort in the Arizona Strip during the 1920s. In the late 1920s, Harrington significantly advanced archaeological knowledge of places along Muddy River, where Southern Paiute groups concentrated in prehistoric, historic and contemporary times. Harrington's work was so influential that his system of classification became the basis for examining temporal phase throughout the Virgin River area as well as the Arizona Strip (Altschul 1989:56).

Atschul and Fairley (1989:56) report a number of significant archaeological studies along the Arizona Strip during the 1930s. For example, (1) reconnaissance surveys were conducted in the House Rock Valley, Fredonia, and Kanab Creek (Amsden nd) (2) as well as along the Colorado River between Hite, Utah and Lee's Ferry, Arizona (Steward 1941). The latter represents a site where contemporary San Juan Paiutes positively identified historic structures where relatives lived in the 1930s (See Chapter 4). (3) Wetherill's and Smith's 1933-1934 excavations at scattered localities throughout the Arizona Strip, and (4) two surveys of the north rim of the Grand Canyon by Hall and Glades (Hall 1942). Atschul and Fairley (1989:56-57) conclude that these surveys were done in an unsystematic manner, and did no more than establish the presence/absence of sites is various locations throughout the Strip. In addition, these studies all drew the conclusion that they were cultural relationships between the surveyed sites and the Indians of the Four Corners.

Archaeology conducted in southeast Nevada during the 1930s also significantly impacted interpretations of the prehistory of the Arizona Strip (Altschul 1989:56). These works include Mark Harrington's 1933 excavation of Gypsum Cave and S. M. Wheeler's 1942 surveys of Etna Cave, where split twig figurines like those from Stanton's Cave in Marble Canyon were found. In *Part 3* of this chapter, Historic Memory, cultural continuity between contemporary Paiute people and prehistoric populations associated with material culture from Gypsum Cave are examined in much greater detail. This analysis includes material culture that radiocarbon dates indicate are from 8,500 BC.

In the 1940s, Gordon Baldwin began surveying the Shivwits Plateau of the Southern Paiute. It is worth noting that Baldwin identified parallels between the material culture of the Shivwits Plateau and the Muddy River Valley. He maintained these findings should be studied in further depth (Atschul and Fairley 1989: 58). A decade later, Harold Colton published *Pottery Types of the Arizona Strip* (Colton 1952) which became the definitive guide for identifying the styles of pottery and ethnic groups purportedly associated with each style throughout the Arizona Strip. This publication has sparked numerous critiques directed at Colton's use of a small original sample size of ceramic types in the establishment of the ceramic typology and his tendency to over-generalize stylistic inferences.

In the 1950s, Robert C. Euler and Milton Wetherill began an excavation in the Arizona Strip on the Uinkaret Plateau at the site of Antelope Cave and in 1956 and 1957 UCLA field schools continued research at this site. Preliminary results indicated occupations attributed to Basketmaker III and Pueblo II. Data from this site was never fully reported, and as a result, this heavily occupied traditional area of Southern Paiutes has never been sufficiently documented. Another landmark came with the publication of Aikens' (1966) synthesis of Virgin Kayenta cultural relationships. In this work, Aikens indicates that drawing distinctions between these two branches of prehistoric peoples is misleading because they shared a common history until 900 A.D. Near the close of this decade, Walter Taylor also briefly surveyed the inner Grand Canyon from Lake Mead to Lee's Ferry (Taylor, 1958). Taylor concluded that sparse human populations were present within this region, principally between 1,000 and 2250 AD.

In 1954, split twig figurines were discovered in four caves in the Grand Canyon. Euler and Olson subsequently excavated Stanton's Cave in Marble Canyon in 1965 and dated split twig figurines to 4095 +/- 100 BP (ca. 2100 BC), which provided the earliest dated material evidence of indigenous occupation within the Grand Canyon (Euler, 1965). Atschul and Fairley (1989:62) identify a series of surveys conducted on the north side of the Colorado River during the 1950s. These include: Shinumo Canyon (Schwartz 1960), upper Nankoweap Canyon (Schwartz, 1963; Kelly, 1971), the river corridor between Nankoweap and Unkar (Schwartz 1965) (Euler 1966), and Marble Canyon from Lee's Ferry to the Marble Canyon dam site (Euler, 1963).

Atschul and Fairley (1989:62) also provide a synopsis of Cultural Resource Management Studies conducted between 1966 and the 1980s. The authors report that until the 1960s, most archaeology projects were conducted along the periphery of the Arizona Strip, rather than in its interior portions. In conjunction with the creation of new roadways, however, the Museum of

Northern Arizona (MNA) began to conduct salvage archaeology along Highway 389 between Fredonia and Littlefield and along Interstate 15.

In 1967 the MNA conducted some of the most extensive surveying of the Arizona Strip. These studies on and near the Pariah Plateau are particularly relevant to the current study, where several archaeological sites were visited in Upper House Rock including Signature Rock and West Bench Pueblo (See Chapter 4; (see also Haskell 1978; Jennings 1978; Mueller 1968; Mueller 1972; Bradford 1974). Atschul and Fairley (1989:63) report that from 1967-8 over 498 prehistoric sites were surveyed. These findings positively confirm that the Pariah Plateau was "intensively utilized." The period of dated occupation ranges from Pueblo II-Pueblo III. During recently conducted ethnographic interviews with contemporary Kaibab and San Juan cultural consultants, UofA ethnographers were told that the "Ancient Ones" lived at West Bench Pueblo, where there are Pueblo house foundations. One elder explained,

> *The Anasazi and Paiutes are related. We are all the same people. The Navajo call them Anasazi, but the Paiutes call them the Ancient Ones. They were all over the Arizona Strip.*

(Mueller 1968) argue that the Pariah Plateau was sparsely occupied during Basketmaker III or Pueblo times, followed by a dramatic increase during the middle Pueblo II, and underwent yet another population decline in the mid- 1100s (Altschul 1989:64). Hopi Jeddito Yellow Ware pottery has also been located on the Pariah Plateau in the post 1300AD period. According to Baldwin (1944:16) these ceramics represent Paiute people in the area who acquired the Yellow ware through trade.

Additional surveys of the Paria Primitive Area were conducted in 1974. Bradford identified twelve previously unrecorded petroglyph sites and one site with structural features (Bradford, 1974). At site NA9793 motifs categorized as Great Basin were juxtaposed over motifs categorized as Anasazi. According to Atschul and Fairley (Altschul, 1989:64), this superimposition "argues for a Southern Paiute affiliation for at least one of these panels." Examined together, the 1967 and 1974 findings indicate "seasonal or year round occupation of the Pariah drainage south of the Arizona State line …one to three miles about the confluence of the Colorado River" (ibid). Bradford (1974), Jennings (1978), and Atschul and Fairley (1989:64) concur that the Pariah Canyon served as a traveling corridor; as such, multiple cultural groups used this area over extensive periods of time.

In the late 1960s, Richard Thompson began long-term survey research project of the Toroweap Valley of the Grand Canyon National Monument (Thompson 1970; Thompson 1971a; Thompson 1971b). Over eleven years Thompson's team recorded 351 sites. These results indicate that the Uinkaret Plateau was continuously occupied during the Formative Period and thereafter. Thompson noted that the PII sites concentrate east of Toroweap Valley to the rim of the Kanab Plateau (Thompson 1971b).

Concomitantly, School of American Research (SAR) began a large-scale project in the eastern portion of Grand Canyon National Park. This long-term archaeological project aimed "to examine Pueblo adaptation to the canyon environment" (Altschul 1989:65). During the first

portion of the project, they surveyed the Unkar Delta, wherein they noted ceramic evidence of occupation of the delta of the South Rim around 900AD, followed by a hiatus of 150 years, and then a reoccupation of the area in 1,050 AD. The delta included evidence of horticulture such as "checkdams, terraces, trough metates as well as macrobotanical remains of corn, squash, and cotton bolls" (Altschul 1989:65 707). SAR also studied the Walhalla Glades, in the highlands of the Kaibab Plateau north of the Unkar Delta. The team located 60 sites, of which one large pueblo site was excavated and 21 tested in the Walhalla Glades. In addition, SAR excavated a pueblo near Bright Angel Creek. Based on surveys and excavations, SAR posited that Unkar and Walhalla Plateau are part of a single occupational-subsistence system, with Unkar being the seasonally inhabited lowlands and Walhalla Glades, being the seasonally occupied highlands.

Atschul and Fairley (1989:66) associate the development of CRM positions in the Bureau BLM, NPS, and USFS with the rapid development of archaeological projects of the Arizona Strip during the 1970s. As a result of these new positions, the construction and improvement of roads, timber sales, and other development projects were often preceded by archaeological research. Major CRM projects included but are not limited to (1) MNA's research conducted along the Navajo-McCullough transmission line which follows the northern edge of the Arizona Strip from Page to AZ-NV border (Moffitt 1978); (2) MNA's survey of Mount Trumbull and the surrounding region (Moffitt 1978), and the sample survey of lands bordering Grand Canyon National Park by Western Archaeological Center's (WAC).

In the first project, MNA located 62 sites, including 8 from the Arizona Strip that were excavated and 7 partially excavated sites east of the Paria River. Based on artifact assemblages, MNA described these sites as Western Archaic, Virgin Anasazi and Southern Paiute. Significantly, (Moffitt 1978) indicate that multiple sites had material indicators of each tradition, indicating relationships among the traditions that require further examination. Furthermore, Atschul and Fairley (1989:67) indicate that, "some of the most significant data contributed by the Navajo-McCullough transmission line project concerned the Southern Paiute occupation of the area." MNA's next project involved surveys of portions of the Arizona Strip in association with the Southern California Edison's Kaiparowtis Power Project (Fish 1974). This research yielded information about 16 sites (see/ Hunt 1975). MNA also surveyed portions of Mount Trumbull, which is an area where UofA researchers conducted ethnographic interviews for the current project (See Chapter 4). The 1970s study by MNA resulted in the documentation of 80 sites. Unfortunately, these findings were not contextualized within a regional perspective and individual site descriptions are not available, which delimits the utility of this research in relation to contemporary scholarship.

During the 1970s, WAC conducted another study north of the Grand Canyon National Park, focusing on the lower Kanab drainage, and portions of Kanab Plateau, Andrus, Parashant and Whitmore Canyons, and Shivwits Plateau (Altschul 1989:69) The scale of sample survey was radically reduced over the course of the project from an original 2 percent of 730 sections on the Kanab and Shivwits Plateaus to less than .5 percent, but is considered useful as an overview of the distribution of sites and cultural resource characteristics. Researchers recorded "171 cultural resources, including 102 prehistoric sites, 5 historic sites, and 56 isolated artifacts" (ibid). Concomitantly, Thompson began directing a field school involved in excavations on the Kaibab Indian Reservation (Thompson 1978). The results from this study have never been

published. Atschul and Fairley (1989:78) note that the 1970s studies revealed use patterns of several portions of the interior of the Arizona Strip for the first time. Scholarship from this decade contributed to an emerging understanding of the extensive use of highlands for hunting and food procurement purposes and the year round occupation of many portions of the Kaibab and Walhalla plateaus.

Studies of the Arizona Strip conducted during the 1980s were often driven by concerns over the destruction of resources due to development projects, particularly mining activities, destruction of archaeological remains and sites through individual activities, and the decomposition of material culture via natural processes. Atschul and Fairley (1989:78) indicate that the most significant archaeological findings from this period include:

> ...the testing of several stratified sites in the inner Grand Canyon, testing and controlled surface collection of lithic sites on the Kaibab and Kanab Plateaus, the excavation of a small, late PII habitation site at the Pinenut Mine, and the salvage excavation of two stratified cave sites on the Uinkaret Plateau.

Collectively, these archaeological studies have contributed to the development of a foundation of knowledge of the Arizona Strip. This foundation includes the spatial distribution of prehistoric and historic sites within the Arizona Strip as well as the characteristics of material culture identified at these sites. This has been particularly informative in remote portions of the interior of the Arizona Strip, which have been less systematically studied.

At the same time, several limitations also characterize archaeological knowledge of the Arizona Strip. First, a number of the archaeological projects' findings have never been published and as a result, there are geographical gaps as well as temporal gaps in knowledge about areas that have been researched. Furthermore, there are geographical as well as temporal gaps in knowledge in areas where scholarly data is readily available. Fairely and Geib (1989:219-220) identify the eastern two thirds of the Pariah Plateau, the Kanab Plateau, and the northern Uinkaret Plateau as regions that have been explored only marginally. A third issue that we explore in the following section relates to how the past is studied. Whilst traditional archaeological methods of surveying and excavating are useful tools for eliciting information about *geographical spaces*, much information remains unexamined through such an approach. In particular, the *lived relationships* between prehistoric and historic peoples and their natural environments typically remain beyond the pale of archaeological inquiries. In the next section, we offer some of the basic epistemological premises that must be considered in the development of a place understanding of the Arizona Strip.

3.1.4 Towards a Place Understanding of the Arizona Strip

In canonical western thinking, places are frequently identified as regions that humans have already inscribed with human significance, yet for many American Indians, places have an *a priori* significance that is not merely the result of human activities or inscription practices. Consequently, engagements to place cannot be understood as unidirectional processes between active humans upon passive environments. Rather, American Indians understand that "people create places, but places also create people" (Kearns 1991).

These studies suggest that objectivist and materialist conceptions of place do not adequately reflect American Indian ideas of place. For American Indians, places are valued for their sacredness. Nabakov (1991:50) observes that, "to many Native American peoples much of the land they inhabited was [and is] sanctified. They conceived of the earth, the heavens, and cardinal directions as supernatural forces."

Southern Paiute people's understandings of places are based on holistic perspective wherein "the world is integrated" (Stoffle 1990:14). Viewing place from a holistic framework holds important implications for historic and cultural preservation. In projects meant to assess particular places, American Indian consultants may "seek information about an area that often is many miles larger than that specified as a project study area" (Stoffle 1990:14).

American Indians, as well as others with established connections to certain environments, view places as sources of identity. Feld and Basso point out the multiple ways places are metonymically and metaphorically tied to identities: "as people fashion places, so too, do they fashion themselves" (Feld 1996:11). The place of one's origin cannot be exchanged for another place 'of equal value.' As a consequence, destruction of such places or even lack of access to such places constitutes a form of identity destruction equivalent to ethnocide. Numic-speaking people's foundational knowledge is rooted in lived experience and knowledge transmitted through oral traditions. Specifically, such knowledge is accrued through mimesis, language practices, and participation in activities rooted in place. These places are culturally inscribed with significance and places also serve to shape group identities.

To develop a place scholarship of Numic attachments to the Arizona Strip, it is necessary to adopt a "theorization of landscape as cultural process that is dynamic, multi-sensual, and constantly oscillating between a "foreground" of everyday lived emplacement and a "background" of social potential" (Feld 1996:6). Such a conceptualization of landscape is required for analyses that aim to go beyond static interpretations of the past that rely on the fallacy of an ethnographic present, the reductionism of materialism disengaged from human beings and the diverse behavioral sequences of their relationships to material objects and places. Phenomenologist Edward Casey provides basic conceptual tools for examining human experiences of place, and specifically, Numic-speakers' cultural attachments to the Arizona Strip. "Casey argues that the experience of place is no secondary grid overlaid on the presumed primacy of space. Rather he contends, place is the most fundamental form of embodied experience" (Feld 1996:9). In other words, "everything takes face in a diverse yet intense immersion in the subject of place (Casey 1998:286).

3.1.5 Historic Memory

In this portion of the chapter, we provide foundations for scholarship of the Arizona Strip rooted in place and historic memory. We address the position maintained by contemporary Numic-speaking people (*Numu*) that they have occupied the Great Basin and western Colorado Plateau since time immemorial. During this time they have learned about the land and become who they are today. Ethnohistoric and ethnographic data on the Southern Paiute are used to examine the Numic *in situ* development theory. Key issues in this argument are: (1) lack of a

conquest story in their oral traditions, (2) the presence of optimal irrigated agriculture as recorded at the time of European contact, and (3) complex interethnic connections with neighboring groups. We propose that the Numu's perceptions of their land and ancestors may be taken as points of departure for formulating central hypotheses that address their origins and development.

Can contemporary views of American Indian ethnic origins and cultural development illuminate an old archaeological debate about who peopled the high deserts of the West and how did it happen? The perspective we present here builds upon the idea that Numic people's historical memory and knowledge of their land may offer new paths for scientific inquiry that have yet to be explored. Our argument has three main components:

1. Historic Memory: Humans can retain memories of critical events for thousands of years and Numic people do not remember conquering the Great Basin and Western Colorado Plateau. Numic people do not remember being created somewhere else. Their neighbors do not remember being conquered by Numic people and they do not claim to have been created within Numic territory.

2. Traditional Farming: If mobility and absence of agriculture are the main criteria for identifying Southern Paiute ancestors, then the Southern Paiute, who had developed optimal farming systems by contact times cannot be automatically disassociated from the Anasazi and Fremont peoples.

3. Ethnic Frontier: "The Paiutes are Hopi, and The Hualapai are Paiute" Our contemporary definitions of ethnic groups and how they are culturally bounded probably do not reflect past cultural characteristics. Some groups who seem to have clear boundaries between them today were probably of the same ethnic group (or regional sub-groups) in the past. Thus, Hopi connections with the Anasazi or Fremont archaeology sites are also Paiute connections

We show that with the aid of ethnography and ethnohistory, that there is a need to find new ways to formulate questions about Numic origins and development. Then it can be used by scholars of the Great Basin and Colorado Plateau, so they may legitimately ask from the archaeological record. To illustrate this view, we offer a brief example from Gypsum Cave in Nevada.

3.2 Discounting Numic Culture and Society

Mainstream archaeological, ethnohistorical, and ethnological research tends to operate in isolation from the people whose ancestors are being studied, and yet scholars in these disciplines expect that subject communities will embrace research findings as factual pieces of their history. Members of tribal societies, on the other hand, have maintained accounts of their own historical facts. We argue that these accounts are critical points of departure for understanding a people's history, while we do fairly concede that some of the oldest pieces of this history may have been lost and portions of other historic accounts may also have been enriched with new memories and increased knowledge of the homeland. For most Indian people, research findings are not

privileged historical truths, but simply the product of a different culture - one that we call Western science.

In recent years, and largely as a result of research driven by compliance with environmental laws, dialogue between scientists and tribal peoples has taken a new and productive turn. In the past, tribes tended to ignore or explicitly reject scientists and their facts. Now, some of these Indian people are willing to share their knowledge with the expectation that scientists will, at minimum, take tribal histories as points of departure for building alternative hypotheses to the ones currently favored by many non-Indian academic scholars.

This portion of the essay focuses research data on the origins of Southern Paiute people who say they have inhabited the southern frontier of the Great Basin and Western Colorado Plateau since Creation. We do believe, however, that after 28 years of joint ethnographic studies with Southern Paiute, Western Shoshone, and Owens Valley Paiutes peoples that the conclusions of this paper also may be applicable to the entire Great Basin and western Colorado Plateau.

3.2.1 The Devolving Southern Paiute Culture in Euro-American Perceptions

European explorers first encountered the Southern Paiutes at the end of the eighteenth century. The earliest mention of Southern Paiute homesteads and farms along a watershed of the Colorado River is found in the observations of Fathers Escalante and Dominguez in 1776 (Bolton 1950 643). When this expedition crossed the boundary of the Great Basin into the upper portions of the Virgin River watershed on the western Colorado Plateau they met Southern Paiute farmers who held ears of corn in the air as a sign of greeting.

The next day, October 15 1776, Escalante continued to sing the praises of the area now affectionately referred to in Utah as “Dixie.” At a place along Ash Creek in the upper portion of the Virgin River drainage, the expedition found a well-made mat, and large supply of ears of green corn on it. Nearby in the plain and along the river bank the small fields of maize had very well-made irrigation ditches (Bolton 1950:95). “For this reason,” says Escalante,

> *we felt especially pleased, partly because it gave us hopes that we should be able to provide ourselves farther on with assured supplies, but principally because it was evidence of the application of these people to the cultivation of the soil, and because of finding this preparation for reducing them to civilized life and to the Faith when the Most High may so will, for it is well know what it costs to induce other Indians to do this, and how much their conversion is impeded by their dislike for this labor, which is so necessary for a civilized life, especially in pueblos.*

Thus, the Fathers were pleased at finding a pueblo-like people who were already close to civilization as indicated by their farming practices.

About ninety years after Escalante’s journey, William Nye spent the winter of 1864 in the Pahranagat Valley in southeastern Nevada. In his chronicle, he described this yet unexplored valley as, “an Indian paradise” blessed with fertility and abundant water in an otherwise arid

region. Chief *Pah-Witchit* headed a community of some 200 individuals. The chief asked Nye, "What for you come to our country digging up stones? and your ponies eating up the grass in the valley, and next summer, perhaps, destroying our corn and melon patches." (Nye 1886:295). Nye observed that the Pahranagat Paiutes actually stored the corn they produced for the winter.

Another expedition headed by Lieut. George Wheeler for the United States government made similar observation about Paiute agriculture. In 1871, while traveling from the Owens Valley in California to southern Nevada, Wheeler arrived in Ash Meadows just north of Death Valley and thus entered the western boundary of Southern Paiute territory where he observed,

> *we found plenty of excellent grass and water, the latter from warm springs…I then moved southward and crossed a low range into another sandy and gravelly desert, (Pah-rimp Desert,) which extends south for miles, and skirts the Spring Mountain Range. This desert contains several beautiful little oases, the principal once being at Pah-rimp Springs, at which point are located quite a number of Pah-Ute Indians, very friendly and quite intelligent. These Indians raise corn, melons, and squashes. Great quantities of wild grapes were found around these springs* (Humphreys, 1872:84).

In the 1870s a few years after Wheeler passed though Southern Paiute lands, a U.S.G.S. expedition headed by Major J. W. Powell and G. W. Ingalls also found Paiute farmers. According to these observers "all Pai-Utes subsist in part by cultivating the soil" (Fowler, 1971:98); they commented on the well-developed regional sociopolitical organization and the High Chief system which was recognized by different Southern Paiute bands in the area. Powell and Ingalls also found a people who had extensive knowledge about their landscape, ranging from geography and botany to astronomy (as indicated in part by the vocabularies Powell collected). In his writings, Powell elegantly captured the nature and strength of the relationship between the Southern Paiutes and their homeland:

> *An Indian will never ask to what nation or tribe or body of people another Indian belongs to but to what land do you belong and how are you land named? Thus the very name of the Indian is his title deed to his home… His national pride and patriotism, his peace with other tribes, his home and livelihood for his family, all his interests, everything that is dear to him is associated with his country (Fowler and Fowler 1971:38).*

Powell even recorded a Paiute poem written about Paranagat Valley with the title "The Beautiful Valley (MS 831-c, in/ Fowler 1971:125). Like Powell, Nye (1886:194) was impressed with the poetic faculty of the Indian dwellers in this valley of the mountains.

By the early 1900s, however, anthropologists had adopted a position that defined all Great Basin and Western Colorado Plateau people as non-farmers and socially ranked among the simplest people on the planet (Stoffle 1982:110). Both A. L. Kroeber and J. Steward wrote of Paiutes and Shoshones as though they were simple, and quite frankly not very smart. They

perceived (or needed to perceive to make their theories work) the Numic people as dominated by their environment. In the *Handbook of the Indians of California* Kroeber (1925: 582-583) concluded that Great Basin Paiute culture is

(1) rude, too flexible to be elaborated,
(2) having monotonous simplicity,
(3) unintegrated into broad cultural patterns, and
(4) interesting only because of its poverty.

Kroeber further concluded that these people

(1) have a scant population,
(2) move to the dictates of the environment with makeshift subsistence,
(3) are intermittently idle, and
(4) have little occasion to use their imagination.

Such discounted perceptions of Numic peoples persisted in Steward's *Theory of Culture Change: the Methodology of Multilinear Evolution* (Steward, 1955) where he characterized them as having a family level of sociocultural integration – a position not supported by either his own data or that of his first Ph.D student, Omer Stewart (1980). According to Steward, Paiute people are like "living fossils," exemplifying what human society must have been tens of thousands of years in the past before the advent of agriculture, cities, and any of the cultural traits that defined civilization.

This textbook stereotype of savagery continues to be perpetuated by historians (e.g. Eliott 1987:30) and anthropologists. Lesley Poling-Kempes (Poling-Kempes 1997:69), for example, contributes to the useless evolutionary rhetoric and further confuses issues by inappropriately contrasting different Numic peoples in the recent book on the interethnic Indian community of Abiquiu in New Mexico, where she concludes that:

> Among Native American themselves, the weaker, less sophisticated tribes were preyed upon by the stronger. The Utes, Comanches, and Apaches, equipped with horses and advanced firearms, kept tribes like the Paiutes of Utah in perpetual terror and subjugation. The situation pushed the Paiutes, *who lived in earth dens and had no farming skills*, further into destitution—some tribes even began to sell their own children (emphasis added).

How and why Numic people moved from being relatively complex people (King 1976), knowing a lot about their environment and developing irrigated agriculture to some of the world's simplest people – who have been called the infamous *Digger Indians* -- is beyond the scope of this analysis. Nonetheless, we may suggest that the people's abject poverty at the time the first professional ethnographers reached them combined with lack of historical analysis needed to understand their economic and political deterioration, are two obvious causes for this devolution. Nonetheless, the discounting of Numic culture is something that has influenced generations of Great Basin and Western Colorado Plateau researchers. This influence effectively means to them, that if you find agriculture or evidence of complex ceremonialism, like a solar calendar, it has to be someone else's--it could not have been made by Numic people.

More generally among researchers today, Numic people are getting a second look (e.g., papers in Madsen 1994; Clemmer 1999). For example, David H. Thomas' research explicitly tested Steward's views of Western Shoshone organization with archaeological data (Thomas 1973). Thomas further interviewed linguist Sydney Lamb to see what he really meant to say about the Numic spread Thomas (1994:57). Kim Torgler's work in southeastern Idaho (1994) and David Whitley's (1994; 2000) work on rock art in the Coso Range are also good examples of new approaches to Numic prehistory and history.

3.3 Historic Memory

Humans can remember for long periods. They remember who they are and where they come from. They remember critical events like great floods and star bursts. They remember where they were created. If they move (or migrate) to a very different ecosystem they remember the move and the painful process of learning how to succeed in a new homeland. For example, Keith Basso's book *Wisdom Sits in Places* (Basso, 1996) documents how Western Apaches not only record stories, teachings, and events by attaching them to a landscape feature and giving it a meaningful name, but also how they order this knowledge chronologically, to preserve the history of changes in their interaction with the landscape, from the time they arrived to the White Mountains of Arizona to time they finally reached settled life.

Our colleagues in the Bureau of Applied Research in Anthropology at the University of Arizona remind us that oral history is much more than words. Emory Sekaquaptewa (a Hopi lawyer and tribal judge) says that for the Hopi oral history is behavioral performance tied to symbols, music, singing, and place; it is not about telling campfire stories to children but about teaching them how to organize their everyday life. James Greenberg (a Jewish anthropologist) says that Jewish history is encoded in ritual. Both agree with Keith Basso that "wisdom sites in places," indicating that performance and landscape often are closely connected. So, if a people remain in their creation lands they will continue to remember who they are, where they came from, and what has happened to them. If they move, they remember where they were and how they came to be where they are now (the Navajos' recent position regarding their Anasazi ancestry may be an exception to the above statement). The few examples we describe below document the strength of oral history.

The Welsh

The Welsh National Museum in Cardiff, Wales, displays the contemporary Welsh' view of their past. The Welsh trace their ethnic history back 250,000 years. Below one of the more recent portions of a chronological display is a case that describes in words, maps, and paintings an oral history event. About 4,000 years ago, the Welsh people specially quarried blue stones from southern Wales and transported them to a place we know today as Stonehenge, where ceremonies were held. According to this display, this well-known and documented Welsh oral account has been supported by archaeological evidence.

The Jewish

The history of the Jewish people is encoded and transmitted in ritual. For example, according to authoritative rabbis, the revolt of the Macabees is encoded in the rituals of Chanukah. The Passover meal commemorates with specific foods particular events. The enslavement the of the Jews in Egypt (3, 100 BP) and their exodus is symbolized by (1) bitter herbs representing the bitter treatment of the people, (2) saltwater representing their tears, (3) charoset meaning the mortar and bricks they used in constructing pyramids and cities, (4) hardboiled eggs indicating sacrifice, (5) the lamb shank representing the Passover by the angel of death, and (6) unleavened bread (matzo) symbolizing their rapid exodus from Egypt. Other ceremonies remember the building of the first temple (2, 850 BP), and the Babylonian captivity (2,586 BP). Although a portion of these events was recorded in writing, Jewish people maintain that these have been and will be remembered forever through the performance of the rituals.

The Cuba of Zaire

Another of our BARA colleagues, Mamadou Baro (a cultural anthropologist from West African), relates that the Cuba people of Zaire remember events occurred approximately 2,500 years ago, including the development of irrigation systems and the people who controlled them. Even today, Zaireans talk about this period as a positive example of how they had highly complex systems of social organization that compared favorably with those found elsewhere, including Europe.

The Aymara of Bolivia

Archaeologists Karen and Sergio Chavez (1998) involved the Aymara communities directly in the process of identifying, excavating, and preserving 2,000-year-old temples on the edge of Lake Titicaca. Once partners in the Yaya-Mama Religious Tradition Archaeology Project, members of the Aymara communities identified the location of the sacred sites and described what would be found during the excavation. After the excavation, the Aymara re-sanctified the temples and asked that they be left open so that traditional ceremonies could be practiced there.

The Mohegan Nation of Connecticut

Archaeologists working in partnership with the Mohegan Nation of Connecticut documented a cabin site that potentially would be impacted by a construction project. In 1997, tribal elders were able to identify the location of the site even though there was no surface indication of a structure. Furthermore, they remembered the name of the person who owned the cabin in 1690s, 300 years earlier. Subsequent archaeological excavation found the cabin and colonial land ownership documents verified the name of the Indian owner (Bendremer 1998).

Hopi Clan Migrations

The core area of contemporary Hopi lands was occupied by the *hotsinsa*, the Hopi term for their oldest ancestors, by AD 700 and the region was fully colonized by AD 1100 (Adams

1982; Gumerman 1989). Oral history indicates that contemporary Hopis have a memory of not only these earliest ancestors but also the clans who began to arrive at the Hopi Mesas about AD 1300 (Courlander 1987; James, 1990). These later clan movements coincided with the various population relocations that occurred after the Great Drought – AD 1263-1299 (Zedeño 1997). The latest of the clan migration episodes occurred during the Pueblo revolt of 1680 (Rushforth 1992; Whiteley 1888).

The Ojibwa of the Western Great Lakes

Over a period of more than 500 years ancestral Ojibwa bands migrated to the west from the ocean. Today, the Ojibwa people with whom we are currently working remember that they came from the salt ocean, that they moved along the Saint Lawrence Seaway, and that their spiritually guided migration ended at Madeline Island near Ashland, Wisconsin (Cleland, 1992). They remember where they stopped along this migration, and today are culturally attached to those places. They remember the people they replaced (who also remember being replaced by the Ojibwa), and see that replacement as a critical part of their history.

Our point is clear. If people worldwide, including American Indians, can remember historical events further back in time than the hypothesized Numic Spread into the Great Basin and Western Colorado Plateau, then why doesn't the Numu and their neighbors remember this colonization? If conventional theories are true, then the recent memory of a late arrival should remain alive in their oral history. By the same token, it is highly unlikely that the Numic people would forget their place of origin, were it from somewhere outside this area.

3.4 Southern Paiute Farming

Southern Paiutes did farm. When they learned to farm we do not know for certain, but they did farm very well (optimally) when the Europeans arrived. The question which merits detailed archaeological investigation is, how long did they have to farm to develop optimal irrigation systems? For example, the ancestors of contemporary Zuni (or the Ashiwi) experimented with their farming technology, especially the locations of fields and later flood water irrigation systems, for at least 500 years before the arrival of Europeans (Anyon 1983; Ferguson 1995; Ferguson 1985). So, the ancient Zuni required approximately five centuries to produce optimal water control and dispersal systems that permitted the establishment of a sustainable and fully sedentary population (Ferguson 1995:6). Once optimized, this system continued to be responsive to changes in climate and soils.

When the Europeans arrived the Southern Paiutes had optimal irrigation systems. Farming had been practiced along the Colorado River and the Colorado Plateau for several centuries. Sometime during this period, Southern Paiute developed optimal water dispersal and irrigation systems. The complexity of these systems suggests that they were developed over hundreds of years. The following case of aboriginal farming along the *Tonaquint* River (known today as the Santa Clara River) in southern Utah illustrates aspects of Paiute irrigated farming.

3.4.1 Southern Paiute Farming on the Santa Clara River

At the time of initial Mormon colonization, Southern Paiutes were farming all along the Tonaquint or Santa Clara River. Paiute people were using irrigation dams and ditches and were also farming on smaller irrigable benches on the upper creek and its tributaries, as well as at springs on the Santa Clara watershed.

3.4.2 Population and Irrigated Acreage

In 1852 the Mormon Elder John D. Lee wrote a letter to the editor of *Deseret News,* in which he reported having seen some 100 acres of land under cultivation by Southern Paiutes along the Santa Clara River:

> *The Santa Clara River is 1 rod wide and 20 inches pure, clear water-rich bottoms, though narrow, and heavily timbered for the distance of 30 miles. on this stream we saw about 100 acres of land that had been cultivated by the Pintes [sic] Indians, principally in corn and squashes; and judging from the stocks, the conclusion would be that heavy crops are and can be raised in these vallies. This tribe is numerous, and have quite an area of husbandry.*

In 1854 a party of Mormon colonists left Fort Harmony and explored the Virgin River downstream to the mouth of the Santa Clara River and then up the Santa Clara. This party reported that there was a village about one mile upstream from the confluence of the Santa Clara and Virgin rivers, and a large population center some six miles further upstream from the village. The Santa Clara Paiutes were farming extensively near this population center. The party also found smaller villages and associated agricultural fields dotted along the upper course of the Santa Clara River. So, before Mormons began colonizing the region, the local Indian population was diverting the flow of the river and using the water for crop irrigation at several places along the Santa Clara. The Mormons observed small fields—up to 10 acres each—all along the floodplains of the Santa Clara River. Each of these fields presumably was the farm of an individual family or group of closely related families. The diary of Thomas D. Brown states that,

> *There was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a green substance between the rows which we stooped and wished to pull out, till they told us it was part of their food. Some 10 acres are cultivated here, and as many or more at the settlement below this, indeed all along this river are small indian patches of 2 to 10 acres cultivated. and some of the missionaries have visited other portions of these bottoms and say there are many more small patches uncultivated (Brooks 1950:56-57).*

The logical inference is that Brown's mention of "uncultivated patches" is a reference to fields the Paiutes left fallow or allowed to revert to natural vegetation. This eyewitness account calls small fields "small Indian patches." So, "small patches uncultivated" presumably refers to old fields. The village near the mouth of the Santa Clara River was described by Brown: “... The

road this morning was on the west bench rolling and level bottoms of the Rio Virgin, on the Tornaquint we came to a fine lot of wheat nearly ripe. Still much fruit ‘ope'...”

> *This point viz. nearly at the mouth of the Santa Clara seems an old settlement, as there are many corn lots abandoned, for the same reason I had formerly supposed-the roots. This place seemed more comfortable to me, than any place we had come to. Crops living & many human beings, they were much afraid especially the Squaws and children (Brooks 1972:53). After supper, some of the party left their camp to visit another nearby village the Mormons called "Matuprenup's wickeup"-"...there we found some 8 or 10 men and 2 squaws only, and a 'nantsits'- female child-they were in great fear (sherreah) when we approached" (Brooks 1972:53-54). Here the Mormons were fed with wheat & seed flour porridge & berries" and also given "home made wine" in a "large spoon made of the horn of a mountain sheep that would hold about a pint," (Brooks 1950:55).*
>
> *.. Another female "pishamon' was drying the heads of green wheat in the ashes, this they had pulled while yet in the milk, they dried it sufficiently hard-the heads tied up in small bunches that when taken out of the husks they could rub the wheat from the husks and thus prepare it for grinding into flour... There appears many patches of good wheat land on this stream (Brooks 1950:55).*

The Mormon party appears to have been impressed with the density of the population as they traveled up the Santa Clara River and with the extent and quality of the Indian fields and crops. Eyewitness Mormon accounts from 1854 state that “about 7 miles up this river we found a Central point more extensively peopled & farmed the finest wheat I have seen in these vallies, and much farther forward than here or farther north” (Brooks 1972:68. Jacob Hamblin's diary also notes the extensiveness of Indian farming on the Santa Clara River: “we encampt on the St. a clara the 10. of June 1854 here the Pieds had quite extensive fields of wheet and corn [sic]” (Little 1969:20). The Mormons estimated that the central village on the Santa Clara River had a population of some 250 men, not counting women and children: “The next day the company camped near the present town of Santa Clara. Here they found a large camp of Indians, the men numbering about one hundred and seventyfive.... it was found, in a day or two, that there were two hundred and fifty men belonging to this Camp” (Bleak 1928:17-18)

Most of the women and children were hiding until the Indian people were sure the Euroamericans would not kidnap them and sell them as slaves. Altogether, the Mormons estimated that the villages in the Santa Clara area under the leadership of Chief Tutsigavits had a population of some 800 persons (Bleak 1928:17-18). The Mormon reconnaissance party also found farming settlements along the upper reaches of the Santa Clara River. At one of these villages the local leader Macooveooks reportedly pressed the Mormons to baptize his men. The Mormons obliged, baptizing eleven men. Near the village the Mormons saw an irrigated cornfield and a wickiup camp atop a “very high mountain,” beyond the access of man or beast (Brooks 1972:63-64).

In 1857, a Mormon traveler recorded that "Jackson, a chief of the Paiutes", met him on the upper Santa Clara River some fifteen miles above Fort Clara (Martineau 1858). Five miles up river his party met another band led by Chief Kahbeets. Kahbeets invited the travelers to camp near their village and the travelers purchased food: “Their chief, Kahbeets ... insisted on our stopping with them. We accordingly camped, the natives assisting in taking care of our animals, roasting corn for us and inviting us to help ourselves to their corn, some 5 acres of which stood close by” (Martineau 1858:27). Here again, Southern Paiutes were apparently producing enough food to offer some for sale to travelers. This reflects both entrepreneurship and horticultural production on a sufficient scale to leave a surplus after meeting their own needs.

The report of the 1852 Mormon reconnaissance shows that the party saw about one hundred acres of fields. Accounts from the 1854 colonization mission do not provide an overall estimate, but Brown's diary noted that the Indians of the Santa Clara "were busily employed cultivating the soil and were content only requiring some farming tools & instructions on the use of them, & some winter houses to make them for the present happier and still more content" (Brooks 1972:96). The Mormons saw only a portion of the fields cultivated by Southern Paiutes along the Santa Clara River. However, they saw enough acreage under cultivation to recognize to this community farmed on an extensive scale and with productive results. They recognized that aboriginal farming provided a solid economic base for the Southern Paiutes of the region.

3.4.3 Water Management for Irrigation and Flood Control

The Santa Clara Paiutes used dams and canals for irrigation and flood control before Euro-American colonization of the area. Eyewitness accounts document this early in the nineteenth century, and it is acknowledged by Mormon historians. An article by historian Andrew K. Larson notes "The first irrigation in Washington County was carried on by the Indians who lived here before the advent of the Whites" (Larson 1950:36).

A letter by Richard Robinson, member of the 1854 missionary party, records that the Indian people of the Santa Clara River had dams: “They make dams and have water sects, which they make with sticks, which are formed something like a canoe paddle” (Robinson, quoted in Brooks 1950:29)

Members of the 1854 Mormon party were taken to see a large dam and irrigation works constructed by the Indian people of the Santa Clara River near the main center of population. Thomas D. Brown recorded in his diary that after a meeting with about forty Indian people, most of the Mormon party accompanied chief *Tsatsegoup* to see the improvements made on the Indian irrigation ditches. They saw a dam across the Santa Clara that was “3 rods” or 48 feet long, feeding into an irrigation canal about three-fourths of a mile long. This canal cut as deep as ten feet at some points along the grade and was constructed with aboriginal hand tools. Brown apparently included a sketch in his diary, illustrated in Brooks (1972:57):

> *1 being the banks of the river, 2 the dam and 3 the course of water, from 2a, a water ditch or irregating canal runs for 3/4 of a mile, round the base of rocky mountain in some places cut & worn from 6 to 10 feet deep, all this accomplished with their hands and small sticks, no other implements being among them. There*

was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a green substance between the rows which we stopped and wished to pull out, till they told us it was part of their food.

Jacob Hamblin recorded in his diary that in June 1854, during the first few weeks of the Mormon colonists' presence on the Santa Clara River, an Indian dam near the main Santa Clara settlement broke and that he helped repair it: “the next Day thare dam brock away. I helpt them repare it [sic]” (Little 1969:22 674). It is interesting to note that eighteen years earlier, Jedediah Smith saw an Indian dam on the Santa Clara River about one mile above its mouth. He also saw a flume constructed from a tree trunk (Brooks 1977:59-60).

Elder George A. Smith visited the Santa Clara River in 1857. He reported there were thirteen Indian dams across the stream above the Santa Clara Fort (Smith, 1977). Smith criticized traditional Indian irrigation practices as wasteful of water. However, his criticism serves to document the large effort the Indian people put into constructing their irrigation works. It also documents the extensive use they made of the river's water for irrigation. Smith (1977:1) said that, “they irrigated the land by just simply turning on the water, and letting it run to great excess, washing and wasting a great deal of soil ....” Smith went on to note that the colonists at Fort Santa Clara were teaching the Indian people "to irrigate in a way to avoid the waste of water occasioned by irrigating in their slovenly manner" (Smith 1977:1). It is possible that Smith and other Mormons overlooked the importance of irrigation water for plant species other than domesticated field crops. The Mormon party saw irrigation works on the upper watershed at the village of Macooveooks. They also saw an irrigation canal roughly half a mile in length on the Virgin River at the village of Chief Toker (Brooks 1977:63-67).

The Mormons noted there were many beaver dams along the Santa Clara River. The coexistence of beaver dams and Southern Paiute farming along the lower Santa Clara River suggests that the Santa Clara Southern Paiutes let beavers perform some portions of the dam construction and maintenance in the Indian water management system. As Mormons colonized the Santa Clara, they eliminated the beavers, their dams, and their labor. Juanita Brooks notes that at the time the wife of Thales Haskell was shot by a young Indian man, Haskell was "away up the creek taking out beaver dams" (Brooks 1950:154). Elimination of the flood control provided by beaver dams was probably one of the causes of the series of disastrous floods that swept away much of the rich bottomland after Mormon colonization began. In any case, the close association of Indian farms and beaver dams suggests that the presence of beaver dams was an intentional part of aboriginal water management strategy. This association is suggested in the eyewitness observation of Thomas D. Brown: “There appears many patches of good wheat land on this stream, across which Beaver dams are built every few rods, & the banks being low, the water overflows much & renders the bottoms good grazing patches” (Brooks 1972:55).

Wild plant species formed an important part of the Southern Paiute diet. Water management that spread the flow of the river and retained the topsoil optimized growing conditions for desirable wild plant species as well as for domesticated crops. Within the Southern Paiute subsistence strategy, planting and irrigation of domesticated plants (including maize, beans, squash, amaranth, and chenopods) shaded into irrigation of undomesticated plants growing wild in the cultivated fields (including *Mentzelia*). Irrigation of wild plants in the

cultivated fields in turn shaded into irrigation of stands of wild plants (berries, wild seed grains, greens) as a result of dams across the river.

Most of the Southern Paiute fields along the Santa Clara River were irrigated by stream diversion into primary canals and field laterals. Southern Paiutes adapted their irrigation technology to a variety of environmental conditions in their diverse habitat. The Santa Clara River was small enough that Southern Paiutes could successfully dam it and divert its waters. At peak flow, the Santa Clara River sometimes damaged the Southern Paiutes' dams, but they repaired them or built new ones. As noted above, Hamblin watched the Indians repair a dam in 1854 (Little 1969:22).

On the Colorado River the volume of flow was too large to permit Native American diversion. Instead, Southern Paiutes cultivated some of the sandbars after the spring season floods (Laird 1976:23; Powell 1957:103; Euler 1966:81; Brooks 1977). Additionally, springs were used for inland irrigation. Spring flows are physically easier to divert and manage. Southern Paiutes diverted water from many springs throughout their territory to irrigate crops (Lyle 1872:84-5, 90; Lockwood 1872:75). At Crystal Spring at the head of Pahranagat Creek, a Southern Paiute irrigation canal eight feet wide and six feet deep ran for several miles (Angel 1881:186). In 1864 Nye observed an Indian farming village a few miles to the south, where the Southern Paiutes kept patches of melon and corn on land irrigated by snow melt streams (Nye 1886:295).

Documentation of irrigation by Indian farmers by the earliest Euro-American travelers clearly shows that Southern Paiutes used Santa Clara water for agricultural irrigation long before Euro-American colonization of the Santa Clara region began. Accounts of the early travelers also document that Southern Paiutes were expanding their cultivation before colonization. This shows their ability to adapt their farming operations to the demands of trade and commerce.

In 1848, Mexico ceded its northern territories (a region that included the Santa Clara watershed) to the United States by the Treaty of Guadalupe Hidalgo. Some of the travelers whose reports we have cited traversed Southern Paiute territory as early as 1776 and 1826, long before the Mexican Cession. Others saw pre-conquest Southern Paiute agricultural use of Santa Clara waters in the year 1848 before the signing of the treaty by Mexican and United States representatives. Thus, when the United States gained nominal jurisdiction over the Santa Clara basin in 1848, the Southern Paiute--inhabitants already had rights (under the terms of the Treaty of Guadalupe-Hidalgo) to continue diverting Santa Clara water with a legal priority date "from time immemorial." Other travelers traversed the Santa Clara from 1849 to 1854, before Euro-American colonization of the Santa Clara began, and during the earliest phase of Mormon colonization. All of the cited travelers described Southern Paiute use of Santa Clara river water for indigenous agriculture. Southern Paiutes continued to farm along the Santa Clara in the following decades, though the scale of their farming operations was curtailed by Euro-American encroachment. Colonists who displaced Indian farmers took advantage of the prepared fields in prime agricultural land, thus obliterating evidence of aboriginal cultivation.

3.5 Ethnic Frontiers: The Paiute are Hopi and The Hualapai are Paiute

In a classic analysis of ethnic groups and boundaries Frederick Barth (1969) noted that, while many ethnic groups in the world have clear boundaries, many others do not. Barth went on to describe what we call "ethnic co-residence" or the practice by distinct ethnic groups of sharing territory, resources, and communities. Such co-residential locations can be found deep within each group's territory as well as along the boundary itself. While exclusive rights to, and enforcement of, ethnic-specific land and resource use may have existed among these groups, such rights were generally exercised over specific localities and unequally distributed resources rather than over a continuously bounded space (Zedeño 1997:71). These co-residential patterns were far more common in aboriginal North America—both among mobile and sedentary groups—than is usually acknowledged (Sutton 1985).

American Indian ethnic co-residence is increasingly being recognized by archaeologists, ethnohistorians, and historical linguists (e.g Cameron 1995; Reid 1997; Shaul 1998). A recently revisited case is that of the late prehistoric Hohokam in southern Arizona. The traditional thinking of the Hohokam as a homogeneous, distinctive desert people (Haury 1976) has given way to a far more complex view of this society as multi-ethnic; this view is supported by archaeological remains (Elson 1998); ethnohistoric documents (Zedeno 1996a), and historical linguistics (Shaul 1998). It, too, accords well with contemporary views held by the O'odham tribes (Pima and Papago) and by two Western Pueblos (Zuni and Hopi) who were consulted by the NPS regarding their cultural affiliation to Hohokam remains (Zedeño 1996b). This is only one example of research that formulates historically, linguistically, and ethnographically informed hypotheses and arrives at equally informed archaeological interpretations. Such research efforts have been cited recently by archaeologists who are beginning to doubt the currency of overly conservative approaches to reconstructing the American Indian past (Goldstein 1998; Kelly 1998).

One of the most important implications of new research involving American Indians revolves around how archaeologists conceptualize and measure diversity. We propose, based on mainstream Western scientific perspective of Southern Paiute prehistory, that views favoring homogeneity over broad cultural areas are held when there is insufficient knowledge of an area or a people. As more detailed research is conducted and scientists build interdisciplinary and cultural bridges, a far more complex, rich, and diverse picture of a people's past emerges. This is an obvious observation that nonetheless must be made explicit to better understand the deficiencies and misconceptions that have plagued Western notions of Southern Paiute culture and society.

As stated earlier, depictions of Southern Paiutes have been heavily influenced by evolutionary culture area generalizations that lumped them with other Numic groups, thus masking their historically specific developments while delaying a study of co-residential interactions. Although inter-ethnic interactions probably were common to all Numic groups, these were particularly intense among Southern Paiutes living side-by-side with other ethnic groups, including the Hopi and the Hualapai. Furthermore, their proximity and traditional attachment to the Colorado River and its upper canyons likely placed them into contact with people from as far as New Mexico and California, who customarily made pilgrimages to the

river shrines and collected resources along its banks. The extent to which co-residence and long-distance interaction among ethnic groups led to specific cultural developments remains to be fully investigated. Here we mention only two obvious connections that are known both scientifically and traditionally.

3.5.1 Hopi and Paiute Connections

Historical linguistics have long demonstrated that the Southern Paiute and Hopi ancestral language derived from the Uto-Aztecan Shoshoshonean families—they both spoke mutually intelligible language or even the same language (Sapir 1930). This evidence is supported by oral traditions indicating that the first Hopi clans to arrive to the Hopi Mesas in Arizona, the Snake Clan and Horn Clan, came from the north and west, most probably from the upper Colorado River area (Courlander 1987; Fewkes 1897; James 1990). Additionally Paiute and Hopi share almost identical clan origin stories and particularly snake creation stories.

A careful examination of the Basketmaker III – Pueblo I prehistoric occupations in Black Mesa (Powell 1983; Gumerman 1989) may reveal that these small, semi-sedentary family groups lived under conditions resembling Southern Paiute settlement systems far more closely than those developing at the same time in the eastern Pueblo area. Research along the Moapa and Virgin Rivers (Lyneis 1996) and in Nye County, Nevada, (Winslow 1996) also indicates that the westernmost Pueblo ancestors and the Paiute-Shoshone ancestors interacted with each other. One piece of evidence for this interaction is the fairly common occurrence of Pueblo I-Pueblo II Tusayan Whiteware (Black Mesa Black-on-white) and Tusayan Grayware pottery in southern Numic sites. These are just examples of connections between Hopi and Southern Paiute groups along their territorial boundary. Given that both ancestral groups were relatively mobile, it is likely that they shared territory and resources. We have confirmed that this interaction occurred in the Grand Canyon (Stoffle 1994 94).

3.5.2 Hualapai and Paiute Connections

Hualapai-Paiute connections are much less known, reflecting perhaps the tendency to assign them into different culture areas. Intuitively, such classification makes sense: they do not speak mutually intelligible languages--Yuman and Numic; their territories are separated by a major river which, according to Kroeber's territorial model, should serve as a clear and sharp ethnic boundary; and they have not always been at peace with one another. Yet, these people are tied together in unique ways.

One way these two ethnic groups are connected is via the trail to the afterlife or Salt Song Trail. This trail is associated with a set of songs called the Salt Songs that are specifically related to places along the trail. The trail to the afterlife passes across both sides of the Colorado River and covers most of Southern Paiute and Hualapai traditional territory (Kelly nd; Laird 1976). The significance of this connection may relate to sociopolitical needs to integrate both groups under the shared knowledge that this is the path to the afterlife.

During a recent ethnographic study we conducted along the Hoover Dam area in Nevada and Arizona, Hualapai and Southern Paiute elders spoke of their traditional interaction, which

included the sharing of bird, salt, deer, and water songs; dances; ceremonial and social gathering places; paint, salt, and plant collection areas long the Colorado river; and fishing areas. Hunting along the territorial boundaries often took people into each other's territory; large hunting parties often were composed of Paiute and Hualapai hunters. Additionally, Southern Paiute important ceremonial sites, such as Gypsum Cave and the hot springs in Gold Strike Canyon, Nevada, and Hualapai sites, including Sugarloaf Mountain and nearby sources of medicine stones and crystals, Arizona, were shared by both ethnic groups (Stoffle, 1998b:57-81).

To summarize, scientific sources and traditional American Indian views of the past point to diverse cultural developments among Southern Paiutes that may have resulted in part from ethnic interaction and co-residence with other Numic and non-Numic groups. It is possible that contemporary Southern Paiutes have as diverse an ethnic ancestry as contemporary Hopis do; so to ignore the possibility that such variation existed among Numu people in the Great Basin is as misleading as asserting that all Anasazi people in the Colorado Plateau were culturally and socially homogeneous.

A line of further research on the origin of Numu people could involve taking their traditional views of ethnic connections as a point of departure for investigating the extent to which these contributed to the generation of cultural and ethnic diversity in the southern Great Basin and Western Colorado Plateau areas.

3.6.1 Recapturing Numic Knowledge

Now we would like to present a brief example of how contemporary knowledge about a people's traditional homeland may be incorporated into archaeological interpretation. This unconventional conclusion to an admittedly unconventional argument attempts to bring together a few points made throughout the paper.

3.6.1 Gypsum Cave

Caves are places of power. They reside in mountains, which have their own power and relate to a cave's power in unknown ways. Also in caves are spirits often referred to in English as "the little people." Associated with caves are underground and surface streams, mineral deposits, hot springs, plants, and animals. Each of these resources influenced how caves were used and, in turn, their location in relation to a cave dictated the ways in which resources were used. Caves served a vital role in the quest for knowledge by shamans or medicine men because they were seen as the embodiment of an individual's spiritual entity as well as the home of lesser spiritual beings. Thus they were used to seek visions, find spirit guides, and acquire healing power and shamanistic songs (Kelly nd; Laird 1976:38).

Prior to using caves and other sacred places, medicine men would undergo purification rituals, including fasting and prayer, to prepare body and spirit and ensure a safe and successful quest. These rituals often occurred at hot springs, such as those on the Colorado River below Hoover Dam. Before entering caves or other spiritual locations, shamans would deposit food, tobacco, feathers, and other items as offerings to the spirits (Laird 1976:38). One of the most

important caves in our study area is Gypsum Cave, known to have been used up to the early twentieth century by Paiute medicine men who sought shamanistic dreams (Kelly 1939:161).

Gypsum Cave is located in the Frenchman Mountains near Lake Mead, Nevada. It contains evidence of human occupation possibly as early as 6,000 BC. In the early 1930s M. R. Harrington conducted extensive excavations in the cave. Among the materials recovered by Harrington were abundant plant remains—including corn, four cultivated beans, possible squash seeds, a small reddish cactus, mesquite and screwbean pods, pinenuts, and catclaw seeds—, eagle, hawk, and vulture feather fragments, groundstone, a sheep horn spoon, a sheep hoof rattle, two tortoise shell bowls, and projectile points (Harrington 1933:89, 150-1). Of all these, Harrington (1933:163)considered only the projectile points, corn, and prepared seeds as possible diagnostics of Southern Paiute occupation of Gypsum Cave. Local informants told Harrington that there was a large "lost chamber" toward the back of the cave. Paiute medicine men were said to have visited this room for the purpose of depositing offerings to small, three feet high spiritual beings (Harrington 1933:325), which are still regarded by contemporary Paiutes and Hualapais as the little people who inhabit canyons and caves (Stoffle et al. 1998). Unfortunately, he was unable to locate the lost chamber (Harrington 1931; 1933). Harrington concluded that Paiutes visited the cave rarely and only to deposit offerings to the spirits. Yet, he interpreted the plant remains as evidence of food preparation and consumption inside the cave, and the presence of points as indicating hunting and related activities.

Harrington's lack of integration of ethnographic data into his interpretation of the findings at Gypsum Cave is puzzling, given that archaeologists of his time routinely used the direct historical approach to reconstruct prehistoric site and artifact uses (O'Brien, 1999 681). Yet, his work is indicative of more general patterns in the interpretation of Southern Paiute archaeology that have survived to this day. A cursory look at classic and contemporary ethnography (e.g./ Kelly nd; Laird 1976; Stoffle 1996; 1998b; Zedeño 1999) provide a more complete and parsimonious explanation for the presence of these remains at the cave than Harrington's original interpretation.

First, as Kelly (nd) and Laird (1976:38) have pointed out and contemporary elders confirmed (Stoffle 1998b), many everyday objects, such as points and foodstuffs, were often used ceremonially and deposited in caves, rock ledges, and crevices as offerings. The presence of edible plants in the cave may indeed indicate not only food preparation and consumption as Harrington suggests, but also an activity that required depositing ceremonial offerings, particularly if whole foods –seed cakes—were found. This observation is further strengthened by the recovery of eagle and hawk feathers, which have been exhaustively documented as ceremonial items among Paiutes and Hualapais.

Second, artifacts made of animal parts are likewise associated with origin stories and ceremonial healing among Paiutes and Hualapais. Bighorn sheep figures prominently in Hualapai origin stories; according to a female elder, Sheep was once a handsome man—the horns are now the braids of that man. Sheep horns and other parts have a sexual connotation for women that derive from this origin story. A Paiute male from Pahrump, Nevada, also described to us the religious connotations of bighorn sheep. This animal carries songs and knowledge; when visiting spirit caves, medicine men would become possessed by the spirit of a mountain

sheep and would travel to places and receive songs and healing power (Stoffle et al. 1998:82). A petroglyph at the Nevada Test Site shows a medicine man becoming a bighorn sheep and going on a spiritual journey. The sheep horn spoon and hoof rattle are ritual paraphernalia used only by medicine men; the rattle's noise would chase away evil spirits and the spoon figures in healing stories, such as the following related by a Chemehuevi Paiute elder:

> *How the Crow became Black*. Coyote's nephew, Crow, became very ill. Coyote went to the medicine man, Duck, who agreed to heal Crow. Coyote was instructed to paint Crow black and he would be healed. In return for his help, Duck was paid by Coyote with the gift of a sheep horn spoon. After being painted black, Crow was healed and remains black today.

According to contemporary Southern Paiute males, other modified animal remains, such as the tortoise shell bowls recovered in the upper levels of Gypsum Cave, also have ceremonial uses. Two elders independently suggested to us that these artifacts were used for mixing medicinal drinks or potions. The bottom of the tortoise shell was ground into a powder and mixed as a drink, which has healing properties and prevented thirst (Stoffle et al. 1998:84).

And third, nine manos were recovered at the cave, none of which resemble Pueblo or Paiute manos from habitation sites in the nearby Moapa Valley. These manos show no evidence of extensive use and may not be associated with food processing. Similar manos have been recorded at the Nevada Test Site near rock art sites and are believed to be associated with pigment processing (Stoffle 1996). It is possible that those recovered at Gypsum Cave may have served a similar function. Alternatively, "manos" made of smooth, flat cobbles could have been used as medicine and sweat stones, as indicated by a Shivwits Paiute medicine man (Stoffle, 1998b).

This brief example illustrates how archaeological interpretation can be refined when the knowledge of the people whose ancestors one studies are carefully taken into consideration. In the case of Gypsum Cave, it is evident that contemporary Indian people hold in their historic memory specific information not only about the uses of caves in general or this cave in particular, but of individual artifacts, even though they are not able to use this site or the artifacts any longer. Furthermore, many details about rituals associated with Gypsum Cave are consistent with those provided two generations ago to Isabel Kelly, Carobeth Laird, and even M. R. Harrington. Throughout the years we have recorded numerous instances of consistently held memories of traditional behaviors and historical events.

A logical next step in the reanalysis of Gypsum Cave, thus, would be to ask from the archaeological record, how old are these artifacts, these occupational deposits, and this site? What other information about ritual behavior can we find in this site that the original excavator did not find or discuss? Broadening these questions may involve a reexamination of what is currently known about nearby caves, such as Pintwater Cave, in Nellis Air Force Base or Tippipah Cave, in the Nevada Test Site.

Gypsum Cave also informs us about agricultural products that, according to Harrington, may be either Pueblo or Southern Paiute. Given our earlier discussion on aboriginal farming, a

reanalysis of the contexts where these remains were found would help test whether they are associated with objects identified as Southern Paiute *by Southern Paiutes*. If so, dating of these remains would support, albeit indirectly, the antiquity of these peoples' farming practices.

A less obvious—at least from what we currently know about the cave's archaeology—but equally important question about the site history is, how many ethnic groups actually used this cave? Hualapai elders say this was a site their ancestors shared with the Paiutes. Harrington suggests that it could have been used by the neighboring Pueblos. Perhaps the Western Shoshone bands, whose territory bounded with the Southern Paiutes' to the west and who shared camp locales and resource-gathering areas with their neighbors (e.g., Steward 1938:95), also visited the cave. Elder Shoshone men have recently spoken of shamanistic cave uses in the Yucca Mountain area (Zedeno 1999). Finding even partial answers to this and other questions raised by ethnohistoric and ethnographic information may begin to illuminate not only the nature of inter-ethnic relationships along the Great Basin-Colorado Plateau boundary, but more detailed information about the origin and antiquity of Numu people.

3.7 Conclusions

Contemporary Southern Paiute people indicate that their ancestors have always dwelt in the traditional homelands of the Great Basin and the western Colorado Plateau which includes the Arizona Strip. Furthermore, Paiutes recognize that their relationships to these places are based upon integrated holistic perspectives. While geographical space studies have done much to advance understandings of the Arizona Strip, there is a need for place studies that fully consider the dynamic, multifaceted and embodied relationships that people establish with places. Numic people have always understood that places are simultaneously socially produced and socially producing. This dialectical and dynamic relationship must be incorporated into social science methodologies that seek to develop more accurate interpretations of lived cultural landscapes. In this chapter we have begun to set forth some of the key concepts associated with place and historic memory as a means of moving towards this goal. Future studies that continue to use collaboration with Numic people as a foundational tenet will ensure the development of such scholarship.

Chapter Four
Site-by-Site Analysis

by
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This chapter presents an analysis of the sites visited during the 2003-2004 fieldwork for the Arizona Strip Cultural Landscape and Place Name Study. Sites were chosen by UofA ethnographers and the BLM Native American coordinator Gloria Benson-Bullets based on the cultural and natural resources present at these sites. It is important to note that American Indian identification and cultural importance at some sites extend beyond the archaeological evidence and assigned site numbers. A more holistic interpretation draws on for both physical and spiritual components to account for the importance of sites. This holistic interpretation broadens the understanding of the area that once contained seemingly small and unrelated sites to a series of connected places.

The chapter is organized by sites visited during this study. The sites begin in the western half of the Arizona Strip (the Mount Dellenbaugh area) and extend across the Arizona Strip to the eastern section (the House Rock Valley area). Each site is introduced with a short description of the site location, followed by geological and biological information, reasons for visiting the site, comments by the elders, a brief ethnographic analysis, and recommendations by the elders concerning site management.

The botanical, zoological, and geological information provided in the following site descriptions are not designed to be authoritative summaries. The information that is provided is designed to orient the reader in regards to the area's location, general ecology, and geology. However, it must be noted that plants, animals, and minerals have significant roles in the lives of Southern Paiute people. For example, plants are not only sources of food but are sources of medicine and power (*puha*). It would be difficult to understand a place without discussing the plants that grow there. Plants are viewed as sentient beings with their own agency, independently seeking their own places to live that suit their own interests. For example, medicine plants especially seek places where other forms of medicinal puha are already concentrated. In general, the story of each place and its location is part of the Southern Paiute interpretation of any locale. There have been many studies conducted with Southern Paiute people that discuss plants and their uses (American Indian Writers Subgroup 1996; Stoffle et al. 1997). The fullest listing of

Southern Paiute plants from one area involves more than 375 plants (American Indian Writers Subgroup 1996). Past studies have shown that the cultural centrality of plants can be numerically calculated (Stoffle et al. 1999) and other studies have shown that plant knowledge is unevenly distributed and may require up to sixteen interviews per plant for this knowledge domain to be fully understood.

During the site interviews, Southern Paiute elders identified numerous types of animals that would live in these places. Some of these animals physically inhabit the area while others also spiritually inhabit an area. Animals who are spirit helpers combine their puha with that of an individual to achieve a common good. For example, the mountain sheep is a spirit helper for rain shamans. In addition, snakes, for Uto-Aztecan speakers such as the Southern Paiute are associated with water and rainmaking. Rattlesnakes are considered guardian spirits of sacred areas (Stoffle et al. 2004b).

Rocks and minerals are essential to Native American lifeways. Rocks and minerals have varying degrees of power and importance. For example, mythic beings from the time of creation are believed to be found in self-voiced protuberances or hoodoos located throughout the landscape. These freestanding beings are important to story telling, ceremony, and songs. Rocks and minerals also have medicinal and healing properties. Some stones with smooth surfaces are doctoring rocks used in curing ceremonies. Minerals such as crystals and radioactive materials have to be handled properly by medicine men lest they cause harm. Some minerals, such as red hematite (*ompi*) are considered powerful. This mineral is used by religious specialists to make pictographs or to protect individuals. Ompi was used by the elders to ensure protection for the visitors at a number of sites visited during this study. Other culturally significant geological features include basaltic flows and cinder cones, which are sources of power and the rebirth of the Earth.

Figure 4.1 BLM Representative with a UofA Ethnographer

In addition to the biological and geological information and comments on the sites' uses and meanings, the elders also provided their opinions and suggestions for management strategies. The individual site evaluations and recommendations concern what kinds of information about the site should be shared with the general public, what kinds of behaviors are appropriate at and near a site, and what can be done to enhance the site. This is a draft report; therefore, the recommendations have not been reviewed by tribal councils and thus remain personal opinions. Additionally, these recommendations have not been edited by the authors of this report and may consequently represent multiple and even conflicting management strategies.

4.1 Twin Point

Location

Twin Point is part of the Shivwits Plateau, which is the western most portion of the Arizona Strip. It lies above the lower section of the Colorado Plateau. This site is located approximately fifteen miles southwest of Mount Dellenbaugh.

Geology

Most of the surface rock has eroded down to the top layer of the Kaibab limestone formation. This represents an erosional rate of less than 21 meters per one million years. The limestone formation dates to approximately 250 million years ago thus it is part of the Permian period. A striking feature of Kaibab limestone is its bluff-color and sandy texture.

Another important feature of Twin Point and the Shivwits Plateau is the basaltic flows that are predominant throughout the western Arizona Strip. The flow that helped build Twin Point is now surrounded on three sides by the Grand Canyon. The lava flow can be dated back to seven to six million years ago (Smiley et al. 1984: 278-282).

Life Zone

Twin Point is situated at an elevation of approximately 6000 feet, which makes it a transition zone between the cooler high plateau life zone and the warmer desert life zones below. Like much the Arizona Strip, Twin Point is part of the Great Basin eco-region due to its diverse animal and plant communities that are abundant throughout the Great Basin (World Wild Life Fund 2004).

Plants

Numerous culturally significant plants were identified on the site both through interviews with elders and identification from photographs using a number of regional ethnobotanies and plant guides (American Indian Writers Subgroup 1996; Rhode 2002; Stoffle et al. 1997).

Single Leaf Piñon Pine	*Pinus monophylla*
Indian Tea	*Ephedra viridis*
Utah Agave	*Agave utahensis var. utahensis*

Globe Mallow	*Sphaeralcea ambigua*
Indian Paint Brush	*Castilleja sp.*
Stansbury Cliffrose	*Purshia stansburiana*
Banana Yucca	*Yucca Baccata*
Indian Spinach	*Stanleya pinnata*
Wild Mustard	*Streptanthella longirostris*

Figure 4.2 Grand Canyon Overlook Interview at Twin Point

Animals

Southern Paiute representatives identified animals that inhabit this site. Only some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Mule Deer	*Odocoileus hemionus*
Cottontail Rabbit	*Sylvilagus audubonii*
Big Horn Mountain Sheep	*Ovis canadensis*
Ground hog	*Thomomys sp.*
Jackrabbit	*Lepus californicus*
Blue birds	*Sialia* sp.
Squirrels	*Spermophilus* sp.
Rodents	*Neotoma* sp.
Porcupines	*Erethizon dorsatum*
Coyotes	*Canis latrans*
Chipmunks	*Eutamias* sp.
Chuckwalla	*Sauromalus obesus*
Mourning Doves	*Columbidae* sp.
Wild Turkeys	*Meleagris gallopavo*
Red Tail Hawks	*Buteo jamaicensis*

Special Features

Southern Paiute elders and the UofA team visited Twin Point for two reasons. First, this site contains numerous culturally significant resources. Indian people identified numerous use plants that are important to Paiute people. Also, found at this site are numerous important artifacts that were discussed as important to Indian people. Secondly, the Indian people who visited this site deemed it aesthetically pleasing.

Native American Comments

Would Indian people have used this area and for what?

- *It was a place to have ceremonies and communicate with spiritual beings.*

- *It may be not a* (territorial) *marker but maybe the river itself might be like an unspoken territory mark, but I don't think it made that much difference.*

- *People would come this place just to pray…it makes you want to.*

- *Some people came to gather pine nuts or roots.*

- *Indian people would have used this place to remember how vast and complex the earth is. Somebody had to make this….something inside there you can get here.*

- *To me, we didn't live just any old where, we were guided by the Creator on where to live and where to go to; We were told that by him.*

- *Everything revolves around the Creator*

Is this place part of a series of connected places and why?

- *They had to have some way to get down to the bottom (of the canyon)…trails*

- *Maybe they had a trail that went down through there at one time, you know as years went by it just kinda washed away because nobody used it.*

- (What kinds of other places might this place be connected with and where are they?) *Colorado River, legends (trail crossings)*

- *Trails down into the canyon…springs, plants, food.*

- (This place is connected to) *people across the river, down here is where some of my family went across the water, got married over there and never came back. Got relations over there.*

- *And to think our ancestors came down through here to go down towards the Hualapai country to do their dances and their doings that they had. They had to come…they didn't have any cars so they came by horses or by foot coming across and they go down on their way in. That's what I was thinking standing there, our ancestors once did that.*

- *The whole North Rim was used for travel long before white people.*

- *This is an ideal place to get down into the canyon…all those washes that go down to it.*

- *Paiutes moved around a lot, the people probably visited places like Kaibab and traveled to the canyon and special sites like pine nut gathering.*

- *Looking down into the canyon…looking at how amazing that the old Indians used to climb down.*

Did Indian people use the water source at this site?

- *My dad used to tell me that even though it looks all dry now, there used to be water sources and the Indians knew that. They knew where the water sources were before they dried up.*

- *Got water close by and fish…place to associate with different bands and tribes. Might have had a big ceremony all together…like a gathering place for trade along both down there and up here.*

- *You need water for survival; spring might have run in the past.*

- *The river itself is very powerful.*

- *When you first go down (the river), it has a spiritual feeling. You want to thank god for what was created.*

Did Indian people use the plant resources at this site?

- *Yant* (Utah Agave)*…lot of those around here…gotta have fire pits for those. This one right here is Uusi…they got those yellow fruits on it and they're sweet. They make soaps out of that…use the bottom for the soap. And after you beat it up, what's that do...string for your rope that's the strings that's hanging down after you beat it up. They got three uses…they use the plant to eat…the fruit on there, they use the stalk for a fire starter…your match, they use the bottom…those for your soap…they use that…after you beat it up, it's pliable to make rope out of it.*

- *Lots of agave*

- *Pine nut picking…got ceremonies for those, offerings.*

- *Piñon pines are a staple food source. It was kept as a mainstay over long winters.*

Did Indian people use the animal resources at this site?

- *They got all these arrowheads in here…get your deer meat.*

- (Animals were used) *for food. You always used them for your clothing, your tools when you make arrowheads. My dad used to make arrowheads…used to use deer antlers to chip with. You can make shoes out of the deer. I'm not sure what they used mountain sheep for. But I know in my tribe that Mountain Sheep was important because he was like when the people on the mountain…when animals used to talk, Mountain Sheep was like the leader of the tribe.* (He was the leader of Moapa?) *Uh huh.*

- *When you look straight down and you think, 'How did they survive?' I think the animals, the deer and the mountain sheep showed them the way down into the valley. Speak to each other you know.*

- *We did see bluebirds…the bluebird to me are special because that was my dad's animal…spirit helper.*

Did Indian people use the archaeology at this site?

- *Chips and stuff showed that they lived here; they had to know where to get the water. They knew that food was here.*

Indian Aesthetics?

- (The Canyon System) *It makes me feel real small. It reminds me that you know…I don't control the earth, the earth more or less controls use. If you allow it…if you don't take care of it then it can stop providing for you.*

- *We were thinking about doing some classes on my rez about being Indian. I think if you bring them over here and show them the vastness…you kinda show them if you can find some archaeological sites and show them the food and tell them what they were for…what these things were used for…and yeah you can teach people…like the kids…the youth and stuff…it's like to me, they don't know where they come from anymore.*

- *I think it's beautiful…my god…just overwhelming.*

- *I think it's really nice because I come from down in the desert. I mean even the trees…kinda like the enclosure of the trees around… yeah its really different. Even the animals like blue birds and jack rabbits that we've seen up here, those were, actually to me were made me glad that I actually came on this trip, 'cause you don't see those at home all that much. You don't see nothing. All you see are cars. Cars and freeway and smog…and white guys from Nevada power.*

- *There's everything here that you haven't seen and it's really really nice. I'm glad were out here learning about these plants. Seeing all the beings out there and its mellow.*

- *I think the view is just awesome. It's breath taking. I haven't seen anything like this before.*

Figure 4.3 Southern Paiute Elders at Twin Point

Ethnographic Comments

Twin Point was probably an important gathering area for Southern Paiutes. Found along the rim of the canyon are numerous agave roasting pits. Indian people discussed with the UofA team that it was common to gather agave near the edge of the Grand Canyon and that agave was often prepared near the area it was collected. There is a strong possibility that this site is connected to the Willow Gathering site, which is located northeast of Twin Point (see the following site description).

Twin Point could have been one of the places Paiutes could have used as a place to cross the Colorado River to interact with the Hualapais. Southern Paiutes and Hualapais frequently crossed the river for trade and ceremony. In the article "Ghost Dancing the Grand Canyon," it was written that:

> *Pai oral history and local newspaper accounts, then, confirm that the ceremony was taught to them by their Paiute neighbors, and both record the movement of people back and forth across the Colorado River. Paiute people participated in both Hualapai and Havasupai Ghost Dance ceremonies.*
>
> *Early observers documented frequent intertribal interactions between Pai and Paiute peoples across the Colorado River (Stoffle, et al. 1994). Such interactions included trade in ceramics and other goods (Dobyns 1974; Smith 1977) including red hematite pigment (Dellenbaugh 1933: 85-87), intermarriage (Stoffle et al. 1994:82 83), and joint use of trails in Peach Springs and Diamond Creek Canyons and at the Toroweap Valley–Prospect Canyon crossing (Stoffle et al. 1994: 76–84). Evidence suggests ceremonial interactions as well. The red pigment*

traded to the Hualapai was likely collected from a large cave on the Colorado River as it is today (Stoffle et al. 1994: 75, 168-169). Red hematite pigment, or red ochre, is sacred to Paiute people and used almost exclusively for ceremonial purposes (Stoffle et al. 1994:7).

(Stoffle et al. 2000a)

Native American Recommendations

- *I would like to see hunting maybe put on a moratorium for a couple of years and let some of the animals come back…maybe five to ten years or something like that. So you can like build your herd back up.*

- *Keep non-Indians out.*

- *Fires you can't really get a handle on but the smog you can get a better grip on.*

- *If the plants and the animals would come back I would think they would want to come back for ceremonies and picking pine nuts and things like that because those are the things that we really miss…I really do…I don't hunt so but you know I know a lot of other people who hunt…I think they would enjoy that and get back some of their culture that's been taken away.* (Any special conditions?) *They would have to have some way of getting people not to pick pine nuts for a while…let them come back. The animals…maybe no hunting for a while. Let the tribes come in and start praying for them and maybe they will come back. I think that's the only thing you can do to help them come back.*

- *I think you need to know that this is a very very special place. Just the beauty of it is magnificent. It's hard to see…just watch something be destroyed by pollution that comes in…the man made pollution. Also I think the ignorance of non-Indians that come in here, I think and that's a hard thing to address because once you try to teach them, then they try to use that and make it worse. It's kinda like a two edge sword.*

- One elder would like to see people "*monitor this place so there's no garbage around the area."*

- Indian people would want to come to this place "*to see where different points on the river are where the trails and canyons go…also the different landmarks…volcanoes, etc."*

- *Well if you want to leave it the way, it is now…just leave it the way it is…if you wanted to have more people come down here you have to improve the road.*

- -When asked about improving the road, the elder responded, *"It would be a good idea for people to come and see if they wanted to."*

- *Indians need to come regularly.*

4.2 Willow Gathering Site

Location

This site is located within the Grand Canyon-Parashant National Monument. It is located northeast of Twin Point at an elevation of 5950 feet. Mount Dellenbaugh is visible from this site,

Geology:

The geology of this site is similar to the geology found at Twin Point. The Willow Gathering Site is found near the southern edge of the Shivwits Plateau. Most of the surface rock in this area is composed of volcanic materials. Basaltic flows are predominant throughout most of this region of the Arizona Strip. The flow that helped build this section of the Shivwits Plateau is believed to be six to seven million years old (Smiley et al. 1984: 279-282).

Life Zone

The Willow Gathering Site is situated at an elevation of 5950 feet, and is thus part of a transition zone between the cooler high plateau life zone and the warmer desert life zones below. Similar to much the Arizona Strip, this site is part of the Great Basin Grassland biotic community due to its diverse animal and plant communities that are abundant throughout the Great Basin. It is common to find in this community sagebrushes, which are distinctly cold-temperate species, and species that have evolutionary ties to warmer climates, such as rabbit brush (Brown 1994: 115; World Wild Life Fund 2004).

Plants

During on site ethnographic interviews, elders identified plants. Later, the UofA team identified some plants were through photographs taken at the site with the assistance of regional ethnobotanical studies (American Indian Writers Subgroup 1996; Rhode 2002; Stoffle et al. 1997).

Cliffrose	*Purshia stansburiana*
Indian Rice Grass	*Oryzopsis hymenoides*
Pinon Pine	*Pinus monophylla*
Rabbit Brush	*Chrysothamnus nauseosa*
Indian Tobacco	*Nicotania trigonophylla*
Sagebrush	*Artemisia tridentate*
Three Leaf Sumac	*Rhus trilobata*

Animals

Southern Paiute representatives identified animals that inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Elk	*Cervus elsphus*

Deer *Odocoileus hemionus*

Figure 4.4 BLM representative and Southern Paiute elders

Special Features

The BLM representative and the UofA team brought elders to this site because this site is believed to be an important plant gathering area. At this site, numerous food and use plants were observed and identified and pieces of pottery were found.

Native American Comments

Did Indian people use the water source at this site?

- *The area should have had deer and water.*

Did Indian people use the plant resources at this site?

- *We used to go pick pine nuts in October during deer season out there.*

- *You used to tell by their cones (pine nut trees) ya know if it's green or anything else like that…that's how we used to go out there to Parawan Valley…I gotta name all those other valleys on the Nevada side. We go through there summer time and see if they got pine cones done there.*

- *We used to make a wind breaker out of the sagebrushes.*

- *There's this squaw bush that grows along the water too and then there's this mountain squaw bush*

- *Just over the ways from here there's more of it plus the little valley of tobacco plants. Just hundreds of plants.*

- *Cliffrose…it was used to make our skirts.*

- *Cliffrose: It would be more of a winter wear because it's warm. That's what I'm told.*

- ***UofA Ethnographer**: With a little burning the waii really comes back?*

  ***Southern Paiute elder**: Yes as does the tobacco plants*

  ***UofA Ethnographer**: If this was a good spot for tobacco would men gather extra tobacco and take it back to SHAM* (Shivwits) *or something like that…they might leave here with baskets full of things they value?*

  ***Southern Paiute elder**: Yeah that was before the white man got here and after that they started getting their tobacco…that Bull Durham or what ever that was. But some of those guys they still smoke the Indian tobacco. It cost money you know…back then my grandpa used to tell me, they used to chop wood for about two three days…haul it in a wagon to St. George and it took them another day to get down there in a wagon and they had to go paddling around. They only got one buyer…only a dollar and a half or something like that. I mean that was a lot of money in those days.*

- *This is one of the bestest willows that I've ever seen in I don't know how many years. This is where they did…they knew where the willows were…they come through here picking willows through here, making their baskets. This is their farming area over here. These are the straightest willows I have seen in a long time*

- *This is what my grandma used to do, pick this one and then she would…on some of them, they had that little thing on them, she would cut it off and stick it in her mouth and that was your ee'si gum. It was good gum too. It was the best gum besides that cedar, that sap that's on there. We used to make gum out of that too…that's horrible…it's got a bitter taste. This kind (ee'si) is the best. Fall time…that's when you come get them. They'll be here.*

Did Indian people use the animal resources at this site?

- (in response to being asked about hunting) *They (the deer) would come down to the water.*

Indian Ascetics

- *You know right when you're driving through the desert and you just get in this kinda high elevation like this…but right when we came into this valley it was like 'Oh my god!' We knew there was something here. You know you just kinda get a feeling of a place.*

Ethnographic Comments

Figure 4.5 Southern Paiute Elder Viewing Indian Tobacco

In order to increase biodiversity and biocomplexity, Southern Paiute people actively managed their ecosystems in activity has been passed down through generations. This body of knowledge is often referred to as traditional ecological knowledge or TEK. Specifically TEK is "a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment," (Berkes 1999: 9).

Southern Paiutes have developed many ways to promote a sustainable environment. Paiute ecosystem management often involves pruning, plucking, and burning. Certain plants such as Indian Rice Grass or *waii* and Indian Tobacco or *sawak wape* must be burned in order to increase the number of plants growing in a specific area and to ensure that the plants will continue to grow in that precise location.

Another type of plant that has to be actively managed is three leaf sumac often referred to as "willows." This plant is a key material used in basket and cradleboard weaving. In order to use the willows they have to be a certain length, and they must be straight and flexible. To ensure that the stems grow straight and are desirable for weaving, they are pruned annually. By pruning, they are promoting healthy productive plant growth in addition to shaping the perfect weaving material.

Native American Recommendations

- *Include tribal input through consultation in pamphlets handed out to people.*

- *Public education*

The elders would like to see the BLM allow Indian people to have access to this area to gather plants.

Figure 4.6 Southern Paiute Elders Viewing Rhus trilobata

4.3 Horse Valley

Location

Horse Valley is located approximately 1.5 miles northeast of Mount Dellenbaugh on the Shivwits Plateau and it is positioned inside the Grand Canyon-Parashant National Monument. This site is situated at an elevation of 6600 feet.

Geology

Horse Valley is composed of what is known as Shivwits basalt. Shivwits basalt is the result of an extensive mass of basaltic flows, which are associated with various pyroclastic vents on the Shivwits Plateau. The basalt that formed the land in this region comes from several volcanic mountains such as Blue Mountain, Mount Dellenbaugh, Grassy Mountain, and Poverty Mountain, with Mount Dellenbaugh being to focal point of volcanism on the Shivwits Plateau. Eruptions in the Mount Dellenbaugh are date back to 6.20 million years ago and 7.64 million years ago (Billingsley and Dyer 2002).

Life Zone

With its elevation over 6000 feet, Horse Valley is found well within the Ponderosa Pine Forest biotic community, which is part of the Colorado Plateau Shrub Lands eco-region. The plants and animals identified through ethnographic interviews and subsequent regional ecological studies reflect this life zone (Brown 1994: 83; World Wild Life Fund 2004).

Figure 4.7 UofA Ethnographer and Southern Paiute Representative at Horse Valley

Plants

Elders and members of the UofA team identified numerous plants during on site ethnographic interviews. Some plants were later identified using photographs and regional ethnobotanical studies (American Indian Writers Subgroup 1996: ; Rhode 2002: ; Stoffle, et al. 1997).

Single Leaf Piñon Pine	*Pinus monophylla*
Indian Tea	*Ephedra viridis*
Berries	multiple species
Utah Juniper	*Juniperus osteosperma*
Rocky Mountain Red Cedar	*Juniperius scopulorum*
Sagebrush	*Artemisia tridentata*
Wild Onion	*Allium sp.*

Animals:

Southern Paiute representatives identified animals that inhabit this site. Only some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Deer	*Odocoileus hemionus*
Rabbits	*Sylvilagus audubonii*
Jackrabbit	*Lepus californicus*
Quail	*Callipepla* sp.
Mountain Sheep	*Ovis canadensis*
Porcupines	*Erethizon dorsatum*
Squirrels	*Spermophilus* sp.
Bald Eagles	*Haliaeetus leucocephalus*
Golden Eagle	*Aquila chrysaetos*
Hummingbirds	*Trochilidae* sp.
Owls	*Strigidae* sp.
Bears	*Ursus americanus*

Special Features

Horse Valley is one of the locations that the Southern Paiutes from the Santa Clara River area relocated to during Mormon expansion and this can be seen in the archaeological remains. This site contains remains of numerous multi-room structures, a grinding stone, and a large lithic scatter.

Figure 4.8 Southern Paiute Elders at Horse Valley

Native American Comments

Would Indian people have used this area and for what?

- *They had some up here along time ago* (ceremonies)*…down at the cave they had that ceremonial thing that they had (which is related to going to get red pigment in that cave on the river). They had to make an offering before they go…it's a ceremonial thing…* (How long did they have to take to prepare themselves?) *My understanding was they used to have about 5 or 6 guys that were going from the tribe that prepared themselves to go and they'd be the main ones that went down…used to be the young men…strong that could walk long ways. Down at Shivwits, they used to have a sweat lodge…it's burnt now...that fire that went through there. That was right up there near gravel pit on Utah Hill back up in that area. And it was a pretty good size one. They'd sweat to purify themselves before they go.*

- *To me I really don't think the Indians really lived in this area and in the winter time it was too cold for them. And we didn't wear clothes like we do, they wore rabbit clothes and so they had to go where it was warm. Maybe this was like their harvest area, like you know like you said they were farming and they did their pine nuts, their hunting area. And every year they would come back to the same place, 'cause they knew where all the food was…they had to gather for their winter supply too.*

- *They stayed here just to relax and they did their songs and their dances. I think they had round dances.*

Is this place part of a series of connected places and why?

- *They go back and forth. They would live and then you know like you say there a different family going back and forth back to the river…Santa Clara River. That's what them old guys used do when I used to listen to their story telling times.*

- *This area around here is Shivwits. Like Milton was saying, they lived here and some of them went back down to the Reservation. They mostly followed the pine nut pattern…what you call it…the crops. One year certain…two years pine nuts grow good in one area down here and then they grow better back up in another area. They be following different climates.*

- *They would trade for different things that they wanted across the Colorado River.*

- *People here would go back to the Santa Clara River to spend the winter and farm.*

- One elder stated that Horse Valley is connected to places like St. George and the Shivwits reservation because these areas are all located within Southern Paiute territory.

- One elder thinks that this area was a place people retreated to when parts of their traditional territory was encroached upon by Euro-Americans.

- Two elders believe that this site is connected to Shivwits.

- *I think that this is really the Sham* (Shivwits) *area because it's in their area…this place here. That's why some of the people are related to some of the people in the Grand Canyon area…the Hualapai.*

Did Indian people use the water source at this site?

- *They had to live close to the springs to survive.*

- *Water has to be important*

- *It was very important for their ceremonies that that water be here and used for all the ceremonies.*

- *You have to use water to mix it…just like the medicine teas…couldn't do that without water.*

- *The spring at Horse Valley would be a place to live.*

- *Water was very important; they knew where all the hidden springs were. Yeah where the water was…it had to be close and near to a water…but not too close but close enough where they know they could go get water 'cause they had intruders that would come if they were close by the water. They have to be a distance from the water.*

Did Indian people use the plant resources at this site?

- *Some areas had wild onions, but wild onions didn't grow anywhere. You had to be in a certain area where the wild onions grow. And then you had to be careful what kind of onions you're picking because some of the onions are poisonous. So you have to be really really super careful. So that's why a lot of the Indians here in this area knew where the wild onions were or maybe they had wild carrots you know stuff like that.*

- *They use the pine for if you…maybe you had…maybe one of the old elders had a stroke…at that time they didn't know what a stroke was…and their face would go just like this* (paralyzed) *so they used the sanup* (pine pitch) *from that thing…they warmed it up and put it on their oy-ay-ahng* (face). *They use it for sores.*

- *The cedar is the good gum…its got an ugly ugly bitter taste but it's a good gum after all that bitterness goes away…that's the Indian gum.*

- *That* (cedar) *bark, they used to make shoes.*

Did Indian people use the animal resources at this site?

- *Eagles are spiritual partners.*

- (Hummingbirds) *They're my pets…I like them. I got them at my feeder. I feed them every day. Got a whole herd of them down at the house…I don't know where they live but they stop by and drink up. When I went down the Colorado River, I had one land on me. He was trying to tell me that the reservation burned. I asked an Indian if he was telling me bad news…He was trying to tell me something…he just sat there and took off. He said something but I couldn't hear him. I had to wait 'til I got home, the reservation was on fire.*

- The elders told a UofA ethnographer that when birds come by a person they carry messages and one elder said, "*When they (hummingbirds) come by for no reason then they're done telling you something."*

- *In the olden days, different people had different birds or animals. That's where they get their power.*

- *The owl (Mooputs) is another one that tells certain things about death.*

- *Each of the tribes got that owl…some of them call them the bad news carrier.*

- *My brother had a certain way with the rain every time he played with something. He called the clouds…used to call him the rain maker. I don't know if he had a special animal helper but he used to hold a rattle snake. It didn't even bite him or nothing.*

- *The animals would be used for food, clothing, and tools. The meat of the animals would be used for food; the hides could be used for clothing and shoes. The bones and antlers could be used for tools. My dad used to make arrowheads using deer antlers.*

- *Animals are like humans…they know where the patch is green…that's where they eat, and water and they got ears too. And they talk to each other. And at one time Grandma used to say animals talk to each other.*

Did Indian people use the archaeology at this site?

- *Showed that they lived there…the old house structures…well made to last forever. Showed that we could survive up here and they come by and someone else could use it. Mostly had certain bands that ran down through here like Kaibab's a certain part, Shivwits on this side, and Moapa. It's all together.*

- *Living in the area is evident by the rock walls. Hunting for animals would make sense, since there is evidence of deer and rabbits. Gathering and harvesting of pine nuts would occur within the area.*

- *They probably had a lot more stuff here for…they really knew the Indians lived here because they leave stuff behind like the grinding stone. They didn't take those because they think, 'Well we're coming back again next fall, maybe spring we'll come back again.' But then again too if somebody died in their families, then they had to move to a different area…not right in the same location. Indians really believed in the spirit coming back to where the house was…that's why they moved.*

Did Indian people use the geologic features at this site?

- *The whole mountain is real significant too, because it holds the deer up. See most of the deer up in the mountains instead of down in the valleys because there's more water. It catches all the rain and snow water. Cool place to live…stay there during the summer.*

- *My tribe, they used to say they pray for rain you know 'cause they come some of those rocks you know like on the reservation…they got two places where they collect rain water. One used to be above our house…the other one just above on the hill up there.*

Ethnographic Comments

Figure 4.9 Remnants of Southern Paiute Houses at Horse Valley

During Mormon expansion into Utah, Southern Paiutes found themselves in competition for their land and water resources. In southern Utah, Mormon colonization caused many extensive impacts on the upper Santa Clara watershed. Settlers began intensive lumber harvesting to supply building materials and fuel for their rapidly growing towns. Their large herds of livestock depleted wild food plants that were used by both Southern Paiute and the animals they hunted. The increasing Mormon population also increased hunting pressure on wild game. These affects were similar along the lower portion of the Santa Clara watershed as well. The Mormon logging efforts upstream greatly reduced the ability of the upper watershed to

retain water. The colonists also withdrew water from the river to feed their farms on both the upper and lower portions on the river and for the town of St. George. Mormon farming techniques left large areas of bare soil exposed for long periods. In addition, the beaver dams, long the lower river, were destroyed, thus reducing the amount of water available during dry periods (Stoffle et al. 1990a).

In addition to the increased resource competition, Southern Paiutes found themselves exposed to disease. The Santa Clara oasis became a breeding ground for highly infectious Old World diseases (Stoffle et al. 1995b). In the Shivwits water rights case, Stoffle et al. (1990) wrote:

> European immigrants continually arrived in Salt Lake City, many of them unhealthy after a long and arduous trip, carrying with them the latest strains of diseases from densely populated cities in the eastern United States and Europe. The Santa Clara area towns were exposed to the larger disease pool of Salt Lake City by the constant flow of travelers on the Old Spanish Trail and the Mormon settlers sent out to the settlements.

In a response to the impacts of large-scale colonization and disease epidemics, the Southern Paiutes along the Santa Clara developed several coping strategies. Some Paiutes continued to live and farm along the Santa Clara but on a much-reduced scale. Some worked for the Mormon settlers and others moved to mining camps and towns while others retreated to the Shivwits plateau as a region of refuge. A region of refuge is a term that was defined by anthropologist Dr. Aguirre Beltrán to describe places with a dual economy consisting of a national and a local sector resulting from colonialism wherein the national sector dominates the market and the local sector is comprised of isolated, closed communities (Aguirre Beltran 1979). These local sectors were arranged as refuge regions, and they are areas isolated both physically and socially from the mainstream of the national society. These areas contain close communities of peasants, most of whom were indigenous peoples. The indigenous communities were subjected to massive changes under colonization, and Beltrán explained that these communities could have both internal and external resistances to the cultural changes that were occurring during this period. The stability of the hinterland as a safety region served as a form of resistance and protection from these forced changes (Aguirre Beltran 1979). Horse Valley has a spring located in close proximity to it as well as large terraced fields. This area was isolated enough from Mormon encroachment so the Southern Paiute could protect their resources and sustain their livelihood allowing them to maintain a resilient way of life.

Native American Recommendations

- One elder said that it is better to leave the site in its current condition because without the site records people do not know the site exists.

- *My grandkids want to learn more about it…they're pretty interested in telling them what we're doing. They say, 'I wanna do that!' My little granddaughter at home says, 'I wanna go Grandpa!' She'll be excited about coming out to here like this.*

- *Probably have to get a permit for where they were going and what they were going to do, like if they wanted to come out here and pick pine nuts or something.*

- *I probably have to go through the National Park Service to have them ok it for Native Americans to go in there to pick pine nuts or get firewood. Try to clear it out up there and get rid of all the old vegetation and trees.*

- *Controlling access…maybe not allow ATV use.*

- One elder would like to see information gathered from other Southern Paiutes for doing an in-depth ethnographic study and she would like to see an inventory of cultural resources done by the appropriate federal agencies.

- One elder would like to see the road closed due to the number of significant sites that were disturbed when the road was made.

- One elder would like to see Paiute people have access to this area *because many families came from this region.*

- *It should be protected…I think all Indian sites should be protected and people shouldn't take stuff that isn't theirs.*

4.4 Little Black Mountain

Little Black Mountain is located eleven miles southeast of St. George, Utah and it is just south of the Arizona-Utah border. It is a sandstone mesa that is approximately five hundred feet above the Earth's surface.

Geology:

Little Black Mountain is a five hundred foot high sandstone mesa in which its lower slopes are part of the Moenkopi Formation. These sandstones are highly susceptible to erosion. The higher rocky ledges are the Shinarump members of the Chinle Formation. Along the base of Little Black Mountain, there are large blocks.

Life Zone

Little Black Mountain has a wide variety of plants and animals. The site's diversity is because this site is part of the Colorado Plateau Shrub lands eco-region. This eco-region is known for having plants ranging from Ponderosa Pine forests to arid grasslands. More specifically, it is located in the Great Basin Desert Scrub Land biotic community. This community is known for having high desert shrubs such as salt bush and wolfberry (Brown 1994: 115; World Wild Life Fund 2004).

Figure 4.10 Southern Paiute Elders with a UofA Ethnographer at Little Black Mountain

Plants

Plants were identified by elders and members of the BARA team during on site ethnographic interviews and through photographs taken at the site with the assistance of regional ethnobotanical studies (American Indian Writers Subgroup 1996; Rhode 2002; Stoffle et al. 1997).

Creosote Bush	*Larrea tridentata*
Desert Trumpet	*Erigonum inflatum*
Fourwing saltbush	*Atriplex canescens*
Burro brush	*Ambrosia dumosa*
Anderson Wolfberry	*Lycium andersonii*
Range Ratany	*Krameria parvifolia*
Indigo bush	*Dalea sp.*
Apache plume	*Fallugia paradoxa*
Indian tea	*Ephedra viridis*
Snakes	Multiple Species

Animals:

Southern Paiute representatives identified animals that both physically and spiritually inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Squirrels	*Spermophilus* sp.
Cottontail Rabbits	*Sylvilagus audubonii*
Jackrabbits	*Lepus californicus*

Chipmunks	*Eutamias* sp.
Hawks	*Buteo swainsoni*
Red Tail Hawk	*Buteo jamaicensis*
Rattlesnakes	*Crotalus* sp.
Scorpions	*Centruroides vittatus*
Black widow	*Latrodectus mactans*
Brown recluse spiders	*Loxosceles reclusa*

Special Features

The UofA team and elders visited Little Black Mountain because of the numerous rock peckings panels found on the cliffs, and the boulders found at its base. *Tumpituxwinap* or rock art is very important to Southern Paiutes. It has high religious significance and is associated with numerous ceremonies

Native American Comments

Were the panels made by your people?

- *Some of the peckings were made by Paiutes…got new ones on there now…names on there.*

- *Other people might have used these panels in the past…Paiutes from Cedar or down south…some passing through.*

- *It's high importance because it's made by the Paiutes and it's the same thing we got around here…it's all local…all the same.*

What were they visited or used for?

- *Telling their stories…maybe, they were on their way back from the Grand Canyon. Coming up, I seen where it looked like on area where they had that line…that first one we went to way over there with that line, looked like the river and then the sheep on the side and wild animals. They were on their hunting trips, just passing through.*

- *There's all kinds of stories…probably when they traveled through here they tell each other little stories about what they did, what they seen.*

- *The paneling around this area is the same as this here because you got some of your persons that are…that died, and they showed that on the paneling. And they showed how far the next paneling's going to be…rock writing, supposed to be locator rocks if you look at the panel. Certain parts of the panel means different things like you got your half an arm guy talking about something that happened to him. Different parts of the paneling means different things so you have to get them all together so you know what they're talking about and you'd be the one that's going to put it all together.*

- *They have stories and I don't know what it means you know but they knew what it meant. They knew what they were saying and the old people knew what it meant. And someday they'll translate it to us when we're sleeping or whatever…we will know.*

What other groups visited these panels?

- *Every kind of peoples traveled through here…the Paiutes…I think the Navajos mostly stayed in their area though…I think it was mostly like the Paiutes, the Hualapais, the Chemehuevis, and the Mojaves coming up this way.*

When did they visit the panels?

- (What time of day did people use the rock art?) *During the day because you can't see them at night.*

- *I think they maybe came through here in like Spring time or Fall or maybe they were coming through…maybe they had their summer camps around this way maybe.*

- *They came in daylight hours and spent the night.*

- *They had a certain time they tell stories that have told probably told around here about it.*

Who visited these panels?

- *I think everybody came (to the panels)…or maybe just the men. I don't think women wrote on those kinds of things. The men did the writing.*

- Two elders felt that both men and women visited these panels

Are there any stories associated with these panels?

- *It had the "dead man" that's upside down…*(Where's the dead man?)*…on the long paneling. All dead men are down like this…laying down…upside down. So he died. They got one by the old dam too…down below. So according to that paneling, he died somewhere, so using that dam by itself or somewhere where it had bowls.*

Are these panels connected to other panels else where and how are they connected?

- *This is a site with the rocks…most all of the writings on rocks like these…dark… sandstone…it will chip better. When you put it on that cinder rocks…it's hard to chip. It's got too many holes in it already and they don't come out. But certain rocks they use and this is what they mostly put them on. If you notice around this area, it's like these rocks right here…if you go down to Bloomington and look at those it's the same kind of rocks but they're yellow with the black coating. So it makes the etching deeper.*

- *There are some (rock art) in Parowan…up our way…way way way up northern way. Then they have some this side of Parowan too…that Parowan Gap…before you get to Parowan…Paraguna, Summit…they got some of that writing on that site. We went up to look at some of that...they got writing up there. And people have vandalized them too. They got mountain sheep, scorpions…same kind of writings they have on here.*

- *There's writings all over…there's writings clear down…southern, northern, there's writings everywhere. That's how they kept in touch I think just like a letter.*

Are there plant connected?

- *They use creosote bush…that was a medicine plant.*

- *Plants…everything is (connected). They all have their meanings to all these plants.*

- *The plants were very important to Indian people, that's what they lived on.*

- *It's all connected because the plants grow everywhere, the trees and the rocks are everywhere, the mountains are all over.*

Are there animals connected?

- *They got the red tailed hawk. They use their feathers for ceremonial use. They use mostly the tail feathers.*

- *(Animals) they had to be because of their telling the stories on the rocks.*

- *Yeah because some of them were just pecked with rocks…the old way you see some kind of deer horn used for pecking.*

Are there minerals connected?

- *They brought (ompi) in from somewhere else.*

- (Ompi came from) *down in the canyon. They sent people down there to get it or they usually trade with it…trade for it.*

Is water connected?

- *Water is important to the people in those days.*

- (Do you think water is some how connected to the panel) *Yeah in the water pockets…it shows it in the panel. You gotta look at the paneling to tell which ones are water, water sign.*

- *Water holes are mostly the ones that are shaped like a bowl with a whole bunch of little dots in it. The dots mean water.*

- (Would they use the water out of those pockets for ceremony) *Yeah! It had to be holy water.*

- *Water connects everything.*

- *They came out here to read the paneling on the walls during the certain times of the year when they had rainfall…there's a lot of water pockets up there holding water.*

Other Comments

- *It felt pretty good when I first got here, knowing that it was here and now when I came up here the last time it's looking pretty good because I remember that place with that lava paneling. But it kinda irritated me when I seen that big 'Zeno' on it. You could tell some of the older panels from the newer panels because it was overlapping. It automatically caught my eye. You can tell the difference.*

- *It's very interesting…makes you feel good in the heart to see where your ancestors have been.*

- *I think they had trails just like your highway…there was their road…their trail, they knew where to camp because they camped there before on their way up or on their way back…where ever they were going…maybe they were going to go pick pine nuts down here you know…get down this way…get down that way…and they knew where to camp so they had trails…just like the roads.*

- *Sacred…oh you betcha! Everything is sacred to me.*

Figure 4.11 Rock Art at Little Black Mountain

Ethnographic Comments

Puha is a central theme in Numic culture and needs to be accounted for in order to reach an understanding of Little Black Mountain. As puha travels across the landscape, it flows to different people, places, and things, and becomes concentrated in different areas. For instance, some people have higher concentrations of power than others do; this holds true for rocks and rock writings.

Based on thirty years experience working with Numic speaking people, the BARA team has found consistent and reoccurring themes when discussing rock peckings and paintings. The following statements are taken from *American Indians and the Nevada Test Site* (2001a):

- The meaning of a given rock marking or panel is neither intended for the public or widely shared by a community or ethnic group; rather, the exact meaning is revealed to humans individually.

- Tumpituxwinap derives from supernatural authorship, whether it is made by spirits or revealed to the individual who then writes down on the rock what the spirits have revealed to the individual. The rocks were once alive, were once people, but became rocks for human benefit. The writings on them related to this transformation and are part of the cosmos.

- The strong beliefs that the rocks are alive, have power, and spiritual value, and fit into the larger scheme of things, corroborate the ethnographic conclusion that the Indian worldview perceives that all the world is alive, its components all interconnected and interdependent, and that power or knowledge is revealed to individuals through dreams and private visits to such locations as rock art sites.

Native American Recommendations

- *People are defacing the writing on the panels and shooting with guns. The only way to have protection is to have some sort of guide out here to have them take them out there and look at it instead of having a free run like it is now. You can't keep them on the trail…even if there is a trail.*

- *Put a fence along the trail so they can't get over*

- *Some of the elders believe that erosion is affecting the condition of the panels.*

- *What they should do is have a little donation box…they have them at certain camp grounds and fishing places. They have a donation…it for the mountains and the ponds and all that good stuff.*

- *I think it's fair condition…it could have been better…I think it's all to do with the weather from the rains. Maybe they had more writings way up, but it's due to the weather*

and people. I think the weather did a lot of damage to it too, because it's been there for many hundreds of years.

- *If people didn't touch things…just going around, looking around, taking pictures, stuff like that would be good.*

- *I think they should at least put chain link fences around the rock writings and that'll you know save it from people who have to go in there and write on it like that 'Zeno' or what ever that was.*

- Two elders commented that the BLM had done a good job so far by trying to protect the site.

4.5 Diamond Butte

Location

Diamond Butte is the major landmark feature on the road to the Grand Canyon Parashant National Monument when traveling from St. George, Utah. It is a high butte situated about twenty-two miles south of St. George and is roughly twenty-two miles northeast of Mount Trumbull. Diamond Butte is the predominate feature in a grassland area.

Figure 4.12 Overview of Diamond Butte

Geology

Two distinct features mark Diamond Butte: (1) red sandstone belonging to the Moenkopi Formation and (2) a basaltic cap on the butte's top. The basaltic cap overlies a Tertiary erosion surface on the Moenkopi Formation. The sandstone and basalt found on Diamond Butte is part of the same features that make up Twin Butte. The Diamond Butte basalt flowed eastward from an unknown source down gently eroded red sandstone and siltstone bedrock surfaces of the upper red member of the Moenkopi Formation across the Hurricane Monocline. It is possible that the feeder dikes for Diamond Butte could be present under landslide debris that is present in the surrounding area. The flow itself terminated just short of the Hurricane Fault (Billingsley and Dyer 2002).

Life Zone

Diamond Butte and its surrounding area is located in the Great Basin Grasslands biotic community. This biotic community is located largely on high-level plains and on intervening and adjacent low hillsides, rises, ridges, and mesas in what is mainly flat and open country (Brown 1994: 115).

Plants

Elders and members of the BARA team identified plants during on site ethnographic interviews and through photographs taken at the site with the assistance of regional ethnobotanical studies (American Indian Writers Subgroup 1996: ; Rhode 2002: ; Stoffle, et al. 1997).

Sagebrush	*Artemisia tridentate*
Indian Tea	*Ephedra viridis*
Piñon Pine	*Pinus monophylla*
Cedar	*Cercocarpus ledifolius*
Berries	Multiple species
Coyote Berry	*Smilancina* sp.

Animals

Southern Paiute representatives identified animals that physically and spiritually inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Antelope	*Antilocapra americana*
Mule Deer	*Odocoileus hemionus*
Quail	*Callipepla* sp.
Cottontail Rabbits	*Sylvilagus audubonii*
Jackrabbits	*Lepus californicus*
Squirrels	*Spermophilus* sp.

Chipmunks	*Eutamias* sp.
Red Tailed Hawk	*Buteo jamaicensis*
Bighorn Sheep	*Ovis canadensis*
Merriam's Turkey	*Meleagris gallopavo*

Native American Comments

Would Indian people have used this area and for what?

- *If they didn't have anything else for their praying purposes they probably use it.*

- Two elders believed that offerings would be left at the mountain if they were coming to Diamond Butte to pray.

- *You have to give it some kind of offering when you go up and pray.*

- *The way I was brought up, you used to pray when you went to different places like when went camping out in the mountains to go pick pine nuts and you don't know that area. You know that area but you have to go out there and feed the mountain before you go to bed…the four directions and then you pray. And you have to thank the mountain before you leave.*

- *You would have to prepare yourself somewhere done here…sweat lodge or something.* (*Volcanic rocks are used during sweats becaus*e) *They hold the heat better, they don't pop.*

- *When you come to a place there's a ceremony to talk to the place…pray to it…so it's a ceremony just arriving at some place so that you can find what you need like water maybe stuff like that…or if you're going for medicine or gather…there's always a ceremony…even for eating there was when you first get there.*

- *There were probably Indian villages after the volcanoes went through when they settled down.*

- *I think Indians were there after the volcano went off…they come through here, they look for certain kinds of rocks to clean their deer hide clothes…some of them had deer hide clothes ya know. There was a certain kind of rock… (Pumice?)…they look for that and they use that clean their hides with to make it white or they would use it…my grandmother look for that over by Snow Mountain. They would…she would look for that because she would use that for her soap…just like a soap on your elbow…ya know she used that for that…was her little feet. Some used the rocks for when they did a spiritual thing…what they call that…sweats…they use a certain kind of rock. There were certain kinds of rocks too they used to wash their clothes…you know use for a washboard.*

Is this place part of a series of connected places and why?

- *They got one down at Washington Fields like they used…it was a high point like this with a slope. They called it Sanu-ska-eewah, that's Coyote's House…that was a sacred place for the Paiutes…they probably have something like that up here.*

Did Indian people use the water sources at or near this site?

- *They use the hot springs over in Hurricane for healing purposes.*

- *They used to get that mineral water…that green thing…kinda slimy like on rocks so the water forms.* (The algae that forms?) *Yeah! We used to get that and take it and put it on for healing. They used to pray for it (water) before you go in. You leave some sort of an offering. They used to have a whole bunch of arrowheads up there in those waters but they're gone.*

- *Hot springs…so they could go over there and wash themselves.*

- *I bet there were a bunch of springs around here but the cows came and destroyed the vegetation. Water sources always attract people and animals.*

- *Under hunting and stuff, they use it (water) to drink it and maybe even prepare food.*

Did Indian people use the animal resources at this site?

- *I was watching the red tailed hawk fly around…he's special.*

Did Indian people use the geologic features at this site?

- *The volcano…maybe use it as a place to hide in. Someone chased them and they probably hide in there.*

- (Would they hide down low…the families and send a young person up on top?) *Probably…that's the way they did it up in St. George…it's all that volcano right there by what do they call that…lava flow. They found some old rifles in some of those little catchments…the one that goes in there.*

- *Volcanic rocks…that's the only thing I know about is they use them in their sweats.*

- *These rocks here…to me they came out of the ground and they have power in them. You just need to know how to talk to them and they can help you do things...use it for medicine and stuff.*

- *I don't know how they really did things up here but I know at home they would take the rocks like this (lava rocks) and they would heat them real hot…red hot…and they would throw them in the pot…well not a pot but a basket and that's how they'd boil stuff.*

Ethnographic Comments:

Diamond Butte is a high point in a relatively low-lying area; it is a self-voiced protuberance located along the landscape; that is to say, a place that speaks to people. This striking feature is possibly a power spot. High points are generally viewed as power spots. Puha is called down by these places and then is dispersed across the landscape. Further contributing to the concentration of puha is that Diamond Butte is a volcanic feature. Volcanism is viewed as an activity in which the Earth is reborn and renewed (Stoffle 2004a; Stoffle 2004b; Toupal and Stoffle 2004).

Figure 4.13 Cactus Found at Diamond Butte

Numerous coyote berry plants were found near Diamond Butte. The presence of these plants suggests that Paiutes could have lived near the butte. These plants were often an important food source, which always grew near people's homes. It is possible that these structures were not permanent homes because the closest spring is located approximately four miles away.

There is a possibility that Diamond Butte could have been a ceremonial site used in vision questing. The house structures could have been temporary homes for the families of the people who were on vision quest, or the homes could have been a support camp for the elders who accompanied the person on the vision quest. The elders would have stayed below while the

person ascended to the top of Diamond Butte. Vision questing is a dangerous activity that often required the help of elders in order to ensure the safety of the person who is on vision quest (Stoffle et al. 2004b).

Native American Recommendations

- *Keep it the same.*

- *They would want to go to some mountains but you have to be careful who goes.*

- *We want to always have the right to come here as Indian people and use this area in traditional way for free*

- *Access to the private property. That's our biggest problem…being able to go some place where they need to go. I have always have fights and stuff with Yucca Mountain because they say…like creosote, ya know in our area is abundant…the whole place could be covered with it and their thinking is, 'Well there's plenty out there, let's just use those.' They don't understand that maybe out of those 100 plants is the one that says I want you, I want you…come over here and pick me…not any other plant just me right here. And they can't understand it or they don't want to. That's why I think about a lot of these plants and where people have their 'so-called private land,' there could be a lot of medicine on their land, they don't know and they probably just keep up there farm and dig them up. Those things are there for a reason.*

4.6 Little Springs Lava Flow

Location

Little Springs stands at an elevation of 6600 feet in the central region of the Arizona Strip. The lava flow is located between Mount Logan to the southwest and Mount Trumbull to the northwest.

Geology

Little Springs is a lava flow that extends north and south of the vent over an area of around four square kilometers. The eruption occurred sometime between A.D. 1050 and 1200, making it potentially contemporaneous with Sunset Crater Volcano, situated less than 200 km to the southeast (Ort 2003). Recent research at Sunset Crater suggests that this volcano erupted for a very brief time (probably less than a year) between A.D. 1050 and 1125 (Elson and Ort 2003; Ort and Elson 2004). Unlike Sunset Crater, the Little Springs eruption produced very little cinder fallout, with deposits extending over an area of approximately one square kilometer east of the spatter rampart (Ort and Elson 2005)

Life Zone

The diverse range of vegetation found at Little Springs is due to the fact that this site is part of the Colorado Plateau Shrub Lands eco-region. This eco-region is known for having plants

ranging from Ponderosa Pine forests to arid grasslands. Little Springs, more specifically, is in the Great Basin conifer woodlands, which is marked by trees such as oaks and pines (Brown 1994: 83; World Wild Life Fund 2004).

Figure 4.14 UofA Ethnographer and Southern Paiute Elders at Little Springs Lava Flow

Plants

While visiting this site, Southern Paiute elders identified numerous plants during site visits and later other plants were identified through pictures taken at the site in tandem with subsequent regional ethnobotanies (American Indian Writers Subgroup 1996: ; Rhode 2002: ; Stoffle, et al. 1997).

Sagebrush	*Artemisia tridentate*
Ponderosa Pine	*Pinus ponderosa*
Cedar	*Cercocarpus ledifolius*
Milkweed	*Asclepias* sp.
Oak	*Quercus gambelii*
Penstimen	*Penstemon eatonii*
Mullen	*Muhlenbergia* sp.
Tansy Mustard	*Descurainia pinnata*

Yucca	*Yucca* sp.
Indian Tobacco	*Nicotania trigonophylla*

Animals

Southern Paiute representatives identified animals that spiritually and physically inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Deer	*Odocoileus hemionus*
Birds	*Nultiple* sp.
Elk	*Cervus elsphus*
Mountain Sheep	*Ovis canadensis*
Cottontail Rabbits	*Sylvilagus audubonii*
Jackrabbits	*Lepus californicus*
Coyotes	*Canis latrans*
Squirrels	*Spermophilus* sp.
Foxes	*Vulpes* sp.
Antelope	*Antilocapra americana*

Special Features

The UofA team and the Southern Paiute representatives visited Little Springs for a several reasons. First, during a cultural landscape study it is important to visit a variety of places that have different types of natural resources. Little Springs was chosen because of its water source. Second, this site was chosen because there is a presence of a large lava flow. Based on previous research, volcanism has been deemed by various tribal groups as a culturally significant event.

Native American Comments

Would Indian people have used this area and for what?

- *This could be a place of healing or to get some sort of powers*

- *This place could have been used as a place to get to the other side by the river almost like a place of refuge.*

- One elder believed that the pottery sherds found near the lava flow showed that people used to come to Little Springs to live, gather plants, conduct ceremonies, and to acquire power.

- *This place is a place of Paiute living; the high spots are for prayers.*

- *This place is a very secluded area and is part of the lava trail, which is a place to prepare for what is to be part of a person's reason for being born to this area.*

- *They would have used the area for hunting and living, ceremony, and gathering food, and medicines.*

- *It looked like people lived there before and those lava rocks were used for ceremony.*

Is this place part of a series of connected places and why?

- (Little Springs is connected to*) the lava hill about St. George and to the east of Flagstaff and they are connected through the lava rocks.*

- *This place is part of a group of connected places like the Grand Canyon, Kaibab, Kaibab Mountain, Hurricane, St. George, the Virgin River, Pah Koon, and Toroweep. These places are connected through trails, water, oral histories, and language.*

- *I would say it's probably connected to I would say Kaibab.*

- *I think it could be connected with down Vulcan's Anvil and the River. That site could even be connected to Snake Gulch.*

- *My ancestors came from here…my ancestors from the Shivwits side.*

- *This spot is connected to the mountains around it because that spring is dried up but there's still animals that go there.*

Did Indian people use the water source at this site?

- *Because of the spring, there would be water.*

- *Water is needed in every day living of the Paiute tribe.*

- *That spring…it looked like there was a lot of water that used to run through there.*

- *One thing I noticed is that there is water there and that's a real major element for the source of all life but with the lava up there, I don't see how the water could stay cool so it must have been hot at one time I think.*

- *I think Indian people would have used that area if it (spring) was a hot spring. Probably used to the hot springs for ceremonial purposes and for healing.*

- *It could be an underground water source for hot springs elsewhere. I know as a kid I was told that hot springs are connected through underground water sources.*

- *The water from the spring could have been used for drinking, ceremony, medicine.*

Did Indian people use the plant resources at this site?

- *Indian people use all things (plants), even if it's dry or wet.*

Did Indian people use the animal resources at this site?

- *People would come visit because there was a cooking area right there... that pile of rock near that spring and those pottery pieces that were there.*

Did Indian people use the archaeology at this site?

- *Interesting…was the way some of the rocks were piled up, the way some of them had like…some stones removed from them…so people they might have used them for something having to do with pottery because there was some pottery sherds found.*

- *Pottery…maybe they used them for storing something…maybe they put these people (burials), but there's not bones or anything…there was lava flowing…maybe the Indians see it as something as placing the dead back into the earth because of the lava. The body would burn up faster. Plus, they could have been amazed by how light the rock was compared to regular rock.*

Did Indian people use the geologic features at this site?

- *The lava beds…you can see trails.*

- *You could see trails on the top, which is more visible.*

- *When they use the lava rocks with the water and heat them…that's what makes their steam…maybe those round things that we see might have been used for a ceremony.*

- *The lava stone would have been used (in sweat lodges). I recall sometimes they used to say if you warm up a lava rock, you can rub it on your burns or your sores.*

- *Lava was used in probably a spirit cleansing ceremony.*

- *Tinequint…black flow.*

- *To me, it had to have some sort of spiritual significance or ceremonial type, because that's inside of hard rock. Who lives in hard rock? You had to be there for some special reason.*

Ethnographic Comments

Places of volcanism are repeatedly viewed by Indian people as places for learning and rebirth. Volcanic eruptions institute drastic changes across the local landscape. Often these

changes are viewed as destructive and dangerous to the people of the Western world. However, Indian people believe that eruptions are indications that the Creator is correcting some sort of imbalance. According to Southern Paiute epistemology, the existence of lava flows and eruptions serve as evidence that the mountains are alive and contain puha, therefore these locations have to be treated with the highest level of respect (Stoffle et al. 2004a; Toupal and Stoffle 2004).

Figure 4.15 Southern Paiute Elders and BLM Representative at Little Springs Lava Flow

Little Springs is similar to other sites in Northern Arizona; places like Sunset Crater and Wupatki have evidence that Indian people interacted with the lava flow and the volcano for ceremonial purposes. Found at Wupatki and Sunset Crater were pieces of lava with corncobs imbedded in them, which are more appropriately known as "corn rocks." Similar rocks were found at Little Springs, but instead of corncobs, Indian people used pottery, which have been named sherd rocks (Elson 2003; Toupal and Stoffle 2004).

The corn and sherd rocks were made during very powerful ceremonies in which only shamans with high concentrations of puha would perform these activities. At Little Springs, ceremonies were conducted on the lava flow itself. Trails were constructed across the flow leading to geologic structures called "hornitos." Hornitos are "small rootless spatter cones that form on the surface of a basaltic lava flow (usually pahoehoe), which develops when a lava is forced up through an opening in the cooled surface of a flow and then accumulates around the opening," (USGS 2000). At these hornitos, pottery would be placed along the edges in order to catch the lava as it is forced to the surface. The lava then engulfs the pottery and subsequently the lava cools and the sherd rocks are formed. Both Indian people and the UofA team believe that the sherd rocks were most likely used as ceremonial objects or offerings.

Little Springs is part of a series of connected places that constitute a ceremonial local landscape in the Uinkaret district of the Arizona Strip. The presence of the lava flow and the spring suggest that this site was religiously significant. Additionally, Little Springs is part of a vision questing trail that leads to Toroweap Overlook.

Native American Recommendations

- *Leave as is.*

- *Perennial burns are getting closer to sites. Humans are becoming aware of this area to gather wood and not caring what sensitivity is to our people. This is our history, this is me…rock, air, trees, grass, plants, rain, snow, etc…there needs to be more prayers from our people. We need to see places like this, so we can continue voicing our history…mentally, physically, and spiritually.*

- *Limit access to that area*

- *Steer others away and Indians will know where it is at.*

- *People would want permission to gather plants and lava rocks.*

- *The fencing is good to keep peoples driving in there and stuff and getting too close to it. Like I said the signs for reading, the water is there for the wildlife now, as to when the Indians were here…the water was for the Indians and the wildlife.*

- *Too many roads brings in too many people…too many ATVs.*

- *If you're going to put a road next to it…at least make it more than a mile away from that place.*

- *I think Indian tribes need to have access to these kinds of places. These places will help us better understand where we came from. Kids these days, you ask them where they came from and they say, 'I come from so and so…I come from this place.' The younger kids say, 'I don't know where I come from, I lived on the rez all my life.' I think if they did understand where they came from, the kids would have a better understanding of how much Indian people did take care of what they had…respect it you know, that was there in their areas.*

- *It looks like they are trying to take care of it up there; they're doing all that controlled burning and stuff…that'll bring back a lot of the plants.*

- *I think the lava flow should be protected! It's a site that should be protected up on that lava flow and around that spring. I think they already started to do that by fencing off the spring, which is a good thing. Those are probably ancient trails.*

- *I think we should be allowed to have access to any part of the Arizona Strip for Indian people to do traditional gathering of any kind. Like I said about that yucca that grows down there by Toweep…a whole bunch of it grows in that one area…people ought to not be afraid to gather down there. There's tobacco out there on this mountain…they should be able to come out here and not be afraid.*

4.7 Nampaweap Rock Art Site

Location

Nampaweap is also known as Billy Goat Canyon (Arizona Strip Bureau of Land Management 2004) and it is located in the Grand Canyon-Parashant National Monument. The trail leading to the rock art panels begins approximately three miles from Mount Trumbull. The trail is roughly 1.5 miles long and it stands at an elevation of about 5800 feet.

Geology

The trail leading to the rock art site generally follows the contour of the land with the soil containing high amounts of organic material. The canyon itself was formed from a series of volcanic flows with a seep at the beginning of the canyon. The area where the rock art can be found contains large volcanic boulders.

Figure 4.16 Trail into Nampaweap

Life Zone

This site's diverse range of vegetation results from being part of the Colorado Plateau Shrub Lands eco-region. This eco-region is known for having plants ranging from Ponderosa Pine forests to arid grasslands. Nampaweap is found within the conifer forests of the Great Basin Woodlands biotic community. This is known for having pines and oaks (Brown 1994: 115; World Wild Life Fund 2004).

Plants

Numerous culturally significant plants were identified on the site both through interviews with elders and identification from photographs using a number of regional ethnobotanies and plant guides (American Indian Writers Subgroup 1996: ; Rhode 2002: ; Stoffle, et al. 1997).

Milkvetch *Astagalus praelongus*

Single Leaf Piñon Pine	*Pinus monophylla*
Utah Juniper	*Juniperus osteosperma*
Rubber Rabbitbrush	*Ericamerica nauseoa*
Big Sagebrush	*Artemisia tridentate*
Indian tobacco	*Nicotania trigonophylla*
Cedar	*Cercocarpus ledifolius*
Three leaf Sumac	*Rhus trilobata*
Gambel's Oak	*Quercus gambelii*

Animals

Southern Paiute representatives identified animals that inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Mountain Sheep	*Ovis canadensis*
Deer	*Odocoileus hemionus*
Bald Eagles	*Haliaeetus leucocephalus*
Golden Eagles	*Aquila chrysaetos*
Squirrels	*Spermophilus* sp.
Cottontail Rabbits	*Sylvilagus audubonii*
Jackrabbits	*Lepus californicus*
Utah Mountain Kingsnake	*Lampropeltis pyromelana infralabialis*

Special Features

Southern Paiute elders and UofA ethnographers visited Nampaweap because this site contains numerous rock art panels, a rock shelter, and a spring. These three features are important cultural resources to Southern Paiute people.

Native American Comments

Were the panels made by your people?

- *My opinion these panels were made my Southern Paiutes.*

- *The style that I find interesting in seeing the peckings myself and in other places…to me they're identical to Southern Paiute people. As far as the way the symbols depict certain types of things that had happened to them or religious purposes too.*

- *I've been here before…it is possible that Paiute people made some of these. Paiutes did do rock writing…that was done right up into the 1930s. Tiz-ee'cum'kup was probably the last one to do rock writing.*

- *The name of this site is a Paiute name.*

Did your people traditionally visit these panels?

- *I think Paiute people visit occasionally.*

What were they visited or used for?

- *A place like this was for documenting kills of game…maybe for seasonal use, documenting attacks on the enemy, attacks by the enemy, documenting maybe a marriage, or how many goats or mountain sheep were killed for the wedding. And I think some of these look like they talk about somebody's life too…certain family's life too.*

- *To me to name a place like this…it would be a documentary place…Native American family tree life…family rock life…What you're saying is what they see and what they believe in…maybe it's religious person or animal…sacred animal…a bird. Sometimes it looks like what's done on the rock art tells you who visits them…maybe it's a goat…they talk to a sheep or the frogs or lizards.*

- *Maybe it was a good hunting ground at the time, during the winter or sometimes…or maybe during monsoon season cause water would collect in some of these places.*

When did they visit the panels?

- *There would be a special time of day to make these peckings and that would only be "only after something big." Like you notice that some of them had large herds of mountain sheep pecked into them…maybe this is where the mountain sheep came that's why they were here at the time too. And the animals pretty much stay where there's water too. Then a lot of them showed…it looked like the Native people pushing them…herding them towards the edge, the drop offs…maybe hoping that animal would break a leg or something to slow it down.*

Who visited these panels?

- *Looking at all the stuff on the rocks…it looks like they were mostly men.*

- *It might have been men who did the writing.*

Are there any stories associated with these panels?

- *What kind of stories…just by looking at rocks, there's stories of the animals who fed and clothed these people. The Mountain Sheep song could probably be sung here, but I know the Mountain Sheep songs mostly sung for the dances. They could be singing them (the sheep images too while they're putting them on the rock.*

- *On those drawings, there's only two or three people, not twenty people pecked into the rocks.*

- *'The Herding One' was the one I found the most interesting…the picture of the two guys and the one with the bow. And in this drawing…it kinda ended with a rock fell down…that's kinda presumed that's what they were doing…herding these animals to their death…off the cliff or something like that.*

- *It looks like someone is trying to tell a story about a goat hunt.*

Are these panels connected to other panels else where and how are they connected?

- *I have seen similar peckings elsewhere. I've seen them on the Kaibab Paiute Reservation and in some in the Grand Canyon.*

- *I've even seen one with what looked like lizards...that was interesting because I know the Paiutes at one time ate green ones. It just kinda caught my eye from the others. I've never seen any of those in the village…I've seen them in the canyon (the peckings).*

- *All things are connected.*

- *The land is connected because these people walked on this land through here…they were all around here.*

Are there archaeology sites connected?

- *The archaeology sites are where they camped.*

Are there plant connected?

- *Plants are connected because some of the plants only grow around water, some of the plants only grow where there's good soil. Sometimes you see one different type of plant amongst various plants here.*

Are there animals connected?

- *To me, the animals gave them life, which also in return the Native provided a form of sanctuary for them. They knew when to take the animals, they knew when not too. Those were signs of a healthy life amongst the Native people and the four-legged people they live with.*

- *The animals are connected because they are depicted on the rocks.*

- *Oh…there's lots of animals…how are they connected to this site...there's a record of animals within the region probably…within this whole area or those animals on the rocks could be representative of different things.*

Are there minerals connected?

- *Minerals are probably connected through the plants and the water…I say whether it's in the canyon or in a small place like this it's calm, it's peaceful.*

Many of the elders believed that this site had many functions. According to the elders, Nampaweap would have been a place for Indian people to conduct ceremonies and a place to seek knowledge and power. Some elders added that this site was a place for Indian people to communicate with spiritual beings and other Indian people as well. Many elders also thought that the rock art signified a territorial marker for Paiute people.

Ethnographic Comments

Nampaweap is a complex rock art site that is part of a series of sites that make up a local spiritual landscape on the Arizona Strip (see Chapter 5 for more). Accompanying the Tumpituwixnap at this site are a spring and a rock shelter. In Southern Paiute territory, rock art is often associated with springs. Springs are needed to sustain life and are sources of puha. Caves and rock shelters are also associated with rock art. They are knowledge and power seeking places that are both physically and spiritually connected to rock art panels.

Figure 4.17 Rock Art found at Nampaweap

In previous studies conducted by the BARA team, configurations of rock art sites similar to Nampaweap have been found. In the Wellington Canyon (Stoffle, et al. 2000b) and the Spring Mountain Cultural Landscape (Stoffle, et al. 2004b), studies discuss the relationship between a water source, a cave, and rock art. This assortment of features has been identified as a *cave-rock art-spring cluster*. These clusters frequently occur throughout the Mojave Desert, the southern Great Basin, and the Colorado Plateau. It is possible that different people could have used these resources for multiple purposes; however, the resource cluster constitutes a formalized religious center. In addition, it is important to note that there are other resource locations that are used to enhance the ritual performance characteristics of a specific cluster in different ways.

In the Wellington Canyon-Pintwater study (Stoffle, et al. 2000b), the BARA team wrote the following about the *cave-rock art-spring cluster*:

At its most essential, the cave-rock art- spring cluster is a source of supernatural forces that may be harnessed by individuals through training, dreaming, and revelation. These individuals visit such resource clusters to attain knowledge and power to heal themselves and the community as, for example, rainmakers or snakebite doctors do. While creation places are sources of cultural and ethnic identity and continuity, cave-rock art-spring clusters may be conceived as places where creation beings and other spirits reside and await for humans who can benefit from their life-giving force. As illustrated in early ethnographies (e.g. (Kelly 1939: ; Laird 1976), modern research (Stoffle, et al. 1998: ; Whitley 1999: ; Zedeño, et al. 1999), and current site evaluations (Arnold, et al. 1998); Stoffle et al 2004; this report), each resource within the cluster has a specific role in the process of attaining knowledge and power from the spirit world:

- *Cave*: spirit home, source of origin stories and songs, source of curing/healing knowledge, dream, vision, and wish-acquiring place

- *Rock Art:* gateway to the supernatural, where initiates may cross between worlds to communicate with the spirits to increase or maintain knowledge or power. The spirits reside in the rock and either make the rock art or inform the shamans who make the rock art

- *Springs*: Place of purification and preparation to enter caves or rock art sites; also maybe gateways to the supernatural. Springs also are spirit homes, but water spirits may be malevolent (e.g., water babies) for those who do not know how to harness their power

Examples of the cave-rock art-spring cluster occur in the Grand Canyon, Arizona and Nevada (Stoffle et al. 1995a) in Grapevine Canyon, Newberry Mountains, Nevada (Bean et al. 1979: 7-40; Whitley 1996: 128-131), at Mitchell Caverns, in the Providence Mountains, California (Bean et al 1979: 7-37), at Buckboard Mesa and Captain Jack Cave in the NTS (Zedeño et al. 1999); at Cot Cave-Twin Springs in Yucca Mountain (Stoffle et al. 1990b), Zedeño et al. 1999) and possibly near Gypsum Cave, but this association is not yet confirmed.

(Stoffle et al. 2000b)

Native American Recommendations

- *A lot of people think…they come walking in here and see all this and they think it's just doodles, just drawings, just pictures…it's so much more than that…not just doodling. I mean who in the old days had time to doodle, ya know. This is rock writing, not rock art!*

- *Lack of respect for people who did this along time ago and what messages they were trying to put out for the future of their people. They mimic the drawings by drawing what was already on the rocks and then writing English lyrics on the rocks.*

- *Block it off to public access…if not, have guided tours. (The guides) they should be any person who understands and can read this…to me any person who can read this and take the time to understand and read it have respect for it this type of work…art work. It tells a story.*

- *One elder would like to see a fence installed so that people will not be able to touch the rock, instead they can "look and listen."*

- *Don't allow them down here or fence them off along the base of the rocks.*

- *The BLM needs to keep a close eye on it. They should close it or give out hiking permits. It's a wonderful site and it's just being ruined. They should fence it so no one can come in without a permit.*

- *If it's going to be destroyed…let it be destroyed naturally.*

4.8 Condor Release Site

Location

The Condor Release Viewing Area is located at the base of the Vermilion Cliffs, 27 miles west of Marble Canyon in Upper House Rock. This site is situated on BLM Road 1065, off of highway 89A, which demarcates portions of the historically used Dominguez-Escalante and Mormon Honeymoon Trails. Notably, these trails simply followed an Indian trail used for travel and trade long before Spanish and Euro-American encroached upon the traditional lands of the Paiute people from this region.

Geology

The Vermilion Cliffs in this section of the Arizona Strip turn northward towards the Utah state line and rise nearly 2000 to 3000 feet above the Earth's surface (Chronic and Chronic 2004: 144). The Vermilion Cliffs are thirty miles of an escarpment of Triassic and Jurassic sandstone strata. These sedimentary rocks vary in color ranging from dark red to a salmon pink. These rocks were deposited on a broad plain that sloped in a northwestward direction toward the sea. Their resistance to erosion gives the cliffs their shape. For example, the more resistant sandstones tend to break away into vertical walls while the less resistant interbedded sandstone, siltstone, and mudstone form steep slopes, and limy mudstone that is mixed with volcanic ash shape low rounded hills (Chronic and Chronic 2004: 144).

Life Zone

The Condor Release Site and its surrounding area are located in the Great Basin Deserts Scrub biotic community. This biotic community is.known for having characteristically low species diversity. This community is generally dominated by sagebrushes and shadshales; the predominant sagebrush species is *Artemisia tridentate* (Brown 1994).

Plants

Southern Paiute representatives identified plants that inhabit this site. Some of the plants that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Globe mallow	*Sphaeralcea ambigua*
Singleleaf Piñon Pine	*Pinus monophylla*
Stansbury Cliffrose Tree	*Purshia stansburiana*
Three Leaf Sumac	*Rhus trilabota*
Cedar Curlleaf Mountain Mahogany	*Cercocarpus ledifolius*
Big Sagebrush	*Artemisia tridentate*

Figure 4.18 Condor Release Site along the Vermilion Cliffs

Animals:

Southern Paiute representatives identified animals that inhabit this site both physically and spiritually. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Black-tailed Jack Rabbit	*Lepus californicus*
Desert Cottontail Rabbit	*Sylvilagus audubonii*
Rattlesnake	*Crotalus* sp.
Pronghorn Antelope	*Antilocapra americana*
Elk	*Cervus elsphus*

Red-tailed Hawk	*Buteo jamaicensis*
Swainson's Hawk	*Buteo swainsoni*
Golden Eagle	*Aquila chrysaetos*
Bald Eagle	*Haliaeetus leucocephalus*
Desert Big Horn Sheep	*Ovis canadensis*
Mule Deer	*Odocoileus hemionus*
Porcupine	*Erethizon dorsatum*
Bobcat	*Lynx* sp.
Wild turkey	*Meleagris gallopavo*
Owl	*Strigidae* sp.
Spider	*Arachnid* sp.
Coyote	*Canis latrans*
American Crow	*Corvus brachyrhynchos*
Condor	*Gymnogyps californianus*
Mice	*Perognathus* sp.
Ground Squirrel	*Spermophilus* sp.

Special Features

UofA ethnographers and cultural representatives from the San Juan and Kaibab Paiute Tribe met with BLM Condor Specialist, Mike Small, at the Condor Release Site. Mr. Small conducted a formal presentation of his work with the release of this endangered species and openly engaged representatives in a round of discussion and questions. Mr. Small set up a viewing station so that the elders and members of the UofA team could look at the release station on top of the Vermilion Cliffs. UofA ethnographers conducted formal ethnographic interviews with both San Juan Paiute and Kaibab Paiute cultural representatives in order to record their ideas about the California Condor as well as this portion of Upper House Rock.

Native American Comments

Would Indian people have used this area and for what?

- *The name of the site in Paiute is,"As-hal-sak," meaning, "When it clouds up, the clouds lie low."*
- *Navajos are using Paiute trails. Paiutes used to be able to stop them but not anymore because of bridge.*
- *There is a roasting pit nearby.*
- *They could have done the Round Dance here.*
- *There's a burial site along the cliffs.*
- *Traveling from place to place is important for Paiutes because different places have different roots for medicine and such.*

- *This area used for rotating seasonal gathering camps, hunting, living.*

- *People used the area for camping, during the summer.*

- *There was cow herding in the area… this area as their passageway to Flagstaff.*

- *Old road, used to be a trail over by Vermilion Cliffs, Pow-Wow on Flagstaff every 4th of July, and everybody from Kaibab would travel this road to get there.*

- *Someone buried by old store location, marked gravesites, person died while coming back from Flagstaff.*

- *Don't go down into certain canyon during certain time of year because of floods, there's a crossing that you can go through to get around this.*

- *Vermilion Cliffs and Kaibab Mountains used for stories, and travel…Kaibab Mountains used during deer hunting season, people would camp up there with their families, and prepare the jerky, people from Kaibab or Kanab.*

- *People traveled quite a bit.*

- *Healers seek knowledge and power in a site.*

- *The trail was important for people traveling through to pick piñon nuts; people would stay a week or two in Vermilion Cliffs.*

- *People do not really hunt anymore, last time was about two years ago, but people have pretty much stopped now because of the licenses.*

- *Paiute places belong to the Paiute.*

- *Medicine men would pray and perform ceremony for people to get better, that is why the area is sacred.*

- *The elderly, about two generations back from today used to pray to the Vermilion Cliffs.*

Is this place part of a series of connected places and why?

- *This place is connected to where they would have been farming near the river, farming squash. Younger people don't really do that now.*

- *This would have been the major trail to Lee's Ferry, cross the river.*

- *Amazing the relationship between this whole area and the history of the Paiute people.*

- *Any kind of road of trail used to be just Paiute. And they're still here.*

- *Red Paint in Vermilion Cliffs used to ward off spirits, used to communicate with other Indians, meeting place.*

- *This place significant for ancestral reasons.*

- *This place connected to Grand Canyon, Kaibab Mountains, Arizona Strip, for seasonal living.*

- *This place connected to other places, because if they went to an area they would say the place.*

- *Kaibab people would come to the valley because others lived here, and because of the trails, and because of the plants, and to hunt.*

- *There are eagle songs and horse songs, no big bird songs, sung on special occasions*

- *People would go across over the mountain towards Kanab.*

- *Trail to north of the area connecting to San Juan*

- *From Page to Lee's Ferry to Little Colorado River to Salt Cave, this all used to be San Juan territory. Now the Navajo reservation. The Navajo have populated all over these areas, and we can't stop them. Paiute canyon used to be all Paiute people and the Navajo took it over. They started setting their land permits and took all the Paiute land.*

Did Indian people use the water source at this site?

- *Paiutes always like to live by the water.*

- *People used to know where all the water sources were.*

- *Water is very important, people would have stayed where the water is.*

- *Water source important to live nearby.*

- *No notice of water around this site but it would probably be important.*

Did Indian people use the plant resources at this site?

- *Different trees played part in lives…cliffrose, it's what we made traditional dress with it*

- *Sumac, chokecherry, urp, used for medicine.*

- *Have to pray before you gather or dig anything out. The plant won't work or heal you if you don't pray; you have to pay in prayer.*

- *Willow good for basket making.*

- *Certain big pine needles used to make baskets.*

- *Roots of plant can be covered up by sand and buried deeply.*

- *The plants are kinda dry now because of the drought, the plants may have disappeared in a way, people move to wherever the water is at.*

- *Medicinal plants here, certain plants grow in certain areas.*

- *Orange Mallow* (Globe Mallow) *always looks to be in good shape, and nothing can affect it because it's everywhere, people sometimes use it today. Boil the Orange Mallow and drink it.*

- *(Orange Mallow?) orange flower plant in the area, drink a mixture of the plant to soothe aching bones*

- *Paiutes come to the area for piñon nuts, come with family and other members, can collect bags of up to 25 pounds or more. Women would roast piñon nuts to eat and sell; sold at the trading post around Tuba area.*

Did Indian people use the animal resources at this site?

- *Animals fed people at the ceremonies.*

- *Heard from newspaper and radio back in 1979 or early 80s that after the condors were released that they wondered down to the Echo Cliffs and one was killed by eagles.*

- *Elders in the past said that the condors being released never lived in the area…the condors land close to people and aren't afraid of people, and that's not good, that's telling you something, that people are probably feeding them or something. Don't know if Paiutes in this area had representation when the decision was made to release condors, there should have been because this is our traditional area.*

- *The animals stick to the mountain areas where there are water sources.*

- *There may be stories of buffalo from a long time ago.*

- *Deer was used for food, clothing, tools. Probably used the horns for medicine or ceremony, some would keep the horns.*

- *Other story about rotten eater birds that would eat the dead animals, they can give you cancer if you take your shirt off, you don't eat birds that eat dead animals, don't touch the feathers because you'd get sick, sores, this bird has power but power to hurt people, only medicine men could not be hurt by these birds. Don't touch the snake, the rattlesnake, don't touch the condor, stay away from the big spider…owl, coyote and crow bring bad news*

- *There was a story about a big black bird, they would call it a "yellow earring," and they said it would kill human and children, take them over the hill and eat them.*

- *People sometimes hunt rabbit, some used to make rabbit blankets, and they went to the Tuba City area in old days to hunt rabbit.*

- *Make arrows from the eagle feather, put the feathers with corn powder on horses so the horses would not get tired…arrows for hunting all types of wildlife*

- *Animals in the area would be deer, and they planted (reintroduced) bighorn sheep, and antelope to the area some years back, there are also elk in the mountains, rabbits, porcupine, bobcat, turkey.*

Did Indian people use the geologic features at this site?

- *Mountains still colorful… still have trees and animals, and fresh air.*

- *The places that stand out are the Vermilion Cliffs and the Kaibab Mountains to the west, and the valley.*

Ethnographic Comments

According to linguist, Edward Sapir, Southern Paiutes use the same word to describe both the eagle and the condor, *k^{w}ana* and the condor (eagle) appears in many stories and songs (Sapir 1915; Sapir and Bright 1992: 756). Sapir and John Wesley Powell collected numerous stories and songs that involved birds. One of the songs that Powell collected is entitled "Eagle's Tears." Below is the Southern Paiute version of the song followed by a loose English translation.

Ta-vi'-kwai-nant'-si ya'-ga-wats
Si-chōm'pa kung war'-ru
Tu'-yung-wi-ra'-vats

At the morning the eagle will cry
On the farther shore of the sea
And the rainbow will be in the sky
(Fowler and Fowler 1971: 122)

The Hopi, who also speak a Uto-Aztecan language, have linguistically encoded knowledge about the condor in the Uto-Aztecan tongue as well. According to *The Hopi Dictionary* (1998: 809) the condor is known as the *Kwaatoko.* The condor is reportedly called the Kwaatoko [eagle flesh] "because of reports that it is the biggest of birds" (The Hopi Dictionary Project 1998:168). An alternative meaning for Kwaatoko *is* "an eagle-like deity, the clan ancestor of the Kwaangyam… [Furthermore] The Hopi have Kwaatoko as a shield against the enemy (they pray to him to help them prevail)."

Figure 4.19 Southern Paiute Elders and BLM Representative Watching Condors

Contemporary ethnographic statements made by San Juan Paiute cultural consultants confirm that condors represent a source of recognized power. Whereas the Hopi link the Eagle and possibly the condor with positive power associations including clan ancestors and protective forces to counter enemies, however, San Juan consultants describe the Condor as a source of danger. One elder stated, "*This bird has power but power to hurt people,* only *medicine men could not be hurt by these birds. Don't touch the snake, the rattlesnake, don't touch the condor, stay away from the big spider*." Avoidance taboos associated with the condor appear to derive from the raptor's diet of dead animals. The San Juan Paiute consultants also remembered hearing old oral stories about "Rotten Eater Birds." One elder recalled,

> [The] *other story about rotten eater birds that would eat the dead animals, they can give you cancer if you take your shirt off. You don't eat birds that eat dead animals, don't touch the feathers because you'd get sick, sores, this bird has power but power to hurt people…*

The San Juan Paiute elders told an associated story of the condor. In this variation, the taboo bird represents a source of power that is used to frighten children into behaving. The elders said that this image was recalled in order to get children to do what they were told.

There was a story about a big black bird, they would call it a "yellow earring," and they said it would kill human and children, take them over the hill and eat them.

This conflation of alternate qualities within the same being is consistent with the findings of cultural anthropologist Mary Douglas discussed in *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (1984). Herein sources of power are alternately linked with pollution and danger

Ethnographic sources indicate that other indigenous groups draw inspiration from this bird of power. For example, the condor is a raptor that is discussed in relation to pan-Indian prophecy. One such recorded prophecy states,

> When the Eagle of the North and the Condor of the South reunite, all these people will come together, and nothing that whites might do will impede the fulfillment of prophecy…Our North American Indian brothers have shown us in numerous opportunities that their ancestors originated in South America- generative mother- and for them, to look for their own roots means, without question, traveling, making pilgrimages to this South, and reencountering the Indian peoples of this part of America *(Jackson 1995: 323).*

For further ethnographic information, please see the Ethnographic Comments for Signature Rock.

Native American Recommendations

- *Don't like the hunting policy and would like to see it changed, they should get rid of the hunting policy.*
- *Protect cliffs for ceremony and hunting.*
- *Water in area affected because less rain, snow, chemicals are causing this*
- *Weather also affects condition of plants, not many plants in the area, have to go to the foothills for plants*
- *Reintroduction is new to me, but for the condor might not be a bad thing. The rotten eater bird would be good to have around to let the kids know what bird is for those that haven't seen it.*
- *BLM helped fence our burial area, people from Kaibab are buried here, if we keep good working relationship with BLM then we'll be alright.*
- *I guess it's okay to have released the condors in the area, but they don't really come around, and the elders said that those birds aren't even from the area.*

- *Next time when introducing wildlife, should consult with the tribes.*

- *This site is good when there aren't too many people, you keep it as pristine as you can, a visitor here or there doesn't hurt.*

- *Kaibab Paiute Tribal Government should be updated if there are going to be community changes.*

- *If people have a purpose to come here then they should be allowed to come, we want access to the area, make sure the tribe is involved.*

- *The management between the two sites should be in better cooperation, more talking between forest service and tribes.*

- *Paiutes should be able to come and check on resources and have access to them*

- *Show this place on the map, but not make accessible to everybody, just Paiute access to traditional territory.*

- *Something affecting site is people drilling to put in pipeline.*

- *People should be able to camp out for however long they want.*

- *Paiute people think about coming out to this area more often. They want to use this area like they used to do. Now the BLM has taken over. The government says people weren't living here but the San Juan were using this place, gathering, hunting and camping.*

4.9 Signature Rock Site

Location

Signature Rock is located on the Vermilion Cliffs and is located along the Mormon Honeymoon and Dominguez-Escalante Trails. Interviews pertaining to this site occurred at the base of the Vermilion Cliffs. The Vermilion Cliffs in this section of the Arizona Strip turn northward towards the Utah state line and rise nearly 2000 to 3000 feet above the Earth's surface (Chronic and Chronic 2004: 144).

Geology

As part of the Vermilion Cliffs, Signature Rock located in an escarpment of Triassic and Jurassic sandstone strata. These sedimentary rocks vary in color ranging from dark red to a salmon pink. These rocks were deposited on a broad plain that sloped northwestward toward the sea. Their resistance to erosion gives the cliffs their shape. For example, the more resistant sandstones tend to break away into vertical walls while the less resistant interbedded sandstone,

siltstone, and mudstone form steep ledgy slopes, and limy mudstone that is mixed with volcanic ash shape low rounded hills (Chronic and Chronic 2004: 144).

Figure 4.20 Signature Rock

Life Zone

Signature Rock is located in the Great Basin Desert Scrub biotic community. This biotic community is known for having characteristically low species diversity. This community is generally dominated by sagebrushes and shadshale, and the predominant sage brush species is *Artemisia tridentate* (Brown 1994).

Plants

Southern Paiute representatives identified plants that inhabit this site. Some of the plants that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Cedar/Curlleaf Mountain Mahogany	*Cercocarpus ledifolius*
Rubber Rabbit Brush	*Chrysothamnus nauseosa*
Singleleaf Pinyon Pine	*Pinus monophylla*
Big Sagebrush	*Artemisia tridentate*
Three Leaf Sumac	*Rhus trilobata*
Indian tea	*Ephedra viridis*
Mojave Prickly Pear	*Opuntia erinacea*

Animals

Southern Paiute representatives identified animals that physically and spiritually inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Pronghorn Antelope	*Antilocapra americana*
Mule Deer	*Odocoileus hemionus*
Black-tailed Jack Rabbit	*Lepus californicus*
Desert Cottontail Rabbit	*Sylvilagus audubonii*
Ground Squirrel	*Spermophilus* sp.
Porcupine	*Erethizon dorsatum*
Wild turkey	*Meleagris gallopavo*
Desert Big Horn Sheep	*Ovis canadensis*
Hummingbird	*Trochilidae* sp.
Pigeons	*Columbidae* sp.

Special Features

The group visited Signature Rock because it is located along the Dominguez-Escalante and Mormon Honeymoon Trails, which follows an old Native American trail through House Rock Valley. The cliff walls had the names of the numerous people who passed through this area on their way to and from Utah or other parts of Arizona. The site had numerous important use plants and a water source, which would sustain either a permanent or a temporary settlement.

Native American Comments

Would Indian people have used this area and for what?

- *Valley, cultural resource, never understood, but knows why travel is important; important for food and medicine, and hunting.*
- *People used this area for hunting, seasonal camping, gathering of food*
- *This is traditional territory all from one range or another*
- *This is a source for water, plants; animals*…p*eople use this area to "water up."*
- *This site used for seasonal living, hunting, gathering, camping, probably ceremony*
- *Go to where you can't drive any further, across a drainage right next to the Honeymoon Trail, and there's a grave, concrete slab, has a modern headstone and original headstone, person died at House Rock Springs.*
- *This is the homeland for Indian people.*

- (What was this site used for?) *Living here, passing through, seasonal picking of fruits and plants for eating and storing, the ladies' job to gather, ladies knew most about plants.*

- *People used the area for hunting, for ceremony and power, for gathering food and for the water.*

- *Paiutes do not put their names on rocks, only art.*

- *Spring canyon cliffs for hiding.*

- *There used to be a trap on the rocks for mice and small animals to catch them.*

- *The Indians would likely stay or have ceremony down in the valley more away from springs*

Is this place part of a series of connected places and why?

- *Water connects this place to other places.*

- *Place connected to Grand Canyon, Kaibab National Forest, whole territories*

- *Grave on owned land down by the highway, a Paiute boy who was killed in a prank by friends.*

- *This place connected to mountain areas, Kaibab, who would travel over the Colorado River.*

- *To us everything is just one solid, you don't separate things, they just kinda blend together, so they all have their connections, each place has something to give.*

- *This place connected to the water that comes from the cliffs and plains above and drops through the cracks below, water movement down.*

- *There used to be a trail on the other side of the canyon.*

- *Springs and canyon used to communicate with other Indians, and for teaching other Indians about water, also used to hide from invaders, Spaniards or enemies up above*

Did Indian people use the water source at this site?

- *Water very important, a lot of people follow the spring.*

- *Water connects this place to other places.*

- *This place needs more water, there may have been more in the past.*

- *The spring used for food and drink by Indian people, it is precious.*

- *Water used for washing up and cleaning, cooking. Water not used for medicine but was mixed with different things to make medicine.*

- *People prayed for water.*

- *The spring is in bad condition, needs repairing and there is no water coming out*

- *Probably the movement of the rocks has shifted and changed the spring, it has been dry and there hasn't been a lot of snow.*

- *The spring and water is something the Paiutes knew about.*

- *We would get the water for cooking when on a trip, and would have used it to fill up the water jugs, could have used it for ceremony and round dance*

- *This place connected to the water that comes from the cliffs and plains above and drops through the cracks below, water movement down.*

- *The spring as the important water source, important for food, drink, medicine, ceremony, cooking ceremony, Pow-wow, round dance.*

- *Water can be used for boiling the herbs for medicine*

Did Indian people use the plant resources at this site?

- *People used willow to make baskets.*

- *People would have used other plants in the past, now they just use willow.*

- *People would use this area for the spring, berries, cedar trees…* the c*edar limbs used to ward off evil spirits.*

- *A few pine nut trees, pick the pine nuts in September. Rabbit bush turns bright yellow a then you know it's time to pick the pine nuts.*

- *Indian people use plants for ornaments, making houses, food, medicine…cedar, pine, sage, made for different kinds of houses at different times of the year, different seasons. They made mattresses out of cedar branches, put them together for the mattress and lay on it; it is real soft and can keep you off the ground. Cedar berries are used for diabetics…sagebrush for colds and different things. The sap from the pine nuts used if they got stickers or something sharp under the skin, they'd wrap it and it draws whatever it was out of the skin.*

- *Cedar trees to be boiled in the water*

- *Used the sumac in water to make a kind of juice, Indian tea would also be used with this water.*

- *Plants used to make baskets, Paiute hat made out of sumac, like a wooden basket, round straight hat.*

Did Indian people use the animal resources at this site?

- *Animals used for food, medicine, ceremony, clothing, tools, but the animals are bad off because of the drought.*

- *There were a lot of animals before the white people came, I guess the world has to change.*

- *They hunted rabbits, deer, squirrel, antelope…people used the animals in this area for food, clothing, tools, and other stuff. Rabbit skin used for blankets, shawls and jackets to keep warm in the winter. Whistles made from rabbits for dancing…sharp knives, scrapers made from animal ribs of various animals.*

- *They made jerky and medicine, shoes from animals.*

Did Indian people use the geologic features at this site?

- *Spring canyon cliffs for hiding.*

Ethnographic Comments:

Prior to Euro-American encroachment, Southern Paiutes would have used this area to gather numerous medicinal and other use plants. The water source would have sustained either a permanent settlement or a temporary camp. It is possible that people, who lived at West Bench Pueblo traveled to Signature Rock to gather plants or hunt.

After encroachment, this area was used a great deal by white settlers in the region. Indian people might have left this area to seek refuge in other more protected areas, also known as regions of refuge (Aguirre Beltran 1979.)

The ethnographic notes of Isabel Kelly shed light upon many of the sites visited by UofA ethnographers during the August 2004 fieldwork session with cultural representatives from Kaibab and San Juan Paiute Tribes.

This introduction presented here applied to all the sites visited in the Vermilion Cliffs area, including the Condor Release Site, Signature Rock, and West Bench Pueblo. This information is based on Kelly's research with various Numic-speaking informants including San Juan informant Jodi (J), whom Kelly interviewed at Marble Canyon (Kelly 1971:167). It is

probable that the woman Kelly spoke with is Joedie Paiute (*Akamanaxwats*), a San Juan Paiute that was reportedly not living on the reservation in 1934 (Federal Supplement 903). Joedie Paiute's son, Blue Lee and his family are recorded as living at Lee's Ferry and around Page, Arizona from the early 1930s. (Federal Supplement 903-904). Also relevant to the present study are field notes from Kelly's interviews with a number of Kaibab informants including Captain George (G), Mose (M), Adam (A), and Sarah Frank (S) (Kelly 1971:3).

Many of the traditional places identified by Kelly exist along the base of a series of red sandstone bluffs known as the Vermilion Cliffs. Kelly writes, "Springs occur chiefly in a long, almost continuous line, along the base of the Vermilion Cliffs, including the western and southern fronts of the Paria Plateau, and along the western slopes of the Kaibab Plateau (Kelly 1971:7). These watering sites are located in the Kaibab District of the Southern Paiute, bound on the east side by the San Juan District, on the north and northeast by the Panguitch and Kaiparowits, and on the west, by the Uinkaret District. Significantly, Kelly notes, Paiute people owned the springs where they lived. Kelly writes,

> A man owned a little land [sic] around a spring and lived there with his relatives and friends. If someone else came around, he could camp there too; a man liked to have company. He liked to move around and change springs too; he knew where to camp. But if he moved away, he would come back later to his own spring. When a man died they moved the camps but did not leave the spring. (Kelly 1971: 7)

From this evidence, it is probable that area around Signature Rock is a Paiute traditional use area.

Figure 4.21 Southern Paiute Elders at Signature Rock

Site Usage Patterns

Kelly writes that site 57 (Mukuvac) [was] used by people from site 56 when camping on Paria Plateau but "not owned by them" (Kelly 1971:10). In addition, she notes that "…58, used at times by occupants of 56 and 60-61; 63, not inhabited, little water; 65, once very populous by "all dead: before informant G visited there (then occupied by 1 family: Sina atan [Sinarin, coyote teeth] his wife, 2 children; Sina atan found the spring and camped there; he thought he owned it"); 66, uninhabited" (Kelly 1971:11). According to Isabel Kelly, Houserock Spring (Site 55) is the ethnographic site she identified as Kankwi, Kankwic (water singing; Houserock Spring. A small spring across valley, at eastern base Kaibab Plateau called Miapikankwi, little Kankwi).

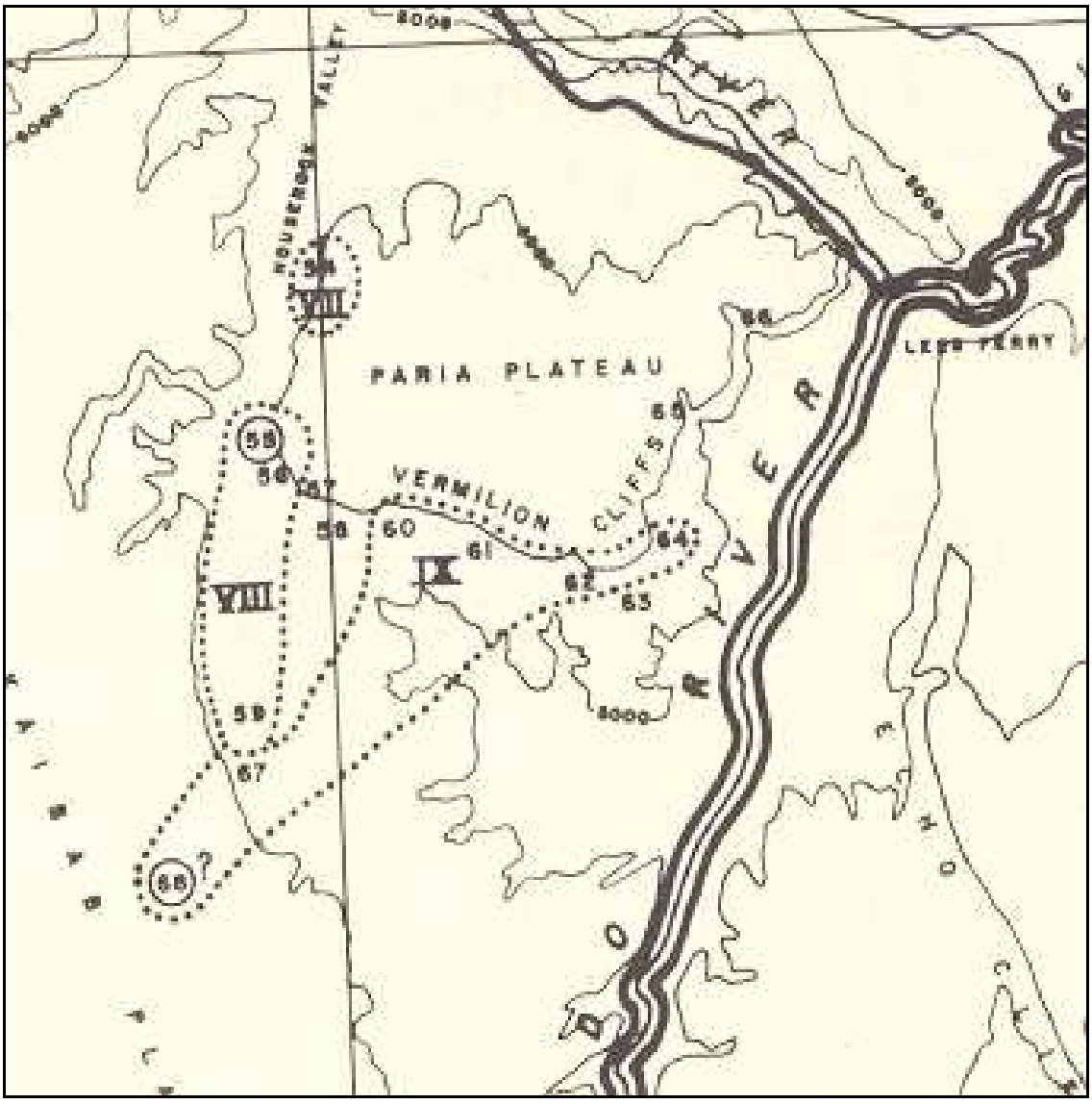

Figure 4.22 Isabell Kelly's Map (Kelly 1971)

Specific Informational Status of these sites:

Kinship:

There were approximately ten camps at *Kankwi* (Water Singing/Houserock Spring, 55). Kelly's consultants identified *Tasiaci* (Early Morning) as the owner of these springs.

He lived with his mother, *Miapi-magugui* (Little Woman) and his wife. At a second camp lived *Sagwoarokovac* (Blue Tattoo), his wife, an older son known as *Kwaganti* or quiet man, and several other children. At a third camp lived *Winituic* (Setting Post) and her unmarried son Stavi who was the first cousin of Mose of *Kwaganti.* Finally, the consultant remembered a man known as *Tavinwawici* (Sun Slope) living at a fourth site with his wife and several children. After the death of Tasiaci, the ownership of (*Ousuck*) transferred to *Kwaganti* and the shaman, *Keno* (Crooked Elbow).

Kelly noted a kinship history of the spring. The numbers used correspond to Figure XXX. A man called *Sakic* (Crackling Step) owned *Mukuvac* (56), which Kelly estimates housed the largest number of occupants next to *Sovinokwicic* (Soap Creek, 65). Some of the residents of this spring included: Sakic, his wife and many children, of whom only one daughter survived.

Next, the consultant remembered an elder named *Kan annapin*, or 'Root Man' who was a distant relative of Sakic. *Kanannapin* lived with his wife, as well as her two sisters, and several brothers. Another distant relative of Sakic's, *Tukmic* (Wildcat Whiskers) lived with his wife, their children, Tukumic's two sisters, their husbands, and their children. *Tavinwawici* (Sun Slope) and his family also resided at least part of the time at Mukuvac.

UofA ethnographers worked with the probable descendants of Wildcat Whiskers while conducting fieldwork with cultural representatives from San Juan in August of 2004. The Whiskers live in the vicinity of Paiute Mountain, which is also known as Navajo Mountain due to joint usage by Navajo and Paiute populations. The Whiskers are also related to the Lehis of San Juan and they report family connections to district members of Kaibab, such as V. Caron-Jake.

Kelly reports that historically after Sakic died, Mukuvac became the property of Kwaganti, whose mother was Sakic's younger sister. The property passed to Kwaganti because all of Sakic's children except one married daughter had died. Kwaganti also came into possession of *Oarinkanivac* (59) and jointly owned *Kankwi* (55) along with *Keno*. During this period the following people lived in two camps at Mukuvac (56): Kwaganti, his brother *Anikwitu*, Anikwitu's wife, and three children. Later Kwaganti married *Na anoi i*. At the second camp lived *Winituic* and her son, Stavi.

Resource Use:

Those who lived at *Kankwi* had extensive connections to other springs, regions, and communities. Each winter the residents of Kankwi moved to Mukuvac (56). After winter passed, they would sometimes go with the people from Mukuvac to Oarinkanivac (Salt-Cave Water,

Cane Ranch 59). From Oarinkanivac they traveled along the flats of the Vermilion Cliffs and *Pagampiaganti* (Cane Ranch) gathering seeds. When deer hunting they would camp at the springs of *Tasiaci* on both the east and north sides of the lake.

These springs were known respectively as *Tamavac* and *Kwitipac*. They continued traveling through the fall through the Paria Plateau where they gathered pine nuts, camping at the spring known as *Wiivac*. After gathering and harvesting resources for the winter, they returned to Mukuvac, where they remained until spring. Only in summer did they finally return to Kankwi.

The residents of Mukuvac (56) wintered in a cave at Oarinkanivac, while storing most of their food caches in Mukuvac. They developed a system of settlement, movement, and resource procurement that allowed them to optimize the resources made available to them through their environment. During the summer, they gathered *Chenopodium*, *Epicampes*, and *Oryzopsis* in Mukuvac. Towards the end of summer, they went to the Kaibab Plateau, and sometimes the Paria Plateau to hunt deer and gather pine nuts. When resources were scarce, they also gathered mescal in the Colorado Canyon.

Ethnographic Interviews

Kelly reports that occupants of Mukuvac (56), *Tumaranpaganti* (60), and *Winorumpac* (61) used *Sikiava* (Fissure, 58). However, Sikiava was not permanently inhabited due to a lack of sufficient water.

Documents

Kelly (1971:19) reports that Powell (Dellenbaugh 1909: 362n) renamed *Kwaganti's* land '*Kwagunt* Valley'. According to this account, Kwaganti's father allegedly gave this land to Powell.

Native American Recommendations

- *Animal habitat not too good, haven't hardly seen anything, haven't seen rabbits, not even lizards and they're usually all over the place. Lack of rain and feed is affecting the habitat; smaller animals could maybe survive on plants in the area. Overall condition is fair, new pipeline in, the drought really affecting the place, no snow or rain, first rain since months ago, there was a five year drought.*

- *We want to be able to access this traditional Paiute territory.*

- *This place would be nice for people to be able to come and look at, put not for people to come trample on everything, so long as they take care of it that's all.*

- *Indian people would want to have access to the area because they drive through all the time.*

- *Permission to access the area needs to be made available to the Indian people.*

- *We have to learn how to take care of the area.*

- *This area in poor condition, affecting it is the large amount of digging and work on the springs.*

- *Put a better water line in, maybe put a tank for drinking water, not much pressure…maybe put in a fence to protect from animals, so animals can't fall into it.*

- *It is important for this place to be around so some of the newer generations of Paiutes can see where the Paiute people in the 1700-1800s had their lands.*

- *This place should be used for drinking, hiking, camping and hunting*

- *We want to have access and be able to camp here*

For further information:

- Kinship: See Kelly 1971; Stoffle et al. 2004b Chapter 1: Habitat and Population

- Cultural Landscape: See Kelly 1971; Stoffle et al. 2004b Chapter 1: Habitat and Population

- Ethnographic Interviews: See Kelly 1971; Stoffle et al. 2004b Chapter 1: Habitat and Population, **See Chapter 4, Fieldwork 2004**

- Documents: See Dellenbaugh 1909:362n

4.10 West Bench Pueblo

Location

West Bench Pueblo located on the western edge of the Paria Plateau north of the Condor Release Site and Signature Rock at an elevation of 4100 feet. Like the other two sites, West Bench Pueblo overlooks House Rock Valley and faces the Kaibab Plateau (Chronic and Chronic 2004: 144).

Geology

The Paria Plateau is comprised mainly of Navajo Sandstone. There are thick dune deposits of eroded sandstone on top of the plateau that demonstrate the sporadic advancement of sand dunes across the nearly flat surface. Most of the plateau was once covered in additional sediments but with Tertiary uplift, steams, and rivers, they have been gradually washed during the Cretaceous and latter periods (Chronic and Chronic 2004: 146).

Life Zone

West Bench Pueblo is located in the Great Basin Desert Scrub biotic community. This biotic community is known for having characteristically low species diversity. This community is generally dominated by sagebrushes and shadshale with *Artemisia tridentate* being the predominant sagebrush species (Brown 1994).

Plants

Southern Paiute representatives identified plants that inhabit this site. Some of the plants that are listed were observed during visits to this site. The UofA team using photographs taken during the field session identified others. Please note that the following list is not inclusive.

Figure 4.23 Southern Paiute Elders at West Bench Pueblo

Indian tea	*Ephedra viridis*
Big Sagebrush	*Artemisia tridentate*
Singleleaf Pinyon Pine	*Pinus monophylla*
Utah Juniper	*Juniperus osteosperma*
Mojave Prickly Pear:	*Opuntia erinacea*
Fish-hook cactus	*Mammillaria microcarpa*
Cedar/Curl leaf Mountain Mahogany	*Cercocarpus ledifolius*
Turtleback	*Psathyrotes ramosissima*
Corn	*Zea mays*
Three Leaf Sumac	*Rhus trilobata*
Coyote Berry/ False Solomon-seal:	*Smilancina* sp.
Orange Mallow/Globemallow	*Sphaeralcea ambigua*

Animals

Southern Paiute representatives identified animals that both physically and spiritually inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Mule Deer	*Odocoileus hemionus*
Black-tailed Jack Rabbit	*Lepus californicus*
Desert Cottontail Rabbit	*Sylvilagus audubonii*
Hummingbird	*Trochilidae* sp.
American Crow	*Corvus brachyrhynchos*
Pronghorn Antelope	*Antilocapra americana*
Bobcat	*Lynx* sp.
Wild turkey	*Meleagris gallopavo*
Doves	*Columbidae* sp.
Porcupine	*Erethizon dorsatum*
Elk	*Cervus elsphus*
Mountain Lion	*Felis concolor*

Special Features

Southern Paiute elders and UofA ethnographers visited West Bench Pueblo because it contains remnants of houses and numerous pieces of black on white pottery. The black on white pottery originated from the Virgin River area, which is part of traditional Southern Paiute territory. This site is believed to be the location of a permanent Paiute settlement.

Figure 4.24 Remains of a House Structure at West Bench Pueblo (Rusho 2003)

Native American Comments

Would Indian people have used this area and for what?

- *This structure is similar to another because it is placed atop and people can look off in almost all directions, this is important because you can see people approaching or see animals, different times of the year.*

- *The Paiutes would have used this, there are ruins and pottery*

- *Paiutes lived here, there is plenty of food for hunting, gathering.*

- *Paiute people would have used this site fore living, hunting, gathering, group gathering, they could live here during the summer months because it's cool, then go to south canyon where there are structures for winter living.*

- *This was probably a seasonal place to live, this whole area, up against the hill there were different families living close by one another.*

- *Probably had traditional ceremonies here.*

- *Seems people here have been digging on the site, don't know how these people got on it, maybe for sickness*

- *From their vantage point could see relatives approaching.*

- *Good spot for medicine plants, hunting, somewhere peaceful, can't be bothered here, winter seasons up here cause it would snow and they could make water, summer seasons live down closer to the water.*

- *This would have been a safe place, it's a good place to see what's happening below*

- *Paiutes would live together with many families in one place.*

Is this place part of a series of connected places and why?

- *A lot of the mountains have Paiute names.*

- *This place has a lot of connections, the canyon, the mountain range, just the whole thing, the whole area, this is a good spot.*

- *The mountains and valley and water source, Lee's Ferry, all connected, connected by trails.*

- *Other pueblo sites connected, related to this one.*

- *The Anasazi and Paiutes are related, are all the same people, the Navajo call them Anasazi, Paiutes call them Ancient Ones, and they were all over the Arizona Strip.*

- *People who lived here probably had connections with other Indians.*

Did Indian people use the water source at this site?

- *Water, there was probably a spring closer because maybe the map that indicates that there's a wash, seasonal water*

- *The spring would have been used for drinking water, irrigating, pottery and clay*

- *There is a lot of water near here, also some springs, but not right here.*

Did Indian people use the plant resources at this site?

- *A lot of kind of plants, Mormon tea, sage, bubble gum from chewing sage brush pods, pine pitch when it gets old and turns yellowish you can chew it like gum and it's not sticky, pine nuts.*

- *Good place for plants, juniper has food on it, every once in a while cactus, prickly pear with the fruit you can eat*

- They w*ould have used the plants for everything, food, ceremony, medicine, making things, juniper berries for medicine.*

- *All the things they used as well, the pine tree, the sage, the cactus.*

- *Coyote berries, seeds, grass seeds, traditional purposes, every time you see this kind of coyote berry you see a place where people lived because they ate these*

- *When you have bone aches you can boil this small plant with orange flowers.*

- *Plants would have been the reason for the people to live here, there was also mountain smoke. Certain plants would be smoked on the way ride up they were some plants that can be smoked. When somebody dies in a family you have smoke. Witchcraft also involves smoking.*

- *Ate the juniper berries, they turn brown when ripe, green are not ready, just eat them whole*

- *Ghosts are scared of the juniper berry if you bead them together as a necklace, won't have bad dreams, special medicine in the juniper tree, it takes away the scared feeling.*

- *Plant with stickers (cactus) on it, if you take off the stickers and peel it and put it on the skin where there is a boil, it will draw the boil out, same thing with cedar gum, hold it on with tape or cloth, overnight is gone, heals itself.*

- *Cedar berry tea for diabetes.*

- *Sage for colds, boiled, if you soak it overnight it tastes better, sage for diabetes too…yellow flowers for medicine…the Sun Warmer plant…make tea from it to warm you up*

- *Medicine plants on Kaibab Mountain.*

- *Water proof baskets, pitch jug, jug with burnt pitch on it that seals the jug to make it waterproof.*

- *Mats for babies out of bark, baby blankets to wrap the babies, make it soft, cradle boards*

- *Mother would chew a certain bark and then put it in baby's mouth for baby to chew to be healthy and not get cold*

- *Babies in cradle boards grow up with straight legs, nice and straight, babies in the white way cradle got bow-legged*

- *For baskets, devil's claw for black color, and mahogany root for red color, white is natural.*

- *Can't eat cedar tree seeds if they're not sweet, they are sweet in the fall, would store them in a cave, so they would stay moist and fresh*

Did Indian people use the animal resources at this site?

- *You could find all kinds of animals here, deer, rabbit, lizards, snakes, birds, hummingbird, crow, little ordinary birds.*

- *Animals used for food, clothing, tools, bones for tools, some bones on other animals are stronger than others, handles, to make holes*

- *The deer are up high during this time of year, don't see any deer tracks around here*

- *Animals used for food up here, the animals habitat up here is pretty good, there are enough places for them to be, there's the spring for water and cedar trees, the drought has had a impact on the habitat though.*

- *Porcupine as a medicine, keep you alive longer, store bought meat is not only kind of meat you can eat, eat thing that are natural that you hunt for, deer eat grass, so you eat grass from eating the deer, helps you live longer, keep healthier*

- *If you are sick you eat deer and you get better, deer most important for San Juan Paiute. The deer always lives on the mountain, a deer has a song, where he's going to hide for dear season, you sing deer song and use sage to purify yourself before hunting deer, make sure it's going to bring a deer, powerful song.*

- *Medicine from deer comes when you eat the deer meat.*

Did Indian people use the archaeology at this site?

- *The structure is neat, there's always something about structures, the way they're made, and how long it took for them to make it, and why they made it, besides it being their home, there had to be a lot of things that made this good for them back then, everything was easy to get in this area*

- *How much time it has taken them to make this and where they got these rock, all these different styles of rocks, I think it's neat.*

- *It looks like at least four or five structures, pretty good sized group…two kinds of pottery, gray ware, and fingernail, also dark paint on white.*

- *Men would have built these structures, the women would have gathered seeds and whatever needed to be stored.*

- *The rocks were brought down from Vermilion Cliffs.*

- *If someone dies they break that person's pottery and move away.*

Did Indian people use the geologic features at this site?

- *Clay around spring used to make pottery… has to be a spring nearby.*

- *Clay may come from a place close by for pottery.*

- *The high points stand out, the ancient ones always live on hills, how high it is in the mountains.*

- *They probably go the clay down by the canyon wherever there's water there has to by clay on the left side, get water from the right side.*

Ethnographic Comments

Traveling north of West Bench Pueblo alongside the western edge of the Paria Plateau one encounters a significant series of ethnohistoric sites identified by Kelly (1971). These sites are located approximately 10 miles from West Bench Pueblo along the north-south running portion of the Indian Trail that was later used by Dominguez and Escalante as well as Mormons who encroached upon this territory in the nineteenth century. Information about the status of these sites is provided below.

Kinship

The shaman *Tanui* lived on the eastside of Houserock Valley at *Pagampaci* (Cane Water). Three camps including *Tanui*, *Cavuiya*, and *Antitiav* were noted at this site, and there was reportedly no chief.

Cultural Landscape

Kelly (1971:17) notes that virtually all the springs are located along the base of the Vermilion Cliffs. As a consequence, this is the place where the camps of early Southern Paiutes are heavily clustered. Those from District VI tended to spend the winter at Pagampaci, and the spring and fall along the lower slopes of the Kaibab Plateau. Here they hunted deer and procured roots. In the summer, they harvest seeds around *Pagampaci*.

Documents

Kelly (1971) notes that Escalante recorded a sighting of an encampment strongly resembling descriptions of [Ousuk] (*Documentos*: 1854: 515 in Kelly 1971:17). Escalante came across this settlement after crossing the northern stretch of the Kaibab Plateau. Furthermore, Escalante called the indigenous people of this region "*Paganpache*" (Bolton 1928: 69) in (Kelly 1971: 17) which derives from the name of the spring, *Pagampaci.*

Figure 4.25 Artifacts at West Bench Pueblo

For further information on this are, please refer to the Ethnographic Comments for Signature Rock.

Native American Recommendations

- *Ruins need better attention and care.*
- *No excavation of the area but do try to see how big the area is or how big it was*
- *Survey the area to see if the road goes through it and if it does move the road*
- *Emphasize what they are cutting through with the road.*
- *Glad that this area is here for people to see, but there just always has to be someone looking after it, so things won't go missing.*
- *Paiute people do want access to this place because of the pine nuts.*
- *Paiute people will need whatever permission to come out to this land because the government puts restrictions on access to ancestral territory.*
- *They need to keep the road away from the site and the site will be okay.*
- *Close the road if it affects the site, keep site monitors because they help, said they were shorthanded for help.*
- *Paiutes might want to come up and pick pine nuts or just come up for the elevation*
- *See the houses like this you bury it back up*
- *Have somebody bring the Indian people up here, the roads are okay but if they get real rough people just don't come up here*
- *Digging is the only thing affecting the site, just protect the area from people digging here or looking for ruins. No littering.*
- *Indian people would want to be here to hunt, to get materials for baskets, to see the ruins too.*
- *Just leave it the way it is.*
- *The road can affect the site*

4.11 Jacob's Pool

Location

Located southeast of West Bench Pueblo, Signature Rock and the Condor Release site, Jacob's Pool is a spring that is situated near the walls of the Vermilion Cliffs. Found at an elevation of nearly 6,400 feet, this site is located northeast of the Dominguez-Escalante and Mormon Honeymoon Trails.

Geology

Jacob's Pool is part of the Vermilion Cliffs, which are an escarpment of Triassic and Jurassic sandstone strata. These sedimentary rocks vary in color ranging from dark red to a salmon pink. These rocks were deposited on a broad plain that sloped northwestward toward the sea. Their resistance to erosion gives the cliffs their shape. For example, the more resistant sandstones tend to break away into vertical walls while the less resistant interbedded sandstone, siltstone, and mudstone form steep ledgy slopes, and limy mudstone that is mixed with volcanic ash shape low rounded hills (Chronic and Chronic 2004: 144).

Figure 4.26 Overview of Jacob's Pool

Life Zone

Jacob's Pool and its surrounding area are located in the Great Basin Desert Scrub biotic community. This biotic community is known for having characteristically low species diversity. This community is generally dominated by sagebrushes and shadshales; the predominant sage brush species is *Artemisia tridentate* (Brown 1994).

Plants

Southern Paiute representatives identified plants that inhabit this site. Some of the plants that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Indian tea	*Ephedra viridis*
Indian Rice Grass	*Achnatherum hymenoides*
Purple Sage:	*Salvia dorrii*
Mojave Prickly Pear	*Opuntia erinacea*
Tamarisks	*Tamarix sp.*
Thistle	*Cirsium*
Canyon Grape	*Vitis arizonica*
Fourwing Saltbush	*Atriplex canescens*
Shadscale	*Atriplex confertifolia*
Rubber Rabbit Brush	*Chrysothamnus nauseosa*
Three Leaf Sumac	*Rhus trilobota*
Indian paintbrush	*Castilleja* sp.

Animals

Southern Paiute representatives identified animals that spiritually and physically inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Pronghorn Antelope	*Antilocapra americana*
Desert Big Horn Sheep	*Ovis canadensis*
Black-tailed Jack Rabbit	*Lepus californicus*
Desert Cottontail Rabbit	*Sylvilagus audubonii*
Mule Deer	*Odocoileus hemionus*
Coyote	*Canis latrans*
Chuckwalla	*Sauromalus obesus*
Bobcat	*Lynx* sp.
Ground Squirrel	*Spermophilus* sp.
Birds	multiple species

Special Features:

Southern Paiute elders were brought to Jacob's Pool to be interviewed regarding the spring. Springs and water in general are extremely important to Southern Paiute people. They are not only necessary for survival but as places to acquire power therefore, it was important to record elders' thoughts regarding this resource.

Native American Comments:

Would Indian people have used this area and for what?

- *People would have used this site for camping, not many trails down from the cliff, so the trails here could have been the main route to the canyon itself.*

- *Wherever Paiutes went there would be a ceremony…ceremony for hunting, Round Dance.*

- *The Ancient Ones probably used the area*

- *Rock art done by all the nationalities, all the tribes, used for signs, talking, the rocks can talk to you… talk to you when you know how to read the signs.*

- *When hunting anybody can use the water from springs, but there are some springs that San Juan and Kaibab Paiute own, came to own the springs through the family, and only men own springs, men had more power back then.*

- *You would burn the meadows in the middle of winter and fall. In the early days the meadows used to be all green and grassy, had to burn the meadows annually so fresh grasses would grow, did it to basket reeds*

- *People would use this place for resting and passing through.*

- *The clay here would have been used for pottery.*

- *Indian people would have used the spring, for food and drink and ceremony, people would come together, San Juan and Kaibab.*

- *Paiute people used the area for everything, place connected, three pools connected close to area, our people want to live close by to the water, because it was their source, very precious, especially today because we don't have enough, but it has always been precious.*

- *Ancestors used to see wagons go by lots of bells on them, we would hide from the wagons, hide in the rocks, all the way down Paiute's Ridge, were hiding because Spanish not friendly, they would kill Indians.*

Is this place part of a series of connected places and why?

- *The rock art tell a story in the area, connects to Mormon/Paiute trail. Honeymoon trail has different parts to it and connects up.*

- *Important within feature is the clay, water, connected to God, spiritual communication, teaching other Indians.*

- *All the springs are connected.*

Did Indian people use the water source at this site?

- *The spring used for everything, water has always been important, the people always thankful for the water, no matter what place the water comes from, families stayed by the water source.*

- *Paiutes maintained the water source so it would always be here, they would cut down the tree that was taking up all the water, so there would be enough for the other plants*

- *Always being taught to respect the water, speak to the water because in our way all things have spirits, all things need to be asked for.*

- *All the springs are connected.*

- *Everything's green in this area because there's so much water underneath, it's neat because it's green.*

- *Source of water comes from the mountain*

- *Water used for cooking, washing clothes, taking a bath, drink it and carry it.*

- *Natural erosion in the area should be left as it is, great place, running well and fresh*

- *Probably more than just three springs in the area.*

- *Certain smell to the water so you can identify the water is there.*

- *When hunting anybody can use the water from springs, but there are some springs that San Juan and Kaibab Paiute own, came to own the springs through the family, and only men own springs, men had more power back then.*

- *Trees are always by the springs, they tell that water is there, also, tall grass and green spots tell where water is.*

- *Mormons chased the Indian people away from spring at Navajo Wells.*

Did Indian people use the plant resources at this site?

- *There are a lot of plants and no matter what I am looking at there is always something that they can be used for.*

- *Plants used for food and medicine.*

- *You pick tea, probably in the spring, depends on the area, at Kaibab they stay green all the time, people don't use it as much as they used to.*

- *Different types of plants, like the rice grass, has to be plants by the water because it's green.*

- *You would use yucca roots to make shampoo, make a basket or tray from banana looking part of yucca plant.*

- *This area used for hunting gathering, gathering willow supplies for baskets, hunting the deer, gathering the willow bush berries.*

- *Grind the Indian rice grass, just like sunflower seeds, this grass best in the springtime, anybody gathers it, men and women, the seed for this is already gone, Indian people don't plant this, just have to go look for it.*

- *Medicine plants, when bones ache boil the root for tea, from plant with red flowers on it, you see it all over.*

- *Old Paiutes made gum out of rabbit brush, no taste just a gum, only in the springtime, make the gum out of the roots, as you chew it gets more and more like gum*

- *Sand sage, used for ceremony, wait for it to dry up, "Suel" name of plant*

- *Purple sage down on the bottom, plants everywhere.*

- *Trees are always by the springs, they tell that water is there, also, tall grass and green spots tell where water is.*

Did Indian people use the animal resources at this site?

- *The antelope stomach used as a water container*

- *Animals were used for food and clothing.*

- *Big horn sheep as spirit helpers, Indians pray for good things*

- *Rabbit bones made whistles for ceremony and Sundance.*

- *If your eyes were hurt you should eat snake as eye medicine.*

- *Really big lizards in the canyon, Paiute name for them "Shaquad."*

- *Eat rabbit, make blankets out of the fur*

- *Make clothing from deer, moccasins, cradle boards, eat the meat.*

- *Can follow the animals to the water, can follow most animals because they all need water. Can tell by the footprints what kinds of animal has followed the trail.*

Did Indian people use the archaeology at this site?

- *Trails showing previous use.*

Did Indian people use the geologic features at this site?

- *The clay here would have been used for pottery.*

- *Clay stands out, good source for pottery.*

- *Rock burnt in winter time like coal to warm, hot stones for sweat houses where people get healed.*

- *Some rocks explode in fire, those are rocks collected by the water, they explode because they have water in them, to be safe you pick rocks away from the water…would have the sweat before the Round Dance, all prayer before the Round Dance, plan the day and time to get together for the dance, in a special place, good place nearby the village where Paiutes lived.*

- *The clay in the area is okay, there's no human contact so that's good*

Ethnographic Comments

Located near Jacob's Pool are rock art panels. Given the rugged terrain, the group were not able to hike to the panels, however a connection can be made between the rock art and the spring. Rock art is often associated with springs in Southern Paiute territory. Springs are not only necessary to survival, but also a source of puha. The rock peckings near Jacob's Pool are possibly ceremonial, in order to perform a healing of the place, or in order to show respect for the power of the spring. Jacob's Pool may also be a ceremonial place on a pilgrimage trail to the top of the Vermilion Cliffs.

For more information regarding this area please revisit the Ethnographic Comments for Signature Rock.

Figure 4.27 Southern Paiute Elders, BLM Representative and UofA Ethnographers

Native American Recommendations

- *The condition of site is okay, it's out of the way, people don't come up here often, access to the water source affecting the condition up here.*
- *Plants need to be kept from over-growing.*
- *Keep the pool clean so the animals no where to come, have better access to the water.*
- *Use Clorox to clean the pipes.*
- *Tamarisk needs to be cut down and controlled so it won't take all the water from the other plants.*
- *The spring needs to be cleaned and cleared.*
- *Have someone to work around the area, clear the pipeline around the spring, check the lines.*
- *Don't want everybody coming up here, why didn't they clean up the area when they were putting pipes in so we could have more water?*
- *Indian people would want to come to this area because there's clay and we make pottery, there's a lot of clay in the Kaibab area.*

- *Indian people will want to gather in this area to give information to each other, this whole area.*

- *Need to try to get this pond cleaned somehow.*

- *Let this area be natural, we can use this area for teaching and visiting*

- *The water source is in poor condition, it's overgrown, you can't get to it, don't know if that's good or not, all the trees take up too much water to be green, it needs to be cleaned around it to get more water down this way*

4.12 San Juan Paiute Homestead

Location

This homestead is located just outside the Arizona Strip boundary along the Paria River, which is approximately a mile and a half from where the Paria River feeds into the Colorado in the Glen Canyon National Recreation Area (GCNR).

Figure 4.28 Southern Paiute Elders at the entrance to the Lees Ferry Homestead

Geology

The San Juan Paiute Homestead is surrounded by the Vermilion Cliffs to the north and south. The Vermilion Cliffs are an escarpment of Triassic and Jurassic sandstone strata which differ in color ranging from dark red to a salmon pink. These rocks were deposited on a broad

plain that sloped northwestward toward the sea. Their resistance to erosion gives the cliffs their shape (Chronic and Chronic 2004: 144).

Life Zone

The homestead site and the area surrounding it are in the Great Basin Desert Scrub biotic community. This biotic community is known for having characteristically low species diversity. This community is generally dominated by sagebrushes and shadshales, and the predominant sagebrush species is *Artemisia tridentate,* which can endure cold temperatures (Brown 1994).

Plants

Tribal consultants and UofA ethnographers identified a number of culturally significant plants while and identification from photographs using a number of regional ethnobotanies and plant guides.

Cottonwood	*Populus femontii*
Three Leaf Sumac	*Rhus trilobata*
Cedar	*Juniperus scopulorum*
Tamarisk	Tamarix sp.
Globe Mallow	*Sphaeralcea ambigua*
Arrow Weed	*Tessaria sericea*
Sagebrush	*Artemisia tridentate*
Utah Juniper	*Juniperus osteosperma*
Prickly Pear Cactus	*Opuntia erinacea*
Desert Trumpet	*Erigonum inflatum*
Grasses	*Gramineae* sp.
Rushes	*Juncus* sp.

According to tribal consultants, the people living here actively took advantage of the abundant water flow of the Paria River to cultivate a number of crops including squash, beans and corn. In addition, tribal experts reported that Paiutes living at this homestead grew many types of fruit trees including peaches, apples, and possibly apricots.

Animals:

Southern Paiute representatives identified animals that physically and spiritually inhabit this site. Some of the animals that are listed were observed during visits to this site. Please note that the following list is not inclusive.

Big Horn Sheep	*Ovis canadensis*
Mule Deer	*Odocoileus hemionus*
Cottontail rabbits	*Sylvilagus audubonii*
Jack rabbits	*Lepus californicus*
Birds	multiple species
Lizards	multiple species

During the 1930s, local San Juan residents herded domesticated sheep in this canyon. In the following section, we have included a description of an historic corral that was used for herding operations.

Special Features:

At the request of San Juan Paiute elders, UofA ethnographers accompanied tribal consultants to locate a homestead site that was occupied by a San Juan Paiute family in the 1930s, the Blue Lee (*Aipara*) family (794 F. Supp. 899 1992: 903-904). This homestead is comprised of a house structure and an associated corral. It is located in the vicinity of Lee's Ferry about a mile past the Lonely Dell Ranch and the old cemetery, at the mouth of the Paria River. Departing from the Lonely Dell Ranch, one walks upstream along the Paria on a small footpath. The homestead is situated approximately half a mile further upstream and is reached after crossing a deep wash that opens into a large flat stretching between cliff walls demarcating the boundaries of the canyon. A San Juan family lived at this site until the mid-1930s when they were forced to relocate. Due to its historic and cultural importance, San Juan representatives asked to visit this place and share their thoughts about it.

The foundations of this house are located alongside a small canyon bank. This octagonal structure is composed of approximately six layers of stacked rocks, and the walls are 4-5 feet tall at their highest point. The single room dwelling is approximately 8-10 feet in diameter and is roughly octagonal in shape. The inside house foundations have been partially filled in with dirt from wind or rain. We also identified remains of a fireplace and chimney that could have been used for cooking as well for heating the dwelling. In addition, remains of a doorway face the Paria River and it appears that the doorway was alternately made out of scrap metal from a vehicle or wooden materials that have since decomposed. Similarly, there is no roof remaining on the dwelling, but may have originally been made from local trees such as cedar or willows as was the associated corral.

Scattered around the house foundations are numerous pieces of rusting metal. These items included a washtub, a coffee can, an old stove that has broken into smaller components, a piece of a vent, small tin cans, a Dutch oven, pots and pans, binoculars, and a kettle with a lid. In addition, we identified a set of springs from a chair. There was also an old metal door from a car or a car hood that was located within ten feet of the house structure, and based on its size and location, it is possible that it was used for a house door.

In addition to the house structure, elders located a corral on the north side of the Pariah River running along the canyon walls. The corral is located approximately 50 meters up from the riverbank. The corral was near a landmark in the canyon that was used to tell the Whisker brothers how to find the site. The corral is made of old knarled cedar posts driven into the ground so close together that is would not be necessary to use barbed wire. Some of the cedar post had decomposed or been taken out. The coral is rectangular in shape and the back wall is the cliff face itself. The corral is approximately 50 feet in length. According to one elder, this corral was used for holding sheep. He indicated that sheep herding was a major form of subsistence for the

San Juan family that lived here. While living at this homestead, the relatives of our consultants would have grazed their sheep on the other side of the Paria River where the coral was.

During this site visit, we also located a trail that winds alongside a small tributary to the Paria River. Near this trail we located a second house structure that was associated with the Lonely Dell Ranch. The San Juan homestead can be reached from this structure by ascending a small bluff and walking another ¼ of a mile. This homestead is located near a small dry arroyo near the landmark which two elders used to find their family's homestead. They explained that the landmark is a point on the red canyon on the other side of the Paria River. They were told that the homestead site lined up directly with this point. Upon finding the site, they confirmed that the homestead did line up to this point along the canyon wall.

Native American Comments:

Up until the mid 1930s members of the San Juan Paiute tribe lived in this area of GCNR. The Blue Lee (*Aipara*) family irrigated their fields with water from the Paria River and raised various crops and herded sheep. Additionally, they traded with the Euro-American families living in the area that had farms and a trading post.

Figure 4.29 San Juan Paiute Homestead Near Lees Ferry

Although contemporary San Juan people have been told about the historic use of this place by family members, they had never been to this site before participating on the Arizona Strip Place Names Study. Nevertheless they have retained collective histories and stories of

residency at Lee's Ferry, sheep herding, and agriculture. San Juan consultants expressed deep-felt enthusiasm at being able to look for and successfully locate this site. In a follow up conversation with a San Juan consultant, UofA ethnographers learned that there is reportedly a second Paiute homestead site that is proximate to the dwelling where the Blue Lee (*Aipara*) family lived.

Ethnographic Comments:

When conducting cultural landscape studies, sometimes it is necessary to examine sites outside the study area to understand place connections and meaning. It is very important to note that place attachments and connections extends beyond management boundaries. These sites can also be used to further inform managers of Southern Paiute culture and use.

According to information recorded in the Federal Supplement, a San Juan Paiute family lived at Lee's Ferry in the 1930s. In the 1930s, there were two principal areas where many San Juan Paiutes lived. These are designated the southern and northern areas. The family that relocated to the Lee's Ferry homestead, Blue Lee's (*Aipara*) family, was from the southern area, which represents settlements that extend along Echo Cliffs from Cedar Tree Hills, Cedar Ridge through Bodaway Mesa, The Gap, Willow Springs, Tuba Butte and Tuba City (Federal Supplement 903). Included in this area was a place known as *Atatsiv*, bounded on the west by Echo Cliffs, the east by "the western edges of Preston Mesa and White Point", the north by Crooked Ridge and the south by "the edge of the Kaibito Plateau" (794 F. Supp. 899 1992: 903). The investigators report that San Juan Paiutes from the southern region typically "…lived in extended families which generally cooperated in herding livestock and agricultural activities" (794 F. Supp. 899 1992: 903).

Federal Supplements (794 F. Supp. 899 1992) provide detailed information about the San Juan Paiutes living at the Lee's Ferry homestead in 1930. They write,

> …the family of Joedie Paiute (*Akamanaxwats*) was not living on the reservation in 1934 (903). Her son, Blue Lee (*Aipara*), testified that his family moved to Lee's Ferry around 1930 and remained there and around Page, AZ for four or five years. 35 TT 4790-93, 4815-16 (Lee). However, Lee's testimony is ambiguous about the year in which his family moved back to the Reservation, and he testified that he lived at Willow Spring the summer J.I. Casey and Dinah got married, which was around 1934. 34 TT 4703 (Dr. Franklin).

Native American Recommendations

San Juan tribal representatives would like to have full access to visit this historic and cultural landmark. They are interested in gathering additional historic and ethnohistoric information about this site and relationships.

Chapter Five
Cultural Landscapes

by
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This chapter presents initial findings from the Arizona Strip cultural landscape interviews. It also discusses past UofA projects and how each of these has contributed to our evolving landscape methodology and understandings of regional connections, which form a network of places. This network is the foundation of a cultural landscape found within the Arizona Strip, as well as a larger regional network with connections to the this region.

The chapter does not revisit the general concept of cultural landscape because it has been introduced elsewhere in this report (see Chapter 2). However, one should visit those sections of the report where different approaches to the study of landscapes and the fundamental notions behind the concept have been discussed. Because the cultural landscape data are being presented in this chapter it is useful to:

- operationalize the concept, that is to define the concept specifically for this study;
- explain why we have chosen to visually represent place connections as dots and lines;
- explain the visual utility we get from the large regional maps so we not only see landscapes but also the networks of place connections; and
- discuss something of the method by which the dots become connected observations by a process that moves from interview, to database, and ends with maps and ethnographic interpretation.

5.1 Landscapes and Traditional Cultural Properties

Harvard University set up a web site to talk about cultural landscapes. This web site marks the merger of the Arnold Arboretum of Harvard University with the Institute for Cultural Landscape Studies (ICLS) (Landscape Institute 2003). One essay at that site, “What are cultural landscapes?” by Alice E. Ingerson, confronts the complexity of the concept. She discusses how definitions vary by whether they refer to individual or group cognitions of landscapes and whether they refer to (what she refers to as) “cultural” or “landscape” dimensions. The former is recognized by this study, but the latter distinction we do not make. She maintains that the ICLS defines a "cultural landscape" as a **way of seeing** (emphasis in original) landscapes that emphasize the interaction between human beings and nature over time (Ingerson 2003).

Ingerson’s short essay correctly points out why most people and federal agencies should be concerned about cultural landscapes and the ways they are defined. She correctly points to the NPS and the National Register of Historic Places (NRHP) (http://www.cr.nps.gov/nr/), as well as

organizations that look to these agencies for management models and standards, for an operational definition of "cultural landscape." In the 1996 *Secretary of the Interior's . . . Guidelines for the Treatment of Cultural Landscapes,* such a definition involves:

> A geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

Interestingly, she does not mention NRHP Bulletin #30 (McClelland et al. 1999), which was developed specifically to distinguish between types of cultural landscapes and how they fit into federal policy. Nonetheless, she correctly points out that there is much public discussion about cultural landscapes because they legally can receive special protection and national recognition by being included into the NRHP. She ends her essay with the idea that protecting and managing cultural landscapes can involve planning for positive change as well as preventing negative change. Thus, landscapes, like the cultural systems that create them, are the products of people and can appropriately be changed through time as the people change.

Why does it matter what we call American Indian places and the network of relationships they have among themselves? A national debate has arisen over the past decade regarding how to protect valued places. It began with the important identification of Traditional Cultural Properties (TCP) as a variety of places worthy of protection and special management attention. This effort was important because it focused on places where the archaeology was not sufficient to define the cultural significance of the place. The TCP nomination process also specified that the cultural importance of the place had to be in the minds of living people and only they could define the significance of a TCP. This concept has advanced little since it was basically defined in NRHP Bulletin #38 by Patricia Parker and Tom King (Parker and King 1998), although a new book entitled *Places That Count: Traditional Cultural Properties in Cultural Resource Management* (King 2003) is essential reading.

Subsequent to the national recognition of the TCP concept, nominations began to be submitted to the NRHP for review and inclusion, if appropriate, on the Register. In many cases, these were reasonably small and well-defined sites having a clear beginning and ending and a homogeneous cultural purpose or meaning for a specified group of traditional people. Eventually the boundaries of the concept were to be stressed by a high visibility nomination. The upper portion of Mount Shasta in northern California was nominated as a TCP for a group of American Indian people. Mount Shasta was clearly different than the small places previous nominated as TCPs; it was large in scale, not clearly bounded, and contained many different places within it, each of which was culturally important for different reasons. Because of its size, the Mount Shasta TCP contained large areas that were not studied and therefore the Indian groups had not specified how such spaces contribute to the cultural significance of the overall TCP. These spaces between the cultural “hot spots” became the subject of external critique because in these places were merchantable timber desired by powerful corporations and regional timber harvesting communities. The debate over Mount Shasta resulted in (1) the size of the TCP being reduced so timber production could occur in the lower reaches of the mountain and (2) the basic idea of a TCP being politically and legally attacked on a national level by special interest groups and the politicians who work with them.

In the past decade or so, Tom King and Richard Stoffle have had a friendly debate in various local and national venues about the best ways to protect large cultural areas like mountain ranges and rivers. It should be emphasized that the ultimate goal of both scholars is to afford the highest and most culturally appropriate protection to American Indian places and networks of places. This debate is ultimately an important intellectual frame for reading this chapter and understanding the implications of this report. King maintains that the TCP concept can be applied to most any cultural place or combination of related places as the proper unit of study, nomination, and management. In his new book, King (2003: 120-121) brings home this point when he asserts that whole rivers, large lakes, islands, and mountains can be TCPs.

Stoffle, in contrast to King, has maintained since the Southern Paiute Glen Canyon-Colorado River-Grand Canyon study was completed in 1996 (Stoffle et al. 1997b), that large heterogeneous areas are best understood as cultural landscapes. It should be noted that a subsequent NPS effort to nominate the Grand Canyon along the Colorado River as a single TCP failed. An essential problem with the TCP-can-protect-any-place approach, according to Stoffle, derives more from how managers view the concept than from conflicts that are in the federal guidelines (see Bulletin #38). Most managers with whom Stoffle has worked see TCPs in the context of how archaeology sites and districts are nominated to the national registry. In this frame, both are fundamentally about one characteristic, which comes to have scientific and consequent national value. Landmarks as TCPs (see Stoffle et al. 1997b: 237, 244) meet such a criteria so they tend to be successfully nominated and more manageable for land managers. As TCPs get bigger and more complex (that is as ecoscapes, regional landscapes, and songscapes), they are more difficult to understand and less subject to a single set of management regulations. Cultural landscapes, on the other hand, are by definition recognized as having very diverse components (Bulletin #30). In this frame, the significance of each component is recognized and together they make an organic whole whose total value (to a traditional people) is greater than the sum significance of the component parts (to borrow a phrase from Buckminster Fuller).

Landscapes are recognized as needing different types of management based on what they contain. So a mountain range may have hot springs, above-timberline vistas, obsidian outcrops, caves, and patches of medicine plants. Each has its own value and together they make up the cultural landscape for a traditional people. Each feature of this landscape can have different management responses based on the needs of the federal agency and the culture of the appropriate people. Hot springs are meant to be visited and used in a culturally appropriate manner, but caves are too powerful for people who are not trained (initiated) in their use. Vision questing spots can be used by people from different cultures, but obsidian is too dangerous for those who do not know its power. Traditional people in consultation with federal land managers can explain these differences and tailor access rules and regulations. These features and the spaces between them taken together as a cultural landscape can be recognized by the federal agency as a special area in its own right.

5.2 Previous Cultural Landscape Studies and an Evolving Methodology

The practical challenges of implementing systematic ethnographic methodologies for the identification of American Indian and Euro-American community resources in public lands led

the BARA team to develop and test various methods for collecting detailed information on culturally significant natural resources.

Until recently, consultations and resource inventories with American Indian and Euro-American communities were limited to material culture such as artifacts, sites, features, and crafts. As face-to-face interactions with people from such communities increased, a host of other equally significant natural resources, including plants, animals, minerals, landforms, water, and air came to be recognized. As *ethnographic resources,* these features and places are linked to the traditional practices, values, beliefs, history, and ethnic identity of a community.

While ethnographic resources may be conceived as spatially and formally discrete, the links between these resources and people transcend spatial and formal boundaries. The cultural significance of resources may derive from specific ceremonial and/or secular uses, from the place where they are found, and from stories or songs that talk about a place and its resources (Stoffle et al. 1997). Ethnographic resources, consequently, must be evaluated in terms of their connections to one another, to the people who use them, and to the land that sustains them. We use the terms *ethnographic* or *cultural landscape* to convey the network of connections among people, places, and resources (Zedeño 2000; Zedeño et al. 1997).

Developing a research design that explicitly addresses the identification of cultural landscapes is one of the greatest challenges of landscape research. Landscapes do not necessarily correspond to material evidence of land and resource use as do archaeological or historic landscapes (Pendery 1998), since they constitute social and symbolic constructions of the natural environment. This is particularly true among American Indian tribes and Euro-American communities whose traditional lifeways did not significantly modify the land in a permanent, or an archaeologically obvious, manner.

The results of systematic research on ethnographic resources complement archaeological, historical, and folklorist studies of material culture, contribute to landscape perception studies, and aid conceptualization of the cultural contexts in which resources were and are used. Our studies have documented the existence of six levels of overlapping cultural landscapes for the Indian people in the American Southwest – eventscapes, holy lands, regional landscapes, ecoscapes, songscapes, and landmarks. Studies that illustrate the relationships between landscapes help to clarify for land managers the complexity of the ethnographic resources they protect (Stoffle, et al. 1997b; Stoffle, et al. 2000e).

Guided by the outcomes of past projects, which are discussed below, our team developed an evolving cultural landscape approach that works well within the parameters of natural resource management legislation and policies. The approach incorporates the cultural perceptions of American Indian and Euro-American communities into practical management policies as well as into current theoretical perspectives on natural resource use. We specifically have drawn on the research of Copps (1995), Gorham (1997), Hufford (1994), Low (1994), Meine (1997), Nassauer (1997), Page (1998), Smiley (1997), Yaffee (1994), Yamin and Metheny (1996), and Zube et al. (1982). At the core of our methodology is extensive fieldwork with elders and cultural experts who are chosen by their respective tribes and communities to participate in the assessments.

It is important to understand how the cultural landscape methodology has changed in order to understand how data are gathered and knowledge is ascertained. Two examples from previous studies conducted on the Nevada Test Site (NTS) and Nellis Air Force Base (NAFB) show the evolution of how landscape data was collected and analyzed. For more than a decade Indian people who were taken to the NTS talked about how it was connected with other places in the region. In order to better understand how these places are integrated, the UofA team initiated cultural landscape interviews near a large prominent volcano called Scrugham Peak. That study involved sitting with elders at the edge of the basaltic cliffs that had flowed from the volcano. It was to be totally open-ended with just an interviewer, an Indian elder, a magnificent view, a tape recorder, and the question "how is the world connected." These interviews failed to produce any meaningful data on cultural landscapes. Given that we already knew from previous interviews that the world was connected, it then became our challenge to find ways to properly elicit these responses and thus a new methodology was developed. A survey instrument was developed to ask specific questions pertaining to types of connections (both physical and spiritual). The survey instrument was used in conjunction with a regional map. The elders marked places, trails and other connections on their own map.

This new methodology was used during a project on NAFB as part of a formal consultation program between NAFB and Indian tribes and organizations with traditional or historic ties to lands managed or potentially affected by NAFB. A preliminary assessment of Wellington Canyon and Pintwater Cave determined the need for an in-depth ethnographic study of rock art, sites, and landscapes. Given the rich data collected in our previous landscape investigations, we felt graphic representations of the site and landscape data could enhance our understanding of site relationships and connections.

To do this, we catalogued sites and site connections identified by the representatives in a MS Excel™ database, and used an aggregate response matrix to build a coordinate matrix that concatenated the locational coordinates, place names, and survey source of the connections. The coordinate matrix data was used to create GIS map layers for use in ARC/INFO™ and ArcView™ software. Two map layers, one of points indicating the locations of sites mentioned by respondents and one of linear connections between sites, were created from the spreadsheet database. When overlaid separately on the base map, the connection data identified with the rock art (Figure 4.1), site (Figure 4.2), and landscape (Figure 4.3) forms, and base maps (Figure 4.4) revealed, both commonly and uniquely identified connections. A map of the site and connection data from all the interviews provides a regional view of the landscape connections (Figure 4.5).

The findings of this study illustrate how data can be missed when a single collection instrument is applied, and how complex data can be more easily understood through graphic representation. Approximately 25% of the locations identified by the representatives were outside the bounds of the original base map, which, consequently, was extended to include those sites in the final representation. Also, only partial interpretation of the sites could be made when examined separately and in isolation. By relying on a single form or forms without a map, we achieve a relatively simplistic representation that reduces the cultural landscape to narrow corridors. While easier to manage as singular features, landscape connections, like wildlife corridors, are sensitive to constraints. When managed as singular features, landscape connections, like individual

species, receive limited protection, become stagnant and possibly endangered, move toward homogeneity and away from biodiversity (Meine 1997).

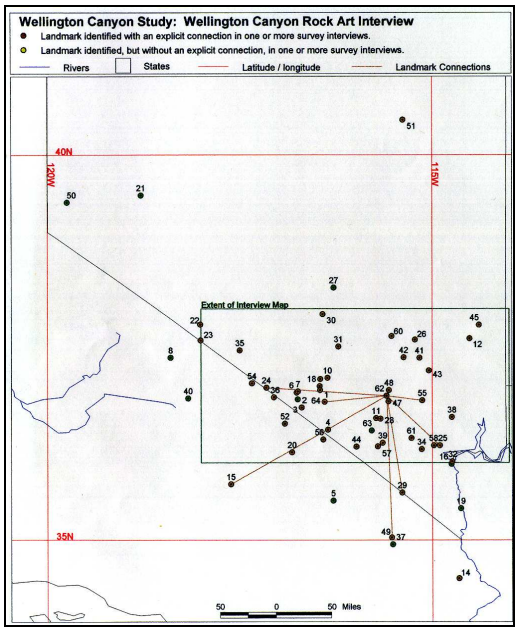

Figure 5.1 Sites and connections identified with the rock art form.

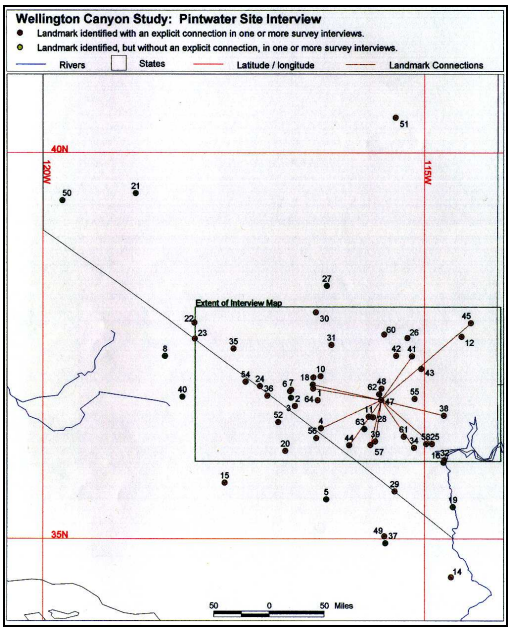

Figure 5.2 Sites and connections identified with the site form.

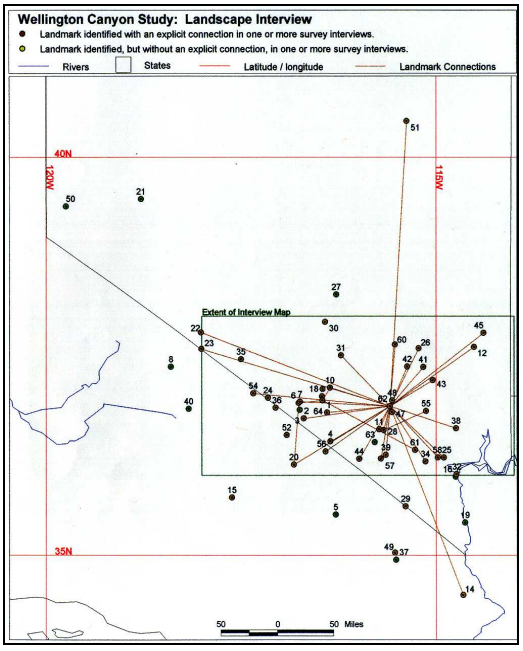

Figure 5.3 Sites and connections identified with the landscape form.

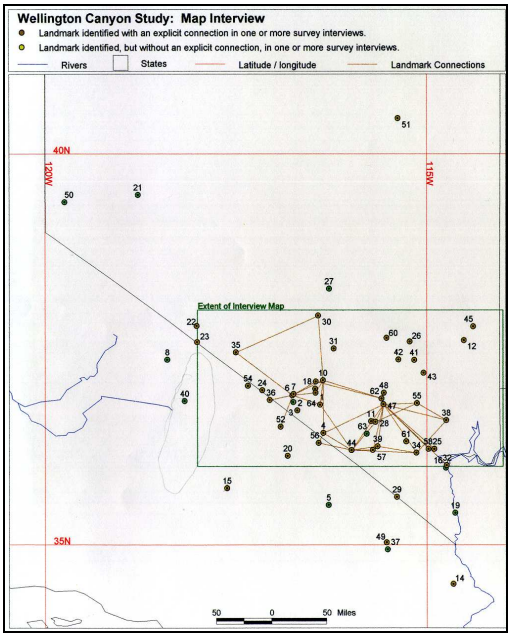

Figure 5.4 Sites and connections identified with the base map.

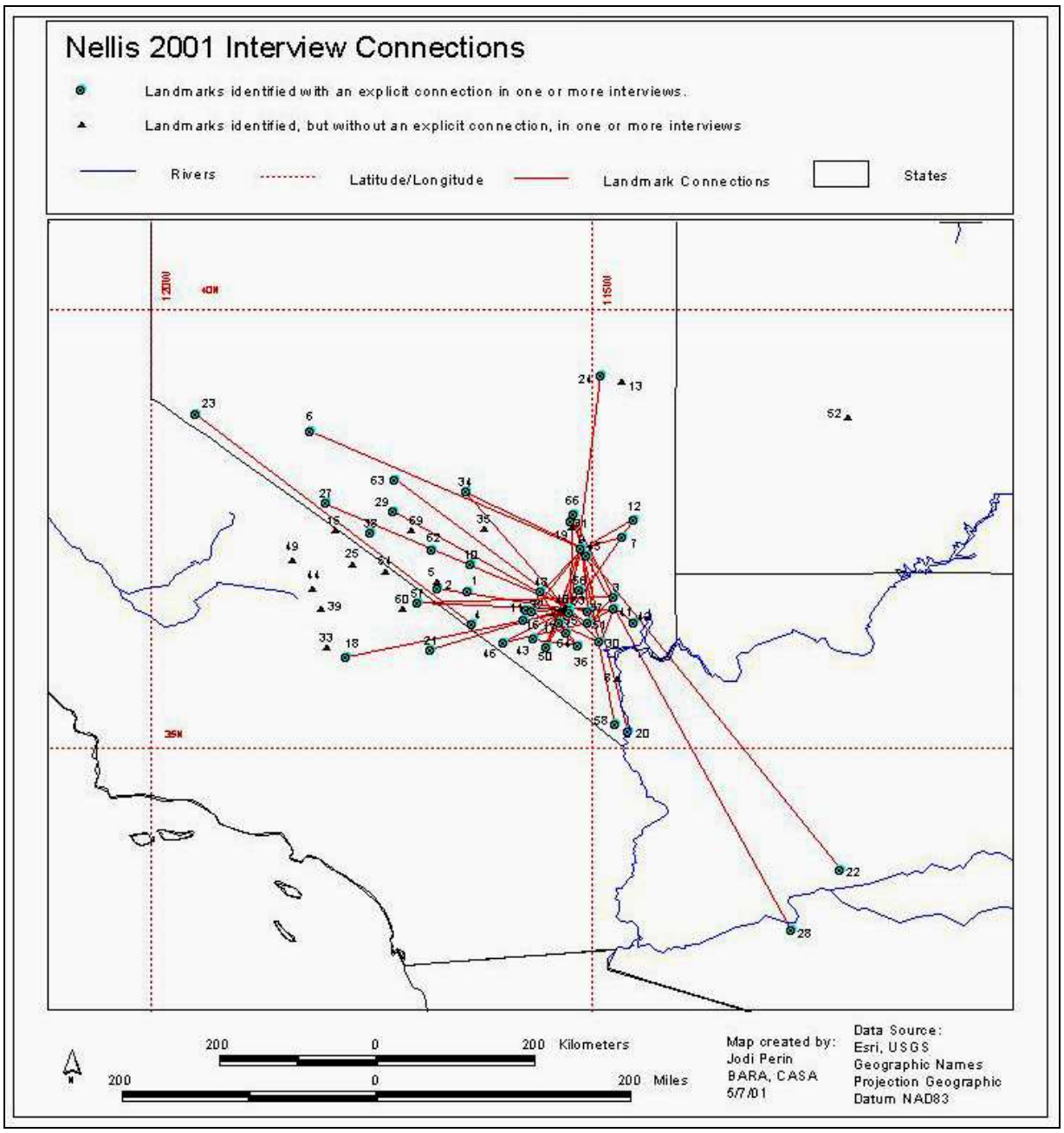

Figure 5.5: Aggregate map of sites and connections identified by tribal representatives.

Differences among the data collected with the forms and with the map, as shown in the figures, suggest a triangulation effect of the forms and map. Use of both forms and maps provides a richer explanation of connections among sites comprising a cultural landscape. The combined data sets documented uses, meanings, and relationships at site and landscape levels, and revealed the extent of the relationships between sites and other places, and the centrality of

the cultural landscape in the lives of the people. The ability to visualize categories of connections within a cultural landscape, such as ceremonial relationships between sites, or links between traditional use areas and settlements, helps land managers achieve a deeper understanding of the importance of resources and use areas, and better evaluate the potential impacts of their land use and management decisions on the land and on its people. Managers can also consider more than the physical constructs and man-made landforms that are managed for typically they can consider the people, processes, and connections that created and sustained those constructs and the resources within a cultural landscape complex.

5.3 The Next Stages of the Methodology

In the past, we have obtained place and connection data in other southern Nevada and northern Arizona projects. The findings from those studies also have overlapping places and connections as well as exclusively identified places and connections. This has led us to ask questions that we wish to address in this report:

- Given at least one shared place and connection among two or more projects, what is the extent of the cultural landscapes of Native Americans in southern and central Utah and northern Arizona?

- What are the spatial relationships among the landscapes?

The answers to these questions have the potential to support agency efforts in ecosystem management, and to support resource management partnerships of agencies, tribes, and other land management entities. The potential exists as well that a level of predictability may be found in which specific features or combinations of features inform agencies as to whom the site or area may be culturally important, and possibly even to the potential sensitivity of the site or area.

5.3.1 Kinds of Place Connections and Kinds of Local Landscapes

There are a many kinds of places that have been identified by BARA over the years as components of landscapes. We have used these kinds of places as a frame of reference for organizing the quotes received regarding place connections. By organizing quotes from Native American people in this fashion, it is easier to systematically identify connections based on how the places are connected while allowing for a discussion of what the specific place in the landscape represents. Many of these kinds of places are discussed thoroughly in Chapter 2, and we refer the reader there for a complete discussion of *Puha* (power) and how it relates to sites.

What follows are a series of comments received during the course of the Arizona Strip study. The statements are broken into two sections. The first section concerns spiritual connections of places. These places may or may not be viewed as important based on historical or archaeological accounts, but Southern Paiute people see them as important in a religious sense. When these kinds of places do have archaeology or historical accounts about them, they are easier to protect from a management standpoint and the data presented here will strengthen that case. Other places that are spiritually connected may have little evidence in support for their

protection from the western science perspective, but are linked through other kinds of landscapes such as storyscapes or songscapes.

The second section focuses on quotes regarding places to which the Southern Paiute people are physically connected. In contrast to places that are spiritually connected, these places are usually known through archaeological or historical accounts. These places are known because of the activities performed there, and these activities have left identifiable traces on the ground. Some of these are places that the Southern Paiute people maintain in their cultural memory because of the past people associated with the site. Others are use sites that are still active today, such as pine nut gathering areas.

Other kinds of places fall on the cusp between the spiritual and the physical. These are places with spiritual meaning that have a physical manifestation, such as concentrations of *puha* at springs. Because these places have a physical manifestation, but may be used on multiple complex levels, they have been included in the beginning of the section on physical connections to act as a transition between the two.

5.3.2 Spiritual Connections

Places that have been identified as having spiritual connections have been broken down into a variety of categories. There are places that benefit the individual, such as places for learning and rites of passage, or places for personal healing and balancing. Other places are spiritually connected in that they offer healing for a larger group, for instance the local community, or on a larger scale, the world. Some places are not singular places, but rather collections of places used in a song trail. These song trails are used to explain the route of a soul to the afterlife, or as traveling routes of important animals that need to be honored in song. Finally, there are places that are important because of events that happened there before the time of people. These places are associated with creation stories, or stories of the animals when they lived as people do today. All of these kinds of places integrate to form a spiritual landscape that is interconnected through networks of power and meaning for the Southern Paiute people in the Arizona Strip.

Places for Individual Learning and Vision Questing

Places for individual learning are often isolated places far from other people. These places are isolated for two reasons. The first reason is that place logic of rites of passage, such as vision questing for males and first menses for females, and personal learning dictates that it is an individual experience and should therefore be conducted free from prying eyes and outside influences. These experiences involve a temporary separation from normal society, food and water restrictions, isolation, and ritualized instruction by adults. At these sites, spirit helpers can be acquired for use in later life as a *Puh'aghanti*. These spirit helpers are accessible through other kinds of sites discussed in later sections of this chapter.

The second reason for the site's isolation is related to the way that *puha* concentrates. The power of the place teaches, but the surrounding landscape also holds puha and is part of the learning experience. Because the landscape plays a part in the learning experience, sites of this kind are often located in places with specific visible features. At these sites, the land teaches the

individual by strengthening the connection one feels with that land (See Chapter 2 for more information).

Rock art and water are closely associated with one another and both are associated with having large amounts of puha. Rock art sites are associated with ceremony, learning and interaction with spiritual beings. From the following quotes, as well as the quotes in chapter 3, one can see that there is a certain kind of place logic involved in rock art sites in that such sites need to be connected to other powerful places. These connections of power are relational in that what affects one site in the network can affect them all. The following quotes are from the Arizona Strip study.

- *There are some (rock art) in Parowan…up our way…way way way up northern way. Then they have some this side of Parowan too…that Parowan Gap…before you get to Parowan…Paraguna, Summit…they got some of that writing on that site. We went up to look at some of that...they got writing up there. And people have vandalized them too. They got mountain sheep, scorpions…same kind of writings they have on here.*

Places for Individual Healing/Balancing

Similar to places for learning, places for individual healing and balancing may have many of the same characteristics. The primary difference is that while learning sites are accessible to any person seeking knowledge, sites for healing were only accessible to the healers themselves. These were places to consult with spiritual helpers and gain the power and the tools such as special songs used to heal individuals. These places are notable for having features such as doctoring rocks, hot springs, minerals, vistas, or medicinal plants.

Because many of these sites have a personal relationship with the people who access them, the meaning of these sites is harder to discern. However, over the years people have talked about these places and know where they went to seek healing rituals. These places may be as localized as a rock shelter or as large as a sacred landscape, such as the Spring Mountains. When they are as big as a landscape the healing powers are associated with a sense of belonging to a place akin to the feeling of being home.

- *They had different areas to go to. They had caves and different places to go to learn these songs…they went by themselves…that's how the songs are given to them.*

- *There's that cave down near Moapa…there's a mountain like this and you go down in it like this and there's a big cave there and they say if you spent the night down there those people will teach you all kinds of stuff.*

- *The San Francisco Peaks is a place to go for prayer.*

- *Mount Trumbull is a place to go for prayer.*

- *Kaibab Mountain is place to go for prayer.*

- *The Paiutes would pray every time they cross the Colorado River, they need to have a ceremony in order to be safe and not die.*

Places for Community Healing/Balancing

Places for community healing and balancing differ from places for individual healing and balancing in that they are specific places with the power to affect things that are known to medicine people. These places require different place logic to world balancing sites, as the form can often be similar, with the end result being different. The rituals for community healing reflect a more personal need for balance, affecting a small population. This could range from a few individuals to an entire village. These kinds of places may be smaller dance sites, sweat lodges, or self-voiced features in the landscape. If a place works for balancing, it will often be used repeatedly over time, until the desired results are no longer achieved.

- *There were probably ceremonies conducted down in the canyon…you know with that medicine man going to that rock* (Vulcan's Anvil) *that we use as a place of power.*

- *There's a place down here where they would grind ompi…near the hot springs down below too…that would have been a very sacred site for healing, ceremonies…a lot of singing went on down below and even up top before they descended.*

- *People are connected by relations, extended family, maybe some connections from same band of Southern Paiute, and trade connected.*

- (A place for ceremony?) *I think it might have been because of the volcano…they had to use it for something.*

- *In them days they used to run races and stuff like that and they used to have circle dance, bear dance.*

- *One time along time ago, my mother told me this…when she was a little girl, she lived over in Kaibab area…she said that there were…that thing you call that eclipse…that's what they call it when it goes dark…that happened over there one time and the Indians didn't know what that was. So all these Indians all got together and they all started singing for themselves because they thought that the world was coming to an end. And she said 'All of them got together and they were singing because it got dark during the day time.'*

- *Ceremony place, Vucan's Anvil, used in prehistory and today for prayer.*

- *Uinkaret Mountain is ceremony place, used in prehistory and today for prayer.*

- *Mt. Trumbull is a ceremony place used in prehistory and today for prayer.*

- *Kaibab used in prehistory and today for prayer and today is our permanent place to live.*

- *There was a Bear Dance ceremony at Kaibab.*

- *Vulcan's Anvil ceremony is for healing.*

Places for world Healing/Balancing – Round Dance Sites, Ghost Dance Sites

The third kind of site for healing involves a worldwide scale. If the world is out of balance, it must be put back into balance through ritual. One such site is found in the Spring Mountains region, the Rabbit Circle Dance site. This site is unique in that rather than being a site for use by people, this is a site used by animals in the time before people. This makes it a site that teaches people by example how to heal the world. Other significant dance sites in the area include Corn Creek, Indian Springs, and Wellington Canyon. These sites were part of regular ceremonies in order to keep the world in balance. However, as noted in previous studies, there were rituals that were also performed on an irregular basis, such as the Ghost Dance, when the world seemed more out of balance than the regular rituals were capable of righting.

- *Round dances, a lot of them are about weather, the birds, the rocks, everything.*

- *In Kanab creek there is a place where they had the Ghost Dance.*

- *There is one big religious site down the Colorado River. A big rock…this is where a Paiute medicine man married a woman from there close to Peach Springs…Also where the Ghost Dance started. The Crying and the Ghost Dance.*

Trails to the Afterlife

One way that the Southern Paiute people interact with the landscape is through a series of trails that cross the landscape in the form of songs. More than simple mnemonic devices to find one's way through the desert, these songs represent a spiritual connection to the land. This is most strongly represented in the Salt Song Trail. The Salt Song is part of the ceremony known as the Cry, in which a deceased person's soul is guided to the afterlife. This song trail guides the soul throughout Southern Paiute territory, as well as part of Hualapai territory, during the course of a sister song known as the Bird Song. This song trail is arguably the most important song trail in the Southern Paiute world, in that every person will eventually walk it.

- *The Salt Songs and the Bird Songs came up this river* (The Colorado River).

- (The Bird Songs) *came from further down.*

- *The Salt Songs and the Bird Songs…the Bird Songs…came from down south…down along those Hualapais and those Chemehuevis…that's where those Salt Songs came from. Our people I think just sang the Salt Songs, and then the Bird Songs came.*

- *My grandfather went down there with some Indians and brought the songs back.*

- *The Grand Canyon before they hit for that…they prayed for that...that is where all the songs came from. In our beliefs when we die, we have to jump that in order to get on the other side…our spirit has to jump. That's actually the thing on the Grand Canyon.*

Song Trails

Numerous song trails are important to the Arizona Strip. Songs play an important role in many daily activities. The songs are used to tell the stories of the area, and explain why things are the way they are. These are the story of the landscape, and the people who live with it. These songs are related to travel, game hunting, plant gathering, the building of houses, medicine, and healing. Some songs are sung in a specific place, and they emanate out from the area and reverberate through a region.

- *I don't know if the songs are associated with this volcano* (Vulcan's Throne) *but I do…it's probably about a volcano song that someone saw when it was shooting out of the rocks.*

- *They had traveling songs…running songs.*

- (Did they have songs when they gathered plants?) *Yeah, most definitely!*

- *All the Salt Songs and stuff…and round dance and pine nut songs. They had some for snow, mountain sheep. Before they went hunting for mountain sheep, they would have to sing…before they go get deer they would sing.*

- *Songs about Paiute Mountains.*

- *There are traveling songs; these songs are what kept people's spirits up when it got too hot.*

- *Other songs about Anvil Rock.*

- *We had songs about weather, Weather songs, Mountain songs, Mountain Sheep Songs, songs that were sung when someone died.*

- *They had many songs…Friendship Dance, Ghost Dance…these would occur when people met along the trails.*

- *Navajo Mountain…near the Colorado River there is a song.*

Creation Places

Sometimes places are special because of important events that took place there. These places are defined in stories, but often no trace exists to the casual observer as to the importance of the place. These places are often geological or geographic features that western science classifies as naturally occurring. Often western science assumes that a creation place is a specific locale. While specific places reflect events that are part of Creation, the effects of the event are often far flung, and therefore connected to a wide range of places, making a sacred landscape. For Southern Paiute people, these features represent physical manifestations of supernatural events, and proof that there are greater forces at work in the world. Some of the places are tied directly to the act of creation and the making of things that exist in the world.

- *Near where you were created and where you leave too.*

- *Our stories tell us about being brought across by Coyote and that Ocean Grandmother bringing sand and Coyote bringing it our way…and how we were dropped off over by the Kaibab Mountain.*

- *Mt. Charleston [in the Spring Mountains]…the two sisters heard the Salt Songs there.*

- *That's where the story comes in…the sack of old people…he dropped the sack, brought down here, south, east, west….propped them right in the middle before we scattered all over everywhere. That's why we speak different languages…there's different stories on that too.*

- *This area is near the place we were created but it's not time to tell creation stories, only in winter when snow is on ground.*

- *Our Creation place is near Deer Creek along the Colorado River.*

- *The river from Lee's Ferry down to past the confluence of the Little Colorado River.*

5.3.3 Physical Connections

Puha and Water

While puha and the paths it follows indicate a spiritual connection to the land, it is included in physical connections because it is intimately tied to the land, and it has a special relationship with water. Water is a life giving force that both falls from the heavens and springs from the land. It is imbued with power from its origin places, which it carries as it moves through the courses that carry it. Puha moves in much the same way, coming from the earth and spreading along natural courses. In a way, water is a metaphor for Puha, and the element is often inseparable from the power. Puha is not an abstract concept for Southern Paiute people; it is a physical reality. For these reasons, the concept of power and the element of water are discussed in one section inside of this chapter's analytical framework. What follows are quotes that illustrate this relationship between power and water as they flow across the landscape.

- (Arizona Strip is connected to) *Deer Creek, Kanab Creek and probably other areas.*

- *Through the river, water connects the places.*

- *Colorado River connects all places.*

- *Jacob's pool and Buffalo Spring are places connected through water.*

- *Water connection places like Kanab Creek, Lee's Ferry, and South Canyon.*

- *The lava stopping the river and forming a dam make animals move in while that water was high and people lived here because of the water.*

- *The Paiutes called the Colorado River the blood vein of the Earth.*

- *Because water sources attract a lot of people there are villages all along the river.*

Places We Lived

Known occupation sites are easy to connect with living peoples from a western science point-of-view. Euro-Americans construct their landscapes with assortments of places that famous people have been in the past, and places that social memory designates as important to remember because of the events that have occurred there. Southern Paiute people also choose to remember people of the past, not for the deeds they have done, but rather as relatives of people in the present. Habitation sites are respected and honored as a vital connection to the past. Because living people may not know what powerful things are in these sites, they are left undisturbed. There is also a fear of disturbing and possibly angering the dead, who can cause sickness.

These places are permanent reminders to contemporary Southern Paiute people of those people who maintained the relationship with the land before their time. The quotes below reflect Southern Paiute people's sense of history in relation to places they lived in the past.

- (Are there villages connected?) *Yeah…we're connected to this* (Arizona Strip and the Grand Canyon).

- *Villages here and villages there…villages down in Nevada. Peoples migrated their homes like they are now. Some lived in caves; some lived in wiki-ups; some of them married into different tribes. People from the Grand Canyon married…they came from the Grand Canyon area marrying into the Paiute a long time ago that's what they did…bringing their songs up this way, bringing their learning, their religious teachings to each other and they still do from this day.*

- *There were villages all across the Arizona Strip.*

- *Farmed and hunted in the village area, also gathering, gambling, ceremonies, political meetings.*

- *Kaibab Mountain traditional area to hunt, live and pray.*

- *Indian people would celebrate in this area with Hualapai and Hualapai who live on the other side of the ferry.*

- *Political meetings held about war.*

- *Intermarriage between tribes, feasting together in the area.*

- *Indian villages down in the canyon, all over everywhere.*

- *In this area the canyon hid the Paiute people when the US government settled Indian lands. This is one of the major places for protecting them. This is why the Paiute people were able to survive this long.*

- *Indian villages down in the canyon, all over everywhere*

Places We Visited for Hunting/Gathering/Farming

Places that the Southern Paiute people went to gather plants, hunt, or farm are revered because of the relationship that Indian people must form in order to perform these activities effectively. These places are deemed important because of the resources available from them and the power therein. Southern Paiutes care deeply for plants, and will often look at the health of the plants to determine the condition of an area. The quotes we received concerning these kinds of resources reflect the feelings that people have for plants and animals, as well as what they were used for. Stoffle and Dobyns (1983) wrote about the relationship that Southern Paiute people maintained with their plants, and the kinds they cultivated for food. Many of these plants are not commonly viewed as cultivars by non-Indian people and are therefore not seen as important in land management decisions.

These relationships carry over to animals that were hunted as well. Southern Paiute people maintain relationships with animals that they use. If these relationships are not honored, the animals can go away. Sometimes the relationship no longer is extractive, but the animal must still be treated with respect. The quotes below reflect the relationships that people maintain today with hunting and gathering places.

- *We're connected to this place; I don't know how villages fits in. This* (Toroweap Overlook) *is where they came to gather yante, you know agave. There's lots of stuff they came here for, they camped around here. When they came down here to gather yante, they made quilts out of yucca and hang them over the edge here. They gather that stuff. We have a connection here…a* ***very*** *strong connection with this part of the country and the river. They probably had social gatherings like that…socializing. You*

know that yante was probably one of their favorite foods…sweet plant, so I think they had a lot of social contact when they were gathering and harvesting that.

- *They went to certain areas where certain plants grow.*

- *I think they farmed where they had water.*

- *They probably migrated here* (Diamond Butte) *when peoples got sick, they had medicine here to use.*

- *Went to the mountains for plants in different areas.*

- *San Francisco Peaks and Mount Trumbull to gather plants.*

- *You used to tell by their cones* (pine nut trees) *ya know if it's green or anything else like that…that's how we used to go out there to Parawan Valley…I gotta name all those other valleys on the Nevada side. We go through there summer time and see if they got pine cones done there.*

- *Jackass Canyon…trails for fishing for Paiutes.*

Places We Travel to for Minerals

Minerals are used ceremonially and in healing practices among the Southern Paiute people. The western conception of mineral resources relies on the idea that minerals have a cash value, but this is not necessarily the case for Indian people. Minerals contain power which is useful to people. Yellow and red ochre are used to make paint for ceremony. Obsidian is used not only for the manufacture of tools, but also is used as an offering at sacred sites. It is important to note that mineral sites are connected to other resources in the area.

- *The red ompi cave in the Grand Canyon.*
- *Across from Hualapai on our side, there was red and yellow paint. They were used for warding off spirits. It was also used on the body and face and forehead for funerals to ward off bad dreams.*
- *Red ompi…a spot on the Colorado River.*

Trails

In the previous discussion of song trails, the spiritual and social memory aspects of non-physical trails were discussed. Physical trails on the other hand are important because of what lies along them and where they go. The trails made by Indian people are still evident, as some became roads in the historic period. The trails allowed one to travel to sacred places, food-gathering sites, and to visit other Indian people. They represent the richness of Southern Paiute life as a transhumant people, as travelers rather than wanderers as other accounts have asserted. Additionally, trails are associated with puha, and this makes them sacred (Miller 1983).

The trails discussed in the following quotes reflect a multitude of uses. Trails were traveled for social and sustenance purposes. Some trails were used for socialization, marriage, and seeking out people who could help with problems or ritual. Other trails were used for going to places to gather the things one needed in everyday life. These were trails within local territories that were probably only known to the people who lived there. They include trails to vision questing sites, medicine caves, springs, hunting areas, places for medicine and food plants, and summer camps. All are important in that power moves along these trails, and that is why the Indian people used them.

- *Most of the trails that you find are Indian trails. That trail down to the water probably one of those. Crossing down there…remember that's where that Paiute medicine man would cross there to that Medicine Rock (Vulcan's Anvil) there in the river and go across.*

- *Old Spanish Trail is old Indian trail.*

- *If you follow the Little Colorado down to San Francisco Peaks, Kaibab to Marble Canyon, over Kaibab Mountains.*

- *They used the trail for trading, moving with the season, animals and plants changed.*

- *Kanab Creek was one of our entrances to the Canyon and South Canyon, and there's a trail at Deer Creek that came from Shivwits Kaibab.*

- *The whole North Rim was used for travel long before white people.*

- *Paiutes moved around a lot, the people probably visited places like Kaibab and traveled to the canyon and special sites like pine nut gathering.*

- *Paria Canyon…people would follow the canyon to here.*

- *My Grandfather helped Powell with his first crossing of the Colorado River.*

- *Paiutes would come down to the Colorado River to hunt deer, beavers chipmunks, bobcats, porcupine back in the '60s and before.*

- *Lots of elderly traveled across House Rock Valley.*

5.4 Piecing the Landscape Puzzle: Future Landscape Analysis in the Arizona Strip

A few years ago the UofA team wrote an essay entitled "Piecing the Puzzle" (Dewey-Hefley, et al. 1998) which suggested that cultural landscapes are not readily understood since eliciting the patterns and meanings of landscapes usually requires many interviews conducted at various locations over several years. Landscapes cannot be discussed in the absence of this place knowledge, and such knowledge cannot be obtained with a handful of site visits and interviews.

Places also are networked through various connections, which create synergistic relationships that increase the complexity and difficulty of understanding cultural landscapes.

Southern Paiute cultural landscapes within, throughout, and connected to the Arizona Strip are now in the beginning stages of being identified and understood. Because these landscapes are comprised of networked places, it is essential to develop a list of key places, and conduct interviews at these places that include discussions of multi-faceted place connections and networks. When these discussions are combined with the BARA team's knowledge of place logic derived from other studies with Numic people (cf. Southern Paiute Consortium. 1995a: ; Stoffle et al. 1997b; Stoffle et al. 1994; Stoffle et al. 1990a; Stoffle et al. 2000d; Stoffle et al. 2000e), a tentative description of the landscape can be derived.

5.5 Local Landscapes Involving the Mount Trumbull Region

There are spatially large landscapes that involve hundreds of places and are connected by an extensive network of spiritual and physical trails. There are also local landscapes that are composed of a small number of places connected by a few trails. The following is a reconstruction of two local ceremonial landscapes found near Mount Trumbull in the south-central portion of the Arizona Strip. This reconstruction is based on place and landscape interpretations made by elders who participated in this study and the interpretations of many other Indian people over the last thirty years. Some of the places involved in these two landscapes have cultural meaning and ceremonial roles in other landscapes creating what can be best be described as an overlapping mosaic of nested landscapes. Therefore it is always important to think of places in terms of multiple cultural meanings both for the same people and for others.

Mount Trumbull is connected to two local landscapes. The first is a ceremonial landscape that focuses on a pilgrimage to Toroweap Overlook (and Vulcan's Throne) at the North Rim of the Grand Canyon. The second local landscape utilizes Mount Trumbull as a power spot on a pilgrimage to a ceremonial landscape at Vulcan's Anvil at the bottom of the Grand Canyon. Both local landscapes involve trails along the pilgrimage which lead in Mount Trumbull, followed by a visitation at Nixon Spring. One landscape, and perhaps both given the spiritual needs of the pilgrims, involve purification, acquiring puha (see chapter two), and puhapah (power water) at

Little Spring. It seem likely, given what we know at this time, that the two landscapes may have been interactive inasmuch as they fundamentally conclude where past lava flows from the North Rim have filled the Colorado River from top to bottom forming a massive upstream lake. Evidence of former lava flows exist in abundance at the Vulcan's Anvil, Vulcan's Throne, and Lava Falls area (See Figure 5.6).

5.5.1 Toroweap Local Landscape

This landscape contains six pieces, and they are (1) trails into the Mount Trumbull area (2) Nixon Springs, (3) Little Springs, (4) Nampaweap, (5) trail to the North Rim, (6) and the edge of the North Rim above Lava Falls. For Southern Paiute people who would seek visions,

spirit helpers, or medical cures, each of these places has a unique function. In addition, each place is sequentially linked creating a ceremonial landscape that is integrated in terms of time, function, and space.

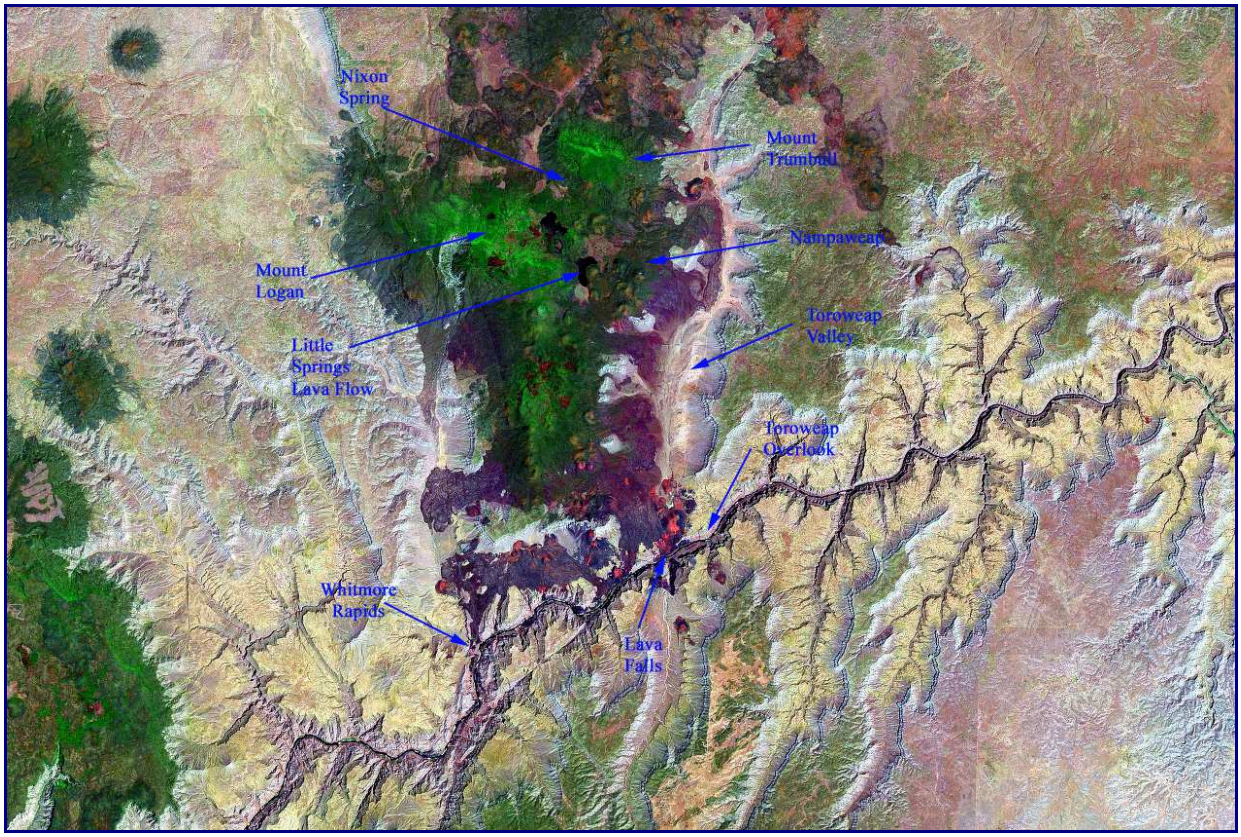

Figure 5.6 Remotely Sensed Image of the Mount Trumbull Region

For this landscape, the UofA team added for consideration the hypothesis that Southern Paiutes might not have been the only people using this area. It is very possible that other Indian groups like the Hopi, Havasupai and Hualapai have used the Mount Trumbull area for ceremony. It is well documented that the Hualapai frequently traveled across the Grand Canyon to participate in joint ceremonies with Southern Paiute people (Stoffle, et al. 2000b). There are a total of twenty-three traditionally used trails across the Colorado River where it passes through the Grand Canyon making access possible (Stoffle 1979). Based in part on his work with Dan Bulletts, Stoffle (1982: 124), wrote that "Trails tied Indian people together affording a regular exchange of goods, services, innovations, news, marriage partners, and occasionally warring parties. It is no wonder, then, that trails and often the people who used them became culturally significant."

Traveling to Mount Trumbull--Nixon Springs

Ceremonies are conducted at places with high concentrations of puha and thus it would be too dangerous for people who were not religious specialists to stay for long periods at ceremonial places. Therefore people who use a ceremonial area must have had to travel to it from safe home

bases. Southern Paiutes would have come from oasis-based agricultural villages located away from ceremonial places elsewhere, like those located north of Mount Trumbull in the Kanab Creek area, the Virgin River area near present-day Zion National Park and the Santa Clara River area (Fowler and Fowler 1971; Kelly 1971; Stoffle et al. 1997a).

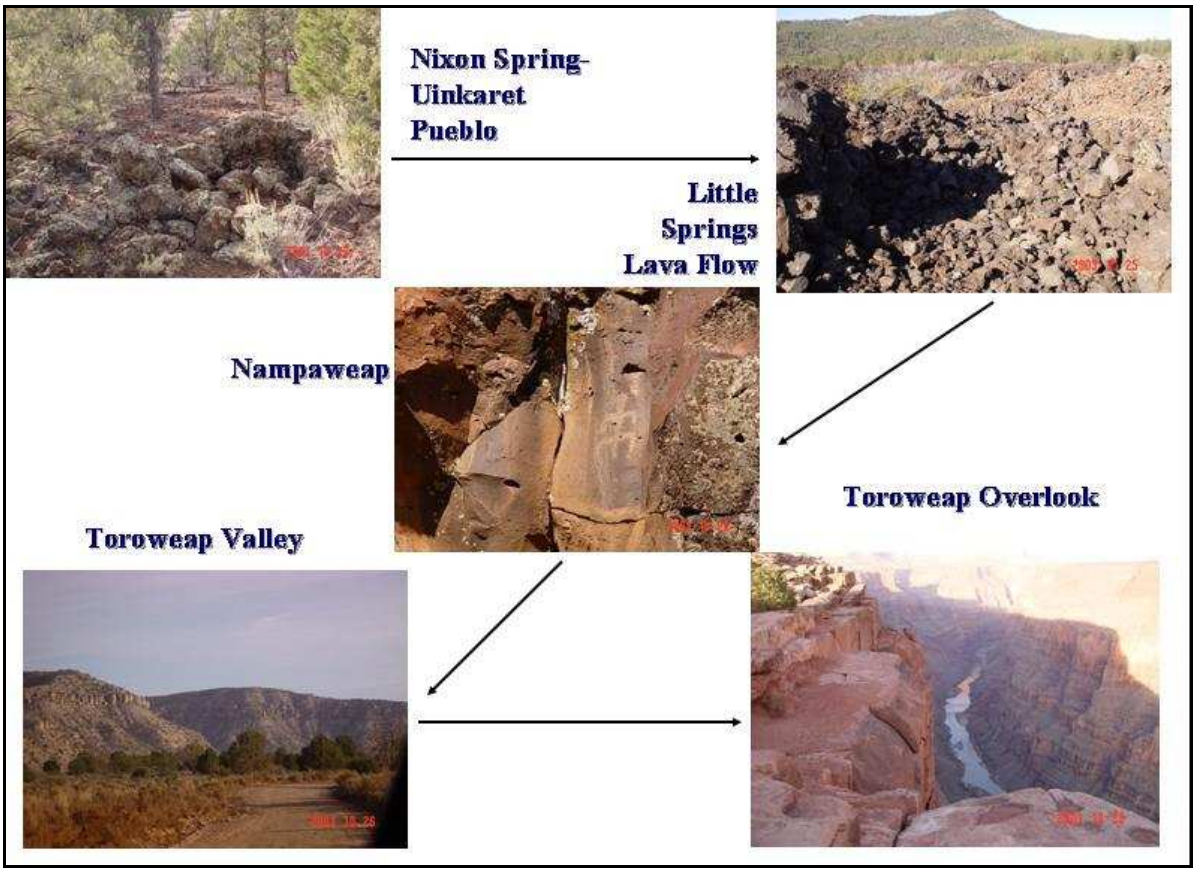

Figure 5.7 Toroweap Local Landscape

People traveling to the Mount Trumbull area would have used the major trails leading to this portion of the Arizona Strip. Many of the trails have since been given Anglo names as a result of the frequency with which Euro-Americans traveled these trails during the exploration and expansion periods. These old Indian trails cut across large portions of the Arizona Strip and into Utah and Nevada. The Mormon Temple Trail, the Honeymoon Trail, and the path used by Escalante and Dominguez were originally Indian trails. These were the kinds of trails that would have been taken by people en route to the Trumbull area for ceremony in the Nixon Spring area. Nixon Spring is located on the southwestern flank of Mount Trumbull. There is archaeological evidence found near by at Uinkaret Pueblo that shows Indian people used this area.

When people traveled to the Mount Trumbull area for ceremonies, it was not uncommon that their families came too. The families would have stayed in the Nixon Spring area while the others went on their pilgrimage. It would have been too dangerous for family members to accompany the pilgrims to the ceremonial places. These puha places were only visited by types of people who have certain amounts of puha and had begun a long series of preparations prior to

arriving in the Mount Trumbull area. The people who remained at Nixon Spring carried on with daily activities while the pilgrims were away. Depending on the time of year, the families would have gathered different kinds of plants, like three-leaf sumac, cedar, or pine nuts. Family members could also take this opportunity to hunt animals like deer, rabbits, elk, or antelope.

Stopping at Little Springs Lava Flow

As the pilgrims left the Nixon camp they traveled to Little Springs Lava Flow (for more information see Chapter 4), which is approximately four miles away from the Nixon Spring Support Camp. Little Springs Lava Flow is a recent basaltic lava flow southwest of Mount Trumbull, which has its own spring found at the northern edge of the flow. Pilgrims would have interacted with the lava flow spring to cleanse and purify themselves for their journey. The hornitos located throughout the lava flow would have been ideal places for sweat lodges and the lava rocks are well suited for holding heat. While they prepared, they sang songs and said prayers to the lava flow, the mountains, the water, the plants, and animals. They would have asked for a safe journey to the North Rim and back, for the protection of their families and for the safety of the environment around them. Water was probably taken from the spring and brought with them to Nampaweap and the North Rim. This puhapah would have been used in ceremony and left as an offering.

Prayers at Nampaweap

From Little Springs, the pilgrims would travel roughly three miles to Nampaweap. Nampaweap is a small basaltic canyon that constricts the obvious trail to the North Rim. The upper portion of the canyon has a series of peckings, a rock shelter, and a spring, thus it has high concentrations of puha (see Chapter 4). When people came to Nampaweap, they would have had to interact with it as yet another place where people prepared themselves for their arrival at the North Rim. People would have first offered the place water brought from Little Springs, and then they would have to explain the purpose of why they were at this place and seek the puha they would need to continue to the North Rim area. The small canyon may provide a song to be sent to the big canyon and used during the ceremony. Additionally, more water would be collected from the spring found above the rock art panels, which would have served both as an offering and for physical needs at the vision quest support camp.

Vision Questing on the North Rim

Following prayers at Nampaweap, people would head east towards Toroweap Valley and then south towards the North Rim of the Grand Canyon, covering a distance of twelve miles. While traveling down the valley, the pilgrims would continue to pray and interact with the landscape. They would have to announce to the canyon and the mountains why they were there, and they would ask for permission to enter the area. The people would have been given a sign, like an eagle flying by that would have signaled they had permission to enter the area.

Upon reaching the North Rim and receiving permission to enter, the vision seeker could have gone to two locations to obtain their vision- Vulcan’s Throne and Toroweap Overlook.

From these locations there are impressive views of the Grand Canyon, the Colorado River and places located along the South Rim.

Vulcan's Throne is a basaltic cinder cone located on the North Rim near Toroweap Overlook. This old volcano, which erupted on five separate occasions, is a feature in the volcanic system that is responsible for filling the Grand Canyon with lava twelve times during the last 1.2 million years. The lava flows created a series of dams in the Grand Canyon which were responsible for creating a series of lakes in the canyon that extended to the head of today's Lake Powell. The Vulcan's Throne flow was approximately eight to ten miles long. The flows from Vulcan's Throne are some of the oldest and largest in terms of volume in the Grand Canyon (Hamblin 1989: 190-192).

From the southern edge of the volcano one can look at Lava Falls and Vulcan's Anvil. As discussed in Chapter Four, volcanoes are unique places where puha from inside the Earth is brought to the surface; therefore people would have stopped at this spot to interact with it. They would have prayed to the mountain and explained their purpose for being in the area. Also, they could have brought puhapah, plants, and stones to this place to leave as an offering to the mountain.

At Toroweap Overlook, people have a clear view of Vulcan's Anvil and Lava Falls, two important powerful ceremonial features located within the Grand Canyon (see next local landscape description). It is important to note that Toroweap Overlook is the only place where a person can look from the upper rim of the Grand Canyon directly down at the Colorado River. This allows the pilgrim to have a clear view of the powerful places below. The person would be able to talk directly to the Colorado River and draw from its puha. The pilgrim would seek some type of puha from the place, such as a vision, song, or a spirit helper. The person could seek more puha to confront new problems facing him or his people. Perhaps the pilgrim is preparing himself to go into the canyon for ceremony at Lava Falls.

A small camp would be set up to serve as support for the vision seeker. This location would be near to where the vision seeking would occur, but would be sufficiently removed from the location to give the vision seeker privacy. Little is known about vision quest support people except they had two roles: (1) to advise the seeker and to help interpret what was happening and (2) to assure that the vision seeker did not become comatose. The vision was sought over a period of two to three days. When the vision was achieved or at such time that the support person suggested the time to leave had come, they would leave the North Rim area and make their way back to their villages. They would stop at Nampaweap and Little Springs to say exit prayers in order to thank the spirits for protecting them during their pilgrimage and providing enough puha to withstand the intensity of the vision quest. It was very likely that the returning pilgrims collected puhapah from Little Springs to bring back to their communities. The puhapah would have been used in curing and blessing ceremonies.

5.5.2 Vulcan's Anvil Local Landscape

The second local landscape connects places on the North Rim with an area centered on Lava Falls located along the Colorado River directly below Vulcan's Throne. During this

Arizona Strip Landscape and Place Names study, the UofA team focused on locations on the North Rim of the Grand Canyon and Arizona Strip; however, it is now important to discuss the relationships between places in the Arizona Strip and those within the Grand Canyon. These are connections commonly made by elders during the Arizona Strip landscape interviews.

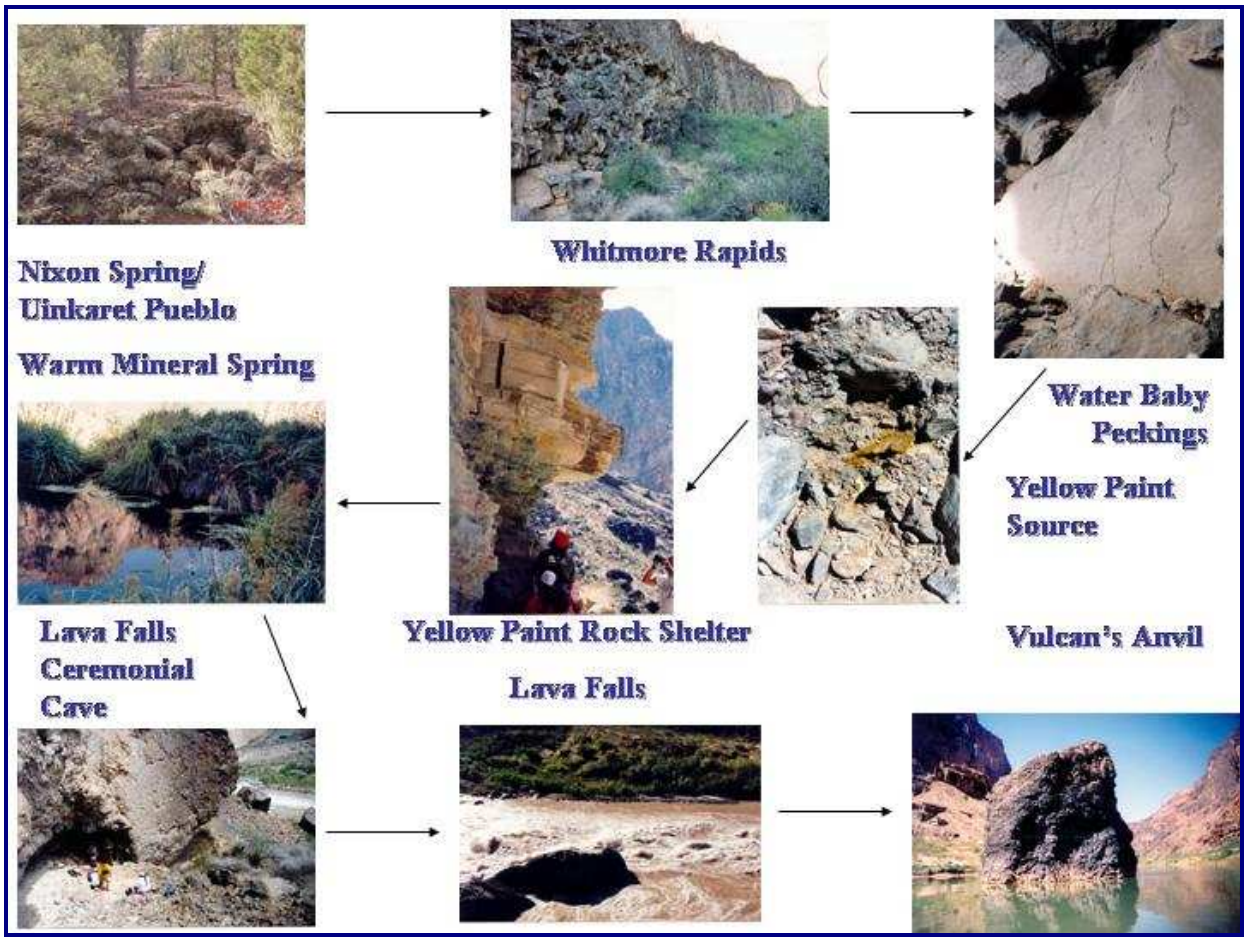

Figure 5.8 Vulcan's Anvil Local Landscape

Information for the places located within the Grand Canyon derived from a series of Colorado River study trips involving Southern Paiute elders. Each trip indicated the complex cultural sensitivity of the entire Colorado River corridor through the Grand Canyon. Especially important are the interconnected places found at Vulcan's Anvil and Lava Falls. For full information see the three technical reports of findings (Stoffle, et al. 1995a; Stoffle, et al. 1994; Stoffle, et al. 1995d). Elder observations from these studies led to our first published cultural landscape essay (Stoffle, et al. 1997b).

The Colorado River as it passes through the Grand Canyon is a spatially bounded ecosystem that is viewed by Southern Paiutes as a culturally special landscape comprised of many culturally important and interconnected places. The Grand Canyon has always (since Creation) played a critical role in the lives of Southern Paiutes. The canyon and the Colorado

River define the boundary of four Southern Paiute sociopolitical districts - Shivwits/Santa Clara, Uinkaret, Kaibab, and the San Juan.

A network of more than twenty-three trails permitted free movement across the Grand Canyon and the Colorado River. This allowed Paiutes to have access to many things within the canyon, such as farming, hunting, trade, and ceremony with the Hopis, Havasupai, and Hualapai. This section focuses on a particular local landscape involving places on the North Rim and a series of locations found within the Grand Canyon. This landscape is associated with Paiute doctoring, ceremony, and acquisition of spirit helpers. This landscape is linked to ceremonies discussed in the previous local landscape. This landscape involves steps in preparation for ceremonies at Vulcan's Anvil near Lava Falls. Vulcan's Anvil is a powerful doctoring area, which would require long periods of preparation and ceremony before a person or persons could enter this area.

This pilgrimage landscape involves at least the Mount Trumbull area discussed in the previous landscape. The Vulcan's Anvil pilgrims travel to the North Rim, perform ceremonies along the way, and used Nixon Spring as their base camp. The places involved with this landscape are (1) preparation at the pilgrims' home areas, (2) Mount Trumbull-Nixon Spring, (3) trail into the Grand Canyon at Whitmore Wash, and (4) Vulcan's Anvil-Lava Falls Ceremonial Complex including a water baby place, a warm mineral spring, a paint source wall, a ceremonial rock shelter, and Vulcan's Anvil.

Vulcan's Anvil Pilgrimage--Traveling to the North Rim

It is possible and logical that given the importance of the Vulcan's Anvil area, people would have begun to ready themselves by first taking a pilgrimage to the Toroweap overlook discussed previously. Upon returning home from this trip, people would have begun another series of preparations, which included more prayers and purification through songs and sweats. Once the pilgrims received a sign, whether it was a dream, an appearance of a certain type of animal or some other part of the landscape signaling them, they would proceed back to the North Rim for the second portion of their pilgrimage.

As people left their villages and began to make their way towards the North Rim area, they followed the major trail system that crosses the Arizona Strip. As mentioned earlier, many of the major Anglo-named trails were once well-traveled Indian trails. Given the great distances people would have traveled to access these places, it is necessary that the pilgrims would have a place to stay before they proceed with their journey. They would have returned to the Mount Trumbull area and stayed at Nixon Spring. The camp would have served a similar purpose as it did during the previous pilgrimage, with the families staying at the camp and performing daily activities while the pilgrims headed towards the Grand Canyon. Along their way, the pilgrims would have sung songs and said prayers to ensure a safe journey and protection for them, their families, and the environment around them.

Trail into the Grand Canyon

From Mount Trumbull pilgrims would have proceeded to Whitmore Wash. This area is the location of one of the major foot trails into the Grand Canyon. This trail leads directly to Whitmore Rapids and a rock shelter along the Colorado River. This shallow rock shelter is located about thirty meters above the river. On its walls are hundreds of red and white pictographs, including some identified as being a part of the Ghost Dance ceremony. At one point the shelter contained a large amount of charcoal, animal bone, cordage, corncobs, and matting. The archaeological evidence shows that the pilgrims stopped at this location to say prayers before continuing their travels either up or down the Canyon (Stoffle et al. 1994: 165).

Vulcan's Anvil-Lava Falls Complex

The Vulcan's Anvil-Lava Falls complex was also known as a powerful doctoring site. A well-known Southern Paiute religious leader was associated with this area. Eventually he moved across the Colorado River and married two Hualapai women, and because of this he became one of their primary medicine persons. As such, he became an important figure in Hualapai history and a lesson in the meaning of cultural differences in the Grand Canyon region.

This area is part of the ceremonial landscape that connects the North Rim to places in the Canyon. The Vulcan's Anvil-Lava Falls Complex is composed of locations that are connected to ceremonies performed at Vulcan's Anvil. Once pilgrims descended into the canyon, they proceeded up river stopping at a series of places to prepare themselves for going to Vulcan's Anvil.

Water Baby Peckings

At a place immediately down river from Lava Falls the pilgrims would stop to interact with three rock peckings below Lava Falls. These peckings were placed on a large boulder in a small cave located just below Lava Falls. These peckings probably occur at a place where the trail crosses the river. The peckings were interpreted as indicating the presence of water babies. People came to this location to say prayers of introduction and to request protection while crossing the river. It is possible that some spiritual leaders came to this spot to receive a water baby as a spirit helper (Stoffle, et al. 2002). The pilgrims drew upon the puha from the peckings to continue their journey to the Anvil and in return they left offerings of tobacco or puhapah for the water spirits represented by the peckings.

Warm Mineral Spring

From the cave with the peckings, the pilgrim swam or floated directly across the river to the warm mineral spring. It was likely that the warm and heavily mineralized water of this spring was not used for drinking, but was used instead for prayers and purification. Water was collected at the spring and brought to a ceremonial rock shelter where the pilgrims would have used it as an offering.

Yellow Paint Source Wall

From the spring, pilgrims traveled to a deposit of yellow ochre. The yellow ochre deposits in this wall were formed as magma flowed past the wall, which was made of non-volcanic materials some of which became ochre due to the intense heat and pressure. Yellow ochre like red ochre is a powerful element associated with ceremony. The yellow ochre wall is covered in red ochre blessing smudges. The yellow ochre was used in medicine and ceremony conducted at Vulcan's Anvil. To be used in ceremony the pigment had to be mixed with water to make the yellow paint. In order to collect the pigment, the pilgrims would have left water from the spring as an offering as they collected the pigment. Once the pigment was gathered, the pilgrims ventured to a nearby ceremonial rock shelter.

Preparation Rock shelter

At the ceremonial rock shelter, which is located directly above the yellow paint wall and Lava Falls, the people continued their preparations for ceremonies at Vulcan's Anvil. The rock shelter contains paint figures made in part from the yellow paint. Inside the rock shelter the pilgrims would have prayed and prepared themselves. They used the water brought in from the mineral spring. After prayers the pilgrims would have waited for a signal to proceed with their journey. It is possible that people could have received songs during this period to take with them to Vulcan's Anvil. According to Southern Paiute epistemology, rock shelters are powerful places that people visit to acquire puha and songs. Once the pilgrims received puha from the rock shelter and the appropriate signal, they could continue to Vulcan's Anvil. The pilgrim's support person would remain on shore–perhaps in the rock shelter-during the pilgrim's time on Vulcan's Anvil.

Vulcan's Anvil

In order to reach Vulcan's Anvil, the pilgrims (including patients if doctoring was the purpose of the pilgrimage) would have to swim to the center of the Colorado River where Vulcan's Anvil occurs as a large volcanic plug or throat. Here Vulcan's Anvil is surrounded by a calm and very deep portion of the Colorado River created in part as the backwater of materials that constitute Lava Falls. Vulcan's Anvil is the only rock of its kind along the entire Grand Canyon Corridor. Vulcan's Anvil can best be described as a power rock in a power place making it a very special destination for *puha'gants* (medicine men).

When the pilgrim(s) reach Vulcan's Anvil, they must climb from the water up its vertical slick sides to the wide flat top. On top, a person had a view of the Grand Canyon and the Colorado River up- and downstream. Looking up, the pilgrim would view the vertical canyon face containing evidence of a dozen previous volcanic dams and hundreds of separate lava flows. Here people could draw from the power of the rock, the river, the canyon and the presence of volcanoes.

After a period (up to three days if vision questing was involved), the pilgrim would leave the top of Vulcan's Anvil, swim to the south shore, spend time in the ceremony rock shelter, cleanse themselves in the warm mineral spring and begin the journey back to Mount Trumbull.

Pilgrims return to the places they visited on the path to Vulcan's Anvil for exit prayers and expressions of gratitude for safety. Puhapah was collected by the pilgrims at the base of Lava Falls and the mineral spring to bring back to their villages to be used in curing or other ceremonies. The yellow pigment seems to have been used primarily at this locale, although there is evidence of its use in ceremonial sites in Kanab Creek.

5.6 The Future of Local Landscapes

This is the point in the chapter where we would normally provide a summary of what we have found. While some generalizations are possible, there is still so much to understand. The study has provided the opportunity to visit a wide variety of places and to understand in a few cases how these are spatial, temporally, and functionally integrated into cultural landscapes. Still many places have not been visited and many local landscapes have not been identified. Local landscapes tend to be connected to other landscapes creating larger interconnected set of places. At this time, no very large landscapes have been identified, thus the more ultimate cultural meanings of place and landscape are missing from the analysis. We know there are trails to the afterlife that pass through Yanawant. There must have been other areas for seeking rites of passage for male and female youths. A variety of natural and heavily managed gathering and hunting areas exist. These are expected to have been used in transhumant fashion with variations in the annual pattern occurring due to shift in climate and changes in the distributions of the resources. Finally, there are systems of irrigated agriculture with associated permanent settlements that are only beginning to be understood.

The land management agencies (BLM, NPS, USFS, BOR) desire and need to understand the human cultural resources that exist within the boundaries of their management responsibilities. All of these agencies have developed or will soon develop mandates to move the identification, assessment of significance, and management recommendations of cultural resources to the landscape scale. The BLM, for example, has its National Landscape Conservation System, which is a component of its Cooperative Management Protection Areas (http://www.blm.gov/nlcs/cmpa); see also (http://www.blm.gov/nlcs/cmpa/). To qualify for incorporation into BLM's National Landscape Conservation System (NLCS), a specific acreage of land must be congressionally designated or Presidentially established through the Antiquities Act. The enabling language must have a clear natural and/or heritage conservation goal(s). To date, all units also have a mandated scientific/research component. The NLCS came about with the establishment of Escalante/Grand Staircase NM and Grand Canyon/Parashant NM. Given BLM's AZ Strip's location between the two monuments and the findings of this study, the BLM has strong arguments to justify full-blown studies of cultural landscapes, tribal interpretations, and cooperative management consultations as a foundation for one or more NLCS nominations in the Arizona Strip.

References Cited

794 F. Supp. 899
1992. *In* Masayesva v. Zah: District Court of Arizona.

Adam, Barbara
1998 Timescapes of modernity : the environment and invisible hazards. London New York: Routledge.

Adams, E. Charles
1982 Synthesis and Interpretation. In Walpi Archaeological Project,. Flagstaff: Museum of Northern Arizona.

Aguirre Beltran, Gonzalo
1979 Regions of Refuge. Washington D. C.: The Society for Applied Anthropology.

Aikens, C. Melvin
1966 Virgin-Kayenta Cultural Relationships. *In* University of Utah Anthropological Papers, Vol. 79. Salt Lake City.

Altschul, J.H., and H.C. Fairley
1989 Man, Models and Management: An Overview of the Archaeology of the Arizona Strip and the Management of Its Cultural Resources Report Prepared for: USDI Bureau of Land Management, Contract No 53-8371-6-0054: Statistical Research, Plateau Archaeology, Dames & Moore, Inc

American Indian Writers Subgroup, Consolidated Group of Tribes and Organizations
1996 American Indian Assessments: Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada, Appendix G. Las Vegas, Nevada: U.S. Department of Energy Nevada Operations Office with Significant Contributions from the Consolidated Group of Tribes and Organizations.

Anyon, R., and T. J. Ferguson
1983 Settlement Patterns and Changing Adaptations in the Zuni Region After AC 1000. Anasazi Symposium, San Juan Archaeological Center and Library, Bloomfield, New Mexico, 1983.

Århem, Kaj
1997 Makuna: portrait of an Amazonian people. Washington ; London.: Smithsonian Institution Press.

Arizona Strip Bureau of Land Management
2004 www.azblm.gov.

Arnold, Richard
2003 Personal Communication

Arnold, Richard, Don Cloquet, Betty Cornelius, Maurice Frank-Churchill, Gaylene Moose, Richard W. Stoffle, and Genevieve Dewey-Hefley
1998 *Paa'oatsa Hunuvi* (Water Bottle Canyon): American Indian Rapid Cultural Assessment of Archaeological Site 26NY10133, Nevada Test Site. Tucson, AZ: Bureau of Applied Research in Anthropology.

Arnold, Richard, Don Cloquet, Betty Cornelius, Maurice Frank-Churchill, Gaylene Moose, and with R. Stoffle
1997 *Tevitsi Yakakante* (It is Crying Hard): American Indian Rapid Cultural Assessment of DOE Nevada Operations Office Environmental Restoration Activities at Double Tracks, Clean Slate, and the Central Nevada Test Area. Report prepared for Environmental Restoration Division, U.S. Department of Energy, Nevada Operations Office. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Baldwin, Gordon Cortis
1944 An Occurrence of Jeddito Black on Yellow Pottery in Northeastern Arizona North of the Grand Canyon. Plateau 17:14-16.

Barth, Fredrik
1969 Ethnic Groups and Boundaries: The Social Organization of Culture Difference. Prospect Heights, Il: Waveland Press Inc.

Basso, Keith
1996 Wisdom Sits in Places: Landscape and Language among the Western Apache. Albuquerque: University of New Mexico Press.

Bean, L., M. Evans, N. Hopa, L. Massey, D. Rothenberg, R. Stoffle, S. Vane, L. Weinman-Roberts, and J. Young
1979 Allen-Warner Valley Energy System: Western Transmission System. Menlo Park, CA: Cultural Systems Research, Inc.: Report submitted to Southern California Edison Company.

Bean, Lowell J.
1976 Power and Its Applications in Native California. *In* Native Californians: A Theoretical Retrospective. L.J. Bean and T.C. Blackburn, eds. Pp. 407-20. Ramona, CA: Ballena Press.

Bendremer, Jeffrey C.

1998 An Approach to Applied Archaeology: Making a Contribution at Mohegan. Annual Meeting of the Society for Applied Anthropology, April 1998, San Juan, Puerto Rico, 1998.

Berkes, Fikret
1999 Sacred Ecology: Traditional Ecological Knowledge and Resource Management. Philadelphia, PA: Taylor and Francis.

Billingsley, George H., and Helen C. Dyer
2002 Geologic Map of Upper Hurricane Wash and Vicinity, Mohave County, Northwestern Arizona: US Geological Survey.

Bleak, James G.
1928 Annals of the Southern Utah Mission. Salt Lake City: Utah State Historical Society.

Bolton, Herbert
1928 Escalante in Dixie and the Arizona Strip. New Mexico Historical Review 3(1):41-72.

1950 Pageant in the Wilderness. Salt Lake City: Utah State Historical Society.

Bradford, James E.
1974 Final Report for an Archaeological Survey of the Paria Canyon from the Arizona Utah State Border to the Glen Canyon National Recreation Area Boundary. *In* Unpublished Report submitted by the Museum of Northern Arizona to the bureau of Land Management, Arizona Strip District. St. George, Utah.

Brierwert, Crisca
1999 Brushed by Cedar, Living By The River. Tucson: The University of Arizona Press.

Brooks, Juanita
1950 The Southern Indian Mission. In Under Dixie Sun: A History of Washington County by Those Who Loved their Forebears.: Washington County Chapter D.U.P.

1972 Journal of the Southern Indian Mission. Logan, Utah: Utah State University Press.

Brooks, G. R., Ed.
1977 The Southwestern Expedition of Jedediah Smith: His Personal Account of the journey to California 1826-1827. Glendale, Calif.: Arthur A. Clark Co.

Brown, David E.

1994 Biotic Communities: Southwestern United States and Northwestern Mexico. Salt Lake City: University of Utah Press.

Bunte, Pamela Ann, and Robert J. Franklin
1987 From the sands to the mountain : change and persistence in a southern Paiute community. Lincoln: University of Nebraska Press.

Bureau of Indian Affairs
1982 Proposed Paiute Indian Tribe of Utah Reservation Plan. Washington D.C.: United States Department of the Interior, Bureau of Indian Affairs.

Bureau of Land Management and National Park Service, Arizona Strip
2002 Arizona Planning Bulletin: Arizona Strip Resource Management Plan Revision, Grand Canyon-Parashant National Monument Management Plan, Vermilion Cliffs National Monument Management Plan. St. George, UT: December 2002, Vol. 2.

Cameron, Catherine (guest ed.)
1995 Migration and the Movement of Southwestern Peoples. Journal of Anthropological Archaeology 14(2).

Casey, Edward
1996 How to Get from Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena. *In* Senses of Place. K. Basso and S. Feld, eds., eds. Pp. 13-51. Santa Fe: School of American Research Press.

1998 The Fate of Place: A Philosophical History. Berkeley: University of California.

Chavez, Sergio J., and Karen L. Mohr Chavez
1998 Aymara Community Involvement In An International Archaeology Project on the Copacabana Peninsula, Bolivia. The Annual Meeting of the Society for Applied Anthropology, April 1998, San Juan, Puerto Rico, 1998.

Chronic, Halka, and Lucy Chronic
2004 Pages of Stone: Geology of the Grand Canyon and Plateau Country National Parks and Monuments. Seattle: The Mountaineers Books.

Clark, Robert
1999 Untitled Pintwater Range Videotapes Vol. 1,2, and 3. Las Vegas: B.C. Productions.

Cleland, Charles E.
1992 Rites of Conquest. Ann Harbor, MI: University of Michigan Press.

Clemmer, Richard O., L. Daniel Myers, and Mary Elizabeth Rudden

1999 Julian Steward and the Great Basin : the making of an anthropologist. Salt Lake City: University of Utah Press.

Colton
1950 Pottery Types of the Arizona Strip and Adjacent Areas in Utah and Nevada. *In* Museum of Northern Arizona Ceramic Series No. 1. Flagstaff, AZ.

Copps, David H.
1995 Views from the Road: A Community Guide for Assessing Rural Historic Landscapes. Washington D. C.: Island Press.

Courlander, H.
1987 The Fourth World of the Hopis. Albuquerque, NM: University of New Mexico Press.

Dellenbaugh, Frederick Samuel
1933 Indian red paint.

1962 A Canyon Voyage: The Narrative of the Second Powelll Expedition Down the Green-Colorado River From Wyoming, and the Explorations on Land in the Years 1871 and 1872. New Haven and London: Yale University Press.

Dellenbaugh, Fredrerick S
1909 The Romance of the Colorado River. New York: G. P. Putman's Sons.

Dewey-Hefley, Genevieve, María Nieves Zedeño, Richard W. Stoffle, and Fabio Pittaluga
1998 Piecing the Puzzle: Perfecting a Method for Profiling Cultural Places. Common Ground (winter 1998/ spring 1999):15.

Dobyns, Henry
1974 Prehistorical Indian occupation within the eastern area of the Yuman complex: A study in applied archaeology. New York: Garland.

Dobyns, Henry F., and Robert C. Euler
1967 The Ghost Dance of 1889 Among the Pai Indian of Northwestern Arizona. Flagstaff, AZ: Prescott College Press.

Douglas, Mary
1966 Purity and Danger: An Analysis of the Concepts of Pollution and Taboo. London: ARK Paperbacks (1984 reprint).

1984 Purity and Danger: An Analysis of the Concepts of Pollution and Taboo. London: Routledge & Kegan Paul.

Eliade, M.
1958 Patterns in Comparative Religion. London: Translated from Traite' d'Histoire des Religions, 1949.

Elliott, Russell R., and William D. Rowley
1987 History of Nevada. Lincoln, Nebraska: University of Nebraska Press.

Elson, Mark D.
1998 Expanding the View of Hohokam Platform Mounds. Anthropological Papers of the University of Arizona. Volume 63. Tucson, AZ: The University of Arizona Press.

Elson, Mark D., and Michael H. Ort, editors
2003 In the Shadow of the Volcano: Recent Research at Sunset Crater. Archaeology Southwest 17(1).

Euler, Robert
1963 Archaeological Problems in Western and Northwestern Arizona. Plateau 35:78-85.

Euler, Robert C., and Catherine S. Fowler
1966 Southern Paiute Ethnohistory. Volume 69. Salt Lake City: University of Utah Press.

Euler, Robert, and Alan P. Olson
1965 Split Twig Figurines from Northern Arizona: New Radiocarbon Dates. Science 148(368-369).

Fairley, H.C., and P.R. Geib
1989 Data Gaps and Research Issues in Arizona Strip Prehistory. *In* Man, Models and Management: An Overview of the Archaeology of The Arizona Strip and The Managment of Its Cultural Resources. Pp. 219-243: Statistical Research, Plateau Archaeology, Dames & Moore, Inc.

Feld, Steven and Keith Basso
1996 Senses of Place. New Mexico: School of American Research.

Ferguson, T. J., and E. R. Hart
1985 A Zuni Atlas. Norman, OK: University of Oklahoma Press.

Ferguson, T. J.
1995 Zuni and the Courts. Lawrence, MB: University of Nebraska Press.

Fewkes, Jesse W.
1897 Annual Report of the Bureau of American Ethnology. Tusayan Migration Traditions. Washington D. C.: Government Printing Office.

Fish, Paul, C. Branadon, J. Bynum, S. Fish, R. Hunt, G. McPherson, P. Moberly, and S. Wood
1974 Preliminary Report for Archaeological and Ethnohistorical Phase I Consultation for the Kaiparowits Power Project: Proposed Plant Sites, Impact Study Area, and Proposed Transmission Line Corridors. Copy on file, Bureau of Land Management, Arizona Strip District, St. George, Utah: Submitted by the Museum of Northern Arizona to Southern California Edison Company.

Fowler, Catherine
1992 In the Shadow of Fox Peak: An Ethnography of the Cattail-Eater Northern Paiute People of Stillwater Marsh. Cultural Resource Series no. 5. Fallon: U.S. Department of the Interior, Fish and Wildlife Service Region 1, Stillwater National Wildlife Refuge.

Fowler, Catherine, and Sven Liljeblad
1986 Northern Paiute. *In* Handbook of North American Indians. Great Basin Vol. 11. W.L. D'Azevedo, ed. Pp. 64-97, Vol. 11.

Fowler, Don D., and Catherine S. Fowler, eds.
1971 Anthropology of the Numa: John Wesley Powell's Manuscripts on the Numic Peoples of Western North America 1868-1880. Washington DC: Smithsonian Institution Press.

Geertz, Clifford
1963 Agricultural Involution: The Processes of Ecological Change in Indonesia. Berkeley, CA: University of California Press.

Goldstein, Lynne
1998 Editor's Corner. American Antiquity 63(3):373-374.

Gorham, E.
1997 Human Impacts on Ecosystems and Landscapes. *In* Placing Nature: Culture and Landscape Ecology. J.I. Nassauer, ed. Pp. 15-32. Washington D. C.: Island Press.

Gumerman, G. J., and J. S. Dean
1989 Prehistoric Cooperation and Competition in the Western Anasazi Area. *In* Dynamics of Southwest Prehistory. L.S. Cordell and G.J. Gumerman, eds. Pp. 99-148. Washington, DC: Smithsonian Institution Press.

Hamblin, W. Kenneth
1989 Pleistocene Volcanic Rocks of the Western Grand Canyon, Arizona. *In* Geology of Grand Canyon, Northern Arizona. D.P. Elston, G.H. Billingsley, and R.A. Young, eds. Washington, D.C.: American Geophysical Union.

Harney, Corbin

1995 The Way It Is: One Water, One Air, One Mother Earth. Nevada City, CA: Blue Dolphin Publishing.

Harrington, M. R.
1931 Lights and Shadows in Gypsum Cave. The Final Phases. The Masterkey IV(8):233-235.

1933 Gypsum Cave, Nevada. Southwest Museum Papers 8.

Harris, Jack S.
1940 The White Knife Shoshoni of Nevada. *In* Acculturation in Seven American Indian Tribes. R. Linton, ed. New York and London: Appleton-Century Company Inc.

Haskell, John L.
1978 The Paria Plateau Survey. Report of the 1967 Season Archaeological Inventory of Indian Ruins Located in Coconino Count for the Bureau of Land Managment. Western Anasazi Reports 1:251-274.

Haury, Emil
1976 The Hohokam: Desert Farmers and Craftsmen. Tucson, AZ: University of Arizona Press.

Hirsch, Eric, and eds. Michael O'Hanlon, eds.
1995 The Anthropology of Landscape: Perspectives on Place and Space. Oxford: Clarendon Press.

Holt, Ronald
1992 Beneath These Red Cliffs: An Ethnohistory of the Utah Paiutes. Albuquerque, NM: University of New Mexico Press.

Hopi-Dictionary-Project
1998 Hopi Dictionary: A Hopi-English Dictionary of the Third Mesa Dialect. Tucson: Bureau of Applied Research in Anthropology, The University of Arizona.

Hufford, Mary, ed.
1994 Conserving Culture: A New Discourse on Heritage. Urbana: University of Illinois Press.

Hulkrantz, Ake
1986 Mythology and Religious Concepts. *In* Handbook of North American Indians. Great Basin Vol. 11. W.L. D'Azevedo, ed. Washington D. C.: Smithsonian Institution.

Humphreys, A. A.

1872 Preliminary Report Concerning Explorations and Surveys Principally in Nevada and Arizona …1871 by George M. Wheeler. Washington, D. C.: Government Printing Office.

Hunt, Roy D., and Gale M. McPherson
1975 Preliminary Report for Archaeological and Ethnohistorical Phase I Investigations on Proposed Arizona Strip Alternate Transmission Line Corridor: Ms. on file Museum of Northern Arizona, Flagstaff.

Ingerson, Alice E.
2003 What are cultural landscapes?: Institute for Cultural Landscape Studies.

Inter-Tribal Council of Nevada.
1976 Nuwuvi: a Southern Paiute history. Reno: Inter-Tribal Council of Nevada.

Jackson, Jean
1995 Preserving Indian Culture: Shaman Schools and Ethno-Education in the Vaupes, Columbia. Current Anthropology 10(3):302-329.

James, H. C.
1990 Pages From Hopi History. Tucson, AZ: University of Arizona Press.

Jennings, Calvin H.
1978 An Archaeological Reconnaissance in the Paria Canyon, Arizona-Utah, 1967. Western Anasazi Reports 1:23-32.

Judd, Neil
1918 Archaeological Work in Arizona and Utah. Smithsonian Miscellaneous Collections 68(12).

1919 Arcaheolocal Reconnaissance of North Western Arizona. Smithsonian Miscellaneous Collections 70(1).

1926 Archaeological Observations North of the Rio Colorado. *In* Bureau of American Ethnology Bulletin, Vol. 82. Washington, DC.

Kearns, Robert, ed.
1991 The Place of health in the Health of Place: The Case of the Hokianga Special Medical Area. Volume 33.

Kelly, Isabel Truesdell
1971 Southern Paiute ethnography. New York: Johnson Reprint Corp.

1939 Southern Paiute Shamanism. Berkeley: University of California Press.

1934 Southern Paiute bands. Washington, D.C.: s.n.

nd Las Vegas Field Notes. *In* General Ethnographic Information. Unpublished Field Notes. Las Vegas.

Kelly, Robert
1998 Native Americans and Archaeology: A Vital Partnership. SAA Bulletin 16(4):24-26.

King, Chester, and Dennis G. Casebier
1976 Background to Historic and Prehistoric Resources of the East Mohave Desert Region. Riverside, CA: Bureau of Land Management, California Desert Planning Program.

King, Thomas F.
2003 Places That Count: Traditional Cultural Properties in Cultural Resource Management. Walnut Creek, CA: Altamira Press.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. Volume Bulletin 78. Washington, DC: Bureau of American Ethnology.

Laird, Carobeth
1976 The Chemehuevis. Banning, CA: Malki Museum Press.

Landscape Institute
2003 Institute for Cultural Landscape Studies Website, Vol. 2004: Harvard University.

Larson, Andrew K.
1950 Irrigation and Agriculture in Washington County. *In* Under the Dixie Sun: A History of Washington County by Those Who Loved their Forebearers. Pp. 35-59: Washington County Chapter D.U.P.

Levi, Jerome Meyer
1978 Wii'pay: The Living Rocks- Ethnographic Notes on Crystal Magic Among Some California Yumans. Journal of California Anthropology 5(1):42-52.

Liljeblad, Sven
1986 Oral Tradition: Content and Style of Verbal Arts. *In* Handbook of the American Indian. Great Basin Vol. 11. W.L. D'Azevedo, ed. Washington D. C.: Smithsonian Institution.

Little, James A. (ed.)
1969 Jacob Hamblin. Salt Lake City: Bookcraft, Inc.

Lockwood, Daniel W.

1872 Appendix A. Report. In Preliminary Report Concerning the Explorations and Surveys Principally in Nevada and Arizona…1871 by George M. Wheeler. Washington, D.C.: Government Printing Office.

Loendorf, Lawrence
1993 Rock Art and Water Ghost Woman on the Wind River, Wyoming. Paper delivered at Shamanism Conference, Witt Museum, San Antonio, Texas, 1993.

Low, Setha M.
1994 Cultural Conservation of Place. *In* Conserving Culture: A New Discourse on Heritage. M. Hufford, ed. Pp. 66-77. Urbana: University of Illinois Press.

Lowie, Robert Harry
1924 Notes on Shoshone Ethnography. New York: American Museum Press.

Lyle, D. A.
1872 Appendix B. Report. In Preliminary Report Concerning Explorations and Surveys Principally in Nevada and Arizona…1871 by George M. Wheeler. Washington, D. C.: Government Printing Office.

Madsen, David B. and David Rhode
1994 Across the West: Human Population Movement and the Expansion of the Numa. Salt Lake City: University of Utah Press.

Martineau, James H.
1858 Trip to the Santa Clara. Deseret News 8(33).

Massey, Doreen
1993 Politics and Space/Time. *In* Place and the Politics of Identity. M. Keith and S. Pile, eds. London and New York: Routledge.

McClelland, Linda Flint, J. Timothy Keller, Genevieve P. Keller, and Robert Z. Melnick
1999 Guidelines for Evaluating and Documenting Rural Historic Landscapes (Revised, Originally 1989), Vol. 2004: National Park Service, U. S. Department of Interior National Register Bulletin No. 30.

Meine, Curt
1997 Inherit the Grid. *In* Placing Nature: Culture and Landscape Ecology. J.I. Nassauer, ed. Pp. 45-62. Washington D. C.: Island Press.

Merleau-Ponty, Maurice
1964 The Primacy of Perception. United States: Northwestern University Press.

Miller, Jay

1983 Basin Religion and Theology: A Comparative Study of Power (Puha). Journal of California and Great Basin Anthropology 5(1,2):66-86.

Moffitt, Kathleen, and Claudia Chang
1978 The Moutn Trumbull Archaeological Survey. Western ANasazi Reports 1:185-250.

Moffitt, Kathleen, Sandra Rayl, and Michael Metcalf
1978 Archaeological Investigations Along the Navajo McCullough Transmission Line, Southern Utah and Northern Arizona, Vol. No. 10. Flagstaff, AZ: Museum of Northern Arizona Research Report.

Mooney, James
1896 The Ghost Dance Religion and the Sioux Outbreak of 1890. *In* Fourteenth Annual Report (Part 2) of the Bureau of Ethnology to the Smithsonian Institution 1892-1893, by J. W. Powell. Washington D. C.: Government Printing Office.

Morgan, Dale L.
1953 Jedediah Smith and the Opening of the West. Indianapolis: Bobb's- Merrill Co.

Mueller, James W., Gregory J. Staley, Gayle G. Harrison, Ronald W. Ralph, Carla A. Sartwell, and Ronald P. Gauthier
1968 Paria Plateau Survey Report, 1968 Season. *In* Ms. on file, Museum of Northern Arizona. Flagstaff, AZ.

Nabokov, Peter
1991 Native American Testimony: A Chronicle of Indian-White Relations From Prophecy to the Present. New York: Penguin Books.

1981 Indian Running: Native American history and Tradition. Santa Fe, NM: Ancient City Press.

Nassauer, J. I., ed.
1997 Placing Nature: Culture and Landscape Ecology. Washington D. C.: Island Press.

National Park Service
2004 http://www.cr.nps.gov/nagpra/FAQ/INDEX.HTM#What_is_NAGPRA: U.S. Department of the Interior, National NAGPRA Program, National Park Service, Washington D.C.

Nye, William
1886 A Winter among the Piutes. Overland Monthly (second series) 7(39):293-298.

Ort, Michael H., and Mark D. Elson

2005 Human Adaptation to Volcano Eruptions in Southwestern North America. Paper Presented at the 70th Annual Meetings of the Society for American Archaeology, Salt Lake City, Utah.
2004 Preliminary Report: Little Springs Archaeology and Volcanology Project. Western National Parks Association Grant #03-09. Ms. on file, Bureau of Land Management, St. George, Utah.

Page, Robert R.
1998 Cultural Landscape Inventory Professional Procedures Guide. Washington D. C.: U. S. Department of Interior, National Park Service, Park Historic Structures and Cultural Landscapes Program.

Paher, Stanley W.
1970 Nevada Ghost Towns & Mining Camps. Las Vegas, NV: Nevada Publications.

Palmer, William R.
1876 Exploration of a Mound in Utah. American Naturalist 10:410-414.

Park, Willard Z.
1941 Cultural Succession in the Great Basin. *In* Language, Culture, and Personality: Essays in Memory of Edward Sapir. L. Spier, A.I. Howell, and S. Newman, eds. Pp. 180-203. Menasha, WI: Sapir Memorial Publication Fund.

Parker, Patricia L., and Thomas F. King
1998 [1992, 1990] Guidelines for Evaluating and Documenting Traditional Cultural Properties. *In* National Register Bulletin 38. Washington D. C.: Interagency Resources Division, National Park Service, USDI.

Pendery, S.
1998 Intersection of Interest. Common Ground 3(2/3):54.

Peterson, Anna L.
2001 Being Human: Ethics, Environment, and Our Place in the World. Berkley: University of California Press.

Poling-Kempes, Lesley
1997 Valley of Shining Stone: The Story of Abiquiu. Tucson, AZ: University of Arizona Press.

Powell, John W, and G. W. Ingalls
1957 Exploration of the Colorado River. Chicago: University of Chicago Press.

Powell, S.

1983 Mobility and Adaptation: The Anasazi of Black Mesa, Arizona. Carbondale, Illinois: Southern Illinois University Press.

Rappaport, Roy A., and NetLibrary Inc.
1999 Ritual and religion in the making of humanity. Cambridge, U.K. ; New York: Cambridge University Press.

Reid, J. Jefferson, and Stephanie Whittlesey
1997 The Archaeology of Ancient Arizona. Tucson, AZ: The University of Arizona Press.

Rhode, David
2002 Native Plants of Southern Nevada. Salt Lake City: The University of Utah Press.

Rushforth, S. and S. Upham
1992 A Hopi Social History. Austin, TX: University of Texas Press.

Rusho, W.L.
2003 Lee's Ferry: Desert River Crossing. Salt Lake City: Tower Productions.

Sapir, Edward
1930 Southern Paiute, a Shoshonean language. Cambridge, Mass.,: American Academy of Arts and Sciences.

1915 Southern Paiute and Nahuatl--A study in Utoaztekan. Part II. Lancaster, Pa.,.

Sapir, Edward, and William Bright
1992 Southern Paiute and Ute : linguistics and ethnography. Berlin ; New York: Mouton de Gruyter.

Schwartz, Douglas W.
1960 Archaeological Investigation in the Shinumu Area of the Grand Canyon, Arizona. Plateau 32:61-67.

1963 An Archaeological Survey of Nankowap Canyon, Grand Canyon National Park. American Antiquity 28(289-302).

1965 Nankoweap to Unkar: An Archaeological Survey of the Upper Grand Canyon. American Antiquity 30(278-296).

Shaul, David L., and Jane Hill
1998 Tepimans, Yumans, and Other Hohokam. American Antiquity 63(3):375-398.

Silver, Shirley, and Wick R. Miller

1997 American Indian languages : cultural and social contexts. Tucson: University of Arizona Press.

Smiley, J., ed.
1997 Farming and Landscape. Washington D. C.: Island Press.

Smiley, Terrah L., J. Dale Nations, Troy L. Pewe, and John P. Schafer
1984 Landscapes of Arizona: The Geological Story. New York: University Press of America.

Smith, Jedediah S
1977 The Southwest Expedition of Jedediah S. Smith: His Personal Account of the Journey to California 1826–1827. Lincoln: Bison Books.

Sohn, Anton
1997 The Healers of 19th-Century Nevada: A Compendium of Medical Practitioners. Reno, NV: Greenwood Press.

Southern Paiute Consortium.
1995a Itus, auv, te'ek (past, present, future) : managing Southern Paiute resources in the Colorado River Corridor. Pipe Spring, Ariz., Tucson: Southern Paiute Consortium ; Bureau of Applied Research in Anthropology University of Arizona.

1995b Tumpituxwinap (storied rocks) : Southern Paiute rock art in the Colorado River Corridor. Pipe Spring, Ariz., Tucson: Southern Paiute Consortium, Bureau of Applied Research in Anthropology University of Arizona.

Spicer, Edward H.
1957 Worlds Apart: Cultural Differences in the Modern Southwest. Arizona Quarterly 13(3):197-203.

Steward, Julian Haynes
1933 Ethnography of the Owens Valley Paiute. Berkeley,: University of California Press.

1938 Basin-Plateau Aboriginal Sociopolitical Groups. Bureau of American Ethnology Bulletin (120).

1955 Theory of Culture Change: The Methodology of Multilinear Evolution. Urbana: University of Illinois Press.

Stoffle, Richard
1979 Interview with Dan Bulletts.

2004a From Earth's Birth to Crystals. Great Basin Anthropological Conference, Sparks, NV, 2004a.

2004b On What People Make of Volcanoes: Unpublished.

Stoffle, Richard, Fletcher Chmara-Huff, and Kathleen Van Vlack
2004a Initial Findings from the Arizona Strip Cultural Landscape and Place Name Study. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W.
2000 Cultural Heritage and Resources. *In* Social Impact Analysis: An Applied Anthropology Manual. L.R. Goldman, ed. New York: Berg.

N.D. Fieldnotes.

Stoffle, Richard W., Diane E. Austin, Brian K. Fulfrost, Arthur M. Phillips, Tricia F. Drye, Glen Canyon Environmental Studies (Program : U.S.), Southern Paiute Consortium., and University of Arizona. Bureau of Applied Research in Anthropology.
1995a Itus, auv, te'ek (past, present, future): managing Southern Paiute resources in the Colorado River corridor. Pipe Spring, Ariz., Tucson: Southern Paiute Consortium; Bureau of Applied Research in Anthropology University of Arizona.

Stoffle, Richard W., Diane E. Austin, David B. Halmo, and Arthur M. Phillips
1997a Ethnographic Overview an Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona. Pp. Bureau of Applied Research in Anthropology, University of Arizona. Tucson, AZ.

Stoffle, Richard W., Diane E. Austin, David B. Halmo, and Arthur M. III Phillips
1995b Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona. Pp. 320. Tucson, AZ; Pipe Spring, AZ: Bureau of Applied Research in Anthropology, University of Arizona and The Southern Paiute Consortium.

Stoffle, Richard W., Alex K. Carroll, and Amy Eisenberg
2000a Ethnographic Assessment of Kaibab Paiute Cultural Resources in Grand Staircase-Escalante National Monument, Utah. Tucson: Bureau of Applied Research in Anthropology (BARA), University of Arizona.

Stoffle, Richard W., Fletcher P. Chmara-Huff, Kathleen A. Van Vlack, and Rebecca S Toupal
2004b Puha Flows from It: The Cultural Landscape Study of the Spring Mountains. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., and Henry F. Dobyns
1982 *Puaxant Tuvip*: *Utah Indians Comment on the Intermountain Power Project, Utah Section of Intermountain Adelanto Bipole 1 Proposal*. Report Submitted by AUFS to Applied Conservation Technology. Kenosha: University of Wisconsin-Parkside, Appplied Urban Field School.

1983 Nuvagantu: Nevada Indians Comment on the Intermountain Power Project. Reno: Nevada State office of the Bureau of Land Management.

Stoffle, Richard W., and Michael J. Evans
1976 Resource competition and population change a Kaibab Paiute ethnohistorical case. New Haven, Conn.: Human Relations Area Files.

1978 Kaibab Paiute History: The Early Years. Fredonia, AZ: Kaibab Paiute Tribe.

Stoffle, Richard W., David B. Halmo, and Michael J. Evans
1999 Puchuxwavaats Uapi (To Know About Plants): Traditional Knowledge and the Cultural Significance of Southern Paiute Plants. Human Organization 58(4):416-429.

Stoffle, Richard W., and David B. Halmo
1988 San Juan Tribe of Southern Paiute People: Beliefs Regarding Traditional Lands and Cultural Resources. Ann Arbor: Institute for Social Research.

Stoffle, Richard W., David B. Halmo, Michael J. Evans, and Diane E. Austin
1994 Piapaxa 'Uipi' (Big River Canyon): Southern Paiute ethnographic resource inventory and assessment for Colorado River Corridor, Glen Canyon National Recreation Area, Utah and Arizona, and Grand Canyon National Park, Arizona, final report. Tucson: University of Arizona Bureau of Applied Research In Anthropology.

Stoffle, Richard W., David B. Halmo, John E. Olmstead, and Henry F. Dobyns
1990a *Uatah* (fields where we plant all the time): Shivwits Southern Paiute Water Use Along Tunakwint, the Santa Clara River. Prepared for the 5th Judicial District of Washington County, Utah. Ann Arbor: University of Michigan.

Stoffle, Richard W., David B. Halmo, John E. Olmstead, and Michael J. Evans
1990b Native American Cultural Resource Studies at Yucca Mountain, Nevada. Ann Arbor: Institute for Social Research, The University of Michigan.

Stoffle, Richard W., Merle Cody Jake, Pamela Bunte, and Michael J. Evans
1982 Southern Paiute Peoples' SIA Responses to Energy Proposals. *In* Indian SIA: The Social Impact Assessment of Rapid Resource Development on Native Peoples. C.C. Geisler, R. Green, D. Usner, and P.C. West, eds: University of Michigan.

Stoffle, Richard W., Kristine L. Jones, and Henry F. Dobyns
1995c Direct European Transmission of Old World Pathogens. American Indian Quarterly 19(2):181-203.

Stoffle, Richard W., Lawrence Loendorf, Diane E. Austin, David B. Halmo, and Angelita Bulletts
2000b Ghost Dancing the Grand Canyon: Southern Paiute Rock Art, Ceremony, and Cultural Landscapes. Current Anthropology 41(1):11-38.

Stoffle, Richard W., Lawrence L. Loendorf, Diane E. Austin, David B. Halmo, Angelita S. Bulletts, and Brian K. Fulfrost
1995d Tumpituxwinap (Storied Rocks): Southern Paiute Rock Art in the Colorado River Corridor. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W, David Olmstead, Michael Evans
1990 Native American Cultural Resource Studies at Yucca Mountain, Nevada. Ann Arbor: University of Michigan.

Stoffle, Richard W., Fabio Pittaluga, Tray G. Earnest, Amy Eisenberg, John Amato, and Genevieve Dewey-Hefley
1998 Pah hu wichi (From Big Spring Running Down): Big Spring Ethnographic Asssessment, US 95 Corridor Study. Pp. 147. Tucson, AZ: Bureau of Apppled Research in Anthropology, The University of Arizona.

Stoffle, R. , N. Zedeno, F. Pittaluga, T. Earnest, A. Eisenberg, J. Amato, and G. Dewey
1998b Ha'tata (The Backbone of the River): American Indian Ethnographic Studies Regarding the Hoover Dam Bypass Project. Prepared for CH2M Hill, Inc. and Federal Highway Administration. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., Rebecca S Toupal, and María Nieves Zedeño
2002 East of Nellis: Cultural Landscapes of the Sheep and Pahranagat Mountain Ranges. Tucson, AZ: Bureau of Applied Research in Anthropology, The University of Arizona.

Stoffle, Richard W., María Nieves Zedeño, Diane E. Austin, and David B. Halmo
1996 Native American Graves Protection and Repatriation Act Consultation and the Nevada Test Site Collection. Technical Report 89. Las Vegas: Desert Research Institute.

Stoffle, Richard W., María Nieves Zedeño, and Alex K. Carroll
2000c From Place to Object: Native American Graves Protection and Repatriation Act Consultation for the Hot Creek Valley Collection, Central Nevada Test Area.

Report prepared for the U.S. Department of Energy Nevada Operations Office. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., María Nieves Zedeño, Amy Eisenberg, Rebecca S Toupal, Alex K. Carroll, John Amato

2000d *Ha'tata* (The Backbone of the River): American Indian Ethnographic Studies Regarding the Hoover Dam Bypass Project. Report Prepared for CH2M Hill Inc. and the Federal Highway Administration, Central Lands Highway Division. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W., María Nieves Zedeño, Jaime K. Eyrich, and Patrick Barabe

2000e The Wellington Canyon Ethnographic Study at Pintwater Range, Nevada. Tucson, AZ: Bureau of Applied Research in Anthropology, The University of Arizona.

Stoffle, Richard W., María Nieves Zedeño, and David B. Halmo, eds.

2001a American Indians and the Nevada test site : a model of research and consultation. Washington, D.C.: Government Printing Office.

Sturtevant, William C., Warren L. D'Azevedo, and Smithsonian Institution.

1986 Handbook of North American Indians. Volume 11. Great Basin. Washington, D.C.: Smithsonian Institution.

Sutton, Imre, ed.

1985 Irredeemable America: The Indians Estate and Land Claims. Albuquerque: University of New Mexico Press.

Swan, James A.

1990 Sacred Places: How the Living Earth Seeks Our Friendship. Santa Fe, NM: Bear & Company Publishing.

Thomas, David H.

1973 An Empirical Test for Steward's Model of Great Basin Settlement Patterns. American Antiquity 38(1):155-176.

1994 Chronology and the Numic Expansion. *In* Across the West: Human Population Movement and the Expansion of the Numa. D. Madsen and D.R. (eds). eds. Pp. 56-61.

Thompson, Richard A.

1970 Prehistoric Settlement in the Grand Canyon National Monument. *In* Soutehrn Utah State College Faculty Research Series No. 1. Cedar City, Utah.

1971a The Grand Canyon National Monument: 1970 Archeological Survey Preliminary Reports. *In* Ms. Southern Utah State College. Cedar City.

1971b Prehistoric Settlement in the Grand Canyon National Monument. Plateau 44:67-71.

1978 The Western Anasazi Workshop, 1977. Western Anasazi Reports 1:3-12.

Tuan, Y.
1977 Space and Place: The Perspective of Experience. Minneapolis: University of Minnesota Press.

Tilley, Christopher
1994 A Phenomenology of Landscapes: Places, Paths and Monuments. Oxford, Eng.: Berg Publishers.

Toupal, Rebecca S, María Nieves Zedeño, Richard W. Stoffle, and Patrick Barabe
2001 Cultural landscapes and ethnographic cartographies: Scandinavian-American and American Indian knowledge of the land. Environmental Science and Policy 4:171-184.

Toupal, Rebecca, and Richard Stoffle
2004 Traditional Resource Use of the Flagstaff Area Monuments. Tucson, Arizona: Bureau of Applied Research in Anthropology, University of Arizona.

Trafzer, Clifford, Luke Madrigal, and Anthony Madrigal
1997 Chemehuevi People of the Coachella Valley. Coachella, CA: Chemehuevi Press.

Underhill, Ruth, Donald Bahr, Baptisto Lopez, Jose Pancho, and David Lopez
1997 Rainhouse and Ocean: Speeches for the Papago Year. Tucson, AZ: University of Arizona Press.

USGS
2000 Volcano Hazards Program: Reducing Volcanic Risk
http://volcanoes.usgs.gov/Products/Pglossary/hornito.html.

Vayda, Andrew Peter
1983 Progressive Contextualization: methods for research in human ecology. Honolulu: East-West Environment and Policy Institute.

Vennum, Thomas
1986 Music. *In* Handbook of the North American Indian. Great Basin Vol. 11. W.L. D'Azevedo, ed. Pp. 682-704. Washington D. C.: Smithsonian Institution.

Walker, William H.

1995 Ceremonial Trash. *In* Expanding Archaeology. J. Skibo, W.H. Walker, and A. Nielsen, eds. Pp. 67-79. Salt Lake City: University of Utah Press.

1999 Ritual, Life Histories, and the Afterlives of People and Things. Journal of the Southwest 41(3):383-405.

Westwood, Jennifer, ed.
1987 Mysterious Places: The World's Unexplained Symbolic Sites, Ancient Cities and Lost Lands. New York: Galahad Books.

Whitley, David
1995 A Guide to Rock-Art Sites: Southern California and Southern Nevada. Missoula, MT: Mountain Press Publishing Company.
1996 A Guide to Rock-Art Sites: Southern California and Southern Nevada. Missoula, MT: Mountain Press Publishing Company.

1999 Finding Rain in the Desert: Landscape, Gender, and Far-western North American Rock Art. *In* The Archaeology of Rock Art. C. Chipendale and P. Tacon, eds. Pp. 11-29. Cambridge: Cambridge University Press.

1999 Art of the Shaman: Rock Art of California. Salt Lake City: University of Utah Press.

Whiteley, Peter
1888 Deliberate Acts. Tucson: University of Arizona Press

Winslow, Diane L.
1996 Restricted Reconaissance: The History and Archaeology of S. M. Wheeler in Nye County, Nevada. Masters Thesis, University of Nevada.

World Wild Life Fund
2004 www.worldwildlife.org.

Yaffee, Steven Lewis
1994 The Wisdom of the Spotted Owl. Washington D. C.: Island Press.

Yaffee, Steven Lewis, Arthur M. Phillips, I. Frentz, P. Hardy, S. Maleki, and B. Thorpe
1996 Ecosystem Management in the United States: An Assessment of Current Experiences. Washington D.C.: Island Press.

Yamin, Rebecca, and Karen Bescherer Metheny
1996 Landscape Archaeology: Reading and Interpreting the American Historical Landscape. Knoxville: The University of Tennessee Press.

Zanjani, Sally

1994 'Ghost Dance Winter' and other Tales of the Frontier. Reno, NV: Nevada Historical Society.

Zeanah, David, and Steven Simms
1999 Modeling the Gastric: Great Basin Subsistence Studies since 1982 and the Evolution of General Theory. *In* Models for the Millenium: Great Basin Anthropology Today. C. Beck, ed. Salt Lake City: University of Utah Press.

Zedeño, María Nieves
1997 Landscapes, Land Use, and the History of Territory Formation: An Example from the Puebloan Southwest. Journal of Archaeological Method and Theory 4(1):67-103.

2000 On What People Make of Places: A Behavioral Cartography. *In* Social Theory in Archaeology. M.B. Schiffer, ed. Pp. 97-111. Salt Lake City: University of Utah Press.

Zedeño, María Nieves, Diane E. Austin, and Richard W. Stoffle
1997 Landmark and Landscape: A Contextual Approach to the Management of American Indian Resources. Culture and Agriculture 19(3):123-129.

Zedeno, M. Nieves and Richard W. Stoffle
1996a Casa Grande Ruins National Monument: Foundations for Cultural Affiliation. Prepared for Western Archeological and Conservation Center, National Park Service. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

1996b Hohokam, Salado, and Sinagua Consultation Meeting, Tucson, July 18-19, 1995. Prepared for Western Archeological and Conservation Center, National Park Service. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Zedeño, María Nieves, Richard W. Stoffle, Genevieve Dewey-Hefley, and David Shaul
1999 *Storied Rocks:* American Indian Inventory and Interpretation of Rock Art on the Nevada Test Site. Tucson, AZ: Bureau of Applied Research in Antropology, The University of Arizona.

Zube, Ervin H., James L. Sell, and Jonathan G. Taylor
1982 Landscape Perception: Research, Application, and Theory. Landscape Planning 9:1-33.

Appendix A:

Forms Used in the Arizona Strip Study

This Appendix contains the Site, Rock Art, and Landscape Survey Instruments used by ethnographers of the Bureau of Applied Research in Anthropology at the University of Arizona over the course of this study. These instruments have been developed over the years with the assistance of Indian people as a means of learning about the meanings attributed to places, activities, ethnohistory, material culture, and cultural landscapes. A full rendition of each of these forms starts on the next page.

NATIVE AMERICAN ETHNOGRAPHIC RESOURCES
ARIZONA STRIP SITE FORM
University of Arizona Indian Note Form
NOTE: You must record a response for every question asked in order for data to be correctly coded

Ethnographer_____

Interview Number: _____

1. Date:_____

2. Respondent's Name: _____

3. Tribe/Organization: _____ 3a. Ethnic Group: _____

4. Gender: Male Female

5. Date of Birth: ___/___/___ 5a. Age _____

6. Place of Birth (Town, Reservation): _____ 6a. U.S. State of Birth _____

7. Study Area Site Number (ethnographer fill this in): _____

. What is the name of this place in English? 8a. What is the name of this place in your native language?

_____ _____

9. Please describe the geography of this area or elements which stand out.

10. Would Indian people have used this area? 1= YES 2= NO 8= Don't Know 9= No Response

10a. (IF YES) Why or for what purpose would Indian people have used this area?
1= [permanent]LIVING 2= HUNTING 3= [seasonal]CAMPING 4= CEREMONY/POWER 5= GATHERING FOOD
6= OTHER 8= Don't Know 9= No Response

10b. Comments on 10a:

11. Is this place part of a group of connected places (Is this place connected to others?) 1=YES 2= NO 8= Don't Know 9= No Response

11a. (IF YES) What kinds of other places might this place be connected with and where are they? 1= Comment given 8= DK 9= NR

11b. (IF COMMENT GIVEN) How is this place connected to the others you mentioned? 1= Comment given 8= DK 9= NR

11bb. (IF ANSWERED 1 TO 11b) Comments given:

PLACE FEATURES (Explain you will now begin asking questions about the physical features of the place)

Which, if any, of the following features is an important part of why this place is significant to Indian people?

Feature Type	1= YES	2= NO	List and Describe each specific feature, like Waterfall, Mormon Tea Plant, Mt. Sheep
12a. Source for Water			12aa.
12b. Source for Plants			12bb.
12c. Source for Animals			12cc.
12d. Evidence of Previous Indian Use e.g.- rock rings, historic structures, rock art			12dd.
12e. Geological Features e.g.- mountain, spring, cave, canyon, landmarks			12ee.

FOR EACH FEATURE PLEASE FILL OUT APPROPRIATE FEATURE PAGE

FEATURE TYPE A: WATER SOURCE (List specific feature from table on page 3) _____

13. Would Indian people have used this __(Name the feature)_ ? 1= YES 2= NO 8= Don't Know 9= No Response

14. (IF YES) Why or for what purpose would Indian people have used this __Feature(s)__ ?

1= FOOD/DRINK 2= MEDICINE 3= CEREMONY 4= OTHER 8= Don't Know 9= No Response

14a. Comments:

15. How would you evaluate the condition of the ___Feature(s)__? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9=No Response

16. Is there anything affecting the condition of the __Feature(s)__? 1= YES 2= NO 8= Don't Know 9= No Response

16a. (IF YES) What in your opinion, is affecting the condition of _____?

FEATURE TYPE B: PLANT SOURCE (List features from table on page 3) _____

17. Would Indian people have used the plants at this particular site? 1= YES 2= NO 8= Don't Know 9= No Response

18. (IF YES), Why or for what purpose would Indian people have used these plants?

1= FOOD 2= MEDICINE 3= CEREMONY 4= MAKING THINGS 8= Don't Know 9= No Response

18a. Comments (if given):

19. How would you evaluate the condition of these plants? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9= No Response

20. Is there anything affecting the condition of these plants? 1= YES 2= NO 8= Don't Know 9= No Response

20a. (IFYES) What in your opinion, is affecting the condition of the plants?

FEATURE TYPE C: ANIMAL SOURCE (List features from table on page 3) _____

21. Would Indian people have used the animals at this place? 1= YES 2= NO 8= Don't Know 9= No Response

22. Why or for what purpose would Indian people have used the animals in this site?

1= FOOD 2= MEDICINE 3= CEREMONY 4= CLOTHING 5= TOOLS 6= OTHER 8= Don't Know 9= No Response

22a. Comments:

23. How would you evaluate the condition of these animals/habitat? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9= No Response

24. Is there anything affecting the condition of the animals/habitat? 1= YES 2= NO 8= Don't Know 9= No Response

24a. (IF YES) What in your opinion, is affecting the condition of the animals/habitat?

FEATURE TYPE D: EVIDENCE OF PREVIOUS OCCUPATION OR USE (Specifically) _____

25. Would Indian people have used this site and/or artifacts? 1= YES 2= NO 8= Don't Know 9= No Response

26. Why or for what purpose would Indian people have used this site and/or artifacts?

1= LIVING 2= HUNTING 3= GATHERING 4= CAMPING 5= CEREMONY/POWER 6= OTHER 8= Don't Know 9= No Response

26a. Comments:

27. How would you evaluate the condition of this site? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9= No Response

28. Is there anything affecting the condition of this site? 1= YES 2= NO 8= Don't Know 9= No Response

28a. (IF YES) What in your opinion, is affecting the condition of this site?

FEATURE TYPE E: GEOLOGIC FEATURES (specifically _____)

29. Would Indian people have visited or used this __(Feature)__ ? 1= YES 2= NO 8= Don't Know 9= No Response

30. Why or for what purpose would Indian people have used this __(Feature)__ ?

1= SEEK KNOWLEDGE/POWER 2= COMMUNICATE WITH OTHER INDIANS 3= CEREMONY 4= COMMUNICATE WITH SPIRITUAL BEINGS 5= TEACHING OTHER INDIANS 6= TERRITORIAL MARKER 7= OTHER 8= Don't Know 9= No Response

30a. Comments:

31. How would you evaluate the condition of the __(Feature)__? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9= NR

32. Is there anything affecting the condition of the __(Feature)__? 1= YES 2= NO 8= Don't Know 9= No Response

32a. (IF YES) What in your opinion, is affecting the condition of __(Feature)__?

MANAGEMENT AND ACCESS RECOMMENDATIONS

33. How would you evaluate the condition of this place? 1= EXCELLENT 2= GOOD 3= FAIR 4= POOR 9= No Response

34. Is there anything affecting the condition of this place? 1= YES 2= NO 8= Don't Know 9= No Response

34a. (IF YES) What in your opinion is affecting the condition of this place?

Above you identified specific features at this site. What would be your recommendation for protecting each specific feature?

35. Water Source:

36. Plant Source:

37. Animal Source:

38. Traditional Use Feature:

39. Geological Feature:

40. What would be your recommendation for protecting this place?

41. Do you think Indian people would want to have access to this place? 1= YES 2= NO 8= Don't Know 9= No Response

41a. (IF YES) Why would Indian people want to come to this place?

42. Are there any special conditions that must be met for Indian people to use this place? 1= YES 2= NO 8= Don't Know 9= No Response

42a. (IF YES) What special conditions are needed for Indian people who want to come to this place?

Comments:

NATIVE AMERICAN ETHNOGRAPHIC RESOURCES

ETHNOARCHAEOLOGY-ROCK ART QUESTIONS

University of Arizona Interview Form

Date: _____ Tape #_____ Interview #: _____

Interviewer: _____

2. Respondent's Name: _____

3a. Tribe: _____ 3b. Ethnic Group: _____

4. Gender: (Circle) *1 = M* *2 = F*

5a. English Name of site _____ 5b. Site No.: NV _____

5e. Quad Name _____ 5f. Compass Orientation _____ 5g. Elevation _____

6a. Study Area Site #_____

6b. Ecozone Location:
i. canyon wall
ii. UDSZ-desert
iii. OHWS-old riparian
iv. REPS-new riparian
v. side canyon riparian
vi. dry mesa top
vii. stream bed
viii. high desert flats
ix. upper Mohave desert
x. lower Mohave desert
xi. stream bank
xii. woodland

6c. Topography:
i. delta
ii. side canyon
iii. wash or drain
iv. mesa top
v. canyon wall
vi. saddle
vii. talus
viii. cave

6d: Main Water Source:
i. River edge
ii. River flood
iii. Side stream
iv. Spring
v. Rainfall
vi. rock tank
vii. wash

7. Did you know that **this site** was here? *1=Yes* *2=No* *8=DK* *9=NR*

ETHNIC GROUP USE HISTORY

500. In your opinion, was/were (**this/these panel(s)**) made by your people? *1=Yes* *2=No* *8=DK* *9=NR*

501. Did your [respondent's ethnic group] traditionally visit or use (**this/these panel(s)** or **panel(s) like this/these [where?]**)?

1 = Yes *2 = No* *8 = DK* *9 = NR*

502. (IF YES TO #501) What were (**this/these panel(s)** or **panel(s) like this/these**) visited or used for?

1 = Ceremony (SPECIFY) *2 = To Seek Knowledge/Power* *3 = Communicate w/ Other Indian People*

4 = Communicate with Spiritual Beings *5 = Teaching Other (ethnic group) People* *6 = Territorial Marker*

7 = Decoration *8 = Other (SPECIFY)* *9 = Map*

10 = paying respects *11=N/A*

502b. What kind of name would you give this panel?

503. Who visited or used (**this/these panel(s)** or **panel(s) like this/these**) most often?

1 = Men *2 = Women* *3 = Both* *7=NA* *8=DK* *9=NR*

504. Do your people currently visit or use (**this/these panel(s)** or **panel(s) like this/these [where?]**)?

1 = Yes *2 = No* *7=NA* *8=DK* *9=NR*

505. (If yes to #504) What are (**this/these panel(s)** or **panel(s) like this/these**) visited or used for? CIRCLE BELOW

1 = Ceremony (SPECIFY) *2 = To Seek Knowledge/Power* *3 = Communicate w/ Other Indian People*

4 = Communicate with Spiritual Beings *5 = Teaching Other (ethnic group) People* *6 = Territorial Marker*

7 = Decoration *8 = Other (SPECIFY)* *9 = Map*

10 = paying respects *11=N/A*

506. Who visits or uses (**this/these panel(s)** / **panel(s) like this/these**) most often?

1 = Men *2 = Women* *3 = Both* *7=NA* *8=DK* *9=NR*

CONNECTIONS

517. Are there (ethnic group stories and legends associated with (**this/these panel(s)** or **panel(s) like this/these**)

1 = Yes *2 = No* *8 = DK* *9 = NR*

517a. If YES, What is the name of that story?

517b. Can it be told to outsiders?

1 = Yes *2 = No* *8 = DK* *9 = NR*

517c. IF YES, will you tell us about that story? (make sure to record on tape)

518. I would like to ask you about the connections between (**this/these panel(s)** or **panel(s) like this/these**) and other resources.

519a. Are the pecking/paintings in this panel and connected in anyway with panels elsewhere?

1 = Yes *2 = No* *8 = DK* *9 = NR*

520a. Where and how are they connected?

519b. Are archaeology sites connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520b. How are they connected?

519c. Are plants connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520c. How are they connected?

519d. Are animals connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520d. How are they connected?

519e. Are minerals connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520e. How are they connected?

519f. Is water connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520f. How is it connected?

519g. Is the surrounding land (geography, topog.) connected with these panels? *1=Yes* *2=No* *8=DK* *9=NR*

520g. How is it connected?

HISTORY OF ETHNIC USE

521. Did Indian people who are not (your ethnic group) use (**this/these panel(s)** or **panel(s) like this/these**)?

1 = Yes *2 = No* *8 = DK* *9 = NR*

522a. (IF YES TO #521) Who were those Indian people?

522b. Did those people use (**this/these panel(s)** or **panel(s) like this/these**) [*before, after, same time as*] respondent's ethnic group?

1 = Before *2 = After* *3 = Same time as* *4= All of above*
7 = NA *8=DK* *9=NR*

SEASONALITY, USE AND MEANING

523. Is there a special time of the year during which (**this/these panel(s)** or **panel(s) like this/these**) were/are used?

1 = Yes *2 = No* *8 = DK* *9 = NR*

524. (IF YES TO #523) What special time of the year?

525. Is there a special time of day/night during which (**this/these panel(s)** or **panel(s) like this/these**) were/are used?

1=Yes *2=No* *8=DK* *9=NR*

526. (IF YES TO #525) What special time of day/night?

527. Within the site, are there any specific peckings or paintings that you would like to talk about? (IF NO, GO TO 530)

1 = Yes *2 = No* *8 = DK* *9 = NR*

527a. Location of pecking/painting (boulder #) _____

527b. Photo # (roll, shot)

527c. Indian/English name for pecking/painting _____; _____

527d. What is special about this pecking/painting?

528. Within the site, are there any other specific peckings or paintings that you would like to talk about? (IF NO, GO TO 530)

1 = Yes *2 = No* *8 = DK* *9 = NR*

528a. Location of pecking/painting (boulder #) _____

528b. Photo # (roll, shot)

528c. Indian/English name for pecking/painting _____; _____

528d. What is special about this pecking/painting?

529. Within the site, are there any other specific peckings or paintings that you would like to talk about? (IF NO, GO TO 530)

1 = Yes *2 = No* *8 = DK* *9 = NR*

529a. Location of pecking/painting (boulder #) _____

529b. Photo # (roll, shot)

529c. Indian/English name for pecking/painting _____; _____

529d. What is special about this pecking/painting?

(BACK to General Discussion of site)

530. Based on the rock art that you see at the site and on the ground, what Indian activities or events occurred at this site? [specify site]

531. Does the site have a personal meaning for you? *1=Yes* *2=No* *8=DK* *9=NR*

532. (IF YES TO #531) What does the site mean to you?

533. How would you evaluate the overall importance of the site to you?

1 = Low *2 = Medium* *3 = High* *9 = NR*

534. Does the style of the peckings/paintings influence the cultural significance of this rock art?

1 = Yes *2 = No* *8 = DK* *9 = NR*

535. (IF YES TO #534) How?

IMPACT ASSESSMENTS

536. In your opinion, what is the current condition of this site?

1=Excellent *2=Good* *3=Fair* *4=Poor* *8=DK* *9=NR*

537. Do you feel there are human activities affecting the condition of the panels?

1 = Yes *2 = No* *8 = DK* *9 = NR*

537a. (if Yes to # 537) What human activities are affecting the condition of the panel(s)?

538. What would be your recommendation (if any) for protecting the panel(s) from human activities?

539. Do you feel there are natural elements (wind, rain, erosion) affecting the condition of the panel(s)?

1 = Yes *2 = No* *8 = DK* *9 = NR*

540. (IF YES TO #539) What natural elements are affecting the condition of the panel(s)? [specify general weather, other]

541. What would be your recommendation (if any) for protecting the panel(s) from natural elements?

542. Can you tell me anything else about the importance of (**this/these panel(s)** or **panel(s) like this/these**) to (respondent's ethnic group) that we haven't talked about?

ADDITIONAL NOTES:

BLM Arizona Strip Study
NATIVE AMERICAN ETHNOGRAPHIC RESOURCES
The University of Arizona in Tucson

LANDSCAPE QUESTIONS
– use along with map so people can point at places they talk about

NOTE: You must record a response for every question asked in order for data to be correctly coded- blank spaces are not responses*

Interview Number: _____**Tape Number _____**

Ethnographer_____ Date:_____

Respondent's Name: _____

Tribe/Organization: _____ Ethnic Group: _____

Gender: Male Female

Date of Birth: ___/___/___ Age _____

Place of Birth (Town, Reservation): _____ U.S. State of Birth _____

Study Area / place of interview (ethnographer fill this in): _____

(1) Were there Indian villages in relation to this area?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(2) If yes, were the area villages connected with villages elsewhere in the Southern Nevada/ California/ Arizona/ Utah region?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(3) If yes, how were these connected?

(4) Do you know what the Indian people did when they were here in the area?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(5) If yes, what kinds of activities -

* farming
* gathering plants
* gambling
* ceremonies
* political meetings
* others (specify)

(6) Do you know of Indian trails that were connected with this area?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(7) If yes, can you tell me something about those trails - like

* where did they go, * why did your people travel the trails, and
* were these trails somehow special to your people? How?

(8) Do you know of any songs associated with this area?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(9) If yes, can you tell me something about the songs – were they

* traveling songs

* ceremony songs, or

* other-purpose songs

(10) Do you know of any ceremonies that were conducted at or near this area ?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(11) If yes, can you tell me something about these ceremonies?

* Ceremony #1 - place _____, when _____, why _____

* Ceremony #2 - place _____, when _____, why _____

* Ceremony #3 - place _____, when _____, why _____

(12) Is this area at or near the place where your people were created?

1 =Yes, 2 = No, 8 = Don’t Know, 9= No Response.

(13) If yes, where is the Creation place?

(14) Do you know if there are other places in the Southern Nevada/ California/ Arizona/ Utah Region that are also connected with the Creation of your people?
1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(15) If yes, what and where are those places?

(16) Do you recall or have your heard about events in history that occurred at or near this area?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(17) Will you tell me something about those events?

* Event #1 - date _____, place _____, what happened?

* Event #2 - date _____, place _____, what happened?

* Event #3 - date _____, place _____, what happened?

(18) Is there a connection between this area and nearby mountains?

1 =Yes, 2 = No, 8 = Don’t Know, 9= No Response.

(19) If yes, what mountains and how are they connected to this area?

* Mt. #1: name in English _____, name in native language_____, how connected?

* Mt. #2: name in English _____, name in native language _____, how connected?

* Mt. #3: name in English _____, name in native language _____, how connected?

(20) Is there a connection between this area and any section of the Colorado River?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(21) If yes, what section of the river and how is it connected to this area?

* River Section #1: name in English _____, name in native language _____, how connected?

* River Section #2: name in English _____, name in native language _____, how connected?

* River Section #3: name in English _____, name in native language _____, how connected?

(22) Is there a connection between this area and any of the creeks, springs, or washes in the Northern Arizona area (i.e. etc.)?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(23) If yes, which creeks, springs, or washes and how are they connected to this area?

* Water source #1: name in English _____, name in native language _____, how connected?

* Water source #2: name in English _____, name in native language _____, how connected?

* Water source #3: name in English _____, name in native language _____, how connected?

(23) Is this area connected to any places or events in the region that we have not already talked about?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(24) If yes, what other connections would you like to talk about?

* Connection #1 - place _____, event _____, connection _____

* Connection #1 - place _____, event _____, connection _____

* Connection #1 - place _____, event _____, connection _____

(25) Is this area connected to any places or events in your traditional territory that we have not already talked about?

1 =Yes, 2 = No, 8 = Don't Know, 9= No Response.

(26) If yes, what other connections would you like to talk about?

* Connection #1 - place _____, event _____, connection _____

* Connection #1 - place _____, event _____, connection _____

* Connection #1 - place _____, event _____, connection _____

Appendix B:

Chronology of the Fieldwork

The following is a daily account of fieldwork conducted in the Arizona Strip over the four field sessions, which took place between August 2003 and August 2004. The first field trip served as a scoping mission and a means of introducing this study to Southern Paiute cultural representatives. During the next three trips, UofA ethnographers conducted a series of formal interviews with elders from the Kaibab Band of Paiute Indians, the Moapa Band of Paiutes, Paiute Indian Tribe of Utah (PITU), and San Juan Paiute Tribe.

Fieldwork Session I: August 21-24, 2003

August 21

BARA ethnographers traveled from Tucson, Arizona to St. George, Utah. Upon arrival, they met with Gloria Bulletts Benson of the BLM, Arizona Strip Office. This meeting was used to plan the logistics of the ensuing field trip along with departure times for the following day.

August 22

Departure was scheduled for two groups, one in the morning and one in the afternoon, in order to allow for the later arrival of a group of people from the Cedar City Band. The first group left about 1:00 p.m. from the St. George BLM office. Storms in the area caused the first group to radio the dispatch office at 5 p.m. to instruct the second group to stay in St. George until morning when road conditions improved. The first group spent the evening at the Mount Dellenbaugh Ranger Station on the Arizona Strip. The members of that Party included representatives from the BLM, the NPS, a BARA ethnographer and representatives from the Paiute Indian Tribes of Utah.

The following people left on the first trip:

Roger Taylor[9]
Dennis Curtis[10]
Ray Klein[11]
Travis Parashont[12]
York Benson[13]
Norman Zuniga
Westin Richards

[9] Roger Taylor is the field manager for the Arizona Strip Field Office
[10] Dennis Curtis is the manager for Grand Canyon-Parashant National Monument
[11] Ray Klein is a park ranger for Grand Canyon Parashant National Monument
[12] Travis Parashont is the chairman of the Cedar City Band of Southern Paiutes
[13] York Benson, Norman Zuniga and Westin Richards attended as Southern Paiute Cultural Representatives from the Cedar City Band.

Kathleen Van Vlack[14]

Arriving on the Arizona Strip, Dennis Curtis shared history of the Arizona Strip with PITU representatives and BARA ethnographer, Kathleen Van Vlack. While driving towards Mount Dellenbaugh, rock art, archaeology, and gathering sites were noted for possible future visits by the BARA team and Southern Paiute representatives. Plans for site visits during the trip to Mount Dellenbaugh were cancelled due to adverse weather and poor road conditions.

The second Party included representatives from the BLM, a BARA ethnographer, and representatives from the PITU. Because of the weather conditions that precluded traveling to join the first group, the second group made a short visit to the Little Black Mountain Rock Pecking Site. The Southern Paiute representatives were impressed with the size of the site and the efforts made to protect it. No formal interviews were done at this site although informal comments were recorded.

Below is a list of the people in the second group. In accordance with the wishes expressed by some tribal participants, anonymity has been preserved. Consequently, not all participants are listed.

Gloria Bulletts Benson[15]
Diana Hawks[16]
Tara Marlowe[17]
Fletcher Chmara-Huff[18]

August 23

The second group drove to the Mount Dellenbaugh ranger station early in the morning and joined the first group. A short meeting was held to determine the plan for the rest of the trip. It was decided to spend an extra night in order to make up for lost time. The entire group left for Twin Point shortly before lunchtime, and had lunch along the way. The elders in the group requested several stops along the way to gather traditional use plants, including a variety of *Nicotania*, and three-leaf sumac (*Rhus trilobata*), which is used in weaving, and the making of cradleboards. The whole group spent time enjoying the view from Twin Point, and then returned to the cabin to make dinner. Detailed discussions were held after dinner with elders about the places they had seen that day.

August 24

[14] Kathleen Van Vlack is a BARA ethnographer.
[15] Gloria Bulletts-Benson is the Native American Coordinator for the Arizona Strip
[16] Diana Hawks is the planner for the Arizona Strip
[17] Tara Marlowe is the Vice-Chairwoman and Cedar Band Council Member
[18] Fletcher Chmara-Huff is a BARA ethnographer.

The BARA team ate breakfast with the group and then departed to catch their flight back to Tucson, Arizona.

Fieldwork Session II: October 23-26, 2003

October 23

The BARA team traveled from Tucson, AZ to St. George Utah. They met in the afternoon with Gloria Bulletts Benson and John Herron, the archaeologist for the Arizona Strip. The meeting was held in order to evaluate the kinds of sites that would be accessible for the next two days of interviews.

October 24

The BARA team and Gloria Bulletts Benson traveled to the Kaibab Reservation in order to meet the elders who would accompany the research team on the trip. A meeting was held to introduce the study to the cultural representatives, and members of the Tribal Administration. The people who came on the trip that morning were:

Ila Bulletts[19]
Brenda Drye[20]
Eileen Posvar
Glendora Homer

After the meeting, the group traveled to the Mount Trumbull Ranger Station, which served as the base of operations. After lunch at the ranger station, the group proceeded to the Little Springs Lava flow to look for the associated sites. The afternoon was spent exploring the area, and familiarizing the members of the group with the site. The group returned to the ranger station to prepare dinner and to decide the fieldwork schedule for the following day. Three other representatives from Kaibab joined the group:

Manuel Savala,[21]
Charley Bulletts
Leon John.

October 25

After breakfast the whole group returned to Little Springs for the purpose of formally discussing the site and its resources using the site survey instrument. From Little Springs the group tried unsuccessfully to locate a nearby archaeological site. It was decided that the best course of action would be to take the group to the *Nampaweap* rock art site and survey the area there and administer the rock art instrument. Afterwards, the entire group moved to the

[19] Ila Bulletts is the Directory of the Cultural Resource Office for the Kaibab Paiute Indian Tribe.
[20] Brenda Drye, Eileen Posvar, Glendora Homer, Charley Bullets and Leon John attended as Kaibab Band of Paiute Indians Cultural Representatives.
[21] Manuel Savala is the Tribal Administrator for the Kaibab Paiute Indian Tribe

Toroweap scenic overlook where each cultural representative participated in a cultural landscape discussion using the landscape instrument. Following this, the elders returned home and the BARA team traveled to Mesquite, Nevada.

October 26

The BARA team left Mesquite and returned to Tucson, Arizona.

Fieldwork Session III: May 21-24, 2004

May 21

BARA ethnographers from the UofA traveled from Richfield, Utah to St. George, Utah. Upon arrival they met with Gloria Benson-Bullets of the BLM and tribal representatives from the Moapa band of Southern Paiutes and Paiute Indian Tribe of Utah. The team purchased groceries and loaded up supplies and then traveled to the Mount Dellenbaugh Ranger Station. The Ranger Station acted as the base of operations during this field session. The following people participated during this field session

Eleanor Tom[22]
Marilyn Jake
Glen Rogers
Milton Rogers
Clarence John
Calvin Meyers[23]

May 22

After breakfast the group traveled to Horse Valley for the first round of site interviews. The group visited a site that consisted of numerous stone structures and lithic scatters. Site interviews were conducted with elders who talked at length of the meaning and use of this area.

Following lunch, the group traveled to Twin Point. On the road to Twin Point, informal interviews were conducted at a few plant gathering and lithic scatter sites. The elders discussed plant use and the importance of plants to Southern Paiute people. Then the group traveled to Twin Point where site interviews were conducted to determine the use and meaning of this site.

May 23

After breakfast and packing up gear, the entire group set out for the next round of site visits. The first site that was visited was Diamond Butte and the lava flow located nearby. This site was chosen based on the importance of volcanoes to Indian people on the Arizona Strip. The second site that was visited by the UofA ethnographers and Paiute representatives was Little

[22] Mrs. Tom, Ms. Jake, Mr. Rogers, Mr. Rogers, and Mr. John are tribal representative from PITU.
[23] Mr. Meyers is the Environmental Protection Coordinator for and the former Chairman of the Moapa Band of Paiutes.

Black Mountain. Little Black Mountain was originally visited during the scoping trip. This visit gave elders an opportunity to share their thoughts regarding the rock art panels. Following these interviews, the group departed for St. George and the elders returned home.

May 24

The BARA team departed Mesquite, Nevada for their return trip to Tucson, Arizona.

Fieldwork Session IV August 16- 19, 2004

August 16:

Ethnographers from the UofA flew from Tucson, Arizona to Las Vegas, Nevada. In Las Vegas, the team rented a vehicle and drove to St. George, Utah. While in St. George, they met with Gloria Bulletts Benson to finalize the field activity plan for the next two days. After the meeting, the UofA team drove to the Lee's Ferry Lodge, which served as the base of operations. Mid-afternoon, Gloria Bulletts Benson, elders from the Kaibab Paiute Indian Tribe and the San Juan Paiute Indian arrived at the lodge. Also arriving at the hotel were two members from the UofA team who traveled from Flagstaff to take part in the fieldwork. That evening, Alex Carroll gave a brief orientation to the group to familiarize them with the study and discussed any concerns or questions the elders might have had. The following people participated in this field session:

Ila Bulletts[24]
Brenda Drye[25]
Gevene Savala
Grace Lehi[26]
Helen Lehi
Mabel Lehi
Benly Whiskers
Clyde Whiskers
Henry Whiskers

August 17:

Ethnographers and cultural consultants departed early in the morning and made their way to the first of three sites visited on this day. The group stopped at the Condor Release Site located in Upper House Rock Valley. At this site Mike Small who is a BLM wildlife biologist, gave a talk on the history of the condor rehabilitation and release program on the Arizona Strip.

[24] Ila Bulletts is the Directory of the Cultural Resource Office for the Kaibab Paiute Indian Tribe.
[25] Brenda Drye and Gevene Savala are members of the Kaibab Paiute Indian Tribe.
[26] Grace Lehi, Helen Lehi, Mabel Lehi, Benly Whiskers, Clyde Whiskers, and Henry Whiskers are members of the San Juan Paiute Tribe.

He set up his telescope so that the group could view the condors on top of the Vermilion Cliffs. Following Mike Small's presentation, ethnographers conducted formal site interviews with all cultural representatives. Next, the group traveled from the Condor Release Site to Signature Rock. At Signature Rock, the group ate lunch and the elders were given an opportunity to explore the site. After the elders were done looking at the site, they sat down with members of the UofA team for site interviews. From Signature Rock, the group traveled to West Bench Pueblo a well-known archaeology site on the eastern half of the Arizona Strip. Site interviews were conducted after the elders were given time to view and examine the resources found at this site. Afterwards the group returned to the lodge.

August 18:

Ethnographers and cultural consultants left the hotel early in the morning and headed to Jacob's Pool. On the way to the site the group stopped at a historic marker delineating the trail of Dominguez and Escalante and an old homestead. The group arrived at Jacob's Pool and the elders were interviewed using a site form. After the visit to that site, the group returned to the hotel for lunch. Following lunch the group headed to an overlook site of Marble Canyon where cultural landscape interviews were conducted. While at the canyon overlook, an endangered cactus was noted. After the landscape interviews, the group traveled to Glen Canyon National Recreation Area to view an old homestead where relatives of the San Juan Paiute representatives had lived during the 1930s. After successfully locating the homestead as well as an associated corral, the group returned to the hotel, and the elders departed for home.

August 19

The UofA team departed for home and on the way back to Las Vegas, ethnographers discussed findings and began planning the next phase of the project, the writing of the final report