

To: Butts, Sally[sbutts@blm.gov]
Cc: Fisher, Timothy[tjfisher@blm.gov]; Nikki Moore[nmoore@blm.gov]; Tyler Ashcroft[tashcrof@blm.gov]; Donald Hoffheins[dhoffhei@blm.gov]; Cynthia Staszak[cstaszak@blm.gov]
From: Ginn, Allison
Sent: 2017-05-19T16:06:28-04:00
Importance: Normal
Subject: Re: Additional questions on monuments review
Received: 2017-05-19T16:07:03-04:00
[Paleontology on the GSENM Titus.docx](#)
[May 11, 2017 DOI MAC Data Call.docx](#)
[GSENM Data_call CulturalOutsideGSENM.pdf](#)
[GSENM Fossil Map.pdf](#)
[Stoffle et al 2001 Kaibab Paiute Ethnographic Assessment in GSENM.pdf](#)

Regards,

Allison Ginn
National Conservation Lands Program Lead
BLM Utah State Office
801-539-4053

On Fri, May 19, 2017 at 2:02 PM, Ginn, Allison <aginn@blm.gov> wrote:

All-

Attached are responses for GSENM- again, split over two emails.

(Note: I am not attaching duplicate files for supporting information that was already uploaded in the response for BENM.)

Thanks, everyone!!

Regards,

Allison Ginn
National Conservation Lands Program Lead
BLM Utah State Office
801-539-4053

On Fri, May 19, 2017 at 1:02 PM, Butts, Sally <sbutts@blm.gov> wrote:

Thanks Utah! Amazing turnaround on this. I'll let you know if I have questions.
Sally

On Fri, May 19, 2017 at 2:48 PM, Ginn, Allison <aginn@blm.gov> wrote:

Regards,

Allison Ginn
National Conservation Lands Program Lead
BLM Utah State Office
801-539-4053

On Fri, May 19, 2017 at 12:47 PM, Ginn, Allison <aginn@blm.gov> wrote:

WO 410-

Please find attached BLM-Utah's responses and supporting documentation for Bears Ears National Monument. (Due to file size, I will have to send over multiple emails.)

We will be sending GSENM's response shortly. Thanks!

Regards,

Allison Ginn
National Conservation Lands Program Lead
BLM Utah State Office
801-539-4053

On Thu, May 18, 2017 at 5:41 PM, Butts, Sally <sbutts@blm.gov> wrote:

Hi All:

We received a few additional questions from DOI that we need some assistance from Utah. Please see the attached list of questions and provide responses to the questions I've noted for Utah. There are a few that we (WO410) will take the lead on addressing.

Please don't upload this document to the google drive folder. Just insert your responses in the attachment, one for Bears Ears and one for GSENM, and email back to me to coordinate in the WO and transmit to DOI. If at all possible, please provide the responses to these questions tomorrow (5/19).

Please let me know if you have any questions.

Thanks so much, Sally

--

Sally R. Butts, J.D., Acting Division Chief
National Conservation Lands
Bureau of Land Management
20 M St. SE, Washington, DC 20003
Office 202-912-7170; Cell 202-695-5889; Fax 202-245-0050; sbutts@blm.gov

--

Sally R. Butts, J.D., Acting Division Chief

National Conservation Lands

Bureau of Land Management

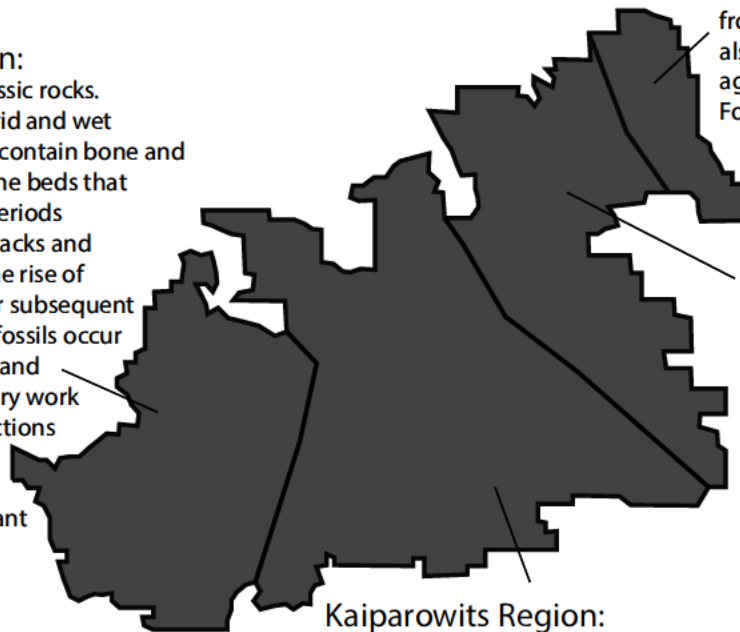
20 M St. SE, Washington, DC 20003

Office 202-912-7170; Cell 202-695-5889; Fax 202-245-0050; sbutts@blm.gov

Fossil Resources of Grand Staircase-Escalante National Monument

Grand Staircase Region:

Mostly Permian through Jurassic rocks. Units represent alternating arid and wet period deposits. Wet periods contain bone and wood fossils, with some marine beds that contain fossil seashells. Dry periods preserved mostly dinosaur tracks and rare bones. Tell the story of the rise of dinosaurs in Pangea and their subsequent dominance. Most significant fossils occur in Chinle, Moenave, Kayenta, and Navajo formations. Preliminary work by Yale led to extensive collections of Chinle fossils, most of which has never been published. Fish fossils abundant in Moenave. Petrified wood abundant in the Chinle and Moenave.



Circle Cliffs Region:

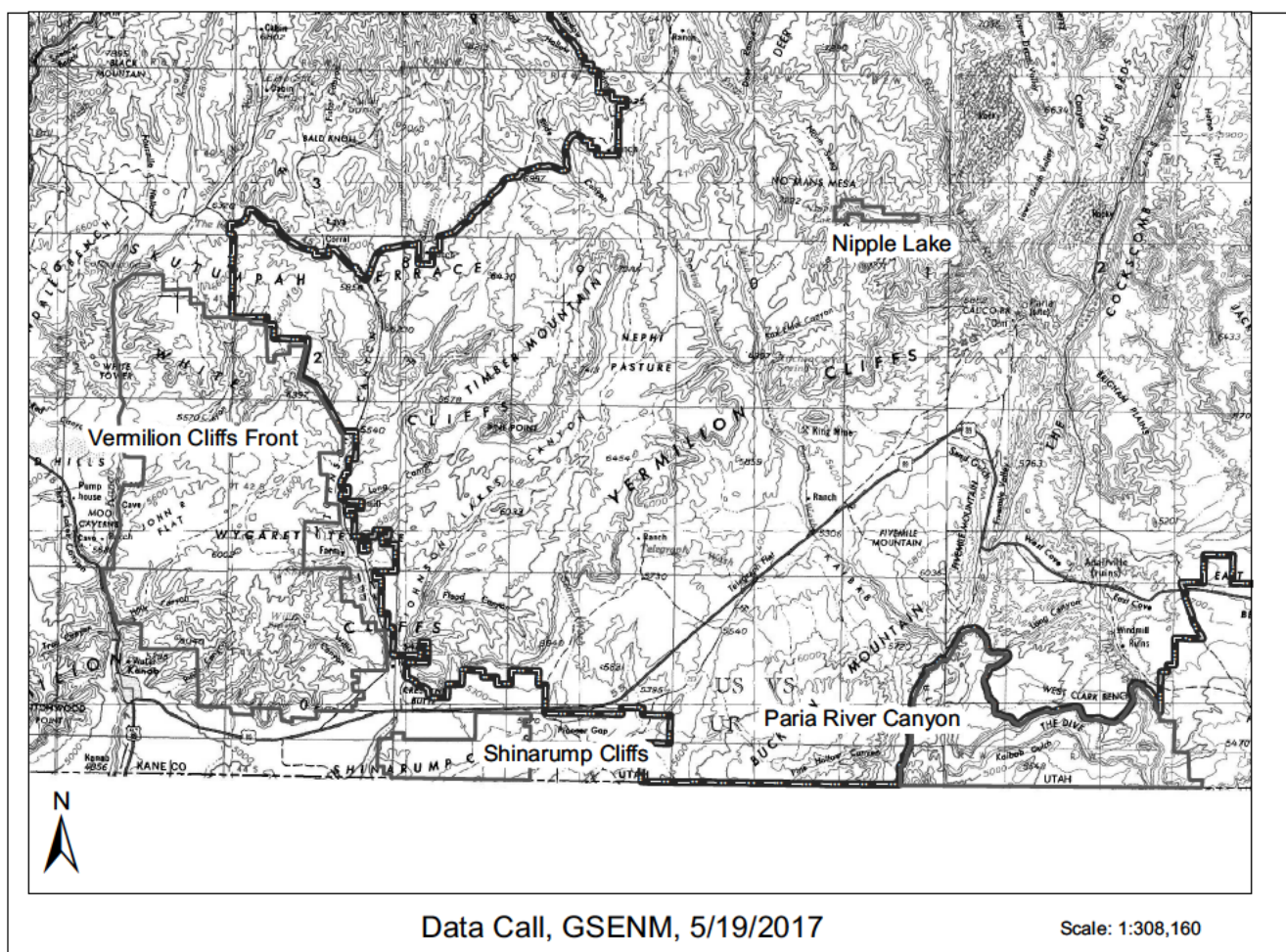
Largely Permian and Triassic rocks. Many important specimens collected from the Chinle Formation, which also hosts the second largest Triassic age petrified forest outside of Petrified Forest National Monument in Arizona.

Escalante Desert Region:

Mostly Jurassic rocks. Early and Middle units from the period have mostly track fossils. The Late Jurassic Morrison Formation contains important deposits of petrified wood and dinosaur bone.

Kaiparowits Region:

Mostly Late Cretaceous rocks dating between 100 million and 70 million years ago. Rocks record wet, tropical conditions that teemed with life. Most complete succession of terrestrial vertebrate fossils known in North America, possibly the world. Extremely high scientific significance. Hundreds of fossil species documented by thousands of specimens from thousands of localities. Dinosaur fossils abundant. Twelve new species named since Monument established. At least that many more confirmed as new but yet to be named. Only about 20% of the region has been inventoried, with emphasis along roads and other easily accessible areas.



Paleontological research began in earnest on the Kaiparowits Plateau (in the core of the Grand Staircase-Escalante National Monument) in 1983 when Jeffrey Eaton (then a Ph.D. candidate at the University of Colorado) and Dr. Richard Cifelli (then at the Museum of Northern Arizona) initiated research largely centered around the study of small vertebrates like mammals (all Cretaceous mammals were relatively small). Initial interest in the Kaiparowits Plateau region was the result of its having a relatively continuous record of terrestrial evolution that was 20 million years long (about 95-75 million years ago) during the Cretaceous period (see Eaton, 1991). It was quickly discovered that many of the units were fossiliferous and since 1983 significant vertebrate fossils have been found in every terrestrial unit in the sequence. This is the most continuous record of terrestrial evolution during this interval known in the world.

The remains of mammals, frogs, salamanders, lizards, fish, turtles, crocodiles, and dinosaurs have all been recovered painting an especially complete picture of these important ancient ecosystems. Although original work was focused on small vertebrates, quickly other researchers (e.g. Dr. David Gillette, Museum of Northern Arizona; Dr. Scott Sampson with his students and other colleagues, Natural History Museum of Utah; Dr. Randy Irmis, Natural History Museum of Utah; Dr. Alan Titus, Grand Staircase-Escalante National Monument; Dr. Joseph Sertich, Denver Museum of Nature and Science; etc.) have brought focus on larger vertebrates such as dinosaurs. The results have been remarkable. The Kaiparowits region has produced an enormous number of taxa that are new to science and has significantly changed our understanding of terrestrial evolution during the Cretaceous. Even the one significant marine unit, the Tropic Shale, has become famous for its remarkable plesiosaurs (enormous marine reptiles) and the oldest known mosasaur in North America. There is no question that the Kaiparowits region contains a world class treasure trove of fossils, and that area will continue to produce new treasures for decades to come as only about 20% of its total area has been explored.

The attached map of GSENM summarizes its fossil resources. In particular, the Kaiparowits Plateau contains remarkable localities in all of the Cretaceous units (Naturita, Tropic Shale, Straight Cliffs, Wahweap, and Kaiparowits formations) while the southern portion of the plateau has excellent localities in the Naturita, Tropic Shale and Straight Cliffs Formations (the stratigraphically higher formations, the Wahweap and Kaiparowits, have been largely removed by erosion). Over 45 new taxa and more than 300 taxa total have been reported from these areas (see Eaton and Cifelli, 2013; Titus et al., 2016). The collections are represented by tens of thousands of specimens housed at the Natural History Museum of Utah, Oklahoma Museum of Natural History, Denver Museum of Nature and Science, Museum of Northern Arizona; University of Colorado Museum and others.

Many of the larger fossils, such as turtles, crocodiles, and dinosaurs, are subject to amateur collecting and inadvertent destruction by ATV activity, etc. We have lost specimens to amateur collecting prior to designation of the monument (this is also true of archeological areas that were looted) and are aware of many cases of destruction by off road activities. The monument has greatly improved the protection of resources and has also helped to coordinate and regulate the large number of scientist working there thus improving the quality of the science and making it more integrative.

References

Eaton, J. G., 1991, Biostratigraphic framework for Upper Cretaceous rocks of the Kaiparowits Plateau, southern Utah: *in* Nations, J.D., and Eaton, J.G. eds., *Stratigraphy, depositional*

- environments, and sedimentary tectonics of the western margin, Cretaceous Western Interior Seaway: Geological Society of America Special Paper 260, p. 47-63.
- Eaton, J.G., and Cifelli, R.L., 2013, Review of Late Cretaceous Mammalian Faunas of the Kaiparowits and Paunsaugunt Plateaus, Southwestern Utah, Chapter 14 *in* Titus, A. L., and Loewen, M. A. eds. At the Top of the Grand Staircase – the Late Cretaceous of Southern Utah. Indiana University Press, Bloomington, p. 319-328.
- Titus, A., Eaton, J. G., and Sertich, J., 2016, Late Cretaceous stratigraphy and faunas of the Markagunt, Paunsaugunt, and Kaiparowits plateaus, southern Utah: Geology of the Intermountain West, v. 3, p. 229-291.

Grand Staircase-Escalante National Monument Response
DOI Info Req. on FACA and NON-FACA related advisory bodies

- The Grand Staircase-Escalante National Monument Management Plan (MMP), signed by the Secretary of the Interior in November 1999 and effective February 2000, directed that a Monument Advisory Committee (MAC), chartered under the Federal Advisory Committee Act, be established to advise and aid Monument managers on science issues and the achievement of Management Plan objectives.
- As specified in the Committee charter, the GSENM MAC may be requested to: (1) Gather and analyze information, conduct studies and field examinations, seek public input or ascertain facts to develop recommendations concerning the use and management of the Monument; (2) review programmatic documents including the annual Monument Manager's Reports, and Monument Science Plans to provide recommendations on the achievement of the Management Plan objectives; (3) Compile monitoring data and assess and advise the DFO of the extent to which the Plan objectives are being met; (4) Make recommendations on Monument protocols and applicable planning projects to achieve the overall objectives are being met; (5) Review appropriate research proposals and make recommendations on project necessity and validity; (6) Make recommendations regarding allocation of research funds through review of research and project proposals as well as needs identified through the evaluation process; (7) Consult and make recommendations on issues such as protocols for specific projects, e.g., vegetation restoration methods or standards for excavation and curation of artifacts and objects; and/or (8) Prepare an annual report summarizing the Committee's activities and accomplishments of the past year, and make recommendations for future needs and activities.
- The 15-member MAC is comprised of one representative from each of the following categories: An elected official from Garfield County, an elected official from Kane County, State of Utah, Tribal, Livestock permittees, Outfitter-Guide permittees, Education, and Environmental; and one scientist representing the fields of Archaeology, Botany, Geology, Paleontology, Social Science, Systems Ecology and Wildlife Biology. Of the positions currently filled, six are from southern Utah (Kane & Garfield Counties), three from central/northern Utah, one from northern Arizona, and two from Colorado. There are currently three vacancies – Botany, Social Science, and an elected official from Garfield County.
- Among the recommendations prepared by the MAC are a comprehensive report on using Adaptive Management Strategies in Science, a Livestock Grazing report, and numerous recommendations ranging from manning strategies for Monument visitor centers to gaining Dark Sky recognition for the Monument.
- By charter, the MAC meets two-to-four times per year; and is currently meeting four times to advise Monument management on the development of the on-going Livestock Grazing Management Monument Management Plan Amendment and Associated Environmental Impact Statement, as well as other projects in process including the 19,000-acre Skutumpah Terrace Restoration Project. The next meeting is scheduled for October 4/5, 2017 in Escalante, Utah. It has not been noticed in the Federal Register Notice.

**Ethnographic Assessment of Kaibab Paiute Cultural Resources
In Grand Staircase-Escalante National Monument, Utah**



**Ethnographic Assessment of Kaibab Paiute Cultural Resources
in Grand Staircase-Escalante National Monument, Utah**

Prepared for

**Kaibab Paiute Tribe
Kaibab Reservation
Pipe Spring, Arizona**

and

**United States Department of the Interior
Bureau of Land Management
Grand Staircase-Escalante National Monument
Kanab Resource Area Office
318 North 100 East
Kanab, UT 84741**

Prepared by

**Richard W. Stoffle, PhD
Alex K. Carroll, MA
Amy Eisenberg, MS
John Amato, LPN**

**Bureau of Applied Research in Anthropology
The University of Arizona
Tucson, Arizona 85721**

January 6, 2001



| | |
|---|----|
| Summary..... | 41 |
| Pipelines of Disruption..... | 42 |
| 1625-1830 | 43 |
| 1829-1848 | 47 |
| 1848-1858 | 51 |
| Impacts of the Treaty of Guadalupe Higoaldo..... | 51 |
| Impacts of the Forty-Niners' Route..... | 55 |
| 1860s-1900s Anglo Colonization of the Eastern Yanawant Territories..... | 60 |
| 1880s- Restoration..... | 67 |

CHAPTER THREE

| | |
|---|----|
| UNPACKING KELLY..... | 73 |
| Introduction | 73 |
| River, Springs, and Water in Southern Paiute Culture..... | 74 |
| The Meaning of Power..... | 75 |
| Components of A Riverine Cultural Landscape..... | 76 |
| Other Forces' Response to Water..... | 78 |
| Developing a Policy-Relevant Model..... | 79 |
| Springs of the Grand Staircase-Escalante..... | 79 |
| Springs..... | 80 |
| Pa pa-ya-nti [Places Having Springs]..... | 85 |
| AREA A: Kanavic (Sheep Trough Spring), Togoavac (Rattlesnake Water), & Sovipac (Cottonwood Water) (1-3)..... | 86 |
| AREA B: Springs along the Vermilion Cliffs, East of Mocassin Spring (I: 4-13) | 86 |
| AREA C: Springs along the Vermilion Cliffs, Moccasin to Rigg Spring (II: 15-21) | 88 |
| AREA D: Springs in the vicinity of Kanab, East to Navajo Well (III: 25-34) | 90 |
| AREA E: Alton Area on the Upper Kanab Creek, Foot of the High Plateaus (IV) | 92 |
| AREA F: Watering Places along the Vermilion Cliffs, Wildcat Canyon, and Kaibab Gulch (V: 35-46)..... | 93 |
| AREA G: Ankati: Spring at the base of Paunsaugunt Plateau (VI: 47-52)..... | 95 |

| | |
|------------------------|-----|
| Perceived Impacts..... | 140 |
| Recommendations..... | 141 |

CHAPTER 5

CULTURAL LANDSCAPES RESPONSES142

American Indian Cultural Landscapes Technical Term 2: Cultural Landscape.....142

Levels of Cultural Landscape

Eventscape

| | |
|--------------------------|-----|
| Holy Lands..... | 147 |
| Storyscapes..... | 147 |
| Regional Landscapes..... | 148 |
| Ecoscapes..... | 149 |
| Landmarks..... | 150 |

American Indian Cultural Ecoscapes in Riverine Systems: A Model a Theory150

| | |
|-------------------------|-----|
| The General Model..... | 151 |
| Riverine Ecoscapes..... | 152 |
| Natural Elements..... | 152 |
| Human Elements..... | 153 |

Puha as Theory.....155

Summary.....157

CHAPTER 6

CONCERNS AND RECOMMENDATIONS FOR ETHNOGRAPHIC RESEARCH RESOURCE PRESERVATION.....158

| | |
|---|-----|
| General Concerns..... | 158 |
| Renewed Site Visits..... | 158 |
| Expanded Site Visitation..... | 159 |
| Co-Management..... | 159 |
| Tribal Access..... | 159 |
| Expanding Government-to-Government Consultations..... | 159 |

REFERENCES CITED.....160

Acknowledgments

This report is the outcome of the efforts of many individuals. The authors would like to express their sincere appreciation to all the Indian people who have taken part in this study. We wish to thank the Kaibab Paiute tribal chairperson, Carmen Bradley; the head of cultural resource department, Brenda Drye; and cultural resource specialist Ila Bullets, who was the official tribal point of contact for this effort. Special thanks go to the tribal cultural resource representatives Willis Mayo, Gevene Savala, and Edna Osife for taking time away from their busy schedules to share knowledge of traditional life and cultural resources. The participation of all these people made this study possible.

The Bureau of Land Management who is charged with full management of the new Grand Staircase-Escalante National Monument funded this project. Specific thanks go to the Superintendent of the monument Kate Cannon. The point of contact for the study has been Marietta Eaton, who is the Lead for Cultural resources and Earth Sciences.

This report has been prepared at the Bureau of Applied Research in Anthropology (BARA) at The University of Arizona, Tucson, Arizona. The study was greatly facilitated by BARA staff Maria Rodriguez and Armando Vargas. The study was fully support by the acting director of BARA, Dr. James Greenberg. Maps for the study were produced by the Center for Applied Spatial Analysis (CASA) in College Social and Behavioral Science at The University of Arizona. Director Gary Christopherson and his colleagues and research assistants, Pat Barabe and Peter Johnson, provided particular assistance.



Foreword

This report is based on interviews with Southern Paiute representatives from the Kaibab Paiute Tribe, who in this study represent all of the Southern Paiute people. The ideas of Kaibab Paiute people who have participated in this study have been contextualized and supplemented by archaeological findings, the ethnographic field notes of Isabel Kelly (site reference), archival research, extensive GIS mapping of the Grand-Staircase-Escalante NM, and an initial ethnobotanical inventory of particular sites and areas.

The Southern Paiute people know the Creator placed them in their Holy Land, of which a portion includes lands found within Grand Staircase-Escalante/Creation established a birthright bond between the Southern Paiute people (and all their generations to come) and the natural resources of this environment. These natural resources are perceived to be alive – capable of speaking to Paiute people, willing to give life to them, and manifest with human-like personalities. The relationship between these people and the natural resource of their Holy Land is governed by two basic premises: first, all things are alive and specially connected in ways that hold the world together. Secondly, since Creation these Paiute have used and protected the natural resources of their Holy Land through the guidance of cultural principles that emphasize mutual respect and responsibility. For these many thousands of years since creation the land and resources have been shaped and preserved by these culturally appropriate behaviors.

Before Europeans arrived with their diseases and domestic animals, the idea of their existence spread out ahead of them, causing both physical and psychological change. This is not surprising because the same physical and psychological events occurred to Europeans and their lands.

The arrival of Euroamericans resulted in devastating outcomes for the Southern Paiutes and eventually forced their removal from the lands currently held by the Grand Staircase-Escalante National Monument. Competition over physical and ideological terrains led to a massive loss of life amongst the Southern Paiutes, the loss of critical ancestral lands and resources necessary for survival, and the modification of social structures. A new history was placed on theirs – moving them from the people who should be there because Creation had placed them there to the people who should be moved away to make room for a new people chosen by God to live on the same land. Collectively these impacts, both physical and cultural, form an historic foundation that must be understood when considering the present consultation with Grand Staircase-Escalante NM.

Today, the Southern Paiute people who live in northern Arizona (the Kaibab Paiute and San Juan Paiute Tribes) and the five tribes reorganized as the Paiute Indian Tribe of Utah who live in southern Utah (Koosharem, Kanosh, Cedar City, Indian Peaks, and Shivwits tribes) remain connected to the places where they traditionally and aboriginally lived. This study begins

to define those places and connections with the Grand Staircase-Escalante NM. At this point in the consultation, and thus the focus of this study, are the members of the Kaibab Paiute tribe who are pleased to be involved in this first of a series of Southern Paiute studies.

Study Goals

The goal of this study is to convey in a systematic and readable fashion Southern Paiute perceptions of cultural resources in the Grand Staircase-Escalante NM. This study details the physical, prehistoric, historic, and cultural ties between the Southern Paiutes and these ancestral lands. In addition, we present the current relations of Southern Paiutes to this cultural landscape and the ways in which resource appropriation from the past continues to impact expressions of power in the present.

This report must serve two rather distinct purposes. First, the findings from this study will be used to supplement the official Environmental Impact Statement (EIS) for the Grand Staircase-Escalante NM. Special summary sections have been prepared in this report in order to help fit most directly with the EIS. Secondly, the report represents a first step in identifying Southern Paiute cultural resources located in the monument. This report contains a number of background sections which should be useful in explain the findings to tribal governments, the monument land managers, and others.

Tiering

The Federal government requires that research being prepared for an EIS and land management 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.

This report meets the Federal tiering requirement by (1) using background essays produced elsewhere and (2) contextualizing some findings with reference to previous studies in the region. The source is clearly referenced whenever tiering is used to clarify particular points in this report.

The Indian Study Area

Indian people often perceive their traditional cultural resources as an essential part of larger cultural resources. Archaeologists, for example, often view local sites as being imbedded in a set of interrelated sites in what are technically called *archaeology districts*. Similarly, studies of falcons may extend to wherever they hunt during nesting times, rather than being restricted to where the nests are located. Indian people, too, view specific traditional places and cultural resources as a part of larger, more abstract units of culture, which are often referred to as *cultural landscapes*. For this reason, Indian people interviewed during this project talked about bigger areas whose connections with the Grand Staircase-Escalante study area shed light on the meaning of both near and far places. The American Indian study area for the Grand Staircase -

Escalante Ethnographic study is perceived as being as large as the sum of places that are culturally connected.

Spelling of Indian Names

This report uses Indian names wherever possible. There has not been an attempt to resolve the spelling of all Indian names. Different spellings of the same word appear because they were different in previously published texts and because the ethnographers conducting the interviews used different renderings of the words they heard. The development of a common spelling for all Indian names is currently beyond the scope of this study.

GIS Map

The GIS map was produced and made ready for use in the field. Local place names were added to the map so that each person using the map can readily understand which places are being represented. The preliminary use of the GIS map should be seen as an initial field test, and new application of this technique will be refined in future studies.

Access Data Base

The Microsoft ACCESS databases for the site and cultural landscape forms were modified to fit the study. These databases will serve as a foundation for preserving and updating findings derived from future studies.

Accomplishments

There are accomplishments that have moved the Kaibab Paiute study towards its desired goals. These include a rather extensive search for new documents and a beginning essay designed to set the stage for more fine-grained local history to be produced about the study area itself. The GIS database is expected to make the spring site visits extremely useful for representing Kaibab Paiute views on how the land and particular places within the Grand Staircase-Escalante NM are interconnected. Microsoft ACCESS databases provide a computer-based resource to receive the thoughts of Indian people and to present these thoughts in rich detail while telling their story with numeric clarity.

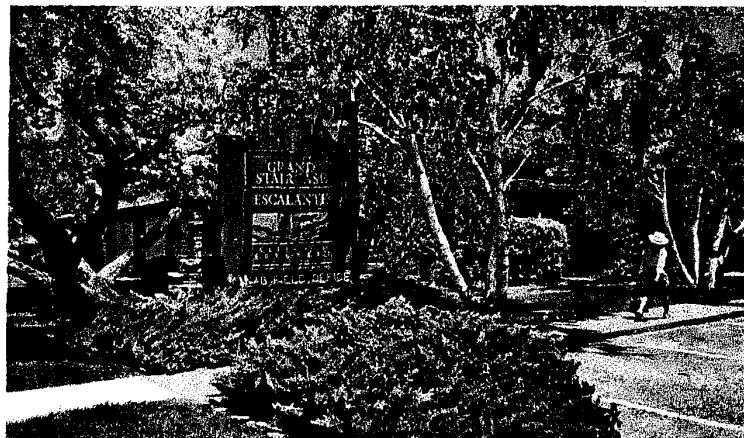
Chapter 1

Study Overview

The purpose of this chapter is to provide the reader with some understanding of this research project, including sources of funding, points of project management, and the participating American Indian tribes and researchers. Study methods are explained in detail, including site selection criteria, interview forms used in the field, and the processes of data coding and analysis.

Brief Description of the Project

This is an American Indian ethnographic study of the Grand Staircase-Escalante NM. This is the first report of activities conducted by the University of Arizona (UofA) regarding Kaibab Paiute ethnographic resources currently within the boundaries of the Grand Staircase-Escalante National Monument (GSENM). The Kaibab Paiute people were one of a number of Southern Paiute districts of the Southern Paiute nation who traditionally and aboriginally occupied and used the biotic and abiotic resources of this area. The term "ethnographic resources" is used in this report to refer to all things that are culturally special to the Kaibab Paiute people. More specifically, the term refers to the contemporary cultural meaning of physical places, artifacts, plants, animals, water, minerals, and air. Such biotic and abiotic resources are transformed by use and perception as central aspects of Kaibab Paiute culture. The moment of transformation may have been when these people were created in this land, during the thousands of years they have occupied and used resources, or during recent times as a product of ceremonial activities.



The study is being funded by the GSENM through a direct contract with the Kaibab Paiute tribe. A further subcontract between the Kaibab Paiute tribe and the UofA specified a number of tasks to be accomplished. These include the following:

1. To compile documents relevant to the **historic use**¹ of the study area by members of the Southern Paiute nation – specifically people from the Kaibab District. This will include
 - A regional history that uses available published and archive materials and
 - Is open-ended so that future studies can more fully develop emergent lines of study.
2. To facilitate **systematic ethnographic interviews** within a portion of the GSENM. These interviews will be
 - Conducted with persons selected by the Kaibab Paiute tribe.
 - Occur only within areas identified as primary occupancy and use areas by the people of the Kaibab Paiute District.
3. To **prepare a report** that will
 - Summarize the findings of this research.
 - Identify ethnographic resources that should be considered for special Indian uses and agency management attention.
 - Design living databases that meet the mutual (tribal and agency) needs for shared and confidential information about these ethnographic resources.

Study Area

The Grand Staircase-Escalante National Monument is a very large area that has been carved out of some of the most topographically and ecologically diverse lands in North America. As such, one can expect that it will require many studies to more fully understand what there is in these lands that is culturally significant to American Indian people.



¹ There were not sufficient funds for an historic use study so the UofA team has agreed to provide one with their own funds. For this reason this essay will involve a combination of materials written for other purposes as well as original research on the local area.

What we do know at this time is that the Southern Paiute people believe they were created in these lands, that they have lived here continuously since creation, that they were the aboriginal inhabitants of the land when its title was assumed by the United States, and that they continue to have cultural ties to these lands despite removal from some areas. It is also understood that Southern Paiute people as an ethnic group owned and occupied these lands traditionally, aboriginally, and historically². The Southern Paiute nation, to use a contemporary term, was composed of semi-autonomous local groups, which are referred in this study as districts. Many of these districts have been converted into autonomous political units that the US government officially organized and recognized as tribes. One of these tribes, the Kaibab Paiute tribe, is involved in this study.

The U.S. Government frequently defines cultural affiliation³ at the ethnic group level. However, actual consultation is done on a government-to-government basis with the tribes. It is the expressed wish of the Kaibab Paiute tribal government that this study be primarily restricted to the portions of the national monument that overlap with the traditional and aboriginal lands of the Kaibab Paiute tribe. This procedure permits and encourages the GSENM to establish appropriate and separate consultations with other Southern Paiute tribes who are most directly connected with portions of national monument. While this procedure is culturally appropriate, politically respectful, and reflects the level of funding available to do this study, the Kaibab Paiute Tribe maintains that eventually long term consultation should be established between the GSENM and a consortium of Southern Paiute tribes.

The UofA has provided a study area map, which defines portions of the GSENM that the Kaibab Paiute tribe wishes to study. This area is defined as where the aboriginal district boundary of the Kaibab Paiute people overlaps with the GSENM. The tribe retains the right to broaden the area of study at the specific request of elders and tribal representatives who identify cultural resources that exist elsewhere, but the GSENM area is the preferred focus of this study.

Legislative Context

Government-to-government relationships between Native Americans and Federal agencies frequently concern the study, protection, and preservation of cultural resources. This section describes the Federal laws governing the management of those resources.

Environmental Policy Act

The National Environmental Policy Act (NEPA, PL 91-190, 42 U.S.C. 4371, 40 CFR 1500 et seq.) requires completion of an EIS for any Federal action determined to have potentially significant environmental impacts. Relevant to the purposes of this study, NEPA encourages the preservation of historic resources and requires consideration of social impacts. A report from the

² Traditional means from creation until Europeans arrived in the New World, aboriginal means when the lands were taken officially by the United States government, and historic means anytime a written record was established in the area (see Sutton 1985). See Appendix A for use of these three terms.

³ The concept of cultural affiliation as used in Federal government tribal consultation has been discussed at length in a Department of Defense report edited by Vine Deloria, Jr. and Richard Stoffle (1998). The report *Native American Sacred Sites and the DOD* is available in the DOD Indian web page - <http://osiris.cso.uiuc.edu/denix/Public/Native/native.html>

Council of Environmental Quality specifically directs the solicitation of input from affected Indian tribes at the earliest possible time in the NEPA process (40 CFR 1501.2). In the process, the lead agency is also directed to invite the participation of any affected Indian tribes in the scoping process. In addition, state, and local agencies or other interested persons should be invited to participate in this process (40 CFR 1501.7). The agency preparing the draft EIS is also directed to request the comments of Indian tribes on what effects there may be on their reservation (40 CFR 1503.1). However, the NEPA legislation also clearly indicates that in cases where project impacts are entirely social or economic, no EIS is required regardless of the severity of those impacts. NEPA can be an effective means by which to incorporate Native American interests into National Park Service (NPS) planning, but concerns have been raised, including the possibility that non-artifactual cultural resources which are only considered under NEPA could be vulnerable to Freedom of Information Act (FOIA) requests, thereby eliminating protection of confidential site locations. In addition, NEPA requires documentation of impact but provides no real protection for any specific resource (Stuart 1979). These early concerns have been answered by other legislation and also addressed by specific policies of the implementing agencies. In the following passages we briefly review these laws and policies.

Early Historic Preservation Legislation

Concern for historic and cultural resources has been expressed in legislation throughout the 20th century. In 1906, the Antiquities Act (PL 209, 16 U.S.C. 431-33) authorized the President of the United States to declare landmarks, structures, and objects of historic or scientific interest to be recognized as national monuments. In addition, lands are to be preserved to aid in their protection. The Act also established the necessity of obtaining permits for the excavation of archaeological sites on public lands. On August 21, 1935, the Historic Sites Act (PL 74-292, 49 Stat. 666) provided for the preservation of historic American sites, buildings, objects, and antiquities of national significance and confirmed the role of the NPS as the Federal government's central agency for historic preservation. On October 26, 1949, Congress created the National Trust for Historic Preservation to receive donations of sites, buildings, and objects significant in American history and culture and to preserve and administer these for the public benefit. On June 27, 1960, Congress provided legislation for the preservation of historical and archeological data threatened by the construction of a dam (PL 86-523, 74 Stat. 220). This Act requires any agency of the U.S. involved in construction of a dam to give written notice to the Secretary of the Interior, who shall then order a survey to be conducted to ascertain whether the affected area contains historical and archaeological data, which should be preserved in the public interest. If indicated by the survey, the Secretary shall then see that the data be collected and preserved. The 1974 amendments to this Act (PL 93-291) added significant scientific and prehistoric data to the others, which would require notification and preservation in the public interest. The amendments also require consent of "public entities having a legal interest in the property involved."

National Historic Preservation Act

On October 15, 1966, the National Historic Preservation Act (NHPA, PL 89-665, 80 Stat. 915, 16 U.S.C. 470 et seq.) increased the scope of historic preservation as a public policy while also broadening the duties of the NRS (Connally 1986). The Act expanded the properties to be

preserved to include those significant in American history, architecture, archaeology, and culture (Section 101-2). This Act provides assistance to *states*. It also established the Advisory Council on Historic Preservation, whose duty it is to advise the President and Congress on matters relating to historic preservation. They were also charged with encouraging public interest and participation in historic preservation, and assisting state and local governments in drafting legislation relating to historic preservation. The Director of the NPS, or his/her designee, serves as Executive Director of the Council. PL 94-422 of September 28, 1976, amended Section 102 of the NHPA and established the National Historic Preservation Fund. The 1980 amendments to the Act directed the Secretary of the Interior to study the means of "preserving and conserving the intangible elements of our cultural heritage such as arts, skills, folklife, and folkways..." and to recommend ways to "preserve, conserve, and encourage the continuation of the diverse traditional prehistoric, historic, ethnic, and folk cultural traditions that underlie and are a living expression of our American heritage" (PL 96-515, 94 Stat. 2989, 16 U.S.C. 470a). The amendments provide explicit requirements for protecting confidentiality regarding the location of sensitive historic resources. They direct the head of any Federal agency to "withhold from disclosure to the public, information relating to the location or character of historic resources whenever...the disclosure of such information may create a substantial risk of harm, theft, or destruction to such resources or to the area or place where such resources are located" (Section 304). National Register Bulletin 29, *Guidelines for Restricting Information on the Location of National Register Properties*, provides full detail for agency directors.

The NHPA amendments also demonstrate the shift in U.S. policy toward the recognition of Native Americans. For the first time in historic preservation legislation, explicit mention of the Federal government's partnership with Indian tribes in the protection and preservation of prehistoric and historic resources is elaborated (Section 2). A report named *Cultural Conservation*, was prepared to respond to the directives of the Act and submitted to the President and Congress by the Secretary of the Interior on June 1, 1983 (Parker and King 1990). This report directed the NPS to prepare guidelines to assist in the documentation of intangible cultural resources. The National Register Bulletin 38, *Guidelines for Evaluating and Documenting Traditional Cultural Properties* fulfilled that purpose with specific inclusion of Indian Tribes (Parker and King 1990:2). This bulletin is significant for the preservation of Native American cultural resources because the policies and procedures of the National Register can be interpreted by Federal agencies and others to exclude historic properties of religious significance to Native Americans, thereby excluding them from eligibility for inclusion in the National Register (Parker and King 1990:3). On October 1, 1985, a Joint Resolution recognized the 50 years of accomplishments resulting from the Historic Sites Act (PL 99-110).

On October 30, 1992, the National Historic Preservation Act was again amended to provide greater authority and assistance to Native Americans. The 1992 amendments specifically mention the need for Federal agencies to contact and consult with Indian tribes. Properties of traditional religious and cultural importance to an Indian tribe may be determined to be eligible for inclusion on the National Register, and a Federal agency must consult with any tribe that attaches religious or cultural significance to such properties. In addition, Indian tribes are to receive assistance in preserving their particular historic properties. Coordination among tribes, State Historic Preservation Offices (SHPOs), and Federal agencies is to be encouraged in historic preservation planning, as well as in the identification, evaluation, protection, and interpretation

of historic properties. Additional language is also included in the amendments regarding confidentiality, and tribes are eligible to receive direct grants for the purpose of carrying out this Act. The amendments provide state that tribes shall to assume part or all of the functions of an SHPO with respect to tribal lands.

In response to the 1992 NHPA amendments, the Advisory Council on Historic Preservation (ACHP) adopted a new policy statement on June 11, 1993 entitled "Consultation with Native Americans Concerning Properties of Traditional Religious and Cultural Importance". This policy provides explicit principles for the application of the amendments which include an amendment stating that Native American groups who ascribe cultural values to a property or area be "identified by culturally appropriate methods" and that participants in the Section 106 process should learn how to approach Native Americans in "culturally informed ways" (ACHP 1993:3-4). Consultation with Native Americans must be conducted with sensitivity to cultural values, socioeconomic factors, and the administrative structure of the native group. Specific steps should be taken to address language differences and issues, such as the seasonal availability of Native American participants. According to this policy, Native American groups not identified during the initial phases of the Section 106 process may legitimately request to be included at later stages in the process. The Advisory Council's policy statement also reaffirms the U.S. government's commitment to maintaining confidentiality regarding cultural resources and states that participants in the Section 106 process "should seek only the information necessary for planning" (ACHP 1993:3).

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA, PL 96-95, 93 Stat. 712, 16 U.S.C. 470) was signed into law on October 31, 1979. It extended the protection of archaeological resources on Federal and Indian land. Archaeological resources are defined as the material remains of past human life or activities that are of archaeological interest, have retrievable scientific information, and are over 100 years old. Under ARPA, excavated resources remain the property of the U.S. government and are subject to inventory and repatriation in accordance with the Native American Graves Protection and Repatriation Act (NAGPRA, see below). ARPA provides the first significant criminal penalties for the vandalism, alteration, or destruction of historic and prehistoric sites or for any transaction conducted with an archeological resource that was excavated or removed from public or Indian lands or in violation of state or local law (Section 6). The Act directs Federal land managers to notify any Indian tribe considering a site as having religious or cultural significance prior to issuing a permit for excavation or removal of archeological resources from the site. Section 9 restricts the release of information concerning the nature and location of any archaeological resource requiring a permit for excavation or removal.

In 1984, uniform regulations were promulgated as required by this Act, by the Secretaries of the Interior, Defense, and Agriculture, and by the Chairman of the Tennessee Valley Authority (43 CFR Part 7; Carnett 1991:3). Federal land managers may develop additional regulations as they become needed by their agencies. The January 25, 1988 amendments of the Act (PL 100-555 and PL 100-588) strengthened ARPA with requirements that Federal agencies develop plans for surveying lands not scheduled for projects.

American Indian Religious Freedom Act

Additional legislation, which affects tribes and cultural resources, includes the American Indian Religious Freedom Act (AIRFA) passed on August 11, 1978 (PL 95-341, 42 U.S.C. 1996). AIRFA reaffirms the rights of American Indian Peoples, under the First Amendment of the U.S. Constitution, to have access to lands and natural resources essential in the conduct of their traditional religion. In Section 2, Congress asks the President of the U.S. to direct various Federal departments and agencies to consult with native traditional religious leaders to determine appropriate changes in policies and procedures necessary to protect and preserve American Indian religious practices. The Act requires the NPS, like other Federal agencies, to evaluate policies and procedures with the aim of protecting the religious freedoms of Native Americans including "access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites." During the 12 years since Congress passed AIRFA, all Federal agencies have developed the means of interacting with American Indian tribes who have cultural resources potentially impacted by agency actions. The Bureau of Reclamation has established an Office of Native American Affairs that helps to facilitate interactions between tribes and facilities. The NPS has published specific policies concerning American Indians. These will be discussed at greater length below.

In 1994, U.S. Congress passed a number of amendments to AIRFA (U.S.C. 103D - Report 103-675). These amendments include provisions for protecting, in addition to sacred sites and objects, substances (plants, animals) that are needed for the practice of Native American religious rites and ceremonies.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA, PL 101-601, 104 Stat. 3048) became law on November 16, 1990. NAGPRA makes provisions for the return of human remains, funerary objects, and associated sacred items held in Federally funded repositories to American Indian, Native Alaskan, and Native Hawaiian peoples who can demonstrate lineal descent, cultural affiliation, or cultural patrimony. In addition, the Act requires for formal consultation with, and participation of, indigenous peoples to decide the disposition of these resources. This process should occur as a result of repository inventories and in the event that resources are encountered by activities on Federal and tribal lands (Price 1991:32-33).

According to a memorandum from the Executive Director of the Advisory Council for Historic Preservation (Bush 1991), NAGPRA will affect the Section 106 review process in at least three ways: (1) With regard to the conduct of archaeological investigations, formal consultation must occur with appropriate American Indian groups regarding the treatment and disposition of human remains and other cultural resources recovered during archeological studies on Federal and tribal lands, and tribes must give their consent to the excavation of human remains and removal of remains and other cultural resources from tribal land beyond that normally required of the Section 106 process; (2) In discovery situations, agencies are encouraged to develop plans to deal with the unexpected discoveries of archeological materials, and in the event of inadvertent discovery, all project activities must cease, the appropriate

Federal agency or Indian tribe must be notified, and activities must not resume for 30 days. Disposition will be resolved in accordance with the provisions set forth in NAGPRA; (3) With regard to curation, NAGPRA allows for the affiliated American Indian group to decide on the treatment and disposition of recovered cultural items. This goes beyond the ACHP policy that simply requires professional curation.

Executive Order 13007, Indian Sacred Land Executive Order

Executive Order 13007, *Indian Sacred Land Executive Order* (Clinton 1996) is also relevant to the preservation of American Indian cultural sites. EO 13007 directs federal land managers, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) To accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, (2) To avoid adversely affecting the physical integrity of such sacred sites, and (3) To maintain the confidentiality of such sacred sites as appropriate. EO 13007 explicitly addresses sacred sites protection policies and requires consultation. This study also meets the requirements of Executive Orders 13083 and 13084, which regulate consultation with Indian tribal governments (Clinton 1998).

Concern for intangible cultural resources, particularly for Native Americans who identify locales of traditional importance that do not exhibit physical evidence of human behavior, began to be expressed by the late 1970s (Stuart 1979). The September 1984 keynote address by NPS Director Russell E. Dickinson to the First World Conference on Cultural Parks called for park officials to "seek innovative forms of rapprochement among native communities, government land managing agencies, and groups who share that concern. Working together requires recognition and respect, developing permanent working partnerships, recognition of the value of cultural differences, and recognition that culture means more than objects or structures (Scovill 1987). Natural and cultural features are now viewed as park resources associated with traditional subsistence, sacred ceremonial or religious, residential, or other cultural meaning for members of contemporary park-associated ethnic groups, including Native Americans (Crespi 1987). *Bulletin 38* was one NPS response to the need to evaluate and document *traditional cultural properties* (Parker and King 1990). The *Bulletin* is intended to supplement rather than supplant more specific guidelines such as those used by Indian Tribes (Parker and King 1990:3-4). The *Bulletin* provides guidance in conducting cultural resources surveys, noting the importance of background research about what is already recorded and consulting with persons who have been students in the cultures and traditions of the area under review. The agency conducting a cultural resources survey has the responsibility for coordinating and consulting with Indian tribes. Recommendations include making contact with knowledgeable groups in the area and specifically seeking out knowledgeable parties in the affected community outside the official political structure, with the full knowledge and cooperation of the contemporary community leaders (Parker and King 1990:6).

The NHPA, as amended, provides for the protection of traditional cultural properties as historic properties under Section 106 and is a new endeavor in cultural resources management (Parker 1993). A special issue of the NPS periodical, *CRM* (1993), was devoted to the topic. The July 1994 release of *NPS-28* defines *cultural landscapes* as complex resources including landforms, soils, and vegetation that are a reflection of human adaptation and resource use. It

specifies that, "all cultural landscapes are to be managed as cultural resources, regardless of the type or level of significance" (NPS 1994:93).

Cultural Affiliation and Involved American Indian Tribes

The first decision in any American Indian ethnographic assessment is to establish which American Indian ethnic groups are potentially culturally affiliated with the location(s) being studied. The term affiliation implies that the relationship between Native Americans and the land is cultural. There is no formula to define how long a people must live on land in order to establish cultural affiliation. In general, the length of time American Indian people have spent on the land varies from groups who perceive they have lived in an area since the beginning of creation to groups who have had a brief, but culturally significant experience on the land. When periods of time are chosen as the frames for viewing cultural affiliation, three broad divisions emerge: (1) Traditional period, (2) Aboriginal period, and (3) Historic period. It is important to remember that Native Americans may use other definitions of time, including a pre-human time which is without measure and essentially timeless. These periods of cultural affiliation are discussed in more detail in the next chapter.



The second decision in any American Indian ethnographic study is to identify the tribes culturally affiliated with the area under federal management. The Grand Staircase-Escalante NM at this point in time has not officially conducted a cultural affiliation study, however, in the process of putting together both their EIS and management plan, they have hypothesized the cultural attachment of the following cultural groups: the Hopi, the Zuni, the Navajo, the Paiute Tribes of Utah, the San Juan Paiute, and the Ute. This study serves to document the cultural affiliation of the Southern Paiutes and within that ethnic group the specific cultural affiliations of the Kaibab Paiute people.

The Bureau of Applied Research in Anthropology

The Bureau of Applied Research in Anthropology (BARA) is a unique research institution within the College of Social and Behavioral Sciences at the University of Arizona. As a research unit, BARA seeks to apply social science knowledge toward an enhanced understanding of real-world problems. Its diverse range of research activities in both domestic

and international contexts addresses critical human issues dealing with change and development, power and poverty, gender and ethnicity, growth and learning, social justice and equity, and environmental change and sustainability. At the heart of BARA's approach lies a commitment to community participation, empirical fieldwork, and innovative research methods. BARA bases its reputation on its ability to create effective dialogues with local stakeholders, to accurately document strategies of household and community, and to promote the economic wellbeing and cultural integrity of its partner communities. Building on its extensive field experience, BARA has developed and tested a research methodology that combines qualitative and quantitative techniques within a participatory framework.

Native American Cultural Resource Revitalization

This research is being conducted through the Native American Cultural Resource Revitalization (NACRR) program in BARA. Consistent with BARA's founding mission to monitor the welfare and wellbeing 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 a wide variety of cultural resource problems for Indian peoples. Recent legislation, such as the American Indian Religious Freedom Act of 1978, the Native American Graves Protection and Repatriation Act of 1990, and Executive Order 13007 - Sacred Site Access, 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 study 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 research facilitates the interaction of tribes with government and private agencies. Through the use of ethnography, BARA professionals have assisted communities in reconstructing their cultural histories. In addition they have made Geographical Information Systems (GIS) technologies available to tribes wanting to identify and maintain their cultural landscapes, and have worked to address language shift through the development of dictionaries and the promotion of language literacy on reservations.

This program has also contributed to the development of cultural resource theory within applied anthropology and has generated genuine, mutually respectful and productive partnerships research programs. NACRR has received long-term funding from American Indian tribes, the NPS, the Department of Energy, the Department of Defense, and the Bureau of Reclamation.

Center for Applied Spatial Analysis (CASA)

The Center for Applied Spatial Analysis (CASA) at the UofA is a GIS research facility within the College of Social and Behavioral Sciences (SBS). CASA's mission is to facilitate the use of geographic information systems, spatial data, and related techniques (such as cartography, remote sensing, and spatial analysis) within the college. CASA supports and develops research projects and encourages the wider use of GIS and related techniques in the social sciences

through collaboration on grants, demonstrations, training, teaching and internships. CASA operates in the following areas:

- Research: Form research partnerships with faculty, staff and students within SBS. Perform GIS analysis for faculty and staff on a contract basis.
- Education: Participate in the development and implementation of core GIS curriculum at the University of Arizona. Provide formal and informal GIS training within SBS. Train research assistants and interns.
- Service: Develop and maintain libraries of social science spatial data and metadata. Develop custom applications to serve common data processing requirements in SBS, e.g., data subsetting, data normalization, and data delivery. Provide expert GIS assistance to faculty, staff and students within SBS. Provide access to GIS software and hardware (as space permits).

In this study, CASA customized a systematic mapping technique for recording cultural landscape data in a GIS layered format. The results of CASA's efforts appear in this report.

UofA Study Team UofA Study Team

The UofA provided academically trained persons to conduct all aspects of this project. These individuals brought various research skills, each of which was specially suited to this project. The following section briefly describes the study team.

Richard Stoffle, Ph.D.

Dr. Stoffle served as team leader for this project. In this capacity he oversaw all aspects of the research from the initial writing of the project proposal to submitting the final report. He is a long-standing member of the NACRR program in BARA.

Amy Eisenberg, M.S.

Ms. Eisenberg is a Ph.D. candidate in the Arid Lands Resources Sciences Program, UofA. Her dissertation involves participatory ethnoecological research with the Aymara Indians of the northern Chilean Andes. Amy is a botanist and botanical illustrator. She conducted interviews, coded data, and wrote text regarding the geography, fauna, and flora of each study site.

Alex K. Carroll, MA

Ms. Carroll was recently admitted to the graduate program in the Department of Anthropology, UofA. Her interests are Native American images in the professional literature and the process by which American Indian voices can appear in their own histories. She is currently profiling, from an Indian perspective, a Southern Paiute hero called Queho. Alex conducted interviews, coded data and wrote text on sites presented in Kelly (1971), as well as an ethnohistorical overview of the radical alterations that occurred with the

introduction of Spanish, Mexican, New Mexican, and Anglo influences into and through the GSE/NM.

John Amato, LPN

Mr. Amato is a Licensed Practical Nurse and professional photographer. He has recently worked with the Aymara Indians of the Andes photo-documenting impacts to their cultural resources. Mr. Amato took all the photographs associated with this study, coded data and edited text.

Chronology of Activity

This portion of the chapter presents a brief overview of activities related to this study. These activities are primarily focussed on The University of Arizona and do not fully represent those various activities accomplished by the cultural resource personnel of the Kaibab Paiute tribe who are under direct contract with the Grand Staircase-Escalante NM.

Spring 1999

University of Arizona became involved with this study at the request of the Kaibab Paiute tribe in the late fall of 1998. At the time when this study was being designed, the Grand Staircase-Escalante National Monument had just been established and both they and the Kaibab Paiute tribe were interested in developing a relationship centered on the cultural opinions of tribal elders. In addition, the Kaibab Tribe desired to uphold the tribal government responsibility in protecting the current cultural interests of the tribe and for future generations of Indian people. The Grand Staircase-Escalante National Monument study was further guided by various Federal cultural resource and natural resource laws including: the American Indian Religious Freedom Act of 1978, the Native American Graves Protection and Repatriation Action of 1990, Executive Order # 13007 regarding sacred site access, and Executive Orders #13083 and #13084 that specify how to consult with culturally affiliated tribes on a government-to-government basis.

In the spring semester a student seminar was convened to begin to review the documents associated with this study. Two students and Dr. Stoffle met once a week to discuss research strategies and review findings. The semester-long seminar was productive. The class developed an initial list of related early explorers, Mormon settlements, and local newspapers. Historic maps were found and added to the files. Microfilm containing early newspaper issues were received on inter-library loan and examined by the students. The seminar produced a document foundation for a time when data on specific topics would be needed in order to produce a regional and local history of Indian use and occupancy of the area.

Fall 1999

During the fall of 1999 UofA staff devoted time to designing a GIS map and GIS database that are to be used to collect, organize, and present information provided by the elders and tribal representatives during site visits. Sufficient historic data was procured so that portions of the study area could be entered into the GIS database.

The GIS database is to be used to produce a large size GIS field map. Tribal elders and representatives will mark these maps in order to illustrate their ideas of what exists locally and how these places/resources are connected with places/resources located elsewhere. These data will be coded into the GIS database in order to produce a composite GIS map.

The GIS map and GIS database are significant innovations in ethnographic methods. They have been developed as a part of this and another ethnographic study. They have just been used to successfully represent the cultural concerns for Mohave, Southern Paiute, Western Shoshone, and Owens Paiutes on the Nellis Air Force Base in southern Nevada. Given the success experience in that study, the UofA team is very optimistic regarding the use of GIS methods and products in the Kaibab Paiute study.

Spring 2000

In the spring semester of 2000, a UofA cultural anthropology graduate student worked a quarter time (but not on project funds) on documents under the supervision of Dr. Stoffle. She read local newspapers and copies of original U.S. Census forms for pertinent information. Dr. Stoffle began to acquire the diaries of U.S.G.S surveyors who initially provided field data for mapping the study area. Such diaries have proven useful in other projects providing original eyewitness accounts. New information is emerging from this effort.

Summer 2000

In the summer of 2000 the places and a schedule of the GSENM ethnographic fieldwork was negotiated with the Kaibab Paiute tribe who directed the UofA team to specific places and resources that should be the first to be studied. The Kaibab Paiute tribe made specific arrangements with Grand Staircase-Escalante National Monument regarding this study. Developing these plans required a two-day scoping task during which time many of the places and resources potentially involved in the study were visited by a scoping team from the Kaibab Paiute cultural resource office. Scoping assured the smooth working of the site visits and prevented endangering elders or missing key resources and places. It was hoped that the Grand Staircase-Escalante National Monument would want to provide an archaeologist (and perhaps a natural resource specialist) to participate in the site visits, but this was not possible.

Interviews centered around the major categories of cultural resources that have been identified by Kaibab Paiute elders and representatives in previous studies, which date back to the late 1970s. Systematic interviews were facilitated by the use of interview forms, which have been produced with the help of Kaibab Paiute elders on previous studies. These forms represent the range of questions that they perceive to be most useful. Two forms were used to record the majority of information: (1) The site-specific analyses form and (2) The cultural landscape form. Each form has been used previously and has an ACCESS database format ready for coding information.

We have included additional field data that was gathered to the extent that time permitted. This data briefly describes the geology and ecology of each location being studied. One of the members of the UofA team is a trained botanist whose primary role was to conduct

interviews, but additionally she was asked to provide lists of major plants at the site and help with the ecological descriptions. Issues that emerged during the field interviews stimulated the need for more visits to local archives.

Chapter 2

History: Creation to Restoration

In this chapter we provide the reader with some background information to provide a clearer understanding information Southern Paiute people have relayed in this report. This essay is designed to explain, but not in any way test, Indian testimony. What Indian people say about a place stands on its own, backed by the authority of the tribal governments who have reviewed and approved this report.

This chapter has four sections. We begin with a definition of Indian history, followed by an examination of the traditional sociopolitical units of the Southern Paiute Nation. We then provide a reconstruction of archival and ethnohistorical data regarding the Eastern Yanawant Southern Paiutes, and finish with an examination of changing federal Indian policy, as well as the current relations of certain Southern Paiutes to the GSE/NM. Each of these sections provides background or descriptive information discussed in subsequent chapters.

In the current study of the GSE/NM we relay knowledge shared by consultants of the Kaibab Southern Paiute tribe and supplement this with information gathered through archival research. Our analysis of the GSE/NM is unique from previously conducted research of this region in several respects. We seek to relay archaeological, historical, and ethnographic information in a way that is attentive and responsive to the paradigms of knowledge utilized by Southern Paiute consultants when conveying information about themselves, their ancestors, and their interconnectedness to the cultural landscape of GS/ENM. Part of this responsiveness entails a willingness to reevaluate what constitutes valid knowledge. Below we outline a number of components that consultations with some Kaibab Southern Paiute elders have led us to believe are essential in the development an Indian history.

What is An Indian History?

The official histories of the Indian people of this study area are rather easy to determine in broad outline and even in much of their detail. The central challenge of this chapter, however, is to produce histories reflecting the knowledge, experiences, and important processes of change undergone by the Paiutes. It is a recognized observation that each generation looks to the past and selects certain people, events, and process when interpreting their histories. In doing so, much of what happened in the past is ignored. When Indian people are given the opportunity to talk about their histories, they tend to emphasize very different issues that those expressed by official versions of US history. The following are six ways that Indian histories tend to differ from standard versions of the past:

- First, their histories begin when they were placed in these lands by the Creator and given the birthright responsibility to properly use and protect the animals, plants, places, and other elements.

- Second, their histories span over thousands of years during which time they selected places, events, and processes to commemorate.
- Third, when Europeans arrived, their animals and diseases spread before them (what has been termed “virgin soil epidemics” and “pre-arrival impacts”), permanently changing certain places and peoples, and radically altering aspects of the natural world.
- Fourth, the people of the United States tend to begin their histories with their arrival in the area. This occurs as early as 1776 with the travels of Spanish fathers – Escalante and Domingues. It continued with Anglo settlers, such as in July 1847 with the arrival of the Mormon people (at the Great Salt Lake) who were citizens of the US, but fleeing America into Mexican territory. With the end of the US war with Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848, the lands of this study became a part of US national territory. From an Indian perspective the lives of the Kaibab Paiute people were significantly impacted before then by more than 200 years of Spanish and Mexican warfare, trade, and political maneuvering with the Indian tribes of the Northern New Spain⁴.
- Fifth, Indian people have selected their own heroes, critical events, and important processes of change. Indian heroes, including Posey in southern Utah and Queho in southern Nevada, were perceived as outlaws by the Americans. Other Indian leaders, like the Paiute prophet Wovoka whose vision stimulated the 1890 Ghost Dance⁵ movement, were viewed fearfully by non-Indian society. Indian history tends to select people who act heroically by resisting the encroachment of outsiders. Similarly, historic events, like the 1869 treaty between the Navajos and the Mormons, were socially and biologically devastating to the Kaibab Paiutes, yet praised and commemorated by the Mormons whose villages were no longer under threat from Navajo raiders. Indian people view the process of environmental transformation very differently. They view, from a different cultural landscape perspective, the channelization⁶ of streams during the last decade of the 19th century, the shifting of vegetative cover through overgrazing, removal of timber, and chaining of cedar trees to make grasslands, and the damming of rivers.
- Sixth, US historians and social scientists have discounted the presence of complex Indian social organization and large population sizes. According to Dan Buletts, “White people killed lots of helpless Paiute people. Books leave all this out, leave out how they paid for Indian scalps in Salt Lake” (cited in Trimble 1993: 328). In an earlier interview, Dan Buletts⁷ conveyed a

4 Note the photograph of a Southern Paiute slave who had been sold or traded and thus ended up a resident in the New Mexico community of Abiquiu, New Mexico in the book *The Valley of Shinning Stone: The Story of Abiquiu* by L. Poling-Kempes 1997. UofA Press.

5 See the recent article “Ghost Dancing the Grand Canyon: Southern Paiute Rock Art, Ceremony, and Cultural Landscapes”. *Current Anthropology* 41:1:11-38, 2000. Also available on the web at: <http://www.journals.uchicago.edu/CA/>

6 See the *Historic Channel Change of Kanab Creek, Southern Utah and Northern Arizona* by Webb, Smith, and McCord 1991.

7 Personal interview with Richard Stoffle in 1972, see resulting article “Resource Competition and Population Change: a Kaibab Paiute Ethnohistorical Case” *Ethnohistory* 23(2), 1976.

commonly held sentiment that there were once tens of thousands of Paiutes in this area before diseases killed them. Indian society naturally changed with the great losses of population, so post-holocaust descriptions do not accurately describe traditional Paiute society and politics.

The goal of this chapter is to describe interactions with the Indian people today and reveal those themes they wish to bring forward in their histories of the Grand Staircase-Escalante/NM area. In conjunction with this goal, we seek to provide information that takes into account Indian perspectives excluded from previous histories of this area. We begin the first section with an ethnohistory of the Numic speaking people. This analysis reveals the Southern Paiutes' deeply embedded attachments to the land of the Great Basin and western Colorado Plateau that date back thousands of years. The political organization of the Southern Paiute Nation during pre-contact times is presented, followed by an examination of the radical physical and sociopolitical destruction that resulted from the introduction of European diseases. Next, we provide a detailed ethnohistorical analysis of the sociopolitical structure of the Southern Paiutes in the twentieth century. Finally, we conclude with a broad spectrum ethnohistorical account of the radical changes evinced through the introduction of Spanish, Mexican, New Mexican, and Euroamerican populations, material culture, disease, and ideologies through the major trade routes linking such distant settlements as Mexico City, Santa Fe, Saint Louis, and Los Angeles.

Local History

The UofA team has worked on the history of the Kaibab Paiute district since the early 1970s. Since then a number of essays have been prepared, which address historic themes identified by elders as well as outlines of events and processes occurring in various portions of traditional territory. Research for these past essays generated large files of original data, which potentially will serve to enrich the local history that will be produced in this study. Interestingly, the current study area is among the most remote in the region, requiring original and innovative document searches in order to move beyond more general histories.

Fortunately there have been a number of eyewitness observations in this area. Beginning in 1776 with Fathers Escalante and Dominguez, there have been a number of detailed studies of how and where the Kaibab Paiute people lived. In the mid-1870s Powell and many of his fellow researchers, made deeper observations of fundamental aspects of Paiute culture. At the turn of the 20th century, Isabel Kelly and Omer Stewart collected ethnographic data from two very different but useful perspectives. Kelly's work was qualitative following her own research interests and the general guideline provided to young ethnographers at the time – study everything. Importantly, Kelly's field notes were published along with a detailed map of tribal boundaries and economic clusters for the eastern bands of Southern Paiutes. Stewart's work reflected the growing recognition that observations about human culture could only be made comparable if the same questions were asked everywhere of everybody. Following a trait list of more than 4,000 questions, Stewart interviewed all Southern Paiutes in the same way providing the ability to observe variances and patterns in Paiute culture. Taken together, Kelly and Stewart provide deep insights into Kaibab Paiute culture in the early 20th century. Similarly, insights can be derived from the linguistic work of Edward Sapir and the ethnobotanical work of C. Hart Merriam. A number of additional studies in the later half of the 20th century produced. These

studies were conducted with Kaibab Paiute people who came forward to share their knowledge of traditional territories in order to protect them from the many large-scale developments that were proposed following the construction of Glen Canyon Dam in 1969.

Paiute Views of Their Culture

Southern Paiute people have resided in their traditional lands for many generations. Southern Paiutes, Western Shoshone, Owens Valley Paiutes, Utes, and Goshutes are collectively called the Numic or Numa people — a term that refers to their language and common cultural traditions. According to some archaeologists, cultural anthropologists, and linguists who accept the “Numic Spread” theory (Bettinger and Baumhoff 1983), Paiute people came into the region by at least 1150 AD (Euler 1964; Shutler 1961). Other archaeologists (Torgler 1995; Whitley 1994a, 1994b), cultural anthropologists (Stoffle, Halmo, Evans, Olmsted 1990), and linguists (Shaul 1986) cite data that support the theory that the Numic peoples have continuously lived in the Great Basin and western Colorado Plateau for thousands of years. The Southern Paiute people perceive that the Creator placed them in this region, and that they have always been here.

The aboriginal boundaries of many Indian groups were established during the U.S. Claim Commission hearings (Sutton 1985). The U.S. Claims Commission established the aboriginal boundaries of the Southern Paiute ethnic group. They used various sources, which included travelers' observations in the late 1700s (Bolton 1950), Euroamerican settlers' diaries and official government surveys recorded in the mid-1800s (Little 1881; Powell and Ingalls 1874), and oral history interviews conducted in the 1930s (Kelly 1934, 1964, see Figure 7; Stewart 1942). In addition to the Claims Commission documents, recent ethnographic studies have further refined the aboriginal boundaries of the Southern Paiute (Bunte and Franklin 1987; ERT 1980, Halmo, Stoffle, and Evans 1993; Stoffle, Halmo, Evans, and Olmsted 1990; Stoffle, Austin, Halmo, Phillips 1997; see Figure 8).



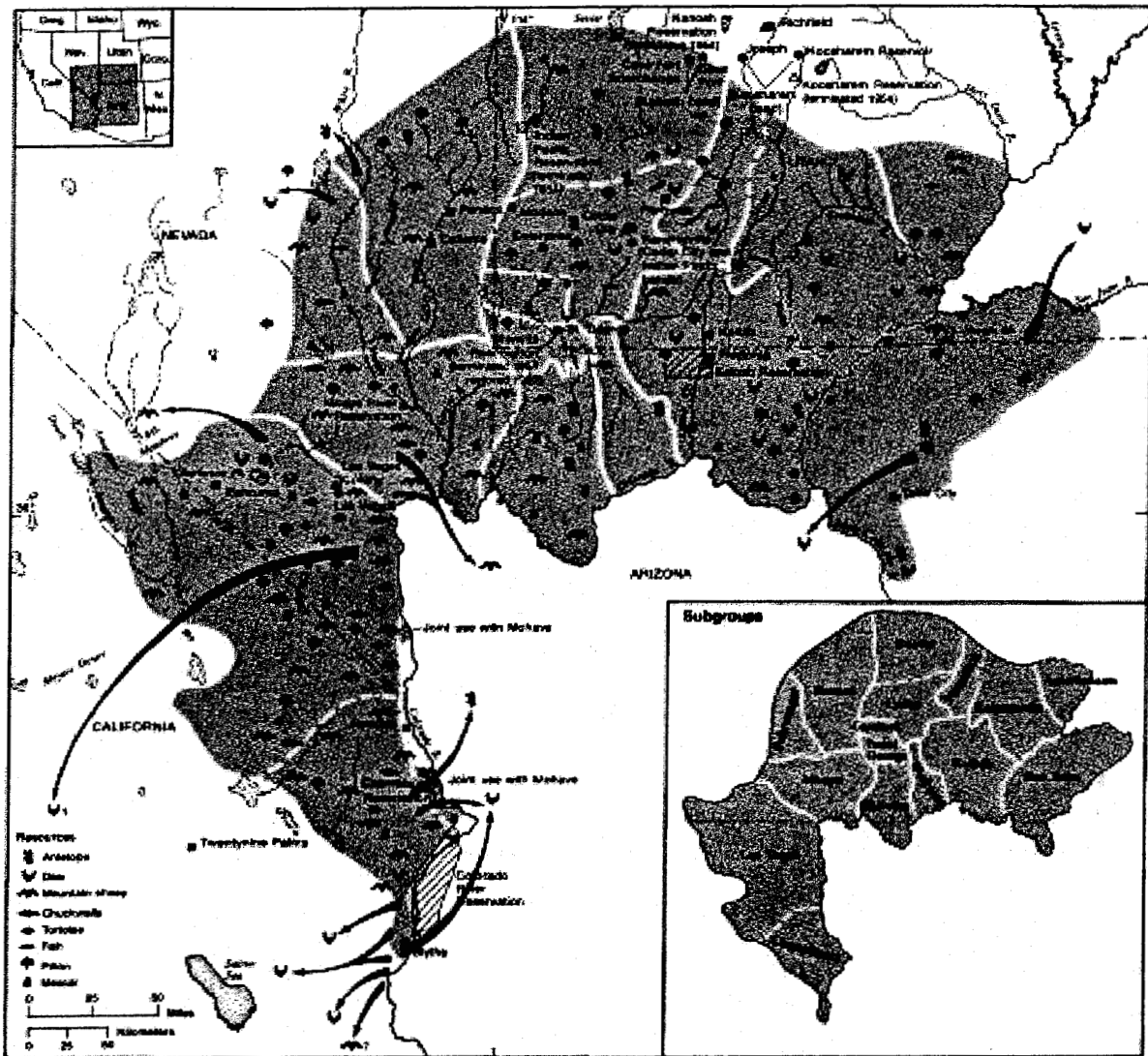


Figure 7. Kelly's map of Southern Paiute districts (revised; Kelly and Fowler 1986:369).

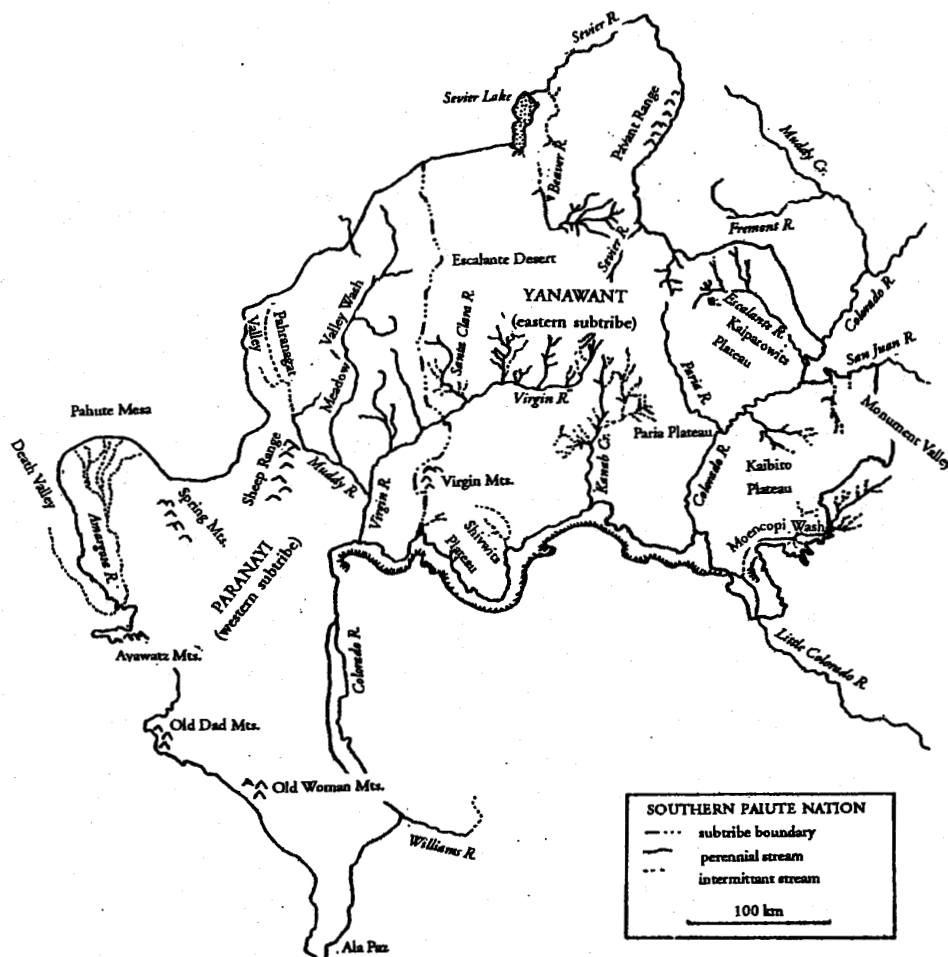


Figure 8. *Puaxant Tuvip*: The Southern Paiute Holy Land.

While Euroamerican scholars seeking to define boundaries and origin times for the Southern Paiutes examine forms of knowledge rooted in Euroamerican intellectual traditions, the Paiute people frequently look to religious knowledge to explain traditional ethnic territories and the events by which the people came to inhabit them. According to traditional Paiute beliefs, Paiute people were created in these traditional lands. Through this creation, the Creator gave Paiute people a special supernatural responsibility to protect and manage the land and its resources. In Euroamerican terminology, this land is their Holy Land (Spicer 1957:197, 213), and a portion of it is under the supervision of the Pahrump Paiutes (see Figure 8).

The Southern Paiute people believe that they were created by the supernatural near Charleston Peak — called *Nuva antu* [herein rendered as *Nuvagantu*] — located in the Spring Mountains (Kroeber 1970, Laird 1976, Stoffle and Dobyns 1983). According to Laird (1976:122):

In prehuman times *Nivaganti* was the home of Wolf and his brother, Mythic Coyote. It was the very heart of *Tiwiin'arivipi*, the Storied Land.

There was and is no place in Southern Paiute traditional territory more sacred than the Spring Mountains and the areas around them. One author has noted that Charleston Peak is the most powerful of all cosmic centers in the southern and central Great Basin (Miller 1983:72). Concerns for this sacred area have been expressed repeatedly over the past 20 years in cultural resource studies involving Southern Paiute people (Stoffle and Dobyns 1982, 1983; Stoffle, Dobyns and Evans 1983; Stoffle, Evans, Harshbarger 1988).

Creation Stories

Southern Paiute oral scriptures that have been recorded generally resemble the Christian Genesis and other creation stories in terms of placing the people on the earth. While there are different versions of this story, the following account derives from southern California and was provided by a Chemehuevi Paiute (Laird 1976). According to this account, Southern Paiutes believe that originally there was only water. Ocean Woman (*Hutsipamamau ?u*) then created dry land (Laird 1976:148-149). Once there was land, Creator Coyote and Wolf lived on Charleston Peak. Creator Coyote later saw tracks of a woman, but when he caught up with her, she was a louse (*Poo?wavi*). Coyote propositioned her, and she agreed to the proposal on the condition that he built them a house. He ran ahead, built a house, and when Louse caught up, she magically put Coyote to sleep and continued on. This happened four times before they reached the Pacific Coast. Louse set out to swim to her home island with Coyote on her back. She dove, and Coyote let go and turned himself into a water spider. He reached the island first and was waiting for Louse when she arrived. Louse's mother wove a large basket while Coyote enjoyed Louse (Kroeber 1908:240; Laird 1976:150-151). Then Louse's mother sealed the basket and gave it to Coyote to tow back to land. As a water spider, he did so. As the basket grew heavy, Coyote became full of curiosity, and he opened it before reaching *Nuvagantu*. Louse's eggs had hatched in the basket and became human beings. The new human beings emerged from the now opened basket and began to scatter in all directions over the land. By the time Coyote returned to *Nuvagantu*, only weaklings, cripples, and excrement remained in the basket. On Charleston Peak, Wolf (Kroeber 1908:240 says it was Coyote) used his greater power to create the Chemehuevis

and their Southern Paiute kindred. The darker color of Southern Paiute skin is attributed to the ingredients used by Wolf to create them. Because it is the place where the Southern Paiute people were created, *Nuvagantu* — Charleston Peak — is holy to Southern Paiutes.

For each Southern Paiute tribal group, there is a slightly different version of this story (e.g., Lowie 1924, for Shivwits version; Sapir 1930, for Kaibab version) "which highlights the sacredness of their own local tribal territory" (Bunte and Franklin 1987:227). The Shivwits story has the emergence point at Buckskin Mountain in Kaibab territory (Lowie 1924:104). In general terms, however, Southern Paiute origin stories share much in common. In the San Juan Southern Paiute version of the Creation story, the cultural heroes (both Wolf and Coyote) are called *Shu nangwav*, a name that translates into English as "God" or the "Great Spirit" (Bunte and Franklin 1987:33). In this version, Coyote untied the sack [basket in other versions] near Page, Arizona, and it was there that the Southern Paiute people were made. This version also presents one creation place for all Paiutes in local territory of the San Juan Paiutes (Bunte and Franklin 1987:227). By moving the place of their ethnic group's origin, local Paiute groups strengthen their identification with the ethnic group itself and solidify their cosmological ties to that specific portion of Southern Paiute ethnic territory.

Despite local variations in the identification of the ethnic group's place of origin, all portions of traditional ethnic territory remain sacred to all Southern Paiute people. *Puaxantu Tu vip* (variant *Puaruvvup*) is the Southern Paiute term that translates into "sacred land" (Stoffle and Dobyns 1982). The Paiute term *pua* is cognate to the Shoshone term *puha*, or "power" (Franklin and Bunte 1993:3; Miller 1983). The term *puaxantu* is a derivative of the term *pua*; it may be transliterated as "powerful" or "(sacred) power." The indigenous Paiute term would refer to sacred or powerful lands, that is lands traditionally occupied by the ethnic group that are made powerful by being where the Creator placed the Paiute people.

The Federal government recognizes that all Southern Paiute people are directly associated with all portions of their aboriginal territory. This stipulation became the legal conclusion of the Federal government when, at the end of the Indian Claims Commission hearings, all Southern Paiute people received an equal financial compensation for the loss of aboriginal territory. Many local, state, and federal agencies have set the standard for government-to-government consultation by further recognizing what the Federal government and the Southern Paiute people recognize — that all Southern Paiute people have a sacred tie and contemporary right to be aware of and respond to actions that potentially impact traditional natural and cultural resources within the Southern Paiute Holy Land.

Traditional Southern Paiute Political Units

The Southern Paiute nation, before historic disruption, was comprised of several levels of political organization, including possibly two or more major subdivisions or sub-tribes, a dozen or more districts, and numerous local groups — sometimes referred to as bands — within each district. Some of the evidence of hierarchical organization comes from Laird's (1976) documentation of Chemehuevi institutions elicited from her Chemehuevi husband, George Laird.

Leaders occupied a special status with special symbols very visible in pre-contact Southern Paiute society. While male leaders have been referred to as High Chiefs, they functioned as ritualists rather than political officers (Laird 1976:24); at least, they did so in the late 1800s. Those who were called High Chiefs could wear turquoise. The elite spoke a special language known as "tivitsi?ampagap?" (Real Speech) in addition to the Southern Paiute language spoken by all Southern Paiutes. High Chiefs chanted it with a strong accent. Living members of the elite preserved that special language into the final decade of the 19th century. Quail-beans (*kakaramurih*), or black-eyed peas, became a special dietary item for the chiefly elite (Laird 1976:24). Leaders employed a specialized corps of runners to transmit communications. These runners were probably young men who were specially selected for this task (Laird 1976:47), and George Laird was one of the last runners (cf. Nabokov 1981).

Some Federal officials called Tutseguvits the head chief for a decade: from 1859 (Forney 1859:73) until 1869 (Fenton 1859:203). Another official in the early 1870s (Powell and Ingalls 1873) perceived that a single tribal chief named Tagon exercised some authority over all Southern Paiutes. That perception may well have been accurate, and a principal chief may have played a more important pre-contact role.

Leaders led at least regional polities made up of lineage bands (Laird 1976:24). In 1873, one identified High Chief who was active into post-conquest times, provided sacred leadership for lesser chiefs heading at least eight local lineage organizations based at Potosi, Paroom Spring, Kingston Mountain, Ivanpah, Providence Mountain, Ash Meadows, Amargosa, and the northern Chemehuevi (Fowler and Fowler 1971:104-105; Laird 1976:24). Leaders employed a specialized corps of runners to transmit communications. The elite appeared to have disappeared when the last surviving High Chief died late in the nineteenth century. In the 1870s, Powell and Ingalls perceived the functioning High Chiefs as heads of what they called confederacies of local groups (Fowler and Fowler 1971:109).

Disease and Sociopolitical Disruption

Diseases transmitted by Europeans probably first impacted the Southern Paiutes during the smallpox pandemic of 1520-1524, which spread from Mexico City throughout much of North America (Dobyns 1981, Campbell 1990). Throughout the 1500s, 1600s, and 1700s, major disease pandemic episodes spread from Mexico into the lands of the Pima, Hopi, Hualapai, and across the Colorado River to the Southern Paiutes. Like the Inca traders of South America, Southern Paiute traders were probably exposed to diseases while trading with neighboring Indian ethnic groups, after which they exposed people within their home settlements. Today we can only estimate the social, cultural and biological impacts that resulted through early centuries of exposure to Euroamerican diseases. However, book titles like *Their Number Become Thinned* (Dobyns 1983) and *American Indian Holocaust and Survival* (Thornton 1987) target the problems faced by Indian people during these times.

A historical record of more recent disease exposures as well as their social and cultural impacts exists in the accounts of literate travelers and immigrants. In these records, witnesses note changes amongst the Indian people as well as the presence of diseases within their own communities. The impacts of diseases brought by European immigrants in the early to mid-1800

are well documented in a recent analysis conducted by Stoffle, Jones, and Dobyns (1995). This analysis demonstrates that European immigrants that passed through and moved into Southern Paiute riverine oases transmitted diseases that resulted in the reduction of Indian populations. These declines were so rapid and widespread that most national and many subtribal functions were largely eliminated by the late 1850s (Stoffle, Jones, and Dobyns 1995). Ten diseases (measles, cholera, malaria, tuberculosis, scarlet fever, whooping cough, typhoid fever, intestinal parasites, mumps, and smallpox) assaulted Southern Paiute peoples from 1847 until 1856. These ten diseases accounted for the deaths of thousands of Southern Paiutes. During the years 1857-1876, the rate of direct European transmission of Old World diseases began to slow appreciably, however this reduced impact largely resulted from the fact that not as many Paiutes were living after 1857 (Stoffle, Jones, and Dobyns 1995:194).

Even with fewer numbers, the Southern Paiute population continued to drop throughout the latter part of the 19th Century and early 20th Century. A newspaper report from southern Nevada in 1905 confirms this decline. According to the census taker, Mr. Harsha White, "the Piute (sic) population has decreased 60 per cent since 1890" (Stoffle, Olmsted, and Evans 1990: 113-114). One consequence of this radical population decline was even the basic socio-political units that once reflected dense aboriginal populations could no longer be maintained.

The arrival of European diseases stands out as one of the most important factors in inciting sociopolitical change among the Southern Paiutes. These destructive events probably began when the first pandemics spread north from Mexico City in the 1500s, however we have little evidence on the exact social and cultural impacts of this period. In contrast, the presence of diseases, as well as their impact upon Indian communities, is well documented for more recent times. During the Spanish occupation of northern New Spain we find a rather complete record of diseases and their impacts among the neighbors of Southern Paiutes. In the south we find clear evidence for the lower Colorado River tribes in the 1700s. To the east we find a good record of events for the Pueblos, especially the Hopi, who were the immediate trading partners of the Paiutes.

The best-known disease episodes that may have spread to the Southern Paiutes between 1520 and 1837 are presented in Table 2.1. Most of these episodes have been documented as a result of the regular Spanish contact with various Pueblo peoples after 1625. One well-documented event occurred between 1777 and 1780. The rains in northern Arizona had failed for 3 years, and the Hopi were low on crops, water, and pastures for their herds. According to John (1975:593), disease bred in the scant, stagnant water deposits, and the Hopi people, weakened by hunger, had little resistance to sickness. In the spring of 1780, the Spanish governor Anza marched a troop of soldiers to the Hopi to convince them to submit to Spanish policy. According to John (1975:596), the smallpox epidemic that was now ravaging the Pueblos in New Mexico had hit the Hopi as well. Less than 5 years after Father Escalante had calculated the Hopi population at 7,494, all but 798 had died (John 1975:600). Anza reported that some Hopi moved to the Colorado River to live with the Havasupai and others set out for New Mexico on their own. Nonetheless, many were dead. Two of the seven Hopi villages had been totally abandoned, and none had more than 45 members in them. Still, the best evidence of disease episodes influencing the Southern Paiutes comes during the 1840s when wagon train after wagon train arrived in the region from the eastern U.S.

Table 2.1: Major Epidemic Episodes of Old World Diseases Among Pueblo Peoples That May Have Spread to Southern Paiutes Trading at Oraibi⁸

| Date | Disease |
|-------------|---|
| 1837 | Typhoid fever and smallpox |
| 1826 | Measles |
| 1816 | Smallpox |
| 1799-1800 | Smallpox, apparently pandemic |
| 1780-1781 | Small pox, clearly pandemic |
| 1759 | Smallpox |
| 1748 | Smallpox |
| 1738 | Smallpox, apparently pandemic |
| 1728-1729 | Measles |
| 1719 | Smallpox |
| 1695-1699 | Fever, smallpox |
| 1671 | Pestilence |
| 1635 | Measles |
| 1613-1617 | Bubonic Plague |
| 1592 | Measles |
| 1564 | Smallpox |
| 1545-1548 | Bubonic and pneumonic plague, evidently pandemic |
| 1531-1533 | Measles, possibly chickenpox, scarlet fever, or a combination |
| 1520-1524 | Smallpox, pandemic in hemisphere |

1840-1875 Depopulation

Depopulation from diseases transmitted by European immigrants who passed through and moved into Southern Paiute riverine oases caused many national and many subtribal social, political, and cultural functions to be largely eliminated by the late 1850s (Stoffle, Jones, and Dobyns 1995). Ten diseases (measles, cholera, malaria, tuberculosis, scarlet fever, whooping cough, typhoid fever, intestinal parasites, mumps, and smallpox) assaulted Southern Paiute peoples from 1847 until 1856. These ten diseases accounted for the deaths of thousands of Southern Paiutes, and the depopulation continued throughout the 19th century.

Table 2.2 presents both a summary of known diseases and a model for better understanding their impacts on the Southern Paiute people. The table assumes a hypothetical Southern Paiute population of 1,000 individuals in 1845 and assesses the impacts of various epidemic and endemic diseases over the next 11 years. The figures used in the model are to illustrate hypothetical impacts. All the figures would be proportionally larger if the actual population of Southern Paiutes in 1845 were 10,000 people. Similarly, the impacts of each episode or ongoing impacts of endemic diseases are estimates based on comparable events

⁸ Detailed citations are available for each disease episode in Stoffle, Jones, Dobyns 1995:196.

elsewhere. While the actual number can be argued, the evidence suggests drastic population decline during just this critical decade. And, as the next section will demonstrate, disease impacts were to continue well into the 20th century.

Table 2.2: Epidemic Disease Mortality Model of Numic-Speaking Native American Population Change, 1847-1856 (estimated)⁹

| Date | Disease | Rate | Loss | Population |
|---------|--------------------------|------|------|------------|
| 1845 | | | | 1,000 |
| 1849 | Measles | 25% | 250 | 750 |
| 1849 | Cholera | 15% | 113 | 637 |
| 1849 | Malaria | 15% | 64 | 573 |
| 1850 | Tuberculosis | 5% | 29 | 544 |
| 1851 | Malaria | 3% | 16 | 528 |
| 1851 | Tuberculosis | 3% | 16 | 512 |
| 1852 | Malaria | 3% | 15 | 497 |
| 1852 | Tuberculosis | 3% | 15 | 482 |
| 1853 | Scarlet fever | 20% | 96 | 386 |
| 1853 | Whooping cough | 15% | 58 | 328 |
| 1853 | Malaria | 3% | 10 | 318 |
| 1853 | Tuberculosis | 3% | 10 | 308 |
| 1854 | Typhoid and/or parasites | 10% | 31 | 277 |
| 1854-55 | Mumps | 50% | 138 | 139 |
| 1855 | Malaria | 2% | 3 | 136 |
| 1855 | Tuberculosis | 2% | 3 | 133 |
| 1856 | Malaria | 2% | 3 | 130 |
| 1856 | Tuberculosis | 2% | 3 | 127 |

1875-1900 Depopulation

A 1905 newspaper in southern Nevada carried a story about Mr. Harsha White, who took the 1900 U.S. Census. White is quoted as saying that "the Piute (sic) population has decreased 60 percent since 1890" (Stoffle, Olmsted, and Evans 1990:113-114). White was the son-in-law of Joseph Yount who settled at what was called Manse Springs in Pahrump Valley in 1876 (McCracken 1991:12). Brooks quoted Yount (1970:11-12) during an 1886 interview as having said to his new wife when she arrived and asked, "Where are we?"

We are in Palorump [sic, Pahrump] Valley, Nye County, Nevada, and Mr. Bennett, six miles distance, is our only neighbor, except that we consider the hundreds of roving Paiutes neighbors...

White graduated from the University of Missouri in 1870, traveled west with the Yount family as a teacher, and married Maude Yount in 1872. Like his father-in-law, White knew and interacted frequently with the local Paiute people. Both White and Yount are pictured with Chief

⁹ See Stoffle, Jones, and Dobyns 1995:192 for full citations and discussion of the model.

Tecopa around 1900, suggesting they had a special relationship with the Paiute leader and the local Indian community (McCracken 1991:5). As a college-educated man with first-hand local experience, White spoke with authority about Paiute population declines between 1890 and 1900. White was in a position to have directly observed the deaths of many Southern Paiute people, especially those in the Pahrump region.

The High Chiefs

It appears that a small subset of the elite Paiutes provided all of the Southern Paiute people with socio-religious, economic, and political leadership. Evidence suggests that the Paiute people selected a principal chief or High Chief to govern the nation by sitting in a leadership capacity over local chiefs. There appears to have also been regional chiefs that were not considered the High Chief. The position of High Chief appears to have played important political, economic, and cultural roles before European contact, which is generally considered to be after the 1770s during the Spanish period. The basic concept of the position High Chief continued until the middle of the Twentieth century.

After the Treaty of Guadalupe Hildago in 1848, Southern Paiute territory became a part of the United States, and we begin to find official references to the High Chiefs. Beginning in the 1850s, the elite male leadership of the Southern Paiutes were referred to as High Chiefs by a variety of Euroamericans. The presence of Southern Paiute leaders were recorded by Mormon settlers such as Jacob Hamblin in 1854 and Andrew Jensen in 1855; federal government surveyors such as Wheeler in 1869 and J. Powell and G. W. Ingalls in 1872; regional historians such as William R. Palmer in the 1880s; and ethnographers such as Julian Steward in the 1920s.

Some U.S. Federal and Mormon Church officials called *Tutseguvits*, who lived on the Santa Clara River in southern Utah, the Head Chief of the Paiute people. He was called Head Chief for a decade, from 1859 (Forney 1859:73) until 1869 (Fenton 1859:203). In 1869, Wheeler (1875) named *Tercherum* as the "Principal Chief" of the area. Another U.S. official in the early 1870s (Powell and Ingalls 1874) perceived that a single tribal chief named *Tagon* exercised some authority over all Southern Paiutes.

Chiefs of Alliance

In the early 1870s Southern Paiute enumeration, Powell and Ingalls also perceived the functioning of High Chiefs as heads of what they called confederacies of local groups (Fowler and Fowler 1971:108). They identified a dozen Chiefs of Alliance and created a special column in the report indicating their role over other leaders who were called just "Chiefs" (Fowler and Fowler 1971:105). One of these dozen Chiefs of Alliance was named *To-ko-pur*. He provided leadership for local chiefs who headed at least seven local lineage bands which were based in the (1) vicinity of Potosi, (2) Pa-room Spring, (3) Kingston Mountain, (4) Ivanpah, (5) Providence Mountain, (6) Ash Meadows, and (7) Amargosa (Fowler and Fowler 1971:104-105; Laird 1976:24).

These seven local lineage bands roughly correspond to the boundary of what is called the Pahrump Paiute district (see discussion later in this chapter). It is also interesting to note that

Powell and Ingalls recorded the presence of other Chiefs of Alliances heading combinations of local lineage bands whose territory added up to a Southern Paiute district. In another case, when we add up the territory of the local lineages under *Tau'-gu* in northern Arizona and southern Utah, the area totals most of the area of the *Yanawant* subtribe.

In parallel fashion, neighboring Shoshone groups in southern Nevada were recorded to have had a position of Alliance Chief (and perhaps High Chief). The main camp of one Alliance Chief was called *Waungiakuda*, which is a place at the foot of Pahute Mesa where Indian people continued to live until the 20th century. Then, for unknown reasons, the family members dispersed. In the late 19th century, the site was occupied on a full-time basis and served as a place where people from the region wanted to visit for various reasons. It was the home (perhaps one of the homes) of *Wangagwana*, who was known as the "chief of this general region" in the 1930s, years after his death (Steward 1938:95). The village site was the birth place and early residence of *Wangagwana's* son who the non-Indians called Panamint Joe and who the Indian people considered as "Chief of the Shoshone" during the rhyolite mining boom about 1906 (Steward 1938:95). *Waungiakuda* was a place to visit for hunting, gathering, trade, and ceremony in the late 19th century.

Steward noted the presence of many local chiefs (Steward 1938) based on his interviews in the 1930s, and Laird independently conducted interviews that recorded the presence of local chiefs who led a number of local groups made up of lineage bands (Laird 1976:24). There are strong databased arguments for the existence of a traditional system of local, regional, and national chiefs among the Southern Paiutes. This traditional political leadership system was stressed and eventually declined in frequency and function due to invasions by Euroamericans, their animals, and their diseases. Eventually, scholars and laypersons alike were to characterize Southern Paiute people as lacking political organization above the family level.

Twentieth Century High Chiefs

The deaths of many Southern Paiute people meant that traditional sociopolitical units previously reflective of the needs of dense aboriginal populations could no longer be maintained. However, despite the loss of people and the lessened need for national-level systems of political, economic, and social power, some aspects of national and subtribal leadership persisted.

Chief Tecopa

In the early 1930s, Julian Steward (1938:185) recorded that a chief from the region of Pahrump and Ash Meadows, named Takopa [sic, Tecopa] was a leader of "all the Southern Paiutes." The Indian people who Steward (1938:185) interviewed in the 1930s stated that,

The Paiute of the Pahrump and Las Vegas regions were never unified in a single band. A.H. names a succession of three Las Vegas chiefs (towin'dum): Patsadum, who died many years ago; then Tasidu'dum, who also died many years ago; then A:udia', who was recently killed. For the region of Ash Meadows and Pahrump he named Takopa (who was probably born at Las Vegas and died at Pahrump about 1895 [actually 1905]). Takopa's main function was to direct the festival.

Ch.B. added that when Mojave raided Las Vegas people, Takopa might assist them, perhaps even taking command.

It is interesting that the people Steward interviewed could list the names of three Las Vegas area chiefs, but only listed Tecopa as the chief of the Pahrump region. Perhaps this reflects the fact that Tecopa had been the Chief of the Pahrump Paiute region from early 1870s until 1905, or approximately two generations.

Continuities in Southern Paiute Political Leadership

Chief Penance

After his death in 1904, another southern Nevada leader replaced Tecopa. Steward suggests the new High Chief was named Benjamin and was a veteran scout of the U.S. Army who had lived at Tule Springs near Las Vegas (Steward 1938:185). Local newspapers, however, named Jack Penance as the new High Chief.

The center of national authority shifted from Pahrump to Las Vegas with the selection of Jack Penance as High Chief. This was the first time the High Chief had not lived with the Pahrump Paiutes since at least 1874. This shift also means that the Pahrump Paiute district began to be lead by a district chief rather than a regional or national chief.

Chief Skinner

When Chief Penance died in 1933, Chief Harry Skinner replaced him. The newspaper account covering this important political event was entitled "Piutes (sic) Install New Chieftain at Tribe Ceremonial." This newspaper article documents the continuation of Paiute national-level leadership well into the second half of the 20th century. The Tonopah Daily Times- Bonanza (10/04/33:4,1) recorded the inauguration of the Southern Paiute chief as follows:

With a mournful chant pouring from 300 aboriginal throats...the Southern Nevada Piute (sic) tribe, including Indians of Southern Utah, Southern Nevada and Northwestern Arizona, installed a new chief recently. Their old chief, Jack Penance...was killed recently in a very 20th century automobile, loaded with blankets, his squaw and about eight children (when it) blew a tire and overturned. One of his friends, known to white men as Baboon¹⁰, served as head of the Nevada Indians a short time until a pow-wow could be set and distant Piutes (sic) called into meeting. Over desert roads they came, many by foot, horseback and wagon, but the number who maneuvered themselves and families to the reservation in rattling, brass-bound flivvers was amazing to old time desert dwellers...Harry Skinner, a young government Re-educated Piute (sic) from Arizona, was named Chief...

¹⁰ "Baboon" was the nickname of Jack Laug who was Daisy Mike's mother's brother. Mrs. Mike was a Las Vegas Paiute elder who was taped during a tribal history interview in 1974 by Jackie Rice and Floyd O'Neil (Rice and O'Neil 1974: Mike tape transcript, p.24).

Because Harry Skinner was from northern AZ, it is possible that this election shifted the center of national leadership to the northern portions of the Southern Paiute Nation. The election of a new national Chief in 1933 clearly documents that the traditional position of High Chief continued to have some functions and value to all Southern Paiute people. This event illustrates that Southern Paiute people and traditional society persisted into the 20th century, as they struggled to maintain social and political structures when possible and always maintained their deep personal attachments to their supernaturally given ecosystems that continued to sustain Paiute people.

Subtribes

Just below the level of the Southern Paiute nation as a whole, there may have been two or more large divisions, with each encompassing a number of neighboring districts. The divisions would have included geographically contiguous districts having particularly close ties of economic exchange, intermarriage, and political cooperation. Though the evidence for these intermediate-scale political divisions within the Southern Paiute nation is sketchy, past research suggests that prior to about 1825 there may have been two divisions. The first division was a western subtribe called *paran'* [□*itsi*□] (Sapir 1910:3, herein rendered as *Paranayi*) and the second division was 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).

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

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 Pahrnagat Valley-Meadow Valley-Moapa Valley riverine oasis. Although some scholars have used this name in reference to the Pahrnagat Valley Paiutes, it is evident that the aboriginal use of the term was much broader.

The water referred to in this designation flows down the Pahrnagat Valley, Meadow Valley Wash, and later joins 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 Pahrnagat Valley and Meadow Valley ran the ribbon-like oasis where people cultivated food crops.

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 Euroamerican 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, up the Virgin River from that 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).

In the 1850s the Santa Clara Paiute people 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. For example, "the Yanne wants were much alarmed" (Hamblin 1951:18); "a good feeling prevailed among the Yanwants as they call themselves" (Little 1969:39); and "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).

In 1872, John Wesley Powell recorded the term *U'-ai-nu-ints*, which Powell defined as "People who live by farming" and also glossed as "Santa Clara Indians" (Fowler and Fowler 1971a:156). This may be the same term as Hamblin's *Yanawant*. In another report by Powell, *U-ai-Nu-ints* are identified as the people "who live in the vicinity of St. George" (Powell and Ingalls 1874:47,51). In another manuscript, Powell renders the same word as "*U-en-u-wunts*, the name of the Santa Clara Indians" (Fowler and Fowler 1971b: 161). Elsewhere Powell renders the term as *Yen-u-unts*, meaning "Farmers, those who cultivate the soil" and also as *Yum-a-wints* and *Y-ai-nu-intz*, "People who cultivate soil; farmers" (Fowler and Fowler 1971a: 144).

William Palmer, based on late 1880s interviews, used the term *U-an-no* or *U-un-o* as referring to the St. George area, and also to the larger region of "Dixie"; he recorded that the meaning of *U-un-o* was "good garden place or good fields" (Palmer 1928a: 24). Palmer also rendered the word as *Uaino* and *Uano* (Palmer 1928b: 50). Adding the suffix *its* or *ints*, to refer to the people of a place (1928b: 40), Palmer gave the variant spellings of *Uain-uints*, *Uano-ints*, *Uano-its* (Palmer 1928b: 50), and again *U-an-nu-ince* and *U-ano-intz* (Palmer 1933:95) as the term used for people who farm and for aboriginal people of the Santa Clara River. In one article Palmer noted that these numerous variants of *U-an-nu-ince* referred to the economic activity of farming rather than to a specific group of people:

The word "u-an-o" means farmers. The Indians who lived at Washington, St. George and Santa Clara were farmers and they knew something of the practice of irrigation. They cultivated

corn, beans and sunflowers for their seed, and other plants used for food and for fibre. For this reason the comparatively small area of Utah's Dixie in which farming was done was called "U-an-o," and the farmers were "U-an-nu-ince" or "U-ano-its." The name has no clan or tribal significance. Instead it signifies the vocation assumed by many of these people (Palmer 1933:95).

The Indian words that Euroamericans have adopted to label geographically localized groups of Indian people traditionally did not have such localized points of reference. It is certain that *Yanawant* referred to the people of the Santa Clara River, since they cultivated crops, but it is probable that Euroamerican usage gave the term a more localized reference than the term originally had. When the broader meaning of *Yanawant*, that is, "people who farm," is considered and when this is tied to the regional leader who defines himself as the head of the *Yanawant*, a more likely meaning is a reference to all the people within this territory who farm.

Since all Southern Paiutes farmed, it is likely that *Yanawant* served as a term to discriminate between Southern Paiutes and their close neighbors whether they were Utes or Shoshone who did not farm. Therefore, the term *Yanawant* was one of inclusion as well as exclusion. All Southern Paiutes under the socio-political control of the subtribe leader were included, whereas other Indian people who did not farm were excluded. Similar observations appear to have been true for the term *Paranayi*. Given the likelihood that such terms referred to socially complex socio-political groupings, one might think of the *Paranayi* subtribe as referring to the organization of the Nevada-California Southern Paiutes, and the *Yanawant* subtribe as the organization of Utah-Arizona Southern Paiutes.

Districts

Traditionally there were about a dozen smaller regional units referred to as *districts*, a term adapted from Julian Steward's *Basin-Political Aboriginal Sociopolitical Groups* (Steward 1938:93) and used by Kelly (1934:560). Each district was a sphere of influence with a geographic territory shaped in part by natural features--chiefly watercourses and watersheds--and in part by the existence of neighboring groups who, of necessity, reached political agreements about the extent of their respective spheres of influence and resource harvesting territories.

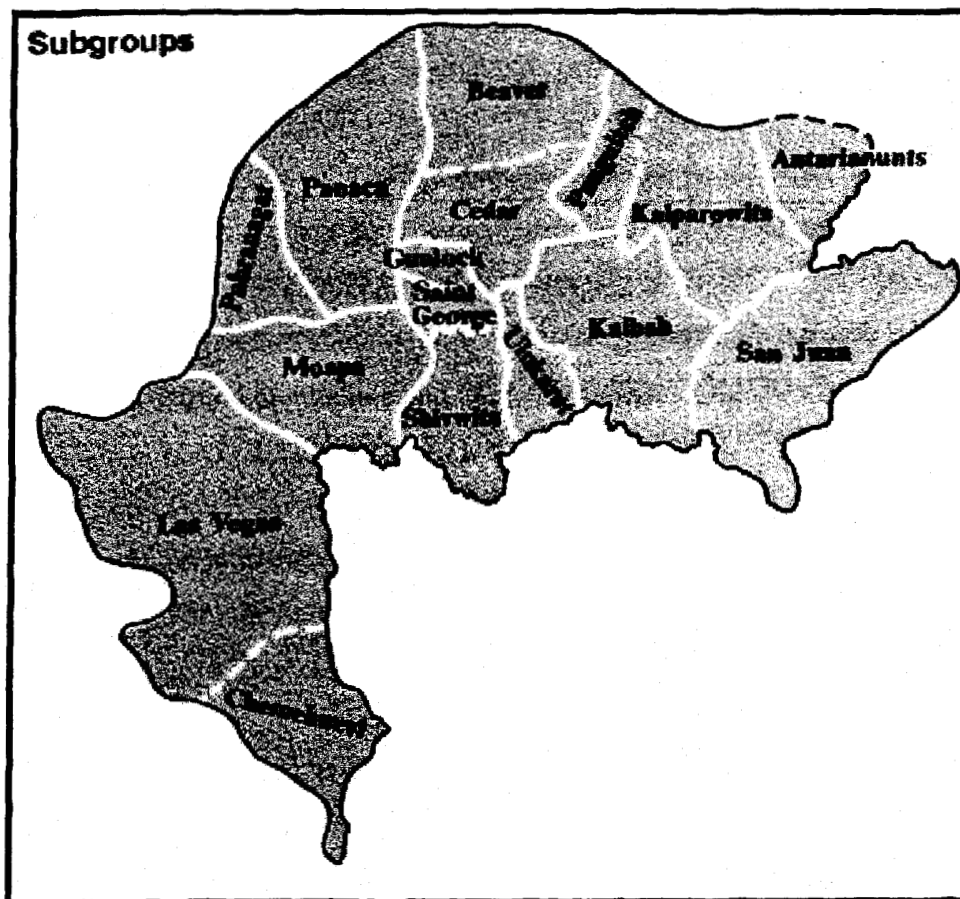
Each Southern Paiute district encompassed a territory that contained all, or nearly all, of the resources necessary for the survival of its population. Each district needed to include, and did include, both (1) oasis areas with either riverine or spring-fed sources of water sufficient for irrigation farming, and (2) upland forests and lowland desert areas with a full range of needed wild resources, including game animals, pinyon nuts, and wild seed grains. Each district, then, included permanent settlements near irrigated fields in oasis areas, and outlying upland and lowland territories used for intermittent and seasonal harvesting of wild plant and animal resources from temporary camps. Often small permanent habitations were maintained in the uplands or lowlands near springs. These hinterland settlements were established in order to safeguard Southern Paiutes' claims to those areas as well as the crucial resources they contained.

Kelly's Ethnographic Perspective on Districts

The first scientific analysis of Southern Paiute districts was conducted by Kelly (1934) based on her 1932-33 field interviews. Kelly produced and published a map (Figure 5) that has been used for more than fifty years to define aboriginal Southern Paiute district territory (Kelly 1934). Recently updated and reprinted with the help of Fowler (Kelly and Fowler 1986:369), the Kelly/Fowler map continues to use the 1934-district boundaries while also including a new district called the *Antarianunts*.

Kelly's district boundaries must be considered in light of more recent research, and in light of the internal inconsistencies between her published map and her own descriptive text (Halmo, Stoffle, and Evans 1993). Any errors or omissions in district boundaries would be of little more than scientific interest were it not that federal agencies (including the National Park Service) assume for purposes of official government-to-government consultation that the aboriginal boundaries as depicted by the Kelly/Fowler maps are accurate, and thus reflective of the aboriginal socio-political units and contemporary tribal governments.

Figure 5: Kelly's map



It was in the core oasis area (or areas) of the district that the population of a district had the most highly developed sense of territoriality and proprietorship. Core oasis areas and central places of the districts are readily identified. Outer boundaries of districts cannot be as precisely delineated, for at least two reasons. First, those areas were not as sharply delineated by Native American people, as were the core oasis areas where the most valuable resources were concentrated. Secondly and not surprisingly, there is much more written documentation of the central oasis areas where Euroamerican settlement was concentrated than for outlying upland and desert areas.

Each district had its own political leadership. In the case of the Shivwits/Santa Clara Southern Paiutes, this included a principal leader (principal chief or head chief) for the entire district, and lesser leaders (or subchiefs) from the various local groups or bands comprising the district. There was apparently a similar pattern of leadership in the other districts as well.

Ecosystem Analysis of Yanawant Districts

This portion of the essay is focussed on the *Yanawant Subtribe* of the Southern Paiute Nation within the context of contemporary understandings about ecosystems and their relationships with aboriginal socio-political structures. In this analysis it is necessary to briefly discuss the people of several districts. This examination includes the Shivwits/Santa Clara district people who were located in the Virgin River ecosystem, the Kaibab district people who were located in the Kanab Creek ecosystem, and the San Juan district people who were located on the east side of the Colorado River. The people of the San Juan district formed the Southern Paiute border with the Hopi territory and Navajo territory. In addition, an exploration of an ecosystem hypothesis is presented. This hypothesis leads to the possibility that the Uinkaret people were actually connected with another local group living on the Virgin River and together they formed a "missing" Paiute district call the *Ua'ayukunants* (also spelled in the literature as *I-oo-goonits*) perhaps more correctly spelled *Ua'ayukunants* district.

Social and Ecological Logic of Districts

Anthropologist A. L. Kroeber generalized from his study of the Mojave Indians who inhabited Mojave Valley and Cottonwood Island Valley, which are the first large valleys on the lower Colorado River with cultivable floodplains south of the Virgin-Colorado confluence. Through his analysis he concluded that an Indian tribe inhabiting a river valley typically exploits upland resources on both sides of the stream (Kroeber 1974:31-33). The data suggest that this economic and ecological model can be transferred upstream to the Southern Paiutes.

Julian Steward, one of the founders of culture ecological theory in anthropology, observed that Western Shoshones and Southern Paiute people had socio-political organizations larger than the local group. At the time, however, Steward was developing an ecological theory of social evolution that was founded on the assumption that some people who reside in extremely harsh environments, like that of the Great Basin, had social organizations no more complex than families. Although this theory has largely been disputed, its development probably prevented Steward from refining a more complex model of social-environmental interactions in the Great Basin.

Steward's more authoritative essay on the concept of the district reflects a confusion among ethnographers in the 1930s. These ethnographers attempted to resolve observations made by earlier Indian observers. The observers included people like the non-anthropologically trained J. W. Powell and G. W. Ingalls from the 1870s as well as the lay observer William R. Palmer (1933); a President of the Parowan Stake of the Mormons, who conducted interviews during the 1880s. Steward questioned Kelly's (1934) 15 Southern Paiute districts and contrasted them with Powell and Ingalls' (1874) 31 Southern Paiute groups. Steward concluded that the 31 units were more likely inasmuch as "band members must habitually have cooperated in a sufficient number of economic and social activities under a central control to have acquired a sense of community of interest" (Steward 1938: 181). This conclusion derives from Steward's assumption that there were very few Southern Paiutes - less than 1 Paiute for every 28.5 square miles between 1870 and 1880 - thus, one of the lowest population densities within the Great Basin (Steward 1938: 47). When there are so few people per square mile, "It is difficult to understand how people who were scattered over such vast territories and often separated by wide, waterless deserts could, when traveling on foot, habitually have joined forces in any important communal undertaking" (Steward 1938: 181). Here we have a critical point. This is where Steward was incorrect because he based his conclusion on incomplete data. He incorrectly assumed (1) that the land was arid, when in fact the environment of the Southern Paiutes contained extensive riverine oases, and (2) that the 1870 Southern Paiute population reflected an aboriginal condition, when in fact the population had drastically declined by 1857.

People who wanted to reconstruct Southern Paiute social organization did so with theories that made sense at the time they wrote and with whatever data was available. Today, however, we can continue to consider these issues in light of new population and document evidence. Today, it seems that there was a social-ecological logic to the aboriginal structure of Southern Paiute districts. Each district needed a *core area* in a riverine oasis or major artesian spring system where there were permanent farms and villages. In most cases, core area farming involved extensive systems of irrigation. Functionally offsetting the agricultural core of a district were its *hinterlands*. The hinterland gave the district the ecological diversity needed for the *transhumant adaptive strategy* (Stoffle and Evans 1976) component of the overall strategy of ecosystem utilization. Hinterlands existed at different elevations than the oasis core. Higher elevations produced a diverse assortment of animals like deer and mountain sheep, while lower hinterland elevations provided chuckwalla and antelope. Plants were an especially important component of the hinterland because not only do higher and lower elevations produce different types of plants, the same plants growing at different elevations can be harvested at different times of the year. Hinterlands provided a variety of natural resources like salt, paint, and tool-making quarries. Often power spots, caves, and various types of ceremonial areas tended to be located in the hinterland and away from the core area.

When the Southern Paiute district is viewed as an ecological whole, there is a social-ecological logic behind the selection of core areas and hinterlands. When this logic is applied to the Yanawant subtribe, it and its components begin to make sense in new ways. When this logic is applied to Kelly's 15 districts some make sense, others need recombining, and at least one seems to be missing.

Shivwits/Santa Clara District

Kroeber's model suggests that Southern Paiutes who farmed in the riverine core along the Santa Clara River (called *Tonaquint* in Paiute) and middle Virgin River, would have harvested wild resources in hinterlands to the south (including the Shivwits Plateau), as well as to the north (including the watersheds feeding the tributaries of the upper Santa Clara River). Thus combining the Shivwits and Santa Clara districts seems essential.

Other data suggests that three of the groups defined by Kelly and Fowler (the Gunlock group, the St. George group, and the Shivwits group) in fact comprised a single group or district. In the decades after contact, the massive impact of Mormon colonization resulted in the gradual breakdown of regional political organization, the emergence of labor camps associated with Euroamerican towns (Gunlock, St. George), and the relocation of much of the population into regions of refuge in the uplands (Shivwits Plateau).

The geographic boundaries of this new Shivwits/Santa Clara district would have been the Santa Clara River, the upper Santa Clara watershed to the divide with the Colorado Plateau and the Great Basin, the lower-middle portion of the Virgin River from the confluence with the Santa Clara until the confluence with Beaver Dam Wash, and the arid uplands of the Shivwits Plateau stretching south from the Santa Clara to the Colorado River and roughly from present Lake Mead in the west to the eastern edge of the Uinkaret plateau. Within this ecoscape, Paiute people moved freely back and forth between the oasis farmlands and the upland areas used primarily for wild-resource harvesting. The data indicates that the Santa Clara, and to a lesser degree the middle portion of the Virgin River, was the horticultural center and the population center of a district whose upland territories included the Shivwits Plateau in the south and upper watershed of the Santa Clara in the north (including the Pine Valley and the Bull Valley Mountains).

For whatever reasons (and more on this issue below), it was the Santa Clara River rather than the middle and upper Virgin River that apparently constituted the primary horticultural core of the Shivwits/Santa Clara district. This raises the question of whether there were smaller and perhaps subsidiary horticultural settlements on the middle and upper Virgin River and Ash Creek, or whether these settlements were independent. Information produced as part of this report suggests there were many villages along the middle Virgin River, and possibly a separate Southern Paiute district was located past the Hurricane Cliffs on the upper Virgin River.

When Father Escalante arrived on the middle Virgin River in 1776 he found Paiute agriculturists who called themselves the *Parussits* people. The name supposedly referred to the *Parussi* River, which they used to irrigate their farms. Escalante renamed the river the Rio Virgin. According to Bolton's (1950:205) translation of Escalante:

...in a small plain and on the bank of the river, there were three small corn patches with their very well made irrigation ditches...From here downstream and on the mesas on either side for a long distance, according to what we learned, live Indians who sustain themselves by planting maize and calabashes, and who in their language are called the Parussi.

Their name and the place of their agricultural communities being retained long after they left the middle Virgin River reflect the importance of the Parussits people. In 1936 Tony Tillahash told Presnall (1936:5) that the river we now call the Virgin, was known as the Pa-roos, "white foaming water." The Paiutes living along the lower part of the stream, below the I-oo-goo-intsn, were known as the Pa-roos-itsn. Tillahash's oral testimony also documents a distinction between the Paroosits and the I-oo-goo-intsn (see *Ua'ayukunants* discussion below). The relationship between agricultural communities on the middle and upper Virgin River cannot be established at this time because they largely disappeared by the mid-1850s, probably due to diseases. Still, agricultural communities did exist and it is suggested that the Parooits were a local group within the Shivwits/Santa Clara rather than within the *Ua'ayukunants* district. The Hurricane Cliffs is a formidable geological feature (see photo 2.1) that probably serves as a social-political divisional as well as an ecological boundary.

The Shivwits/Santa Clara people rebelled against Mormon domination but were forced to take refuge south of the Colorado River amongst the Northeastern Pai. About two-dozen Shivwits warriors fought beside the Pai in the Hualapai War of 1866-1869 (Dobyns and Euler 1970: 38; Dobyns and Euler 1971:18). Later these Shivwits/Santa Clara people returned to the north side of the Colorado River, but they remained culturally conservative in what might be called a *region of refuge* (Aguirre Beltran 1973) on the Shivwits Plateau. There they managed to make a meager living farming around springs, hunting and collecting in the upland portion of their traditional territory until a Mormon cattleman also acquired this portion of their land. The cattleman had sufficient political power to obtain Federal appropriations to purchase land on the upper portion of the Santa Clara River to relocate the refugee Shivwits/Santa Clara people. There their children attended an English language school, and were exposed to numerous Euroamerican influences, including more lethal germs. Close to St. George, the Shivwits reservation became the wageworkers' bedroom community, although the people farmed all the lands they could reach with their irrigation water allocation from the Santa Clara River. The Shivwits reservation attracted many Paiute people and became the home of famous Paiute leaders such as Uncle Sam, (pronounced Sham) after whom the reservation is nicknamed, and Tony Tillahash (who was born at Kaibab).

Today, the Shivwits/Santa Clara people are administratively united with four other Southern Paiute bands into the Paiute Indian Tribe of Utah (PITU). PITU was created by a 1980 Act of Congress, which accorded re-recognition to diverse small enclaves whose trust relationship with the Federal government had been terminated in 1954. The 1980 Act defines five local groups as members: (1) Koosharem, (2) Kanosh, (3) Indian Peak, (4) Cedar City and (5) Shivwits. The five local components of PITU elect delegates to a council, and a chairman. These representatives speak for all five groups and are the point of consultation between any project and one of the five groups (see Chapter Three).

Kaibab Paiute District

The Kaibab Paiute people irrigated gardens of maize, beans, and squash near permanent water sources. They also hunted and collected the fauna available in their ecologically diverse territory. They had gardens along the Colorado River at 2,300 feet. In addition they roasted agave (*yaant*) along the upper edges of the canyon, hunted deer (*Tuhi*) in the mountains of the

Kaibab Plateau at 9,000 feet, and gathered hundreds of acres of sunflowers (*akump*) and Indian rice grass (*wa'iv*) in the sandy foothills below the Vermillion Cliffs. They utilized all of the ecological zones within their territory.

The aboriginal boundary of the Kaibab district seems to be approximately where Kelly's Paiute interviewees placed it. The southern boundary of the district was certainly the Colorado River, probably extending downstream (south and west) from the Paria River to just west of Kanab Creek. Kelly's interviewees placed the northern boundary along the Pink Cliffs near the Paunsaugunt Plateau at the divide between the northern Colorado Plateau and the Great Basin. The western boundary, which incorporated both branches of the upper Virgin River, was marked with a dotted line indicating this boundary was probably unknown. Here, in this western-most portion of the Kaibab district lies a discussion about a missing Paiute district with a core oasis on the upper Virgin River (see *Ua'ayukunants* district discussion below).

The people of the Kaibab district lost access to these many portions of this ecological zone because of various types of intrusions, beginning in the early 1860s. Euler (1972), Stoffle and Evans (1976), and Turner (1985) provide detailed accounts of social, cultural, and ecological impacts of planned Mormon settlements, unregulated mining, and tens of thousands of cattle, sheep, and horses. Despite these intrusions and facing the loss of all but a fraction of their original population, the Kaibab Paiute people continued to reject Federal efforts to move them to distant reservations in Utah and Nevada. In 1907 the Mormon Church reserved a portion of the water from one of their larger artesian springs. In 1909 the Federal government reserved a 12-by-18-mile portion of land near the spring. Yet, it was not until the U. S. Land Claims payment occurred in the early 1970s that sufficient resources were available to the Kaibab Paiute tribe to begin building the economic and service infrastructure needed to provide jobs and housing for most of the tribal members. Today, the tribe has a viable and mixed economy, sufficient housing for all tribal members, and a strong concern for preserving cultural resources that are located within traditional Southern Paiute territory.

San Juan Paiute District

The San Juan Southern Paiute district constitutes the eastern-most territorial unit of the Southern Paiute ethnic group. Like all Southern Paiutes, the San Juan share an affiliation with the ethnic self-term *nungwu* or *nungwuts*, which translates into English as "The People" (Stoffle and Dobyns 1983a: 165; Franklin and Bunte 1993b:4). *Payuts* or *Payuts(i)* (Franklin and Bunte 1993b:4; Bunte and Franklin 1987:41), which is the Southern Numic term for Paiute, and variants of this second ethnic-self term are also used by Paiute people (Franklin and Bunte 1993b:4).

San Juan Paiute people occupied, and continue to reside in, their portion of traditional Southern Paiute ethnic territory. The San Juan Paiute local territory extended roughly from the Colorado River in the west to Monument Valley and Kayenta in the east, and from the San Juan River in the north to the Moenkopi Plateau in the south (Kelly 1964:167; Stewart 1942:233). Like citizens of a state incorporated into a nation, the San Juan people were not limited in movement or resource use to their local territory. In fact, the strength of the Southern Paiute Nation derived from the control and redistribution through exchange of resources grown,

gathered, and stored in extremely different ecological zones. So, the San Juan Paiutes went beyond their local territory to harvest wild game and plant resources in places like House Rock Valley west of the Colorado River and the San Francisco Peaks to the south. These trips were carried out under reciprocal use agreements with other Southern Paiute territorial units and other American Indian ethnic groups. These reciprocal use agreements were negotiated and cemented through a number of sacred and secular ceremonies such as round-dance ceremonials (Bunte and Franklin 1987:19).

Today, these people are organized and Federally recognized as the San Juan Southern Paiute tribe, which has its headquarters in Tuba City, Arizona. As an officially recognized tribe - now four years old - they have participated in a variety of cultural resource studies, some of which have been sponsored by the National Park Service. Like other Southern Paiute groups, their official tribal cultural concerns generally reflect their aboriginal district boundaries.

Ua'ayukunants District

Current data and the social and ecological logic of Paiute districts suggest that there was once a Paiute district on the upper Virgin River, beginning at Hurricane Cliffs and extending to the upper watershed where both branches of the Virgin River begin. The oasis core for this district was at or near the junction of the north fork and east fork of the Virgin River. This is an area that still has evidence of irrigated farming by Indian people so it could have supported a series of oasis core villages. The name for the people of this area is presently being spelled *Ua'ayukunants*, but it was spelled by Palmer (1978:29-39) as *I-oo-goone* and Presnall (1936:5) as *I-oo-goo-nitsn*. The name literally refers to a "sandstone quiver," and according to Tony Tillahash refers to a "...nearly complete circle of white cliffs seen from Grafton, Utah which looks like a sack or arrow quiver" (Presnall 1936:4-5). While this name could have referred to a local group within the Kaibab district, it would be a unique situation for a local group to control a larger and more regular water source than that controlled by the core oasis group - the Kaibab Paiutes. Instead of the *Ua'ayukunants* being a marginal group within the Kaibab district, evidence suggests they were the core oasis for their own district.

Further evidence for the existence of a "missing" district in the upper Virgin River portion of the Kelly and Kelly/Fowler maps is the unusual characteristics of the Uinkaret district. These people have been considered as different from the Kaibab Paiutes and the Shivwits/Santa Clara people since Powell began interviews in the area in the 1870s. In the 1930s, Kelly's interviewees maintained that the Uinkaret people had their own territory or district. When Kelly and Fowler reconsidered the Southern Paiute district boundaries in the 1980s, they found no evidence that would downgrade the Uinkaret district to a region of another district. So the question is not whether the Uinkaret held district lands, it seems to be whether their lands were connected with some other lands which formed a larger and more socially and ecologically logical district.

The main social and ecological logic behind connecting the Uinkaret district with lands somewhere else is that, as currently defined by Kelly/Fowler, it lacks an oasis core. The Uinkaret district had access to Colorado River waters but at a section of the river where agriculture would have been difficult at best. There are some small springs in Uinkaret land but they are few and

high in elevation. The natural argument is that the Uinkaret oasis core lies along the upper Virgin River. In fact, Kelly's own map brings the Uinkaret district boundary to just below the Virgin River, and at this point she drew a dashed boundary line indicating uncertainty.

If the agricultural core of the *Ua'ayukunants* was located at the confluence of the two branches of the Virgin River, they were the external boundaries. The northern and southern boundaries are rather easy to establish. The Colorado River clearly established the southern boundary of this district, and we believe the northern boundary was the divide between the northern Colorado Plateau and the Great Basin. All other districts in Yanawant extend from north to south and stopped at the watershed between the northern Colorado Plateau and the Great Basin. In fact, even Kelly's district map for the Kaibab Paiutes marks this watershed boundary as a solid line, indicating her interviewees' confidence in it as a boundary.

A more basic question is where was the eastern boundary of the *Ua'ayukunants* district? Does the eastern boundary include the upland forest lands of the upper Virgin River or should these resources remain within the Kaibab district as Kelly concluded? By the early 1900s there was living with the Kaibab Paiutes a people called the red-cliff-base-people (*Un-ka-ka-ni-guts*), a band that formerly lived in Long Valley in the headwaters of the East Branch Virgin River (Kelly 1934:558, citing Sapir's unpublished notes). The people from this band were probably forced to move to Kaibab because:

In the late spring of 1871, 200 former Muddy River colonists united with other Mormon settlers and proceeded 300-strong to Long Valley. Advanced exploring parties had found 1,300 acres of tillable land and extensive ranges suitable for grazing (Arrington 1954:8). Their arrival resulted in land loss and population displacement (Stoffle and Evans 1978:11).

Powell and Ingalls (1874:42) estimated that 125 Paiutes resided in Long Valley in 1871, just before the Mormon immigrants arrived. By 1873, only 36 Paiutes remained in Long Valley. About two-thirds of the population was displaced to live with the Kaibab Paiutes. By receiving refugees from other areas/districts, the Kaibab Paiute became responsible to speak for the protection of these areas. Such admission of acquired territorial responsibility, however, did not necessarily imply that the red-cliff-base-people traditionally belonged within the district of the Kaibab Paiutes. Using the social and ecological logic presented in this report, aboriginally the upper watersheds of the Virgin River were within the territorial control of the *Ua'ayukunants* and the *Un-ka-ka-ni-guts* were a local band within that district.

The western boundary of the *Ua'ayukunants* district is shared with the Shivwits/Santa Clara district boundary. Much of this boundary has been "established" as the Hurricane Cliffs extending from the Colorado River and ending just before the Virgin River. The Hurricane Cliffs have a strong boundary logic that derives from being a 400 to 600 foot volcanic cliff, which is oriented north-to-south, and extends for a distance of almost 200 miles. For these reasons, among others discussed previously, we suggest that the entire western boundary of the *Ua'ayukunants* district is defined by the Hurricane Cliffs.

The question remains -- why did the *Ua'ayukunants* district go unrecognized by previous students of Paiute culture? There are probably four reasons for this. First, living in a riverine oasis, the people of the upper Virgin River must have experienced devastating impacts from diseases; perhaps they were impacted by the smallpox epidemic that hit on the Santa Clara River in 1826 and likely they were hit by the 1840 disease episodes. Interviews conducted as part of this study (see Chapter 5) reveal oral accounts of massive deaths among the people of the upper Virgin River. Second, it was one of the earliest places of Euroamerican settlement, beginning here in 1859, and there simply were not enough Indian people living in the core oasis to defend it from encroachment. The *Un-ka-ka-ni-guts* (red-cliff-base-people) was the last band to be forced out of the upper Virgin River in 1871. Third, when *Ua'ayukunants* people were interviewed in the 1870s, they still defined the southern forest uplands of the Colorado Plateau as their own; only they used the upland term *Uinkaret* for themselves and the remnants of their district. Fourth, when loggers (1880s) and cattlemen (1890s) encroached upon the Uinkaret district, the last Uinkaret people left the *Ua'ayukunants*. According to Paiute elder interviews, some Uinkaret people went to live with Shivwits/Santa Clara relatives and others went to live with the Kaibab Paiutes. So when Kelly interviewed at Kaibab in the 1930s, she talked with people who only remembered that their families lived in the Uinkaret uplands of the *Ua'ayukunants* district.

Summary

The Southern Paiute people continue to maintain a strong attachment to the holy lands of their ethnic group as well as to their own local territory. These attachments continued even though Paiute sovereignty has been lost over portions of these lands due to Navajo ethnic group expansion, encroachment by Euroamericans, and Federal government legislation. Despite the loss of Paiute sovereignty over most traditional lands, Southern Paiute people continue to affiliate themselves with these places as symbols of their common ethnic identity. Additionally, all Southern Paiute people continue to perform traditional ceremonies along with the menarche and first childbirth rites of passage rituals. The locations at which these ceremonies and rituals have been or are currently performed become transformed from secular "sites" to highly sacred locations or places. By virtue of the transformation of locations into sacred places, Southern Paiute people reaffirm their ties to traditional lands because they have carried out their sacred responsibilities as given to them by the Creator. Southern Paiutes can be characterized as a "persistent people" (Spicer 1971) with a persistent cultural system (Bunte and Franklin 1987; Stoffle and Dobyns 1983; Stoffle and Evans 1976; Stoffle et al. 1982; Turner 1985; Turner and Euler 1983).

Kelly and Fowler (1986) identified sixteen Southern Paiute "groups." Their term "group" corresponds to the term "district" used in this report, though the data suggests some modifications to the list of groups developed by Kelly and Fowler. New data, some of which is presented in this ecosystem analysis, suggest that three additional districts should be added to Kelly and Fowler's list. These include (1) the Pahvants as the northernmost Southern Paiute district (Halmo, Stoffle, and Evans 1993), (2) the Ash Meadows/Pahrump Southern Paiutes as the western-most district (Stoffle, Olmsted, and Evans 1990), and (3) the *Ua'ayukunants/Uinkaret* Southern Paiutes. With these modifications, the list of a dozen districts comprising the Southern Paiute nation would include the following:

Paranayi Subtribe

Ash Meadows/Pahrump district
 Chemehuevi district
 Las Vegas district
 Moapa/Pahranagat district

Yanawant Subtribe

Shivwits/Santa Clara district
 Ua'ayukunants/Uinkaret district
 Kaibab district
 Kaiparowits district
 Antarianunts district
 Panguitch district
 Cedar City/Indian Peaks district
 San Juan district
 Pahvant (Beaver) district

The Eastern Yanawants

In this next section we examine fundamental disruptions occurring in the eastern portion of the Yanawant Region, which consists of the San Juan, Kaibab, and Kaiparowits districts. This analysis is based upon historical documents including traveler accounts, personal journals, historical maps, census materials, and geological and geographic documents. We begin this analysis with an investigation of the Spanish Trail, which played a particularly significant role in altering the landscape as well as the lives of the Southern Paiute people living in the districts of San Juan, Kaibab, and Kaiparowits.

Pipelines of Disruption

Perhaps one of the greatest ironies underscoring the official histories of the Eastern Yanowant portion of the Southern Paiute Nation is the belief that the lands within this locale comprised some of the most isolated and buffered regions within the southwest. Underlying this idea is the presumption that the indigenous people of San Juan, Kaibab, and Kaiparowits were largely immune to the impacts of Spanish, French, and American expansionism until after the middle of the eighteenth century. Such accounts generally note brief but allegedly non-significant encounters between certain Southern Paiute people of the Yanawant territories and members of Escalante's expedition of 1776 or those who traveled along portions of the Old Spanish trail during the early 1800s (Euler 1972:11).

Histories founded upon late-contact theories fail to acknowledge the way in which the Old Spanish Trail, Escalante's Route, and Armijo's Trail acted as pipelines which did more than simply forge connections between the Spanish outposts in Santa Fe and Abiquiu, New Mexico and California. In addition to providing routes circuiting through and around the Eastern Yanawant region of the Southern Paiute Nation, these trails acted as pipelines through which

Spanish, American, and French people, material culture, ideologies, and diseases spread (Sanchez 1997:119). In addition, though the Spanish Trail and Escalante's Route became increasingly active after Escalante and his party traveled through Eastern Yanawant territories in 1776, traffic into the eastern portion of the Paiute Nation occurred prior to Escalante's expedition.

The Old Spanish trail consisted of a series of Indian trails that came under heavy use by Spanish explorers and traders after the establishment of settlements in Santa Fe and Abiquiu. Hafen and Hafen (1993:11) note that Indians frequently guided the early Spanish travelers through their lands, thus confirming knowledge and familiarity on the part of the guides, and geographical and ecological nescience on the part of the early Spanish explorers.

The Spanish used the Old Spanish Trail to accomplish two primary agendas. First, they sought to increase their wealth through the development of commercial trade, and secondly they desired to develop routes that would connect the people in Santa Fe and Abiquiu with the distant Spanish outposts in California. In addition to providing a route that was heavily used by travelers whose commercial interests were frequently pursued without regard to the needs and desires of those who had lived in the Eastern Yanawant regions for thousands of years, the Old Spanish Trail worked as a conduit for disease dispersal.

1625-1830

During the 1600s, caravans were regularly organized to transport people and goods from Mexico City to Northern New Spain and the capital at Santa Fe, which along with Abiquiu served as the eastern terminus of the Old Spanish Trail. Archival documents confirm the presence of disease among the people traveling in mission caravans from the northern outpost of Santa Fe as early as 1625. According to Reff (1991:167),

The mission caravan that was assembled or passed through Aacatecas early in 1625 (Sholes 1930:94) may very well have brought the (smallpox) epidemic to New Mexico. Like their commercial counterparts, the mission caravans were escorted by a detachment of soldiers and consisted of thirty or more wagons, each which carried close to 4,000 pounds of goods. A large herd of cattle, draft animals, and mules accompanied each caravan, as did settlers, traders, missionaries, and others bound for the north (Moorhead 1958:33). Significantly, the contract for the mission caravan of 1625 indicated that 900 pesos were spent on medicine and drugs. This is a substantial amount, given that the entire cost of the caravan was a little over 18,000 . . . (Hodge et. all 1945:109-24). The contract [also included] . . . four-dozen hens for those who may be sick during the journey (Scholes 1930:102).

Upon arrival to Santa Fe, the transmission of disease, material culture, and people followed routes of trade that branched out into a number of directions. Through the Old Spanish trail, Escalante's Route, and Armijo's trail, the impacts of Spanish invasion manifested in certain areas within the eastern regions of the Southern Paiute Nation.

The development of commercial interests beyond Santa Fe was particularly attractive to many of its residents. Established as the second capital of New Mexico by decree of the Spanish crown in 1609, Santa Fe remained a fairly impoverished outpost in the hinterlands of the Spanish Empire. Over the first several decades the population of Spaniards residing in Santa Fe rose from several hundred to more than a thousand. However, increased wealth was not concomitant with increased size. Bannon (1974:41) notes that the residents of Santa Fe "were never very prosperous".

In the absence of local wealth, traders and trappers residing in Santa Fe began turning in larger numbers to the possibility of accumulating wealth beyond the territory they had previously usurped from local indigenous groups. While the possibility of accruing wealth through trade was alluring, it was not without risk. During the Spanish period, the crown sought to control trade as closely as possible in order to maximize its own profits. Middlemen *empresarios* were appointed to oversee the activities in the Spanish colonies, and thus ensure profits for the crown. As the *empresarios* were not paid for their services, they were in the unique position of trying to police the trading enterprises of others while simultaneously turning a profit for themselves. As late as 1809, many of the people who tried to open trade "were not only repulsed, but imprisoned" (Hafen and Hafen 1993:91).

Despite restrictions, Santa Fe developed into an active center of trading. Many indigenous people within and outside the region officially designated as the territory of New Spain began to circulate Spanish material goods through elaborate networks of trade. After 1700 Indians in regions as far as the Dakotas and Montana had acquired Spanish horses and material goods through such channels of commerce. Through a similar chain of exchanges it is probably that the Southern Paiutes of San Juan, Kaibab, and Kaiparowits first came into contact with the material culture as well as the viruses and bacteria carried by the New Mexican Spaniards. From Santa Fe and Abiquiu, the Old Spanish Trail, Escalante's Route and Armijo's Trail passed into portions of the Eastern Yanawant territories of the Southern Paiute Nation.

The exact dates of the earliest contacts between people of San Juan, Kaibab, and Kaiparowits and the Spaniards are unknown. Reff (1991:276) however, has verified that in the seventeenth century, virgin soil epidemics, and diseases had already radically reduced Hopi populations with whom certain Southern Paiute people were known to have contact (Hafen and Hafen 1993:59) and engage in trade (Euler 1973:16). "The Franciscan historian Vetarcurt (1961:276) noted in his *Chronica*, which was completed in circa 1690 that the Hopi numbered more than 14,000 and that this number had been greatly reduced by disease prior to missionization" (cited in Reff 1991:167).

A traditional Indian route connecting Hotevilla, Bacabi, and Oraibi with the settlements in northwestern New Mexico could have further catalyzed the exchange of material goods and disease that would later permeate into the Eastern portions of Yanawant Territories (Ortiz 1983: 719). The primary route from the Hopi mesas to New Mexico crossed the Chinle Wash as well as the San Juan River, where it is conceivable that trade with Paiutes, Utes, and Navajos may have occurred.

Hopi individuals were also known to attend trade fairs in Taos, Abiquiu, and Pima. At these fairs "Trade caravans from Mexico . . . came to obtain native products - hides, jerked meat, salt, horses and slaves" (Ortiz 1983: 719). Those who had experienced radical depopulation due to disease would have congregated with travelers at the terminus of the Old Spanish trail, from whence further trading activities into Eastern Yanawant territories frequently commenced.

In addition to participating in trade fairs which would catalyze the exchange of material goods, the Hopi were known to establish certain trade partnerships through the exchange of presents and a symbolic performance with entailed "put[ting] their arms around one another and mutually inhaling each others breath" (Beaglehole 1937:84 cited in Ortiz 1983: 718). In the presence of disease, such customs would have proven lethal.

By 1775, relations between Hopis and Spaniards had soured considerably. While preparing for his expedition in 1775, Escalante met with Moquis who "were sullen [because] they had had more than enough contact with Spaniards" (Hafen and Hafen 1993: 59). Fearing retribution on the part of the Hopis, Escalante and his party decided to avoid travel through Hopi and Apache territories. In 1776, they began a journey in which they mapped and recorded their observations upon Indian trails that "closely follow[ed] the modern Highway U.S. 84 from Santa Fe to the Colorado border and U.S highway 160 beyond" (Hafen and Hafen 1993: 70). After circuiting through Ute lands as far west as Milford, Escalante, Dominguez and their company circled back to Santa Fe upon a route going "southward into the "Arizona Strip"; turned east, skirted the Kaibab Plateau, and forded the Colorado River at the "Crossing of the Fathers" (Hafen and Hafen 1993:72).

Escalante's party chose a route through the Kaibab region of the Eastern Yanawant territory that entailed journeying through Kanab toward the Paria River and The Crossing of the Fathers. Prior to arriving in Kanab, they traveled from Hurricane Wash towards Bull Rush Wash where they arrived on October 20. Soon afterwards, they arrived at a permanent settlement of Southern Paiutes, with whom they traded cloth and spent the night (Sanchez 1997:76).

While travelling through the northern stretch of the Kaibab Plateau, they met up with many Southern Paiutes (Euler 1972:16). The people whom Escalante and his party encountered were skilled in agriculture and medicine. They typically owned and occupied lands near perennial streams, and frequently lived in small settlements, which allowed them to meet their physical needs without overtaxing the resources of their environment.

At the settlement east of the present town of Kanab, some Kaibab Southern Paiutes fed the explorers and also practiced traditional healing methods upon one of the ailing travelers, Don Bernardo Miera y Pacheco. It is interesting to note that the Catholic missionaries permitted a Southern Paiute medicine man to use "songs and ceremonies" in order to elicit a cure (Euler 1972: 16). Considering the orthodox views held by the Escalante and Dominguez, it is probable that Don Bernardo was seriously ill at the time he came into contact with the this Kaibab Paiute group. Were he not, it is improbable that these missionaries would have allowed a Paiute medicine man to practice his healing arts upon a fellow Christian traveler.

Though Escalante does not specify the type of illness from which Don Bernardo suffered, it is conceivable that he may have infected the Southern Paiute people with whom he had contact. Sanchez (1997:61) notes that other members of the Escalante party had also suffered from "headaches, colds, fevers, and exhaustion", thus confirming that the party was carrying germs against which the people whom they came into contact may have had no immunity.

Over the next two and a half weeks, Escalante and his party traversed lands within the eastern portion of the Yanawant territory. Upon arriving at the conjunction of the Paria River and the Colorado, they sought a way to cross the Colorado. After many failed attempts, they finally found a means of crossing the Colorado River at the Crossing of the Fathers, from whence they resumed their journey back to New Mexico.

Though illicit trading activities between Spaniards and indigenous people had occurred prior to Escalante's expedition, a second wave of illicit trading quickly ensued after Escalante and his party returned to Santa Fe. Both the publicity of Escalante's journey and his detailed accounts of the land through which he traveled may have made Escalante's route particularly appealing.

The illegal trading activities frequently centered on the enslavement of individuals who were often captured by Utes and taken to trading centers in Santa Fe and Abiquiu. After 1776, a rash of illicit trading was noted amongst the citizens of Santa Fe and Abiquiu. Among the offenders was a "group of Abiquiu citizens (who) were sued for having traded with the Utes (in 1783)" (Hafen and Hafen 1993:262). By September 13, 1778 Spanish officials issued a *bando* that legally "prohibit(ed) settlers and Christianized Indians from visiting the Utes for trade and barter" (Hafen and Hafen 1993:262, Sanchez 1997:91).

Despite these official edicts, a large and seemingly uncontrolled circuit of illegal trading between Spaniards and particular Indian groups continued, and by the early 1780s trade between the Utes and Spaniards was reportedly flourishing (Sanchez 1997:93). This is evidenced in a series of accounts that enumerate the repeated violation of commercial prohibitions. Vincente Serva and Cristoval Lovata are but two of the traders who were brought to trial for ignoring the *bando* that prohibited commercial trade (Hafen and Hafen 1993:262).

It is probable that some of the people of the Eastern Yanawant region experienced changes concomitant with Spanish conquest several decades before the 1778 *bandos* were enacted. According to Hafen and Hafen (1993) trade relations between Utes and Spaniards were well established by the early 18th century. They note that "trade relations had been established some years before the [1680 Pueblo Revolt] uprising." In addition Sanchez (1997:28) observes that the Spanish had been traveling into portions of the Great Basin to trade with the Utes since the time of Juan de Rivera's explorations in 1765. Moreover some of the men on Escalante's expedition of 1776 were already fluent enough to converse with the Utes whom they encountered upon their travels.

The trading between Utes and Spaniards frequently entailed the exchange of "buckskin, dried meat, furs, and slaves to barter for horses, knives and blankets (Hafen and Hafen 1993:84). In addition "knives, corn, tobacco, horses, flour awls" (Sanchez 1997:97) were often used as

items of exchange. Though much trade was conducted in Santa Fe, many traders went directly into Eastern Yanawant in order to increase their wealth. Hafen and Hafen (1993:267) note "the evidence is clear that the Indians, at least as far as the Sevier River of Central Utah, were acquainted with the Spaniards and were accustomed to trade with them as early as 1813".

After Mexico declared independence from Spain in 1821, "many of the Old Spanish *bandos* were only weakly enforced, and New Mexicans continued to go to the Yuta country" (Sanchez 1997). Hafen and Hafen (1993:92-3) suggest that Mexican Independence opened a new era in the southwest. The Old Spanish Trail... was in a sense, an extension of the earlier Santa Fe Trail [that was soon to be pushed to Los Angeles] . . . but more important in effecting the completion of the Old Spanish Trail was the fur trade".

The next major phase of intrusion into Eastern Yanawant territories began with the commercial ventures of Antonio Armijo. Begun in 1829, his story signals a new phase of activities that centered around the development of a route which succeeded in linking the distant settlements of New Mexico and California through the southerly portions of the Eastern Yanawant territories.

1829-1848

The people living in the Eastern Yanawant region experienced a second wave of radical change through the legalization of Spanish trade along trails that encroached upon their territories. This phase of activity gained it impetus through the travels of Antonio Armijo that began in 1829. Unlike earlier trading activities along the Old Spanish Trail, the state sanctioned the explorations of Armijo and his party. In 1829 the people of this expedition set out from Abiquiu, New Mexico with the intention of establishing a viable trade route from Abiquiu, New Mexico to Los Angeles, California. Rather than following The Old Spanish Trail or the Escalante route, Armijo and his party sought a more direct passage across the southern borders of the present day GS/ENM. Like Escalante, Armijo chose a route that involved traversing the Colorado River at the Crossing of the Fathers and following a west bound trail towards the present day settlement of Kanab.

Though the primary purpose of Armijo's expedition was to develop a commercial connection between Abiquiu and Los Angeles, other agendas were pursued as well. In addition to establishing a trading route between these distant settlements and promoting commercial interests, the *empresarios* used this journey as a scoping mission wherein they "note(d) the various products that the territory of the Mexican Republic possess(ed) in this region . . . [Through their observations they determined] that there exist(ed) suitable locations for establishing new villages and that in the hills there appear(ed) variously colored rocks or veins resembling minerals, some of the said hills having the shape of elevated butas without forest or grass land, streaked with veins or rock strata" (Hafen and Hafen 1993:156-7).

The trade route followed by Armijo and his party was not totally unknown to people living in New Mexico. "Much of the territory northwest of New Mexico had long been familiar to the Spaniards who, in seeking furs and Indian slaves, had followed the trails leading northwest into the country of the Utes" (Hafen and Hafen 1993:155-6). As the Spanish Crown did not

sanction many of these operations, few trappers and traders kept extensive records of their activities. Despite a relative dearth of information regarding parts of Eastern Yanawant territories, Armijo's party was able to glean some information from the records taken by Jed Smith during his 1826 and 1827 journeys. It is probable that Armijo's party gathered information from other trapper's journals as well. In addition, they employed Navajo guides to serve the dual purpose of leading them through unfamiliar territories and providing protection from attacks by certain Indians living in the areas through which they traversed.

The journey of Armijo and his 30 men is described in a newspaper article from Santa Fe, New Mexico dated April 28, 1830. The author notes, "The gentiles of the *Payuche* [Paiute] Nation inhabit the vicinity of the above mentioned river [the Colorado River]. Their living quarters are *jacales* [huts], and they live on grass seeds, hares and rabbits, using the skins of the latter to cover a small part of their body. There follow various other nations inhabiting these lands: the Narices Agujeradas (Pierced Noses) . . . the Garroteras, dexterous in handling a four-edged garrote (stick); the Ayatas dressed in buckskin . . . (who) cultivate fields . . . (and) dress . . . like the preceding ones" (Hafen and Hafen 1993:157). The Spanish word *Ayata* derives from *ayote*, which means pumpkin or squash, thus indicating the centrality of agriculture within this community. The newspaper account goes on to state that "None of the above mentioned nations attacked the travelers" and some fled when Armijo and his men approached (Hafen and Hafen 1993:157).

The defensive posturing of some of the people whom Armijo and his party met indicates that prior to their arrival in 1829, other travelers had entered into their lands and proven themselves unworthy of their trust. It is probable that the many of the nations who encountered Armijo and his company were familiar with the illicit trading operations practiced before 1829 (Hafen and Hafen 1993). Under such conditions, reservation on the part of the groups whom Armijo encountered suggests an adaptive strategy aimed at preservation.

Under the lead of a Navajo guide, Armijo and his party traversed the Colorado River at the Crossing of the Fathers after which they took a westbound trail that crossed the Paria River and continued west towards Kanab. On the thirtieth of November 1829 they met three Indians "at the water hole of the Payuches (Paiutes). No trouble ensued, and it was necessary to scale a canyon . . ." (Hafen and Hafen 1993:160). On December 1, 1829 they arrived at the lake of Las Milpitas (The Little Corn Patches) before working their way down a canyon (Hafen and Hafen 1993:160).

Eight days later (December 8, 1829) they stayed at Blanco (White) Canyon where they noted a permanent water supply. The following day they arrived at the artenejal of Ceja Colorado (Red Ridge) where they found another settlement of Payuches (Paiutes). The Red Ridge described by Armijo is "near present Wahweap Canyon . . . (and) the Paria Creek" (Sanchez 1997:105).

Armijo described the group of Southern Paiutes whom he met as a "gentle and cowardly nation" (Hafen and Hafen 1993:163), once more reaffirming the likelihood that these individuals had already encountered Spanish and/or Anglo travelers under conditions that were disadvantageous to the welfare of the Southern Paiute people. In addition, Armijo uses the word

'Nation' to describe the group of Southern Paiutes whom he encountered. His wording suggests that rather than meeting with a small number of Southern Paiute individuals, Armijo encountered a sizeable group of people who displayed both social organization and group cohesiveness.

On the 19th of December 1829, Armijo and his party stopped at Stinking Water Canyon where they found another permanent supply of water. This may be the site identified by Kelly's consultants as Piki-pa or Rotten Water (47) (Kelly 1971:9). A day later, Armijo and his company arrived at the Severo (Sevier) River, and on the 23rd of December 1829, they arrived at Calabacillas (Little Wild Squash) Arroyo, a name that strongly suggests the presence of indigenous agricultural activities (Hafen and Hafen 1993:163).

After reaching the Calabacillas Arroyo, the expedition continued along trails that are beyond the scope of the present study. However, two factors relating to the remainder of Armijo's expedition deserve mention. First, the latter groups of Paiutes, Hayatas, and Moquis whom Armijo and his men encountered all reportedly displayed a gentleness that was interpreted as weak behavior, thus suggesting that the exploitation of these groups through the slave trade was quite pervasive. Secondly, the agricultural and trading activities of the groups whom Armijo's party encountered were only peripherally recognized while their organization, knowledge, and connections to the lands that accrued through these activities even less fully acknowledged.

Though the residents of the GS/ENM were partially protected from the exploitive plans of the Spaniards and Anglos through the geographic remoteness and ruggedness of the desert landscape comprising the GS/ENM, they were not untouched by the processes of change resulting from Spanish and Anglo encroachment. In addition to the importation of virgin epidemic diseases and the slave trade, the Southern Paiutes of the GS/ENM had to contend with Navajo raiding parties. According to Gregory (1950:17) "Navajo hunting parties from across the Colorado frequently visited the Paunsaugunt region in search of pelts and doubtlessly molested the "few" resident Piutes".

After Antonio Armijo conducted his expedition, the state officially sanctioned commercial trade between the settlements of New Mexico and California. "Armijo's route quickly became the favored route to California for the next twenty years, as New Mexicans used it as a trade and immigration trail to the west coast" (Sanchez 1997:104). Both legal trading and illicit trading continued on with little abatement. The ineffectual efforts on the part of Spanish officials to enforce their *bandos* indicate that a state of relative lawlessness pervaded the Spanish outposts. In addition, the government either lacked the strength or the support to uphold the laws of the land.

Though it has yet to be confirmed, it is possible that the exchange of cloth between the distant posts of Santa Fe and Los Angeles also catalyzed the spread of disease. The legalized trade route that opened as a result of Armijo and his party's efforts centered the exchange of "blankets and other trade goods . . . [which they] hoped to barter for mules in California" (Sanchez 1997:104). According to Reff (1991:123):

"Spaniards, Indians, and slaves (are) not the only disease vectors. Textiles, particularly cotton, can . . . harbor smallpox. Moreover, there is some evidence that the measles and influenza viruses can be transmitted in textiles (May 1958). Reff (1991) also notes that, "cotton, wool, and cloth of varying quality and manufacture were imported in large quantities by the Jesuits (Polzer 1972:234-39) and the Franciscans (Scholes 1930:100,187)".

When one considers the primacy of cloth exchange between Santa Fe and Los Angeles and the suitability of cloth for carrying disease, the idea of disease transmission through this legalized form of trade becomes highly plausible.

In 1830, heavy commercial traffic continued upon the Old Spanish Trail (Euler 1972:33). Heavy trading was also promulgated along the routes previously delineated by the Indian guides of such expeditions as those undertaken by Escalante and Armijo. In addition to serving as a probable disease vectors, trade along these routes resulted in the destruction of natural vegetation upon which certain Southern Paiute people depended upon for their survival. This destruction resulted from the movement of cattle and horses through regions wherein a delicate balance that had been previously established amongst the plants, animals, people and land was seriously disrupted.

As late as April of 1848, Brewerton witnessed a caravan traveling along the Old Spanish Trail. This procession consisted of:

"... Some two or three hundred Mexican traders who go once a year to the Californian coast with a supply of blankets and other articles of New Mexican manufacture; and having disposed of their goods, invest the proceeds in Californian mules and horses, which they drive back across the desert. These people often realize large profits as the animals purchased for a mere trifle on the coast, bring high prices in Santa Fe. This caravan had left had left *Pueblo de los Angeles* some time before us, and were consequently several days in advance of our party upon the trail- a circumstance that did us great injury, as their large *caballada* (containing nearly a thousand head) ate up or destroyed the grass and consumed the water at the few camping grounds upon the route" (cited in Hafen and Hafen 1993:192).

As a result of travel along the Old Spanish Trail, Armijo's Route, and Escalante's Route between 1829 and 1848, the land, vegetation, and health of Southern Paiutes living in the Eastern Yanawant Territories was detrimentally impacted. Southern Paiutes who had occupied these regions for thousands of years suddenly found that the land, vegetation, animals, and waters upon which their survival depended were being incrementally destroyed. The people who entered into portions of the Eastern Yanawant Territories during this time began to compete with Southern Paiutes for the use of limited resources. Next, Southern Paiutes were exposed to diseases to which they lacked immunity. Those who entered portions of the Eastern Yanawant Territories failed to recognize the legitimacy of lifestyles assumed by the indigenous groups whom they encountered. As a result, activities pursued by certain Spanish, New Mexican, and Anglo individuals and groups were given primacy over the needs of the Southern Paiutes living within the Eastern Yanawant Territories.

While the journeys of many traders have been forgotten, those of Escalante and Armijo have been remembered. This is due in large part to two factors. First, both Escalante and Armijo were encouraged to carefully record their observations of their journeys. In contrast, many of the traders and trappers who came before Escalante and Armijo acted without the approval of either government or church officials. It was in their best interests to keep themselves and their records relatively secret. Second, as both Escalante's and Armijo's journeys were officially sanctioned by state and church officials, it is probable that more effort went into preserving their records than might be expected of the records kept by private individuals.

1848-1858

The processes and events of the next decade represent a third phase of incursions by Spanish and Anglo groups upon the lives of indigenous groups living in the Eastern portion of the Yanawant Territories. This wave of events largely began with the signing of the Treaty of Guadalupe Higaldo in 1848, officially signaling the end of the war between the U.S. and Mexico. As a result of this treaty, the Mexican government ceded much of the territory the Spanish government had previously usurped from indigenous people, to the United States. In addition, the Rio Grande River became the southern boundary of Texas, and the areas which would become the territories of California, New Mexico, Arizona, Utah, Nevada, as well as portions of Colorado, Wyoming, Oklahoma, and Kansas came under U.S. dominion. Finally, the U.S. paid Mexico \$15 million while making \$3.25 million in claims against Mexico (Barrons 1993:10-39).

The second major change of this decade resulted from the Gold Rush of 1849. Previous Spanish and Mexican routes to California had either gone through or near the Eastern Yanawant Territory by means of the Spanish Trail, the Escalante Route, and Armijo's Trail. In contrast, the route of the Anglo American Forty-niners began in St. Louis, Missouri and continued west through Salt Lake City and down to Los Angeles upon a trail along the western side of the Wasatch Mountains. The viability of wagon travel along the Anglo trail of the Forty-niners was particularly important in shifting the primary flow of traffic away from the Eastern Yanawant territories towards a northern route that passed through Salt Lake City and continued on to California (Hafen and Hafen 1954).

Impacts of the Treaty of Guadalupe Higaldo

The Treaty of Guadalupe Higaldo signaled one of the first stages in a process that led to a shift in both governmental and regional powers within lands that included the Eastern Yanawant Territories. Prior to the enactment of Treaty of Guadalupe Higaldo and the arrival of the first Mormon settlers into the traditional lands of the Southern Paiutes, Utes, and neighboring tribes during the late 1840s, Santa Fe had acted as a dominant center of governmental, church, and mercantile power. The influence of Santa Fe influence spread through a network of trails linking areas as distant as Mexico City, St. Louis, and Los Angeles. However, once the US gained control of these territories and Mormons began to enter the lands of Southern Paiutes and Utes in increased numbers and frequency, dramatic restructuring of state, commercial, and religious powers began to occur in both rapid and incremental steps.

In addition to the modification of international boundaries effected through the Treaty of Guadalupe Higaldo, the newly established theocratic state of Deseret began to alter the form of its institutions as well as its relations to federal powers. This process began with the development of a strong centralized governmental and church body politic headquartered in Salt Lake City. "The Mormons envisioned their own theocratic state as combining both secular and sacred functions" (Holt 1992:24). Moreover, "All things merged in the church. It was the legislative, judicial, and executive body operating through its delegated ministry. It embraced all things, secular and civil" (Evans 1938:94 cited in Holt 1992:24).

When Mormon pioneers began arriving in Salt Lake Valley in 1847, they came with the intention of establishing a Holy Land whose boundaries would encompass all of the lands within the Great Basin. Though the Great Basin constituted the homelands of many indigenous groups and was also claimed as part of the Mexican territories at the time the Mormon settlement, leaders of the church "intended to claim the area for the United States and petition for statehood" (Arrington 1958:41). Upon arriving in the Salt Lake Valley they planted an American flag, and in July of 1848, "church officials in Kanesville . . . petitioned Congress for a Mormon territorial government" (JH, October 10, 1848 cited in Arrington 1948:42).

The Mormons' desire for political recognition revealed itself again in 1849 when leaders of Deseret petitioned the U.S. federal government for statehood. In this petition, the Mormon officials laid claim to all of lands within the Great Basin. Soon after submitting their request their petition was denied. However, in 1850 members of the U.S. Congress chose to recognize a considerably smaller version of Deseret, which constituted the territory of Utah. This territory included the lands that would later become "western Colorado, Utah, and Nevada, with the forty-second parallel as the northern boundary and the thirty-seventh as the southern boundary" (May 1987).

The Mormons also sought to augment their authority at a regional level. In order to accomplish this goal, they needed to increase their control over trading routes that entered into the Eastern Yanawant territories from Santa Fe and Abiquiu. For over a century Spanish and New Mexican traders held a virtual hegemony over trading activities within areas that included the Eastern Yanawant Territories. When Mormons first arrived in the Great Basin, lucrative networks of commerce between Santa Fe and Abiquiu traders and neighboring Utes were already well established. Many of these commercial networks involved trade relations with Ute parties who regularly entered into portions of the Eastern Yanawant lands in order to procure resources or capture individuals to be sold into slavery.

In the late 1840s Mormon pioneers who had begun to colonize areas within the Great Basin began challenging commercial dominance over regions that included the Eastern Yanawant Territories. Sanchez (1997:130) notes that "Two events hastened the end to the New Mexican dominance of the Yuta trade: the settlement of Utah by the Mormons and the Mexican War of 1846". As a result of the 1848 treaty as well as legislation passed in the newly established state of Deseret between 1851 and 1855, trade within the Eastern Yanawant Territories as well as commercial markets linking the Eastern Yanawant Territories to the territories of New Mexico and California underwent significant alterations.

After the signing of the Treaty of Guadalupe Higoaldo in 1848, Mormon leaders began to pass legislation aimed at systematically curtailing the trading practices of New Mexicans within the Eastern Yanawant and Ute territories. One of the primary means of controlling trade in the newly decreed state of Deseret entailed the prohibition of slave trade from Santa Fe and Abiquiu along portions of the traditional trade routes of the Old Spanish Trail, Escalante's Route, and Armijo's trail.

Between 1851 and 1855, Deseret courts passed a series of laws prohibiting Indian slave trade (Sanchez 1997:132). As slaves were regularly procured through Utes or through the direct capture of indigenous people living in the Eastern Yanawant territories and surrounding vicinities, these restrictions held the potential to undermine one source of encroachment which certain Southern Paiutes and neighboring tribes encountered on a regular basis.

In 1851 and 1852, New Mexican trading parties were brought to trial in Deseret courts, and summarily denied license to trade with the Utes for Indian slaves. Though the New Mexicans had licenses issued by New Mexican officials, the acting governor of the newly formulated territory of Utah, Brigham Young, did not recognize these as valid. According to a report issued by the Mormon Judge Zerubbabel Snow of the First District Court:

"In September last, twenty-eight Spaniards left New Mexico on a trading expedition with the Utah Indians . . . they sent some five or six of their leading men to see Governor Young, and exhibited to him their license; and as the Spanish witness said that if it was not good here, then to get from him another license. Governor Young not being at home, but gone south, they proceeded after and found him November 3rd at Sanpete Valley. Here they exhibited to the Governor their license, and informed him they wished to sell their horses and mules to the Utah Indians, and buy Indian children to be taken to New Mexico. Governor Young then informed them that their license did not authorize them to trade with the Indians in Utah. They then sought one from him, but he refused it, for the reason that they wanted to buy Indian children for slaves" (cited in Sanchez 1997:131).

In this 1851 case Pedro Leon and his seven men were denied permission to trade slaves, and in 1852 Jose Maria Chaves reportedly met with similar responses (Sanchez 1997:131). In both cases the captured individuals were freed, and the slave traders returned to New Mexico. However, despite new restrictions on slave trading in the eastern portions of Yanawant and Ute territories, slave trading did not abate. In 1853, New Mexican traders led by an Anglo known as Dr. C.A.W. Bowman reportedly began to "openly trade weapons and provoke Indian hostilities towards Mormon settlers" (Jones 2000:8). In response to these actions Brigham Young issued a proclamation on April 23, 1853 in which he stated:

"Whereas it is made known to me by reliable information, from affidavits, and various sources, that there is in this Territory a horde of Mexicans, or outlandish men, who are infesting the settlements, stirring up the Indians to make aggressions upon the inhabitants, and who are also furnishing the Indians with guns, ammunition, etc., contrary to the laws of this Territory and the laws of the United States . . . The office and party hereby sent upon this service are authorized and directed to arrest and keep in close custody every strolling Mexican party, and those associated with them . . . (Moreover) all Mexican(s)

now in the Territory are required to remain quiet in the settlement and not attempt to leave under any consideration" (cited in Sanchez 1997:132).

Though this proclamation and the series of laws passed between 1851-1855 did not eliminate slave trading, the control which New Mexican traders had previously exercised over the Eastern Yanawant and Ute territories was called into question and partially altered as a result of these measures.

After 1853, much of the slave trading between Utes and New Mexicans went underground. In addition, when the legalized slave trade of Indians was prohibited in the newly established state of Deseret, New Mexican traders began to capture and sell individuals outside of the Eastern Yanawant Territories with greater frequency. The Navajos were particularly impacted by these practices. So pervasive was slave trading of captured Navajo people that in 1868 the Navajo Chief Barbocito claimed that over half of his tribe was in captivity (Jones 2000:32). In addition to turning to commercial trading in regions beyond the immediate jurisdiction of Deseret, some of the Utes of the newly established Utah Territory endeavored to develop their trading relations with the members of the Mormon community.

The Ute Chiefs, Wakara and Arapeen were amongst the Ute traders who exercised considerable control over those involved in trading within the Eastern Yanawant Territories before as well as after the signing of the 1848 Treaty of Guadalupe Higoaldo. Prior to the passage of anti-slavery legislation Wakara and his warriors monitored trade along the Old Spanish Trail and imposed tolls upon travelers. "John C. Fremont remembered meeting him and his entourage in 1844 'journeying slowly towards the Spanish Trail to levy their usual tribute upon the great California caravans . . . They conducted their depredations with form and under the color of trade and toll for passing through their country'" (cited in Jones 2000:46).

Even after anti-slavery legislation had been passed, Wakara continued to exercise considerable control over slave trading in the newly established territory of Utah. One manner of catalyzing slave trade with the Mormons entailed threatening to sell the captured Indian to either Mexican or Navajo markets, in which the Mormons believed the person in captivity would be abused (Jones 2000:47). The second form of inducement involved physically abusing captured persons in front of reluctant buyers. If sales could not be elicited, some traders were known to murder captured individuals on the spot.

Though many of the earliest Mormon pioneers came from states that did not practice slavery, they frequently found themselves confronted with the dilemma of either buying the captured Indians or witnessing the traders physically abuse or kill the people before their eyes. Under such circumstances some Mormons chose to buy people "out of slavery". In these cases the individuals whom they bought became indentured servants for periods "not to exceed twenty years" (Bancroft 1890:476). Frequently the people who were bought under such pretexts were children or women. In the case of children, they were raised with the Mormon families and inculcated with the value systems and beliefs of the people with whom they lived.

Upon reaching maturity, many of these individuals were in the unique situation of knowing more than one culture, but not being fully accepted into either. As a result, the slave

trade introduced a series of social problems that had not previously existed. In addition, slavery so radically depopulated certain Southern Paiute groups that "Garland Hurt, Utah Indian agent in 1860, reported that "scarcely one-half of the Pyeed-children are permitted to grow up in the band; and, a large majority of those being males, this and other causes are tending to depopulated their bands very rapidly" (cited in Jones 2000:47).

The collective and individual responses of Mormon towards slavery signaled a process of partial accommodation to an institution that was perceived as inherently wrong and conjoined to social problems with the potential to undermine the state of Deseret. "In a message to the legislature, dated Jan. 6, 1852, Young stated 'My own feelings are, that no property can or should be recognized as existing in slaves, either Indian or African' (Bancroft 1890:476).

In addition to expressed moral objections towards slave trading, this practice posed potential threats to the safety of the members of the Mormon Church. In particular, slave trading exacerbated tensions and warring amongst different indigenous groups. This practice also resulted in the importation of guns and ammunition into the Eastern Yanawant Territories and neighboring areas. In response to these activities and perceived threats Brigham Young and other members of Deseret passed legislation that dampened some of the trading along the trails of Eastern Yanawant territories.

Both legal and illicit commerce continued to inundate the Eastern Yanawant Territories by means of the Old Spanish Trail, Escalante's Route, and Armijo's Route until the late 1840s (*Californian*, December 29, 1847 cited in Hafen and Hafen 1993:191). In addition, a newly established route used by the Anglo 49ers passing through Salt Lake City began to burgeon with travelers intent on immigrating to the west and extracting wealth from the mines of California. As a result, the people of Eastern Yanawant as well as neighboring nations were confronted with a growing population increasingly intent on using their lands for travel, material gain, or settlement. Moreover, as the populations trafficking through the newly established state of Deseret increased, Young and his fellowship encountered a series of internal and external challenges with the potential to alternately assist or undermine church leaders' efforts to establish a growth-oriented and social cohesive church-state.

Impacts of the Forty-Niners' Route

In 1848 a deluge of prospectors and immigrants began circuiting through Salt Lake City before journeying down the western side of the Wasatch Mountains and continuing on to California. As many prospectors and immigrants used wagon transportation, the northern path of the Anglo Forty Niners quickly increased. In contrast to some portions of the Old Spanish Trail which were "never (considered) suitable for wagons" (Hafen and Hafen 1993:12), this northern route was relatively well suited for heavier cargos. In 1853 Senator Benton noted, "Wagons can now travel this route to California, and have done it. In the year 1837, two families named Sloover (Slover) and Pope, with their wagons and two Mexicans, went from Taos that way" (*New York Tribune*, March 16, 1853 cited in Hafen and Hafen 1993:198).

Along with a swelling migratory population along the 49er route, a steady stream of people continued to travel through portions of the Eastern Yanawant territories along the Old

Spanish Trail, Escalante's Route and Armijo's Route through the late 1840s. This collective surge of people upon both southern and northern routes catalyzed processes that led to the destruction of natural native vegetation as well as diminished access to land, water, and subsistence resources for certain members of the Paiute Nation. Moreover, Euro-American and Mexican American material culture and disease continued to reach Southern Paiutes and neighboring tribes via heavy travel along these routes. Finally, increased traffic along the 49er route led to capital gains for the Mormon Church that would later be used to colonize many regions within the Great Basin including some of the choicest areas within portions of the Eastern Yanawant Territories. As a result of the greater access and use of lands, which included portions of the Eastern Yanawant Territories, the lives of many Southern Paiute people living in areas that now comprise the GSE/NM were radically impacted.

Though the California trail was particularly active after 1848, travel along this route is generally credited to the explorer Father Garces who reportedly "discover[ed] and follow[ed] the course of the Mojave River thus making travel possible along the Old Spanish Route and the 49ers route through Salt Lake City to California [through Indian guided explorations begun in 1768] (Hafen and Hafen 1954:15).

With the mounting interest in prospecting and immigration, large groups of people began to travel upon the northern 49er Route. Hafen and Hafen (1954) report that the first train that journeyed to California by way of the southern trail from Salt Lake City started in "Kurdasville [?] Missouri River. It numbered 49 wagons, 300 men bearing arms and numerous women and children, cattle, etc. They started June 3, 1849, but did not reach Los Angeles until the January following" (Hafen and Hafen 1954:51).

A group of packers also appear to be amongst the first travelers to complete the trip from Salt Lake City to California. They reportedly passed a wagon train led by a paid guide, Jefferson Hunt. After passing this train "at Chicken Creek, Utah on October 8" they continued on to California. One of its members, Rancho del Chin, notes that th[ey] arriv[ed] on October 27-9, 1849. "These packers made fast time, enjoyed good health, but lost about thirty animals from the scarcity of water and grass" (Hafen and Hafen 1954:28).

Though travel along the Anglo 49er trail was easier than routes through the Eastern Yanawant Territories for those who journeyed by wagon, the trail nevertheless presented numerous obstacles. "There was a group called the Gruwell-Derr Company who did not want to pay a ten dollar fee for Hunt's guide services. They employed a Mexican guide and set out ahead of the main wagon train. Evidently the party endured great hardships. When their food was nearly exhausted a group of six men pushed ahead from Mountain Springs to the California settlements on foot, and returned with supplies. The Jefferson Hunt party caught up with the main body off this advance train on the Mojave River, found the members in a destitute condition, and contributed food for the starving women and children" (Hafen and Hafen 1954:30).

Growing numbers along the 49er trail created a series of obstacles as well as opportunities for the recently arrived Mormons living in the Salt Lake Valley. Though the Mormon leadership sought to cultivate degree of physical as well as ideological autonomy from

non-Mormon populations, prior to the Gold Rush of 1848 many of them lacked some of the basic material items they had come to rely upon before moving to Deseret. In response to a desire to supplement their material needs in the wake of rising traffic along the 49er route, trade centers began to sprout up within the Salt Lake settlement. Although Brigham Young expressed concern over the rapidity with which the pioneers engaged in trade with non-Mormon traders, Mormon individuals and the collective unit of the church-state were nonetheless able to accrue the economic means to begin engendering their missionizing and colonizing goals. One result of this new found financial solvency was the capacity to promote colonization within the traditional lands of Southern Paiutes living in the Eastern Yanawant Territories.

Though the Mormons took advantage of the trading opportunities afforded by the Gold Rush, the great majority was encouraged to stay in the state of Deseret, rather than striking out to California to test their luck in the mines. Brigham Young was known to tell converts who considered striking out for gold "We are gathered here not to scatter around and go off to the mines, or any other place but to build up the Kingdom of God" (cited in Arrington 1958:65).

Rather than encouraging pioneers to join the Gold Rush activities in California, church leadership concentrated its energy on developing trading opportunities resulting from the influx of travelers flowing into the Salt Lake Valley. This increase in trade occurred at a time when the Mormon population was fairly isolated from contact and exchanges with some of the more affluent cities in the east. Prior to the rapid increase in Gold Rush Traffic through Salt Lake City, many pioneers were "living on roots, work cattle, and a small ration of cracked grain" (Arrington 1958:67).

Due to a lack of material supplies, many items including clothing, wagon wheels, and tools could not be replaced once they wore out. One pioneer who had experienced these deprivations referred to the increased trade of 1849 as a 'miracle'.

"Information of the great discovery of gold in California had reached the States and large companies were formed for the purpose of supplying the gold diggers with food and clothing, and implements of every kind . . . These companies expected a most tremendous profit on their goods, (and) spared no expense . . . these persons procured just the things they would have done, had they been forming companies purposely for relieving the saints" (*Frontier Guardian* January 9, 1850 cited in Arrington 1954:67).

In addition, as the prospectors prepared for the last leg of their journey, they frequently lightened their loads in Salt Lake City. As a result, wagons were regularly exchanged for packhorses and mules. Other items including tools and clothing were also frequently traded or abandoned along the trail.

Through moneys accrued in a large degree via trading with people along the 49er route in the Salt Lake City Valley, the church leadership was able to finance programs which would later assist them in their colonizing programs in many regions including the Eastern Yanawant Territories. In addition to capital accrued from trading within Salt Lake City, the Mormon Battalion members frequently stayed in California to prospect before returning to Salt Lake City and neighboring settlements. Arrington (1958:66) estimates that "the earning of Mormons in

California which were contributed to the church in the form of gold dust or coin probably amounted to more than \$60,000 during the period of 1848–1851. Moreover, he maintains that private individuals probably donated an equal amount of money to the state of Deseret.

With profits secured in Gold Rush related activities, the Mormons created a perpetual immigration program and a church investment program. The immigration program provided financial aid to facilitate the relocation of American and European Mormon converts. This fund provided varying levels of assistance that allowed church members to travel into the new state of Deseret and further develop the expansionary intentions of the church leadership. Arrington (1958:79) reveals that in 1851 2,500 converts were relocated to Salt Lake City through the perpetual immigration fund, and in 1852, "some twenty-one companies, averaging over sixty wagons to the company, migrated into the Great Basin."

The Mormon establishment recruited particularly heavily from the Scandinavian countries, England, Scotland, and Ireland. Many of the converts from overseas represented some of the poorest people of Northern Europe. Amongst the new converts, a number brought diseases against which the indigenous people of the Great Basin had no immunity. Those church members who were infected but managed to survive all the way to Salt Lake City presented a considerable risk to indigenous populations both within and beyond the Salt Lake Valley.

As permanent immigration as well as Gold Rush immigration between 1848–1851 ensured a massive migration through Salt Lake City, the confluence of a diseased population with a highly mobile population increased the chance of dispersing disease over vast territories within a short period of time. As late as 1855–1856 one hundred and thirty five people within one party, and sixty-seven people within another died enroute to the Great Basin. Moreover, "Only heroic action by the volunteer rescue parties saved the remainder" (Arrington 1958:158).

Young and his priesthood used the newly arrived church members to systematically colonize areas outside of the Great Salt Lake Valley. Upon arriving into the Salt Lake Valley pioneers were frequently asked to participate in a second leg of the expansionist program made possible in part through funds accrued through trade with gold seekers along the Anglo 49er route. This program entailed colonizing new regions that were considered adventitious in manifesting the desire to populate the entire Great Basin with members of the Mormon Church.

The Mormon settlement patterns, which would later dramatically impact the lives of certain Southern Paiutes living in the Eastern Yanawant Territories, underwent two phases of development between 1847 and 1857 (Arrington 1958:84). In the first phase of settlement, colonies were established outside of the regions encompassing Eastern Yanawant Territories. Collectively, these settlements became known as the "Mormon Corridor". In 1849 some of these sites were established in the "Utah, Tooele, and Sanpete valleys; Box Elder, Pahvant, Juab, and Parowan valleys in 1851; and Cache Valley in 1857" (Arrington 1958:84). In a second phase settlements were established in more distant places that were valued as "strategic points of interception". Such settlements included: Carson Valley, Nevada (1849–51); San Bernadino, California (1851); Las Vegas, Nevada (1855); Moab, Utah (1855); Fort Supply and Fort Bridger, Wyoming (1853 and 1856); and Lemhi, Idaho (1855) (Arrington 1958:84).

which they drive back across the desert. . . This caravan had left had left *Pueblo de los Angeles* some time before us, and were consequently several days in advance of our party upon the trail- a circumstance that did us great injury, as their large *caballada* (containing nearly a thousand head) ate up or destroyed the grass and consumed the water at the few camping grounds upon the route" (cited in Hafen and Hafen 1993:192).

After 1848, much of the trade along southern trails diminished. This was in part due to the viability of wagon travel along the 49er route. The imposition of trade duties upon those who traveled via the Old Spanish Trail also served to curtail travel via this connection. Though duties were lifted with the signing of the Treaty of Guadalupe Hgaldo, many travelers had already begun using alternate routes of travel in larger numbers and with greater frequency.

Through the development of trade along the Anglo 49er Trail, the stage was set for the colonization of the Eastern Yanawant over the next several decades. With a growing Mormon population, increased economic means, and experience in systematic colonization, the Mormon Church turned with renewed interest towards the prospect of expanding their colonizing efforts within the southern portions of the Utah territory, which included the land of Eastern Yanawant. Arrington (1958:216) also credits, "The self sufficiency program which followed the Utah War and the outbreak of the Civil War in 1861 [with] le[a]d[ing] Mormons leaders to greatly expand the southern colonies."

1860s-1900s Anglo Colonization of the Eastern Yanawant Territories

The extraordinary changes resulting from the rapid colonization of the Eastern Yanawant Territories are difficult to overstate. Whereas 18th and 19th Century Spanish and Mexican activities within portions of the Eastern Yanawant Territories were frequently driven by individual commercial interests intent on the transitory use of trails or resources, Anglo activities within the same regions centered on the establishment of permanent agricultural and livestock raising settlements. Gregory (1945:29) notes that "Utah was systematically colonized as self-sufficient villages and the history of the state is concerned chiefly with the growth of the original settlements". Concomitant with the process of Anglo colonization, certain Southern Paiutes permanently lost access to their lands, perennial springs, and both the natural vegetation and animals through which they had previously sustained traditional ways of life (See Kelly 1971 in Chapter 3 of the current report for a fuller treatment of the ethnography and ethnohistory of Eastern Yanawant Southern Paiute of the GSE/NM).

The colonization Eastern Yanawant Territories developed through large-scale systematic migrations of Mormon pioneers into territories already owned and fully utilized by certain Eastern Yanawant Paiutes of the Paiute Nation. Upon initiating the development of Anglo settlements in the southern portions of Deseret, "It took . . . (them) only fifteen years to found colonies at most of the best agricultural sites in Paiute country" (Holt 1992:25).

The Eastern Yanawant Territories were amongst the last regions within Deseret to be systematically colonized by members of the Mormon Church. However, while the colonization of the Eastern Yanawant Territories followed other regions, the people of the Eastern Yanawant

Territories nonetheless experienced significant changes in relation to the colonization of the Western Yanawant Territories as well as the Northern Ute Territories.

“By 1864, Mormons were located in at least four ranching and farming communities: Short Creek, Pipe Springs, Mocassin and Kanab. [Upon arriving to these places the new settlers] assum[ed] the control over the best resources for their own uses” (McPherson 1988:6). As the Western Yanawant regions as well as portions of the Eastern Yanawant regions came under Anglo dominion, many Southern Paiutes were forced into shantytowns at the edge of Anglo settlements. These indigenous settlements “form[ed] a protective ring and early warning system to aid the Mormons against Navajo and Ute depredations” (McPherson 1988:6).

Within these enclaves, tuberculosis rapidly spread amongst its inhabitants. Holt (1992:102) reports that tuberculosis “was a continuing problem . . . caus[ing] . . . about one-third of recorded Paiute deaths between 1889 and 1926”. In addition Stoffle, Jones, and Dobyns (1995:192) note that tuberculosis epidemics swept through the Southern Paiute Nation in 1850, 1852, 1853, 1855, and 1856. It is quite plausible that some of the Western Yanawant Southern Paiutes who attempted to relocate themselves in lands already occupied by Southern Paiutes within the Eastern Yanawant Territories may have carried tuberculosis as well as other diseases with them. McPherson (1988:7) observes that, “by the 1860s Paiutes were being squeezed out of their territory in southwestern Utah and into the less hospitable territory of southeastern Utah and northern Arizona”.

Diasporas fleeing into the Eastern Yanawant Territories to secure refuge faced the dilemma of entering into lands that were already owned and occupied by the Kaibab, Kaparowits, and San Juan Southern Paitues. In addition, these regions were renowned for their rugged physical terrain, limited water resources, and marked variability in the availability of rainfall (Webb et al 1991:22-3), as well as both plant and animal life. As a result, the human carrying capacity of regions within the Eastern Yanawant Territories provided little leverage for the long-term sustenance of larger populations.

In addition to the influx of indigenous people who had lost access to their ancestral homes, the Anglo occupation of portions of Southern Paiute and Ute territories altered the means by which certain indigenous groups could procure a living. As access to the natural vegetation, water, and animal resources diminished, pressure to find other methods of sustaining an existence resulted. Some indigenous people responded to these stresses by participating in commercial trading as well as fighting and raiding against Anglo colonizers (McPherson 1988:54 and Bradley 1999:66). Other responses to these encroachments included forming alliances with members of the Anglo population or moving into increasingly marginal lands.

Certain Southern Paiutes adopted another response to loss of ancestral lands and Anglo encroachment. This entailed intermarrying with neighboring tribes as well as forming social and political alliances with members of these groups. “By the late 1850s, the Paiutes’ role among the Navajos increased, though still handled on an individual or family level, as both groups felt continuing pressure from white encroachment. Many Paiutes adopted the Navaho language, style of dress, and the practice of intermarriage” (McPherson 1988:11).

With the promise of an ever enlarging Anglo population and ever diminishing access to ancestral lands and resources, conflicts, factionalizing, war, and the radical reconfiguration of power relations amongst both Euroamerican, Mexican American, and indigenous groups occurred as a matter of course. In addition to an influx of disenfranchised Southern Paiute, Ute, and Navajo neighbors as well as the forced migration of indigenous groups within the Eastern Yanawant Territories, Southern Paiutes of the Eastern Yanawant Territories had to contend with the Anglo colonization of lands they had occupied for thousands of years. Though the first efforts towards the colonization of southern portions of the territory of Utah began in 1854, the process of systematically colonizing the most habitable regions of the Eastern Yanawant Territories occurred primarily between the 1860s and 1880s.

In order to secure land and resources in southern portions of the Utah territory the leaders of Deseret sent groups rather than individuals to develop fully functioning communities (Gregory 1945:30). They also sought to establish political alliances aimed at securing the cooperation of members of the Eastern Yanawant Territories near the newly established Mormon settlements (Bradley 1999:42). A related policy in the state of Deseret entailed diminishing conflict with neighboring tribes through mediation, conversion, and the employment of certain Southern Paiutes to fight against both indigenous and non-indigenous groups who posed physical or material threats to the Mormon pioneers. During the late 1850s "The Mormons in southwestern Utah became increasingly concerned with the advance of Albert Sidney Johnston's army, the events connected with the Mountain Meadow massacre, and the instability created by Ute raids . . . [Consequently] they desired to form an Indian alliance to shield them from possible harm" (McPherson 1988:11).

Both prior to and during the colonization of the Eastern Yanawant Territories, federal and Deseret parties gathered much information upon the geology, geography, and people of the Eastern Yanawant and neighboring territories. The US Army Corps of Topographical Engineers surveyed much of the territory from the mouth of the Colorado through the Grand Canyon. In 1861 the Ives' *Report Upon the Colorado River of the West* produced detailed and concise information upon regions that Mormons would later colonize. In addition members of expeditions organized by leaders of Deseret were sent out to survey and report upon multiple sites within the Eastern Yanawant Territories.

After establishing a mission in Harmony in 1854, scouting parties of Deseret began to gather extensive data upon regions over which they intended to secure control. From this outpost, Jacob Hamblin conducted a series of explorations into the Eastern Yanawant Territories. Moreover, in an attempt to find the trails through which Navajos crossed the Colorado to either raid or fight with Utes, Paiutes, and Mormons, Andrus "led a military expedition (in 1866) of some 60 men from St. George to Kanab and Johnson Canyons across the upper tributaries of the Paria, past the Table Cliffs, and on into the valley of the Escalante River (Gregory 1951:4). In addition, Hamblin served as a guide for John Wesley Powell's expedition whose base camp was established in Kanab in 1871. During this expedition Hamblin also accompanied the Powell expedition to the Paria River. (Powell 1994:179 cited in Bradley 1999:40; Powell 1875 cited in Bradley 1999:43-45).

Through such expeditions the leadership of Deseret obtained comprehensive information upon the Eastern Yanawant Territories that would later be utilized in settlement planning as well as in the creation of policies to regulate the interactions of Mormons with Southern Paiutes, Utes, and Navajos. After extensive research had been conducted, the systematic colonization of the Eastern Yanawant Territories began. Potential settlements were selected for their perceived capacity to sustain compact agricultural communities wherein group settlements could foster "social, educational and economic advantages usually only possible in urban centers" (Gregory 1945:30).

With the exceptions of Levi Savage and Don Carlos Shirts, most settlements in Southern Utah were collectively colonized. Levi Savage reportedly lived as the sole Anglo settler in Kanab for two years and Shirts lived as the sole Anglo resident in the Paria Valley for three years (Gregory 1945:30). In addition to the economic advantages of collective settlements, group colonization was believed to afford a measure of protection from the indigenous people upon whose lands the Mormons settled. Between the 1860s and 1870s, Mormon pioneers developed settlements that emphasized militaristic preparedness. "At each site the first structure was a 'fort' . . . large enough to accommodate the entire population in times of siege" (Gregory 1945:30). The militaristic preparation of these colonies led later historians to describe "Southern Utah in the decade of 1860-1870 . . . as a 'string of stockades and forts'" (Gregory 1945:30).

In the spring of 1864 Mormons began to colonize the Eastern Yanawant Territories. They established their first settlement at the site of Kanab, wherein they intended to raise livestock and establish a flourishing agricultural community. As Kanab was already occupied by certain groups of Southern Paiutes, competition over limited resources readily ensued. As a consequence of raiding and warring with certain Navajos and Paiutes, the Mormons abandoned the settlement of Kanab in 1866 (Bradley 1999:66). However, in 1870 new settlers arrived to Kanab from Salt Lake and competition over resources resumed. As a consequence, the Kaibab Southern Paiutes incrementally lost access to their lands and their resources. Many Southern Paiutes subsequently moved into the most marginal portions of their traditional lands wherein they experienced rising stresses due to a lack of sufficient resources to sustain themselves. After 1874 the Anglo settlers also began using regions outside of Kanab for sheep and cattle grazing (Webb et al 1991:27). These lands included HouseRock (Ousuk) Valley, Kaibab, and the Uinkaret Plateaus (Gregory 1945:47).

Anglo settlers used HouseRock (Ousuk) for several purposes. Located in a canyon near Cockscomb, HouseRock was colonized in 1865 by a lone Anglo gold prospector, Don Carlos Shirts. Shirts abandoned this settlement the following year in response to war parties organized by Navajos and other indigenous parties intent on maintaining control over this region. At the end of the BlackHawk Wars, HouseRock was reportedly resettled by six Anglo families, and subsequently became an outpost of the Indian Mission. In addition, HouseRock served as a cattle-grazing territory for operations based out of Kanab.

During 1865, Mormon settlers also colonized a second site at Gram, which was located between the latter settlements of Orderville and Alton. Gram always remained a small settlement, and Anglo population figures ranged between 14-30 between the 1860s and 1890s,

and between 8 and 12 between 1930 and 1940. From 1874 to 1912 this community also reportedly served as a ranch post office (Gregory 1945:42-44).

In 1873 another Anglo colony was established below HouseRock at the site of Adairville. This settlement, which is located 9.4 miles southeast of Paria, was first established in 1872. For two years Adairville was intensively farmed. However, the settlements of HouseRock and Adairville were both largely abandoned in 1874 after "trouble with ditches" convinced many of the settlers to relocate at Paria (Gregory 1945:51).

The Anglo population at Paria (Elk Water) grew rapidly. "By 1884 the population included 107 resident members of the Mormon Church . . . (additional) non resident cattlemen, and about 20 Piute men and women who worked intermittently for half rations" (Gregory 1945:51). Those Southern Paiutes who remained near Paria found themselves in circumstances similar to Southern Paiutes at other primary indigenous settlements throughout the Eastern Yanawant Territories. Although they no longer controlled their lands nor access to resources, they had relatively few relocation options as the territories beyond the traditional settlements offered little in the way of procuring the necessary materials for sustaining themselves. As a result, many of the Southern Paiutes in the Eastern Yanawant Territories found themselves increasingly dependent upon the foreigners who had come to dominate their lands.

Between 1883-88 and 1912 the residents of Paria experienced a series of floods that washed away fields, corrals, barns and homes (Carr 1972). In response, many farmers and miners left this settlement, with a large number relocating in Cannonville and Henrieville.

Subsequent Anglo settlements were established at many of the traditional sites that certain Southern Paiutes of the Eastern Yanawant Territories had owned and occupied for thousands of years. These include Skutumpah (1870), Johnson (1871), the Upper Kanab (1872), Orderville (1875), Cannonville (1877), Henrieville (1877), Tropic (1891), and Alton (1908) (Gregory 1945:38).

People were particularly attracted to Skumtupah Creek and Johnson Valley as regions for raising stock. The grazing grounds were reportedly "excellent and small plots of well-watered bottomlands provided favorable home sites" (Gregory 1945:47). In addition, there were "numerous springs" throughout the Johnson Valley (Carr 1972). The Anglo population of Skutumpah maintained itself between 35-42 people between 1870-1880. After 1890, this population continued to fall, and only 5 Anglo people were recorded as living at this site by 1940. The rapid decline in population was in large part in response to the diminishment of creek waters between 1879 and 1880 (Carr 1972:128).

In 1880 there were reportedly 87 Anglos residing in Johnson Valley. This population rose to 104 in 1890, and dropped down to between 62-64 people between 1900-1910 as both "water and grass became increasingly scarce" (Carr 1972:128). Gregory (1945:47-48) also reports that by the early 1900s, "Johnson creek and its tributaries began to cut deep into their alluvial floors, destroying fields and greatly increasing the difficulty of maintaining irrigation ditches." By 1920 only 12 Anglo people were reported to still occupy Johnson Valley (Gregory 1945:42).

Between 1870 and 1900 Anglo residents also continuously occupied the Upper Kanab. Over this duration the average Anglo population consisted of 102 people. However, by 1910 these residents had abandoned this settlement. In contrast, a large and continuous Anglo population maintained itself in Orderville between 1875 and 1940. Rather than choosing to colonize Orderville based upon a careful evaluation of the quality of the land and resources, the citizens of this colony chose this site primarily as a means of exercising particular ideological principles. In 1880, 514 Anglo residents were recorded to live in Orderville. Subsequent populations ranged from a low of 378 in 1920 to a high of 441 in 1940.

In the neighboring settlement of Cannonville the Anglo population continued to rise from 137 people to 242 between the early 1880s and 1890s. During a drought year some of the residents of Cannonville moved to Henrieville Wash and Henrieville Creek northeast of Clifton. The town was later named after James Henrie who was the president of the Panguitch LDS Stake. Though this town was not officially surveyed until 1883, people were building homes by 1878. The Anglo population of Henrieville reportedly rose from 33 people in 1882 to 145 people in 1890. Gradual population growth continued, and the population stood at 240 by 1940. Likewise, population growth continued in Tropic, and was noted to rise from 194 in 1894 to 514 in 1940 (Gregory 1945:42).

Upon moving into the Eastern Yanawant Territories, many Mormon pioneers imagined they were embarking on a mission wherein they would turn the southern portions of the Utah territory into an "agricultural empire" (Gregory 1945:32). However, in spite of thorough planning and intensive labor the new settlers encountered many unforeseen obstacles.

In addition to contentions arising over the colonization of lands that were already fully occupied by certain Eastern Yanawant Southern Paiutes, changes in the physical ecology of these territories created additional problems for the new immigrants as well as for the indigenous people of these territories. Extensive erosion cutting deep into the alluvial plains, alternate phases of droughts and severe flooding, and the depletion of much of the natural vegetation occurred in and around many of the newly colonized settlements. Though studies of the "alluvial stratigraphy in the arroyo walls indicated that previous episodes of erosion had occurred under conditions that did not include livestock grazing and large manipulation of channels and flood plains" (Byran 1925 cited in Webb et al 1991:3), land use practices which included the rerouting of water for irrigation, the intensive farming of certain portions of land, and the heavy grazing of both sheep and cattle nonetheless exacerbated conditions that resulted in the radical alteration of the alluvial plains throughout many portions of the Eastern Yanawant Territories.

Webb, Smith and McCord (1991) present a thorough analysis of environmental changes of the alluvial plains along the Kanab and Johnson Creeks in *Historic Channel Change of Kanab Creek*. Citing evidence gathered from tree ring studies, Webb et al. (1991:20), note that "the historical record indicates that the arroyo of Kanab Creek was initiated during a series of floods beginning in 1882". Floods occurring over a period of 50 years also "initiated (the development) of other arroyos in Southern Utah" (Webb 1987 cited in Webb et. al 1991:20). Furthermore, Webb et al (1991) note that scar clusters upon tree samples between 1866 and 1916 indicate that the series of floods within this region did not occur randomly. "In the case of Kanab Creek, the

increased flood magnitude between 1882 and 1936 that is unprecedented in the over-500 year record" (Webb et al 1991:24).

The dramatic changes in channelization and natural vegetation within the Eastern Yanawant Territories resulted in conditions that posed serious consequences for both indigenous and non-indigenous populations. With an influx of both Anglo settlers and indigenous populations displaced from their traditional lands in the Western Yanawant Territories as well as neighboring lands, competition over natural resources increased. Initially, many Southern Paiutes moved towards the more marginal lands within the Eastern Yanawant Territories in order to increase their chances of survival. However, the rapid population growth experienced in the Eastern Yanawant Territories as a result of both Anglo immigration and the exodus of many neighboring indigenous groups coupled with increased flooding, erosion, channelization, and the depletion of natural vegetation made the procurement of the most basic resources increasingly difficult. By 1880, interconnected layers of ecological and human processes had radically altered the lives of many Southern Paiutes living in the Eastern Yanawant Territories.

"Jacob Hamblin, on of the men most responsible for the success of the Mormon colonizing efforts in southern Utah, wrote to J. W. Powell, in 1880, that, "The watering places are all occupide {sic} by the white man. The grass that product mutch {sic} seed is all et {sic} out. The sunflowere seed is all distroyed {sic} in fact thar {sic} is nothing for them to depend upon but beg or starve (Fowler and Fowler 1971:110 cited in Holt 1992:35)

Once the natural vegetation was disturbed, the results were often long lasting. Gregory (1945:33) notes that "In this semiarid region the natural herbage is scanty and when destroyed reproduces itself with seemingly difficulty".

1880s- Restoration

In response to the loss of resources necessary to maintain even the most elemental of existences, many Southern Paiutes of the Eastern Yanawant Territories increasingly turned towards the Anglo settlers for assistance. While some Southern Paiutes were able to procure menial labor in exchange for food and others received intermittent donations of food and clothing, such partial provisions could not satiate the collective needs resulting from the radical alteration of the landscape as well as the depletion and loss of access to traditional resources.

As a growing diaspora of Southern Paiutes throughout both the Eastern and Western Yanawant Territories placed increasing demands upon the Anglo settlements, Mormon leaders attempted to create policies that would simultaneously curtail open aggression between themselves and indigenous groups without fundamentally altering resource distribution. The now famous phase of Brigham Young stating "Feed the Indians, for it is cheaper to feed them than to fight them" (cited in Palmer 1933) encapsulates this idea. While this policy may have succeeded in diminishing open aggression between Mormons, Southern Paiutes, Utes, and Navajos, it also served to cultivate an ideology of paternalism between the Mormon settlers and the people who had lived in the Yanawant Territories for thousands of years (Holt 1992: xiv).

Paternalism towards indigenous people was further catalyzed through Mormon theology, wherein American Indians were viewed as "Lamanites" or one of the lost tribes of Israel whom the Mormons had a direct investment in saving (Holt 1992:22). Paternalism also underscored a series of federal and regional policies that largely resulted in the further alienation of the Southern Paiutes of the Eastern Yanawant Territories from their lands as well as their traditions.

Since 1865 many of the federal and regional policies enacted in relation to the Southern Paiutes of the Eastern Yanawant Territories have magnified the material and cultural hardships of these groups. With the establishment of the Utah Reservation in northern Utah in 1865, all Southern Paiutes were directed to abandon their ancestral lands and relocate amongst the Utes with whom the Southern Paiutes had a long history of contention. In meetings conducted by a special commission led by Powell and Ingalls in 1873, Southern Paiute leaders Taugu and Moak Shinauav rejected this proposal. They explained that, "The Utes of Utah had been their enemies from time immemorial; had stolen their women and children; had killed their grandfathers, their fathers, their brothers and sons, and . . . were profoundly skilled in sorcery" (Intertribal Council of Nevada 1976:95). In the absence of congressional ratification, this forced migration of Southern Paiutes did not occur.

In 1871, Southern Paiutes received another blow to their autonomy through the passage of the Indian Appropriation Act, which officially ended the establishment of treaties between the US government and indigenous groups. In addition to halting the creation of treaties, this act signaled the end of the US government's recognition of the equal sovereignty of Indian nations.

In the absence of land bases or treaties to compensate for these losses, the plight of the Southern Paiutes of the Yanawant Territories worsened. In 1873 a special commission was developed to address these issues. The leaders of this commission, John Wesley Powell and G.W. Engalls, recommended a second design for the relocation of the Southern Paiutes. According to this plan, the 528 Southern Paiutes whom they had counted in the Eastern and Western Yanawant Territories would be moved to the Muddy or Moapa Reservations in Nevada (Intertribal Council of Nevada 1976:95). One of the primary reasons for trying to relocate the Southern Paiutes of the Yanawant Territories into Nevada was a growing recognition of the severe crises resulting amongst the Southern Paiutes due to "the depletion of traditional food sources" (Holt 1992:34). A second and equally powerful motive behind attempting to remove the Southern Paiutes from the Yanawant Territories entailed opening up additional tracts of land for Anglo settlement, agriculture, prospecting, and the grazing of livestock (Holt 1992:34).

Between the 1880s and 1890s the Anglos' efforts to establish control over both the Western and Eastern Yanawant Territories resulted in more unofficial migrations into the marginal zones of the Eastern Yanawant Territories as well as the Arizona Strip. In addition, many Southern Paiutes became increasingly dependent upon Anglo settlements wherein they might procure menial labor or temporary supplies of food (Intertribal Council of Nevada 1975:95). Those Southern Paiutes who remained near Anglo settlements were primary targets of the assimilationist philosophies being promulgated at this time. A statement made by Robert Gardner in 1879 reflects this perspective:

"You Indians want a heap of land and have no teams nor plows, nor tools to work with; nor seeds to plant. You want us Mormons to do all this for you. We have no time. We must work for our own children. *You must do as we do-* take a little land, do a heap of work, and raise more grain. Now Moqueak, what I say I mean, and *you need not trouble me anymore, for more land. I know better what is good for you than you do for yourself*" (Gardner 1879).

While some Southern Paiutes living in the Eastern Yanawant Territories were given intermittent aid from the Mormons, "during the early 1900s, the Paiutes were virtually ignored by the federal government" (Holt 1992:35). Yet, at the same time that the federal government was seeking to progressively distance itself from Indian affairs through the deconstruction of reservations and the establishment of land allotments (Holt 1992:40), the BIA of Utah was finally "getting into the reservation business".

Between 1881 and 1929 four small reservations were established in Utah at Shivwits (1891), Indian Peaks (1915), Koosharem (1928), and Kanosh (1929) (Holt 1992:40-44). In addition, the Kaibab Reservation was established in Northern Arizona on May 28, 1909. Though some Southern Paiutes relocated to reservations, the lack of sufficient resources in these places also served as a deterrent. As a result, some reservations were used by only a small percentage of the population, and/or occupied on a seasonal basis. One group of Southern Paiutes remained in the ghettos of Cedar City. Within these ghettos the Southern Paiutes experienced pervasive poverty as well as diseases including tuberculosis (Holt 1992:48).

During the early 1900s, many of the Southern Paiutes of the Eastern Yanawant Territories continued to eke out existences along the margins of Anglo settlements. However, their numbers progressively dwindled as a result of extreme malnutrition and disease. In 1910 a Southern Paiute Chief in Escalante reproached Anglos in a dance hall saying:

"My friends it is right for white m[e]n to have [a] celebration, to talk about [the] land-[the] white man['s] land-[the] white man['s] flag-[the] big United States. [On] white m[e]n['s] money- [the] dollar- has an eagle on one side . . . Today I f[ou]nd a[n] eagle, [that a] white boy [had] shot. . . [It's] dead now . . . [The] Indian[s] shoot [a] little bit. [But] the white man shoot[s] too much. [Now the] eagle[s] [are] all gone . . . Pretty soon, [the] Indian[s] [will all be] gone. [At] one time [there were] many Indian[s] [and] many papoose[s]. [Now] the Indian[s] die [and the] Papoose[s] die. [We] sleep in a cave . . . [and we have only a] little bit [of] food. [At] one time [there were many] rabbit . . . fish . . . [and] deer. [Now there is only a] little bit. [The] white man give[s] [the] Indian[s] bread. [The] Indian[s] beg [and the] squaw beg[s] "Give [us] bread". [But it] is no good. [The] Indian[s] [do] no[t] like [to] beg. . . [I am an] Indian chief. . . [But] Now [I am] no [longer a] chief. [It's] no good! No good! [The] papooses die too much. [The] eagle[s] [are] all gone. Pretty soon [the] Indian[s] [will] all [be] gone" (Woolsey 1964:384 cited in Holt 1992:50)

Over the next several decades, federal policy did little to relieve the material impoverishment resulting from the progressive marginalization of the Southern Paiutes from their land bases in the Eastern Yanawant Territories. In 1930, Farrow, acting as the

administrator of the Paiute Agency in Cedar City explained that "Indians allied with no tribe and having no trust property could not partake of the benefits of appropriations made for the support and civilization of Indians" (Farrow 1930:1-2 cited in Holt 1992:52).

As a result of this policy, Eastern Yanawant Southern Paiutes who did not assimilate into groups who were officially recognized by the federal government received no assistance. While some Paiutes from the Eastern Yanawants intermarried with Navajos and other tribes along the Colorado River, and others may have received assistance through the Kaibab Reservation in Northern Arizona, it is probable that a sizable portion of the Eastern Yanawant Southern Paiutes failed to meet the criterion for federal recognition. Moreover, as the Southern Paiute population of the Eastern Yanawant Territories continued to fall as a result of disease and malnutrition, it is probable that outside agencies found it increasingly difficult to identify the remaining Southern Paiutes as members of discrete districts to whom they held particular responsibilities. Finally, even those Utah Indians who did receive federal recognition received "extremely limited (services from the BIA) in 1930" (Holt 1992:53).

The publication of the Meriam Report in 1928 revealed many inadequacies within the federal government's policies towards Indian groups. In particular, Lewis Meriam recommended the repeal of the Dawes Act of 1887. In lieu of land allotments, Meriam and his associates recommended educationally based policies (Holt 1992:54). In addition this report laid the grounds for the Indian Reorganization Act, which resulted in significant reforms aimed at protecting Indian land rights and increasing the self-government of tribes.

During the Depression some Southern Paiutes were able to work on federal projects and thus maintain a regular source of income. In addition, the Mormon Church provided a degree of relief through the organization of an arts and crafts business (Palmer 1936a in Holt 1992:55). However, while the material well being of the Southern Paiutes was partially improved by these measures, an outbreak of scarlet fever in Kanab in 1931 created additional stresses upon both the Southern Paiute and Mormon populations (Bradley 1999:206).

Under the leadership of John Collier, the Indian Reorganization Act repealed the Dawes Act, and made provisions for the self-governance of tribes and the maintenance of tribal lands. However, amongst the Southern Paiutes of Utah only the Kanash and Shivwits groups accepted the tenants of the Indian Reorganization Act (Holt 1992:58). As a result, the full impacts of reform were only partially instituted amongst the indigenous people of Utah. In addition, as many of the Southern Paiutes of the Eastern Yanawant Territories lacked federal recognition, they were not directly affected by these reforms.

After WWII, the pendulum on Federal Indian Policy swung towards the termination of the trust status between Indian tribes and the federal government. In addition, Indians were to be relocated to urban centers, a claims commission would be created to liquidate all Indian land claims, and the BIA would be progressively eliminated (Holt 1992:61-2). In Utah Senator Walkins spearheaded legislation aimed at the termination of federal responsibilities towards indigenous groups. As a result, the Southern Paiutes of Utah were amongst the first tribes within the United States to be placed on the list for termination.

Though the Southern Paiutes represented some of the most impoverished indigenous people in North America, legislation aimed at the termination of their special trust relationship with the federal government was quickly passed. By 1954 President Eisenhower had signed a bill to terminate the Utah Southern Paiutes' trust relationship with the federal government (Inter-Tribal Council of Nevada 1976:145). Shortly thereafter, a final date of termination was set for February 21, 1957 (Holt 1992:82). As a result of this legislation, the Southern Paiutes of Utah lost additional land, federal services, and the garden and farming enterprises that had previously guaranteed them a measure of autonomy and self-sufficiency (Holt 1992:87).

After the termination of the Southern Paiutes of Utah had been effected in 1957, the indigenous people of the Eastern and Western Yanawant Territories were faced with a new series of obstacles. In addition to the loss of lands through taxation, they were seriously impacted by diminished access to health care, training, and legal protection (Holt 1992:98). The Southern Paiutes of the Yanawant Territories also faced health problems ranging from extreme malnutrition amongst infants to tuberculosis and obesity. Both sanitation and sewage problems also exacerbated health problems amongst these groups (Holt 1992:102). In addition, a lack of sufficient educational opportunities made it difficult for many Southern Paiutes to establish economic independence. As a result of insufficient training, many of the job opportunities afforded to the Southern Paiutes were frequently low paying and/or seasonal in nature.

Over the next two decades, the Southern Paiutes of the Eastern Yanawant Territories received little attention from the federal government. With the exception of a program instituted by the University of Utah, whose primary purpose was to assimilate Southern Paiutes into Anglo society, the Southern Paiutes received little assistance that would sustain the health, economy, or culture of these groups on a long-term basis.

Since the 1970s, federal policy directed towards the restoration and revitalization of the Southern Paiute communities has gradually begun to take effect. In 1978 Larry EchoHawk drafted legislation designed to regain federal recognition for the Southern Paiutes of Utah (Holt 1992:132). Over the following year many Southern Paiutes publicly voiced strong support for the Paiute restoration as well as the re-creation of a land base (Holt 1992:133). After extensive lobbying, "the Restoration Act, Public Law-96-227, was signed by President Carter and became law on April 3, 1980" (Holt 1992:134).

In some respects the policies underlying federal-Indian relations between 1970 and the present harken back to the Indian Reorganization Act. Support for ideas expressed by John Collier as "self tribal government" and the "protection of Indian lands" are presently expressed as "Indian self-determination" and "government-to-government relations" (Holt 1992:125). Collectively, these values have become of paramount importance in defining relations between the federal government and Southern Paiutes. However, despite a return to policies based on reformation and increased tribal autonomy, the Utah Southern Paiutes' efforts to establish a land base sometimes met with the open opposition of members from the Anglo community. In contrast, the community offered much greater support for efforts to enact the Southern Paiute Restoration, which entailed no overt changes in the resource distribution of the immediate community.

Beginning in 1981, the Southern Paiutes of Utah hired consultants from CH2H Hill and priorities were established for securing an appropriate land base for their reservation. In addition to "provid(ing) a land base", the planners emphasized generating income for the tribe and its members through job development, "management experience" and "services to the tribe". The provision of "special lands with cultural or traditional values as tribal gathering places" was also emphasized as a high priority (Holt 1992:136).

The Southern Paiutes experienced many set backs in the process of finding and acquiring a new land based. After selecting five sites that were vigorously contested by private and corporate representatives from the Anglo communities, they finally settled on a piece of BLM land one third the size allowed for in Restoration legislation, and lacking the potential for economic development through either agriculture or mining. "On February 17, 1984, President Reagan signed H.R. 2898, transferring 4,770 acres of land to be held in the trust of various Paiute bands and authorizing a trust of \$2.5 million" (Holt 1992:146).

Though the restoration and acquisition of a land base signal definitive improvements for the present and future welfare of the Southern Paiutes of Utah, some of Southern Paiutes of the Yanawant Territories still experience themselves as "strangers in (their) own land" (cited in Holt 1992:127). Private individuals, stock raising corporations, and the national park service now exercise dominion over regions previously occupied by Southern Paiutes of the Eastern Yanawant Territories for thousands of years. Though access to these places varies, a high percentage of the sites upon perennial streams are now partitioned off as private property, and thus gated, locked, and inaccessible.

In the new chapter, we evaluate the ethnography and ethnohistory of these sites prior to their appropriation by private individuals and corporations. Drawing on the works of Isabell Kelly (1971) and her Southern Paiute consultants, the original occupation of these regions as well as the connections between particular Southern Paiutes and the land, perennial springs, natural vegetation, animals, and neighboring groups is elaborated in greater detail.

Chapter 3 Unpacking Kelly

Introduction

Those conducting the present study of the Grand Staircase-Escalante are in the unique position to draw upon the extensive and direct detailed ethnographic information of people and places previously represented in the writings of Isabel Kelly. Due to the wealth of information available through these writings, we center this chapter on Kelly's original texts. In order to make Kelly's observations most useful for the present study we have cross-referenced the original observations with materials that have become available since the time when Kelly's original data was assembled for publication. We supplement Kelly's data with 1) interviews conducted with contemporary Paiute people, 2) census data used to develop family linkages with the past, and 3) data collected via GIS that allows us to map relationships to and between places. Finally, we include the modern concept of cultural landscapes, as well as documents that were generally unavailable to Kelly during the time in which she wrote.

While still a graduate student in the Department of Anthropology at Berkeley, Isabel Kelly began collecting ethnographic data upon the Southern Paiute of southern Utah, northern Arizona, southeastern California, and southeastern Nevada. Though she gathered her original ethnographic field notes in 1932, they were not assembled for publication until 1933 and 1934. In addition to writing *Southern Paiute Ethnography* (1934), Kelly published *Ethnography of the Surprise Valley Paiute* (1932) and *Southern Paiute Shamanism* (1939). In the words of Kelly, she utilized an ethnographic style that was "telegraphic" and "unabashedly of the how-was-it-in-your-grandfather's day approach" (Kelly 1971:iii). Her approach reflects the predominant intellectual climate of the day, as well as the scholars with whom she studied. Given the opportunity, scholars of today might approach Kelly's work from vantages that diverge markedly from the original. However, despite changes in intellectual currents, Kelly's ethnographic data of the Southern Paiute of the Grand Staircase-Escalante provides a wealth of information regarding the existence of those who occupied a cultural landscape that extends from the present back through both historic and prehistoric periods.

We have entitled this chapter *Unpacking Kelly* because the text presented in Isabel Kelly's (1971) *Southern Paiute Ethnography* is very close to her original field notes, and thus organized more or less as she collected the information. Fortunately, she organized much of her text around a natural resource theme similar to the organization of the present report. Thus, we "unpack" Kelly's report simply by providing an exegesis of information on where people were living and what people were doing at the turn of the century, while also incorporating data from other relevant sources. In order to understand the ethnographic information set forth in Kelly's (1971) *Southern Paiute Ethnography* it is essential to note the absolute centrality of water.

appropriate way to find out the place where Paiute people "came from". You would get a much different answer to the question "Where do you live?" This is so because most Paiute people have been forced off of what they perceive is their traditional family land and they now live elsewhere.

It was one of those neat moments for a young anthropologist who asked a Paiute elder "Where is your water?" The elder smiled in reply and began telling the young anthropologist where his family lands were located. After more than twenty years and hundreds of interviews with Paiute elders the same anthropologist continued to ask, "Where is your water?" However, rather than losing its poignancy over time, the question "Where is your water?" had only begun to reveal its depth.

The Meaning and Power of Water

The cultural importance of water was further revealed through a practice of some Paiute families of gathering a bucket of water and then presenting and praying over before eating. Those prayers, usually said in Paiute, are like conversation with another person; thanking them for providing life to the family members. After the prayer, each family member may drink from a common ladle filled with the water. The ceremony is not unlike Christians thanking god for life and taking communion. Amongst the Paiutes water has never been taken casually.

In another context, Kaibab Paiute elders gathered to explain the deep significance of knowing that all things are alive. During this group meeting, these elders explained that mountains, rivers, minerals, and even small rocks are alive and have distinct personalities. Like people, some are stronger, some have special skills, and all can either be convinced to share this power or be inadvertently insulted and become angry. Children are taught that if they speak too loud while on a mountain it may cause them to lose their way. If you take a rock, crystal, or mineral without its permission it may hurt you. This, by the way, was the first Paiute cultural explanation for why radioactivity hurts humans; that is, because it is an angry rock. When Paiute children are taken to the Colorado River they are taught not to speak too loud or to throw rocks into it. Angered, it can take you away from your family. Properly talked to however, the Colorado River can give you life and health, by serving as a place of medicine and ceremony. In these observations, we see in detail the components that make up the general metaphor that was shared by the San Juan Paiute elders - the river is the blood and veins of the earth.

Through these shared insights, Paiute elders reveal an understanding of water as a living being. In particular, rivers, as well as one's proximity to rivers can be important. A medicine plant has a power to cure, but this power is greater if it is growing near to the Colorado River. A red paint is sacred, but it is somehow more sacred because it comes from next to the Colorado River. A curing rock is strong and unique, but one that lives in the middle of the Colorado River is perhaps the strongest currently known. A woman's curing ceremony can be held anywhere, but Paiute people constructed a curing house in an isolated area right next to the Colorado River, thus requiring an enormously difficult climb and lengthy travel from the nearest living area for the patient and curing ceremony participants. When attacked and defeated in other portions of their traditional lands, Paiute people moved to regions of refuge along and in side canyons of the Colorado River, which protected them. When the chaos of social and environmental change

threatened to overwhelm Indian tribes of the region, together hundreds of them danced the Ghost Dance ceremony near the Colorado River to bring on the millenarian destruction of the Europeans intruders. The large volumes of white and red paint needed by the Ghost Dancers probably came from along the Colorado River or from deposits in its side canyons. The salt and bird funeral songs, which when sung by friends and family carry Paiute people to the land of the afterlife, come from a cave in the Grand Canyon. The point of crossing to the land of the afterlife is perceived by some as being in the Grand Canyon near the Colorado River. What does it mean, then, for something to be near the Colorado River? It means everything - even life itself.

If we consider again the San Juan Paiute metaphor of the Colorado River as the veins of the earth, then we are tempted to extend this perception and to conclude that the valleys of the Colorado River are the body of the river. Valleys channel water into streams that join the Colorado River, they feed the river, they are the river. Valleys with streams that join other rivers belong to those rivers. Thus valleys that constitute the watershed of the Colorado River are, in a real sense, its' body.

The body of a river is bounded. What is inside contributes to its unique qualities, what is outside serves as contrast. Given that a watershed is one of the defining characteristics of a river, we could also use the term ecosystem to describe the body of a river. As an ecosystem, the body of the river is not totally self contained or insulated. For example, animals, birds, and people regularly move in and out of the ecosystem. Yet, even with these movements and changes, there remains something unique about each river, its associated valleys, and the things that occur within its body.

There is a more technical term for talking about a river and its body. This term is **Riverine Cultural Landscape**. This term is more descriptive of what we are discussing here because it places the emphasis on the Indian people who live, use, perceive, and attach themselves to the river and its body, but still included the biotic and abiotic features of the ecosystem.

Components of A Riverine Cultural Landscape

What is special about a Riverine Cultural Landscape? Below is a set of answers to this question. Some of these have been discussed briefly above, but we need to go into more detail if we hope to both argue for and develop a model of such places.

Water is a Source of Life.

Water is the source of life, not only as an elementary element, but also as a series of living forces, beings, which help create and sustain life.

- * Water takes many forms, each with its own potentials for helping or harming humans and the plant and animals that sustain them.

Water is Associated with Spectacular Geology.

Rivers cut geologically dramatic canyons, and waterfalls electrify the air around them as well as provide spectacular views. Sunlight interacts with water to produce rainbows, which are themselves, another life form. Hot springs create multicolored environments that are both attractive and healthy for humans.

- * Spectacular geology is often associated with exposed mineral deposits that include clays used for medicine, salt used for food, and hematite pigment used for ceremony.

Water Demonstrates its Power.

The Navajo people call violent summer rains "male rains" in order to indicate that they have different characteristics than the more gentle "female rains" of winter. Floods from rivers enrich some sand-based deltas associated with the river basin while destroying animals, plants, and eroding other places in the river basin. Flash floods appear where little rain has fallen and, having directly interacted with the land elsewhere, move great quantities of earth as well as water. Flooding tends to modify the landscape in ways impossible for humans to conceive, and do so beyond human control.

- * Violent rain events are associated with lighting and wind, which are also powerful forces.
- * Water can disappear and reappear many miles away, giving evidence of its willful nature.

Water-Canyons Serve As Regions of Refuge.

Water creates certain places that are difficult to gain access to. Deep canyons and hanging valleys are examples of such places. During the historic period Indian groups used particular regions with water for refuge. Due to European encroachment more accessible watering areas were frequently stressed by the multiple demands that growing heterogeneous populations placed on accessible waters. Geographically inaccessible areas only became regions of refuge when sufficient water was present to sustain the lives of the Indian groups.

Water Creates Riverine Oases.

Rivers begin where there is abundant rainfall but then flows for hundreds of miles into and through arid regions. Rivers can create ribbon oases that sustain life for plants and animals that otherwise could not be in the more arid region.

- * Riverine oases serve as flyways for birds and migration routes for animals moving from one ecosystem to another. There are animals that would otherwise neither be

present in more arid regions nor be so concentrated making them highly accessible to humans.

Water Influences Human Society.

Water can be both a source of social integration and separation.

- * Rivers are a source of travel for humans, thus permitting frequent and rapid communication and the formation of more complex and widespread social systems.
- * Rivers may serve as a natural boundary between different ethnic groups, thus rivers may be places of either interethnic competition or cooperation.
- * Rivers can be located in the geographical center of societies, far removed from the outer boundaries of ethnic group territory
- * The control of water can become an organizing feature of society, especially when it is used in irrigated farming.
- * Human population density was higher along waterways, thus settlements there tended to be the center of human life in the region.

Other Forces' Response to Water

Water Spirits.

Spirits associated with Southern Paiute burials normally prefer to remain where they were originally placed. In southern Utah, when the impounded waters of Quail Creek Dam covered a series of Southern Paiute burials, their spirits disliked being covered with water and burrowed through the bottom of the earthen dam causing it to collapse. Before the dam broke, some of the spirits worked with the water to drown swimmers.

Water Babies.

A powerful spirit called Water Babies live in various types of water.

Large Guard Snakes.

In past times, large snakes lived with and protected water sources. When Euroamericans killed the snakes, the water became angry and disappeared.

Water Fights Fire.

Water battles fire, but fire can defeat water. An example of the latter occurrence exists in the story of when rabbit burned the creosote-bush (*Larrea tridentata*) and pushed back the oceans so the sun could dry the land.

Great Creation Floods.

Water can extinguish all life in great floods, forcing life to both save itself and remake itself by moving to a new creation plane.

Developing a Policy-Relevant Model

So what does this all mean? Of what use is it? To begin with, this model should be useful for helping American Indian people convey their cultural concerns to some agency that plans to use or is using a riverine cultural landscape. Furthermore, the model should help the agency land managers focus on those aspects of the ecosystem-cultural resource interface, which can reasonably be controlled or influenced.

For example, the Indian people who are traditionally tied to a riverine ecosystem that is being used by a federal agency may believe that damming the river has caused the weather to change, thus drying the plants in the valley. Unless the agency can devise a way to eliminate the dam or to create more rain over the valley, the agency may not be able to act in a manner that fixes the problem. On the other hand, if the tribal elders can conduct prayers that will return balance to the ecosystem and the agency permits such remedial actions, then the rain issue may be resolved.

In another instance, Indian people may believe that certain places along a river are being impacted by patterns of water release from a dam. Modifying how water is released tends to be within the engineering capacity of the dam operators, however, it may be economically or politically impossible to do. In both of these cases, it is necessary to understand the Indian perspective of what is in the riverine cultural landscape and how this can be influenced by agency actions. Once this is known, the agency or the Indian people can undertake specific actions aimed at remedying the problem.

Springs of the Grand Staircase-Escalante National Monument

The inhabitants of the GSE/NM lived in a delicately balanced ecosystem. Within this environment, water, earth, plants, animals, and people engaged in constantly shifting yet carefully choreographed exchanges. The success of the Southern Paiute inhabitants rested upon a thorough knowledge of their desert home, wherein water remained a key phenomenon upon which all life hinged.

The majority of the population that previously resided in the GSE /NM lived in areas below 7000 feet where climatic conditions were less severe than conditions at higher elevations noted for heavy snowfall. The middle and lower tiers of lands are arid, with some perennial

streams. Streams located at the base of plateaus and cliffs determined the positioning of permanent settlements occupied on a seasonal basis (Kelly 1971:2). Below we list the springs and watering places identified by Kelly and her consultants, followed by a more in-depth analysis of the ethnographic materials, cultural landscape, kinship ties, and archival information relating to each site.



Springs

- | | |
|---------------|---|
| 1. Kanavic | [Willow; Sheep Trough Spring [?]] |
| 2. Togoavac | [Rattlesnake Water] |
| 3. Sovipac | [Cottonwood Water] |
| 4. Siumpac | [Yellow, Gray [?] Water] |
| 5. Atankwinti | [Sand Stream; Canaan or Cottonwood Spring [?]]. |

6. **Sovinokwint** [Cottonwood Stream; Short Creek]
7. **Muivac** [Mosquito Water]
8. **Paganktonic** [Cane Knoll [?] or Cane Beds [?]; Sapir, 1930, 604-5]
9. **Ovac** [Salt; Alkali Water]
10. **Mi tin-wogaip-paganti.**
11. **Mi tinwava** [Point of Hill; Pipe Spring; Sapir, 1930, 570]
12. **Pacpikaina** [Water Bubbling Up; Moccasin Spring; Sapir, 1930, 597]
13. **Tinkanivac** [Cave Water; Antelope Spring, southwest of Pipe Spring]
14. **Kacoapac** [End of Water; 1 [?] mile north of Moccasin Spring].
15. **Pavuavac** [Sapir, 1930 598, Pavu a-vaac; Point Spring, 2 mi. northeast of Moccasin Spring]
16. **Pawiavac** [Mud Water]
17. **Soviwinincic** [Cottonwod Standing Up]
18. **Uwantic** [Rain, because water sprays off rocks; called also Patituatic, Water Sprinkling]
19. **Anavac** [Black-Ant Water]
20. **Tinkanivac** [Cave Water]
21. **Skumpac** [Rabbit-Brush Water; Rigg Spring]
22. **Tonovac** [Greasewood Water; Sapir, 1930, 598, Tono-vaac]
23. **Samiapac,
Nacimipac** [Pebble Water; Cottonwood Spring]
24. **Siivac** [Squawbush Water; Sapir, 1930, 598, Sii-vaac]
25. **Sawavac** [Sagebrush Water]
26. **Kanariuipi** [Willow Canyon; Kanab Creek; Sapir, 1930, 629, Kanari-uipi]

- 27. **Ciakwiavac** [Oak [var.] Spring]
- 28. **Oavac** [Salt Water]
- 29. **Tiavac** [Serviceberry Water; has another name, which G does not remember]
- 30. **Johnson Creek** [Canyon; name not recorded]
- 31. **Na avac** [Lone Spring]
- 32. **Muiatic** [Said to refer to nose; a lake east of Johnson Canyon]
- 33. **Pagawipi** [Cane Canyon]
- 34. **Ipa** [Old Water; Navajo Well; about 1 mi. south of Vermilion Cliffs]
- 35. **Tupac** [Black Water; about 3 mi. east of 34]
- 36. **Mu kovac** [Rock [?] Water]
- 37. **Kamuwac** [Rabbit Water]
- 38. **Panwiavac** [Mud Water]
- 39. **Kanawaic** [Willow Hanging Down]
- 40. **Kanarimpiku** [Knoll [?]; reference apparently to willow]
- 41. **Tinkanivac** [Cave Water]
- 42. **Ciampivac** [Wild-Rose Water]
- 43. **Si ivac** [Squawbush Water]
- 44. **Sovpac** [Cottonwood Water; 16- Mile Spring [?]]
- 45. **Kakarimpac** [Quail Water]
- 46. **Sovpac** [Cottonwood Water]
- 47. **Piki-pa** [Rotten Water]
- 48. **Atavac** [Sand Water]
- 49. **Wigimpac** [Vulva Spring]

- 70. **Paiyampagati** [Water Halfway Up Hill]
- 71. **Pagwuiacpikanti** [From Gambel Oak; in canyon just north of Mangum Spring]
- 72. **Piacampipkwitic** [Locust Stream; Mangum Spring; Sapir: Piaicapinukwint [Oak
[var.] – Spring].
- 73. **Ankapi** [Red Spot; Big Spring; Sapir: Ankapu: Reddish]
- 74. **Mo onticivac** [Owl Head Water; Sapir, 1930, 598, Moontocivaac [Humming-
Bird-Head Spring]; Sapir lists this between 72 and 73]
- 75. **Maavawiniti** [Tree in Water]
- 76. **Sinavac** [Coyote Water]
- 77. **Sagwogo acpa** [Tobacco Water]

The Southern Paiutes with whom Kelly worked with in 1932 designated the previously listed springs as central to the lives of the people who occupied the lands of the Grand Staircase-Escalante/NM traditionally, aboriginally, and historically. Kelly's Kaibab consultants included: "Captain George, Mose, Adam, and his sister, Sarah Frank. Miscellaneous information was also provided by others, particularly Minnie Tom, an elder who was born in Cedar territory to a Cedar Father and a Kabaib mother, and who lived for many years amongst the Kaibab Southern Paiutes" (Kelly 197: 3). Through her work with experts detailing the traditions, ideas, and histories of the Kaibab, Kaiparowits, and San Juan, Kelly sought to develop a greater understanding of the subsistence practices and domestic economies underscoring Southern Paiute society. While the ethnographic materials gathered herein reveals information consistent with the research questions posed by Kelly, these consultants also consistently relayed a singular message suggesting that the heart of the Kaibab lifeworld is water. The centrality of water served as a foundation of traditions, settlement strategies, subsistence activities, and the knowledge bases through which the Kaibab Southern Paiute explained the phenomenal as well as the supernatural worlds. The importance of water is confirmed in the origin stories of the desert dwelling Southern Paiutes wherein Ocean Woman (Hutsipamamau ?u) and water exist in the place of beginnings.

Connections between the Southern Paiutes and the delicately balanced ecosystem of the GSE/NM have often centered upon relationships to water sources. In this chapter we have chosen to follow the lead of Kelly's consultants who used the perennial springs throughout the Grand Staircase-Escalante as a descriptive basis for explaining the lives and practices of their ancestors. The Kaibab Southern Paiutes frequently lived near springs along the Vermilion Cliffs of the Grand Staircase-Escalante. In conjunction with the resources available in the valleys and the Kaibab and Paunsaugunt Plateaus, this land provided them with all of the materials necessary to sustain life, build communities, develop botanical, medicinal, astronomical, and ceremonial knowledge, and practice cherished traditions. Most of the perennial springs along the Vermilion Cliffs served as permanent places of settlement. In addition, the early Southern Paiutes regularly

utilized particular regions for camping, social gatherings, and both food and resource procurement.

In the following accounts, we describe the springs identified by Kelly's consultants, the permanent settlements that arose in these places, and the kinship structures of its occupants. In addition, we present cultural landscapes detailing webs of connection amongst the people, places, plants, and animals whose lives constantly created new fabrics of interchange as a result of their reliance upon these life-giving waters. Finally, we provide ethnographic information and descriptions from archival research that shed further light upon the ways in which particular springs were used in the lives of the Kaibab Southern Paiutes of the Grand Staircase-Escalante.

Pa pa-ya-nti
[Places Having Springs]



In the ethnographic works of Kelly (1971), the Kaibab District is subdivided into areas designating particular clusters of springs owned and occupied by certain Southern Paiute people. Unfortunately, some of the springs and areas of occupation that are mentioned by Kelly's consultants are not included within these sub-regions. In order to provide the most complete presentation of this information, we have included all of the springs originally mentioned by the experts with whom Kelly worked. To accomplish this goal we have renamed the sub-regions of Kaibab 'Areas A-K'. We have also included Kelly's classifications at the end of each citation. Kelly lists each spring by site number. In the case of springs that fall into the sub-regions defined by Kelly the sites are delineated by Roman numerals as well.

AREA A

Kanavic (Sheep Trough Spring), Togoavac (Rattlesnake Water), & Sovipac (Cottonwood Water) (1-3)

General Informational Status of these sites:

- | | |
|---------------------------|--|
| • Kinship | See Kelly 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | There is no information available at this time. |
| • Ethnographic Interviews | See Kelly 1971; Chapter 1: Habitat and Population |
| • Documents | Additional documents are not available at this time. |

Specific Informational Status of these sites:

Kinship

According to Kelly (1971:10) Kanavic (1), Togoavac (2), and Sovipac (3) were not used as permanent settlements. Therefore, the kinship ties of particular Southern Paiute people are not specified for these sites.

Cultural Landscape

Information regarding the relationship of Kanavic (1), Togoavac (2), and Sovipac (3) to other places is not available at this time.

Ethnographic Interviews

Kelly maintains that the Southern Paiutes of Escalante used Kanavic (1) on a seasonal basis. Each year, people went to Kanavic (1) to gather botanical resources including pinenuts, and possibly materials for weaving as well. Residents of Siumpac (4), Atankwinti (5), Sovinokwint (6), Muivac (7), and Paganktonic (8) also regularly convened to gather pinenuts at Togoavac (Rattlesnake Water, 1) and Siumpac (Yellow, Gray [?] Water, 3).

Documents

Written information regarding Kanavic (1), Togoavac (2) and Sovipac (3) is not available at this time.

AREA B

Springs along the Vermilion Cliffs, East of Mocassin Spring (I: 4-13)

General Informational Status of these sites:

- Kinship See Kelly 1971; Chapter 1: Habitat and Population; Sapir 1930:608
- Cultural Landscape See Kelly 1971; Chapter 1: Habitat and Population; Sapir 1930:598
- Ethnographic Interviews See Kelly 1971; Chapter 1: Habitat and Population; Stoffle et al. 1997:191-200
- Documents See Kelly 1939: "Southern Paiute Shamanism".

Kinship

Cana, whose name means 'Bull Lizard', owned the Siumpac (4), Atankwinti (5), Sovinokwint (6), Muivac (7), and Paganktonic Springs (8). Cana was a shaman, as was his brother Mimitanavi. Both Mimitanavi (Head Bent Back) and a second married brother resided at camps in proximity to Cana's home.

Just southeast of these sites dwelled a man known as Oavanapun (Alkali Man). Oavanapun also lived as a shaman. He was the father of five sons, and the owner of Ovac (9). It is unknown whether this site, whose name means 'Salt or Alkali Water', was named after its owner, or whether Oavanapun inherited this spring, and thus acquired his name. Oavanapun and his five sons resided at six separate camps located in the region of Oavac.

The local chief, Pacakwi, whose name means 'To Be or To Get Wet' (Sapir, 1930, 608), owned settlements Mi tin-wogaip-paganti (10), Mi tinwava, (Pipe Spring, 11) and Pacpikaina (Mocassin Spring, 12). Pacakwi had a son, Tompocoaroc, who was known as a rattlesnake shaman. In a separate camp, resided Pacakwi's unmarried brother, Katavi.

Puisari whose name means 'Eye Dog' owned the nearby spring, Tinkanivac (Antelope Spring, 13). Puisari was married to A nawanc whose name means 'Badger Breast'. They lived with their four sons, one daughter, and Puisari's older sister's son, who was an unmarried man named Ma apituku (Painted Hip). Ma apituku was reportedly the brother of the consultant Captain George's father.

Cultural Landscape

According to Kelly (1971), Siumpac (4), Atankwinti (5), Sovinokwint (6), Muivac (7), and Paganktonic (8) were primary sites for pinenut gathering. In addition, Sovinokwint (Cottonwood Stream, 6) served as a place for harvesting seeds in the summer. While gathering pinenuts on the mesa to the northwest, people used water from Togoavac (2) and Sovipac (3). The residents from settlements 4-8 joined with people from the neighboring springs, (9-13) for hunting trips upon the Kaibab Plateau. People occupied the site of Oavac (9) continuously. However, they made occasional trips to the Kaibab Plateau. In addition, they went to the Colorado Canyon in the winter and spring in order to gather mescal.

Mi tin-wogaip-paganti (10) consisted of two or three settlements located at base of the cliffs on either side of Pacpikaina (Mocassin Spring, 12). Mi tin-wogaip-paganti (10), Mi

tinwava (11), and Pacpikaina (12) were the sites of permanent settlements occupied on a seasonal basis, and were reputed for offering excellent water supplies. These residents visited with neighbors at Tinkanivac (Antelope Spring, 13) most of the year. In addition to wintering with their neighbors at Tinkanivac, they went with them to the Colorado Canyon west of Kanab Canyon in order to gather mescal. On this journey they would camp one night en route, and head towards the rim of the Grand Canyon the following morning. After arriving, they stayed there for approximately one month. While there they used caves for shelter and mescal, cactus (Tasi) and juniper berries for sustenance. They continued their occupation of these places into the summer, and harvested seeds along the flats by Tinkanivac. At the end of summer, they returned to their own springs, whereupon they began gathering pinenuts on mesa on top of Vermilion Cliffs. Pinion trees were reportedly scarce in that area. In the fall, the people from springs 4-8, 9, 10 and 13, united for hunting trips which took place on the Kaibab Plateau.

People from Mi tin-wogaip-paganti (10), Mi tinwava (11), and Pacpikaina (12) almost continuously occupied Tinkanivac (13). In addition, people from an unlocated spring, Wa akaari (Juniper Knoll; Yellowstone Spring, somewhere northwest of 13) (Sapir, 1930, 598, w akaririmpa, cedar knoll spring) regularly gathered at Tinkanivac, and joined others for mescal gathering and deer hunting.

Ethnographic Interviews

Extensive interviewing has been conducted on the Kaibab Paiute people's connections to the physical and cultural landscape of Pipe Springs (Mi tinwava). These interviews are available in Chapter 6 of the *Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona* (1997).

Documents

Amongst the Kaibab Paiutes, Kelly (1939) identified twenty shamans, of whom two were women. Most shamans served as general practitioners, however some Kaibab shamans specialized as rattlesnake shamans, and reportedly had the capacity to heal snakebites. In addition to serving as optimal regions for gathering botanical resources, a large percentage of the people living at settlements (4-8) also practiced medicine. Of the four shamans in this area, one specialized as a rattlesnake shaman.

AREA C

Springs along the Vermilion Cliffs, Moccasin to Rigg Spring (II: 15-21)

General Informational Status of these sites:

- Kinship See Kelly 1971; Chapter 1: Habitat and Population; Sapir 1930:689
- Cultural Landscape See Kelly 1971; Chapter 1: Habitat and Population
- Ethnographic Interviews See Kelly 1971; Chapter 1: Habitat and Population and

Stoffle et al.1980; *Kaiparowits Coal Development and Transportation*

- Documents

There are no additional documents available at this time.

Specific Informational Status of these sites:

Kinship

A widower named Topi (White) owned three springs including Pavuavac (Point Springs) (15), which is located about two miles northeast of Mocassin, Uwantic (Rain or Water Sprinkling) (18) and Anavac (Black Ant Water, 19). After widowed, Topi lived alone. His wife, Toci ac had been a shaman. Her name means 'Gray Hair' or Toci-a-c, which translates as 'Head-Having' (Sapir 1930: 689).

The shaman, Yi ni m u, or 'Bald-Headed' owned two other springs known as Tinkanivac (Cave Water, 20) and Skumpac (Rabbit-Brush Water; Rigg Spring, 21). He was also called Nankanpi ia, 'Hairy Ear', and Takta, meaning 'English doctor'. He and his brother Mus both built houses near Tinkanivac. Mus lived there with wife and three children. In a third house lived Mus' half-brother, (first cousin), Sa atkawaiti (Doesn't Eat Mush). Sa atkawaiti was also married and had one son and one daughter.

Cultural Landscape

Both Kacoapac (14), which is located one mile north of Mocassin Spring at the base of the cliffs, and Pawiavac (Mud Water, 16) were formerly dry. The lack of ethnographic information about these springs suggests that in the absence of water these two sites were not heavily utilized.

The other springs detailed in this sub-region were intricately connected with other places. Seasonal movement of the families and communities who owned these properties generally followed one of several patterns. Topi of (15) spent the summer at Pavuavac, the fall at Anavac (19) and the winter at Uwantic (18). He gathered and prepared his own seeds on the flats below the Vermilion Cliffs because he lived alone, and met with people from Tinkanivac and Skumpac (20-21) to hunt deer on top of the Vermilion cliffs.

Sa atkawaiti and his family spent the winter and spring at Tinkanivac (20) where Kelly noted five houses covered in juniper bark. In the summer, residents of this spring gathering seeds at the base of cliffs and obtained water from Tonovac (22), Samiapac (23), and Siivac (24). These areas were not privately owned. Instead, they appeared to be places where many people would go to gather seeds. Soviwinincic (17) was also a region that was used by many people for seed gathering, and it appears not to have been privately owned. In addition to gathering and harvesting multiple plants, the people of this district hunted deer on top of the Vermilion Cliffs.

Ethnographic Interviews

Stoffle et al. (1980) *Kaiparowits Coal Development and Transportation* previously conducted interviews on sites in Area C.

Documents

At this time there are no additional documents on springs and settlements within Area C.

AREA D

Springs in the vicinity of Kanab, East to Navajo Well (III: 25-34)

General Informational Status of these sites:

- Kinship See Kelly 1971; Chapter 1: Habitat and Population; Stewart 1941:239
- Cultural Landscape See Kelly 1971; Chapter 1: Habitat and Population; Sapir 1930:597
- Ethnographic Interviews See Kelly 1971; Chapter 1: Habitat and Population and Chapter 4 of this report
- Documents See Stewart 1941:239

Specific Informational Status of these sites:

Kinship

We have consulted topographic maps for the region and have found there is both a Navajo Springs and a Navajo Well (34). The Navajo Well is located on the southern border of Grand Staircase-Escalante National Monument 1.5 miles west of the old bridge over the dry and deep precipice of White Sage Wash. Both sites served as regions of occupation for particular Southern Paiute groups. Between 1937 and 1938 Stewart (1941a:239) consulted with a Southern Paiute woman name Sarah Williams. At the time of the interview Sarah lived at Navajo Well. Stewart interviewed Sarah for one hour at this site Stewart worked through an interpreter, Fred Bullets, whom Stewart found to be an excellent translator

Another Southern Paiute individual alternately called Kami onsoc (Tries to Strike Little Rabbits) and Kwicapa aku (Excrement on Thigh) owned and occupied Sawavac (Sagebrush Water, 25). Though Kami onsoc and his wife reportedly 'stayed at Sawavac all the time they were known to join others from Kanariuiipi (Willow Canyon/ Kanab Creek, 26) to hunt deer.

A great number of people resided at Kanariuiipi (Willow Canyon; Kanab Creek, 26). In Camp 1 Chief Miapi (Little) lived with his wife, Cantuya (Slashed Forehead) and one child. They had other children who had previously died from unspecified causes. The wife, Cantuya

was a shaman. Chief Miapi, the shaman Cantuya, and four others who were not relatives of the couple lived at this camp. Kipi (Elbow), his wife, two boys, and the orphaned child of Kipi's older brother resided in the second camp. At a third camp Sagovonkuic (Blue Spot on Elbow) lived with his wife, one son, and two daughters.

A Southern Paiute man called Mancavait, or 'Waiving Hand' owned the region comprising Johnson Creek (Canyon, 30), Na avac (Lone Spring, 31), Muiantic, the lake east of Johnson Creek (32), and Pagawipi (Cane Canyon, 33). Mancavait was married and had one daughter and two sons. In addition, the orphaned son of Mancavait's brother lived with Mancavait's family. At a second camp T oicikaipi (Gray Squirrel) lived alone with his wife, and had no children.

Cultural Landscape

The settlements ranging along Kanab Creek were used for both permanent and semi-permanent occupation. Kanab Creek remained of central importance because it served as the primary source of water. The settlements along Kanab Creek are located on the later site of Kanab Village. There were many important settlements in this area with numerous occupants. Kami onsoc and his wife owned and occupied Sawavac (25) on a year-round basis. The owners of other settlements along Kanab Creek regularly shifted their residence at optimal times of the year. In the summer months, the people from Kanariupi (26) would move their residence to Ciakwiavac (Oak [var.] Spring, 27), and return to Kanariupi in the winter. While living at Ciakwiavac spring, they gathered Tasiu Root (Peteria Thompsonae Wats). They remained at Ciakwiavac through June when the seeds ripened, and returned to Kanariupi where they harvested the seeds. Many people from settlements at springs (26, 30-34, 53, 56 & 57) also stayed at Oavac (28) and Tiavac (29), particularly when they traveled to the Paria Plateau to procure food. Additionally, they occupied settlements at Johnson Creek (30) for the duration of Mentzelia (Ku u) seed gathering. While at Johnson Creek they also gathered an unidentified root called Tsii, and in the summer they visited Alton to gather and harvest Cicaganti Seeds (Balsa Morrhiza Sagitata).

In the fall they moved to cliffs above Three Lakes (Sapir, 1930, 597, Pa(i)-yu(u)gwi-ci, water sitting) for Pasi (Artemisia) seeds and pinenuts on top of Vermilion Cliffs). In addition, they sometimes hunted deer around Orderville during the fall and joined people from Ipa (Navajo Well) to hunt deer in the Kaibab Plateau. Before the snows they returned towards with some people returning to Na avac (31) or (26) Kanariupi where they remained for the winter.

Ethnographic Interviews

For interviews conducted in this area, see Chapter 4 of this report.

Documents

In "Cultural Element Distributions: XVIII Ute-Southern Paiute, Stewart (1941a) published a anthropological report in which he interviewed a 78 year old consultant from Navajo Springs, Utah. Stewart spoke with his consultant, Sarah Williams, through the expert interpreter

Fred Bullets. Stewart also worked extensively with Mose, who was alternately known as Bishop: an eighty-year-old Paiute elder from Parianunts. (Stewart 1941a: 239). Mose had previously consulted with Isabel Kelly, and served as one of her primary interpreters of Southern Paiute culture (Kelly 1971:13).

AREA E

Alton Area on the Upper Kanab Creek, Foot of the High Plateaus (IV)

In Area E we have included the Upper Johnson Canyon, which is part of the Kanab Creek hydrological system, and in many ways connected to the smaller region originally demarcated as Area IV in Kelly's maps from 1932.

General Informational Status of these sites:

- Kinship See Kelly, 1971; Chapter 1: Habitat and Population
- Cultural Landscape See Kelly 1971; Chapter 1: Habitat and Population
- Ethnographic Interviews See Stoffle et al. 1997:187-191
- Documents See Gregory 1951:19

Specific Informational Status of these sites:

Kinship

Timpinapun (Rock man) who was also called Yininapun (Bald-Headed Man), owned the springs of the Panwavi district. Timpinapun was a 'little chief' as well as a shaman. He lived with his wife and his son, Takwasi (Eagle Tail) who was also a shaman. Timpinapun's older sister's son sometimes resided with the family as well. Known as Poronapun (Walking Stick), the nephew of Timpinapun practiced shamanic healing too. Poronapun owned a spring to the southeast of the present town of Alton, and near the foot of the Paunsaugunt Plateau. This spring, known as Panwaviac or 'Mud Water', was near enough in proximity to Alton that he made regular trips there.

Cultural Landscape

The previous district was called Panwavi (Water [?] Grass). It was located beneath the present settlement of Alton. In the winter the people of Alton moved their residence to the more temperate zones of Kanab Creek and Glendale. A cyclical round of movement with resources and climactic conditions continued throughout the year. In the spring, they returned to Panwavi, and ate food procured from the previous season. With the ripening of seeds and the increased availability of fresh resources, the people from these settlements began harvesting, preparing, and storing foods for another year. Unlike the people living in the vicinity of Kanab and Navajo Well, those from Panwavi did not hunt deer upon the Kaibab Plateau, but rather restricted their hunting activities to the more easily accessible Paunsaugunt Plateau.

Despite the utilization of different hunting grounds, the people of Kanab, Johnson Canyon, and Navajo Well had regular contact with those living in the Water Grass district. Those from the more southern sites visited Panwavi to gather serviceberries and highland seeds.

Ethnographic Interviews

In 1997 ethnographic interviews were conducted with experts from the Kaibab Southern Paiute tribe. The results of interviews from the Upper Kanab Creek are available in Chapter 6 of the *Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona* (1997).

Documents

Gregory (1951:19) has examined the region in and surrounding Skutumpah. This place served as a village site for certain Kaibab Southern Paiutes living in the GSENM. Skutumpah (Rabbit Brush Water) was chosen as an optimal site for occupation because it presented itself as "an excellent though small arable area" while also serving as an abundant source of water. Gregory claims that on Powell's Survey maps, the place of Skutumpah is recorded as Clarkston, thus suggesting that by at least 1870 non-indigenous people had begun encroaching on these Paiute lands.

After Mormon settlers usurped these lands from its Southern Paiute inhabitants, the new arrivals established farms and ranches upon these lands. Gregory (1951) notes that the Anglo ranches constructed in "Swallow Park . . . Podunk, Bullrush, Lick, Willis, Sheep, and other valleys along the south base of the Paunsaugunt Plateau. By 1951 these sites had either been completely abandoned or were only "used during the grazing season".

AREA F

Watering Places along the Vermilion Cliffs, Wildcat Canyon, and Kaibab Gulch (V: 35-46)

For purposes of the current study we have combined the upper portion of Area F and Upper G. We call this region the Upper Ankati.

General Informational Status of these sites:

- Kinship See Kelly 1971; Chapter 1: Habitat and Population
- Cultural Landscape See Kelly 1971; Chapter 1: Habitat and Population
- Ethnographic Interviews See Kelly 1971; Chapter 1: Habitat and Population;
Chapter 4 of this report
- Documents Additional information is not available at this time.

Specific Informational Status of these sites:

Kinship

The father of Kelly's consultant, Mose, owned a large region encompassing sites 35-46, and had reportedly acquired these springs through his father-in-law. These sites included: Tupac (35), Mu kovac (36), Kamuvac (37), Panwiavac (38), Kanawaic (39), Kanarimpiku (40), Tinkanivac (41), Ciampivac (42), Si ivac (43), Sovpac (44), Kakarimpac (45), and Sovap (46). People called Mose's father, A piganti, meaning 'Horn'. A piganti came from the Ninkuip people; those who were named in memory of the people killed in an Apache raid. A piganti lived with his wife Kiaci (Mouth Open) at a camp located at Sovpac (Cottonwood Water, 44). They lived with two sons, of whom one acted as Kelly's consultant (Mose). In addition, the unmarried brother of A piganti, lived with the family. He was reportedly a chief 'but not much of one'. Perhaps as a consequence of his unsatisfactory performance, his title and responsibilities were later transferred to another brother.

Kelly's consultant identified four other camps located at Sovpac (44). At the second camp lived another brother of A piganti, known as Tukunimpi (Wildcat Feet). Tukunimpi married, and reportedly lived at Sovpac, though his wife reportedly resided at Ipa (Navajo Well). This information suggests that Tukunimpi probably moved residences several times over the course of his life.

Kaimu (from Kaiumpuc, meaning Hawk or Grouse) headed a third camp in this district. Kaimu was also a brother of A piguanti. He lived with his wife and her unmarried brother, Saroc. At the fourth camp located at Kanarimpiku (Knoll [?], 40) lived Saiturn (White Spots) who was also related to A piguanti, though the type of relationship is never specified. Kelly's consultants reported different findings regarding Saiturn's family life. He may have had a wife and son, though another consultant states that he was unmarried. These findings suggest that Saiturn may have been widowed.

Cultural Landscape

The sites along the Vermilion Cliffs as well as the surrounding vicinities were connected through the life giving passages of water as well as their position within the canyon as a whole. The Southern Paiute name for this region is Ankati, which literally translates as 'intersection of creeks'. Ankati refers to the region comprising Kanarimpiku (40) to the north of the White Cliffs and Kakarimpac (Kaibab Gulch, 45), which runs southeast south from the Vermilion Cliffs, and eventually intersects with the Paria River. The three intersecting canyons of Ankati include Kanarimpiku (Wildcat Canyon?), Sovpac (Kitchen Canyon?) and Kiabakuwak (Kitchen Creek Canyon?).

Ethnographic Interviews

Kelly's information strongly suggests that movements between springs along the Vermilion Cliffs, in Wildcat Canyon, and Kaibab Gulch were very finely orchestrated affairs. The chiefs of each group frequently directed the seasonal movements between permanent

settlements. In addition to relegating this responsibility to an officially designated leader, the people from particular sites regularly met up with certain groups for hunting, food procurement, and events that enhanced group cohesiveness. The shifting of settlements in responses to climactic changes also allowed particular Paiute people to attune themselves to slight environmental changes, and thus establish a balanced relationship with their environments.

In the summer of 2000, additional ethnographic interviews were conducted within Area H. In Chapter 4 of the current report we detail information relating to the site of No Man's Mesa.

Documents

Additional information on Area F is not available at this time.

AREA G

Ankati: Spring at the base of Paunsaugunt Plateau (VI: 47-52)

For purposes of the current study we have combined the upper portion of Area F and Upper G. We call this region the Upper Ankati.

General Informational Status of these sites:

- | | |
|---------------------------|---|
| • Kinship | See Kelly 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | See Kelly 1971; Chapter 1: Habitat and Population |
| • Ethnographic Interviews | See Chapter 4 of this report. |
| • Documents | See Gregory 1951:84; Shaul and Senarlson 1997:42 |

Specific Informational Status of these sites:

Kinship

Tapunapun owned Piki-pa (Rotten Water, 47), Atavac (Sand Water, 48), Wigimpac (Vulva Spring, 49), Pagari (Reservoir/Pot Hole, 50), Timpiku (Rock Hole, 51), and Kanankwicic (Willow Run, 52). At one point Tapunapun lived with his brother, O oisic, but later married, and changed residence. Tanpunapun knew the people from the springs along the Vermilion Cliffs, Wildcat Canyon, and Kaibab Gulch (35-46) quite well. During the winter he would usually move in with them or move towards the base of the White Cliffs.

Cultural Landscape

Tapunapun lived at permanent settlements between sites 47 and 52 during the spring, summer and fall. During the winter he moved to settlements between sites 35-46. The land around sites 47-52 was reportedly sparsely populated. Kelly chose to present this area as a discrete region from the watering places along the Vermilion Cliffs, Wildcat Canyon, and Kaibab Gulch (35-46) because the residents of this area did not mention traveling to the Kaibab Plateau to hunt deer, nor to Nankoweap to gather mescal.

Ethnographic Interviews

Interviews were conducted in the summer of 2000 at sites within the Upper Ankati, which is comprised of the upper portions of Area G and Area F. A detailed description of this information is available in Chapter 4 of the current report.

Documents

Interview sites (Summer 2000) and prominent markers within the Paunsaugunt Landscape are further detailed in the works of Gregory (1951). "As viewed from Rainbow Point, the country [of the Pausaugunt region] descends southward in a orderly succession of terraces miles in width, separated by cliffs hundreds of feet high, across the White Cliffs and the Vermilion Cliffs to the Kanab Plateau, 40 miles distant and 4,000 feet below.

The terraces are trenched by deep gorges, and from their floors rise small mesas, platforms, and towers, and such prominent erosion remnants as No Mans Mesa and White Cone (Tabetimp). Tabetimp or White Cone (Gregory 1951:84) represents the geological formation known today as Mollies Nipple.

According to a Paiute dictionary assembled by Shaul and Senarlson (1997:42), ta'api signifies milk, and tempi refers to stone, rock, iron, and money. This interpretation is consistent with Sapir: 1931:674, who notes that timp means iron, stone, or rock.

AREA H

Upper Houserock Valley (Empty Basket- Ousuk?) (VII: 54)

General Informational Status of these sites:

- | | |
|---------------------------|--|
| • Kinship | See Kelly, 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | See Kelly 1971; Chapter 1: Habitat and Population |
| • Ethnographic Interviews | There are no interviews available at this time |
| • Documents | See Escalante 1854:515; Bolton 1928:69 |

Specific Informational Status of these sites:

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.

Ethnographic Interviews

There are no interviews available at this time.

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.

AREA I:

Lower Houserock Valley, and Cane Ranch to the South, : 1 the eastern base of Kaibab Plateau (VIII: 55-59)

General Informational Status of these sites:

- | | |
|---------------------------|---|
| • Kinship | See Kelly 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | See Kelly 1971; Chapter 1: Habitat and Population |
| • Ethnographic Interviews | See Kelly 1971; Chapter 1: Habitat and Population |
| • Documents | See Dellenbaugh 1909:362n |

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).

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.

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.

Cultural Landscape

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 pinenuts, 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 pinenuts. When resources were scarce, they also gathered mescal in the Colorado Canyon.

Ethnographic Interviews

Kelly reports that occupants of Mukuvac (56), Tumarapaganti (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.

AREA J

Springs on Marble Platform, at the base of Vermilion Cliffs, at Cane Ranch, and at the eastern base of the Kaibab Plateau (IX: 60-62, 64, 67, 68)

General Informational Status of these sites:

- | | |
|---------------------------|---|
| • Kinship | See Kelly 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | See Kelly 1971; Chapter 1: Habitat and Population |
| • Ethnographic Interviews | See Kelly 1971; Chapter 1: Habitat and Population |
| • Documents | There is no other information available at this time. |

Specific Informational Status of these sites:

Kinship

The shaman Niwarimpi (Snow Heel) owned Tumarapaganti (whose name derives from the plant timari, 60) and Winorumpac (Arrowhead Water, 61). He lived with his wife. His three married sons, three married daughters, and all of their children lived at separate camps within the area. When the elder Niwarimpi died, "all the children moved away and nobody owned the spring".

One family later occupied Sovinokwicic (Cottonwood Running, 65). This family was headed by Sina atan (Sinarin, Coyote Teeth) who lived with his wife and two children. Kelly notes that Naragowoci of Sinavac (76) owned Ogontinava (69), Paiyampagati (70), Pagwuiacpikanti (71), Piacampipkwitic (72), Ankapi (73), and Mo onticivac (74). Although he owned these lands, he spent most of his time in Sinavac (76). Kisaici (Mouth Open) owned Pagampiaganti (Cane Ranch, 67) and lived alone. Several other camps at Pagampiaganti housed the brother shamans, Saitimpi (White Spot Mouth) and Kwiuinimpi (Crooked Feet) as well as Saitimpi's daughter.

An important chief known as Kwinivac (Stands Straight) owned the springs called Kwiavac (Oak Water, 68). Kwinivac served as chief for the people of Tumarapaganti (60), Winorumpac (61), and Kwiavac (68). Three camps are noted at Kwiavac: At the first camp Kwinivac lived with his brother, both whom eventually married two sisters. Other residents included Niaku u (Chest) and his wife Capw uiuvi, (Wrinkled Eyes), who was the sister of Kwinivac, and Muiait (No Nose) and her husband.

Cultural Landscape

Niwarimpi and his family moved to Winorumpac (Arrowhead Water) during the fall in order to collect pasi and kwakwe, and pagankwakwe seeds. They also traveled to Kaibab Plateau to hunt deer, and Paria Plateau to gather pinenuts. The residents of Pagampiaganti also moved to accommodate their needs to the changes in the environment. As a result they wintered near the rim of the Colorado Canyon or even in the mouth of Kanab Canyon. The people of Kwiavac moved to the Kaibab Plateau in the summer to gather seeds, and the winter to hunt deer. They also wintered beneath the rim of the Colorado Canyon near the southeast base of Kaibab Plateau.

Ethnographic Interviews

Additional interviews upon Area J sites are not available at this time.

Documents

Additional documents are not available at this time.

AREA K

Springs at the western base of Kaibab Plateau (X: 75-77)

General Informational Status of these sites:

- | | |
|---------------------------|--|
| • Kinship | See Kelly 1971; Chapter 1: Habitat and Population |
| • Cultural Landscape | See Kelly 1971; Chapter 1: Habitat and Population |
| • Ethnographic Interviews | There are no additional interviews available at this time. |
| • Documents | There are no additional documents at this time. |

Specific Informational Status of these sites:

Kinship

An elderly widower, Puntuwaci (Swirl) owned Maavawiniti Spring (Tree in Water). He resided there with his two daughters. The daughters both married Kanu (Sings Song), a man originally from the Moccasin district. Each wife gave birth to a daughter. When their father died, his daughters and Kanu became the new owners of the spring. At a second camp lived Ka auc (Knees) and a woman to whom he may have been married.

At Sinavac (Coyote Water, 76) Kelly's consultants identified seven camps. 1) At the first camp lived the shaman and 'big chief' Naragowoci (Tattooed?). He lived with his wife, sister, and four individuals that were not identified. 2) At a second camp lived Uipamugaci (Creek, edge of cliffs) along with his wife and two children. 3) Pa antim (Long Penis) lived with his wife and four children at a third settlement. 4) Other camps included Anjkapii (Red Arm), his wife (Mu uri, Crane's Neck) and their two sons and daughters, as well as Mu uri's parents: Ya

aicomoni (Dead Leaf) and Panagumpi (Metal Tongue). 5) Squirrel Tail and his wife one side of face lived at camp five with three sons and one daughter. 6) Mu uc, his wife Mu wiati, and their three children lived at camp six, and 7) Copicgaiki (Broken Ankle and Foot Turned In) lived with his wife and three children at a camp somewhat distant from the others.

Oa cki (Yellow Squeeze) owned Sagwogo acpa (Tobacco Water: 77), where he lived with his wife and three daughters. Upon death, the came was taken over by his younger sister's son.

Cultural Landscape

On the western base of the Kaibab Plateau, Kelly (1971) notes three springs, Maavawiniti (Tree in Water, 75), Sinavac (Coyote Water, 76) and Sagwogo acpa (Tobacco Water, 77) that supported a large population. These springs are reportedly located at "the heads of small canyons that drain the Kanab".

Ethnographic Interviews

There are no additional interviews available at this time.

Documents

There are no additional documents available at this time.

As the works of Kelly (1971), Sapir (1930), Stewart (1941), and others demonstrate, the perennial springs of the GSE/NM were central in the lives of the Southern Paiutes who resided in these portions of the Southern Paiute territories for thousands of years. Just as the Paiutes found innovating methods for living well in environments renowned for a scarcity of resources, the animals and plants found means of responding to high variability in rainfall and available foods. In the next chapter, we examine the prevalent geology, geography, botany, and animal presence at several sites within the GSE/NM identified by Southern Paiute consultants of the present as well as the 1930s (Kelly's consultants) as being particularly significant.

Chapter 4

Selected Grand Staircase/Escalante Places

This chapter is about selected places in GS/ENM as they are understood and have meaning to contemporary Kaibab Paiute people. As such, the main goal of the chapter is to assist the managers of the GS/ENM to recognize and understand Paiute cultural resources and places. Permitting the Paiute voice regarding these places and resources to be accurately heard is crucial to the process of creating culturally sensitive land management practices.

The Kaibab Paiute tribe and their elder representatives who participated in this study view this chapter as a beginning rather than end. This report, and especially this elder-based interview chapter, is termed a "living document." It is by definition not complete and is in fact perceived by the Kaibab Paiute council as only a beginning.

The value of a living document is that it can be expanded by any future site visits, however extensive they may be. New sites can be added and extant sites can be productively visited. The only requirement is that during each site visit the same elder interview instrument be used and that funds be provided to add the new elder insights into latter versions of the report. Before proceeding with a site-by-site discussion, it is important to consider the methodological implications of how cultural knowledge is distributed.

Paiute Knowledge and Its Distribution

The foundations of this chapter are oral interviews conducted with members of the Kaibab Paiute tribe. All of these people were selected by the tribal government to represent the cultural opinions and interests of their tribe. However, both elders and the tribal council recognize that the ideas they present represent only a portion of the total Paiute knowledge about these places.

The distribution of knowledge is intimately connected to marriage practices. Paiute people have always intermarried with Southern Paiutes from places that were traditionally known as districts (see Chapter 2 for a full discussion on districts). This practice continues today. Cultural knowledge goes where people go. Consequently, people who know about the GS/ENM live in many places and are members of various Paiute tribes. Thus, full access to this ethnic (or national) knowledge base needs to involve systematic site-specific ethnographic interviews with elder from all Southern Paiute tribes.

The 13 contemporary tribes of the Southern Paiute Nation are:

- Kaibab Paiute Tribe, Arizona
- Paiute Indian Tribe of Utah
- Kanosh Band
- Koosharum Band
- Cedar City Band
- Indian Peaks Band
- Shivwits Band
- San Juan Southern Paiute Tribe
- Moapa Paiute Tribe
- Pahrump Paiute Tribe (seeking recognition)
- Chemehuevi Paiute Tribe
- Colorado River Indian Tribes
- Chemehuevi Band
- Twenty-Nine Palms Paiute Tribe

It should be noted that the Twenty-nine Palms Paiute Tribe (Trafzer, Madrigal, and Madrigal 1997) is currently seeking official recognition as a member of the Southern Paiute Nation. To date, they have received this recognition from the CRIT – Chemehuevi Band and the Chemehuevi Paiute Tribe.

This chapter is based on elder interviews guided by instruments developed in conjunction with the Kaibab Paiute tribe and other Southern Paiute peoples. The Site-Specific instrument was developed during the 1995 study of Paiute cultural resources in Zion National Park and Pipe Spring National Monument (Stoffle, Austin, Halmo, and Banks 1996). That study challenged the UofA research team to construct a data-gathering instrument that would permit interviews to occur on any topic that may arise during visits to different sites.

Utilization of this instrument signifies a departure from earlier cultural resource studies. Previously, each study was directed towards investigating a specific resource and the places where such resources could be found. For example, members of the research team would decide to study archaeology sites. Consequently, places noted for particular types of archaeology were selected. Under this arrangement, the tribal councils would send people who knew about archaeology sites. A similar research design occurred if the study focused on plants or animals. A particular instrument would be developed for each resource. Having twelve pages of resource specific questions was not uncommon. In the Zion-Pipe Spring study, researchers departed from this approach. The National Park Service (NPS) viewed this study as being an initial exploration to be conducted at a variety of places. Accordingly, some of places and types of investigations would be decided on during the study itself.

The UofA team made an interview instrument that would permit elders and researchers to visit any place and interview on any aspect of that place that the visiting elder viewed as culturally important to the Paiute people. Out of a group of six elders visiting a place during the Zion-Pipe Spring study some consultants would express interests in plants and animals, while others would share thoughts on the archaeology or geology of the place. The currently used site

form is very flexible in this respect, but sometimes limited in other regards. While the resource specific form might yield up to twelve pages of questions regarding each plant, animal, or archaeology site, the current interview instrument generates information from a more holistic stance. It is clear that each approach yields distinctive benefits and makes special contributions contribution to expanding knowledge of people, places, and resources by providing a venue in which any resource that is identified by an elder can be included, or through the provision of resource-specific forms designed to gather a great deal of knowledge about a specific resources.

The obvious questions for a Federal land manager and for tribal council members is, 'When have sufficient interviews occurred in order to make an authoritative decision about cultural places and resources?' Certainly, it is possible for one elder to visit a location and make an identification that will be recognized as valid by both his tribe and ethnic group and the Federal land manager. A good example is a widely recognized spiritual place like Vulcan's Anvil in the middle of the Colorado River in the Grand Canyon. This is a medicine rock used for curing and both Paiute and Hualapai share this understanding. On the other hand, knowledge about some things is unevenly distributed and widely scattered. The recent article on Southern Paiute plant knowledge, called "*Puchuxwavaats Uapi* (To Know Plants): Traditional Knowledge and the Cultural Significance of Southern Paiute Plants" (Stoffle, Halmo, and Evans 1999:426), provides direct research and statistical evidence that,

1. Southern Paiute people as an ethnic group retain vast funds of knowledge regarding traditional plants, even though this knowledge is dispersed and unevenly distributed among individuals;
2. Female elders appear to be "keystone" individuals who possess greater funds of knowledge regarding plants and their uses;
3. Multiple interviews (up to eighteen were used in this case) with a wide range of ethnic groups members may be required to fully articulate the cultural significance of a particular plant at the ethnic group level; and
4. Project-specific ICS scores for a specific plant can be analyzed comparatively to derive composite values that approximated the ethnic perception of the cultural significant of particular plants.

This ethnobotanical analysis was made possible because the UofA research team has worked with Southern Paiute people since 1972 and these Paiute people have worked to explain their knowledge of and interest in plants so that they can be properly protected by Federal land management agencies. The article recognizes by name many of the Paiute elders who have shared their plant knowledge. The analysis also was made possible because an ethnobotanical interview instrument was developed and used consistently for over a decade.

Thus a systematical ethnobotanical database was created from which insights regarding the distribution of plant knowledge can be understood. Therefore, unlike the commonly held recognition among Paiute people that Vulcan's Anvil is a medicine place, plant knowledge is unevenly distributed among people, between males and females, and between the young and the old. To return to the original question, 'When can we feel that sufficient elder interviews have occurred?' the answer is 'When the tribal councils and their elders from all Southern Paiute tribes agree that the findings are complete'.

Site-By-Site Analysis

The following portion of the chapter presents a site-by-site analysis of the cultural importance of various places in GS/ENM. The spatial size of the place under analysis varies from a rather narrow description of Navajo Spring to a rather large analysis of the areas around No Man's Mesa. Variances in the size of these areas derive from how clearly the sites are traditionally bounded by Paiute uses patterns. In general, as more information is provided by future studies the sites under analysis will become spatially smaller. All sites discussed are directly culturally connected to the GS/ENM, but two are at the edge and extend beyond the boundary of GS/ENM.

The analysis is based on interviews with Kaibab Paiute elders. Each site description describes its the geological characteristics, plant and animals, whether or not these plants were used by Paiute people, and what elders think of this area and the resources it contains. Sites that are discussed in other chapters of this report are cross-referenced.

Skutumpah – Rabbitbrush Water

[See Chapter 3 – designated Area E. This area is referred to as 21. Skumpac (Rabbit-Brush Water; Rigg Spring) (Kelly 1971:9).]





Study Area Description

This study area is located in Johnson Canyon, east of Kanab Creek approximately 22 kilometers southeast of Alton, Kane County, Utah at the junction of Johnson Canyon Road, Glendale Bench Road, and Skutumpah Road at an elevation of 1775 meters above sea level, 37° 13' 828" N latitude, and 112° 22' 171" W longitude. Within this study area, which is 25 kilometers north of U.S. Route 89, Skutumpah Creek traverses Skutumpah Terrace- a broad belt of flat land crossed by south-flowing streams that originate and terminate within canyons (Gregory 1963:13) northwest of Timber Mountain. The Skutumpah Terrace extends from the Parunuweap Valley northeastward to the Paria River, a distance of approximately 40 miles. The southern edge of the terrace is sharply outlined by the White Cliffs (Gregory 1950:7). It is one of the great rock steps that lead from the Colorado River to the crest of the High Plateaus (Gregory 1951:101). Historically, the Skutumpah Terrace and the adjoining highlands have been heavily grazed. The Skutumpah Terrace is the site of ranches and cultivated fields. In the 1950s, it provided one of the only east-west routes accessible for wagons through the rugged precipices and canyons between the Vermilion Cliffs and the Pink Cliffs (Gregory 1951:102). The legal location of the site is T41S R5W Sec. 7 NE4. Running for approximately 46 miles between Johnson Canyon and Kodachrome Basin, the rugged and graded dirt surfaced Skutumpah Road traverses some remarkable country that has been carved by streams and canyons. This route provides access to Deer Springs Wash, Bull Valley Gorge and some steps and terraces of the Grand Staircase. Within the area, riparian ecosystems serve as corridors for neo-tropical migratory birds and local fauna. Johnson Creek and its tributaries provide habitat, which supports the movement and hence, the long-term viability of native animal populations.

Botanical inventory and photodocumentation were executed along both sides of Johnson Canyon Road, adjacent to private ranches within Grand Staircase-Escalante National Monument. The road is the approximate boundary between the Great Basin Conifer Woodland (Pinyon-Juniper) vegetation upslope and Great Basin Desert Shrub (Big sagebrush, *Artemisia tridentata*) across the floodplain of Kanab Creek at Cedar Flats. Much of the valley floor has been severely impacted by chaining, which has been used in the past to remove pinyon and juniper prior to reseedling with perennial grasses (Bureau of Land Management 1999:26).

Livestock grazing is permitted on public land within the study area. Overgrazing has further devastated the natural vegetation in this location, thus contributing to the erosion of Johnson Wash. Currently and historically, the valley floor has been used for the cultivation of alfalfa, *Medicago sativa*. The dense growth of sagebrush is an indication of the successful colonization of this shrub as a result of disturbance by grazing, chaining and cultivation. Incised channels developed after farmers tried to divert runoff from the center of the valley toward the valley margin (Webb, Smith and McCord 1991:5). Farming has had a significant impact on the hydrology of the region because on private land, water is diverted out of the channels to irrigate the farmland and the runoff returns to the creek beds. When the water returns, it may carry remnants of chemicals used to spray the fields (Bureau of Land Management 1999:101). Before the settlers arrived with their stock, Johnson Wash was lushly covered with meadow grasses. One year in the 1880s, the meadows were so wet that they could not be cut. As a response to the precipitation, a man by the name of Shumway plowed a furrow through the center of the Johnson Valley to drain off the excess moisture. As a result, the protective and stabilizing cover of sod was destroyed and from that day forth, severe erosion and irreparable damage occurred after every rainstorm (Webb, Smith and McCord 1991:29). The farming towns of Skutumpah and Johnson were founded in the 1870s, but were abandoned by the 1920s because of extensive erosion to Johnson Wash and its tributaries (Webb, Smith and McCord 1991:18).

Powell designated the great pile of sediments rising above the Grand Canyon platform the Chocolate Cliffs, Vermilion Cliffs, White Cliffs, Gray Cliffs, and Pink Cliffs. These cliffs provide a colorful record of the age and origin of 10,000 feet of Mesozoic and Eocene strata (Gregory 1950:46). The White Cliffs, belonging to the Navajo Sandstone Formation of the Jurassic can be viewed from within the study area. Soils along the valley floor are of alluvial origin from Kanab Creek. They are deep soils, consisting of sand and silt. On the slopes, soils are a heavy, dark gray clay-shale with sandstone and rocks of volcanic origin embedded. The slopes alternate between rounded ridges and shallow, steep-sided drainages. Kanab Creek and its principal tributary, Johnson Creek rise at the rim of the High Plateaus and flow southward across Tertiary, Jurassic, and Triassic beds along their course through canyons, terraced river flats, and meadowlands. Such features reflect the relative resistance to erosion of the various formations (Gregory 1950:164).

Botanical Interpretation

Within the study area at approximately 2376 meters above sea level, the slopes are dominated by Colorado pinyon, Utah juniper, and groves of Gambel oak (*Quercus gambelii*). Buckbrush (*Purshia tridentata*), snowberry (*Symphoricarpos longiflora*) and American plum (*Prunus americana*), an escaped cultivated shrub, are important shrubby plants in the understory. Herbaceous ground cover is scattered, and there is much bare soil between trees and shrubs. One elder recognized twinpod (*Physaria newberryi*), a perennial herb of the Mustard family, as having cultural significance within the study area. This species had not been noted previously. Paiute plants are listed in bold print below along with other plants observed within the study area at 2376 meters above sea level.



Scientific Name

Amelanchier utahensis
Arctium minus
Artemisia tridentata
Berberis repens
Bromus tectorum
Cercocarpus montanus
Chrysothamnus nauseosus
Chrysothamnus viscidiflorus
Juniperus osteosperma
Juniperus scopulorum
Lepidium sp.
Malcomia africana
Pedicularis centranthera
Penstemon linarioides
Phlox austromontana
Physaria newberryi
Pinus edulis
Plantago major
Populus alba
Prunus americana
Purshia tridentata
Quercus gambelii
Ribes cereum
Rosa woodsii
Senecio multilobatus
Symphoricarpos longiflorus
Taraxacum officinale
Zigadenus paniculatus

Common Name

Utah serviceberry
 Burdock
 Big sagebrush
 Creeping barberry
 Cheatgrass
 Alder-leaf mountain-mahogany
 Rubber rabbitbrush
 Viscid rabbitbrush
 Utah juniper
 Rocky Mountain juniper
 Peppergrass
 African mustard
 Pinyon-juniper lousewort
 Siler's penstemon
 Desert phlox
 Newberry twinpod
 Two-needle pinyon
 Common plantain
 White poplar
 American plum
 Bitterbrush
 Gambel's oak
 Wax or squaw currant
 Woods wild rose
 Uinta groundsel
 Long-flower snowberry
 Common dandelion
 Foothills death camas

At the junction of Johnson Canyon Road, Glendale Bench Road, and Skutumpah Road at an elevation of 1775 meters, the following plant species were observed in a disturbed area adjacent to private ranches within Grand Staircase-Escalante/NM. Historically, the headwaters of Johnson Wash were grazed during late spring through fall. As a result, damage to and consequent reduction of palatable grasses and shrubs has been severe. By the year 1956, a mere 41 hectares of a total 695 hectares of irrigable land remained in native vegetation. Less desirable plants, such as Four-wing saltbush (*Atriplex canescens*) replaced more palatable species. Agricultural activities such as dam and ditch construction, and draining of meadows for the cultivation of exotic grasses and alfalfa, have had a significant impact on channel erosion within Johnson Canyon (Webb, Smith and McCord 1991:21).

The great diversity of substrates spanning several life zones within the study area results in a high level of plant endemism. Warm and cold desert floras are represented within the Skutumpah area within Grand Staircase-Escalante National Monument, which is considered one of the richest floristic regions in the Intermountain West (Bureau of Land Management 1999:22). Paiute plants are listed in bold print along with other plants observed at this location.

| <u>Scientific Name</u> | <u>Common Name</u> |
|--------------------------------|------------------------|
| <i>Agropyron cristatum</i> | Crested wheatgrass |
| <i>Argemone munita</i> | Armed prickly-poppy |
| <i>Artemisia filifolia</i> | Sand Sagebrush |
| <i>Artemisia tridentata</i> | Big sagebrush |
| <i>Atriplex canescens</i> | Four-wing saltbush |
| <i>Bromus tectorum</i> | Cheatgrass |
| <i>Camissonia</i> sp. | Camissonia |
| <i>Chrysothamnus nauseosus</i> | Rubber rabbitbrush |
| <i>Convolvulus arvensis</i> | Bindweed |
| <i>Descurainia pinnata</i> | Pinnate tansy-mustard |
| <i>Descurainia sophia</i> | Flixweed |
| <i>Gutierrezia sarothrae</i> | Broom snakeweed |
| <i>Halogeton glomeratus</i> | Halogeton |
| <i>Juniperus osteosperma</i> | Utah juniper |
| <i>Juniperus scopulorum</i> | Rocky Mountain juniper |
| <i>Medicago sativa</i> | Alfalfa |
| <i>Melilotus officinalis</i> | Yellow sweet-clover |
| <i>Oryzopsis hymenoides</i> | Indian ricegrass |
| <i>Pinus edulis</i> | Two-needle pinyon |
| <i>Purshia tridentata</i> | Bitterbrush |
| <i>Quercus gambelii</i> | Gambel's oak |
| <i>Salsola tragus</i> | Russian-thistle |
| <i>Sisymbrium altissimum</i> | Tumbling mustard |
| <i>Sphaeralcea coccinea</i> | Common globemallow |
| <i>Tragopogon dubius</i> | Yellow salsify |
| <i>Verbascum thapsus</i> | Woolly mullein |

Southern Paiute Interpretation

At one time many Southern Paiutes resided upon the Upper Kanab Creek for the duration of each summer. While living at this location, Paiute people cultivated gardens that were irrigated with water from the Kanab Creek. In addition, Paiute people collected plant resources and hunted animals that lived in the vicinity. In addition, when people from Orderville and Johnson Canyon migrated back and forth to the lakes, the Upper Kanab Creek environs served as part of their transhumant adaptive strategy. Paiutes preferred well-watered higher elevation locations for their summer residences. Kelly (1971:14) noted that Southern Paiutes from Kanab, Johnson Canyon and Navajo Well sometimes visited Alton from summer to fall to collect berries and highland seeds (*Artemisia* sp. and *Balsamorhiza sagittata*). Such areas provided a rich diversity of plant and animal resources. From this location, people would travel to Indian Peak to collect pinenuts for winter storage and provision. Locations such as these were used not only for resource harvesting purposes, but also for religious and social activities, including exchange and reciprocal use rights between intermarried groups or district members. Networks would have extended through this area from Kaibab in the south to Richfield in the north. Trade was also conducted between Paiute residents at this spot and kinsmen from the west. One elder noted:

Whoever was passing by could tell them where to go next [to hunt or gather. They would] collect certain willows in spring before sap came, and clay...[They would] share it with people who didn't have that material, and in return they would also trade them for something else. That way they would bring things to other people and sharing it, you know they were together like in sharing the land. They were doing that in the old days, they would move to Kaibab Mountains. It was mostly the Kaibab people who went down there to gather elderberries, and pinyon nuts, and cactus fruit, all kinds of cactus fruit they gathered on Kaibab. And in the winter when they traded with people that had different kind[s] of [food], like that choke cherries, the people from the west brought that over towards Kaibab, so they could trade with them for whatever kind of fruit they had and it seemed that they lived such a good life, they had vegetables, and they had everything they wanted...

Features

Water. The waters of Kanab Creek were pointed out as being important for irrigation all through Johnson Canyon and for human and animal consumption. Water pockets may also have been important sources of water. The water from Kanab Creek was also used in ceremonies held at the location. A Kaibab elder discussed the springs in the area:

The white people had occupied the springs in the region. Now, you can't get into them because they have been padlocked. There are a lot of springs throughout the whole area...So when our people traveled the foothills, they knew where the water holes were.

Plants. Squawbush, pinenut, acorns, yucca, and gooseberries were mentioned as being used for food and manufacture. Medicinal plants in the area were sagebrush, which was brewed

for colds, and buckbrush. The newly identified Newberry twinpod, a member of the mustard family, was pointed out as having a useful bright yellow flower, which was used in the coloring of baskets. Tansy mustard, *Descurainia* seeds were made into a mush and sometimes mixed with snow as a confection (Kelly 1971:42). The seeds were also ground into flour for bread, mixed with other seeds and used as a good condiment. The plants were also cooked as a potherb. (Bye 1972:93). Kaibab representatives discussed other native plants and farming in the area:

Sage roots have good fiber. The cedar and sage were used for healing. There was some farming by the creeks and washes. They would farm plants they could use...such as corn.

Animals. This location provided a diversity of large and small game. Deer, elk, mountain lion, wolf, sage hen, rabbit, and cottontail were mentioned as being hunted for food and clothing within this area. Deer parts were also used in ceremonies. While conducting interviews, elders observed a pair of golden eagles (*Aquila chrysaetos*) flying over a rock-writing site within the Skutumpah region. Several peregrine falcon (*Falco peregrinus*) were also sighted within the study area. One elder commented on the Southern Paiute hunting ethic:

Those were the things that they were really protecting at the time when they had plenty of meat, they didn't want them to be killed just for the joy of killing animals, people weren't allowed to do that...and I think that rule was provided by our chief, and it's been carried on throughout the years...it was their land, but then the Mormons come and...come and they have to do away with some of the animals...they kill them, they poison them...

Evidence of Previous Paiute Occupation/Use. One elder noted, "Where there's water, there's artifacts". The elder believed there was probably evidence of food processing (grinding stones), pottery, and arrowpoints present in the area of Kanab Creek. In the Skutumpah area, which has been used extensively by Southern Paiute people, there are rock-writing sites. These places are highly valued by Kaibab Paiute people who have intrinsic cultural ties to the area. A Kaibab elder discussed the area:

There were Paiute villages in Johnson Canyon. This area was one of the main part of where they roamed. A lot of the people were born here. There are a lot of petroglyphs in Johnson Canyon and they were destroyed.

Physical/Geologic Features. The mountains were mentioned as places of worship and ceremony. Caves in the area would have been used for the same purposes. A Kaibab elder spoke about his travels in the region:

Doc Brown owned a place up in Johnson Canyon, up by Nephi... We would take a trip on horseback up by Johnson Lakes. They had some grandmas... mean ones! It was a country road, not a good road. I have been out through here a long time ago. Stanley, Warren and I worked here. We were in the movies up in Johnson Canyon. In Johnson Canyon, there were western movies for the Lone Ranger. They made a lot of movies here.

Perceived Impacts

The primary impacts to this location have been increased non-Indian settlement, cattle and sheep grazing, establishment of farms, corporate cattle ranches and road-building. Rock-writing sites have become increasingly more vulnerable because of road accessibility and they need protection.

Elders perceive these processes as having adverse impacts on plants, animal populations, and the quality of the environment in general, especially, the water in Kanab Creek. Too much development could lead to increased risk of flooding. Irrigated farming on a large scale could lead to the drying up of Kanab Creek.

I think, people make homes in the area...too many roads too, and that has never been there and I think that's what spoils the scenery and the conditions of the land.

Recommendations

Paiute people believe they should have the right of free access for seasonal use and harvesting of resources at this location. Currently, permission is required as much of the property is either privately owned or is state and Federal land (e.g., BLM land) that may be leased. According to one elder, property rights, laws, and licenses make it difficult to protect an area such as this. Still, efforts should be made to protect the area. Paiute people would return to hunt, gather plants, and teach younger people about traditional land use practices.

One elder noted that contemporary Indian life is too confined to reservations because there are too many restrictions on land use beyond reservation boundaries. A Kaibab Paiute elder discussed the Bulrush Massacre:

I wrote a book once in 1974 about the Bulrush Massacre, which occurred in the Kanab area. The book was entitled "My People". I took the book to the people in Cedar City and made copies of it there. The Mormons poisoned the flour in this area in a place north of Kanab. They poisoned the flour and a person was killed. There have been so many changes because of the roads and all of the ranching.

Upper Ankati – No Mans Mesa Area

[See Chapter 3 – designated Area G. This area is referred to as VI: 47-52, Springs at the base of Paunsaugunt Plateau. This includes the district known to participants as Ankati (Kelly 1971:16).]

Ankati comprises the area between Kanarimpiku (spring 40) and Kakarimpac (spring 45). Its axis was Kaibab Gulch and the upstream continuation of the gulch, called Wildcat Canyon (Kelly 1971:37).]



Study Area Description

This study area is located within in the Grand Staircase-Escalante National Monument on the north flank of the Grand Canyon. At an elevation of approximately 1877 meters above sea level, this area is noted for its Pinyon-juniper plant communities. The study area can be found at 37° 19' 984" N latitude and 112° 03' 394" W longitude within the County of Kane, Utah. The legal location of the interview site is T40S R2W Sec. 28. The interview site presents itself along the west side of a rugged back-country four-wheel-drive dirt road, east of No Mans Mesa and Potter's Butte in the North and West Swag area, and north of Nipple Lake beneath a large shade-bearing two-needled pinyon (*Pinus edulis*). From this location is an excellent vista for viewing Kaivacuwa, Mollies Nipple, (Kelly 1971:15), which is an outstanding 2716-meter mountain with waterless gulches. Kavaicuwa, the prominent erosion formation formerly known as White Cone, (Tabetimp) is an isolated remnant of Navajo sandstone impregnated with iron (Gregory 1951:84). Tabetimp is translated in the Southern Paiute language as 'milk', 'rock', or 'iron' (Shaul and Senarslan 1997:42). The topography descends southward in a succession of terraces that are several miles in width, separated by cliffs that are hundreds of feet wide. The terraces are trenched by deep gorges, and from their floors emerge mesas, platforms and towers with prominent erosional remnants such as No Mans Mesa and Kavaicuwa, Mollies Nipple or Tabetimp, White Cone (Gregory 1951:84).

Dense pinyon-juniper forests cover the higher benchlands in this region and the wider valleys and washes contain Gambel's oak, serviceberry and Ponderosa pine groves. Most of the flora in this location of the Outback Zone is natural vegetation, however in the Nipple Lake region, there is a parcel that is under private ownership. Currently, this gated wetland area remains inaccessible to elders as well as the general population. The area is altered in other ways as well. The practice of chaining has disturbed the vegetation in and surrounding the Nipple Lakes region. Chaining has been used to remove pinyon and juniper prior to reseeding with perennial grasses. Livestock grazing has impacted native vegetation and promoted the

establishment of exotic, invasive species that have become highly successful, particularly in wetland ecosystems.

By contrast, the prominent erosion remnant No Mans Mesa is both remote and solitary. As an outlier of the White Cliffs of Navajo sandstone, it is capped by limestone of the Carmel Formation (Gregory 1951:85). This 2000-acre island encircled by 1000-foot cliffs. It is a pristine plant ecosystem composed of relict grassland and other relict vegetation that have existed since the Pleistocene. This mesa has never been grazed by cattle nor disturbed by agriculture or mining. These ecological communities, including the Pinyon-juniper forests, which cover most of the high elevations grading into Desert shrub in the lower have a low resistance to, and slow recovery from disturbance.

Diverse soils within the Pinyon-juniper communities support trees that are as old as 1400 years. These soil types are critical for sustaining the ecosystems, which are vulnerable to degradation from a number of impacts. Fragile cryptobiotic crusts often referred to as cryptogamic crusts, stabilize the highly erodible desert soils where water sources are scarce. They are responsible for atmospheric nitrogen fixation, nutrient contributions for plants, soil-plant water relations, seedling germination and plant growth and development. These microbiotic crusts, also termed cyanobacterial-lichen soil crusts are composed of lichens, mosses, green algae, microfungi and bacteria bound within a matrix of clay, silt and sand. Living organisms and their by-products form biological soil crusts whereby a surface crust of soil particles is created and bound together by organic materials (Bureau of Land Management 1999:21).

Botanical Interpretation

The slopes within the study area predominantly contain Pinyon pine, Utah juniper, groves of Gambel oak and Big sagebrush. Cheatgrass and other non-native annual brome grasses are threatening native plant communities within the Grand Staircase/Escalante National Monument. These exotic grasses invade roadside ditches and agricultural areas, greatly reducing habitat for native species. In this semi-arid region of red sandstone earth, on the route to the interior, Palmer's penstemon, (*Penstemon palmeri*) a robust perennial (Welsh et al. 1993:677) was growing along the roadside beside a pictograph site, which was a large red boulder that was split in two. Kaibab elders informed us that toxo'awatsip, (Palmer's penstemon) was used for aches and pains. The long taproot was chewed and taken internally. The leaves were also applied for healing cuts to prevent scarring. Elders told us that the fruits of squawbush (*Rhus aromatica* var. *trilobata*), are dried and made into a drink, and cradleboards were made from the straight young flexible branches.

At a significant site with a large pinyon pine and smooth sandstone rock outcrops, bastard toadflax (*Comandra umbellata* var. *pallida*), a perennial root parasitic herb in the Sandalwood Family (Santalaceae), was frequently found in association with sagebrush (Kearney and Peebles 1960:226). The elders pointed out that yucca roots were used for shampoo and for keeping the hair black. The stems were used for soap and the leaves provided fiber. The fruits were eaten both fresh and dry (Bye 1972:90). Yucca buds were roasted and baked and eaten, and the seeds were pounded and eaten raw (Bye 1972:91). A Southern Paiute elder discussed the uses of *Yucca*, uus:

Banana yucca shoots and buds are used. The buds are harvested in the fall and dried. It tastes like candy...they are naturally sweet. Yucca leaves and roots are used to wash baskets with... they become real sudsy. You can dry the leaves and tie them in a knot outside.





Paiute plants are listed in bold print along with other plants observed at these locations.

Scientific Name

Common Name

| | |
|---|------------------------------|
| <i>Amelanchier utahensis</i> | Utah serviceberry |
| <i>Artemisia filifolia</i> | Sand sagebrush |
| <i>Artemisia tridentata</i> | Big sagebrush |
| <i>Astragalus</i> sp. | Milkvetch |
| <i>Bromus tectorum</i> | Cheatgrass |
| <i>Chrysothamnus nauseosus</i> | Rubber rabbitbrush |
| <i>Cleome lutea</i> | Yellow beeplant |
| <i>Comandra umbellata</i> var. <i>pallida</i> | Bastard toadflax |
| <i>Cryptantha</i> sp. | Cryptanth |
| <i>Descurainia pinnata</i> | Pinnate tansy-mustard |
| <i>Descurainia sophia</i> | Flixweed |
| <i>Ephedra torreyana</i> | Torrey's ephedra |
| <i>Ephedra viridis</i> | Indian tea |
| <i>Fraxinus anomala</i> | Singleleaf ash |
| <i>Gutierrezia microcephala</i> | Thread snakeweed |
| <i>Juniperus osteosperma</i> | Utah juniper |
| <i>Juniperus scopulorum</i> | Rocky Mountain juniper |
| <i>Nicotiana attenuata</i> | Coyote tobacco |
| <i>Oryzopsis hymenoides</i> | Indian ricegrass |
| <i>Penstemon palmeri</i> | Palmer's penstemon |
| <i>Phoradendron juniperinum</i> | Juniper mistletoe |
| <i>Pinus edulis</i> | Two-needle pinyon |
| <i>Pinus ponderosa</i> | Ponderosa pine |

Plantago patagonica
Purshia mexicana
Purshia tridentata
Quercus gambelii
Rhus aromatica var. *trilobata*
Salsola tragus
Sisymbrium altissimum
Sphaeralcea coccinea
Symphoricarpos longiflorus
Verbascum thapsus
Yucca angustissima
Zigadenus paniculatus

Purshes' plantain
 Cliff-rose
 Bitterbrush
 Gambel's oak
 Squawbush
 Russian-thistle
 Tumbling mustard
 Common globemallow
 Long-flower snowberry
 Woolly mullein
 Narrow-leaved yucca
 Foothills death camas

Southern Paiute Interpretation

According to the Kaibab (Mountain-lying down people) elders who were interviewed during this project, Ankati was a place for hunting deer and rabbit, dry farming, and gathering pine nuts, pine pitch, seeds, fiber, berries and roots. The black seeds of wa'iv (Indian ricegrass) were gathered and consumed. They were harvested by cutting off the tops. The seeds were hulled and parched with charcoal (Kelly 1971:41). Bows were constructed from the oak tree, deer cords were used to make bowstrings and squawbush, su'uv was used for arrows. Kaibab elders noted that rock tanks and springs such as Wildcat Spring, (Sovpac) (Kelly 1971:9), were good cold-water springs. Up canyon from these springs is a rock hole that water came out of, and up north near Tank Canyon is a great rock tank or Poh that has water in it all year long. The rock-writings illustrated the things that people see and the use of Kavaicuwac (Mollies Nipple) as an orientation landmark. One elder remarked:

I felt humbled by the whole area, humbled in the way I usually feel after a sweat. There's tall sage, when you enter here. It used to be like that in Kaibab. The people used to move around a lot... In the hot seasons, they'd go up to higher elevations. This place is connected to others because of the people... There were a lot of Southern Paiutes, our people who roamed in these areas. They were all over this area. It is a good place for pine nuts and they could gather some yucca and acorns too... Later they'd move to where it was cooler, at a higher elevation... The roads here are on Indian paths.



Features

Water. The waters of Nipple Lake and the springs were used for farming. It was pointed out that this location is currently very dry and that the ranchers are using the water. One Paiute elder reported that this area used to be less dry and there were more plants. Water is considered a precious resource in this region. The Kaibab camped near springs and they used to carry water in a big basket made of willow, kanav covered with pine pitch, sahn-a-pah. A Kaibab elder discussed the springs in the area:

My folks had a lot of water with them so they could camp out anyway. They put barrels of water in the wagon. Before that time, they would camp near springs, not next to springs. They used to carry water in a big basket made of willows covered with pine pitch. We traveled to get seeds and to hunt. We knew many places. There are springs and rock tanks – Some springs are alkaline and are not good to drink. Wildcat Spring is good water but not too much. Cottonwood Spring is good water... Up canyon from it is a rock that water comes out of. Up north is a great big rock tank (Poh) that has water in it all year long.



Plants. The fleshy cones of juniper (wap) were eaten and used for medicine and the seeds were used for making beads. Shampoo was made from the roots of rabbitbrush, (sikump). Yucca, (uus) roots were used for shampoo and for keeping the hair black. Its fiber was made into rope and the buds were roasted and consumed. The Paiutes made chewing gum from the rubbery parts of the sagebrush and the crystal pitch of the pinyon pine. Arrows were constructed from the straight branches of serviceberry, (tu-ab) and cradleboards were made from the straight branches of squawbush. The fruits of squawbush (i'is) were dried and used in a drink. Pinyon pine pitch was taken internally for sore throats, colds, and coughs. *Comandra umbellata* var. *pallida*, bastard toadflax fruits were eaten raw, although excessive were known to cause nausea (Bye 1972:95). Yucca, sage, pinyon pine seeds, Indian ricegrass and acorns were collected and utilized in the area.

The great numbers of domestic animals that were brought into the area by settlers, rapidly devoured most of the vegetation, which produced nutritious seeds, on which the Southern Paiutes depended for their subsistence. Cattle soon devastated places for seed gathering (Gregory and Moore 1931:28). A Kaibab Paiute elder commented on impacts to their cultural resources:

Squawbush was fenced off from us, and they leveled the ground for cultivation. To us, we have always been environmentalists... We always save things and try not to destroy them. We are entwined in it and have grown up with this. When they blocked off the people from these lands, one of the main things was taken from us. From Kanab, by the foot of the mountains and all the way from Kaibab on through, the white people have occupied these places ...they are padlocked and we cannot get into them.

Animals. Deer and rabbit were hunted in the area for food, clothing, tools and ceremony. String was made from deer sinew. A Paiute representative noted that the animal habitat is drying up because ranches and cattle are here. A Kaibab elder recommended:

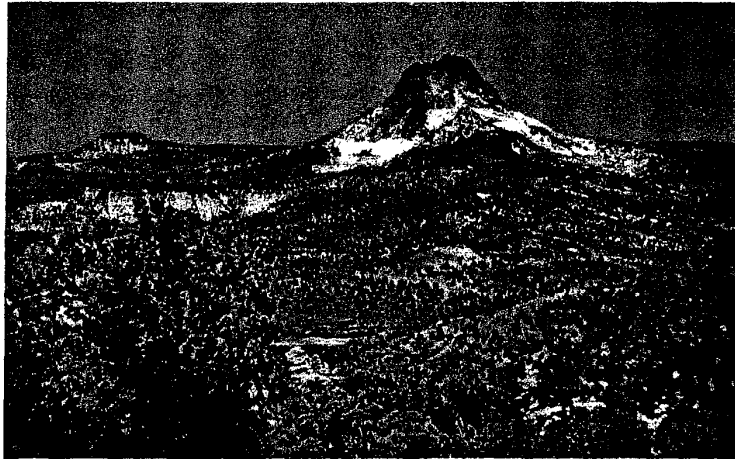
Don't put poison on the plants and kill the rabbits.

Evidence of Previous Paiute Occupation or Use. During this site visit, people observed an Indian granary in a cliff face north of the pictograph site. Elders and researchers also came upon ceramic shards and worked lithic scatters near a large pinyon pine and in the vicinity of the smooth sandstone rock outcrops. A Paiute representative expressed concern over access to this site. She explained that the road affected the condition of these elements. People had vandalized the pictographs by writing over them with graffiti. It is important that these traditional features be protected. A Paiute elder informed us:

There were Paiute villages in this area. It was one of the main places where they roamed. A lot of the people were born here. My grandma was born in Cannonville, my father was born in Bryce Canyon and his father was born in Henrieville. Grandma was called "Cannonball Sally" because she was a strict and bossy lady... There have been so many changes because of the new roads

and all the ranching. The Indian people traveled these trails because they knew where to go for winter supplies, for the different types of fruit that ripened at different times...they would harvest them for winter use...There were always ceremonial songs.

Geological Features. Standing 2716 meters high, Kavaicuwac, (Mollies Nipple or Tabetimp) is a striking mountain that was reportedly used as a landmark for orientation. There are a number of springs and permanent landmarks with Indian names that were utilized. When the people traveled, they knew where the water sources were, Kaibab elders stated. At the interview site, within the pinyon pine and Utah juniper plant community were striking examples of black slabs of iron in various shapes and unusual formations. A Kaibab elder discussed landmarks: *Landmarkers are permanent features with Indian names. We use them to tell where we are.*



Perceived Impacts

The primary impacts to this area have been increased non-Indian settlement, cattle, sheep and goat grazing, the establishment of ranches and the building of roads. Paiute elders perceived these processes as having adverse effects on the ecosystem and the traditional use features of these locations. Rock-writing sites have been vandalized with graffiti because of their proximity to the roads, which rendered them highly accessible, and therefore vulnerable. Gated, private property within Grand Staircase-Escalante National Monument also creates an obstacle to the continuity of traditional Paiute practices such as the sustainable gathering of wild fruits, seeds, and plant materials used for manufacturing tools, cradles and baskets. Water resources have been depleted and this adversely affects the plants. A Paiute elder discussed this point noting:

It is really dry here. I don't know where the water is going...maybe the ranchers are using it. It used to be less dry. There were more plants. It is drying up here because people are building their ranches and cattle are here.

Recommendations

Paiute people maintain that it is essential that the water sources be protected and that poison not be applied to the plants, which kills the rabbits. It was recommended that hunting be prohibited and that traditional use locations be monitored and safeguarded. In addition, damage caused by vandalism should be repaired.

It was suggested that keeping people out of significant traditional use areas would reduce their accessibility and hence vulnerability. Paiute people believe that they should have the right of free access for seasonal use and sustainable harvesting of resources in this location. Much of the property is either privately owned or is state and Federal land that may be leased. The elders stated that efforts should be made to protect the area, for keeping these places open to Paiute people for teaching the young about traditional land use practices. As one elder recommended:

Keep it open for my grandchildren.

Ipa – Navajo Well

[See Chapter 3- designated Area D. This area is referred to as 34. Ipa (Old Water; Navajo Well; about 1 mile south of Vermilion Cliffs) (Kelly 1971:9).]



Site Description

This study site is situated approximately 1 mile south of U.S. Route 89 and .5 miles west of Pioneer Gap at 37° 01' 933" N latitude and 112° 16' 101" W longitude. It is 1642 meters above sea level, and is located in Kane County, Utah. Navajo Well, or Ipa which means 'Old Water' in the Paiute language (Kelly 1971:9), is located about 2 miles south of Flag Point in the deep red Moenave Sandstone of the Vermilion Cliffs. The rocks of the Vermilion Cliffs are representative of the Chinle formation of the Triassic age. The hard limestone and sandstones that make up the

Vermilion Cliffs are worn down slowly (Gregory 1963:19). The Ipa - Navajo Well interview site's location is on the southern border of Grand Staircase-Escalante National Monument 1.5 miles west of the old bridge over the dry and deep precipice of White Sage Wash. There are several private ranches, wells and corrals within this locality characterized by sandy soils and water scarcity. Navajo Well has been critically impacted by the mechanical removal of approximately 5-10 yards of earth from the spring. A large mound of earth containing lithics, ceramic shards, petrified wood and historical and current trash is situated beside the spring, which is now a hollowed out muddy ditch covered with an algal bloom, where cattle have left their hoof marks and bees and horseflies find moisture.

Botanical Interpretation

The area is significantly depauperate of native vegetation because of severe overgrazing by cattle and the general mismanagement of resources. In this highly disturbed Sand Desert Shrub plant community with *Juniperus osteosperma*, Utah juniper, spring waters of Navajo Well are utilized for watering cattle. Exotic species such as *Ailanthus altissima*, Tree-of-heaven in the Simaroubaceae or Quassia Family have opportunistically colonized the water source thereby creating a canopy amid an otherwise almost shadeless environment. *Ailanthus* is a malodorous tree with gray bark, large odd-pinnately compound leaves and winged fruits called samaras. Tree-of-heaven was introduced from China and is considered weedy. The samaras are distributed by wind, resulting in thickets surrounding the parent tree (Welsh et al. 1993:687).



Along the confluence of the spring and above, is an extensive sandy bedrock escarpment with embedded petrified wood, which supports populations of crustose lichens, Utah juniper, wap, pricklypear cactus, Four-wing saltbush, several species of sagebrush, rabbitbrush, buckbrush, thistle and other highly successful exotics. Indian tobacco, (tsaw-wap) was observed

growing on the large mound of earth containing lithics, ceramic shards and petrified wood that was removed from Navajo Well. A Kaibab elder indicated that tobacco grew plentifully where it was previously burned. Kelly (1971:46) recorded that tobacco plots were burned in the fall and in the following spring, it grew in abundance. The seeds were not planted and plots were neither watered nor weeded. Tobacco was gathered in the fall; the entire plant was pulled and dried near fire (Kelly 1971:46).

Artemisia filifolia, Sand sagebrush was used in treating swellings and bruises. *Artemisia tridentata*, sah-wahb or Big sagebrush was used as a dye as well as a medicine, which was taken internally as a tea to remedy headaches, colds and worms, and as a stimulant (Bye 1972:93). This useful shrub was also a source of fiber and fuel for the Southern Paiute people.

The fleshy cones of the xeric *Juniperus osteosperma*, Utah juniper were gathered in the winter and spring; crushed and eaten raw (Kelly 1971:43). Some trees produce sweet, fleshy cones while other trees bear strong and resinous ones. Utah juniper increases under grazing and has spread from the thin substrates of ridges and mountain slopes into deeper valley soils (Welsh et al. 1993:28). It has been determined that trees of this species may be older than 1275 years.

Paiute plants are listed in bold print along with other plants that were observed at this location.

| <u>Scientific Name</u> | <u>Common Name</u> |
|---------------------------------|---------------------|
| <i>Ailanthus altissima</i> | Tree-of-heaven |
| <i>Aristida purpurea</i> | Purple three-awn |
| <i>Artemisia filifolia</i> | Sand sagebrush |
| <i>Artemisia tridentata</i> | Big sagebrush |
| <i>Atriplex canescens</i> | Four-wing saltbush |
| <i>Bromus tectorum</i> | Cheatgrass |
| <i>Chrysothamnus depressus</i> | Dwarf rabbitbrush |
| <i>Chrysothamnus nauseosus</i> | Rubber rabbitbrush |
| <i>Cirsium arvense</i> | Creeping thistle |
| <i>Cleome lutea</i> | Yellow beeplant |
| <i>Erodium cicutarium</i> | Storksbill |
| <i>Gutierrezia sarothrae</i> | Broom snakeweed |
| <i>Hordeum jubatum</i> | Foxtail barley |
| <i>Juniperus osteosperma</i> | Utah juniper |
| <i>Nicotiana attenuata</i> | Coyote tobacco |
| <i>Opuntia polyacantha</i> | Central pricklypear |
| <i>Opuntia erinacea</i> | Common pricklypear |
| <i>Phoradendron juniperinum</i> | Juniper mistletoe |
| <i>Polypogon monspeliensis</i> | Rabbitfoot grass |

Purshia tridentata
Salsola tragus
Tetradymia canescens
Tragopogon dubius
Verbascum thapsus
Xanthium strumarium

Bitterbrush
 Russian-thistle
 Gray horsebrush
 Yellow salsify
 Woolly mullein
 Cocklebur

Southern Paiute Interpretation

In the arid environment of the lower elevations, the availability of water was a primary factor in controlling the location of settlements and campsites. A series of springs were found along the base of the Vermilion Cliffs where, intermittently during the year, most of the population was concentrated. Sites were strategically located near water, for hunting and gathering (Kelly 1971:7). A Kaibab elder discussed his work at Navajo Well, Ipa (Old Water) in the 1940's:

This is Old Water- We used it all my life. There's a good view from here. It's pretty country, dry country. It's a good place. The deer all come to this place. We used to hunt there. I worked here in the mid-1940's as a cowboy for a rancher who kept his racing horses near here. I slept in his barn, which was located just to the southwest of the spring. I used to haul water for the racehorses at Navajo Spring. We used to cut post up through here and there was an old road to the barn... I haven't been through here in a long time. This spring has been here a long time. It is an old water hole. All year round there was water, like at Wolf Spring. Deer drink from it. It looks like they have mostly drained the spring, so the water is not available for the deer. They have dug up the soil around the spring and drained it into a pond near the corrals. They have fenced the spring from the deer.



Features

Water. Navajo Well was an important water source for Southern Paiute people. With drinking water at hand, the rolling slopes of juniper provided fuel, the desert flats were nearby for rabbit hunting and seed collecting and the higher plateaus were visited for hunting deer, gathering pinenuts and yucca fruit (Kelly 1971:7). Owl Eye reportedly owned Navajo Well (Kelly 1971:14). Occupants of nearby watering places shared the same seasonal cycle, thus forming local groups that were primarily economic in character (Kelly 1971:8). Kaibab elders discussed Southern Paiute sustainable practices of spring management:

Different families took care of each spring so they were always well cared for. There was always a cup there for people to drink from. Now, this spring suffers from neglect. The area has become overrun by people and their animals... and

that has destroyed it. It looks like they tried to develop the spring and dug it out with a backhoe.

Plants. Settlement, cattle grazing, and other poor land-use practices have had a negative effect on this significant archaeological site. The degradation of the native plant communities and the consequent reduction of palatable herbs and shrubs have been severe. A Southern Paiute elder spoke about the significance of the plants in the area:

Grandma said that if you see a great big squirrel nest, you can know where the good places are to get your good pine nuts...Indian people give offerings wherever they go, even if they stop for lunch. Maybe the Indian tobacco here was one of the offerings they gave and it kept on growing. Every site where Indian tobacco was found...maybe that was an offering.





Animals. An Ord's kangaroo rat, *Dipodomys ordii* was observed near a crevice at the foot of a shelf-like rock projection within the eroded bedrock foundation of the site, where small Utah juniper trees dot the gentle slope. A Kaibab elder discussed the animals that are native to the area:

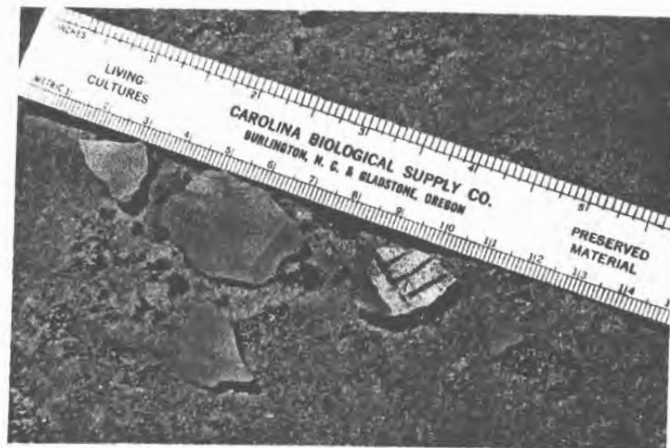
There are antelope, deer and a few elk within the area...now people are building everywhere so it pushes the animal to get killed on the road.

Evidence of Previous Paiute Occupation or Use:

Grayware, redware, Kanab black-on-white, and black-on-black ceramic shards with distinctive markings were found at Ipa. A number of places with significant lithic scatters were observed at this site, which has been severely picked over by arrowhead hunters. However, there is virtually no stratigraphy of materials because of disturbance due to earth removal at the spring and in other locations. Within this area some cut trees and burn scars on rocks were also noted.

Black-on-black pottery shards and an old chipping station appear to be the site of a camp. Beside it was a collection pile from an arrowhead hunter. Beyond the dirt road from Pioneer Gap is the location of an old camp. Interspersed with Utah junipers, some black-on-white pottery and black-on-black pottery shards were found. A Kaibab elder commented on evidence of previous Paiute occupation at Ipa:

There are signs of the old people here. There were arrowheads but we are not allowed to pick them though . . . People come out and pick them up. These potteries and rock chippings show that my folks lived here for a long time.



Physical/Geological Features. Navajo Well, Ipa is approximately 2 miles south of the Vermilion Cliffs of the Moenave and Kayenta Formations of the Jurassic. Powell noted the brightly banded wall composed of orange and vermilion sandstones along the south face of Moccasin Terrace. He enjoyed seeing the morning sun shining on "their painted faces; the salient angles on fire" (Gregory 1950:21). The distinctive formations of the Vermilion Cliffs continue to hold significance for contemporary tribal members. Elders talked about the landscape and how the people traveled the trails for winter and summer camps within the area:



The pretty red hills...In the wintertime when the sun goes down, it brings out the red. It's beautiful in the fall. I remember when I came up in summertimes to stay with my grandma. Our people gathered seeds, prickly pear fruit, Indian tobacco, pine nuts and hunted deer and rabbit in this area. My grandma used to come up here to the red hills and pick pine nuts. Grandpa would tell about traveling and stopping in certain areas from Kaibab to Cedar. Older people used to travel here. Before the ranchers came, it was different.

Perceived Impacts

The major impacts to Ipa include the destruction of the spring, overgrazing, unsustainable land use, removal of archaeological materials and disturbance to the Indian camps sites in the area. Kaibab elders discussed these impacts:

They drained the water from the spring and dug up the dirt and fenced the spring from the deer. The area is overrun by people. Cows and horses destroyed the site but it is by man. People and roads are affecting the plants. They plowed a lot of the site and its artifacts, and destroyed it. Man destroys a lot of stuff. All of these places are closed to Indian people.





Recommendation

Kaibab elders wish to have continued access to places within their traditional cultural landscape. They made recommendations for protecting this significant site:

Keeping the animals out of the area would improve it for one. If they cleaned the spring up, the water could be used again for drinking. Indian people would come here if they were allowed to and protect this site and clean it up. Don't just let it go...not let animals and people run over the plants, not let cars run over them...Not let people pick up the artifacts. Put back the dirt and take down the fences by the spring. Give the water back to the deer. We say when you are picking stuff, always give back something. Give offering. When we go camping, we stop and give an offering.

Tupac (Black Water) - Seaman Spring

[See Chapter 3 –Area F: Watering Places along the Vermilion Cliffs, Wildcat Canyon, and Kaibab Gulch (V:35-46). Tupac (Black Water; about 3 miles east of Ipa (Old Water; Navajo Well: about 1 mile south of Vermilion Cliffs). This includes the district known to informants as Ankati (Kelly 1971:16).]



Site Description

Tupac, Black Water or Seaman Spring is located approximately 7 miles northeast of Ipa, Navajo Well at 37° 06' 960" N latitude and 112° 15' 004" W longitude, 2050 meters above sea level at the base of the Vermilion Cliffs, 8 miles north of Pioneer Gap. The two springs are culturally connected and in many respects the same place.

The interview site at Tupac is less than 1 mile north of Seaman Point and 6 miles north of U.S. Route 89 by dirt road to Seaman Wash. Tupac is a one of the small canyons that dissects the bright red sandstone scarp of the Vermilion Cliffs. The deep red Moenave Sandstone, with banded red, gray and white Chinle badlands at their base add to the beauty of this striking geological feature. Clarence E. Dutton described this massive south-facing rock face in 1881:

To this great wall, terminating the Triassic terrace and stretching from the Hurricane Ledge to the Paria, Powell has given the name of the Vermilion Cliffs. Their great altitude, the remarkable length of their line of frontage, the persistence with which their proportions are sustained throughout the entire interval, their ornate sculpture and rich coloring, might justify very exalted language of description... The Vermilion Cliffs send off buttes... and giant buttes they verily are, rearing their unassailable summits into the domain of the clouds, rich with the aspiring forms of Gothic type, and flinging back in red and purple the intense sunlight poured over them. Could the imagination blanch those colors, it might compare them with vast icebergs, rent from the front of a glacier and floating majestically out to sea... Beyond and in the far distance rise these towering fronts, ablaze with red light from the sinking sun. To the eastward they stretch into illimitable distance, growing paler but more refined in color until the last visible promontory seems to merge its purple into the azure of the evening sky... (Dutton 1882:54).

Springs are found in an almost continuous line along the base of the Vermilion Cliffs. Intermittently during the year, it was at these sites that most of the Kaibab population was concentrated. Spring water was available, junipers provided fuel, and the desert flats were near for rabbit and deer hunting and seed gathering. The highland terraces were for deer hunting, pine nut collecting and the gathering of yucca fruit. Watering places such as the springs in the Vermilion Cliffs were the controlling factor in the location of Kaibab Paiute settlements (Kelly 1971:7). Fresh water springs and seeps bubbling from the Navajo sandstone of the Vermilion Cliffs have provided potable drinking water for the Southern Paiute Indians for centuries. About three-fourths of the springs and seeps within the Paria Canyon-Vermilion Cliffs Wilderness, are in the Vermilion Cliffs. The springs below the Vermilion Cliffs are in poor condition as a consequence of development for livestock use or domestic water (U.S. Department of the Interior 1986:13).



Tupac, in Seaman Canyon contains a rich diversity of biological, archaeological and geological features. This area has a long history of Southern Paiute habitation. Prehistoric and historic trails traverse the canyon, Indian camps sites and other cultural properties attest to the value of the spring as an important water source for American Indian people. Tupac has significant wildlife habitat within a dynamic riparian ecosystem. Historic yearlong livestock grazing within the canyon has altered the native vegetation, which is now recovering after stock removal. Tupac, Seaman Spring was drained to provide water for the aqueduct and for stock tanks below Seaman Canyon. In other wetland ecosystem within the Paria Canyon-Vermilion Cliffs Wilderness, overgrazing has allegedly caused the loss of an entire age structure of cottonwood trees within the riparian communities in lower Paria Canyon. The revised grazing system of the Bureau of Land Management is designed to promote and support the establishment of new cottonwoods and the restoration of the riparian ecosystem within impacted areas (U.S. Department of the Interior 1986:14).

Botanical Interpretation

Along the dirt road to Seaman Spring, within a moist depression are viable stands of young Coyote willow, kanav (*Salix exigua*) within a recovering riparian community. Kaibab elders were pleased to see this culturally significant plant, a source of valuable weaving material for basket making. Tamarisk (*Tamarix chinensis*) is competing with the native willows for the

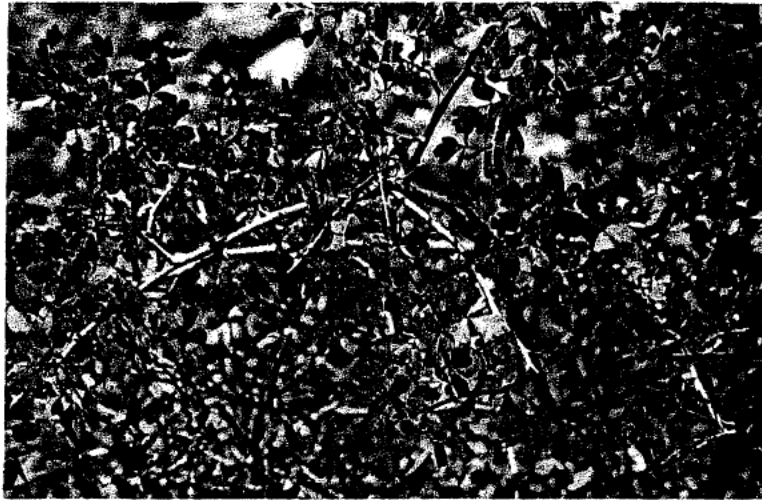
scarce water resources within the canyon. This highly aggressive and successful species has become naturalized along seeps, springs and waterways. It reached southern Utah by the turn of the century and by the 1920's it became well established along the Colorado River and its tributaries. Tamarisk occupies many of the lacustrine and riparian habitats of southern Utah and there is little hope of eradicating it (Welsh et al. 1993:694). Palmer's penstemon, toxo'awatsip (*Penstemon palmeri*) was observed along the dry bank of the road in decomposed red Navajo sandstone soil. Kaibab elders discussed its use, as a medicine for aches and pains. The handsome perennial, Blue flax (*Linum perenne*) was growing along the roadside beside Palmer's penstemon. It resembles the cultivated flax, an annual, which is the source of quality fibers and linseed oil. It is stated that the Indians of some of the Western states used the long fibers of the slender stems of Blue flax for making cordage (Kearney and Peebles 1960:489). Rubber rabbitbrush (*Chrysothamnus nauseosus*), sikomp was observed growing on the roadside and elders noted that the roots were used as a source of shampoo.

The deciduous Gambel's oak (*Quercus gambelii*), tuav or kwiav form arborescent thickets along the road to Seaman spring, and provide forage for deer within the canyon. The Southern Paiutes gathered acorns of Gambel's oak in the fall, when they turned black and ripened. They were shelled and roasted in ashes, and brushed with leaves to remove the ashes (Kelly 1971:44). The exotic robust biennial, Woolly mullein (*Verbascum thapsus*) was seen growing in an open site in disturbed soil along the road near the spring. Its presence is an indication of unnatural impact to an ecosystem such as earth removal, grazing or road building. The xeric and unusual Singleleaf ash (*Fraxinus anomala*) was growing in decomposed sandstone in this red rock canyon. This small tree species was an important fuel for the Southern Paiutes in their winter camps (Kelly 1971:150). Silver buffaloberry (*Shepherdia argentea*), a shrub that is often found associated with water, was growing on the sandy slopes of Seaman Canyon. The red fruits were eaten fresh, dried and ground by Southern Paiute people (Kelly 1971:153).

A Kaibab elder stated that Utah serviceberry (*Amelanchier utahensis*), tu-ab branches were used for making arrows. Digging sticks were made from the wood of serviceberry. The butt of the branch was placed within hot ashes to soften it and it was bent and tied with buckskin. The point of the stick was sharpened with a stone knife to fire harden it (Kelly 1971:154). The fruits were dried and ground on a metate, and the pulp was stirred into water and drunk (Kelly 1971:42). Broad-leaved cattail (*Typha latifolia*), to-oiv was growing in the slow-moving water of the spring. In summer, Southern Paiutes ate the nutritious root of cattail and the brown spikes or seed heads were also consumed (Kelly 1971:46). Paiute plants found in this location are listed in bold print below along with other plants observed at this site.

Scientific NameCommon Name

| | |
|---|------------------------|
| <i>Amelanchier utahensis</i> | Utah serviceberry |
| <i>Artemisia filifolia</i> | Sand sagebrush |
| <i>Artemisia tridentata</i> | Big sagebrush |
| <i>Bromus tectorum</i> | Cheatgrass |
| <i>Castilleja</i> sp. | Indian paintbrush |
| <i>Chrysothamnus nauseosus</i> | Rubber rabbitbrush |
| <i>Chrysothamnus viscidiflorus</i> | Viscid rabbitbrush |
| <i>Cirsium arizonicum</i> | Arizona thistle |
| <i>Clematis ligusticifolia</i> | White virgins-bower |
| <i>Elaeagnus angustifolia</i> | Russian olive |
| <i>Fraxinus anomala</i> | Singleleaf ash |
| <i>Hordeum jubatum</i> | Foxtail barley |
| <i>Juncus longistylis</i> | Longstyle rush |
| <i>Juniperus osteosperma</i> | Utah juniper |
| <i>Juniperus scopulorum</i> | Rocky Mountain juniper |
| <i>Melilotus officinalis</i> | Yellow sweet-clover |
| <i>Oryzopsis hymenoides</i> | Indian ricegrass |
| <i>Penstemon eatonii</i> | Eaton's penstemon |
| <i>Penstemon palmeri</i> | Palmer's penstemon |
| <i>Pinus edulis</i> | Two-needle pinyon |
| <i>Polypogon monspeliensis</i> | Rabbitfoot grass |
| <i>Polypogon viridis</i> | Water polypogon |
| <i>Populus fremontii</i> | Fremont's cottonwood |
| <i>Purshia mexicana</i> | Cliff-rose |
| <i>Purshia tridentata</i> | Bitterbrush |
| <i>Quercus gambelii</i> | Gambel's oak |
| <i>Ranunculus</i> sp. | Buttercup |
| <i>Rhus aromatica</i> var. <i>trilobata</i> | Squawbush |
| <i>Ribes</i> sp. | Gooseberry |
| <i>Salix exigua</i> | Coyote willow |
| <i>Scirpus pungens</i> | Common threesquare |
| <i>Shepherdia argentea</i> | Silver buffaloberry |
| <i>Swertia albomarginata</i> | White-margined swertia |
| <i>Tamarix chinensis</i> | Tamarisk |
| <i>Typha latifolia</i> | Broad-leaved cattail |
| <i>Verbascum thapsus</i> | Woolly mullein |
| <i>Yucca angustissima</i> | Narrow-leaved yucca |



Southern Paiute Interpretation

Southern Paiute people traditionally used Tupac, Black water, as well as the other springs along the Vermilion Cliffs. These valuable water sources within a semiarid environment were important settlement places for the Kaibab, (Mountain lying down people). A number of canyons with springs and seeps dissect the Vermilion Cliffs in Grand Staircase-Escalante National Monument, within the study area. There were Southern Paiute winter and spring camps at the foot of the cliffs, often at Tupac, and there was a directed seasonal movement of camps, moving in unison. Food was cached in caves within the Vermilion Cliffs for winter, and fall was a time for gathering pinyon seeds on top of the cliffs. In summer the people moved up canyons toward the White Cliffs where they gathered various seeds such as aki, tansy mustard (*Descurainia*), pasi, wormwood and sagebrush species (*Artemisia*), ciciganti, balsamroot (*Balsamorhiza*) and on top of the cliffs, sigo'o, (Kelly 1971:16) Sego lily bulbs (*Calochortus nuttallii*).

Features

The spring, numerous plants, animals, trails and geological features were identified as being traditionally used by Kaibab people. The elders were pleased to see the hydrological system of the canyon and its vital plant resources recovering, after stock removal. A large overhanging ledge beside the spring served as a shaded place for resting. Up canyon from the spring were large boulders and rocky outcrops, which support such plants as the robust perennial and scarlet-flowered Eaton's penstemon (*Penstemon eatonii*), the trailing woody vine, White virgins-bower (*Clematis ligusticifolia*) and the carmine-flowered Arizona thistle (*Cirsium arizonicum*).



Water. Southern Paiute people used Tupac, like many other springs in the Vermilion Cliffs. Here they set up camps that were permanently used upon their seasonal migration through the area. One Kaibab elder commented:

There is something like this at Sand Wash. Follow it up and you come to a place with willows and lots of water. It's good water to drink...Just like Kaibab water-It's good water. Cattle have been drinking in the water here. The animals drink here too. They go a long ways to drink water.

Plants. Narrow-leaved yucca (*Yucca angustissima*) with its deeply constricted capsules was growing in the decomposed red sandstone by the roadside, within the canyon. Indian people

used this important plant as a source of fiber for cordage and textiles (Welsh et al. 1993:737). Southern Paiute people are committed to protecting their cultural and natural resources within Grand Staircase-Escalante National Monument. Elders expressed great interest in the sustainable harvesting of traditional plant materials and the conservation and management of the wetland ecosystem, which supports many culturally significant plants that are used by Southern Paiute people. They would like to continue utilizing these plant species as their grandparents taught them. Continued access to the places where their people lived and traveled within their cultural landscape is highly valued by the Southern Paiutes. They wish to share these places with the young, to pass on this intergenerational knowledge to their grandchildren. A Kaibab elder spoke about how her mother prepared the willow for use as a weaving material and how her grandma used su-uv, squawbush:

The antlers of the deer were hollowed out and used to scrape the willows...to thin them. The willows are used to make cradleboards. My grandma wove baskets with su-uv, and squawbush berries make really good punch, i'isi punch.

A Kaibab elder discussed Paiute plant medicine:

A long time ago, the people never got sick. They lived a long time and they didn't have no doctor to go to. They used Indian medicine, like sagebrush for colds. They'd smash it down... and it was good for the little kids during the night inside the cradleboard. I've used Indian medicine a lot of times.



Elders expressed concern about impact to the native vegetation by livestock, within the area. A Kaibab elder who was interviewed commented on the abundance of Foxtail barley (*Hordeum jubatum*) growing in the canyon. He informed us that cows and deer don't eat this native plant that moves into disturbed areas in the manner of an introduced weed. Mature fruiting heads cause injury to eyes and mouthparts of all grazing animals (Welsh et al. 1993:834). This

aggressive weed pierces mouths and nostrils and gets into the wool, causing sores when they penetrate the skin (Kearney and Peebles 1960:96).

Animals. One of the project participants found a dead Little Brown Myotis bat (*Myotis lucifugus*) by the road near the spring. A Northern Plateau Lizard (*Scleropus undulatus elongatus*) was seen perched upon a large boulder on the edge of the spring within the study area. This reptile seeks shelter under rocks and eats insects, spiders, ticks, millipedes, snails and small lizards (Stebbins 1985:132). A Wandering Garter Snake (*Thamnophis elegans vagrans*) was observed moving swiftly through the meadow alongside the spring in the shade beneath the rock ledge. This species is often found in damp environments near water. When frightened, they tend to seek shelter in dense plant growth or they usually enter water. This snake eats snails, slugs, leeches, frogs, toads, tadpoles, lizards, snakes, small mammals, some birds, insects and carrion (Stebbins 1985:201). Within the moist but almost waterless mud below the spring, numerous Canyon treefrog (*Hyla arenicolor*) tadpoles struggled for existence in the dewatered environment. Several adult Canyon treefrogs were seen in the spring with the tadpoles and around the periphery of the water. Several Black Swallowtail butterflies were sited within the canyon by the water. Kaibab elders discussed this creature:

Don't chase the butterflies. My grandmother always told us not to follow them. There is an old saying about the butterfly... Don't ever follow them or they will lead you to the rattlesnake. There are a lot of butterflies at Kaibab.



The Kaibab elders who were interviewed stated that Southern Paiutes hunted in the area:

They used to hunt deer, antelope, jackrabbits and squirrels long ago in the area. They killed them with bow and arrows. It's hard to break. Go up the mountain... They used oak as a bow. From out of the deer, they used the sinew as a bowstring. My grandpa used this kind... He found feathers for the bow and arrow. The deer would go on the mountain.

A Kaibab elder informed us that there were Bear Dance Songs, hunting songs and other ceremonial songs performed in the area. The Bear Dance Song took place after the bear came out of hibernation in the spring. When the people were going out to hunt, they used to sing. There were ceremonies conducted all over the area.

Evidence of Previous Paiute Occupation/Use: Lithics, pottery shards and stone chippings were found in the canyon near the spring, and on the rim of the canyon were large lithic scatters of various ceramic types. Tupac and Seaman Canyon within the Vermilion Cliffs is a place that is rich in Paiute history. The people farmed by the creeks and washes, had meetings and played hand games in the area. Kaibab elders who were interviewed discussed the seasonal transhumant strategy of the Southern Paiutes:

They were always on the move. They knew where they were going. Even at nighttime, they had the stars to guide them and they stayed to the same trails. They never had a permanent residence, so they would stop on the way to wherever they were going because of the water and the plants, for hunting and gathering food. I think that all of the Indian tribes did a lot of hunting, exchange and trade and were involved in social gatherings... They gave songs when they traveled. There were social dances like the Round Dance and the Bear Dance. They had a lot of those dances wherever they went. We used to go picking pine nuts on Kaibab Mountain with my grandma. There are a lot of springs along this area where people stopped on their hunting, medicinal gathering and living. They've been here a long time. People from here were mostly from Kaibab. Captain George was my Uncle's Dad.



Physical/Geological Features. The mountains, rock formations and the spring are important in ceremony for Southern Paiute people. There are ceremonies and ceremonial songs associated with this locality. Elders spoke about how this place is connected to other areas within the Southern Paiute cultural landscape:

There were ceremonial songs in this area such as the Salt Song and the Bird Song from the Mohave Valley. The Salt Song helps the person who died, to help them

across to get to where they need to go and each one of those songs tells a story. They sing the songs for everybody. It just helps their spirits in their travels wherever they're going. When Aunt Yetta was alive, she went down the Colorado River... She said there are some places that I want you to see... Yetta said she would show me the spiritual places that she wanted me to see.



A Kaibab elder explained the Southern Paiute place names in the region and their significance:

Paria is Pawtuhee – Elk Water

Kaiparowits is OawKaidoowEEP – Mountain Sun

Yellow Canyon is WawEEP

The red, white and orange of the earth are for medicines, for prayers.

Bryce Canyon is Awvo'uv – Semi-Circle

Panguitch is Pawguh uts – fish

Skutumpah in Johnson Canyon is Rabbitbrush Water

Cedar Breaks is Ungkaw Pekonump – Red Cove

By Cedar mountain is Brian head, which is Too-Kweeckoovunt – Black Peak

Kanab is Kanav – Willow

Navajo Mountain was formerly called Paiute Mountain before the Navajos came. There are Paiute farms up by Paiute Mountain. They farmed corn, squash and watermelon.

Perceived Impacts

The development of roads, livestock grazing and the draining of the spring have significantly altered this site. There is a history of livestock grazing and ranching including cattle, horses and sheep, as an extensive open range within the area. The plant communities have been severely impacted by these activities. In the past, Southern Paiute people sustainably managed the plants and the water resources within this locality. Plants such as squawbush and willows benefit from selective pruning to encourage strong, resilient branch growth the

following season. Basket and cradleboard makers understand the necessity of sustainable pruning methods. The discontinuity of American Indian resource management in this area is notable. The lack of access to their ancestral lands has been a detriment to the environment and to the cultural longevity and integrity of the Southern Paiute Indian Nation. Water is highly regarded and treated with reverence and respect by Southern Paiute people. They recognize that wild animals are dependent on the springs for survival in this semiarid environment. A Kaibab representative explained:

All the things we didn't have as kids...we want to give this to our children.

Recommendations

Southern Paiute people wish to have continued access to their traditional places within Grand Staircase-Escalante National Monument. As natural and cultural resource consultants and managers, Southern Paiute people possess a vast and significant traditional knowledge and understanding of the region. Because of their spiritual ties to the area, their practical and wise conservation ethic and expertise bespeak their love and respect for the land. As an integral part of this locality, which is within their ancestral cultural landscape, Southern Paiute people are a valuable asset to the Grand Staircase-Escalante National Monument. Kaibab representatives expressed:

Southern Paiute people want to come to the area...to know that we were here before...Beside knowing where they are from and that they were here...Our people need to know...The place needs to be more accessible. If we were allowed, we would come here and protect the spring and the plants...

Chapter 5

Cultural Landscape Responses

This chapter presents opinions expressed by Indian people regarding the relationship of the GSE/NM area to places and cultural resources found in the surrounding region. This is a direct effort to explain the centrality of the GSE/NM area, which is being discussed as a cultural ecoscape, within increasingly larger cultural landscapes such as a *regional landscape*, a *storyscape*, and a *holy land*. These concepts are first defined and described in a model and theory of cultural landscapes, and operationalized in American Indian terms for the GSE/NM ecoscape. This chapter concludes with a discussion of places specially mentioned as part of these American Indian cultural landscapes and an ethnographic summary of the findings.

Within the model of American Indian cultural landscapes discussed below and used to frame the analysis of this chapter, it is possible for specific places to be a part of one or more types of cultural landscapes. Any place can be connected to other places through the occupation and use of a common geophysical space such as a watershed. This type of relationship is being termed an *ecoscape* cultural landscape. Any place may also be connected to other places through larger direct connections, thus making it an integral portion of a *regional* cultural landscape. Finally, any place can be connected with other places by being a part of a *storyscape* or an *eventscape*.

This chapter is based on data from a cultural landscape interview instrument that provides each Indian person being interviewed the opportunity to discuss whether or not the GSE/NM area is connected in any way with larger cultural landscapes.

American Indian Cultural Landscapes: Technical Term #2: Cultural Landscape

American Indian people typically want to provide the fullest protection possible for their cultural resources found beyond the bounds of tribal reservations. Federal and state land managers also want to protect these cultural resources, thus complying with relevant and related laws. Since the mid-1970s, when Indian concerns began to be formally incorporated into cultural studies, there has been a major gap between what Indian people want to protect and how much protection managers of nonreserved land are willing and able to provide. In general, Indian people desire *holistic conservation*, which means, "these are our lands, even if others control them, and we wish no further development or damage to occur here" (Stoffle and Evans 1990). Unfortunately, from an Indian perspective, few land managers are able to follow this expressed desire. Often federal and state lands are required by law to permit and even encourage development and open public access to the land. When development cannot be eliminated, Indian people are faced with a forced-choice situation; they can either recommend certain places for protection or withdraw from participation and have projects proceed without their input. This forced-choice decision results in what has been called *cultural triage* (Stoffle and Evans 1990);

that is, making a recommendation to protect some cultural resources or areas before others. Cultural triage places in the hands of Indian people the right to choose what to protect first and to make this choice based on their own criteria. Today, many Indian people and tribes have selected places for special protection, and land managers have used these recommendations to minimize adverse impacts to these cultural resources.

A number of scientific procedures have been developed to help translate the cultural concerns of Indian people so that land managers can make culturally appropriate decisions. One such procedure is *calculating the cultural significance* of Indian plants, animals, and artifacts and using these numeric values to select places having the highest values for protection (Stoffle, Halmo, Evans, and Olmsted 1990). Calculating values for cultural resources and the places they reside does not replace Indian styles of expression, but it is instead a parallel approach to the common goal of providing maximum cultural resource protection to the most culturally significant resources and places.

Cultural resource protection laws are another driving force behind the need to triage cultural resources and the places where they occur. Historically, these laws have begun with the premise that some things and places are more important than others are, and only the most significant places should be afforded protection. Once this premise is established, then determining the criteria for assigning significance logically follows. In general, significance derives from some obvious value to the society at large or to science. Initially, these laws were focused on protecting single properties such as a house or a historic site. The laws eventually were broadened to protect archaeological or historical districts composed of multiple properties.

Most recently, the concept of *traditional cultural property* (TCP) has been offered as a tool for identifying and protecting places and objects that have special cultural significance to American Indian or other U.S. ethnic groups (Parker and King 1990). The TCP concept is a logical extension of the NHPA, which was initially designed to protect individual buildings and historic objects. Although the TCP concept has been effective in protecting small places of extreme cultural significance, Indian people and scholars alike have questioned whether or not TCP is the best way to conceptualize and protect geographically larger American Indian cultural resources.

We maintain that American Indian perceptions of land and its resources can be represented as *cultural landscapes*, which are culturally and geographically unique areas. American Indian cultural resources (plants, animals, artifacts, minerals, air, and water) tend to be viewed by scientists and land managers according to inherent criteria defined by Western scientific concepts. Western scientists tend to study plants, animals, archaeology, and rock art without reference to other cultural resources found in the area under study. This isolation of cultural resources by their perceived inherent characteristics has the advantage of providing an information-rich discussion about a single type of cultural resource. For example, a complete study of plants significant to Native Americans is conducted and documented in a separate report that includes specific recommendations for protecting plants. Most Federal preservation laws address a single type of cultural resource, and this piecemeal-approach procedure is useful to managers because it provides recommendations for resource management and preservation according to the predefined resource types. Despite the legal basis for and widespread use of

resource-specific studies, these procedures for classifying and managing American Indian cultural resources do not fit and in some cases are quite meaningless in terms of how many American Indian people view cultural resources.

To illustrate this cross-cultural reality, Southern Paiute people tend to view cultural resources as being bound together in broad categories based on functional interdependency and proximity rather than being defined by inherent resource characteristics. Most places where Indian people lived and visited contained the diverse necessities of life: plants and animals for food, medicinal plants for continued health; paintings and peckings on rock walls telling about historic events and blessing the area where the people gathered; and water to drink and use in ceremonies of all kinds. Indian people perceive places and the things associated with them as interrelated. For example, some archaeological sites were plant-gathering areas, and some animals appear in rock paintings and peckings that depict the relationship between Indian people and animals.

The key question that confronts Indian people, the scientists assisting them with cultural resource studies, and agencies that must use the information to make land use policies is, "How can we best conceptualize Native American cultural resources?" Indian people contribute to resource-specific studies because they recognize that doing so has been the best way to protect the resource in a given cultural resource assessment situation. On the other hand, Indian people desire to reassemble the artificially disassociated components of their culture so that the fullest native cultural meanings associated with things and places are recognized and protected.

The idea that American Indian cultural resources can be viewed, evaluated, and protected in new categories is more than repackaging. Employing a holistic analytical perspective is an attempt to seek to understand culturally distinct understandings of environment, history, and place. There is a growing scientific literature that demonstrates the importance of different culturally derived understandings of the environment. Greider's (1993:79) analysis demonstrated that one Native American medicine woman transforms the same plants into Indian and non-Indian medicine, each requiring different culturally expected practices for the medicine to be effective. Winthrop (1994:27-28) explained disputes over where to include Indian concerns in the EIS of a proposed ski area by contrasting a U.S. regulatory agency definition of nature as a *wilderness* lacking humans, with an American Indian definition of nature as *oikumene* or inhabited world. The Indian people involved in the ski assessment believed that their cultural concerns belonged in all sections of the report and should not be restricted to a human impact section. Howell (1994:130-131) pointed out that the conquerors' conceptual removal of native peoples from the natural environment has had adverse impacts on how effectively U.S. national parks have been managed. Consequently, a reconceptualization of nature as human ecology is essential before realistic ecosystem management can occur. Treitler (1994:22-23) suggested that three Indian tribes have chosen different strategies for interacting with a federal environmental regulatory agency based on their differing cultural perceptions of the environment and the implications of sharing sacred information about the natural landscape being studied. Greider and Garkovitch (1994:8) concluded that:

Cultural groups socially construct landscapes as reflections of themselves. In the process, the social, cultural, and natural environments are meshed and become

part of the shared symbols and beliefs of members of the groups. Thus the natural environment and changes in it take on different meanings depending on the social and cultural symbols affiliated with it.

Kelley and Francis' (1993) research with Navajo people suggested that the latter view places as a part of larger landscapes and that it is ethically wrong to refuse to adopt the culturally appropriate categories that people use in their understandings of the environment. According to Kelley and Francis (1994:101), even the Navajo Nation's Historic Preservation Department (HPD), when forced to do so by Federal laws, uses a *piecemeal* approach instead of the culturally appropriate *landscape* approach of its own people. The Navajo HPD argues (Downer et al. 1994), however, that the HPD is working within U.S. Federal regulations while attempting to broaden overly constraining concepts such as *history* so that data derived from what is called *traditional history* can be used in the preservation of culturally important places.

Land management agencies manage places. If there are objects, plants, or animals to be protected, the place where the objects are located, the plants grow, or the animals live is assigned special status. Sometimes the place is the cultural resource, and thus it is termed a *traditional cultural property* (Parker and King 1990). In most instances, however, the place is set aside to protect the cultural resources it contains. Given the reality of contemporary land management practice in the U.S, cultural resources ultimately must be studied and managed as geographically coherent units. A key question is "how big do these geographically coherent units have to be to afford acceptable protection to the cultural resources they contain?"

Both Native Americans and scholars of Native culture propose a number of terms to discuss these geographically coherent units: *sacred geography* (Walker 1991), *spiritual geography* (Griffith 1992) *sacred landscapes* (Carmichael 1994), *symbolic landscapes* (Grieder 1993) and *cultural landscapes* (Kelley and Francis 1993, 1994; NPS 1994). Each of these terms convey similar key elements of what Native peoples often express when they talk about their traditional conceptualization of a holistic view of the land and its cultural resources (Stoffle and Evans 1990).

We chose not to use the terms *sacred* and *spiritual* here, even though these labels reflect the intensity of attachment Indian people have for their landscapes. Unfortunately, the terms *sacred* and *spiritual* imply in Western epistemology the concept *secular*, thus limiting cultural resource discussions to what non-Indians perceive to be strictly religious activities. Religious terms are appropriate if a study is only about ceremonial resources, but usually the terms *sacred* and *spiritual* cause many Indian cultural resource concerns to be eliminated from the discussion of landscapes.

The term *symbolic* was not selected for use in this essay because it is not commonly understood, and thus requires technical explication before being useful. Actually, the term *symbolic* does reflect how landscapes are created by humans and why it is so difficult to find common terms to discuss them. Greider and Garkovich (1994:6), who have a theoretical discussion of how landscapes are created, conclude that human beings, in essence "...construct a landscape from nature and the environment through culturally meaningful symbols and then reify it." Thus, any specific landscape exists and lives only in the minds of social groups.

Competing views develop when more than one social group occupies or otherwise has some reason to establish a cultural perception of a landscape. When developmental changes to the landscape are discussed, the assessment of these changes will be affected by which symbolic landscape is being considered. The consequences of planned environmental change can only be understood with reference to a people and their symbolic construction of the landscape.

The term *cultural landscape* is meaningful because it is widely understood without further explanation and has official standing in a number of U.S. Federal laws, regulations, and guidelines. Perhaps the most detailed federal policy statement on cultural landscapes appears in the National Park Service *Cultural Resource Management Guidelines* (NPS 1994). There, the agency defines *cultural landscapes* as complex resources that range from rural tracts to formal gardens (NPS 1994:93). The natural features such as landforms, soils, and vegetation provide the framework within which the cultural landscape evolves. In its broadest sense, a cultural landscape is a reflection of human adaptation to and use of natural resources. A cultural landscape is defined by the way the land is organized and divided, settled and used. In addition, the types of structures that are built in a place play an important role in defining a landscape.

The NPS stipulates that a *cultural landscape* is a geographic area, including both natural and cultural resources, associated with a historic event, activity, or person (NPS 1994:94). Using these criteria, the NPS recognizes four cultural landscape categories: (1) *historic designed landscapes*, which are deliberate artistic creations reflecting recognized styles; (2) *historic vernacular landscapes*, which illustrate peoples' values and attitudes toward the land and reflect patterns of settlement, use, and development over time; (3) *historic sites*, which are important for their associations with important events, activities, and persons; and (4) *ethnographic landscapes*, which are associated with contemporary groups and typically are used or valued in traditional ways. Rural historic landscapes are discussed in Bulletin 30 (McClellan et al. 1990).

The NPS definition of cultural landscapes is both similar and dissimilar to definitions often expressed by Native Americans. Both definitions include the land, its natural components, places touched by prehuman spiritual beings, and objects left there by Indian people as these are conceived within the cultural system of the people. Both conceptualizations of cultural landscapes reflect the full range of human activities, all of which are perceived of as being a part of life and thus culturally significant. Native American landscapes, however, are much larger in geographic space than are those considered by the NPS guidelines. The latter suggests that tracts of several thousand acres are the upper size limit for cultural landscapes (NPS 1994:94). By simply broadening the spatial parameters of cultural landscapes, the NPS and Native American conceptualizations of these cultural resource units can be united.

Levels of Cultural Landscapes

We now outline the major types of cultural landscapes as they are perceived by many American Indian people. In terms of both size and function, there are six types of Native American cultural landscapes: (1) eventsapes, (2) holy landscapes, (3) storyscapes, (4) regional landscapes, (5) ecoscapes, and (6) landmarks.

Eventscapes

Eventscapes occur when people within and between ethnic groups jointly participate in an activity. By participating in this activity they tie together in special ways themselves and the places where these events occur. One such event that occurred in the region surrounding Hoover Dam was the Ghost Dance. Both Paiute and Hualapai people jointly danced in 1890 in order to restore the world as it was traditionally. This eventscape has been fully documented in a recent article (Stoffle, Loendorf, Halmo, Austin, Bullets 2000) and is available on a web page at <http://www.journals.uchicago.edu/CA/>.

Holy Lands

Edward Spicer (1957) used the term *holy lands* to explain one of the broadest and most fundamental connections between American Indian people and the land. "Holy land" is a term that seeks a common land perception in order to convey to non-Indian people the cultural significance of Native American land perceptions. A holy land is created by a supernatural being who establishes a birthright relationship between a people (however defined) and that portion of the earth where they were created. This relationship provides the people with special rights to use and obligations to protect resources on that portion of the earth. The relationship between a people and their holy land cannot be broken, even by a diaspora. Forced relocation by another ethnic group will not break a relationship created by the supernatural, so holy land ties tend to be viewed similarly by contemporary occupants and those who have moved away.

Although the term "holy land" conveys many similar features between land conceptions held by American Indians and those of people from other societies, there are also distinctions. Holy lands tend to be where a people were created by the supernatural, but the location of this place in real and spiritual space may differ. Middle Eastern religions, for example, view the surface of the earth as the only existing surface, while many Native Americans perceive of living surfaces above and below this one. The holy land on this earth surface may have been produced when the people emerged from another earth surface below this one where they were originally created. The center of the Zuni Indian Pueblo is such a place.

The term "holy land" never exactly fits American Indian views of ethnic origin lands, but many Indian people have accepted this as a gloss for their perception of creation lands and have agreed to assign a term to it. These terms tend not to exist in the Indian language, probably because the concept is foreign. The Navajo Nation, for example, officially uses the English language term *Navajoland* when referring to an area bounded by the four sacred mountains (Kelley and Francis 1993). The Pima-speaking people of southern Arizona and northern Sonora Mexico refer to their creation land by the Spanish language term *Pimería Alta* (Griffith 1992:xix). The use of foreign terms to refer to Indian places is common; after all, the term *Navajo* is a Spanish label for a people who call themselves *Dine*, and the term *Pima* is a Hispanicized mislabel for people who call themselves *O'odham*.

Storyscapes

The term *storyscape* refers to a portion of a holy land that is delineated by Native American stories or songs. Storyscapes may even exist outside of holy lands, a point that raises questions about whether storyscapes can serve to integrate humankind as well as the Indian people who hold them.

The structure and meaning of the story landscape or storyscape derives only from where the story or song occurs. The storyscape is held together neither by common topography nor common plant and animal ecology. Quite the contrary, the story or song proceeds from place to place based on the activity it is conveying. Often the story is about spiritual beings that can move without reference to topography; that is, they can fly, swim along underground rivers, pass through mountains, or even move telekinetically.

A great variety of storyscapes crisscross the landscape of American Indian holy lands. Many of these involve a time before today's humans existed, what some would call a *mythic time*. It is important to note that the term "mythic" implies only another time before present time; however it does not imply that either that time or the stories were fictitious. A story about the movements of mythic beings conveys the sense of purpose in the behavior of the mythic beings, but the story itself also is tied to places where either events occurred or the mythic being specifically established some relationship with the landscape (Kelley and Francis 1994). Vecsey (1988:145) concludes that in Navajo myth, physical place is as important as what is happening in the story because the geographic references tend to emphasize the movement and vivacity of the hero. The mythic text cares little for the products of heroism; instead it sings the praises the heroic journey, setting an example for the patient to be healed by the Chantway and thereby become restored in health through his own motion.

In general, Indian myths, like those of the Navajo, occur along a storyscape that topographically represents what the story conveys. A hole in a sandstone cliff may be where a mythic being shot an arrow at an opponent, and a stain of color in a rock may represent an eagle frozen in flight.

Were one to pass along the path of the story, the landscape would be marked with story or song points. Moving from point to point permits a living person to physically reenact and directly experience the story or song. A Lillooet person told Romanoff (1992:227) that the Lillooet Coyote story is marked by places where it occurred and that such landmarks are memorably named and arranged by the myth, so that a child hearing the myth acquired an internal map that he could follow on the ground. Generally, specifically noted story or song landscape points are not more important than the less specific physical space between them, because they all constitute the geographical path of the storyscape.

Regional Landscapes

Regional landscapes are components of Native American holy lands. Like other cultural landscapes, they are defined in terms of both geography and culture. Typically, regional landscapes are spatially expansive, involving hundreds, perhaps thousands, of square miles. A major geographical feature often defines a regional landscape. Examples include the Black Hills of South Dakota or the Grand Canyon of Arizona. A major river like the Columbia may define a

regional landscape, as can a desert like the Mohave. A regional landscape is the first level of cultural abstraction that can be expected to correspond with an *ecoregion* (such as the Mohave Desert) that is defined as somewhat unique by its biotic and abiotic characteristics (Golley 1993).

Usually, with a regional cultural landscape there are somewhat unique natural resources that are generally bounded by a major geographical feature. For example, there are certain types of plants and animals found in the Black Hills, the Grand Canyon, and the Sonoran Desert. When American Indian people used the natural resources of a regional landscape over long periods, then specific adaptive strategies developed and were incorporated into their overall cultural system.

Human adaptive strategies reflect, but are not determined by, their environment. Environmental deterministic theories have long since been set aside because studies demonstrate that ultimately people can live anywhere and do so largely on their own terms (Moran 1990, Vayda 1969). There are many dynamics between people and their environment (Ness, Drake, Brechin 1993), and these special relationships tend to be criteria in defining cultural landscapes, including regional landscapes.

Ecoscapes

Some new terms are necessary to clarify past discussions with greater conceptual specificity. One of these, *storyscapes*, and it has already been discussed. Another new term, *ecological landscapes or ecoscapes*, points to the special relationship between American Indian cultural landscapes and the well-defined natural ecosystems they encompass.

The term *ecoscape* refers to a portion of a regional landscape that is clearly defined by an unusual or distinct local geography and its unique cultural relationship to an American Indian group or groups. The ecoscape tends to be recognizable terrain that has already been named by both Indian and non-Indian people. It may be a mountain range, a long canyon, or an area with many hot springs. The ecoscape is, by definition, smaller than the regional landscape in which it is found, but the two are directly related. The geographical structure and cultural meaning of a regional landscape derives in large part from the structures and meanings of the many ecoscapes it contains. For example, the Mohave Desert is composed of great expanses of dry lake beds and their surrounding mountains, a massive unique valley called Death Valley, and dramatic areas defined by volcanic cinder cones, magma tube tunnels, and mesas capped by surface lava flows. Each has the potential of becoming an ecoscape due to its own physiological components, the unique plant and animal communities it supports, and the special relationships it has with Indian people. Together, these ecoscapes become the Mohave Desert as a regional landscape.

Indian people ultimately define an ecoscape when they specially incorporate this local geography into their culture. The ecoscape may be viewed as a power place or a series of connected power places. It may have the shape of a creation being that is lying down, like *Kuuchamaa*, the Kumeyaay sacred mountain (Shipek 1985). It may provide mineral waters for healing. It may be of special historic importance. Each ecoscape will serve a special role in the history and culture of an Indian group and it will contain numerous places of specific cultural significance.

Landmarks

The term *landmark* refers to a discrete physical place within a cultural landscape (Kelley and Francis 1993:158). A landmark tends to be a small part of the local geography that is topographically and culturally unique. Landmarks are easily defined both in terms of their physical boundaries and the reasons why they are culturally important. A landmark may be a salt cave, which is the source of an essential natural element, the object of numerous pilgrimages, and the end of a storyscape. A landmark may be a deep spring in the desert that is surrounded by pictographs from past ceremonies, plants for food and medicine, and water for the irrigation of gardens. A landmark may be a power rock that will heal sick people if they can talk to it in an Indian language and perform the proper ceremony.

Landmarks tend to be obvious places that seem to demand the focus of intense cultural interest. The residual volcanic core standing on the high plains of Wyoming, for example, called by Lakota people *Mato Tepee* (Bear's Lodge) and by other people Devil's Tower, became the focus of cultural interest of at least ten American Indian groups as well as the federal government which made it a national monument (Evans, Dobyns, Stoffle, Austin, and Krause 1994:73-79). The central natural springs that gave Las Vegas (the Meadows in Spanish) its name are such a landscape (Stoffle et. al 1998).

Because of what might be termed inherently interesting features, it is relatively simple to convey the cultural importance of such landmarks to people belonging to another culture. As easily identifiable places whose meaning is readily conveyed to others, landmarks are ideal subjects for cultural protection and management. Except for Mt. Shasta, most TCPs are defined as landmarks; however, the upper portion of Mt. Shasta has recently received the TCP designation making it the largest TCP. In fact, most cultural resource protection laws in the U.S. are designed to protect landmarks. However, a few laws are designed to protect larger geographic units like ecoscapes.

American Indian Cultural Ecoscapes in Riverine Ecosystems: A Model and a Theory

The idea of developing a model and theory of riverine ecosystems was initially conceived and presented at the 1997 Society for Applied Anthropology (SfAA) meeting in Seattle, Washington. Then, as now, the driving observation was that from an American Indian cultural perspective there *is something special about rivers and the valleys that contain them*. That initial session on this topic laid out ideas regarding the importance of water, watersheds, rivers, and cultural resources near rivers. Participating in that session were representatives from three American Indian ethnic groups who shared ideas on this topic: the Skokomish, who live on the Skokomish River as it runs into the southern end of Puget Sound; the Wanapum, who live on the middle Columbia River at the junction of the Snake and Umatilla Rivers; and the Southern Paiutes who live along more than 500 miles of the Colorado River. Each of these ethnic groups sent elders to that SfAA session to explain their cultural attachments to these rivers and the surrounding valleys. This model and theory builds on those cultural perspectives as well as on the interactions our team have had with Mohave and Hualapai elders since then. This portion of

the chapter is viewed as yet another step towards what may be a model and eventually become a theory for understanding why rivers and their valleys are so important to Indian people.

The General Model

Since 1997 our University of Arizona research team has published four articles¹¹ and a number of reports that address the issue of what are American Indian cultural landscapes. These studies present what we believe to be the first stages in developing a general model of landscapes and an initial theory (based on the concept of Puha or power) regarding how the model works. **The first point** is that there are regular elements of the riverine model – which are both natural and human conceived. These elements, singularly or in combination, produce a **cultural cognition** of places and the spaces between them. **The second point** is that these places are related to other places forming a higher level of complexity and abstraction, which we call **place networks**. **The third point** is that place networks are in turn **related to one another** at increasingly higher levels of complexity and abstraction until reaching the spatial and temporal limits of ethnic group's cultural cognitions. It is important to pause and realize that these cognitive limits may exceed, and are certain to be different than, those perceived by non-Indians and may reach spatially outward to interplanetary and interstellar relationships as well to spatially otherworldly plains of existence. All of these spatial relations will have real time and other time (mythic time) dimensions. Is it any wonder that we anthropologists have taken so long to piece together the story of American Indian cultural landscapes.

Briefly and simply, cultural landscapes are geographically referenced units of human culture that are both spatially nested within one another and vertically layered through time. At the largest currently modeled spatial level¹², American Indian landscapes in the GSE/NM region involve (1) **Eventscapes** – interethnic connections produced by joint participation in culturally critically and persistent events such as the Ghost Dance of 1890, (2) **Holy Lands** – are that geographic area where a people were created thus given their birthright attachments and responsibilities to their land; (3) **Song- and Story-Scapes** which identify rather narrow but often very long strings of places connected by a combination of spiritual or physical trails; (4) **Regional Landscapes** which generally define broad area of activities and spirituality that reflect broad ecological areas like the Mohave Desert and sociocultural interactions reflected in social subdivisions like a district, (5) **Ecoscapes** (the focus of this chapter and the GSE/NM EIS) which are unique and interactive biotic and abiotic systems that are somewhat bounded by a topographically unique area such as a canyon, mountain range, or watershed, and (6) **Finally, the smallest unit is a Landmark** – a highly unusual topographic feature that tends to attract the attention of people – such as a hot spring, big cave, jagged mountain peak, or volcanic neck sticking up out of the Colorado River.

¹¹ Stoffle, Austin, and Halmo 1997; Zedeno, Austin, and Stoffle; Dewey-Hefley, Zedeno, Stoffle, Pittaluga; and Stoffle, Loendorf, Austin, Halmo, and Bullets 2000.

¹² At this time we have not modeled landscape connections to other temporal and spatial dimensions but these are real elements of the whole cognitive system and may be critical for understanding access to and use of puha – power.

Riverine Ecoscapes

When we focus on riverine cultural landscape, we begin by talking about ecoscapes. Riverine ecoscapes are cultural constructs (by this we mean they clearly are only known through the minds of humans), but they have both natural and human elements. Some would say that both the natural and human elements are in fact human artifacts. From this perspective there are no inherent meanings in nature, thus when common constructs are made about similar natural elements it is strictly because the people will it so, rather than because there is some characteristic of the natural elements that caused the common response. A recent book called **How the Canyon Became Grand** by Stephen Pyne maintains that the Grand Canyon was made into a nationally valued area by the work of a handful of powerful white men. This is what may be called the “there is nothing out” theory. In contrast, there is a book called **Reinventing Nature: Responses to Postmodern Deconstruction** by Michael Soule and Gary Lease that take this position to task. They maintain that nature does exist and influences human cognition whether we know it or not. From a Native American standpoint, nature is alive, willful, and talks. Nature is interactive and responsive to the behavior of humans, healing sometimes and punishing at other time. The essential balance defined at Creation can only be achieved by a two-way flow of communication and culturally appropriate behavior between people (especially those people chosen by the Creator to be in this holy land) and nature.

Natural Elements

What are the key natural elements that define a riverine ecoscape and the landmarks within it as culturally important? [See Figure 1: Natural Elements of a Riverine Ecoscape]. Riverine ecoscapes that become central in the lives of Indian people have the following elements (1) a river, (2) volcanic flows, (3) hot springs, (4) caves, (5) medicinal plants and animals, (6) paint source, and (7) geographic features like a mountain peak or big rock. There are interesting relationships between these elements.

It is important to begin this discussion of these natural elements with the river – a power force that carves canyons and brings life to the region. Then there are volcanic lava flows – these arise at the edges of the river often flowing directly into it, only to be carved out again by the primary force of water erosion. Hot springs form as an offspring of volcanic activity and water and tend to be near both – sometimes actually at the edge of the river. Caves – are a product of erosion but more importantly are imbedded entrances into a mountain.

Medicine plants are always useful but gain strength when they live at the edge of a river or near volcanic flows. Medicine animals also derive and share the special powers of a specific area. Many types of paint (especially red ochre and yellow ochre) are found near lava flows because they can be produced at the contact point between previous earth and a volcanic lava flow. And finally there are geographic landmarks those highly nuanced protuberances – or places that speak a story of power to all people and provide a universal and dramatic setting for human activity.

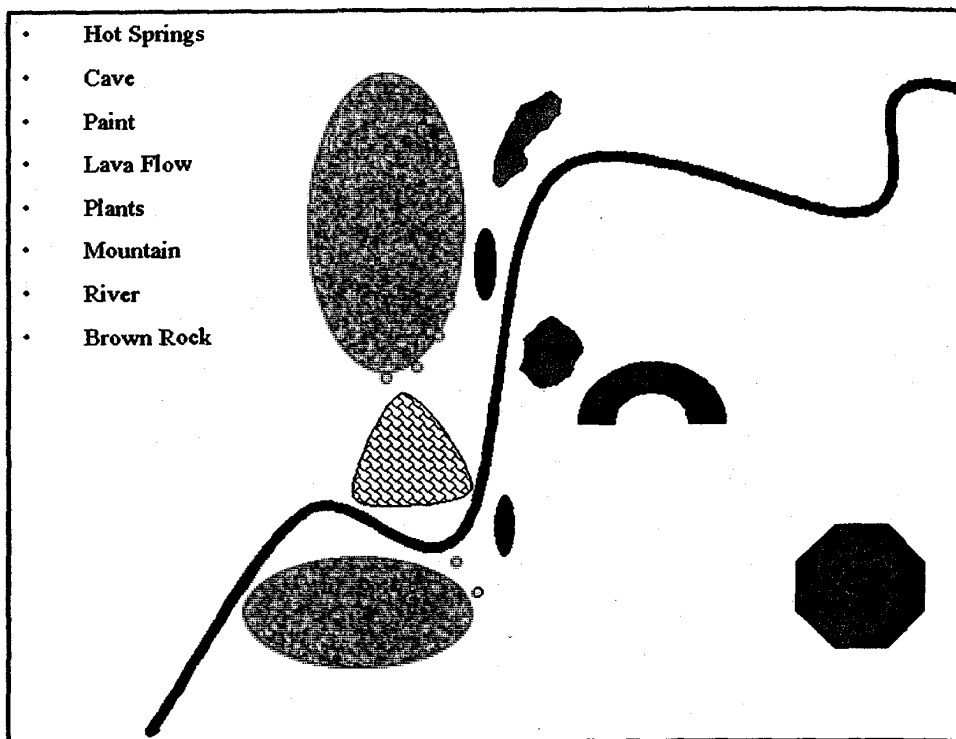


Figure 1 Natural Elements of a Riverine Ecoscape.

Human Elements

Humans respond to these natural elements and regularly attach certain types of meanings to them producing the cultural conceptualization of the riverine ecoscape [Figure Human Elements of a Riverine Ecoscape]. Riverine ecoscapes commonly have the following human elements: (1) an origin story, (2) an identification of component places as having special purposes, (3) a connection between places derived from sequential ceremony, (4) rock peckings and paintings, and (5) historic event layers.

It seems that places of great cultural significance have an **origin story** that explains why they are there and what is their purpose. Such stories may occur at the beginning of creation when the place and the people were formed together, or they may happen later during what some call "mythic time" when things are not just as they are today. In mythic time animals can talk to strange beings and great deeds can be accomplished by rabbits.

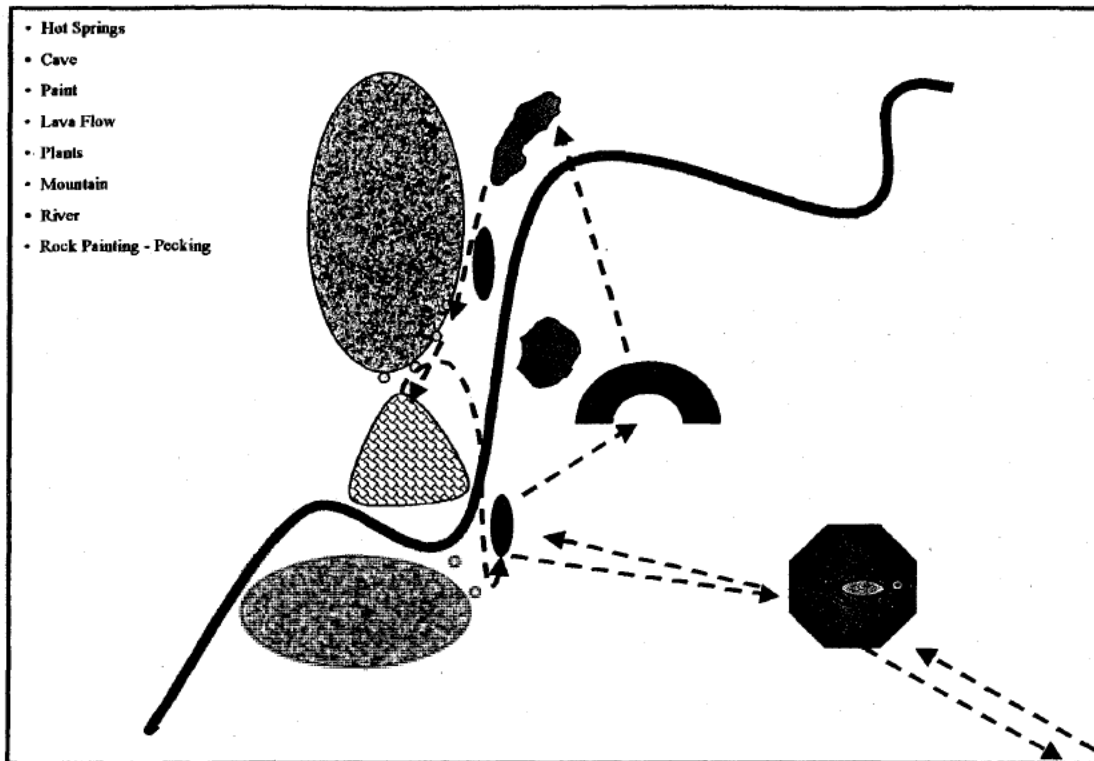


Figure 2 Human Elements of a Riverine Ecoscape.

Within the riverine ecoscape are **places that have special purposes**. Examples include caves where one can receive medicines or songs, places of curing such as a rounded mountaintop, and places that are portals for travel to other worlds. These special purpose places tend to be associated with the different natural elements discussed above, but can exist where there are no unusual natural resources. When two kinds of natural elements come together, like a river and a volcanic lava flow or the narrowing of space along a well traveled trail by canyon walls, a special place is formed that may elicit the formation of rock peckings and paintings. These marks on rocks are either made by powerful humans or by tiny anthropomorphic beings. The peckings are symbols indicating that the place is powerful. As such, the place, rather than the symbols is the center. The pecked or painted places marked often indicate where power moves into and out of the earth, and may be a place where a vision can be received or where a qualified person can prepare to go into a more powerful area like a cave or curing landmark.

Places within a riverine ecoscape that are identified in the culture are often **connected through sequential ceremonial activity**. This network of place connections is the foundation of the riverine cultural landscapes. It should be noted that a single network of connected places (itself a cultural unit) is connected with other similar cultural units. The entire spider web of relationships between places and networks of places is the foundation and ultimately the definition of all cultural landscapes. This spider web of place and network relationships extends outward spatially and back in time temporally thus becoming the world where an ethnic groups lives. As such, this spider web of places and networks is the foundation for understanding, predicting, and managing how life will be for this ethnic group in the future. Breaks in the spider

web threaten the cultural cohesion of the people; and, given their perceptions of the web, the existence of the earth.

Once the human dimensions of riverine ecoscapes are created they and the places so conceived operate as places of power used by people again and again. Though time, new meanings are attached. Historic events can add a layer – such as when an isolated canyon that once served as a spiritual retreat for medicine people becomes a region of refuge for all people hiding from an aggressor. Both meanings (place for medicine people and place to hide) still exist but do so as separate landscape layers. Through time, such historic events create what we eventscape and together with previous landscape meaning can create at one place “cultural landscape layering.”

A new landscape layer, such as an eventscape, can be created when a people face a great crisis and they use their place of balance and power to solve the problem. If the crisis is massive, the balancing ceremony itself becomes a cultural landscape layer that is attached to this riverine ecoscape. For example, amongst the Southern Paiute, the Ghost Dance of 1889-1890 was practiced in places that had been relied on for seeking balance. We maintained that the Southern Paiutes were not only dancing in Kanab Creek – an riverine ecoscape that itself was then being used as a region of refuge, but they were Ghost Dancing the Grand Canyon itself - asking this special region to use its power to help solve the problems confronted by the Ghost Dance.

Disastrous social and environmental changes were occurring to thousands of Indian people in North America and together they chose this healing event to solve these massive problems. The Indian peoples who danced the ceremony of renewal potentially (it has yet to be documented every where) created a network of relationships between themselves, the other dancers, and the places danced. A new cultural landscape layer potentially was added to each place it was practiced. For the Kaibab Paiute people this involved Kanab Creek, the Grand Canyon regional landscape, their holy land, the lands of the Hualapai with whom they directly dance, and to hundreds of other distant places beyond Paiute lands where the dance was performed according to the prophet Wovoka's vision. By performing the Ghost Dance ceremony all of these people and places were tied together into what we call an eventscape.

Puha As Theory

It is beyond the scope of this chapter to explain why Puha is the most likely epistemological candidate to explain the cultural significance of places and cultural landscapes in riverine ecoscapes. However, a few ideas are presented here to begin this argument that is the subject of another longer essay. This short section is specifically focussed on the culture of Numic and Yuman speakers and should only be extended as an explanation in other Indian cultures with the addition of epistemological support evidence from those cultures.

The presence of power is viewed by American Indian people in the western United States as the most robust explanation for why things are culturally significant, how these things are related to one another, and ultimately how they are intellectually integrated. According to Liljeblad (1986:643-644) supernatural power ... was everywhere a source of individual competence, mental and physical ability, health, and success; for this concept the Numic

languages use cognate forms of a single term: Mono and Northern Paiute *puha*, Shoshone *puha* and *poha*, Kawaiisu *puhwa*, Southern Paiute *pua-*, Ute *puwavi*. According to Lamphere (1983: 744), many general characteristics of North American shamanic religion were apparent in the practices of the Yuman peoples of the Colorado River...For example, the shaman who has the power to cure acquires it through a dream experience. The connection between dreaming and power can be seen in the Maricopa work *Kwstma*'s "one who has power," literally "the one who dreams." The Maricopa words for dream and spirit are the same: *sma 'k* (Spier 193: 237-238, cited in Lamphere 1983). The dream is usually one in which the shaman travels to a sacred mountain place; where he encounters either a spirit of the mountain, a bird, or an animal who teaches him songs, gives him the opportunity to cure a sick person, or in some other way gives him the power to cure...Among the Walapai (Kroeber 1935: 188, cited in Lamphere 1983) a man may actually go to a mountain, build a fire in a cave, and spend four nights, during which time he dreams and acquires power from a spirit.

Power is a highly abstract concept that has largely been overlooked by scholars who have studied the culture of American Indian people in the west. This has occurred because it is both esoteric (thus not fully understood by all members of the society) and confidential (thus not to be explained to outsiders or Indian persons who may not use the knowledge of power in a culturally appropriate way). Miller (1983: 68) estimates that only about 20% of an Indian ethnic group possesses information about power, and less than 5% has a systematic overview (see Stoffle, Halmo, and Evans 1999 regarding the distribution of Numic plant knowledge). Similarly, Tilley (1994:26) maintains that places are not equally shared and experienced by all people and in human society the ability to control access to and manipulate particular settings for action (that is power places) is a fundamental feature of the operation of power as domination. In other words, knowledge about power (and visits to power places) is shared on a need to know basis and only with those who should have cultural access whether the person asking about it is an Indian person or a federal land manager.

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". This is an epistemological foundation of Numic and Yuman culture, or what Rappaport (1999:263-271; 446) calls Ultimate Sacred Postulates. 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 *power*. These are a few general statements that we can make about power:

- Power exists throughout the universe, but like differences in human strength, power will vary in intensity from element to element.
- Power varies in what it can be used for and so determines what different elements can do.
- Power 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.

- Power originally derived from Creation and permeates the universe like spider webs in a thin scattering and in definite concentrations with currents, generally where life is also clustered.
- Power 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).

Summary

This portion of the chapter has focussed on presenting a descriptive model and a theory of riverine ecoscapes. The writings of Tuan, Greider, Feld, Basso, Strang, Tilley and others are leading us towards an understanding of just how essential cultural landscapes are to humans. This line of investigation needs to proceed, because it can help explain why Indian people (and others with long standing traditional ties to the land) express such grief when riverine cultural landscapes are impacted by projects and it can provide arguments for protecting cultural landscapes. In riverine ecoscapes, water makes a central contribution to ecoscape including being a source of life, creating spectacular geology, becoming a source of demonstrated power, and carving water-canyons which serve as regions of refuge for Indian people. Special places occur along rivers when a combination of natural elements also occurs, thus producing the necessary foundation for complex ceremonial activity.

Chapter 6

CONCERNS AND RECOMMENDATIONS FOR ETHNOGRAPHIC RESEARCH, RESOURCE PRESERVATION, AND MANAGEMENT

General Concerns

This report represents the first stage of ethnographic assessment of Kaibab Paiute Cultural Resources in the Grand Staircase-Escalante/National Monument. Through consultations with representatives of the Kaibab Paiutes, site visitations, and multidisciplinary research strategies, we have determined that the Kaibab Southern Paiutes have enduring ancestral, historical, and contemporary cultural attachments to those portions of the Grand Staircase-Escalante/National Monument that overlap with the Eastern Yanawant Territories of the Southern Paiutes.

The Kaibab Southern Paiute continue to experience strong attachments to the sites of Skutumpah (Rabbitbrush Water), the Upper Ankati (No Mans Mesa Area), Ipa (Navajo Well), and Tupac (Black Water), which are amongst the sites identified by Isabell Kelly's (1971) consultants in ethnographic research conducted during the 1930s. The strength of current attachments reflects the significance these places held for the ancestors of the Southern Paiutes as well as enduring relationships to the land.

In part, these sentiments are expressed through a sense of responsibility to ensure that people maintain ecologically sound relationships to the plants, animals, land, and both archaeological and cultural resources within this region. In addition, Kaibab elders have expressed a desire to reestablish physical relations with places that have continued to remain culturally significant amongst tribal members through the present day.

In order to facilitate the development of policies that reflect these concerns, we recommend the following:

Renewed Site Visits

At present, some Kaibab elders have visited four of the major sites identified by Kelly's (1971) consultants. In a second round of studies it would be beneficial for other Kaibab Southern Paiute elders to visit Skutumpah (Rabbitbrush Water), the Upper Ankati (No Mans Mesa Area), Ipa (Navajo Well), and Tupac (Black Water). Through these visitations and further collaboration, we can more clearly articulate the nature of previous Southern Paiute occupations as well as the interconnections between these sites and present day descendants.

Expanded Site Visitations

Due to the extensive prehistorical and historical occupation of sites near multiple springs within the GSE/NM, further visitations are necessary in order to identify the medicinal plants, artifacts, and potential burials within these regions. As one Southern Paiute elder noted, "Where there's water, there are artifacts."

In the original round of field studies we were able to visit only a small portion of the sites identified by Kelly's (1971) consultants as places traditionally occupied by Southern Paiutes within the GSE/NM. Initial site visits indicated the presence of traditional medicinal plants, natural vegetation used for basket making and other types of traditional material culture, lithic scatters, and certain plants and animals traditionally used for subsistence.

Co-management

The Kaibab consultants indicated that they are invested in ensuring the physical and cultural welfare of the portions of the GSE/NM where aboriginal (and presumably earlier) Southern Paiute sites have been mapped and identified. In the role of co-managers, the Kaibab consultants could facilitate the protection of medicinal plants, artifact, and potential burial sites. In addition, they could serve the significant functions of representing tribal concerns, collaborating with park representatives, and providing in-depth understandings on the dynamic interplay of culture preservation and contemporary land use practices.

Tribal Access

Access to traditional sites is necessary to permit the transmission of sacred and cultural knowledge from elders to youths. At present, access to many of the sites traditionally occupied within the GSE/NM has been restricted due to increased non-Indian settlement, cattle and sheep grazing, the establishment of farms and corporate cattle ranches, and road building. In order to permit practices conducive to cultural preservation, policies need to be established that enable Southern Paiutes to physically as well as ideologically interact with the landscapes of their predecessors. In addition, studies that identify and describe the perceived needs of diverse groups to portions of the GSE/NM as well as the ways in which they conceptualize their relationships to the land would greatly facilitate the process of developing policies that reflect multiple attachments to this land.

Expanding Government to Government Consultations

The previous recommendations indicate a growing need to expand government to government consultations. Kaibab elders have expressed an interest in further developing collaborative working relations with representatives of the National Park Service and related agencies.

Through the present study, we have begun to identify Kaibab Southern Paiute relations to sites within the GSE/NM. In future ethnographic studies of the GSE/NM, both San Juan Southern Paiutes and the Paiute Indian Tribe of Utah should be asked to participate in site visitations as well as government-to-government related consultations.

References Cited

- Aguirre Beltrani, Gonzalo
1973 Regiones of Refugio. Mexico: Insituto Nacional Indigenista.
- Arrington, Leonard J.
1930 Great Basin Kingdom: An Economic History of the Latter-day Saints 1830-1900. Cambridge, MA: Harvard University Press.
- Bancroft, Hubert H.
1890 History of Utah 1540-1887. 475-476. San Francisco: The History Company, Publishers.
- Bagley, J.M., Criddle, W.D., and Higginson, R.K.
1959 Water supplies and their uses in Iron, Washington, and Kane Counties in Utah; Utah State University Agricultural Experiment Station Special Report, 13:56. In Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. Historic Channel Change of Kanab Creek: Southern Utah And Northern Arizona. 1991(21) Grand Canyon Natural History Association Monograph Number 9.
- Barron's New Students Concise Encyclopedia
1992 Second Edition Barron's Educational Series, Inc. 10-39.
- Beaglehole
1937 In Ortiz, Alfonso. (editor) Handbook of North American Indians. Sturtevant, William General Editor. 1983:10:718. Southwest. Washington: Smithsonian Institution.
- Bettinger, R.L. and M.A. Baumhoff
1983 Return Rates and Intensity of Resource Use in Numic and Prenumic Adaptive Strategies. *American Antiquity* 48: 830-834
- Bolton, Herbert E.
1928 Escalante in Dixie and the Arizona Strip. *New Mexico Historical Review*, 3(1): 41-72. In Kelly, Isabel T. 1971 *Southern Paiute Ethnography*. Anthropological Papers No. 69, University of Utah. New York: Johnson Reprint Corporation.

1950 *Pageant in the Wilderness*. Salt Lake City: Utah State Historical Society.
- Brewerton, G.D.
1848 Overland with Kit Carson, A Narrative of the Old Spanish Trail in '48. New York, 1930:56-60. In Hafen, L. & Hafen, A. Old Spanish Trail. Santa Fe to Los Angeles. With extracts from contemporary records and including diaries of Antonio Armijo and Orville Pratt. 1993:193. Lincoln and London: University of Nebraska Press.

- Bradley, Martha Sonntag
1999 A History of Kane County. Utah State Historical Society: Kane County Commission.
- Brooks, Thomas W.
1970 *By Buckboard to Beatty: The California-Nevada Desert in 1886*. Edited with introduction and notes by Anthony Lehman. Los Angeles: Dawson's Book Shop

1950 The Southern Indian Mission. In *Under the Dixie Sun*. H. Bradshaw, ed. Pp.23-33. Panguitch, Utah: Washington Country Chapter Daughters of the Utah Pioneers.
- Bryan, K.
1925 Date of channel trenching (arroyo-cutting) in the arid Southwest: Science, 62: 338-232. In Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. Historic Channel Change of Kanab Creek: Southern Utah and Northern Arizona. 1991:21. Grand Canyon Natural History Association Monograph Number 9.
- Bunte, Pamela A., and Robert J. Franklin
1985 *From the Sands to the Mountain: Change and Persistence in a Southern Paiute Community*. Lincoln: University of Nebraska Press.
- Bureau of Land Management
1999 *Grand Staircase-Escalante National Monument Approved Management Plan*. Cedar City, Utah: Bureau of Land Management.
- Bush, Robert D.
1991 Memorandum to SHPOs and FHPOs on Information on the Relationship between Section 106 of the National Historic Preservation Act and the Native American Graves Protection and Repatriation Act. July 3. Source: Advisory Council on Historic Preservation.
- Bye, Robert A.
1972 Ethnobotany of the Southern Paiute Indians in the 1870's: With a Note On The Early Ethnobotanical Contributions of Dr. Edward Palmer. In *Great Basin Cultural Ecology: A Symposium*. Don D. Fowler, ed. Pp. 87-104. Reno: Desert Research Institute Publications in the Social Sciences.
- Californian*
1847 December 29. In Hafen, LeRoy R. and Hafen Ann W. 1993:191. Old Spanish Trail. Santa Fe to Los Angeles. With extracts from contemporary records and including diaries of Antonio Armijo and Orville Pratt. Lincoln and London: University of Nebraska Press.
- Cambell, Sarah
1990 *Post-Columbian Cultural History in the Northern Columbia Plateau*. New York: Garland.

Carnett, Carol

- 1991 *Legal Background of Archeological Resources Protection*. Technical Brief No. 11. June. Washington, D.C.: National Park Service, USDI.

Carr, Stephen L.

- 1971 *Historical Guide to Utah Ghost Towns*. Salt Lake City: Western Epics.

Corbett, Pearson H.

- 1951 *Jacob Hamblin: Peacemaker*. Salt Lake City: Deseret Book Company.

Crespi, Muriel

- 1987 *Ethnography and the NPS: A growing partnership*. Cultural Resources Management Bulletin 10(1): 1-4.

Dellenbaugh, Fredrick S.

- 1909 *The Romance of the Colorado River*. G. P. Putman's Sons, New York. In Kelly, Isabel T. 1971 *Southern Paiute Ethnography*. Anthropological Papers No. 69, University of Utah. New York: Johnson Reprint Corporation.

Dobyns, Henry F.

- 1981 *From Fire to Flood: Historic Human Destruction of Sonoran Desert Riverine Oases*. Socorro, NM: Ballena Press.
- 1983 *Their Number Become Thinned: Native American Population Dynamics in Eastern North America*. Knoxville: University of Tennessee Press.

Dobyns, Henry F. and Robert C. Euler

- 1970 *Waubesa Yuma's People; The Comparative Sociopolitical Structure of the Pai Indians of Arizona*. Prescott College Studies in Anthropology No. 3. Prescott: Prescott College Press.
- 1971 *The Havasupai People*. Phoenix: Indian Tribal Series.

Documentos para la Historia De Mexico

- 1854 *Diario y Derrotero de los RR. PP. Fr. Francisco Atanasio Dominguez y Fr. Silvestre Velez de Escalante [1776]*. Segunda serie, Vol.1, pp.375-558. [Ciudad de] Mexico. In Kelly, Isabel T. 1971 *Southern Paiute Ethnography*. Anthropological Papers No. 69, University of Utah. New York: Johnson Reprint Corporation.

Dutton, Clarence E.

- 1882 *Tertiary History of the Grand Cañon District With Atlas*. Department of the Interior Monographs of the Geological Survey Volume II. Washington, DC: Government Printing Office.

ERT (Environmental Research and Technology)

- 1980 *Kaiparowits Coal Development and Transportation Study*. Report submitted to Bureau of Land Management. Fort Collins, Colorado: Environmental Research and Technology, Inc.

Evans, Joshua T.

- 1938 The Northern Shoshone Indians under the Ecclesiastical Administration of The Church of Jesus Christ of Latter-day Saints as Exemplified at the Washakie Colony, Utah. MA thesis, Utah State University. In Holt, Ronald L. 1992:24 *Beneath These Red Cliffs: An Ethnohistory Of The Utah Paiutes*. Albuquerque: University of New Mexico Press.

- Evans, Michael J., Henry F. Dobyns, Richard W. Stoffle, Diane Austin, and Elizabeth L. Krause
1994 *NAGPRA Consultation and the National Park Service: An Ethnographic Report on Pipe Spring National Monument, Devils Tower National Monument, Tuzigoot National Monument, Montezuma Castle National Monument, Western Archaeological and Conservation Center*. Prepared for Western Archaeological and Conservation Center, National Park Service, Tucson, Arizona: Bureau of Applied Research in Anthropology, The University of Arizona.

Euler, Robert C.

- 1964 Southern Paiute Archeology. *American Antiquity* 29:379-380.
1972 *The Paiute People*. Phoenix: Indian Tribal Commission.

Fenton, R.N.

- 1859 Report No. 37. In *Report of the Commissioner of Indian Affairs for the Year 1859*: 203-204. Washington, D.C.: Government Printing Office.

Forney, J.

- 1859 Visit of the Superintendent of Indian Affairs to Southern Utah. *Deseret News* (May 11, 1859), 9(10) 73, col.1.

Fowler, Catherine S. and D. D. Fowler

- 1933 Gypsum Cave, Nevada. *Southwest Museum Papers* No. 8. Los Angeles: Southwest Museum.
1971a Notes on the History of the Southern Paiutes and Western Shoshonis. *Utah Historical Quarterly* 39: 95-113.
1971b Anthropology of the Numa: John Wesley Powell's Manuscripts on the Numic Peoples of Western North America, 1868-80. *Smithsonian Contributions to Anthropology*, 14:110. In Holt, Ronald L. *Beneath These Red Cliffs: An Ethnohistory Of The Utah Paiutes*. 1992:35. Albuquerque: University of New Mexico Press.

Frankin, Robert J. and Pamela A. Bunte

- 1993a When Sacred Land is Sacred to Three tribes: San Juan Paiute Sacred Sites and the Hopi-Navajo-Paiute Suit to Partition the 1934 Act Arizona Navajo Reservation. In *Sacred Sites, Sacred Places and Sites of Significance*. B.O.K. Reeves, D. Carmichael, and A. Schanche, eds. New York: Routledge.

- 1993b Review of *Pia'paxa'huipi*. Submitted to San Juan Southern Paiute Tribal Council.

Frontier Guardian

- 1850 January 9. In Arrington, Leonard J. Great Basin Kingdom: An Economic History of the Latter-day Saints 1830-1900. 1954:67. Cambridge, MA: Harvard University Press.

Gardner, R.

- 1879 March 25. Letter in Juanita Brooks Indians on the Mormon Frontier. Utah Historical Quarterly XII:1-2:25-26. January-April 1944.

Golley, Frank B.

- 1993 A History of the Ecosystem Concept in Ecology: More than the Sum of the Parts. New Haven: Yale University Press.

Gregory, Herbert E.

- 1938 The Geology and Geography of the Pansaugunt Region. Geological Survey Professional Paper 226. A survey of parts of Garfield and Kane Counties. United States Government Printing Office.
- 1945 Southern Utah in Economic Geography January 1945:29-57. Worcester, MA: Clark University.
- 1950 Geology and Geography of the Zion Park Region, Utah and Arizona. Geological Survey Professional Paper 220:1-200.
- 1951 The Geology and Geography of the Paunsaugunt Region, Utah. Geological Survey Professional Paper 226:1-116. A survey of parts of Garfield and Kane Counties. United States Government Printing Office, Washington.
- 1963 Kanab Southern Gateway to Utah. Utah Geological and Mineralogical Survey, *Bulletin* 49:1-24.

Gregory, Herbert E., and Raymond C. Moore

- 1931 The Kaiparowits Region: A Geographic and Geologic Reconnaissance of Parts of Utah and Arizona. United States Geological Survey Professional Papers, No. 164:1-161.

Greider, T., and L. Garkovich

- 1994 Landscapes: The Social Construction of Nature and the Environment. *Rural Sociology* 59:183-204.

Griffith, James

- 1992 *Beliefs and Holy Places: The Spiritual Geography of the Pimeria Alta*. Tucson: University of Arizona Press.

Hafen, LeRoy R. and Hafen Ann W.

- 1993 Old Spanish Trail. Santa Fe to Los Angeles. With extracts from Contemporary records and including diaries of Antonio Armijo and Orville Pratt. Lincoln and London: University of Nebraska Press.

1954a *Journals of Forty-Niners*. Glendale, California: The Arthur H. Clark Company.

1954b *Old Spanish Trail: Santa Fé to Los Angeles*. Glendale, California: The Arthur H. Clark Company.

Halmo, David B., R. W. Stoffle, and M. J. Evans

- 1993 Paitu Nanasuagaindu Pahonupi (Three Sacred Valleys): Cultural Significance of Gosiute, Paiute, and Ute Plants. *Human Organization* 52(2):142-150.

Hamblin, Jacob

- 1951 *Journal of Jacob Hamblin*. Typed transcription of original, copy at Utah State Historical Society.

Herford, R.

- 1986 Modern alluvial history of the Paria River drainage basin, southern Utah: Quaternary Research, 25:293-311. In Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. Historic Channel Change of Kanab Creek: Southern Utah And Northern Arizona. 1991. Grand Canyon Natural History Association Monograph Number 9.

Hodge, Frederick W., G.P. Hammond, and A. Rey (translators)

- 1945 Fray Alonso de Benavides' Memorial of 1634. Albuquerque: University of New Mexico Press. In Reff, Daniel T. Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764. 1991. Salt Lake City: University of Utah Press.

Holt, Ronald L.

- 1992 Beneath These Red Cliffs: An Ethnohistory of the Utah Paiutes. Albuquerque: University of New Mexico Press.

Interview Sites

- 2000 Sites visited by Kaibab elders in the summer of 2000, including: Skutumpah-Rabbit Brush Water, Upper Ankati-No Man's Mesa area, Ipa- Navajo Well, and Tupac-Seaman Spring.

Inter-Tribal Council of Nevada

- 1976 Nuwuvi: A Southern Paiute History. Inter-Tribal Council of Nevada: University of Utah Printing Service.

Ives, Joseph C.

- 1861 *Report upon the Colorado River of the West*. In Powell, Allen Kent, ed., Utah History Encyclopedia. Salt Lake City: Deseret News Press. In Bradley, Martha Sonntag. A History of Kane County. 1999:40. Kane County Commission: Utah State Historical Society.

John, Elizabeth A.H.

- 1975 *Storms Brewed in Other Men's Worlds*. College Station: Texas A&M University Press.

Jones, Sondra

- 2000 The Trial of Don Pedro Leon Lujan: An Attack Against Indian Slavery And Mexican Traders in Utah. Salt Lake: The University of Utah Press.

Journal History of the Church of Jesus Christ of Latter-Day Saints, located the Church Historians Office, Salt Lake City

- 1987 October 10. In Arrington, L.J. Great Basin Kingdom: An Economic History of the Latter-Day Saints 1830-1900. 1958. Cambridge, MA: Harvard University Press.

Kearney, Thomas H., and Robert H. Peebles

- 1960 *Arizona Flora*. Second Edition with Supplement by John Thomas Howell and Elizabeth McClintock. Berkeley: University of California Press.

Kelley, Klara and Harris Francis

- 1993 Places Important to Navajo People. *American Indian Quarterly* 17(2):151-169.
- 1994 *Navajo Sacred Places*. Indiana University Press, Bloomington.

Kelly, Isabel T.

- 1932 Ethnography of the Surprise Valley Paiute. University of California Publications in American Archaeology and Ethnology. 31(3) 67-210.
- 1934 Southern Paiute Bands. *American Anthropologist* n.s. 36:548-560.
- 1939 *Southern Paiute Shamanism* *Paiute Shamanism*. University of California Anthropological Records. 2:151-67.

- 1971 *Southern Paiute Ethnography*. Anthropological Papers No. 69, University of Utah. New York: Johnson Reprint Corporation.
- Kelly, Isabel T., and C.S. Fowler
 1986 "Southern Paiute," *Handbook of North American Indians*. Volume 11: Great Basin. Warren L. D'Azevedo, ed. Washington, D.C.: Smithsonian Institution. pp. 368-397.
- Kroeber, Alfred L.
 1908 Origin Tradition of the Chemehuevi Indians. In *Journal of American Folk-Lore* 21(81-82) 240-269.
 1935 Walapai Ethnography, by Fred Kniffen, Gordon MacGregor, Robert McKennan, Scudder Mekeel and Maurice Mook. *Memoirs of the American Anthropological Association* 42. Menasha, WI.
 1970 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, D.C.: Government Printing Office [originally published 1925].
 1973 *Mohave Indians: Report on Aboriginal Territory and Occupancy of the Mohave Tribe*. David Agee Horr, ed. New York: Garland Publishing Inc.
- Laird, Carobeth
 1976 *The Chemehuevis*, Banning, CA: Malki Museum, Inc.
- Lamphere, Louise
 1983 Ceremonialism. In *Southwest, Handbook of North American Indians*, Volume 10. Warren L. D'Azevedo (ed) Pp. 743-763. Washington, D.C.: Smithsonian Institution.
- Liljeblad, Sven
 1986 Oral Tradition: Content and Style of Verbal Arts. In *Great Basin, Handbook of North American Indians*. Volume 11 Warren L. D'Azevedo (ed). pp. 641-659. Washington, D.C.: Smithsonian Institution.
- Little, James
 1881 *Jacob Hamblin*. Salt Lake City: Juvenile Instructor Office (reprinted 1951 and 1969).
- Lowie, Robert
 1924 Shoshonean Tales. *Journal of American Folklore* 37(143-144):1-242.
- May, Dean
 1987 A People's History of Utah, no.8: Colonizing the West: Territory of Utah, 1850. Salt lake City: KUED Media Solutions: University of Utah.

May, Jacques M.

- 1958 *The Ecology of Human Disease*. MD Publications, New York. In Reff, Daniel T. *Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764*. 1991. Salt Lake City: University of Utah Press.

McClelland, L.F., J.T. Keller, G.P. Keller, and R.Z. Melnick

- 1990 *Guidelines for Evaluating and Documenting Rural Historic Landscapes*. National Register Bulletin 30. U.S. National Park Service, U.S. Department of the Interior, Government Printing Office, Washington, D.C.

McCracken Robert D.

- 1991 *A History of Pahrump Nevada*. Tonopah, NV: Nye County Press.

McPherson, Robert S.

- 1988 *The Northern Navajo Frontier 1860-1900: Expansion through Adversity*. Albuquerque: University of New Mexico Press.

Miller, David H.

- 1983 *Ghost Dance*. New York: Duell, Sloan, and Pierce.

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.

Miller, Wick R.

- 1983 *Numic Languages*. In *Great Basin, Handbook of North American Indians*, Volume 11. Warren L. D'Azevedo (ed.) Pp. 98-106. Washington, D.C.: Smithsonian Institution.

Moorhead, Max

- 1933 *New Mexico's Royal Road*. Norman: University of Oklahoma Press. In Reff, Daniel T. *Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764*. 1991. Salt Lake City: University of Utah Press.

Moran, Emilio F., ed.

- 1990 *The Ecosystem Approach in Anthropology: From Concept to Practice*. Ann Arbor: University of Michigan Press.

Nabokov, Peter

- 1981 *Indian Running: Native American History and Tradition*. Santa Fe, NM: Ancient City Press.

Ness, Gayl D., William Drake, and Steven Brechen

- 1993 *Population-Environment Dynamics*. Ann Arbor: University of Michigan Press

New York Tribune

- 1853 Colonel Benton and the Pacific Railroad. March 16, 1853. In Hafen, LeRoy R. and Hafen Ann W. 1993:198. Old Spanish Trail. Santa Fe to Los Angeles. With extracts from contemporary records and including diaries of Antonio Armijo and Orville Pratt. Lincoln and London: University of Nebraska Press.

Ortiz, Alfonso

- 1983 Handbook of North American Indians. Sturtevant, William General Editor. Vol.10 Southwest. Washington: Smithsonian Institution.

Palmer, William R.

- 1928a Utah Indians Past and Present. In *Utah Historical Quarterly*. 1(2) 35-52.
- 1978 (1946) *Why the North Star Stands Still and Other Indian Legends*. Springdale, Utah: Zion Natural History Association, Zion National Park.

Palmer, William R.

- 1934 Pahute Indian Homelands. Cedar City, Utah. In *Utah Historical Quarterly* July 1933. 6:3:88-102.

Parker, Patricia L.

- 1993 Traditional Cultural Properties: What You Do and How We Think. Cultural Resource Management 16 (special issue). Washington D.C.: National Park Service.

Parker, Patricia L. and Thomas F. King

- 1990 *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Register Bulletin 38. Washington D.C.: Interagency Resources Division, National Park Service.
- 1936 Journal (untitled). Unpublished manuscript. Cedar City, Utah: Special Collections, Southern Utah State College.

Polzer, Charles W.

- 1972 The Evolution of the Jesuit Mission System in Northwestern New Spain, 1600-1767. 234-239. Ph.D. Dissertation, Tucson: University of Arizona. In Reff, Daniel T. Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764. 1991. Salt Lake City: University of Utah Press.

Powell, Allen Kent (editor)

- 1994 Utah History Encyclopedia Salt Lake City: University of Utah Press. 179 In Bradley, Martha Sonntag. A History of Kane County. 1999:40. Utah State Historical Society: Kane County Commission.

Powell, John Wesley

- 1875 Report on the Explorations of the Colorado River of the West. In Bradley, Martha Sonntag. *A History of Kane County*. 1999:43-45. Utah State Historical Society: Kane County Commission.

Powell, J.W. and G.W. Ingalls

- 1874 Report of J.W. Powell and G.W. Ingalls, Special Commissioners to enumerate Indians in Nevada and adjacent places. *Annual Report of the Commissioner of the Interior for the Year 1873*. Pp. 41-58. Washington, D.C.: Government Printing Office.

Presnall, C.C.

- 1936 *Zion-Bryce Nature Notes* 7-8:1-20.

Price, H. Marcus III

- 1991 *Disputing the Dead: U.S. Law on Aboriginal Remains and Grave Goods*. Columbia: University of Missouri Press.

Reff, Daniel T.

- 1991 *Disease, Depopulation, and Cultural Change in Northwestern New Spain, 1518-1764*. Salt Lake City: University of Utah Press.

Registro Oficial del Gobierno de los Estados-Unidos Mexicanos. Hemeroteca National.

1830 April 28. "Route Discovered From the Village Of Abiquiu In Territory of

New Mexico to Upper California" In Hafen, LeRoy R. and Hafen Ann W. *Old Spanish Trail. Santa Fe to Los Angeles. With extracts from Contemporary records including diaries of Antonio Armijo and Orville Pratt*. 1994. Lincoln and London: University of Nebraska Press.

Robinson, A.F.

- 1972 Romance of a church farmhouse, Kane County, Utah. Salt Lake City: The Utah Printing Company. In Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. *Historic Channel Change of Kanab Creek: Southern Utah And Northern Arizona*. 1991:21. Grand Canyon Natural History Association Monograph Number 9.

Romanoff, Steven

- 1992 The Cultural Ecology of Hunting and Potlatches Among the Lillooet Indians. In *A Complex Culture of the British Columbia Plateau: Traditional St'l'aatl'imx Resource Use*. B. Hayden, ed. pp. 470-505. Vancouver: University of British Columbia Press.

Sanchez, Joseph P.

- 1997 *Explorers, Traders, and Slavers: Forging the Old Spanish Trail 1678-1850*. Salt Lake City: University of Utah Press.

Sapir, Edward

- 1910 Kaibab Paiute Linguistic and Ethnologic Fieldnotes. Manuscript No.2643 in American Philosophical Library, Philadelphia.
- 1930 *The Southern Paiute Language*. Proceedings of the American Academy of Arts and Sciences 65(1-3). Boston.

Scholes, France V.

- 1931 The Supply Services of the New Mexican Missions in the Seventeenth Century, 1663-1680. *New Mexico Historical Review* 5:186-210. In Reff, Daniel T. Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764. 1991. Salt Lake City: University of Utah Press.

Shaul, David

- 1986 Linguistic Adaptation and the Great Basin. *American Antiquity* 51: 415-416

Shaul, David L., and Onur Senarslan

- 1997 *A Working Southern Paiute Dictionary*. Pipe Springs, Arizona: The Southern Paiute Consortium-Kaibab Band of Paiute Indians.

Shipek, Florence C.

- 1985 Kuuchamaa: The Kumeyaay Sacred Mountain. *Journal of California and Great Basin Anthropology* 7(1): 67-74.

Shutler, Richard Jr.

- 1961 Lost City: Pueblo Grande de Nevada. *Nevada State Museum Anthropological Papers* 5. Carson City.

Smith, S.S.

- 1989 Relationship of large floods and rapid entrenchment of Kanab Creek, southern Utah [MS thesis]: Tucson, University of Arizona. In Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. Historic Channel Change of Kanab Creek: Southern Utah And Northern Arizona. 1991:24. Grand Canyon Natural History Association Monograph Number 9.

Spicer, Edward H.

- 1957 Worlds Apart: Cultural Differences in the Modern Southwest. *Arizona Quarterly* 13(3) 197-203.
- 1971 Persistent Cultural Systems. *Science* 174:795:800.

Spier, Leslie

- 1933 *Yuman Tribes of the Gila River*. Chicago: University of Chicago Press. (Reprinted: Cooper Square Press, New York, 1970.)

Stebbins, Robert C.

- 1986 *A Field Guide to Western Reptiles and Amphibians*. Boston: Houghton Mifflin Company.

Steward, Julian H.

- 1938 *Basin Plateau Aboriginal Sociopolitical Groups*. Bureau of American Ethnology. Bulletin 120. Washington, D.C.: Smithsonian Institution.
- 1941 *Cultural Element Distributions: XVIII. Nevada Shoshone*. University of California Anthropological Records 4(2) 209-39.

Stewart, Omer C.

- 1942 *Culture Element Distributions: XVIII--Ute-Southern Paiute*. Anthropological Records. 6(4). Berkeley: University of California.

Stoffle, Richard W.

- 1992 Interview with San Juan Southern Paiute Elder about the Colorado River. Interview conducted at Willow Springs September 27, 1993.

Stoffle, Richard W., Diane Austin, David Halmo and Arthur Phillips III

- 1997 *Ethnographic Overview and Assessment: Zion National Park, Utah and Pipe Spring National Monument, Arizona: 187-200*.

Stoffle, Richard W., Diane Austin, David Halmo and Maria Banks

- 1996 *Southern Paiute Ecoscape Perspectives: Applied Ethnographic Study of Cultural Resources at Zion National Park, Utah and Pipe Spring National Monument, Arizona*. Tucson: Bureau of Applied Research in Anthropology, University of Arizona.

Stoffle, Richard W. and Hank Dobyns

- 1982 *Puaxant Tuvip: Utah Indians Comment on the Intermountain Power Project, Utah Section of Intermountain-Adelanto Bipole I Proposal*. Kenosha, Wisconsin: University of Wisconsin-Parkside, Applied Urban Field School.
- 1983a *Ntvagantt: Nevada Indians Comment on the Intermountain Power Project*. Cultural Resource Series, Monograph No. 7. Reno: Bureau of Land Management.
- 1983b *Nungwu-Uakapi*. Kenosha, Wisconsin: University of Wisconsin-Parkside.

Stoffle, Richard W., H. Dobyns, and M. Evans, eds.

- 1983 *Nungwu-uakapi: Southern Paiute Indians Comment on the Intermountain Power Project. Revised Intermountain-Adelanto Bipole I Proposal*. Kenosha, Wisconsin: University of Wisconsin-Parkside.

Stoffle, Richard W. and M. Evans

- 1976 Resource Competition and Population Change: A Kaibab Paiute Ethnohistorical Case. *Ethnohistory* 23(2) 173-197.
- 1978 *Kaibab Paiute History: The Early Years*. Fredonia, Arizona: Kaibab Paiute Tribe.
- 1980 *Kaiparowits Coal Development and Transportation Study*. Final report submitted to the Bureau of Land Management, August 1980. Fort Collins, Colorado: Environmental Research & Technology, Inc. (Stoffle subcontractor Ethnology Section and Tourism Section).
- 1990 Holistic Conservation and Cultural Triage: American Indian Perspectives on Cultural Resources. *Human Organization* 49(2): 91-99.

Stoffle, Richard W., M. Evans, and C. Harshbarger

- 1988 *Native American Interpretation of Cultural Resources in the Area of Yucca Mountain, Nevada* (Interim Report). Las Vegas: Department of Energy, Nevada Operations Office.

Stoffle, Richard W., D. Halmo, M. Evans, and J. Olmsted

- 1990 Calculating the Cultural Significance of American Indian Plants: Paiute and Shoshone Ethnobotany at Yucca Mountain, Nevada. *American Anthropologist* 92(2): 416-432.

Stoffle, Richard W., F. Jensen, and D. Rasch

- 1987 "Cultural Basis for Sport Anglers' Response to reduced Lake Trout Catch Limits." *Transactions of the American Fisheries Society* 116(3): 503-509.

Stoffle, Richard W., Jones, Kristine L., and Dobyns, Henry F.

- 1994 *Direct European Transmission of Old World Pathogens In American Indian Quarterly* Spring 1995:192).

Stoffle, Richard W., K. Jones, and H. Dobyns

- 1995 Direct European Immigrant Transmission of Old World Pathogens to Numic Indians During the Nineteenth Century. *American Indian Quarterly* 19(2) 1-23.

Stoffle, Richard W., Lawrence Loendorf, Diane Austin, David Halmo, and Angelita Bullets

- 2000 Ghost Dancing the Grand Canyon. *Current Anthropology* 41(1): 11-38.

Stoffle, Richard W., J. Olmsted, H. Dobyns, and D. Halmo

- 1991 *Utah (Fields Where We Plant All the Time): Shivwits Southern Paiute Water Use Along Tunakwint, the Santa Clara River*. Manuscript. Ann Arbor: Institute for Social Research, University of Michigan.

Stoffle, Richard W., J. Olmsted, and M. Evans

1990a *Yucca Mountain Project. Literature Review and Ethnohistory of Native American Occupancy and Use of the Yucca Mountain Region, Interim Report.* Report prepared for U.S. Department of Energy, Nevada Operations Office under contract no. DE-AC08-87NV10576. Ann Arbor: Institute for Social Research, University of Michigan.

1990b *Literature Review and Ethnohistory of Native American Occupancy and Use of the Yucca Mountain Region (Interim Report).* Las Vegas: Department of Energy, Nevada Operations Office.

Stuart, David R.

1979 Non-artifactual Cultural Resources and NPS Planning. *Cultural Resources Management Bulletin*. 2(2): 11-12.

Sutton, Imre

1984 *Irredeemable America.* University of New Mexico Press, Albuquerque.

Thorton, Russell

1987 *American Indian Holocaust and Survival: A Population History Since 1492.* Norman: University of Oklahoma Press.

Tonopah Daily Times and Bonanza

1933 Pitues Install New Chieftan at Tribe Ceremonial. In *Tonopah Daily Times and Bonanza*, October 4, 1933, p.4, col.1.

Torgler, Kim J.

1985 Continuous Artifact Tradition from the Middle Archaic to the Historical Present: Analyses of Lithics and Pottery from Selected Sites in Southeast Idaho. *Tebiwa* 25: 80-107

Trafzer, Clifford, Luke Madrigal, and Anthony Madrigal

1997 *Chemehuevi People of the Coachella Valley: A Short History of the Sovereign Nation of the Twenty-Nine Palms Band of Mission Indians.* Coachella, California: Chemehuevi Press, Twenty-Nine Palms Band of Mission Indians.

Turner, Allen

1985 Adaptive Continuity and Cultural Development Among the Paiute Indians of the Grand Canyon's North Rim. *Tebiwa: The Journal of the Idaho Museum of Natural History* 22:28-53.

Turner, Allen C. and Robert C. Euler

1983 A Short History of the San Juan Paiute Tribe. *Journal of California and Great Basin Anthropology*.

U.S. Department of the Interior, Bureau of Land Management

- 1996 *Paria Canyon-Vermilion Cliffs Wilderness, Wilderness Management Plan*. St. George, Utah: Department of the Interior, Bureau of Land Management.

Vayda, Andrew P.

- 1967 *Environment and Cultural Behavior; Ecological Studies in Cultural Anthropology*. Garden City, N.Y.: American Museum of Natural History – Natural History Press.

Vescey, Christopher

- 1987 *Imagine Ourselves Richly*. New York: Crossroad.

Vetancurt, Fray Augustin de

- 1961 *Teatro Mexicano: Descriptcion Breve del los Sucessos Esemplares de la Nueva-Espana en el Mundo Occidental de la India: III. (Cornice de la Province Del Santo Evangelic)* 1697. Jose Pore Truants, Madrid. In Reff, Daniel T. Disease, Depopulation, Culture Change in Northwestern New Spain, 1518-1764. 1991. Salt Lake City: University of Utah Press.

Warner, J.J., Benjamin Hayes, and J.P. Widney

- 1936 *An Historical Sketch of Los Angeles County, California*. 33. In Hafen, LeRoy R. and Hafen Ann W. *Old Spanish Trail. Santa Fe to Los Angeles*. With extracts from Contemporary records and including diaries of Antonio Armijo and Orville Pratt. 1993:171. Lincoln and London: University of Nebraska Press.

Walker, D.E.

- 1991 *Protection of American Indian Sacred Geography*. In *Handbook of American Indian Religious Freedom*, edited by C. Vecsey, pp. 100-115. Crossroad, New York.

Webb, Robert H.

- 1988 *Occurrence and geomorphic effects of streamflow and debris flow floods in northern Arizona and southern Utah* In Mayer, L. and Nash, D., editors, *Catastrophic flooding*. Boston: Allen and Unwin. Also in Webb, Robert H., Smith, Spense S. and McCord, V. Alexander S. *Historic Channel Change of Kanab Creek: Southern Utah And Northern Arizona*. 1991:20. Grand Canyon Natural History Association Monograph Number 9.

Webb, Robert H., Spence S. Smith, and V. Alexander S. McCord

- 1993 *Historic Channel Change of Kanab Creek, Southern Utah and Northern Arizona*. Monograph No. 9. Arizona: Grand Canyon Natural History Association.

Welsh, Stanley L., N. Duane Atwood, Sherel Goodrich, and Larry C. Higgins, eds.

- 1994 *A Utah Flora*. Second Edition, revised. Provo, Utah: Brigham Young University.

Wheeler, George M

- 1875 *Preliminary Report upon a Reconnaissance through Southern and Southeastern Nevada, Made in 1869*. Washington, D.C.: Government Printing Office.

Whitley, D. S.

- 1994a Ethnography and Rock Art in the Far West: Some Archeological Implications. *New Light on Old Art: Recent Advances in Hunter-Gatherer Rock Art Research*, eds. David Whitley and Lawrence Loendorf. Institute of Archeology, University of California, Los Angeles.

- 1994b By the Hunter, for the Gatherer: Art, Social Relations and Subsistence Change in the Prehistoric Great Basin. *World Archeology*, vol. 25(3)

Woolsey, Nethella

- 1964 The Escalante Story. Springville, Utah: Art City Publishing. In Holt, Ronald L. *Beneath These Red Cliffs: An Ethnohistory Of The Utah Paiutes*. 1992:50. Albuquerque: University of New Mexico Press