# Nevada Test and Training Range, Nellis Air Force Base Legislative Environmental Impact Statement Native American Ethnographic Studies Study Area for Alternative 3B May 15 – 17, 2018

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We are particularly indebted to the tribal offices of the Southern Paiute, Western Shoshone, Owens Valley Paiute, and Mojave governments. The following is a list of consulting tribes:

Benton Paiute-Shoshone Tribe

Big Pine Paiute Tribe

Bishop Paiute Tribe

Chemehuevi Indian Tribe

Colorado River Indian Tribes

**Duckwater Shoshone Tribe** 

Ely Shoshone Tribe

Fort Independence Indian Tribe

Fort Mojave Indian Tribe

Kaibab Paiute Tribe

Las Vegas Paiute Tribe

Lone Pine Paiute-Shoshone Tribe

Moapa Paiute Tribe

Pahrump Band of Paiutes

Paiute Indian Tribe of Utah

Timbisha Shoshone Tribe

Yomba Shoshone Tribe

## **PREFACE**

Welcome to our sacred land, Nuvagantu.

Since the beginning of time, the Creator made Nuwuvi peoples at Nuvagantu and here we became attached to this place and the place to us. The land is alive, which means that there is power in all things such as rocks, water, air, plants, animals, and humans. All of these beings are interconnected; they can talk with each other and work together to balance the world.

The land has eyes and ears. It can talk and knows our thoughts. This makes it in balance and provides guidance. When treated badly, the mountains and everything within them suffers. Misuse of these areas upsets the balance and can cause great harm as well as diminish their power.

"...it's not just a mountain to us, it's a living thing, living spirit to us, the trees and the rocks and the air, the water, they're all our cousins, part of us, related to us. So we're—it's just not a big mountain there, it's part of us—we're related. It's alive."

Quotes from the The Nuwuvi Working Group in collaboration with Jeremy Spoon and the U.S. Forest Service regarding the meaning of the Spring Mountains (January 2009)

This Preface explains the structure of the following report of cultural identifications and evaluations related to the proposed expansion of Nellis Air Force Base (NAFB), which is being assessed in a Legislative Environmental Impact Statement (LEIS). This is a report of findings regarding the study area for Proposed Alternative 3B, west of the Creech Air Force Base (Creech AFB) near Indian Springs, Nevada.

The authors of this report include researchers from the Bureau of Applied Research in Anthropology, School of Anthropology, University of Arizona (UofA), and members of a Writers Committee appointed by the representatives of 17 Native American tribes who are in formal government-to-government consultation with NAFB. The consulting tribes identify themselves as the Consolidated Group of Tribes and Organizations or CGTO. The Writers Committee, who are referenced on the title page of this report, represents the four primary cultural groups participating in the CGTO. These are Owens Valley Paiute and Shoshone, Western Shoshone, Southern Paiutes, and Mohave.



Figure i: Nellis CGTO Writers Committee

The following report is focused on one location within the study area for Alternative 3B, identified as "Rock Shelter," as well as on adjacent areas that were identified as culturally sacred and connected to locations within the boundaries of Alternative 3B. The analysis of each place contains the following: (1) a description of the place and why it was chosen for assessment, (2) the Writers Committee cultural identifications and assessments, and (3) tiering information. The latter (tiering) is required by federally mandated guidelines, which largely derive from the National Environmental Policy Act (NEPA). While the place descriptions and Writers Committee assessments are rather straightforward, and thus easy to understand, the tiering requires a bit of explanation. In general, tiering involves a commitment to use past studies involving similar topics and/or places as those that are being considered in this study. As such, tiering is used to contextualize what the Writers Committee is saying. Tiering information places the new cultural identifications and evaluations provided in this study alongside those from one or more earlier studies that are perceived to be analogous.

# Ownership of Land

The Native Americans who are involved in this LEIS study want to emphasize their traditional ownership and use of extensive lands and various natural resources, both within and connected with the study area. This was their home. They neither relinquished it willingly, nor did they consider the process of physical encroachment by outsiders to be in any way legitimate.

The Indian people of the Las Vegas region have endured hostile interactions and forced removal by various EuroAmerican groups, beginning as early as the Spanish explorers and traders. The movement of trading caravans between Santa Fe, New Mexico, and Los Angeles, California, from about 1821 until 1849 caused extensive disruption of springs and surrounding

grasslands. Large, fully loaded caravans carried goods from New Mexico to California, followed by herds of thousands of mules and horses six months later. These caravans carved a track, deep and wide, known today the Old Spanish Trail (OST). As the OST overlaid traditional Native American foot trails, its use thereby disturbed the villages, natural landscapes, and especially the springs that dotted these traditional foot trails.

After the lands in the study area were transferred to the United States of America, in the treaty of Guadalupe Hidalgo of 1848, citizens of this nation were the next to seek and take the water and resources of the region. Native American ownership of the resources in the region surrounding the Las Vegas valley is well documented. Latter Day Saints (LDS) settlers recognized and in part respected the ownership of the land by Indian people. On July 10, 1855, William Bringhust wrote a letter to the *Desert News* stating the following: "Shortly after we arrived here, we assembled all the chiefs, and made an agreement (treaty) with them for the permission to make a settlement on their lands" (Jensen 1926: 146). In the context of growing tensions between the LDS church and the U.S. Federal government, these interactions were clearly an attempt to co-occupy the land via government-to-government relations (treaties) with those who the LDS mission leaders perceived to be the legal owners of the land (Stoffle et al. 1998).

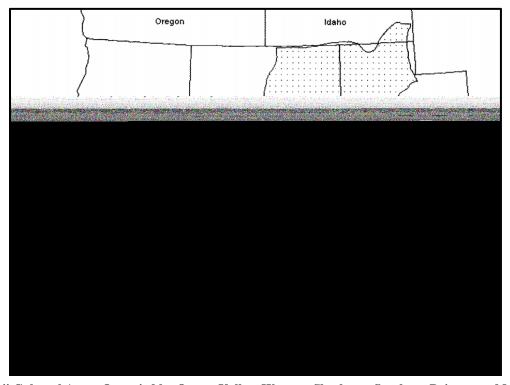


Figure ii Cultural Areas Occupied by Owens Valley, Western Shoshone, Southern Paiutes, and Mohave

Even as Native American people continued to be pushed away from their essential springs, they continued to farm where they could. Farming was practiced along the Colorado River, which was located about 28 miles from the Las Vegas fort established by the LDS church. Indian farming is noted in a letter between two Mormon settlers, sent during an 1855 trip from the LDS fort to the Colorado River:

We found about 50 Indians (Piedes) on the Colorado, in a perfect state of nudity, except breechclouts; the men and women all dressed alike. They had raised a little wheat on a sandbank; it was all ripe and harvested. They were very friendly. (Jensen 1926: 140)

It is likely that the village was located at the confluence of the Las Vegas River (later a dewatered creek) and the Colorado River. Note that settlers observed farming of European wheat, probably in addition to traditional cultivars.

Forced relocation from the major springs in the Las Vegas Valley was accompanied by hostile interactions and the introduction of diseases by EuroAmerican settlers (Stoffle, Jones, and Dobyns 1995). The mid-1800s gold rush brought through the region what were called the *forty-niners*, who were largely moving to California in search of gold. Both their movement and mining efforts led to EuroAmerican appropriation of water sources. Springs were seized throughout the region. Occasionally, Indian ownership (or at least occupation and use) of springs resulted in EuroAmericans offering money and goods with the objective of purchasing rights to exclusive ownership and use of springs. It is understood today that Native American people believed they had received gifts in exchange for sharing this valuable resource. The EuroAmerican legal system prevailed and these transactions became legally recognized, extinguishing the prior rights of Native American over their aboriginal water resources.

#### Territories and Boundaries

It is important to understand where the ethnic groups participating in this study lived when these lands became a part of the USA (1848). Contemporary definitions of Native American ethnic groups and how they are spatially bounded today generally do not reflect past cultural characteristics. Some groups who seem to have clear boundaries between them today were probably the same ethnic group (or regional subgroups) in the past. Prior to EuroAmerican encroachment into the west, the southwest tribes that lived within proximity of resources utilized them under a system of usufruct; that is, recognized ownership because of occupation and use. Territories did exist but they were often shared and had flexible boundaries. Some highly valued resources like primary salt deposits, hot springs, volcanic mountains, and red paint sources were too important for life and ceremony to be exclusively owned. Instead these essential resources were viewed as having been provided at Creation for all of human kind.

Therefore, Figure ii (above) and Figure iii (below) should be understood as demonstrating normally agreed to ethnic boundaries, rather than rigid zones of occupation. The lines were especially blurred between cooperating ethnic groups who supported each other in times of need. Such groups would not necessarily have a common language and culture, but were bound by relationships of resource sharing and mutual aid.

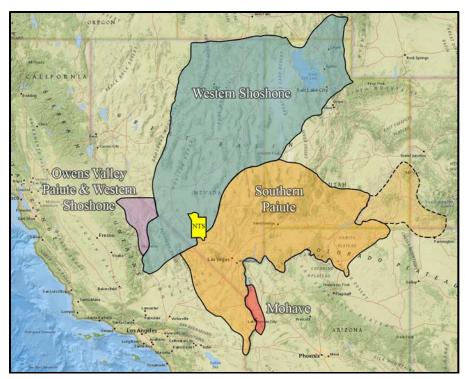


Figure iii Enhanced Cultural Areas Map

Figure iii is both more colorful and has additional boundaries. It has a modified eastern boundary for the Southern Paiutes based on new document and oral research. Juan Antonio María de Rivera (Jacobs 1992) was the first EuroAmerican to document in 1767 both Paiute and Ute villages, located as *rancherias* along the north to south flowing rivers of the Colorado region. The village sites begin along the Los Animas River through Durango, Colorado, and extend to the American Indian Crossing of the Colorado River located at present day Moab, Utah. While most rivers flow into the San Juan River, mountain massifs in the region stimulate rain and snow, thus making small rivers that were used for two thousand years as irrigated farming areas. These occurred from Castle Valley near the La Sal Mountains in the north, to Allen Canyon near the Abajo Mountains in the south. All of these rivers flow into the Colorado River.

The Rivera expedition was led by a Paiute guide (Jacobs 1992). Our ethnographic studies for the National Park Service have recorded for the first time Navajo oral history of the region, which documented their annual trading relationships with Paiute farmers in this area in the middle to late 1800s. Independent Paiute groups continued to farm this area under the leadership of William Posey in the 20<sup>th</sup> Century, until they were forcibly removed from their lands and politically combined with Ute people as the White Mesa district of the Ute Mountain Ute tribe.

This revised map is useful for the Nellis LEIS study because it illustrates the value of listening to contemporary oral history and searching for new documents. Similar studies have more accurately defined the traditional lands of the Owens Valley Paiute and Shoshone and the Western Shoshone peoples. The case is also valuable because it extends our understanding of where Indian people farmed as well as lived.

# CHAPTER ONE EXECUTIVE SUMMARY

This Executive Summary is intended to situate for the reader the area, resource, and site interpretations and evaluations provided by the CGTO Writers Committee (Writers Committee) during the May 2018 field visit for the Nellis LEIS. This field study was focused on the Study Area identified as the Proposed Alternative 3B expansion that is being considered in the LEIS. This analysis is one of three completed by the Writers Committee for the LEIS. All three Writers Committee studies should be read together in order to have a fuller understanding of the cultural meaning of these culturally interrelated areas. The following map (Figure 1.1) highlights places of cultural significance surrounding the Alternative 3B area. Areas highlighted in orange are the proposed Alternative 3B expansion, with the Nevada Test and Training Range (NTTR) North and South Ranges highlighted in grey.

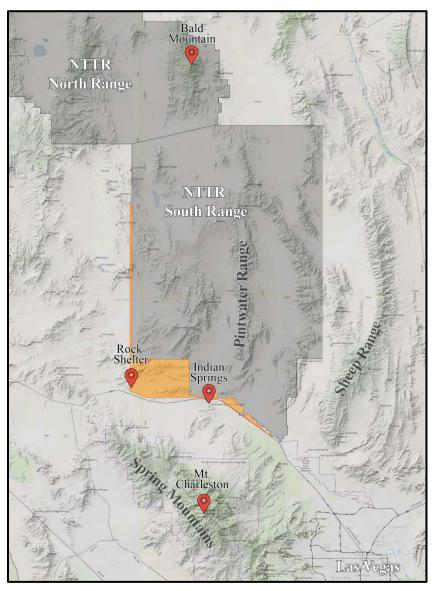


Figure 1.1 Overview of Landscapes Surrounding Alternative 3B

The Indian Springs area is the broader region within which the Alternative 3B proposed withdrawal is evaluated in this analysis (Figure 1.2). To the north is the Pintwater Mountain Range, which contains among other significant places the ceremonial and spiritual cave called Pintwater Cave. To the south is the Spring Mountain Range and its highest peak, Nuvagant (where snow sits) or Mt. Charleston. To the east is the Sheep Mountain Range, which has been discussed in the analysis of proposed withdrawal Alternative 3C area. To the west is Death Valley, Oasis Valley, and Black Mountain where there is an elaborate network of ceremonial areas centered in many respects on the Armargosa River (and more broadly its hydrological system), which flows from the caldera of Black Mountain into Death Valley.

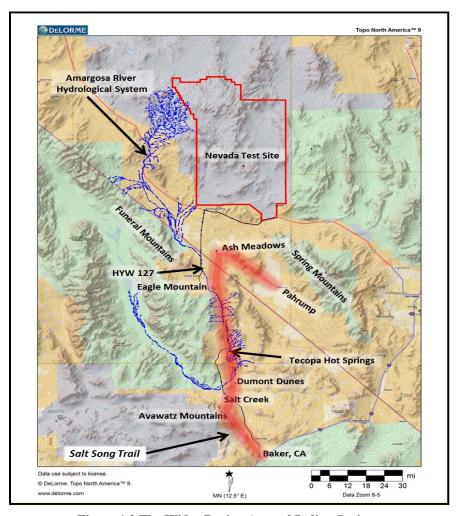


Figure 1.2 The Wider Region Around Indian Springs

Between the Pintwater Range, the Spring Range, and the Sheep Range are a series of artesian springs fed from the snow and rain, which Native American people say is called down by these living mountain ranges. Here around these springs is the place of Creation or origin for all Southern Paiute people. A portion of the trail to the afterlife is highlighted in orange. It is commonly called the Salt Song Trail given that their family and friends sing the deceased via Salt Songs to the afterlife along this trail. One of these very special artesian springs is today called Indian Springs.

#### 1.1 Trails

A complex network of trails, both spiritual and physical, have been identified in this and past studies. According to these Native American peoples, the world itself and everything in it is alive and interconnected. This concept of the living planet is so fundamental to the epistemology of Native American peoples that any discussion of the meaning of natural resources and places cannot be understood without this understanding. These webs of living interconnections manifest themselves both physically and spiritually as trails, which were defined at Creation for use by humans, animals, and spiritual activity in the form of use by travelers who leave offerings, ceremonies, and prayers.

Southern Nevada is covered by an intricate cultural landscape embedded with trails that serve multiple functions. The Spring Mountain study (Stoffle et al. 2004) utilized large topographic maps and a series of questions to document cultural landscapes centered on, coming to, and going from the Spring Mountain Range. The map presented in Figure 1.3 is a composite of this effort. There the black lines indicate mythic and physical trails, some of which extend beyond the study boundary which is marked by a light orange dotted line. The Spring Mountain Range, which is located south of the study area for Alternative 3B, is the place of origin or Creation for the Sothern Paiute people. In and out of this mountain range are a complex of trails. The range is further surrounded by a series of trails, which generally travel from spring to spring along the valleys between mountains. Many known Native American villages, such as Indian Springs, were located at major sources of water, and were thus nexus points in the trail system (Figure 1.4).

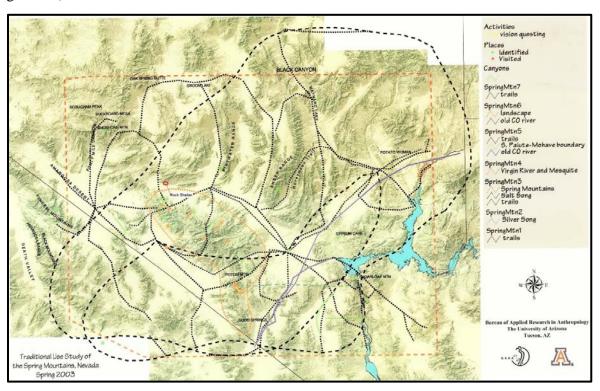


Figure 1.3 Map of Trails in the Spring Mountain Region of Southern Nevada

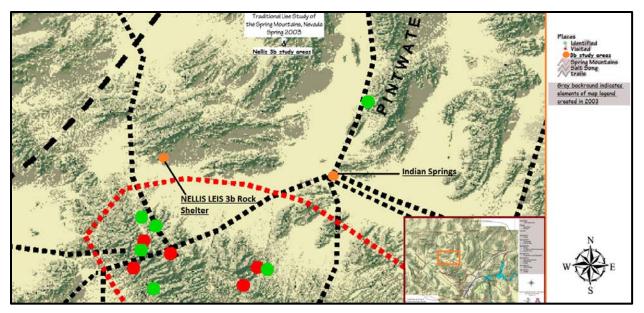


Figure 1.4 Trails in the Alternative 3B Study Area

At least two types of trails are located within the study area for Alternative 3B. One is a physical trail connecting a series of ceremonial locations and villages used in pilgrimages. The other type of trail, identified in the top right corner of Figure 1.4, is a spiritual trail called the Salt Song Trail. Although both of these trails exist both physically and spiritually, and constitute a living part of the landscape, they serve completely different functions.

Indian Springs is a central location along a series of five different trails, one of which goes south across the Spring Mountain Range to Native American communities and ceremonial areas in Pahrump Valley, which was named after its large artesian spring. The Rock Shelter, indicated with an orange dot on Figure 1.4, is close to another pilgrimage trail that connects Shoshone Mountain Range with Mount Stirling on the northwest portion of the Spring Mountain Range. These trails follow canyons and passes developed within the mountainous region. Along each trail are multiple *puha* spots, which are places where Creation energy has been concentrated since Creation. Ceremonial events such as round dances further concentrate puha at these locations.

# 1.2 The Study

Two locations were visited by the Writers Committee during the Alternative 3B ethnographic study: (1) Indian Springs and (2) the Rock Shelter. Indian Springs, for the purpose of this study, encompasses the area surrounding an artesian spring located just south of Creech AFB. Although outside of the Alternative 3B boundaries, the spring itself and associated cultural and natural resources are very much connected to areas within Alternative 3B and the broader cultural landscape. The Rock Shelter is located at the southwestern corner of the proposed Alternative 3B area. Both features indicate a range of cultural features that have different though highly connected uses.

# 1.2.1 Indian Springs

The artesian spring at Indian Springs is today incorporated in a small town located across from Creech AFB. Bordered by US-95 on the northern edge of town, the area stretches about a mile south to a small range of hills. There are no available images of Indian Springs before it was disturbed by EuroAmericans for ranching, farming, and to provide water for steam locomotives. We do have analogous images, which serve to illustrate what it may have looked like under Native American sustainable management. The members of the Writers Committee used these analogs to talk about the traditional condition of Indian Springs and why it was culturally significant to Native American people.

The below Figure 1.5 is a contemporary image of a partially restored artesian spring in Ash Meadows, which is located to the south of the Spring Mountain Range and west of Pahrump Valley. The artesian springs in this area were purchased by The Native Conservatory from local farmers. When irrigation diversions were eliminated, the springs were permitted to flow in the traditional natural contours of the land. Restoration today reveals a traditional landscape with water, plants, fish, and places where Native American people lived and processed plants in bedrock mortars. The site is primarily managed today by the US Fish and Wildlife Service, NWR.



Figure 1.5 An Artesian Spring in Ash Meadows

Crystal Spring (Figure 1.6) is one of two major artesian springs located along the White River in Paharanagat Valley, Nevada. It is an area of traditional Native American farming and resource use that is discussed in the Alternative 3C Study Area. It is located to the north of Indian Springs. The spring is not clearly managed by any federal unit and, while protected from some kinds of development, its waters are still diverted up to five miles away for farming. Note that the spring is surrounded by an extremely arid landscape.



Figure 1.6 Crystal Spring in Pahranagat Valley

Just to the east of Indian Springs is the Corn Creek administrative unit of the US Fish and Wildlife Service, DNR. In 1967 paleontologists working at excavation further east of Corn Creek at Tule Spring took this photo of one of the large artesian springs at Corn Creek (Figure 1.7). Note that the artesian spring pool is located on the top of a mound that is surrounded by a dense mat of salt grass. The mound is formed over thousands of years from mineral deposits that build up around the edge of the spring. The process of the springs being raised upward from the natural surroundings is called Perching. Some of the springs have been perched up to 20 feet above the surrounding landscape.

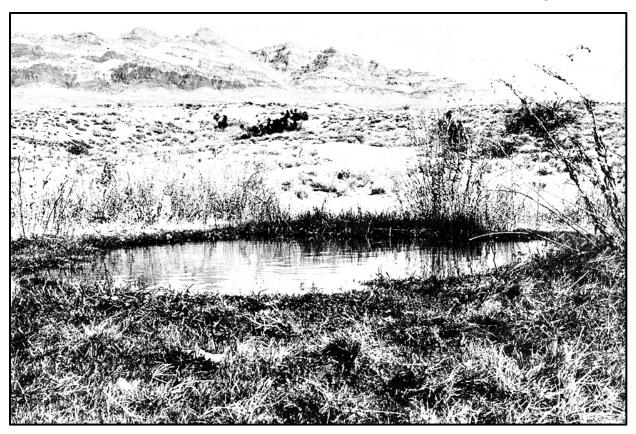


Figure 1.7 Artesian Spring at Corn Creek in 1967 (Mehringer 1967)

Today Indian Spring is privately owned and managed, and access is restricted. In the past, under Native American traditional management, the spring was a center of human and natural activities. Given its location in a very arid landscape, as is true of all the regional artesian springs, the spring at Indian Springs was a shared oasis.

#### 1.2.2 The Rock Shelter

The Rock Shelter is located on the southwestern edges of the Spotted Range. It is a small alcove in hard rock near the top of a ridge (Figure 1.8). The area surrounding the Rock Shelter contains both the special natural land formations as well as spectacular vistas that are seen from inside, and from the top of the ridge. Other portions of the Spotted Range are visible from the mouth of the Rock Shelter.



1.8 Frontal view of the Rock Shelter

Some special features of the Rock Shelter are its location on the crest of a high ridge and a series of openings in its celling (Figure 1.9). In addition, the Rock Shelter is located near traditional trails but remains isolated from any other travelers along those trails.

The Rock Shelter is located in the vicinity of Indian Springs. As such it was perceived as being influenced by activities that were related to that location and to the special areas to the north and south of the spring. The Writers Committee suggested that activities conducted at the Rock Shelter would include the following: (1) vision questing either within the shelter or nearby on the high ridge; (2) interacting with portals to other dimensions; and (3) star watching for the purpose of keeping time, especially through the hole in the roof of the shelter. These activities may be conducted along with personal preparation for going on pilgrimages to special places such as the nearby Pintwater Cave in the Pintwater Mountain Range, and to various caves and springs in the Spring Mountain Range. It was observed that the rock shelter might be a place where travelers would stop and prepare themselves for experiences elsewhere or for reintegrating themselves back into their own communities when they return from pilgrimages. Please see the Black Mountain ethnographic studies relating to pilgrimages (Stoffle et al. 2015)

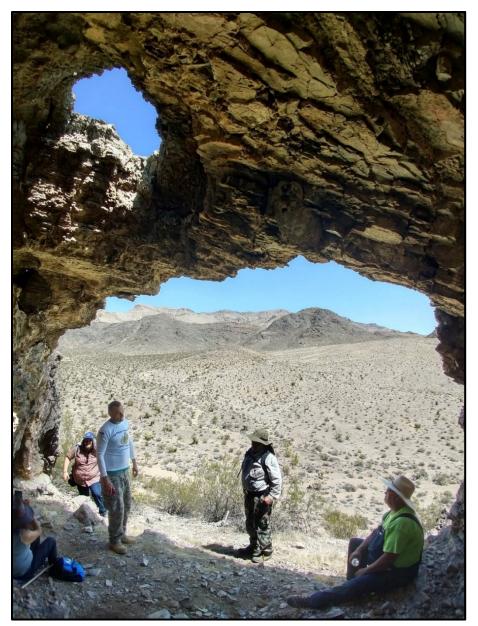


Figure 1.9 Views through the Roof and the Front of the Rock Shelter

Fuller discussions of these two study areas are provided in Chapter Two: Indian Springs and Chapter Three: Rock Shelter. In addition to discussions about cultural resources in the defined study areas, discussions about the natural resources also took place during the May 2018 field visit to Alternative 3B. These include terrestrial and avian species of animals, plants conducive to growing near water, and vistas.

# 1.3 Schedule of Study Events

Visits to Alternative 3B for the Nellis LEIS took place from May 15-17, 2018. The following is a list of the day-to-day activities, followed by brief descriptions of the types of interactions that took place. All times are approximations.

# Day 1: May 15, 2018

- CGTO Writers arrive at Santa Fe Station Hotel and Casino in Las Vegas, NV: 4949 N Rancho Dr, Las Vegas, NV 89130
   Pick up Writers Committee Packets
- Dinner on your own

# Day 2: May 16, 2018

- 6:00 AM: Breakfast on your own
- 7:00 AM: Brief Orientation at Hotel
- 7:30 AM: Leave for Indian Springs
- 8:30 AM: Arrive at Indian Springs, NV
  - o Visit Spring and Discuss the Spring
- 12:00 PM Arrive at Rock Shelter
  - Discuss Rock Shelter
- 3:30 PM Head back to vehicle
- 5:00 PM: Arrive back at hotel
- Dinner on your own

# Day 3: May 17, 2018

- 8:00 AM: Breakfast on your own
- 9:00 AM: Group Interview and Closing Meeting at Hotel
- 12:30 Depart for Home

### 1.3.1 Orientation

On the morning of May 16, the UofA research team held a brief orientation with the CGTO Writers Committee to discuss the proposed field visit and associated features. The primary objective of this meeting was to review the maps and forms for the planned field visits. During this time, the UofA research team discussed potential difficulties associated with visiting the Rock Shelter. Due to constraints on mobility, the UofA research team offered potential alternatives to visiting the second study area. Once the site visits were discussed in detail, all visiting representatives agreed to hike to the Rock Shelter.

A secondary goal of the orientation meeting was to begin dialogue on the historical and cultural significance of the area. The Indian Springs area has always served as a significant location for Native American people in the region. Members of the Writers Committee were all familiar with the location and the greater cultural landscape. Through sharing narratives and oral histories on the area, the group discussion situated the field visits.

#### 1.3.2 Closing Meeting

On the morning of May 17, the UofA research team and the CGTO Writers Committee formed a closing meeting at the Santa Fe Station Casino and Hotel. During this meeting, members of the CGTO Writers Committee and the UofA team discussed topics and sentiments that came from the May 2018 field visits. These comments occur during both interviews and while completing data recording forms in the field.

One topic discussed was the concept of private ownership of valuable cultural resources. This derived from interactions with locals at Indian Springs, which is located on private property on the southern end of the town. Discussions occurred about how the spring was taken by EuroAmericans, who believed they could own such a spring, and subsequently forced the removal of Native American people from this traditional location. The discussion ranged more broadly to this process of removal being applied throughout the southwest, largely due to the westward expansion of EuroAmericans at the turn of the 20<sup>th</sup> century. Springs are valuable natural resources to the Native American people located through the arid regions of the southwest. Additionally, they are highly significant cultural resources associated with ceremony and medicine. According to Native American epistemologies, these sources of water were not possessions to be owned, therefore, members of the Writers Committee maintain that the spring at Indian Springs should be opened up for public use. Until Native American peoples have access to this spring, the surrounding environment will remain out of balance, negatively impacting other features within the greater cultural landscape.

Another discussion was on the current management of the lands identified in the Nellis LEIS as Alternative 3B. Representatives noted that places within Alternative 3B, particularly the Rock Shelter, are constantly in danger of looters and visitors. Members of the Writers Committee agreed that the cultural and natural resources in the area should be protected. It was agreed that the current management of Alternative 3B does not prohibit public access to the area, which may lead to the continuation of looting and other damaging activities. Concerns about the installation of military equipment and improper use of the area were also raised as dangers to the existing resources. The Writers Committee maintained that the withdrawal of this land by Nellis Air Force Base (Nellis AFB) should be accompanied with certain protections and visitation rights for Native Americans. It was reiterated by the Writers Committee that any land withdrawal necessitates continued government-to-government relations and consultation regarding the comanagement of these lands.

# CHAPTER TWO TRADITIONAL INDIAN SPRING

Key to understanding the natural setting of the study area and its legacy of human interaction is the circumstance of its location, at the intersection of the Mohave Desert, the Great Basin, and the Colorado Plateau. All of these deserts are vast and unique geographies. While the exact location where these geologic regions meet is debatable, their confluence is within the general vicinity of Indian Springs. It is certain that the precipitation falling within this study area drains into nearby salty basins, where it then seeps deep into the ground and eventually resurfaces as artesian springs (Perlman and USGS 2016). These springs are true desert oases, and thus Indian Springs (Figure 2.1) was where many American Indian trails converged.

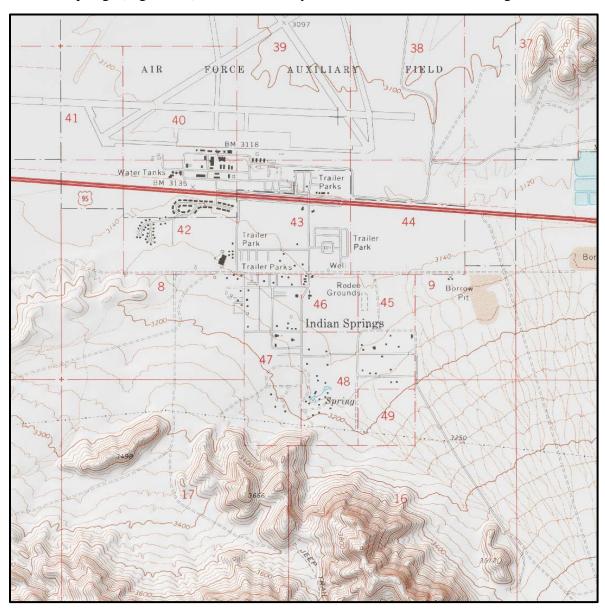


Figure 2.1 Map of Contemporary Indian Springs (CalTopo N.d.)

#### 2.1 Native American Comments

Indian Springs is located just north of the Spring Mountains, which are where Southern Paiutes were Created. The contemporary town (Figure 2.2) is located at the nexus of traditional ceremonial activities. It served as a hub for travelers from many cultural groups who trekked to shared sacred places like the Spring Mountains, Ash Meadows, Pahrump, Pintwater Cave, Gypsum Cave, Eagle Mountain, Devils Hole, Cactus Springs, and Pahranagat Valley. As one representative noted, "all of these places are connected. The village at the Traditional Indian Springs is where they stopped at before moving on."

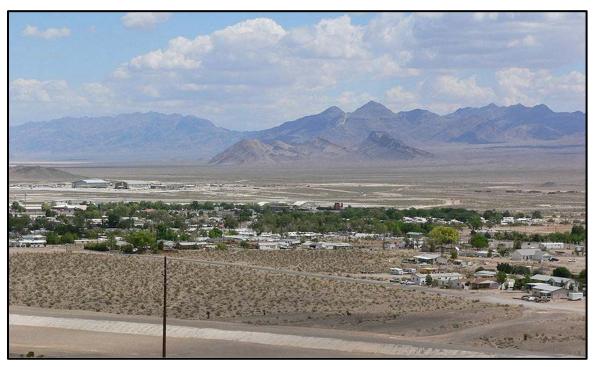


Figure 2.2 Photo of Indian Springs Looking to the Northwest, Photo by Stan Shebs (Wikimedia Commons 2008)

#### Traditional Connections

Understanding Indian Springs physically as a Native American village—hereafter referred to as Traditional Indian Springs—is essential because proposed Alternative 3B cannot be understood without the broader context of Traditional Indian Springs. The whole world is alive and connected through living trails that serve as both physical and ceremonial pathways, carrying prayers across landscapes. One representative discussed how Indian Springs is connected to Alternative 3B and other important traditional use places:

The connections between all those springs are very important. Plus, it goes on to areas that are being considered now for the expansion, for [Alternative] 3B. And that is obviously one of the concerns. And I think one of the things we need to share is that even though where the springs are now is outside of the boundary of the existing Alternative 3B, it is interrelated. Whatever happens out there will have effects in both locations. I think that is going to be a real concern. The other is that

on the culture-spiritual side, those springs there are very, very important in our ways and things. It is tied so close to the Spring Mountains. Part of the songs that we have talk about those springs and how they were created. They are along a trail, these fox songs that we have, and even these mountain sheep songs that come, they came to rely upon all those different springs.

The connection between, on one hand, the original Native American village we are calling Traditional Indian Springs, and, on the other, Alternative 3B, is represented through a physical trail. This trail heads west from Traditional Indian Springs to Big Timber Springs—a seasonal use spot for hunting and pine nut and medicine gathering—at the base of the northern rim of the Spring Mountains (Stoffle et al. 2004). Big Timber Springs has another series of trails, one of which crosses through Mercury Valley just west of the Rock Shelter, connecting to Buckboard Mesa, a center of inter-ethnic activity (Zedeño, Stoffle, and Shaul 2001).

#### Ceremonial Use

Traditional Indian Springs connected distant permanent living places to local seasonal use and ceremonial locations. One trail runs north from Traditional Indian Springs to Pintwater Cave, a spirit home where knowledge was sought and shamanistic activities occurred (Stoffle et al. 2000). To the south of Indian Springs, a trail crosses the peak of Mount Charleston and nearby Peak Springs before turning west to Pahrump. To the east another two trails connect Traditional Indian Springs to passes through Corn Creek, and on to the villages of the Las Vegas area. The Traditional Indian Springs village was itself a ceremonial center, hosting travelers from distant villages. As indicated during the May 2018 field visit:

Indian Springs was a place where people would go to meet. But it was a different kind of meeting. It was not just to come and socialize. There were a lot of spiritual activities going on there. There were some hills, I pointed one out to you, that is where people would go to meet and get away from the springs. But the springs were central to everything that was going on. Just like what everybody else was saying, that water, we needed that. It was also something we relied upon ceremonially; to keep the world balanced, that was needed. When it is out of balance, we are out of balance.

Native American use of Traditional Indian Springs continued through time, despite the forced removal via EuroAmerican encroachment in the early 1900s. During another ethnographic study at the Spring Mountains, one representative noted that "in the 1940s Indian Springs had a Round Dance, Bird Dances, and Circle Dances" (Stoffle et al. 2004: 195). These gatherings were devoted to keeping the world in balance. Similar interpretations occurred during the May field visit between members of the Writers Committee and the UofA team. The following quotes discuss the importance of Traditional Indian Springs:

The river is abundant with the major water source, but then you have washes and run offs. But here, as you are talking about springs that come up, that is the geography, the landform... so obviously it was pristine and for various uses. Not only for living but for other things that were related in spiritual ways as well.

- In my mind I think if we are going through to see family or coming back through for a ceremony, or like we said, maybe up to Thirsty Canyon, that [spring] would have been a great place to stop as well. Maybe to see family, or just rest and then replenish and go. That is a really nice stop I would think. And if that is gone, with all the other changes...
- You are talking about all these different things, beings that are around there still. They probably appreciated you guys going to check [the Spring] out. Then they are not forgotten. You know, water, like you say, water is very precious. That is why the native people were there, because that is how they survived and grew their stuff, gardens. And to hear all these different stories about how it was taken away, it is kind of sad.
- > There is water all around here if you know where to look. That is why our people lived here, they knew where to go. If they needed water they would travel. Just things you have to do to survive in the desert, or in the mountains.

Springs are highly significant to Native American peoples, particularly those living in the arid regions of the southwest. Native American people have high regard for hot springs and artesian springs, which have existed since Creation and are typical elements of Creation places (Stoffle et al. 2004). Artesian springs possess "their own power or life force, derive special meanings from places around them, and contain their own living beings" (Stoffle et al. 1998).

Spiritual leaders interact with these beings to conduct doctoring and other spiritual activities essential to traditional natural resource management. The artesian spring at Indian Springs is one such location where these beings reside, contributing to the cultural significance of the Alternative 3B area. The following quotes were provided about this spiritual aspect of this particular resource:

- It is sacred water... We talk about water that is untouched. But it stays there, not stagnant, but it is not being interfered with above ground, other than being below ground. That is sacred because it is untouched. That is ancient.
- ➤ Our stories about the water babies are the same way. We travel up above and whatever else but the spiritual beings that are in the water, those go underground and all over the place. They have so many different powers, things they can do to help control and keep the balance of stuff going on. But people are not even acknowledging the ones that are staying there now. They do not even know that. And when things happen it can be because of that. And the water that is coming up, that artesian water, is prehistoric water, it is really old, old water that travels around. (Figure 2.3)



Figure 2.3 Satellite View of the Artesian Spring (Google Maps N.d.)

- In water, again, it is who we are. And the river, and places along the river as well, but places in any water placement, small or large, driving or not, they are an amplifier to a spiritual level. It goes beyond just the physical level. Us talking about the spiritual sense, it has that depth of meaning. If we are not there, it does create than imbalance.
- Even though the spring is not well cared for, the integrity of it is still there. The spirituality part is still there. You cannot take that away from that water. You can throw stuff in there and make it look all ugly, but the spiritual nature of the water is still there.
- We get to talk to different tribes, different nations, everybody. Where they are from, no matter how other people look at it, to them, they always say, "this is God's country. This is the Creator's. He created this for our people," in their prayers and stuff. These springs remind me of areas so powerful that the Creator is blessing the people throughout with water. Throughout all these areas.

#### Natural Resources

Springs are also central for the plants and animals that Native American people interacted with, according to members of the Writers Committee. Springs located in the Nevada desert contain a diverse range of flora and fauna for this particular region (Figure 2.4). Artesian springs in particular have contributed to the development of distinctive ecosystems. For example, the artesian springs of Ash Meadows contain over 20 species of fauna and flora that are unique to that specific ecology (Stoffle et al. 1998).



Figure 2.4 Artesian Spring in Ash Meadows

The lush ecosystem at Indian Springs prompted the following comments about plants and animals in the area:

- It is thriving with cottonwood and willow. It is just lush. You do not have that spotted in this region. When you have those places they are very special. I just get excited when I see cottonwood because in our area they are very minimal now. That and mesquite, the tules coming up from there. That reminds me of things that were told of us long ago. Just in this region, knowing that the water is plentiful here to provide for that. That hast to be consistent. Cottonwoods just do not grow on limited water.
- There are a lot of mesquites, and mesquites are deep rooted, but they will follow where that water is too. You can see where they are real green and lush. And that whole area used to be described that way. It was a real oasis because it had so much water and so many plants and everything in it. It is almost like Ash Meadows.

- ➤ I just wonder with Indian Springs, when was the last time somebody was there and thought, "I can use that to make something." Like those tulles, I was thinking, I could teach you to make a tulle deck really quick. You know what I mean? Because that is what we used those for in our lakes and in our areas. There are tiny, some are just growing but we use it for food too, the shoots.
- It reminds me of like, on the [China Lake] Navy base, you know how you always pray for the animals and everything. They said they were shocked, the Navy was shocked, because the spring just popped up out of nowhere. And then they went and cornered it off so that the animals do not come in and go to the bathroom in their rooms and stuff. But I told them, "You guys need to leave it alone because it was not meant for you guys. It was meant for those animals out there because it is really dry."
- ➤ On the little form, even in listing the animals and different things, there was so much happening right there. For the people that live there, they probably do not think anything better of that and take that for granted. From the birds, you could hear a frog, black birds, butterflies. All kinds of things, there was a little dragon fly, all kinds of things were there. That just shows me, again, they know the importance of that area. Indian people know the importance of that area. The insects and the birds and all them can get in to it and we cannot.

# EuroAmericans and Ownership of Resources

The mid-1800s was a time of strife for Native American peoples in the Las Vegas valley and surrounding region. As the LDS church moved into the area, these settlers forcibly relocated local Native American communities through hostile interactions and triggered epidemics stemming from the spread of European disease (Stoffle et al. 1998). In 1875, following the decline of Panamint, a boom town in California, rancher Andy Laswell made his way east to Traditional Indian Springs, "bought" a Paiute rancheria, and developed a way station along the main road between Pioche and Death Valley (Lingenfelter 1986: 164). This way station continued to serve the Las Vegas and Tonopah Railroad in 1906 until operations ceased in 1918 (Chamberlain 2013).

Visiting the spring evoked many emotions from representatives during the May 2018 field session. Although surrounded by public lands to the east, south, and west, the town of Indian Springs is almost completely zoned for residential (Figure 2.5). These residential lands include the natural spring on the south end of town, which is spread out across two properties as indicated by the dotted line.

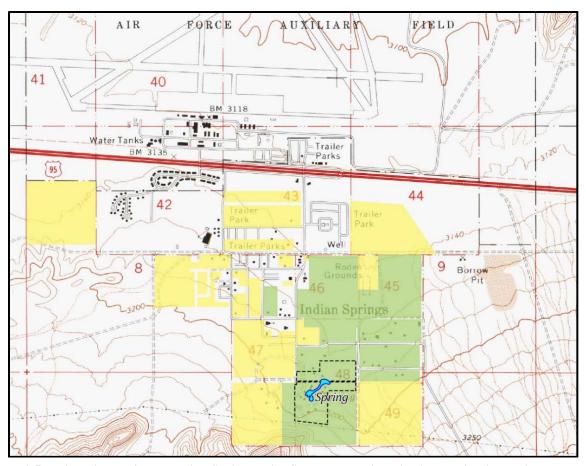


Figure 2.5 Residential Zoning at Indian Springs, with Suburban Residential Areas Highlighted in Yellow and Agricultural Residential Areas Highlighted in Green (CalTopo N.d.)

During their visit, Writers Committee members and UofA researchers caught a glimpse of the spring but were not able to pay it a visit due to the status of land ownership; the area is fenced off, disabling public access. This sparked conversation about land ownership and the ownership of natural resources, particularly in Indian Springs. One representative recounted the historic interactions between Native Americans and EuroAmericans at Traditional Indian Springs:

I know that there were a lot of things going on at Indian Springs, even in the 20s. It was an oasis where they tried to bring people. They had the railroad that was going in 1905 and heading up from Las Vegas to Tonopah. Some of that was a way to get people going up to different places and track where a lot of the mining was. But a lot of Indian people used to go to where there were the watering stations. They would sell baskets, do different kinds of things too. Working the trades. There were a lot of activities and things going on there. From the cultural side, but there was also a very big disconnect. Because once again, Indian people were forced off the land. Instead of saying, "oh we will give you another nice place," they would say, "you have to get out of this land, we are taking the water because we need the water. You go move over there." So, then it was like, "now what do we do?" People would sneak in. Even in our songs and stories, even if you were removed, they are

still in there. I mean it is still like you are visiting there. You can still sing and pray and talk about it or whatever else. But then it becomes more vocalized as opposed to the actual appearance or joining the location. And that is where the disconnect comes. That is where sickness and stuff comes to the land, to the people, to the resources that are out there and to the culture. It affects everything. And that is why we are always trying to struggle for every little thing that we have. Unfortunately, as we all said, water is such a precious commodity out in the desert. It was a thing that everybody gravitates to, including Indian people. But it was taken from us and we did not have the right to then say, "oh no you cannot have this. We want it back." Basically, we were forced, pushed out of the area.

The issues associated with the forced removal of Native Americans from Traditional Indian Springs and other surrounding areas has had devastating impacts on both the aboriginal inhabitants of this land and the land itself. This has created an imbalance that cannot be restored as long as the people are barred from these cultural resources.

These conversations continued through much of the project, demonstrating the lasting consequences of early EuroAmerican contact. The following comments highlight the continued impacts these enforced boundaries have had on these communities and the broader cultural landscape:

- When you see springs like that, the water babies are there. Those people should not have sole possession of that place like they have. It should be open for everybody, especially tribal people. Just how they acquired that spring is an underhanded method, which we all know... Water is water. Water is to be shared. It should be shared with whoever comes to the place there, but it is not.
- It becomes so sectional and restricted that we could not, say if we wanted to return to our ways, we could never just do it. That is exactly the reason, because this natural source, spiritual and otherwise, is fenced off. And this is what people do not understand, how that destroyed the culture alone, not to mention our natural way of living.
- It is there then for people to use, so as soon as they [EuroAmericans] take that source away from all natives and push them off, the other ones that would be traveling from point to point no longer have that as a water source.
- That water was taken, and the people did not have that concept. How can you sell the land? How can you sell the water? It was not theirs [Native American people's] to give, it was theirs to help manage. That is what created all this stuff, how it even got into other people's hands. Now we are struggling because we cannot even visit it.

When people find water, non-native [people], they tend to use that for their benefit, to exploit it, just as you talked about with the railroad. The long-term use by native people, that was supposed to be continued on. So then you get locked out of that and you have no means. Just as it is explained long ago with what happened to Indian springs. They were taken away just by a means of a small exchange of an important place, you do not recover that but feel the hurt and pain that this was the land of the Native people.

As the above comments demonstrate, the cultural and natural resources at present within the Indian Springs area are physically and spiritually connected to the study area for Alternative 3B. Borders that are used to designate land ownership—tied to legal use and visitation rights—are western concepts that were forced onto Native American people and continue to affect them today. Although legally established, these borders and concepts of ownership do not coincide with Native American belief systems, according to which the earth and its resources are living beings capable of thoughts and feelings. This is an example of an *epistemological divide*, which may limit cross-cultural communication (Stoffle, Arnold, and Bulletts 2016). Therefore, the Writers Committee maintain that, to understand the resources within the proposed Alternative 3B border, it is essential to discuss the story of Traditional Indian Springs and its resources, which have been central to Native Americans lifeways in the region since time immemorial.

# 2.2 Tiering

Indian Springs is presumed to have received its name through the observation of Native American occupants present at the spring during the time EuroAmerican settlers came into the region (The Nevada State Writers' Project 1941). There is limited literature available regarding the Native American settlements at Traditional Indian Springs, but there is evidence that suggests that there has been long-standing occupation by traditional Native American agriculturalists in the area. The first EuroAmerican to cross the Las Vegas Valley was Antonio Armijo, a trader from New Mexico, who led an expedition in 1829, crossing into California south of the Spring Mountains (McBride 2002). Fifteen years later, John C Frémont crossed the Las Vegas Valley on his return from present day California, following a similar route as Armijo (McBride 2002). Perhaps the earliest documentation of Traditional Indian Springs was by John Wesley Powell during his expedition into the Southwest from 1868-1880. Within his extensive documentation, Powell noted current day Indian Springs to be home to the *Kwi-en'-go-mats*, a small group of Southern Paiutes (Fowler and Fowler 1971). One member of the CGTO confirmed that the traditional name of Indian Springs was *Kwi-en'-go-ma*.

#### 2.2.1 Farming

Historic documentation places Native American peoples' farming in regions spanning from California to Colorado since the earliest EuroAmerican exploration into the west (Fowler and Fowler 1971, Jacobs 1992). These traditional farmers lived in stable settlements as irrigated agriculturalists across their traditional territories. Native American agricultural traditions have persisted since time immemorial (Stoffle 1994).

Analogous to Traditional Indian Springs, Ash Meadows was a farming community where Native American farmers channeled artesian springs for irrigation farming (Steward 1941). These farmers utilized tools such as digging sticks, and were known to preserve squash through drying techniques (Steward 1941: 232). To the east of Traditional Indian Springs was another prominent agricultural community at Corn Creek. An archaeological field survey of the area conducted by HRA, Inc. (Roberts and Lyon 2012) indicated similar agricultural activity as other spring-fed oases in Sothern Nevada. According to radiocarbon dating, occupation of the area began around  $5200 \pm 100$  B.P. (approximately 3250 BC), and cultigens were implemented as early as  $1130 \pm 15$  B.P. (approximately AD 820).

Archaeological surveys at Corn Creek mirror historical documentation of "Southern Paiute subsistence system[s]" in the region (Roberts and Lyon 2012: 209). Isabel Kelly's documentation of the Native American settlements in the Las Vegas Valley indicate that Native American farming from spring-fed irrigation and channelization took place in the 1930s (Figure 2.6). These narratives have continued over time; during a more recent ethnographic survey of the 3-Springs Area, Native American elders indicated that spring-fed farming activities took place and sustained these communities (Stoffle et al. 1998).

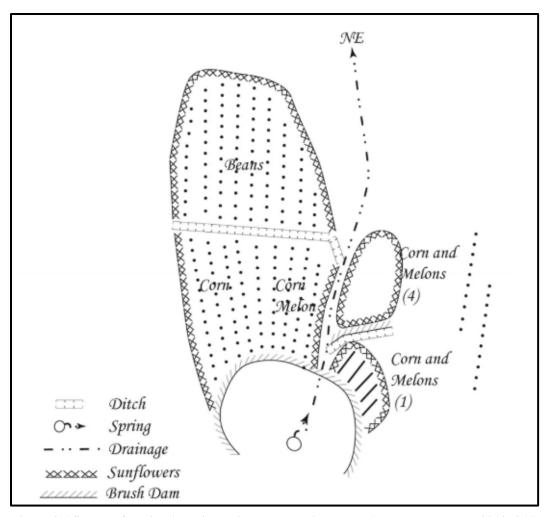


Figure 2.6 Sketch of Native American Fields at the Kiel Ranch (Roberts and Lyon 2012: 211)

In addition to cultivating domesticates, Native Americans cultivated wild strains of plants through a number of techniques. These included using burning to clear areas of brush and stimulate new growth, as well as transplanting and pruning plants (Steward 1941:232). Archaeological surveys of surrounding areas indicate these mixed agricultural-gathering practices were implemented with the introduction of corn and squash into the area (Roberts and Lyon 2012). According to Madsen and Simms (1998), these *Switching Strategies* were implemented to offset the fluctuation in crop yields. People develop adaptive strategies to protect from natural and social perturbations as they learn about their environment, building resilience through *environmental multiplicity* (Stoffle and Minnis 2007). This further demonstrates the development of Traditional Ecological Knowledge (TEK) through continued patterns of living in one location for hundreds of generations.

The plant communities encountered during this field session are a combination of the typical northern Mohave Desert and southern Great Basin plant associations. During the site visit of Traditional Indian Springs, Alkaline meadow/marsh plant communities were observed and on the walk to the rock shelter three plant communities were encountered: creosote bush-burrobush (Larrea-Ambrosia), the Blackbrush (Coleogyne), and the Hopsage-wolfberry (Grayia-Lycium) plant associations. The following traditional use plants are common in these plant communities (Stoffle et al. 1990b):

	Scientific Name	Common Name
1	Achnatherum hymenoides	Indian Ricegrass
2	Achnatherum speciosum	Desert Needlegrass
3	Atriplex canescens	Fourwing Saltbush
4	Atriplex confertifolia	Shadscale Saltbush
5	Coleogyne ramosissima	Blackbrush
6	Distichlis spicata	Saltgrass
7	Ephedra nevadensis	Indian Tea
8	Ephedra torreyana	Torrey's Jointfir
9	Ericameria cooperi	Cooper's Goldenbush
10	Fraxinus velutina	Velvet Ash
11	Gravia spinosa	Spiny Hopsage
12	Gutierrezia sarothrae	Broom Snakeweed
13	Krameria erecta	Little-leaf Ratany
14	Krascheninnikovia lanata	Winterfat
15	Larrea tridentata	Crosote bush
16	Lycium adersonii	Wolfberry
17	Opuntia basilaris	Beavertail Pricklypear
18	Prosopis glandulosa	Western Honey Mesquite
19	Prosopis pubescens	Screwbean Mesquite
20	Psorothamnus fremontii	Fremont's Dalea
21	Salix exigua	Sandbar Willow
22	Salix gooddingii	Goodding's Willow

23	Yucca baccata	Banana Yucca
24	Yucca brevifolia	Joshua Tree
25	Yucca schidigera	Mojave Yucca

Table 2.1 List of Native Use Plants found in Local Plant Communities<sup>1</sup>

The collection and use of wild plants has continued through time, maintaining a central role to many cultural activities such as ceremony, medicine, subsistence, and crafts. During an ethnobotanical study at Yucca Mountain, Nevada, Stoffle et al. (1990a) developed a qualitative analysis of Paiute and Shoshone<sup>2</sup> botanical resources based on Turner's Model for Cultural Resource Assessment. Analyzing three aspects of plant use—quality, intensity, exclusivity—a combined score determined the Index of Cultural Significance (ICS). Many of the use plants listed in this study area had relatively high scores, including *Larrea tridentate* (crosote bush) with the highest ICS at 416 (Stoffle et al. 1990a). Other plants with high indicators of significance are *Salix exigua* (sandbar willow) at 400, *Prosopis glandulosa* (western mesquite honey) at 130, *Yucca baccata* (banana yucca) at 70, *Salix gooddingii* (Goodding's willow) at 70, *Ephedra nevadensis* (Indian tea) at 54, *Prosopis pubescens* (screwbean mesquite) at 48, *Yucca schidigera* (Mojave yucca) at 44, *Lycium adersonii* (beavertail wolfberry) at 30, and *Achnatherum hymenoides/Oryzopsis hymenoides* (Indian ricegrass) at 26 (Stoffle et al. 1990a: 426).

Many wild plants were also cultivated/managed through traditional practices of replanting, slash-and-burn techniques, and ceremony. This was particularly important for plants that contain a high amount of nutrients, ideal for sustaining communities for long periods of time after the initial collection. Indian ricegrass is one example of a highly managed wild plant. During another ethnographic study, one Tribal representative discussed the attention that goes into large-scale gathering practices of this traditional food plant:

They had a blessing of the whole [gathering] process in general. I know they would have talked to the rocks before cutting them and telling them what they were going to use them for, as well as talking to the plants and thanking them for the food they provide before they started cutting. The leader could have done that over here blessing the process or the harvest. Gathering w'ai or to harvest w'ai. (Stoffle et al. 2017)

Wild plants and animals alike are represented in archaeological remains throughout the Southwest, demonstrating the continued spiritual significance of natural resource collection and use.

The selection, transplantation, and management of wild plants by Native Americans was not considered a farming practice by encroaching EuroAmericans. One example of wild plant cultivation is the planting and management of mesquite trees, which were strategically selected and relocated based on personal tastes and preferences (Stoffle et al. 2011). One such farm was found in a Dry Lake in Clark County, Nevada, about 18 miles north of Las Vegas. While visiting

<sup>&</sup>lt;sup>1</sup> Ethnobotanical data from Stoffle et al. 1990b.

<sup>&</sup>lt;sup>2</sup> During the time of this study, the Mojave were not a part of the CGTO.

this site, tribal representatives noted large stands of mesquite in what they described as an orchard. Similar findings on the cultivation of mesquite trees are recorded in an earlier study at Ash Meadows, where dozens of mesquite grinding holes were found, alluding to a large-scale food preparation area where mesquite pods were collected and ground into powder for consumption (Stoffle et al. 1990b). Oral histories account for the selection of especially sweet mesquite beans from Cottonwood Island in the Colorado River, which were then brought to Ash Meadows and Pahrump to build up local stocks (Stoffle et al. 1990b).

#### 2.2.2 Puha

Central to Native American ontology and epistemology is the notion that everything is connected. Puha is a concept that generally translates as power or energy, although it best mirrors the notion of connection between people, places, and resources (Stoffle et al. 2005). Puha comes from Creation, and it accounts for why the earth and everything in it is sentient, has will, and is capable of action. This mirrors the notion of the *living universe*, a concept that is often difficult for EuroAmericans to grasp. The obfuscation of information is a result of an *epistemological divide*, that is, when "each party does not believe the statements made by the other party are even possible (thus neither true nor genuinely presented) much less useful guides to sustainable heritage management" (Stoffle, Arnold, and Bulletts 2016). This makes concepts such as puha difficult to define, and more difficult to understand and rationalize. This is important to understand moving forward with discussions about how puha exists in places like Traditional Indian Springs, about how puha forges connections to other places, and how the disruption since encroachment has had lasting impacts on people, places, and resources.

The universe is made up of discrete components or *elements* and energy (puha). Stoffle et al. (2005: 17-18) lists five general statements that can be made about puha:

- It exists throughout the universe but, like differences in human strength, puha will vary in intensity from element to element.
- It varies in what it can be used for and it determines what different elements can do.
- It is networked, so that different elements are connected, disconnected, and reconnected in different ways, and this occurs largely at the will of the elements that have the power.
- It originally derives from Creation and permeates the universe like spider webs in a thin scattering and in definite concentrations where life is also clustered.
- It exists and can move between the three levels of the universe: upper (where powerful anthropomorphic beings live), middle (where people now live), and lower (where superordinary beings with reptilian or distorted humanoid appearance live).

Puha is everywhere in a continuous flux and flow, not static but "kinetic, always moving and flowing throughout the cosmos, underpinning all facets of the universe" (Miller 1983: 73). Lifeways of these people are more successful when their lives duplicate the movements and

arrangements of puha. The emulation of this kinetic power is evident in many rituals and gatherings, which concentrate it and contain it (Stoffle et al. 2005).

Springs are significant factors in this power, serving as gateways or portals in the web of puha. For example, the Northern Paiutes of Stillwater Marsh maintain that puha travels through the earth, via waterways through vast underground networks (Fowler 1992). Medicine people and water spirits would enter into these spiritual trails through springs and lakes, which are maintained through offerings and prayers by ordinary people (Stoffle et al. 2005). This is central to the ways in which the world is interconnected, thus the continued ritual involving prominent springs like those found at Traditional Indian Springs and Ash Meadows is necessary to keep the world in balance. Consequently, removing Native Americans from these resources has lasting impacts on the planet's health.

The concept of puha is useful for land management decisions in that it clarifies the cultural impacts described by Native American peoples during consultation. These include the potential adverse impacts of development on places and resources (Stoffle and Zedeño 2001), as well as the lasting impacts of past interactions during the EuroAmerican settlement period, such as the cession of Traditional Indian Springs. Like the spring itself, puha is not a concept but a physical reality that must be nurtured for the sake of all existence.

# 2.2.3 Southern Nevada Cultural Landscapes

Oral histories of Traditional Indian Springs have carried through space and time, maintaining a connectedness to land through memories passed down across the generations. Many of these stories have been collected over time through interviews with elders past and present. To the Native American people of the region, Traditional Indian Springs is remembered as a thriving town with abundant resources, connected to other large communities in Las Vegas area, Corn Creek, and Ash Meadows.

The following quotes—taken from three previous studies: Big Springs (Stoffle et al. 1998), Wellington Canyon and Pintwater (Stoffle et al. 2000), and East of Nellis (Stoffle, Toupal, and Zedeño 2002)—are included to demonstrate the cultural continuity of connectedness between people and places. Furthermore, they demonstrates a connected cultural landscape that is abundant with resources that provided for the people that have called this place home since time immemorial.

Indian people lived close to the springs for water and at foot of mountains; they hunted animals such as mountain sheep, antelope; some of these animals are still left. People here still know of these places; Indian people were connected throughout this area by kinship. (Big Springs 1998)

They are connected because people came from the mountain. They came here and we went through. My dad's uncle came from here and we lived in Moapa. It is like we all came out of one place. (Big Springs 1998)



Figure 2.7 Native American Representatives and UofA Ethnographers from the Big Springs Study (Stoffle et al. 1998)

[There are connections between] Indian Springs, Cactus Springs, Corn Springs, Tule Springs, Kyle Ranch, Lorenzi Park, Big Springs; others to the northwest such as Bonnie Springs and those at Red Rock. Many of these springs are connected to or associated with the Spanish Trail. From the summit of mountain springs to Big Springs is about 65 miles. (Big Springs 1998)



Figure 2.8 Ethnographic Interview with Native American Elder (Stoffle et al. 1998)

The water from this cave and mountain goes to Indian Springs and Cactus Springs. There my great grandfather lived—Whispering Ben. My dad lived there also. He married Whispering Ben's daughter. They had a garden—my daddy moved watercress over from Pahrump to Indian Springs where it grew. They gambled - had hand games. There were lots of people there for ceremonies also they have these at Corn Creek. Chief Tecopa had political meetings there [Indian Springs], but not Whispering Ben. (Wellington Canyon and Pintwater 2000)

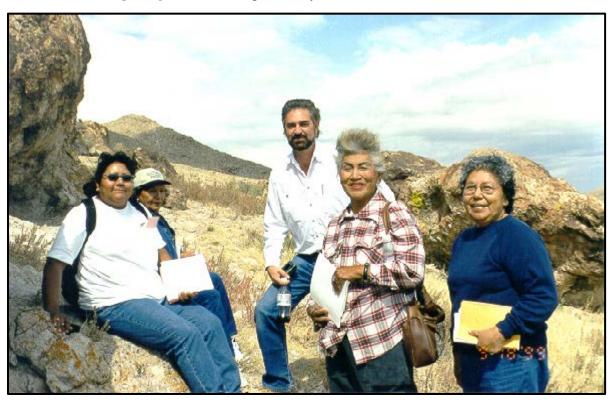


Figure 2.9 Native American Representatives and Nellis AFB Archaeologist (Stoffle et al. 2000)

These are doctoring and healing songs. Mom would sing when traveling. She would sing to make herself happy. There were Bird Songs and these traveled from Pahrump to Ash Meadows, to Indian Spring to Las Vegas, to Potosi Mountain. There were songs like the Ghost Dance songs. There are traveling and ceremonial songs - they make them [the travelers] feel good. (Wellington Canyon and Pintwater 2000)

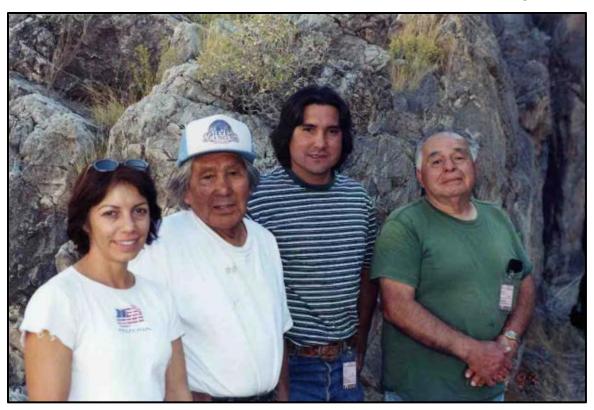


Figure 2.10 Ethnographer with Western Shoshone Leaders

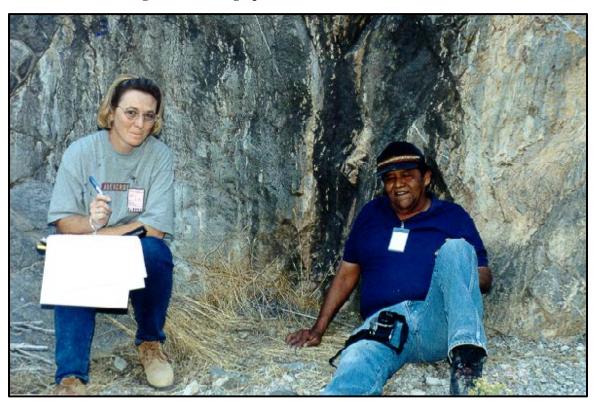


Figure 2.11 Mojave Elder and UofA Ethnographer

I feel these trails were special. They went to Nuvagantu, Tuvahive, Snow Mountain where the water comes from. It also has pine nuts. There are songs associated with this area. They had their own songs in them old Indian days. They had sacred songs for mountain sheep, and the Cry Ceremony. Ceremonies happened all the time at this place. This is a Paiute creation place. The federal government had a shootout with the people of this area; the soldiers attacked the Indians. The Indian people live around the mountains and there is water so there are herbs to make people well, and animals and plants to eat. This place is connected to the Colorado River. The people lived along the shore of the Colorado River. The people here went over to the Colorado River to fish and hunt. The people on the River came up here. They were married and would live with their in-laws. This place is connected to the Amargosa River and the California Indians. It is connected to Shaman's Cave, Pintwater Cave, and Gypsum Cave. All of these areas are connected to each other. That is the way the Great Spirit made it. These caves are spiritually connected. Spiritual people are still in the caves, tin'can. These spiritual people travel between caves and then return to the same cave. In the really old caves the spiritual leaders would stay in the cave; sometimes they would take sick people to caves. They also got hunting songs from the cave. (East of Nellis 2002)



Figure 2.12 Tribal Representatives and UofA Ethnographer during the East of Nellis Study (Stoffle et al. 2002)

My great-great-grandfather lived here; there were three children buried here. My family traveled from Two Springs to Corn Creek, Indian Springs, Mesquite Springs, Cactus Springs. They went hunting on that mountain, Sheep Peak. They walked because they didn't have horses then. When my dad was older, he could walk to that mountain over there [Mt. Charleston] and hunt and come back in the evening. My mom walked a lot too. The mesquite was here then. (East of Nellis 2002)

There were Indian villages relating to this area [Corn Creek] including the Big Springs complex in Las Vegas and Ash Meadows out west. Our people used this place and invited visiting bands to stay and enjoy the hospitality of the band's chief. It was a time of celebration and good story telling. The surrounding area was used for ceremonies, seeking knowledge and power, communicating with other Indian people and with spiritual beings, teaching other people, political councils, gaming, and paying respects. There were territorial markers too. The name of this place, as a landscape, is Oasis Hole. Both men and women visited it and still do, including my family. (East of Nellis 2002)

Oral histories account for the large network of villages and chiefdoms that flourished in the study area and broader cultural landscape (Stoffle et al. 1998, Stoffle et al. 2000, Stoffle, Toupla, and Zedeño 2002, Van Vlack 2007). Natural resources and geographies like spring oases and mountains provided nourishment, transforming into sacred sources of power and information. Trails and networks—existing both physically and spiritually—connect the villages to natural resource areas of power. Together, these places interacted within a greater cultural landscape to provide for the people.

Traditional Indian Springs is one example of how this history has stood against the efforts of EuroAmerican interests. These stories and the associated traditions have carried through space and time through interviews conducted over the past two decades. The CGTO maintain the position that this area has always been home, since the Creator gave it to the Native American people; these people are a part of to the cultural landscape of Southern Nevada, and have been since time immemorial.

# CHAPTER THREE ROCK SHELTER

The Rock Shelter identified in the alternative area 3B is located in the foothills south of the Spotted Range, 15 miles west of Creech AFB (Figure 3.1). Nearly every mountain range in the Great Basin, including the Spotted Range, is bounded on at least one side by a fault that has been active with large earthquakes for the last several million years (Price 2003). These faults have raised and tilted the mountains and lowered the basins; over the years, the basins have filled with sediments that have eroded off the mountainsides (Price 2003). The erosion of these materials creates caves and rock shelters, such as the Rock Shelter identified in the Alternative 3B study area.

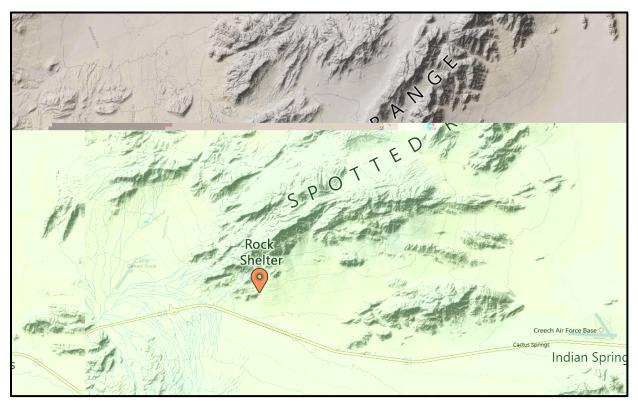


Figure 3.1 Rock Shelter Overview Map (CalTopo N.d.)

Members of the Writers Committee discussed the use of the Rock Shelter as "a stop during travel from one area to the next." As indicated in Figure 3.2, the Rock Shelter is in close proximity to a pilgrimage trail that connects Big Timber Springs, at the base of the Spring Mountains, to Shoshone Mountain to the northwest (Stoffle et al. 2004). Therefore, the Rock Shelter and traditional activities that took place there should be understood within the context of pilgrimages and other sacred locations within the broader cultural landscape.

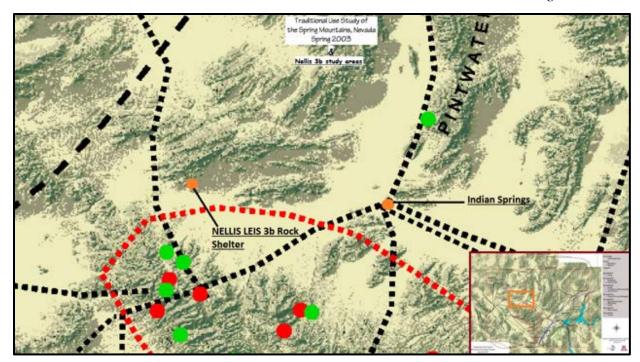


Figure 3.2 Map of Pilgrimage Trails around Alternative 3B

#### 3.1 Native American Comments

Cultural and natural resources found within and around the Rock Shelter stimulated many conversations about the practices that took place in this area prior to EuroAmerican contact. Although some artifacts remain untouched, and other clues in the vistas and rock formations permit inferences about the specific uses of this area, the history of contact and post-contact looting and degradation to archaeological sites makes it difficult to interpret definitively. One representative noted:

The rock shelter out there, that was already BLM land, and it is already documented that there is a 30 by 30 centimeter looters pit. So, you know those areas have already been taken. The resources that were out there would define the rock shelter more. To be out here and see things are gone, you cannot get the true intentions of what is left, but the things that did stay back, with the stick, the grinding rock... That is just how it is on these lands that were taken. People driven off. There are still remnants of life on these lands showing that people really were there. I think that is really great. (Figure 3.3)

Based on the remnants present at the Rock Shelter, visiting members of the Writers Committee offered various perspectives on its potential use by Native American peoples. During their visits, these conversations developed into three prominent theories about the use of the Rock Shelter site: vision questing, portal interaction, and star watching.



Figure 3.3 Rock Shelter within Alternative 3B

## Vision Quests

Vision questing is an activity, often associated with male rites-of-passage, in which an individual receives a spirit helper (Van Vlack 2013). Certain conditions are necessary for vision questing, such as "open, elevated, and not readily accessible spaces" often associated with geological resources (volcanic activities, obsidian, basal flows, basalt boulders, mountains), animals (mountain sheep, rattlesnakes, eagles), and medicine plants (Van Vlack 2013: 68).

When visiting the Rock Shelter, representatives made note of three different viewing points, both the primary and top opening of the rock shelter itself, and the landscape view from the ridge above the Rock Shelter. One representative discussed the importance of the viewscapes present at the Rock Shelter area:

Probably the most important thing that stuck out in my mind, with respect to the shelter, was the view. Once you get out of there, even in there, you can see different directions. You can look north, and there is a mountain, just past there, that is involved in a lot of the songs, Bald Mountain, and it is out there. It is a prominent peak that is out there. And we have stories about that peak. It is over out of that area, it is on Air Force lands. And that is a very, very important component to understanding what the rest of that is. And the other is that as you walk up on top, just the vista you get around, you can look to the west, to the south, and I mean you can just see everything from there too. And those were important for all of us. That is what our people, they knew the land, they knew everything, every peak, every spring, everything. When we sing about those things and pray, those are the vocal snapshots of all the different things that are out there. (Figure 3.4)



Figure 3.4 Viewscape looking North to the Spotted Range from Inside the Rock Shelter

As described above, the opening of the Rock Shelter provides a landscape view of the Spotted Range and a natural curvature of the area below, whereas from the top there are unobstructed views of other significant landscapes to the south and east. The following comments about these viewscapes were provided during the field visit to Alternative 3B.

- ➤ One thing that I put down was the wind. I got a chance to go to the top and that wind was just "swoosh." I just felt it, and at one time I just had my hand to it, running it through me. And as you said, the landscape, the natural... just the whole view in a sense was pristine.
- If you remove those [roads/constructions], that is what people saw from many years ago. Thousands of years ago. Because that is what the land looked like. Although, admittedly, that land was different. The land was a lot greener, the environment was different, and all that. You can imagine, if you were in a great vista like that, seeing all that, you know that the land is truly alive. It was very, very inspirational.
- ➤ Right when you get around the corner, you just walk over and you get the great vista, the whole valley, all the Spring Mountains.

The rock shelter provides an excellent overview of the cultural landscape, it provides serenity needed for ceremony and communication with the land.

#### **Portals**

Portals are another important aspect of Native American culture, particularly for trained *puha'gants*—a medicine doctor or shaman (Figure 3.5). The puha'gant utilizes portals to enter into supernatural realms in which they can acquire *puha*, best translated as power/energy from Creation. The use of portals is highly correlated with vision questing, as Whitley notes, "Shamans undertook vision quests and entered the supernatural world at these locales to acquire *puha* (sic), usually manifest in the spirit helpers, shamanistic songs and ritual paraphernalia they received during their [altered states of consciousness]" (1998: 262).

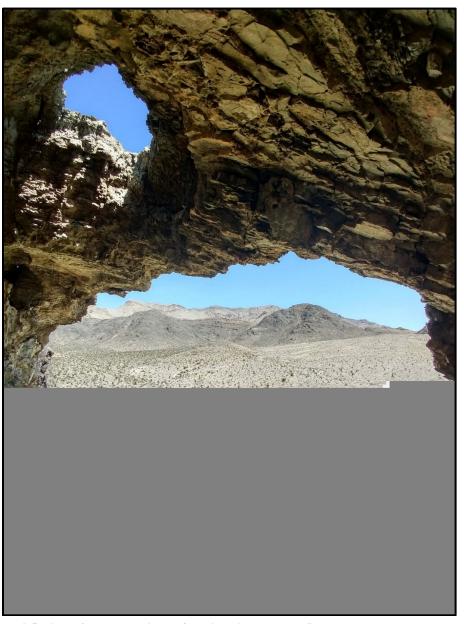


Figure 3.5 View of Two Prominent Openings in the Rock Shelter, Interpreted as Portals

While visiting, representatives provided interpretations of portals and their significance. One representative noted:

These areas, even though it looks like it may not be much to you, to us it is something very, very important—very significant. It is almost like a gateway. A gateway for getting into the other areas. That fence means nothing. But that rock shelter, getting up into the other areas, looking at the great vistas, that is the center point. That is the connection that gets you to where you need to be and where you are going.

The portal or "gateway" is described as an entry into "other areas" or alternative dimensions used for spiritual travel. These portals are typical of rock shelters, which are utilized to transition into a "heightened spiritual state" and back (Van Vlack 2012). One representative noted that portals must be activated "at certain times... that is when the portal will open. Portals also have keys that will have to be triggered to be opened. Someone has certain abilities to do that." These are specially trained individuals called *Puhahivats*, or pilgrims (Van Vlack 2012). Interacting with portals without proper training can have dire consequences; for example, members of the Writers Committee mentioned another portal north of Alternative 3B that can change an individual's gender if they do not know how to properly use it.

## Stargazing

The Rock Shelter has one prominent opening facing north, serving as a primary point of entrée. Two more openings, or windows, are located on the ceiling of the Rock Shelter (Figure 3.6). Some representatives suggested that the openings in the top had a specific stargazing or time keeping function. As one member of the Writers Committee discussed:

When you were talking about things getting in through that hole, that does not mean they are bad things. I mean it is a way for—if you are in [the Rock Shelter] calling things, things can get in and get out the same way. That fits in pretty nicely with the way that tribal people think. And the connection to the sky and everything else that is there, that is what we need to see… it really depends on the seasons. Maybe at certain times there may be a way to track part of the seasons. Or it may not even necessarily be associated with the seasons but other kinds of things too. All kinds of things. Our stories in the fall with the Milky Way being overhead. I mean, it could be about that, in the way it was created or connecting to it. It is a way of connecting with certain things. Maybe when the moon is at a certain place—you just never know. I think there is a lot there.

This prompted further discussion about continued visitations to the Rock Shelter for viewing activities. One representative noted that they would like to visit the location at night for stargazing at different times of the year: "it is possible with continued visits to this site and potential others in vicinity that the place would reveal more. Sometimes, the change in day to night would reveal additional information/knowledge to understand the place. At night the stars would reveal information of the universe, as connected to earth, this region, this place." Continued site visits are central to a complete understanding of the area, including nighttime visitation and camping activities.



Figure 3.6 Two Openings at the top of the Rock Shelter

#### Cultural Resources

While visiting the Rock Shelter, the UofA team recorded many observations of the remaining artifacts. Comments provided by members of the Writers Committee defined the specific uses of these features as well as how they connect this place to the broader cultural landscape. The following are quotes provided during the closing meeting and in the ethnographic data recording instruments:

- So, within the shelter, there were a lot of interesting things there. There was a grinding stone that was there. And that was good to see. Looking at it, wherever it did come from, that was not any kind of rock that was around that limestone. It was a different type of mineral, probably quartzite, or something that was around. And then you have to look at, okay, so where does quartzite come from? And it is around different locations but it was not from there, so it was brought in.
- As far as the shelter, I would really like to know where that grinding stone came from. It really does not matter necessarily, from the archeologist view, I am just curious to know exactly—I would love to know who brought it, who traded it, the story behind it. Because it is special, I see that. It looks just like the one in my valley, but it could be one from several different valleys. I saw that immediately and was like, "oh my gosh, that is from home!" That was the first thing I thought. Like I could have brought that in a previous life. I could have brought it for my wife, my daughter, it could have been a gift. Who knows? That is so special. (Figure 3.7)



Figure 3.7 Mano found at the Rock Shelter

- The mano left indicates there was a need for gathering. Maybe a foraging camp.
- The tool resources left indicate it was used for permanent, temporary, seasonal living. The charred stick could represent ceremonial usage. Its unfortunate that a looters pit of 30 by 30 centameters is located in the shelter, we do not know what else could have been there.
- The other thing that we noticed in there, the rock shelter, there were these shelves. There were rocks, natural rocks that were in there, across from where the stick was. There were these shelves sticking out of the rock, out of the area there, and they were all natural. But if you feel them, they were smooth as glass. They were used. They were used for putting things on, for touching, for doing whatever. Those are things that people would not necessarily look at.

Another significant find in the Rock Shelter was the "rock alignment" previously identified in the archaeological survey. While visiting, members of the Writers Committee gathered around and discussed the feature, indicating that it would have been an animal trap. As one individual noted: "I was curious to see the rock alignment as described in the report, it appears to be a trap of some sort. The shape, arrangement of mid-size boulders similar to fish traps of the river, was more of an animal trap" (Figure 3.8). According to visiting representatives, the sticks further indicate that it would have been a trap to catch desert cats, because "cats will never step on a stick, they will step over it." The following quote describes how the trap was used:

This is a trap set here. A lot of times what they will do is hang something attractive, like shiny pieces of foil that you can hang from there. It catches a cat's eye. And they are just real curious and they come up here. They go in and step right in. They will not go over the rocks.



Figure 3.8 Writers Committee Member Discussing Animal Trap at Rock Shelter

#### Person/Place Connection

One overarching theme during the visit to Alternative 3B was the way Native American peoples are connected to the land. Prompted by the vistas, one person stated that "the rock shelter provides an excellent overview of the cultural landscape, it provides serenity needed for ceremony and communication with the land." Many discussions took place about how the members of the Writers Committee, as well as Native Americans in general, have continued these long-standing ties to the land since time immemorial. The following quotes are examples of this deep-rooted connection.

➤ Just going out to see the springs and the shelter not only makes me culturally aware but connects me. Every time we go it is a tie back to the land, because I am there, and that just renews my faith, what I know, and gives me strength every time. That rebirth of the pride that I have I am trying to instill in my daughters. So, every time I go out and I do that, I share with them. And I go back and share with my tribe.

- I will say if you have a home, and you are away from it, you become home sick if you are used to that. Our genetic code is so embedded that after 10,000 years, if you are away from it, it is just part of our genetic code. If you are truly in tune with your spirit you will miss it. You do not even have to be there to miss it. It is like the mountains. You said that they speak to you. Yes, because every time I go home I feel that part of my genetic code is the mountains because I have been there for so long.
- > Speaking of the rock shelter walk, when I go to places like this it is almost like I am being introduced. It is your first introduction to the area. So, maybe I did not spend as much time in there, but letting my spirit be known, just here to connect in that way. Then I put in the questionnaire, there was just the one [visit], but you would need to go more often to just talk about it, to further develop what would be the answer for us. [The answer] would probably be given in some form, in some way. It might be in the day, it might be in the night, at some point in time. But they would speak to us.
- It was continuous, just like our people. It was continuous because our people were always here. We did not have the break, like what we have experienced now. And I think that the other part is that when we had people coming to areas, it did not matter where you were from. You would always go back and talk to your people or whoever was there, and you were talking to the lands. And those mountains and everything else, they communicate with one another, and even across the valleys, and down in all locations and whatever else, they talk too. So, we are kind of the conduit to help motivate or help to restore some of those things.

These connections serve a greater purpose to members of the Writers Committee. Visiting these locations not only restores a connection developed through long-term use of their aboriginal lands, it also serves to learn more about the place:

Like when you go to places, it is like meeting somebody. You do not know them just by saying "hi." You talk to them more, get to understand them. But then, not only that, but then you meet their relatives. So it is kind of like, you go to a place, you meet it, but then you meet their relatives—like the surrounding areas—to define that person more. To define that land more. Because it is all connected. It is all in a relationship and that gives you the full picture. When you have that way of thinking it helps you get that picture of the land and area. You can understand the people that live there more because you see. You meet everything all around it. And that defines it more.

This component of education was discussed throughout the May field visit. The Southern Nevada landscape and greater region serve as a traditional "teaching place," for siutated learning dissimilar from modern forms of education derived from libraries, encyclopedias, or the internet;

these site visits entail forms of learning embedded in practices and places, and therefore serve as "the natural way of learning" As another individual pointed out:

One of the questions was something about, "could this place be used for education?" And this is the exact kind of stuff that we talk about, not only we talk about today, but it was done a long time ago. That is how our stories, or songs, everything else is here. Because somebody passed it on and we heard it, and we will do the same, and it will keep on going. The education component is a very, very important thing. But we do not think of it like, "okay we are just holding a class today so now we are going to talk about this." I mean this is part of the stories and interactions and things that we have.

Continued education is increasingly important because, in accordance to the lifeways of the Native American peoples of the southwest, Mother Earth relies on the continued traditions that involve these world balancing ceremonies. This is particularly important to members of the Writers Committee, whom believe these connections need to be strengthened moving forward. A comment provided at the closing meeting best emphesizes the importance of these continued connections between Native American peoples and their aboriginal lands:

We are the voices of the land. We are the voices of the resources, the water, everything that is there, the sky, anything around. If we do not speak up, and we do not say anything, nobody else is going to think it is important. They think it is all inanimate. And we know that it is not, that it has feelings and personalities just like all of us.

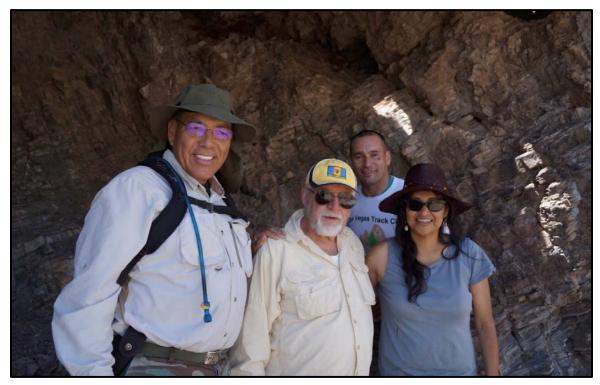


Figure 3.9 Writers Committee Members and UofA Researcher at the Rock Shelter

### 3.2 Tiering

Rock shelters serve a multitude of uses in the southern Nevada desert. The Writers Committee has described some of these uses as pit stops along trail systems, animal trapping areas, plant processing areas, supply caching, and shelter from the elements. The theory of *qualisigns* contextualizes the significance of these natural formations. This theory stipulates, "natural resources and places actually tell humans about their purpose, and thus how they should be used" (Stoffle et al. 2016: 90). Therefore, the natural formation of a rock shelter is an indication of its use, to include the specific features present within the shelter such as the natural windows and shelves.

### 3.2.1 Pilgrimage Trails

In previous studies, members of the Writers Committee described rock shelters as resting places along a pilgrimage trail. Representatives observed a series of rock shelters, similar to the Rock Shelter in Alternative 3B, during the Black Mountain-Thirsty Canyon study. When asked, all of the participating Native American representatives maintained that those shelters were part of a pilgrimage trail to Black Mountain. The following are quotes provided during those visits (Stoffle et al. 2009b: 162):

This would have been a good place to sleep along the way for safety. If it was a two-day walk from the hot springs this would be a nice place to stop in the middle. The pilgrimage route was probably seasonal.



Figure 3.10 Native Americans and UofA Ethnographers at the Boulder Rock Shelters Area

- Now that I've been here and seen the layout I think it's all connected, connected to Pillar Springs because there's water there and they definitely needed water.
- ➤ They probably stopped both ways for resources. Probably the animal situation was a lot different back then antelope, deer, sheep. [Would this have been a place for them to stop and pray?] Yeah it has that spiritual dimension. They would stop and pray on the way to Black Mountain and when they would do hunting.

According to Native American epistemology, ceremonial places are networked within landscapes and they imbed the landscapes with great amounts of power (puha). Caves and rock shelters are often good examples of these powerful ceremonial places. A previous study of Southern Paiute connections with the Spring Mountains described this networking of power and places, as follows:

Puha tends to flow in channels like water; or as some say "like blood in the veins of the body." The channels of flowing puha consolidate at certain points creating a spider-web-like latticework of places where puha is concentrated. (Stoffle et al. 2009a: 38)

In this web, each significant and powerful place has their unique purpose; some are for acquiring songs whereas others are for doctoring ceremonies. During a person's lifetime, an individual's power would have to be renewed or modified via additional pilgrimages with stops at features such as these sacred places along the way (Stoffle et al. 2009b).

# 3.2.2 Vision Questing

Visiting representatives discussed two primary geologic features. The most noted geologic feature during visits to the Rock Shelter was the two openings located in the ceiling of the shelter, which prompted responses about vision questing and stargazing. Another noted feature was the smooth, shelf-like rocks along the edges of the interior of the shelter.

Rock shelters are prominent vision quest spots for Native Americans of the southwest. One example of a rock shelter utilized for receiving visions is Cot Cave, located at the base of Prow Pass along the western slope (Figure 3.11 (L)). During site visits to Cot Cave in 1997, the interviewees provided two varying responses about the site: (1) it was a very spiritual sacred location and (2) it was a place used for "bad medicine" (Zedeño et al. 1999). One Western Shoshone man noted that Cot Cave was a place where people received visions of what they will become:

They get in there and they talk to the cave. You leave money on the shelf. You say 'I want to be a warrior' or doctor, gambler, cowboy or hunter, or whatever you want to be. You stay overnight and everything comes, even Rattlesnake. If he [the petitioner] gets scared and leaves, he loses everything. If you concentrate [on the holes] it will come to you. You dream it and in a couple of years, it comes to you. (Zedeño et al. 1999)

Cot Cave had "painted holes" that the petitioner focused on to receive their vision (Figure 3.11 (R)), whereas the two holes in the ceiling of the Rock Shelter at Alternative 3B may have served a similar purpose. Also likened to Cot Cave, the Rock Shelter has natural shelves that the petitioner could leave offerings on before conducting the vision quest.



Figure 3.11 (L) Cot Cave and (R) Painted Hole used for Vision Questing

The similarities drawn between Cot Cave and the Rock Shelter in Alternative 3B can inform to the potential use of the area. During the field visits to the Rock Shelter, members of the Writers Committee requested opportunity for continued visits to the site. These visits can be informative and demonstrate an active participatory role in the management of Native American resources. Furthermore, site visits with youth and elders become teaching moments and maintain connections to the land through both physical and spiritual use.

## 3.2.3 Knowledge Seeking

A previous study done regarding the Pintwater Cave and Wellington Canyon present another example of Native American culture and rock shelter use, outside of what EuroAmericans would deem as primarily "utilitarian" (Stoffle et al. 2000). Some of the specific rock shelter uses noted in the study of Pintwater Cave include a spirit home, knowledge-seeking, and ritual offering. These themes correspond with physical aspects of the rock shelter such as geologic formation, elevation, and the surrounding resources. A Native American representative provided the following quote during the Wellington Canyon study:

I think the cave is the eye, the main focus or the main point of this mountain. It's the mouth, you go there to acquire the gift of what the whole mountain is going to give you, what it wants to give you. It's like the whole mountain, the feelings and the life of the mountain come out of that little cave right there. If you believe this mountain has a life or spirit, it will talk to you; if you believe that honestly, it will talk to you. (Stoffle et al. 2000)





Figure 3.12 (L) Pintwater Cave and (R) Cultural Representatives (Wellington Report 2000)

Rock shelters have been essential to many aspects of life in southern Nevada. They have aided in the maintenance of peaceful and complex political borders that had kept human interactions balanced in these notoriously vast deserts where resource allocation is often a sensitive situation. Rock shelters that sit in close proximity to sacred pilgrimage trails, such as Rock Shelter in Alternative 3B, provide more than temporary shelter or seasonal plant gathering and processing centers; these rock shelters are sacred places for star traveling, medicine, and power (Stoffle et al. 2009b).

#### 3.2.4 Portals

Many Native American groups understand time and space as nonlinear. In this understanding, multiple spatial and temporal dimensions can exist simultaneously (Lim 2017). As noted previously in this study by the Writers Committee, openings in rock formations such as rock shelters, arches, and windows serve as portals into other worlds and dimensions. These places are powerful and sacred, only for use by religious leaders and people who are in training to become religious leaders.

Many discussions about portals took place with invited Native Americans during the Ethnographic Overview and Assessment for Arches National Park (Arches NP). When asked about the rock openings, Southern Paiute representatives who participated in the study discussed the use of portals by powerful medicine people (Stoffle et al. 2016):

Maybe all those arches or those windows is the way those spirits come in and out. And those [puha'gant] kind of people could draw those things out. And their spirit could have taken a journey through those windows too, into that different dimension whatever they were seeking, to find whatever it was they were seeking. I think those were the windows that probably struck me the most because I deliberately went under them and stood under them and watched them and watched the clouds through them.

I do not think that was used by ordinary Indian people, everyday people. You know, back in those days, people did not know the world like we do. And when you look through those windows, and you see the movement, I think that kind of thing could draw a puha'gant, religious person, to that kind of place.

For Native American cultures in southern Nevada, individuals who were known as star watchers or star travelers had the power to "consult stars, sun, moon" (Fowler and Fowler 1971: 160). They acquired power and medicine "from the stars or literally a puha'gant who got power from many stars" in places where they could star watch or star travel (SPAC 2014: 4). The special rock openings—or portals—in the roof of the Rock Shelter in the Alternative 3B study area indicate that this shelter may have been a significant location visited by powerful medicine peoples. These openings would be instrumental in communication with celestial bodies, obtaining power, and traveling between places, both within this world and alternative dimensions.

Although rock shelters provide a variety of purposes to different people, each rock shelter has its specific use. During ethnographic research in Delmar Valley, the UofA team received varying responses about the uses of rock shelters in the region, demonstrating a multitude of possibilities (Stoffle et al. 2011):

- I found another shelter here where there used to be a camp and we found a lot of chippings of arrowheads, of where they used to make arrowheads out of and stuff like that at the other one over there the bigger one where they used to camp at. And this is a little smaller one here but it's got placed here where it seems like they had a fire or something in there, but it's a place for them to get out of the sun or whatever, and it's good that they had such place like this here. There is another little shelter up higher where they could stay and sleep and get out of the hot sun.
- Another is that some of the rock shelters that are there. These shelters are not necessarily a good description because shelters are like trying to protect you from something, and these for doctoring. These shelters aren't so much for protection, but for acoustics, the line of sight, sometimes it's just the placement of the things that are around which is why those were used and that's why you're not finding any of the artifacts that you would with shelters. These aren't the type of places where people hung around. It was the type of place where people were really revered and they had to conduct various ceremonies with as little disruption as possible.

The Rock Shelter in Alternative 3B may have had differing uses at different times of the year, for different regional groups, or even variation between men and women. The above examples suggest four possibilities, however, continued visits to Alternative 3B would be necessary for both better understanding of the site and the development of a management plan to protect the natural and spiritual resources of the site.

## REFERENCES

CalTopo. N.d. https://caltopo.com/map.html, Accessed June 4, 2018.

Chamberlain, Walt. N.d. The Ghosts of Indian Springs. http://luckypuppy.net/the-ghosts-of-indian-springs, Accessed June 7, 2018.

Fowler, Catherine. 1992. In the Shadow of Fox Peak: An Ethnography of the Cattail-Easter Northern Paiute People of Stillwater Marsh. Cultural Resource Series no. 5. Fallon: U.S. Department of the Interior, Fish and Wildlife Service Region 1, Stillwater National Wildlife Refuge.

Fowler, Don D., and Catherine S. Fowler. 1971. Anthropology of the Numa; John Wesley Powell's Manuscripts on the Numic Peoples of Western North America, 1868-1880. Smithsonian Contributions to Anthropology No. 14. Washington: Smithsonian Institution Press.

Google Maps. N.d. http://maps.google.com, Accessed June 4, 2018,

Jacobs, G. Clell. 1992. The Phantom Pathfinder: Juan Maria Antonio de Rivera and his Expedition. *Utah Historical Quarterly*, 60(3): 200-24.

Jensen, Andrew. 1926. History of the Las Vegas Mission. *Nevada State Historical Society Paper*, 5: 119-284.

Lim, Hyealim. 2017. Portal of Transcendence: American Indian Interpretations of Arches and Bartlett Alcove in Southeastern Utah. Master's thesis, The University of Arizona. Tucson, AZ: The University of Arizona.

Lingenfelter, Richard E. 1986. Death Valley and the Amargosa: A land of Illusion. Berkeley, CA: University of California.

Madsen, David B. and Steven R. Simms. 1998. The Fremont Complex: A Behavioral Perspective. *Journal of World Prehistory*, 12(3): 255-336.

McBride, Terri. 2002. Exploration and Early Settlement in Nevada: Historic Context. Nevada State Historic Preservation Office.

Mehringer, Peter J. 1967. Figure 12. Nevada State Museum, Carson City, Nevada. In Pollen Analysis of the Tule Springs Site, Nevada. Pleistocene Studies in Southern Nevada. Vol. 13. Carson City, NV: Nevada State Museum. "Modern spring sample, Locality 27 at Corn Creek Springs. The Spring pool on the top of a mound is surrounded by a dense mat of salt grass."

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.

Perlman, Howard, and United States Geological Survey (USGS). 2016. Artesian Water and Artesian Wells. Department of the Interior: USGS Water Science School. https://water.usgs.gov/edu/gwartesian.html, Accessed June 04, 2018.

Price, Jonathan G. 2003. Geology of Nevada. Nevada Bureau of Mines and Geology, University of Nevada, Reno. Reno, NV: Nevada Bureau of Mines and Geology.

Roberts, Heidi, and Jerry Lyon. 2012. Archaeological Excavations at the Corn Creek National Wildlife Refuge Clark County, Nevada. Archaeological Report NO. 08-22. Prepared for U.S. Fish and Wildlife Service: Desert National Wildlife Refuge. Las Vegas, NA: HRA, Inc. Conservation Archaeology.

Steward, Julian H. 1941. Culture Element Distributions: XIII. Nevada Shoshone. *University of California Anthropological Records* 4(2): 209-359. Berkeley, CA: University of California Press.

Stoffle, Richard W, Richard Arnold, Angelita Bullets. 2016. Talking With Nature: Southern Paiute Epistemology and The Double Hermeneutic with a Living Planet. In *Collaborative Heritage Management*, eds. Gemma Tully and Mal Ridges. Atlanta, GA: Georgia Press, 75-99.

Stoffle, Richard W., Richard Arnold, Maurice Frank, Betty Cornelius, Lalovi Miller, Jerry Charles, Gerald Kane, Gerald, Alex K. Ruuska, and Kathleen Van Vlack. 2015. "Ethnology of Volcanoes: Quali-Signs and the Cultural Centrality of Self-voiced Places." In *Engineering Mountain Landscsapes: An Anthropology of Social Investment*, eds. Laura L. Scheiber and Maria N. Zedeño. Salt Lake City, UT: University of Utah Press, 99-115.

Stoffle, Richard W., Richard Arnold, Kathleen A. Van Vlack, Larry Eddy, and Betty Cornelius. 2009. Nuvagantu "Where Snow Sits": Origin Mountains of the Southern Paiutes. In *Landscapes of Origin in the Americas: Creation Narratives Linking Ancient Places and Present Communities*, ed. Jessica Joyce Christie. Tuscaloosa, AL: The University of Alabama Press, 32-44.

Stoffle, Richard W., Richard Arnold, Kathleen A. Van Vlack, Sean M. O'Meara, Jessica L. Medwied-Savage, Phillip Dukes, and Daniel Borysewicz. 2009. U-Nav-Kai-Vi Duepeth Toyave Volume Two: Black Mountain-Thirsty Canyon Traditional Uses of a Volcanic Landscape. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Fletcher P. Chmara-Huff, Kathleen A. Van Vlack, and Rebecca S. Toupal. 2004. Puha Flows from It: The Cultural Landscape Study of the Spring Mountains. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Michael J. Evans, David B. Halmo, M. Dufort, and B. Fulfrost. 1994. Native American Cultural Resources on Pahute and Rainier Mesas, Nevada Test Site. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., David B. Halmo, Michael J. Evans, and John E. Olmstead. 1990a. 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., David B. Halmo, John E. Olmstead, and Michael J. Evans. 1990b. Native American Cultural Resource Studies at Yucca Mountain, Nevada. Ann Arbor, MI: The University of Michigan.

Stoffle, Richard W., Kristine Jones, and Henry F. Dobyns. 1995. Direct European Immigrant Transmission of Old World Pathogens to Numic Indians During the Nineteenth Century. *American Indian Quarterly* 19(2): 181-203.

Stoffle, Richard and Jessica Minnis. 2007. Resilience at Risk: Epistemological and Social Construction Barriers to Risk Communication. *Journal of Risk Research* 11(1-2): 55-68.

Stoffle, Richard W., Evelyn Pickering, Katherine Brooks, Christopher Sittler, Kathleen Van Vlack. 2016. Ethnographic Overview and Assessment for Arches National Park. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Evelyn Pickering, Christopher Sittler, Heather Hyealim Lim, Katherine Brooks, Kathleen Van Vlack, Chelsea Forer, Mariah Albertie. 2017. Ethnographic Overview and Assessment for Canyonlands National Park. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Fabio Pittaluga, Tray G. Earnest, Amy Eisenberg, John Amato, and Genevieve Dewey-Hefley. 1998. Pah Hu Wichi (From Big Spring Running Down): Big Spring Ethnographic Assessment US 95 Corridor Study. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Rebecca S. Toupal, M. Nieves Zedeño. 2002. Cultural Landscapes of the Sheep and Pahranagat Mountain Ranges: An Ethnographic Assessment of American Indian Places and Resources in the Desert National Wildlife Range and the Pahranagat National Wildlife Refuge of Nevada. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Kathleen Van Vlack, Alex K. Carroll, Fletcher Chmara-Huff, Aja Martinez. 2005. Yanawant: Paiute Places and Landscapes in the Arizona Strip. Volume One of the Arizona Strip Landscapes and Place Name Study. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., Kathleen A. Van Vlack, Hannah Z. Johnson, Phillip T. Dukes, Stephanie C. De Sola, and Kristen L. Simmons. 2011. Tribally Approved American Indian Ethnographic Analysis of the Proposed Dry Lake Solar Energy Zone. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., M. Nieves Zedeño. 2001. American Indian Worldviews I: The Concept of "Power" and its Connection to People, Places, and Resources. *In* American Indians and the Nevada Test Site: A Model of Research and Consultation, eds. Richard W. Stoffle, María Nieves Zedeño, and David B. Halmo. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Stoffle, Richard W., M. Nieves Zedeño, J. Eyrich, and P. Barabe 2000. The Wellington Canyon Ethnographic Study at Pintwater Range, Nellis Air Force Base, Nevada. Prepared for U.S. Air Force and Science Applications International Corp. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Van Vlack, Kathleen A. 2007. Traditional Ecological Knowledge and Resilience of the Southern Paiute High Chief System. ProQuest Dissertations Publishing. Master's thesis, The University of Arizona. Tucson, AZ: The University of Arizona.

Van Vlack, Kathleen A. 2012. Southern Paiute Pilgrimage and Relationship Formation. *Journal of Ethnology* 51(2): 129-140.

Van Vlack, Kathleen A., Richard W. Stoffle, Evelyn Pickering, Katherine Brooks, and Jennie Delfs. 2013. Unav-Nuquaint: Little Springs Lava Flow Ethnographic Investigation. Department of Anthropology, The University of Anthropology. Tucson, AZ: Bureau of Applied Research in Anthropology.

Whitley, David S. 1998. By the Hunter, For the Gatherer: Art, Social Relations and Subsistence Change in the Prehistoric Great Basin. In *Reader in Archaeological Theory: Post-Processual and Cognitive Approaches*. Ed. David S. Whitley, 257-74. Routledge Readers in Archaeology. London; New York: Routledge.

Wikimedia Commons. 2008. Indian Springs Nevada. https://commons.wikimedia.org/wiki/File:Indian\_Springs\_Nevada\_2.jpg, Accessed June 4, 2018, from

Zedeño, M. Nieves, Richard W. Stoffle, and D. Leedom Shaul. 2001. Storied Rocks: American Indian Inventory and Assessment of Rock Art Sites. In *American Indians and the Nevada Test Site*, eds. Richard W. Stoffle, María Nieves Zedeño, and David B. Halmo. Department of Anthropology, The University of Arizona. Tucson, AZ: Bureau of Applied Research in Anthropology.