



Cultural Resources in the Proposed Basin and Range National Monument, Lincoln and Nye Counties, Nevada



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**CULTURAL RESOURCES IN THE PROPOSED
BASIN AND RANGE NATIONAL MONUMENT,
LINCOLN AND NYE COUNTIES, NEVADA**



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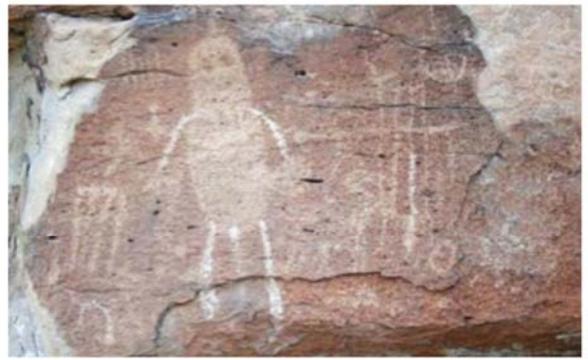
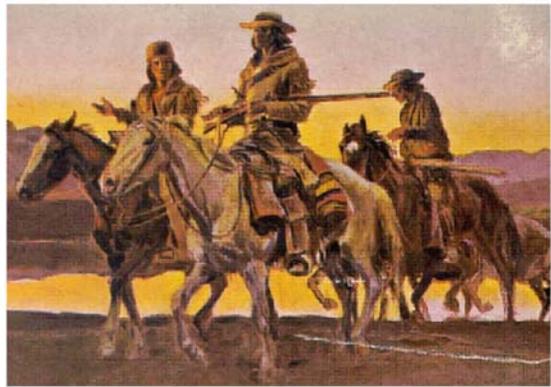
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EXECUTIVE SUMMARY

This is the land of the Southern Paiute, the Western Shoshone, and their ancestors, all of whom have much to teach us about human adaptations to a highly challenging environment. The proposed Basin and Range National Monument (BRNM) (Figure 1) is a study in contrasts between jagged mountain ranges and flat basin valleys, each of which hosts very different ecosystems and offers people diverse suites of hard-won resources. During the early, relatively wet Paleoindian period lakes formed in the valleys and food was comparatively abundant. However, since the advent of arid modern climatic conditions during the subsequent Archaic period, prehistoric hunter-gatherers, protohistoric tribes, and even modern ranchers have had to move between ecosystems to access as many different resources as possible in order to survive. Native American trails that wind through the area are both literal and figurative reminders of these interconnections between the basins and ranges.

Only about two percent of the BRNM has been investigated for archaeological resources but the resulting picture is one of regular seasonal movements by hunter-gatherers throughout prehistory and protohistory. In contrast, adjacent regions with more water and desirable prehistoric trade goods, such as turquoise, supported farming and more permanent settlement. Euro-American endeavors in mining, farming, and ranching have been short-lived or low-intensity because of the area's harsh environment. As a result of this lack of modern development, the cultural resources of the BRNM remain largely intact and provide a rich body of information about prehistoric and protohistoric life in one of the more challenging areas of the Basin and Range province. Future systematic study by professional archaeologists would help us to better understand when, where, and how people moved between ecosystems, how they managed to eke out a living here for 13,000 years, and how they viewed and interacted with people in more resource-rich regions beyond the Basin and Range province.

Despite the BRNM's challenging environment, its cultural resources include:

- Scatters of chipped stone and tools left by hunter-gatherers during the Paleoindian, Archaic, and Late Prehistoric periods
- Thousands of rock art images concentrated in the Mount Irish Archaeological Site and the National Register of Historic Places-listed White River Narrows Archaeological District
- Native American trails connecting basin and range ecosystems
- Ruins of irrigation features from short-lived homesteading and farming
- Mine shafts, prospect pits, and waste rock piles from the Worthington/Freiberg Mining District and the Mount Irish area
- Michael Heizer's monumental artwork "City" which is separate from but surrounded by the BRNM

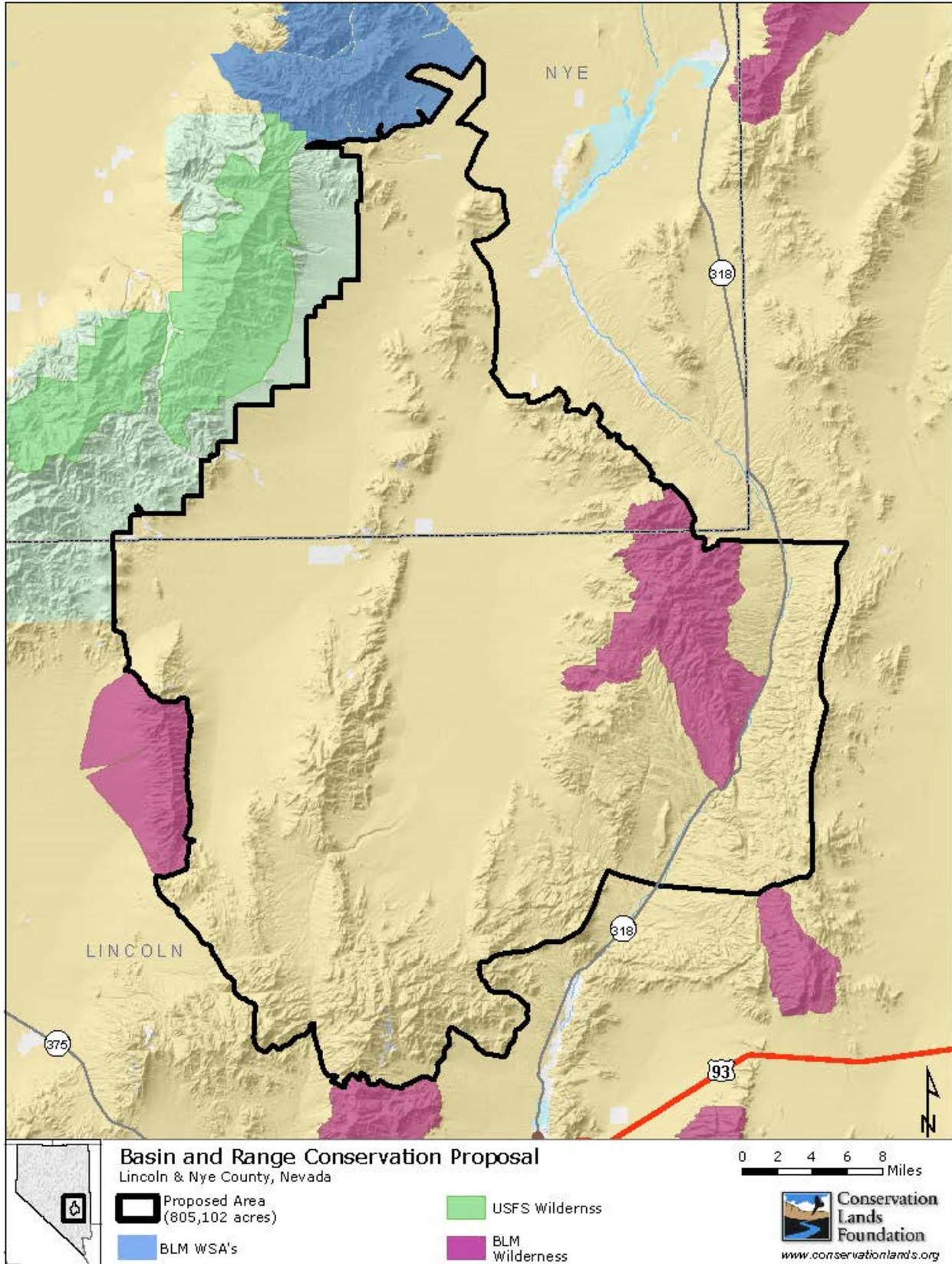


Figure 1. Location of the proposed Basin and Range National Monument.

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INTRODUCTION

Straddling the line between Lincoln and Nye counties in southeastern Nevada, the proposed Basin and Range National Monument (BRNM) covers 800,489 acres administered by the Ely District of the Bureau of Land Management (BLM) (Figure 1). Only about two percent of that area has seen systematic archaeological investigation, yet most survey blocks—particularly in the BRNM’s mountains and foothills where water was more available—have yielded a high density of sites, suggesting that this place holds a richness of archaeological information that should be preserved for future study. While the archaeological record of surrounding regions has been impacted greatly by development and mining, the BRNM preserves up to 13,000 years of life typical of little-watered portions of the Basin and Range province. What appears to be a barren, inhospitable land has actually supported prehistoric Native Americans for thousands of years, from Paleoindian to Historic times. This intact landscape can yield fascinating and important information about human mobility, adaptations to a harsh and unforgiving environment, and interactions between hunter-gatherers and farmers. Euro-Americans have left fewer traces here, with most restricted to relatively short-lived mining endeavors, failed irrigation projects, and low-intensity ranching.

The earliest evidence for human use of the BRNM comes in the form of a Clovis projectile point made of obsidian that a Paleoindian hunter left near Water Gap around 13,000 years ago (Ryan



Archaic projectile point

1985). Later Archaic people who lived in the area between about 8,000 and 1,500 years ago left more abundant evidence of their hunting, plant gathering, cooking, and camping activities as well as abundant rock art marking special places on the landscape. Because of the area’s paucity of water, it saw only minimal use by Fremont people who practiced both horticulture (small-scale farming) and hunting and gathering during the subsequent Formative period between about 1500 years ago/A.D. 500 and A.D. 1250. Numic-speaking ancestors of the Southern Paiute and Western Shoshone, who were in this region by at least A.D. 1100, left a mix of

archaeological traces similar to those of the Archaic people. Southern Paiute and Western Shoshone people continue to view this landscape as part of their homeland and have strong connections with its mountains, valleys, and cultural and natural resources.

Many of the archaeological sites that have so far been recorded in the BRNM cannot be assigned to a particular time period or culture because they do not contain chronologically diagnostic artifacts. Still, they suggest that Native American use of this area over time exhibited many commonalities. In such an arid environment, water is the key to life and people use as many different types of resources as possible. Because mountainous areas in the Basin and Range receive the most rainfall, shelter large game, provide firewood and calorie-rich nuts, and offer stone for making tools, they have long been anchors for human groups. Valleys between the mountain ranges yield a different suite of plants that ripen at other times of the year, as well as open vistas for spotting and hunting game, so they, too, have been vital for survival in the BRNM.

Similarly to Native Americans, Euro-Americans have used different topographic features of the BRNM for different activities. While people mined ores such as silver and copper in the mountains, they conducted low-intensity sheep and cattle herding, and some agriculture, in the valleys. Growing seasons in Garden and Coal valleys within the BRNM vary by location and year; historically, upper slopes on the west side of Garden Valley have been too cold for agriculture so they were used only for livestock grazing. Much of the lower part of Garden Valley was also marginal for farming so people used it more frequently for ranching. In contrast, most of the floor of Coal Valley was conducive to growing crops, although the paucity of precipitation and the depth of ground water (Eakin 1963) limited the extent of agriculture conducted there.

The BRNM has been proposed for federal designation for its remote, undisturbed scenery, pronghorn and mule deer habitat, and rock art. Archaeological information for this area is limited but the relatively high site density in many of the areas that have been investigated suggests that the BRNM has the potential to contribute important information about use of this portion of the Basin and Range province from the Paleoindian period through to the present. A goal for the future would be to conduct substantially more archaeological inventory in order to better understand the area's prehistoric and historic land use and cultural resources.

THE PLACE

The Basin and Range topographic province extends from eastern California to central Utah, and from southern Idaho into Mexico (USGS 2014). Nevada is the only state to be characterized entirely by basin and range topography, which comprises narrow, alternating, north-south trending mountain ranges and intervening basin valleys. This topography makes Nevada the most mountainous state in the country (NPS 2015). Millions of years ago the earth's crust and upper mantle stretched dramatically in this area, with the crust thinning and cracking to form faults. Much of the Basin and Range province is known as the Great Basin. Lieutenant John C. Fremont first used that term in 1844 to describe the exclusively internal drainage pattern of the region, although the Great Basin actually contains more than 150 small basins separated by mountain ranges (James 1981). As defined hydrologically, the Great Basin covers an area similar to that of the northern Basin and Range province, including all but portions of southeastern Nevada (USGS 2014). The region's arid climate and high mountains provide insufficient flow and routes for water that accumulates in the basin to join larger drainages outside the basin; surface water evaporates, percolates into the ground, or flows into saline lakes within the basin. The BRNM area is located on the margin of the southeastern edge of the Great Basin and the Colorado River drainage, although it is encompassed by the Great Basin cultural area which extends somewhat farther out than the hydrologically-defined Great Basin (Fowler and Madsen 1986). Prior to about 11,700 years ago, during the relatively wet Pleistocene climatic period, pluvial lakes formed in many of the Basin and Range province's valleys, and small glaciers formed in several of the mountain ranges. During the middle of the subsequent Holocene (ca. 10,000 B.P.–present), when conditions generally became hotter and drier, the pluvial lakes largely dried up (James 1981). On-going erosion of the many mountain ranges has created thick

alluvial fans on the valley floors that are bisected by small ephemeral streams (Crabtree and Ferraro 1980).

Sitting in the rain shadow of the Sierra Nevada and Cascade Mountains, most of the Great Basin and adjacent Basin and Range is a temperate desert characterized by hot, dry summers and cold, snowy winters (USGS 2015). Yet, this region is not devoid of life; rainfall and, as a result, the numbers and kinds of animals and plants present at different elevations differ dramatically. The individual mountain ranges are essentially islands of limited high-calorie food sources and timber, surrounded by basins providing more numerous but smaller and lower-calorie food resources. For example, while the mountains and foothills support some mountain sheep, mule deer, piñon, juniper, and ponderosa pine, the basin valleys are dominated by abundant rabbits, pronghorn, lizards, insects, saltbush, sagebrush, grasses, and prickly pear. Native people from prehistoric to historic times took advantage of this variety of resources available within a relatively short horizontal distance, moving seasonally from one place to another to hunt animals and harvest plants (e.g., Crabtree and Ferraro 1980). This pattern of resource use and human movement resulted in a complex system of prehistoric trails that took people between ecosystems.



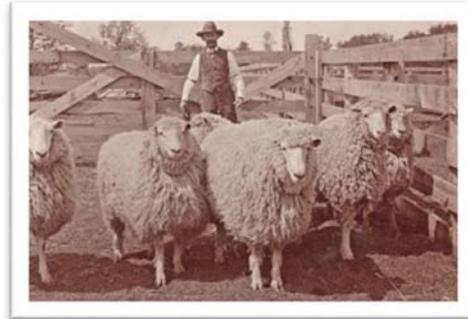
sagebrush and saltbush basin

Four major topographic areas representing diverse ecosystems are located within the BRNM: Garden Valley in the northwest, the Golden Gate Range running north-south through the center, Coal Valley in the southeast, and the Worthington Range in the west. Areas within and adjacent to the BRNM have already been recognized for their intact natural and cultural resources; the BRNM would encompass the Weepah Spring Wilderness Area (WA) in the Seaman Range along its eastern boundary and be flanked by three other units of the BLM's National Landscape Conservation System: the Worthington Mountains WA to the west, Mount Irish WA to the south, and Big Rocks WA to the southeast.

HIGHLIGHTS

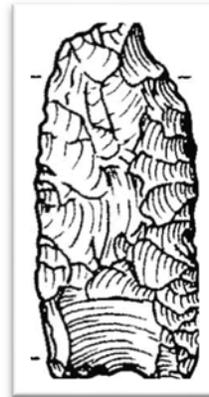
Garden Valley

Native Americans hunted pronghorn and rabbits and collected grass seeds, plants, and insects here during the spring and summer. With an elevation of 5,100–5,600 feet, Garden Valley was historically too cold for farming, so Basques and other Euro-American ranchers grazed sheep and cattle here during the winter.



Golden Gate Range and Water Gap

The Golden Gate Range runs southwest-northeast through the BRNM and separates the Garden and Coal valleys. Water Gap, a topographic break in the mountains, was a vital route between the valleys for people, animals, and water. A Paleoindian Clovis projectile point made of obsidian was found here, demonstrating the area's importance as a thoroughfare for 13,000 years.



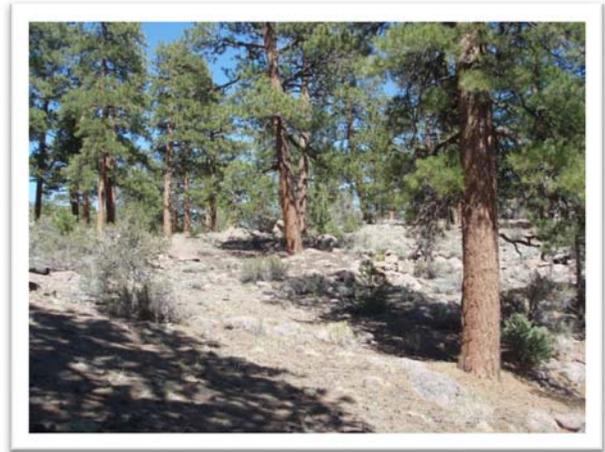
Coal Valley

Now a dry basin, Coal Valley contained a shallow lake during the Pleistocene that was fed by rain and snow melt running from Garden Valley through the now-dry Water Gap Wash. Coal Valley's pluvial lake was a vital source of water for humans and animals during the Paleoindian period. During historic times, Euro-Americans constructed irrigation features and attempted to grow crops in the valley, but unpredictable water flow made this an unsuccessful endeavor.



Weepah Spring Wilderness Area

Located in the Seaman Range inside the eastern edge of the BRNM, the Weepah Spring WA encompasses the White River Narrows Archaeological District. It also contains the largest stand of ponderosa pine in eastern Nevada. Ponderosas were a vital source of winter fuel and an important food source for some Native American groups. Archaeological sites within the WA include camp sites in rock shelters and on open ground, as well as hunting blinds.



Worthington Range

The jagged limestone Worthington Range rises 4,000 feet above surrounding valleys along the western edge of the BRNM. For Native Americans these mountains were a vital source of tool stone, as well as mountain sheep, deer, piñon nuts, acorns, and other food resources, particularly in the fall and winter. Euro-Americans created the Worthington/Freiberg Mining District in the 1860s to mine silver and other ores found at the northern end of the range.



THE PEOPLE

The earliest known human use of the BRNM and the surrounding region occurred during the *Paleoindian period* ca. 13,000–10,000 years before present (B.P.)/11,000–8,000 B.C. Unlike their contemporaries who lived on the plains to the east, Paleoindian people in this region did not focus primarily on megafauna such as mammoth. Rather, in keeping with the different ecosystems available to them, they used a variety of smaller game and plant resources. In Coal Valley a large proportion of the stone that Paleoindian people used for making tools came from up to 100 miles to the north-northwest in the Duckwater area (Newlander 2015), demonstrating the long distances people regularly traveled. Paleoindian people of the Western Stemmed Tradition, whose relationship to the better-known Clovis tradition is still not well understood (e.g., Beck and Jones 2014), may have intensified their use of the edges of disappearing pluvial (land-locked) lakes and marshes, exploiting lacustrine food resources such as waterfowl and plants (James 1981).

As the climate gradually became warmer and drier overall during the subsequent *Archaic period* (ca. 8,000 B.C.–A.D. 500), the pluvial lakes dried up and people used an even wider variety of wild resources but probably traveled over shorter distances than their Paleoindian

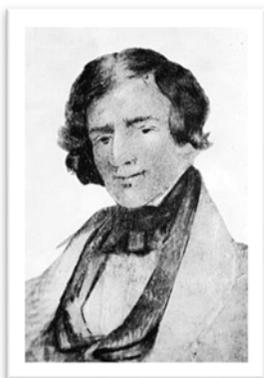
predecessors. They also invented new technologies such as grinding stones for processing plants and baskets for carrying food and water. Because organic materials are unusually well preserved in the arid, relatively undeveloped region surrounding the BRNM, archaeologists sometimes find fiber netting and sandals, rabbit fur clothing, and wooden digging sticks and clubs that date to the Archaic and more recent time periods. During certain seasons of the year, multiple small family groups came together in valleys to hunt rabbits and pronghorn using nets and clubs. They also gathered large amounts of pickleweed and prickly pear. At other seasons people hunted mountain sheep, mule deer, and marmot, and collected piñon nuts in the adjacent foothills and mountains (James 1981). Rock art scholars suggest that Archaic people probably created a large percentage of the rock art in the Great Basin. From oldest to youngest (albeit possibly with some overlap), the art includes pits and grooves, curvilinear designs, and rectilinear designs. Most designs were pecked into rocks, but some were painted onto them using natural ochres and minerals (Schaafsma 1986).

The following *Formative* (ca. A.D. 500–1250) and *Late Prehistoric* (ca. A.D. 1250–1776) periods were characterized by new innovations, including the use of domesticated plants and the invention of the bow and arrow and pottery (James 1981). Much rock art during these periods was more representational (Schaafsma 1986). Members of the Formative period Fremont culture (ca. A.D. 950–1250) practiced horticulture focused on maize, beans, and squash in areas with sufficient water, but also relied heavily on hunting and gathering wild foods because water available for growing crops in southern Nevada was scarce. In some places they built more substantial structures than their Archaic predecessors, including semi-subterranean pithouses and adobe and masonry surface structures (James 1981). However, Fremont people were not as settled as the more fully agricultural Virgin Anasazi (ca. A.D. 1–1200) who are viewed as a western branch of the Kayenta Anasazi culture found across northern Arizona, southern Utah, and northwestern Colorado. The Virgin Anasazi lived in the relatively well-watered Virgin, Muddy, and Moapa river valleys in far southern Nevada and adjacent areas and built more permanent, above-ground dwellings. Virgin Anasazi sites are roughly equivalent to Basketmaker II and III and Pueblo I and II sites in the Kayenta heartland (Fowler and Madsen 1986). The Fremont people made their own gray ware pottery but also obtained some marine shell beads and occasionally other pottery from the Virgin Anasazi. Fremont rock art includes relatively naturalistic representations of animals such as mountain sheep and birds, and distinctive, triangular-bodied anthropomorphic figures (James 1981; Schaafsma 1986).

By at least A.D. 1100, speakers of languages of the Numic branch of the Uto-Aztecan language family expanded into the BRNM area from their homeland in the southwestern part of the Great Basin (Crabtree and Ferraro 1980; Fowler 2011). These Numic speakers were the ancestors of the Shoshones and Paiutes, among other tribes, and may have eventually displaced or replaced Fremont people. Their highly mobile lifeways were similar to those of Archaic people, although Numic speakers made brown ware ceramics, twined and coiled basketry, and bows and arrows with small side-notched projectile points (Fowler and Madsen 1986). They also left “Scratched Style” rock art images by inscribing lines with a sharp rock in a single stroke. These images often cover earlier ones (Schaafsma 1986). Numic archaeological sites generally contain

few artifacts and are identified by the presence of brown ware ceramics and/or Cottonwood Triangular and Desert Side-notched arrow points, although the latter was not used exclusively by Numic peoples. In the Coal and Garden valleys, Shoshone pottery is found in the vast majority of archaeological sites that contain ceramics (James 1981). Although the prehistoric cultures of this region did change over time, they frequently used the same places on the landscape to acquire resources. For example, four rock shelter sites located within and adjacent to the northern portion of the BRNM contain evidence for use by Fremont then Shoshone people into the Historic period.

A new era, the *Protohistoric period* (ca. A.D. 1776–1850s), represented the span of time between when indigenous Native Americans first encountered Spanish and Euro-American diseases, goods, and people, and when the latter populations established widespread settlements in the region. In 1776, Spanish Franciscan priests Francisco Atanasio Domínguez and Silvestre Vélez de Escalante were the first Europeans to make a recorded journey to the eastern part of the Great Basin near Delta, Utah, where they encountered members of the Ute tribe. However, it was not until the 1820s–1870s that American fur traders, explorers, emigrants, travelers, and Indian agents came to the Nevada Great Basin and settlement began by miners and later



Jedediah Smith

ranchers. In 1827, Rocky Mountain Fur Company part-owner Jedediah Smith and his fellow trappers became the first recorded Euro-Americans to travel through what are now Nye and Lincoln counties, including the White River Valley, on their way from California to a trading rendezvous at Bear Lake on the Utah-Idaho state line. Other trappers and explorers followed Smith, including John C. Fremont who crossed this area in 1845 and again in 1853 while surveying a route for a transcontinental railroad with the Army's Corps of Topographical Engineers (Janetski 1981; Vlasich 1981).

Many of the early Euro-Americans who journeyed to the region recorded a significant amount of ethnographic information about the tribal people who lived there (James 1981). Travelers generally remarked on the Shoshones' and Paiutes' paucity of food and material culture. Ethnographic reports describe the way the tribes moved around their landscape according to the seasons. Winter villages were usually located in the lower fringes of the piñon-juniper forests. In the spring, some groups came together to hunt antelope before plant seeds ripened (Steward 1941). Then in the summer small family units dispersed across basin bottoms to harvest grass seeds and roots and to hunt small



Southern Paiutes

animals, reptiles, and lizards. In the fall, people came together again in large numbers to hunt rabbits and pronghorn in the valleys and to collect piñons and acorns from trees on the mountain slopes (Crabtree and Ferraro 1980; Janetski 1981; Steward 1941). Their winter structures were often conical huts made of tree limbs and brush but in warmer months they created only unroofed brush enclosures for shelter. The Paiutes and Shoshones made brown ware utilitarian pottery fired at low temperatures (Crabtree and Ferraro 1980). People did some trading for items of personal ornamentation, sometimes wearing necklaces or hair pendants of shell or animal claws and beads of seed, stone, or bone (Hughes and Bennyhoff 1986; Janetski 1981). Their occasional use of *Haliotis* and *Olivella* shells originating from the Pacific Ocean and the Gulf of California hundreds of miles away suggested that they had some involvement with extensive trading networks controlled by tribal groups in surrounding, more resource-rich areas. Euro-Americans and other tribes introduced horses to the Great Basin by at least the mid-1700s, but the resource-poor environment of the BRNM precluded Native Americans in that area from maintaining large numbers of animals that competed with people for wild grasses (Shimkin 1986).

Because the BRNM area is so remote and dry, it was largely unattractive for Euro-American settlement. Sustained Native American-Anglo contact marking the beginning of the *Historic period* did not occur there until about the 1850s–1870s. In 1850 Congress created the Utah Territory, which included what is now Nevada. In 1855 and 1858 parties of members of the Church of Jesus Christ of Latter Day Saints (Mormons) entered what is now southern Nevada to try to find places of refuge from federal troops who were allegedly sent to discipline Mormons in Utah (Vlasich 1981). Congress created a separate Nevada Territory in 1861, with James W. Nye as governor and overseer of Indian affairs in the eastern part of the territory (Vlasich 1981). In 1864, seven Mormon families from Utah established an agricultural settlement called Panaca in Meadow Valley, about 25 miles east of the BRNM. That same year Nevada officially became a state. Around the same time, local Native Americans told various Euro-Americans about the presence of silver ores, which led to the establishment of mines and mining districts in the region (Lincoln Communities Action Team 2014). Nye County, named in honor of Governor Nye, formed in 1864 by petition of a group of miners who had recently founded the new Union Mining District northwest of the BRNM. The county's boundaries were subsequently changed six times (Angel 1881). In 1865 miners created the Pahranaagat Mining District about 30 miles south of the BRNM but the silver ore was rapidly exhausted. Other miners created the Freiberg/Worthington Mining District in the western part of the BRNM between 1865 and 1869 (Tingley 1998). In 1866 Nevada's eastern boundary was expanded, forming the first of four permutations of Lincoln County, named for President Abraham Lincoln. In 1867, all of the land north of the Colorado River was transferred from Arizona Territory to Nevada, with a 10-mile wide strip of land being ceded to Nye County. Hiko, founded in 1866 (Crabtree and Ferraro 1980) a few miles east of the south end of the BRNM, became the Lincoln County seat in 1867. In 1869, San Francisco businessman Francois L.A. Pioche invested in mining around what became the town of Pioche, located about 25 miles east of the BRNM. In 1871 Pioche became the county seat and it remains so today (Lincoln Communities Action Team 2014).

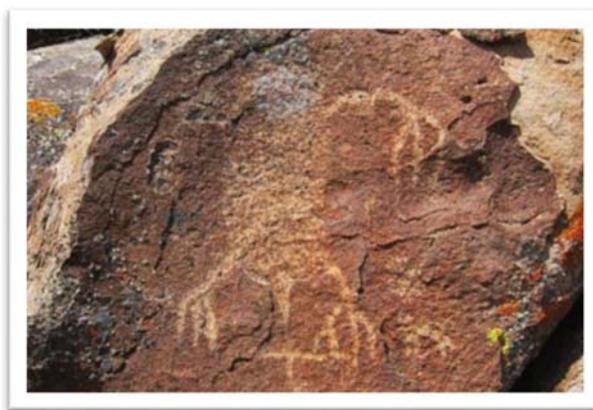
As Euro-Americans established mining districts and settlements, tensions with Native Americans increased. Some tribal groups raided the merchants' Santa Fe Trail, the emigrants' California Trail, the mail carriers' Pony Express Trail, and the stagecoaches' Overland Trail, all of which ran well north of the BRNM between the 1820s and 1880s. From these raids and from trading, tribes obtained Euro-American goods such as metal, guns, glass beads, and horses (White 2005). Although Mormon groups, in particular, attempted to get tribal people to practice agriculture and settle down, that program did not work in general, and particularly not in the dry BRNM. In 1863 the United States government signed a treaty with the Western Shoshone that, unusually, did not cede Indian land claims to the federal government. In 1873 the government created a reservation for Southern Paiutes near Moapa in Clark County. A few years later, some Western Shoshone moved to a reservation in the Duck Valley near Owyhee. Over the next seven decades, several more reservations were established for the Shoshone and Paiute tribes (Vlasich 1981). Closest to the BRNM today are the Duckwater Shoshone Tribe in Railroad Valley at the northern tip of Nye County.

HIGHLIGHTS

Mount Irish Archaeological Site

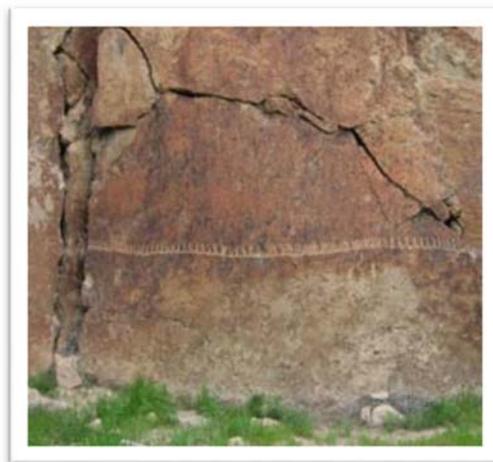
Entering the southern tip of the BRNM, this extensive rock art site contains hundreds of images of animals, anthropomorphs, and geometric symbols that people scraped into desert varnish covering volcanic tuff. Images of atlatls were probably made before that technology was replaced by the bow and arrow around A.D. 500.

"Pahranagat Man" (right) is a probably Formative period anthropomorph whose images are concentrated in Lincoln County.



White River Narrows Archaeological District

Listed on the National Register of Historic Places in 1976, this archaeological district is located along the eastern boundary of the BRNM in the Weepah Spring WA and is one of the largest concentrations of rock art in Nevada. It contains a wide variety of images and geometric symbols including a potential calendar (right). A suite of Formative period representational and stylized images could suggest a procession or game drive by disguised hunters (cover). Some images date to the Archaic period and are at least 4,000 years old.



Shoshones and Paiutes

Present in the BRNM area since at least A.D. 1100, the ancestors of the Numic-speaking Western Shoshone and Southern Paiute survived for hundreds of years by using a large variety of resources available in this challenging area. The BRNM lies very close to the traditional boundary between the tribes' ranges so it can provide fascinating information about their similarities, differences, and interactions.



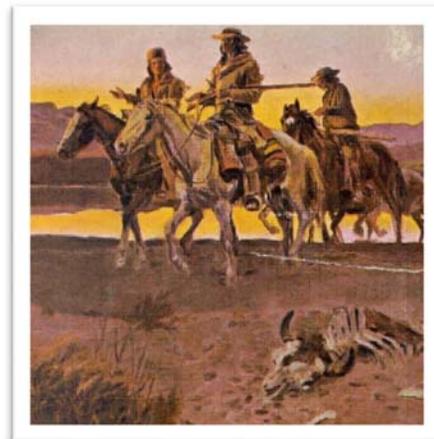
Native American Trails

Although not yet formally recorded by archaeologists, Native American trails run throughout the BRNM. For thousands of years these trails enabled tribal people to travel between the mountains and valleys of the BRNM, to hunt and gather wild animals and plants at different times of the year.



Jedediah Smith

Born in New York in 1799, mountain man Jedediah Smith made his way west as an explorer and trapper. By 1827 he was part-owner of the Rocky Mountain Fur Company and, with some fellow trappers, became the first recorded Euro-American to travel through what are now Nye and Lincoln counties. His short but groundbreaking life ended in 1831 at the hands of Comanches in New Mexico.



Worthington/Freiberg Mining District

Located in the northeastern part of the Worthington Mountains, the Worthington Mining district was discovered in 1865 and organized as the Freyberg District in 1869, with alternate spellings subsequently used. Over succeeding decades the district yielded silver, lead, zinc, copper, and tungsten ores.



Michael Heizer's "City"

Just north of the center of the BRNM are an additional 4,613 acres of private inholding. This is artist Michael Heizer's ranch on which stands his monumental artwork "City." Because the ranch is private land it would not be included in the BRNM. However, conservation of the stunning, undeveloped basin and range landscape surrounding City would ensure unparalleled visitor experiences of this groundbreaking artwork for generations to come.



REGIONAL CONTEXT

Studying how people have used the BRNM area itself over the past 13,000 years is important for learning about human mobility and adaptations to specific mountains and valleys. Studying how the BRNM fits into larger regional cultural contexts can teach us even more, in that we can see the fuller range of human lifeways in the Basin and Range.



Split-twig figurine

For example, split-twig figurines (representing deer, mountain sheep, and possibly other large animals) are known from Late Archaic and early agricultural deposits in rock shelters and caves in southern Nevada, including Etna Cave less than 50 miles southeast of the BRNM, and in adjacent regions. Their specific use is unknown, but they may have been related to hunting magic (Fowler and Madsen 1986) and/or clan identity (Kinnear-Ferris 2007). Archaeologists have defined two styles: Grand Canyon, with horizontally-oriented body wrapping, and Green River, with vertically-oriented wrapping. The Etna Cave examples are made in the Grand Canyon style. Those are most frequently found in ritual sites, in association with caches and cairns containing artiodactyl (e.g., deer and pronghorn) dung. In contrast, the Green River-style examples are typically found in trash dump areas in the context of domestic sites (Kinnear-Ferris 2007). Although few or no

such figurines have been discovered so far in the BRNM, future investigation of the area could help determine if people there shared this tradition, and with whom.

Studying the BRNM area in the context of surrounding regions can also help to elucidate variability in subsistence and technology within the larger Basin and Range province. Although all people who lived in this topographic region depended at least to some extent on wild plants and animals, different groups of people in different areas used those resources differently. All groups collected grasses and seeds and ate insects, but very few collected the same grasses and seeds, and none ate the same insects (Crabtree and Ferraro 1980). Therefore, by studying the

suite of food resources used by people in the BRNM and comparing that to foods used elsewhere, we can better appreciate the richness and diversity of Native American adaptations and cultural practices across Nevada. Similarly, while all Great Basin groups from at least the Archaic to Historic periods created a variety of baskets and other twined objects, the suite of forms and techniques people used varied across time and space. Some forms and methods were shared widely while others were geographically restricted, with the end result being that each population's basketry was characterized by a unique suite of construction and finishing techniques (Adovasio 1986). Future study into the kinds of twined objects and methods used by people in the BRNM would enrich our understanding of Basin and Range cultures.

By examining BRNM cultural resources in their larger regional context we can also better understand the interplay between prehistoric hunter-gatherers and farmers. Although the BRNM itself contains little water and supported only small bands of hunter-gatherers from Paleoindian to historic times, the area is surrounded by valleys that were inhabited by prehistoric farmers and traders. For example, the Pahrangat Valley located about 30 miles to the south and the Moapa Valley located about 100 miles to the southeast contain significantly more water than the BRNM, allowing prehistoric Native Americans in these valleys to grow domesticated crops including corn, beans, and squash, although they continued to use wild plants and animals, as well. Some tribal people in those same valleys continued to grow domesticated crops, including wheat introduced by Euro-Americans, into the Protohistoric and Historic periods (Crabtree and Ferraro 1980). Relatively permanent settlement, food surpluses, and task specialization were related to the development of the economically and socially complex prehistoric society in southern Nevada and adjacent areas that archaeologists call the Virgin Anasazi, named for the Virgin River.

Phases of Virgin Anasazi development were the Moapa (A.D. 1–500), Muddy River (A.D. 500–700), and Lost City (A.D. 700–1150). The last phase saw the greatest spatial extent of the Virgin Anasazi and their most complex sociopolitical organization, perhaps organized around a chief and centered at the Lost City complex in eastern Clark County south of the BRNM. In riverine areas containing abundant water the Virgin Anasazi appear to have been sedentary farmers. In upland areas they practiced both horticulture (small-scale, low-intensity farming) and hunting and gathering. One of the Virgin Anasazi's special activities was mining and/or trading



Crescent Peak turquoise

turquoise for jewelry and other high status items. In southern Nevada there were several prehistoric settlements oriented towards the extraction and/or trade of rare resources, namely turquoise and smaller quantities of obsidian, cotton, pottery, and salt and shell from the Pacific Ocean and Gulf of California (Hughes and Bennyhoff 1986; Rafferty 1990). Known turquoise sources whose materials were traded all the way to Chaco Culture sites in northwestern New Mexico during the tenth through twelfth centuries A.D. included Royston in southwestern Nevada and Crescent Peak in very southern Nevada,

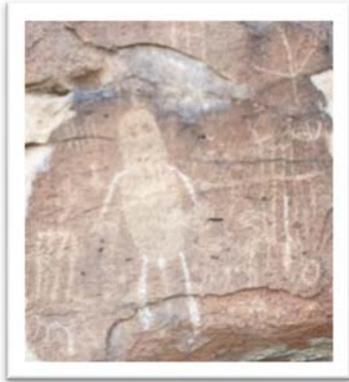
located southwest and south of the BRNM, respectively (Hull et al. 2014). Smaller settlements appear to have provided agricultural support to the larger trading settlements, and the Virgin

Anasazi may have maintained a trading network across southern Nevada, south of the BRNM, for foodstuffs including agave, maize, beans, and piñon nuts. The presence of relatively large numbers of trade items in some Lost City burials suggests that those people, including some children, were elites in a hierarchical society (Rafferty 1990). Further archaeological exploration could illuminate the relationships between the BRNM's inhabitants and the farmers and traders in these adjacent regions.

CURRENT INFORMATION

Only about two percent of the BRNM has been systematically inventoried for prehistoric and historic cultural resources, although professionals and locals who are familiar with the area know of many more resources. Numerous narrow, linear archaeological inventories have been conducted within the BRNM in connection with oil and gas exploration and development, road improvements, and fence line extensions. While some archaeological sites and isolated artifacts have been recorded during those projects, a larger number of resources have been discovered in areas receiving block inventory for projects, such as range improvements. Nearly half of the archaeological resources already recorded in the area are exclusively prehistoric; a much smaller number of other sites contain both prehistoric and historic resources. Although the vast majority of prehistoric sites and isolated artifacts cannot be assigned to a specific time period because they do not contain temporally diagnostic artifacts or dateable organic materials, a small number of resources can. Based on the presence of specific types of projectile points, such as Clovis, Elko series, Rose Springs, Desert Side-notched, and Cottonwood, some resources can be assigned generally to the Paleoindian, Archaic, Late Prehistoric, and/or Protohistoric periods. Arrow points from the Late Prehistoric and Protohistoric periods confirm the presence of Fremont, Anasazi, Shoshone, and/or Paiute cultures in the area.

Projectile points in general are found largely in basins where people hunted small game, including antelope and rabbits. Fewer examples of ground stone and ceramic artifacts are known. While the former have been found at sites located in all topographic contexts from valleys to foothills to mountains, the latter have, so far, been found only in the mountains, where people stored and cooked food over the winter. The majority of recorded prehistoric sites are scatters of worked stone. Some of these scatters are quite extensive, such as in the Weepah Spring WA, where prehistoric people quarried tool stone. Coal Valley also contains some extensive scatters of stone debris, including flint and obsidian that people probably transported to those locations for large-scale hunting and plant processing. A handful of rock shelter campsites have been recorded in the southeastern portion of the BRNM, while some rock rings are known near the northern tip of the BRNM. The best known and most visually stunning prehistoric archaeological sites in the BRNM are numerous rock art locales in the White River Narrows Archaeological District in the Weepah Spring WA and in the Mount Irish Archaeological Site, which extends into the very southern portion of the BRNM. Not only do those areas contain the volcanic tuff covered by desert varnish that people preferred for pecking images; they are also located near important sources of tool stone, piñon nuts, acorns, deer, and mountain sheep, in places where people sheltered for the winter. Studies done elsewhere in Nevada have shown that rock art frequently occurs in locations where people could most easily



Pahranagat Man

capture game animals, such as at sources of water, at winter foraging grounds, and along narrow draws where animals could be corralled (Schaafsma 1986). The rock art is a stunning reminder of the long-standing connection of people to the places that were important to their origins and survival. In addition, some rock art images, such as the regionally distinctive “Pahranagat Man,” demonstrate the close connections people in the BRNM had with the Pahranagat Valley—named after the Pahranagat subgroup of the Southern Paiute—to the south.

Use of the BRNM during historic times is evidenced primarily by a cluster of mining sites in the Mount Irish Range at the southern tip of the BRNM, which appear to be part of the Pahranagat Mining District. Discovered and organized in 1865, this district yielded manganese, silver, lead, and copper. Although its original name was Pahranagat, it was given other names at different times (e.g., Pahranagat Lake, Hiko, Irish Mountain). In 1871 the smaller Crescent District was formed out of the Pahranagat District but it was short-lived. In addition, as mentioned above, the Worthington/Freiberg Mining District is located on the eastern flank of the northern part of the Worthington Range, along the western boundary of the BRNM, and was formed in 1865–1869 (Tingley 1998). Many other historic resources, including scattered homesteads, roads, fences, and irrigation features, are undoubtedly present within the BRNM, but have not yet been recorded by archaeologists.

WHY PROTECT CULTURAL RESOURCES IN THE BRNM?

Although only a few hundred prehistoric and historic archaeological resources have been formally recorded within the BRNM, this previous work suggests that hundreds or thousands more resources are present. Designating the BRNM for federal protection would help to preserve this quintessential Basin and Range area for future in-depth study. Investigation of a significantly larger proportion of the BRNM would help us understand how use of the landscape changed from relatively wet Paleoindian times to drier Archaic through historic times. It would also help us understand whether and how people here interacted with groups in more resource-rich areas such as the Pahranagat and Moapa valleys.

In 2013 the BLM began its multi-phase Lincoln County Archaeological Initiative to identify, document, and/or better understand diverse cultural resources present on BLM-administered lands in Lincoln County. Projects include documenting Numic oral histories; recording, evaluating the condition of, and interpreting rock art sites; documenting prehistoric obsidian quarries and historic mining sites; and investigating Formative period settlement patterns in areas surrounding the BRNM. The BLM has already completed some of these projects, with others underway (BLM 2013), and with one project planned for the Garden and Coal valleys area in the near future (Nick Pay personal communication, February 17, 2015). Designation of the BRNM would help to preserve its intact archaeological record for future studies such as

these, and would help the BLM continue to build a rich regional database of cultural resource information.

SUMMARY

The BRNM is a challenging but ruggedly beautiful landscape from which people have eked out a living for as long as 13,000 years, from Paleoindian to historic times. Although the BRNM does not contain large and impressive archaeological sites, aside from its beautiful and enigmatic rock art, information gleaned from this area is important for understanding how people adapt to arid, resource-poor environments, and how they interacted with people in surrounding, more resource-rich environments. Life in the BRNM during historic times was equally over-shadowed by richer resources (e.g., mining) and more dramatic events (e.g., nuclear testing) in adjacent regions. Still, protecting this culturally unassuming place is important for telling the complete human story of life in Nevada's Basin and Range.

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