

Historical Memory and Ethnographic Perspectives on the Southern Paiute Homeland

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We address the position maintained by contemporary Numic-speaking people (also Numu) that they have occupied the Great Basin and western Colorado Plateau since time immemorial. During this time they have learned about the land and become who they are today. Ethnohistoric and ethnographic data on the Southern Paiute are used to examine the Numic in situ development theory. Key issues in this argument are: (1) lack of a conquest story in their oral traditions; (2) the presence of optimal irrigated agriculture as recorded at the time of European contact; and (3) complex interethnic connections with neighboring groups. We propose that Numu people's perceptions of their land and ancestors may be taken as points of departure for formulating central hypotheses that address their origins and development.

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

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

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

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

We attempt to show, with the aid of ethnography and ethnohistory, the need to find new ways to formulate questions about Numic origins and development that Great Basin scholars may legitimately ask from the archaeological record, and illustrate this view with a brief example from Gypsum Cave in Nevada.

DISCOUNTING NUMIC CULTURE AND SOCIETY

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

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

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

The Devolving Southern Paiute Culture In Euroamerican Perceptions

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

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

We felt especially pleased, partly because it gave us hopes that we should be able to provide ourselves farther on with assured supplies, but principally because it was evidence of the application of these people to the cultivation of the soil, and because of finding this preparation for reducing them to civilized life and to the Faith when the Most High may so will, for it is well know what it costs to induce other Indians to do this, and how much their conversion is impeded by their dislike for this labor, which is so necessary for a civilized life, especially in pueblos. [quoted in Bolton 1950:]

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

About ninety years after Escalante's journey, William Nye spent the winter of 1864 in the Pahranaagat Valley in southeastern Nevada. In his chronicle, he described this yet unexplored

valley as “an Indian paradise” blessed with fertility and abundant water in an otherwise arid region. Chief Pah-Witchit headed a community of some 200 individuals. The chief asked Nye, “What for you come to our country digging up stones? and your ponies eating up the grass in the valley, and next summer, perhaps, destroying our corn and melon patches” (Nye 1886:295). Nye observed that the Pahranaगत Paiutes actually stored the corn they produced for the winter.

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

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

In the 1870s a few years after Wheeler passed through Southern Paiute lands, a U.S. Geological Survey expedition headed by Major J. W. Powell and G. W. Ingalls also found Paiute farmers. According to these observers “all Pai-Utes subsist in part by cultivating the soil” (Fowler and Fowler 1971:98); they commented on the well-developed regional sociopolitical organization and the High Chief system which was recognized by different Southern Paiute bands in the area. Powell and Ingalls also found a people who had extensive knowledge about their landscape, ranging from geography and botany to astronomy

(as indicated in part by the vocabularies Powell collected). In his writings, Powell elegantly captured the nature and strength of the relationship between the Southern Paiutes and their homeland:

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

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

By the early 1900s, however, anthropologists had adopted a position that defined all Great Basin and western Colorado Plateau people as non-farmers and socially ranked among the simplest people on the planet (Stoffle et al. 1982:110). Both A. L. Kroeber and J. Steward wrote of Paiutes and Shoshones as though they were simple, and quite frankly not very smart. They perceived (or needed to perceive, to make their theories work) the Numic people as dominated by their environment. In *Handbook of the Indians of California*, Kroeber (1925:582-583) concluded that Great Basin Paiute culture is: (1) rude, too flexible to be elaborated, (2) having monotonous simplicity, (3) unintegrated into broad cultural patterns, and (4) interesting only because of its poverty.

Kroeber further concluded that these people (1) have a scant population, (2) move to the dictates of the environment with (3) makeshift subsistence, (4) are intermittently idle, and (5) have little occasion to use their imagination.

Such discounted perceptions of Numic peoples persisted in Steward’s *Theory of Culture*

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

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

Among Native American themselves, the weaker, less sophisticated tribes were preyed upon by the stronger. The Utes, Comanches, and Apaches, equipped with horses and advanced firearms, kept tribes like the Paiutes of Utah in perpetual terror and subjugation. The situation pushed the Paiutes, *who lived in earth dens and had no farming skills*, further into destitution—some tribes even began to sell their own children (emphasis added). [Poling-Kempes 1997:69]

How and why Numic people moved from being relatively complex people (King and Casebier 1976), knowing a lot about their environment and developing irrigated agriculture, to some of the world’s simplest people – who have been called the infamous *Digger Indians* — is beyond the scope of this analysis. Nonetheless, we may suggest that the people’s abject poverty at the time the first professional ethnographers reached them, combined with a lack of the historical analysis needed to understand their economic and political deterioration, are two obvious causes for this devolution. Nonetheless, the discounting

of Numic culture is something that has influenced generations of Great Basin and western Colorado Plateau researchers. This influence effectively means (to them), that if you find agriculture or evidence of complex ceremonialism, like a solar calendar, it has to be someone else’s—it could not have been made by Numic people.

More generally among researchers today, Numic people are getting a second look (e.g., papers in Madsen and Rhode 1994; papers in Clemmer, Myers and Rudden 1999). For example, David H. Thomas’ research explicitly tested Stewart’s views of Western Shoshone organization with archaeological data (Thomas 1973). Thomas further interviewed linguist Sydney Lamb to see what he really meant to say about the Numic spread (Thomas 1994:57). Kim Torgler’s work in southeastern Idaho (1995) and David Whitley’s (1994, 2000) work on rock art in the Coso Range are also good examples of new approaches to Numic prehistory and history.

HISTORICAL MEMORY

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

Our colleagues in the Bureau of Applied Research in Anthropology (BARA) at the University of Arizona remind us that oral history is much more than words. Emory Sekaquaptewa (a Hopi lawyer and tribal judge) says that for the

Hopi, oral history is behavioral performance tied to symbols, music, singing, and place; it is not about telling campfire stories to children but about teaching them how to organize their everyday life. James Greenberg (a Jewish anthropologist) says that Jewish history is encoded in ritual. Both agree with Keith Basso that “wisdom sites in places,” indicating that performance and landscape often are closely connected. So, if a people remain in their creation lands they will continue to remember who they are, where they came from, and what has happened to them. If they move, they remember where they were and how they came to be where they are now (the Navajos’ recent position regarding their Anasazi ancestry may be an exception to the above statement). The few examples we describe below document the strength of oral history.

The Welsh

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

The Jews

The history of the Jewish people is encoded and transmitted in ritual. For example, according to authoritative rabbis, the revolt of the Macabees is encoded in the rituals of Chanukah. The Passover meal commemorates with specific foods particular events. The enslavement of the Jews in Egypt (3100 B.P.) and their exodus is symbolized by: (1) bitter herbs representing the bitter treatment of the people; (2) saltwater

representing their tears; (3) charoset meaning the mortar and bricks they used in constructing pyramids and cities; (4) hard boiled eggs indicating sacrifice; (5) the lamb shank representing the passover by the angel of death, and (6) unleavened bread (matzo) symbolizing their rapid exodus from Egypt. Other ceremonies remember the building of the first temple (2850 B.P.), and the Babylonian captivity (2586 B.P.). Although a portion of these events was recorded in writing, Jewish people maintain that these have been and will be remembered forever through the performance of the rituals.

The Cuba of Zaire

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

The Aymara of Bolivia

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

The Mohegan Nation of Connecticut

Archaeologists working in partnership with the Mohegan Nation of Connecticut documented a cabin site that potentially would be impacted by a construction project. In 1997, tribal elders were able to identify the location of the site even

though there was no surface indication of a structure. Furthermore, they remembered the name of the person who owned the cabin in the 1690s, 300 years earlier. Subsequent archaeological excavation found the cabin and colonial land ownership documents verified the name of the Indian owner (Bendremer 1998).

Hopi Clan Migrations

The core area of contemporary Hopi lands was occupied by the *hotsinsa*, the Hopi term for their oldest ancestors, by A.D. 700, and the region was fully colonized by A.D. 1100 (Adams 1982; Gumerman and Dean 1989). Oral history indicates that contemporary Hopis have a memory of not only these earliest ancestors but also the clans who began to arrive at the Hopi Mesas about A.D. 1300 (Courlander 1987; James 1990). These later clan movements coincided with the various population relocations that occurred after the Great Drought – A.D. 1263-1299 (Zedeño 1997). The latest of the clan migration episodes occurred during the Pueblo revolt of 1680 (Rushforth and Upham 1992; Whiteley 1980).

The Ojibwa of the Western Great Lakes

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

Our point is clear. If people worldwide, including American Indians, can remember historical events further back in time than the hypothesized Numic Spread into the Great Basin and Western Colorado Plateau, then why don't the Numu and their neighbors remember this colonization? If conventional theories are true,

then the recent memory of a late arrival should remain alive in their oral history. By the same token, it is highly unlikely that the Numic people would forget their place of origin, were it from somewhere outside this area.

SOUTHERN PAIUTE FARMING

Southern Paiutes did farm. When they learned to farm we do not know for certain, but they did farm very well (optimally) when the Europeans arrived. The question which merits detailed archaeological investigation is, how long did they have to farm to develop optimal irrigation systems? For example, the ancestors of contemporary Zuni (or the Ashiwi) experimented with their farming technology, especially the locations of fields and later flood water irrigation systems, for at least 500 years before the arrival of Europeans (Anyon and Ferguson 1984; Ferguson 1995; Ferguson and Hart 1985). So, the ancient Zuni required approximately five centuries to produce optimal water control and dispersal systems that permitted the establishment of a sustainable and fully sedentary population (Ferguson 1995:6). Once optimized, this system continued to be responsive to changes in climate and soils.

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

Southern Paiute Farming on the Santa Clara River

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

springs on the Santa Clara watershed.

Population and Irrigated Acreage

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

The Santa Clara River is 1 rod wide and 20 inches pure, clear water-rich bottoms, though narrow, and heavily timbered for the distance of 30 miles. On this stream we saw about 100 acres of land that had been cultivated by the Pintes [sic] Indians, principally in corn and squashes; and judging from the stocks, the conclusion would be that heavy crops are and can be raised in these vallies. This tribe is numerous, and have quite an area of husbandry. [Lee 1852].

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

There was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a

green substance between the rows which we stooped and wished to pull out, till they told us it was part of their food. Some 10 acres are cultivated here, and as many or more at the settlement below this, indeed all along this river are small Indian patches of 2 to 10 acres cultivated. And some of the missionaries have visited other portions of these bottoms and say there are many more small patches uncultivated. [Brooks 1972:56-57].

The logical inference is that Brown's mention of "uncultivated patches" is a reference to fields the Paiutes left fallow or allowed to revert to natural vegetation. This eyewitness account calls small fields "small indian patches." So, "small patches uncultivated" presumably refers to old fields. The village near the mouth of the Santa Clara River was described by Brown: "... The road this morning was on the west bench rolling and level bottoms of the Rio Virgin, on the Tornaquint we came to a fine lot of wheat nearly ripe. Still much fruit 'ope'..." [Brooks].

This point viz. nearly at the mouth of the Santa Clara seems an old settlement, as there are many corn lots abandoned, for the same reason I had formerly supposed-the roots. This place seemed more comfortable to me, than any place we had come to. Crops living & many human beings, they were much afraid especially the Squaws and children [Brooks 1972:53].

After supper, some of the party left their camp to visit another nearby village the Mormons called

"Matuprenup's wickeup" - "...there we found some 8 or 10 men and 2 squaws only, and a 'nantsits'- female child-they were in great fear (*sherreeh*) when we approached" [Brooks 1972:53-54].

Here the Mormons were fed with "wheat & seed flour porridge & berries" and also given

“home made wine” in a “large spoon made of the horn of a mountain sheep that would hold about a pint” [Brooks 1972:54].

...Another female “pishamon” was drying the heads of green wheat in the ashes, this they had pulled while yet in the milk, they dried it sufficiently hard-the heads tied up in small bunches that when taken out of the husks they could rub the wheat from the husks and thus prepare it for grinding into flour... There appears many patches of good wheat land on this stream. [Brooks 1972:55]

The Mormon party appears to have been impressed with the density of the population as they traveled up the Santa Clara River and with the extent and quality of the Indian fields and crops. Eyewitness Mormon accounts from 1854 state that “about 7 miles up this river we found a Central point more extensively peopled & farmed the finest wheat I have seen in these vallies, and much farther forward than here or farther north” (Brooks 1972:68). Jacob Hamblin’s diary also notes the extensiveness of Indian farming on the Santa Clara River: “we encampt on the St. a clara the 10. of June 1854 here the Pieds had quite extensive fields of wheat and corn [sic]” (Little 1969:20). The Mormons estimated that the central village on the Santa Clara River had a population of some 250 men, not counting women and children:

The next day the company camped near the present town of Santa Clara. Here they found a large camp of Indians, the men numbering about one hundred and seventyfive.... it was found, in a day or two, that there were two hundred and fifty men belonging to this Camp [Bleak 1928:17-18].

Most of the women and children were hiding until the Indian people were sure the Euroamericans would not kidnap them and sell them as slaves. Altogether, the Mormons estimated that the villages in the Santa Clara area under the leadership of Chief Tutsigavits had a

population of some 800 persons (Bleak 1928:17-18). The Mormon reconnaissance party also found farming settlements along the upper reaches of the Santa Clara River. At one of these villages the local leader Macooveooks reportedly pressed the Mormons to baptize his men. The Mormons obliged, baptizing eleven men. Near the village the Mormons saw an irrigated cornfield and a wickiup camp atop a “very high mountain,” beyond the access of man or beast (Brooks 1972:63-64).

In 1857, a Mormon traveler recorded that “Jackson, a chief of the Paiutes,” met him on the upper Santa Clara River some fifteen miles above Fort Clara (Martineau 1858). Five miles up river his party met another band led by Chief Kahbeets. Kahbeets invited the travelers to camp near their village and the travelers purchased food:

“Their chief, Kahbeets ... insisted on our stopping with them. We accordingly camped, the natives assisting in taking care of our animals, roasting corn for us and inviting us to help ourselves to their corn, some 5 acres of which stood close by” [Martineau 1858:27].

Here again, Southern Paiutes were apparently producing enough food to offer some for sale to travelers. This reflects both entrepreneurship and horticultural production on a sufficient scale to leave a surplus after meeting their own needs.

The report of the 1852 Mormon reconnaissance shows that the party saw about one hundred acres of fields. Accounts from the 1854 colonization mission do not provide an overall estimate, but Brown’s diary noted that the Indians of the Santa Clara

“were busily employed cultivating the soil and were content only requiring some farming tools & instructions on the use of them, & some winter houses to make them for the present happier and still more content” [Brooks 1972:96].

The Mormons saw only a portion of the fields

cultivated by Southern Paiutes along the Santa Clara River. However, they saw enough acreage under cultivation to recognize that this community farmed on an extensive scale and with productive results. They recognized that aboriginal farming provided a solid economic base for the Southern Paiutes of the region.

Water Management for Irrigation and Flood Control

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

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

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

1) being the banks of the river, 2) the dam and 3) the course of water, from 2a, a water ditch or irrigating canal runs for 3/4 of a mile, round the base of rocky

mountain in some places cut & worn from 6 to 10 feet deep, all this accomplished with their hands and small sticks, no other implements being among them. There was good crops of wheat ripe in some places which they were cutting and using, and abundance of corn, many beans, and a green substance between the rows which we stopped and wished to pull out, till they told us it was part of their food. [Brooks, 1972:57]

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

Elder George A. Smith visited the Santa Clara River in 1857. He reported there were thirteen Indian dams across the stream above the Santa Clara Fort (Smith 1861). Smith criticized traditional Indian irrigation practices as wasteful of water. However, his criticism serves to document the large effort the Indian people put into constructing their irrigation works. It also documents the extensive use they made of the river’s water for irrigation. Smith (1861:1) said that “they irrigated the land by just simply turning on the water, and letting it run to great excess, washing and wasting a great deal of soil ...” Smith went on to note that the colonists at Fort Santa Clara were teaching the Indian people “to irrigate in a way to avoid the waste of water occasioned by irrigating in their slovenly manner” (Smith 1861:1). It is possible that Smith and other Mormons overlooked the importance of irrigation water for plant species other than domesticated field crops. The Mormon party saw irrigation works on the upper watershed at the village of Macooveooks. They also saw an irrigation canal roughly half a mile in length on

the Virgin River at the village of Chief Toker (Brooks 1977:63-67).

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

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

Comparative Analysis

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

On the Colorado River the volume of flow was too large to permit Native American diversion. Instead, Southern Paiutes cultivated some of the sandbars after the spring season floods (Brooks 1977:67, Laird 1976:23; Powell 1957:103, 108; Euler 1966:81;). Additionally, springs were used for inland irrigation. Spring flows are physically easier to divert and manage. Southern Paiutes diverted water from many springs throughout their territory to irrigate crops (Lyle 1872:84, 85, 90; Lockwood 1872:75). At Crystal Spring at the head of Pahrangat Creek, a Southern Paiute irrigation canal eight feet wide and six feet deep ran for several miles (Angel 1881:186). In 1864, Nye observed an Indian farming village a few miles to the south, where the Southern Paiutes kept patches of melon and corn on land irrigated by snow-melt streams (Nye 1886:295).

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

In 1848, Mexico ceded its northern territories (a region that included the Santa Clara watershed) to the United States by the Treaty of Guadalupe Hidalgo. Some of the travelers whose reports we have cited traversed Southern Paiute territory as early as 1776 and 1826, long before the Mexican Cession. Others saw pre-conquest

Southern Paiute agricultural use of Santa Clara waters in the year 1848 before the signing of the treaty by Mexican and United States representatives. Thus, when the United States gained nominal jurisdiction over the Santa Clara basin in 1848, the Southern Paiute inhabitants already had rights (under the terms of the Treaty of Guadalupe Hidalgo) to continue diverting Santa Clara water with a legal priority date “from time immemorial.” Other travelers traversed the Santa Clara from 1849 to 1854, before Euroamerican colonization of the Santa Clara began, and during the earliest phase of Mormon colonization. All of the cited travelers described Southern Paiute use of Santa Clara River water for indigenous agriculture. Southern Paiutes continued to farm along the Santa Clara in the following decades, though the scale of their farming operations was curtailed by Euroamerican encroachment. Colonists who displaced Indian farmers took advantage of the prepared fields in prime agricultural land, thus obliterating evidence of aboriginal cultivation.

ETHNIC FRONTIERS: THE PAIUTE ARE HOPI AND THE HUALAPAI ARE PAIUTE

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

American Indian ethnic co-residence is

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

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

with other Numic groups, thus masking their historically specific developments while delaying a study of co-residential interactions. Although interethnic interactions probably were common to all Numic groups, these were particularly intense among Southern Paiutes living side-by-side with other ethnic groups, including the Hopi and the Hualapai. Furthermore, their proximity and traditional attachment to the Colorado River and its upper canyons likely placed them into contact with people from as far as New Mexico and California, who customarily made pilgrimages to the river shrines and collected resources along its banks. The extent to which co-residence and long-distance interaction among ethnic groups led to specific cultural developments remains to be fully investigated. Here we mention only two obvious connections that are known both scientifically and traditionally.

Hopi and Paiute Connections

Historical linguistics has long demonstrated that the Southern Paiute and Hopi ancestral language derived from the Uto-Aztecan Shoshoshonean families—they both spoke mutually intelligible language or even the same language (Sapir 1930). This evidence is supported by oral traditions indicating that the first Hopi clans to arrive at the Hopi Mesas in Arizona, the Snake Clan and Horn Clan, came from the north and west, most probably from the upper Colorado River area (Courlander 1987; Fewkes 1897; James 1990). Additionally, Paiute and Hopi share almost identical clan origin stories and particularly snake creation stories. A careful examination of the Basketmaker III – Pueblo I prehistoric occupations in Black Mesa (Powell 1983; Gumerman and Dean 1989) may reveal that these small, semi-sedentary family groups lived under conditions resembling Southern Paiute settlement systems far more closely than those developing at the same time in the eastern Pueblo area. Research along the Moapa and Virgin Rivers (Lyneis 1996) and in Nye County, Nevada (Winslow 1996), also indicates that the westernmost Pueblo ancestors and the Paiute-Shoshone ancestors interacted

with each other. One piece of evidence for this interaction is the fairly common occurrence of Pueblo I-Pueblo II Tusayan Whiteware (Black Mesa Black-on-white) and Tusayan Grayware pottery in southern Numic sites. These are just examples of connections between Hopi and Southern Paiute groups along their territorial boundary. Given that both ancestral groups were relatively mobile, it is likely that they shared territory and resources. We have confirmed that this interaction occurred in the Grand Canyon (Stoffle et al. 1994).

Hualapai and Paiute Connections

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

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

During a recent ethnographic study we conducted along the Hoover Dam area in Nevada and Arizona, Hualapai and Southern Paiute elders spoke of their traditional interaction, which included the sharing of bird, salt, deer, and water songs; dances; ceremonial and social gathering places; paint, salt, and plant collection areas long the Colorado river; and fishing areas. Hunting along the territorial boundaries often took people into each other's territory; large hunting parties often were composed of Paiute

and Hualapai hunters. Additionally important Southern Paiute important ceremonial sites, such as Gypsum Cave and the hot springs in Gold Strike Canyon in Nevada, and Hualapai sites, including Sugarloaf Mountain and nearby sources of medicine stones and crystals in Arizona, were shared by both ethnic groups (Stoffle et al. 1998:57-81).

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

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

RECAPTURING NUMIC KNOWLEDGE

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

Gypsum Cave

Caves are places of power. They reside in mountains, which have their own power and relate to a cave's power in unknown ways. Also in caves are spirits often referred to in English as "the little people." Associated with caves are underground and surface streams, mineral deposits, hot springs, plants, and animals. Each of these resources influenced how caves were

used; and, in turn, their location in relation to a cave dictated the ways in which resources were used. Caves served a vital role in the quest for knowledge by shamans or medicine men because they were seen as the embodiment of an individual's spiritual entity as well as the home of lesser spiritual beings. Thus they were used to seek visions, find spirit guides, and acquire healing power and shamanistic songs (Kelly n.d. 24:7; Laird 1976:38).

Prior to using caves and other sacred places, medicine men would undergo purification rituals, including fasting and prayer, to prepare body and spirit and ensure a safe and successful quest. These rituals often occurred at hot springs, such as those on the Colorado River below Hoover Dam. Before entering caves or other spiritual locations, shamans would deposit food, tobacco, feathers, and other items as offerings to the spirits (Laird 1976:38). One of the most important caves in our study area is Gypsum Cave, known to have been used up to the early twentieth century by Paiute medicine men who sought shamanistic dreams (Kelly 1939:161).

Gypsum Cave is located in the Frenchman Mountains near Lake Mead, Nevada. It contains evidence of human occupation possibly as early as 6,000 B.C. In the early 1930s M. R. Harrington conducted extensive excavations in the cave. Among the materials recovered by Harrington were abundant plant remains—including corn, four cultivated beans, possible squash seeds, a small reddish cactus, mesquite and screwbean pods, pinenuts, and catclaw seeds, eagle, hawk, and vulture feather fragments, groundstone, a sheep-horn spoon, a sheep-hoof rattle, two tortoise-shell bowls, and projectile points (Harrington 1933:89, 150-151). Of all these, Harrington (1933:163) considered only the projectile points, corn, and prepared seeds as possible diagnostics of Southern Paiute occupation of Gypsum Cave. Local informants told Harrington that there was a large "lost chamber" toward the back of the cave. Paiute medicine men were said to have visited this room for the purpose of depositing offerings to small, three-foot high spiritual beings (Harrington

1933:325), which are still regarded by contemporary Paiutes and Hualapais as the little people who inhabit canyons and caves (Stoffle et al. 1998). Unfortunately, he was unable to locate the lost chamber (Harrington 1931, 1933). Harrington concluded that Paiutes visited the cave rarely and only to deposit offerings to the spirits. Yet he interpreted the plant remains as evidence of food preparation and consumption inside the cave, and the presence of points as indicating hunting and related activities.

Harrington's lack of integration of ethnographic data into his interpretation of the findings at Gypsum Cave is puzzling, given that archaeologists of his time routinely used the direct historical approach to reconstruct prehistoric site and artifact uses (O'Brien and Lyman 1999). Yet, his work is indicative of more general patterns in the interpretation of Southern Paiute archaeology that have survived to this day. A cursory look at classic and contemporary ethnography (e.g., Kelly n.d., 1939; Laird 1976; Stoffle et al. 1996, 1998; Zedeño et al. 1999) provides a more complete and parsimonious explanation for the presence of these remains at the cave than Harrington's original interpretation.

First, as Kelly (n.d. 24:7) and Laird (1976:38) have pointed out and contemporary elders confirmed (Stoffle et al. 1998), many everyday objects, such as points and foodstuffs, were often used ceremonially and deposited in caves, rock ledges, and crevices as offerings. The presence of edible plants in the cave may indeed indicate not only food preparation and consumption as Harrington suggests, but also an activity that required depositing ceremonial offerings, particularly if whole foods—seed cakes—were found. This observation is further strengthened by the recovery of eagle and hawk feathers, which have been exhaustively documented as ceremonial items among Paiutes and Hualapais. Second, artifacts made of animal parts are likewise associated with origin stories and ceremonial healing among Paiutes and Hualapais. Bighorn Sheep figures prominently in Hualapai origin stories; according to a female elder, Sheep was once a handsome man—the

horns are now the braids of that man. Sheep horns and other parts have a sexual connotation for women that derives from this origin story. A Paiute male from Pahrump, Nevada, also described to us the religious connotations of bighorn sheep. This animal carries songs and knowledge; when visiting spirit caves, medicine men would become possessed by the spirit of a mountain sheep and would travel to places and receive songs and healing power (Stoffle et al. 1998:82). A petroglyph at the Nevada Test Site shows a medicine man becoming a bighorn sheep and going on a spiritual journey. The sheep horn spoon and hoof rattle are ritual paraphernalia used only by medicine men; the rattle's noise would chase away evil spirits and the spoon figures in healing stories, such as the following related by a Chemehuevi Paiute elder:

How the Crow became Black.

Coyote's nephew, Crow, became very ill. Coyote went to the medicine man, Duck, who agreed to heal Crow. Coyote was instructed to paint Crow black and he would be healed. In return for his help, Duck was paid by Coyote with the gift of a sheep horn spoon. After being painted black, Crow was healed and remains black today. [Stoffle et al. 1998:84]

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

Finally, nine manos were recovered at the cave, none of which resemble Pueblo or Paiute manos from habitation sites in the nearby Moapa Valley. These manos show no evidence of extensive use and may not be associated with food processing. Similar manos have been recorded at the Nevada Test Site near rock art sites and are believed to be associated with

pigment processing (Stoffle et al. 1996). It is possible that those recovered at Gypsum Cave may have served a similar function. Alternatively, “manos” made of smooth, flat cobbles could have been used as medicine and sweat stones, as indicated by a Shivwits Paiute medicine man (Stoffle et al. 1998:98).

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

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

Gypsum Cave also informs us about agricultural products that, according to Harrington, may be either Pueblo or Southern Paiute. Given our earlier discussion on aboriginal farming, a reanalysis of the contexts where these remains were found would help test whether they are associated with objects identified as Southern Paiute by *Southern Paiutes*. If so, dating of these remains would support, albeit indirectly, the antiquity of these peoples’ farming practices.

A less obvious—at least from what we currently know about the cave’s archaeology—but equally

important question about the site history is, how many ethnic groups actually used this cave? Hualapai elders say this was a site their ancestors shared with the Paiutes. Harrington suggests that it could have been used by the neighboring Pueblos. Perhaps the Western Shoshone bands, whose territory bounded with the Southern Paiutes’ to the west and who shared camp locales and resource-gathering areas with their neighbors (e.g., Steward 1938:95, 184), also visited the cave. Elder Shoshone men have recently spoken of shamanistic cave uses in the Yucca Mountain area (Zedeño et al. 1999:110). Finding even partial answers to this and other questions raised by ethnohistoric and ethnographic information may begin to illuminate not only the nature of interethnic relationships along the Great Basin-Colorado Plateau boundary, but provide more detailed information about the origin and antiquity of Numu people.

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