

**BIGHORN SHEEP CEREMONIALISM IN NORTHEAST CALIFORNIA:  
AN EXAMINATION OF THE LOYALTON ROCKSHELTER (CA-SIE-46) CACHES**

CHRISTINE O'NEILL  
CALIFORNIA STATE UNIVERSITY, CHICO

*In 1959, Norman Wilson of Sacramento State College excavated the Loyalton Rockshelter (CA-SIE-46), a site on the flanks of the eastern Sierra in northern California. The faunal assemblage associated with the Loyalton Rockshelter exhibits intriguing features associated with hunting magic and ritual activity in prehistoric northeast California. Caches of bighorn sheep crania at the site illustrate the importance of the animal to the Native populations who intermittently occupied the rock shelter from the Middle through Late Holocene. Integrating ethnographic information, native oral tradition, and archaeological evidence, this article explores both the substantive and ceremonial significance of this animal to prehistoric populations of northeast California.*

Throughout the world, animal remains are found in ceremonial and ritual contexts. Because of this commonality, it is important for us to understand the use of animals beyond their role in subsistence activities, and zooarchaeological analysis has the potential to contribute to this field of inquiry.

In northeastern California and the western Great Basin, archaeological evidence suggests that bighorn sheep played a significant role in prehistoric ritual and ceremonial life. While the complexity and abstract nature of ritual activities vary among cultures, bighorn skulls and horns appear to be a common symbol in prehistoric Great Basin ritual deposits. Archaeological excavations at the Rose Spring site (INY-372) in Inyo County, California, uncovered a rock cairn topped with the partial remains of a bighorn ram skull with attached horn cores. Yohe and Garfinkel (2012) believe the shrine-like feature represented a prehistoric manifestation associated with the Coso Representational Rock Art complex. In eastern Utah, a bighorn headdress was recovered from a rock crevice near the Green River. In northwestern Nevada, a bighorn sheep ram skull was uncovered at the center of a prehistoric house floor (Yohe and Garfinkel 2012; Young et al. 2009). In northeastern California, large deposits of bighorn sheep skulls were uncovered in Ovis and Skull Caves at present-day Lava Beds National Monument. These archaeological features and isolated skeletal elements that represent special disposal or preferential treatment of bighorn sheep bones provide a context for the symbolic importance of this animal to the indigenous people of the West.

Bighorn cranial elements have also been found at Loyalton Rockshelter (SIE-46), a site on the flanks of the eastern Sierra. These deposits contain skulls not only of adult but of fetal bighorn sheep. Based on my research, these features are unique to the region and may offer an alternative account of prehistoric behavior and ideology.

### THE SITE

Loyalton Rockshelter is situated on the northwest slope of Elephant Head Peak within Sierra Valley, approximately 3 mi. northeast of the town of Loyalton, California (Figure 1). Prehistorically, the resources of Sierra Valley were utilized by a number of Native groups. Ethnographic documentation recognizes the Washoe, Northern Paiute, and Mountain Maidu occupying the valley, with the Washoe claiming the Loyalton Rockshelter vicinity.

The rock shelter sits approximately 1,000 ft. above the valley floor, at an overall elevation of 6,000 ft. The rock shelter is 80 ft. wide at the drip line, 40 ft. wide at the entrance, and 30 ft. deep (Figure 2). The mouth of the rock shelter faces south-southeast, and several large open-air sites on the valley floor can be seen from shelter.



*Figure 1. Loyalton Rockshelter (CA-SIE-46) location.*

In 1959, Norman Wilson of Sacramento State College set out to investigate the Loyalton Rockshelter (Wilson 1963). Figure 2 shows Wilson's 5-ft.-square excavation grid. The circles represent the location of the cache pits uncovered at the site. The 1959 excavation recovered a rich assemblage which included tools and thousands of faunal remains. Wilson's uncommon foresight to collect fragmented faunal remains in addition to the cache pit contents amassed an archaeofaunal assemblage unique to Sierra Valley and the western Great Basin. The deposits from the rock shelter were screened through ¼-in. mesh, and materials that did not pass through the screens were collected.

Negotiated by the Susanville office of the Bureau of Land Management, the Loyalton Rockshelter archaeological assemblage is on loan from the Nevada State Museum and currently housed at California State University, Chico. I have taken on the task of analyzing the faunal remains from this site for my Master's thesis research. Other elements of the site are slated to be reviewed and analyzed by other university students and staff in accordance with NAGPRA.

Approximately 40 percent of the faunal assemblage has been examined so far. The identified assemblage includes the range of subsistence resources one would expect from an examination of the Washoe ethnographic records (Barrett 1917; d'Azevedo 1986; Downs 1966; Fowler et al. 1970; Price 1962). For instance, remains of artiodactyls, including bighorn sheep and mule deer, as well as jackrabbits, cottontails, and yellow-bellied marmots, have been identified in the faunal assemblage.

In total, nine caches were encountered during excavation at Loyalton Rockshelter. Five cache pits contained the cranial remains of multiple adult and fetal bighorn sheep; four did not. Cache 6 did not contain cranial remains, but held a pipe bowl, a perforated bone pin, and a bi-pointed pin. Figure 3 shows the artifacts collected from Cache 6. Another cache (Cache 7), covered with a large rock slab, contained one jasper projectile point. Two other non-cranial caches (Caches 8 and 9) were described as large storage pits extending to the bedrock of the rock shelter.

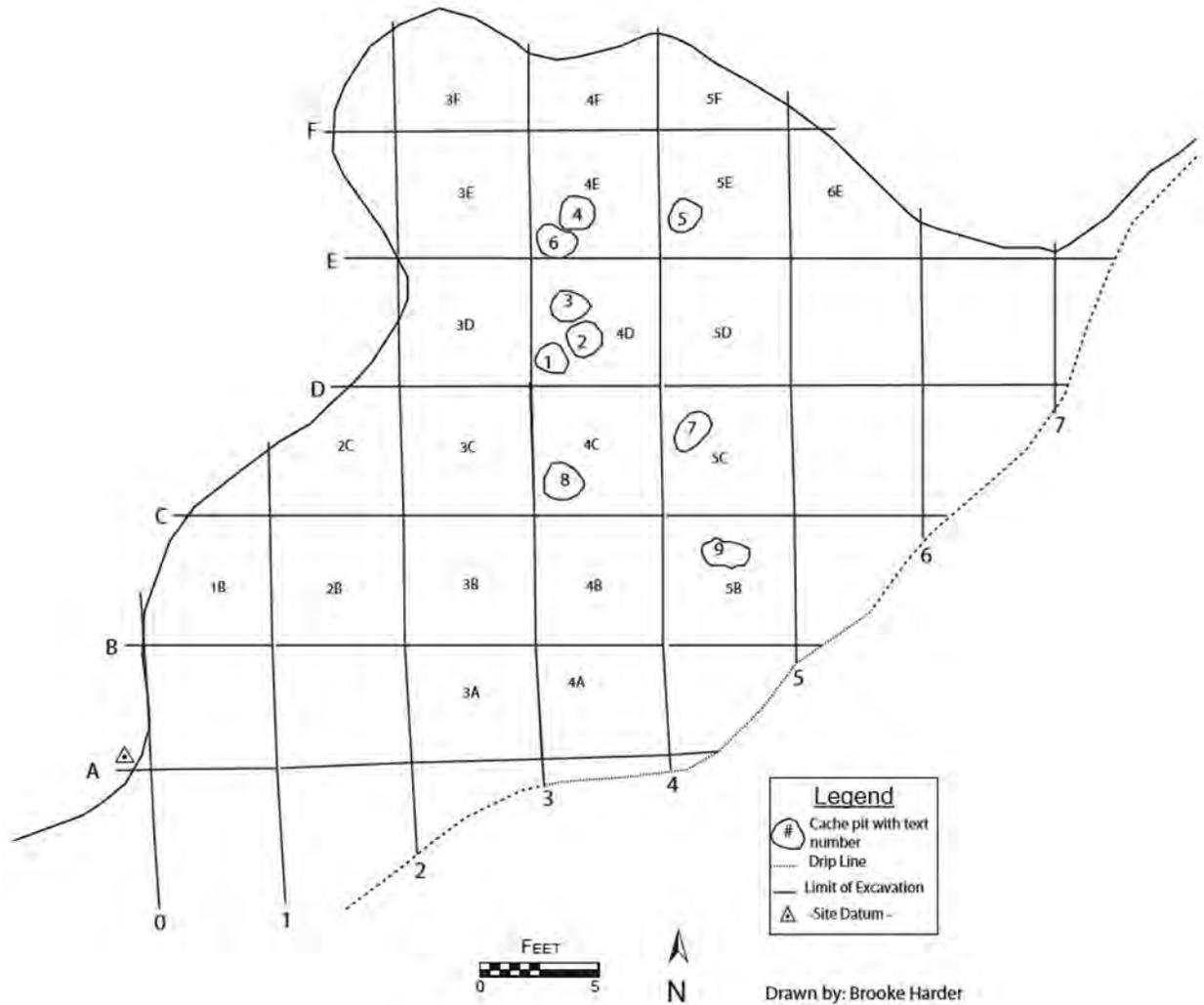


Figure 2. Loylton Rockshelter excavation grid and cache locations.

Cache 1 contained the posterior portions of three adult bighorn sheep crania with articulated atlas vertebrae, and Cache 2 held the occipital portions of two adult bighorn, also with articulated atlas vertebrae. The rear portion of one adult bighorn skull, with articulated atlas vertebrae, and the cranial remains from one fetal bighorn were uncovered in Cache 3. Cache 4 contained two adult bighorn skulls, one fetal bighorn skull, five unarticulated atlas vertebrae, two axis vertebrae, and several long bone fragments. Cache 5 contained one adult bighorn skull with articulated atlas vertebrae, one fetal sheep skull, multiple long bone fragments, charcoal, and the base of a projectile point. Figure 4 shows the contents of Cache 5, including some of the more complete fragments of a fetal bighorn sheep skull from the Loylton Rockshelter faunal assemblage.

### RADIOCARBON DATING

To adequately examine the temporal range of the archaeological deposits at Loylton Rockshelter, including the caches, six bone fragments were selected for AMS radiocarbon dating. Three bone fragments were selected from three separate stratigraphic levels within Unit 3D. These samples were intended to test the stratigraphic integrity of the cultural deposits. The other three faunal specimens for



*Figure 3. Loyalton Rockshelter Cache 6 contents.*

radiocarbon dating were selected from the bighorn sheep cranial cache remains. The right petrous portions were chosen for radiocarbon dating and thus represent three separate individuals from the caches.

The bones selected from the lower two stratigraphic levels returned a two-sigma calibrated date range of 2150 to 1995 B.P. The uppermost level returned a more recent two-sigma calibrated date of 500 to 310 B.P. One of the bighorn sheep cache cranial samples returned a two-sigma calibrated date of 540 to 505 B.P., with the other two returning a two-sigma calibrated date of 510 to 330 B.P. Table 1 summarizes the radiocarbon dating results from the Loyalton Rockshelter faunal specimens.

The results from radiocarbon dating indicate that prehistoric occupation of Loyalton Rockshelter began over 2,000 years ago. Bighorn sheep remains have been identified in Loyalton Rockshelter's deeper deposits. These bones, however, do not appear to be associated with ritual activity. In addition, fetal bones have not been identified in the lower stratigraphic levels. This evidence suggests that bighorn sheep played an important role to those who occupied the rock shelter; however, there is no indication that bighorn sheep remains were given preferential treatment during the rock shelter's earliest period of occupation.

The radiocarbon dates from the caches are nearly contemporaneous with the uppermost level of the rock shelter deposit. Because all three cranial samples returned similar AMS dates, I would argue that the ritualized treatment of both adult and fetal bighorn sheep crania occurred in the last 540 years of the site's occupation.



Figure 4. Loylton Rockshelter Cache 5 contents.

Table 1. Radiocarbon dating results from Loylton Rockshelter faunal remains.

CATALOGUE NUMBER	UNIT	LEVEL	ID	COUNT	RADIOCARBON DATES	
					CONVENTIONAL	CALIBRATED
162-343	3D	0-3 in.	medium/large mammal	1	350 ±30 B.P.	Cal B.P. 500 to 310
162-435	3D	3-6 in.	medium/large mammal	1	2110 ±30 B.P.	Cal B.P. 2150 to 1995
162-1086	3D	6-9 in	medium/large mammal	1	2110 ±30 B.P.	Cal B.P. 2150 to 1995
162-1150	N/A	cache	<i>Ovis canadensis</i>	1	400 ±30 B.P.	Cal B.P. 510 to 430 and 355 to 330
162-1151	N/A	cache	<i>Ovis canadensis</i>	1	400 ±30 B.P.	Cal B.P. 510 to 430 and 355 to 330
162-1180	N/A	cache	<i>Ovis canadensis</i>	1	490 ±30 B.P.	Cal B.P. 540 to 505

The climate during the Terminal Prehistoric period was somewhat drier and may have been less productive than the climate 2,000 years ago, at the beginning of the Late Holocene (Young 2005). The bow and arrow replaced the atlatl and dart, and subsistence activities focused less on big game hunting and more on the intensification of seed gathering and processing and the procurement of small game, particularly jackrabbits. It has been suggested that this pattern indicates some stress on resources (McGuire 2007).

The Terminal Prehistoric period in northeastern California was also marked by wholesale shifts in populations, primarily centering on the arrival of Numic groups from southeastern California around 500 years ago (Bettinger and Baumhoff 1982; Fowler 1972; McGuire 2007; Sutton 1986). These environmental and cultural shifts in the Terminal Prehistoric period may have factored into the occurrence of the Loyalton Rockshelter caches.

### **BIGHORN SHEEP CEREMONIALISM**

The caches from Loyalton Rockshelter draw our attention to a number of important aspects of the human-animal relationship. Because animals often possess both a dietary and a symbolic value, animals and animal products have often played a key role in human rituals. For instance, the role of crania in Washoe and other Great Basin cultures is closely related to hunting ritual and beliefs. Hunters believe in the innate power of skeletal remains from hunted animals, and that the skull held the most power (Yohe and Garfinkel 2012). To the Washoe, animals gave themselves to the hunter. The act of interring or giving specialized treatment to the remains demonstrated the hunters' respect toward that animal or animal spirit and symbolized the regeneration of the animal to continue the reciprocal relationship (Downs 1966).

Based on these data, the Loyalton caches featuring bighorn crania may have been connected with the pursuit of bighorn sheep. However, the lack of ethnographic evidence for the importance of bighorn sheep in the Washoe subsistence regime suggests that bighorn possessed a greater symbolic meaning. John Price (1962:20) claimed that bighorn were "sought as much for their skins and the prestige of killing them as for their meat." Recent consultation with the Washoe tribe confirmed that one's reputation could be enhanced with the pursuit and dispatching of bighorn.

The bighorn sheep caches may also have been associated with shamanistic activity. For the Washoe and many Great Basin cultures, shamans acted as religious and spiritual advisors, often solicited by headmen to lead community events and group hunts. It is well known that caves were places where shamans sought power. While some caves were used as regular occupation sites, they were also used to cache shamans' paraphernalia (Elsasser 1961). Pipes and pipe bowls, charm stones, and quartz crystals are some of the items considered to be part of a shaman's tool kit. Artifacts contained in Cache 6 at Loyalton Rockshelter could represent aspects of a shaman's toolkit. Their spatial association with the cranial caches suggests a connection between bighorn remains and shamanistic activities. It is quite possible that the bighorn caches represent a Washoe ceremony absent in ethnographic records.

### **FETAL REMAINS**

The presence of fetal remains is probably the most intriguing aspect of the Loyalton Rockshelter caches, and represents a seasonal component absent in most cache sites. Ewes give birth to their lambs in the summer months, often in the most rugged terrain to protect the newborn from predators (Matheny et al. 1997). Ethnographic literature, however, indicates that Washoe hunters pursued bighorn sheep in the late fall and early winter, after the first snows brought bighorn down from their rocky cliffs to where hunters could more easily pursue them (Downs 1966). The fetal cranial bones in the site are obviously problematic with regards to this timeline.

The presence of fetal bighorn demonstrates a limited understanding of prehistoric activities. Whether the gravid ewes were being pursued due to environmental stressors or for undocumented shamanistic activities, the fetal remains are evidence of unique prehistoric practices outside the

ethnographic record. The hunting ritual may have been modified to include the skulls of both adult and unborn bighorn. The caches containing fetal remains may reflect the power that the Washoe ascribed to the adult bones, mimicking the traditional interment ritual.

## CONCLUSIONS

Unlike other bighorn sheep caches that have been found in the Great Basin, the Loyalton caches contain a unique combination of both adult and fetal cranial elements. Radiocarbon dates confirm that the Loyalton caches were created in the last 540 years. Compared to the other documented bighorn features in the West, which represent site use as far back as the Early Archaic, the Loyalton caches are the most recent deposits and may be associated with recent Numic expansion or decreasing resource availability. Further research of the Loyalton assemblage and similar faunal collections may help improve our understanding of the special relationship between bighorn sheep and the prehistoric inhabitants of northeastern California and the western Great Basin.

## ACKNOWLEDGEMENTS

I would like to thank the Nevada State Museum and the Susanville BLM for giving me this research opportunity. Also, I want to acknowledge Darrel Cruz of the Washoe Tribe of Nevada and California, and Marilla Martin of the Susanville BLM, as well as Dr. Frank Bayham, Dr. Antoinette Martinez, and Kevin Dalton of CSU, Chico, for helping me put this article together.

## REFERENCES CITED

- Barrett, Samuel Alfred  
1917 The Washo Indians. *Bulletin of the Public Museum of the City of Milwaukee* 2:1-52.
- Bettinger, Robert L., and Martin A. Baumhoff  
1982 The Numic Spread: Great Basin Cultures in Competition. *American Antiquity* 47:485-503.
- d'Azevedo, Warren L.  
1986 Washo. In *Great Basin*, edited by Warren L. d'Azevedo, pp. 466-498. Handbook of North American Indians, Vol. 11, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Downs, James F.  
1966 *The Two Worlds of the Washo: An Indian Tribe of California and Nevada*. Hold, Rinehart and Winston, San Francisco.
- Elsasser, A. B.  
1961 Archaeological Evidence of Shamanism in California and Nevada. *Kroeber Anthropological Society Papers* 24:38-48. Berkeley.
- Fowler, Catherine S.  
1972 Some Ecological Clues to Proto-Numic Homelands. In *Great Basin Cultural Ecology: A Symposium*, edited by Don D. Fowler, pp. 105-122. Desert Research Institute Publications in the Social Sciences No. 8. Reno, Nevada.
- Fowler, Don D., Catherine S. Fowler, and Stephen Powers  
1970 Stephen Powers' "The Life and Culture of the Washo and Paiutes." *Ethnohistory* 17(3/4):117-149.
- Matheny, Ray T., Thomas S. Smith, and Deanne G. Matheny  
1997 Animal Ethology Reflected in the Rock Art of Nine Mile Canyon, Utah. *Journal of California and Great Basin Anthropology* 19:70-103.
- McGuire, Kelly R.  
2007 Models Made in Glass: A Prehistory of Northeast California. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 165-176. AltaMira Press, Lanham, Maryland.

Price, John Andrew

1962 *Washo Economy*. Nevada State Museum Anthropological Papers No. 6. Carson City.

Sutton, Mark Q.

1986 Warfare and Expansion: An Ethnohistoric Perspective on the Numic Spread. *Journal of California and Great Basin Anthropology* 8:65-82.

Wilson, Norman L.

1963 The Archaeology of the Loyaltan Rock Shelter Sierra County, California. Unpublished Master's thesis, Department of Anthropology, Sacramento State College.

Yoho, Robert M., II, and Alan P. Garfinkel

2012 Great Basin Bighorn Ceremonialism: Reflections on Possible Sheep Shrine at the Rose Spring Site (CA-INY-372), Rose Valley, Alta California. *California Archaeology* 4:201-224.

Young, D. Craig

2005 Geoarchaeology and Paleoenvironment. In *Ecology and Prehistory in Sierra Valley, California: Excavations at CA-PLU-1485*. Far Western Anthropological Research Group, Davis, California.

Young, D. Craig, William R. Hildebrandt, Steven D. Neidig, and Sharon A. Waechter

2009 *Report from Fish Springs to Dry Valley: Archaeological Investigations on the Vidler Water Project Corridor, Washoe County, Nevada*. Far Western Anthropological Research Group, Davis, California.