

UC Merced

The Journal of California Anthropology

Title

Late Prehistoric and Historic Structures in Owens Valley, Eastern California

Permalink

<https://escholarship.org/uc/item/8g050529>

Journal

The Journal of California Anthropology, 2(2)

Author

Bettinger, Robert L

Publication Date

1975-12-01

Peer reviewed

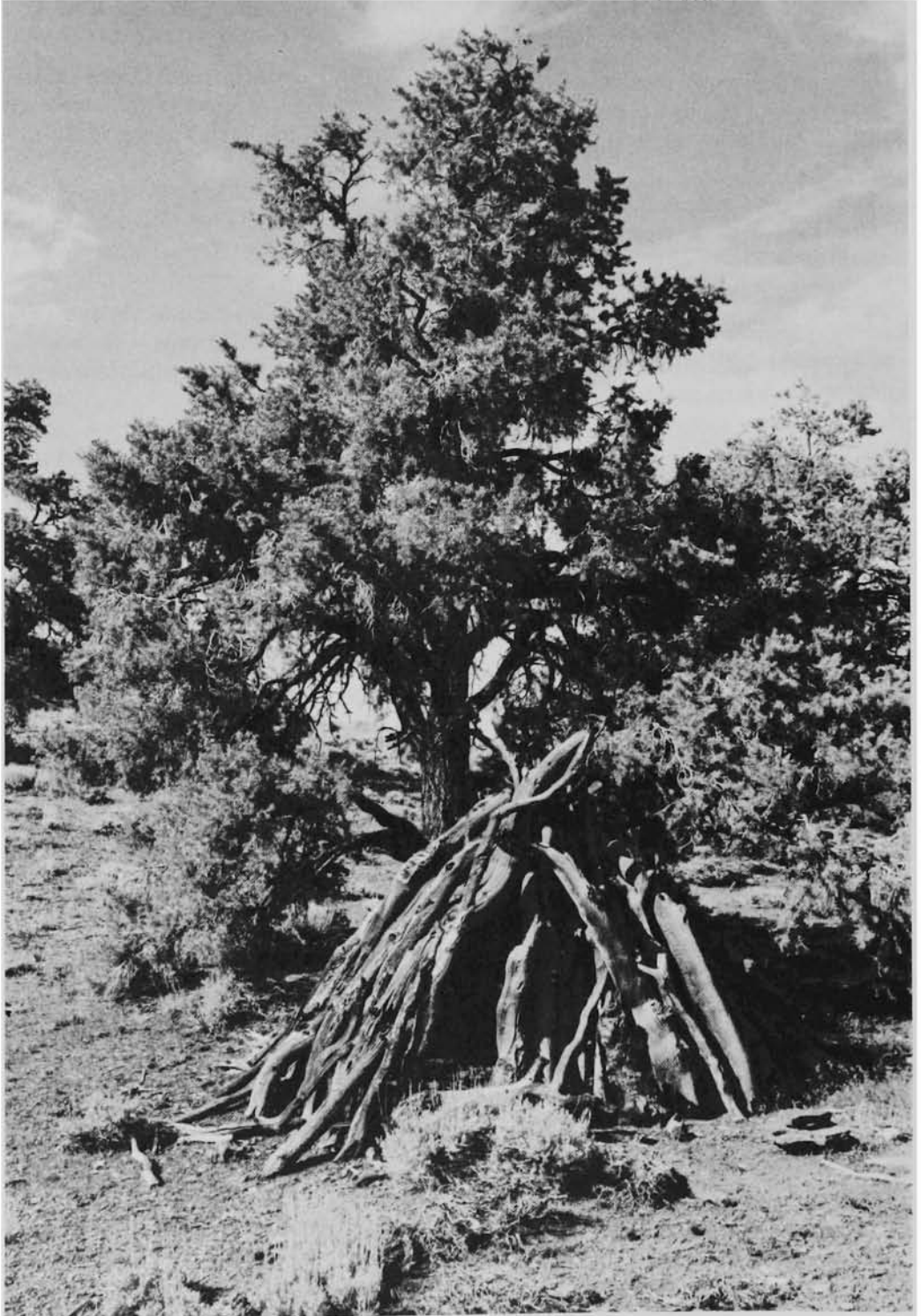


Fig. 1. Conical wood structure at the Pinyon House site, Inyo Mountains. The doorway is visible in the center of the structure, and a millstone cache can be seen at the right edge of the structure. View is to the south.

Late Prehistoric and Historic Structures in Owens Valley, Eastern California

ROBERT L. BETTINGER

During recent research in Owens Valley, eastern California, well-preserved aboriginal wood structures (Fig. 1) were found at two sites. The unusual degree of preservation of these dwellings permitted certain interesting observations about their configuration and construction not ordinarily possible in archaeological contexts. Both sites are located in the Inyo Mountains, which form the southeastern boundary of Owens Valley, and both lie within the historic territory of the Owens Valley Paiute (Steward 1933:235-236). One site, Pinyon House (designated C-3x-1), is situated on a relatively flat, northeast-southwest trending ridge on the western slope of the range. The other, Juniper Village (C-58-5), is situated on a north-south trending ridge on the eastern slope of the range.¹ Both sites are identified as winter camps.

PINYON HOUSE SITE

The Pinyon House site is relatively small, its 100 m.² surface marked by sparse obsidian debitage and one Cottonwood Triangular projectile point (Lanning 1963). A conical wood structure (Fig. 1) is the major feature at the site. It consists of 30-40 large pinyon (*Pinus monophylla*) limbs and trunks arranged in a circle and leaning inward over a shallow depression, forming a cone 2 m. in height and 2 m. in diameter. Structural support is provided by an in-

ternal upright set off-center toward the east, and about five large perimeter beams interlocking at the apex of the cone, with the remaining beams resting against these members. Many of the beams exhibit ax-cuts at their proximal ends; some were further prepared by removing the smaller secondary limbs, particularly those projecting inside the structure. No evidence of a bough or thatch covering was observed. At present, the structure exhibits two openings, one on the north and one on the south, that may represent doors; but, it is likely that the southern opening is a recent wall collapse rather than a true doorway. A cache of millingstones was found adjacent to the structure on the west side of the northern opening.² It comprises a stack of 3 slab millingstones made of a local shale and a broken glass bottle with a seamless lip (Fig. 2). Most of the bottle fragments lay adjacent to the millingstones, but some were found lodged between them.

Two saucer-shaped depressions of about the same size as the one associated with the standing structure, but lacking wood superstructures, were also noted at the Pinyon House site. These may be the remnants of conical structures, but might also represent semi-subterranean pinyon caches of the type described by Steward (1933:242). Both depressions lacked artifacts.

Two other interesting artifacts noted at the



Fig. 2. Millingstone cache next to structure at Pinyon House site. Note glass bottle fragments to right of millingstones. The largest millingstone measures about 35 cm. in length.

Pinyon House site are a pair of birch (*Betula occidentalis*) poles, each about 3 m. long and 3 cm. in diameter. One of these, found resting in the crotch of a pinyon tree, is composite, consisting of a 1 m. distal element and a 2 m. proximal element lashed together with a leather thong; the other, found at the foot of the same tree, consists of a single limb. There can be little doubt that these are pinyon gathering poles, implements which frequently have a distal hook and are used in the harvest of pinyon cones (Steward 1933:242). Neither of the poles exhibits a distal crook, and no hooked examples were observed in the vicinity of the site.

JUNIPER VILLAGE SITE

The Juniper Village site is somewhat larger than the Pinyon House site, covering about 400 m.² The site exhibits the remnants of four

circular structures varying in size and state of preservation. The best preserved is Feature 1 (Fig. 3), a standing conical wood structure about 2 m. tall and 3 m. in diameter comprising about 30 badly decayed juniper (*Juniperus osteosperma*) beams arranged in a circle over a shallow depression and resting against an upright center post. There is no apparent doorway, but it would be a simple matter to move one or two of the beams aside, making an opening large enough to permit entry or exit. At least one, and possibly two, millingstones are visible resting against the wall inside the structure. As with the structure at Pinyon House, no evidence of a thatch covering was found.

Feature 2 is an unusually large depression measuring about 8 m. in diameter and 1.5 m. deep. The sides of the depression are steeply pitched and strewn with decomposed juniper logs which appear to be the remnants of a log superstructure. If a roofed structure is indeed represented, it can be safely assumed to be a communal sweathouse, since this is the only aboriginal structure of comparable size (see Steward 1933:265-266) which one would expect at Paiute villages. No artifacts were found with Feature 2.

Feature 3 is a small, saucer-shaped, log-strewn depression about 2.5 m. in diameter exhibiting what appears to be parts of a collapsed log framework. It probably represents the remnants of a conical structure similar to Feature 1, but of slightly smaller dimensions. Feature 3 lacked associated artifacts.

Feature 4 is a rock ring 3 m. in diameter and lacking a depression or associated artifacts. It is unclear whether it represents a former conical wood structure or a surficial pinyon cache.

In addition to the above features, a small oxidized area was noted on the western portion of the site that may represent a cooking or heating fire.

Among the relatively few artifacts recovered at the Juniper Village site were 5 ob-

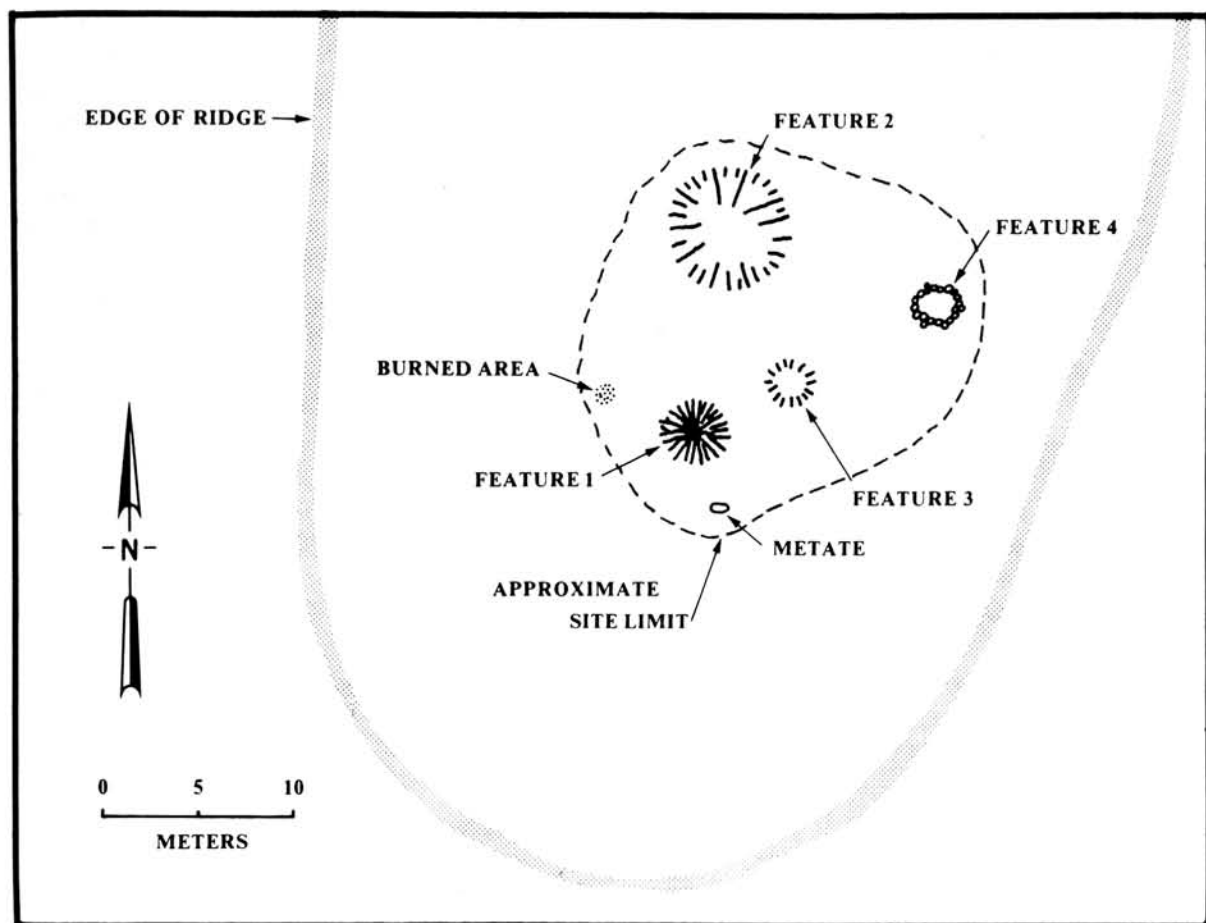


Fig. 3. Map of the Juniper Village site.

sidian projectile points; two are typed as Desert Side-notched (Baumhoff and Byrne 1959), and three as Cottonwood Triangular. In addition, 1 millingstone, 2 bifacially flaked obsidian knife fragments, and 8 pieces of obsidian debitage were recovered from the site surface.

DATING OF THE SITES

Both sites can be dated by means of the time-sensitive projectile points they contain, and by the presence or absence of historic artifacts. Cottonwood Triangular points, found at both Pinyon House and Juniper Village sites, and Desert Side-notched points, found at Juniper Village site, both date to the interval between A.D. 1300 and the historic period in

Owens Valley (Bettinger and Taylor 1974), placing the initial occupation of both sites within this time span.³ The absence of any historic artifacts at Juniper Village would seem to place its terminal occupation prior to white contact, since historic sites typically exhibit numerous items of European manufacture. The glass bottle and ax-cut timbers clearly place the terminal occupation at the Pinyon House site sometime in the historic period. Glass bottles with seamless necks like the one found at Pinyon House were made no later than A.D. 1920 (although most of them date prior to A.D. 1910), providing a possible terminal date for the site (Lorrain 1968); but, it should be pointed out that until recently, simi-

lar bottles were available in large numbers at refuse dumps associated with the older settlements which occur throughout Owens Valley. Thus, any dating of the site on the basis of glass bottles should be viewed with caution.⁴

In sum, present evidence suggests that both sites were initially occupied sometime after A.D. 1300, occupation at Juniper Village terminating before A.D. 1860 (the beginning of the historic period), and occupation at Pinyon House extending for an unknown period into historic times.

DISCUSSION

As an initial observation, it seems apparent that both sites represent winter camps where stored pinenuts provided the bulk of the diet. Pinenuts are the only food resource in the Inyo Mountains capable of sustaining habitation over any length of time, and the distance to the nearest active springs (3 km. for Pinyon House, 8 km. for Juniper Village) suggests that winter snow provided water. This inference is supported by ethnographic evidence indicating that the only aboriginal settlements in the pinyon zone of sufficient duration to warrant the use of roofed shelters were winter camps established in years when the pinyon crop was too large to transport to permanent villages on the valley floor (Steward 1933:242).

Inferences about the size of the aboriginal populations using these sites are less certain. With respect to the two standing structures, their limited floor space, roughly 3 m.² for the example at Pinyon House, and perhaps 7 m.² for the one at Juniper Village would seem to indicate they were inhabited by no more than a single nuclear family of about 4-6 individuals. The meager floor space which would have been available for each individual if the above figures are correct suggests that cooking and other household activities were probably carried out in the open, or perhaps in a separate facility, the structures being reserved for sleeping, as described by Steward (1933:263). Alter-

natively, the structures at both sites may themselves represent special purpose facilities.⁵

Several considerations render equally tentative any estimate of the maximum number of individuals occupying either site at any one time. It would seem that the standing structure at Pinyon House was the only dwelling in use at that site in historic times, there being no historic artifacts associated with the remaining depressions there. This gives a maximum historic winter population of about 6 individuals. If, however, the standing structure and the remaining 2 circular depressions (assuming they represent house floors) were contemporaneously occupied in prehistoric times, a maximum population of about 18 would be indicated. A similar maximum population of 18 individuals is suggested by the three potential dwellings at Juniper Village (excluding the large, special purpose structure, and assuming that all three remaining features represent family dwellings). If one or more of the potential dwellings at either site was in fact used for a different purpose, a correspondingly smaller maximum population would be indicated for that site. The above estimates are essentially consistent with Steward's (1933:242) admittedly vague discussion of population size at mountain winter camps.

Overall, the tentative settlement reconstruction presented here is strikingly similar to Steward's (1933) ethnographic description of Paiute pinyon zone winter camps in terms of occupying group size, season of use, and even the tools employed. The greatest discrepancy regards the construction of dwellings, which may reflect error on the part of Steward or his Paiute informants, or perhaps an actual post-contact shift in house construction. Although the parallels between the ethnographic accounts and the prehistoric pattern reconstructed here are not unexpected, given their temporal proximity, they tend to validate the approach taken by archaeologists who have drawn heavily on Steward's accounts in inter-

preting Great Basin prehistory.

Finally, although it is surprising that relatively intact aboriginal structures exist at all in eastern California, their potential numbers are even more surprising. The archaeological survey which disclosed the two sites discussed here covered less than 4% of a 220 km.² tract of pinyon woodland; simple mathematic calculations are sufficient to suggest that in this region these features may be far more common than previously expected.

*New York University
New York*

NOTES

1. More precise description of site location is intentionally omitted here since it is scientifically unnecessary and might encourage vandalism.

2. The photographs of Steward (1933), Merriam (1955), and Curtis (1972) all show millstones and other household implements being stored near the doorways of Paiute dwellings. This supports the interpretation of the northern opening as the original doorway.

3. Owens Valley was first visited by the Walker Party in 1834, and several additional times between 1840-1860. The social and economic impact of these encounters was relatively minimal, however. For example, the amount of trade goods introduced by these expeditions was probably less than that obtained through traditional trans-Sierran trade with Central California groups having access to Spanish and Anglo products long before the Walker Party ever reached Owens Valley. For this reason, I place the beginning of the historic period at 1860, when cattle were first driven into the valley in numbers, and the first white settlements were established, irreversibly changing the aboriginal economic and social patterns. It was probably also at this time that European goods became widely available.

4. An attempt to cross-date a beam section from the structure at Pinyon House with a core sample taken from a living pinyon tree at the site proved unsuccessful, but this avenue of investigation is continuing.

5. The size and construction of the standing struc-

tures at both sites are puzzling in view of Steward's (1933:263-265) discussion of Owens Valley Paiute mountain winter houses. The latter are described as oval structures consisting of two uprights supporting a center ridge pole against which side beams were laid, and measuring 6 m. long and 2 m. tall — much larger than either of the structures reported here. Structurally, the present examples bear a greater resemblance to dwellings used in the summer months on the valley floor (Steward 1933:265). These are described as thatched, conical beam, or willow branch structures with an optional center pole, but substantially larger than either of the standing structures encountered, measuring 3 m. in height and 5 m. in diameter. These anomalies lend at least partial support to the notion that the structures under discussion represent something other than family dwellings.

REFERENCES

- Baumhoff, Martin, and J. S. Byrne
1959 Desert Side-notched Points as a Time Marker in California. Berkeley: University of California Archaeological Survey Reports 48:32-65.
- Bettinger, Robert L., and R. E. Taylor
1974 Suggested Revisions in Archaeological Sequences of the Great Basin in Interior Southern California. Reno: Nevada Archaeological Survey Research Papers 5:1-26.
- Curtis, Edward S.
1972 Portraits from North American Indian Life. New York: Promontory Press.
- Lanning, Edward P.
1963 Archaeology of the Rose Spring Site, Iny-372. University of California Publications in American Archaeology and Ethnology 49(3).
- Lorrain, Dessamae
1968 An Archaeologist's Guide to Nineteenth Century American Glass. *Historic Archaeology* 2:35-44.
- Merriam, C. Hart
1955 Studies of California Indians. Berkeley: University of California Press.

Steward, Julian H.
1933 Ethnography of the Owens Valley Paiute.
University of California Publications in

American Archaeology and Ethnology
33(3).

