

**THE DRY MEADOW SITE (TUO-2604):  
A POSSIBLE MIWOK CATTLE HERDING CAMP  
IN THE CENTRAL SIERRAS**

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**ABSTRACT**

The Dry Meadow Site (TUO-2604) is a seasonal occupation site with both prehistoric and historic components; this paper focuses on the historic component. Located at 1700 m elevation in the central Sierra Nevada, the site was tested by Michigan State University in 1987. Remains of a one-room frame cabin included artifacts associated with domestic and economic life as well as cabin construction, mainly dating to the 1900-1925 era. The keeping of cattle at Dry Meadow is well-reflected in historical records as well as indicated archaeologically. Inclusion in the assemblage of retouched bottle glass scraping tools suggests a possible connection with historic Miwok culture. If so, it reveals an interesting aspect in the story of Miwok adaptation to the encroachment of Euro-American people and economy into their traditional territory.

**INTRODUCTION**

Although conquest and occupation of their lands by Europeans or Euro-Americans destroyed much of the traditional way of life of Native American societies, it is not accurate to view Indian cultures as passive victims. Many groups tried a host of different strategies to cope with the invaders and to preserve their societies as much as possible. Many interactions between Indians and Whites took place in contexts where historical records were scant or altogether absent. Archaeology is in a position to make substantial contributions to our knowledge of what happened in these interactions, what the consequences were, and how or why they worked out as they did.

This paper presents a first look at data from an early 20th century site in the traditional territory of the Eastern Miwok people of the central Sierra Nevada (Figure 1). The site in question is called the Dry Meadow Site, which was issued the trinomial TUO-2604 by California State University, Stanislaus. Among its constituents is the founda-

tion of a wooden cabin with associated artifacts, set on top of a prehistoric midden (Figure 2). Dry Meadow today is used for free-ranging cattle-raising, and evidence from the site suggests a similar focus over the past 70-90 years. While the vast majority of the historical artifacts are of Euro-American technology, a few pieces of thick bottle glass indicate systematic retouch into scraping/cutting tools (Figure 3). The cabin occupants may have included 1 or more Native Americans, either as hired hands or as a family. If either is the case, it would indicate aspects of Miwok (or other Native American) adaptation in the higher Sierras which previously have received little or no attention. Even if it proves that no Native American historical component exists at Dry Meadow, there is not yet an archaeological literature on cattle ranching in the higher Sierras. The Dry Meadow Site would be significant for that fact alone (see, for example, Greenwood 1982; Moratto et al. 1988).

**BACKGROUND**

The Dry Meadow Site is located at the

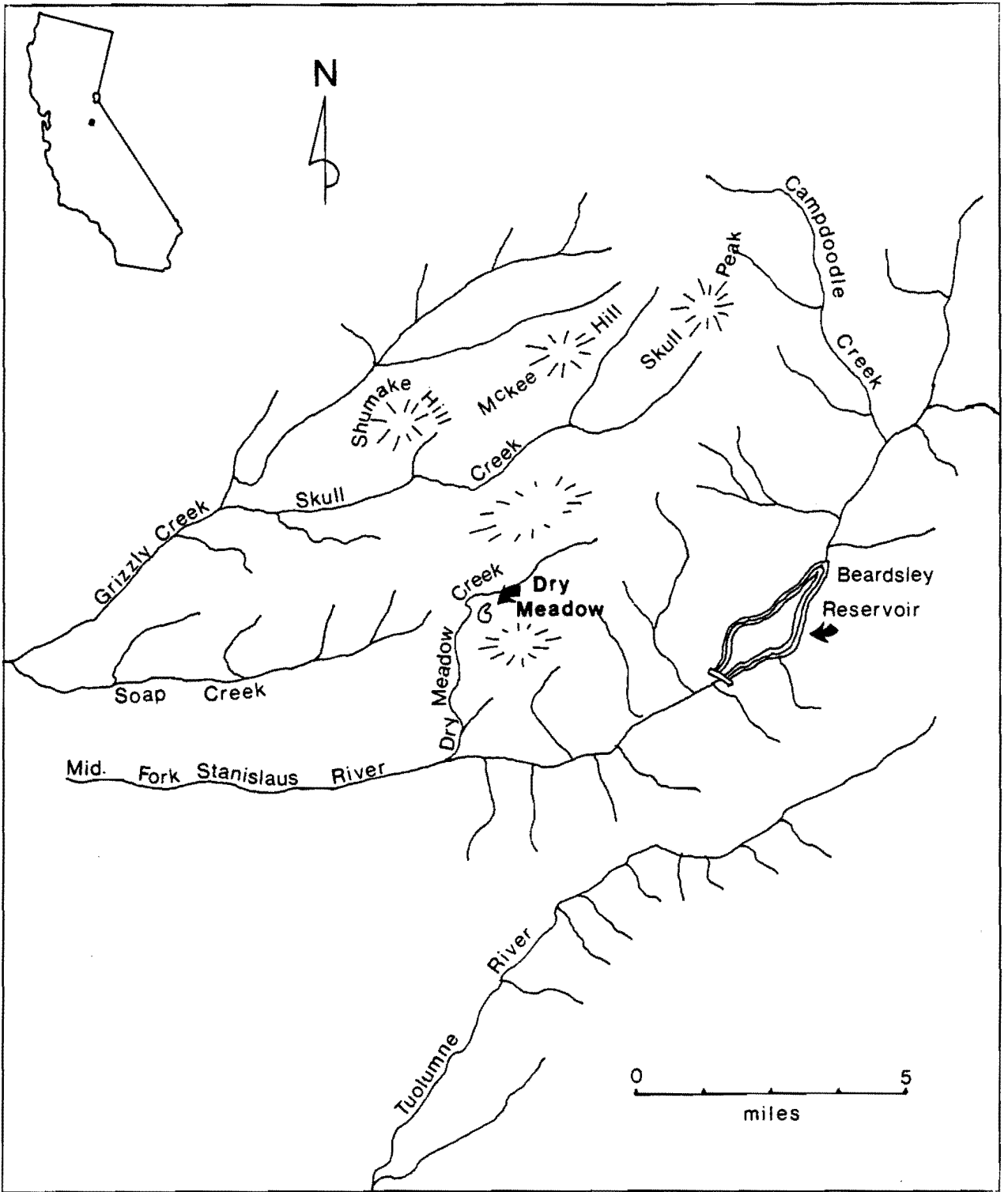


Figure 1. Location of Dry Meadow.

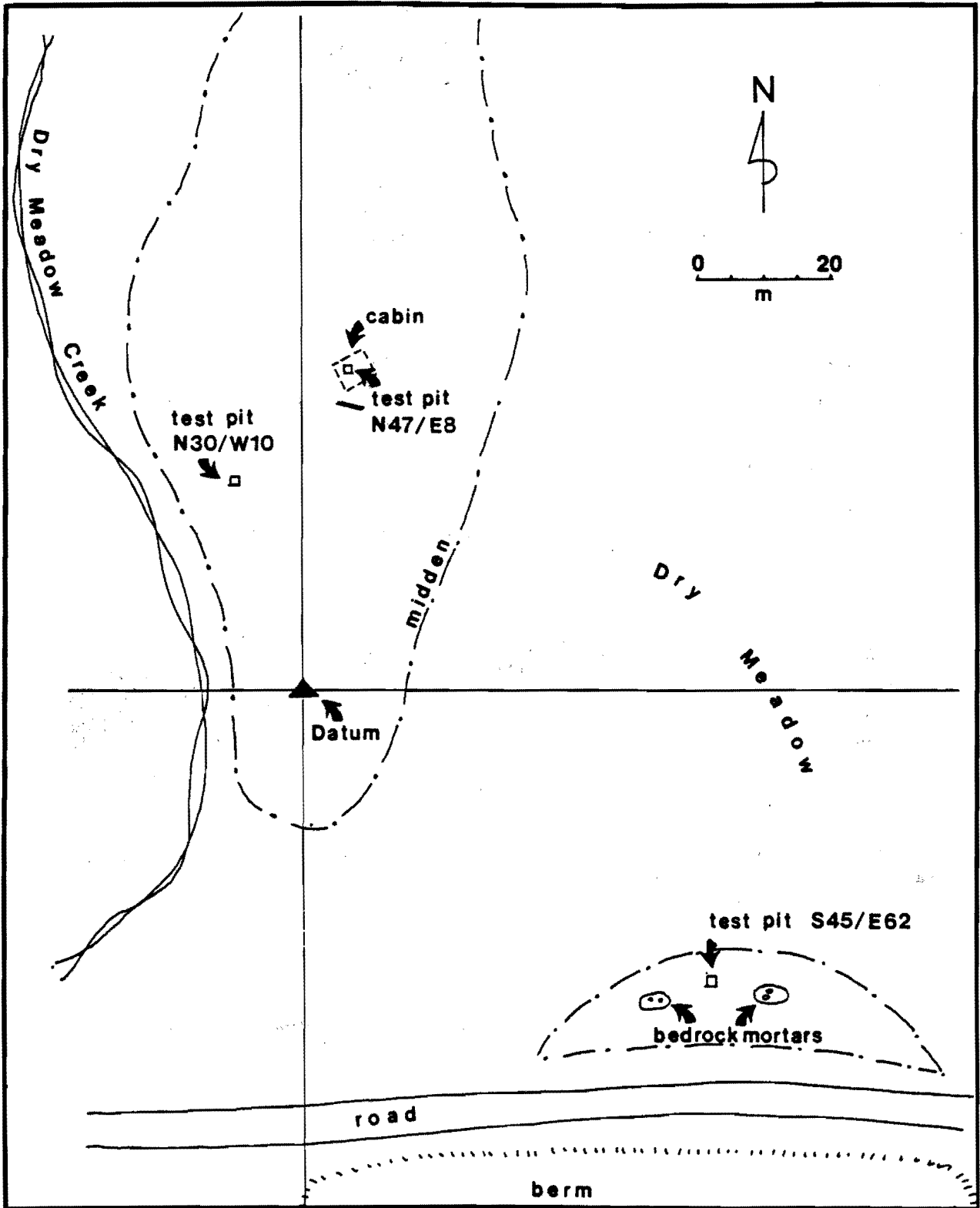
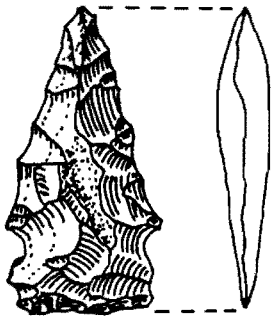
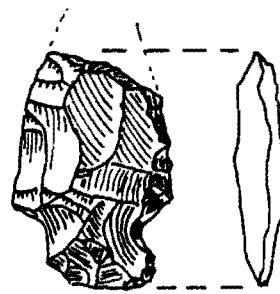


Figure 2. The Dry Meadow Site (TUO-2604).



**A**

Side-notched projectile point, in 2 pieces, field catalog nos. DM-68, DM-512; tan chert, L=40 mm, W=21 mm, T=9 mm



**B**

Side-notched projectile point, field catalog no. DM-1019; tan chalcedony, L=30 mm, W=21 mm, T=7 mm



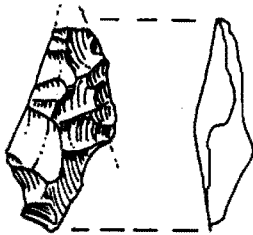
**C**

Desert side-notched projectile point, field catalog no. DM-1018; black obsidian; L=27 mm, W=16 mm, T=3 mm



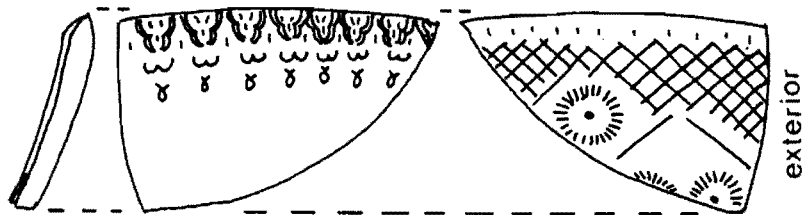
**D**

Contracting-stem projectile point, field catalog no. DM-478; black obsidian, L=18 mm, W=13 mm, T=3 mm



**E**

Projectile point fragment, probably side-notched, field catalog no. DM-1000; veined reddish jasper, L=27 mm, W=18 mm, T=8 mm



**F**

Ceramic decorated blue-on-white cup rim sherd, field catalog no. DM-975; L=40 mm, W=26 mm, T=4 mm

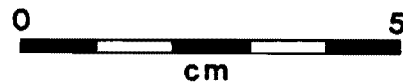


Figure 3. Selected artifacts from the Dry Meadow Site, TUO-2604.

1700 m elevation in eastern Tuolumne County about 8 km west of Beardsley Reservoir on the middle fork of the Stanislaus River. It previously was part of Stanislaus National Forest, but in the 1970s a land exchange transferred title of the site and surrounding property to the Louisiana-Pacific Corporation (LPC) of Standard, California. Through the courtesy of the Louisiana-Pacific Corporation, Michigan State University was allowed to test-excavate the site in 1987. The Dry Meadow Guard Station of Stanislaus National Forest, located about 1 km to the north, indicates the continuing presence of the Forest Service in the vicinity, however.

The site itself is situated along the eastern bank of Dry Meadow Creek, a permanent stream draining the surrounding area into the Stanislaus River (see Figure 1). The site sits astride a gravel bar separating the creek from Dry Meadow itself to the east. Dry Meadow is a flatland, well-watered by springs such that its eastern side hosts a variety of broadleaf marsh plants in summer, while grasses cover the rest of the surface. The meadow likely is the remnant of an earlier mountain lake or marsh. It is hemmed in on the east and south by rocky ridges blanketed by coniferous forest. Douglas fir is the dominant tree, although sugar pine, cedar, and several other varieties also occur. Both pine-nut-bearing conifers such as the sugar pine and acorn-bearing species such as black oak are found in the vicinity. The oaks in particular occur along Dry Meadow Creek downstream from the site.

The site was brought to the author's attention in 1986 by the Louisiana-Pacific Corporation, which was interested in an assessment of the site's significance to aid in cultural resource management. The author undertook test excavations, mapping, and surface collection at Dry Meadow on weekends during the summer of 1987 while he was teaching at the University of California, Berkeley. In addition to support from LPC, the project was aided by the Lowie Museum of Anthropology (then-called) at U.C. Berkeley, which provided some important field equipment and arranged for housing at a University-owned facility in Twain Harte. Additional aid was provided by Stanislaus National Forest. Michigan State University

provided laboratory facilities to aid in analysis.

Fieldwork was conducted by personnel from Michigan State University on 8 weekends in 1987. A concrete datum was established at the site (see Figure 2), which was then gridded into metric units. Over 250 meter-square units were surface-collected systematically for artifacts, with artifact discoveries made within 52 of the squares. Three test pits, each a meter square, were excavated in 10 cm levels. Midden was sifted through 1/8 inch mesh (approximately 3 mm). The site was mapped by transit and photographed. A site record was filed with California State University at Stanislaus, which issued the trinomial designation TUO-2604 for the site. The collection recovered from the study was taken to Michigan State University where it is now under study. It will be returned to the Louisiana-Pacific Corporation after analysis for accessioning by an area museum.

## SITE DESCRIPTION

The Dry Meadow Site includes 2 physically separated but adjacent areas. The main area of the site consists of a medium-brown midden deposit at least 40 cm deep. The deposit extends along the east bank of Dry Meadow Creek for at least 200 m, with Dry Meadow itself lying east of the midden. The breadth of the deposit averages 20 m and exceeds 40 m in 1 or 2 places. This midden area has a surface of at least 4000 sq m and a volume of at least 1500 cu m. The historic cabin remains noted above occur in the center of this deposit.

A second and much smaller deposit occurs along the south side of Dry Meadow, separated from the main midden by about 30 m of culturally sterile meadow floor. This second midden area has surface dimensions of approximately 60 m east-west by 10 m north-south. Testing reveals a present depth of at least 30 cm. It was once a good deal larger, but construction of a logging road across the midden has caused much of the deposit to be bulldozed up and heaped into a berm upslope from the meadow and site, and south of the road. The coarse in-

termixing of artifact-bearing midden and the culturally sterile surrounding soil in the berm yields some interesting surface collection materials, but they are totally out of context and therefore are of limited value (see Figure 2).

The remaining portion of the second midden does contain 2 intact features visible at the surface. Two bedrock outcrops possessing bedrock mortar cups occur within the remaining midden area. The mortars seem to have attracted a third cultural feature of more recent vintage. Boy Scouts from a nearby Scout camp, presumably inspired by the mortars, have visited the site and have built a tipi-like pole structure covered with bark sheets that resembles a Miwok summer house. The structure is revisited periodically for refurbishment and camping. The Scouts' activities seem to have had little impact on the site.

The bedrock mortars obviously indicate nut processing during the prehistoric occupation of the site. At this writing there is not yet a good estimate of the age of either prehistoric component more precise than Late Period. Future analysis of obsidian samples should lend greater precision. Neither charcoal nor animal bone is found in either deposit in any significant quantity in buried concentrations, so opportunities for radiocarbon assays are not yet available.

## COMMENTS ON THE COLLECTION

The Dry Meadow artifact collection recovered in 1987 includes about 3000 items of prehistoric and historic significance. Although the historic component is the subject here (Table 1), a few comments about prehistoric materials may be of interest (Table 2).

The prehistoric materials are dominated by lithics, almost entirely of chipped stone. The chipped stone is more than 97% debitage, with equal numbers of retouched and utilized pieces (25 of each). The retouched pieces are mainly unifacially-flaked edge-modified pieces typically identified as scraping tools with a variety of edge profiles. Among the few projectile points are 3 side-

Table 1

Preliminary Totals of Historical Artifacts in the 1987 Dry Meadow Site Sample	
Ceramics:	11 sherds; 10 of undecorated white, salt-glazed earthenware, possibly from one dish; one sherd of blue-on-white
Glass:	210 sherds
1. Clear:	170
2. Green:	8
3. Amber:	9
4. Violet:	12
5. Opalized white:	11
Wooden peg, machine-made:	1
Black rubber sherd:	1
Metal:	666 pieces
1. Nails:	190
a. Fence staples:	9
b. Round nails:	131
c. Square nails:	48
d. Rivets:	2
2. Metal scraps:	383
3. Tin can parts:	18
4. Cast-iron stove parts:	31
5. Silverware fork:	1
6. Steel files:	2
7. Iron doorframe piece:	1
8. Baling wire fragments:	8
9. Flat wire segments:	2
10. Steel rod sections:	2
11. Pail handle, frame:	1
12. Barbed-wire fragment:	1
13. Steel strap segment:	1
14. Metal piece, lettered:	1
15. Clothes fastener parts:	11
16. Metal disc:	1
17. Bullet shells:	5
18. Metal caps:	2
19. Steel clothes hanger:	1
20. Small rolled steel tube:	1
21. Bicycle seat:	1
22. Steel scrap with wire handle:	1
23. Steel button:	1

notched forms (1 Desert Side Notched [DSN]) and 1 small triangular point with a contracting stem (see Figure 3). Obsidian overwhelmingly dominates the raw material for debitage (86%); sourcing is not yet done but we expect Bodie Hills should be the primary contributor. Some of the distinctive reddish-brown cherts from the Sonora area also are found.

Table 2

Preliminary List of Prehistoric Artifacts from Dry Meadow Site	
Chipped stone lithics: 2277 pieces	
1. Retouched flake pieces:	25
2. Utilized flakes:	25
3. Debitage or chipping waste:	2227
a. Obsidian:	1919
b. Non-obsidian:	308
Other lithic materials: 47	
1. Cores, core fragments, core tools:	21
2. Milling tools, ground stone tool fragments:	10
3. Fragments of fire-affected rock:	16
Organic remains: 323	
1. Bone fragments:	60
2. Fragments of charred wood:	30
3. Charcoal fragments:	233
Other: red ocher lumps:	44

Ground stone is relatively infrequent in the assemblage and is usually fragmentary. Only a half-dozen manos were recovered, along with a few possible pestle fragments. The rarity of retouched and ground tools in a site where both must have been extensively employed suggests that artifact curation must have been a recurring practice. Fire-cracked rock also is not very abundant and is found in quite small pieces. This result is unexpected, since the occurrence of bedrock mortars usually is accompanied by evidence of a great deal of evidence for stone-heating. It may be that water-based leaching activities took place along Dry Meadow Creek outside the midden areas that were tested, or it may be that cold-water leaching methods were used. Future soil pH testing should indicate whether high concentrations of tannic acid were infused into the midden.

Faunal remains at the site were limited to 5 dozen fragments. Most were quite small and unidentifiable, typical for sites in this region. A few pieces can be reasonably attributed to *Odocoileus* sp. based on collections at Michigan State University. They would reflect the California mule deer (*Odocoileus hemionus*).

Materials generally associated with soci-

otechnic artifacts, such as shell and steatite, were not recovered. No evidence was found of buried prehistoric features such as house floors or fire hearths. These results are consistent with a picture of seasonal summer occupation during the Late Period, perhaps by family-size or household-size groups. Deer hunting, acorn/pine nut processing, and the working of obsidian acquired through exchange from east of the Sierras reflect the kinds of activities most expectable for this sort of occupation (compare, for example, with the Skunk Creek Site in Chartkoff 1990).

The assemblage of historic-period materials is not quite as large as the prehistoric collection, primarily because the prehistoric materials include so much debitage. The historic materials include a much greater variety of materials with more diverse functions reflected. The most commonly-occurring categories of materials include glass and metals, some in recognizable artifact form and some as fragmentary materials. Ceramics and leather occur in lesser amounts along with some bone from domesticated animals.

More than 200 pieces of glass were recovered. A moderate quantity of flat pane clear glass indicates at least 1 set of windows was present in the site's cabin. Most of the glass is curved and of varying thickness, indicating that it comes from bottles and jars. A few sherds are large enough to suggest shape or to preserve trademarks. Most sherds are of clear glass, but some are green, amber, violet, or opalized white in color. A few of the thick green and clear sherds seem to bear fairly systematic edge preparation by retouch.

Metal specimens number over 650 and are of a range of types. Almost 200 nails were recovered, both wire (round) and square. The square nails include both farrier (horseshoeing) and construction forms. Lengths range from 6d to larger than 20d, with 8d and 10d sizes predominating.

The metal also includes more than 400 scraps of sheet metal. Some seem to be parts of tin cans, while others represent flat scraps or are otherwise unidentifiable. Tin

cans range in size from a few ounces in volume to gallon-size containers. Some distinctive can shapes, such as tobacco tins, coffee cans and bulk fruit containers, can be recognized.

Smooth wire of several gauges is present in some quantity, but only 1 piece of barbed wire was found. This result is consistent with open-range cattle herding such as is still followed today at Dry Meadow. Metal pieces of a more complete nature were relatively scarce: A fork was found, along with 2 metal files, 3 rifle shell casings (1 with a lead slug still in place) for .30 caliber weapons, an iron doorframe piece, a pail handle, a piece of metal stamped with lettering, 2 rivets, and some clothes fasteners are examples.

An especially interesting find was a set of fragments of a cast-iron wood-burning stove. Brand identification was not present, but the 31 fragments indicate a box-like stove body on legs with a front firebox and at least 2 hot plates. A fair amount of decorative embellishment on the edges and front of the stove is present and may help identification in the future. The stove's fragments suggest it may have shattered after abandonment, according to Kenneth Lewis of the Anthropology Department here at Michigan State University. His research on historic-site remains in the eastern United States shows that cast-iron stoves exposed to winter and summer weather frequently are shattered by repeated sequences of freezing and warming. Since the stove fragments were found mainly within the cabin ruins, they may indicate that the stove became exposed to the elements after the cabin's roof caved in or the door or window was breached.

Historic ceramics are rare in the assemblage: only 11 sherds were recovered. Ten are of white salt-glazed ware and could even have come from the same dish. The other is from a decorated blue-on-white piece. It is a rim fragment of a coffee- or tea-cup with decorations on both the interior and exterior surfaces (see Figure 3). Some of the more unique finds include scraps of leather strapping with rivets attached (probably harness or reins), some clothing scraps with rivets, a metal clothes hanger, and a bicycle seat (see Figure 3).

## DISCUSSION

The test project at Dry Meadow has been preliminary in nature, and any conclusions drawn from it must also be preliminary. It is possible, however, to rank such conclusions in terms of how strongly supported they may be by the available evidence. These inferences can then suggest directions for future research at the site or in the larger region.

The purpose of this report is to draw attention particularly to the historic component of the Dry Meadow Site. One point well-established, even with this preliminary study, is that in the historic era the site was the location of a small, one-room, wood-frame cabin. The cabin measured about 2.5 by 3.2 m. It had a shake shingle roof, and its sides may have been covered outside by shingles as well. It possessed at least 1 hinged door and had at least 1 paned window. The cabin was heated by a small, decorated, wood-burning, cast-iron stove. Surviving elements of the cabin indicate it was made of a combination of sawn and hand-hewn wood. Details such as the square and round nails, the violet and opalized glass, the wrought-iron hinge, and some tin can styles, suggest the cabin came into use during the first quarter of the 20th century. A few artifacts, such as the wire coat hanger and the bicycle seat, suggest it may have been in use up to or shortly past the Second World War.

Use of the cabin in an economic sense is less certain. Presence of farrier's nails indicates that horses were kept there enough to require periodic reshoeing. Local historic records indicate that cattle were kept there in open range for many years, and are so today. Evidence for alternate economic activities is lacking: No farming implements or remains were found, for example, nor any remains associated with the logging or mining industries. There is no record that the cabin ever served as a Forest Service installation, and the existence of the Dry Meadow Guard Station less than a km away indicates there is no reason why a separate Forest Service installation should have been kept at this site. There is no evidence or record that the cabin ever served as a Boy Scout facility. It might have served as a



hunter's camp, but the early arrival of snow at this elevation and the downhill migration of the deer herd prior to snowfall makes this suggestion not very likely. It remains, then, that the use of the cabin as a base for people involved in cattle management seems the most probable interpretation at this time. If so, climatic factors would indicate that seasonal occupation in the summer was highly probable, while year-around occupation was much less likely.

A lower level of certainty can be given to the nature of the social group which occupied the cabin. Since the cabin had an interior space of only 8 sq m, the probability that it served a group any larger than a nuclear family is low. It could have served a work-group rather than a family, however.

The twin problems of limited sample size and the expected curation of usable artifacts by the cabin's occupants affect possible interpretations. No artifacts explicitly associated with women or with children were found, but few of the finds are identifiable as exclusively male-oriented either. The degree of embellishment on the stove may suggest a family setting, but it may have been equally likely that the stove's decoration reflected availability, not socially-based preference. The presence of few dishes, a single piece of silverware, and the lack of cooking implements or glassware do not indicate a family model, but if artifact curation were being practiced the absence of such evidence cannot support any inference. If the cabin was used as a summer cattle camp, one might suspect that an all-male work crew was a somewhat more likely possibility than a family group, but any inference must be weak.

The question of Native American involvement in the cabin's occupation is also very ambiguous. The occurrence of some apparently-retouched bottle glass artifacts suggests a Native American presence, but is far from conclusive. Nevertheless, the possibility remains intriguing. In the 20th century the material culture of settlement for both Native Americans and Whites has shared a great deal of technology. Tordoff (1988:473) has commented on the assimilation of historical-period material cultures

among differing ethnic groups in the New Melones area to the west. Settlement of the higher Sierras by Whites was very sporadic (see Farquhar 1965:201-213, for example). In Tuolumne County there is a continuing historical record of interaction between Native Americans and Whites in the region's post-Gold Rush economy. The possibility that a cattle crew at Dry Meadow included Native Americans, or that a Native American family was keeping cattle at Dry Meadow, is serious enough to merit further investigation.

If that possibility proves correct, the Native American people most likely to have been involved would have been the Miwok, since Dry Meadow lies within traditional Miwok territory and Miwok people have continued to live and work in the region up to the present (Levy 1978). Miwok involvement in cattle ranching is not generally reflected in the historical literature, but for that matter the history of high Sierran cattle herding in general is poorly documented. If Miwok people were involved in cattle herding at the Dry Meadow Site, it would reveal some important new aspects of adaptive strategy in their efforts to maintain themselves in the face of massive Euro-American immigration. Even if no firm association can be made between the Miwok people and the historic component of the Dry Meadow Site, however, the site is still of considerable value for its evidence of cattle herding in the Sierras, a subject not yet documented archaeologically. The archaeology of the Dry Meadow Site therefore has a useful contribution to make to understandings of the area's cultural and economic history.

## NOTE

A version of this paper was presented at the 26th Annual Meeting of the Society for California Archaeology, Pasadena, April 23-25, 1992. The version was read by Richard Markley, to whom the author extends grateful thanks. The author remains entirely responsible for all statements made in that version and this one, however.

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