

ARCHAEOLOGICAL STUDIES OF LATE PREHISTORIC SITES IN THE CUYAMACA
MOUNTAINS, SAN DIEGO COUNTY, CALIFORNIA

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ABSTRACT

Test excavations at Hual-Cu-Cuish (CA-SDi-903) and examination of existing collections and records from this site and the Fire Station site (CA-SDi-901) in Cuyamaca Rancho State Park were conducted as part of the ongoing program of resource protection and interpretation. Based on the size of these sites, as well as the kinds, variety, and density of cultural materials at these sites, both appear to have been the centers of major Late Prehistoric villages. Our results are compared to those of D. L. True, who defined the Cuyamaca Complex based on survey and excavation in the park.

INTRODUCTION

Cuyamaca Rancho State Park, with 9,965 hectares (24,624 acres) of land, is situated in the Cuyamaca Mountains of east-central San Diego County about 40 miles east of the city of San Diego (Figure 1). Access to the park is gained via State Highway 79, which bisects it on a north-south axis.

Resource management policies of the State Park system, as well as policies specific to Cuyamaca Rancho State Park, provide mandates for the inventory, protection, and appropriate interpretation of archaeological sites. The major project for the park in 1987 sought to stabilize cultural deposits at five highly significant prehistoric sites in the park through a program of revegetation and redirection of visitor facilities away from the site deposits. As a complement to this work, we evaluated the information potential of certain existing archaeological collections from the park and sought to understand the cultural significance of site CA-SDi-903 by performing limited-scope test excavations. A program of test excavations and the study of extant collections provided a useful baseline for future site evaluations, regional research, and interpretive programs at Cuyamaca Rancho State Park.

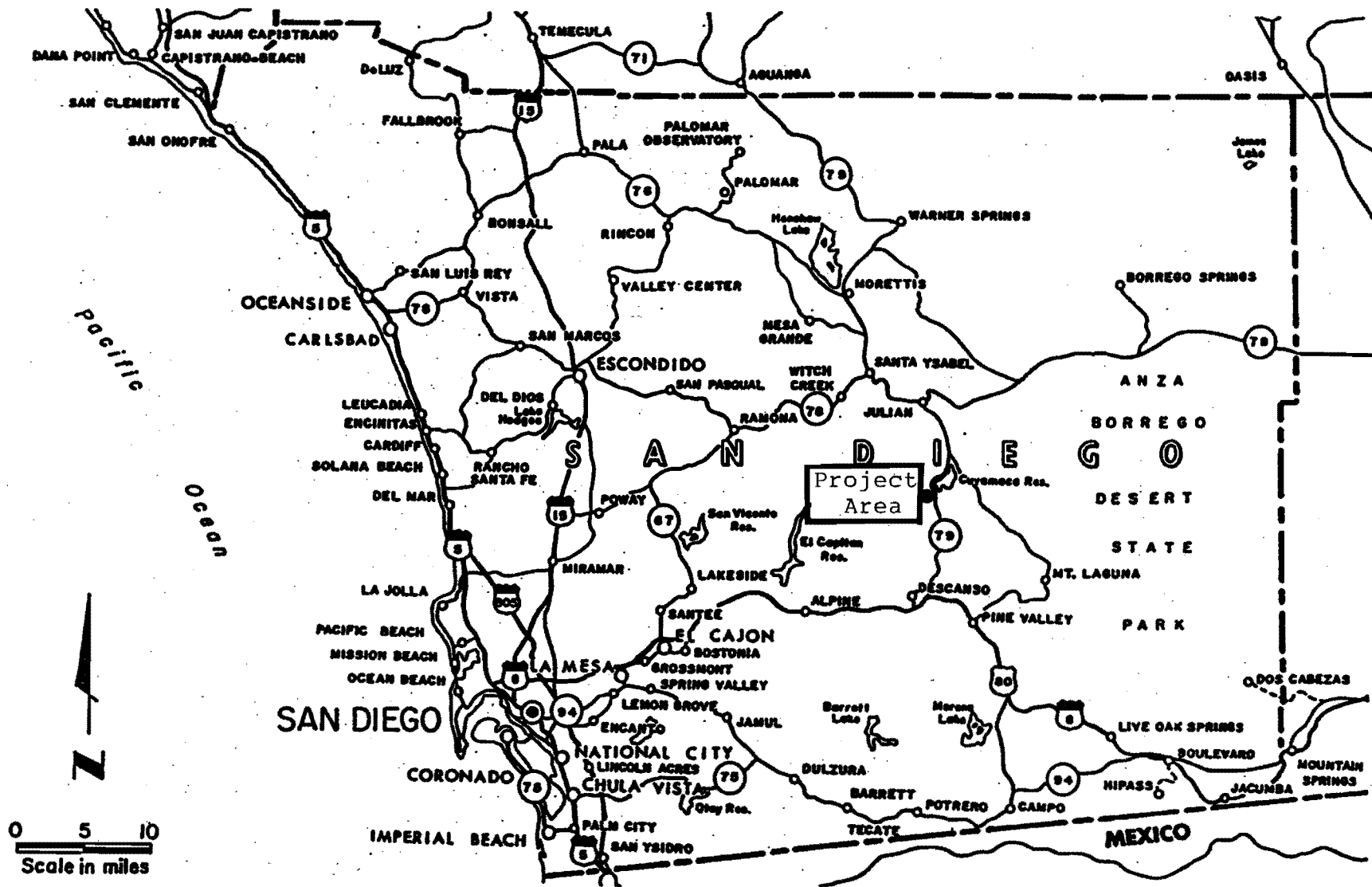


FIGURE 1. Location of the project area in San Diego County.

Any archaeological excavation or analysis of existing collections represents a major step forward, given our limited knowledge of the prehistory of the Cuyamaca Mountains and their vicinity. Currently, D. L. True's site survey and test excavations in the park, now 27 years old, represent the bulk of the published archaeological data for this area (True 1970). In this paper we summarize the results of our test excavations at the Hual-Cu-Cuish Meadows site (CA-SDi-903) and our examinations of existing collections from that site and the Fire Station site (CA-SDi-901). We then compare our findings to those of True and to the "Cuyamaca Complex" he defined (True 1970:45-59).

ENVIRONMENTAL SETTING

Cuyamaca Rancho State Park exhibits a varied topography--elevations range from 1,036 meters (3,400 ft) in the southern end of the park to 1,985 meters (6,512 ft) at the top of Cuyamaca Peak. About one-third of the terrain is level to rolling; the remaining two-thirds are steep and rugged (California Department of Parks and Recreation 1983:13). Cuyamaca Rancho State Park is characterized by broad, open mesas and meadows surrounded by densely wooded mountain slopes. These features are divided by Green Valley through which the Sweetwater River drains. The latter watershed is the most extensive in the region, and it includes several creeks and perennial springs. Apparently, water was always plentiful and accessible in aboriginal times.

Cuyamaca Rancho State Park, being located in the montane region of central San Diego County, lies between the warm desert and the mild, marine-influenced climates of the west. Temperatures vary widely throughout the year, though spring and early fall are usually pleasant. Rainfall is variable throughout the year, though most comes from November through April. The "normal" annual total rainfall is 93.52 cm (36.82 in), measured at a weather station that is close to the two sites treated here (California Department of Parks and Recreation 1983:27-29).

Because of climatic and topographic factors, Cuyamaca Rancho State Park is characterized by a diverse flora. Seven vegetation communities have been recognized in the park. These include upland grassland, montane meadow, mixed chaparral, montane chaparral, pine-oak woodland, mixed coniferous forest, and riparian woodland (California Department of Parks and Recreation 1983:41-51). Plants with high potential food and manufacturing value for aboriginal peoples are extraordinarily abundant here, including numerous species of perennial grasses, oaks, pines, and a variety of useful shrubs. The sizeable acreage of communities with aboriginal plant foods in the park could have provided critical food-gathering localities from June through November. Within Cuyamaca Rancho State Park, grass seeds and the fruits of certain shrubs become available in late May to early June. Other plants continuously ripen throughout the summer; then late summer into fall, pine seeds, acorns, and other plant products are available (cf., Beauchamp 1986).

The geomorphic province in which Cuyamaca Rancho State Park lies is made up primarily of granitic rock of the Southern California Batholith. The rocks of the batholith characteristically weather into rounded boulders and flat exfoliation sheets (California Department of Parks and Recreation 1983:14). The abundant granitic outcrops around the park provided the raw material for processing the potentially bountiful harvests. The lithology of the park yields little stone suitable for flaked-stone manufacture, however. Two adjacent exposures of talc schist ("soapstone") are present in the northwest corner of the park. They have been designated sites CA-SDi-9039 and CA-SDi-9040, since evidence of aboriginal quarrying is present at the two locations.

PREVIOUS RESEARCH

Approximately 280 archaeological sites, both prehistoric and historic, have been recorded within the park boundaries. A total of 160 sites were documented by D.L. True and associates in 1961 (True 1961) and many more have been recorded by DPR staff in the 1980s (Foster 1981; Parkman 1981). Extensive site surveys were performed under the direction of Dan Foster and Breck Parkman and the regional office continues to perform archaeological studies in the park as part of its management program.

The San Diego Museum of Man, under the direction of Malcolm Rogers, conducted excavations at Cuyamaca Rancho State Park in the 1930s and 1940s. Five large villages were the subject of excavations, with collections now curated at the Museum. No reports were completed on this work, though some cursory studies of the collections have been performed in recent years. The Museum of Man material from the park contains some extraordinary artifact assemblages and evidence of cultural features. For example, the site known as Arrowmakers Ridge (CA-SDi-913) yielded thousands of late prehistoric projectile points. As part of the present project we have examined the Museum of Man materials from the Fire Station site (CA-SDi-901).

During the 1961 survey by True and associates, limited collections of surface artifacts were made at 33 sites in Cuyamaca Rancho State Park. True also directed excavations at three sites on East Mesa: CA-SDi-860, CA-SDi-862, and CA-SDi-863 in 1961 and 1962. Most of the excavation took place at site CA-SDi-860, where 31 5 x 5 ft units were dug. The artifacts are curated at UCLA under Accession Number 360, and the work was reported in a UCLA monograph (True 1970).

CURRENT INVESTIGATIONS

A major focus of our project was the test excavations and revegetation of portions of the site of Hual-Cu-Cuish (CA-SDi-903). This site (Figure 2), located on open grassland and surrounded by a dense pine-oak woodland, is traversed by the frequently used California Riding and Hiking Trail. In addition, the Azalea Glen Trail skirts the western portion of the site. The site exhibits well-developed midden deposits of dark grey

*This page has been redacted to protect the location of this site.
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sandy loam with numerous artifacts present over a wide area of the surface. Numerous bedrock milling features occur at the site spread over 12 separate granitic outcrops. Use of the California Riding and Hiking Trail is causing erosion of the cultural deposits; this trail will be rerouted away from the site in late 1989, however.

D.L. True, the original recorder of the Hual-Cu-Cuish site, described it in his 1961 record as follows: "Village. Large Area--midden, bedrock outcrops, bedrock mortars." True noted that "potsherds, points, hammers, manos, pestles" were present on the site surface. Under "Remarks" True added that CA-SDi-903 is an "important village," and also noted disturbances by park visitors. True collected 41 artifacts from the surface of this site.

A plant list compiled by Department of Parks and Recreation Botanist Linda Allen and park volunteer Michael Curto for Hual-Cu-Cuish shows 29 native species (Allen and Curto 1987). The list includes many plants known to have been important aboriginal food resources, including coast live oak, canyon live oak, California black oak, Coulter pine, blue elderberry, coffeeberry, buckwheat, Indian milkweed, amaranth, and four perennial grasses. Adjoining the Hual-Cu-Cuish Meadows site are other important plant communities. Water is present close to the site at a perennial spring. Sizeable flat granitic outcrops were also available at the site that facilitated food processing chores.

Staff from the Department's Southern Region office, along with a few volunteers, conducted excavations at Hual-Cu-Cuish from October 19 through October 30, 1987. Sampson served as project leader. Three units were excavated--two measured 1 x 2 m, the other was 1 x 1 m. Two units were placed on the tread of the Riding and Hiking Trail; the other was excavated 3 m west. Each unit was excavated in 10-cm levels and most of the resulting sediments were dry-screened on site through 1/8 in mesh. Several levels from Unit C were wet-screened back in the lab. Excavation was primarily performed with small hand tools, since the material proved to be loose in consistency. Thus, digging could proceed very carefully. The deposits were, however, very rocky. We laid aside all rock not saved as artifacts; later we examined the rock for evidence of burning or use as a tool. Much of this rock appeared to have been fire-affected. Column samples were taken from two units for macrobotanical analysis, sediment study, and soil chemistry analysis.

The locations of the excavation units and all surface finds were plotted with a transit and stadia rod. A detailed contour map of the site was prepared by a local engineering firm based on 1986 aerial photographs and information we supplied.

All entries in the catalog were entered into a dBase III+ program for easy manipulation. The collections will be stored at Cuyamaca Rancho State Park Headquarters. Besides the specialized

studies mentioned above, we also contracted for faunal analysis, obsidian source determination, and obsidian hydration analysis.

STRATIGRAPHY AND CHRONOLOGY

Sediments encountered on the site surface and throughout the excavation at CA-SDi-903 were dark, fine sandy loams typical of midden areas on sites in the southern California mountains. Other than the presence of a root zone and variations in moisture, no significant differences in sediment color or texture were noted with depth. Grain size analysis of sediments conducted by Gary Huckleberry of Soil Systems, Inc., show that the sediments are similar throughout the site matrix, as well (Huckleberry 1988). Comparisons of the site samples with a sample of dark meadow soil that resembles midden soil in color indicates that the site sediment have a lower clay content. Values for pH, nitrogen, phosphorus, and potassium were also similar throughout the excavated matrix.

Abundant evidence of rodent activity was found throughout the excavation units, as well, and the surface of the site was dotted with mounds marking active burrows. Infilled burrows were noted at the bottom of the units, over 100 cm deep, penetrating areas of decomposed bedrock. Extensive rodent activity appears to have been responsible for the homogenization of the site sediments.

The chronological placement of CA-SDi-903 is based on obsidian hydration measurements and the occurrence in the assemblage of artifacts that are temporally sensitive in varying degrees, including a small amount of historic material. No radiocarbon samples were submitted for analysis because no appropriate concentrations of charcoal were encountered.

Twenty-five pieces of obsidian were submitted for source analysis and hydration rim measurement. Richard Hughes reports that, with the exception of one piece from the Coso Volcanic Field, all the pieces came from the Obsidian Butte source. Mean hydration readings, measured by Thomas Origer, range from 1.1 to 3.7 microns for Obsidian Butte samples, and the Coso piece had a mean measurement of 3.0 microns. A mean reading of 3.9 microns was obtained from a point whose first band measured 2.7 microns, suggesting reworking. Such readings are consistent with a Late Prehistoric occupation of the area (cf. Laylander and Christenson 1988:140).

The distribution of readings by depth provides further indications of homogenization of the sites deposits. A plots of hydration thickness by depth for the Obsidian Butte samples (Figure 3) does not show any strong relationship between depth and thickness. Indeed, the smallest measurement for obsidian from Unit C (1.8 microns) and the largest measurement for the site (3.7 microns) occur in the 30-40 cm level of Unit C. While there appears to be a slight tendency for obsidian with thicker

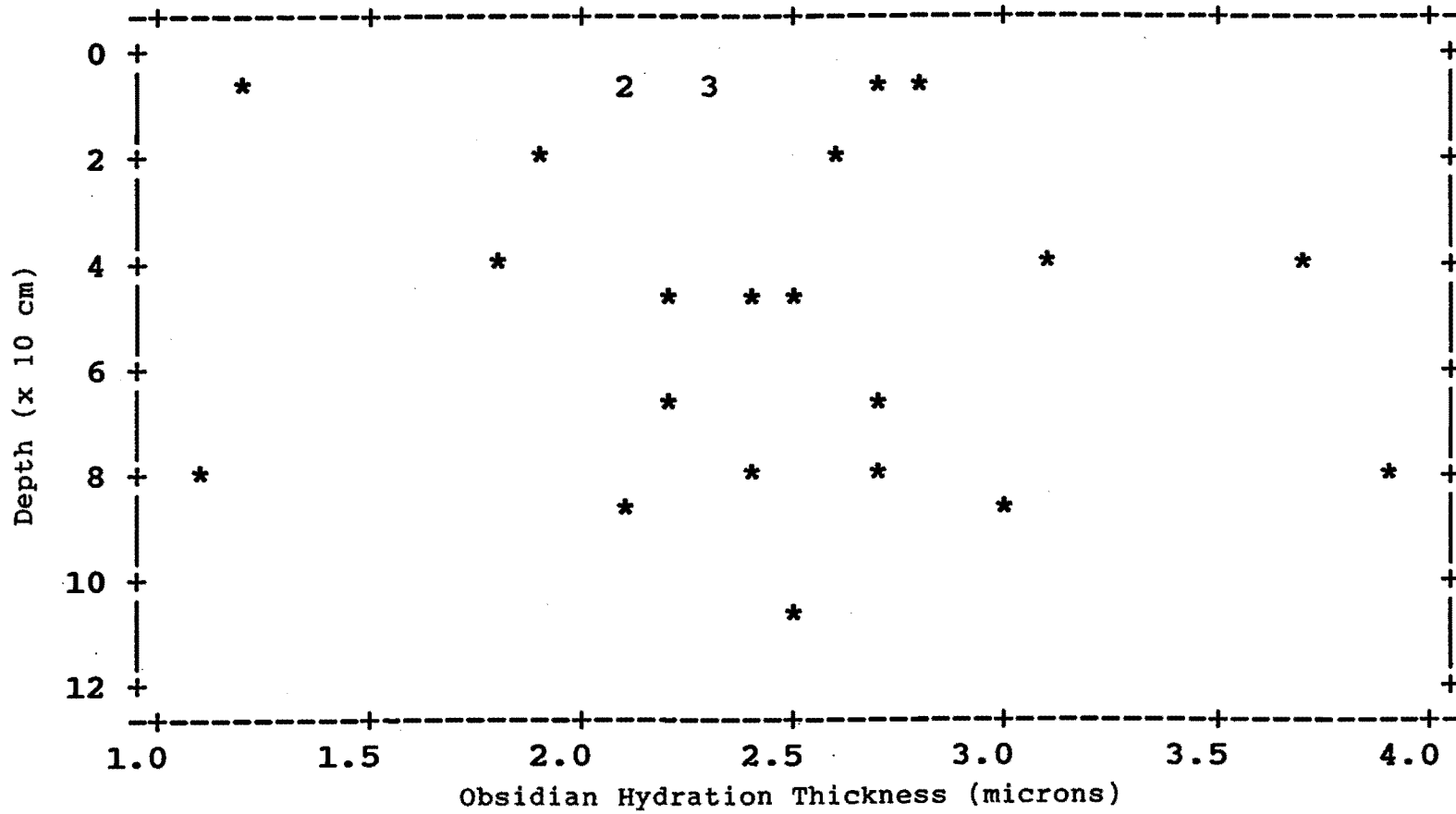


FIGURE 3. Scatter plot of obsidian hydration thickness (in microns) by 10 cm level.

hydration rims to be deeper in the site, the scatter of points on the plots indicate considerable mixing of the deposits.

The presence of ceramics and Desert Side-Notched and Cottonwood Triangular projectile points also indicate that it was occupied during the Late Prehistoric. Historic artifacts, including a triangular Ironstone projectile point recovered from the surface and a glass bead from the 40-50 cm level of Unit C. The Museum of Man notes on CA-SDi-901 indicate a Late Prehistoric period occupation there, as well, based on the presence of ceramics, small projectile points, and cremations. Glass beads in several of the cremations indicate occupation into the historic period.

ARTIFACT SUMMARY

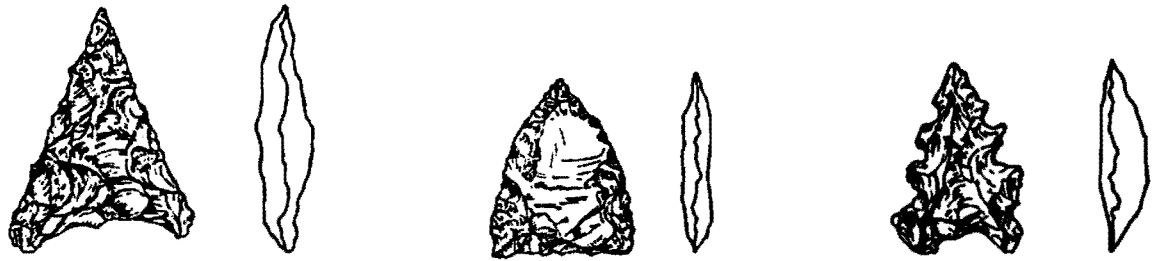
Our excavations at CA-SDi-903 yielded 8994 artifacts and 8239 pieces of bone (1052 grams) from the 3.9 cubic meters of deposit examined. The total artifact figure includes 8029 flakes, 699 sherds, 16 whole and 53 fragmentary projectile points, 3 whole manos and 104 mano fragments, 8 cores, 1 whole metate and 15 fragments, 8 soapstone pendant fragments, and 10 beads, as well as a number of lithic tools. Unit C yielded 90 % of the ceramic items recovered, but other classes of artifacts are evenly distributed throughout the deposits. Despite the presence of numerous bedrock mortars on the site and in the immediate vicinity, no pestles were recovered from the site.

COMMENTS ON THE CUYAMACA COMPLEX

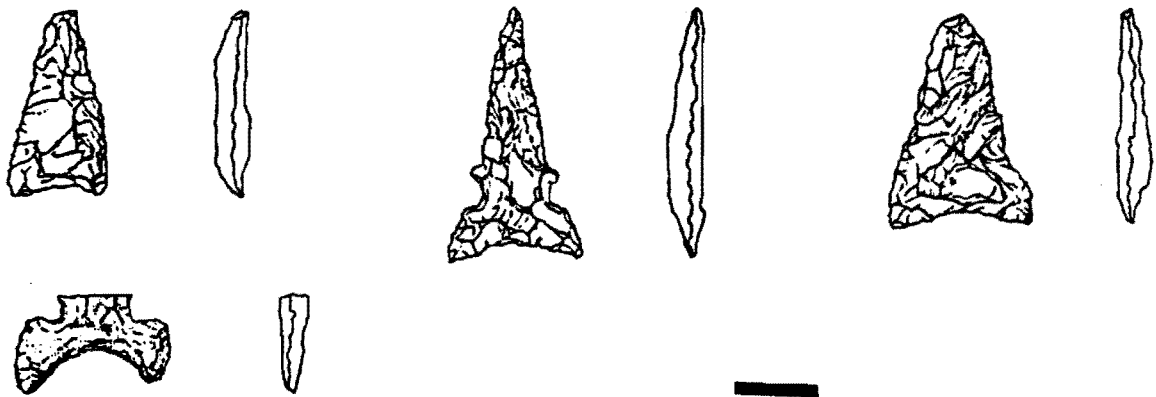
Both CA-SDi-901 and CA-SDi-903 were considered by True (1970:8, 45-59) in defining the Cuyamaca Complex, and our investigation provides data bearing on the nature of that complex. Among the traits that are seen as distinctive for the Cuyamaca Complex when it is compared to the San Luis Rey Complex are the greater occurrence of side-notched projectile points; the presence of a steatite industry; a wide range of ceramic forms that includes specialized items such as rattles, bow pipes, and effigy forms; and burial patterns that include the presence of cemeteries that are separate from living areas, the use of grave markers, and the use of ceramic vessels to contain the cremations. Other traits such as the possible use of clay-lined hearths, cannot be addressed with our sample.

Projectile Points

As with True's (1970:20-30) sample of projectile points, the majority of the typable points recovered from CA-SDi-903 (Figure 4) were triangular, unnotched types (True's types 1 through 3). Side-notched points (True's types 5 through 9) accounted for 21 % of the typable points, a proportion similar to True's, particularly when the small size of our sample is taken into account. The sample of points also compares favorably with a sample of 1343 points in the San Diego Museum of Man collections from CA-SDi-913 (Parkman 1981:201-203), popularly known as "Arrowmakers Ridge." When the 95% confidence intervals are computed for the CA-SDi-903 sample, they overlap the proportions from True's



1 cm



1 cm

FIGURE 4. Selected projectile points from CA-SDi-903.

excavations and the "Arrowmakers Ridge" sample, indicating a similarity of projectile point styles throughout the Cuyamaca area (Table 1). These proportions, particularly the relatively large number of side-notched points contrast markedly with sites of the San Luis Rey Complex.

Table 1. Comparison of Projectile Point Types at Cuyamaca Mountain Sites.

Type	SDi-903 Count (n=29)	SDi-903 Percent	SDi-903 95% CI	SDi-860 Percent (n=236)	SDi-913 Percent (n=1343)
1	16	55.2	35.3-73.7	37.1	39.2
2	5	17.2	5.9-35.1	10.9	18.5
3	0	0.0	0.0-11.8	4.6	0.5
4	1	2.4	0.1-17.6	3.4	0.5
5	5	17.2	5.9-35.1	30.8	33.0
6	0	0.0	0.0-11.8	2.5	3.3
7	1	2.4	0.1-17.6	0.8	0.0
8	0	0.0	0.0-11.8	5.0	1.8
9	0	0.0	0.0-11.8	2.1	0.0
10	0	0.0	0.0-11.8	0.4	0.2
11	1	2.4	0.1-17.6	1.6	0.0
12	0	0.0	0.0-11.8	0.0	0.0

Ceramics

Ceramics were certainly a major part of the assemblage at CA-SDi-903, and according to the notes from the Museum of Man excavations at CA-SDi-901, they were a prominent part of the collection there, as well. Surface inspection of CA-SDi-901 confirms the impression made by the old field notes. Although ceramics were an important part of the assemblage at both of these sites, the variety of forms noted by True is not represented in our collections. This is probably a result of the relatively small size of our sample, however. The Museum of Man excavations at CA-SDi-901 did produce a number of vessel forms, including bowls, jars, a canteen, and a cup. A pipe fragment was recovered from our excavations at CA-SDi-903, but no rattle fragments, figurines, or other specialized forms were noted.

Steatite Industry

True (1970:43) notes that worked steatite fragments are common at sites in the Cuyamaca area and that this contrasts with the San Luis Rey Complex, which does not seem to have emphasized manufacture of steatite artifacts. True further notes that the site at Los Caballos (CA-SDi-853), located near the soapstone quarry, had a greater frequency of surface fragments of worked soapstone than did other sites in the area. Soapstone items were common artifacts in our excavations at CA-SDi-903, with 3 beads, 5 pendant fragments, 3 shaped fragments, 1 comal, 3 large nodules, and 101 pieces of debitage recovered. This site is also relatively close to the quarry and could be expected to have high frequencies of manufactural debris.

Although the presence of soapstone debris indicating manufacture of soapstone items does serve as a good contrast between sites in the Cuyamaca Mountains and sites of the San Luis Rey Complex, we suggest that this has more to do with proximity to the source than with cultural differences between prehistoric Yumans and prehistoric Shoshoneans. A fall-off model of material occurrence might well describe the incidence of soapstone manufactural debris in sites as distance from the quarry increases. Sites of the San Luis Rey Complex are far enough away from the source that little manufactural debris would be expected to occur in them. This suggestion is supported by the fact that relatively few soapstone items and little manufactural debris is found in Late Prehistoric sites in the Yuman area outside the Cuyamacas.

Cemetery Areas

No cremations or human bone were recovered from the excavations at CA-SDi-903. The Museum of Man notes indicate that a sizable cremation cemetery was encountered at CA-SDi-901, however, and this site appears to have contributed to the formulation of distinct cemetery areas as a hallmark of the Cuyamaca Complex. True (1970:8) indicates that 121 cremations were recovered from this site, but this figure is based on what appears to have been a typo on the site form. Ken Hedges of the Museum discovered this typo in reviewing forms, notes, and a handwritten copy of the original form, and says that the actual number of cremations recovered from the site is 21. The notes do indicate that these cremations were recovered in a restricted area of the site, but the notion that cemetery areas were separate and distinct from living areas, as True (1970:53) suggests, is contradicted by the Museum's field notes that report the excavation of a house in close proximity to the cremations. This house is not very well described, but is said to have been made of "mostly oak logs with some cedar." No details of the construction were preserved, but the maps indicate that it was immediately adjacent to the cremation cemetery. True's (1970:53) observation that cremations were generally placed in urns and that they were commonly marked in some way (usually with metates) is confirmed by the data from CA-SDi-901.

CONCLUSIONS

Based on our excavation at CA-SDi-903 and the fieldnotes from the San Diego Museum of Man excavations at CA-SDi-901, we believe both these sites to be the centers of major villages. This is indicated by the kinds, density, and variety of materials present and the extent of the sites. The presence of these sites within a mile of one another, and the Los Caballos site, nearby, suggests a very high population density for the Cuyamaca mountains that was sustained by the abundant resources that were seasonally available there.

The archaeological material we recovered from Hual-Cu-Cuish Meadows and Fire Station sites generally fits the pattern described by True as the Cuyamaca Complex. The occurrence of a house adjacent to a cremation cemetery at the Fire House site contradicts the notion of cemeteries being separate from living areas. We also suggest that the abundant evidence of the manufacture of soapstone items found in Cuyamaca area sites is due to the proximity of the raw materials and is not necessarily a good criterion for distinguishing Cuyamaca Complex sites in areas away from the soapstone quarries.

Numerous questions need to be addressed so that we can more fully appreciate the nature of the remains in the Cuyamaca Mountains. These include questions about site seasonality, resource exploitation, the role of soapstone procurement, modification, and trade in the social organization, and the nature of seasonal population aggregation in the mountains. Our excavations and the review of past work indicates that there is a high likelihood of being able to investigate such problems with success in the future. It is to all of our good fortunes that this area of high prehistoric site densities is in an area of State Park land where the sites are being actively managed to insure their existence into the future. There is no rush to take our "last look" at this important resource.

NOTES

We are grateful to a number of people who have assisted us in our work at Cuyamaca Rancho State Park. Phil Hines, Rae Schwaderer, Terry Brown-Sampson, Don Laylander, and Lynne Christenson participated in the fieldwork at Hual-Cu-Cuish and Terry Brown-Sampson cataloged the collection. The staff of the Montane District, California Department of Parks and Recreation, helped with logistics. Martha Black, Pat Valenta, and Rudy Baie were particularly helpful in providing access to facilities. Ken Hedges and Grace Johnson provided access to the collections and records of the San Diego Museum of Man.

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