

32. ARCHAEOLOGY OF THE NORTH COAST RANGES, CALIFORNIA

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This paper has two objectives: to report on recent excavations in Mendocino County, California, and to make a preliminary definition of several archaeological complexes known to exist in the surrounding North Coast Ranges. The area in question includes the mountainous region north of San Francisco Bay, west of the Sacramento Valley, and north to southern Humboldt and Trinity Counties. Except for recent work along the Pacific Coast, the extreme northern part of this region is unknown archaeologically and cannot be described. The southern part of the region is better known and may be defined in some detail. Marin County, which is physiographically part of the North Coast Ranges, is here omitted from discussion because of its close affiliation to the cultures of the San Francisco Bay complexes (Beardsley, 1948). This leaves, in effect, the four counties of Lake, Sonoma, Napa, and Mendocino for consideration. All of these counties have been more or less intensively surveyed for archaeological remains, and sufficient excavation has been done so that the major archaeological manifestations of the North Coast Ranges may be outlined.

Physiographically, the region is an area of low mountains divided by small north-south trending valleys. Toward the coast, redwood and pine forests occur; the interior hills have large areas of grassland, oak, and chaparral. The west edge of the region is bordered by the Pacific Ocean; the east edge by the hot and dry Sacramento Valley. Rainfall in the North Coast Ranges is moderate to heavy, increasing as one proceeds northward. Some snow falls in the northern part in the winter, but in general the climate is mild.

Archaeological sites are abundant in this region. The University of California Archaeological Survey has records of 1137 sites in the four counties, distributed as follows:

County:	Number of recorded sites:
Lake	119
Mendocino	510
Napa	139
Sonoma	369

The total figure, although greater than for most areas of comparable size, is certainly only a small portion of the total number of sites in the region. Some 400 of the Mendocino County sites, for example, were recorded in Round Valley alone (Treganza, Smith, and Weymouth, 1950) which is a very small part of the area in Mendocino County.

Nearly all of the recorded archaeological sites are habitation sites, but there are also a few petroglyph and quarry sites. Nineteen of the recorded sites are known ethnographic villages, although many additional sites are known to have been occupied in historic times by the occurrence of glass beads and other Caucasian trade material.

In historic times, the region was occupied by the Pomo, Yuki, Wappo, and Coast Miwok groups. The later archaeological horizons blend with ethnographic materials and do not suggest that these groups are newcomers to their areas. The earlier complexes are difficult to link with the recent Indians and are somewhat different in appearance from the general "Californian" pattern characteristic of the Sacramento Valley (Lillard, Heizer, and Fenenga, 1939).

Excavation of Site 4-Men-500

The excavation here reported was carried out in August, 1951, near Willits in northern Mendocino County. An extensive surface survey of Round Valley to the north (Treganza, Smith, and Weymouth, 1950) had revealed a wide range of implement types. Few of these could be placed chronologically, and one of the objectives of the 1951 field work was to determine a sequence for this area. It was also hoped that some indication of cultural relationships with other California areas could be derived.

Northern Mendocino County is at about the midline between cultures which may be characterized as "Central Californian" and "Northern Californian." Each of these large regions has a distinctive archaeological pattern, and it was thought that some historical development might be revealed by an excavation near the boundary between the distinctive cultures of the historic period. However, as is often the case with excavation in a new area, the pattern revealed showed no particular relationship to either northern or central California. Instead, the major complex discovered must be treated as a distinct culture of uncertain affiliations.

Chronologically, the Mendocino excavation succeeded in placing many of the artifact types reported in the Round Valley survey. Two complexes are defined:

1. The Mendocino Complex: a prehistoric and distinctive pattern which is well defined by most of the artifacts recovered at Men-500.
2. A "Late" Complex: very late prehistoric and historic in time. Associated with ethnographic Pomo material; represented by a late level of the Men-500 site. This complex represents a minor areal variation of the Clear Lake Complex, described in the second part of this report.

The excavation work was done under the auspices of the University of California Archaeological Survey, which supplied field equipment and financed the excavation. Mr. and Mrs. V.D. Case of Los Angeles kindly permitted excavation of the site on their property and are also to be thanked for granting camping space for the crew. Mr. and Mrs. K. Butin, residents on the Case Ranch, assisted the field party in many ways during the month that the crew was camped near their home. Their enthusiastic cooperation led to the recording of many new sites and added materially

to the information gained. Additional assistance was generously given by Mr. and Mrs. Jack Wright, Mr. and Mrs. R.B. Manning, and Mr. John A. Hansen, all of whom permitted test excavations on their property. Mr. A. Heavner piloted his personal airplane over the site to enable crew members to take aerial photos of the site area.

A special acknowledgment is due the six crew members whose competent labor recovered the materials treated in this report. Martin A. Baumhoff, then Assistant Archaeologist for the U.C. Archaeological Survey, took on the task of mapping the site and assisted throughout the excavation. Other University of California students who worked full time at the site were Richard Brooks, Leroy G. Fischer, J. Arthur Freed, George V. Shkurkin, and Robert J. Squier. Mrs. Evelyn Squier worked with the crew for two weeks, and several Berkeley students volunteered assistance for one or two day visits. Professors E.W. Gifford and A.E. Treganza visited the site during excavation.

The Site:

Men-500 is located two miles northeast of Willits in northern Mendocino County. In historic times this area was occupied by the Northern Pomo, and several named Pomo villages are recorded within a few miles of the site (Barrett, 1908; Stewart, 1943). Men-500, although containing evidence of historic occupation, does not appear to have been mentioned by Barrett and was probably abandoned shortly after Caucasian contact. The site is only two miles from the historic boundary between Yuki (Huchnom) and Pomo, the boundary being the crest of the hills behind the site. Men-500 is only ten miles south of historic Kato territory which occupies the Laytonville-Branscomb region. Since these tribal boundaries have certainly shifted from time to time, there is no way of identifying the earlier people at Men-500 as to linguistic or tribal affiliation.

The site is a large occupation midden bordering a small stream at the east edge of Little Lake Valley. It is just above the valley floor on a sloping alluvial fan and is particularly favorably situated with respect to water, for the small creek at the north edge of the site was fed by an all-year flowing spring. This must have been an important reason for settlement at this spot, for the country is very dry during the summer and a dependable water source is of major value even to the modern residents.

The lowest levels of the hills surrounding Little Lake Valley are grasslands, intersected by a number of short intermittent streams. Stream banks support heavy vegetation which at Men-500 consisted of large pepperwood and oak trees (see pl. 1A). The grassland does not extend more than a few hundred feet up the hills, and it merges into heavy oak and chaparral cover which continues to the crest, here between 800 and 1000 feet above the valley floor. Manzanita (Arctostaphylos manzanita) is the commonest of the chaparral plants, and there is also an abundance of poison oak (Rhus diversiloba).

The floor of Little Lake Valley is now devoted primarily to pasture land for dairy cattle. However, in aboriginal times the north end of the valley must have been a large marshy area, particularly in the winter rainy season. Even today the valley floods periodically, for Outlet Creek, which drains the valley to the north, is too small to carry the run-off rapidly. Rainfall is heavy by California standards; the average at Howard Forest Ranger Station, a few miles south of Willits and at slightly higher elevation, is 45 inches per year.

Mammals suitable for food include rabbits and deer. There is still a fair abundance of deer in this region, and this animal must have been of prime economic importance to the Indians. Fish and waterfowl were probably also important items in the diet.

Site Men-500 is an oval area of occupation which is 325 feet north-south and 125 feet east-west. The deposit is relatively shallow, about 48 inches being the maximum, although some burial pits extended considerably deeper into sub-midden gravels. Surface layers of the site had been disturbed by cultivation to a depth of eight or ten inches, and further disturbance probably came from the roots of apple trees which formerly formed an orchard on the site.

The site is not a mound but follows the slope of the hill with a relatively even layer of occupational deposit. The area is sharply differentiated from the surrounding ground by its much darker color and by the presence of quantities of chert chips -- remnants of artifact manufacturing.

Plan of excavation and sample obtained:

Lacking contours which would indicate the deep parts of the site, two long trenches were dug across the center of the midden (see map 2). Completion of these trenches showed that the deepest portion of the midden was close to the east (up hill) margin of the site, and work was then expanded in that area to dig an additional 15 pits.

The total excavation sample consisted of 62 five by five foot pits which were dug by one foot levels to the base of the site deposit. This represents 310 feet of trench and 200 cubic yards of midden material examined. Although the sample is a small portion of the total site, it is large enough to yield a fairly reliable stratigraphic sample, and it is the only excavation of any size yet reported for Mendocino County.

The excavation was done with trowels and shovels; screens were not used except for the column sample taken for analysis of the midden.

Stratigraphy and features:

Two cultural periods have been determined for Men-500. The earlier is here named the Mendocino complex. Artifacts assignable to the Mendocino complex occur in Round Valley, 20 miles north of Men-500, and in

other scattered locations throughout Mendocino County. The geographic name for the culture complex seems appropriate, for it appears to represent a basic culture extending through much of the North Coast ranges. Although the Mendocino complex is probably contemporaneous to some of the Middle Horizon sites described for San Francisco Bay and the Sacramento Valley, it is sufficiently distinct from these so that it would be more confusing than helpful to designate the complex as "Middle." There is no particular evidence for cultural connection between the Mendocino complex and the Middle Horizon, and putting the Mendocino complex into the already complicated Middle Horizon picture seems inadvisable.

The later horizon at Men-500 is proto-historic and historic in time. The artifacts correspond to ethnographic Pomo and Yuki types, and the complex represents a local variant of the Clear Lake Complex. It may be desirable at some future date to set off this sub-complex with a special name, but in this report it is not named and is referred to only as "Late."

The Late material at Men-500 occurred primarily in the top foot of the site; the Mendocino complex included all the rest of the midden. The cultural stratification was correlated with a physical stratigraphy of the site. Physical stratification was clearly observable only in trench 43, where a layer of rocks was encountered which extended throughout the trench. The rock layer was from 11 to 19 inches deep and from 6 to 12 inches in thickness; it was composed of angular schistose stones ranging from an inch to 12 inches in diameter. Having recorded the layer in trench 43, it was possible to pick up traces of it in the walls of pits further down the hill, and to ascertain that the layer must extend over an area at least 30 by 60 feet. Presumably, the rock layer covers the whole up-hill portion of the site, becoming more scattered and diffused as one proceeds down the slope.

The occurrence of the rock layer appears to be due to native rock washing down the hill from above. The up-hill margins of the site are relatively flat in comparison with the slopes adjacent, and the stones washing in from above would tend to concentrate on the upper part of the site. The quantity and size of the rocks involved indicate a great deal of water coming down the slopes of the hill -- probably enough to amount to a minor flood. It is possible that additional impetus was given by overflow of the adjacent creek, although the creek bed is now several feet below the level of the rock layer. In any case, there seems no need to postulate any drastic climatic change to explain this feature. One bad forest fire which denuded the steep slopes above, combined with a very rainy winter or two, could probably produce the same concentration today.

How much time is involved in the deposition of the rock layer is not known. Since there is a rather sharp cultural change at this level there is indication of some time lapse during which the site was not occupied. The time break does not appear to have been extremely long but may well have been several hundred years. Since the rock layer covers only a portion of the site, there is some mixing of artifact types due to plowing, rodent action, and tree roots. It is therefore difficult to determine exactly how sharp a cultural break is present and equally

difficult to estimate how long the site was unoccupied.

Except for areas in which the rock layer was less clearly demarcated, the site profiles show a homogeneous structure which varies not more than a few inches from the sample profile given in fig. 2, lower.

Site Constituents:

A more detailed analysis of the site constituents was made with the contents of pit S-43. This entire 5 by 5 foot pit was screened in a quarter-inch screen, and materials caught by the screen were separated and weighed. The figures are given in Table 1. The site is notable for its very high proportion of native rock and virtual absence of faunal remains. There is no shell whatever and the bone remains in the pit constitute only .0037 of one per cent of the material caught by the screen. This minute trace of unidentifiable bone is all that remains in the way of food refuse, and it is apparent that midden analyses of the sort which have been carried out in the Sacramento Valley (cf. Cook and Heizer, 1951) cannot be made here.

The minor midden constituents of Men-500 are graphed in fig. 1. The chert and obsidian figures show an interesting pattern. Both materials represent chipping wastage from artifact manufacture. It is seen that the quantity of obsidian chips decreases steadily from top to bottom of the site, while the chert figure is more constant except for an expectable diminution in the rock layer. In general, the indication is that while chert was the favored artifact material throughout the history of the site, there was an increased use of obsidian in the later periods. There is 2.5 times as much obsidian in the top level as there is in the bottom level.

Pit S-43 also contained an exceptional number of artifacts, totaling 100 catalogued specimens. These included the following objects:

Chert flake scrapers	30
Chert projectile points	10
Tips and fragments of chert points	41
Chert drill fragments	2
Obsidian projectile points	3
Bottle glass fragments	3
Bottle glass projectile point	1
Quartzite flake scrapers	2
Quartzite hammerstones	2
Mano fragments	2

There is some reason to believe that pit S-43 was atypical in the quantity of worked material that it contained, for adjacent pits which were carefully trowelled failed to yield anything like this number of specimens.

Table 1

Midden analysis; constituents of pit S-43, site Men-500

Level: in inches	Native rock (pounds)	Obsidian lbs.	Obsidian grams	Chert lbs.	Chert grams	Bone lbs.	Bone grams	Totals: pounds
0-6	197.50	.058	26.7	1.081	590.4	.011	5.1	198.65
6-12	282.25	.054	24.6	.472	214.1	.026	12.0	282.80
12-18	351.50	.050	22.9	.592	268.9	.022	10.1	352.16
18-24	293.00	.038	17.3	.907	410.1	.018	8.6	293.96
24-30	227.25	.026	12.1	.750	340.4	.002	1.0	227.35
30-36	343.00	.024	11.2	.907	410.9	.001	0.8	343.93
36-42	440.50	.023	10.7	1.277	578.4	--	--	441.80
TOTALS:	2135.00	.273	125.5	5.986	2813.2	.080	37.6	2141.34

Notes:

The figures represent only the material caught by a quarter inch screen. Residue (soil) which passed through the screen is not calculated.

There was a trace of steatite in all levels, consisting of one or two very small pebbles.

The 36-42 inch level represents a mixture of midden and base gravel; figure for native rock is abnormally high due to inclusion of sub-midden rock.

At the same time, it is clear that the excavation method resulted in the discarding of numbers of point fragments and slightly retouched chert flakes. Except for these two classes of artifacts, the yield from pit S-43 was only slightly greater than for adjoining pits.

Features:

The following features were exposed:

1. Eight accumulations of fire-broken stones, presumably hearths.
2. Two unlined pits which represent hearths.
3. Four large stone-lined pits interpreted as earth ovens.
4. A platform of flat stones, 6 by 8 feet in size.
5. A collection of three grinding implements.
6. A burial of a small domestic pig.

Features connected with hearths or cooking areas include unlined pits, irregular concentrations of rock, and carefully made ovens which are stone-lined pits. Only two of the unlined pits were noted, although there were probably some additional ones which could not be distinguished from the mass of midden deposit. One pit was differentiated from the base soil by its darker color; the pit extended 5 inches into the base soil and was 28 inches in diameter. The other pit (feature 18) was 41 inches in diameter and 10 inches deep; it was observable in a side wall by the thin layer of ash which lined the bottom of the pit.

The rock accumulations ranged from 37 by 27 inches to 78 by 48 inches in area and from 6 to 13 inches in thickness. All were oval or oblong in outline. The eight features of this type contained fire-broken rock, but none of them showed extensive deposits of ash or charcoal. The entire midden deposit contained varying amounts of ash and charcoal, but no particular increase in quantity could be seen in the feature areas. The features are interpreted as fire places, however, partly because no other explanation of their occurrence seems very likely. These rock accumulations varied from 10 to 22 inches in depth (to the top of the feature). The average depth was 16 inches, and all of these occurrences, with one or two possible exceptions, can be assigned to the Mendocino complex.

The four "ovens" uncovered were only a few inches below the surface, averaging 6 1/2 inches to the top of the feature. These large and carefully constructed fire-pits contained quantities of loose rock when found and also had concentrations of ash and charcoal within them. Clear evidence of intense heat was visible; the stones of the features were burned to a red color and a layer of midden about an inch thick beneath the stones was also burnt brick red. This exact sort of feature has not been previously recorded for California, and the individual measurements are given as follows:

Feature:	Depth to top:	Depth to base:	Size:	Remarks:
2	6 inches	36 inches	36 by 31 inches	
5	6	23	61 by 51	See Pl. 2 Q
12	6	16	33 by 29	
16	8	28	60 by 45	See Pl. 2 R

All four features were constructed in the same way. A pit was dug and the largest available rocks (ranging up to 16 inches in diameter) were placed on the floor of it. Smaller stones were then used to build up the sides.

These features conform closely to the description of Yuki ovens given by Foster:

Acorn bread was a great delicacy. . . Earth ovens 2 feet deep and as wide were rock lined, fired, the ashes removed, leaf lined, the dough added, more leaves put on top, then sticks and dirt, and finally a fire built on top. All night was required for proper baking. The average loaf was 1 1/2 feet in diameter and 1 foot thick, and lasted, with other food, four days for six people. Larger loaves were baked for festive occasions. Black bread was 'black as crow's inside, and very sweet.' The last baking occurred about 35 years ago (Foster, 1944, pp. 165, 166).

The rock features from Men-500 are undoubtedly ovens of the sort just described, varying only in being larger than the ethnographically described ovens. All of the ovens can be attributed to the Late inhabitants of Men-500, and earth ovens appear to have replaced largely, if not entirely, the simpler rock hearths of the Mendocino complex.

The large size of the archaeological ovens may indicate a rather large population for the site, as well as community effort in preparing food. The biggest oven at Men-500 could have baked acorn bread for 30 or 40 people at a time, according to the description given above.

In addition to the features connected with fire and cooking activities, a structural feature in the form of a paved area was uncovered. The pavement was 6 inches below the surface and covered an area 6 by 8 feet. It was composed of angular schist fragments laid touching one another and with a smooth face uppermost. The feature appears most likely to be a paved bench of the sort used in northwestern California (Kroeber, 1925, p. 81, and Pl. 14). Since the feature is relatively close to the creek, it may well have been outside a sweathouse, although no trace of such a structure was found. The grave for burial 1 was dug through the paved area, presumably some time after it had been abandoned since the hole in the pavement was not resurfaced with stone. The pavement is assigned to the Late occupation.

Fragments of a pestle, a mano, and a metate were all found together resting on the base soil in pit S-25. Since there was only a single piece of each artifact, the association may be fortuitous. On the other

hand, it may represent a cache of raw material which was intended to be reworked into other implements.

Finally, there is the pig burial. This was found at a depth of 14 inches, buried in the rock layer but with no rocks immediately around it. The animal was very small and had an iron wire around its neck. This burial looks like an intrusive burial of a domestic animal in recent times. However, the site was occupied by Indians in historic times, and there is a possibility that Indians are responsible for the burial.

Burials:

Five burials were recorded; one belonging to the Late Complex and the other four from Mendocino Complex deposits. The burials are described below.

Burial 1. A tightly flexed burial of an adult female (see pl. 3A). The grave pit could be clearly seen in the side wall and the burial was exposed in the original grave. The grave was also intrusive through a rock pavement (see features). The mortuary pit was shallow and conical in shape measuring 34 by 44 inches at the top and only 17 by 28 inches in the lower part occupied by the body. The grave was 26 inches deep. Associated objects include 47 small glass beads (at neck and lower limbs of skeleton), the mandible of a carnivore (fox?), and a cache of perhaps a dozen much disintegrated mussel shells (Mytilus sp.) at the pelvis. The burial is that of a Late complex resident and probably dates from shortly after 1800. Although the burial had been in the ground only about 150 years, the bones were exceedingly fragile and required hardening and fixing with preservative before they could be removed from the ground.

Burial 2. A Mendocino Complex adult burial; probably a loose flex on the left side although so little of the bone remained that it was not possible to be certain of this (see pl. 3B). The lower part of the grave pit was intrusive into the sterile sub-mound gravels and the burial was exposed in the original grave. The grave pits for the burial and the other Mendocino Complex graves seem abnormally large for California graves, and all are considerably larger than the single Late Complex grave described above. It seems likely that these large grave pits originally contained basketry, matting, or similar perishable materials which have now disappeared.

The grave for Burial 2 was four feet in diameter and extended 25 inches into the base gravels. It could not be determined from what level the grave had been dug, but it was probably at least 36 inches deep. The grave pit was filled with black midden soil in no way differentiated from the bulk of the deposit. Associated with Burial 2 were the following objects:

1. 2 pestles (one type 3, complete; one type 4, broken into 3 pieces; see pl. 3E, F).

2. 2 chert projectile points, one type 3 and one fragmentary specimen of indeterminable type.

3. 2 obsidian projectile points, one type 9 and one fragmentary specimen of indeterminable type.

4. 1 chert scraper, type 3, possibly a fortuitous association.

The bones of Burial 2 had almost completely disintegrated in the ground and no trace of most of the bones (not even color difference) was present. As indicated in pl. 3B, only small fragments of humerus, femur, and pelvis remained.

Burial 3. A large pit burial as above, pit intrusive into the sub-mound gravels. The soil filling the grave was dark but not the black midden characteristic of the site; the grave appears to have been dug in sterile soil before accumulation of the midden mass. Another possibility is that the grave fill has undergone considerable leaching of the organic material. The grave pit was 49 inches in diameter and 22 inches deep. Nothing remained of the burial except a few small bits of tooth enamel; no scrap of bone was found in the grave. Artifacts found include:

1. 2 pestles, type 3.

2. 2 fragmentary obsidian projectile points, probably type 3.

Burials 4 and 5. Both burials were interred in the same pit (see fig. 2 lower). Although very fragmentary, enough remained of the bone to indicate that the burials were of adults, both apparently loosely flexed on the side. The grave pit was 45 by 50 inches and about 24 inches deep. Burial 4 was slightly higher in the pit but seemed to be part of the same grave. The grave was filled with large rocks, one of which had crushed the skull of Burial 5. The grave fill was very black and contained an abundance of charcoal fragments; the layer immediately above the grave was a yellow-brown color.

Burial 4 had only a steatite bead or charmstone fragment associated (see description under "steatite objects"). This fragmentary specimen may have been a fortuitous association. Burial 5 had beneath it the following objects:

1. 7 chert projectile points (2 type 7, 1 type 8, 3 type 10, 1 type 12).

2. 1 obsidian flake used as a scraper.

3. 1 large obsidian flake, unworked.

Artifacts:

Artifact preservation at Men-500 is very poor, and in general the North Coast Ranges appear to have much poorer preservation than the dryer areas of the state. Several factors contribute to the decomposition of buried objects at Men-500. The base soil is a loose gravel which permits rapid run-off of the water. There is also the unusual slope

of the site, dropping 37 feet from one end to the other. At the same time, during the winter months the site area is drenched with heavy rains, and the sub-midden gravels must be virtual subterranean rivers during the wet season. There are thus alternate periods of extreme wetness and extreme dryness of the midden soil, and this has probably been the major cause of the artifact deterioration observed. In any case, the lack of preservation is such that this report must be based almost entirely on lithic artifacts. There is virtually no shell or bone remaining in the site, and even some of the sandstone artifacts show surface corrosion and exfoliation.

Catalog entries from the site total 954, almost all of which are artifact entries. This means that the site yielded about five artifacts per cubic yard -- a relatively high yield for a Central California site. Of the 954 entries, 174 (18%) are tips and other unclassifiable fragments of projectile points which are worth little in terms of information gained. However, considering that only lithic material is preserved in the site, it must be rated a moderately rich site by California standards. Artifacts are described below; depth distributions are given in Table 2.

Projectile points:

General comments: Fourteen types of projectile points occurred at Men-500. Most of the points were made of the local Franciscan chert but there was an increase in use of obsidian during the Late Complex times. The size of projectile points shows a marked decrease with the passage of time; Mendocino Complex points range from 2.4 to 8.0 cm. and average 4.3 cm. in length while Late Complex points range from 1.7 to 5.6 cm. and average 3.3 cm. in length. Individual types are described as follows:

Type 1. Leaf shape with single shoulder on one side. The shoulder is often very small but is clearly visible by contrast with the even curve of the opposite edge of the point. 9 specimens, 8 of chert, 1 of obsidian. Size range 3.2 to 5.2 cm. All specimens from Mendocino Complex. See pl. 4A.

Type 2. Leaf shape with expanded basal region. 3 specimens, 2 of chert, one of obsidian. All are fragmentary, but length was apparently close to 5 cm. All specimens are assignable to the Mendocino Complex. Points of this shape are characteristic of the McClure facies of the Middle Horizon in San Francisco Bay region. However, the latter are always of obsidian, and the small number of type 2 points does not suggest any strong cultural connections with the bay area complexes. See pl. 4B.

Type 3. Simple leaf shape. 40 specimens, 35 of chert, 5 of obsidian. Size range 3.6 to 7.5 cm. in length. Occur in both Mendocino and Late Complexes. See pl. 4C,D.

Type 4. Leaf shape with square base. 6 specimens, all chert. Size range 3.8 to 6.0 cm. in length. Occur in both Mendocino and Late Complexes. See pl. 4E,F.

TABLE 2. Depth Distribution of Principal Artifact Types,
Site 4-Men-500

Artifact type:	No. tabulated	Depth range (Inches):	Average Depth (Inches):
Projectile Points*			
Type 1	9	11-32	20
2	3	12-33	20
3	34	4-64	20
4	5	6-38	18
5	1	3	3
6	1	0	0
7	19	8-44	27
8		Only with burials	
9		Only with burials	
10	6	9-45	30
11	12	3-38	21
12	25	3-54	24
13	12	3-27	6
14	12	1-37	14
Scrapers			
Type 1	104	0-55	14
2	27	0-42	15
3	84	0-57	18
4	27	0-62	19
5	49	0-42	19
5A	5	0-30	14
6	19	0-40	19
7	7	3-27	10
7A	5	4-35	22
Blades			
Type 1	14	0-29	18
2	7	0-37	15
3	3	10-22	17
Drills			
Type 1	5	8-29	26
2	4	3-37	16
3	2	0-21	10
Pestles			
Type 1	6	3-33	10
2	3	13-22	17
3	6	6-29	21
4		Only with burials	
5	1	28	28
Mortars	9	0-35	21
Hopper mortars	2	17	17
Metate fragments	22	0-47	20
Manos and fragments	34	0-37	23
Pecking stones	9	0-25	8
Core choppers	6	0-32	20
Hammerstones	47	5-39	22

*Surface finds and burial associations are omitted from the depth calculations of projectile points. Surface finds are included in the calculations for other artifacts because of their very much smaller number.

Type 5. Simple triangular point. Only one specimen, made of yellow-green bottle glass, l. 2.6 cm. Found in top six inches of pit S-43; assignable to Late Complex. See pl. 4G.

Type 6. Leaf-shaped with inset shoulders near midpoint. Only one specimen, chert, 2.6 cm. long, from surface. The same shape occurs ethnographically among the Pomo and the type belongs to the Late Complex. See pl. 4H.

Type 7. Triangular concave based points. 21 specimens, all but one of Franciscan chert in red, green, and gray. The exception is of obsidian and is the smallest point of this type. Size range 3.1 to 5.2 cm. in length. This type is stratigraphically the oldest at Men-500 and is clearly assignable to the Mendocino Complex. Since this is one of the commonest types at Men-500, it is the most diagnostic single artifact type for the Mendocino Complex. See pl. 4J-N.

The occurrence of concave based points at Men-500 is of particular interest because of the finding of superficially similar points at the Borax Lake site. The latter points, which were originally equated (mistakenly) with Folsom points are now called Borax Lake Fluted points. The Men-500 points which occur in the same general part of California are not to be confused with Borax Lake Fluted points, however. A comparative table showing the differences between the two types is given below:

	Borax Lake Fluted*	Men-500, type 7
Total number tabulated	16	21
Fluted on one side	2	0
Fluted on both sides	14	0
Chert, jasper	2	20
Obsidian	14	1
Length range (cm.)	6.3 to 10.0	3.1 to 5.2

*Data from Harrington, 1948, fig. 25.

It is clear that the Borax Lake Fluted points show little similarity to the concave based points from Men-500. Typologically, the Borax Lake points should be older on the basis of their larger size and presence of fluting. The Men-500 points show some basal thinning, but this is undoubtedly a byproduct of making the concave base and cannot be attributed to a deliberate attempt at fluting.

Points closely similar to Men-500 type 7 are not reported for Northern California and are not mentioned in the previous survey of the Yuki area (Treganza, Smith, and Weymouth, 1950) nor of the Shasta Dam area (Smith and Weymouth, 1952). Although concave based points are common in sites of the Middle Horizon in Central California, they are usually of obsidian and are larger and more finely chipped than the Men-500 examples. The nearest occurrence of projectile points closely similar to the Men-500 pieces is in southern California, beginning at about Santa Barbara County.

This point type is characteristic of the Canalino culture of Southern California. However, since there is no other particular point of resemblance between the Mendocino and Canalino complexes, occurrence of the point type in northern California may be tentatively attributed to independent development in this area.

Type 8. Wide, roughly diamond shaped. Only one specimen was found, associated with Burial 5. The single example is of black chert and measures 3.0 by 2.4 cm; dated as belonging to Mendocino Complex. See pl. 4P.

Type 9. Triangular, with wide square stem. Only one specimen found -- obsidian, 2.3 by 3.7 cm., 29 inches deep. Assigned to Mendocino Complex. This point is somewhat similar to Harrington's Borax Lake Points (Harrington, 1948, pl. 19) but the Men-500 find is considerably smaller and not typologically identical. See pl. 4Q.

Type 10. Large points with deep corner notches and slightly expanding stems. 7 specimens, all of Franciscan chert, 3.8 to 6.2 cm. in length. Three were found with Burial 5. The type tends to merge imperceptibly with Type 11, below, and some intermediate examples occur. Type 8 points are found in both Mendocino and Late complex deposits. See pl. 4R.

Type 11. Large points with side notches and expanding stems. 16 specimens, all of Franciscan chert, length range 4.0 to 7.1 cm. Four points of this type were surface finds, although the buried ones were for the most part in the bottom levels of the site. The type seems to belong to the Mendocino Complex although it appears to have persisted in greatly diminished numbers into the Late period. See pl. 4S-U.

Type 12. Simple stemmed points of large size. 29 specimens, of which 4 are obsidian and the other 25 are chert. Length range 4.3 to 8.0 cm., dating Mendocino Complex. See pl. 4X, Y.

Type 13. Small triangular corner notched points with slightly expanding stems. 12 specimens, 9 of chert and 3 of obsidian. Size 1.7 to 3.5 cm. in length. All belong in the Late Complex. The type is similar in shape to Type 10, but the latter is larger, heavier, and more coarsely chipped. See pl. 4V, W. One specimen of this type is closely similar to the characteristic Humboldt-Shasta County point type in having concave edges and long tangs (pl. 4W).

Type 14. Small side-notched points with concave base. 12 specimens, 1.8 to 3.8 cm. in length; 11 are chert, 1 obsidian. All belong to Late Complex. See pl. 4Z, A', B'.

Scrapers:

The general category of "scrapers" includes a variety of cutting and scraping tools which have been divided into 9 categories. The types are determined primarily on their complexity of manufacture, type 1 being simple used flakes and type 7A being carefully manufactured end scrapers worked to a definite shape.

Types are defined as follows:

Type 1. Amorphous flakes with portions of the edges secondarily chipped, apparently through use only. Probably none of these were used more than once. 104 specimens, nearly all of chert. Size ranges from 1.5 to 6.0 cm. in diameter. The type occurs throughout the history of the site.

Type 2. Longitudinal flakes with bulb of percussion on one end. These represent either selection of flakes for a particular shape or deliberate manufacture of elongate scrapers. Usually both long edges show use chipping; a few are pressure flaked. 27 specimens, nearly all of chert, average size 2 by 5 cm. Occur in both Mendocino and Late complexes.

Type 3. Amorphous cores with coarse secondary chipping on one or both surfaces. May be rejects from other implements. 84 specimens, nearly all of chert, size range 2.2 by 2.5 cm. to 5.2 by 6.2 cm. Occur in both Mendocino and Late complexes.

Type 4. Round or ovoid flakes with deliberate chipping along circumference. 27 specimens, of which 21 are chert, 4 are obsidian, and 2 are small sandstone cobbles. Size range 3.0 to 5.5 cm. in diameter. Occur in Mendocino and Late complexes.

Type 5. Small cores with one flat surface and one or more vertical faces flaked to form a scraper plane. 49 specimens, 40 chert, 8 quartzite, and 1 basalt. Size range 2.4 to 7.4 cm. diameter. Mendocino and Late complexes. See pl. 2N.

Type 5A. Scraper planes made from stream cobbles which have one naturally flat surface. 5 specimens, 7.0 to 11.3 cm. in diameter. Occur in both Mendocino and Late complexes.

Type 6. Ovoid cores, percussion flaked on both sides. These may be coarse scrapers or blanks for manufacture of blades and other implements. 19 specimens, all chert, 4.7 to 10.0 cm. in length. Occur throughout occupation of site. See pl. 2D.

Type 7. Fairly thick ovoid flakes with delicate pressure flaking along one or more vertical edges. Probably used as end scrapers. 7 specimens, all chert; 3.1 to 4.9 cm. in diameter. Late complex dating; the type is apparently a degeneration or simplification of type 7A below, which belongs in the Mendocino Complex. See pl. 2G.

Type 7A. Like type 7 but with a tang or projection on one end for hafting. 5 specimens, all chert. Size ranges from 2.5 by 2.9 to 3.7 by 7.0 cm. Mendocino Complex. See pl. 2E, F.

Blades:

Blades of fairly large size occurred in three types.

Type 1. Ovoid blades, rounded on both ends. 14 specimens, all but one of chert; the latter is obsidian. An additional 5 specimens probably belong in this category but are too fragmentary for certain identification. Size ranges from 2.5 by 4.3 cm. to 4.6 by 8.0 cm. Occur in both Mendocino and Late complexes. See pl. 2J.

Type 2. Leaf shape, ends pointed. 7 specimens plus 2 problematical finds which are probably of this type. All specimens of chert. There are no complete ones, but size originally ranged from ca. 3 by 5 by 10 cm. One specimen of this type (pl. 2K) is much like the large chert blades found to the north in Shasta County (Smith and Weymouth, 1952, fig. 1,0).

Type 3. Blades pointed at one end and square at the other. 3 specimens, all chert, size 3.5 by 5 cm. Probably assignable to both Mendocino and Late complexes. See pl. 2H.

Drills:

Three types of drills are defined:

Type 1. Slightly curved flakes with retouched tips; edges usually not retouched for full length. These may be gravers but look like effective drills or reamers. 5 specimens, all chert; 2.1 by 5.2 to 2.8 by 6.3 cm. in size. 4 of the 5 are very deep and the type probably belongs to the Mendocino complex. See pl. 4F¹, G¹.

Type 2. T-shaped drills, drill shaft less than 0.5 cm. in thickness. Length 3 to 4 cm. 4 examples, all chert. Dating not certain, but probably Late. See pl. 4C¹, D¹.

Type 3. Slender shafts of triangular cross section. Ends are broken off but the shaft is different from that of type 2 and the type 3 form probably did not have an expanded head. Only 2 specimens, one of obsidian and one chert. Length 3-4 cm. Dating uncertain. See pl. 4F¹, G¹.

Pestles:

Pestles include the following types:

Type 1. Sub-conical shape with flat pounding end. 6 specimens plus 3 fragmentary examples which are probably of this type. Size range from 4 by 10 to 6 by 15 cm. 5 pestles are of sandstone; 1 of unknown stream cobble material. This type of pestle is known to be the ethnographic form in this region, customarily used with hopper mortars. The type belongs to the Late Complex. See pl. 3C.

Type 2. Simple cylindrical pestles flattened on both ends. 3 specimens, all sandstone. Size ranges from 5 by 8 to 7 by 16 cm. Dating uncertain. See pl. 3D.

Type 3. Cylindrical pestles with one pointed end and one flattened end. Usually made of a harder stone than types 1 and 2. 7 specimens, 5 are sandstone, 1 porphyry, and 1 of hard stream cobble material. Complete specimens were very close to 6 by 36 cm. in size. Both ends of this type of pestle appear to have been used; the pointed end was probably used in pointed-bottom mortars of which one was found at the site. The type occurred with two Mendocino Complex burials and all pestles of this type are assigned to the Mendocino Complex. See pl. 3F-H.

Type 4. Long cylindrical pestles with one end pointed and a bulb on the other end. Only one example was found, a complete pestle with Burial 2. It is sandstone, 5.4 by 52.4 cm. The sandstone shows some surface corrosion and exfoliation so that it is not possible to determine wear but presumably the bulb end was the pounding end. Mendocino Complex; see pl. 3E.

Type 5. Simple unshaped cobble with both ends used. One specimen, sandstone, 7 by 14.7 cm. Mendocino Complex.

Mortars:

Bowl mortars of two types were found. The first type is represented by a single complete specimen and is of particular interest as representing a hitherto unrecorded California type. The mortar is cylindrical in shape and is notable for the sharply pointed cavity of its grinding basin (see pl. 1B, C). The mortar also has a shallow basin-shaped cavity on the bottom which may also have been used for grinding (see pl. 1C). This type of mortar was undoubtedly used with the pointed-end pestles (pestle type 3 above). The single complete specimen from Men-500 is 25 cm. in height and 22.0 cm. in diameter. It was found at a depth of only 15 inches but came from the shallow edge of the site where it was resting on the submound gravels. The type is characteristic of the Mendocino Complex and is a valuable diagnostic artifact of that complex. Three additional mortars almost identical to this one were seen in private collections in Little Lake Valley. All were surface finds and had questionable provenience. One of the latter which was found within 5 miles of Men-500 is decorated with a pecked zig-zag line encircling the mortar just below the rim.

In addition to the mortar just mentioned, 8 fragments of other mortars were recovered at Men-500. Some of these fragments may have been parts of the type 1 mortars just described, but the pieces are too small for certainty on this point. It is certain that a second type of mortar was also in use. The latter is a simple bowl form shaped on inside and out. One rim fragment has a flat rim; 3 others have rounded rims. All fragments are sandstone. The complete mortars were apparently quite small; one specimen was only about 8 cm. in diameter when complete. These bowl mortars apparently also belong to deposits of the Mendocino complex; the Late period apparently used only hopper mortars.

Hopper mortars:

Hopper mortars, which are flat schistose slabs formerly used with basket hoppers, are characteristic of the Later period and were no doubt used with type 1 pestles. Only 2 hopper mortars were recovered from the site; both were unshaped natural slabs showing pecking marks on one side. The one complete specimen was 23 by 25 cm. in size.

Due to the fact that the hopper mortars are of native rock and show minimal working, it seems likely that several specimens of this type were missed in the excavation. Several "possibles" were noted but were not retained because the workmanship was so slight as to be dubious. It was not feasible to wash and examine every fragment of schist carefully, for each pit contained more than a ton of such rock, nearly all of which was unworked.

Metates and fragments:

A total of 22 fragments of metates were found, all but one of which is sandstone; the exception is of a hard schist. Nearly all of the pieces are fairly small, being only 10-12 cm. in diameter. There is a possibility that some of the pieces do not represent metates but mortars. However, all the fragments show very slight concavity and all show pecking and smoothing of one or both sides. The general appearance of the pieces, plus the presence of larger metate fragments and manos, support the interpretation of the finds as metate fragments.

Complete metates were apparently about 30 by 40 cm. and 5 to 6 cm. thick. Numbers of such metates were seen in the yards of local residents; some might be confused with hopper mortars but many are unquestionable metates. The center of the slab shows pecking and smoothing, resulting in some cases in a basin up to 4 cm. deep. Metates were sub-rectangular in shape and appear to have been trimmed to this shape if the natural slab was irregular. Nine of the 22 fragments show pecking marks on both sides indicating external shaping. A nearly complete schist metate is 31 by 36 cm. and has a smoothed basin in the center and the beginnings of another on one corner. Whole sandstone metates are fairly common as surface finds in the Little Lake Valley region. The excavated fragments were deep in the site, however, and metates are part of the Mendocino Complex (see pl. 1D).

Manos and fragments:

A total of 34 manos and fragments were found at Men-500. One is granite, the remainder are sandstone. Size ranges from 6.5 by 10.8 to 6.8 by 15.3 cm. Eleven of the examples show deliberate shaping of the ends, and most of these show pounding of the ends where they were used as pestles or hammerstones. Nearly all specimens show smoothing of the sides, pecking marks in the center, and shoulders where the smoothed grinding surface meets the edge of the mano. A few problematical pieces were difficult to classify and could be either manos or pestles.

This "mano-pestle" form seems to occur widely in the North Coast Ranges. Manos are noted for Round Valley (Treganza, Smith, and Weymouth, 1950, p. 117) and are also noted for the Borax Lake site, where 23 specimens were found (Harrington, 1948, p. 112). The Borax Lake type of mano appears to be identical to those found at Men-500. The latter are assigned to the Mendocino Complex (see pl. 3P, Q).

Pecking stones:

Eleven natural elongate stones are here called pecking stones. These objects show slight evidence of pounding on one or both ends, and they were probably used in manufacturing polished stone objects. This form is the same as that called "spatulas" in the Round Valley report (Treganza, Smith, and Weymouth, 1950, p. 118). The Men-500 specimens range from 3 by 6 to 5 by 16 cm. in size; 10 are sandstone cobbles and one is an elongate chert stream cobble. Pecking stones are characteristic of the Late Complex and appear to be absent from the Mendocino Complex. See pl. 3K, L.

Core choppers:

Large, coarsely chipped stones with one sharpened edge appear to have been used as choppers. 6 examples are recorded, 4 of chert, 1 sandstone, and 1 basalt. Size ranges from 5 by 7 to 7 by 16 cm. One example was a surface find, the other five are from Mendocino Complex levels.

Hammerstones:

A total of 49 fist-sized stones showing battering on one or more edges was recovered. The preferred material was quartzite, although other stones were occasionally used. The hammerstones include the following materials:

Quartzite	34	
* Stream cobbles	5	
Chert	6	
Porphyry	1	
Granite	1	
Basalt	1	
Sandstone	1	* unidentified material

Hammerstones range from 5 to 9 cm. in diameter and most are sub-spherical in shape. They are present in both Mendocino and Late complexes but appear to be much more abundant in the Mendocino deposits, about 90% of them belonging to this period. See pl. 3M, N.

Miscellaneous:

In addition to the objects previously described, the following items were recovered from Men-500:

Pointed core tools or picks. Two specimens, both of chert, 6 by 9 cm. Late Complex dating for both specimens. See pl. 2P.

Charmstone. A single plummet shaped object of soft schist, 6.0 by 3.1 cm. Probably Mendocino Complex; the form is closely similar to the charmstones from the Borax Lake site (Harrington, 1948, pl. 25b, d). See pl. 2C.

Steatite objects. Two small fragments of worked steatite were found. The first is a fragment 2.5 by 1.9 cm. bearing a biconical perforation. It is broken at the perforation and may represent either a steatite bead or possibly the end of a perforated charmstone. The piece came from the grave fill of Burial 5 and no doubt is part of the Mendocino Complex. The other steatite object is a small tabular fragment which has been shaped and smoothed (3.3 by 1.8 by 0.5 cm.). A perforation was begun on one side but not drilled all the way through the piece. Depth of this find was 18 inches; it could belong to either Mendocino or Late Complex. See pl. 4k¹.

Chert eccentric. The chert piece illustrated in pl. 4J¹ is a unique object of unknown use. The form was achieved by deliberate chipping; the artifact is part of the Late Complex collection.

Magnesite bead. A tubular magnesite bead, 1.7 by 1.0 cm., biconically perforated, was found among the rocks of one of the earth ovens (feature 16). The piece is particularly important as a dating indicator, for it had 2 small glass seed beads serving as bushings within the perforation of the magnesite bead. The presence of trade beads dates the stone bead (and the oven in which it was found) to the early 19th century and confirms the Late Complex association of the earth ovens. Magnesite beads of this type were used ethnographically by the Pomo and were considered very valuable objects.

Historic material. Objects of Caucasian manufacture found include the following:

1. The two glass beads mentioned above.
2. 37 additional glass seed beads, 3 red, 2 blue, and 32 white, all associated with Burial 1.
3. A small fragment of white chinaware from the top level of the site.
4. 3 small pieces of yellow-green bottle glass 3 mm. thick. One fragment is unworked, the second bears possible retouching along one edge, and the third is manufactured into a triangular projectile point (see point type 5).

The small quantity and simple nature of the historical material at Men-500 indicate very limited white contact and suggest that the site was abandoned very early in the historic period. A terminal date of about 1825 seems logical for this site; after this time there were enough trappers and others in the region to introduce a great amount of Caucasian

goods such as bottles and crockery. If Indian-White contact had been at all extensive or prolonged, the excavation sample would be expected to yield many more objects of Caucasian manufacture than the few items recovered.

Bone awl fragment. Only one bone artifact was found at the site due to poor preservation conditions. This artifact was preserved because it had been burnt. It represents a medial fragment of a polished bone tool, most likely the characteristic deer-bone awl used by the historic Indians of this region. The piece was only 4 inches deep and belongs to the Late Complex.

Red ocher. Two small lumps of red ocher were found in the midden. They are about 1 cm. in diameter and may be natural to the rocky soil in which they were found.

Slightly modified pebbles. Six sandstone pebbles, each a few centimeters in diameter, showed slight modifications in the form of small areas of peck marks, abrasion, or notching (see pls. 2B, Q; 3J). These probably represent rejects or unfinished objects.

Summary and dating:

This report has described excavation of a large site in northern Mendocino County. The site contained evidence of two distinct archaeological complexes, here called Mendocino Complex and Late Complex. The two complexes are separated by a time gap of unknown duration although the evidence indicates that the time gap need not have been very long.

The Late Complex extends into the historic period, terminating with abandonment of the site in the early nineteenth century. It seems likely that the Late Complex peoples were the ancestors of the Pomo Indians who occupied the site in historic times. How far back in time the Late Complex extends is a question which cannot be answered with certainty, but the shallowness of the Late Complex deposit suggests that the time interval was not very long. The writer's conjecture is that a hundred years or so would suffice for accumulation of the Late Complex deposits, and guess dates for the Late Complex would therefore include the period from about 1700 to 1825 at this site. The complex called "Late" at Men-500 is undoubtedly part of the Clear Lake Complex described in the next part of the report.

The Mendocino Complex presents an almost totally different artifact assemblage and appears to represent a group showing little relationship to any ethnographic tribe in this region. Since there is a time gap between Mendocino and Late times, there is no way of knowing whether the proto-historic Pomo pushed the Mendocino peoples out of the area or whether the disappearance of the Mendocino group was due to some other cause.

Dating of the Mendocino Complex is a problem. Assuming that the decomposition of the burials proceeded at a constant rate, the Mendocino burials must have been in the ground at least five times as long as the

Late burial. This gives the Mendocino Complex a minimal beginning point of about 1000 A.D. The great typological differences between Mendocino artifacts and those of the historic tribes, plus resemblances to the Borax Lake site on the other hand, suggest that the antiquity of the Mendocino Complex is even greater than this date. The writer's feeling is that the Mendocino burials are not very far into the A.D. period, and the Mendocino Complex probably falls into the period between about 500 and 1000 A.D. This guess could be very much in error, and a good sample of charcoal was obtained from one of the Mendocino Complex graves which will permit checking the guess-dates when C-14 dates are more easily obtainable.

The artifacts of the Mendocino and Late Complexes are indicated in pls. 1 to 4 (see also figs. 5 and 8). Table 3 gives a comparative trait list between the Mendocino Complex, Borax Lake, and the Middle Central California Horizon. Of 19 traits which can be tabulated, the Mendocino Complex shares 13 with the Borax Lake site and 7 with the Middle Horizon Central California sites. The closest similarity of the Mendocino Complex is therefore with the culture of the Borax Lake site. Additional similarities aside from artifacts are seen in the situation of the sites (on small alluvial fans bordering valley floors) and in the poor preservation of non-lithic artifacts.

In spite of the apparent relationship between the Mendocino and Borax Lake Complexes, there are several important differences between the two cultures. The Borax Lake Complex has several distinctive artifacts: chipped crescentic forms and several point types ("long stem," "wide stem" and fluted points). In addition, the Borax Lake Points are generally larger than the Mendocino Complex points. Finally, there are some quantitative differences between the two sites; most notable is the virtual absence of mortars at Borax Lake.

There are several possible explanations for the relationship between the Mendocino and Borax Lake Complexes. These include:

1. The differences represent areal variation of contemporaneous cultures.
2. The Borax Lake site actually contains more than one complex, but these could not be separated from one another.
3. The Borax Lake site is an older "basement culture" in the North Coast Ranges, out of which the Mendocino Complex developed.

It is not impossible that all three of these factors have played a part in the observable differences between the two complexes. The writer feels that the last-named alternative above is likely to be the main explanation. On typological grounds the Borax Lake Complex should be the older of the two, and it is suggested that the Mendocino Complex is an outgrowth of an older Borax Lake type of culture which formerly existed over much of the North Coast Ranges.

TABLE 3. Comparative Trait List

+ Present
 - Absent
 ? No information

Men-500 Mendocino Complex	Borax Lake Site*	Middle Central California**
<u>Points:</u>		
Type 1 (single shoulder)	+	-
Type 2 (expanded base)	-	+
Type 3 (willow leaf)	+	+
Type 4 (square base)	+	+
Type 7 (concave base)	Not in this size or material	Not in this size or material
Type 8 (diamond shape)	-	-
Type 9 (wide square stem)	+	-
Type 10 (large, corner notched)	+	+
Type 11 (large, side notched)	+	+
Type 12 (large, stemmed)	+	-
<hr/>		
Blades (all types)	+	+
Drills (type 1)	+	?
Tanged end scrapers (type 7A)	+	?
Pointed end pestles (type 3)	-	-
Bulb end pestles (type 4)	-	-
Pointed base mortars (type 1)	-	-
Bowl mortars (type 2)	+	+
Slab metates	+	-
Manos	+	-

*Information from Harrington, 1948.

**Information from Beardsley, 1948, and from observation of specimens in U.C. Museum of Anthropology.

SUMMARY OF NORTH COAST RANGE ARCHAEOLOGY

In an attempt to draw together the scattered information on archaeology of the North Coast Ranges, six archaeological complexes are here outlined. These are named:

1. Borax Lake
2. Mendocino
3. McClure
4. Wooden Valley
5. Clear Lake
6. Shasta

These names are to be considered tentative and are used here only as convenient terminological pigeon-holes for groups of related archaeological facts. Future workers are free to discard these names in favor of more appropriate terminology as time goes on and a clearer understanding of the cultural boundaries emerges. The writer's selection of diagnostic artifacts and suppositions on age and distribution of the complexes is given in figures 3 to 9. These paragraphs are devoted to a more detailed definition of the complexes, and to a consideration of the conjectural data presented in the figures.

It should be noted that the six complexes described are definitely not the only ones known to occur in the North Coast Ranges. There are several distinctive archaeological finds which cannot be placed in any of the complexes named above. However, due to inadequate data it is not practical to define additional complexes at this time. Two of the problematical finds are mentioned in the conclusions.

The accompanying figures have been drawn up with some hesitation, for even the better known manifestations of Northern California archaeology are doubtful on points of dating and distribution. These data as given in the figures must be regarded as a preliminary attempt only, and it is to be expected that additional findings will modify or reject some of the writer's conclusions. Nonetheless, it seems a useful project to sum up present knowledge of the region as a guide to future research.

It was the writer's good fortune, during his tenure as Archaeologist of the University of California Archaeological Survey, to conduct archaeological investigations in all of the counties here concerned, and at one time or another to deal at first hand with all of the complexes mentioned. Conclusions were also derived from examination of several private collections in northern California, plus examination of the extensive collections in the U.C. Museum of Anthropology. Since the complexes are for the most part known from a single excavation, the private collections were of the greatest value in estimating the areal distributions.

Complexes are here named with geographical terms, the only exception being the McClure Complex, the name of which is retained from Beardsley's prior definition of it (Beardsley, 1948).

THE BORAX LAKE COMPLEX

The Borax Lake Complex has been defined by Harrington's work at the Borax Lake site in Lake County (Harrington, 1948). Material in this section is primarily abstracted from Harrington's report, supplemented by additional information in the UCAS files and by notes from an examination of Mr. C.C. Post's collection from the Borax Lake site.

The Borax Lake Complex appears to extend throughout the central part of the North Coast Ranges. It has so far not been recorded from any littoral site nor from the Sacramento Valley to the east. The type site is in Lake County and surface finds of the characteristic Borax Lake artifacts attest a distribution throughout the county. In Napa County, sites containing manos, metates, and Borax Lake fluted points are known (cf. particularly site Nap-131 described in Heizer, 1953, p. 316). In Sonoma County, Mr. Hardy T. Chenoweth of Bodega has "Wide-stem" points of the Borax Lake type which were found in the hills near Occidental. Points of the same type occur as surface finds in Mendocino County, which also has the closely related Mendocino Complex. Although the evidence is rather scanty, one may reasonably conclude that the Borax Lake Complex is widely distributed throughout the North Coast Ranges.

All known sites of the Borax Lake Complex are located on small knolls or fans on the margins of alluvium filled basins, and the surface finds referred to above were made in similar locations. The sites are sharply differentiated from the loose-textured, black, ashy middens of later periods. Borax Lake sites are characteristically a brownish color with considerable admixture of clay in the midden and some evidence that organic materials have been leached out. Artifact preservation is poor except for lithic implements; neither bone objects nor human skeletal material have been recovered from the sites.

From the artifact assemblage it appears that the principal means of livelihood were hunting and seed-gathering. The large size of the projectile points (average length 7 to 9 cm.) suggests that the bow and arrow was not the hunting weapon.

Special objects which are diagnostic of the Borax Lake Complex include chipped crescentic objects of obsidian or chert, Borax Lake fluted points, and "Wide-stem" points.

The age of the Borax Lake Complex is the subject of considerable disagreement among California archaeologists. Harrington's original estimate of 10,000 years, based on the presence of fluted points and on certain geological considerations, now seems an extreme dating which is highly improbable. The geological dating has been reduced by Antevs (Antevs, 1952, pp. 27, 29), and several writers have pointed out that it is a mistake to equate the Borax Lake Fluted Points with classic Folsom points. The Borax Lake Complex shows several specific resemblances to sites of the Middle Sacramento Valley Horizon, including use of the metate and emphasis on concave-based obsidian points. At the same time, the Borax Lake Complex as a whole is sufficiently distinctive so that it cannot be fitted

into any described Middle Complex. The key Californian time markers (shell beads and ornaments) have not been found in any Borax Lake site, and the only diagnostic types are the points and charmstones. These are generically similar to other California types but show specific differences which set them off as belonging to a separate complex.

The writer feels that the Borax Lake Complex probably dates somewhere in California's long and inadequately defined Middle Horizon. At the same time, there seems little question that the Borax Lake Complex is the oldest culture so far discovered in the North Coast Ranges. The complex is here placed in the B.C. period and is considered a basement culture for the North Coast Ranges. Precise dating is impossible, but nothing has yet been found which is stratigraphically older than Borax Lake in northern California.

It may be remarked in passing that there does not seem any valid reason for regarding the different point types at Borax Lake as evidence of the presence of different bands of people, as Harrington believes (Harrington, 1948, p. 117). Granted that there is a similarity in shape between Borax Lake specimens and those of Silver Lake and Pinto Basin, this does not necessarily indicate visits to Borax Lake by Silver Lake and Pinto peoples. These same types occur widely in variously dated horizons, and lacking some clearcut stratigraphic sequence of cultures, which Harrington states is absent (*ibid.*, p. 118), it is impossible to treat the Borax Lake Complex as other than a single unit.

THE MENDOCINO COMPLEX

The Mendocino Complex is defined in the first part of this report on the basis of excavation of site Men-500 in northern Mendocino County. Artifacts of the Mendocino Complex also occur in Round Valley, further north in Mendocino County (Treganza, Smith, and Weymouth, 1950). Scattered examples of Mendocino artifacts are also found somewhat to the south, but the complex does not seem to be quite as widespread as the Borax Lake Complex. Since the heavy concentration of Mendocino Complex artifacts is at the north end of the known range, there is reason to believe that the Mendocino Complex extends north into the mountains of Humboldt and possibly Trinity Counties.

The only excavated Mendocino Complex site shows marked similarities to the Borax Lake sites. Like them, the Mendocino site is located on an alluvial fan and shows some leaching of the midden. The artifacts of the two complexes are also generally alike, with some prominent differences mentioned previously.

Seed-gathering and hunting were no doubt the principal sources of subsistence for the Mendocino peoples. It is possible that spear-throwers were used as weapons, although the projectile points are smaller than those of the Borax Lake Complex, and the bow and arrow may have come into use in Mendocino times.

The special objects diagnostic of the Mendocino Complex are indicated in figure 5. Noteworthy are the heavy chert projectile points and the presence of a distinctive mortar type with a conical grinding basin.

Dating of the complex has been discussed earlier in this report. It is suggested that the Mendocino Complex is a later development of the Borax Lake Complex. This belief is based on a comparison of the artifacts only; the two complexes are not known to occur in stratigraphic relationship to one another.

THE McCLURE COMPLEX

The McClure Complex was first defined by Beardsley from the lower levels of the McClure site (4-Mrn-266) on the shores of Tomales Bay in Marin County (Beardsley, 1947). The present description of the McClure Complex is based on Beardsley's account plus an examination of artifacts from 4-Son-299 on Bodega Bay.

Beardsley correctly recognized the affinities of the McClure Complex to lie in the direction of the San Francisco Bay cultures and ultimately with the general cultural pattern called "Central Californian." The complex is included in the archaeology of the North Coast Ranges because its northern extension penetrates into coastal Sonoma County. The northern limit of the McClure Complex is unknown; coastal archaeology north of Bodega Bay has not been adequately investigated. The complex has not been discovered in Humboldt County, however, so the ultimate northern limit of the McClure Complex must lie south of Cape Mendocino.

The McClure Complex is widely distributed in Marin County, in several sites on San Francisco Bay. It also appears to extend to Contra Costa County, on the east side of San Francisco Bay. Both of these areas are outside the scope of the present report and are not further discussed here.

The McClure Complex represents a distinctive littoral culture and can be clearly defined on the basis of existing archaeological information. Although the excavation of Son-299 (done in 1949) is not yet published, a preliminary comment may be made that there is such close similarity between the artifacts from the McClure site and those from Bodega Bay that there can be little doubt that the two sites represent contemporaneous villages sharing a distinctive culture pattern.

The McClure Complex villages are littoral in location and are located on the shores of sheltered bays and estuaries. Livelihood was based on hunting of game and gathering of shell fish. Vegetable foods were apparently of minor significance, since grinding implements of all kinds are rare. Animals hunted included a variety of sea mammals, with land animals of all sorts of definitely secondary importance. Shellfish were gathered in quantity and make up the bulk of the midden deposits. A detailed

analysis of shell constituents of the Bodega Bay site has been published (Greengo, 1951). Fishing in the McClure Complex is attested by large numbers of stone sinkers made from grooved or notched beach cobbles.

Bone implements are common, and emphasis on bone working is a diagnostic trait of the McClure Complex. Bone hairpins occur commonly with burials. There are also bone whistles, dagger-like implements, antler wedges, and shoe-horn shaped bone objects. The deer-bone awl, common in other California Complexes, is rare to absent in the McClure Complex sites. Some bone objects are decorated with Olivella disc beads set into asphaltum.

Dating of the McClure Complex, though not as satisfactory as might be desired, is on fairly firm ground. Beardsley linked the McClure Complex to the Middle Horizon cultures of Central California (Beardsley, 1947, pp. 121 ff.). Since then, a C-14 date has been obtained which appears to apply to the McClure Complex (Meighan, 1953). The date indicates the McClure Complex to be something on the order of 800 to 1000 years old.

The aesthetically elaborate and distinctive maritime culture represented by the McClure Complex is worthy of further detailed study. The distribution of the complex along the coast may prove to be significant for areal comparison, and several distinctive artifact types will serve as time-markers for cross-dating.

WOODEN VALLEY COMPLEX

The Wooden Valley Complex is described on the basis of a collection made at 4-Nap-57 by Mr. D.T. Davis of Napa. The site is in Wooden Valley, a narrow valley in southeastern Napa County. The Davis Collection is described in a recently published report on Napa Valley archaeology (Heizer, 1953).

Like the McClure Complex, the Wooden Valley Complex is marginal to the North Coast Ranges. The Wooden Valley Complex shows very strong cultural affinities with the archaeological cultures of the Delta of the Sacramento River. The complex looks like an intrusion of Late Sacramento Valley peoples in proto-historic times.

Villages followed the central California pattern of being located on stream banks. The middens are exceedingly ashy and powdery in texture.

Subsistence was based on hunting and gathering of plant foods; shellfish were used but in relatively small amounts. Stone mortars and pestles were used for grinding plant foods. Pestles sometimes had ends modified by a flange near the upper end. The bow and arrow was the primary hunting weapon. Arrows were tipped with small notched triangular points of obsidian. Some points had square-notched edges.

A variety of diagnostic ornaments is found in the Wooden Valley Complex, including:

Beads:

Clamshell discs
Steatite discs (rare)
Steatite hour-glass shaped
Magnesite tubular

Other:

Haliotis ornaments of various shapes
Incised bone objects (pendants and hairpins)
Bird bone tubes incised with geometric designs (ear ornaments?)

The Wooden Valley Complex also has special objects in the form of small sandstone slabs painted in geometric designs with red and white pigment. These objects are so far known only from Wooden Valley, Napa Valley, and adjacent regions (cf. Heizer, 1953, figs. 2 and 3).

Although the burial practice was cremation, artifacts are usually not burned and must have been added after burning of the deceased.

Dating of the Wooden Valley Complex must be quite late; probably shortly before White contact. Most of the artifact types are known ethnographically for northern California. Cremation is also known to be the historic practice of tribes in the region, including the Wappo (Driver, 1936, p. 200) and Pomo (Gifford and Kroeber, 1937, p. 152). No Caucasian-made materials were recovered from Nap-57, however, indicating that the site is probably pre-contact in date.

Many of the artifacts of the Wooden Valley Complex are closely similar to objects of the Late, Phase II Horizon in the Sacramento Valley (Lillard, Heizer, and Fenenga, 1939). These include the projectile point types, the incised bird-bone tubes, clamshell discs, and steatite pipes.

THE CLEAR LAKE COMPLEX

The Clear Lake Complex is defined primarily on the basis of ethnographically collected specimens in the U.C. Museum of Anthropology. It is intended to represent the terminal complex of the archaeological sequence in the Pomo area and adjacent regions. The specimens indicated were all obtained about 1900 from Pomo Indians. Archaeologically, the Clear Lake Complex is recognizable in small excavation samples from such sites as Rattlesnake Island (Harrington, 1948; see also Harrington, 1943), Men-500, and small sites excavated by the writer in Sonoma County.

The major difficulty in setting up the Clear Lake Complex is the possibility that older archaeological objects may have been picked up by the Indians; this problem is likely to lead to erroneous interpretation for such objects as projectile points and charmstones. However, all the illustrated types which are known archaeologically have come from sites known to be quite late in time. In any case, since the specimens were collected from living Pomo, they represent part of the terminal complex regardless of their date of manufacture,

The Clear Lake Complex represents the imperishable material culture of the proto-historic and historic Pomo. It is therefore to be expected that the complex should conform approximately to Pomo territorial boundaries, and this has been found to be the case from a study of archaeological collections. The complex extends to the Pacific Coast in northern Sonoma County (Pomo territory) but has not been recognized in archaeological collections from other coastal regions. Specimens of the Clear Lake Complex also occur in Mendocino County as far north as Round Valley. The latter occurrence seems most likely due to the historic influx of Pomo into this area in the 1850's, and the Clear Lake Complex is apparently not native to northern Mendocino County.

Villages of the Clear Lake Complex are located on stream courses, the shores of Clear Lake, and on islands in the lake. Pomo communities are well described by Gifford (Gifford and Kroeber, 1937, pp. 117-122; Stewart, 1943; Kniffen, 1939); buildings have been described by Barrett (Barrett, 1916). Archaeological sites of this complex are characterized by very black middens, loose and ashy in texture, with an abundance of charcoal and varying quantities of shell depending upon distance from the coast.

The hunting and gathering economy of the Clear Lake peoples is well known from ethnographic accounts (Gifford and Kroeber, 1937; Barrett, 1908; Loeb, 1926; Stewart, 1943). Archaeologically, the economy is represented by small triangular arrow points, usually notched. Obsidian is the common material for points, knives, and scrapers, although specimens made of bottle glass are occasionally found in the historic sites. Hopper mortars and stone pestles attest the use of acorns and plant seeds.

Diagnostic ornaments include clamshell disc beads, magnesite cylinders, and ornaments of Haliotis shell. Olivella beads were also used (disc and whole shell). Post-contact ornaments may often be recognized by drilled perforations made with a steel drill; the aboriginal perforations were always biconical. Clamshell disc beads and tubular magnesite beads are still being made and used by the Pomo of the Clear Lake region.

Burial was in cemeteries in the village area. Cremation was most common, but burial in the tightly flexed position was also practiced. Artifacts were placed in the graves. Cremated bones were sometimes buried in baskets with shell beads (Gifford and Kroeber, 1937, p. 152).

As previously mentioned, the Clear Lake Complex represents the terminal culture of the archaeological sequence. The question of interest here is how far back in time this complex extends; unfortunately no answer

to this question can be given from current archaeology. It may be noted that some elements of the complex have been known and used in adjacent areas since the sixteenth century -- Coast Miwok sites on Drakes Bay have yielded both the projectile point types and the charmstone types. Clamshell disc beads also occur here, as well as in Central California sites dating back three to five hundred years.

The Clear Lake Complex shows a number of similarities to the Wooden Valley Complex, including point types, some bead types, and the presence of cremations. It seems likely that there is some connection between the two complexes, but the exact nature of the connection remains to be determined by future investigation.

(Note: since this manuscript was first written a very comprehensive report on Pomo material culture has been published (Barrett, 1952). Barrett's scholarly report draws upon collections in several museums and gives a fuller picture of the type of objects to be expected in the Clear Lake archaeological complex. Since a large part of Pomo material culture is of wood, feathers, and other perishable material, only a small portion of the total material culture is likely to be represented in the Clear Lake Complex. This expectable portion is fairly well summarized in the foregoing comments and the illustration of the complex. An important omission was the occurrence of clay figurines used as dolls by the Pomo and illustrated in Barrett's Plate 55, nos. 5-8.)

THE SHASTA COMPLEX

The Shasta Complex is defined on the basis of field work in the Shasta Dam area (Smith and Weymouth, 1952) and in Round Valley (Treganza, Smith, and Weymouth, 1950). The writer's field work in 1951 cast some additional light on the complex, particularly as regards the southern limit of its distribution.

It seems clear that the Shasta Complex is most characteristic of the more northern portions of the North Coast Ranges and of the north end of the Sacramento Valley. Some of the diagnostic artifact types (points, drills, chert knives) also occur in sites on the coast of Humboldt County (Loud, 1918, pls. 13, 15). The Shasta Complex extends south to about Willits, in Mendocino County, and is there replaced by the contemporaneous Clear Lake Complex. It is interesting to note that the Shasta Complex seems confined to hilly or mountainous country and so far as is known does not penetrate into the Sacramento Valley to any extent.

The ultimate northern limit of the Shasta Complex is not known, but some elements of it extend northward into Oregon (see point types in Strong, Schenck, and Steward, 1930, pl. 14h).

The villages of the Shasta Complex are closely associated with stream courses. The habitation sites are ashy midden mounds up to ten feet in

depth. Pits of former semi-subterranean houses are common.

Hunting and gathering constituted the basis for the economy. Acorns were important and were ground in hopper mortars. Bows and arrows were used for hunting; the characteristic projectile point type has a very small stem and long tangs. Large bi-pointed chert blades were used as knives.

Some characteristic Californian artifacts are rare or absent in the Shasta Complex. No stone pipes are known, and charmstones are extremely rare. Of the latter, spindle shaped and phallic forms occur.

Spire-lopped Olivella beads and Haliotis pendants were used for ornament. Pine-nut beads were found in one site. Clamshell disc beads also occur in Round Valley, but these may be due to late introduction by the Pomo.

Dating is problematical but is probably post-1600. The Shasta Complex was apparently contemporaneous with the Clear Lake Complex but had distinctive traits which include: pine nut beads, long-tanged points, incised stone objects, and large, thin chert blades.

Conclusions:

The six complexes here defined are set up tentatively to serve as aids in the classification of archaeological material found in the North Coast Ranges. The problems which remain to be solved in the archaeology of this large area are self evident in the gaps in the chronological chart and in the omission of important details from the descriptions of the complexes. There must be several unknown complexes which will fill in the time gaps and link sequential cultures. Among these undescribed complexes may be mentioned the following:

1. The archaeological complex represented by the lower levels of site Nap-1. This large and important site was excavated by the University of California and is described in Heizer, 1953. A site yielding similar materials was excavated by the University of California in 1951 (Nap-32) (see Heizer, 1953, Appendix IV). The upper levels of both sites yielded artifacts comparable to those of the Wooden Valley and Clear Lake Complexes. The lower levels yielded a different complex but the small sample of artifacts from these levels at Nap-1 does not permit definition of the new complex. More material of this complex was obtained from Nap-32, and this yielded some additional artifact types.

The few known traits for the complex include:

1. Tightly flexed burial.
2. Large obsidian blades, rounded base.
3. Mussel shell spoons.
4. Bear claws.

5. Steatite labrets (probable).
6. Red ocher in graves.
7. Large half-shell Olivella beads.

The general pattern looks somewhat like cultures of the Middle Horizon on San Francisco Bay, but more detailed definition is necessary before the affiliations of the complex may be seen.

2. A second complex which has not been defined occurs on the coast of Sonoma County. This is represented by the occurrence of cremations in association with mortars (Son-319). Similar occurrences are found at Drake's Bay sites (Mrn-271, Mrn-275). These may represent a coastal manifestation of the Wooden Valley Complex, but they cannot be assigned to the Wooden Valley Complex at present because of some significant differences. On the coast, the corpse was sometimes burned in the grave and mortars were placed on the cremation fire; the bones were not gathered up and reburied under a mortar as in the Wooden Valley pattern. The cremations at Son-319 are associated with large amounts of burned redwood, sometimes forming a layer 5 feet in diameter and a foot thick. The coast groups also neglected to make the rich burial offerings characteristic of the Wooden Valley Complex. Aside from the carefully made mortars, artifacts are unknown except for a few charmstones.

It seems likely that the coastal cremation complex belongs to a fairly late period. It may represent an areal variation of the Wooden Valley Complex or it could represent an earlier culture phase.

As for areal relationships outside the North Coast Ranges, these are clearly implied in the areal distribution of the known complexes. Enclaves of Sacramento Valley and San Francisco Bay cultures occur in the southern part of the area, with the Shasta Complex representing an intrusive group from the north. Of the six complexes, only the Borax Lake and Mendocino Complexes appear to be "native" to the region and exhibit no clear-cut exterior influences.

Finally, it may be mentioned that the boundary between "Central Californian" and "Northern Californian" types of cultures appears to cut across Mendocino County approximately at the north end of Little Lake Valley (Willits Valley). The writer feels that the "Central Californian" types which occur in Round Valley are very likely due to introduction of Pomo Indians in the recent historic period.

With the possible exception of the Borax Lake site and the related Napa Valley sites, no cultural remains referable to "Early Man" have been found in the North Coast Ranges. The presumed early skeleton of Capay Man (Heizer and Cook, 1953) was unaccompanied by artifacts. However, it may be expected that older complexes will be found in this region in the future.

Because of the many distinctive complexes existing in the North Coast Ranges, correlated with greatly varying geographic and ecological

conditions, the region offers great opportunity for future research in prehistory. The problems of culture contact and change which remains to be solved may ultimately throw much light on the general settlement pattern of California.

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and Sociology
University of California
Los Angeles 24

Submitted November, 1952

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Abbreviations:

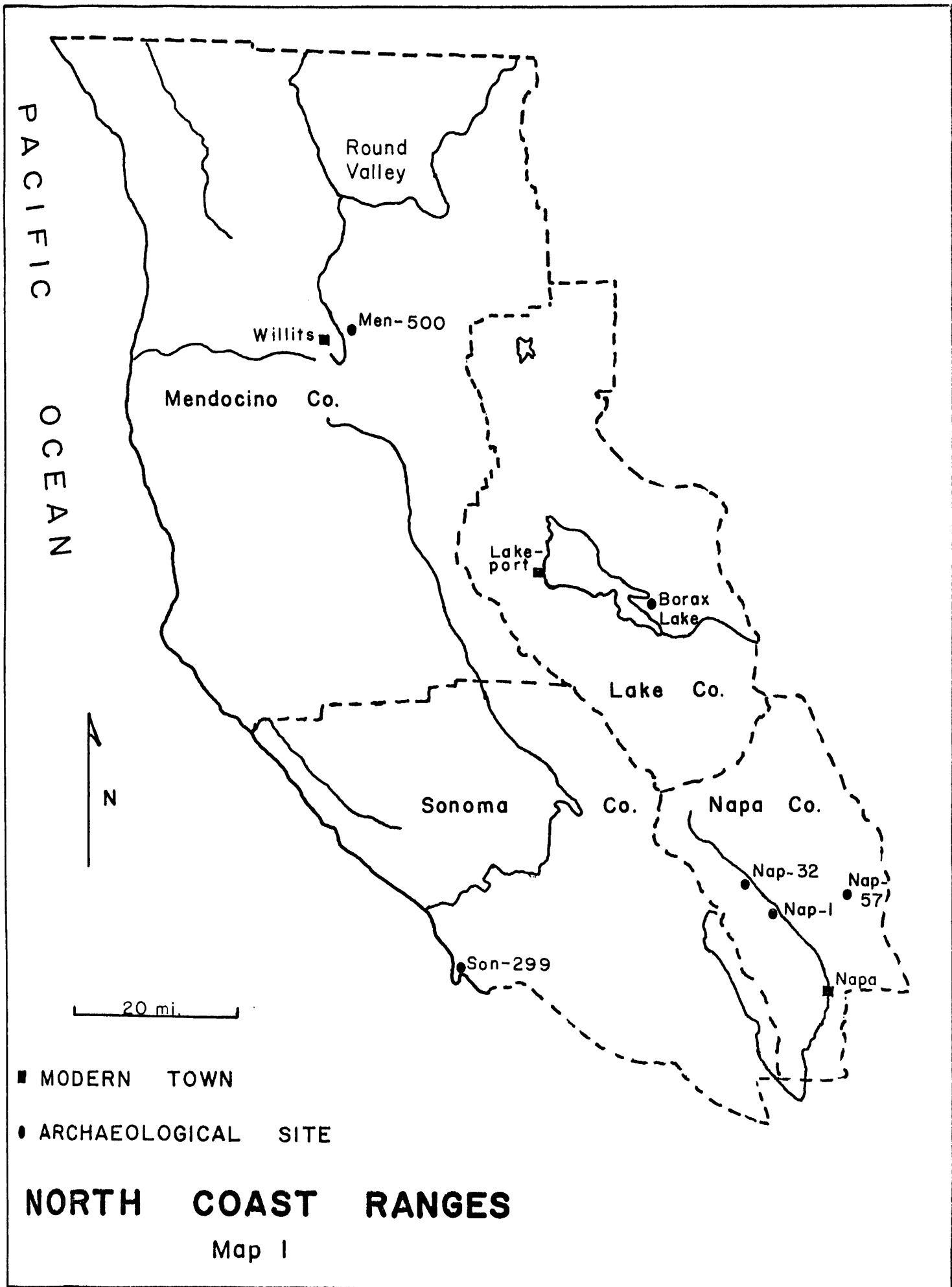
BAE-B Bureau of American Ethnology, Bulletin
UCAR University of California Anthropological Records
UCAS-R University of California Archaeological Survey, Report
UCPAAE University of California Publications in American
Archaeology and Ethnology

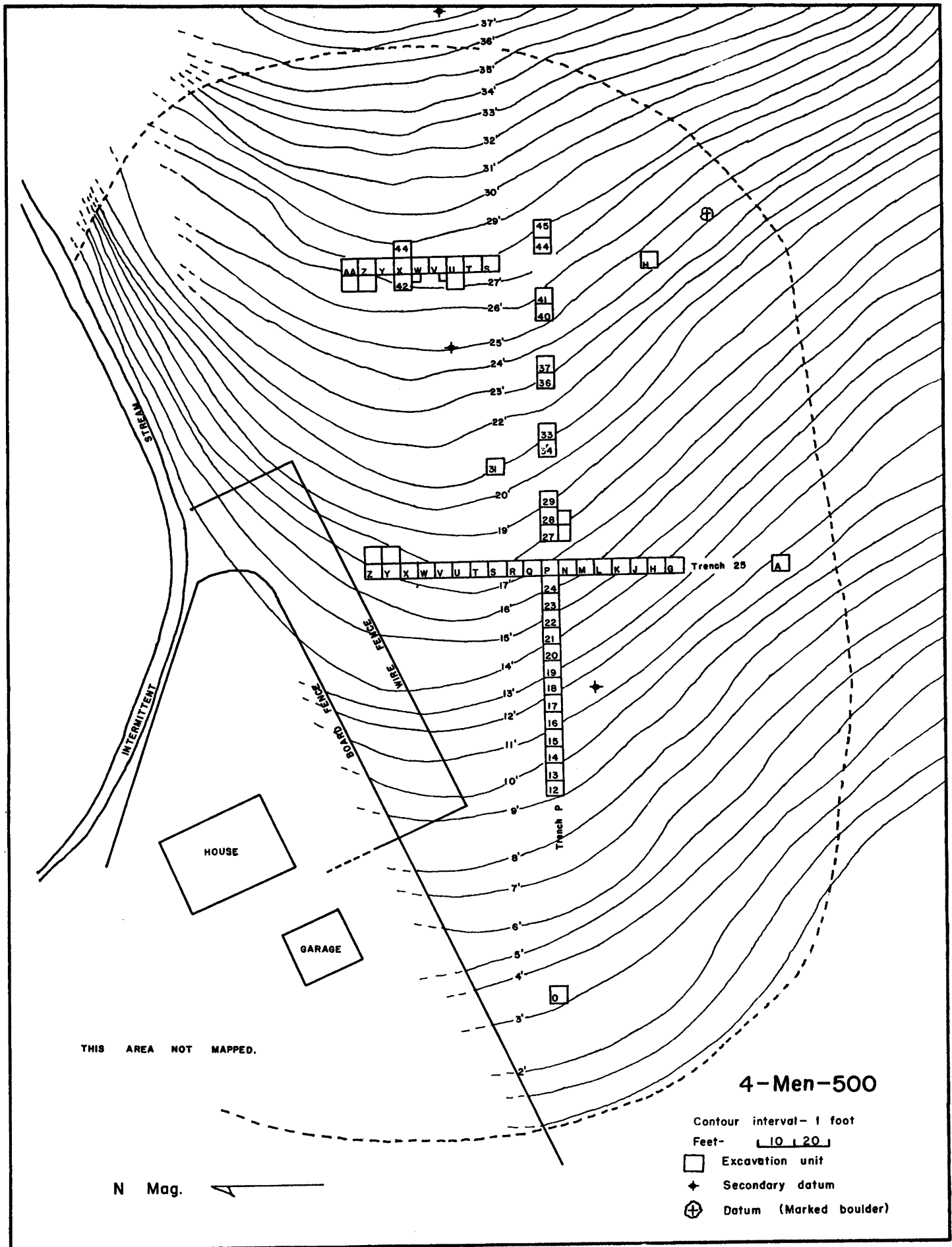
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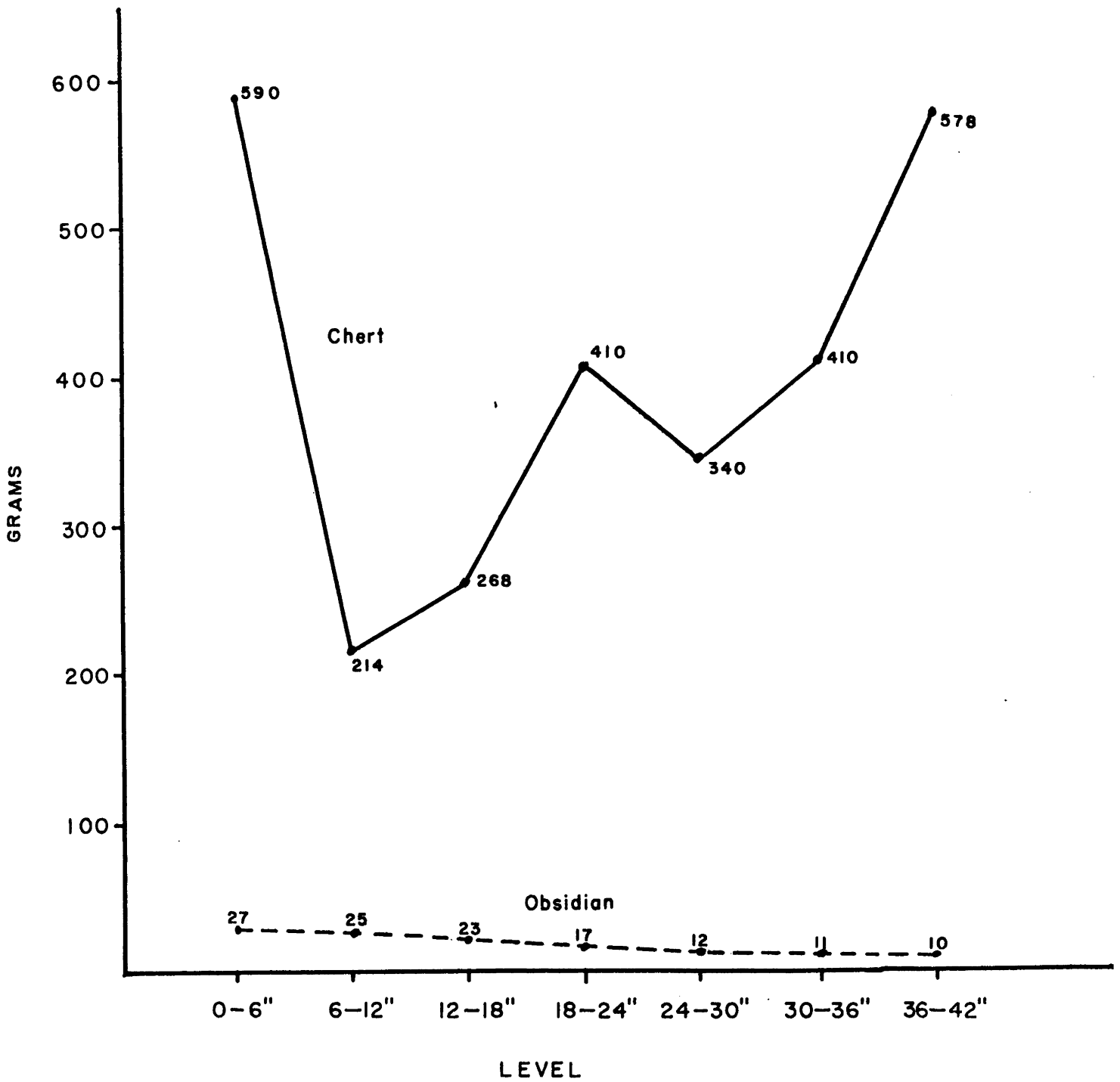
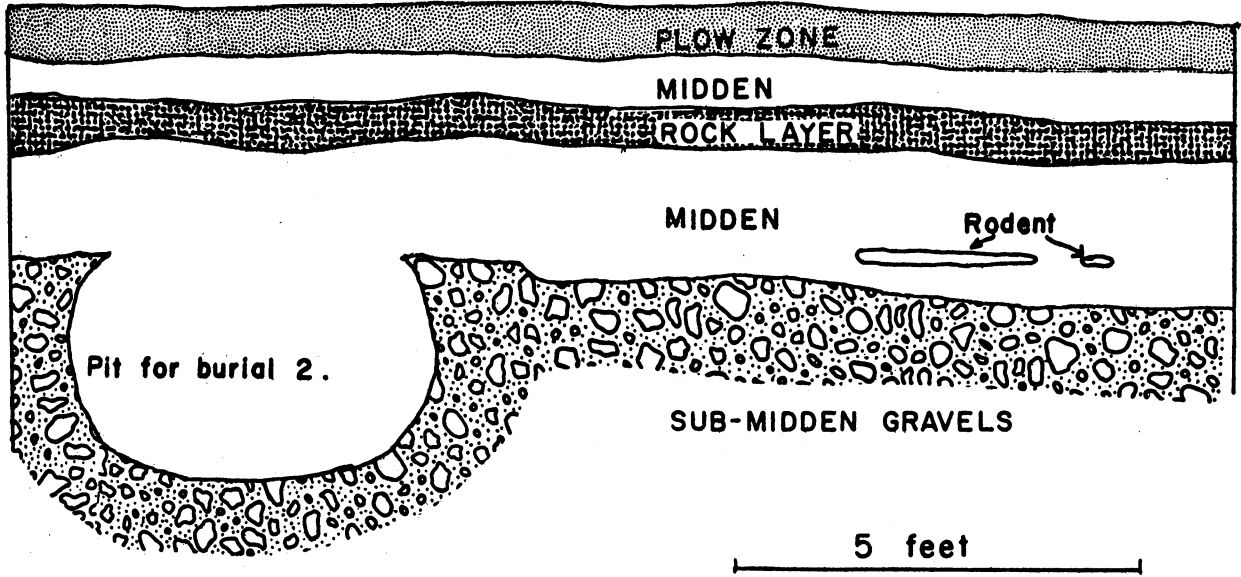
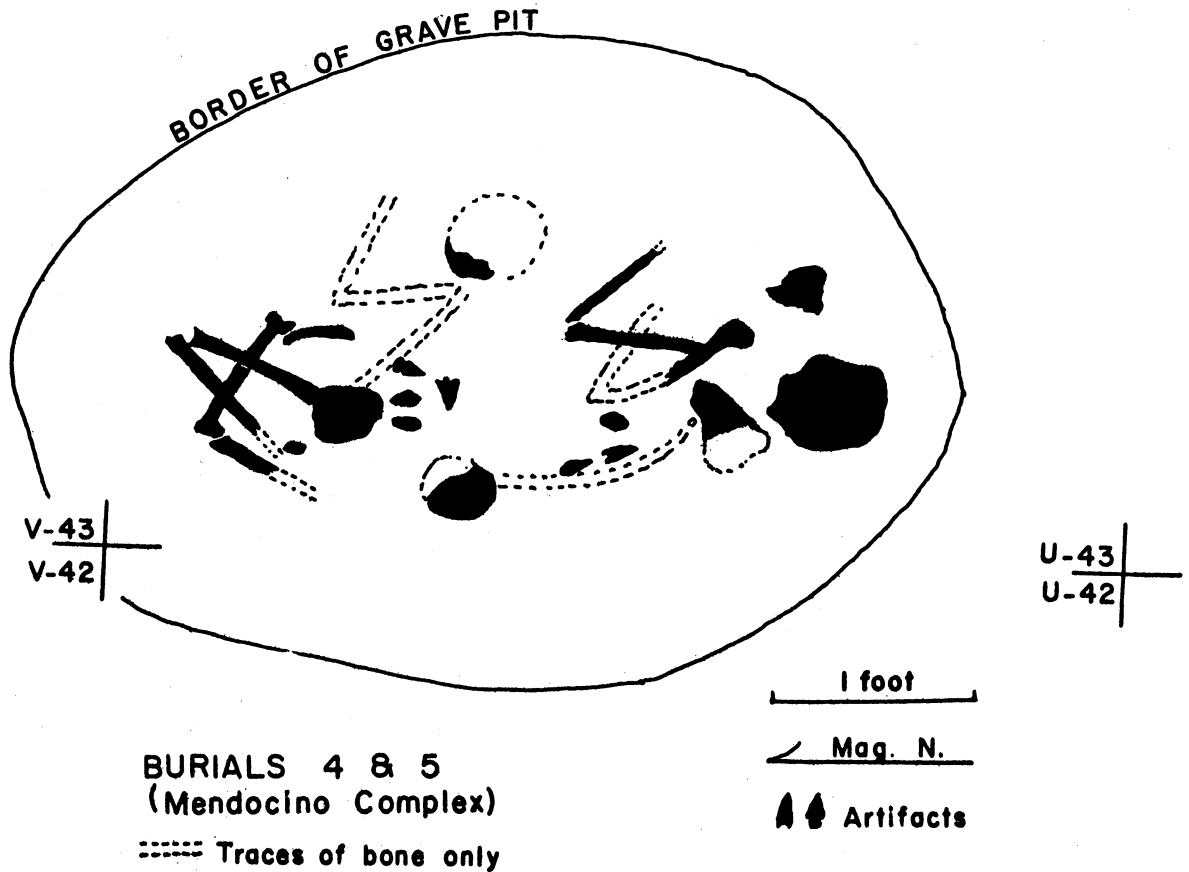


FIG. I. OBSIDIAN AND CHERT CHIPPING WASTE.

MEN-500. PIT S-43.



PROFILE - East wall, Trench 43



BURIALS 4 & 5
(Mendocino Complex)

----- Traces of bone only

Archaeological Complexes In The North Coast Ranges

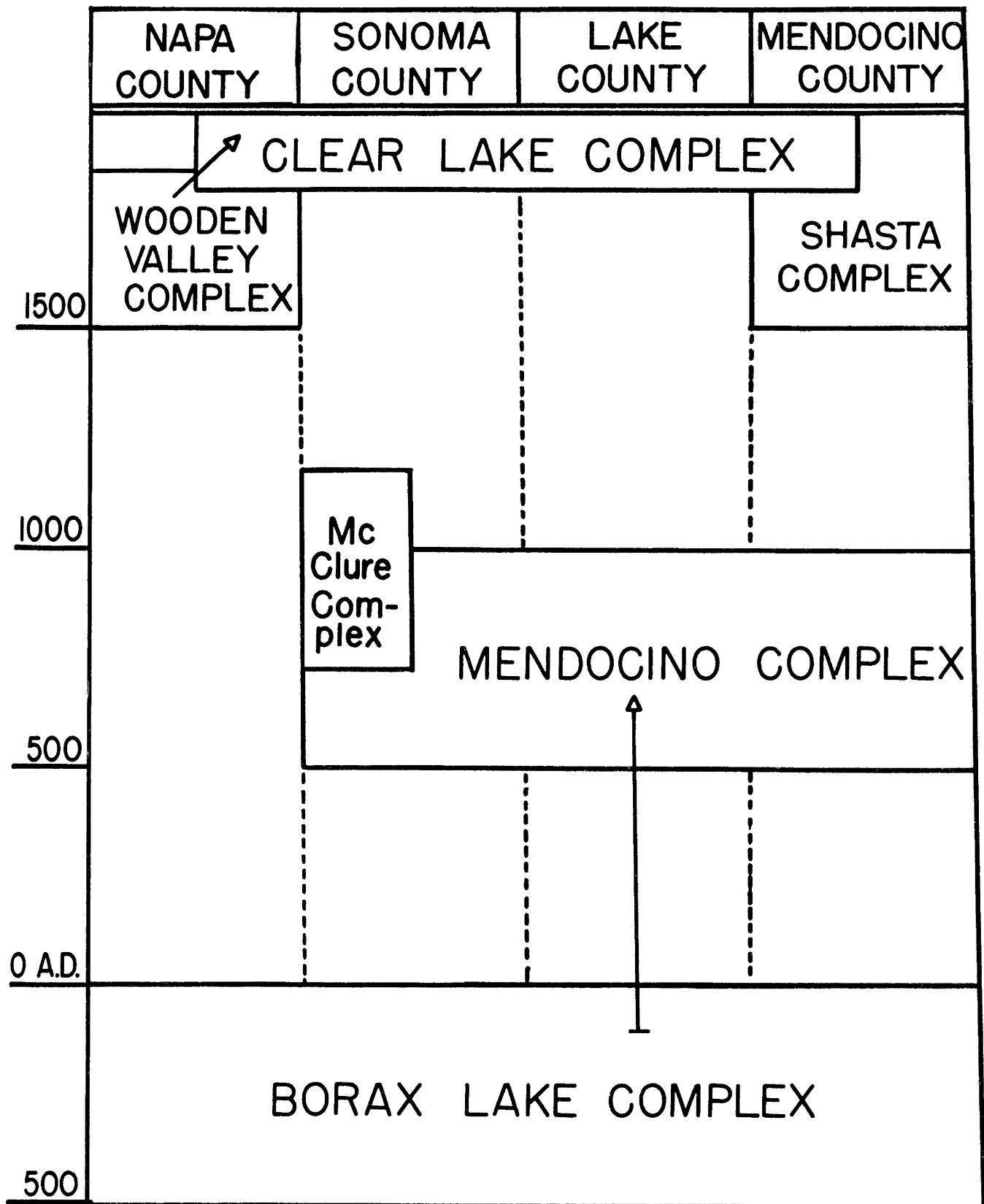


Fig. 3

BORAX LAKE COMPLEX

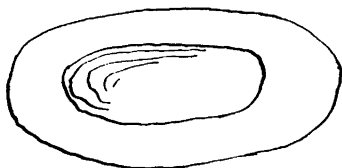
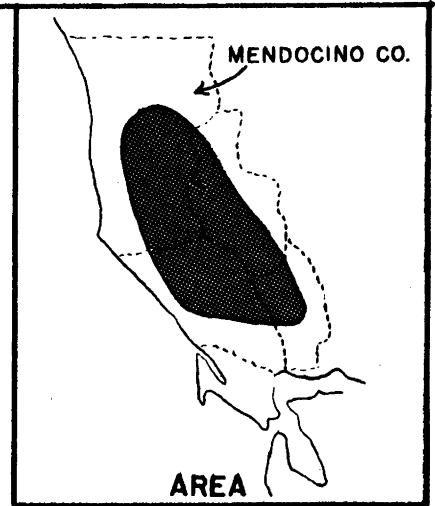
Type site - Borax Lake

Dating - Disputed, but probably more than 2000 years old.

People - Unknown - no skeletal material preserved.

Villages - On the margins of alluvium-filled basins.

Houses - Unknown

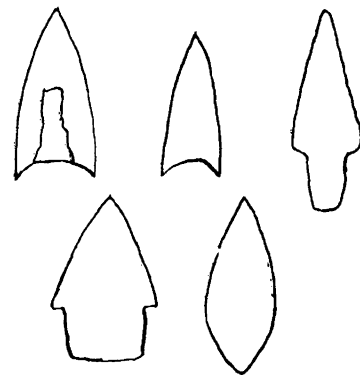


BASIN METATE



MANO

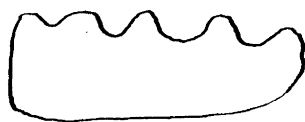
GRINDING TOOLS



PROJECTILE POINTS

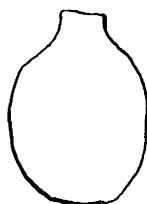


(unknown)



CHIPPED CRESCENTS

BURIAL



CHARMSTONES

OTHER OBJECTS

(DRAWINGS AFTER HARRINGTON, 1948)

MENDOCINO COMPLEX

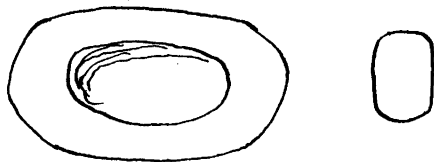
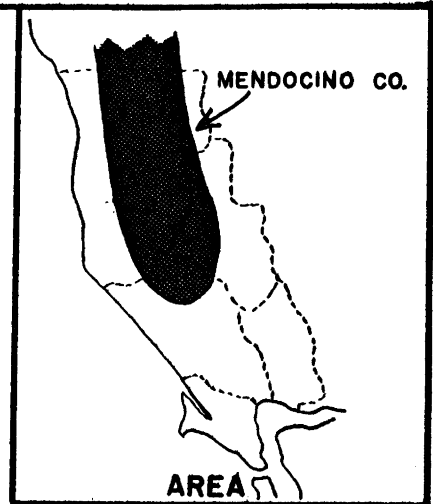
Type site - 4-Men-500

Dating - ca. 500-1000 A.D.

People - Unknown - no skeletal material preserved.

Villages - Commonly located on slopes where foothills meet valley floors.

Houses - Unknown



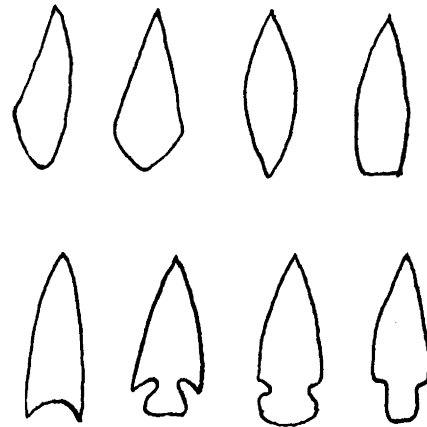
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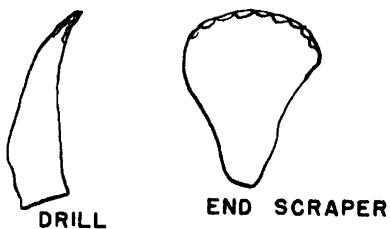
MORTARS

PESTLES

GRINDING TOOLS



PROJECTILE POINTS



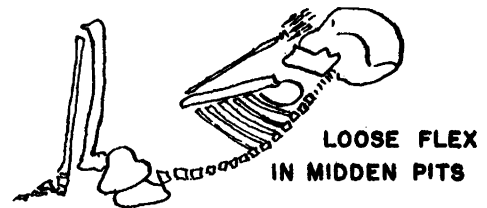
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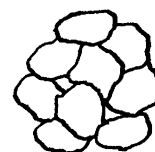


CHARMSTONE

OTHER OBJECTS



BURIAL



ROCK HEARTH

FEATURES

MC CLURE COMPLEX

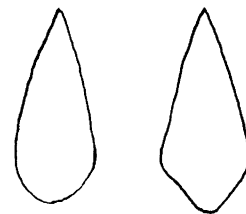
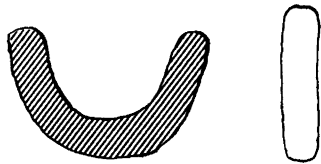
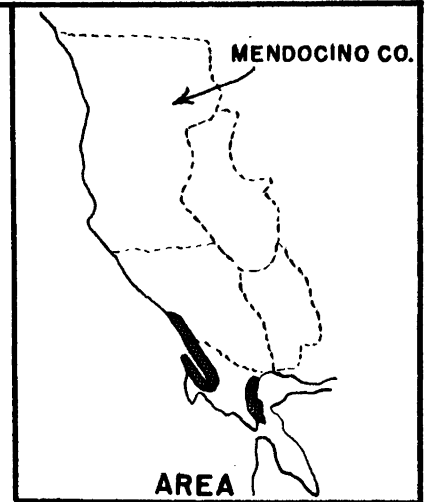
Type site- McClure (4-Mrn-266)

Dating- ca. 700-1200 A.D.

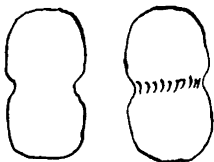
People- No analysis of skeletal material has been done.

Villages- Littoral, usually on the shores of sheltered bays.

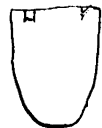
Houses- Unknown



GRINDING TOOLS (rare)



COBBLE SINKERS



ANTLER WEDGE



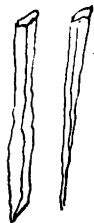
MICA ORNAMENTS



CHARMSTONE

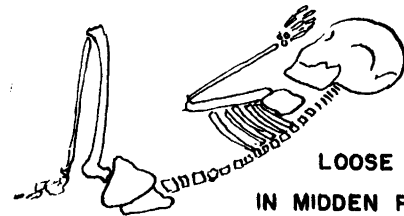


OBSIDIAN ECCENTRIC



OBSIDIAN BANGLES

PROJECTILE POINTS



LOOSE FLEX IN MIDDEN PIT

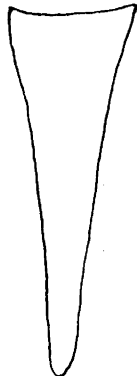
BURIAL



CACHE OF NET SINKERS



NEEDLE



HAIR ORNAMENTS



WHISTLE



OLIVELLA BEADS

OTHER OBJECTS

ADDITIONAL FEATURES

Fig. 6

WOODEN VALLEY COMPLEX

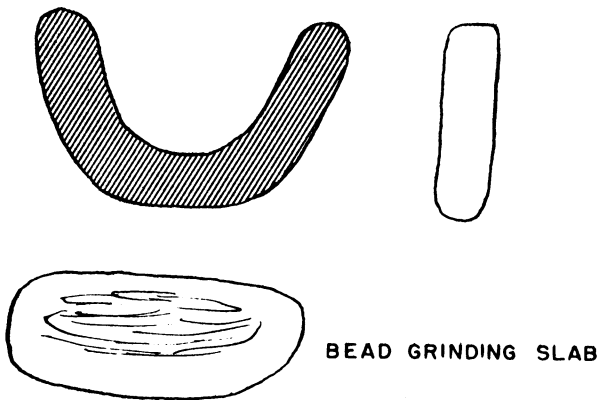
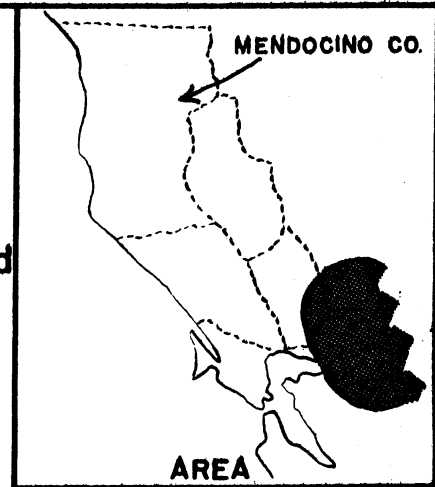
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Dating- ca. 1500-1800 A.D.

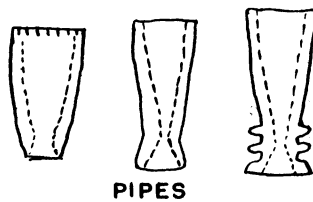
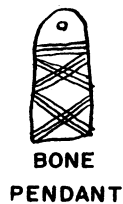
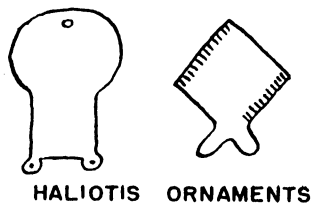
People- No skeletal material - people cremated

Villages- On stream courses in interior valleys

Houses- Unknown

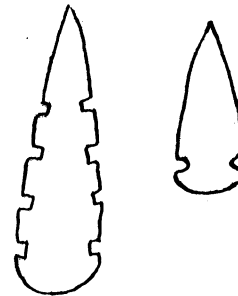


GRINDING TOOLS



OTHER OBJECTS

PROJECTILE POINTS



CREMATION UNDER MORTAR

BURIAL

SHASTA COMPLEX

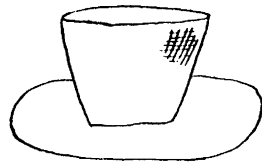
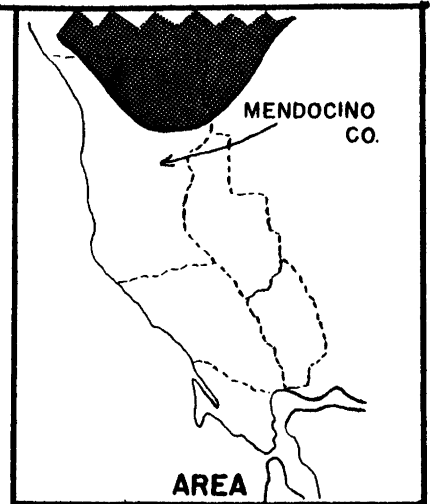
Type site- Men-186

Dating- Late, probably post 1600.

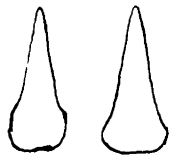
People- No analysis available.

Villages- On stream courses and sometimes on top of mountain ridges.

Houses - Brush covered, semi-subterranean.

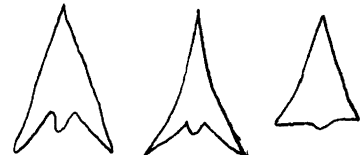


HOPPER MORTAR



PESTLES

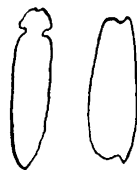
GRINDING TOOLS



PROJECTILE POINTS



CHERT BLADE



CHARMSTONES



PECKING
STONE



PINE NUT BEADS

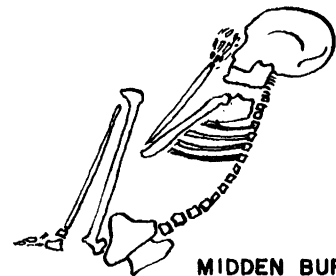


SHELL DISCS



HALIOTIS
PENDANT

OTHER OBJECTS



MIDDEN BURIAL
(VARIABLE - LOOSELY
FLEXED BURIALS
ALSO OCCUR)

BURIAL

Artifacts after Treganza, Smith, & Weymouth, 1950.