

ANTHROPOLOGICAL RECORDS
12:3

AN ARCHAEOLOGICAL SURVEY OF THE YUKI AREA

By

A. E. Treganza, C. E. Smith, and W. D. Weymouth

UNIVERSITY OF CALIFORNIA PRESS

BERKELEY AND LOS ANGELES

1950

AN ARCHAEOLOGICAL SURVEY OF THE YUKI AREA

BY

A. E. TREGANZA, C. E. SMITH, AND W. D. WEYMOUTH

ANTHROPOLOGICAL RECORDS

Vol. 12, No. 3

ANTHROPOLOGICAL RECORDS

EDITORS: E. W. GIFFORD, R. F. HEIZER, R. H. LOWIE, R. L. OLSON

Vol. 12, No. 3, pp. 113-128, plates 10-12, map

Submitted by editors March 23, 1949

Issued May 12, 1950

Price, 35 cents .

UNIVERSITY OF CALIFORNIA PRESS

BERKELEY AND LOS ANGELES

CALIFORNIA

CAMBRIDGE UNIVERSITY PRESS

LONDON, ENGLAND

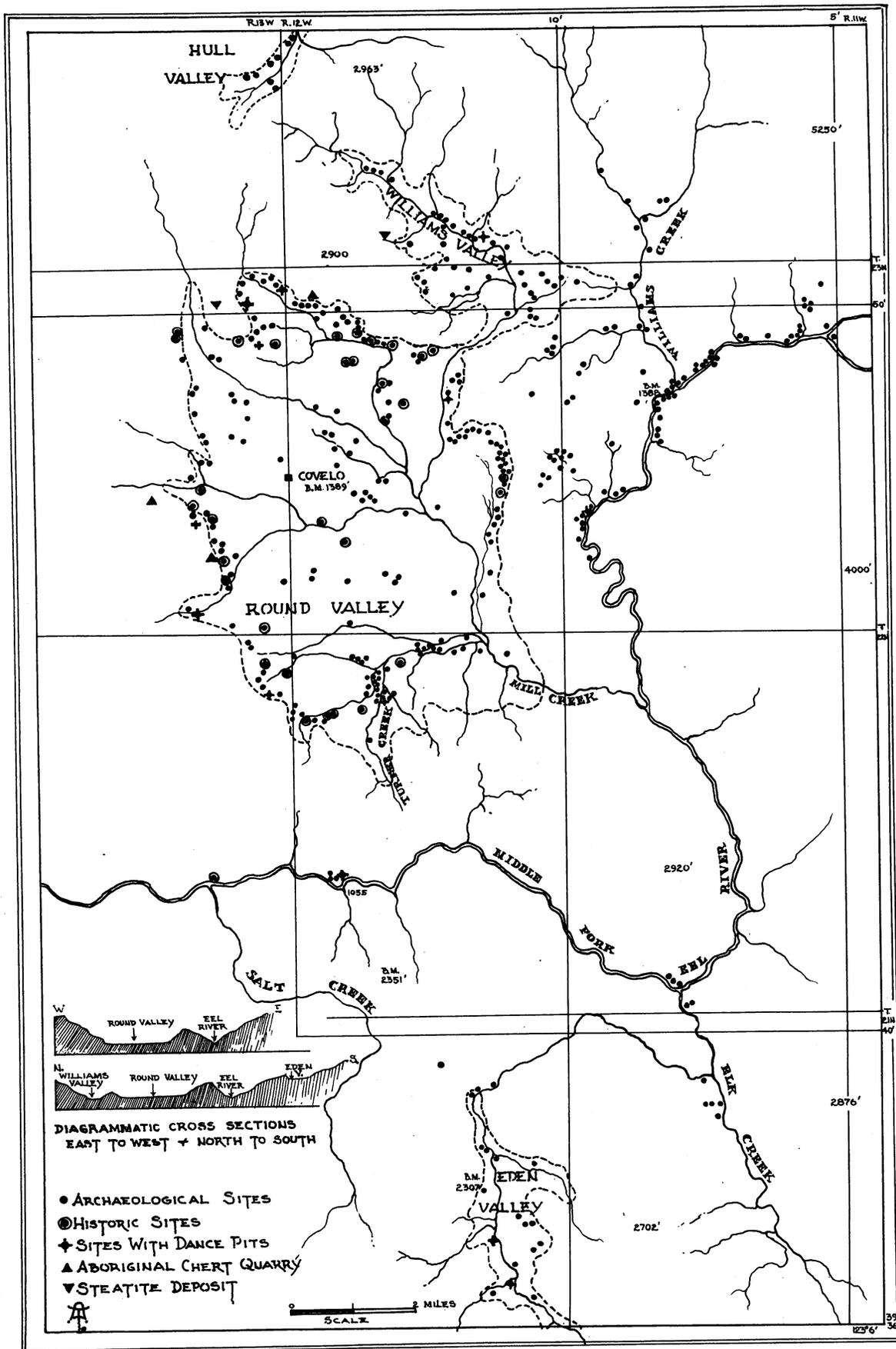
MANUFACTURED IN THE UNITED STATES OF AMERICA

ACKNOWLEDGMENT

We acknowledge with appreciation the financial aid of the Department of Anthropology, University of California, in partial support of our survey. Our thanks are also due the following students who assisted us in the field: Franklin Fenenga, Arden R. King, and Roger D. Fuller. We wish to express our special gratitude for the kindness of Mr. and Mrs. George E. Weymouth in offering us the hospitality of their home.

CONTENTS

Introduction	113
Archaeological sites	113
House pits	114
Dance house pits	115
Quarries	115
Textiles	115
Bone tools	116
Pine nut beads	116
Shell	116
Stone	116
Burials	118
Skeletal remains	118
Conclusion	118
Bibliography	121
Plates	123
MAP	
Distribution of Sites	vi



Distribution of Archaeological Sites

AN ARCHAEOLOGICAL SURVEY OF THE YUKI AREA

BY

A. E. TREGANZA, C. E. SMITH, AND W. D. WEYMOUTH

INTRODUCTION

This report presents the results of an archaeological survey of the region occupied in historic times by the Yuki Indians about 200 miles north of San Francisco Bay, in Mendocino County. The area lies wholly within the drainage pattern of the Middle Fork of the Eel River and includes Eden, Williams, Hull, and Round valleys.

The cultural position of the Yuki has posed a problem to several investigators¹ and has been the subject of much speculation and theorizing based solely upon ethnological data. The recovery of archaeological material makes possible a correlation of anthropological theory and archaeological fact that may produce informative results. What new light these results will throw on Yuki prehistory will depend on the amount and nature of the data derived from archaeological undertakings. Our problem at present is not too much concerned with end results; the aim is rather to establish a starting point for the more detailed work which lies ahead. We have attempted to ascertain the location and distribution of archaeological sites and to select the most promising for excavation.

In the course of the survey, other problems have arisen concerning the interaction of the human group and the natural environment. These will be treated in this paper whenever they warrant discussion.

Before our survey, little was known about the extent of aboriginal occupation of the area. Ethnographic accounts of the Yuki give only a limited picture, consisting mainly of matter gleaned from the old people's memories (Barrett, 1908; Kroeber, 1925, 1932; Essene, 1942; Foster, 1944). Foster, for example, provides data on 25 historic sites in Williams and Round valleys. To date, some 380 sites have been mapped in an area of less than 100 square miles. This figure includes only the villages to be found in the valleys and along the major stream courses. How many sites remain scattered over the mountainous terrain is still unknown, although it seems safe to assume the number will be well below the figure for the valleys. It is of interest to note that, of this total of 380 sites, 225 lie within the limits of Round Valley, which comprises an area of only 36 square miles.

ARCHAEOLOGICAL SITES

In appearance and composition, the habitation sites observed in this area do not differ in any marked degree from other archaeological sites in northern and central California, excluding the coastal shellmounds. They are typical refuse accumulations ranging in elevation from several inches to as much as 10 feet. The average depth of the deposit for all sites in Round Valley is 3 ft. 2 in.; in the Eastern Drainage (i.e., east of Round Valley, along the course of the Eel River), 2 ft. 4 in.; in Eden Valley, 2 ft. 1 in.; and in Hull Valley, 1 ft. 6 in. This regional variation would seem to indicate either occupation over a longer period of time or a greater population per site in Round Valley than in the other valleys. Probably both factors were operative.

Except where modern cultivation has changed the external appearance of sites by introducing a covering of domestic plants and weeds, most mounds bear a heavy cover of turkey mullein and horehound. On the foothills and slopes along the smaller stream courses, buckeye is a very common associate. It is of interest that the mullein and buckeye should serve as site indicators, for

they likewise played a functional part in the material culture as sources of fish poison. The buckeye was also used as food. Their present concentration on the old village sites is doubtless due in large part to native importation at the time of occupation. The presence of horehound, however, requires an explanation, for it is a European introduction only about a hundred years old. The rich, ashy mound soil may be especially favorable to the luxuriant growth observed.

The California ground squirrel, here as elsewhere, has taken advantage of the soft mound soil for his burrows. Mounds are rare that have not been riddled with subsurface diggings. Often it is by the burrows of these animals that the linear extent of a site can be determined, though, unfortunately, the horizontal and vertical positions of artifacts are also frequently disturbed. Where mounds have been leveled by cultivation, they could easily go unobserved, were it not for evidence turned up by the squirrels' activities.

Sites do not follow any regular pattern in form, their outlines varying from round to long oval. At times they are restricted to certain shapes by contour limitations; on abrupt hill slopes it is quite common to find a site

¹Kroeber, 1925; Klimek, 1935.

composed of two different levels, and frequently there are small "auxiliary" sites near the major eminence.

On the valley floors sites tend to be concentrated near the peripheral hill slopes or in semimarshy areas. A southern or open exposure was preferred; this situation is particularly conspicuous in Round Valley, where, on the eastern side there are a great number of springs paralleling an ancient escarpment.² Moreover, this southern exposure offers maximum hours of sunshine and protection from severe storms. The greatest concentration of sites on the flats in Round Valley occurs near the junction of the various forks of Turner Creek. This may be partly due to close access to good salmon fishing or to the marshy character of this portion of the valley. We find no logical reason why a marshy locale should be preferred for habitation, but the three largest groupings of sites on the valley floor are all in areas which have been, and still are, extremely wet in winter. There may have been only seasonal occupation of these sites, the habitations being deserted during the rainy season, but no affirming evidence of this has yet been found. Proximity to rock outcrops seems also to have been a factor influencing the location of habitation sites, while the most important factor of all was the accessibility of water.

In the Eastern Drainage (map facing p. 113), sites lie just above the high-water level, generally in areas where an oak-parkland slopes gradually up from the river course.

Probably the vegetation had an effect in determining the location of sites in aboriginal times, for it has been noted that oaks and hillside stands of buckeye are common associates of sites, whereas coniferous timber seems to have been avoided. This preference holds true for the entire area, but is especially apparent in Hull Valley, which lies some 1,350 feet above Round Valley (elevation ca. 1,360 ft.). Here heavy pine timber encroaches on the valley floor, and we found only eight sites. The small number is probably explained by the following factors: the elevation is appreciably higher, and the winters correspondingly colder, than in the other valleys surveyed; a waterfall on Hull Creek does not allow salmon to reach the valley; and there is a notable scarcity of oaks in the immediate vicinity. The colder conditions plus limitations of available food account for the lack of evidence of any considerable population.

Thirty-two sites in Round Valley were determined as occupied in historic times. Such determinations were made either through the presence of Caucasian material in site deposits or through identification by native in-

formants. Most of the 25 sites noted by Foster (1944) were located during the survey. In several areas, two or more sites were present within the prescribed limits, which prevented the actual association of a village name with a specific site. It should be noted here that historic sites for which we have no names need not be historic Yuki sites. Following the founding of the Nome Cult Farm, which later became Round Valley Reservation, many Indians were drawn from all directions from areas as distant as southern Clear Lake, Butte County, and the Coast. Thus in 1863 and 1864 Indians from Butte County and some Wailaki, from north of Round Valley, were settled on the reservation, and took up residence on the tumuli of abandoned villages,³ the Wailaki settling on the southeast part of the reservation near the military post of Fort Wright, and the Maidu, after a winter march over the mountains, stopping on the northeastern part of the valley floor. The Maidu took up residence on abandoned village sites, some of which perhaps had been occupied by Yuki up to the coming of the first whites in 1854. The reason for this settling of newcomers on old village sites is obvious; the best areas in which to live were those near water and with a good exposure. In Round Valley, it is almost impossible to find a favorable location that has not at some time been anciently occupied. Other groups, including Concow Maidu, Pomo from various areas, Wintu, and Achomawi, were also brought into the reservation. Although they were encouraged to build log, sawed timber, or adobe houses, many of the people preferred "winter houses of oak slats laid together like the houses they lived in before the coming of the whites, or summer houses of brush with floors dug out."⁴

The "contact" material, i.e., those earliest recognizable articles evidencing white influence or of non-aboriginal manufacture, ranges from Hudson Bay trade beads to early twentieth-century porcelain and metal objects. Many of the sites yielding such material are large in expanse and of good depth; thus it seems probable that archaeologists will be able to distinguish stratigraphically between the late precontact and early historic period. Though there probably was some infiltration of nonaboriginal materials via other native groups, there must not have been much; the complete lack of any mention by the first settlers of the valley of such articles among the Indians permits this inference. For reasons mentioned above, we should be able to distinguish a fairly sharp cleavage between prehistoric Yuki, historic Yuki contact, and non-Yuki contact on the same site.

HOUSE PITS

House pits occur on 146 sites and vary in character from well-defined depressions to mere suggestions of pits. On many sites they have been almost obliterated by cultivation or weathering. It is difficult to say to what extent sharply defined pits indicate recent occupation; some known historic sites that have never been subjected to cultivation show no evidence of pits, although as late

as 1869 some Indians were living in native-style houses, "with the floors dug out."⁵

There are, proportionately, a far greater number of sites containing house pits in Williams Valley and in the Eastern and Southern Drainage (i.e., valleys draining into the Eel to the east and south of Round Valley; see map) than in Round Valley. It may be that cultivation and herding, having been more concentrated in Round Valley,

²Clark, p. 133, fig. 7.

³Data on reservation groups is taken from U.S. Office of Indian Affairs Reports for 1861-1871.

⁴*Ibid.*, p. 53.

⁵See above.

have destroyed the surface evidence of house pits there. Moreover, our evidence indicates that shallower sites are firmer and less subject to erosion than deep ones and would therefore retain pit outlines longer. As we have seen, the average depth of the deposit at Round Valley sites is greater than elsewhere in the area.

House pits vary from 7 to 9 ft. in diameter, are round in outline, and seldom exceed 3 ft. in depth. A notable exception is a series of nine pits in one site on the Eel River near Etsel Crossing, where several of the depressions are more than 5 ft. in depth (pl. 11, f.). This depth may be accounted for by the fact that the site has only a trace of mound deposition; it occupies an old river gravel terrace, the materials of which have little tendency to slump or to erode.

There seems to be no established pattern in the location of house pits on the mound. On elongate sites the depressions tend toward a linear row or rows, depending upon the width of the site. On round or oval mounds the pits are located in a random fashion. The number of pits per mound varies from one to twenty-nine, with an average of four per mound, the total number of pits recorded being 655 for the entire area surveyed.

Only a few entrance ways were noted and these vary in orientation. It is almost certain that the direction of the opening was primarily determined by that of the prevailing winds, the entrances facing downwind; secondarily, by the direction of the nearest water. In one group of house pits on the Eel all the entrance ways face the river. In no single instance was the entrance way sufficiently well preserved to permit measurement. Rough estimates of the original dimensions of those observed would give an average of $1\frac{1}{2}$ to 2 ft. width and 3 to 5 ft. length of the passageway.

Foster⁶ says of house structures:

Individual houses were crude bark and pole shelters, some 10 ft. in diameter and 8 ft. high, dug out to a depth of about 1 ft., and without center pole. ...and a pack basket weighted with a stone served as a door in cold weather.

This statement seems not to allow inference of roof entrances, rather, the structures were so simple and so shallowly excavated that no specialized entrances were required. Where entrance ways did occur, the pits were excavated to considerably more than "a depth of about 1 ft."

DANCE HOUSE PITS

Dance house pits were noted on seven sites. They are round in outline and range in diameter from 25 to 30 ft., in depth to a maximum of 4 ft. All the dance house pits occur on small rather than large sites; two were found far removed from any habitation site.

According to Foster:⁷

The dance house was of the typical central California type, though of more simple construction than some. It was 30 to 40 ft. in diameter, dug out to a depth of 4 or 5 ft., provided with one stout center pole, fir beams, earth covered and possessed of an entrance, smoke hole, and wood opening.

QUARRIES

An attempt was made to locate the sources of rock materials utilized by the Indians. In the main, we found that whenever detached rock (float) occurred close by, this was used to the greatest extent. However, for certain artifacts, such as points, which are better manufactured from special kinds of silicates, the Indians had selected choice outcroppings of chert, quarries being found in three places in Round Valley: on the Weymouth Ranch, on Upper Town Creek, and in the north end of the valley above the old reservation buildings.⁸ At these places abundant evidence of aboriginal workshops can be found: fragments of chipped flakes, fractured stones, blanks, and rejected or broken points.

Kroeber⁹ states that the Yuki living in Williams Valley had in their territory a pit or quarry for kichil (flint or obsidian), but we did not find this. A good obsidian quarry was Black Rock, north of the Dos Rios-Laytonville road.¹⁰ This deposit was especially important in relatively recent times, for both the Yuki and the Kato tribes claimed it because of its borderline position. This dual claim resulted in conflict, graphically described by Kroeber in "A Kato War."¹¹

On the west side of Williams Valley, in a side ravine, float steatite occurs in lumps up to fist size. Its local use is attested by quantities of steatite found on the near-by sites.

TEXTILES

Textiles of the region are known to us archaeologically only through the indirect evidence of numerous hopper mortar stones and flat-bottomed bulbous-ended pestles, which were used, in historic times, in conjunction with a bottomless basket, for pounding acorns. It may also be assumed that certain perforated seashells

and pine nut beads were once attached to some sort of basket or garment, as was the practice of various neighboring groups in recent times.

The presence of bone awls implies sewing, at least of basketry, if not of other materials.

⁶Foster, p. 176.

⁷Ibid.

⁸Helzer and Treganza, pp. 305, 309, 314.

⁹Kroeber, 1932, p. 370.

¹⁰Idem, 1928, p. 396.

¹¹Ibid.

BONE TOOLS

Implements of bone, like textiles are seldom found in the course of surface surveys. However, two recognized types of bone awls were obtained from squirrel diggings and from the little excavation undertaken. One is a long slender implement tapering to a sharp point, made from a split cannon bone; the other, a rather blunt-ended flat

tool, also made from a cannon bone. These represent, respectively, types A1c1 and B3 in Gifford's typology.¹² One rectangular, perforated bone pendant was found on the surface of a historic site, as was a fragment of incised bird-bone tube.

PINE NUT BEADS

Pine nut beads are of two types: (1) barrel-shaped with both ends ground off (pl. 12, o); and (2) with one side surface ground through and one end beveled at an angle (pl. 12, p), so that the beads, when strung, produce a rather coarse herringbone pattern. Distributionally, the second type is of interest, for its presence here marks the most southern archaeological occurrence in California. Heizer¹³ concludes from his survey that

...since the type appears archaeologically late and among ethnographic aboriginal groups, we

state with fair certainty that wherever these pine nut beads are, archaeologically we are dealing with relatively recent remains. A related type of Pinus nut bead is barrel-shaped and has each end ground off. These are widespread among modern Indian tribes but have thus far not been recovered from prehistoric site levels.

The specimens of both types recovered in Round Valley were associated with a single burial from a shovel-dug grave deep (5½ ft.) in a historic site.¹⁴

SHELL

Shell is well represented, both in artifact types (following Gifford, 1947) and in species. Olivella buplicata and O. baetica, with lopped spires (type F5b), are the species most commonly used. Haliotis rufescens and Haliotis sp., worked as pendants (types Q1aIV and Q4aII), occur on the surface of historic sites and are occasionally found in fragmentary form on precontact

sites. Clamshell-disk beads were made from both Saxidomus nuttalli and S. giganteus (types V1aII and V1aIII); these date from historic and precontact times. One Protothaca staminea, perforated near the beak by abrasion (type D12), an Acmaea mitra (type F1), and a fragment of Clinocardium stellerii were recovered from squirrel diggings.

STONE

Work in stone provided a quantity of material for typological and comparative study. A fine-grained varicolored Franciscan chert¹⁵ is an excellent material for arrow points, knives, and scrapers. Granites and schists occurring as float in the creek beds were utilized for making pestles and hopper-mortars. Several deposits of steatite provide soft stones for carving, although it was apparently not used to any great extent. Obsidian, though frequently referred to in Yuki mythology and material culture studies, is rare as implement material in the present survey.

Arrow points and scrapers are the most numerous of all artifacts. With the exception of two types, they fall agreeably into the typological classification already set up for central California.¹⁶ Of the two that differ from the usual series, one is perhaps of local origin; the other tends to have a northern distribution, with a prob-

able center in Oregon. The former type is plano-convex in form and is represented in our collection by 11 examples (pl. 12, i). The plane or nearly flat surface is never chipped but represents a primary fracture surface, while the convex portion or back displays a fine technique of pressure flaking. The result is a raised longitudinal crest, which in cross section resembles a Gothic arch. The other type, represented by 9 points, although resembling the established types SAa and SBb,¹⁷ is atypical in that the barbs are extreme in length (pl. 12, f).

The technique of controlled pressure flaking found on these points is comparable to that of the finer specimens of the central valley of California.¹⁸ To date, points of this long-barbed type have been found at Humboldt Bay, California;¹⁹ Gold Hill, Oregon;²⁰ Chetco Valley, Oregon;²¹ and in the Dalles-Deschutes region

¹²Gifford, 1940, p. 161.

¹³Heizer, 1940, p. 126 and fig. 71.

¹⁴See p. 118.

¹⁵This series of cherts occurs in the Coast Ranges from Santa Barbara to Oregon. See Heizer and Treganza, p. 314.

¹⁶Gifford and Schenck, p. 80; Lillard, Heizer, and Fenenga, p. 13.

¹⁷Ibid.

¹⁸Schenck and Dawson, pls. 93 and 94.

¹⁹Loud, pl. 15, no. 8.

²⁰Cressman, p. 16.

of the Columbia River.²² It seems probable that this type of point, like the pine nut bead, may be of late introduction from the north, perhaps via Athabaskan territory. The remaining point types represented and the numbers of each collected are as follows: NAa (27), NAb1 (19), NAb2 (31), NBa (11), NBb (16), NBb1 (46), SAb (19), SAc (7), SBa (24), SBb (30), SCA2 (18), SCb1 (42), and SCb2 (23).²³

Scrapers are made of Franciscan chert and vary in form and size. Both percussion and pressure flaking were employed in their manufacture. Flakes, cores, and percussion bulbs were all worked into desired forms; some show a considerable amount of secondary pressure flaking, whereas others are merely roughed out.

Large flat chert blades are not uncommon. They are almost perfect duplicates of specimens used as fish knives, pictured by Goddard for the Hupa,²⁴ though the handles have disappeared from our archaeological specimens. Similar types frequently occur archaeologically to the north of this local area. It is apparent that the knife type is correlated with a salmon-fishing economy, at least in northern California and parts of Oregon.

Though several manos and metates were recovered in the course of the survey, their chronologic position remains uncertain; the metates lack site association. A few manos were found on the surface of a deep site upon which is located a modern white cemetery, but the recent Caucasian interments have destroyed evidence of the horizontal position which these archaeological specimens originally occupied in the mound.

The distribution of these grinding implements north of San Francisco Bay is erratic; many of them were introduced by the Spanish or Mexicans. However, it is felt that the presence of slab metates in the Yuki area will prove to be indigenous. A three-legged metate was found not far from Round Valley; judging from the shape of the groove and the presence of legs, as well as by the material, there is little doubt of its Mexican origin.

The grinding surface of local metates is shallow oval in form, indicating a rotary motion of the mano, rather than the elongated rectangular "U" of Southwestern and Mexican types which results from a backward and forward motion.

Work has not progressed far enough to permit consideration of time sequences for the various artifact types, but we may mention here that the mano and metate are associated with the earliest cultural horizons at Santa Barbara (Rogers, 1929; Orr, 1943) and in central California (Lillard, Heizer, and Fenenga, 1939) and were in recent use among the Miwok (Barrett and Gifford, 1933) and other Sierra Nevada tribes.²⁵ Since site

association for our present specimens is lacking, the problem here must await future solution.

Portable stone mortars are known only from four fragmentary specimens, none of which is complete enough to classify as to type. Although this type of mortar, like the metate, is absent from the material culture lists of the historic Yuki,²⁶ a specimen in a store in Round Valley is avoided and looked upon with fear by the local Indians, which seems to imply at least a mythological knowledge of the implements.²⁷

Pestles are very numerous, constituting several well-defined types (pl. 12, r-u) and one distinct subtype (pl. 12, v). In form and finish they range from elongated natural stream cobbles to long, pointed, well-rounded specimens with polished surfaces. In the main, they taper to a sharp point at the proximal end. Besides variations in contour and surface finish there is a difference in wear on the pounding face. This variation of wear is a functional difference which may prove to represent also a chronologic difference. The pounding surface of one form is worn flat, indicating its use on the flattish surface of a hopper-mortar stone; the other form is teardrop-shaped, or rounded on the distal end, suggesting its use in a deep-bowled stone mortar. The former type is by far more common, as might be expected, since our collections are from the surface and the most recent method of grinding or crushing acorns was by means of the hopper-mortar and flat-ended pestle; these implements were also found in association. However, a comparable association of rounded pestles with stone mortars is lacking. The absence of such an association can probably be attributed to the fact that only three sites have been excavated.

The hopper-mortar stones themselves are flat, pancake-shaped granite or schistose stream cobbles, seldom exceeding 15 in. in diameter by 2 in. in thickness. The pounding surface is pitted and only slightly concave; none bear evidence of pitch or asphaltum residue around their margins to indicate that the basket was fastened permanently to the stone. Ethnographic specimens in the Museum of Anthropology are identical with our archaeological specimens.

Charmstones, though present, are rare; only seven were found in the entire survey. All are from Round Valley. Two types are recognized: the first, represented by one specimen, is spindle-shaped with an encircling longitudinal groove (pl. 12, l); the other, represented by the remaining specimens, tends strongly toward a phallic form (pl. 12, j, k, m). Until now, few charmstones have been found in the Coast Ranges north of San Francisco Bay.

Small incised and ground-stone objects occur intermittently throughout our area. Some are perforated, and were probably used as pendants (pl. 12, n); others were merely oddly shaped, usually flat pebbles with geometric designs and figures scratched on the surfaces. The significance of these incised pieces is not known. Though some designs are poorly rendered, several specimens show such minute and carefully exe-

²¹Berryman, pl. VIIA, figs. 21 and 22.

²²Strong, Schenck, and Steward, pl. 14, h; pl. 15, t, u, etc.

²³Following Lillard, Heizer, and Fenenga, p. 13.

²⁴Goddard, pl. 3, figs. 4 and 5.

²⁵Kroeber, 1925, pp. 411-414.

²⁶Foster, p. 169; Essene, p. 14.

²⁷See also Dixon, pp. 134-137.

cuted geometric figures that the patterns as a whole cannot be lightly dismissed as idle sketching. Some of the elements bear a close resemblance to designs occurring in the petroglyphs of the northwestern part of the state.²⁸

Elongate hand-sized blocks of sandstone with deep longitudinal grooves were probably used for shaft-smoothers or awl sharpeners (pl. 12, g).

Hammerstones vary from chert cores and stream cobbles to small, nicely shaped, cylindrical bifaced stones of not over 2 in. in length. Another type, more specialized, consists of a biscuit-shaped stone with one or both surfaces centrally pitted and showing abrasion around the periphery. The function of this type as hammerstones is a little dubious, for all of them are composed of a relatively soft red sandstone; use as acorn anvils is much more probable.

An unusual series of naturally shaped stones have

been termed "spatulas." Because they occur so frequently, because there is evidence of their function, and because their shapes conform so closely to one general pattern, they have been considered as constituting an artifact type. They are of natural origin and about 50 per cent of the specimens show use-abrasion on one or both ends. The weight of one of these stones seldom exceeds a pound; the cross section ranges from rectangular to oval; the shape resembles an elongate trapezoid. When held in the hand by the small end, one of these specimens is well balanced as a pounding implement.

Clay work is represented by a single unfired piece obtained while we were clearing the debris from a small cave on Medicine Hill, in the northwest end of Round Valley. The piece is a rather roughly modeled cylinder, reminiscent of some of the types from the Sacramento Delta (Heizer, 1937).

BURIALS

One deep historic site on Round Valley was partially excavated in order to gain some idea of the yield of artifacts and burials to be expected from future work. Both the historic and precontact levels produced excellent results. Nine burials were recovered from the test trench in this mound.²⁹

All the skeletons were flexed, varying in degree from loose to tight. Orientation was not uniform, indicating no set burial pattern; some bodies lay tightly flexed face downward, whereas others lay loosely flexed on either side. Most of the burials had mortuary offerings, especially pestles, hopper-mortar stones, and shell beads, which were placed with the body. Burials at the 6-ft. level had associated shell beads (*Olivella biplicata*), and burials as deep as 5 ft. contained glass, as well as shell, beads. Future work will probably prove these very deep historic burials to be intrusive into the precontact levels.

Two submound burials were found exposed in the eroded face of a site along Short Creek. The remains lay in the hard, compact, yellow clay a foot below the mound mass. No evidence of any burial pit was visible.

On several sites cremated human bones and charred artifacts were discovered in squirrel diggings; these were all contact sites and within the area occupied by Pomo groups, who were placed on the reservation in the 1860's to 1870's. These peoples were practicing

cremation at that time in their homeland and evidently brought the trait with them to Round Valley. We have no evidence of cremation in precontact sites.

Skeletal Remains

The solution of the problem of Yuki prehistory will ultimately rest in great part upon a complete series of osteological observations and physical measurements. It is hoped that something approaching a well-defined physical type can be established. At this time the data are only sufficient to allow us to offer a few generalities.

In most of our burials the preservation of the long bones and skulls is fairly good. Some have been disturbed by rodent activity or have been attacked by root growth from the vegetational covering on the site. The limited observations completed indicate a dolichocephalic type, with faces broad to the point of disharmony. Alveolar prognathism is evident in most crania and the nasal index tends toward platyrrhine. Brow ridges are heavy. In stature, the people were light-boned and very short, probably averaging not over 5 ft. 2 in. These general features agree well with Gifford's Yukian type (1926) and with Klimek's "palaeoamerican type," with relatively long trunk, short extremities, dark hair and eyes, long head, broad forehead and face, large orbits, and a broad nose.

CONCLUSION

Certain elements, like the long-tanged arrow point and pine nut beads, reflect a northern origin, whereas the charmstones and clamshell-disk beads are southern traits. Possibly cremation is also southern, though

the occurrence in Round Valley may be a direct introduction by the Pomo in the historic period.

There is evidence of at least two techniques of preparing acorns and other seeds: grinding with mano and metate and pounding with mortar and pestle or in the hopper-mortar.

The location of sites along stream courses and the general content of deposits, plus added ethnological data, would suggest that we are dealing with a typical northern and north-central California Indian group, whose

²⁸Steward, pl. 22.

²⁹Site Men-186. Location on file in Museum of Anthropology, University of California.

basic economy was centered around the acorn-gathering and salmon-fishing economy, though our limited observations yield little evidence of the latter.

None of the material found appears to be unique, with the possible exception of the miniature geometric designs scratched on small pebbles.

There is no way of determining or justly approximating the aboriginal population, for the number of sites occupied contemporaneously and the number of persons per site at any one time will never be known to us. Since this area lies to the north of the old mission frontier, estimates from mission sources are not available. Early land exploration for the most part missed the area; what few accounts we have seem exaggerated.³⁰ Kroeber's conservative population estimate³¹ of 2,000 for the entire Yuki area seems low, considering the great number of sites and the amount of deposition as compared to other areas in California. Kroeber himself considers this estimate low, but holds that an appreciably larger one would exceed the figure for the Klamath River region, which has been considered high for California. Cook's estimate of some 3,500 may be closer,³² but the validity of his method may be questioned. It is based upon the assumption that so many individuals lived upon one site and so many sites were occupied contemporaneously. But if our archaeological observations are of any value and if house-pit remains indicate the number of families living upon a site, we find no consistent answer, simply because a specific number of house pits does not necessarily mean that they were all occupied at the same time. The problem is further complicated since the aborigines were rapidly driven off or killed and soon widely diverse groups were introduced, many of which took up abode on old sites. We need to determine not which sites are necessarily historic, but which were occupied immediately before the introduction of the first "foreign" Indians in 1859. Then if we can determine which sites were occupied by aliens, for whom we have at least approximate dates, we may be able to correlate other sites, on the basis of material remains, with those of the culture immediately underlying the foreign historic one, thus obtaining a series of sites occupied more or less contemporaneously by the Yuki. With this information, it would be possible to estimate the aboriginal population with some degree of accuracy.

There is, however, little doubt that the aboriginal population of Round Valley was large, else how can we explain the high estimates of the first settlers, which, though admittedly too high, certainly came from observation of unusually large numbers? Though there is no direct evidence, this apparent density may be the result of a seasonal migration, Round Valley and the adjacent open areas along the Eel functioning as winter havens for an otherwise scattered population. In summer, groups could move out into the more rugged terrain in search of food, but with the winter storms a

lower elevation would be desirable and Round Valley with its abundant oaks and heavy runs of winter and spring salmon must have been very attractive. This hypothesis of a seasonal fluctuation of population is offered hesitantly, however, because the very high estimates made by the first settlers were made in the months of April to June, at which time, on the theory, the natives should have been dispersed for the summer.

One other problem which might be solved by archaeological investigation is that of the geographical relationship between the Yuki proper and the linguistically allied Wappo. With the exception of the small group of Lileek Wappo on the south shore of Clear Lake, the Wappo occupied the valley of the Russian River near Geyserville and extended into the Napa Valley as far south as Napa. The Eastern Pomo and Lake Miwok tribes occupied the forty-mile gap that separated the Yuki from the Wappo. The difference in speech between the Yuki and Wappo is so great that Kroeber considers³³ a thousand years a short time to allow for the degree of divergence under normal conditions. Kroeber further points out that, since the Wappo were a small group completely surrounded by a half-dozen peoples of entirely distinct language, one must be cautious in estimating the length of time it would take to modify a language which presented so many different methods of sound production and different structural processes in active form.

The geographic relationship between the Yuki and Wappo may be explained in three ways:

First, the Yuki area may once have extended as far south as Napa Valley, just north of San Francisco Bay. At a time perhaps 1,000 or 1,500 years ago, according to Kroeber's estimate based on linguistic divergence, the Pomo moved across this area in the region of Clear Lake and divided the Yuki group. Later movements of a Miwok and a Wintun group effected partial changes in the southern, or Wappo, division.

Second, about 1,000 or 1,500 years ago, the group known today as the Wappo detached themselves from the Yuki and moved in a body to their historic southern location.

Third, at the time of the original intrusions of aborigines into California the Wappo were a group of Yuki who moved farther south than the parent group. Influence from other peoples then had a modifying effect upon the physical type, the material culture, and the language.

The first necessity which confronts us is to obtain enough skeletal material to permit determining distribution of the Yuki physical type. With these data as a working basis, the problem of Wappo affiliations may be elaborated upon. The objection will be raised that cremation among the Pomo and Wappo will have destroyed skeletal material; but the practice is late in both these groups, as archaeological evidence indicates. In fact, burials have been reported in the deeper layers of sites in Napa Valley. It is interesting that Harrington, while excavating in a deep site on Dollar Island in Clear Lake,³⁴ located a skeleton lying flexed on the right side.

³⁰Tassin, p. 24; Palmer, p. 459.

³¹Kroeber, 1925, p. 168.

³²Cook, pp. 171-172.

³³Kroeber, 1925, pp. 217-221.

³⁴Harrington, p. 11.

He further notes absence of any proof of cremation on the site, as opposed to evidence of the practice on nearby Rattlesnake Island. Hence the prospects for obtaining data on the physical character of the peoples between Napa and the Yuki area are not to be dismissed as impossible.

The Yuki have been considered closest to being the autochthonous Californians,³⁶ and Gifford has concluded that one division, the Coast Yuki, manifests a very

simple and ancient form of central California culture.³⁶ Here the ethnologist's theory presents a challenge which, through the accumulation of more and new data, may be answered by the excavator.

It is hoped that this brief report has demonstrated the rich possibility of new information and the need for a definite program of survey and excavation to be undertaken in the Yuki area.

³⁶Kroeber, 1925, p. 159.

³⁶Gifford, 1928, p. 115.

BIBLIOGRAPHY

ABBREVIATIONS

AA	American Anthropologist	PMM-B	Public Museum of the City of Milwaukee, Bulletin
A Ant	American Antiquity	SM-M	Southwest Museum, Masterkey
AMNH-B	American Museum of Natural History, Bulletin	UC	University of California Publications
BAE-B	Bureau of American Ethnology, Bulletin	-AR	Anthropological Records
		-PAAE	American Archaeology and Ethnology
		-IA	Ibero-Americana

-
- Barrett, S.A.
 1908. The Ethno-Geography of the Pomo and Neighboring Indians. UC-PAAE 6:1-332.
- and E. W. Gifford
 1933. Miwok Material Culture. PMM-B 2:117-376.
- Berreman, J. B.
 1944. Chetco Archaeology. General Series in Anthropology. No. 11.
- Clark, S. G.
 1940. Geology of the Covelo District, Mendocino County, California. Univ. Calif. Dept. Geol. Sci., Bull. 25.
- Cook, S. F.
 1943. The Conflict between the California Indian and White Civilization:I. UC-IA, Vol. 21.
- Cressman, L. S.
 1933. Contributions to the Archaeology of Oregon. Final Report on the Gold Hill Burial Site. Univ. of Oregon Publ. 4.
- Dixon, R. B.
 1905. The Northern Maldu. AMNH-B XVII, Pt. III, pp. 119-346.
- Essene, F.
 1942. Culture Element Distributions:XXVI--Round Valley. UC-AR 8:1-97.
- Foster, G. N.
 1944. A Summary of Yuki Culture. UC-AR 5:155.244.
- Gifford, E. W.
 1926. California Indian Types. Natural History, 26:50-60.
 1928. The Cultural Position of the Coast Yuki. AA 30:91.
 1940. Californian Bone Artifacts. UC-AR 3:153-238.
 1947. Californian Shell Artifacts. UC-AR 9:1-132.
- Gifford, E. W. and W. E. Schenck
 1926. Archaeology of the Southern San Joaquin Valley. UC-PAAE 23:1-122.
- Goddard, P. E.
 1903. Life and Culture of the Hupa. UC-PAAE 1:1-88.
- Harrington, M. E.
 1943. A Glimpse of Pomo Archaeology. SM-M, Vol. 10.
- Heizer, R. F.
 1937. Baked-Clay Objects of the Lower Sacramento Valley, California. A Ant 3:34-50.
 1940. Massacre Lake Cave, Tule Lake Cave, and Shore Sites. In S. L. Cressman, The Northern Great Basin. Carnegie Inst. Publ. 538.
- and A. E. Treganza
 1944. Mines and Quarries of the Indians of California. Calif. Jour. Mines and Geol., Rept. 40.
- Klimek, S.
 1935. Culture Element Distributions:I--The Structure of California Indian Culture. UC-PAAE 37:1-70.
- Kroeber, A. L.
 1925. Handbook of the Indians of California. BAE-B 78.
 1928. A Kato War. P. W. Schmidt Festschrift. Vienna.
 1932. The Patwin and Their Neighbors. UC-PAAE 29:177-252.
- Lillard, J. B., R. F. Heizer, and F. Fenenga
 1939. An Introduction to the Archeology of Southern California. Sacramento Junior College, Bull. 2.
- Loud, L. L.
 1918. Ethnology and Archaeology of the Wiyot Territory. UC-PAAE 14:221-436.

Orr, P. C.

- 1943 . Archaeology of Mescalitan Island and the
Custans of the Canaliño. Santa Barbara
Mus. Nat. Hist. Occasional Papers, no. 5.

Palmer, L. L.

- 1880 History of Mendocino County. Los Angeles,
Calif.

Rogers, D. B.

- 1929 Prehistoric Man of the Santa Barbara Coast.
Santa Barbara Mus. Nat. Hist.

Schenck, W. E., and E. J. Dawson

1929. Archaeology of the Northern San Joaquin
Valley. UC-PAAE 25:289-413.

Steward, J. H.

- 1929 Petroglyphs of California and Adjoining
States. UC-PAAE 24:47-238.

Strong, W. D., W. E. Schenck, and J. H. Steward

- 1930 Archaeology of the Dalles-Deschutes
Region. UC-PAAE 29:1-154.

Tassin, A. G.

- 1887 Chronicles of Camp Wright. Overland
Monthly, Ser. 2.

United States Office of Indian Affairs

- 1861-1871 Reports.

PLATES

EXPLANATION OF PLATES

PLATE 10

Yuki village scene. This drawing by A. E. Treganza depicts a typical small village with the inhabitants busy at catching, preparing, and smoking steelhead trout.

PLATE 11

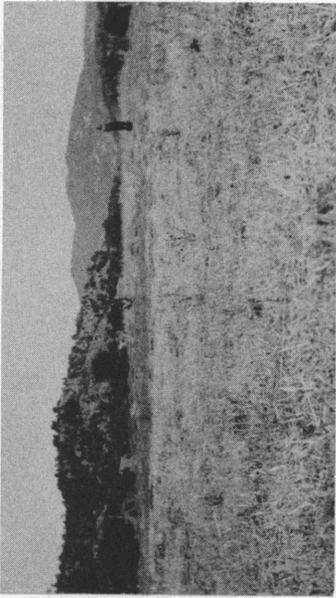
Round Valley archaeological sites. a. Site 120, one of the contact sites in Round Valley from which evidence of cremation has been recovered. b. Central portion of Round Valley, view west-southwest. c. Site 170, on the west side of Round Valley. The dance house pit shown here is being cut away rapidly by the intermittent stream to the left. d. Site E40, on the eastern slope of the hills which lie east of Round Valley, west of Eel River. Since this site was abandoned, a grove of scrub oaks has extended itself downhill and now covers the site. e. Site E17 a relatively deep site situated to the south of Poor Man's Valley. f. Site E39, on a low terrace on the west bank of Eel River east of Round Valley. The midden is quite shallow. The house pits are deep, with well-defined, raised rims.

PLATE 12

Artifacts. (Specimen numbers are those of the University of California Museum of Anthropology catalogue.) a, b. Large projectile or thrusting-spear points: a, 1-51619; b, private collection. c. Knife blade, 1-51594. d-i. Five of the more common types of points: d, g-i, private collections; e, 1-60189; f, 1-62011. j-m. Charmstones: j, 1-63959; k, 1-51911; l, 1-60032; m, 1-51912. n. Stone ornament, 1-63449. o, p. Two types of pine nut beads: o, 1-64620; p, 1-64619. q. Sandstone abrader, 1-51982. r-v. Common pestle types (not drawn from specimens).



Plate 10. Yuki Village Scene



a



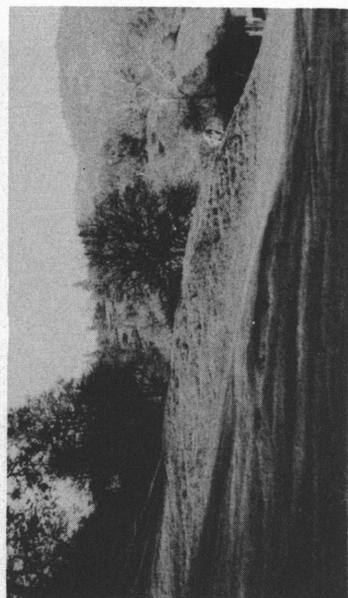
b



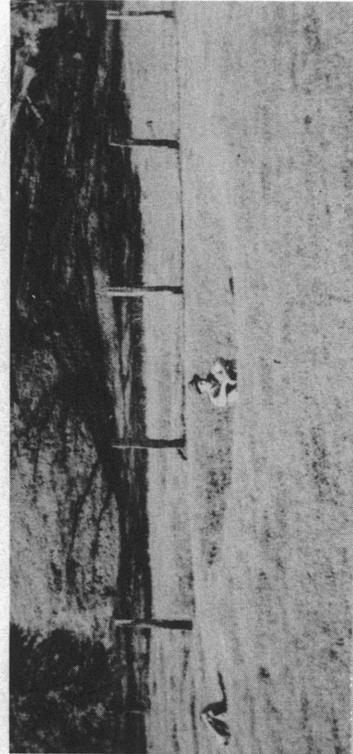
c



d



e



f

Plate 11. Round Valley Archaeological Sites

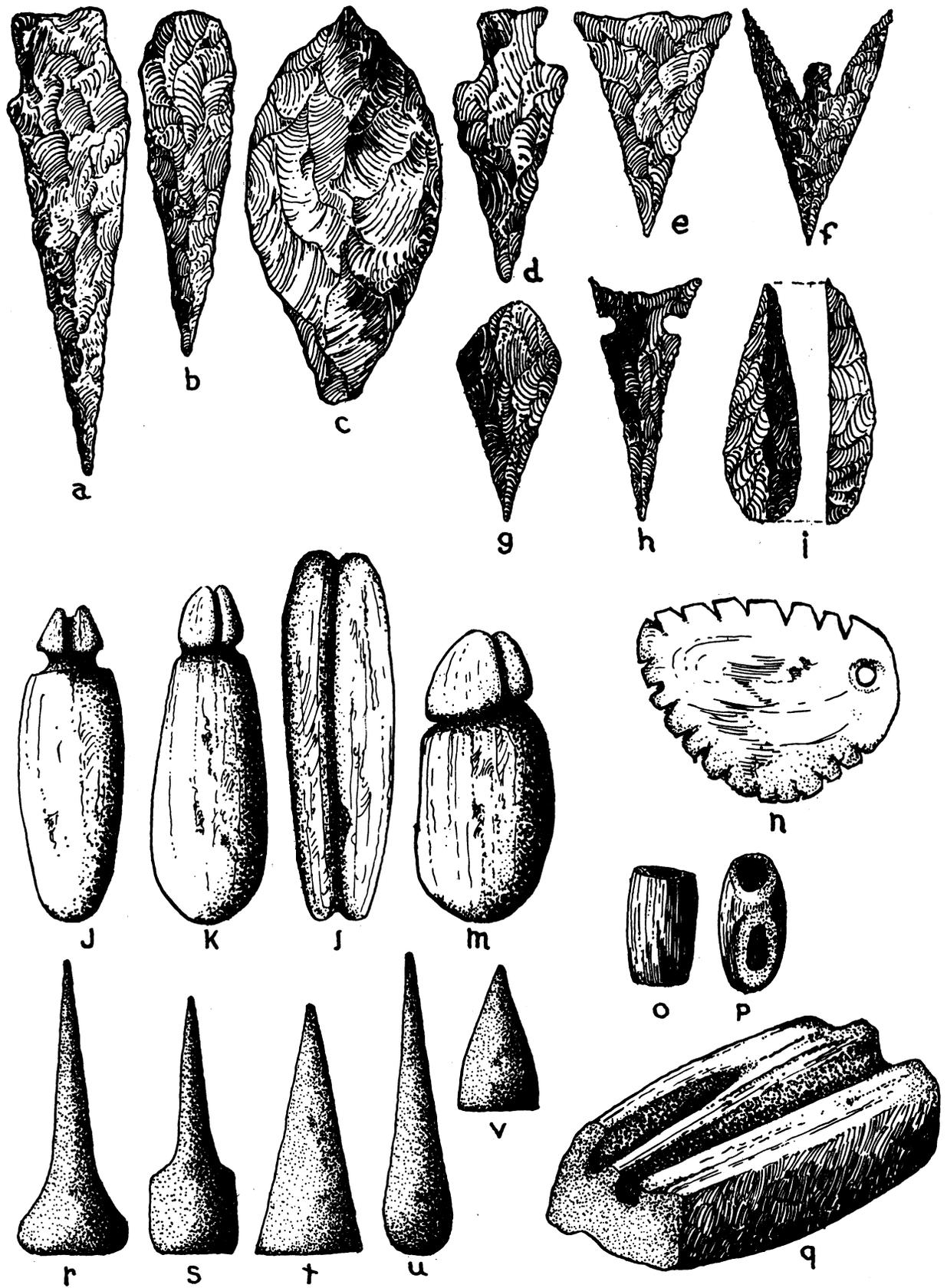


Plate 12. Artifacts from the Yuki Area