THE ARCHADOLOGY OF SITE Ker-74 By Francis A. Riddell

## INTRODUCTION

In January, 1949, an historic Yokuts cemetery located approximately twelve miles due wost of Delano, Kern County, California in T25S/R23E, lying in teritory claimed aboriginally by the wowol, was destroyed by lance levelinc. The present cesignation for this site is Ker-74; ${ }^{2}$ its aboriginal name is unkow. The author, as Assitant Archacologist oi the University of Califorria Archaeolocical Survey made a study of this site both in the field and in the museum as part of his regular duties.

The cemetery is situated on a natural sandy knoll on the edge of a former slough, and only a few miles southeast of the former shoreline of Tulare Lake. Approxiately 1.5 miles southwest of Ker-74 is an historic village that was occupied in Octpber, 1854, ${ }^{3}$ this is designated by Gifford and Schenck as their Site 28.

It is not know that, a habitation site existed on one of the other rises near Ker-74. In so, then Ker-74 can be assumed to be the cemetery for such a village; if not, Gifford and Schenck's Site 28 may possibly be the source for the burials in Ker-74. Since fragmentary freshwater musiel shell was evicenced in the earth spread out in the leveling operation it might be guessed that there was a habitation site in conjunction with, or in close proximity to Ker-74. The artifacts, however, strongly indicate burial association rather than an unassociated occurrence in a midden ceposit. The matrix, as far as could be ascertained, was a fine sandy silt with little or no indication of charcoal or ash.

The site was on or near the 22ry contour elevation which places it a few feet hioher than tin surrounding flat terain. Pecause of its elevation, ret noamess to a slough, Ker-74 was a natural location for a village and/or a cenctery.

Present at the destruction of the cenetery were several local people who were interented in preservinç as much naterial as possible from destruction by the lance leveling machines. It was from these persons that $I$ was able to obtain iniomation on buials and artifacts. Those people to whom I am most indebtec for information and collections from this site are: ir. and trs. Louis Vergano, r. in. 3. Dorsey, iurs. Ielen C Kopp, ir. and ilrs, RoDert Comelison, Ir. Edward Butts, all of Delano; and wr. and Srs. IVarry S. Ridcell, Jr, of Lone Pine, I take this opportunity to thank them sincerely for their aid.

Though the information obtained concerning this site was meager it does seem to be of enough importance to warrant description. This is especially true since a considerable portion of the aboriginal artifacts recovered accompanied burials and were adciitionally associated with Caucasian trade material.

All specimens, unless otherwise speciried, bear catalog numbers of the university of California huseum or Anthropology (UCiiA), Derkeley, California. Catalog numbers for the artifacts from Ker-74 are as follows: 1-103.111 to 1-1.03150 inclusive; 1-116052, 1-116053; 1-118990 to 1-118999 inclusive; 1-116055 to l-116107 inclusive. The skeletal material bears the catalog numbers $12-7262,12-7263,12-7265$. The University of California Archaeolosical Survey accession numbers for the material from this site are 15 and 5\%.

The typolocical desiznations for shell bead and ornament forms are taken from E.i. Gifford's Caliiomian Shell Artifats, Univ, of Calif. Anthrop. Records, Vol. 9, ñ. 1, .1947.

Information was obtained for only nine burials in sufficient detail to permit standard burial record sheets to be filled out. Several of the people present at the destruction of Ker-74 estimated the number of burials scraped out to be at least one hundred, the majority being renoved by the scraper, and only a few being taken out by excavation with a shovel.

The information obtained concerning the nine burials is very meager and second-hand. It is difficult to reach any important conclusions on such data. Both flexed and extended burials occur with historic trade material, the orientation is variable and shows no pattern and the relative depth and horizontal locations were not obtained. The following table gives the position, orientation and the approximate depth of the recorded burials from the site.


To gain some idea of the burials and the conditions concerning their renoval the following extracts from interviews with some of the local people present at the destruction of Ker-74 are presented:

Mr. Robert Cornelison's statements: Believes the land was leveled six feet. He says he took out 2 or 3 burials from about four feet below leveled surface (i.e., originally these would have been 10 feet deep). Burials dorsally extended, no special orientation. Burial with religious medallions (see p. 5 ) had a burial directly above and one directly below it. The one above had shell beads in association; that below had nothing with it. The bones were in poor condition. Does not. recall whether the orientation for the three burials was the same or not. Burial with medallions originally about 7 or 8 feet deep (sic).

Everything-"wampum"-found under heads of burials. .
The burial with the glass liquor bottle about 4 feet below disturbed surface, possibly a total depth of 10 feet (sic), bottle between legs of Burial.

With one burial was a cloth "bag" containing colored powder which was all that was left when it was disturbed, i.c., the powder. Cloth, some like silk but most like burlap, also was found, but disintegrated.

Mirs. Louis Vergano's statements: She located a skull of a flexed burial exposed by the scraper which she dug out only to find a second burial, extended with infant in arms, below. This she too excavated only to find another extended burial below this one. This latter burjal is Burial 1, the one just above this burial is Burial 2 and the one above Burial 2 is Burial 3.

Burial 1 was dorsally extended, oriented to the SE, with a number of mammal and bird bone tube beads about the head and chest. With these bone tubes was a skull of a raptorial bird filled with asphaltum and with abalone ornaments achering to it. Also with this burial were several raptorial bird claws, a larce, long, tubular (though somewhat flat in cross-section) shell bead. Inside the skull was a steatite tube and near the face was a steatite labret. A painted slab of diatomaccous rock also was associated with this burial. Burial 1 was about 5 feet below the oricinal surface.

Burial 2 was an ardult with an infant in its arms and was locatcd above and across tinc legs of Burial 1. Burial 2 was oriented east and was dorsally extended at a depth oi about $41 / 2$ fect below the original suriace. This burial, too, had a diatomaceous rock slab wi.th it.

Burial 3 was an adult and was flezed in a "sitting" position; the skull was exposed first. This burial was avove and slightly north of Burial 2. The top of the shull was about 3 feet from the original surface.

Other burials were in very close association with these three burials.

Mr. E. R. Dorsey's statements: Mr. Dorsey uncovered Burial 4 at a depth of about 3 feet from the orjginal surface. This burial was dorsally cxtendec? and orionted to the south. He said that all of the material came from under the back of the skull. The material included a great number of class trade beads, tubular shell beads, a clay pipe, four pocket mives, buttons, and a small pestle (rectangular in crosssection). Also with this burial was a possjible whetstone of a material similar to jadeite. This stone was arout 6 inches long, 3 inches wide and about 2 inches thick. One side is flat and smooth while the othor side is unworked; both ends arc uneven from an original break. Two projectile point fragments, an obsidian flake knife, and several obsidian flakes. Some abilonc ormaments came with this burial, also.
lir. Dorsey stated that he saw another burial romoved that was cxtended and oriented to the west. He also said that ho saw some "shells" with red paint (ocher?) in them at this sitc.

Mrs. Helon Kopp's statements: She excavated Burial 5, that of a child, which was dorsally extenced and orionted nortin. The burial was about 4 feet below the original surface. Numerous saucer-shaped Olivella beads were around the skull. The skull and mandible are in the UCMA. The amns were flexed on the chest of this burial.

Burial 6, an adult, was dorsally extended and oriented west. It was about 5 feet below the original surface. Twelve obsidian flake scrapers were found near the right ribs.

Burial 7 was that of an infant, oriented west, and about 3 foet bolow the original surface. Numcrous glass trade beads and two rather claborato abalone ornaments occurred with this burial.

All of the burials secmed to bo in fairly close association with ono anothor, according to Mrs. Kopp.

Lir. Edward Butt's statements: He romoved Burial 8 and 9, both of which are now at the Dclano High School Scionce liuscum. Burial 8 was a tifhtly floxed burial about 5 fect below the surface. It is an adult, probably malc, and had two rectangular Haliotis ormanonts inear the chost. Tho burial was oriented SW.

Burial 9 was a tightly flexed adult burial associated with an infant burial. This burial was about 6 feet NW of Burial 8 and at the same depth. Artifacts with this burial include slass trade beads, clam shell disc beads, spire-loppod Olivella beads, saucer-shaped Olivella beads and Haliotis ornaments.

## ARTICIES OF EUROPTAN LANUFACTURE

Bottle: A green glass liquor bottle found between the legs of a burial is now in the Comelison Collection. The height of this bottle is $30.1 ; \mathrm{cm}$., tho diameter at shoulder 7.9 cm . and the depth of the concave basc 3.6 cm . ( pl . Ii ).

The exterjor of this botile was oxidized to the extont that the glass was nearly opaque. Tho burial was reportod to havo been nearly 10 feet below the original surface; this scems, howvor, to be an oxcossive estimate for dopth.

Medallions: Four or more relisious medallions, now in the Cormelison Collectiong were found in a leather pouch under the skull of a burial. Through the cyes (rings?) of the medallions was a finc copper (?) wi re upon which wore strung several colored glass beads. These beads, unfortunately, wore not kept with the medallions whon removed from the burial. The longth of the medallions is 1.76 cm , tho width 1.2 cm . and the thicknoss 0.7 mm .

The date on $a l l$ of the modallions was 1030. The inscription on the obverse side of these medallions reads: "O Marie Concue Sans Peche Priez Pour Nous Qui Avons Recours A Vous" (pl.Ik-i).

Clay pipe: A brown, glazed clay, figurino pipe ( pl .1 lj ) occurred in association with Burial 4 and is now in the Dorsey Collcetion. The outside diameter of the bowl is 2.6 cm. , a height of 3.7 cm . with 1.6 cm . for the maximum diamotor of tho stom. Thore are rust stains on the right sido of the facc.

Several pipes of this same type were recovered from the historic sitc of Tsurai at Trinidad Bay, Humboldt County (sitc Hum-169). A datc of 1850 was assigned to thesc spocimons. 5

Pocket knives: Four folding pocket knivos with wooden side plates on the handles also were associated with Burial 4. These knives appear to be quito similar to prosent day pocket knivos. The specimens are in a rusted and decaycd condition and the blades can not be opened. These, too, are in the Dorsey Collection.

Buttons: Brass military buttons from this sitc arc of three types: 2) "D" shicld cagle (one specimen in the Dorsey Collection); b) NYL or eagle on "rock" (five in the Dorscy Colle ction and one, 1-103136, in the UCIA); c) eagle on anchor (five in the Dorsey Collection and one, 1-103136, in UCHA).

A fourth type of brass button is probably not military since it has a flower dosjegn on its face (pl. ). This button which is in the Dorscy Collection may havc been gold plated or gold washed,

The following is a fuller description of the military buttons: Small D shiclat caglc, non-gild with a height of 5.0 mm ., and a height of 1.0 cm . with shank; diametor of 1.4 cm . The front is of copper or copper alloy, cagle head right, olive brauch in right talons, chest shicld with "D", plain backeround. The back is a soparate piece of copper alloy with Scovills \& Co. Extrall on it. The shank is of copper alloy, is circular and 1.7 mm . thick and has becn soldered on button with lead (?) soldor. Occurrence: Fre-27, UCiiA 1-100223, 4 inchos deep; Kcr-74, Dorscy Colloction, Burial 4.

Eaglo on anchor button has a height of 4.0 mm , and a height of 9.0 mm . with shank; diameter of 1.4 cm . The front is oif brass with cagle, hcad facing right, perched on anchor crossarm and surrounded by 13, five-pointed stars; this in turn is surrounded by a solid raised band. The background is of fine horizontal lincs. The cdge has fine slanted lines progrossing counter clockwise from facc. The back makes a single piece with the front and is of brass. Letters on the back read "Scovills and Co. Extra"; the back is flat in shape. The shank is of copper and is 1.7 mm . thick and soldered on with brass. Occurrence: Ker-74, Burial 4, UCMA 1-103136.

Eagle on "eack" has a heizht of 4.0 mm . and a height with shank of 8.0 mn. ; it has a diameter of $1.5 \mathrm{~cm}_{4}$. The front of the button is brass, has eagle facing right, talons on fringed-bottom "rocks", wings round ended; the background is plain, "NYL" raised below "rock"; no border. The back is concave, being a single piece with the front which is convex. Letters on back read "Younc Smith \& Co. New York". The button appears to be of gilded iron. The shank is of copper and is soldered to the button with copper. The shank is tear-drop in shape rather than having a ring-shaped end, it is 1.5 mm . thick. Occurrence: Ker-74, Burial 4, UCiia 1-103136.

A small, four holed, white glass shirt (?) button, l-103136, also occurred with Burial 4. This button has a diameter of 1.0 cm . and a thickness of 3.0 mm . One face has a concavity in which the four holes are set. This type of button has also been reported from Sac-l occurring with many other white china buttons and with large shield "A" gild and small "A" gild military buttons. It has also been reported from Sha-6 with many other white china buttons.

Three copper trousers (?) buttons, 1-103136, found with Burial 4 are 1.54 cm . indiameter and 2.4 mm . thick. These buttons are made of two perforated circular pieces of copper. One of the pieces being larger in diameter is crimped around the edges of the smaller piece thus making a disc shaped button. Before being crimped together the two perforated circular pieces of copper are interspaced with unperforated discs of cloth. The larger circular piece of copper is perforated in such a manner, however, that a slender bar of the metal is left intact across the perforation. This bar and the center filling of cloth permit the button to be sewed on to the garment wi th thread.

Cloth: Cloth material from this sitc was observed by some of those prosent to be "sonc like silk but most like burlap". All of the cºth material was in a disintegrated condition and no offort was made to save any of it. The fabric resembling burlap might well have been of aboriginal manufacturg since material of this sort has been described from this arca by Kroober, 6 Gifford and Schenck, 7 Wedel, 8 Walker 9 and Latta. 10

Copper tacks: Also associated with Burial 4 wore ten small round headed copper upholsterer's tacks, 1-103136. Adhering to scveral of these tacks were iragments of a rather fine woven red cloth matorial, The diamcter of the round heads arc 8.0 mm :while the total length of cach tack is 10.0 mm .

Iron spikes: One complete iron spike, reminiscent of a modern railroad track spike, and fragmonts of two other spikes woro rocoverod from this sitc but those are not accompaniod by location or association data. All threc specimens, 1-103132, aro heavily rusted.. These specimens had apparently been wrapped in a cloth or rag as traces of cloth occur on all three spocincons. One of the spike fragments has Types F5b and X2b Olivella beads (soc infra, p. 18 ) achoring to it. The whole spike has what may be the impression of a F5b type bead on its surface. The dimensions of the complote spike are as follows: Head -- $3.5 \times 2.5 \mathrm{~cm}$., and 1.0 cm . thick; Body -- maximum width $1.5 \times 1.5 \mathrm{~cm} . ;$ Total length $17.4 . \mathrm{cm}$.

Stcel striko-a-light: i striko-a-1ight, l-103133, had no data concerning its rocovery but since it is hoavily rusted and has Type F5b and X2b Olivolla beads adherin- to its surface, it is possible that it was associated with the above described iron spike and spike fragments. There is no evidonce, however, of cloth matorial on this specimen. The dimensions of the specimen are: Length, 8.6 cm ; widtr, 3.5 cm .; thicknoss, 3.0 mm . One of the "horns" had been broken off beforc loss or burial by the Indians (pl. In ).

Glass boads: The following is a list of bead types found occuring in Ker-74, the typology of Mr. Clement W. icighan has becn used throughout. 11 The approxinatc or actual numbor of beads of cach type from this sitc is given after the catalog number or the owmor; association is given after the approwimatc number of beads per type. CC stands for Cornelison Collection and IIL for no location.

| Type | Cat. No. | No. of Doads | Burial |
| :---: | :---: | :---: | :---: |
| 17 | CC | 1 | NL |
| 34 | 1-103136 | 3 | 4 |
| 35 | 1 | 123 | 4 |
|  | 1-116052 | 1 | NL |
| 48 | CC | 12 | NL |
| 51 | CC | 6 | NL |
| 53 | CC | 1 | NL |
| 55 | 1-103136 | 5 | 4 |
| 60 | " | 1 | 4 |
| 61 | " | 1 | 4 |
| 64 | CC | 3 | NL |



| (cont.) | Type | Cat. No. | No. of boads | Burial |
| :---: | :---: | :---: | :---: | :---: |
|  | 240 | CC | 6 | NL |
|  | 243 | 1-103136 | 4 | 4 |
|  | 244 | " | 1 | 4 |
|  | 245 | 1-103138 | 2 | 7 |
|  | 246 | " | 1 | 7 |
|  | 247 | " | 1 | 7 |
|  | 248 | " | 1 | 7 |
|  | 249 | " | 7 | 7 |
|  | 2.50 | 1-116052 | 1 | NL |

Additional beads from Ker-74 for which no type designation could be assiened since the only specimens lnown to hicighan and the author arc those in the Cornelison Collection are as follows:
a) Similar to no. 71 mith a slightly lighter shade of bluc.
b) Similar to no. 55 with a navy bluc instead of red colcr.
c) Hexagonal bead with biconical outline, wire wound, opaque whitc background with inlaid spirals of pink and greon--both transparent. Length 16.5 man , marimum dianeter 8.0 mm. , mininum diameter 4.0 mm. , perforation diametcr 1.9 mm . Walker illustratos this bead type. 12
d) Spherical bead with horizontal ribs; diametor 6.0 mm ., perforation diamoter 1.9 mm ., cotor is pale pink, bead is opaque. This bead, too, is il.lustrated by Walker. 13
e) Similar to no. Illl but is rod, not blue.
f) This bead is grcei and transparent. Its dimensions are: length 8.4 mn ., diancter 10.0 mm ., diameter of perforation 1.9 mm .

Shape:

g) Similar to no. 120 but groen, not red.
h) Similar to no. 17 but blue, not red.

## WORK IN ASPHALTUM

Olivella beads: Shell beads of the following types were found with asphaltum adhorinc to them indicating the possibility that some of the beads had been sct in this matorial as omamentation on some unknown object.

C23c, one spocimen, 1-103130.
F5b, two specimens, 1-118996.
X4, two specimens, 1-116053.
X4, about 20 specimens set in a rectangular asphalt tube with abalone ornaments and stcatite beads. For a doscription of this rectangular asphalt tubc sec a following section under the above major topic heading.

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Clam shell beads: Tro clam she.ll ciisc beads with milled cdges, 1-103118 and 1-103110, have asphaltum in their grooves. . These aro bcac types Vlf and Vlge.

Scveral specimens of Type VlaI have a lacquer on their exterior that may be asphaltum or pitch. : Determination is impossiblc due to the lack of any apprcciable amount of this material on the bcads.

Haliotis ornaments: Shell ornaments of Haliotis sct in asphaltum or with asphaltum adhoring to their surfaces include the following types:

K5bII, onc spcimen, 1-116059. :
K5bII (?), onc specimen, l-116063.
K6aIII, one specincen, 1-116061..
K8bIII, one spocimen, l-116056.
Sla, two spccimens, sct in the skull of a raptorial bird, 1-103142.
SlaI, four specinons in the Comelison Colloction. Specimens set in rectingular tubes of asphalt with Type 44 shell beads"and with stcatite beads. Thesc tubes are discussed in a closely following section.

S7aII, one specimen, set in the same skull as the preceding Type Sla.

S21, one specimen, 1-116067.
Fragmentary ornament, 1-116082.
Specimens 1-103137 and 1-103182 arc pieces of asphaltum in which Haliotis ornments had been set but wore eviciently broken out when unearthed.

Specimen l-103135 (pl. lc) had been broken in two picces in aboriginall times and a ropair had boon attompted by the use of asphaltum on the broken cdges.

Specimen 1-103142 i.s the skull of a raptorial bird, the interior of which has bcen fillod with apphaltum and with the ornaments mentioncd above achering to the sides and the basal portion. Gayton gives cthnographic data on the use of raptorial bird hoads as talismans by the Yokuts and the Monos. 15 Gifford and Schenck describe and illustrate a similar specinen from thoir site $140^{16}$

Two unique specimens retained by lir. Cornclison in his collection, though they are only partially complete, consist of tubes formed in asphaltum with Type SlaI ornaments on two sides of cach tubce These specimns arc roughly rectangular in cross-section and appear to have been formed by coating a sti.ck (?) with asphal tum. Altcrnatc Type X4 Olivella boads and small black stcatite bcads were cmbedded about the ends and above and below the ornaments along the sides. The dimensions of these two artifacts are as follows: 3.5 cm . long, 1.5 cm . high, 1.3 cm . wide; 2.8. cm. long, 1.4 cm . high, 1.3 cm . widc. .

The source of this asphal tum might have beon from secps near WicKittrick, Kern Countyl7 or traded from the Chumash people to the west on the coast. 18

## WORK IN BONE

Occurring in tho nock and chost rogion of Burial 1 wore a sories of bonc tubos. Six of the specimens wore incised and four were plain (pl. Id-h). Eight other spocimons were fragmentary but appear to have been undecorated. Eleven of these specinens are of mamnal bone while the romaining seven are of bird bonc. The manmal bones arc of coyote
(Canis latrans), ${ }^{19}$ four arc of femur sections, five are sections of tibiac and two aro scctions of humeri.

The whole decorated spocimens range from 10.3 cm . to 5.6 cm . in length and avcrage about 1.5 cm . in diameter. The decoratod bones are all of coyote, the bird bonc tube was not decorated.

The undecorated spocimens range in length from 11.0 cm . to 5.6 cm . and sverage 1.5 cm. .to 1.1 cm . in diametor at maximum.

A quarter section of a bird bono tube 5.0 cm . long and 6.0 mm . wide, polishod on all edges, also occurred with this burial. (no. 1).

All of the spceimens bear the UCial catalog number 1-103143.

## WORK IN CLAY

No fired clay or bated clay objects were recovered. Since the cemetery was at least partially historic jt would not be surprising had Yokuts pottery or Caucasian china trade pieces been found with the burials. Considering the number of historic chinaware objects recovered by Walker at Tulamiu it is rather surprising that at least a few such pieces were not recovered at Ker-74.

## PIGMENT

Traces of red ocher were found adhering to specinen 1-118994, a Type X3bI Olivella bead. The two specimens, 1-103134 and 1-103125 (see following section on diatomaceous earth slabs), have been covered $\%$ with red ocher. Specimen l-103135 has six lines drawn in a black pigment as well as being covered with red ocher.

Recovered with no data are two very small fragments of red ocher, 1-115053. The red ocher from this site appears to have been first ground into a powder and then molded into solid pieces for future use; powdered form, however, may have been used too (see below).

A buriall from this site described by one of the local collectors was reputed to have had a cloth "bag" containing colored powder. It is quite likely that the specimen was powdered red ocher tied up in a piece of cloth.

A fractured cquartz crystal, 1-102119, with no location data has a slight trace of red ocher on portions of its surface.

Specimen 1-103147, a mortar, has a trace of red ocher in its cavity (see section on ground stone).

The following is a list of shells occuring in Ker-74 as artifacts: 21
Olivella biplicata
Marine clamshell (sp.?)
lyytilus californianus
Tivela stultorum
Hinnites multirugosus
Norrisia norrisii
Haliotis cracherodii
Haliotis (californiensis ?)
Shells occurring in the site but not as artifacts are given in the following Jist: ${ }^{22}$

Donax sp.
Mytilus sp.
Marine clamshell (sp. ?)
Callistoma (costatum ?)
Tegula funebralis
Anodonta (freshwater mussel)
Planorbidae (freshwater snail)
Anadara trilineata (Conrad) ${ }^{23}$
Clamshell: The species of clan used for some of the bead specimens is not determinable. Some of the specimens, hwever, have been identified as Tivela stultorum and it can be assumed that the unidentified specimens are probably the same.

Clamshell beads fall roughly into four categories: a) large thick discs, b) small discs, c) slender tubes, d) long, rectangular (flat in cross-section) forms.

The clamshell beads fall into the following types as given by Gifford: 24 AVLa, AV2b, Via, VlaI, VIbI, V1f and VIg. The latter two types are an extension of Gifford's typolocy.

Type AVla: This is a solid rectangular bar that may be an incipient form of Type AV2b; this type is represented by one specimen, 1-103137.

Type AV2b: These are cylindrical tubes and rectangular or lateraly flattened tubes. This type is represented by the following specinens: 1-103150, two specinens; 1-116081, two specimens; 1-103120, three specimens; 1-103137, one specimen.

Type Vla: This type is an undecorated disc less than 2500 mm in diameter and often as small as 3.0 mmb in ciameter. This type is represented by the following: 1-103137, one specimen; 1-103136, about one hundred specimens.


FIGURE I

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Type VlaI: This, too, is an undecorated disc less than 25.0 mm . in diameter, the ciifference being that it is from an identifiable species, This type ranges in thickness from 7.0 mm , to 2.0 mm and is of Tivela stultorum. The following specinens represent this type: 1-103122, six specimens; 1-116094, one specimen; 1-103129, one specimen; 1-116094, sixty-two specimens; 1-103140, one specimen.

Type VIbI: These are disc beads with a ciameter over 25.0 mm , The following specimens are from 8.0 mm . to 12.0 mm . thick: $1-103118$, four specimens, undecorated.

Type VIf: Beads of this type are discs under 25.0 mm . in diameter with incised edges (Fizfla-d). Wedel ${ }^{25}$ also shows this bead type, as do Gifford and Schenck. 26 This bead type is represented by these specimens: 1-103118, one specimen; 1-103140, three specimens. Traces of asphaltum in the incised lines indicate that the incisions were fjilled at one time with this material to make the design stand out.

Type VIg: These disc beads are over 25.0 mm . in diameter and have incised edges. The specimens recovered from Ker-74 average about 10.0 mm . in thickness. Two of these specimens are in the UChiA, 1-103140; the others are in the Cornelison Collection (Fig. le-h ). Traces of asphaltum occur in some of the incised lines.

Haliotis Shell: Abalone shell ornaments from this site, though mumerically small are rather diverse typologically. Gifford's typology is used in describing the followine ormament types. The majority of the ornaments are made from an unidentified species of Haliotis; it is unidentifiable simply because in the process of manufacture the ornament loses its distinguishing features, Haliotis cracherodii is one of the identified species, the other is probably Haliotis californiensis.

Type J2aTV is represented by onc specimen, 1-103141, and has a diameter $0 \overrightarrow{\mathrm{i}} 1.4 \mathrm{~cm}$. The diameter of the perforation is 8.0 mm ; the specinen is only 1.0 mm . thick (Fig. 2).

Type KlaIV, a specimen in the Dorsey Collection, occurred in Burial 40 The approxinate diameter of the specinen is 2.7 cm . This specimen is a disc with one central perforction (Fio. 2 ). Another specimen of this type is 1-118992; thouch only one-palf of the specimen was recovered it was measurable and found to have a diameter of 1.9 cm , and is 1.5 mm , thick. There were no location data with this specimen.

Type K2aIII is a disc with one peripheral perforation and is from a species of red backed abalone (Fig. 2). The single specimen of this type, however, is broken slightly al ong one edge and may actually have had a second perforation, thus making it Type K6aIII. This specimen, which has no location, has a diameter of 3.5 cm and is 3.0 mm . thick.

Type K5aII, a single specimen, 1-116060, is a dise with opposing peripheral perforations. The diameter is 2.0 cm . and is 1.5 mm . thick. The perforations appear to have been conically drilled (Fig. 2). There is no location information for this specimen.

Type K5blI is represented by three specimens; 1-116057, 1-116059 anc I-116065. MI these specimens have two opposed poripheral perforations and peripheral incising (Fig. 2) $\quad$. The dianeter of the first specimen is approximately 2.5 cm though it is not completely circular; it is 1.5 mp . thick. The second specimen is 2.3 cm . in diamcter and 2.0 mm . thick. This specimen has asphaltum filling one perforation. The third specimen has a diameter of 2.3 cm . and a thickness of 2.5 mm . The perforations for the most part appear to be biconically drilled for all thre: specimens. There is no location for any of these specimens.
'lype KóaI is represented by two specimens, 1-103126, that have been made from Haliotis cracherodii shells, (Fig. 2) These ornaments are discs with adjacent peripheral perforations. Since the perforations had been damaged or broken out during recovery it is not possible to deteriulne definitely if the perforations were biconically or conically drilled. Due to their relative thickness i.t may be safely assumed that the former process was followed.

Both of these large omaments are in good condition and quite well matched. Onc has a diameter of 9.3 cm . and a thickness of 5.0 mm The second specimen is slightly larger with a diameter of 10.0 cm . and a thickness of 5.0 mm , also. These ornaments were in association with a burial that was estimated to have been about 4 or 5 feet below the surface, no other data were obtai ned for this burial.

Type KGaIII is a disc with two adjacent peripheral perforations, but differing from the preceding type in that the species of Haliotis is unidentified (lig. 2) There are two specimens of this type. Specimen l-103137, which occurred with Burial 4, is 2.5 cm . in dianeter and 2. ${ }^{5} \mathrm{~mm}$. thick. This specinen has asphaltum adhering to its surface. Specinen l-116061 is approximatcly 3.5 cm . in diameter and 2.0 mm . thick; this specimen has no known location from the site.

Type K8a is a cisc with three peripheral perforations, two adjacent and one opposed (Fig. 3). This type is represented by specimen l-116066 which has a diameter of 3.6 cm . and a thickness of 2.5 mm . All three perforations appear to be canically drille di. This specimen has no location recorded for it. A second specimen of this type, occurring in Burial 4, is in the Dorsey Collection and is about the same size as the provious described spocimen.

Type K8bIII, Jike the previous type, is a disc with three peripheral perforations, two adjacent and one opposed. The difference, however, is that this type is incised on the edge of one face (Fig. 3 ). This type is ropresented by specimen 1-116056 which has a diameter of 2.6 cm . and a thickness of 3.0 mm . All throe holes are conically drilled and two have traces of asphaltum in them. No location was obtained for this specimen.

Type Kl 3aII is a disc with two opposed peripheral perforations and one medial perforation (Fig. 3). Specinen 1-103128, the sole representative of this type, is 2.0 cmo in diameter and 1.0 mm , thick. This particular specimen may actually have had edge incising when made. If this were true the specimen would rightly be classed as Type Kl3bII. Since the spocimen has been worm considerably and has a patination or atain it is difficult to ascertain its original surface features.

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Type K20a, an extension of Gifford's typology, is a disc with two adjacent peripheral and two adjacent medial perforations as well as edge incising on one face (Fig. 3). Specimen 1-103128, with no known location data, is the only specimen of this type. The diameter of this specimen is 2.9 cm , and it is 1.5 mm . thick.

Type Q2aIV is a more or loss rectangular ornament with a single perforation at one end (Fic: 3). This type is represented by two specimens, 1-116089 and 1-118990. The first specimen is 1.I cm. long, 6.0 mm . wide and 1.0 mm . thick; the second specimen is 2.2 cm , fong, 8.0 mm . wide and 2.5 mm . thick. These specimens have no location data recorded for thom.

Type Q4aII, a roughly rectangular ornament, is represented by a single specimen, 1-116062. This type has two peripheral perforations on onc side (Fig. 3). The dimensions of this single ornament are 3.5 cm . $\times 3.7 \mathrm{~cm}$, having a thickriss of 2.5 mm . There is no location reacorded for this artifacte

Type Q7aTII is a trapezoidal ornament with two opposed peripheral perforations; the corners are rounded (Fic. 3. A. A sincle specimen, 1-103121, is the representative for this type. No location was obtained for this specimon. The maximum dimensions for this artifact are 2.1 cm . $x 1.9 \mathrm{~cm}$. The surface of this specimen has cxfoliated so that the present thickness is but $1,0 \mathrm{~mm}$.

Type QIlaII is a trapezoicial ornament with three peripheral holes, two at one end and one at the other (Fig. 3 ). This type, too, is reprosented by but one specincon; no. 1-103121 and has no location given for it. lhis specimen has a maximum estimated length of 2.7 cm , (the single hole is broken out). Its maximum width is 1.2 cm , and it is $2,0 \mathrm{~mm}$. thick.

Type Sla, a rectangular, unperforated Haliotis ornament, is reprosented by two specimens imbedded in asphaltum in specimen 1-103142, a raptorial bird skull (Fig. 3 ).

Type SlaI is represented by four specinens set in a rectangular asphalt tube. The ornaments are rectangular and unperforated and have edge incising. The specimens to which these ornaments adhere are in the Cornelison Collection.

Type S2aIII is represented by the recovery of two ornaments of this type from the chest region of Burial 8. These specimens, 1-116087 and 1-116088, are rectangular pices with a single perforation at one end (Fig. 4).

Typc S6aIII is a rectangular ormament with two central perforations and is ropresented by a single specimon from Burial 4. This specimen (Fig. 4) is in the Dorsey Collection. The approximatc dimensions of this specimen are $3.5 \mathrm{~cm}, \times 1.8 \mathrm{~cm}$.

Type S7aII is represented by ono spociacn which, tike the specimans in Type Sla, is set in asphalt in the skull of a raptorial bird, The ornament is rectangular with a perforation at cach ond (Fig. 3).

Type Slla is a rectangular omanent with three peripheral holes, two at one end and the other hole at the opposite end (Fig 3). The only spocimon of this type is 1-103123 and has no location recorded for it. It is 4.0 cm . long, 1.4 cm . wide and 2.0 mm . thick.

Type Sl5b, a rectangular omament with peripheral incising on onc facc anda perloration in each corner, is representcd by one specimen which is in the Cornclison Collection (Fig. 4). The approximate dimensions for this specimen are $2.8 \mathrm{~cm} . \times 3.5 \mathrm{~cm}$

Type S21, a rectangular ornament, has two perforations in the corners of onc end as well as two medial perforations. . The medial perforations tend to be separate rather than centrally located. One of the medial perforations of the single specimen l-116067, has a Type X4 Olivella bead insert held in position by asphalt (Fig. 4 ). The other medial perforation has a trace of asphaltum in it so it may be assumed that it, too, had an insert, The length of this ornament is 5.0 cm . while its maximum width is 3.2 cm . It is 3.0 mm . thick; there is no location for this ornament.

Type U2aIII is a triangular type of ornament with a single perforation (Fio. 4). Two specimens, 1-118999 and 1-103137, are the only specimens of this.type. The former has no location though the latter is i' from Burial 4. The larger specimen, $1-118999$, is 3.0 cm , long, has a maximum width of 1.4 cm . and is 1.5 mm . thi.ck. The other specimen is 1.6 cm . long (an estimate since ono corner is broken), 8.0 mm . wide (high) and 1.0 mm 。thick.

Type AP2aII is represented by five whole specinens and numerous fragments" (Fig. 4). The largest specimen is in the Cornclison Collection. All whole specimens have the single parforation at one end. These ornaments are made from the inner rim of the Haliotis shell. UCMA numbers for the specimens of this type are as follows: 1-116069, 1-116070, 1-116071 and 1-116087. The UCliA specimens have approximate dimensions as follows: 3.5 cm . long, $8-70 \mathrm{~mm}$. wide and $2-4.0 \mathrm{~mm}$. thick. The Comelison specimen is ca. 10.0 cm . long, 1.5 cm . wide and 4.0 mm . thick. Therc is no locatzion for this last specinen.

Type AQla is a trough shaped ornanont somewhat like the previous type. Specimens l-116088 and 1-116072 are the only two specimens of this type. (Fig. 3). These specimens average 3.5 cm . in length, $1.2 \mathrm{cm}$. in width and. about 2.0 mm , in thickness.

A Haliotis ornament type not given in Gifford's typology is represented by l-103139. This specimen is an ovoid ornament 4.0 cm . Iong, 3.0 cm e wide and $2-3.0 \mathrm{~mm}$. thick (Fige 38). This specimen is an ovoid ring with a perforated lug on one side, suitable for suspension It was associated with Burial 7.

Another Haliotis ornament not given in Gifford's typology is represented by a single specimon from Burial 7. The specimen, 1-103139, is a "isc with a large central perforation and with 8 projecting perforated peripheral lugs with a notch or sami-circle at their extremities (Fig. 3A). The maximum dianctor is 3.1 cm . and the diameter of the contral perforation is 1.3 cm . The specimon has a thickness somewhat greator than 2.0 mm .


FIGURE 2
HALIOTIS SHELL ORNAHENIS (1/1).


FJGute 3
HALIOTIS SHELL OZNAMENTS (1/1).


HALIOTIS SHELL ORNAMENTS (1/I).

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Olivella shell: Six types of Olivella beads were recovered from Ker-74 ${ }^{28}$ One whole unmodified Olivella biplicata also was found. This specimen, 1-103137, was apparently picked up on the boach as it still has small grains of gravel stuck inside the shell. It also still retains its purple, brown and white coloring. This specimen occurred with Burial 4,

The Olivella specimens are given below by type with museum numbers, description, location and quantity.

Type C23c, an extension of Gifford's itypology, is a whole Olivella biplicata shell with the spire ground off and the side in which the natural orifice is located abraded (excluding the orifice) to form a rather large perforation, When beads of this type are strung they form a braid rather than a lincar string; the alternating of the beads form two rows on the one string rather than a single row.

Specimens of this type include the following 1-103130, two specimens; 1-116053, one specimen; 1-116084, two specimens; 1-118995, three specimens; nonc of these specimons had thoir locations recorded, The singlc spocimen 1-116090 came from Burial 9. All beads of this type have two perforations, onc at the spire and one laterally.

Pypo F5b is an Qlivella biplicata shell with the spirc ground off thus having a single porforationa The following spocimens aro of this typee l-103114, throc specimons (small) from Burial 5; 1-103222, ono specimen; l-103124, 18 specimens (small. probably not adult shells); 1-103132, three specimens; 1-103133, 7 specimens; 1-116083, 6 specimens; 1-116091, fivo specimons from Burial 9; 1-118996, 13 specimens, two with asphaltum; I-118997, 29 specimens (small), one with slight lateral abrasion about the orifice.

Typo Gle is a cup-like bead made from the spire of an Olivella shell with a trace of the suture on the extorior of the bcad The tip of the spirc is ground off giving it a single perforation, The single specimen, 1-116053, has no location.

Type X2b is a disc or oval bcad from a section of the wall of an Olivella biplicata shell with a trace of the inner whorl at one end Specimens of this type include 1-103113, 32 specimens from Burial 5; 1-103115; four specimens; 1-103125, 37 specimens; and 1-103131, two specimens, Therc was no location obtained for the latter three groups of beads. This bead type has a single central perforation.

Type X3bI is a circular or oval bead from Olivella biplicata shell with no shelf-like trace of inner whorl, The bead is cut'from the body whorl and has an ceven thickness but a variable diameter. They have but a single contral perforation. The following are specimens of this type: 1-103136, thrce specinens from Burial 4; 1-116093, 25 specimens from Burial 9; 1-118994, onc spocimon, and 1-118998, four specimens. The last two eroups had no location data concorning their recovery.

Type $\frac{X 4}{}$ is a small, round, concavc-convex boad out from the thick cnamel of the parictal callus of the Olivclla biplicata. This type has a sincle central perforation. Specimens of this type are as follows:

1-116053, three specimens, two wi th asphaltum; 1-116080, six specimens; neithor of these two groups of beads have any location. Occurring with Burial 9 are l-116093, two specimens and 1-116096, 18 specimens, Fifteen specimens, 1-118998, have no location data.

## WORK IN STEATTTE

Only a few specimens of steatite were recovered from this site. All of the specimens, however, appeared to have been made from the fine grained compact material having the grayish rather than a greenish tone Wedel ${ }^{29}$ suggests that this material may have come from near Lindsay, Tulare County. Walker ${ }^{30}$ had previously reported on this quarry and Latta 31 states that the local Yokuts Indians in the Lindsay area traded steatite to other Yokuts groups. The coarsely crystalline steatite usually greenish in color that occurred at Buena Vista Lake ${ }^{32}$ was not represented in the artifacts of steatite from Ker-74.

The specimens made of steatite found at this site are as follows: one arrowshaft siraightener, one tubular bead, one.small disc bead, one habret or lip plug and a rim sherd of a vessel.

Arrowshaft straightener: The single specimen, 1-103112 (Fig. 5b,c), was apparently found by the local collectors in several fragments, probably having been broken at interment. Unfortunately the location and association for this artifact were not obtained. The specimen is a large and an unusually well förmed piece with incised decoration on the upper surfaces of both ends.

The maximum length of the specimen is $12,0 \mathrm{~cm}$, , the maximum width is 6.7 cm . and the maximum thickness is 6.1 cm . The maximum width of the groove is 2.0 cm , which is the same as the maximum depth of the groove. The groove is quite well polished from use. The outside, though not as highly polished, has been smoothed as evidenced by the striations from the abrading tool.

Beads: Specimen 1-103144 is a perforated steatite tube that might be classed as sub-rectangular rather than circular in crosssection. This artifact was found in the skull cavity of Burial 1 . The dimensions are. 3.3 cm . long by 1.6 cm . in diameter. The perforation is approximately 9.0 mm . in diameter.

This bead is well polished and has a groove at either end of the perforation indicating that through long continued suspension from a cord through the perforation a single groove or notch was worn on the inside rins at each end. The interior or "bore" of the perforation is quite polished though rings formed at the time of the drilling can still be discerned. From the diameter of the perforation and the occurrence of the rings on the interior it seens quite likely that this specimen was perforated with a stone drill.

A small disc bead, l-116101, was recovered from Burial 9: The specimen is 6.0 mm . in diameter and 2.0 mm . thick. It has a single central perforationt


FIGURE 5
ALABASTER CHARMSTONE (upper); STEATITE ARROWSHAFT STRAIGHTENER (lower) (1/1).

Lip plug: A single lip plug or labret, 1-103145, was recovered from the face region of Burial 1: The diameter of that portion outside of the lip of the wearer is 1.7 cms while the section that is "buttoned" into the lip is $1.4 \mathrm{~cm}_{\mathrm{a}}$ in diameter. The specimen is 8.0 mm . thick and is moderately well finished ( pl . lm)

Vessel rim sherd: A rim fragment of a steatite vessel, 1-103116, occurred at Ker-74. No location was obtained for this specimen. This artifact evidentily came from a vessel that hed been cracked and an attempt had been made to mend the pot by drilling holes in the walls of the vessel. One of the holes is biconically drilled while the other is conically drilled. Along the edge near one hole are several notches that may have served to hold the binding that held the vessel together. Both the exterior and the interior are only moderately well finishedd. The fragment is too small to determine the shape of the entire vessel.'
"Crack sewing", the method of repairing broken vessels of steatite by drilling holes on both sides of the crack or break and sewing the two pieces together, is noted in the Santa Barbara coast region by Rogers 33 and from the southern San Joqquin Valley by Gifford and Schenck. ${ }^{\text {F }} 4$

## WORK IN CHIPPED STONE

Chipped stone of any sort was exceedingly rare in Ker-74 if it can be assumed that the pieces recovered are a representative percentage

Projectile points: In Burial 4 there were found the tips of two obsidian projectile points. Because of their fragmentary condition no type could be assigned them. The lack of any quantity of chipped stone artifacts may be due to the recency of the burials. With the advent of the white man's trade goods the chipping of stone tools. became unimportant. These artifacts are in the Dorsey Collection.

Flake scrapers: Two groups of artifacts that are nothing more than rather thin flakes of obsidian used as scrapers, and occasionally knives, were associated with burials. One group of twelve specimens, 1-103111, consists of thin obsidian flakes of various irregular shapes. These specimens came from Burial 6 on the right side near the ribs. Only one specimen showed any signs at all of secondary flaking; however, nearly all edges showed varying degrees of "use retouch", i.c.; the edges were fractured through use.

The second group consists of two specimens of the same type as described above. These specimens, 1-103137, were associated with Burial 4, the burial from which the projectide point fragments were recovered. Several other pieces of obsidian occurred with this burial, also, but are not in the UCMA collections.

All of the above flake scraper specimens from the two burials average approximately $2.5 \mathrm{~cm}_{0}$ in diameter and about 400 mmothick They all appcar to have bcen made from a translucent grcy obsidian.

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The Yokuts from the Tulare Lake rogion were reported to have supplicd other Yokuts groups with obsidian. If this were true it is possible that the lake people got their obsidian from the Coast Range region to the west. However, since the Yokuts supplied obsidian to the Chumash and other peoples on the coast it seems that most of the obsidj.an used by the Yokuts came from Inyo County: 35

Quartz crystal: No. l-103119 is a portion of a quartz crystal that has been fractured by percussion. The measurements of this spccimen are $2.1 \mathrm{~cm} . \times 1.9 \mathrm{~cm} . \times 1.3 \mathrm{~cm}$. No sccondary flaking appears on this artifact. Traces of red ocher appear on its surface on one end. Quartz crystals have also been noted by Gifford and Schenck as coming from the Tulare Lake region. ${ }^{36}$ Walker $37^{\circ}$ recovered a crystal from a burial at a depth of 40 inches; there is no location data for 1-103119 described above.

## WORK IN GROUND STONE

Charmstone: Only onc artifact that might be termed a charmstone was recoverca from Ker-74; it is now in the Cornclison Collection. This specimen was associated with the burial from which the chirch medallions were recovorcd. The charmstone is of alabaster and is $12,8 \mathrm{~cm}$. long, 6.3 cm . wide and weighs 632 grams. The average width of the longitudinal groove is 6.0 mm ., the average depth of the groove is 2.3 mm . There has boen a slight battering at both cnds but not, onough to make. it seem that the regular function of the specimen was as a hammer (Fig. 5a).

Mortars: Onc mortar, l-103147, recovered from Ker-74 had apparently been broken by the land leveling machinery. Since all of the pieces had been saved, however, the mortar has been reconstructed.

| Maximun diameter.e.e 23.0 cm. |  |
| :---: | :---: |
| Maximym height | 17.8 cm . |
|  |  |
| Cavity: |  |
| Diameter.a........ 18.0 cm |  |
| Dopth ....... | 14.5 cm . |
| Lip on.e.t.e........ Rounded and thin. |  |
| Rim errobo.o...... Ca. 10.0 mm . widç, is undulating due to wear and breakage. |  |
| Bottome . . . . . . . . |  |
| Shapc.............. Flat or slightly convex. |  |
| Thickness .e.t.... Ca. 3.0 mm. |  |
| Finished eno........ Pecked all over. |  |
| laterial ospegsogos Sandstone |  |
| Condition | Complete excopt for several fragments lost when specimen was broken by land leveling machinery. |

This specimon had been much used though was not worn out. There were slight traces of red ocher on a portion of the walls of the cavity. There was no location for this picce.

A sccond mortar, $1-103146 a$, is also made of sandstone and had been slightly danagod when scraped out of the site.

```
Maximum diametor.e.** 31.0 cm.
Maximum height ...... 23.6 cm.
Sidss .e.odeedoed..... Convex-vertical.
Cavity:
    Diameter ..0.o...0. Ca, 25.5 cm.
    Dopth ...ovoc.c.... Ca, 15.8 cm.
Lip .0.*.c.e.......... Rounded
Rim to.c...c.e....... Flat and ca. I.5 cm* wide*
Bottom:
    Shape .e.e.ro...... Convex to flat..
    Thicknoss eac...... ca. 800 cm.
Finished e||eder.e.c.4. All ovor.
Matcrial ece|0.e.e.e.s Sandstonc.
Condition erecere. Good except for about a quarter of the rim
which was chipped off before burial and a
portion of the remaining rim which was broken
by the scraper during the leveling of the site.
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The inside lip of this mortar is worn to form a facet at an angle to the walls of the cavity. There was no information concerning the location of this specimen when ramoved from the site.

Pestles: A pestlc, 1-103146b, probably associated with mortar 1-103146a, is flattish or near ovoid in cross-section and tapers to the proximal end. The material is a granitic stone that has been rather well shaped and polished. Its longth is 30.8 cm and it has ca. 8.0 cm . for a maximum width. As with the above mortar, l-103146a, there were no location data obtained for this specimen.

Another pestle recovered from this site is in the Dorsey Collection, It is ca. 20.0 cm . long, round in cross-section and has rounded ends. The proximal ond has a smaller end diameter than the distal end, thus giving the pestle a taper. This specimen is well formed and in good condition. There were no location data obtained for this picce.

## DIATOMACEOUS ROCK SLABS

Two rathor unique specimens occurred with Burials 1 and 2. These specimens wore slabs of diatomaccous rock that had been modificd by scraping, smoothing and paintinga

The larger slab, 1-103134, was found lying on cage on the right side of Burial 1 near the lower arme: This piece is 35.4 cm . long, 13.0 cm . wide at one ond and 10.6 cm . wide at the other; it is from 2.5 to 3.0 cm . thick. The surface on one side had been solidly painted with red ocher and then vertical and horizontal lines were scratched on the surface leaving the rod paint on in irregular squares. On the reverse side there is at onc end a pattorn of incised lines (pl. la, b).

Another specimen similar to the one duscribed above is 1-103135. This artifact was also laid on its cdge but in the vicinity of the upper richt log of Burial 2 . This picce is 32.0 cm . long, 100 cm . wide at onc end and 7.0 cm . wide at the other; it is approximatcly 10.0 mm . .thick. This piece fras been entirely stained with red ocher and has eik black lines extending from one end toward the middle (pl. lle).

The Yokuts obtaincd diatomaceous earth for white paint from the Coast mountains. 39 The matcrial for the above described specimens may have come from this same area.

## FOSSIL MATERIAL

A fragment of a sca shell tentatively identificd 40 as Anadara trilineata (Conrad) came from Kcr-74 though no location was obtained for it. This shollfish was rarc and doubtful before the Miocene but abundant from tho Pliocenc to Recent. This form occurs in the Kettleman Hills oil ficeld in the Pocton and Trachycardium Zones of the Etchegoin formation which is Plioceno in age.

Latta says that oddities or rare curios had a high trade value to the Yokuts. 41 If this spocimon camc from the Kettleman Hills it is possible that i.t was pickod up by someone on a trading mission to the coast.

## DATING

Of major importance in establishing dates for Kor-74 are the brass military buttons and the glass trade beads. I would here like to express my apmrociation for the invaluablo assistance given me by iir. Clement $\mathrm{T}_{0}$. Moighan concerning trado beads and by Mr. Arnold R. Pilling concerning the military buttons.

On the basis of common bead types which occur in Ker-74 and other sites, the following sites are considered to show a historic connection with Ker-74. These sites wore subject to some of the same . trade influcnces and are prosumably of the same age, at least in part.

1. North Shore Kern Lake, Kern County.
2. Shasta no. 20.
3. Yol-13 (Mustang Site).
4.- Nilcs, Alameda County..
4. Winters Site no.. 3, Sacramento County
5. Santa Rosa Island Site no. 2a
6. Santa Cruz Island Sitc no 138.
7. Goleta Sitc not 1 .
8. Ft.-Vancouver, Orcgon (Hudson's Bay Co.).

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Thus, Ker-74 has some of the same types of glass beads as do sites on the Channcl Islands which were presumably subject to Spanish influences. On the other hand, therc is an overiap of bead typos with Sha-20 and Yol-13, both of which appear to postdatc the 1849 gold rush to California. It is with the first three sitcs given above, however, that Ker -74 has the greatest number of types of glass trade beads in common.

From these apparent connections it would secm that the site was under Spanish trade influonces dating back to circa 1810, and that in the later period, 1830 to circa 1860 , the same site was recciving trade goods from Amcrican or Hudson's Bay Company sourcest The apparent connection betwoen Ft. Vancouver and Ker-74 is worthy of note as the former was a Hudson's Bay trading post.

Meighan's trade bead typology ${ }^{41}$ indicates that Burial 7 dates from 1810-1830. Burial 4 is dated between 1830-1860 as indicated by the association with brass military buttons of Enown data. Burial 9 falls into the post 1830 poriod and is therefore con cmporary with Burial 4. Nine types of glass boads occurred wi.th Burial 9, of these ninc types five were in common with Burial 4 and two wore in common with Burial 7.0 Of these latter two types one form, Type 99, is common to all throe burials. Meighan, howevor, has found that this bead type, the only ono common to all threc burials, is quite widespread and apparently not very diagnostic for use in dating.

The burial associated with the church medallions quite obviously post-clated the date of 1830 given on the medallions. Complete data conccrning this burial would have been of prime importance in obtaining valuable information on glass trade beads. The glass bcads accompanying the medallions were considered of slight importance by the finder and consequently were not saved.

No date has been assigned to the green glass liquor bottle that was removed from a burial; virtually no data were obtained for this burial. This bottle could have come equally well from Spanish sources or from the American period.

## CONCLUSIONS

Of the numerous burials scraped out of Ker-74 by heavy land leveling machincry only cnough data werc obtaincd from ninc to allow burial record forms to be mado out. Out of the nine burials there were three burials with Caucasian manufactured material associated with thome It was froin those thrce burials that comparisons and cross-dating with other sites in Califormia and Oregon was at all feasiblc. Despite the lack of proper information concerning these three burials they proved to be invaluable in aiding in the dating and general study of glass trade beads found in Califormia.

Caucasian trade articles occurrod with both flexed and with cxtonded burials. Both flexed and extended burials, also, were associated with aboriginal matorial--without any trace of trado matcrial. Dopth information conccrning the burials secms to be of little valuc since $r_{e}$ lative depths arc unknown Extended burials occurring at a grcater dopth than illexcd burials might bo interpreted as meaning that with the introduction of the white man's shovcl the Indians were able to dig decper eraves. The extended burial itsolf probably is due to Christian influance; howcvor, a conservative element contimued to bury the doad in a flexed position cven after contact.

Numcrous questions present themsclves conccming this Yokuts Indian cumetery that cannot be adequatcly answirod duc to the lack of sufficicnt detailed information. Additional information, very carcfully collected, may at sometime in the futurc bc obtaincd that will bc of considerable scientific aid to those interested in the proto-historic and historic poriods of the aboriginal groups living in the southern portion of the San Joaquin Valley. Until additional information is made available, howevor, Kcr-74 may well be considered to bc a rocunt Yokuts cometory with the majority of the burials dating from about the ond of the 18th Contury to about Civil War times.

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1 Gayton, 1948, p. 8, map 2.
2 Kern County site location records of the University of California Archaeological Survey.

3 Gifford and Schenck, 1926, p. 29 (Coffee survey notes village).
4 Ibid.
5 Heizer and Mills, MS, 1949.
6 Kroeber, 1925, ple 72; 19, p. •*
7 Gifford and Schenck, 1926, pp. 49, 101-105; pls. 2, 7-10.
8 Wedel, 1941, pp. 36, 109, 110, 116-120, 122, 124-127.
9 Walker, 1947, pp. 6, 28.
10 Latta, 1949: p. 173.
11 Meighan, MS, 1950.
12 Walker, 1947, p. 39.
13 Ibid., p. 36 , third string from the left, middle of string.
I4 Gifford, 1947. For type description of all beads and ornaments see respective sections following.

15 Gayton, 1948, pp. 232, 276.
16 Gifford and Schenck, 1926. .pp. 50, 64; pl. 13.
17 Wedel, 1941. p.. 38..
18 Sample, 1950, p. 20.
19 Identification by Sheilagh Thompson, graduate student in the Department of Anthropology, University of California.

20 Walker, 1947.
21-22 Identification by Prof. E.W. Gifford, Director of UCMA.
23 See section FOSSIL MATERIAL.
24 Gifford. 1947.
25 Wedel, 1941, p.l. 27 k and n .
26 Gifford and Schenck, 1926, pl. 15 a-p.

27 Gifford, 1947.
28 Gifford, 1947.
29 Wedel, 1941. p. 53.
30 Walker, 1935.
31 Latta, 1949, pp. 65, 69.
32. Wedel, loc cit.

33 Rogers, 1929, p1. 68.
34 Gifford and Schenck, 1926, pp. 74-75.
35 Sample, 1950, pp. 20-21.
36 Gifford and Schenck, 1926, p. 392.
37 Walker, 1947, Table 1, p. 10.
38 See section Medallions.
39 Sample, 1950, p. 20.
40 This identification was made by Henry T. Herlyn, graduate student in Paleontology at the University of California, Berkeley.

41 Latta, 1949, p. '65.
42 Meighan, MS, 1950.
43 Pilling, $M S$, 1950.

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