

44. FINAL REPORT ON THE ARCHAEOLOGY OF  
TOMMY TUCKER CAVE

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Introduction

Subsequent to the publication of the preliminary report on the initial and exploratory excavation of Tommy Tucker Cave in Lassen County, California (Fenenga and Riddell, 1949), an archaeological field party of five men spent ten days in February, 1949 completing the excavation of the culture deposit in this cave. This excavation was supported by the University of California Archaeological Survey; the field work was under the supervision of Franklin Fenenga, then Archaeologist for the UCAS. Other crew members included the author of this report, then Assistant Archaeologist for the UCAS, James A. Bennyhoff, David A. Fredrickson, and John E. Mills, graduate students in the Department of Anthropology, University of California, Berkeley. The research and writing of this report was done under the supervision of Dr. Robert F. Heizer, Director of the UCAS. It was through the good offices of Dr. Jesse L. Nusbaum of the National Park Service that a permit to excavate the cave was obtained by the UCAS. The present report is primarily concerned with the work done at that time.

As a general description and location of the cave have been given in the preliminary report, it will be necessary here only to make a single correction. The first chamber of the cave (Room 1; see Map 1) is about 25 feet long and has an average width of about 18 feet, and is thus somewhat smaller than stated in the previous report. There is evidence that this cave had been covered by the waters of Lake Lahontan during one of its highest stages. Evidence of submergence is to be seen in the form of a calcareous tufa deposit adhering to the walls of the cave.

The maximum depth of the occupation deposit was approximately 56 inches. The deposit had no over-all strata, indicating that the occupation of the cave was sufficiently continuous to prevent sterile layers from accumulating as such. The cave had been occupied within the memory of living Honey Lake Valley Paiute, but apparently did not serve a domiciliary purpose since an informant as a child was warned to stay away from the cave by her father (Riddell, n.d.).

The profile map of the cave deposit (Fig. 1) indicates the initial area excavated and reported on in the preliminary site report; the remaining deposit was excavated in February, 1949. The cave deposit has been divided arbitrarily into three 20 inch levels. A test pit was dug beneath Feature 2 to a depth of slightly more than 8 feet below the original surface of the deposit. Layer a (Fig. 1) is a 2 foot thick sterile layer of dust and crumbled breccia from the walls and ceiling; Layer b is a one foot thick stratum of bat and rat guano in lenses. The third stratum, Layer c, is a 4 inch lens of tufa fall while the fourth band is a one foot layer of guano, Layer d. Below Layer d is loose conglomerate which is believed to constitute the cave floor. Presumably

these stratified deposits began building up after the lake had sufficiently receded to allow the cave to be inhabited by small animals who deposited guano directly above the loose conglomerate base material. Obtaining a late stage date for the deposition of the calcareous tufa, and for the subsequent deposition of the four strata below the culture deposit, is not possible until the precise elevation has been determined for Tommy Tucker Cave.

Alcove A, Room 2, and the tube (Map 1) were excavated during the final field trip in 1949. The broken line on Map 1 indicates the outline of the cave at a depth of 40 inches below the original surface; the solid line is the cave outline at surface.

Feature 2 is a slab of calcareous tufa (formed when the cave was filled with water from Lake Lahontan) fallen from the wall (Map 1). This slab is of importance since it lies directly above the non-occupation layers and at the base of the culture deposit and was encountered at a depth of 40 inches. The slab had fallen from the section of the cave wall that had pictographs drawn on it (Fig. 3, Feature 1). The pictographs, however, had been painted on the wall sometime after the slab had fallen.

In the following sections the specimens from the final excavation of the cave will be described and discussed. The ones previously discovered have been treated elsewhere (Fenenga and Riddell, 1949).

#### Artifacts Recovered

##### Olivella shell beads:\*

Type F5b. This type is the shell with the spire ground off; of the 28 specimens of this type 16 have been burned.

Type X1a. This is the "half"-shell bead that has a punched perforation; of the three specimens one has been burned. One of the unburned specimens has its exterior surface at the perforation abraded (1-101655).

Type X1b. The six specimens of this type are similar to Type X1a except that the perforations are drilled. Four of the specimens of this type have been burned (1-101436).

Type X2b. Three beads represent this type; they are discs or ovals with a shelflike trace of inner whorl at one end. One of the beads of this type has been burned (1-101595).

Type X3bI. This type is a circular or oval bead cut from the body whorl and is represented by 13 specimens (incl. in Nos. 1-101434 and 1-101435). Two specimens (1-101434) have been burned.

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\* Typology after Gifford, 1947. Specimen numbers are those of the University of California Museum of Anthropology, Berkeley, California.

Type X3c. Two beads on a string (1-102425) appear to be of this type. The ideal form for this type is a rectangle cut from the body of the shell and having a central perforation.

#### Shell ornaments:

A description of the shell ornaments might best be done by reference to Figure 4 which shows all of the specimens recovered in the final excavation. The following specimens are of Haliotis: a, b, c, d, e, i, j, k, m, n, o, p, q, s, t, z, a'. The following specimens are of mussel shell: f, g, h, l, r, u, v, w, x, y.

The shell ornaments fall roughly into three types: rectangular, ovoid, and circular. All of the identifiable abalone shell ornaments appear to be of Haliotis cracherodii while the freshwater mussel are probably of both Margaritifera and Anadonta. All of the circular ornaments and beads in this group appear to be of freshwater mussel shell; the ovoid and rectangular ornaments are of both freshwater mussel shell and abalone shell.

#### Bone pendants:

Bone pendants are represented by a series of flat, polished pieces of bone of sub-rectangular shape (Fig. 5, a-j). The complete specimens range in length from 46 mm. to 88 mm., and from 13 mm. to 24 mm. in width. All of these pendants have a single drilled perforation at one end. All but one (1-101425, Fig. 5c) of these ornaments apparently have been burned accidentally. Three of the specimens are shown also in Plate I, 7-9.

#### Bone pins:

Highly polished bone pins that may have served as bone hair pins are of several types. Only three complete specimens were recovered: Specimen 1-101421 (Fig. 5k and Pl. I, 17) is 204 mm. long, has a maximum width of 13 mm., and is 3 mm. wide. Specimen 1-101422 (Fig. 6g) is a long bone pin with incised decorations on both faces. It differs from specimen 1-101421 in that the latter has a fairly deep V-notch at the base. Specimen 1-101422 has been subjected to high temperature and has become partially calcined. It is approximately 210 mm. long and 16 mm. wide at the point of greatest width. Its maximum thickness is 6 mm. Specimen 1-101420 (Fig. 6b), with a width of 4 mm., is the third complete bone pin specimen. It could have served as a flaking tool, however, as well as a hair pin.

Typologically similar to 1-101421 in that they have concave bases are fragmentary specimens 1-101423 (Fig. 5l and Pl. I, 14), which is 2 mm. thick, and 1-101634 (Fig. 5m), with a thickness of 1 mm.

Another fragmentary specimen, 1-101585 (Fig. 6a) is 2 mm. thick. It shows no incising. The three fragmentary incised bone specimens, 1-101630 (Fig. 6c; Pl. I, 11), 1-101587 (Fig. 6e), and 1-101431 (Fig. 6f;

P1. I,10) average 5 mm. in thickness. Specimen 1-102415 (Fig. 6d) is a polished bone pin about 3 mm. in diameter and about 90 mm. in length. This pin could also have been used as a nose pin.

#### Bone beads:

Bone beads (or tubes) made from both mammal and bird bone were recovered in our final excavation at Tommy Tucker Cave. For the purpose of description these two classes are treated separately. The bone beads are further divided by diameter because even by visual inspection they fall into three size categories.

Mammal bone beads, Type I. The three specimens falling into the large class have a range in length of 23 mm. to 32 mm. and a range in maximum outside diameter of 11 mm. to 14 mm. One burned specimen (1-101556) is probably from a section of a coyote humerus, the other two specimens (1-101440, 1-101555) may be sections of coyote tibiae. Specimen 1-101555 has 11 faint, short, horizontal incised lines along a ridge on its long surface.

Specimen 1-101557, though falling within the diameter range for Type I bone beads, has a length of 107 mm. and thus should be classed as a bone tube. This specimen has a diameter of 13 mm. and is decorated with rows of horizontally incised lines (P1. I,12). It is probably made from a coyote humerus.

Possibly also to be classed as bone tubes rather than beads are two undecorated specimens (1-101440) which appear to have been made from the bones of different animals. One of these, a fragmentary tube, may be from a coyote humerus while the other, a whole tube, may be from the cannon bone of a young artiodactyl. The fragmentary specimen has a diameter of 15 mm. while the whole, though burned, specimen has a diameter of 10 mm. and a length of 74 mm.

Mammal bone beads, Type II. The fourteen medium-sized beads range in length from 14 mm. to 59 mm., and have a diameter range of 5 to 8 mm. Most of these beads are made from sections of jack rabbit (Lepus sp.) tibiae and radii. Eleven of these beads are burned.

Mammal bone beads, Type III. The thirty-nine bone beads of this type have a length range of 10 to 35 mm. and an average diameter of 4 mm. Some of these small beads have been stained with red ocher and 27 have been burned, probably unintentionally. Two additional, fragmentary incised specimens with diameters of about 4 mm. may actually have been bone tubes rather than Type III beads. These two specimens (1-101443 and 1-101579) have rows of horizontally incised lines on them and are thus similar to specimen 1-101557 (P1. I,12).

Bird bone beads, Type I. Each of two large specimens (1-101560 and 1-101631) has a length of 27 mm. The diameter of 1-101631 is 17 mm.; 1-101560 is fragmentary and has been burned. A third specimen (1-101432) is possibly a bone tube rather than a bead. This fragmentary and burned specimen is incised and has a diameter of about 11 mm. (P1. I,13).

Bird bone beads, Type II. Medium sized tubular bird bone beads, of which there are six, range in length from 19 mm. to 56 mm., and are from 7 mm. to 11 mm. in diameter. Four specimens (1-101440 and 1-101561) have been burned and two (1-101439 and 1-101621) are unburned.

Bird bone beads, Type III. Six small beads range in length from 17 to 39 mm., and range in diameter from 5 to 7 mm. Five of these beads (1-101440, 1-101566 and 1-101576) are burned and one bead (1-101440) is unburned.

In addition to the bird bone beads and tubes noted above there are five which, because of their length, do not readily fall into any of the three types above. The sole exception might be specimen 1-101678 which is 50 mm. long and 8 mm. in diameter. It has a lateral perforation near one end. Although it gives the impression of being a tube it does fall within the range of Type III bird bone beads. The other specimens include 1-101578 which is 60 mm. long and has a diameter of 8 mm. The third tube (1-101440) is from the ulna of a bird and is 74 mm. long and has a diameter of 5 mm. The fourth specimen is fragmentary but has a diameter of 9 mm. Finally, specimen 1-101623 is 194 mm. long and has a diameter of 7 mm. It has been scored on one end and may have been used as a pipe stem.

Mammal bone disc bead:

A burned disc bead, with a diameter of 32 mm. and a thickness of 5 mm., has a single conically drilled central perforation. Its size and texture suggest that this specimen (1-101433) is made of human skull bone (Pl. I, 15). A bone disc similar to the one from Tommy Tucker Cave was recovered from site Ch-15, west-central Nevada. The Nevada specimen is also probably from a portion of human skull; however it is decorated on the surface with 14 conically drilled pits (Heizer and Grosscup, n.d.), thus differing from the Lassen County cave specimen.

Pine nut beads:

Two types of pine nut (Pinus sabiniana) beads were recovered. Type I is barrel shaped with both extremities cut off. Type II has one end cut off at an angle and has a perforation in one side. Of the first type two are black from being burned (1-101445) and four have either one or both ends burned (1-101445, 1-102427 and 1-102424). A fragmentary specimen (1-101446) seems to belong to Type I. Type II pine nut beads are represented by four unburned specimens (1-101444 and 1-102423).

Prunus seed beads:

Two slightly burned seeds of chokecherry (Prunus) each have had both of their ends cut or abraded to make perforations for stringing (1-101594).

Bone awls:

The awls recovered are of several types; two specimens have been made from split cannon bones of antelope and still retain a large portion

of half the articulation of the distal end (1-101416 and 1-101592). Both of these specimens have been burned and one is lacking the tip. The complete specimen (1-101416) of this type (articulation present) is 90 mm. long. Another awl (1-101414) is also from a split cannon bone of either a deer or antelope but has had the distal articulation ground away and so differs in appearance from the two awls described above. This specimen is 145 mm. long. Specimen 1-101590 is a fragmentary, basal portion of a burned bone awl of the same type as specimen 1-101414. Specimen 1-101415 is a long, well-polished awl with its basal extremity missing. It is made from the cannon bone of an artiodactyl, either deer or antelope. Fragmentary specimens of bone awls made from either of the two animals mentioned above include the three specimens 1-101418, 1-101593 and 1-101633. One fragmentary awl (1-101417) is made from a split section of a coyote femur. The complete specimen would probably have been ca. 55 mm. long. Two fragments of mountain sheep horn have been made into artifacts that might be classed as awls. One specimen (1-101632) is 35 mm. long and 15 mm. wide and is ca. 3 mm. thick. Originally this specimen may have been longer. The second specimen (1-101635) is 55 mm. long, but appears to have been broken; it is ovoid in cross-section and has a diameter of ca. 4 mm. It is possible that this specimen served as a needle or bodkin for sewing tule mats, or similar material. A fragmentary, burned awl (1-101589) has been made from a section of the lateral edge of the right scapula of a deer or antelope. This broad specimen is concavo-convex in cross-section, and has a fragmentary length of 75 mm. and a width of ca. 20 mm. (Pl. I,6). It is possible that this specimen was an L-shaped awl before it was broken. If so it would have been similar to a specimen from Roaring Springs Cave (Cressman, 1942, p. 63, Fig. 92b).

#### Arrows:

The arrows recovered were all in fragmentary condition--the following description will therefore be of such arrow parts as foreshafts, nock ends and shafts.

Hardwood foreshafts. Of the five specimens recovered only one was complete (1-101653). The length of the complete specimen is 222 mm., and it has a maximum diameter of 6 mm. Almost the entire surface of this foreshaft has been painted green. A zig-zag red design has been painted on the green stain. Only the sharp pointed end that is inserted into the cane shaft and a small section adjacent to the slotted tip have not been painted. Specimens 1-101486 and 1-101487 are fragments--the former represents a distal and the latter a proximal end; both have a diameter of ca. 7 mm. Two other foreshaft specimens are fragmentary (1-101507 and 1-101506); one has a diameter of ca. 6 mm. (1-101507) and the other a diameter of ca. 8 mm.

A single specimen which may have been a foreshaft (1-101514) is too fragmentary for positive identification. It is 67 mm. long and is almost completely wrapped with sinew. It has a diameter of 6 mm. and appears to have been slotted for the insertion of an arrowhead.

It seems quite likely that all of the foreshafts were made from straight greasewood (Sarcobatus) limbs. In all cases they have been peeled, although one specimen has some indication of the inner bark adhering to it. All of the specimens have had their surfaces scraped to remove surface irregularities.

Nock ends. Seven specimens clearly show that they are the proximal or nock ends of arrows (1-101508, 1-101509, 1-101510, 1-101511, 1-101516, 1-101612 and 1-101677). The nocks are made in two ways. One is to make the nock at a node of the cane which would be at the natural strong point of the shaft. The other is to insert a nocked hardwood section into the cane. Three specimens with nock inserts are 1-101508, 1-101516 and 1-101612. The nock inserts have a diameter of ca. 8 mm. The cane portion of these seven specimens with nock ends have an average diameter of ca. 8 mm.

Specimen 1-101612 has a section of cane for the nock insert rather than a section of hardwood; a node section is used in this instance. Several of these specimens of nock ends of arrows have remnants of three split feathers bound to the shaft by sinew. Faint traces of painted designs are evident on several specimens.

Shafts. Arrow shafts without foreshafts or nock ends are represented by seven fragmentary specimens of cane (Phragmites communis). The diameter of these specimens (1-101513, 1-101605, 1-101607, 1-101608, 1-101609, 1-101610 and 1-101611) ranges from 8 mm. to 10 mm. Several specimens exhibit binding marks and faint signs of painted designs.

#### Sections of Cut Cane:

Cut sections of cane (Phragmites communis) fall roughly into three length classes. The longest range from 116 mm. to 86 mm., the medium class range from 68 mm. to 62 mm. and the short ones from 51 mm. to 36 mm. Except in a few cases these cane sections have been cut at both ends and several have been partially burned. The longest sections possibly may be fragments of arrowshafts, while the smaller ones may be considered to be fragments of cane dice (see section following). All specimens have been longitudinally split, which may or may not have been purposely done. In some cases the discarded canes were crushed under foot as they lay on the cave floor.

In addition to the above three classes of cane fragments there are two problematical cane specimens which are ca. 17 mm. long. They are sections of cane which have been cut just above and just below a node.

#### Sharpened Twigs:

A total of 288 sharpened twigs were recovered during the final excavation of the cave. These differed in no way from the 843 specimens recovered during the previous excavation.

A gambling game played by the Northern Paiute in recent times (Riddell, n.d.) utilizes approximately 60 pointed sticks which are

placed vertically in the ground in a semi-circular pattern. The two players are provided with a stick which they use for marking their advances around the semi-circle of uprights. The number of upright sticks they are to pass is determined by the position into which a number of thrown split-cane dice fall. If this game was a favored pastime for those people frequenting the cave we would have the explanation for the occurrence of the large number of sharpened twigs and split-cane sections.

#### Basketry:

Specimen 1-101454 is a portion of a coiled tray ca. 6 inches in diameter which is from the same basket as 1-74846 which has been previously described in the preliminary report (Fenenga and Riddell, 1949, p. 206). There is some evidence of burning on the basket and some indication that a repair had been attempted in the center of the tray.

Specimen 1-102429 is a fragment of flexible plain twined basketry that has obviously come from the same basket as 1-74843, also described in the preliminary report (Ibid.).

Specimen 1-101620 (Pl. I,46; Fig. 2b) is a fragment of wicker basketry whose double warp and single weft are of unpeeled willow. It was recovered from the backdirt and constitutes the only specimen of wicker basketry to come from this cave. The fragment exhibits three selvages, but it is of such an incomplete nature that the function of the basket is not known. In several instances the weft elements have been twisted as if the maker, used to the twining technique, had forgotten that she was making a wicker basket.

Specimen 1-101453 is the beginning of a coiled basket with triangular three-rod foundation, with the stitch passing under the top rod. The elements appear to be of willow. The stitches are split on the inside and the direction of work is to the left. Fragments of feathers appear about every fifth stitch. There are ca. 22 stitches and 16 coils per 5 cm. (Pl. I,47).

#### Fire-drill hearths:

The two fire-drill hearths recovered were of sagebrush (1-101604 and 1-102403). One specimen is 138 mm. long and has a maximum diameter of ca. 20 mm.; there are 11 drill pits in this burned specimen (Pl. I,43). The other specimen, 1-102403, with a diameter of 24 mm. and a length of 125 mm., is burned at both ends and has a single drill pit. The pits in both specimens are concave, indicating the use of a fire drill with a rounded point.

#### Fire drill:

A fragmentary fire drill (1-102430) has a diameter of 14 mm. This drill appears to be made of greasewood (Sarcobatus). The end that fits into the pit of the hearth is rounded but not darkened through heat. The



shaft has been peeled and the projecting twigs trimmed closely to the shaft (Pl. I, 44).

#### Slow matches:

Two slow matches, 1-101636 and 1-101637, consist of bundles of sagebrush bark wrapped with twisted sagebrush bark. Specimen 1-101636 is ca. 90 mm. long and ca. 25 mm. in diameter, and has one end which is fire-blackened through use. The other specimen has a length of ca. 200 mm. and a diameter of ca. 40 mm. and it, too, has been burned at one end (Pl. I, 1).

#### Hoof rattle:

The two hooves recovered in the final excavation of the cave appear to have been vestigial digits, or the dewclaws, of a deer. Both of these specimens (1-101447 and 1-101673) were about 25 mm. in length. Since each was perforated at the toe it seems probable that they were used on a dance rattle.

#### Feather specimens:

Specimen 1-101450 is half the rachis, or distal portion, of a feather which had been split--presumably for use on an arrow. The barbs attached to this fragmentary specimen have been evenly trimmed. The specimen has a total length of 36 mm.

Specimen 1-101449, a feather with serrations cut along the edges (Pl. I, 16), is similar to feathers in ethnographic specimens in the University of California Museum of Anthropology (1-2341, 1-2343, 1-1921, 1-825, 1-71042) which form parts of Yurok and Hupa headdresses. Feathers of this type have also been found in Hidden Cave, west-central Nevada (Grosscup, personal communication).

#### Projectile points:

Twenty-five identifiable specimens were recovered in the final excavation. (Table 1 and Pl. 1, 18-42). The system of classification used here is the same as was used in the preliminary report on Tommy Tucker Cave (op. cit., p. 209). Type 1, Class 1 is the most common projectile point type and occurs in all three levels but with reduced numbers toward the bottom of the deposit. Type 8, Class 3 is the next most common point type with but four specimens coming from the upper 40 inches of the deposit and none below the 40 inch level. With the exception of Type 9 all of the projectile point types correspond as to class (weight) favorably with Cressman's point classification for Roaring Springs Cave (Cressman, et al., 1940, p. 41 et seq.). Since the total number of projectile points recovered from Tommy Tucker Cave is small (Table 4) correspondence with the Oregon results is apparent only in regard to Type 1 and Type 8.

Almost an equal number of projectile points were recovered during all excavations from the 0 to 20 inch level as from the 20 to 40 inch

level (Table 4). In the 40 to 60 inch level, however, there was a very marked decrease in projectile points. This decrease is compatible with the general decrease of artifacts with the increase in depth, and decrease in volume of deposit excavated from level 3 (cf. fig. 1). There seems to be little or no significance concerning point types in relationship to depth differences.

#### Flake Scrapers:

Of the thirteen flake scrapers recovered ten were of obsidian, two of an agate-like material and one of chalcedony. The obsidian scrapers range in size from 48 mm. x 37 mm. to 22 mm. x 16 mm., the agate ones measure 35 mm. x 17 mm. and 22 mm. x 20 mm. The chalcedony scraper measures 22 mm. x 18 mm. These scrapers could probably also be termed knives, although they are stone flakes which are retouched on one side only.

#### Miscellaneous:

Pins for ring and pin game (?). Slender wooden pins with a small amount of string or sinew binding at one end may represent pins used in the ring and pin game. Specimen 1-102410 is an unpeeled twig of juniper, or greasewood, 220 mm. long and 50 mm. in diameter, which has had one end sharpened. A cord of twisted sagebrush bark is wrapped around the end of this specimen four times. A fragmentary peeled twig, 1-101459, with a diameter of ca. 4 mm. has sinew wrapped four times about one end.

Specimen 1-101463 is a well-made wooden pin of polished hardwood which is pointed at one end but square-cut at the other. A raised band ca. 6 mm. at the blunt end forms a sort of shoulder which could serve as a place to tie a cord. This specimen has a length of 184 mm. and a diameter of 7 mm. and is very similar to a wooden pin used in the ring and pin game of the Hupa and the Shasta as described by Culin (1907, p. 543, Fig. 714; p. 533, Fig. 732). The Ute and Paiute utilize sharpened sticks with cord attached for the ring and pin game; these are quite similar to specimens recovered from this cave (1-102410, 1-101459, 1-101457) (Ibid., pp. 553-554, Figs. 733-734a, b, and 735).

Tule matting. Fragments of tule matting are represented by specimens 1-101488 and 1-101667. Specimen 1-101488 is a small piece of the round variety of tule (Scirpus cf. lacustris) which bears two pinched marks left by the weft. The weft would appear to have the equivalent of a "Z" twist if the direction of the pinched marks has been correctly interpreted. The distance between the wefts, as they occur on this specimen, is ca. 40 mm.

Specimen 1-101667 appears to be a fragment of cattail tule (Typha latifolia) with the weft twisted in a "Z" twist, according to the evidence presented by the single pinched mark on this specimen. The distance between wefts must exceed 55 mm. as exhibited by this single fragmentary specimen.

Table 1. Projectile Points\*

| <u>Cat. No.</u> | <u>Material</u> | <u>Depth</u> | <u>Lgth.</u> | <u>Brdth.</u> | <u>Weight</u> | <u>Class</u> | <u>Type</u> | <u>Remarks</u>                          |
|-----------------|-----------------|--------------|--------------|---------------|---------------|--------------|-------------|---|
| 1-101521        | Obsidian        | 0-20         | 29           | 17            | 1.2           | 1            | 1           |   |
| 1-101522        | Obsidian        | "            | 34           | 17            | 1.3           | 1            | 1           |   |
| 1-101523        | Obsidian        | "            | 22           | 14            | 0.8           | 1            | 1           |   |
| 1-101528        | Obsidian        | "            | (27)         | 15            | (1.2)         | 1            | 1           | Sinew wrapping around stem; fragmentary |
| 1-101598        | Cinnabar cre    | 20-40        | 29           | 15            | 1.2           | 1            | 1           |   |
| 1-101599        | Obsidian        | 20-40        | 25           | 15            | 1.0           | 1            | 1           |   |
| 1-101600        | Obsidian        | "            | (25)         | 11            | (0.7)         | 1            | 1           | Fragmentary                             |
| 1-101626        | Obsidian        | backdirt     | 25           | 15            | 0.9           | 1            | 1           |   |
| 1-101639        | Obsidian        | 40-46        | (28)         | 17            | (1.2)         | 1            | 1           | Fragmentary                             |
| 1-102404        | Obsidian        | 40           | 29           | 15            | 1.4           | 1            | 1           |   |
| 1-102405        | Obsidian        | 40           | 26           | 20            | 1.3           | 1            | 3           |   |
| 1-102406        | Obsidian        | no.loc.      | 27           | 19            | 1.3           | 1            | 1           |   |
| 1-102407        | Obsidian        | 40           | 26           | 15            | 1.2           | 1            | 1           |   |
| 1-102419        | Obsidian        | 40-52        | 39           | 12            | 1.2           | 1            | 9           |   |
| 1-102435        | Obsidian        | backdirt     | 25           | 15            | 1.3           | 1            | -           |   |
| 1-102440        | Obsidian        | 46           | 29           | 21            | 1.2           | 1            | 1           |   |
| 1-101524        | Obsidian        | 0-20         | -            | 20            | -             | (2)          | 9           | Fragmentary                             |
| 1-101520        | Obsidian        | "            | 33           | 22            | 2.7           | 3            | 8           |   |
| 1-101596        | Obsidian        | 20-40        | 45           | 22            | 5.0           | 3            | 3           |   |
| 1-101625        | Obsidian        | backdirt     | 49           | 18            | 4.1           | 3            | 8           |   |
| 1-101638        | White chert     | 42           | 56           | 27            | 6.6           | 3            | 1           | Pitch on stem                           |
| 1-102441        | Obsidian        | 40-46        | (54)         | 21            | (3.0)         | 3            | 1           | Fragmentary                             |
| 1-101519        | Obsidian        | 0-20         | 45           | 23            | 7.1           | -            | -           | Weathered flake scars                   |
| 1-101597        | Brown agate     | 20-40        | 81           | 24            | 12.0          | -            | (8)         | Pitch on stem                           |
| 1-102413        | Obsidian        | 30           | 32           | 19            | 2.6           | -            | 1           |   |

\* Length and breadth are given in millimeters, weight in grams. Parenthesized figures indicate for length: approximations; for weight: weight of broken specimen; for class: probability that specimen falls within this class; for type: writer regards specimens as variants of ideal.

Table 2. Twine and Cordage

| <u>Cat. No.</u> | <u>Material</u> | <u>Dia. in mm.</u> | <u>Dir. of twist</u> | <u>Remarks</u>   |
|-----------------|-----------------|--------------------|----------------------|--|
| 1-101664        | Apocynum        | 1.0                | S                    |  |
| 1-102425        | Apocynum        | 1.0                | S                    | Stained with red ocher and overhand knot in each end and with two <u>Olivella</u> disc beads strung on it. |
| 1-101457        | Apocynum        | 1.3                | S                    | Surgeon's knot around pointed stick.   |
| 1-101473        | Apocynum        | 1.3                | S                    | Two pieces tied together with a mesh knot, two overhand knots in the piece.                                |
| 1-101475        | Apocynum        | 1.3                | S                    | A loop formed by a loop knot.  |
| 1-101442        | Apocynum        | 1.5                | S                    | Four small bone beads strung.  |
| 1-101663        | Grass           | 1.5                | S                    | Square knot in one end.  |
| 1-102434        | Apocynum        | 1.5                | S                    |  |
| 1-101439        | Apocynum        | 2.0                | S                    | In large bone bead - knot in strand.   |
| 1-101441        | Apocynum        | 2.0                | S                    | One bone bead strung on short section.   |
| 1-101471        | Apocynum        | 2.0                | S                    | Unrecognizable knot in strand.   |
| 1-101472        | Apocynum        | 2.0                | S                    | Overhand knot in end.  |
| 1-101474        | Apocynum        | 2.0                | S                    | One overhand knot in strand.   |
| 1-101477        | Apocynum        | 2.0                | S                    |  |
| 1-101478        | Apocynum        | 2.0                | S                    |  |
| 1-101481        | Apocynum        | 2.0                | S                    | Two short pieces wrapped once each around a short twig.  |
| 1-101662        | Apocynum        | 2.0                | S                    | Two overhand knots in one end.   |
| 1-101580        | Apocynum        | 2.0                | S                    | Two bone beads on string.  |
| 1-101554        | Apocynum        | 2.0                | S                    | One spire-lopped <u>Olivella</u> bead on string.   |
| 1-101669        | Apocynum        | 2.0                | S                    | Stained with red ocher, loop tied in cord with mesh knot.  |
| 1-101670        | Apocynum        | 2.0                | S                    |  |
| 1-101658        | Apocynum        | 2.0                | S                    | Tied around stick with overhand knot.  |
| 1-102428        | Apocynum        | 2.0                | S                    |  |
| 1-102431        | Apocynum        | 2.0                | S                    |  |
| 1-101479        | Apocynum        | 2.3                | S                    |  |
| 1-101659        | Grass           | 2.5                | Z                    |  |
| 1-101485        | Artemisia       | 3.0                | Z                    | Strand of unfinished cord.   |
| 1-101480        | Artemisia       | 3.5                | Z                    |  |
| 1-101668        | Artemisia       | 3.5                | Z                    |  |
| 1-101476        | Apocynum        | 4.0                | Z                    |  |
| 1-101665        | Artemisia       | 5.0                | Z                    |  |
| 1-101467        | Artemisia       | 6.0                | Z                    |  |
| 1-101660        | Artemisia       | 6.0                | Z                    |  |
| 1-102442        | Artemisia       | 7.0                | Z                    | Wef of matting.  |
| 1-101456        | Artemisia       | 8.0                | Z                    | Ill. Pl. I,4.  |
| 1-101468        | Round tule      | 8.0                | Z                    |  |
| 1-101469        | Trian.tule      | 8.0                | Z                    |  |
| 1-102418        | Artemisia       | 8.0                | Z                    | Loop of rope into each end of which is tied a piece of similar rope with a mesh knot. Ill. Pl. I,5.        |
| 1-101470        | Trian.tule      | 9.0                | Z                    |  |
| 1-101455        | Artemisia       | 13.0               | Z                    |  |
| 1-102442        | Artemisia       | 13.0               | Z                    | Warp of matting.   |

Table 3. Depth Differences\*

| Artifacts                   | 0-20 in. | 20-40 in. | 40-60 in. |
|-----------------------------|----------|-----------|-----------|
| Sandals (two types)         | 3        | 0         | 0         |
| Basketry                    |          |           | 0         |
| Fine twine                  | 1        | 1         | 0         |
| Coarse twine                | 0        | 1         | 0         |
| Coiled                      | 2        | 2         | 0         |
| Pine nut beads, Type I      | 5        | 0         | 2         |
| Pine nut beads, Type II     | 5        | 0         | 1         |
| Prunus seed beads           | 0        | 2         | 0         |
| Lump of hematite            | 4        | 4         | 1         |
| Flake scrapers              | 10       | 5         | 3         |
| Bone pendants               | 5        | 5         | 0         |
| Horn pendant                | 0        | 1         | 0         |
| Bone pins                   | 5        | 2         | 2         |
| Incised bone pins           | 1        | 2         | 1         |
| Bird bone beads, Type I     | 0        | 1         | 1         |
| Bird bone beads, Type II    | 2        | 3         | 0         |
| Bird bone beads, Type III   | 4        | 1         | 0         |
| Bird bone tubes             | 2        | 1         | 1         |
| Bird bone tubes, incised    | 1        | 0         | 0         |
| Mammal bone tubes           | 2        | 0         | 0         |
| Mammal bone tubes, incised  | 1        | 2         | 0         |
| Mammal bone beads, Type I   | 1        | 1         | 1         |
| Mammal bone beads, Type II  | 3        | 7         | 0         |
| Mammal bone beads, Type III | 26       | 11        | 2         |
| Mammal bone disc bead       | 1        | 0         | 0         |
| Bone awls                   | 6        | 4         | 3         |
| Arrow foreshafts            | 5        | 1         | 1         |
| Arrow shafts                | 2        | 5         | 0         |
| Arrow nock ends             | 5        | 2         | 1         |
| Olivella bead, Type F5b     | 14       | 18        | 0         |
| Olivella bead, Type X1a     | 1        | 0         | 2         |
| Olivella bead, Type X1b     | 5        | 0         | 1         |
| Olivella bead, Type X2b     | 0        | 3         | 0         |
| Olivella bead, Type X3bI    | 9        | 4         | 0         |
| Olivella bead, Type X3c     | 0        | 0         | 2         |
| Haliotis ornaments          | 11       | 6         | 1         |
| Mussel shell ornaments      | 5        | 6         | 0         |
| Sharpened twigs             | 884      | 152       | 95        |
| Split cane cut-offs         | 13       | 24        | 11        |
| Fire-drill hearths          | 0        | 1         | 1         |
| Fire drill                  | 1        | 0         | 0         |
| Slow matches                | 0        | 0         | 2         |
| Hoof rattles                | 1        | 0         | 1         |
| Quill braid                 | 0        | 1         | 0         |
| Pumice shaft smoother       | 1        | 0         | 0         |
| Gill net fragment           | 0        | 1         | 0         |

\* This table also includes data from depth table in preliminary report.

Table 4. Depth Differences\*

| Projectile points | 0-20 in.  | 20-40 in. | 40-60 in. | No. loc. | Total     |
|-------------------|-----------|-----------|-----------|----------|-----------|
| Type 1, Class 1.  | 12        | 11        | 4         | 2        | 29        |
| Class 2.          | -         | 1         | -         |          | 1         |
| Class 3.          | -         | -         | 2         |          | 2         |
| Type 3, Class 1.  | -         | 1         | -         |          | 1         |
| Class 2.          | -         | 1         | -         |          | 1         |
| Class 3.          | -         | 1         | -         |          | 1         |
| Type 5, Class 1.  | -         | 1         | -         |          | 1         |
| Class 2.          | -         | -         | -         |          | 0         |
| Class 3.          | -         | -         | -         |          | 0         |
| Type 8, Class 1.  | -         | -         | -         |          | 0         |
| Class 2.          | -         | -         | -         |          | 0         |
| Class 3.          | 3         | 1         | -         | 1        | 5         |
| Type 9, Class 1.  | -         | -         | 1         |          | 1         |
| Class 2.          | 1         | -         | -         |          | 1         |
| Class 3.          | -         | -         | -         |          | 0         |
|                   | <u>16</u> | <u>17</u> | <u>7</u>  | <u>3</u> | <u>43</u> |

\* This table also includes data from depth table in preliminary report.

Sagebrush bark bundle. Four small sharpened sticks ca. 70 mm. in length and 2 mm. in diameter were recovered loosely wrapped and tied in a small amount of shredded sagebrush bark (1-101452). The significance of these small sharpened sticks can only be guessed. They possibly may have been used in some sort of game.

Modified stick. Specimen 1-101458 is half of a longitudinally split branch of elderberry (Sambucus). Both ends have been cut square and the pithy center has been removed. The specimen is 108 mm. long and 90 mm. in diameter; the entire specimen is black from being partially burned. An incised line has been scored about the circumference of the twig 6 mm. from each end (Pl. I,45). Cressman illustrates similar specimens from Catlow Cave No. 1 (Cressman, 1942, Fig. 93-d: 4 and 11).

#### Discussion of Artifact Occurrence and Distribution

The occupation deposit of Tommy Tucker Cave was an unstratified mass with a maximum depth of slightly less than 60 inches. The deposit consisted of soil and dust that had blown and sifted in the entrance, and of more coarse material that had weathered from portions of the walls. As the deposit was very dry there was a high content of organic material such as grass, brush and guano. The guano was composed primarily of pack rat dung although there was considerable bat guano throughout the cultural deposit. No definite indications of any occupation hiatuses were observed during the excavation of the cave deposit.

The hearth area of the cave centered about 15 feet from the cave mouth in Room 1. In this region several hearths were superimposed one upon the other. In close proximity to the fire area matted lenses of fine brush and dried grass were exposed in troweling; these represent possibly the bedding area for the inhabitants of the cave. In view of the concentration of highly combustible organic material by the fire it is not surprising that many of the artifacts recovered in the course of excavation were found to be burned. These specimens may have been burned when the fire got out of control, or when the artifacts were purposely discarded near or into the fire. With no evidence of cremation in or near the cave, it seems unlikely that the numerous burned artifacts were due to cremation. In fact the only indication of human remains was a fragmentary, rodent-gnawed mandible that apparently had been carried in from some nearby crevice burial by a pack rat.

The artifacts recovered from this cave are typically of Great Basin tradition. The twined basketry is similar to that found in Massacre Lake Cave (Heizer, 1942, p. 121), Lovelock Cave (Loud and Harrington, 1929, Pl. 31), and Catlow Cave (Cressman, 1942, pp. 42-45). The twined basketry is also similar to modern Achomawi, Atsugewi, and especially Klamath flexible twined basketry (Fenenga and Riddell, 1949, p. 206). The specimens of coiled ware resemble one type of Lovelock coil (coarse three rod triangular) (Weltfish, 1932, p. 110) and are duplicated by modern Maidu and to some extent by modern Washo ware. The incipient coiled basket with feather remains (Pl. I,47) is reminiscent of those found at Lovelock Cave (Loud and Harrington, 1929, p. 68), Humboldt Cave (Heizer and Krieger, 1956), and the Granite Point Shelter (Roust, n.d.-a).

The fragment of wicker basketry, with three selvages, is of unknown function and is unique in that it is the only evidence of wicker basketry from Tommy Tucker Cave. Robson and Baumhoff (n.d.) give a description of Lovelock Wicker which, by definition, excludes the Tommy Tucker Cave wicker. They state that "Lovelock Wicker is peculiar for two reasons: the wefts are always double ribbons of willow and the weft courses are always pushed up against one another so that no intervening spaces are left." They also distinguish two types of Lovelock Wicker: "the type in which the two ribbons are placed side by side" and "the type in which the double weft ribbons are layered one on top of the other." The wicker fragment from Tommy Tucker Cave is in its general technique of construction similar to coarse wickerwork made by the Hopi Indians of Arizona (Mason, 1904, Fig. 190).

Lovelock Wicker apparently occurs predominantly if not entirely in west central Nevada. It has been recovered from Lovelock Cave (Loud and Harrington, 1929, p. 60 ff.), Humboldt Cave (Heizer and Krieger, 1956), Hidden Cave (Grosscup n.d.-a), Winnemucca Lake Caves (Roust, n.d.-b), the Granite Point Shelter (Roust n.d.-a), and a small cave site (26-Pe-8) near Lovelock Cave (Robson and Baumhoff, n.d.). It also occurs at Sai'i Cave, Pyramid Lake (Grosscup, n.d.-b), which marks the known western limit of this type of wicker basketry.

The horn pendant from Tommy Tucker Cave (cf. Fenenga and Riddell, 1949, p. 211, Fig. 58j') has its counterpart in Lovelock Cave (Loud and Harrington, 1929, Pls. 14 and 15). The incised bird bone tube (Pl. I, 13) is similar to a specimen from Lovelock Cave (Ibid., Pl. 12-d). The tubular bone beads from Petroglyph Point Cave No. 1 (Heizer, 1942, Fig. 65a-e), Roaring Springs Cave and Catlow Cave No. 1 (Cressman, 1942, Fig. 92f.) are like those recovered from Tommy Tucker Cave. The dot-and-circle design on bone implements (Pl. I, 14) also occurs in Nevada and specifically in Lovelock Cave (Loud and Harrington, 1929, Pl. 12-C, and on a stone discoidal from site Ch-15 (Heizer and Grosscup, n.d.). This design element also occurs on bone implements from sites in the Lower Klamath Basin, northern California (personal communication with G. L. Grosscup and R. J. Squier).

Fire drills and drill hearths occur in similar forms from Roaring Springs Cave (Cressman, 1942, Pls. 93-d, 12), Lovelock Cave (Loud and Harrington, 1929, Pl. 49a-h), Massacre Lake Cave (Heizer, 1942, p. 122), Humboldt Cave (Heizer and Krieger, 1956), and Tommy Tucker Cave (Pl. I, 43). The slow matches from Tommy Tucker Cave (Pl. I, 1) are like those reported for the Surprise Valley Paiute (Kelley, 1932, p. 142) and by Wheeler (1942) for Etna Cave.

The following excerpt from C. H. Merriam's notes on the <sup>ǃ</sup>ǃ-JU-MAH-WE (Achomawi) (Merriam, n.d.) gives a good description of the use of the slow match, or torch, by people of a neighboring group.

"All of the Pit River tribes carried fire from place to place by means of torches. The torches were ingeniously made of strips of frayed bark of juniper or sagebrush, or both. The frayed bark was twisted or rolled into the form of a club 15 or 18 inches in length and tied at intervals so that it would not open out.



"A small coal placed inside ignited the frayed bark, making a low glowing fire which burns a long time. It may be carried all day long and never goes out. In this way it is easy to carry fire from place to place. When opened and exposed to the air, it bursts into a blaze."

Typologically the four shell specimens shown in Figure 4, 1, m, and possibly z and a' resemble Early Horizon shell beads of the Sacramento region of the Central Valley of California. Early Horizon beads of these types are shown by Lillard, Heizer and Fenenga (1939, Pl. 11e). It is also of interest to note that some of the abalone shell specimens from Tommy Tucker Cave which can be identified as to species are made from the shell of the Haliotis cracherodii. This species is commonly used in the manufacture of Middle Horizon abalone shell beads and ornaments in central California (Ibid., p. 78). Haliotis cracherodii, as demonstrated by the collections in the UCMA, is seldom used in Early and Late times in central California.

The projectile points from Tommy Tucker Cave rather neatly fall into the typology used by Cressman (1940, pp. 41-49), and are similar to the points recovered from Petroglyph Point Cave No. 2 (Heizer, 1942, p. 125) and Lovelock Cave (Loud and Harrington, 1929, Pl. 56).

The cultural uniformity of the occupation deposit is exhibited by the occurrence throughout the deposit of such artifact types as the two types of pine nut beads, the numerous sharpened twigs, the bone awls, arrow fragments, split cane cut-offs and hoof rattles. It is immediately apparent, however, that in general the artifacts tend to occur in the upper 40 inches of the deposit. The clustering of artifacts in the upper levels is clearly illustrated by the number of sharpened twigs in the first 20 inches--almost four times as many as occurred in the two lower levels. This is also true, though in reduced numbers, with artifact types such as bone pendants, mammal bone beads, Type I projectile points and Haliotis ornaments. This decrease as mentioned above is in part due to the decrease in volume excavated in the lowest level.

The cordage recovered from the cave (Table 2) exhibits a change in direction of twist when it reaches a diameter of 2.5 mm.; below this size the specimens are generally of Apocynum and have an "S" twist. Those above 2.5 mm. in diameter are made of sagebrush (Artemisia) or of tule (Scirpus), in most cases, and have a "Z" twist (Pl. I, 4, 5). There is, however, no correlation between any of these features and depth of deposit. All forms of twine and cordage may occur at any of the three levels, although the concentration is in the upper levels.

#### Faunal Remains

A list of mammalian and avian remains has been presented in the report on the first excavations of the cave (Fenenga and Riddell, 1949, p. 212). Subsequently the few fish remains have been identified through the kindness of Mr. W. I. Follett, California Academy of Sciences, San Francisco, California. Of the three vertebrae submitted to Mr. Follett one was of a trout, presumably Salmo clarkii, and two were of the minnow

Siphateles obesus. The trout and one of the minnow vertebrae came from 0 to 20 inches in depth, and the other minnow vertebra came from the 40 to 46 inch level of the cave deposit.

### Summary and Conclusions

It seems unlikely that the nearly 60 inches of recognizable culture deposit removed from Tommy Tucker Cave during the two periods of extensive excavation represents anything other than the Late culture horizon with a suggestion of a portion of the preceding atlatl-using period. This is borne out by the occurrence of pine nut beads in both the upper and lower 20 inches of deposit. Pine nut beads from the digger pine (Pinus sabiniana) are considered to be evidence of late prehistoric and historic occupation (Heizer, 1942, p. 126). The other artifacts such as arrows, projectile points (in part), bone awls, slow matches, bone beads, cane dice, fire drills and hearths, and arrowshaft smoothers of pumice, as well as other specimens, have ethnographic counterparts in this area of the Great Basin.

Because of the many similarities of artifact types between Lovelock and Tommy Tucker Caves, it seems warranted to place the material from the latter cave into the Lovelock Culture as defined by Heizer (1951, p. 94). As far as is now known the Lovelock Culture extends through time from about 1500 B.C. to at least 500 A.D. in Lovelock Cave (cf. Libby, 1954, p. 739) and has a close relationship to the culture of the historic Indians of the area. As defined, the Lovelock Culture had the atlatl as its propelling weapon in the earlier phases. In time this weapon gave way to the bow during a period which Harrington (Loud and Harrington, 1929, p. 122) has designated as Transitional. It was during this period, however, that both the bow and the atlatl were in use. Since four projectile points of the total number (43) recovered from the excavation of Tommy Tucker Cave fall into Fenenga's large point tradition (i.e., weigh more than 4.5 gr.) (Fenenga, 1953, p. 318), there is the possibility that the atlatl was used during some period of the occupation of the cave. Although he points out that not all chipped stone points weighing more than 4.5 grams were necessarily used on atlatl darts, Fenenga suggests that this weight is a clue to their function as dart points. Unfortunately, for a clear-cut case these projectile points of the large point tradition are not found exclusively in the lower levels of Tommy Tucker Cave. They are, instead, rather equally distributed from top to bottom. On the face of it this would suggest that, if these points are really dart points, the atlatl was in use throughout the period of occupation of the cave, and the deposit is to be considered entirely of the Transitional Period.

The recovery of fragmentary cane projectile shafts, one with the remnants of a hardwood foreshaft still inserted in it, which have been suggested as being pieces of darts for use with the atlatl (Fenenga and Riddell, 1949, pp. 209-210; Fig. 58q), tends to support this consideration. However, these two specimens are so fragmentary and lacking in clear definition as to function that it is difficult to be sure of their true identity.

The four points of the large point tradition may possibly have been picked up from some other site which yields such points and introduced into the cave deposit in Late times. This explanation, however, is not entirely satisfactory; good evidence of any such activity is lacking. Without being able to determine adequately the real meaning of the occurrence of the projectile points of the large tradition in the deposit, it is only possible to state that there is some questionable evidence of the use of the atlatl. The deposit, however, appears to be predominantly of late, bow-using times.

To date Tommy Tucker Cave in years is difficult without a dated radiocarbon sample from the base of the known cultural deposit. One can suggest, however, a date of about 1000 A.D. for the initial occupation of this cave by uncritically accepting Harrington's (Loud and Harrington, 1929, p. 122) assumed date of about 1000 A.D. for the beginning of the Later Period. On more substantial grounds a beginning date of about 1 A.D. for the Tommy Tucker Cave deposits can be suggested by cross-reference with the C<sup>14</sup> dates from Lovelock Cave. (Note that this proposed dating of Tommy Tucker Cave is practically the same as for Humboldt Cave (Heizer and Krieger, 1956, p. 76). The earliest cultural level in Lovelock Cave thus far dated has a C<sup>14</sup> date of 3172 B.P., and the latest radiocarbon date is 1686 B.P. (Libby, 1954, p. 739). This last date presumably post-dates Harrington's Transitional Period for Lovelock Cave, i.e., it marks a later period of the deposit, one in which dart points would not be expected to occur. Since Tommy Tucker Cave yields possible evidence (large points) of an atlatl tradition, a cross-reference on cultural grounds would allow a date earlier than 1686 B.P. for the earliest known cultural deposits in the Lassen County cave. This date (i.e., before 1686 B.P.) would, therefore, allow equivalence to part of the Transitional Period and all of the Late Period of Lovelock Cave. Post-contact material was recovered from the surface of Tommy Tucker cave (cf. Fenenga and Riddell, 1949, pp. 204, 212-13) and the cave was known ethnographically (cf. Riddell, n.d.-a), demonstrating that it was used into the historic period.

Although the cultural similarities between Lovelock and Tommy Tucker Caves are numerous, there are some significant differences. For example, the Lovelock Wicker basketry so common to the Lovelock Culture is lacking at Tommy Tucker Cave. Such elements as burials and duck decoys, found at Lovelock Cave, are not represented in Tommy Tucker Cave. Lovelock Cave did not produce the mass of pointed twigs which were so numerous in Tommy Tucker Cave. Bone pendants and decorated bone pins, also, are more numerous in Tommy Tucker Cave than in Lovelock Cave. This lack of complete identity between the two caves can be attributed to several factors. Among them are (1) the probability of local cultural traditions being somewhat different, (2) a somewhat differing function of the caves, and (3) a difference in the size of the two caves. As previously indicated, burials and caches were of little or no importance in Tommy Tucker Cave. In addition, since the much greater size of Lovelock Cave allowed a greater accumulation of cultural material there is reason to have a much greater and more diverse cultural sample from it than from Tommy Tucker Cave.

Grinding implements used in food preparation (manos, metates, mortars, pestles) were entirely lacking at Tommy Tucker Cave, and were poorly represented in Lovelock Cave. Animal bones and similar refuse in both caves, however, demonstrate that the caves were inhabited. In the case of Tommy Tucker Cave, the occupation may have been for special purposes which excluded women, or at least women preparing foods requiring the use of grinding implements. Lack of light in Tommy Tucker Cave cannot be considered in a discussion of the reasons for the lack of food grinding implements in that cave. There is sufficient light near the mouth of the cave to allow this sort of domestic activity. The absence of food grinding implements strongly supports the impression that Tommy Tucker Cave served a specialized function. It may have served as a sort of retreat at which time gambling was resorted to in order to pass time and provide an enjoyable activity. Evidence of gambling is presented by the numerous pointed twigs found throughout the known cultural deposit, as well as by the quantity of split cane pieces also found throughout this same deposit.

In final summation it may be said that Tommy Tucker Cave has yielded artifacts from the upper 60 inches of its deposit that can be assigned (except for the few elements discussed above) to the Late Period of the Lovelock Culture. The remaining deposit in the cave is naturally laid and may have a depth of 48 inches or more. It is stratified and conceivably may contain evidence of ancient occupation; our small test square into these lower stratified deposits was hardly adequate to establish or disprove the point.

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## Explanation of Illustrations\*

### Map 1.

Plan of Tommy Tucker Cave. Line W to Z is the line along which the cross-section of the cave was made. Feature 2 is the large slab of calcareous tufa which had fallen from the wall at the place where the pictographs (Feature 1) were placed. The slab lay at the base of the culture deposit. A test pit was dug into the remaining deposit at the place where the slab had fallen.

### Plate I: Artifacts from Tommy Tucker Cave. (Scale 1/1)

1, slow match, 1-101637; 2-3, sagebrush matting? fragments, 1-102442; 4, sagebrush bark cord, 1-101456; 5, doubled and knotted cord of sagebrush bark, 1-102418.

6, scapula awl, 1-101589; 7-9, bone pendants, 1-101424, 1-101425, 1-101581; 10-11, incised bone pins, 1-101431, 1-101630; 12, incised mammal bone tube, 1-101577; 13, incised fragment of bird bone tube, 1-101432; 14, fragment of polished bone pin with dot-and-circle design, 1-101423; 15, mammal bone disc, 1-101433; 16, serrated feather, 1-101499; 17, notched bone pin, 1-101421.

18-42, projectile points from the final excavation of Tommy Tucker Cave, 1-101413, 1-101598, 1-102440, 1-101522, 1-101625, 1-101596, 1-101638, 1-101597, 1-101626, 1-101520, 1-101524, 1-101523, 1-101521, 1-102404, 1-102407, 1-102406, 1-101528, 1-102419, 1-101599, 1-101639, 1-101600, 1-102405, 1-102435, 1-101519, and 1-102441, respectively.

43, sagebrush wood fire hearth, 1-101604; 44, greasewood fire drill fragment, 1-102430; 45, split and grooved segment of elderberry limb, 1-101458; 46, willow wicker basketry fragment, 1-101620; 47, incipient, feathered coil basket, 1-101453.

### Figure 1.

Cross-section of cave deposit showing the area of the first excavations and those of the final excavation. Letters W to Z are points shown on the plan of the cave, along which the cross-section was taken. Levels a to d are strata recorded in the test pit made into the deposit lying below the known culture deposit. Levels 1, 2 and 3 are each 20 inches thick, although the culture deposit does not quite reach the 60 inch level as measured from the surface of the cave deposit.

### Figure 2.

a. Schematic representation of the mouth of Tommy Tucker Cave, from the outside looking in.

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\* All specimen numbers are those of Univ. Calif. Museum of Anthropology.



b. Schematic drawing of the only wicker basket remains (1-101620) to be recovered from the cave. Three selvages are represented in this unique piece.

Figure 3.

Feature 1, pictographic elements in red pigment on the wall of the cave. Scale is 1/10.

Figure 4.

a-z, a'. Abalone and mussel shell ornaments and beads, 1-101497, 1-101495, 1-101542, 1-101496, 1-101502, 1-101544 (mussel), 1-101503 (mussel), 1-101550 (mussel), 1-101545, 1-101540, 1-101498, 1-101501 (mussel), 1-101541, 1-102426, 1-101493, 1-101494, 1-101627, 1-101504 (mussel), 1-101492, 1-101499, 1-101546 (mussel), 1-101547 (mussel), 1-101548 (mussel), 1-101549 (mussel), 1-101437 (mussel), 1-101500, and 1-101543, respectively. Scale is 1/1.

Figure 5.

a-j. Bone pendants, 1-101586, 1-101424, 1-101425, 1-101584, 1-101583, 1-101427, 1-101426, 1-101582, 1-101581, and 1-101428, respectively. k-m. Polished and/or decorated bone pins, 1-101421, 1-101423, and 1-101634, respectively. Scale is 1/1.

Figure 6.

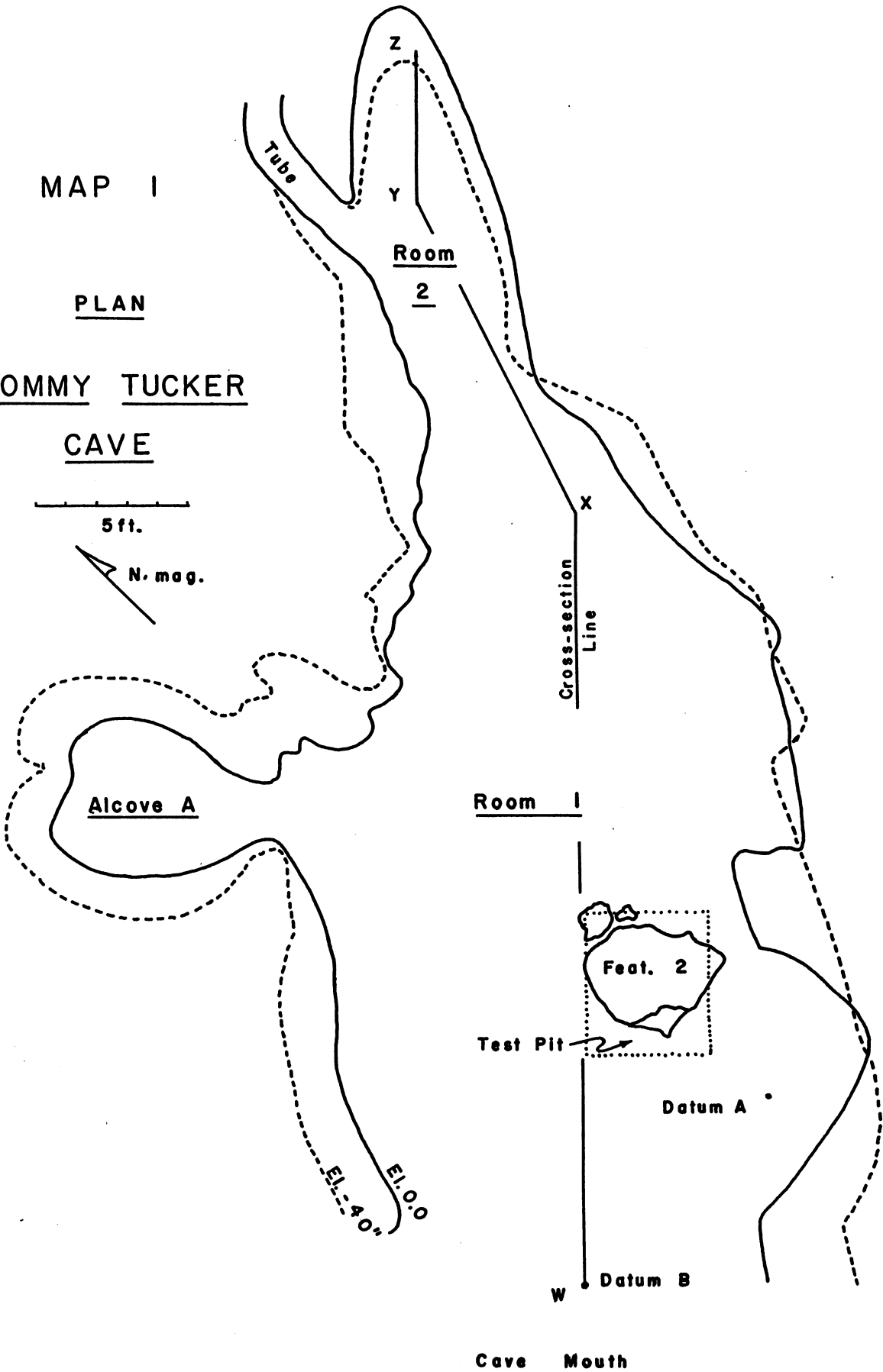
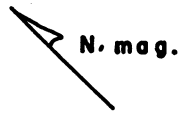
a, d. Bone pins, 1-101585, 1-102415. b. Bone flaking tool or pin, 1-101420. c, e, f. Incised bone pins, 1-101630, 1-101587, 1-101431, respectively. g. Incised bone pin, 1-101422. Scale is 1/1.

MAP I

PLAN

TOMMY TUCKER  
CAVE

5 ft.



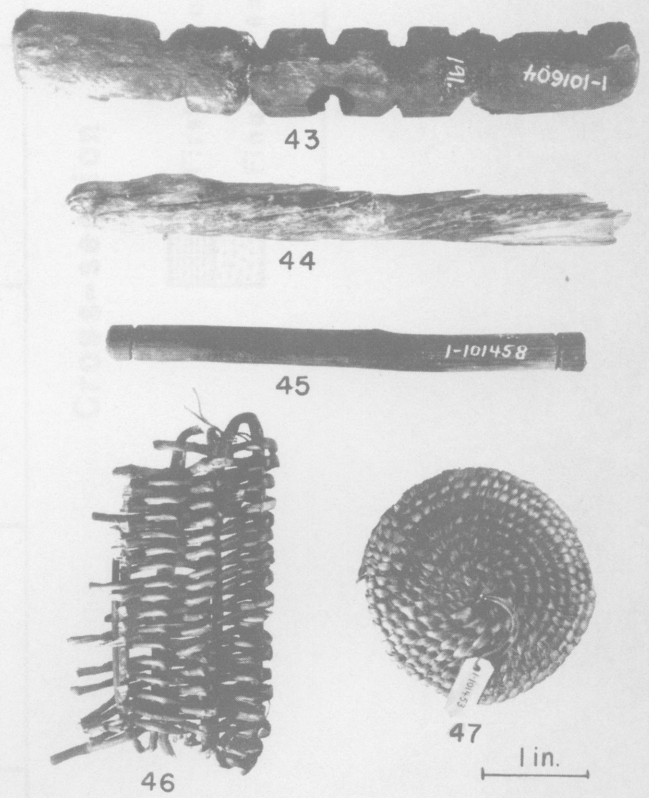
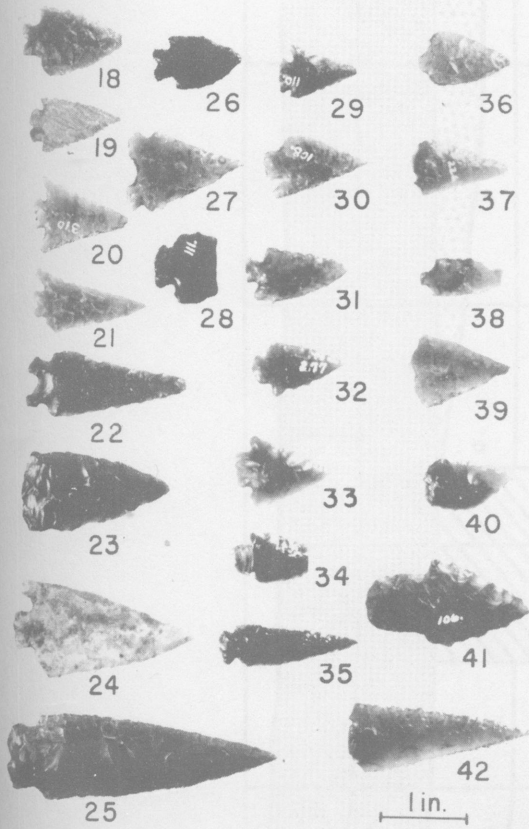
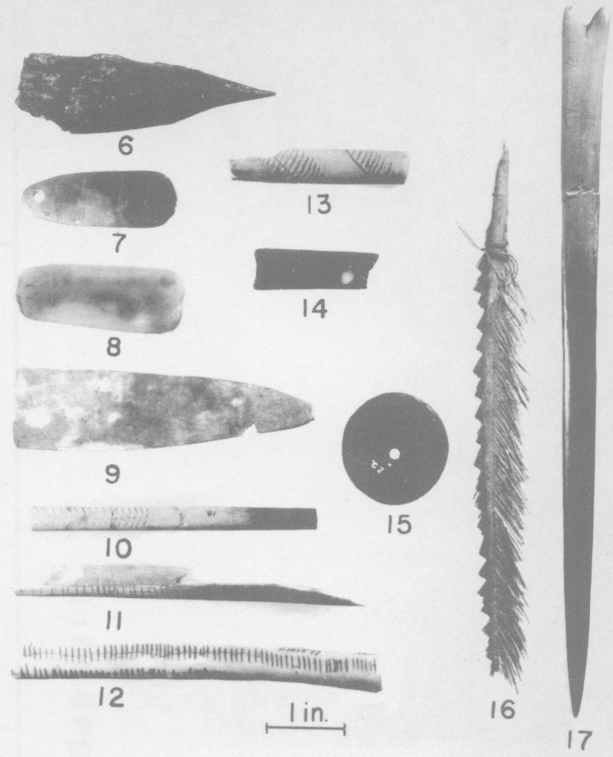
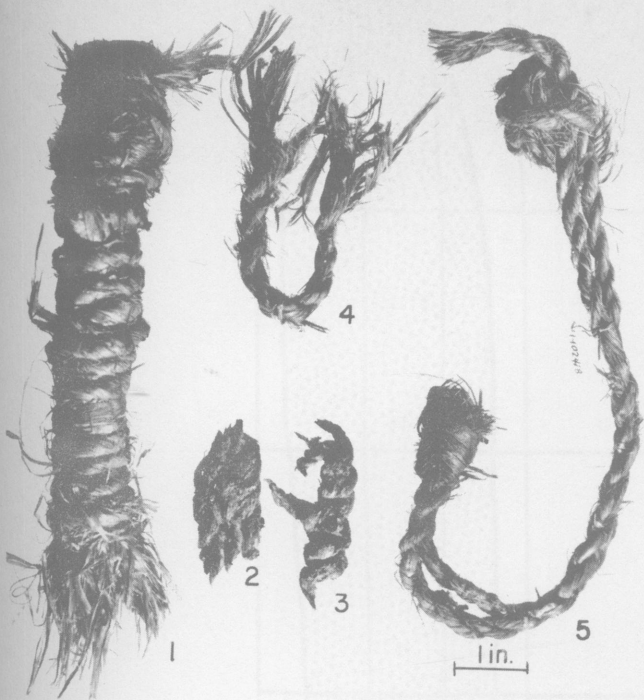
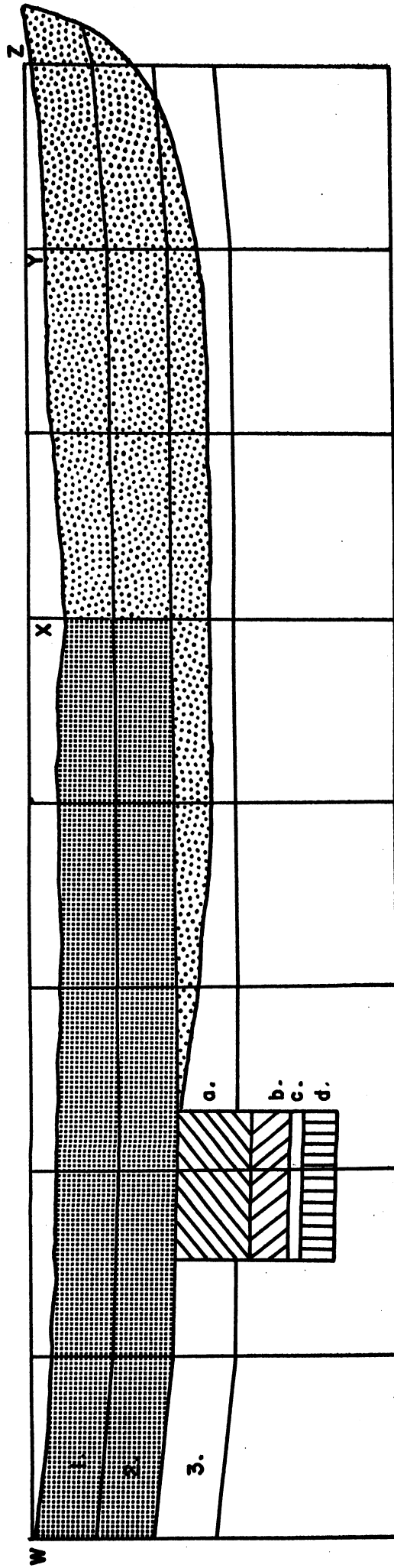



Plate I

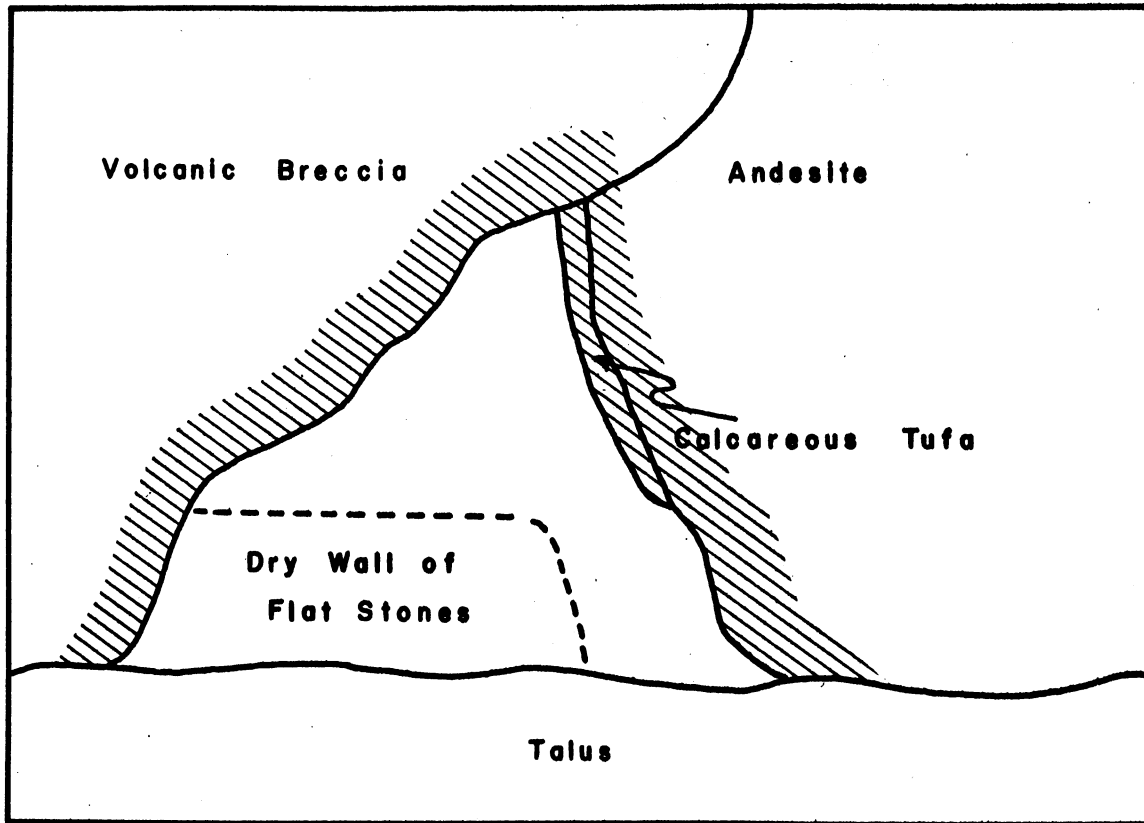


**Cross-section of cave deposit**

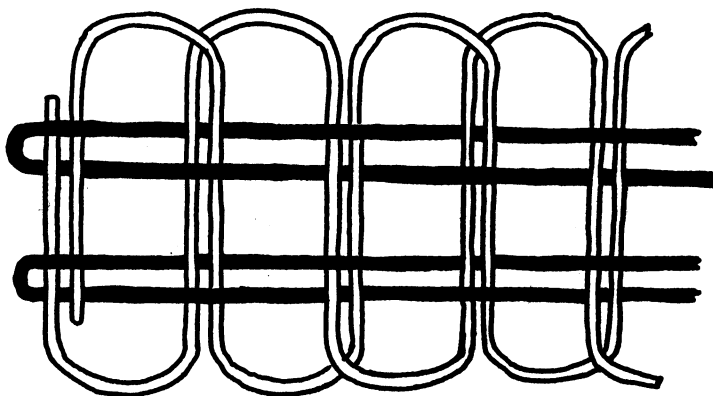

  
 First excavations
   
 Final excavation


  
 5 ft.

**Fig. 1.**

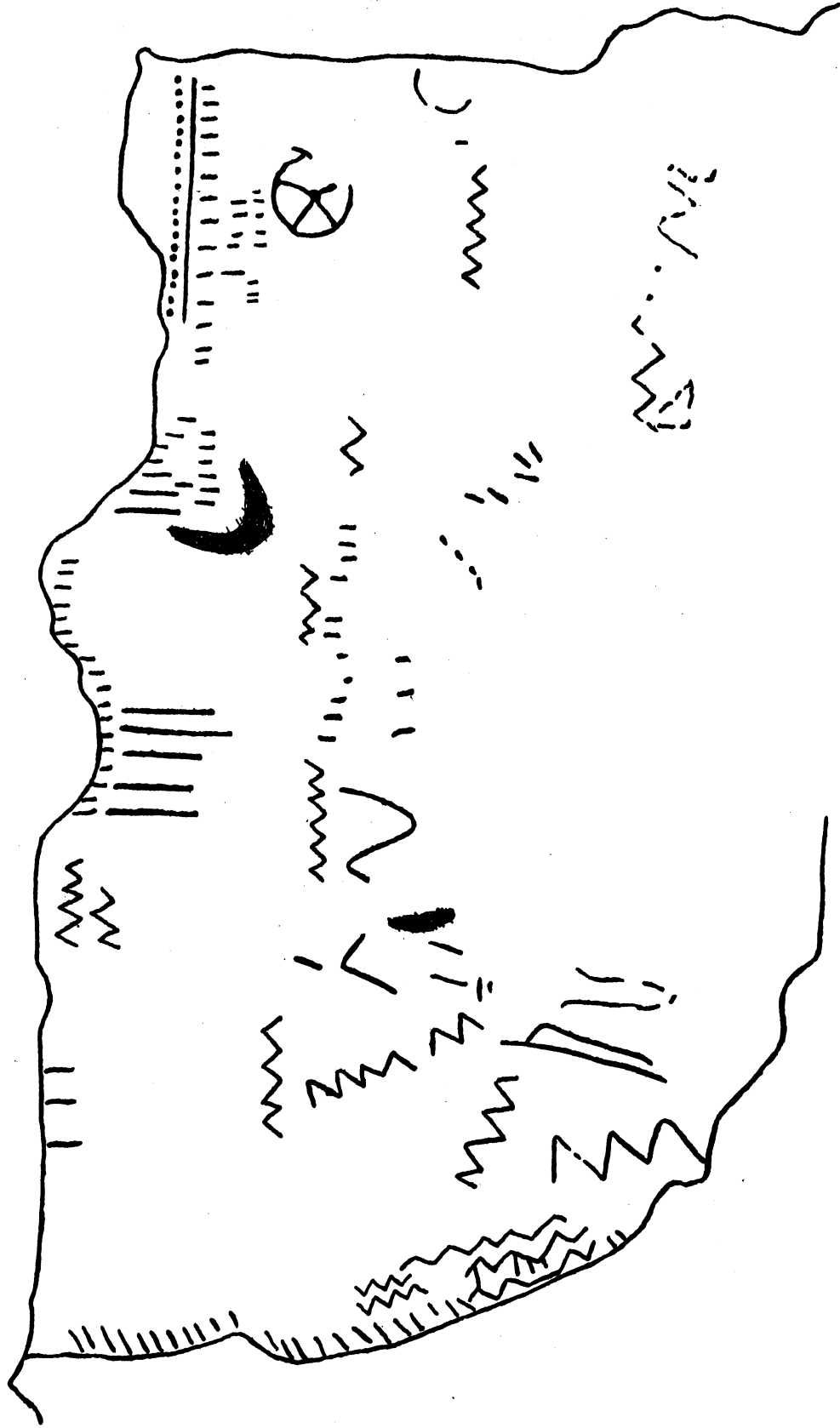


a. Schematic Representation of the Mouth of Tommy Tucker Cave (outside looking in)



b. Schematic Drawing of Wicker Basket Fragment

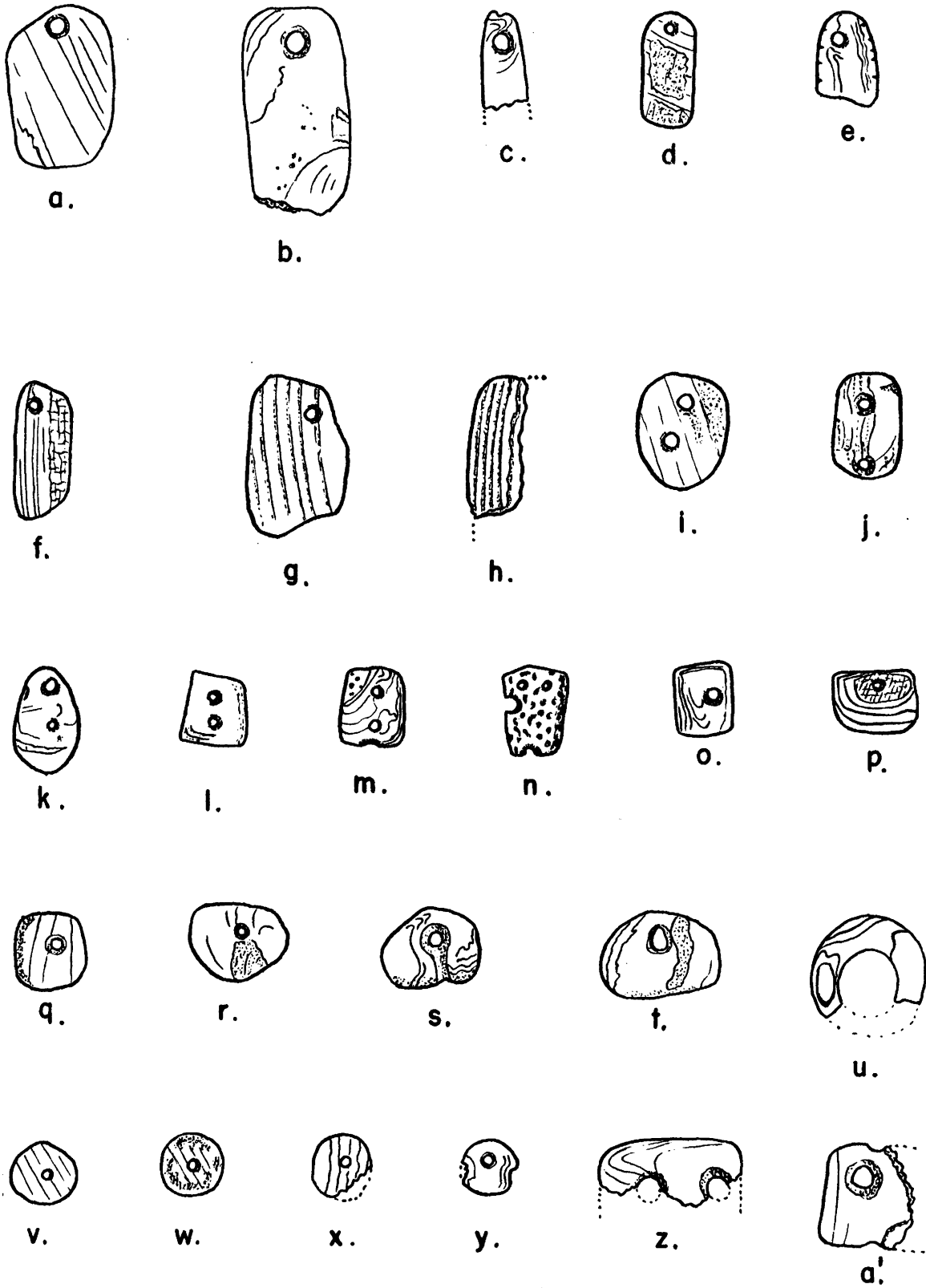
Fig. 2.



Pictograph (Feature 1)

Scale=1/10

FIG. 3.

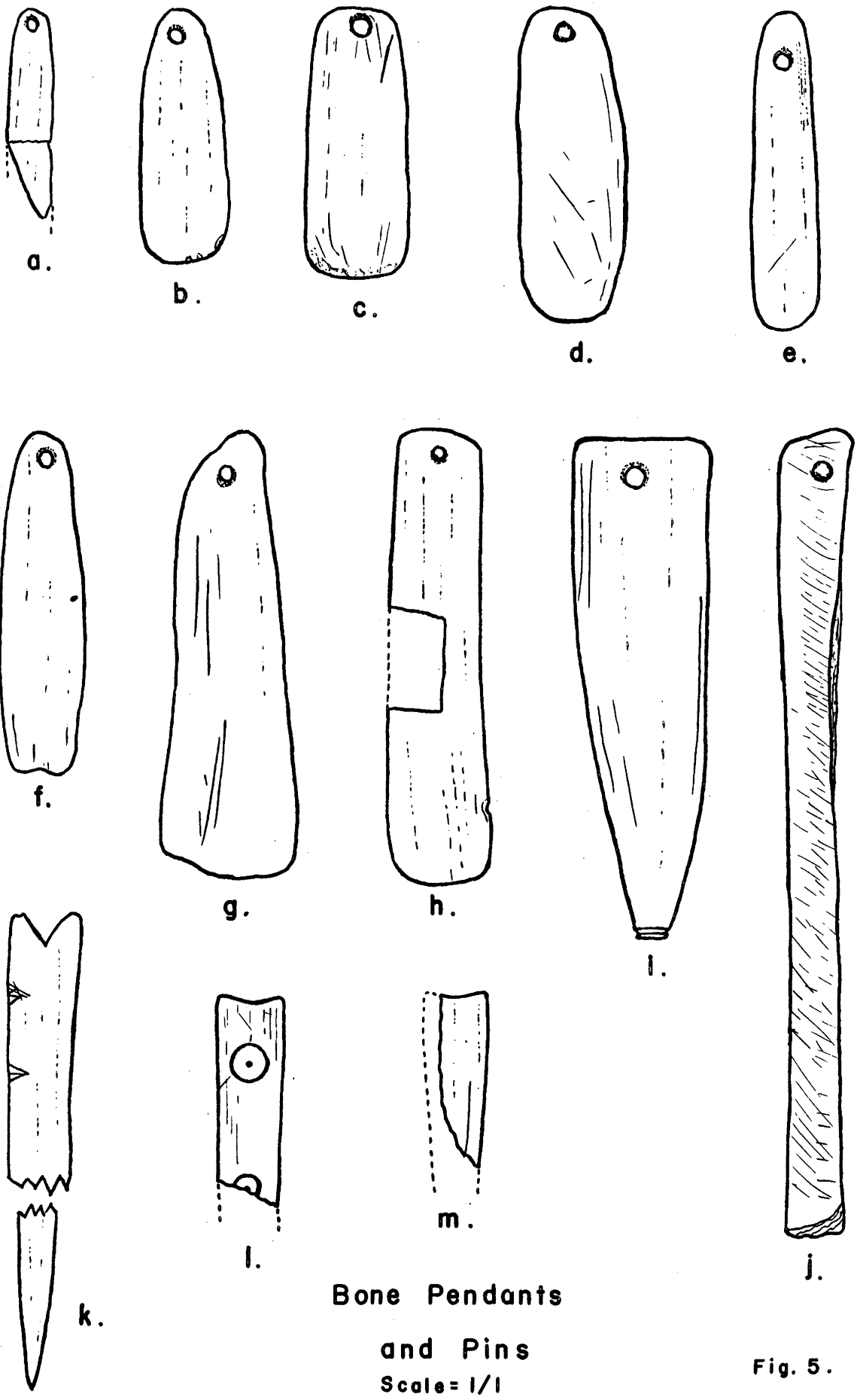


Shell Beads

and Ornaments

Scale = 1/1

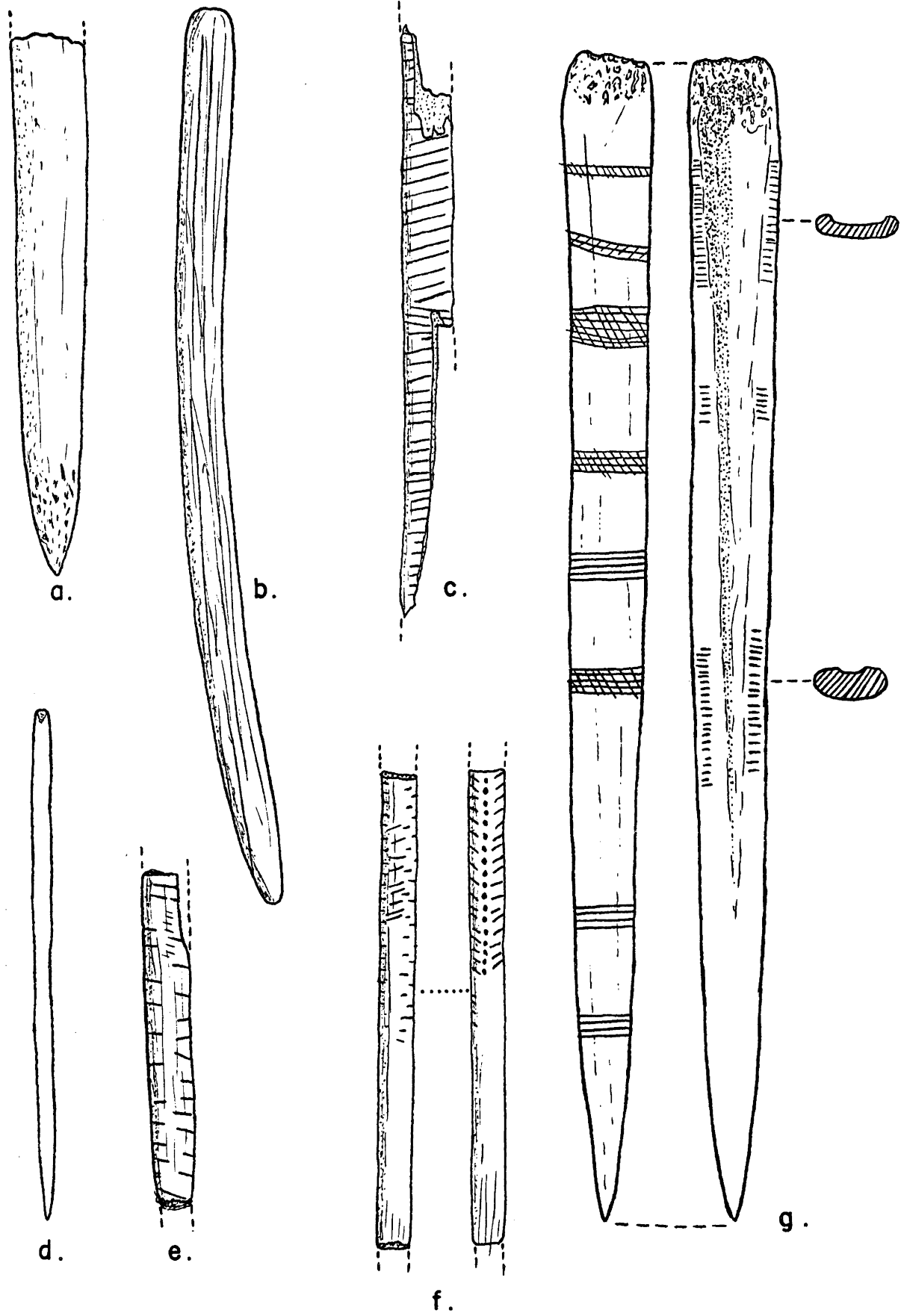
Fig. 4.



**Bone Pendants  
and Pins  
Scale = 1/1**

**Fig. 5.**





Bone Implements  
Scale = 1/1

Fig. 6.