

A GROOVED CLUB AND OTHER ARTIFACTS FROM A CAVE  
SEVENTY MILES NORTHEAST OF EL PASO, TEXAS

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ON THE floor of a shallow limestone cave, approximately seventy miles northeast of El Paso, Texas, in 1926 or 1927, Mr. James Gibson, of Petrolia, Texas, found a group of artifacts. The cave is one of a number of such lying in bluff country near the Texas-New Mexico border. It is on a large ranch comprising several sections of land, the owners of which do not encourage visitors. It has not yet been possible to locate definitely the position of this cave closer than this: it is seventy or seventy-five miles northeast of El Paso, more east than north, and close to the state border.<sup>1</sup> The country in which the cave is located has not been explored and it is probable that more artifacts remain undiscovered.

Through Miss Ellen Posey the artifacts were turned over to the Department of Anthropology of the University of Oklahoma. Miss Posey tells us that the artifacts were all found together in an apparently undisturbed cave. Our collection represents only part of those taken from the cave; other artifacts have been distributed among several persons in Texas. Our collection consists of:

- A. Two sandals, one adult and one child.
- B. Two basketry fragments.
- C. Two yucca cords.
- D. A grooved club.
- E. Two arrows.
- F. Two miscellaneous wooden objects.

This study was done at the suggestion of Dr. Leslie Spier of the Department of Anthropology of the University of Oklahoma. The illustrations are from photographs taken by Mr. Ray L. Six of the School of Geology, University of Oklahoma. For comparison we had only references to literature since no museum material was available.

DESCRIPTION OF THE ARTIFACTS

A. SANDALS. There are two sandals, one that of an adult, the other that of a child. Both are crude and coarsely made of split yucca leaves, of two warps with an over-and-under figure-eight weave. The loose ends of the fibers are allowed to come through and form a pad on the under side.

The large sandal (Plate A, Fig. 1, A; Fig. 2, A) is ten and one-half inches long by four inches wide. The toe is badly frayed. The heel is in a better state of repair and has attached to it three strands of split yucca for tying. The farthest forward of these comes from one-third of the way toward the toe. The other two are near the end of the sandal. The three strands are knotted together.

The child's sandal (Plate A, Fig. 1, B; Fig. 2, B) is five and one-half inches long by two and three-quarters at the widest part. It is of better

<sup>1</sup>A second location given for this cave is the following: 35 miles southwest (northwest?) of Sierra Blanca, near the Granite Mountains, Hudspeth County. The two locations do not agree.

workmanship than the former and in a better condition. The toe loop is in place. Only short parts of the heel straps remain, but their place of attachment can easily be seen on both sides. The warp ends have been left unfinished at both ends and, having frayed out and spread, they give a square appearance to the sandal.

Up to date, only one reference has been found of sandals of approximately this type. O. T. Mason<sup>2</sup> describes and illustrates an adult sandal of the same figure-eight weave. The ends of his sandal are different from the ends of ours and the material is of coarse yucca yarn while ours is of split yucca leaves. His was found in an abandoned Paiute camp in southern Utah. A child's sandal from a cave near Silver City, New Mexico, has some resemblance in the figure-eight weaving and the bottom pad formed of the loose ends of the wefts. In both of these cases the methods of finishing the ends of the sandals are different. In ours the warps are left unbound, in Mason's they are evidently finished. Pictures and descriptions, which I have been able to obtain, of Basket Maker sandals, or those of other peoples of the Southwest, are totally different in type from ours.

**B. BASKETRY FRAGMENTS.** The main fragment (Plate B, Fig. 3, A) is a flat piece of twilled work which was probably part of a mat or flat basket. It has an evident central pattern with surrounding diagonal designs. The main part of the work is of the "over 3, under 3" pattern. This and the following piece are both of unsplit yucca leaves. Another fragment (Plate B, Fig. 3, B) is small, consisting of a few yucca leaves twilled and bound to a fifteen inch curved wooden rod.

**C. CORDS.** There are two specimens of cord, approximately eight and nine inches long. The first (Plate B, Fig. 6, B) is a two-ply yucca fiber cord of good workmanship, one thirty-second of an inch in diameter.

The second (Plate B, Fig. 6 A) has a basis of yucca cord similar to the former, save that it has a greater diameter. This has been wrapped with thin strips of furred skin to form a fur cord. Most of the hair has worn off, but that which still remains has a yellowish-white appearance. The diameter of the cord is from one-eighth to one-fourth of an inch. Nusbaum<sup>3</sup> refers to fur string, which, from his description, resembles ours. That which he describes is from a Basket Maker cave in Kane County, Utah.

**D. GROOVED CLUB.** One of the most important of the finds is that of a grooved club (Plate B, Fig. 4) fourteen and one-half inches long. This is broken at one end so that we cannot tell how long it was originally. The club varies in width from one and one-eighth inches at the broken end to one and one-sixteenth at the other end. The sides and upper and lower surfaces are rounded. The end is brought to a point in an obtuse angle. This end shows remains of some dark foreign substance, probably pitch. Sinew wrappings are found at both ends, that at the whole end being just back of the point.

The interesting feature of the curved club is the presence of three longitudinal grooves on each side. These are remarkably regular. They begin

<sup>2</sup>Mason, 1894, pp. 357-358, pl. 6, fig. 1, and 7, fig. 3.

<sup>3</sup>Nusbaum, 1922, pp. 102-106.

one and three-quarter inches from the tip of the pointed end and continue uninterruptedly to the broken end, passing under the sinew wrapping. The width of the grooved part is one-quarter of an inch. Transverse scratches irregularly mark the surface of the stick. These are all in the same direction and do not quite coincide with a line drawn perpendicular to the longitudinal grooves. They appear to have been made intentionally. The wood is probably oak.

Similar clubs with four grooves instead of three are figured and discussed by Parsons,<sup>4</sup> Guernsey and Kidder,<sup>5</sup> and Judd.<sup>6</sup> Hough,<sup>7</sup> also illustrates a similar club according to Guernsey and Kidder.

The clubs described by Judd were found in Heaton's Cave, near Mount Trumbull, northwest Arizona, and are "apparently of Basket Maker handiwork." Those of Guernsey and Kidder were found in White Dog Cave in the Kayenta region of northeast Arizona. That of Hough was from a cave near Lava, New Mexico. The one of Mrs. Parsons was in a Laguna pit-shrine. Guernsey and Kidder explain its presence with semi-recent offerings on the ground that it may have been found in a Basket Maker cave and was thought worthy of being made an offering. Guernsey and Kidder report that all the grooved clubs were found in company with the spear thrower or adjuncts thereof, and indicate that the grooved stick is therefore a product of Basket Maker culture. Judd<sup>6</sup> mentions another club collected in 1924 by Dr. Willis T. Lee from caverns near Carlsbad, New Mexico. Mr. Judd graciously sent the following description of this:

"The specimen is of oak, 16 $\frac{3}{4}$ " long by 11/16" thick, and is split longitudinally through the middle. Three longitudinal, interrupted grooves are evident on one side, two on the other; it is reasonably certain that four grooves were present originally. This specimen exhibits a broad single curve more after the pattern of that figured by Judd in Plate 51-A."

E. ARROWS. In company with the grooved club were found two reed arrows, one entire and one broken. The former (Plate B, Fig. 5) is about thirty-four inches in length and consists of two parts: the shaft and the foreshaft. The shaft is a monocotyledonous stem of reed or grass. The nodes and internodes show plainly. The nock has been cut into an internode and the central hole plugged with wood shaped to fit. Three sinew bands bind the shaft near the nock at one-quarter inch, one and one-quarter, and two and three-quarters inches from the butt end. Two bands of sinew bind it at the tip end. The ends of the sinew are turned under. The remains of feathering show in three places under the sinew wrappings of the butt end.

The foreshaft is an eight and one-half inch twig (willow or plum?) sharpened at both ends, with bark showing for an average of three and three-quarters inches at the center. It fits closely into the hole of the shaft. The points are polished and appear to have been hardened.

The second arrow has no foreshaft and the shaft itself is broken off at the butt end. It has a hole in the tip end for the reception of the foreshaft,

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<sup>4</sup>Parsons, 1918, pp. 384-385, Fig. 39.

<sup>5</sup>Guernsey and Kidder, 1922, pp. 88-89, pl. 36.

<sup>6</sup>Judd, 1926, p. 147, pl. 51.

<sup>7</sup>Hough, 1914, p. 19, Fig. 21.

and sinew bindings at both ends. It is twenty-eight and one-quarter inches long and of the same material as the other arrow.

Both arrows are split with age. Neither shows signs of having been painted.

F. MISCELLANEOUS OBJECTS. There are two articles, the uses of which are unknown. The first is a small knobbed stick (Plate B, Fig. 6, C) three and one-quarter inches long. It is of crude workmanship.

The second (Plate B, Fig. 6, D) is two small twigs bound with sinew near one end. The tops of both twigs and the bottom of one have been broken. The bottom of the other has evidently been cut. The longer of the twigs is seven inches in length.

#### COMPARISON WITH ROBERT'S EL PASO MATERIAL

A recent paper by Frank H. H. Roberts, Jr.,<sup>8</sup> describes artifacts of much the same type. These were found in caves approximately twenty miles northeast of El Paso and "include fragments from headdresses, a number of sandals, curved clubs, digging sticks, spear shafts, spear heads, foreshafts for spears, netting, a cord skirt, shell pendants, beads, parts of mosaic combs, and a large basketry armband covered with a turquoise matrix." The sandals are of two types, one of which is a figure-eight design similar to our specimens. His curved clubs greatly resemble our grooved club, with the exception that his have four grooves instead of three. His spear material, however, is different from our arrows. The spear shafts are of agave flower stalks ranging from five feet three inches to five feet nine inches in length. The distal ends are drilled with a cone-shaped hole for the insertion of a short foreshaft either mounted with a stone point or finished with a hard, sharp wooden point. In the butt end is a cup-shaped depression suggesting that the shafts were for use with a spear thrower.

#### CONCLUSION

Dr. Roberts' collection represents material, part of which, such as the spear shafts, curved clubs, sandals, and netting, suggests to him a resemblance to Basket Maker work, and part, such as the sandy, dark-red potsherds with the dull black painted decorations, appears to be later, possibly Pueblo. Although no definite evidence of stratification is present, Dr. Roberts suggests that two different horizons are represented.

In the collection described in the present paper, parts of the material, such as the grooved club and sandals, are probably Basket Maker, and part, the reed arrows, appear to be of Pueblo type. Again there is no evidence of stratification or mixture of horizons. The superposition of elements of Basket Maker and later horizons in two localities fifty miles apart would be a strange coincidence.

An alternative, suggested by Dr. Leslie Spier, is this: This complex, containing grooved clubs, sandals of this type, spear shafts, and reed arrows, is a peripheral culture in which typical Basket Maker artifacts have been carried over and augmented by elements of a later type.

<sup>8</sup>Roberts, 1929, entire.

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ILLUSTRATIONS AND CATALOGUE NUMBERS OF ARTIFACTS IN POSSESSION  
OF DEPARTMENT OF ANTHROPOLOGY, UNIVERSITY OF OKLAHOMA,  
NORMAN, OKLAHOMA

PLATE A.	Catalogue Number
Figure 1. Sandals, upper side.	
A. Adult Sandal	1-1
B. Child's Sandal	1-2
Figure 2. Sandals, lower side	
A. Adult Sandal	
B. Child's Sandal	
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