

northern and California Athapaskans and probably has been a basic pattern for some time, the problem remains whether there is any evidence that there was an even earlier pattern for the first ascending generation. This is what I have attempted to do by utilizing Murdock's technique of historical reconstruction. Each reader will have to determine if this approach can safely be extended beyond linguistic confirmation. He will also have to determine whether a comparative linguistic analysis can be used by itself to reconstruct a proto-kinship system without supporting evidence of the underlying social structure. In any case, the variation of terms and structure of the first ascending generation of the Athapaskans presents an intriguing problem which the present discussion has by no means exhausted.

CHARLES B. WHITE, *University of California, Berkeley*

BIBLIOGRAPHY

DRIVER, HAROLD E.

- 1956 An integration of functional, evolutionary, and historical theory by means of correlations. *Indiana University Publications in Anthropology and Linguistics*, Memoir 12.

HOIJER, HARRY

- 1956a The chronology of the Athapaskan languages. *International Journal of American Linguistics* 22:219-232.
1956b Athapaskan kinship systems. *American Anthropologist* 58:308-333.

HYMES, D. H.

- 1957 A note on Athapaskan glottochronology. *International Journal of American Linguistics* 23:291-297.

KROEBER, ALFRED L.

- 1937 Athapaskan kin term systems. *American Anthropologist* 39:602-608.

MURDOCK, GEORGE P.

- 1949 *Social structure*. New York, Macmillan.

OPLER, MORRIS E.

- 1936 The kinship systems of the Southern Athapaskan speaking tribes. *American Anthropologist* 38:620-633.

WHITE, CHARLES B.

- 1957 A comparison of theories on Southern Athapaskan kinship systems. *American Anthropologist* 59:434-448.

ORIGIN OF THE MESCAL BEAN CULT

In a recent issue of this journal, James H. Howard (1957) presents data which seem to indicate that a mescal bean cult preceded and was ancestral to the peyote cult in the Central and Southern Plains of North America. Howard discounts the generally accepted theory that the peyote ritual developed in the area centering around northeastern Mexico, and believes that many elements of the mescal bean cult originated among Central Algonquin peoples to the north. These ideas have been discussed by Weston La Barre (1957), who accepts the derivation of the peyote cult from a prior mescal bean cult but argues that plant distributions and culture history clearly point to a southern origin for both cults. In further support of a southern origin, La Barre cites two archeological occurrences of the mescal bean, one in Texas and the other in Chihuahua.

It may be of interest to note additional archeological occurrences of the mescal bean, since it has been found much more commonly than La Barre indicates. Many of the records are not easily found; some are obscurely published, and others are still unpublished. This additional archeological evidence strengthens La Barre's emphasis on a southern origin for the two cults in question, and also suggests a more specific area for the origin of the mescal bean cult.

Mescal beans have been recorded for at least 12 cave and rock shelter sites in southwestern Texas. Eight of these are located in Val Verde County, near the confluence of the Pecos River and the Rio Grande; the remainder are in the Edwards Plateau region east of the Pecos River. All of these archeological sites lie within the northern range of the mescal bean plant (*Sophora secundiflora*).

The evidence from the Val Verde County sites is more abundant and more convincing than that from the Edwards Plateau. Martin (1933:79, 90) collected a total of 20 mescal beans from four caves near Shumla (Caves 1, 3, 5, 6). Pearce and Jackson (1933:131) state that "numerous" mescal beans, some still in pods, were scattered through the cultural deposit in the Fate Bell rock shelter. At Murrah Cave, Holden (1937:70) found "a considerable number" of mescal beans and seed pods, the majority of the individual beans being "parched"; and Davenport (1938:7) encountered a few mescal beans in Eagle Cave. Even more significant is the evidence from a shelter near Comstock (Butler 1948:16-20, 77). Here excavation revealed a globular twined basket containing the following items: a small woven packet that held a flint knife, two bundles of sinew, and a mass of red pigment; a buckskin thong and a piece of deerskin; three antler flaking tools; a fresh-water mussel shell; three flint knives, 10 side-scrapers, and a crude dart point; a small stone bearing scratches near each of its two ends; 11 halves of rodent mandibles (10 of these are left halves); a small terrapin carapace with a pair of perforations at one end; three pieces of red pigment; and about 100 mixed specimens of mescal bean and Mexican buckeye seed (*Ungnadia speciosa*). This assemblage certainly suggests ritual use of the mescal bean. In addition, numerous mescal beans were scattered through the cultural debris on the floor of the shelter.

These sites are either single-component sites of the Pecos River Focus, or predominantly Pecos River Focus with small amounts of material from a later culture (Kelley 1950:72). The Comstock shelter, with its cache of presumed ceremonial materials, is unmistakably a single-component Pecos River Focus site. According to the most recently published estimate (Suhm et al., 1954:56), the Pecos River Focus flourished between A.D. 1 and 900, but a series of 11 radiocarbon dates from Frightful Cave in central Coahuila (Taylor 1956:219) shows that the Pecos River Focus was in existence for a much longer time. Although his Coahuila materials have not yet been described, Taylor (ibid: 220) states that the culture represented in Frightful Cave is very closely related to the Pecos River Focus. His radiocarbon dates range from about 7500 B.C. to about A.D. 200. It would seem, therefore, that the use

of the mescal bean has substantial antiquity in southwestern Texas and the adjoining part of northern Mexico.

The presence of mescal beans in cave and rock shelter sites, even when included in containers holding utilitarian as well as nonutilitarian objects, does not necessarily signify the presence of a mescal bean cult in the Pecos River Focus. However, there is additional archeological evidence which does suggest the presence of a prehistoric cult that may have involved the use of the mescal bean. Associated with the Pecos River Focus are numerous pictographs of a distinctive style which have been interpreted as representations of a hunting cult (Kelley 1950). These show men in ceremonial costume associated with various animals, particularly deer and mountain lion; the former are frequently shown with bodies pierced by darts or spears (Jackson 1938a; Kirkland 1937, 1938, 1939).

Even a cursory examination of the Pecos River Focus pictographs reveals a number of interesting parallels to the mescal bean cult as described in the various sources assembled by Howard (1957). The historic cult is frequently linked with hunting and with the deer (Comanche, Iowa, Omaha, Pawnee, Wichita), and this also seems to be true of the Pecos River Focus cult. In the historic cult men dance with weapons (bow and arrow) in their hands (Iowa, Omaha, Pawnee), and in the pictographs men hold an atlatl and dart in the right hand and additional darts and several curved fending or "rabbit" sticks in the left hand (Kirkland 1939: Plate 11, Fig. 2, and Plate 12, Fig. 3). The bow and arrow was not used in southwestern Texas until near the close of the Pecos River Focus occupation. At least one account of the modern mescal bean cult (Ponca) states that the leader holds a staff. The pictographs frequently show men holding a staff-like object with enlarged distal end (Kirkland 1939: Plate 12). Although rather variable in form, the distal end of this object is frequently spheroidal and may possibly be a representation of the gourd rattle commonly used in the historic cult (Iowa, Omaha, Pawnee); however, it is usually depicted with a very long "handle."

Among the Omaha, some cult practitioners carry a fox skin on one arm and wear a "necklace" of two deer tails tied together. In the pictographs a small animal pelt is draped over the left arm (Kirkland 1939: Plate 12, Fig. 1 and 3), and occasionally two tied animal tails are carried in the same position (ibid: Fig. 3). Some Oto cult members have fox hides wrapped around their hands; in the pictographs a small animal skin is sometimes attached to the right forearm (ibid: Fig. 1). Some Omaha wear owl feathers around the wrist, and what appears to be a small feather bracelet can be seen in the pictographs (ibid: Fig. 3). Omaha and Pawnee carry feather fans or bird wings in their hands; the pictographs show similar objects in one hand or attached to the wrist (Kirkland 1939: Plate 11, Fig. 2). The Oto have fox skins wrapped around the waist; the pictographs sometimes show a sash-like band at the waist with three or four tassels that may represent tails (ibid: 1939: Plate 12, Fig. 3). Iowa and Ponca wear feathers on the head, and this is common in the pictographs (Kirkland 1937: Plate 15, Fig. 1 and 2).

These similarities may or may not be significant, but they are intriguing when considered along with the more direct evidence of ritual use of the mescal bean. Some sort of hunting cult is indicated for the Pecos River Focus, and the chances are good that the mescal bean was involved.

As stated above, evidence of mescal bean use in the Edwards Plateau region east of the Pecos River is relatively rare, probably because the caves and rock shelters are usually not dry enough for preservation of organic materials. Jackson (1934: 47, 110) found mescal beans in two of five adjacent rock shelters (No. 1 and 2) at the Craig site in Edwards County. Each shelter contained an Edwards Plateau Aspect occupation (with some admixture of Pecos River Focus materials), followed by a brief Central Texas Aspect occupation. Woolsey (Campbell 1957:12) noted mescal beans at the Fields shelter, another site in Edwards County with essentially the same occupational history as the two Craig shelters. Jackson (1938b:69) reports two mescal beans in a San Saba County cave that yielded artifacts attributable to the Edwards Plateau Aspect (this is one of the two occurrences cited by La Barre). The prehistoric use of the mescal bean in this area seems to be linked with the Edwards Plateau Aspect. The Pecos River Focus and the Edwards Plateau Aspect occur in adjoining areas and are considered to be roughly contemporaneous (Suhm et al. 1954:112). Pictographs in the Edwards Plateau region do not seem to reflect any specific ritual activity.

Peyote (*Lophophora williamsii*) is reported for two of the 12 sites mentioned above. Martin (1933:78, 79) found one peyote specimen in Shumla Cave No. 5, and at least one specimen seems to have been found by Woolsey at the Fields shelter (Campbell 1957:12). The stratigraphic positions of peyote and mescal bean specimens in these two sites were not recorded, and it is not possible to demonstrate the priority of mescal bean use over peyote. It may be inferred that peyote was not in common use in either the Pecos River Focus or the Edwards Plateau Aspect. It would be of interest to know if both the mescal bean and peyote are represented in Frightful Cave, Coahuila. Taylor's carefully controlled excavations might throw light on the temporal relationships of the two cults. Sayles (1935:142) reports that he found both mescal beans and peyote in Texas sites. No provenience data are given, but it is very likely that Sayles' specimens were obtained from the dry caves and shelters of southwestern Texas.

Thus there is evidence of mescal bean use in at least 12 prehistoric archaeological sites in southwestern Texas. This use is attributed to the Pecos River Focus and to the Edwards Plateau Aspect, contemporaneous cultures which are locally classified as Archaic (Suhm et al. 1954:228) and which survived until about A.D. 1000. The evidence consists of the frequent occurrence of mescal beans in midden debris in dry caves and rock shelters, the association of mescal beans with objects suggesting ritual use, and pictographs that show men using ceremonial paraphernalia similar to that used in the historic mescal bean cult of the Central and Southern Plains. Well within the range of the mescal bean plant, these sites are located at the southern terminus of the

Great Plains physiographic province, and the archeological evidence suggests that the mescal bean cult originated in this general area and diffused northward to various Plains Indian groups.

REFERENCES CITED

- BUTLER, CHARLES THOMPSON, JR.
1948 A West Texas rock shelter. Unpublished M. A. thesis, University of Texas, Austin.
- CAMPBELL, T. N.
1947 The Fields shelter: an archeological site in Edwards County, Texas. *The Texas Journal of Science* IX:7-25.
- DAVENPORT, J. WALKER
1938 Archeological exploration of Eagle Cave, Langtry, Texas. Witte Memorial Museum, Big Bend Basket Maker Papers 4.
- HOLDEN, W. C.
1937 Excavation of Murrah Cave. *Bulletin of the Texas Archeological and Paleontological Society* 9:48-73.
- HOWARD, JAMES H.
1957 The mescal bean cult of the Central and Southern Plains: an ancestor of the peyote cult? *American Anthropologist* 59:75-87.
- JACKSON, A. T.
1934 R. T. Craig site, Edwards County, Texas. Unpublished field notes, University of Texas, Austin.
1938a Picture-writing of the Texas Indians. University of Texas Publications, Anthropological Papers II.
1938b The Fall Creek sites. University of Texas Publications, Anthropological Papers III (1):11-117.
- KELLEY, J. CHARLES
1950 Atlatls, bows and arrows, pictographs, and the Pecos River Focus. *American Antiquity* 16:71-74.
- KIRKLAND, FORREST
1937 A study of Indian pictures in Texas. *Bulletin of the Texas Archeological and Paleontological Society* 9:89-119.
1938 A description of Texas pictographs. *Bulletin of the Texas Archeological and Paleontological Society* 10:11-39.
1939 Indian pictures in the dry shelters of Val Verde County, Texas. *Bulletin of the Texas Archeological and Paleontological Society* 11:47-76.
- LA BARRE, WESTON
1957 Mescalism and peyotism. *American Anthropologist* 59:708-711.
- MARTIN, GEORGE C.
1933 Archaeological explorations of the Shumla caves. Witte Memorial Museum Bulletin 3.
- PEARCE, J. E. AND A. T. JACKSON
1933 A prehistoric rock shelter in Val Verde County, Texas. University of Texas Publications, Anthropological Papers I(3).
- SAYLES, E. B.
1935 An archeological survey of Texas. Gila Pueblo, Medallion Papers XVII.
- SUHM, DEE ANN, ALEX D. KRIEGER, AND EDWARD B. JELKS
1954 An introductory handbook of Texas archeology. *Bulletin of the Texas Archaeological Society* 25:1-562.
- TAYLOR, WALTER R.
1956 Some implications of the Carbon-14 dates from a cave in Coahuila, Mexico. *Bulletin of the Texas Archeological Society* 27:215-234.

T. N. CAMPBELL, *The University of Texas*