JOURNAL OF THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION





TIERRA

Volume 9 Number 4 1982

LA TIERRA

Quarterly Journal of the Southern Texas Archaeological Association

Volume 9, Number 4	Jimmy L.		
October, 1982		Edit	or
THE SABINAL POINT (Jimmy L. Mitchell)		• • • • •	1
A PLAINVIEW POINT FROM COLEMAN COUNTY, CENTRAL TEXAS: OBSERVATIONS TYPOLOGICAL PROBLEMS (J. A. Jaquier)		••••	7
MARINE SHELL ARTIFACTS FROM SOUTHWEST BEXAR COUNTY (Richard L. McReynolds)		• • • • •	13
THE WOODEN BOW BURIAL SITE, FLOYD COUNTY, TEXAS (Wayne Parker)		• • • • •	17
REPORT OF TESTING AT THE WELLS ROCKSHELTER (41 RE 53): A MIDDLE AF IN REAL COUNTY, TEXAS (Bill Moore)			26
OBSERVATIONS ON DISCOLORATION IN GRAIN SORGHUM AND LAND SNAIL SHELI (Armando Vela)		••••	32
BURNED CLAY OBJECTS IN SOUTHERN TEXAS ARCHAEOLOGICAL SITES: A REEV (Herman A. Smith)		• • • • •	34
A BRIEF DESCRIPTION OF THREE ITEMS FROM THE ARTHUR BICKHAM COLLECTI (E. R. Mokry, Jr.)			37
AUTHORS		• • • • •	40
			_

Cover Illustration: Sabinal arrow points from Val Verde County, Texas.

Illustration by Richard McReynolds

Manuscripts for the journal should be sent to: Editor, *La Tierra*, Jim Mitchell, 926 Toepperwein Road, Converse, Texas 78109. Copies of past issues of the journal are available from the Editor, also. To order Special Pub. No. 2 (The Handbook), order from the Office, STAA, 123 East Crestline, San Antonio, Texas 78201.

For membership information, contact the Membership Chairman: Liz Smith, 1607 West Huisache, San Antonio, Texas 78201.

For use of the STAA Lending Library, contact Barney Haegelin (690-1997).

Library of Congress Catalog No. 76-649774.

All articles in $La\ Tierra$ are now summarized in $Abstracts\ in\ Anthropology$ published by the Baywood Press.

All contributions to this Non-Profit organization are tax deductible.

THE SABINAL POINT

Jimmy L. Mitchell

ABSTRACT

Hester (1971) defined the *Sabinal* point as a tentative new type based on its occurrence at the La Jita Site in Uvalde County. Since that time, additional specimens of the point have been reported. Sufficient specimens have now been recorded to warrant a discussion of its possible dating and distribution in South Texas.

INTRODUCTION

The La Jita Site (41 UV 21) in Sabinal Canyon in northeastern Uvalde County, Texas, was excavated in June and July of 1967. In his report of this investigation, Hester reported a total of 104 arrow points recovered including Fresno-like (triangular), Perdiz, Edwards, Scallorn, Cliffton and a "tentative new type," the Sabinal (Hester 1971:69). He described this point as a tentative "new local type" which had long, narrow triangular blades with the lateral edges being deeply convex to recurved. The point is barbed and the ends of the barbs are often bulbous. Barbs extend down to and even with the basal edge. Stems were described as expanding moderately and as having straight to slightly concave bases. Stems were produced by long, narrow basal notches (ibid.).

Hester noted that such points were present throughout the late occupation of the site. He also reported that similar points were seen in private artifact collections in the Utopia area of Uvalde County. Additional specimens were located in the collections of the Texas Archeological Research Laboratory (TARL) including a number from the J. W. Sparks Site in Real County and a single specimen from the Montell Rockshelter (ibid.).

ADDITIONAL SPECIMENS

In the years since the publication of the La Jita report, there have been several additional specimens of the <code>Sabinal</code> point recorded, although they are not always recognized as such. These reports included:

Mason Creek Site - Tom Beasley reported one Sabinal point from a site on Mason Creek in Bandera County (Beasley 1978: Table 1 and p. 30). The predominate point at this site was Edwards (77), followed by Scallorn (32), Triangular (Fresno?) (29), Intermediate points (Edwards-Scallorn) (16), and Young (8). Beasley concluded that the arrow points from the Mason Creek site indicated distinct cultural unit associated with Edwards points, a concept suggested earlier by Sollberger (1967). In a further analysis of Beasley's data, a difference in the average depth of Edwards and Scallorn points was demonstrated with Edwards being somewhat deeper than Scallorn Mitchell 1978: Table 2). No Perdiz were recovered from the site, which gives support to the idea of a discrete early Late Prehistoric component (Mitchell 1978:40). The difference in average depth between Edwards and Scallorn points implies the possibility of differing chronologies for the two types.

Anthon Site - 41 UV 60 was excavated in 1975 by the Texas Department of Highways and Public Transportation; the site is located on the Nueces River southwest of Uvalde, Texas (Weir and Doran 1980). Late Prehistoric levels of the site included Scallorn, Edwards, Perdiz, and "arrow point preforms" (ibid.:18). Their illustration of projectile points from the site includes one specimen which meets the general criteria for a Sabinal point (Weir and Doran 1980: Figure 3, top row, second from

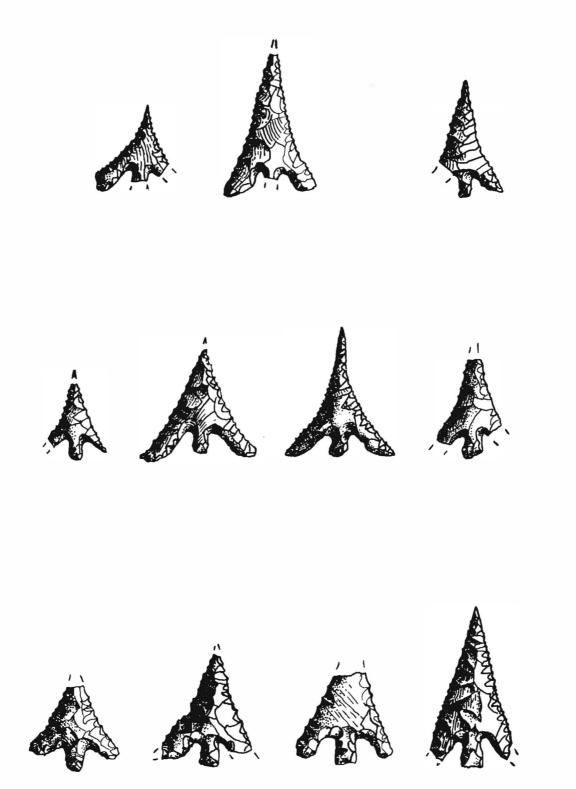


Figure 1. Sabinal Points from Val Verde County, Southwestern Texas; Richard McReynolds Collection. (Drawn to scale by Richard McReynolds.)

left). Over 100,000 items (artifacts and debitage) were recovered from the site ranging in age from 3520 B.P. (TX2422) to 680 B.P.; from the Round Rock Phase through the Late Prehistoric. No pottery was recovered. Two marine shell fragments were found which suggested contact with the Texas coastal area (Weir and Doran 1980:21).

<u>LaGrande Hollow</u> - Ed Mokry has reported recovering *Sabinal* points from sites in LaGrande Hollow in McMullen County. These sites are in the Nueces River drainage southwest of Tilden. Of some significance is the fact that no *Edwards* points were recovered from the sites (Mokry, personal communication 1979).

41 MC 222, Choke Canyon - Hall, Black, and Graves, in their report of the Phase I work at Choke Canyon Reservoir, illustrate a single specimen which appears to be a possible Sabinal point (Hall et al. 1982:Figure 63, 1-5-17). Specimen 17, Form 5, is described as the largest arrow point found in the Phase I investigations: it has a "triangular blade outline with concave blade edges. Very strong, deep barbs are formed by basal notches. The barb ends are on a line with the stem base. The short, narrow stem expands slightly to a straight base (Hall et al. 1982:296)." This description and the illustration of the specimen conform to Hester's definition of the Sabinal point type. This specimen is particularly important in that it was recovered from a level of 41 MC 222 which was dated by two radiocarbon samples as A.D. 1260 to 1290 (ibid.). No other stemmed arrow points were recovered from 41 MC 222 (ibid.: Table 7, 284-285). [Author's Note: In all fairness, I must report that Grant Hall does not concur with classifying this specimen as a Sabinal point (personal communication 1982); I invite readers to compare his illustration with Hester's original definition and examples of the type.]

Val Verde County - Richard McReynolds has recovered a number of arrow points in Val Verde County which appear to be Sabinal specimens (see Figure 1). These specimens exhibit a considerable range of characteristics although all appear to fall within Hester's definition of the type. Some of the stems seem to be straight or slightly contracting, yet the basal notching and very bulbous barbs are very characteristic of the type. One specimen (Figure 1, center row, left) might appear to be a Perdiz with a broken stem; however, McReynolds reports that close examination reveals that the stem was finished in this form. The broken left barb is suggestive of a bulbous end. Overall, this Val Verde group of specimens is important, both in further documenting the type and in extending its known distribution.

DISTRIBUTION

The Sabinal point type appears to be a localized form centered in Uvalde and Real Counties, in the upper reaches of the Sabinal and Nueces River drainages (see Figure 2). The distribution extends westward into Val Verde County, east into Bandera County, and southeast into McMullen County (Nueces and Frio drainages). Examination of reports on Kerr County (Beadles 1971, Sollberger 1978, Skinner 1979a, 1979b, 1979c), Medina County (Graves and Highley 1978), and Bexar County (various), revealed Edwards, Scallorn, Perdiz, and triangular arrow points in considerable numbers but no evidence of Sabinal points. While not definitive, such negative evidence provides considerable support for Hester's hypothesis of a local type. The only evidence which suggests an extended distribution are the specimens from McMullen County (LaGrande Hollow and 41 MC 222). Yet these might be explained by trade contacts with the coastal area, as suggested by Weir and Doran (1980).

This distribution overlaps with Edwards points but appears to be restricted to the western periphery of the Edwards area, and slightly beyond. No Edwards specimens have been reported from Val Verde County to date.

To examine this question further, illustrations of the arrow points from the J. W. Sparks Site in Real County were examined (courtesy of Carolyn Spock, TARL); Sabinal and Scallorn arrow points were evident in the collection, but Edwards were completely lacking. Thus, while the distribution of the two types overlaps, the Sabinal distribution is much more restricted, and appears to be localized primarily in Uvalde, Real, Bandera, and Val Verde Counties (with some extension into McMullen County). The lack of specimens from Kinney and Edwards Counties is not surprising given the general paucity of archaeological reports from these two counties.

DATING

Radiocarbon dates associated with the <code>Sabinal</code> point type are available from several sites. At La Jita, <code>Sabinal</code> and triangular arrow points were recovered from Level 3, N25/E40 along with a carbon sample which dated 810 and 800 B.P. (TX 684a and b): these dates equate to A.D. 1150 and 1140 (Hester 1971:114). At the Anthon Site, both <code>Edwards</code> and <code>Sabinal</code> points were recovered from the Late Prehistoric levels which dated 800 and 830 B.P. (TX2443 and TX2838) or A.D. 1150 and 1120 (Weir and Doran 1980), which are very consistent with the La Jita dates. Dates from 41 MC 222 were 700 and 710 B.P. (TX2875 and 2876) or A.D. 1240 and 1250 (Hall, et al. 1982), a century or more later than the Uvalde County dates.

If all of these <code>Sabinal</code> dates are averaged, they give a mean date of A.D. 1175, with a range of A.D. 1120 to 1250. A comparable average for the <code>Edwards</code> point is A.D. 1044 with a range of A.D. 930 to 1150 (La Jita, 41 BX 36, 41 BX 377, and Anthon). Thus the <code>Sabinal</code> appears to be generally later than <code>Edwards</code> although obviously the two types have considerable overlap in time and space (in <code>Uvalde County: La Jita</code> and Anthon). Even at La Jita, however, the data (<code>TX684a</code> and b versus three <code>Edwards</code> dates of A.D. 930, 960, and 1040) suggests that <code>Sabinal</code> is somewhat later.

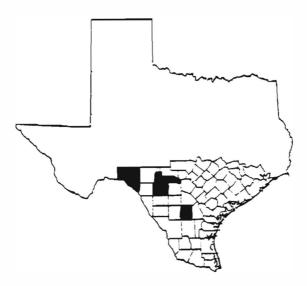


Figure 2. Distribution of Sabinal Points in South and Southwest Texas (darkened area).

DISCUSSION

This summary of more recent information about the *Sabinal* arrow point seems to confirm Hester's 1971 hypothesis of a new local type. The type dates between A.D. 1120 and 1250, and occurs primarily in Uvalde, Real, Bandera and Val Verde Counties of southwest Texas. It is also reported from two sites in the Three Rivers area of McMullen County, near the confluence of the Nueces, Frio, and Atascosa Rivers. Its appearance in the Three Rivers area could be the result of direct or indirect trade as suggested by Weir and Doran (1980); both ethnohistoric (Campbell and Campbell 1981) and archaeological (Hall et al. 1982) evidence have established a good case for the Three Rivers area as a contact (trade) area for inland and coastal groups. An alternate hypothesis, based on the relatively later dates at 41 MC 222, might be that the band or bands involved migrated from the upper reaches of the Sabinal and Nueces Rivers downstream to the Three Rivers area sometime between A.D. 1150 and A.D. 1240 because of some climatic change (cf. Gunn, et al. 1982), for trade, or for some other, as yet unidentified, cause.

ACKNOWLEDGMENTS

My thanks to Carolyn Spock of the Texas Archeological Research Laboratory for making illustrations of the Sparks Site specimens available for study. Very special thanks to Richard McReynolds for reporting new specimens from Val Verde County and for providing such excellent drawings of his points.

References

Beadles, Murray

1971 Interim Report, Bamel Site (41 KR 10). The Arti-facts, Hill Country Archeological Society, 2(2):3-6.

Beasley, Tom S.

1978 A Site With Edwards Points in Bandera County, Texas. La Tierra 5(4): 23-31.

Campbell, T. N., and T. J. Campbell

1981 Historic Indian Groups of the Choke Canyon Reservoir and Surrounding Area, Southern Texas. The University of Texas at San Antonio, Center For Archaeological Research, Choke Canyon Series: Vol. 1.

Graves, Carol, and Lynn Highley

1978 41 ME 7: A Cave Site in Medina County, Texas. La Tierra 5(2):10-19.

Gunn, Joel, Thomas R. Hester, Richard Jones, Ralph L. Robinson, and Royce A. Mahula 1982 Climatic Change in Southern Texas. Appendix VII in Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I Findings, by Grant D. Hall, Stephen L. Black, and Carol Graves. The University of Texas at San Antonio, Center for Archaeological Research, Choke Canyon Series: Vol. 5.

Hall, Grant D., Stephen L. Black, and Carol Graves

1982 Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I Findings. The University of Texas at San Antonio, Center For Archaeological Research, Choke Canyon Series, Vol. 5.

Hester, Thomas R.

1971 Archeological Investigations at the La Jita Site, Uvalde County, Texas. Bulletin of the Texas Archeological Society 42:51-138.

Mitchell, Jimmy L.

1978 The Turtle Creek Phase: An Initial Late Prehistoric Component in Southern Texas. La Tierra 5(4):32-43.

Skinner, S. Alan

1979a The Bushwhack Shelter (X41 KR 116), Kerr County, Texas. La Tierra 6(2):3-12.

1979b The Real Site (X41 KR 166), Kerr County, Texas. La Tierra 6(3):26-31.

1979c The Paris Site (X41 KR 1), Kerr County, Texas. La Tierra 6(4):3-15.

Sollberger, J. R.

1967 A New Type of Arrow Point with Speculations as to its Origin. *The Record*, Dallas Archeological Society, 23(3).

1978 A Prehistoric Rockshelter in Kerr County, Texas. La Tierra 5(4).

Weir, Frank A., and Glen H. Doran 1980 A Brief Report on the Anthon Site (41 UV 60). La Tierra 7(3):17-23.



A SERIES ADAPTED FROM TEXAS INDIAN ROCK ART

NEEDLEPOINT KITS INCLUDE:

- * FULL COLOR SILK SCREENED CANVAS
- QUALITY PERSIAN WOOL YARN
- * HISTORIC BACKGROUND

TO RECEIVE YOUR <u>FREE</u> ILLUSTRATED BROCHURE OF OUR NEEDLEPOINT KITS, WRITE OR CALL PREWITT AND ASSOCIATES, INC., 7530 North LAMAR, SUITE 200, AUSTIN, TEXAS 78752, (512) 459-3349.

A *PLAINVIEW* POINT FROM COLEMAN COUNTY, CENTRAL TEXAS: OBSERVATIONS ON TYPOLOGICAL PROBLEMS

J. A. Jaquier

ABSTRACT

This paper describes a Paleo-Indian projectile point of the *Plainview* tradition found in Coleman County, Central Texas. The intent of this article is to share distributional information and further typological comparative studies, particularly at this time when *Plainview*, *Golondrina*, and other lanceolate forms of projectile points are undergoing a rigorous scrutiny and typological review in Texas. A cursory synopsis of *Plainview* distribution within Texas, dating hypotheses, and reported characteristics of this point style are provided.

INTRODUCTION

The specimen was found by Mr. and Mrs. T. H. Smart of San Angelo, Texas, as it protruded from a creek bank feeding Pecan Bayou northwest of the town of Burkett in northeast Coleman County (Figure 1). Several other projectile points attributable to the Archaic Stage were also collected by the couple along the banks of the creek in the same general area. Unfortunately, a thorough surface survey and recording of this site has not as yet been possible.

DESCRIPTION

The specimen is a large lanceolate point (Figure 2) fashioned from a finegrained, light brown, opaque chert. The flake scars on the surface of the point have a smooth, waxy feel and appearance with no evidence of cortex or patination. The lateral edges are without intentional retouch and lack signs of crushing or polishing, at least from a macroscopic level of examination. An excellent knapping technique is demonstrated by perfect symmetry and long, shallow flake scars on both faces which sometimes extend obliquely across the point in an irregularly parallel manner. The careful flaking has created a barely perceptible median ridge on both surfaces and gives the point a very thin, lenticular cross-section. The specimen is widest near mid-point and the slightly contracting proximal half displays heavy basal grinding with light dulling on the lateral edges. One surface of the base has been thinned by removal of at least four short (6-11 mm) elongated flakes parallel to the longitudinal axis with the longest flake ending in a small hinge fracture. Thinning on the opposite surface of the base (illustrated in Figure 2) was accomplished by removal of numerous very short (2 mm) trimming flakes which ride up into a long, horizontal prior flake scar. The irregularly parallel flake scars extend obliquely from upper right to lower left in the majority of instances on the illustrated surface while the scars are more random and horizontal on the opposite surface. Most of the flake scars on both surfaces of the projectile point are heavily rippled from initial fracture point to flake termination. Attributes are as follows:

Length: 79 mm Maximum width: 23 mm

Location of max. width: 40 mm (from base)

Maximum thickness: 6 mm

Location of max. thickness: 39-51 mm (from base)
Basal width: 20 mm (estimated)

Edge dulling: 30 (estimated) and 31 mm (from base)

Weight: 12.1 grams
Basal concavity: less than 1 mm



Figure 1. Location of Coleman County (darkened area) and Prewitt's Central Texas Archaeological Region (outlined area).

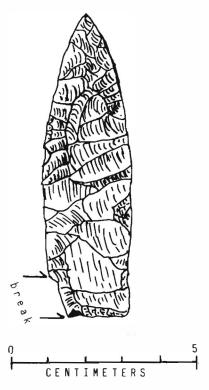


Figure 2. Late Paleo-Indian projectile point of Plainview tradition from northeast Coleman County, Central Texas.

DISCUSSION

The *Plainview* style is considered to be a Late Paleo-Indian projectile point of the South Plains tradition (Johnson and Holliday 1980:102) possibly extending into northeast Mexico (Epstein 1969:27; see also comments by Kelly 1982b). This particular specimen's discovery approximately 25 miles northwest of Brownwood places the find slightly north of Prewitt's (1981:72) proposed Central Texas Archeological Region (see Figure 2). Though numerous finds characterized as *Plainview* points have been reported in Texas (see Hester 1980 for distribution, or volumes of *La Tierra* 1974-1982), major *Plainview* excavations are somewhat limited. To name but a few, the type site of *Plainview* (Sellards, et al. 1947), Bonfire Shelter (Dibble and Lorrain 1968), and Lubbock Lake (Johnson and Holliday 1980) represent careful excavation of bison kill sites, while St. Mary's Hall (Hester 1979, 1980) is one of few known occupation sites.

Johnson and Holliday (1980:104) date the *Plainview* tradition as no older than 10,000 B.P. (8300 B.C.); however, they are unable to place an upper limit on the tradition. Since stratigraphic sequential data for St. Mary's Hall (Hester 1979) and other sites tend to place *Golondrina* projectile points subsequent to *Plainview*, an approximate upper limit may be postulated, disallowing for an overlap caused by coincidental use. Prewitt (1981:77) begins his Circleville Phase of the Early Archaic Stage with the *Golondrina* point as a diagnostic marker ca. 8550 B.P. (6550 B.C.), a date which is somewhat later than several radiocarbon dates associated with the same point style from Baker Cave (Hester 1979, 1980:139). An upper limit ca. 9000 B.P. (7000 B.C.) would therefore be feasible and a temporal span of 1,300 years for the *Plainview* tradition may be tentatively envisioned. It must be remembered that minor changes in the manufacture of this point style can be attributed to differences in time and space and any critical analysis must be sensitive to this fact.

Johnson and Holliday (1980:106) report the resharpening of Lubbock Lake *Plainview* projectile points and attendant use-wear when reused as butchering tools. The specimen in this report shows no indication of resharpening or crushed or polished lateral edges, hence its use as other than a weapon seems unlikely. While the vitreous, "greasy" look and feel of this point may be indicative of thermal alteration of the basic flake during initial manufacture to increase the chert's knapping qualities, Patterson (1979:12) notes that "Some flints have a natural waxy luster, so that this attribute is not always a reliable guide by itself...". Closely spaced, cascading ripples in the waxy flake scars do, however, tend to bolster the case for heat-treatment applied to the raw flake prior to initial shaping (ibid.). That heat-treating of lithic material occurred even as early as Paleo-Indian times has been documented by Hester and Collins (1974:222).

Irwin-Williams et al. (1973) draw attention to the tendency to confuse generalized concave-based lanceolate points with *Plainview* and Hester (1975:5:note) echoes this by writing, "The term *Plainview* has been widely applied to a variety of Late Paleo-Indian points in Texas." Certainly, the confusion has not been ameliorated by Irwin and Wormington's (1970:25) early report on the Hell Gap site in Wyoming in which the stratigraphic sequence was listed as "*Plainview*, *Folsom*, *Midland*, *Agate Basin*, *Hell Gap*, *Alberta*, *Cody*, and *Frederick*" based upon the associated projectile point traditions. *Plainview* and *Alberta* styles were neither illustrated nor described due to insufficient numbers of these artifacts to provide quantitative data. *Frederick*, however, is illustrated and described as:

Points with convex sides and slightly to markedly concave bases. Length: range 7.5 to 10 cm; average 9 cm. Narrow parallel flake scars run obliquely from upper left to lower right. Bases are thinned by the removal of small longitudinal flakes (Irwin and Wormington 1970:25).

This description sounds remarkably like a *Plainview* point in many respects and, in fact, so do the type descriptions of several other Paleo-Indian projectile points in other publications.

Recent continuing efforts by Tom Kelly (1976, 1982a, 1982b) to resolve the confusion surrounding lanceolate projectile point typology is certainly germane to the problem, and he urgently requires our help to provide specimens for computerassisted analysis. While the projectile point described in this article does grade out (70%) to be a Plainview point using Kelly's "Form for Classification of Plainview and Golondrina Points," several anomalies are readily apparent. The point is five mm over the maximum length suggested, has a base which contracts three mm over the proximal half, possesses two different flaking and two different basal thinning techniques, and has an extremely small (less than one mm) basal concavity. I suspect that the Frederick point discovered in Ochiltree County in the Texas Panhandle (Mitchell and Fleming 1977) would also easily grade out to be a Plainview (and, in fact, the authors point out on page 7 that this specimen would probably be called Plainview in most of Texas). It should be noted, however, that the alleged Frederick point from the Panhandle exactly matches the illustration of the same point style from Hell Gap (Irwin and Wormington 1970:25: Figure 1h) down to the last details of flaking technique, one-edged basal contraction, and a basal concavity which is therefore skewed to one side. The salient fact is that, above and beyond mere measurements of distances and angles, we must provide the analyst with the most minute, detailed description of each lanceolate point if we are to end the confusion and provide reliable attributes which will concretely assist in typing of the points.

SUMMARY

Despite the confusion in the literature over Late Paleo-Indian projectile point typology, this specimen from Central Texas has been typed as being of the Plainview tradition. Data soon to be available from Paleo-Indian sites now under excavation will hopefully provide both relative and absolute dating for many of the lanceolate mutations now extant. Clearly, "...it is vital that information on Plainview and Golondrina points continue to be made available." (Valdez et al. 1981:37). In fact, all lanceolate projectile points with a definite Paleo-Indian or later transitional association should be incorporated into an expanded data base through redesign of Kelly's form based upon additional weighted factors. Completed copies of such a redesigned form, along with amplifying comments, would serve as the vehicle for data collection on a wide geographical basis when forwarded to Thomas Kelly at the Center for Archaeological Research, The University of Texas at San Antonio, San Antonio, Texas 78285. Whether you would classify an artifact as Plainview, Golondrina, Angostura, Meserve, Midland, Milnesand, Frederick, or any other appelation, a rigorous computer-assisted typological analysis may go a long way toward solving the interwoven questions of style, distribution, and temporal span for a plethora of lanceolate variations.

ACKNOWLEDGMENTS

Special thanks to Tom Hester and Jim Mitchell; their timely review and helpful comments helped make the manuscript more explicit and concise. Thanks also to Tom Kelly for his extensive and continuing efforts toward the solution of an extremely complex and long-standing problem in projectile point classification.

References

- Dibble, D. W. and D. Lorrain
 - Bonfire Shelter: A Stratified Bison Kill Site, Val Verde County, Texas. Texas Memorial Museum, Miscellaneous Papers No. 1. Austin.
- Epstein, J. F.
 - 1969 The San Isidro Site: An Early Man Campsite in Nuevo Leon, Mexico.

 The University of Texas at Austin, Anthropology Series No. 7.
- Hester, Thomas R.
 - 1975 A Chronological Overview of Prehistoric Southern and South-Central Texas. Paper presented "The Prehistory of Northeastern Mexico and Texas" Conference, Monterrey, Mexico, April 23-26.
 - 1979 Early Populations in Prehistoric Texas. Archaeology 32(6):26-33.
 - 1980 Digging Into South Texas Prehistory. Corona Publishing Company, San Antonio, Texas.
- Hester, Thomas R. and Michael B. Collins
 - 1974 Evidence for Heat Treating of Southern Texas Projectile Points. Bulletin of the Texas Archeological Society 45:219-224.
- Irwin, Henry T. and H. M. Wormington 1970 Paleo-Indian Tool Types in the Great Plains. American Antiquity 35(1):24-34.
- Irwin-Williams, Cynthia, H. Irwin, G. A. Agogino, and C. V. Haynes
 1973 Hell Gap: Paleo-Indian Occupation on the High Plains. Plains
 Anthropologist 18(59):54-72.
- Johnson, Eileen and Vance T. Holliday
 1980 A *Plainview* Kill/Butchering Locale on the Llano Estacado the
 Lubbock Lake Site. *Plains Anthropologist* 25(88):89-111.
- Kelly, Thomas C.
 - 1976 Resolution of the *Plainview-Golondrina* Problem. Paper presented to the Southern Texas Archaeological Association, April. Unpublished manuscript on file, Center for Archaeological Research, The University of Texas at San Antonio.
 - 1982a Request for Suggestions on Criteria for Classification of *Plainview* and *Golondrina* Projectile Points. *Texas Archeology*, *Newsletter of* the *Texas Archeological Society* 26(4):5-10.
 - 1982b Criteria for Classification of *Plainview* and *Golondrina* Projectile Points. *La Tierra* 9(3):2-25.
- Mitchell, J. L. and Robert Fleming
 - 1977 Two Late Paleo-Indian Artifacts from Ochiltree County, Texas. Texas Archeology, Newsletter of the Texas Archeological Society 21(2):6-10.
- Patterson, L. W.
 1979 Experimental Heat-Treating of Flint. La Tierra 6(1):11-13.

Prewitt, Elton R.

1981 Cultural Chronology in Central Texas. Bulletin of the Texas Archeological Society 52:65-89.

Sellards, E. H., Glen L. Evans and Grayson E. Meade

1947 Fossil Bison and Associated Artifacts from Plainview, Texas.

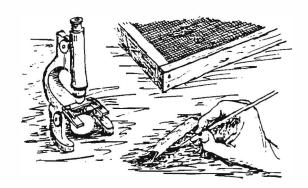
Bulletin of the Geological Society of America 58:927-954.

Valdez, Fred, Jr., Joy White and L. D. White

1981 Three Point Fragments of the Late Paleo-Indian Period from LaSalle County, Southern Texas. La Tierra 8(4):35-38.

FIELD AND LABORATORY HANDBOOK

ROGER H. HEMION



SPECIAL PUBLICATION NO. 2 SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

1983

NOW AVAILABLE

MARINE SHELL ARTIFACTS FROM SOUTHWEST BEXAR COUNTY

Richard L. McReynolds

INTRODUCTION

My brother Ben and I began surface hunting a site in southwest Bexar County in 1977. A portion of the area had been newly plowed exposing an abundance of lithic materials. We have continued to survey the site as new areas were cleared and recently found two saltwater shell artifacts. These artifacts in conjunction with the lithics seem to make the site worthy of documenting.

SITE

Live Oak Creek (a popular name) is spring fed and produces enough water for irrigation of the commercial nursery on whose property the site is located. This creek drains into Elm Creek which then empties into the Medina River near Applewhite Crossing (see Figure 1). The site lies along a low sloping ridge between the outside curve of Live Oak Creek and another small tributary. Soil changes occur between the lower and upper zones of the ridge in that the lower portion is predominately a stream-deposited loess and clay mixture. The upper zone is composed of a rust-colored sand and clay mixture. There seems to be no difference in lithic distribution over the two zones. The area immediately adjacent to the creek continues to experience change from occasional high water action and erosion.

Several medium-sized midden areas are discernable, more from soil and ash discoloration than an abundance of burned rock. What burned rock that is present is a mixture of limestone, quartzite, and flint. Only two identifiable dart points, both Darl-like, have been recovered from midden areas. Flint cores, flakes, and mussel shell fragments are slightly more numerous in these areas than on the ridge in general.

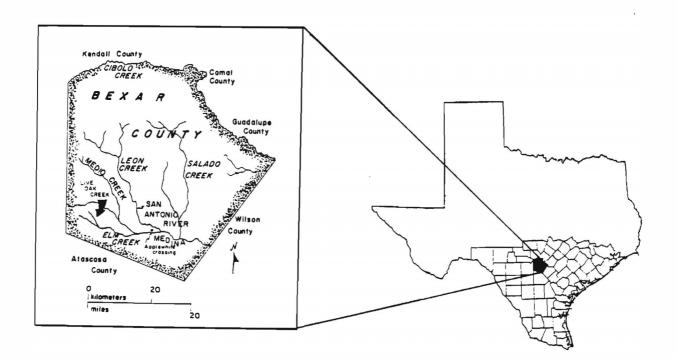


Figure 1. Map of Bexar County showing location of Live Oak Creek. (Drawn by A. J. McGraw.)

LITHICS

Early, middle and late phases of the Archaic are represented, through the transitional period and into the neo-American (or Late Prehistoric) stage. The Archaic time period as a whole is best represented by the *Pedermales* point type with 14 identifiable examples (Figure 2G,H). Other types are represented to lesser degrees as follows:

Contracting stem lanceolate	3	Marcos	2
Darl-like	3	Marshall	2
Edgewood	2	Montell	1
Ensor	4	<i>Pandale-</i> like	1
Frio	4	Pedermale s	14
Langtry	2	Tortugas	1
Lange	1	Travis	1

The Late Prehistoric, or neo-American, stage is dominated by the *Edwards* type, which probably is a transitional point. Some of the better examples of arrow point types from the site are shown as Figure 21,J,K,L. A breakdown from the site follows:

Edwards	13
Scallom	8
Perdiz	5
Clifton	1

SHELL ARTIFACTS

The columella artifact shown as Figure ²A,B,C,D, is broken, but this provides insight as it clearly gives an interior view of the perforation. The artifact is tubular in shape and has been completely drilled through its long axis. This was accomplished by drilling half-way through from each end. The holes were slightly off center at their junction and overlap 5 mm. The drilling instrument was pointed and evidently of a length and fineness to reach a depth of 34 mm while expanding the hole at the end to a width of only 5.5 mm. The end (Figure 2D) retains enough ground area to determine it as the terminal point of the completed artifact, therefore we can reasonably hypothesize an original length of 63 mm. Breakage occurred sometime after completion or near completion but is definitely not recent. The entire piece appears to have been affected by acidic ground leaching and retains no polish. Measurements are as follows:

Length (incomplete)	52	mm	
Maximum width center	13	mm	
Maximum width end	10	mm	
Weight	10	.25	g

The shell pendant shown as Figure 2E,F, is oval in shape. One face is convex and the other concave. Maximum thickness at one side is 2.5 mm and the opposite side is 1.5 mm. Maximum width is 47.5 mm and maximum length is 53 mm. The pendant originally had two parallel suspension holes at the top edge 10 mm apart. The area at the top of suspension holes fractured, was then smoothed off and a single suspension hole was drilled between and slightly below the original two holes. This hole is slightly pear-shaped from suspension wear. The maximum hole width is 3 mm and maximum length 5 mm. In addition to the suspension hole, the artifact has a drilled hole at its center which shows no wear distortion and is circular in shape. Diameter of this hole is 5 mm. Light cross-hatching can be seen on the convex face of the

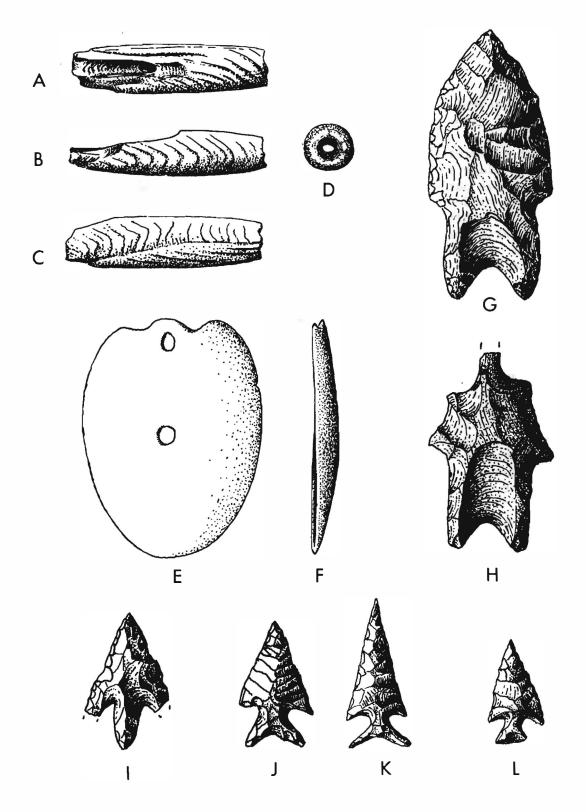


Figure 2. Artifacts from Southwest Bexar County. A,B,C,D, top, side, bottom and end view of columella; E,F, convex face and side view of pendant; G, Pedernales point; H, reworked Pedernales point (red quartzite); I, Perdiz arrow point; J,K, Edwards arrow points; L, Scallorn arrow point. (Drawings to scale).

pendant, which appear to be growth lines of the shell but may be partially due to smoothing methods. Smoothing extends over the entire pendant but is evident to a greater detree on the concave face. Here again, we speculate that soil acids may have played a part in its present condition.

DISCUSSION

The lithic and shell artifacts discussed in this report are surface finds; they were brought to the surface through plowing activities. Most of the unbroken examples of lithics have been exposed after initial plowing of a virgin area. Archaic lithics seem to be more plentiful in the upper rusty soil areas, while the Late Prehistoric are pretty much generalized. Both shell artifacts are from the crest area of the ridge and were exposed, after deeper than usual plowing activities. The shell pendant was partially exposed by rain and still embedded in a large (mainly clay) clod, near a midden area. The columella artifact was similarly exposed during the same plowing at a distance of approximately 100 feet from the pendant. Previous to finding the shell, small fragmentary pieces of bone were periodically noted in the general area. All were in a poor state of preservation and unrecognizable to the untrained eye as to species. None have been noted on subsequent visits to the site.

Gregory Perino and Grant D. Hall have identified both shell specimens as having been fashioned from Horse Conch. A conch columella artifact from Bexar County was previously reported by John W. Greer (1977) which is very similar in shape to Figure 2A,B,C.D. The major difference is the method of perforating the columella for suspension or use. Marine shell was evidently a trade item from the Gulf Coast and may have entered Bexar County as a finished item or as raw material (Hester 1980). The Brownsville complex was evidently engaged in widespread trading of shell, the evidence of which sometimes turns up in central and south Texas burial sites.* Sporadic burials in midden sites appear on the Medina headwaters and other sites in southern Texas (Hudgeons and Hester 1977; Hester 1980); however, no concentrated burials have yet been found on its lower banks. We believe that the best part of the subject site is at present undisturbed and could be an interesting test area before nursery expansion destroys it.

* For an interesting synopsis of burial associations in Central Texas, see Table 4 of Elton Prewitt's Loeve-Fox site report (Prewitt 1974).

References

Greer, John W.

1977 A Columella Bead from the San Antonio Area of South Central Texas. $La\ Tierra\ 4(2)$.

Hester, Thomas R.

1980 Digging Into South Texas Prehistory. Corona Publishing Company, San Antonio.

Hudgeons, M. D. and Thomas R. Hester

1977 An Aboriginal Burial at the Dunn Site, DeWitt County, Southern Texas. La Tierra 4(3).

Prewitt, Elton R.

1974 Archeological Investigations at the Loeve-Fox Site, Williamson County,
Texas. Texas Archeological Survey, The University of Texas at Austin,
Research Report 49. Reprinted, 1982, by Prewitt and Associates, Inc.
Austin.

THE WOODEN BOW BURIAL SITE, FLOYD COUNTY, TEXAS

Wayne Parker

ABSTRACT

This article reports the discovery of a late prehistoric Indian burial down in Blanco Canyon in southern Floyd County, Texas. Investigations of this find, known as "The Wooden Bow Burial," produced artifactual material including an elbow pipe, matching shaft smoothers, a bone awl, a Washita point, and a complete wooden bow. Descriptions of these artifacts are presented.

This significant cave burial site may be rare because of its relatively early date. Most cave shelter sites in this area are from the historic stage and not the late prehistoric period. Although the burial and artifacts had been removed from their original context, enough information about the site was obtained to be of considerable value.

Future research with a better artifact analysis is recommended. Dating on the basis of artifact content, the burial appeared to have been from sometime in the period of 1400 to 1600 A.D.

INTRODUCTION

Perhaps one of the most significant archaeological discoveries in Blanco Canyon occurred in August, 1981. Jimmy Owens and Bill Day discovered a small shelter cave with an Indian burial associated with artifactual material. The isolated cave niche contained an Indian skeleton with an abundance of burial artifacts including a complete wooden bow. The site has been named "The Wooden Bow Burial" to commemorate their discovery. Other artifacts associated with the burial were an elbow pipe, bone awl, two matching shaft smoothers and a single <code>Washita</code> arrow point.

The exact location of "The Wooden Bow Burial Site" will not be discussed at this time. However, it is located in Blanco Canyon, in southern Floyd County, Texas (see Figure 1).

The importance of a burial with such a variety of artifacts along with the wooden bow must certainly be significant. Only a few museums in the United States are ever blessed with even fragments of a prehistoric wooden bow. The Blanco Canyon burial site may well be described as a rare and unique discovery.

THE BURIAL SITE

The burial site was in a secluded area and was concealed by several agarita shrubs and a large juniper tree which covers the entrance to the small cave shelter (see Figure 2).

The cave shelter is situated in a small notch in the Canyon rim about ten feet below the surface of the Llano Estacado. The mouth of the cave is five feet wide and about three feet high. The maximum depth is about eight feet deep. The fill of the cave contained reddish-brown blow sand with many small caliche pebbles. The top part of the surface contained rodent bones and nest material which is common in most cave shelters throughout Blanco Canyon.

Day and Owens noticed several bones exposed in the cave and knew they had discovered a cave burial. The skeleton material showed evidence of being disturbed at an earlier date, perhaps soon after entombment. They recognized the considerable potential of their find and screened the fill dirt with care.

THE DISTURBED SKELETON

Both the arms and legs were missing from the "Wooden Bow Burial." The bones which were still in place were scattered to some extent. Despite the scattering of



Figure 1. Texas map showing Floyd County (darkened area).

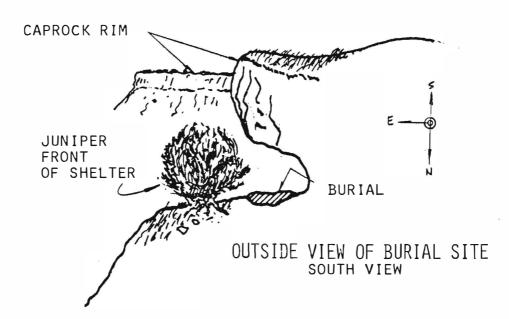


Figure 2. Schematic view of the Wooden Bow Burial Site (not to scale), Southern Floyd County, Texas, showing the general relationship of the site to the Caprock Rim. Drawing Courtesy of Rick Walters.

the remaining bones, some observations concerning the orientation and placement of the body can be made (see Figure 3). The head was placed toward the north, with the body resting on its back, and the head facing toward the mouth of the cave shelter. It is known that lobo wolves lived in Blanco Canyon during early historic times, and they or other animals probably dug out the burial soon after entombment. Many cave burials in this region of Texas have been disturbed by such varmints; in this case, they probably extracted the arms and legs from the burial.

THE ARTIFACTS

A wooden bow, probably made from Bois d'Arc or Osage-orange, was found parallel to the skeleton. The bow is four feet nine inches long (see Figure 4a). It has two string notches cut at each end, which are 3 mm deep (see Figure 4b). The bow also has a groove cut from one end to the other end from 5 to 6 mm wide and approximately

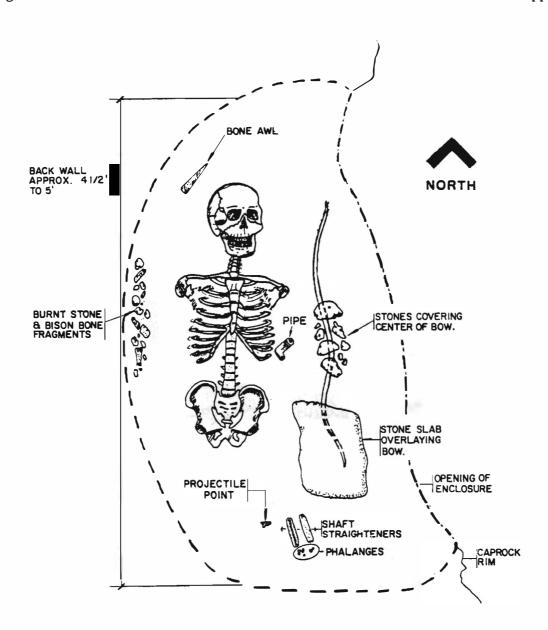
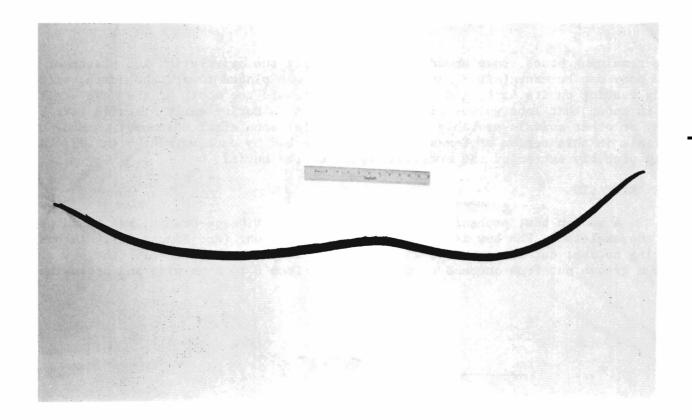


Figure 3. Reconstruction of the Wooden Bow Burial, Floyd County, Texas, showing the general relationships of burial materials. Note that the legs were probably flexed, or at least semiflexed, since Phalanges were associated with the shaft straighteners. Illustration courtesy of Rick Walter.



a



Figure 4. Photograph of the Wooden Bow recovered from a site in Floyd County, Texas. a, Bow, showing overall length of 4 ft. 9 in.; b, Detail of one end of the bow showing stringing notches. (Photos courtesy of the author.)

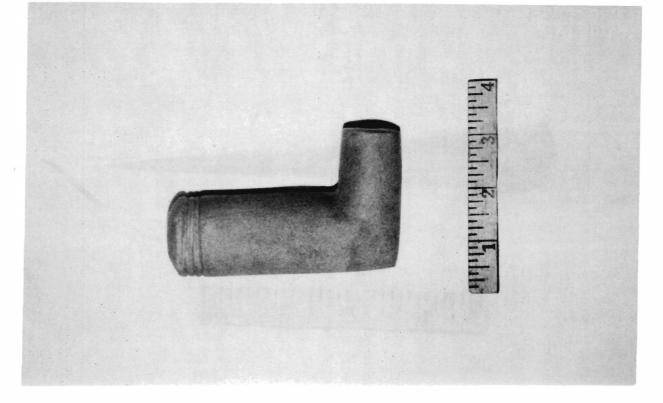


Figure 5. Pinkish-red Stone Elbow Pipe recovered from a burial site in Floyd County, Texas. The stone is not catlinite but is a material common in Oklahoma. (Photo courtesy of the author.)



Figure 6. Two Sandstone Shaft-Smoothers recovered from a burial in Floyd County, Texas. Recovery of a matching pair of such artifacts is unusual. (Photo courtesy of the author.)



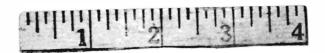


Figure 7. Bone Awl recovered from a burial in Floyd County, Texas. (Photo courtesy of the author.)



Figure 8. Washita arrow point recovered from a burial in Floyd County, Texas. (Photo courtesy of the author.)

l mm deep. The groove was probably placed there for a rawhide or sinew support for reinforcement. The bow has a round shape in cross section. The circumference measurements are 2 7/8 inches, except near the notched ends where the measurements are 1 1/8 inches in circumference. The dark brown colored bow is in extremely good physical shape.

A pinkish red elbow pipe (see Figure 5) was uncovered between the bow and near the ribs of the skeleton. The stone pipe was not made from catlinite, but from a stone material common to Oklahoma, as suggested by James Word, who helped identify the burial artifacts. The exact type of stone has not been classified at the time of this writing. The elbow pipe is 10.9 cm by 6.6 cm in length. The top bowl is 4 cm and the stem bowl is 3 cm in diameter. The stem hole is 1 cm and the top bowl hole is 2 cm in diameter. The top bowl hole has a black discoloration, probably from being smoked. Three engraved grooved circles were fashioned near the top of bowl where the tobacco was placed. Greg Perino from the Museum of the Red River stated that the pipe should help identify the age of the "Wooden Bow Burial." It is hoped that at a later date the material from this site can have a better analysis run on it by professionals.

Two matching shaft smoothers (see Figure 6) were recovered near the south end of the burial near where the missing feet should have been. Several phalanges were uncovered near the shaft smoothers. Both of the shaft stones were made from a coarsegrained sandstone. Both tools have a longitudinal groove cut from one end to the other. The matching pair of shaft smoothers will be designated arbitrarily as No. 1 and No. 2. The No. 1 tool is 17.3 cm long, 4.2 cm wide, 3.1 cm thick with a shaft groove of 4 mm deep. The No. 2 tool is 17.4 cm long, 3.8 cm wide, 3.1 cm thick with a shaft groove of 1.6 mm deep. These two tools are extraordinary, being recovered as a pair, just the way they must have been used. It is common to only find one of these smoothers on most occupation sites in the region.

One complete bone awl (see Figure 7) was found near the skull at the north end. The highly polished awl was 16 cm long.

A single two-notch Washita arrow point (see Figure 8) was found under the shaft smoothers near the south end of the burial. The point is 2.3 cm long and 1.5 cm wide at the base end. The projectile point has been burned and was resharpened to some extent on the pointed end. The Washita point was fashioned from Edwards Plateau flint which was gray in color.

A hearth containing fire-cracked rocks and large animal bones (probably bison) was found on the west side of the Indian skeleton. It is not known whether this fire hearth was utilized before, after, or during the burial. It was reported from the Cogdell Burial Site (a Historic Burial) that a small fire was built on top of the mound of rocks over the body (Word and Fox 1975:5).

Several large caliche rocks varying from 10 to 30 cm in maximum diameter were scattered throughout the burial debris. They were undoubtedly placed over the body at the time of entombment to form a cairn. A thin, flat sandstone slab was placed over the wooden bow on the south end with several small caliche stones on top of the bow near the center. These scattered caliche rocks and the missing arms and legs from the skeleton suggest that articulated portions of the body were dragged from the shelter by animals. This disturbance must have occurred soon after entombment while enough tissue remained to hold sections of the body together.

POSSIBLE DATING OF THE BURIAL

- (1) Elbow Pipe: The pinkish colored stone pipe should be studied by other archaeologists to help classify a better and more accurate date for the "Wooden Bow Burial."
- (2) Shaft Smoothers: The pair of smoothers indicates that this person was still using and making arrows. Such artifacts are known from a number of prehistoric sites. Perhaps the Europeans had not yet come to introduce the gun and horse.

- (3) Washita Arrow Point: The two-notch projectile point also indicates that this person was still using the bow and arrow to a great extent. The Washita point has an estimated age from 1100 to 1600 A.D. (Bell 1958:98). Four excavated sites from Blanco Canyon, "Country Club Site" (Word 1963), "Montgomery Site" (Word 1965), "Bridwell Site" (Parker 1982), and "Pete Creek Site" (Parsons 1967), produce the two-notch Washita type arrow points. All four of these sites almost certainly include an Apache occupation during the protohistoric period and probably Comanche during the last occupation.
- (4) The Wooden Bow: This complete specimen is a major reason that the writer believes the site must be classified as late prehistoric, instead of a historic burial. The important hypothesis to be considered from the bow is the long length and its rounded appearance. The length of almost five feet of this bow may indicate it was made before the Indians had possession of horses. Apaches on the Llano Estacado may have had horses as early as the mid-1600s. Bows made by Comanche in recent times (historic) have been about three feet long, the shorter length being easier to use while riding (Newcomb 1961:165). Perhaps the shorter bows, less than four feet, were used by the historic period Indians while they were hunting from horseback where mobility rather than range was of prime importance. Can we assume the almost fivefoot bow from the burial, associated with a Washita point was made before the coming of the horse in 1600 A.D.? The bow also has a rounded appearance which was common before the European metal trade tools. During historic times, metal scraping tools were used to manufacture a flat back for their bows. The first Europeans entered this region in A.D. 1541 (Johnson et αl . 1977). At that time, the Lipan Apache was believed to be the principal occupants of this area; their arrival on the Llano Estacado is estimated to be about A.D. 1525 (Gunnerson 1956; Collins 1971). The "Wooden Bow Burial" was in a dry cave, which was shielded from rain and other weather elements. For this reason, the bow was preserved in its good condition.

TEMPORAL CONCLUSIONS

Throughout the South Plains area, several historic burials from cave shelters have been reported. Some of these are the "Caprock Site," Garza County, "Cogdell Burial," Floyd County, "Morgan Jones Site," Crosby County, and "A Historic Burial from Yellowhouse Canyon," Lubbock County. In this area of the Llano Estacado, the term "cave burial" usually relates to a Historic burial with the metal tools and weapons associated with thousands of glass trade beads. Many of these historic burials are associated with the Comanche and date 1750 to 1875 A.D.

It is the opinion of the writer at this time that the "Wooden Bow Burial" was entombed during the late prehistoric to protohistoric period ca. A.D. 1400 to 1600. The burial was probably of a male and from a Plains Apachean group. One last reason for placing this burial into the Neo-Indian stage rather than Historic period is the lack of glass trade beads which were so popular with all the historic burials.

ACKNOWLEDGMENTS

Unfortunately, the "Wooden Bow Burial" from Blanco Canyon was not excavated by professional archaeologists. This most significant burial site can only be documented from the assertion and conveying information of Bill Day and Jimmy Owens. The writer acknowledges the cooperation of these two men who excavated the burial. Without their observations and notes, this paper could not have been written, and the archaeological data would have been lost forever.

Special recognition is also due to Greg Perino, Museum of the Red River; Choise Smith, Floyd County Judge; James Word, who helped classify the artifacts; and Rick Walters, who drew the illustrations.

[Editor's Note: Washita points are reported by Suhm and Jelks (1962:275) under their Harrell type (which in current Plains usage refers to three-notch arrow points) as associated with the Antelope Creek Focus (Panhandle Aspect), Henrietta Focus, and Wylie Focus in Texas, and a general distribution across the Great Plains. Lintz and others have reported Washita (two-notch) points for both the Custer and Washita Phases of western Oklahoma. Given such generality of the Washita type, and considering the absence of Apache diagnostics such as Garza points, it may be premature to label this burial as Apache. As suggested by Parker, more detailed analysis of the artifacts is needed. In addition, skeletal and cranial measurements by a physical anthropologist might result in a more positive identification of the tribal identity of the burial.]

References

Bell, Robert

1958 Guide to the Identification of Certain American Indian Projectile Points. Oklahoma Anthropological Society Special Bulletin 1.

Collins, Michael B.

1971 A Review of Llano Estacado Archaeology and Ethnohistory. *Plains Anthropologist* 16(52):85-104.

Conners, Mrs. R. S., Allison, and Runkles
ms The Caprock Site: A Historic Indian Burial in Garza County, Texas.
Unpublished manuscript.

Gunnerson, D. A.

The Southern Athabascans: Their Arrival in the Southwest. *El Palacio* 63:346-365.

Johnson, Eileen, Vance T. Holliday, Michael J. Kaczor and Robert Stuckenrath
1977 The Garza Occupation at the Lubbock Lake Site. Bulletin of the Texas
Archeological Society 48:83-110.

Newcomb, W. W.

1955 An Historic Burial from Yellowhouse Canyon, Lubbock County. Bulletin of the Texas Archeological Society 26:155-189.

1961 The Indians of Texas. University of Texas Press, Austin.

Parker, Wayne

1982 The Bridwell Site. Crosby County Historical Society.

Parsons, Mark

1967 Archaeological Investigations in Crosby and Dickens Counties, Texas: The Pete Creek Site and Morgan Jones Site.

Word, James H.

1963 Floydada Country Club Site: 41 FL 1. Bulletin of the South Plains Archeological Society 1:37-63.

The Montgomery Site in Floyd County, Texas. Bulletin of the South Plains Archeological Society 2:55-102.

Word, James H. and Anne Fox

1975 The Cogdell Burial in Floyd County, Texas. Bulletin of the Texas Archeological Society 46:1-63.

REPORT OF TESTING AT THE WELLS ROCKSHELTER (41 RE 53): A MIDDLE ARCHAIC SITE IN REAL COUNTY, TEXAS

Bill Moore

ABSTRACT

This report documents the findings of archaeological investigations at the Wells Rockshelter (41 RE 53) located on the High Pine Ranch in Real County, Texas (see Figure 1). Projectile points of the *Pedernales* type, recovered during subsurface testing, indicate that this site was occupied sometime during the Middle Archaic period of Texas prehistory.

INTRODUCTION

In 1974, I visited the High Pine Ranch with Tom Zimmermann and Joe Wells. I had been informed by Mr. Zimmermann that a large rockshelter containing cultural material was present on the ranch. On my first trip to the site I was impressed by its size and apparent undisturbed condition. Although the Wells family had collected a few artifacts from the surface of other sites on the ranch, this particular site was undisturbed. As a result, site 41 RE 53 represents one of the few undisturbed rockshelters in Texas.

On this initial trip, flakes were observed on the surface of the shelter but were not easily discernible due to the mantle of goat dung within the shelter. A small shovel test revealed not only an increase in the number of flakes but also produced seven projectile points. Of the seven points, five resemble the *Pedernales* type as defined by Suhm and Jelks (1962). One does not conform to any established type, and the remaining specimen is too fragmented to identify.

The presence of these Middle Archaic points is important for two reasons: (1) they were found in the upper level which may be indicative of possible earlier occupations at this site, and (2) there has not been a rockshelter recorded in this area of South Central Texas containing a discrete occupation layer with only *Pedernales* type points.

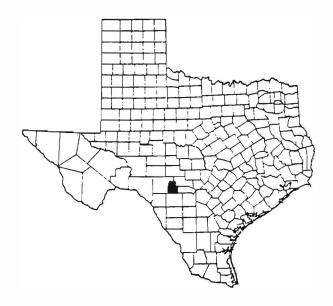


Figure 1. Real County, Texas (darkened area).

SITE DESCRIPTION

The Wells Rockshelter is a solution cavity located in a limestone bluff overlooking a dry streambed in western Real County, Texas. The shelter measures 13 meters across its mouth. From the mouth to the rear wall averaged three meters. To the rear of the shelter, and extending in beyond the mouth, is a small alcove. A talus slope in front of the shelter and to the sides indicates that the overhang was once greater in size. A large tree, approximately at the mid-point of the shelter and extending above the top of the overhang, was growing at the mouth of the shelter.

The interior floor was littered with goat dung and bones. Lithic debris was also present on the surface. Along the rear wall, about 60 centimeters above the floor, pockets of flint were noted. In front of the shelter is a dry, rocky streambed. According to Mr. Wells (1974:personal communication), no water has been observed in this watercourse since he has been living at the ranch, nor during the memory of his father or grandfather.

ARTIFACT DESCRIPTIONS

Artifacts from the shovel test (D1) consist of seven bifacially flaked specimens, which were apparently intended to function as projectile points (Figure 2). All are damaged, presumably during the process of lithic reduction or use. Four of the specimens conform to the *Pedermales* type, one is an apparent *Pedermales* preform, and the remaining two are not identifiable. No attempt was made to analyze the material from which they were manufactured. Debitage collected from the shovel test has been lost and is not discussed in this paper.

Pedermales Points

Specimen D1/T (Figure 2, A): This artifact represents a broken *Pedermales* point. A series of hinge fractures in the distal portion of this point suggest it was broken during manufacture or use. (Measurements for all specimens are shown in Table 1.)

Specimen D1/U (Figure 2, B): This artifact also represents a broken *Pedermales* point. Hinge fractures in the medial portion of this point indicate it was broken during manufacture or use. The primary flaking pattern utilized consists of expanding and contracting flake scars.

Specimen D1/V (Figure 2, C): This artifact represents an almost complete Pedermales point. The very tip of the blade is broken as are the barbs of the point. The tangs of this point are also broken off.

Specimen D1/W (Figure 2, D): This artifact represents a broken *Pedermales* point. A series of hinge fractures in the medial portion of this point suggest it was broken during manufacture or use.

Specimen D1/X (Figure 2, E): This artifact may represent an early stage in the manufacture of a *Pedermales* point. The presence of hinge fractures and the overall unfinished condition suggest that this artifact was never completed and was most certainly broken during the reduction process.

Untyped Specimens

Specimen D1/Y (Figure 2, F): This artifact represents a badly fragmented projectile point with a concave base and an expanding stem. Barbs were once

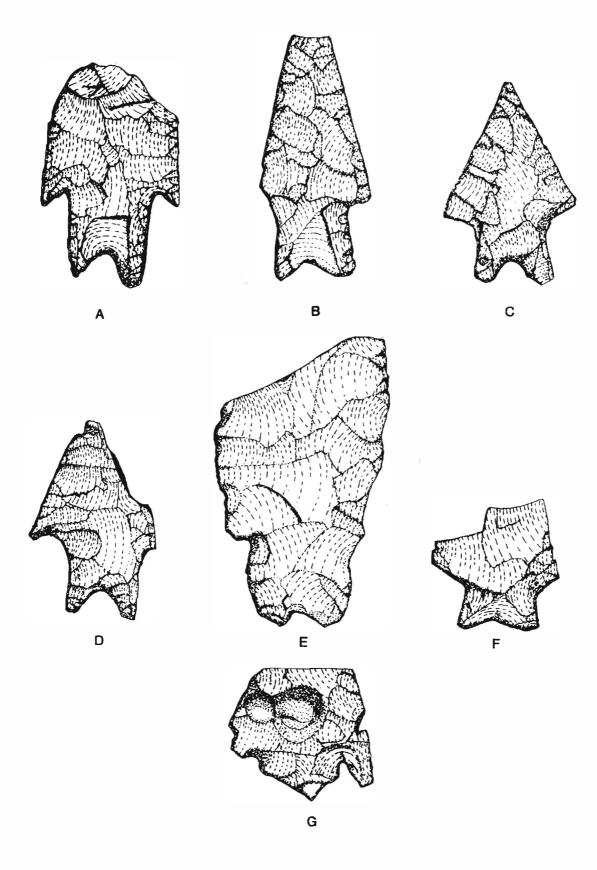


Figure 2. Projectile Points from Wells Rockshelter (41 RE 53). Pedemales Points, A-D; Pedemales point preform, E; Untyped specimens, F-G. (Illustrations to scale.)

Table 1
Specimen Measurements
(in millimeters)

(Figure)	$\frac{D1/T}{2A}$	D1/U 2B	$\frac{D1/V}{2C}$	D1/W 2D	$\frac{D1/X}{2E}$	$\frac{D1/Y}{2F}$	$\frac{D1/Z}{2G}$
Blade Length	_	-	37.5	-	-	_	-
Blade Thickness	6.5	6.0	6.0	7.0	10.0	-	-
Mid-blade Width	35.0	24.0	25.5	.	45.0		-
Blade Base Width	36.5	-	_	-	-	-	-
Base Length	25.0	20.0	16.5	18.0	21.5	15.0	-
Upper Base Width	22.0	22.0	19.5	20.0	28.0	21.0	20.0
Lower Base Width	18.0	22.0	22.5	21.0	22.0	24.0	-
Thickness	5.0	6.0	4.5	5.0	7.0	6.0	7.0
Basal Concavity Depth	7.0	4.5	6.0	6.5	4.0	2.0	-
Basal Concavity Width	13.0	15.0	10.0	16.0	-	14.0	-
Tang Length	6.0~8.0	-	-	8.5	-	-	-
Upper Tang Width	7.5-9.5	-	9.0	9.0	-	-	-
Lower Tang Width	4.0	_	7.0	-	-	-	-
Barb Length	5.0	-	-	-	_	_	10.0
Barb Width	9.5-10.0	-	-	-	-	-	9.0
Haft Depth	5.0	_	_	-	2.0	-	9.0
Haft Width	7.0	-	_	-	6.0	_	-

present but are now missing. The presence of hinge fractures suggest it was broken during manufacture or use.

Specimen D1/Z (Figure 2, G): This artifact represents a badly fragmented, thermally-altered projectile point. Potlids and color alteration are pronounced traits of this specimen.

CONCLUSIONS

This report documents artifacts taken from a very small portion of a potentially significant rockshelter site in South Central Texas. The predominance of projectile points of the *Pedernales* type suggests that this site was occupied during Middle Archaic times. According to Weir (as cited in Prewitt 1976:80), the *Pedernales* point is the major diagnostic artifact of the Round Rock Phase of the Archaic Stage with an estimated age of ca. 3400 B.P. to 2600 B.P. Because these diagnostic artifacts were found in the upper stratum and because no more recent types were recovered (or reported by the Wells family), it is tentatively assumed that the occupation of this site may have ended sometime during the Middle Archaic. It is possible that earlier occupations may also be represented beneath the Middle Archaic occupation zone.

The presence of thermally-altered materials (flakes and one projectile point) suggests that fire was used within the shelter. At the present time, however, there is no evidence of hearths; nor is there any indication of burned bone or any other sign of cooking activities.

According to Prewitt (1976:80), the Round Rock Phase appears to represent the peak of burned rock midden use, one of the markers of the Middle Archaic on the Edwards Plateau of Central Texas. Although no burned rock midden has been identified within the shelter, an open site exhibiting burned limestone rocks on its surface was recorded just across the dry creekbed from the site. Additional investigations may determine that the rockshelter site is representative of a temporary use area not associated with food processing typical of burned rock middens. The presence of flint nodules in the rear wall of the shelter may have provided a source of raw materials for lithic tool manufacture. As most archaeologists have focused their attention on the ubiquitous burned rock middens identified with this phase, little is known concerning other activities during the Middle Archaic. Site 41 RE 53 has the potential to provide valuable data on some of these activities.

Site 41 RE 53 is important in other respects. The prehistory of this area is virtually unknown as only 54 sites are currently recorded for Real County (Carolyn Spock, Texas Archeological Research Laboratory, 1982:personal communication). Of this number, five are rockshelters and two of these were recorded as pictograph sites. Consequently, this site can provide much needed information concerning this part of Texas.

Additionally, most of our knowledge of this area comes from sites at lower elevations. As the High Pine Ranch is situated about 1,800 feet above mean sea level, it may represent an ecotone unlike those at lower elevations, and this may be reflected in the sites present on the ranch. Further research may reveal that site 41 RE 53 was utilized as part of a seasonal round of this part of Central Texas.

ACKNOWLEDGMENTS

It is impossible to successfully pursue any archaeological endeavor without the assistance of others. Thanks go to the J. L. Wells family for granting permission to work on their ranch. Also, they are to be commended for not allowing this important site to be destroyed by collectors.

Dr. Harry J. Shafer, Department of Anthropology, Texas A&M University, provided advice and encouragement regarding this project as well as his knowledge of

Central Texas archaeology. Assistance with the lithic collection was given by Denise Steele, Logan McNatt and David Hovde.

Shirley Jean McConnal measured the rockshelter while Deborah Anne Brown photographed the site. David Hovde is responsible for the artifact illustrations. All field notes and interpretations concerning this project are my responsibility.

References

Prewitt, Elton R.

1976 Cultural Chronology of Central Texas. Bulletin of the Texas Archeological Society 52:65-89.

Suhm, Dee Ann and Edward B. Jelks

1962 Handbook of Texas Archeology: Type Descriptions. Texas Archeological Society, Special Publication 1.

Publications of the Colha Project

Investigations of the Maya lithic mass-production site of Colha, Belize, are described in several reports issued by the Center for Archaeological Research, The University of Texas at San Antonio and the Centro Studi e Ricerche Ligabue, Venice. Publications describe excavations and analyses of the workshop mounds and lithic production systems at the site; these span the period from the Late Preclassic (ca. 300 B.C.) to the Early Postclassic (A.D. 1000).



Hester, T. R., ed. (1979) The Colha Project, 1979: A Collection of Interim Papers. 3rd printing; spiral binding. 175 pp. + numerous line drawings. \$6.25.

Hester, T. R., J. D. Easton and H. J. Shafer, eds. (1980) The Colha Project, Second Season, 1980 Interim Report. 3rd printing; spiral binding. 353 pp. + numerous line drawings by Kathy Bareiss Roemer. \$18.75.

Hester, T. R., H. J. Shafer and J. D. Eaton, eds. (1982) Archaeology at Colha, Belize: The 1981 Season. 1st printing; perfect binding. 268 pp. + numerous line drawings and one plate. \$14.00

Hester, T. R., T. C. Kelly, and G. Ligabue (1981) A Fluted Paleo-Indian Projectile Point from Belize, Central America. Working Papers, No. 1. 8 pp., 2 Illus; stapled. \$2.25.

The publications should be ordered from:
Dorothy Galin, Publications, Center for Archaeological Research,
The University of Texas at San Antonio, San Antonio, Texas 78285.
Please enclose full payment or a purchase order.
Postage and handling is included.

OBSERVATIONS ON DISCOLORATION IN GRAIN SORGHUM AND LAND SNAIL SHELLS

Armando Vela

ABSTRACT

Mineral deficiency in Grain Sorghum can lead to stunted growth and a yellowish discoloration of the plants. Such a condition may be associated with concentrations of snail shells, indicative of a possible archaeological site.

INTRODUCTION

There are many references in the archaeological literature to Land Snails as a likely food source for the prehistoric peoples of Central and Southern Texas (cf. Martin 1933; Allen and Cheatum 1961; Clark 1969; Hester 1980). While small concentrations of shells might be explained away by animal activities such as the feeding habits of Roadrunners, larger aggregations of snail shells, particularly those found in association with other evidence of prehistoric campsite activities, provides very strong evidence of their utilization by prehistoric man (Suhm 1957; Clark 1973). This evidence is circumstantial; Clark (1973:24) points out that there is no good ethnographic account of historic groups in this area eating snails. Extreme concentrations of snail shells may also have had an impact on the activities of modern man, particularly in agriculture.

IMPACT ON CROPS

Grain Sorghum is a major crop grown in South Texas; it normally does quite well in the Coastal Bend climate and generally provides an excellent yield. However, Sorghum is a heavy feeder on minerals and readily reflects any deficiency of such minerals in the soil.

In cases of severe deficiency, the Sorghum plants are stunted, yellowish in color, and, in extreme cases, the plants may die. Direct application of supplemental minerals to the soil are not recommended in the region as the high calcium content in the soil will quickly tie up applied compounds. Of course, one cause of the high calcium content in the soil might be the presence of extra heavy concentrations of snail shells.

ARCHAEOLOGICAL SITES

I have noticed that yellow areas in many South Texas Sorghum fields are areas which also contain very heavy concentrations of snail shells. In doing surface hunting on fields being farmed with Sorghum, the presence of a yellowish discoloration of the plants has often helped me find a number of sites.

Such blighted areas must not be located in areas of soil cuts or where all the topsoil has been removed. Removal of the topsoil leaves a subsoil which is naturally deficient in most minerals.

In only two instances have I found this type of plant discoloration associated with a large number of snail shells without also finding a nearby archaeological site. In both these instances, I feel the locations should contain a prehistoric site based on my experience in site location. However, I have yet to find any lithic evidence on the surface of either of these locations. In the vast majority of instances, the presence of yellowish plants has led me to sites which were evidenced through lithics on the plowed surface.

CONCLUSIONS

There does appear to be a general correlation of blighted Sorghum plants and archaeological sites, perhaps because of the high concentrations of snail shells. Thus, such discolored crops may help us locate sites more readily.

I hope that these observations will encourage others to investigate this association of stunted plants and the presence of land snails further. Perhaps, in time, closer examination of the dynamic chemistry of such sites will provide more direct evidence of the human activities associated with these areas.

References

Allen, D. C., and E. P. Cheatum

1961 Ecological Implications of Fresh-water and Land Gastropods in Texas Archeological Studies. Bulletin of the Texas Archeological Society 31:291-316.

Clark, John W., Jr.

1969 Implications of Land and Fresh-water Gastropods in Archeological Sites. Arkansas Academy of Science Proceedings 23:38-52.

1973 The Problem of the Land Snail Genus Rabdotus in Texas Archeological Sites. *The Nautilus* 87(1):24.

Hester, Thomas R.

1980 Digging Into South Texas Prehistory: A Guide for Amateur Archaeologists. Corona Publishing Company, San Antonio.

Martin, George C.

1933 Archaeological Exploration of the Shumla Caves. The Witte Memorial Museum Bulletin 3.

Suhm, Dee Ann.

1957 Excavations at the Smith Rockshelter, Travis County, Texas. Texas Journal of Science 9(1).

THE TEXAS ARCHEOLOGICAL SOCIETY

Publications of the Society are available.
Request Publications List from:

Office, Texas Archeological Society
C A R - U T S A
San Antonio, Texas 78285



BURNED CLAY OBJECTS IN SOUTHERN TEXAS ARCHAEOLOGICAL SITES: A REEVALUATION

Herman A. Smith

INTRODUCTION

Evidence from recent excavations of prehistoric sites in the Baffin Bay Region of southern Kleberg County, Texas, suggests that previous interpretations of the ubiquitous "burned clay lumps" found in South Texas archaeological sites may need revision.

Several hypotheses have been suggested to explain the presence of these nodules. Corbin (1963) believes they are formed by open fires on clay-lined surfaces; Hester (1971) suggests they were formed intentionally to serve as surrogate stones in an area where natural stone resources are very rare or that they were fired intentionally for use as boiling stones. Black (1978) quotes A. T. Jackson supporting the idea that shellfish may have been encased in clay and cooked.

Thirty prehistoric sites around Baffin Bay were investigated as part of a dissertation research project. Burned clay nodules occurred in nearly all sites, regardless of temporal assignment, Early Archaic to Protohistoric. Careful study of these objects and their archaeological context resulted in a reinterpretation set forth in the present paper.

PROJECT FINDINGS

An Early Archaic site near Baffin Bay in Kleberg County (see Figure 1) was tested in the summer of 1982, and five "hearths" were found on a living floor 252 cm below the present surface. Four of the five hearths contained charcoal, ash, shell-fish remains and burned clay fragments in a more or less circular pattern. Charcoal from one such hearth was radiocarbon dated to 4500±60 B.P. (SMU 1057). The four hearths contained remnants of Eastern Oyster (Crassostrea virginica), Lightning Whelk (Busycon perversum), Tulip Conch (Fasciolaria tulipa), Bay Scallop (Argopecten irradians armplicostatus) and Horse Oyster (Ostrea equestria), all of which require an open-bay environment. These shellfish forms probably became extinct some 4,000 years ago when the formation of the barrier islands (Padre Island) restricted the seawater exchange and produced hypersaline conditions in the inland bays (Hester 1980).

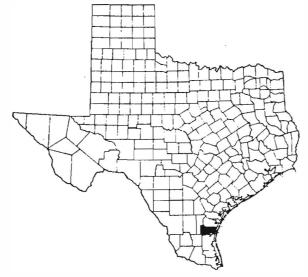


Figure 1. Map of Texas showing Kleberg County (darkened area).

The fifth hearth, at the same level as two hearths with shellfish remains, contained a lens of charcoal and ash approximately 1 cm thick surrounded by a loose circle of fourteen caliche nodules varying in size from approximately 4 cm to 9 cm. There were no shellfish or burned clay lumps present.

While stone material of any kind is very rare along the South Texas littoral, caliche concretions do occur in some quantity in the Beaumont Formation, a Late Pleistocene clay deposit which in this instance has been exposed by water action at the edge of the bay some 4 m from the site. Hundreds of stones of the size found in the hearth are at present eroding out of the Beaumont Clay at this site. Considering the ease with which these stones can be procured, it seems unlikely that aboriginal populations would have bothered intentionally forming fired clay nodules to serve as substitute hearthstones. That the caliche concretions served as adequate hearthstones is attested by the fifth hearth.

Further, it seems likely that clay-lined fire pits would have been made from the high-quality Beaumont clay, but the burned clay matrix is very different from the Beaumont clay in terms of grain size, silt content and angularity of grains. On the other hand, it was observed that the soil surrounding the burned clay lumps within the hearth area was, except for color, indistinguishable from the soil in the burned clay objects when viewed microscopically. The "clay lumps" did not appear to be clay at all, but rather the product of a fire acting upon the local soil to bind it together and alter the color. Soil samples from the hearths were subjected to the flame of a propane torch for 90 seconds. The result was "burned clay lumps," indistinguishable microscopically from the "burned clay lumps" extracted from the hearths. While the process by which the grain binding and color change takes place is of no direct interest here, it is clear that all that is needed to produce the "burned clay lumps" is a moderately hot fire anywhere on the surface of the site floor. The function of the one hearth that contained no burned clay or shellfish remains moot, but it seems very likely that the other fires were built to prepare shellfish; the fired clay nodules were merely residual in nature.

Present evidence suggests shellfish were not prepared by encasing them clay before cooking them; no shellfish remains are directly associated with burned clay. That is to say, no clay was impressed with shapes resembling shell forms nor was any fired clay found adhering to the shells. Many sites that can be reliably dated to the period following the shellfish extinctions contain many fired clay lumps. Hester (1971) also notes that baked clay lumps occur in the sites in inland South Texas, where shellfish are absent, that are similar to those found in coastal sites.

The presence of burned clay in Late Prehistoric and Protohistoric sites also seems to obviate their use as boiling stones; Rockport ceramics abound in these sites and it seems very remote that a ceramic society would have need of boiling stones. The coastal Karankawa Indians who are unquestionably connected with the Rockport Archaeological Complex* were observed using ceramic "cooking pots" in historic times. Gatschet (1891:11) reports

"Their food, -- venison, fish, oysters, turtles, etc. -- was always either boiled in rude earthen pots or roasted in the ashes of their fire."

Black (1978) and the author have both observed burned clay lumps that resulted from brush fires following land clearing operations. Soil clinging to the roots of trees and brush form irregular baked clay nodules when the uprooted plants are burned.

^{* [}Editor's Note: The Karankawa are not, however, the only group who were a part of the Rockport Complex; several different Coahuiltecan groups were on the lower coast as well.]

CONCLUSION

It now seems clear that many South Texas soils contain one or more chemical compounds that respond to the heat of a fire such that the matrix is bound up and hardened while undergoing a color change to a various shade of black, orange and dark brown, regardless of whether the fire was produced by natural or human agencies.

ACKNOWLEDGMENTS

Grateful appreciation is extended to Mrs. Jimmie Piquet, director of the Connor Museum at Texas A&I University in Kingsville; Mr. Stephen Kleberg of the King Ranch; Mr. Hal Ham, Range Ecologist at the Conner Museum; Cynthia Adams of the Adams Ranch; and the Institute for the Study of Earth and Man at Southern Methodist University in Dallas, Texas.

References

- Black, S. L.
 - 1978 Archaeological Investigations at the Banquete Bend Site, 41 NU 65, Nueces County, Texas. Center for Archaeological Research (CAR), The University of Texas at San Antonio (UTSA), Special Report 15.
- Corbin, J. E.
 - 1963 Archeological Materials from the Northern Shore of Corpus Christi Bay, Texas. Bulletin of the Texas Archeological Society 34.
- Gatschet, A. S.
 - 1891 The Karankawa Indians. Archaeological and Ethnological Papers of the Peabody Museum 1(2).
- Hester, T. R.
 - 1971 Loyola Beach: An Example of Aboriginal Adaptation to the Marine Environment of the Lower Texas Coast. Florida Anthropologist 24(3):91-106.
 - 1980 Changing Salinity in Baffin Bay, Texas, and its Possible Effects on Prehistoric Occupation. In: Papers on the Archaeology of the Texas Coast, CAR, UTSA, Special Report 11.

TEXAS ROCK ART REFERENCE

The Texas Memorial Museum is considering reprinting *The Rock Art of Texas Indians* (with paintings by Forrest Kirkland and text by W. W. Newcomb, Jr.). Those who would be interested in such a reprint should write to Dr. William G. Reeder, Texas Memorial Museum, 2400 Trinity, Austin, Texas 78705.

If there is sufficient interest expressed, Dr. Reeder has indicated that they will publish a reprint.

E. R. Mokry, Jr.

INTRODUCTION

While helping Dorothy Galin do some "leg work" research on the Odem Burial Site (41 SP 1), I was able to converse at length with Arthur and Joe Bickham about local archaeology. These two men, along with their late brother Ben, were the initial excavators of SP 1 many years ago. During the course of the conversation, Arthur offered to show us part of his artifact collection. This short article describes three of the more unusual or eccentric artifacts in the collection.

Mr. Bickham's extensive collection contains over 2,000 items, with some of his more interesting pieces on display in a special glass-topped coffee table. This display contains lithics that he has collected near his home in San Patricio County as well as surface finds from other Texas areas such as Nueces, Webb, and Randall Counties. He also has lithic and obsidian artifacts from New Mexico and Mexico.

All three of the described artifacts are surface finds collected by Mr. Bickham at various times while deer hunting near Encinal in Webb County.

ARTIFACTS

Artifact No. 1 (Figure 1) is a somewhat crescent-shaped object which I have assumed to be a pendant. I have been unable to find any publication describing artifacts such as this in South Texas. It is quite similar to the main medallion, or Naja (Hothem 1980), on a Navajo "Squash Blossom" necklace. The pendant is slightly ovate with an almost equilateral triangular section removed, thus creating the crescent shape. The artifact is made of a light tan chert-like material, bifacially worked. It is finely flaked around the outer edges as well as both faces of the triangular cutout. The pendant is 3.98 cm long and 3.28 cm wide. The upper side of the cutout (A) is 1.59 cm long with the opening at the bottom (B) being 6.7 mm wide. The left leg of the triangle is 1.77 cm long and the right leg is 1.87 cm long. Maximum thickness of the artifact is 6.4 mm.

The second artifact (Figure 2) is a reptile-shaped effigy or amulet made of a tan colored chert. It is 5.19 cm from head (A) to tail (B). The forelegs have a span of 3.21 cm with the hind legs spreading only 1.81 cm. The head is 1.38 cm from the shoulder line to the tip of the head, and is 1.03 cm wide maximum. The circular body is 2.79 cm wide and approximately 2.73 cm long. Maximum thickness of the body is 7.5 mm. The pointed tail is 6.3 mm long from its juncture with the hind legs to the tip. This artifact, like the pendant, is finely flaked around its entire outer edge.

Artifact No. 3 (Figure 3) is an axe-shaped eccentric, 9.91 cm long, 6.76 cm wide and 1.93 cm thick, made of a beige-tan chert interspersed with a smooth, fine-grained material. This smoother intrusion appears throughout the artifact in lines, splotches, and one 2-cm circular pattern (Figure 3D). The artifact has two deep notches (Figure 3, A and B) possibly intended for hafting. It is roughly shaped by chipping, with no apparent attempt to smooth or sharpen the blade either by abrading or flaking. This fact, plus the rather poor quality of the chert from which the axe was made, leads me to believe that this was a symbolic or ceremonial piece (Miles 1963), and never intended for use as a tool.

Hafting notch A (Figure 3) is 1.29 cm deep and 1.10 cm wide. Hafting notch B (Figure 3) is 1.01 cm deep and 1.61 cm wide. There is one V-shaped notch Figure 3C) on the butt of the axe which measures 1.08 cm wide and 2.9 cm deep. The face of the axe has six notches in varying widths and depths. Face notch 1 is a shallow

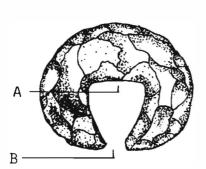


Figure 1. Crescent-Shaped Artifact from Webb County, Texas (shown

actual size).

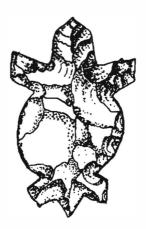


Figure 2. Reptile-Shaped Eccentric Artifact, Webb County, Texas (shown actual size).

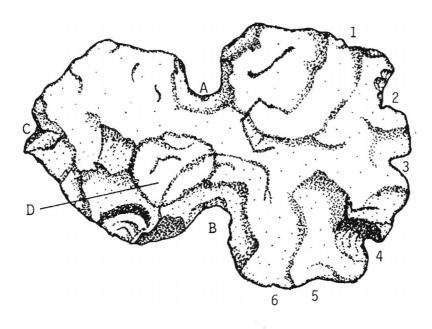


Figure 3. Axe-Shaped Artifact from Webb County, Texas; Arthur Bickham Collection. (Actual Size; see text for letter and number notes.)

1.7 mm deep and 1.08 cm wide. Notch 2 is 1.06 cm wide and 5.5 mm deep. Notch 3 is 8.8 mm wide and 5.8 mm deep. Face notch 4 is 6.5 mm wide and 4.6 mm deep. The fifth face notch is 9.0 mm wide and quite shallow at 1.8 mm deep. The last of the face notches, Number 6, is more of a chip scar than an actual notch. It is only 0.8 mm deep and 4.8 mm wide.

I would welcome comments and/or information that any reader would like to share with me in regard to the above described artifacts.

ACKNOWLEDGMENT

My sincere thanks go to Arthur Bickham for loaning me a part of his collection for several months to study and photograph. I also thank Joe Bickham for the time and information he so willingly shared with me.

References

Barnett, Franklin

1973 Dictionary of Prehistoric Indian Artifacts of the American Southwest. Northland Press. Flagstaff, Arizona.

Hester, T. R.

1980 Digging Into South Texas Prehistory. Corona Publishing Company, San Antonio, Texas.

Highley, Lynn

1979 A Note on Arrow Points Collected in Webb and Duval Counties.

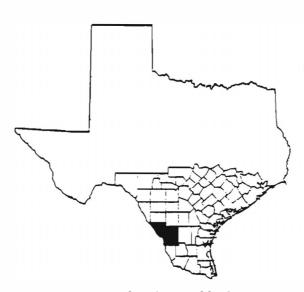
La Tierra 6(4):34-39.

Hothem, Lar

1980 North American Indian Artifacts. Crown Publishers, Inc. Florence, Alabama.

Miles, Charles

1963 Indian and Eskimo Artifacts of North America. Bonanza Books, New York.



Texas map showing Webb County (darkened area)

AUTHORS

- J. A. JAQUIER "Jaq" works at Goodfellow Air Force Base with the LOGICON Corporation developing training simulators for the Air Force. He has been associated with the UTSA Center for Archaeological Research since 1974 and is a Master's candidate (all but thesis). He has worked on a variety of archaeological projects including J-2 Ranch, the Timmeron Rockshelter, St. Mary's Hall, and the Walker Ranch project in Southern Texas, and Fort Concho and the Stacey Reservoir survey on the Llano Estacado. His interests include Early Man sites and tools (Clear Fork, Guadalupe). Jaq lives near San Angelo (Route 3).
- RICHARD McREYNOLDS works for the Air Force at Kelly AFB in San Antonio. He is a very active avocational archaeologist and a frequent contributor to this journal. He has earned an outstanding reputation both as an artist and artifact illustrator. Mr. McReynolds lives in South San Antonio.
- E. R. MOKRY, JR Ed works with the U. S. Postal Service in Corpus Christi and also helps out with family farming. His avocations are hunting, fishing, and archaeology (but not necessarily in that order). Ed was STAA Chairman in 1977 and is a frequent contributor to La Tierra. He has also been a Regional Vice-President of the Texas Archeological Society, and has made a number of reports to STAA and TAS meetings. Among his many interests are faunal analysis and fish phytoliths, burial practices along the coast, and salvage archaeology. He is currently refining a preliminary report on the Berryman Site for inclusion in a forthcoming STAA Special Publication on Coastal Bend Archaeology.
- BILL MOORE holds an MA degree in anthropology from Texas A&M University and has done field work in Louisiana, Mississippi, Nevada, and Texas. He is employed by Heartfield, Price and Green, an archaeological consulting firm, as an archaeological research associate. He lives in Monroe, Louisiana.
- WAYNE PARKER is well known to readers of this journal. He is related to the great Comanche warrior, Quanah Parker, and has an intense interest in the historic period on the High Plains of Texas. Wayne is an avid collector and a very active member of the Crosby County Museum Association; he recently authored a major report on the Bridwell Site, which was published by the CCMA (1982).
- HERMAN SMITH recently completed all the course work for a PhD in archaeology with Southern Methodist University. He has done field work in Honduras, northeast Mexico, and central and southern Texas. His dissertation research involves prehistoric settlement and subsistence patterns on the lower Texas coast. Herman is associated with the Conner Museum at Texas A&I University in Edinburg.
- ARMANDO VELA is a farmer and very active amateur archaeologist who lives out from Edinburg near the lower Texas coast. His family has lived and worked the land in the area for several centuries. His report in this issue is Armando's first published article and is a very welcome contribution; hopefully, we will be seeing more of his work in future issues.

THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

The Southern Texas Archaeological Association brings together persons interested in the prehistory of south-central and southern Texas. The organization has several major objectives: To further communication among amateur and professional archaeologists working in the region; To develop a coordinated program of site survey and site documentation; To preserve the archaeological record of the region through a concerted effort to reach all persons interested in the prehistory of the region; To initiate problem-oriented research activities which will help us to better understand the prehistoric inhabitants of this area; To conduct emergency surveys or salvage archaeology where it is necessary because of imminent site destruction; To publish a quarterly journal, newsletters, and special publications to meet the needs of the membership To assist those desiring to learn proper archaeological field and laboratory techniques; and To develop a library for members' use of all the published material dealing with southern Texas.

S T A A OFFICERS & STAFF - 1982

CHAIRMAN - Donald R. Lewis (San Antonio) STAA Newsletter Editor - Evelyn Lewis (San Antonio) VICE-CHAIRMAN - Malcom Johnson (Fredericksburg) Discovery Committee Chairman - A. J. (Augie) Frkuska (S.A.) SECRETARY - Roger H. Hemion (San Antonio) Documentation Committee Chairman - Lynn Highley (S.A.) Educational Programs TREASURER - Shirley Van der Veer (S.A.) Chairman - Liz Frkuska (S.A.) LA TIERRA Field Directors Anne Fox (S.A.) Dan Fox (Austin) Editor - Jim Mitchell (Converse) Smitty Schmiedlin (Victoria) Production - Shirley Van der Veer (S.A.) Shirley Van der Veer (S.A.) Hospitality Committee Area Consultants: Chairman - Judy Crouse (Helotes) Mailing Committee Tom Beasley (Beeville) Chairman - Barney Haegelin (S.A.) Membership Committee Bill Birmingham (Victoria) Chairman - Liz Smith (S.A.) Program Committee Chairman - Fred Valdez (S.A.) T. C. Hill, Jr. (Crystal City) Publicity Committee Malcom Johnson (Fredericksburg) Chairman - Liz Frkuska (S.A.) Registration Committee Tom Kelly (San Antonio) Chairman - June Carter (S.A.) Social Committee Ed Mokry (Corpus Christi) Chairman - Steve Black (S.A.) Telephone Committee Chairman - Rita Neureuther (S.A.) Wayne Parker (Ralls) Lee Patterson (Houston)

Smitty Schmiedlin (Victoria)

STAA Library

Chairman - Barney Haegelin (S.A.)