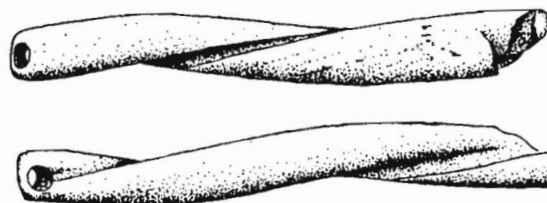
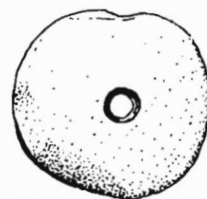
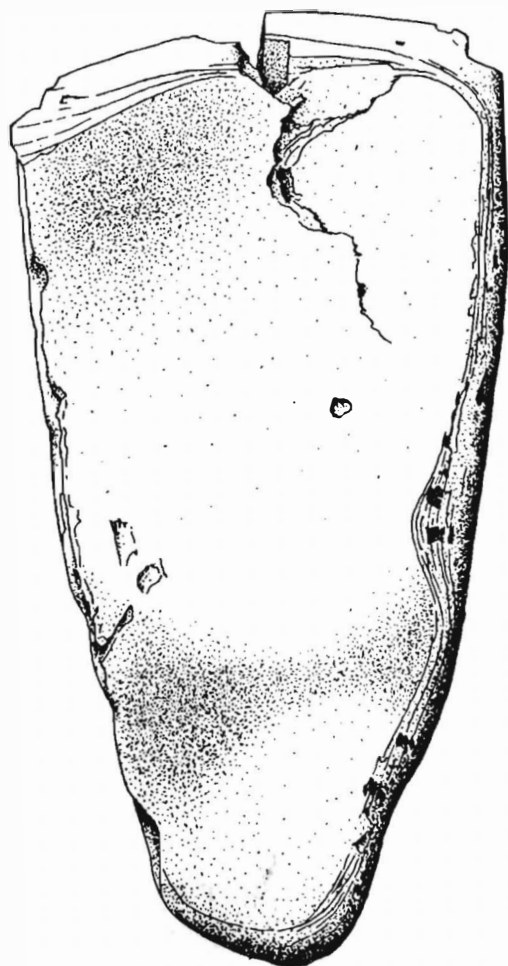


LA TIERRA



October 1986

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SOUTHERN TEXAS
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Jimmy L. Mitchell
Editor

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Cover Illustration: Typical artifacts from the Coastal Bend region of
Texas. Cover drawing by Richard McReynolds.

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EDITORIAL

CHARLEY'S PLACE AND THE COASTAL BEND

In July 1986, the STAA quarterly meeting was held in conjunction with the Coastal Bend Archeological Society (CBAS) as a "mini field School" at Charley's house on Ingleside Cove on the northern shore of Nueces Bay. People were there from Laredo, San Antonio, Goliad, etc.; some had flown back from Belize in Central America to participate. The project was to dig up Charley's back yard which, below the grass, proved to be a series of shell middens laden with a variety of marine flakes, etc. Materials were waterscreened, and us inlanders now know firsthand what a fish otolith looks like and how experts tell which species it came from. The lab was under a shade tree in the front yard, where artifacts and asphaltum stains could be examined at leisure (and a few tall tales exchanged).

This was a very successful and meaningful enterprise; one where we all learned a lot. There were at least 65 people when we sat down to dinner Saturday night at a restaurant overlooking the Nueces Bay ship channel (with large freighters silently slipping by into the sunset). Dr. Dee Ann Story of the University of Texas at Austin and TARL spoke after dinner, and really hit home with her comments on how much there is yet to learn about the archaeology of the Central Texas Coast. As usual, her presentation was both educational and delightful; she gave the group a good perspective on the contribution they can and are making to archaeology in this important region of Texas.

Many of us came away from this meeting with a heightened appreciation of the energy and enthusiasm of the new CBAS and its members. They work hard and learn fast; they are eager for lab work as well as field activities, and they are clearly dedicated to advancing the archaeological knowledge of their area. The CBAS is to be congratulated for this extraordinary activity, and the STAA is proud to have been a part of it.

The Editor

NOTES ON SOUTH TEXAS ARCHAEOLOGY 86-4

A Rock Art Site in Southern Texas

Thomas R. Hester

Rock art sites in Texas are best known from the Lower Pecos region and have been reported by various authors over the years. Statewide, other rock art localities were originally documented in A. T. Jackson's 1938 publication, **Picture-Writing of Texas Indians**. In northeastern Mexico, a number of rock art sites have been found on the flanks of the Sierra Madre Oriental, especially petroglyph sites that have been recorded in recent years by William Breen Murray of Monterrey. However, on the South Texas coastal plain, rock art -- whether pictographs or petroglyphs -- are extremely rare. The nearest sites are those along the southwestern edge of the Edwards Plateau, in Uvalde and Real Counties, many of which were first recorded by Jackson, with others found more recently by H. Ray Smith (personal communication).

In 1980, in my book, **Digging into South Texas Prehistory**, I noted a pictograph site, 41 WB 56, and published a photograph of the rock art panel present at that site (Figure 4.19, page 84). It has never been fully published, and the purpose of this brief note is to make more information available on the site and its art. In order to protect the site, only limited information on its general location can be presented here.

The rock art panel is found underneath a sandstone overhang overlooking the Rio Grande in northern Webb County. Although it was first recorded by a group of students from the 1974 UTSA Summer Archaeological Field Course, under my direction, its existence had been known for a number of years. Indeed, my uncle, George D. Umphres, Jr. (Zapata, Texas) had photographed the panel in December 1951. Later black and white snapshots of the site were taken by Merle Burns (Catarina, Texas) in 1957. These photographs serve as a valuable record of the site, in terms of measuring how the rock art has survived the ensuing years. While we found only this single panel (see Figure 1), earlier visitors to the area had seen other rock art in similar sandstone overhangs, but these are no longer present and were perhaps destroyed by Rio Grande floods.

The documentation of 41 WB 56 was carried out by the field school students and consisted of photography (both in color and in black and white; on file, Center for Archaeological Research, The University of Texas at San Antonio) and of a scale drawing of the pictograph panel. The surrounding area was surveyed and three additional sites were found. These were occupation sites on the bluff overlooking the Rio Grande (41 WB 57-59) and contained prehistoric as well as historic Anglo-European components. The sites are clustered near a spring that drains into the Rio Grande. One notable aspect of site 41 WB 58 was the presence of several bedrock mortar and metate depressions on a sandstone ledge near the bluff edge.

The rock art panel at 41 WB 56 is four meters in length. Some motifs were nearly 1.5 meters in height. The overhang itself measured only six meters in overall width; there were no occupational deposits within this small shelter.

Space does not permit a detailed discussion of the motifs nor broad-ranging comparisons with other rock art sites. This will have to wait until formal publication of the site data. However, some observations are in order.

The dominant colors used in the pictographs are red and yellow. In Figure 1, prepared by Kathy B. Roemer, the motifs have been shaded to indicate shades of red, from light to dark, and, with widely spaced dots, those areas that are yellow in color. Moving from left to right (north to south) across the panel,

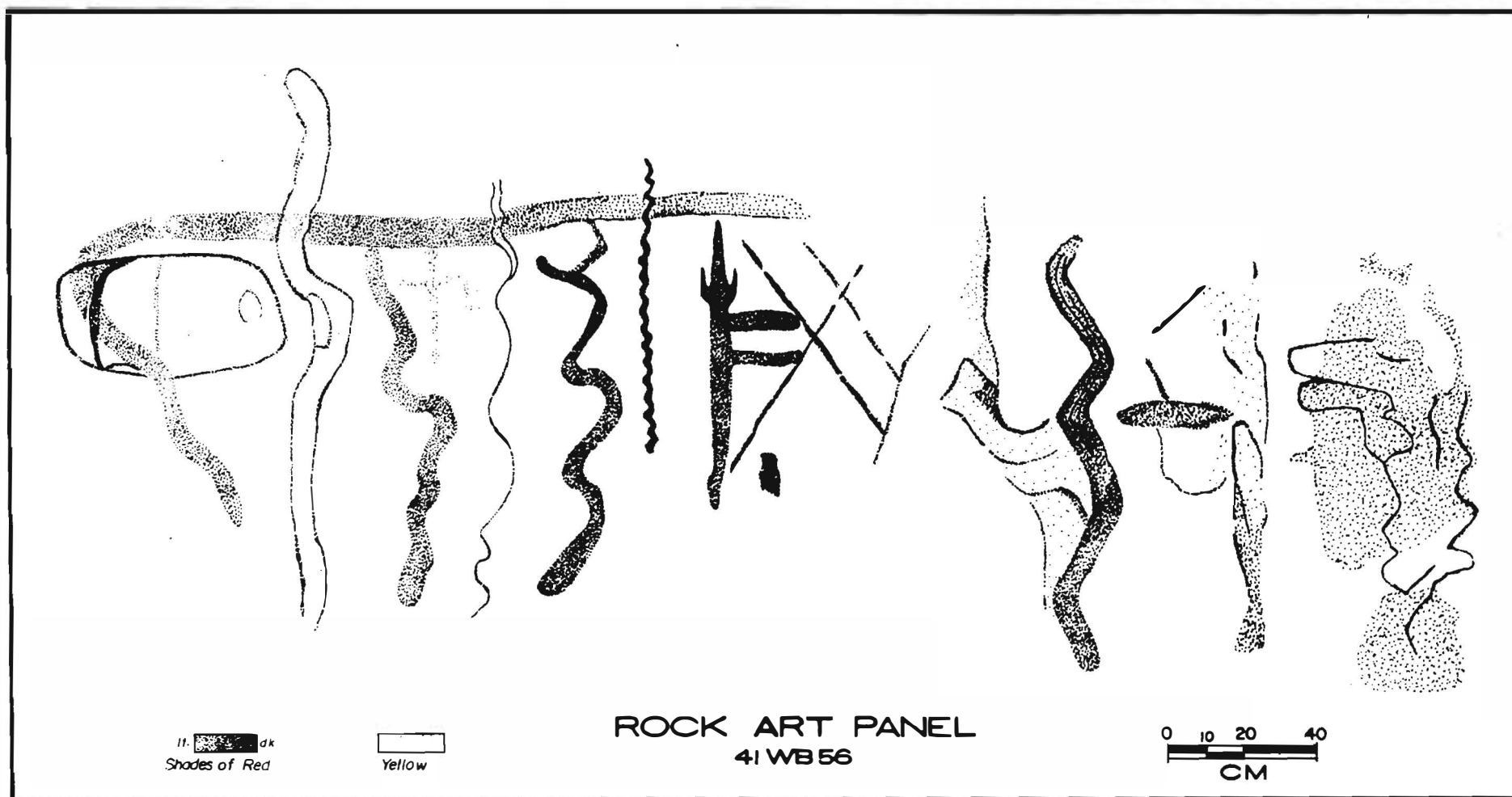


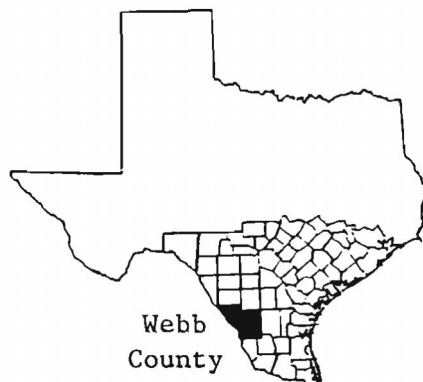
Figure 1. Rock Art Panel at Site 41 WB 56, Webb County, Texas. Note legend in lower left that indicates colors of the pictographs. Drawn by Kathy B. Roemer.

we first see a large oval, about 65 cm long and 30 cm high; it has a red outside border, a yellow inner border and red bands (about 5 cm wide) at one end and near the middle. Most of the remaining motifs are zig-zag designs, some monochrome red, and others, such as the large motif at the left, with the outside lines formed in red and filled in with yellow. There is a central anthropomorphic figure, with arms extended and perhaps with a horned headdress. The relationship of the crossed straight lines at the end of the arms is unclear; there is overpainting within the panel and these may not be associated with the figure. Another anthropomorph can be seen to the left. The major zigzag element on the right end of the panel is in red, streaked pigment. Motifs to the right (south) are poorly preserved due to scaling of the sandstone. However, there also seems to be considerable overpainting in this area of the panel; both red and yellow colors are present. Running across the north half of the panel is a broad "snake"-like motif; it may have extended a considerable distance to the south, but spalling has eliminated most traces of the rock art panel in this area of the overhang. This motif has heavy red borders and a lighter red interior.

Finally, it is difficult to relate the rock art at 41 WB 56 to rock art in other regions. Little is published on the pictographs of northern Mexico, while the rock art of the Lower Pecos is abundantly published and highly varied, with several major styles of pictographs presently defined. A perusal of the illustrated Lower Pecos pictographs in Kirkland's and Newcomb's **The Rock Art of Texas Indians** (1967) reveals anthropomorphic figures or "shamans" to which the Webb County examples might be related, as well as a great variety of zigzag motifs. The latter are of particular interest, given the proximity of a major spring to 41 WB 56. Margaret Greco, in her 1985 MA thesis at the University of Texas at San Antonio, suggests that these sorts of motifs, along with some other elements of Lower Pecos rock art, may be related to water, especially springs. For the moment, however, the rock art panel at 41 WB 56 is unique on the South Texas coastal plain and the ever-risky business of interpreting pictographs is even more of a problem in this unusual case.

ACKNOWLEDGEMENTS

I want to thank Mr. and Mrs. Les Brown of Catarina, Texas, for their help in recording this site. I am also grateful to Kathy B. Roemer for her careful drawing, using our field notes, that resulted in Figure 1.



A LATE PREHISTORIC RESIDENTIAL ACTIVITY LOCUS IN THE TEXAS
COASTAL BEND: A PRELIMINARY REPORT ON FINDINGS AT THE
McKINZIE SITE (41 NU 221), ZONE I*

Robert A. Ricklis

ABSTRACT

During 1984 and 1985 excavations were conducted at the multi-component McKinzie Site near Corpus Christi. The present paper describes the association of various features and artifacts recorded for the site's Late Prehistoric component and briefly interprets these findings as the remains of a seasonal, multi-functional residential encampment. A probable circular or semicircular dwelling containing a central hearth complex is inferred on the basis of the recovered data.

SITE DESCRIPTION

The McKinzie Site is located on one of the numerous low hilltops which are remnants of a dissected Pleistocene terrace which borders the southern edge of the lower Nueces River floodplain, and which extends from the present head of Nueces Bay to near the western margin of Nueces County (see Figure 1). The site lies approximately 4 km upstream from the present head of the Bay and about 200 meters south of the present channel of the Nueces River. The location commands an excellent view of the broad Nueces floodplain to the north and, under the grassland savanna conditions which probably prevailed during prehistoric times (Bogusch 1952), would have offered a good view of the upland prairie in other directions. Present vegetation on and in the vicinity of the site is dominated by dense thornbrush stands of mesquite and hackberry. The floodplain immediately to the north of the site is characterized by a mosaic of short grasses interspersed with barren sand patches.

Various historic disturbances to the site have revealed a soil profile characterized by a topsoil zone of dark brown sandy clay loam overlying a light tan clay subsoil. These soils pertain to the Willacy Formation, a neutral to alkaline soil complex which characterizes the edge of the Pleistocene terrace on which the site is located (Franki *et al.* 1960).

Prehistoric cultural debris in the form of estuarine clam shells (*Rangia cuneata* and *Rangia flexuosa*), scattered chert debitage, and occasional light scatters of small sandy paste potsherds, was observed over the entire hilltop, though the Late Prehistoric potsherds were confined to a roughly east-west linear pattern along the crest of the hilltop.

EXCAVATION

Initial surface reconnaissance and subsurface testing indicated the presence of two discrete prehistoric components. The earlier, Archaic component consisted of a *Rangia flexuosa* shell midden stratum situated at the base of the loam topsoil at its interface with the underlying tan clay subsoil. A Late

* The present report is a brief summary of findings in the Late Prehistoric component at the McKinzie Site. A full data presentation for both the Late Prehistoric and Archaic components at the site, as well as broader contextual interpretations, is scheduled to appear in the *Bulletin of the Texas Archeological Society* for 1987.

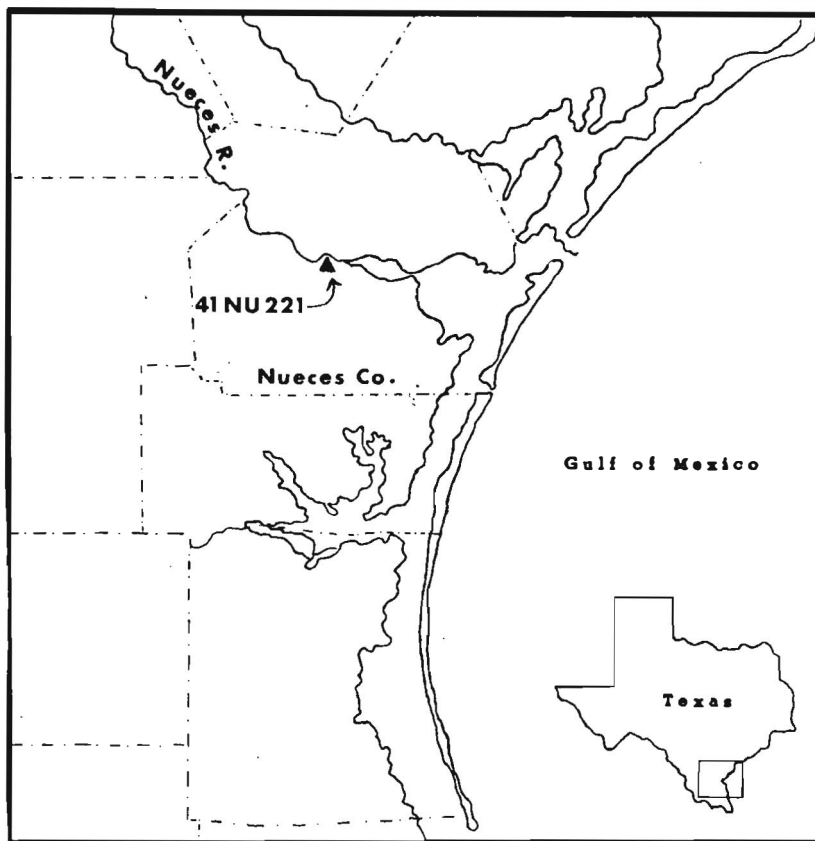


Figure 1. Map Showing the Location of the McKinzie Site in the Texas Coastal Bend Area.

Prehistoric component, characterized by Rockport Ware pottery (Suhm and Jelks 1962:131-135) and arrow points, was restricted to a narrow vertical Zone 5 to 12 centimeters below modern ground surface (designated Zone I in the field). Zone I was defined on the basis of the presence of Late Prehistoric artifacts and an associated scatter of small lumps of gray-white ash and sporadically occurring particles of red-orange burned soil. This zone occurred throughout the Area A excavation (see map, Figure 2), and was consistently identifiable as a narrow band of Late Prehistoric material running parallel to the modern ground surface. While Zone I materials were found between 5 and 12 cm below the surface, most occurred between 7 and 10 cm. The narrow vertical extent of these remains suggested a short-term occupation, perhaps no more than a single occupational episode.

A total of 33 1/2 one-meter square units were excavated in Area A. Excavation involved a trowel-scraping technique, and all excavated soil was put through a 1/4-inch mesh screen. All artifacts, including chert debitage, as well as bone fragments, were recorded as to precise horizontal and vertical locations on unit/level data sheets. The position of these finds, as well as the various features, may be seen in the Zone I map of excavation Area A in Figure 3.

FINDINGS

Artifacts recovered from Zone I are in no significant way different from those reported from other Late Prehistoric sites in the Coastal Bend area (cf. Campbell 1956, 1958; Corbin 1963, 1974; Story 1968). One hundred ninety-six sherds of Rockport Ware pottery, 2 arrow points (1 **Perdiz**, 1 unidentifiable

fragment), a small unifacial end scraper, and small prismatic blades are all diagnostic of the Late Prehistoric Stage in the region. Also recovered were a sandstone milling stone fragment, an arrow point preform, a prepared platform core, 2 edge-modified *Rangia* shell scrapers, 3 fragments of modified bone (possibly awl fragments) and 596 pieces of chert debitage.

Faunal remains consist of bones of bison, whitetail deer, an unidentifiable bird species, an unidentifiable frog species, and turtle carapace fragments. In each case a minimum number of one animal is represented. Also recovered from Zone I were 879 valves or umbo fragments of *Rangia cuneata* clam shell. Seventy-seven complete valves were subjected to seasonality analysis according to the method developed by Lawrence E. Aten (1981). The results of this analysis indicate that the Zone I remains were deposited during a spring occupation spanning a number of weeks, or, perhaps, the entire spring season (Ricklis 1986).

The locations of the various cultural features uncovered and excavated in Zone I are indicated in Figure 3. Features 4, 5, 6, and 7 were shallow (10-18 cm) basin-shaped hearths containing large quantities of red-orange burned loam and patchy masses of gray-white ash. The largest of the hearths, Feature 6, contained several reconstructible fragments of bison radius and several chert flakes. No charcoal was present in the hearths, except for a very few minute flecks. Several small, thin (1-3 cm thick) patches of burned loam to the east and south of the hearths probably represent scatter of burned soil from Features 4, 5 and 6.

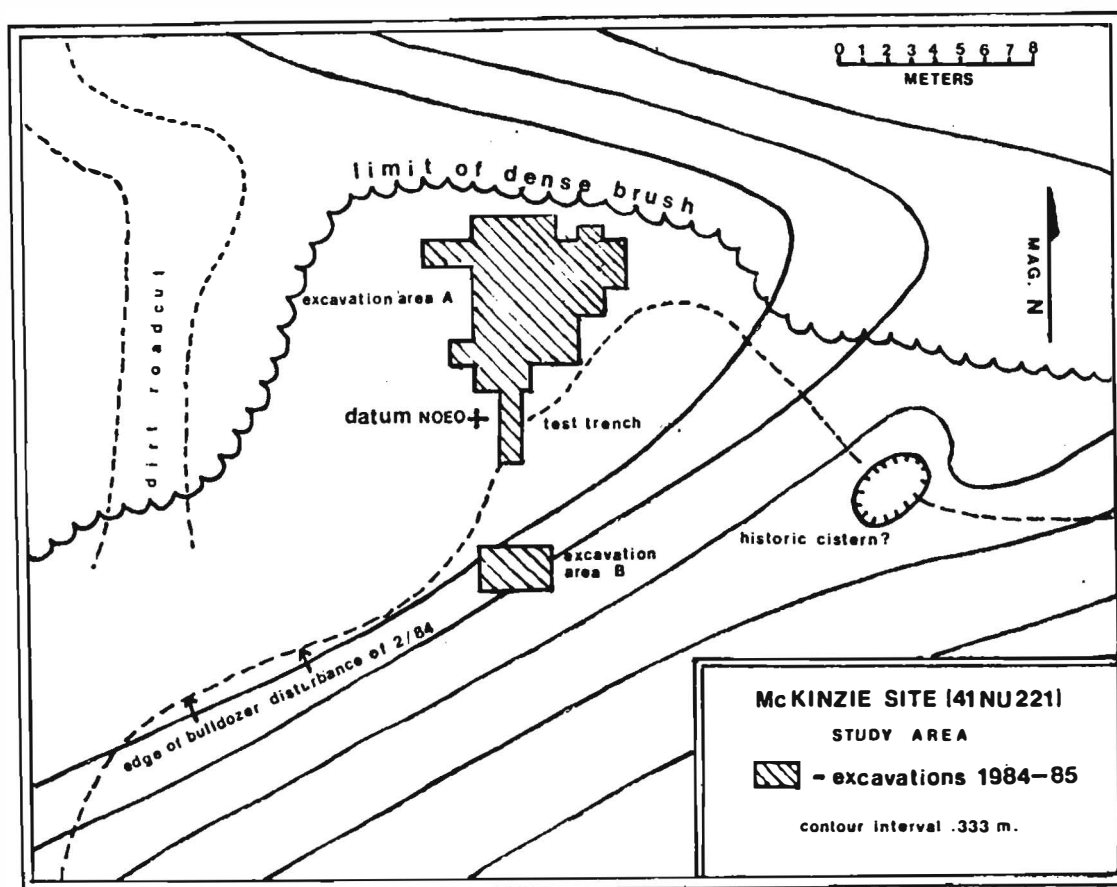


Figure 2. Map of the Central Portion of the McKinzie Site Indicating the Location and Extent of Excavations.

A single small U-shaped pit, Feature 8, was filled with a soft, ashy loam, and had horizontal dimensions of 21 x 32 cm and a depth of 18 cm below its identifiable surface at the 10-cm level. Additionally, 4 possible pits, indicated in Figure 3 as shaded spots, were revealed as dark circular spots in a series of infrared photographs taken of all units in the northern portion of the Area A excavation at the 10-cm level.* It will be seen that all four spots are approximately 30-35 cm in diameter, and that they are rather evenly spaced in an arc around the hearths, Features 4, 5 and 6. It is probably significant that the excavated pit, Feature 8, which was recognizable due to the considerable ash inclusion in its fill, is about the same size as the spots and conforms in location to the arc-like pattern. Probably these features, which were not discernable with ordinary field techniques, represent a series of small pits, perhaps for short-term plant resource storage, arranged around the hearth area represented by Features 4, 5, and 6.

Four small possible post molds were exposed at the 10-cm level. These features were not discernable visually, but were noted as distinct soft spots upon brushing of exposed and dried unit floors. Over two dozen small soft spots were thus recognized, and all were carefully scooped out using the dried and hardened loam matrix as guidelines; a few were also cross-sectioned. All but four were clearly small animal burrows. The four possible post molds, however, were circular in plan and tapered so that profiles were bluntly conical. Diameters ranged between 7 and 8 cm, depths ranged between 8 and 11 cm. The fill of these features was sandy, with relatively little clay content, so that the texture was easily distinguishable from that of the surrounding sandy clay loam. It is thus possible that they represent small posts which were removed from the ground, leaving conical impressions which became filled with windblown sandy soil. The horizontal locations of these features may be seen in Figures 3, 4 and 5.

INTERPRETATIONS OF PATTERN

The features and associated artifacts and faunal remains recorded in the Zone I excavation appear to represent a single, discrete episode of occupation. All features originated at between 7 and 10 centimeters below the modern ground surface, and the great majority of artifacts and faunal remains in Zone I occurred within the 7- to 10-cm depth range.

Further indicating the contemporaneity of features and artifacts is the horizontal patterning of the finds. An examination of Figure 3 reveals a distinct tendency for artifacts and bone fragments to cluster rather tightly around the hearths, Features 4, 5 and 6, with the exception of a relatively dense cluster of sherds and lithic debitage in the northeastern portion of the excavated area. In terms of relative densities, three areas of debris clustering are suggested:

- 1) An area of moderate density partially encircling the group of hearths and contained within a radius of 1.5-2 meters to the northeast, east and south of the hearths. The average density of debris in this area (potsherds, chert debitage and bone fragments), in terms of numbers of specimens per 1 meter² units wholly or largely within the area, is 27.1/1 meter²;

* These photographs were taken by Herman Smith, archaeologist with the Corpus Christi Museum, who was experimenting with the use of infrared photography in various excavation situations at the time. I noted the mentioned dark spots when examining the photos at the Corpus Christi Museum, where they remain on file.

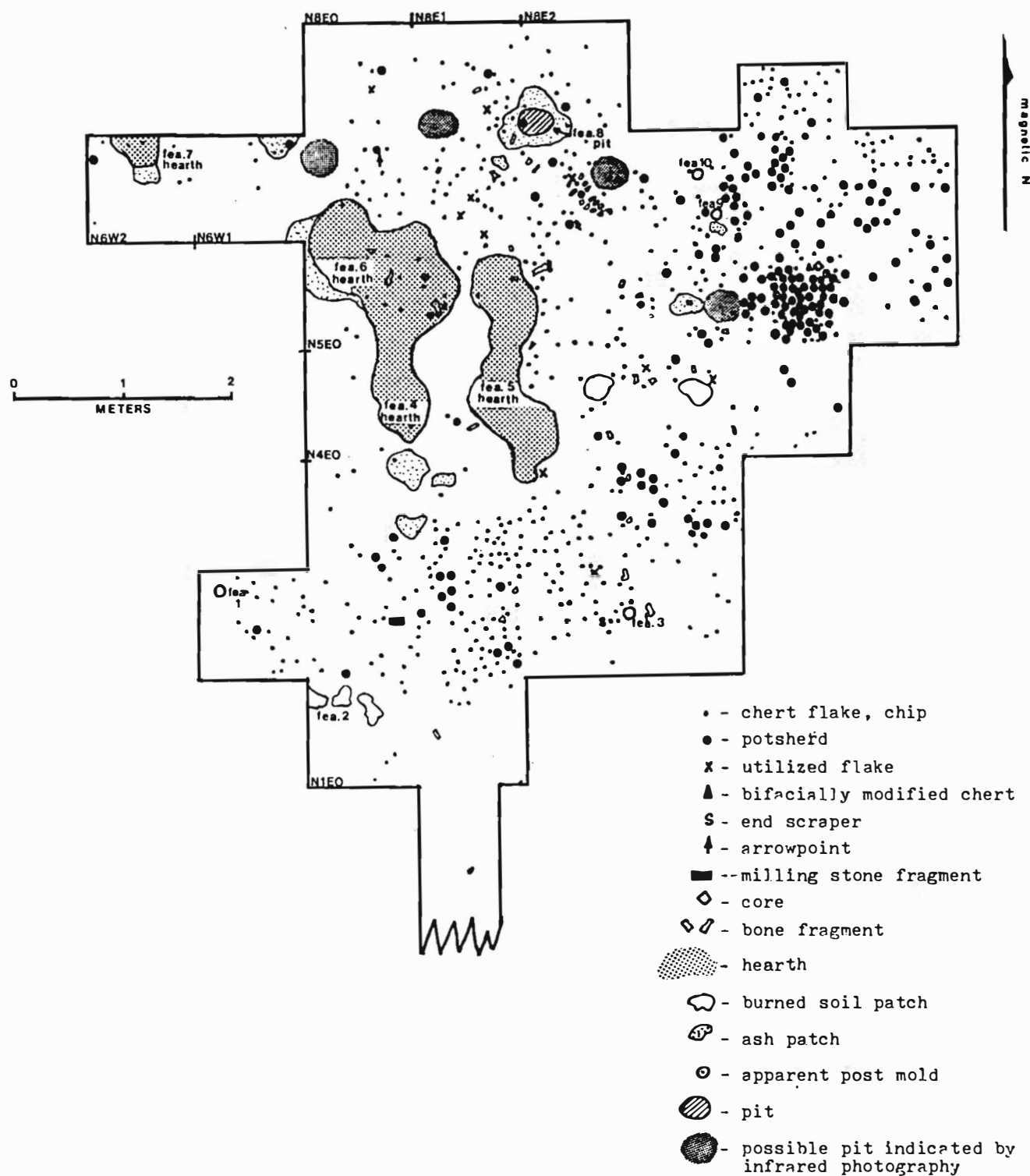


Figure 3. Map of Excavation Area A, Zone I (5-12 cm depth), Indicating Horizontal Positions of Artifacts, Bone, Debris and Features.

- 2) An area of relatively high density in the northeastern portion of the excavated area. Bone fragments in this area were absent, save very small splinters. Density of sherds and debitage averaged 48 specimens per 1 meter²;
- 3) An area defined as all of the Zone I excavation outside Areas 1 and 2. Debris was extremely sparse, averaging 3.5 specimens per 1 meter².

These three areas are outlined in Figure 4. The circular, moderately dense cluster around Features 4, 5 and 6 is not believed to be fortuitous, and probably represents the performance of various daily activities around a central hearth complex. The location of the cluster to the northeast, east and south of the hearths makes sense in light of the fact that prevailing winds during the spring, the season of occupation indicated by analysis of associated *Rangia cuneata* shells, come from the east-southeast (Brown et al. 1976:29); activity would tend to be concentrated on the windward side of hearths (see Figure 5).

In this light, the area in the northeastern part of the excavation, which had the highest density of debris, probably represents an episode of trash deposition. The association of this debris with that around the hearths is clear, since the sherds in both areas pertain largely to the same vessels as indicated by analysis of various sherd attributes. Since the area around the hearths was probably a focal point of camp activity, it is apparent that the area represents a maintained surface: debris resulting from various activities was deposited elsewhere. One area of debris disposal has been inferred for the debris cluster in the northeast portion of the excavation; presumably other episodes of trash disposal occurred in locations beyond the limits of the excavation, since recovered potsherds represent only small fractions of several vessels.

It is suggested that the debris cluster around the hearths represents activities performed within a circular, or semicircular structure. Several points support this inference:

1. With the exception of the relatively high density debris cluster believed to represent trash disposal, debris is distributed around the hearths in a quite circular pattern. This is indicated in Figure 4: it will be noted that nearly all potsherds, debitage, and bone fragments fall within the indicated circular line, suggesting a structural containment which minimized the natural tendency for debris to be scattered by daily treadage.

2. As may also be seen in Figure 4, Features 1, 3, 9 and 10, the possible post molds, are located on, or very close to, the circular line which defines the extent of debris around the hearths. Though every effort was made during excavation to locate post molds in all units, these four were the only features which seemed to actually be post molds.

3. The small pit, Feature 8, is situated just inside of the edge of the circular pattern. Thus, in accord with the present postulation of structural containment, this feature represents a pit located inside a structure and close to the wall of that structure. The placement of pits which served as storage facilities within domiciles, close to wall lines, is well documented from a wide range of prehistoric cultural contexts in North America.

4. The possible pits indicated by infrared photography form an alignment which includes Feature 8, and which conforms very closely to the circular pattern indicated in Figure 4. Also, the spacing of these possible pits, including Feature 8, is quite uniform, strongly suggesting that the spots

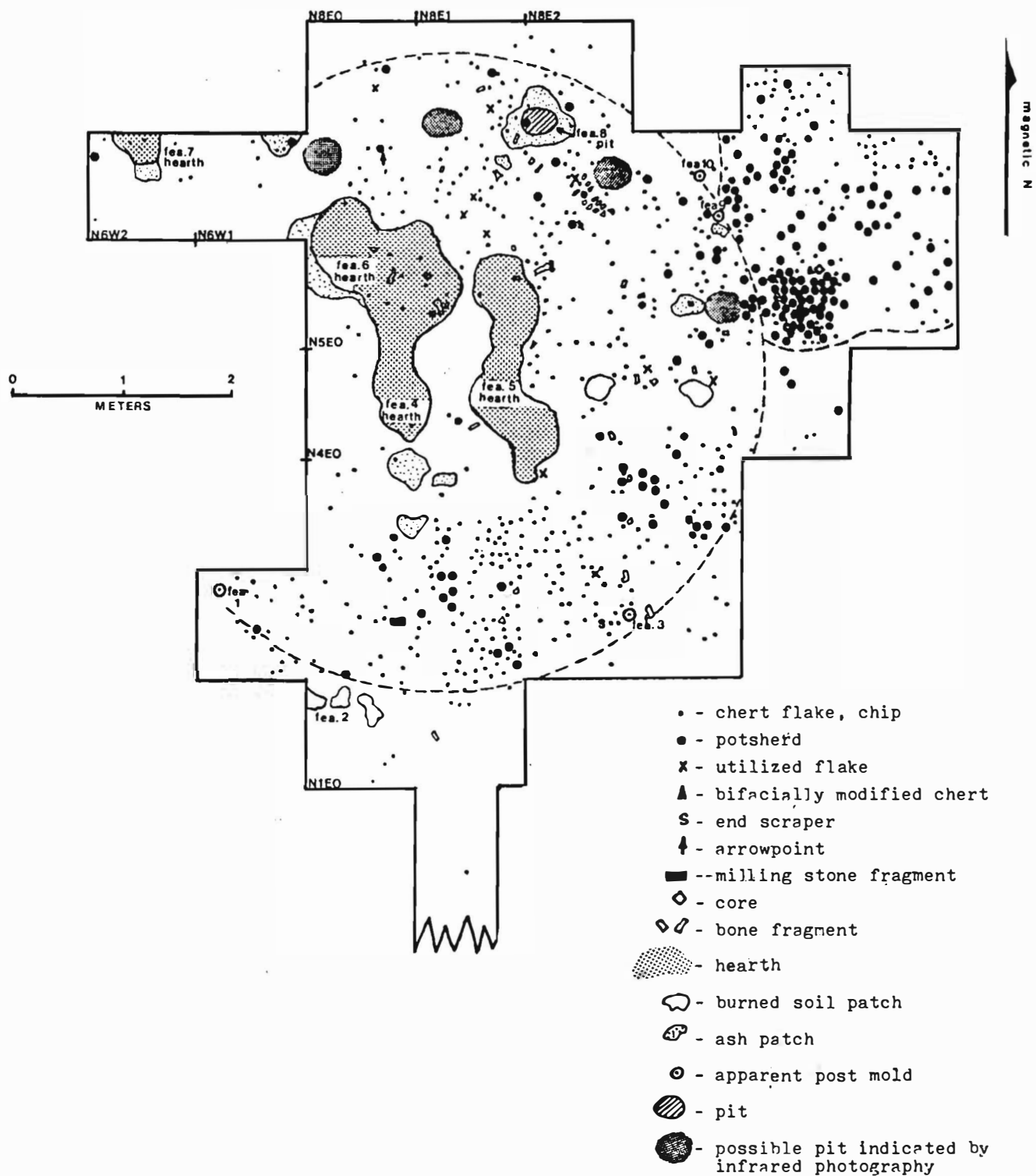


Figure 4. Map of Zone I Excavation With Suggested Debris Clusters Outlined by Dashed Lines.

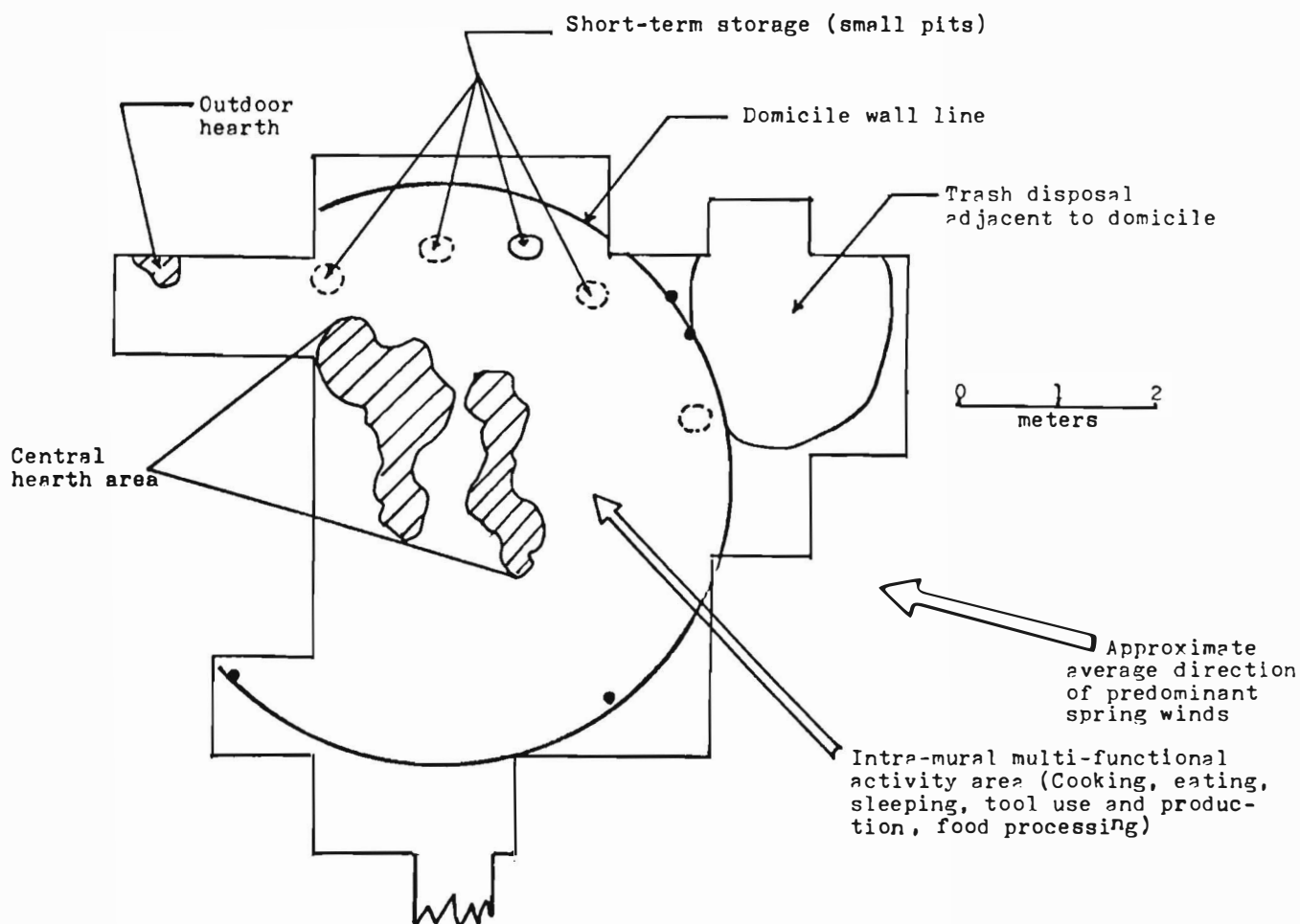


Figure 5. Diagrammatic Representation of Utilization of Space as Inferred from Zone I Findings. Note orientation of features and inferred multiple activity area in relation to direction of prevailing spring winds.

visible in the photographs do, indeed, represent a series of small pits located just inside a circular structural wall.

Taken together, these data form a strong basis for the postulation of a circular or semicircular hut, about 5.5 meters in diameter with a central hearth complex. Such an inferred structure conforms well to the kind of huts attributed to the historic aboriginal inhabitants of the general central Texas Coast region: Newcomb (1983:363) has described the dwellings of the Karankawa as

"...constructed of a dozen or so slender willow poles approximately 18 feet long and pointed at one or both ends. The sharpened ends were forced into the ground in a circle, the upper ends interlaced and tied with thongs to form an oval framework over which skins and woven rush mats were thrown. Often only the windward side was covered, so it could as well be called a windbreak as a hut.... They could be dismantled quickly.... Fires for cooking and for heat were built in the center of the huts, the smoke easily finding its way out."

SUMMARY

The data and interpretations offered here may be summarized as a reasonably inferred picture of an episode of occupation during the Late Prehistoric Stage of the Coastal Bend area. The excavated area appears to have been the locus of a seasonal campsite occupied by a small group of people, perhaps a single nuclear or small extended family. The range of artifacts recovered (arrow points, various cutting and scraping tools, a milling stone section, and potsherds from several vessels, including one fairly large jar which may have served as a cooking pot) suggests a range of mundane camp activities at this location. It is likely that these various activities were carried out within a fairly sizeable circular or semicircular domicile containing a central hearth complex. The presence of at least one, and very likely several, small storage pits within the postulated structure suggests short-term storage, perhaps of gathered plant resources. Faunal remains point to a primary reliance on large terrestrial game for subsistence (bison, whitetail deer), with only a very minor contribution of *Rangia cuneata* clams from the nearby Nueces estuary. It is notable that no fish remains were definitely attributable to the Zone I Late Prehistoric occupation.

The inferred utilization of horizontal space at this locus is presented in simple graphic form in Figure 5.

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* * * * *

A REMINDER

Membership in the Southern Texas Archaeological Association is on a calendar basis--January 1 to January 1. **La Tierra** cannot be mailed to delinquent members, and it is hoped that publication will start early in the membership year. PLEASE RENEW AS EARLY AS POSSIBLE--RENEWALS ARE ACCEPTED FROM OCTOBER ON, but payment should be made for one year at a time, due to possible changes in membership dues. Send dues (\$7.50, Individual; \$15.00 Family; \$15.00 Contributing; \$30.00 Supporting; and \$3.00 High School) to: Liz Smith, 1607 W. Huisache, San Antonio, TX 78201.

AN EXAMPLE OF A MYTHICAL CREATURE IN PECOS RIVER STYLE ART: SOUTHWEST TEXAS

Solveig A. Turpin

ABSTRACT

A distinct figure, repeated at eight pictograph sites in the Lower Pecos River region, combines elements not found in nature, suggesting it represents a character in the mythology or oral history of the Archaic artists. Straight lines emanating from the top of an oval body are crossed by perpendicular straight lines, symbolizing a dart in the larger iconographic vocabulary of the region. The wide distribution of this figure may reflect the extent of a unified belief system that prevailed in prehistory.

INTRODUCTION

Attempts to interpret prehistoric art are often hampered by the inability of modern man to experience the supernatural world, especially as it is manifested in the more abstract styles. The Pecos River style pictographs of the Lower Pecos Region (Figure 1) are often considered religious art, depicting shamans and their mythical spirit world. Exactly what many of the figures are intended to portray is probably beyond our reach, but charting of repetitive symbols is one means of defining the extent of this unified belief system. Eight widely dispersed representations of the same abstraction suggest that the artist was portraying a mythic character whose specific attributes were understood by the viewing public.

A MYTHICAL FIGURE

The salient characteristics of the Dart Headed figure are illustrated in Figure 2 which compares examples from five sites. The most distinctive attribute common to all these figures is two parallel lines, crossed by or terminating in two perpendicular lines, emanating from the upper end or head of an ovoid body. The crossing lines resemble a symbol often used as an abstraction for darts (Kirkland and Newcomb 1967), hence the meaning-laden name of this figure. The figure is occasionally impaled or the apparent target of attack. In most cases, the body is ovoid with appendages at both ends. The lower extremities are usually central protrusions, sometimes flanked by parallel lines. Some part of the figure is invariably outlined with short dashed lines, a typical convention for hair. The most famous of these figures, from Panther Cave (Figure 2, a), is usually considered to be a turtle. Only his lower appendages are hairy. A second possible example in Panther Cave (see Kirkland and Newcomb 1967: Frontispiece) also resembles a turtle with fuzzy lower extremities. In the Panther Cave examples, the central protrusions appear to be feet, in others a single extension is more tail-like, suggesting a water mammal such as a beaver (Figure 2, b). In two cases, dots contribute to an interpretation of a riverine setting, appearing like bubbles caused by movement through water. An example from high on the Devils River most resembles a magnified flea, with three hairy legs protruding beneath a globular body. This grotesque is, however, yellow painted over a solid red figure, and it may be that the red linear elements are part of the older composition, only appearing

to emanate from its hindquarters. Usually, the crossbars would represent the creature's head, the lower extremities the feet or tail. In one example, at Rio Grande Cliffs (41 VV 81), the figure is inverted (Figure 2, c).

DISCUSSION

The consistency of these attributes was first noticed during a recent University of Texas rock art survey in Val Verde County. Three newly recorded sites, two on the Devils River above Lake Amistad (41 VV 696, 41 VV 840) and one on the Rio Grande above the mouth of the Pecos River (41 VV 770; Figure 2, d), contained examples of the Dart Headed figure. Although they are stylistically quite different, the salient attributes of fuzzy body and crossed lines appear on four figures. Site 41 VV 770 contains two examples - a solid red figure with fuzzy body and tail (Figure 2, d), the latter flanked by parallel linear elements, and a yellow fuzzy ovoid with red spots along a vertical axis. Although spalling has eradicated the head of the figure in 41 VV 840, the remaining body is virtually identical to the 41 VV 770 example (Figure 2, d). Another example (41 VV 50) was then noted during the reevaluation of sites recorded by Graham and Davis (n.d.) along the upper reaches of Amistad Reservoir. A search of previously recorded rock art sites in the Lower Pecos produced other examples: 41 VV 81 (Rio Grande Cliffs; see Figure 2, b), 41 VV 83 (Panther Cave; Figure 2, a), 41 VV 134 (Pecos River Site 14; Figure 2, d), and 41 VV 65 (Pecos River Cave 2; Figure 2, e)--all illustrated by Kirkland and Newcomb (1967:Plates 8, 18.9, 25, 40.1). Two other candidates are illustrated by Kirkland and Newcomb (1967:Plates 9.1, 36.3) at Eagle Cave (41 VV 167; see also Jackson 1938:Figure 177) and Ingram Ranch (41 VV 242), but field verification failed due to the extreme deterioration at Eagle Cave and the inaccessibility of Ingram Ranch.

The eight sites where this figure has been positively identified are widely dispersed (Figure 1). Sites 41 VV 696, 41 VV 840 and 41 VV 50 are on the left bank of the Devils River, Panther Cave and 41 VV 770 on the left bank of the Rio Grande, and 41 VV 134 and 41 VV 65 on the left and right banks of the Pecos River respectively. Rio Grande Cliffs, 41 VV 81, just downstream of Panther Cave, is now inundated by the reservoir. The two possible examples in Eagle Cave and Ingram Ranch would extend the sample higher on the Rio Grande and Pecos River. All these sites contain exceptionally elaborate Pecos River style panels, but no other consistently repeated figures beyond the generic shamans and their attendant symbols tie the iconography to a specific theme.

CONCLUSIONS

It is unlikely that the meaning of the Dart Headed figure will ever be understood. Its importance lies in the repetition of bizarre elements, not found together in nature, implying a shared iconographic vocabulary that transcended the distances between river valleys. Minor variation between the examples is evidence for different artists interpreting a symbol carried in the imagination. A reasonable hypothesis is that the Dart Headed figure represents a character in the mythology or oral history of the Pecos River people; its repetition is evidence for the unity of their belief system.

ACKNOWLEDGEMENTS

The similarities between these distant figures would not have become apparent without the permission of the landowners who allowed us to survey and review rock art sites on their property. The assistance of Darlene and Dee Cork, Jack and Wilmoth Skiles, the Texas Parks and Wildlife Department and the Hermann Hospital Estate is gratefully acknowledged. The Texas Memorial Museum generously allowed the reproduction of Kirkland's original drawings as Figure 2, a-c, e. David G. Robinson drew Figure 2, d. Funding for the rock art

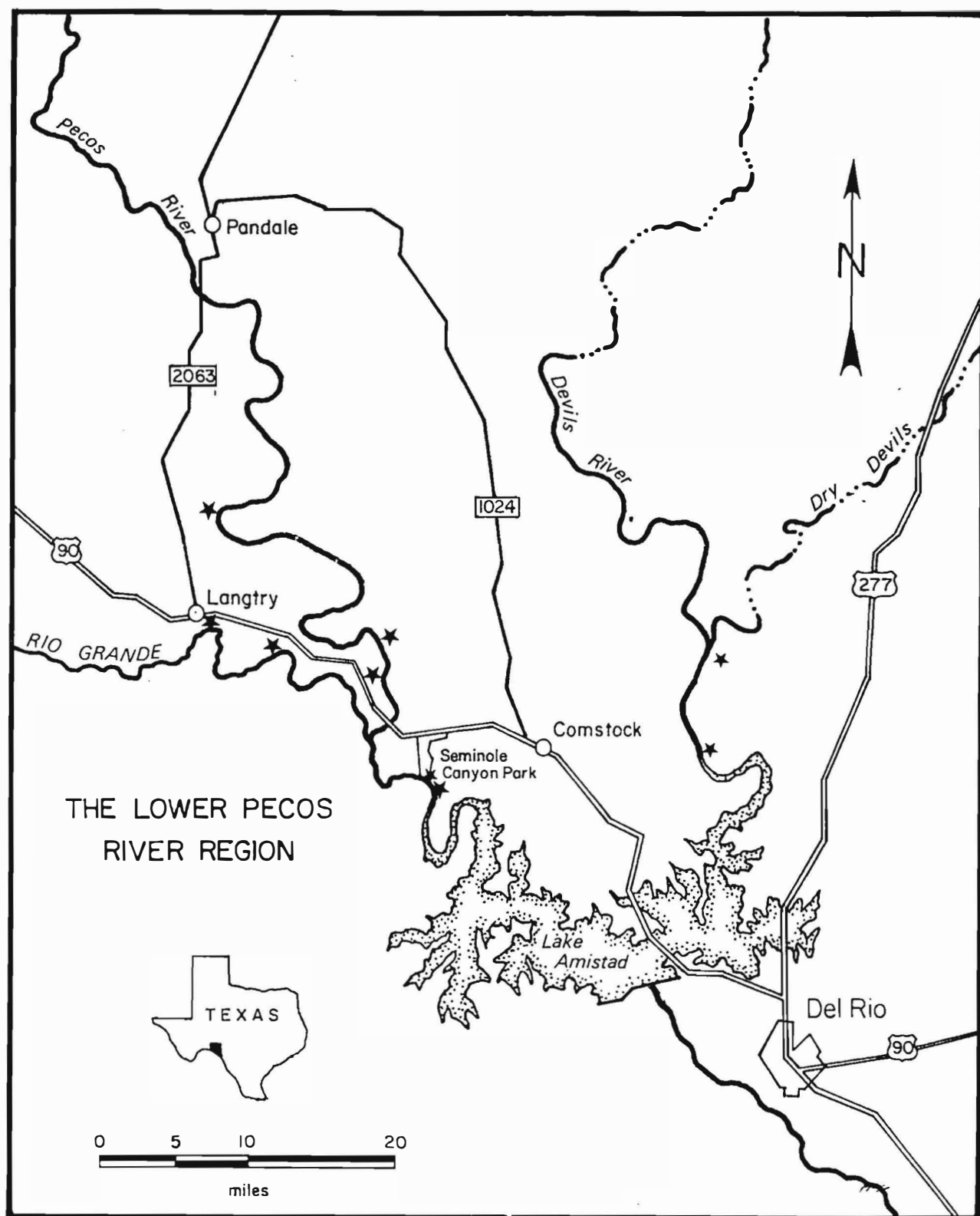


Figure 1. Locations of the Dart Headed Figure in the Lower Pecos River Region of Texas. Stars indicate the sites where this iconograph has been observed.

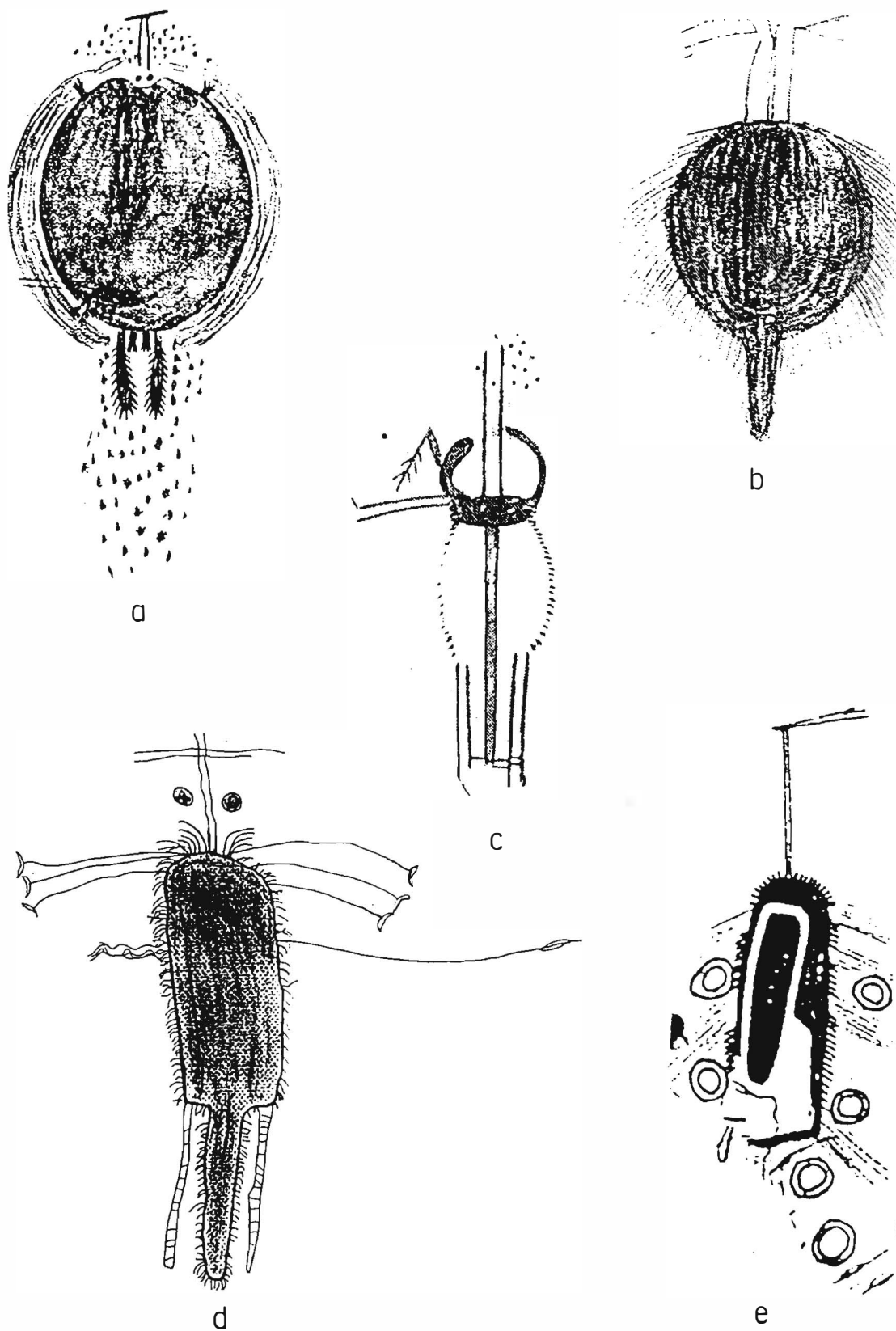


Figure 2. Examples of the Dart Headed Figure, Lower Pecos River Region.
 a, 41 VV 83; b, 41 VV 65; c, 41 VV 81; d, 41 VV 770; e, 41 VV 134.
 a-c, e reproduced courtesy of the Texas Memorial Museum (not to scale).

survey was provided by the Kleberg Foundation of San Antonio, the Thompson Foundation of Cleveland, Ohio and matched by the Department of the Interior, National Register Survey Grants.

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FIRED CLAYBALLS IN SOUTHEAST TEXAS

L. W. Patterson

ABSTRACT

Archaeological evidence in southeastern Texas seems to contradict Huebner's experimental finding that fired clay balls are a byproduct of hearth building. A substantial number of intentionally made clay balls have been recovered from archaeological sites in the southeast section of the state as well as in adjacent Louisiana.

INTRODUCTION

The occurrence of fired clayballs at prehistoric sites in southeastern Texas has been documented some time ago. Excavated sites (Aten 1967:39, Patterson 1980:Table 5, Patterson and Hudgins 1983:13) have yielded large quantities of these objects, sometimes in concentrated deposits. Fired clayballs have been found to occur in all prehistoric time periods, from Paleo-Indian to Late Prehistoric, in this region.

Huebner (1986) conducted a series of experiments concerning fired clay objects. He concluded that experimental results favor Corbin's (1963) hypothesis, that fired clay objects are the result of fires built directly on clay surfaces, or of baking of clay lumps that were formed accidentally during fire pit digging. This appears to be a limited explanation, as more than one type of fired clay object can be found at prehistoric sites on the Texas coastal plain. This article discusses differences in purposely made fired clayballs and other types of baked clay objects.

NATURE OF FIRED CLAY OBJECTS

Fired clay objects found in southeast Texas seem to have two processes of formation. One is the purposeful manufacture of clayballs that are shaped and then fired. The other is the formation of fired clay fragments from fires on clay surfaces either natural or in clay-lined pits. Different types of baked clay objects result from these various processes.

Purposely shaped clayballs that are later exposed to fire will have most surfaces exposed directly to heat to form baked surfaces. This can be demonstrated for specimens found at prehistoric sites in southeast Texas. Cross sections of clayballs from site 41 WH 19 (Patterson field notes) are very uniform, with reddish to brown exterior surfaces and dark grey to black cores. This is similar to fired clay pottery that can have light colored oxidized outer surfaces and dark interior surfaces formed under reducing conditions (Shepard 1971:102). The uniformity of the outside surfaces of these clayballs demonstrate that they are not simply broken pieces of fired clay surfaces.

Clay surfaces that are exposed to heat will have only a single exterior surface directly exposed to the heat. Fragments of clay formed by this process will tend to be of two types: either thin uniformly baked pieces or thicker pieces with non-uniform cross sections that have had less interior exposure to heat. In either case, the clay fragments are not likely to be very thick (say under 30 mm) due to the insulating property of the clay. In contrast, purposely made fired clayballs can be very thick (up to 100 mm in diameter) and, as mentioned earlier, have uniformly baked exterior surfaces with darker cores.

The characteristics of purposefully made clayballs do not fit the possible formation process of clay being exposed to heat on a single exterior surface.

Purposely made fired clayballs that are not broken generally have fairly symmetrical round or ovoid shapes with smooth surfaces. Baked clay objects formed from fortuitous exposures to heat would be expected to have more angular shapes produced by cracking of clay surfaces, even when some rounding of edges occurs by erosion.

THE FUNCTION OF FIRED CLAYBALLS

In regard to the function of purposely made fired clayballs, I favor the explanation usually given for the use of this type of object at sites of the Poverty Point Culture, for baking or roasting of food (Ford and Webb 1956:44). Gibson (1975:202) states that "There is now little doubt the Poverty Point objects were used in pit baking, a mode of cooking common to the period between 1500-600 B.C. in the Lower Mississippi Valley and contiguous areas." Fired clayballs from prehistoric sites in southeast Texas do not have the fancy geometrical shapes of Poverty Point objects, but seem to have served the same function.

As noted previously (Patterson 1976:183), fired clayballs have a wide geographic and temporal distribution in southeast Texas. Approximately 11,000 clayballs were found at the Jamison Site in Liberty County (Aten 1967:39). Some other references to clayballs in this region include Ambler (1967:Table 3), Patterson (1975a:13, 1975b:18) and Shafer (1968:74). A total of 1,144 clayballs were found in excavations at the Owen Site in Harris County (Patterson 1980:Table 5), from Late Paleo-Indian to Late Prehistoric time periods. One possible hearth feature with a concentration of clayballs of a 20 by 30 cm area was found in the early Late Prehistoric level of this site (Patterson 1980:12).

Fired clayballs were found at all excavation levels, from Paleo-Indian to Late Prehistoric, at site 41 WH 19 in Wharton County (Patterson and Hudgins 1983:13). These clayballs ranged from 15 to 100 mm in diameter, with the largest percentage over 25 mm in diameter. A total of 4,397 clayballs were recovered from excavations at this site (Patterson, field notes), with 5 definite concentrations representing hearth features. One of these hearth features in the Early to Middle Archaic level was approximately 1 meter in diameter and contained 431 mostly large clayballs. A deer jaw was found on a clayball hearth feature at the Early Archaic level of this site.

Clayball concentrations that represent hearth features at prehistoric sites in southeast Texas are similar to burned rock concentrations at many sites in central Texas. However, clayball hearths in southeast Texas do not have the size of the large burned rock middens of central Texas. Burned rock and clayball hearths could have been used in a similar manner. After heating of the rocks or clayballs with a wood fire, food could have been placed directly on the hot rocks or clayballs for roasting.

Huebner (1986:34) found that the surfaces of hot experimental clayballs turned black after immersion in water. Since black clayballs are not common from archaeological sites that I have investigated in southeast Texas, I agree with his conclusion (Huebner 1986:36) that clayballs were not used in boiling technology on the Texas coast. The configuration of clayball concentrations suitable for baking hearths also supports this conclusion.

SUMMARY

This article has described the nature of different types of fired clay objects that can be found at archaeological sites on the Texas Gulf Coast. Some analytical criteria for distinguishing between purposely made clayballs

and other baked clay objects have been given. While the formation process of baked clay objects at archaeological sites is not always clear, in many cases it is possible to identify purposely made clayballs that were probably used for cooking functions.

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SITE 41 NU 190: INDICATIONS OF CEREMONIAL ACTIVITY
ON THE TEXAS COAST

Malcom L. Johnson

ABSTRACT

The purpose of this paper is to report on a site in Nueces County, Texas, that has yielded a large flint (or chert) knife which may have been used for ceremonial purposes, and to discuss other large knives that have been found in the coastal region of Texas, which may indicate the existence of certain ceremonial or religious beliefs that were held by some of the Texas coastal inhabitants.

THE SITE

The site is located on high ground, near the Nueces River, in northern Nueces County (see Figure 1). A shell midden was encountered nearer the river by Mr. Bob Spence, while digging the footing for his weekend home (Bob Spence, personal communication). The area of interest here is a separate site located above the floodplain of the Nueces.

In about 1956, Mr. Mifflin Dove and a friend were returning home after having spent the afternoon along the Nueces River. While crossing an area that had just been cleared by bulldozing, they found four lithic artifacts (Figure 2, A, B, C, D). Three years passed before another brief visit to the site was made in an attempt to locate other artifacts. At that time two additional chert artifacts were found (Figure 2, E, F), as well as a few small pottery sherds.

THE ARTIFACTS

A large knife (Figure 2, C) was recovered from 41 NU 190 which is unique, not only for its size, but also in its shape. Of the twelve large knives from the coastal area that will be discussed in this paper, it is the only one to have a lanceolate shape. It is made of a dark gray, good quality chert, is heavily patinated on one side, and has what could be termed a medium to heavy patina on the opposite side.

Although it is broken into three major pieces, and some of the small, crushed fragments are missing, its estimated original length is 26 cm (approximately 10.22 inches). Its widest point is just forward of its midsection, where it measures 6 cm (approximately 2.38 inches). Its thickest portion is approximately 2.8 cm above the base where it is 1.4 cm (approximately .55 inches) thick. However, this is due to a small knot in the chert which probably failed to thin properly. It seems likely that the thickest portion was intended to be near the midsection, where it is 1.3 cm (approximately .51 inches) thick. The knife is well made, and covered with broad, shallow flake scars, with finer retouching along its edges.

The middle fragment of the knife has what appears to be oil or asphaltum stains on both faces, but it is possible these occurred as a result of the bulldozing operations which are believed to have been carried out in conjunction with the laying of a pipeline. From the amount of patina on the knife, it is speculated that it was probably Archaic, although patina alone cannot be taken as an indication of great antiquity due to the various forces involved and to variations in chert.

The other artifacts recovered from the site include a triangular dart point (Figure 2, A). The distal tip is damaged slightly so the original total

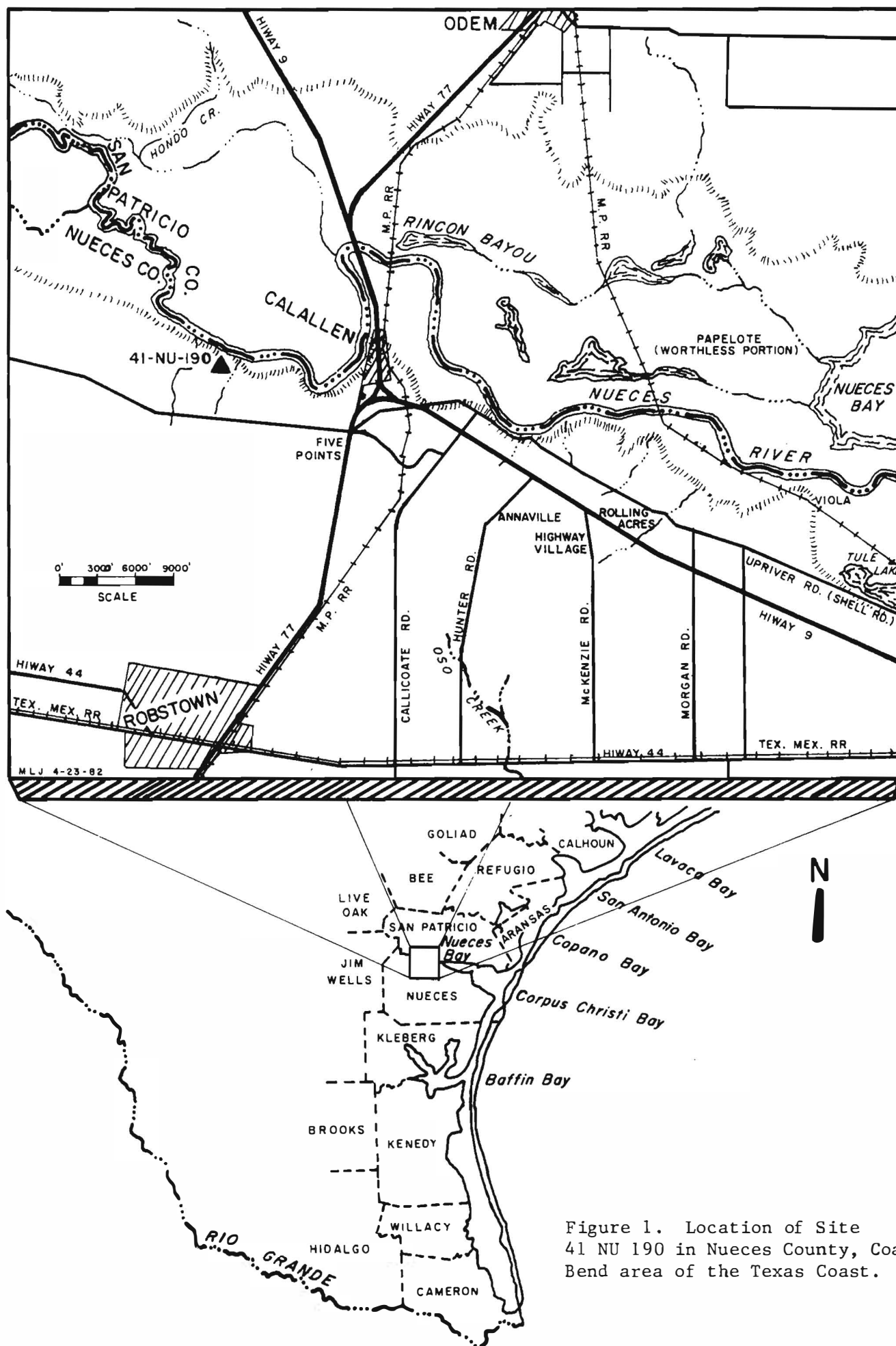


Figure 1. Location of Site 41 NU 190 in Nueces County, Coastal Bend area of the Texas Coast.

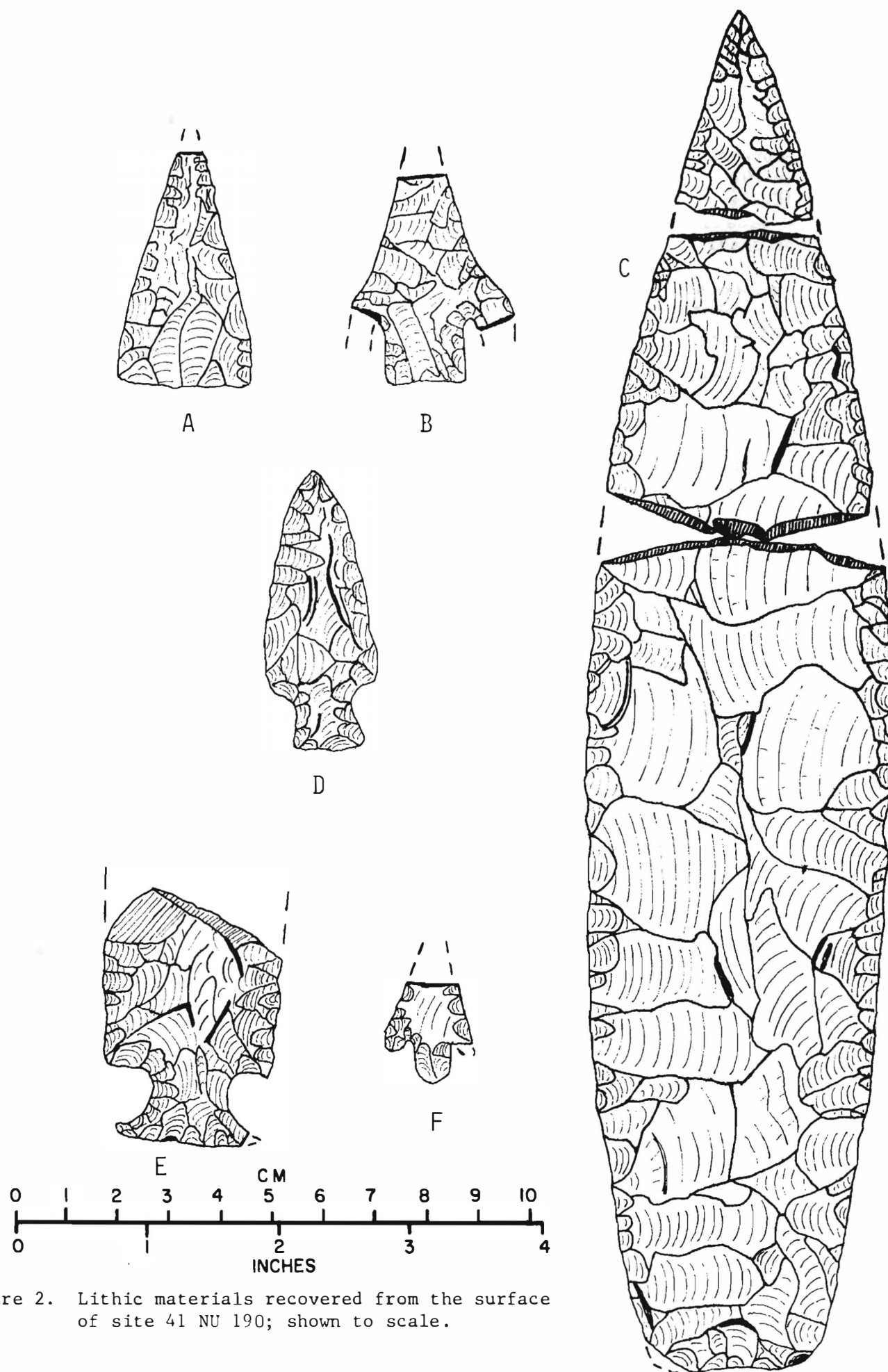


Figure 2. Lithic materials recovered from the surface of site 41 NU 190; shown to scale.

length is estimated to have been about 4.8 cm (approximately 1.9 inches). The width of the base is 2.6 cm (approximately 1.03 inches). It is made of a light grayish-tan chert, with numerous small, brown-colored inclusions. This material may be a petrified wood, but is not a good example of petrified palm. This point appears to fall within the type Hester has described as **Early Triangular** (Hester 1971). Similar points have been described by Kelley as **Taylor Thinned Base** (Kelley 1959), and by Prewitt as **Taylor** (Prewitt 1981).

A basally-notched dart point (Figure 2, B) is made of tan chert with pinkish shadings. The edges of the blade are recurved, probably due to reworking, and the distal tip is missing, so it is not possible to estimate its original total length. The barbs flare out at the shoulders before turning downward. Both barbs are missing. This point is tentatively identified as a reworked **Bell** point. Similar points have been found on the surface in Crosby County, Texas, and their possible relationship to the **Calf Creek** points from Oklahoma, and the **Charcos** points from the State of Coahuila, Mexico, has been pointed out (Parker and Mitchell 1979). Another similar form of point from South and Central Texas has been termed **Andice** (Prewitt 1981). Such points have also been found in surface collections in Colorado County, Texas (R. Freis, personal communication), and by the late David Espy in San Patricio County, Texas (see Chandler 1983). A short distance downstream from this site, at the McKenzie Site (41 NU 221), another **Bell** point was found and radiocarbon dates of 5220 \pm 90 B.P., 5310 \pm 90 B.P., and 5130 \pm 90 B.P. were obtained (Ricklis and Gunter 1986:26). **Andice**, **Bell**, **Calf Creek**, and **Charcos** are probably variations within a generic type (see Weber 1986).

The dart point in Figure 2, D is a **Palmillas** point. It is made of a dull, dark gray to black chert. It is smoothed as though it were water-worn, and may have been picked up at some other locality and brought back to camp with the idea of rechipping it. It is 5.2 cm long (approximately 2.05 inches), and 2.2 cm (approximately 0.86) inches wide.

The base of what is probably another knife is illustrated in Figure 2, E. It is patinated to a creamy tan color all over, including the fractures. The lateral edges of the blade are slightly expanding. The stem is formed by broad, deep, side notches. The base of the stem is slightly convex and the basal tips of the stem flare out nearly in line with the edges of the blade. In outline the base is similar to **Marcos**, but only one shoulder is very slightly barbed.

The only arrow point recovered at 41 NU 190 is illustrated in Figure 2, F, and may be a **Perdiz** or a **Bulbar Stemmed** point (Turner and Hester 1985:166). It is made of a flake of light tan chert. Both sides of the point retain areas of the original flake scars, with secondary flaking along the edges. The stem is fairly broad and contracts slightly to a base that is more rounded than pointed.

CHRONOLOGICAL IMPLICATIONS

Although only a small number of artifacts were recovered at the site, they indicate it was occupied over a considerable time span. **Early Triangular** points, similar to Figure 2, A, were found in an Early Archaic context at the La Jita site (Hester 1971), and similar points, associated with **Baird** points, were found in an Early Archaic component of the John Ischy Site (Sorrow 1969). Other similar points have been found associated with **Bell** points in an early zone at the Landslide Site, where they are assigned an estimated age of 4500 B.C. - 3500 B.C. (Sorrow, et al. 1967). **Bell** points have also been reported from the lower midden at the Jetta Court Site in Central Texas (Wesolowsky, et al. 1976).

The **Palmillas** point, Figure 2, D, is considered to belong to a middle to late Archaic context. Their distribution is widespread across the state and into Mexico, but they are not common in any particular area (Suhm and Jelks 1962; Turner and Hester 1985:134).

This site, 41 NU 190, is located not too far from site 41 NU 184, also known as the Means Site, where post molds were found during excavation that may represent a fairly large hut. A corrected radiocarbon date of 5080 ± 70 B.P. was also obtained (Ricklis and Gunter 1986:15-31).

Archaic materials along the central coast have generally been lumped into the Aransas Focus (Campbell 1964; Corbin 1974). It originally was believed that the Archaic occupations along the coast occurred relatively late in time. However, as more material is located and reported, it is becoming increasingly apparent that occupations extend much farther back in time than originally believed, and that the present concept of the Coastal Archaic will have to be revised (Johnson 1981).

The presence of the **Perdiz** or **Bulbar Stemmed** arrow point (Figure 2, F) and pottery, indicate the site may have been occupied up until Neo-Archaic times. The term Neo-Archaic has been proposed by E. Mott Davis for cultures that adapted the use of the bow and arrow, and pottery, but who otherwise continued an Archaic type of lifestyle (Prewitt and Nance 1980). J. Charles Kelley (1959) and others have noted that the inhabitants of the central Texas coast were still following basically an Archaic style culture when the first European, Cabeza de Vaca, arrived. As a result of Cabeza de Vaca's long wanderings through Texas (1528-1536), we are provided with historical documentation of the existence and use of certain knives which were as large, or larger, than the one illustrated in Figure 2, C.

HISTORICAL DOCUMENTATION

Cabeza de Vaca reported a legend that he heard while living with the Avavares. They referred to a man named Mala Cosa (Bad Thing). He was small and wore a beard. The Avavares said their hair stood up and they shook all over whenever he came around. Mala Cosa would approach a house carrying a torch, enter, and select a man that he would perform two surgical operations on, with a large flint knife, said to be sixteen inches in length, and as wide as a human hand. He made three large cuts in one side of the man's abdomen, and reaching in with his hand, pulled out the intestines. He then cut out a section of intestine about eight inches long and threw it in the fire. For the second operation Mala Cosa would make three cuts at an elbow joint and sever the arm. Then Mala Cosa would pass his hands over the severed parts, and the arm would come together again, healed instantly. Presumably the same thing was done over the abdominal cuts, but it is not explicitly recorded (Bandelier 1905; Campbell and Campbell 1981).

Other things were also attributed to Mala Cosa: he would pick up a house, take it high into the air, then ride it back down to earth. Sometimes he would come to Avavares ceremonies, appearing either as a male or female. He would never accept food and claimed that his home was under the ground. When the Spaniards laughed at the legend, the Avavares produced individuals who had scars on their abdomen and elbow.

The same legend was related to the Spaniards by several other Indian groups. Campbell has suggested that the three cuts made during each operation, and ceremonial activity on three successive nights, may indicate that the Avavares believed the number three had special symbolic significance (Campbell and Campbell 1981). Cabeza de Vaca also implies the Avavares associated the seasons with the movements of certain constellations. He says they were quite accomplished at star gazing. They had at least two Shamen in the tribe, and may have considered the sun as a Deity. They paid Cabeza de Vaca with prickly pear fruit, venison, and bows and arrows for curing some of their members who were sick (Campbell and Campbell 1981).

The location of the Avavares is believed to have been along both sides of the lower Nueces River, in parts of Duval, Jim Wells, Nueces, and San Patricio Counties. Campbell believes this placement best accommodates two recorded

facts: (1) In 1535 the Avavares ranged far enough south to be fairly close to the Arbadaos, and (2) The Avavares had visited the coastal Fig People (Los de los Higos) among whom they had seen two Spanish shipwreck survivors. The Fig People, the southernmost Texas coastal group to be named by Cabeza de Vaca, probably lived somewhere not far south of Corpus Christi Bay. The name Avavares is Spanish and seems to translate as having something to do with the way they harvested Ebony beans (Johnson 1985:31).

In Cabeza de Vaca's narrative there is another mention of large ceremonial knives. During the summer of 1535, he encountered the Cutalchuches in the prickly pear collecting grounds, camped near the Avavares, Maliacones, Coayos, Atayos, and Susolas. Some encampments were close enough for individuals to visit back and forth. Cabeza de Vaca indicates the Cutalchuches spoke a different language from the Avavares and Maliacones. It has been suggested that the Cutalchuches winter range was in or near the area covered by northwestern Nueces County and southwestern San Patricio County (see Figure 1). The summer range has been placed in portions of Duval and Jim Wells Counties, or farther north, in central Live Oak County, below the junction of the Frio and Nueces Rivers (Campbell and Campbell 1981).

Cabeza de Vaca related that at the end of the prickly pear season, the Cutalchuches gave the Spaniards all the ripe pears they had left, and also gave them something of great value, large flint knives. It is not stated, but one knife may have been given to each Spaniard. These knives had a length of about twelve inches. It is possible that these large knives were valued by the Cutalchuches because of some ceremonial use (Campbell and Campbell 1981). Interestingly, according to the locations that have been worked out for them, the Avavares, with their Mala Cosa, and the Cutalchuches could have both been in the area of 41 NU 190 where the large knife illustrated in Figure 2, C was found (see Figure 1). The name Cutalchuches itself may indicate some sort of ceremonial or religious connotation (Johnson 1985:33).

It is noteworthy that even though Cabeza de Vaca lived with the Avavares for some time, it was the Cutalchuches who gave the Spaniards the knives. This suggests the possibility that they were the ones who were trading the large knives or large preforms. If they ranged up the Nueces River and to the north, it could place them near enough to the hill country area for it to be possible for them to obtain such chert.

After Cabeza de Vaca left the Avavares in 1535, he traveled south-southwestward for about eighteen miles, and encountered the Maliacones. His distribution statement seems to place their winter range somewhere near the lower Nueces River. He notes that the Avavares and Maliacones both ate the seeds from trees which are believed to have been the Texas Ebony (Campbell and Campbell 1981). It may be significant that there is a school and residential addition in Corpus Christi, near Nueces Bay, which bears the name Ebony Acres, after the large number of ebony trees that grew in that area until recently. Nearly all have now been cleared away, as they are thorny and provide little shade.

OTHER EVIDENCE OF CEREMONIAL KNIVES

Several other large knives have been found on the coast under circumstances that suggest they may have had some sort of ceremonial or religious use. In May 1963, the James Bowman family located a site on Padre Island which yielded 32 dart points and 88 arrow points, as well as various other artifacts. The most notable artifacts recovered were six large chert knives, and two tubular pipes made of sandstone (not illustrated). The knives and pipes appeared to have been associated with several burials. The pipes were fragmentary when found but were reconstructed. The knives were more or less pointed to somewhat rounded on both ends. They were well made of brownish or tanish chert, and some were thin enough to be somewhat translucent. They had been

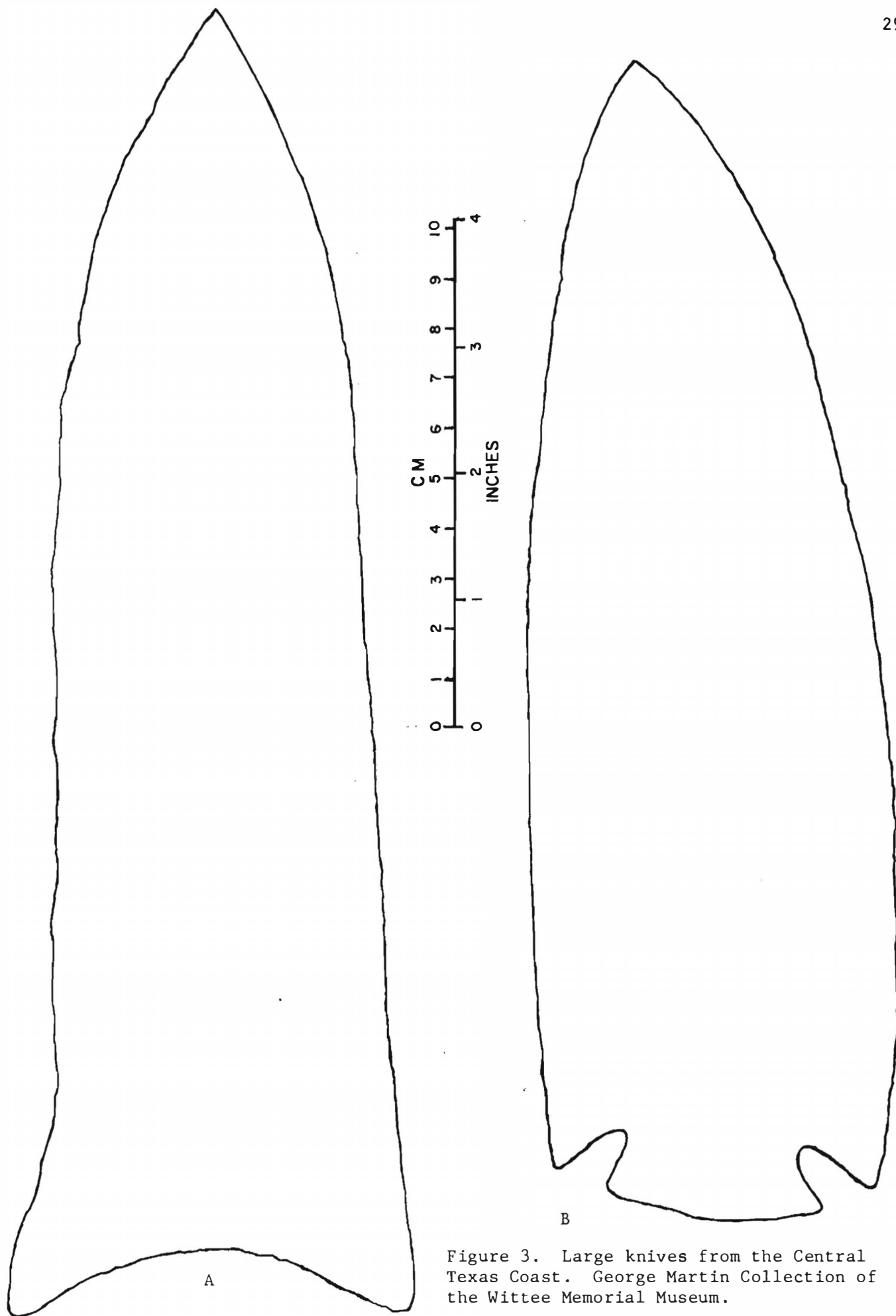


Figure 3. Large knives from the Central Texas Coast. George Martin Collection of the Wittee Memorial Museum.

made by removing large thin flakes, and then retouched along the edges by the removal of small flakes. Dr. T. N. Campbell was in the area making a preliminary appraisal of archaeological sites on Padre Island, and was taken to visit the site shortly after it was located (Campbell 1964). It was recorded as 41 KL 4, and is included in his report, wherein he gives the dimensions of the knives as ranging from 17.7 cm (approximately 7 inches) long, to 27 cm (approximately 10 5/8 inches) long. The widths were recorded as 7.4 cm (approximately 2 7/8 inches) to 7.8 cm (approximately 3 1/16 inches). They were from .6 cm (approximately 1/4 inch) to 1 cm in thickness.

Campbell suggested the knives and tubular pipes were associated with Archaic burials. He also suggested that inland cultural contacts may have been made, based on the presence of a **Pedernales** point (Campbell 1964). From the dart points and other artifacts that were recovered, we may assume the site was reused from middle to late Archaic times (**Pedernales, Tortugas, Refugio, Darl, Desmuke, Ensor, Kinney, Matamoros, and Pandora**), and during the Neo-Archaic (Late Prehistoric) periods. In 1974 the site was reported as still being the only burial site that had been located on Padre Island (Scurlock, et al. 1974).

While living in Corpus Christi, vague but persistent rumors circulated, to the effect that the late John Dunn had also found several large ceremonial knives. According to local legend, the knives were given to the Witte Memorial Museum after Dunn's private museum on Lipan Street in Corpus Christi was closed after his death. Recently a trip was made to the Witte Memorial Museum in San Antonio to try and ascertain if they indeed had John Dunn's large knives in their collection.

In a storage room were a number of artifacts still mounted on a blackboard from a display that had been set up a number of years ago. Among the artifacts were three large chert knives which were labeled "Flint Knives, Coastal Texas" (Figure 3, A and B, and Figure 4, B). A search of the index cards failed to turn up any large knives attributable to the John Dunn collection. However, Dunn's name is mentioned several times in the notes on the index files of the George Martin collection, and it is known that they were acquainted.

The three mounted knives are attributed to the Martin collection, but have no visible catalog numbers, although there may be numbers on the sides which are fastened to the board. Three index file cards were located which seem to relate to the three large knives. One of the index cards, No. 30-4509-123, gives a dimension of a knife as 8 7/8 inches long. This corresponds to the length of the knife shown in Figure 3, B, as measured along its straight edge. If a measurement is made from the middle of the base to the distal tip, the overall length is 23.2 cm (approximately 9 1/8 inches). Its widest point is approximately at its midsection, where it measures 7 cm (approximately 2 3/4 inches). It is barbed, and has an expanding stem formed by fairly deep corner notches. The base of the stem is convex. One edge of the blade is straight for approximately half of its length, then it curves slightly toward the distal tip. The other edge of the blade is convex for its entire length, giving the knife a curved appearance. It is made of medium-gray chert, and has some patina. It is not noted if the knife was a surface find, or if it came from an excavation.

Another file card, No. 29-3905, states: "Fine specimen of heavy knife from Live Oak Point Site No. 2," while a third index file card, No. 29-3908, states: "Tschu Knife East Elgin Island, Aransas County - Moorehead's Implements." Warren K. Moorehead's book, "Prehistoric Implements," published in 1900, illustrates several large ceremonial knives. One of them, a bipointed knife from Illinois, is 20 inches long; but he does not refer to any of them as a "Tschu Knife," so Martin's meaning is unclear.

Unless the catalog numbers are actually on the back side of the mounted knives, it will probably never be known for certain which card pertains to which knife. It may be that since only one card refers to a "Tschu Knife," and since two of the knives have similar basal outlines, then the so-called "Tschu

Knife" might be the large knife shown in Figure 3, A, but this is by no means certain. If the assumption is correct--that the largest knife (Figure 3, A) is from East Elgin Island, Aransas County--then the smaller specimen (Figure 4, B) is from Live Oak Point, Site No. 2. At any rate, it seems fairly certain that all three of the mounted knives reportedly came from Aransas County.

The largest knife in the Witte collection (Figure 3, A) is 26 cm long (approximately 10 1/4 inches) and 8.2 cm wide (approximately 3 1/4 inches) at the base, which is its widest point. The base is concave and measures 1 cm (approximately 3/8 inch) deep. The lateral edges of the blade flare out at the base, but are nearly straight and parallel for some distance through the mid-section, before curving inward to form the distal tip. Flaking is heavy, with retouching along the lateral edges. The workmanship is not quite as good as the other large knives. It is made of a dark, brownish-gray chert which shades to light gray at the distal tip.

The knife illustrated in Figure 4, B, measures 18.5 cm (approximately 7 1/4 inches) long, and 5.1 cm (approximately 2 inches) wide near the mid-section, which is its widest point. The lateral edges of the blade are more or less straight for about half its length, then curve gently inward to the distal tip. The stem is similar to the stem on Figure 3, B, except the base of the stem is more convex, and it has only a slight barb on one side while the other side has a distinct shoulder. Large flakes were removed and then it was retouched along its lateral edges. It is made of dark gray chert which is similar to that of the lanceolate-shaped knife from Nueces County (Figure 2, C). The lower two-thirds of the knife appear to be patinated.

A fourth knife was located in the Martin collection which bore Catalog No. 3986 (Figure 4, A). It measures 12.7 cm (approximately 5 inches) long and 6.5 cm (approximately 2 1/2 inches) wide. It is triangular in shape and has a straight base. It is a tanish color and appears to be patinated. According to the information on the index file, it was ploughed up in the bottom of a drained lake on the DeWitt farm, near Rockport, Texas, in Aransas County. Martin also noted on the card that a similar knife was found on Padre Island by John B. Dunn. Although they had not been located at the time of this writing, the possibility still exists that there are other large knives from the Dunn Collection, and perhaps from other collections, in storage elsewhere and as yet unreported.

CULTURAL BOUNDARIES

Jim Corbin has noted that the Nueces Bay may have been a cultural boundary. His observations were based on a change in projectile point typology from south to north across the bay (Corbin 1974). It has also been noted that the Nueces Bay may have been a cultural boundary based on observations of the distribution of perforated oyster shells (Johnson 1981).

There may also be a typological difference in the distribution of various types of large knives found in this area of the coast. From Aransas County have come the two stemmed knives (Figure 3, B and Figure 4, B), one triangular knife with a strongly concave base (Figure 3, A), and one triangular knife with a straight base (Figure 4, A). From farther south along the coast, in Nueces County near Nueces Bay, has come the large lanceolate-shaped knife (Figure 2, C), while still farther south, from Padre Island in Kleberg County, have come the six large bipointed knives (not illustrated). Also from Padre Island has come the triangular knife found by John Dunn (not illustrated).

On the basis of only a dozen specimens of these large knives, it cannot be stated with certainty that there were typological preference differences among the coastal groups. The finding of the six bipointed knives on one burial site on Padre Island versus the several types found on Nueces Bay and farther north in Aransas County (Stemmed Knives) strongly suggests that there may have been such a difference. This is a phenomenon which requires further study.

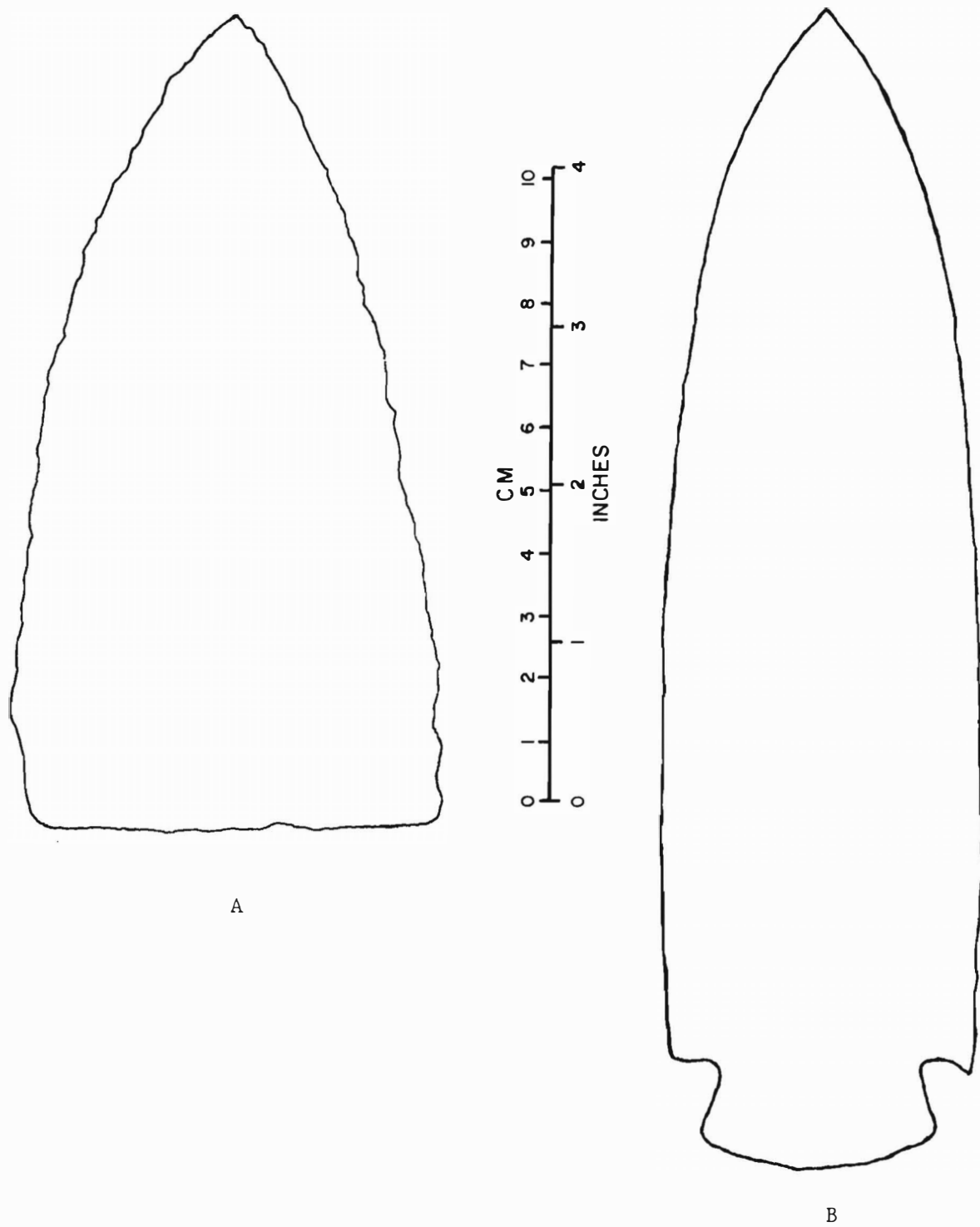


Figure 4. Other large knives from the Central Texas Coast in the George Martin Collection of the Witte Memorial Museum.

TRADE AND CONTACTS

Cabeza de Vaca indicated that trade was carried on between the inland groups and the shoreline and island groups, and various archaeological evidence confirms some sort of interrelationship between the coast and inland areas. For example, asphaltum on bones and a sunray clamshell have been reported from DeWitt County (Schmiedlin 1981).

From northeast Texas, in Red River County, a large bipointed knife was recovered during excavation of a shaft burial. The knife measures 23.6 cm (approximately 9 1/4 inches) long and 8 cm (approximately 3 1/8 inches) wide. Also in the site were numerous shell artifacts including a dipper made from a lightning whelk, conch columella beads, and gorgets, discs, pendants, cameos, and inlays of conch whorl. These artifacts have been attributed to a prehistoric Caddo occupation dated at A.D. 1300-1500 (Skinner et al. 1969).

Grant Hall studied several sites in the Allens Creek area of the Brazos River and reported extensive shell materials recovered with a large number of burials. He hypothesized an extensive trade network for shell and lithic artifacts which at some point in time probably included the central Texas coast (Hall 1981).

Other indications of possible far-reaching trade include a winged bannerstone found on southern Padre Island, which suggests trade, or at least contact, between the Texas coast and the Mississippi and Ohio valleys (Mitchell et al. 1980). A serpentine figurine and a bar-type stone gorget were found in a clay dune near Alazan Bay (Krieger 1953); the figurine is of Mesoamerican form, related to the Mezcala style found in the state of Guerrero, Mexico (Highley 1980). At least two circular gorgets made of the outer whorl of conch shell have been found which may point to some contact with the eastern United States (Janota 1980). The most recent evidence of long distance trade into Central and South Texas is Hester's report dealing with obsidian that has been transported from Idaho (Hester 1986).

Further evidence of the feasibility of long range travel and trade at an early date has been found in the Pecos region. In his study of pictographs in the Pecos area, Grieder (1966) has pointed out that in a large rockshelter, 41 VV 65, are two pictographs that are believed to represent dugout canoes with men in them. The first canoe is painted in monochrome black, is about twelve feet long, and appears to have six men in it. The second canoe is painted in black with a red outline; it is about fifteen feet long. Several of the figures appear to have darts pointing at them and one dart seems to be stuck through the bottom of the canoe. In another shelter, 41 VV 165, is a painting done in red, black, and yellow, which may also represent a canoe, but it is uncertain as it is badly eroded.

As a result of his studies, Grieder has defined a relative chronology of three different periods within the Pecos Style Pictographs. He presents evidence to indicate that the large pictographs that represent fishermen, fish, and a fishing culture, are the earliest style of pictographs, and he includes the canoes in this earliest style. He feels the Pecos Style began as an expression of a cult associated with a riverine economy, and as the area became more arid the economy shifted to a Deerhunter Style. He believes the earliest period of Pecos Style Pictographs, which includes the canoes, was begun quite early in time, and is associated with a Late Paleo-Indian or Early to Middle Archaic culture (Grieder 1966:710-720). The question of whether the dugout canoes were built and used by the Pecos People themselves, or whether they were built by coastal people, is really not the important issue at this point. The point that is important for us to realize and understand, is that canoes with their implications of transportation and possible trade, were known far inland, in Val Verde County, at a very early date.

In the early 1800s, the Karankawa were reported to have been seen camped some eighteen miles above present La Grange, Texas, on the Colorado River, by Mr. T. W. Grasmeyer (Gatschet 1891). That places them about 120 miles inland from the coast, and only about 40 miles southeast of present-day Austin. It seems entirely possible that the coastal inhabitants, with their canoes, could have traversed considerable distances inland along major rivers such as the Brazos, Guadalupe, San Antonio, La Vaca, and Nueces, even during Archaic times (Johnson 1980). The role of rivers and the use of canoes in prehistoric trade have not yet been systematically examined in Texas.

Dart points with asphaltum stains have been found near Cuero, Texas, not far from the Guadalupe River (Allen Turk, personal communication). This seems to substantiate some sort of contact with coastal inhabitants for a distance of about 60 miles inland along the Guadalupe River during the Archaic period. Thus the chert to produce the large knives found along the coast, or perhaps the finished knives themselves, may have been traded from a considerable distance.

DOCUMENTED CEREMONIAL ACTIVITY

The ceremonial or religious customs of the coastal inhabitants are not well understood, although various activities have been reported. Cabeza de Vaca related the story of Mala Cosa, some type of supreme being, and the use of large ceremonial knives. He mentions use of an intoxicating beverage, and may infer, in the name Maliacones, the use of other drugs (Johnson 1985:34). The number three may have had some special significance. Dream omens are also mentioned, as well as star Gazing. The sun was considered to be a diety, and some use of astronomy to tell various seasons has been reported.

Schaedel has given an account of ceremonies, as recorded by Morfi, in his discussion of three types of Mitote.

"A second type mitote, similar to the war dance, is the funeral dance. Like the war dance, it is accompanied by the cayman....the ceremony lasts for three days and nights, continuity is apparently achieved by relays of dancers.

"The third type of mitote is festive,....the musical instruments used in this dance were the tamborine made of a tortoise shell, half a gourd, or a French pot, ...a whistle of reeds, and an avacasele" (Schaedel 1949).

In 1838, Alice Williams Oliver moved to Matagorda Bay with her father, Captain Thomas Bridges. In her "Notes on the Carancahua Indians," she describes a ceremony she was eyewitness to:

"Once in a while they held a sort of solemn festival, or religious ceremonial, of what particular significance could not be exactly discovered. It was always celebrated at the full moon and after a very successful hunt or fishing expedition. A number of Indians...assembled in a tent which had been enlarged for the purpose, in the middle...boiled a very strong and black decoction made from leaves of youpon tree,...this tea contained in a vessel of clay of their own manufacture, was handed round occasionally and all...drank freely. It was very bitter and said to be intoxicating... These, seated in a row round the inside of the tent, looked very grave and almost solemn. One tall Indian, probably a chief, stood within the circle and passed round and round the fire chanting...being wrapped up to his head in skins, his face concealed, his long black hair streaming over his back...occasionally all the Indians joined in the chorus... There were three instruments of

music upon which the Indians accompanied the chant. One, a large gourd filled with small stones or shot, was frequently shaken; another was a fluted piece of wood, which was held upon the knees of the player and over which a stick was quickly drawn producing a droning noise; the third was a kind of rude flute, upon which no air was played, but which was softly blown in time to the chant. This "fandango"...kept up all night...chanting became louder and more weird...the fire...illuminated the earth and sky...altogether a frightful effect" (Gatschet 1891:18).

The account by Morfi is important in that he specifies that there were at least three different types of Mitote. In addition, he states that a "death instrument," the cayman, is played at war dances and funeral dances, and a different instrument, the avacasele, was played at festive Mitotes. The words avacasele and cayman both seem to be Spanish. The word **avacasele** seems to break down to **a vaca se le**, which might translate "to cow to them." This definition is unclear, unless it refers to the sound made by the instrument. If it is assumed that it refers to a kind of bellowing or droning sound, then it may equate with the fluted piece of wood reported by Alice Williams Oliver, and said to produce a droning sound. From the description of the instrument, and the way it was played, it seems plausible to think it was some type of "bullroarer."

In the earlier Spanish language, the letters "Y" and "I" were used interchangeably. So if "I" is substituted for "Y" then **cayman** becomes **caiman**, which translates as "alligator." Again, the meaning is unclear, unless it referred to the sound that was produced, or had something to do with a "maneater cult." Alligators can make a kind of hissing roar when provoked, and they make a clicking or chomping sound as they bite. A kind of instrument that comes to mind that might be used to simulate these sounds is some type of rasp. If a piece of bone or shell is drawn across a rasp fairly quickly, it can produce somewhat of a hissing sound. If drawn across at a slower rate, it produces a clickety-click sound. It is here suggested that some of the long bones that have been found with a series of notches cut into them may represent such a rasp, especially the ones made of human bone that have been found associated with burials. A good example of this type artifact has been found in Kleberg County at 41 KL 39 (Hester 1969:Figure 18, d-e).

Cabeza de Vaca indicated indirectly that only important people within a group, such as a Shaman, or someone like Mala Cosa, would have been allowed to have such a large ceremonial knife. Since the large knives were highly regarded status or religious symbols, it is likely that their owners would have guarded them very closely. Thus the chances that very many of the knives were accidentally lost are probably quite slim. If one of the knives was broken, it seems reasonable to assume that the fragments would probably have been reworked ed, due to the scarcity of good chert along the coast. This would account for the fact that so few specimens of large knives have actually been found along the coast in spite of the historical documentation of their existence and use. The possibility does exist that portions of large ceremonial knives have, indeed, been recovered from other coastal sites such as the large knife fragment found in Jackson County approximately ten miles above the upper portion of LaVaca Bay, during excavations at the Anaqua Site (Story 1968:Figure 44, B,B'). At other sites they may have been regarded simply as biface or preform fragments because of their large size. It would be well if coastal collections were reexamined with this thought in mind.

There are several similarities in these three accounts of ceremonies that were observed over a time span of about three hundred years. One of the most obvious differences between them is that the later accounts do not mention the use of large ceremonial knives. Perhaps the arrival of the Spanish interrupted the trade routes, and the large chert was no longer available to them. Or

perhaps there was a general decline of their cultures, and the tradition was simply lost. We may never know the cause for certain.

CONCLUSIONS

Twelve large ceremonial knives from the Texas coast, similar to those reported by Cabeza de Vaca, have been located, described, and discussed. Ceremonial customs that were observed by various people over a long span of time have also been discussed, and many of the same ceremonial customs apparently persisted right up to the end of the Indian cultures. An attempt has been made to correlate some of the recorded implements, and instruments, with archaeological evidence, with some success.

In addition to the ceremonial activities already discussed, a few effigies have been located, and "wooden dolls" have been reported among the Karankawa (Gatschet 1891:68). These may infer religious ceremonies and "puberty rites" that were not touched on in the present report. Considering the fragmentary nature of the information we have, one can only speculate on the number of traditions, ceremonies, beliefs, and myths that went unrecorded.

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The speculations and comments contained in this paper remain the sole responsibility of the author.

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Housed in Archaeology Laboratory,
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