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# The Prehistory of South Texas

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## ABSTRACT

The prehistoric archeology of southern Texas is summarized in this paper. The region, often known as the Rio Grande Plain, has a distinctive archeological record in terms of site use patterns and artifact types. From the Paleoindian through the Early Archaic, the cultural patterns of the area are part of broad phenomena crosscutting this and other regions. With the Middle Archaic and Late Archaic, specific regional patterns can be seen; of particular note are major cemetery sites and trade or interaction with other regions. During the Late Prehistoric, regional patterns are present, and the Toyah horizon of Central Texas expands to encompass much of the area. Protohistoric sites of the 16th and 17th centuries are also known. Much remains to be learned about South Texas prehistory, since few sites have been excavated, few radiocarbon dates exist, and specific theoretical goals have not been made explicit.

## INTRODUCTION

The southern Texas archeological area (Figure 1) has been the subject of synthesis in a book-length treatment by Hester (1980), an overview of the western Gulf coastal Plain (Story 1985), a paper that dealt with both the interior and coastal portions of this region (Black 1989), and a regional synthesis written in the context of the Loma Sandia (41LK28) analysis (Black 1995). The present paper focuses on the interior of the region, usually referred to as the Rio Grande Plain, the Nueces Plain, or the South Texas Plains. The northern boundary can be placed at the Balcones Escarpment, the western edge set artificially at the Rio Grande, the northeastern boundary in the Guadalupe-San Antonio rivers drainage system, the eastern boundary at the juncture with the coastal bend, some 50-65 km inland from the modern Gulf of Mexico shoreline, and south, at the mouth of the Rio Grande. Black (1989:Figure 19) noted five "biogeographical areas" in the region: the Rio Grande Plain, the Rio Grande Delta, the Nueces-Guadalupe Plain, the Sand Sheet, and the Coastal Bend. As noted above, I will not deal with the coastal bend region in this present synthesis (see Ricklis, this volume). Another suggested set of subdivisions for this region was proposed in the first South Texas Archeological Palaver in 1988. The "South Texas Planning Region" was divided into the Middle Nueces Zone, the Brasada (McGraw et al. 1987), the Sand Sheet,

and the Rio Bravo corridor encompassing the archeology of both sides of the Rio Grande. This particular configuration did not include the Rio Grande delta, leaving it as part of the coastal strip extending up the coast from Brownsville.

The earlier syntheses have summarized various facets of the ecology of the South Texas region (see also Jurgens 1980). Hester (1981) has noted the variation in plant and water resources across the region, distinguishing between "high density" (resource) areas and those of "low density." These manifest different archeological records.

The difficulty in describing, in any detail, the hydrology, vegetation, and fauna of the region results from wholesale modification of the South Texas environment during the Historic era. Hester (1980) has outlined these, as has Hall (1985; see also Hall et al. 1982, 1986). The principal changes can be briefly summarized here. First, the mesquite and other thorny shrubs that dominate the "Brush Country" today spread (or at least increased in density) within Historic times (e.g., Fisher 1977:183; Doughty 1983:122-123). However, mesquite was clearly present in riverine zones as early as 6000 B.P. This is based on wood species identification of hearth charcoal done by Holloway (1986); Jurgens (1980) suggests that the typical riverine environmental pattern in that area today was in place by 300 B.C. There is considerable debate in the literature over the extent of mesquite on the Rio Grande Plain, based on early Historic

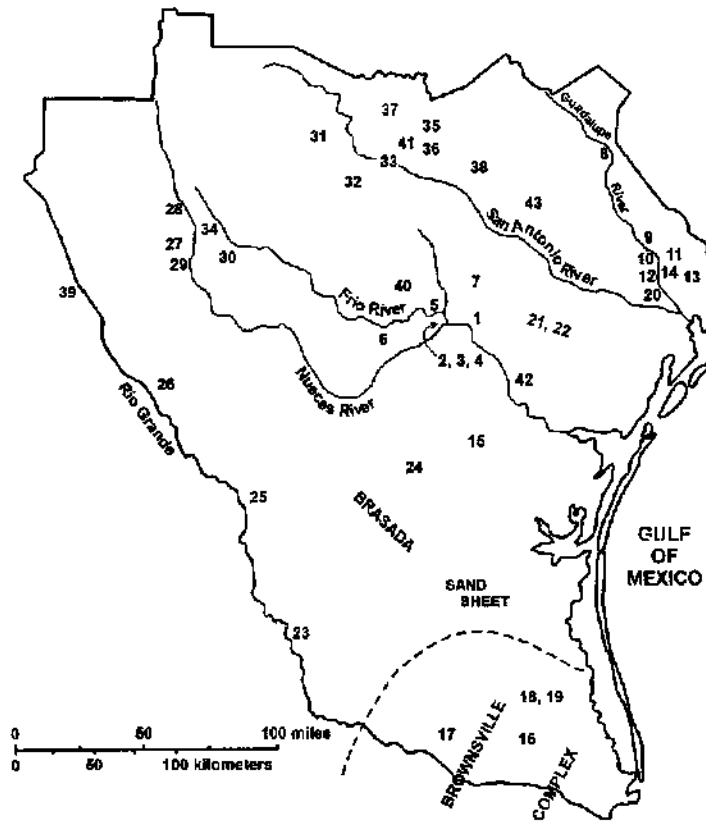


Figure 1. Map of Southern Texas, With Locations of Key Sites and Areas Mentioned in the Text: 1, Loma Sandia (41LK28); 2, 41LK31/32; 3, 41LK201; 4, 41LK51; 5, 41LK67; 6, 41MC222; 7, 41LK106; 8, proposed Cuero Reservoir; 9, 41VT17; 10, 41VT15; 11, J-2 Ranch site (41VT6); 12, Berger Bluff (41GD30); 13, Blue Bayou (41VT94); 14, River Spur (41VT112); 15, Hinojosa (41JW8); 16, Floyd Morris (41CF3); 17, Ayala (41HG1); 18, 41WY40; 19, 41WY42; 20, Coletto Creek; 21, Berclair (41GD4); 22, Berclair Terrace (Buckner Ranch); 23, Falcon Reservoir area (includes 41ZP83 and 41SR174); 24, Duval County area; 25, Laredo area; 26, 41WB56; 27, Chaparrosa Ranch (41ZV10 and Mariposa [41ZV83]); 28, East Chacon survey; 29, 41ZV37; 30, 41ZV155; 31, 41ME34; 32, 41ME19; 33, proposed Applewhite Reservoir (includes 41BX831); 34, 41ZV263; 35, 41BX228; 36, St. Mary's Hall (41BX229); 37, Pavo Real (41BX52); 38, Shrew site (41WN73); 39, Guerrero, Coahuila missions; 40, 41AT111; 41, 41BX1; 42, Lake Corpus Christi area; 43, Haiduk site (41KA23).

accounts. Some report vast grasslands, while others note that mesquite was rather widely distributed (e.g., Inglis 1964; Lehmann 1984; Weniger 1984). Various factors contributed to the spread of mesquite, especially overgrazing and the lowering of the water table. The latter was aggravated with 20th century deep well irrigation. This had the effect of drying up springs that had fed perennial streams, perhaps for millenia. A county park with abandoned bath houses sits, like ancient ruins, adjacent to a 1920s swimming hole, on formerly spring-fed

Carrizo Creek (Dimmit County [Brune 1981:165-166]).

The animal population has also been significantly altered. Gone are the bison, pronghorn, bear, wolf, and jaguar (Doughty 1983:76) that were present in southern Texas up to the beginning of the 20th century (Doughty 1983:54). Added to the species list is armadillo (in the 19th century) and javelina; the latter apparently first appeared ca. A.D. 1400 (e.g., at site 41MC222 [Hall et al. 1986:215]), but began to flourish in the 18th century, based on faunal records from Spanish Colonial missions (e.g., Davidson and Valdez 1976). Except for Late Prehistoric sites, faunal preservation is often poor in South Texas. Steele and Hunter (1986) provides a faunal study from three Choke Canyon sites that looks at diet, hunting patterns, and environmental reconstruction, topics not easily dealt with in most faunal assemblages elsewhere in the region.

One aspect of long-term environmental change on the Rio Grande Plain has been the movement of stream channels through time. Rivers like the Nueces and the Frio, and their major tributaries, have often cut widely across their valleys, creating a dendritic pattern. Some channels can be traced and roughly dated by archeological remains on their banks (e.g., at Chaparrosa Ranch

[Hester 1978a]). In the Choke Canyon Project, Bunker (1982) studied in detail the movements of the Frio River, and in their unpublished manuscript on the East Chacon Project (Zavala and Uvalde counties), McGraw and Knepper (1983) have proposed shifts in the Nueces River channel since Late Pleistocene times, as well as in its tributaries in their study area.

South Texas archeology is beginning to benefit from geomorphological research, especially in the terraces along the Rio Grande (Collins 1991)

and in the Rio Grande Delta (Collins et al. 1989). Other studies were also carried out at Choke Canyon (Bunker 1982) and Loma Sandia (Holliday 1995), but much remains to be done across the region.

Evidence of climatic change in the region is also hard to obtain. Robinson (1982) used phytolith data from Choke Canyon Reservoir to offer a pattern of short vs. tall-grass occurrence through time, perhaps reflecting alternating wet and dry episodes. While tree-ring coring has helped to give drought histories for part of Texas since 1698 (Stahle and Cleaveland 1988), this has had only preliminary application in South Texas (Gunn 1985).

The history of archeology in southern Texas has been reviewed in detail by Mallouf et al. (1977), and most recently by Black (1989:40-44). In essence, little work was done in the region prior to the late 1960s. Since that time, a number of important sites have been excavated (e.g., Montgomery 1978; Highley 1986; Black 1986), a major reservoir study was carried out at Choke Canyon (Live Oak and McMullen counties) providing 12 volumes on the prehistory, history, and ethnohistory of that area, a number of cultural resource management surveys (and occasionally, test excavations) have been done (including a large-scale survey of the proposed Cuero I reservoir [Fox et al. 1974]), and site reports and artifact distributional studies have been reported in the pages of *La Tierra*, the quarterly journal of the Southern Texas Archaeological Association. A series of major surveys, archival studies, and excavations have also taken place along the Medina River in southern Bexar County at the locus of the proposed Applewhite Reservoir (McGraw and Hinds 1987; Thoms 1992). This study area is on the northern periphery of southern Texas, as were the excavations at 41ME34 to the west (Hester 1990a). However, both have chronological data that help to build on the cultural-historical framework of southern Texas.

The native peoples of southern Texas are traditionally labeled as "Coahuiltecan" (Newcomb 1961). However, they included Coahuilteco speakers (Johnson and Campbell 1992), and groups that spoke perhaps six other languages (Goddard 1979) and a language known as Sanan, recently published by Johnson and Campbell (1992). The South Texas hunting and gathering lifeways are hard to reconstruct from Spanish documents. The descriptions

by Newcomb (1961) provide a general view of their existence, but for more details, the studies by Campbell, gathered in a volume in 1988, are highly recommended. The Indians of the Rio Grande delta have been studied by Salinas (1990), and McGraw et al. (1991) have shed new light on a number of South Texas groups encountered by the Spanish along the Camino Real and related early trails. The native peoples became culturally extinct in the 18th century (Hester 1989a) as a result of Spanish-introduced diseases, raiding by Apaches and Comanches, the Spanish missionization process, and acculturated new lives as farmers. After the missions were secularized in 1794, many of these lost their lands to "avaricious townspeople" as at San Antonio de Valero (Almaraz 1989:38-39; de la Teja 1995).

#### THE NATURE OF THE SOUTH TEXAS ARCHEOLOGICAL RECORD

Evidence of human occupation in southern Texas is extremely abundant, yet has proven quite challenging in terms of dating and interpretation. Open occupation sites dominate the site types, usually found to be heavily eroded, with abundant surface debris such as chert flakes, land snails, mussel shells, scattered hearthstones, and eroding hearths. For a detailed discussion of South Texas site types and features within sites (e.g., lithic caches, hearths, pits, bone clusters, and activity areas), see Black (1989:46-48).

These sites have been a boon for artifact-collectors, since large numbers of projectile points are deflated onto a common surface. It is not uncommon for South Texas projectile point collections to range into the many thousands of specimens. Thus, "arrowhead collecting" is a popular pastime, as this author found beginning around age 7! Today, much of the ranchland is leased for hunting, and "arrowhead collecting" is often featured in urban sports pages as an activity to while away the time during deer-hunting. This results in large numbers of projectile points being indiscriminately collected and "exported" to Houston, San Antonio, and beyond by hunters. Of course, local collectors have been active for decades; Shafer and Baxter (1975) point to the absence of points at surface localities in a McMullen County study area (see also Robinson et al. 1992).

The South Texas open camp sites are very difficult to excavate. Unlike Central Texas camp sites where cultural debris is often concentrated in a small area, and where a few test pits can provide chronological information, the typical streamside South Texas open site is really an "occupation zone" (Hester 1981)—long, narrow strips of occupation. Excavations will detect components of different age in horizontally-separated parts of the site, seldom overlapping to any great extent. The task of excavating these kinds of sites was evident at Choke Canyon where small test pits yielded little, and our strategy of open, block excavations (Figures 2-3) improved both recovery and studies of horizontal patterning (supplemented by machine-stripping; see Brown et al. 1982) but they produced far less data than we had expected (Hester 1986a). The same is true for sites on Chaparrosa Ranch, again where block excavations failed to yield little beyond scattered hearths and occasional diagnostics (Hester 1978a; Montgomery 1978). This is not to say that such occupation zones are insignificant and not worthy of excavation. Rather, we have to think in terms of larger blocks and the use of backhoes and geomorphological input for planning excavation placement. By contrast, Late Prehistoric sites in southern Texas are often dense concentrations of

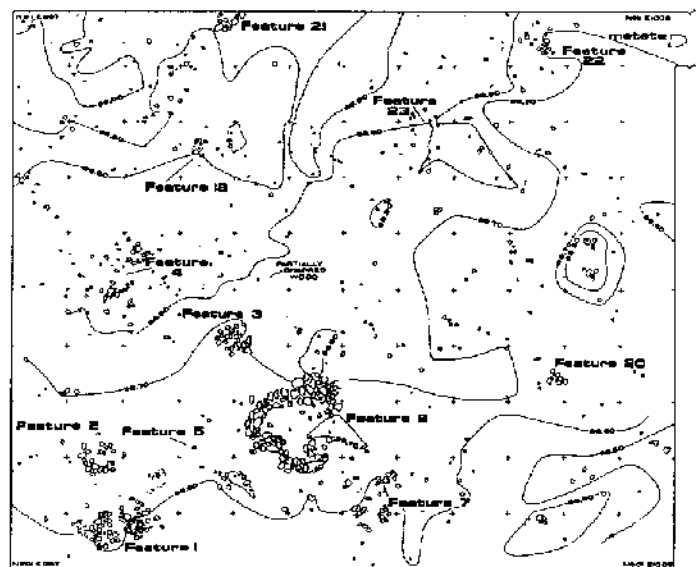
features, faunal remains and artifacts, and have been productively studied through the use of block excavations (Black 1986; Highley 1986).

Another common type of site is related to lithic procurement. On the high terraces of the Nueces-Frio drainage systems, Uvalde gravels are extensively exposed. Here, one finds loci of tested cobbles, debitage, and bifaces abandoned during reduction (Hester 1975a). In the Duval County area, Chandler and Lopez (1992) report an outcrop of quartz arenite (Goliad formation) used by Archaic knappers. Along the Rio Grande in the Laredo region, Warren (1989) has reported "lithic reduction sites" in the uplands, along with larger "lithic procurement/quarry sites" that cover up to 1500 acres (see also Miller 1995). Near the Rio Grande, multi-colored Rio Grande gravels are reduced. Such sites in South Texas have not been adequately studied; indeed, sometimes they are not even given site numbers due to their broad horizontal extent (cf. Warren 1989). I would argue, however, that much more could be done with them, especially in terms of defining local lithic reduction sequences (Hester 1975a; Kotter 1980). They should not be ignored or dismissed as unimportant by cultural resource management surveys.

Temporary campsites are often found in the uplands or along high terraces. Characterized by a



a



b

Figure 2. Excavation at Site 41LK67, Choke Canyon Reservoir, Southern Texas: a, view of portion of block excavation (1 x 1 meter squares); b, plan of features exposed during excavation (Brown et al. 1982:109).



Figure 3. Block Excavation at 41LK201. Partial view showing Toyah horizon artifacts pedestaled in situ. Courtesy of News and Information, The University of Texas at San Antonio.

few hearths or scattered burned rock, flakes and an occasional diagnostic, they are clearly an important part of regional settlement patterns, albeit of speculative function at this time. Warren (1989) also notes "intermediate campsites," which based on his definition appear to represent similar short-term activities.

Deeply stratified open campsites do occur in southern Texas. Excavations at 41LK31/32 at Choke Canyon provide one example (Figure 4; Scott 1982) While little could be contributed to regional culture history at this site, it did yield abundant data on intrasite activities (i.e., a chert-reduction area, and concentrations of mussel and fish remains) and large, well preserved hearths with abundant charcoal for both dating and wood species identification. Such stratified sites also occur in the middle Guadalupe River drainage, including Johnston-Heller (Birmingham and Hester 1976), Willeke (41VT17), and Berger Bluff (41GD30, on Coleta Creek). To date, only Berger Bluff has been partially excavated (D. Brown 1983; K. Brown 1987, n.d.). I have also seen stratified sites at the mouths of major creeks emptying into the Rio Grande in Webb County; no excavations have been done at these.

left these Falcon sites to the mercies of collectors and looters, and only a couple of devoted avocational archeologists have made the effort to

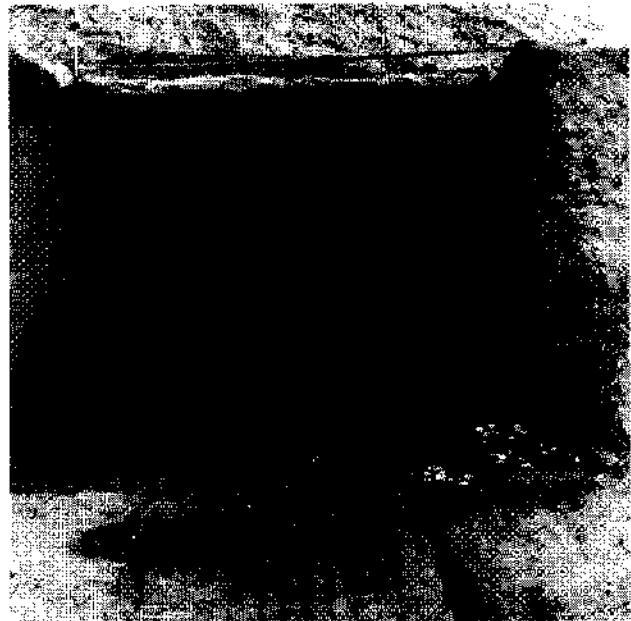


Figure 4. Deeply Buried Occupations at Site 41LK31/32, Choke Canyon Reservoir Project. One occupation level, represented by hearth in profile, dates to ca. 2400 B.C. Earliest occupation is at the base (note the shell accumulation), at ca. 3400 B.C. From Hester (1980:Figure 4.30).

Cemetery sites are present in southern Texas, and are rather common in the coastal bend. The Loma Sandia site (41LK28 [Taylor and Highley 1995]) is the best known, having yielded a large number of burials with associated mortuary caches. Loma Sandia once appeared to be anomalous, with its concentration of burials and numerous grave goods. Now, we know of two or more such cemeteries in the Falcon Reservoir area of South Texas and adjacent northeastern Mexico, again with many burials and grave goods paralleling those of Loma Sandia. Unfortunately, lack of enforcement of antiquities laws and treaties have

document and scientifically record these burials. This fiasco at Falcon, during low-water episodes in the 1980s and 1990s, is evidence of the failure of the International Boundary and Water Commission to live up to its responsibility to protect archeological sites (although one minor survey was done by O'Neill et al. [1992]) on both sides of this reservoir. None of these kinds of sites were detected by the limited Falcon Reservoir salvage efforts in the early 1950s (e.g., Cason 1952), and despite state and federal laws, and international treaties, motorboat looters have largely erased a critical archeological record.

Other burial sites have been documented in recent years. These include the Haiduk burial (Mitchell et al. 1984), with Late Archaic diagnostics at a site in Karnes County; several disturbed burials at the Shrew site (Labadie 1988); a burial in Lavaca County (Hester 1994a) with an associated Gahagan biface, reflecting trade with East or southeastern Texas; and a Late Prehistoric burial in Frio County (Hester et al. 1993) with an associated Scallorn arrow point. One burial salvaged by James B. Boyd at Falcon Reservoir had a Caracara point (Saunders and Hester 1993; Turner and Hester 1993) deeply embedded in a vertebra; other burials in that area have also yielded Caracara points as mortuary

inclusions. We are awaiting radiocarbon dates to help place this point type, and these burials, in the appropriate temporal niche within the Late Prehistoric. Stable isotope studies, designed to reveal dietary information, have also been undertaken by Jeffery Huebner.

Sites with rock art are extremely rare in southern Texas. Overhangs with pictographs are known from Webb County (e.g., Hester 1986b; see Figure 5), and James B. Boyd has photodocumented several pictograph sites on the Mexican side of the Rio Grande in the Falcon Reservoir area. A major petroglyph site known as the Fronton de Piedras Pintas (Morales 1983) lies about 50 km from the border near Paras, Nuevo Leon; it has been visited in recent years by Rose Treviño (Laredo), who has extensive photographic records from the site. Other pictograph sites are known to occur in overhangs or on bluffs along the Nueces River between Uvalde and La Pryor (e.g., the Bee Bluff pictograph and petroglyph site reported by Ray Smith, personal communication, 1987; records on file at TARL). A petroglyph site is also reported by Smith east of Uvalde, just south of the Balcones Escarpment.

At several sites, painted pebbles have been found. These are thought of as typical of Lower Pecos rockshelters (Shafer 1986). However, a

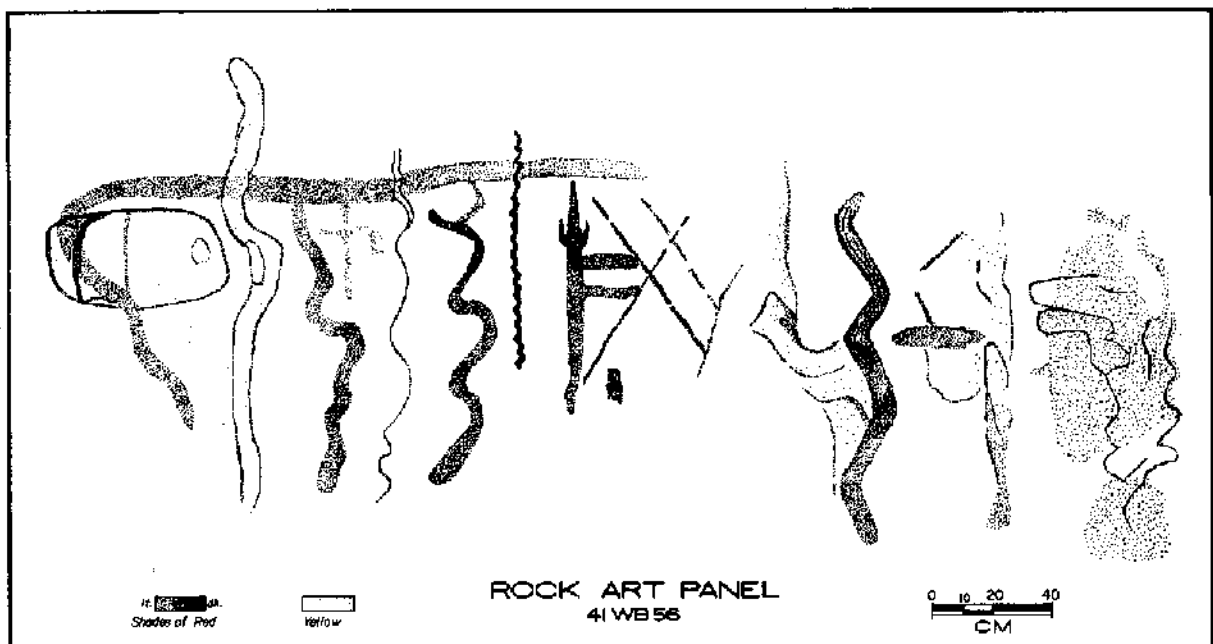


Figure 5. Pictograph Panel at Site 41WB56, Webb County. Note legend regarding colors of the rock art. Drawn by Kathy B. Roemer (from Hester 1988:Figure 1). Courtesy of Southern Texas Archaeological Association.

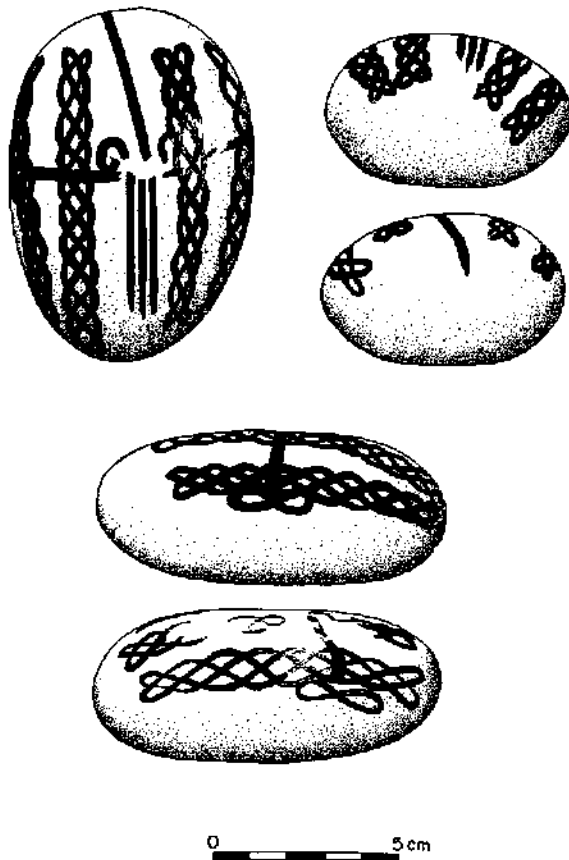


Figure 6. Painted Pebble from Zavala County. Various views are shown; painting is in red. Drawing by Richard McReynolds. Courtesy of H. Ray Smith.

number have now been documented at sites on the coastal plain in southern Uvalde and northern Zavala Counties (Figure 6; Hester 1977a; Ray Smith, personal communication, 1987; records on file at TARL). The date(s) of the rock art sites or the painted pebbles is unknown.

As the South Texas archeological record vanishes, from natural erosion, reservoir projects, urban expansion, relic-collecting, and hobbyist activities, there is a special need to document collections as thoroughly as possible. The members of the Southern Texas Archaeological Association, especially C. K. Chandler, William W. Birmingham, E. H. Schmiedlin, Jimmy L. Mitchell, and others (who have documented, for example, the Bromley Cooper collection in a series of papers) are to be commended for their efforts. Others, like James B. Boyd, are recording and documenting sites and artifacts with great precision, and are openly sharing

these data with professional archeologists. This effort needs to be greatly intensified. Unfortunately, there is the erroneous belief among many collectors in the region that professionals can "confiscate" their collections; this is patently untrue, but can restrict documentation tasks. Landowners such as Radcliffe Killam of Laredo have made collections available for documentation (Bettis 1994), while some families have donated major collections for long-term curation and research (e.g., at TARL, the Bromley Cooper and Dr. Pat Riley collections). This is to be especially encouraged.

### CULTURAL-HISTORICAL FRAMEWORK

The characteristics of the South Texas archeological record, and the comparative lack of intensive excavations, all contribute to a chronology that remains poorly known. Johnson and Goode (1994) have recently offered a revised chronology for the central part of Texas, derived from more than 70 years of excavations and recent major research efforts that have yielded better stratigraphic and radiocarbon ages. Unfortunately, this cannot be done for southern Texas, nor can we fine-tune the chronology as they have done for Central Texas. What can be presently offered is a general framework for the Paleoindian, Archaic, Late Prehistoric, and Protohistoric periods. Our knowledge of the culture history is improving, both through field and laboratory research and by cross-dating artifact types with other areas, and specific examples are given here. However, we still have to rely on the basic chronological divisions provided by Hall et al. (1986) and by Black (1989).

#### Paleoindian

It has long been known that fluted points of the Clovis and Folsom types occur in South Texas (Hester 1968, 1977b). The presence of Clovis (Figure 7) suggests that the earliest occupation begins around 11,200 years ago.

In the case of both of these types, intensified collection documentation in South Texas has provided much additional information on their distribution and their variability in morphology and raw

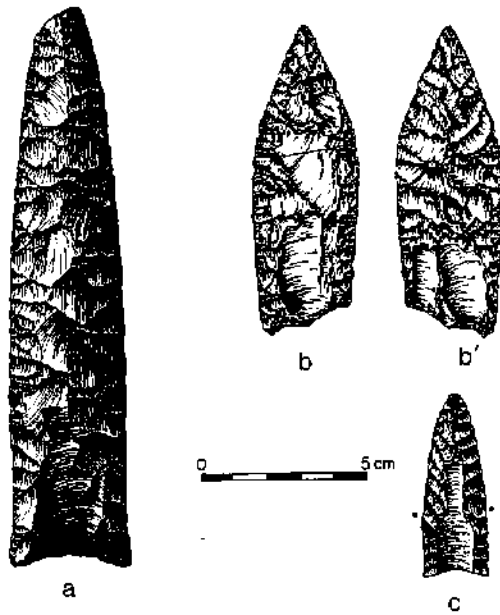


Figure 7. Clovis Points from Southern Texas: a, Nockenut Clovis from Wilson County (Kelly 1988); b-b', unfinished Clovis point from Atascosa County (Hester, Barber, and Headrick 1993); c, Clovis point from Dimmit County (Turner and Hester 1993). A, drawn by Richard McReynolds; b, b', Pam Headrick; c, Kathy Roemer. Courtesy of Southern Texas Archaeological Association and Gulf Publishing Co.

material. For example, large Clovis specimens made of Edwards Plateau chert (see Figure 7a) (translucent brown) have been found at sites in Wilson and Dimmit counties (Kelly 1988). Another from Atascosa County provides insight into manufacturing techniques (see Figure 7b-b'; Hester et al. 1993). One Clovis base was found at a locality on Southern Island on the Mexican side of Falcon Reservoir; reportedly, up to 22 other Paleoindian points were collected from that site (notes on file with the author, TARL).

No mammoth kill or butchering sites attributable to Clovis have been found in South Texas, although the Late Pleistocene fauna and possibly associated lithics in the deposits of the Berclair Terrace in Goliad and Bee counties remain an enigma (Sellards 1940). Mammoth remains are commonly found as secondary deposits along South Texas creeks (T. C. Hill, Jr., personal communication, 1971; Kay Hinder, personal communication), as well as in the paleochannel of the Palo Blanco River of Kenedy County (Suhm 1980). Brown (1990) reports the geomorphological context of elephant remains bur-

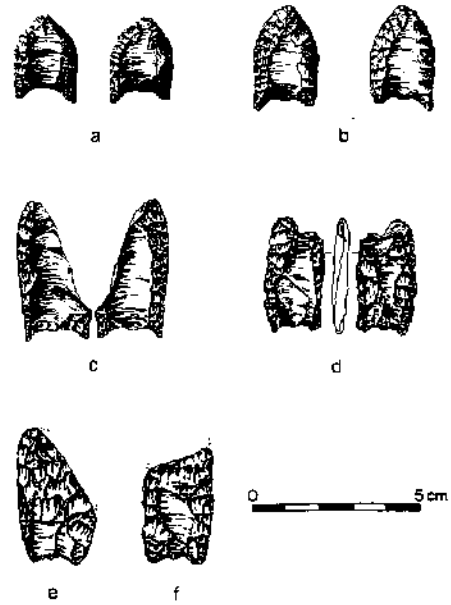


Figure 8. Folsom Points from Southern Texas: a, Zapata County; b, Maverick County; c-d, Webb County; e-f, Falcon Reservoir area (d-f, unfinished Folsoms abandoned in manufacture). A-b, drawings by Richard McReynolds; c-f, drawings by Pam Headrick; a-b, from Chandler and Kumpe (1994a), courtesy, Southern Texas Archaeological Association; c-d, Bettis (1994); e-f, courtesy, James B. Boyd.

ied in gully fill at the interface of the South Texas-Edwards Plateau regions north of the San Antonio airport. However, no artifacts were found in association with the elephant remains.

Folsom artifacts are also widely reported across the Rio Grande Plain (Figure 8; Chandler and Kumpe 1994a; see also Largent and Waters [1990], although their distribution map is not a wholly accurate representation of the geographical or numerical distribution of Folsom in the area). Numerous brief papers have appeared in *La Tierra* documenting specimens from the region, along the drainage of the Rio Grande (Chandler and Kumpe 1994b; Cole Moore, personal communication; notes on file at TARL) and east and south on the coastal plains (e.g., Chandler and Lopez 1992). Folsom point preforms or failures have been found in collections in Webb County (Bettis 1994; Figure 8c-d) and near Falcon Lake (James B. Boyd, personal communication, 1995; notes on file at TARL; see Figure 8e-f). Aside from localities with two or three Folsom points (Hester 1968), no Folsom camp or kill sites have been located. The nearest, on the edge of the Balcones Escarpment in Bexar



County, is Pavo Real (41BX52 [Henderson and Goode 1991]); Clovis materials are also reported from this site.

Certainly the most intriguing Paleoindian site to have been excavated in the region is Berger Bluff (41GD30) in Goliad County (Brown 1987, n.d.). Buried more than 8 meters below the surface along Coletto Creek (and now inundated by Coletto Creek Reservoir), excavations on a ledge or bench deposit uncovered a hearth, an in situ chipping area, cores, two small pits, and an unfinished (or rejected) triangular biface; there were no projectile point diagnostics. Eight radiocarbon dates were obtained, averaging around 9500 B.P., although both earlier and later dates were obtained. Associated with the cultural material was a considerable bone deposit of small mammals, reptiles, and amphibians. Detailed research by Brown (n.d.) indicates that these were collected and eaten by human foragers, perhaps by what Brown suggests was a task group of women and children. The Berger Bluff fauna, as well as tiny snails obtained by waterscreening, is fully Holocene in character, but with some species that are no longer present in the area today. Three species of snails, now extirpated in the Coletto Creek/southern Texas area, are more typical of colder waters, or of marshes more typical of the eastern United States.

Later Paleoindian patterns in southern Texas are represented by large numbers of projectile points (Figure 9; Weir 1956; Hester 1977b, 1987). However, typological problems abound in distinguishing between Plainview (ca. 10,000 B.P.) and Golondrina (ca. 9000 B.P. [Hester 1983]). Clearly, there are points that would fit within the range of Southern Plains Plainview points, and many of the Golondrina forms are quite distinct (Figure 9d-e, but see Figure 10, a cache of Golondrina points from southern Uvalde County, reflective of variation within the type, ranging from the finished form to heavily resharpened [Hester 1994c:41]). Kelly (1982) provided a statistical approach to distinguishing between the two types, using specimens from South Texas. In addition, there are many parallel-sided points that have been called Plainview (see Figure 9a-b) but which are usually smaller and more narrow than those from the type site and related localities. For example, at St. Mary's Hall in Bexar County, excavations in 1977 revealed a discrete camp site and chipping locality with distinctive points. While they have been called Plainview in several papers

(e.g., Hester 1990b), I am now convinced that they are not of this type. My re-assessment is based on stratigraphically-recovered points from the Wilson-Leonard site in Williamson County, where similar points appear to date after Golondrina. Anne Kerr (personal communication, 1995) calls these "St. Mary's Hall points." A better picture of the relationships of several Central and South Texas Late Paleoindian types will be possible upon analysis and publication of the Wilson-Leonard data.

Another Paleoindian type known from Devil's Mouth (Johnson 1964) and Wilson-Leonard (Michael B. Collins, personal communication, 1995) is also present in South Texas. This is the Early Stemmed or "Wilson" type (Turner and Hester 1993). Bettis (1994) reports one specimen from Webb County.

Extremely common in southern Texas is the Angostura type (see Figure 9f-g). Recent excavations in the area of the Applewhite Reservoir in southern Bexar County have uncovered a buried Angostura component radiocarbon dated to approximating 9800

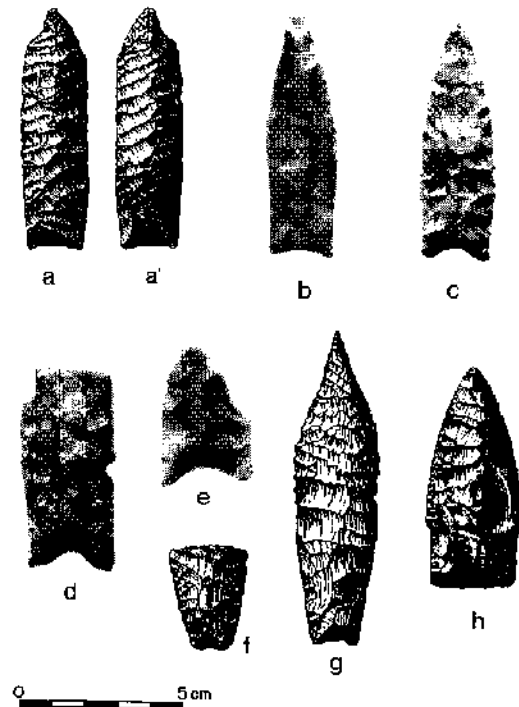


Figure 9. Late Paleoindian Points From Southern Texas: a-a', b, Plainview (Chandler 1994; Hester 1968); c-e, Golondrina (Hester 1968); f-g, Angostura (courtesy, H. Ray Smith); h, Scottsbluff (Chandler and Hines 1993). Drawings by Richard McReynolds.

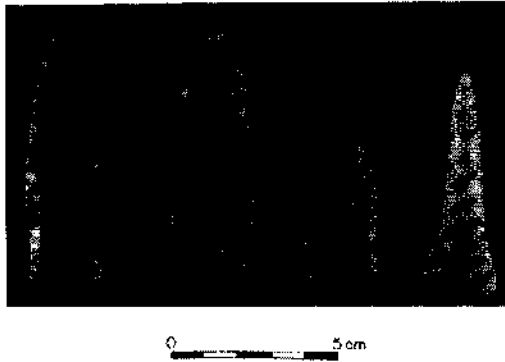


Figure 10. Cache of Golondrina Artifacts from Southern Uvalde County. Courtesy of H. Ray Smith.

B.P. (Thoms and Mandel 1992). This is in line with dates for Angostura from Wilson-Leonard (M. B. Collins, personal communication, 1995). Possibly related to Angostura is the Early Stemmed Lanceolate form (Turner and Hester 1993) found in some numbers in Victoria County (Birmingham and Hester 1976), and perhaps in the Late Paleoindian/Early Archaic cache reported from Loma Sandia (Taylor and Highley 1995).

Scottsbluff points (see Figure 9h) typical of the Plains and into eastern Texas (Turner and Hester 1993), are scattered across southern Texas (Hester and Hill 1971a; Chandler and Hinder 1993), with a notable concentration in the Victoria County area. Based on cross-dating with the Plains, these are thought to date around 8800-8400 B.P. (Gunnerson 1987).

A typological problem that is present in South Texas Paleoindian studies involves the so-called Lerma type (as defined by MacNeish 1958). These narrow, bipointed specimens may or may not be of Paleoindian age (Turner and Hester 1993). An unpublished manuscript by the late T. C. Kelly (1989) remains the best effort to assemble data on the Lerma form in southern Texas and northeastern Mexico. A point classified as Lerma was found at the base of a stratified site on the Nueces River (41ZV263) by Gibson (1981), but is not chronometrically dated.

The best opportunity in southern Texas to find the Late Paleoindian forms in context, and to gain other than typological or distributional data for them, are the deep sites noted earlier in Victoria County, especially Johnston-Heller and Willeke. Work at the River Spur site (41VT112) in 1993 (Cloud et al. 1994) suggested that this was a

stratified Paleoindian site. However, excavations by Michael B. Collins and myself in June-July, 1995, indicate that these materials were in a lag (secondary) deposit.

### Early Archaic

In dealing with the Early Archaic, I draw heavily from a paper prepared for a conference on the Archaic of southern North America (Hester 1989b). We are still a long way from having a sufficient number of excavated sites and applicable radiocarbon dates to develop a detailed description and chronology of this early period in southern Texas.

To summarize the Early Archaic patterns in the 1989 paper, I offered definitions of two widespread horizons. The first was termed the "Early Corner Notched Horizon," followed by the "Early Basal Notched Horizon" (the latter has affinities to the Calf Creek horizon in Oklahoma and Arkansas [Wyckoff 1995]). Dating of these horizons parallel the chronological parameters provided in Central and lower Pecos Texas for related phenomena (see papers by Collins and Turpin, this volume). My goal in offering these two concepts was to emphasize the broad cross-regional distributions of the index-marker projectile points of these horizons in the Texas-Mexico borderlands.

In southern Texas, the "Early Corner Notched Horizon" is most poorly known. It is typified by corner-notched dart points with recurved or notched bases. Typologically, these would fit within the Martindale-Uvalde-Baker-Bandy continuum (Figure 11a-c; see also McReynolds 1993), and to some specimens of the Gower type (Ricklis and Cox 1991). While points of this horizon are seen in collections from the region (e.g., Hester and Whatley 1992), their site distribution is little understood. In the excavations at Choke Canyon reservoir, site 41LK51 yielded a Bandy-style point, along with thin triangular bifaces, and from a context 20 cm below a radiocarbon assay of 5130-4450 B.C. At Chaparrosa Ranch, points of this horizon are on high terraces overlooking Turkey and Chaparrosa creeks. As noted above, settlement patterns for the Early Archaic are unknown; perhaps these peoples operated as small bands, highly mobile and wide-ranging due to the arid climate inferred for part of this time frame (McKinney 1981; Story 1985). McGraw and Knepper (1983) in their survey of the East Chacon area found Guadalupe tools to

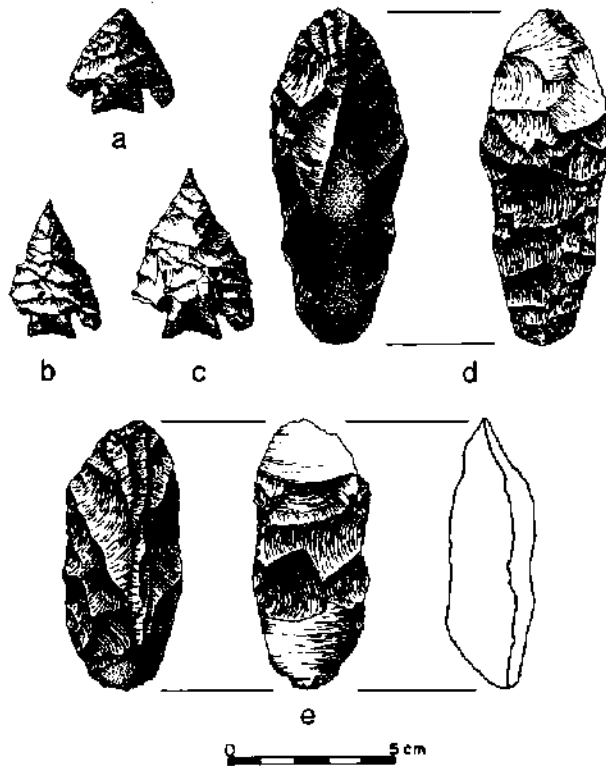


Figure 11. Artifacts from the "Early Corner Notched Horizon" in Southern Texas: a, Atascosa County; b-c, Bexar County (McReynolds 1993); d-e, Guadalupe tools from Choke Canyon (Hall et al. 1982: Figures 75-76). Drawings of a-c by Richard McReynolds.

be "water-proximate," while the general Early Archaic settlement paralleled that of the previously mentioned Chaparrosa Ranch and the Paleoindian site distribution in this area.

The "Early Corner Notched" horizon markers may encompass the bifurcated base points found by Thoms (1992) at the Richard Beene site (41BX831), with a radiocarbon date of about 7000 B.P. Interestingly, James Karbula (personal communication, 1995) has found what appear to be identical points at the Eckols site in Travis County, stratigraphically below a component with Martindale points (Karbula 1993). It may be that these bifurcated points are a Central Texas, not a South Texas, form, but this is just speculation given the meagre data on hand. From typological cross-dating, the temporal span of the "Early Corner-Notched Horizon" may be from ca. 6000-3500 B.C.

Associated with this earliest Archaic horizon appear to be Guadalupe tools (see Figure 11d-e;

Hester and Kohnitz 1975; see also Prewitt 1981:78). Although found mostly in the San Antonio-Guadalupe River basins (Black and McGraw 1985), they also occur along the Rio Grande, along the middle Nueces drainage (Brown 1985, 1989; Nightengale et al. 1989), and in the Zavala County region (Highley 1984). Based on radiocarbon dates for Guadalupe tools along the southern edge of the Balcones Escarpment, they fall somewhere in the range of 3300-4700 B.C. (e.g., Hester 1990a:1).

The subsequent "Early Basal Notched Horizon" includes specimens with deep basal notches, large barbs, and distinctive long stems (Figure 12a-g). The recognized types include Bell and Andice of the Calf Creek horizon. Early Triangular bifaces are probably also part of this horizon (Hester and Whatley 1992); some of these are preforms for Bell/Andice, others may have been used as knives (Black and McGraw 1985), and yet others bear impact flutes indicative of their use as dart points. Based on my excavations in Uvalde County (at the La Jita and Smith sites [Hester 1971; Hester et al. 1989]), it looks as if the Early Triangular form may first appear in the "Early Corner Notched Horizon," and perhaps continue into the later horizon.

The "Early Basal Notched Horizon" extends from the southern Texas coast, across the Rio Grande Plain, and into northeastern Mexico east of the Sierra Madre Oriental (Chandler and Kumpe 1993; James B. Boyd collection; notes on file at TARL). Fox and Hester (1976) reported Andice points from 41VT17 in Victoria County, and Bell/Andice are noted in several papers in *La Tierra* as derived from surface contexts in South Texas (e.g., Hester and Whatley 1992; Chandler and Kumpe 1993). Ricklis and Cox (1991) report Bell points from the McKinzie site (41NU221) at the mouth of the Nueces River; these specimens, and three unstemmed points, are linked to radiocarbon assays of ca. 3000-3600 B.C. (see Ricklis, this volume). In general, the "Early Basal Notched Horizon" likely dates in this rough time frame. Other recognizable traits of this horizon are large unifacial "Clear Fork" tools (Hester and Kohnitz 1975), as well as smaller forms (Hall et al. 1982:Figure 79) and multi-notched "eccentric" Bell/Andice specimens, found as far south as Falcon Reservoir (see

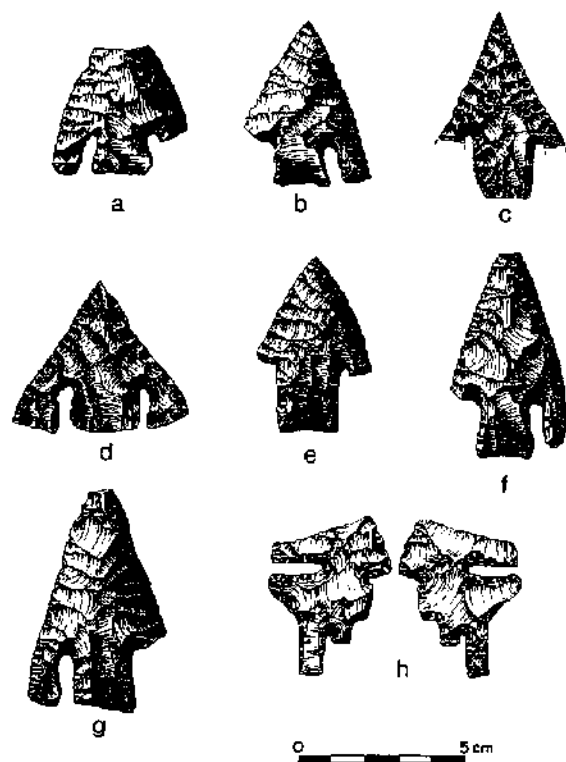


Figure 12. Artifacts from the "Early Basal Notched Horizon" in Southern Texas: a-g, points of the Calf Creek horizon (a-b, Starr County; c, McMullen County; d, 41VT6; e, 41ZP83, f, Zapata County; g, 41SR174. Drawings a-b, e-f from Chandler and Kump [1993]; c-d from Turner and Hester [1993]; h, multi-notched Calf Creek "eccentric" (Southern Island, Falcon Reservoir [Hester 1990c]). Drawn by Richard McReynolds, a, b, e-g; c-d, Kathy Roemer; h, Pam Headrick. Courtesy Southern Texas Archeological Association, and Gulf Publishing Co., Houston.

Figure 12h; Hester 1990c). In the Falcon Reservoir, the large Andice/Bell stems are sometimes reworked into projectile points (Boyd Collection; notes on file at TARL).

Although Johnson and Goode (1994:5) include the latter part of this range in their Central Texas "Middle Archaic," I prefer to follow Hall et al. (1986) in defining the South Texas Middle Archaic period with the onset of specific regional cultural patterns ca. 2500 B.C., emphasizing unstemmed dart points and smaller bifacial and unifacial beveled tools. Of course, the way in which I have modeled these two horizons, in defining broad cultural patterns across several parts of Texas, may be too simplistic as we learn more about the southern Texas Early Archaic. For example, at site 41LK31/

32, the early occupation dated at 3380-3350 B.C. yielded diagnostics of neither horizon. While there were several well-defined features, abundant mussel and *Rabdotus* shell, cores, debitage and faunal remains, the only "formal" artifacts were three unstemmed thin biface fragments (Hall et al. 1986:397). The diet appeared to focus on freshwater mussel, *Rabdotus* snails, turtles, and freshwater drum (Scott 1982).

### Middle Archaic

Hall et al. (1986) date the Middle Archaic between 2500-400 B.C. As just noted above, this period represents a regional material culture pattern easily seen in the archeological record. Triangular dart points, known as Tortugas and Abasolo (Figure 13a-b), dominate the projectile point assemblage. Some of them may have been used as "knives;" however, studies of triangular point assemblages from South Texas by Karbula (1990) and Bettis (1994) reveal high frequencies of impact fractures at the tip. Another regionally-specific type is Carrizo (Turner and Hester 1993), illustrated in Figure 13c. Utilitarian lithics include smaller unifacial distally-beveled tools (the *Dimmit* form [Figure 14] of Nunley and Hester [1966]), in some areas made in high frequencies from gray quartzite (Hester et al. 1973; see also Inman et al. 1995). Some distally-beveled tools are also bifacial. There is much reworking and resharpening of these tools, which appear to have been used largely in woodworking tasks (Hester et al. 1973; see Howard [1973] for experimental data). Along the Rio Grande between Eagle Pass and Falcon Reservoir, the artifacts are often made on cortex flakes, with the dorsal side flaked, and the ventral side remaining as cortex (Chandler 1974). While Hall et al. (1982:Figure 79) have proposed a sequence of these distally-beveled forms, focusing on Early vs. Late Archaic (Figure 15), it is likely that localized examples of these tools, along with extensive resharpening and other modification (e.g., for hafting) have left a functional and technological morass that will require much research to sort out. One example is the Nueces tool (see Figure 13e-f; Hester, White, and White 1969; Nightengale et al. 1989; Turner and Hester 1993), which can be lunate to trapezoidal in outline, largely reflecting the extent of resharpening of the beveled bit.

Middle Archaic sites, especially in the northern part of South Texas (Nunley and Hester 1969),

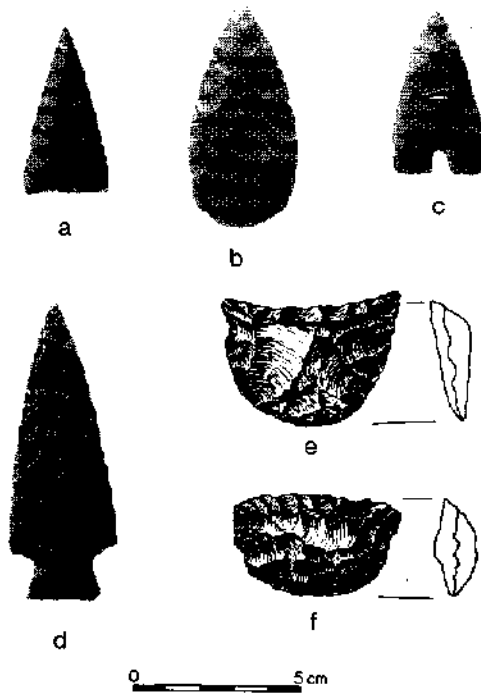


Figure 13. Middle and Late Middle Archaic Artifacts from Southern Texas: a, Tortugas point; b, Abasolo point; c, Carrizo point; d, Lange point. A-d, Loma Sandia (Taylor and Highley 1995); e, f, Nueces tools (Hall et al. 1982:Figure 73).

are often identified by the presence of stemmed points that can be cross-dated with Central Texas (Pedernales, Lange; see Figure 13d), the lower Pecos (Langtry), and the central coastal plain (Morhiss). Assemblages that include Middle Archaic materials (and those of both earlier and later periods) are published from the middle Nueces drainage (Ward 1984; Woerner and Highley 1983; Nightengale et al. 1989), western South Texas (e.g., 41DM59 [Hester and Whatley 1992]), the Shrew site (Labadie 1988), and Falcon Lake (Kotter 1980; Saunders 1985). Many of the tubular sandstone pipes (Figure 16) found across South Texas may also date to this era (Hester 1969; Chandler and Kumpe 1993). A buried and as yet unexplored Middle Archaic component appears to be present at 41ZV37 (Inman et al. 1995), with one radiocarbon date of 1831-1880 B.C. (Tx8112-calibrated); a unifacial distally-beveled tool (Clear Fork uniface) was associated with this component.

Settlement patterns in the Choke Canyon and Chaparrosa study areas, along with those at East

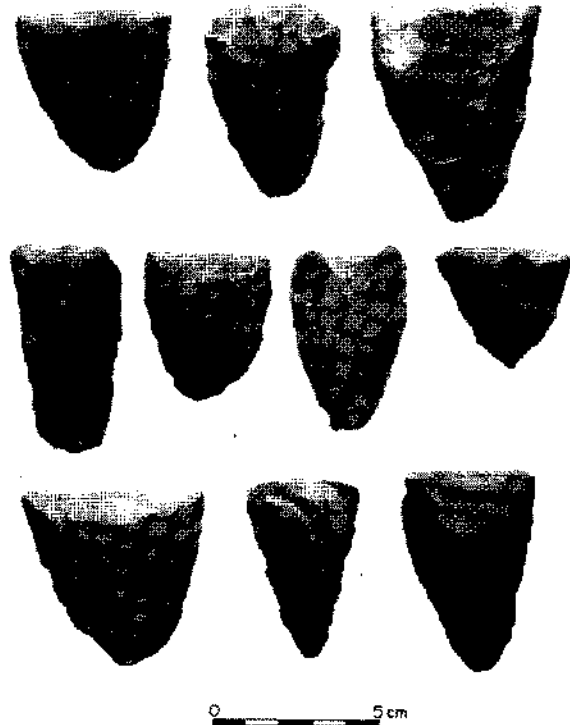


Figure 14. Distally-beveled Tools from Southern Texas (from 41DM14 and other Dimmit County sites). These are unifacial "gouges" of the form termed *Dimmit* by Nunley and Hester (1966).

Chacon (McGraw and Knepper 1983) suggest that Middle Archaic open camp sites are to be found along present or former stream channels. In later Middle Archaic times, sites are present on floodplains, low terraces, and natural levees of present stream courses. Middle and Late Archaic sites in Starr County have been characterized by Nunley and Hester (1975:13) as "gallery" (on terraces or arroyo banks) and "bower" (in hilly areas overlooking the arroyos and their tributaries).

Dietary information is meagre, due to poor faunal preservation. However, data from Choke Canyon (e.g., Scott 1982), recovered from wood species identification of charcoal from well-constructed hearths, suggest use of the beans and nuts of mesquite, acacia, oak, and hackberry. Hall et al. (1986) surmise that it is during this time that plant resources drew heavy emphasis, as reflected by an increase in formal hearths, earth ovens, and burned rock accumulations.

Disposal of the dead in the Middle Archaic, especially late in this period (ca. 600-800 B.C.),

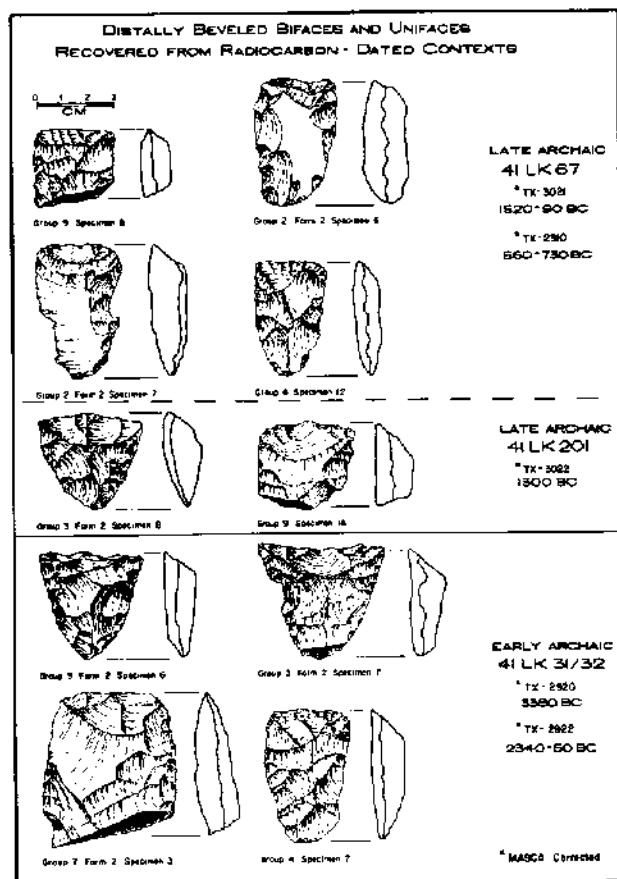


Figure 15. Sequence of Distally-beveled Tools from Choke Canyon Reservoir (from Hall et al. 1982:Figure 79). Courtesy, Center for Archaeological Research, The University of Texas at San Antonio.

apparently involved cemeteries. Loma Sandia stands out as the best known example (Taylor and Highley 1995), with 205 burials, and more than 400 features documented at the site, many of these including clusters of grave goods found with individual burials (Figure 17). Contents of these clusters, often tightly packed as if in a net, hide bag, or basket, included triangular points (Tortugas, though with larger and smaller forms, and Abasolo), Lange, Morhiss, and Pedernales points, medium sized "gouges" (mostly unifacial distally-beveled tools), flakes, cores, fragments of marine shell (including conch), tabular pieces of sandstone (it seems like just about everyone had to be buried with small pieces of unmodified sandstone), and tubular sandstone pipes (see Hester 1980:116). In contrast to the dates for

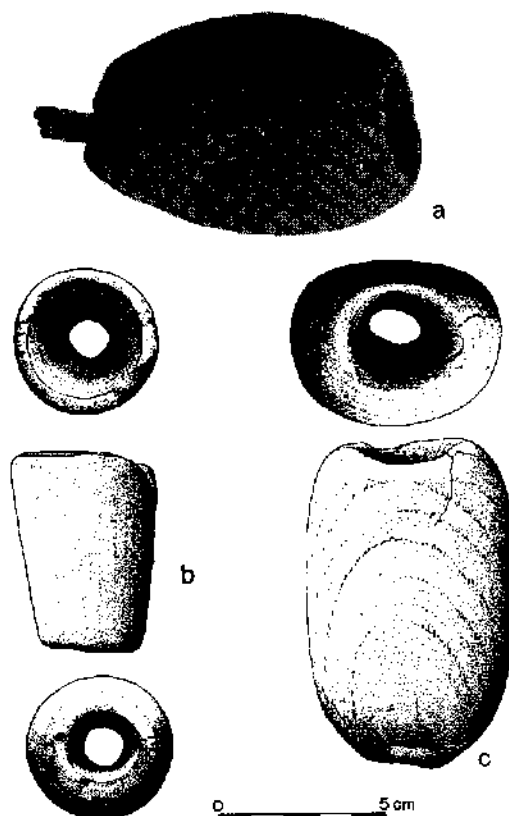


Figure 16. Tubular Stone Pipes from Southern Texas: a, stone pipe with bone smoking tube (Loma Sandia, Feature 226A [Taylor and Highley 1995]); b, Zapata County; c, Rio Salado, Tamaulipas (Falcon Lake area [Chandler and Kumpe 1994b]); drawn by Richard McReynolds. Courtesy, Southern Texas Archaeological Association, Texas Archeological Research Laboratory, and Texas Department of Transportation.

Tortugas points at this site, a single assay from 41ME34 puts a Tortugas-like point at 3362-3398 B.C. (calibrated); Hester (1990a:1) does not consider it to be Early Triangular, although the dates are more in line with that form.

However, there are apparently other cemeteries in the region, based on as-yet unpublished data from Falcon Reservoir. The Southern Island site (sites?), on the Mexican side of the river, has yielded many burials with numerous grave goods. These include tubular stone pipes and triangular dart points (as at Loma Sandia), along with *Oliva* shells, and bone beads.

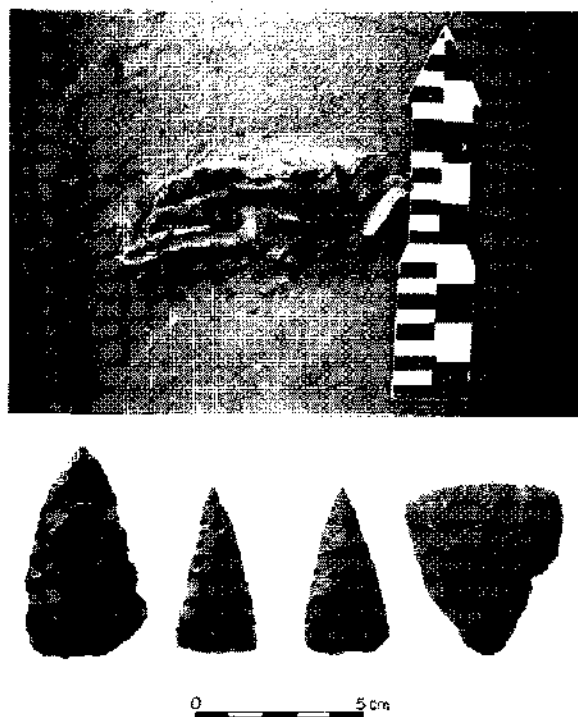


Figure 17. Artifacts from Mortuary Context at Loma Sandia (41LK28), Feature 11-D (Taylor and Highley 1995:Figure 31): left to right, triangular biface; Tortugas points; distally-beveled tool. Courtesy, Texas Archeological Research Laboratory and Texas Department of Transportation.

### Late Archaic

The Late Archaic is better known, dating from 400 B.C. to around A.D. 600/700. Several excavated components have been published or at least described in preliminary fashion. For example, at 41ZV10 in western South Texas, Hester (1978a) found Shumla, Ensor (Figure 18a), Marcos, and Montell points, stratigraphically below Late Prehistoric occupations. Interestingly, the Marcos and Shumla points were in deposits below those containing Ensor and Montell. The Shumla type, best known from the Lower Pecos, is also a widespread marker of the Late Archaic in southern Texas. A very high percentage of the South Texas specimens are made of heat-treated chert (Hester and Collins 1974). Olmos bifaces, small triangular gouge-like tools with specialized resharpening techniques, apparently date mainly to the Late

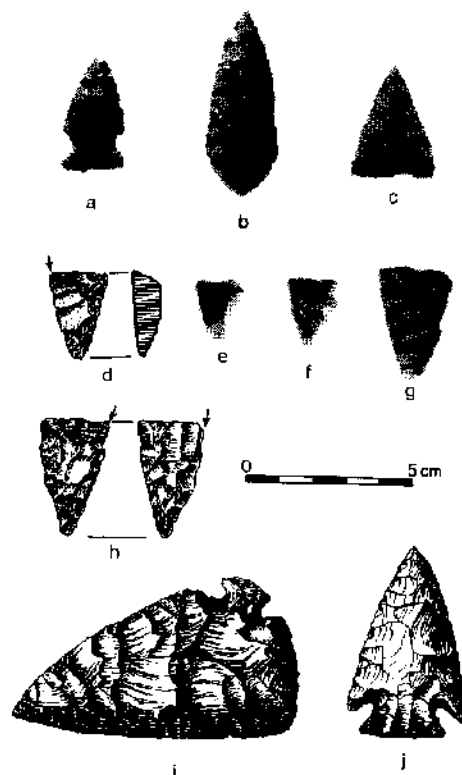


Figure 18. Late Archaic Artifacts from Southern Texas: a, Ensor; b, Desmuke; c, Matamoros (a-c, Loma Sandia [Taylor and Highley 1995]); d-h, Olmos bifaces (Duval County [from Turner and Hester (1993)], i, corner tang biface; j, Marcos point (i-j, Haiduk site [Mitchell et al. 1984]; drawn by Richard McReynolds). Courtesy, Texas Archeological Research Laboratory, Texas Department of Transportation, Southern Texas Archaeological Association, and Gulf Publishing Co., Houston.

Archaic although they may have continued to be used in Late Prehistoric times (see Figure 18d-h [Shafer and Hester 1971]).

At Choke Canyon, 44 sites yielded diagnostics of the Late Archaic, including Ensor, Frio, Ellis, Fairland, and Marcos points. Sites have extensive deposits of fire-cracked rock, both hearths and earth ovens (these continue from the latter part of the Middle Archaic), and grinding implements (manos, metates) are commonly found. These may reflect further intensification of the exploitation of mesquite and acacia beans (as well as other plant resources) after these species appeared (and spread?) during the Middle Archaic. However, at site 41LK67, Feature 8 was found, a large accumulation of fire-cracked rock (55 kg), with considerable quantities of mussel shell, and Brown et al. (1982) note that "the cooking of mussels may have been at least one of the

functions" (Feature 8 was radiocarbon dated at 400 B.C.). At Choke Canyon, Middle and Late Archaic faunal remains suggest exploitation of small animals (rodents, rabbits, turtles, fish, lizards, and snakes) and deer. *Rabdotus* snails and mussel shells are common, reflecting their collection as food sources.

Late Archaic camp sites are almost always located adjacent to present stream channels or adjacent sloughs (e.g., Kelly 1979; Highley 1986; McGraw and Knepper 1983; Warren 1986). There is clear evidence of lithic procurement sites as very common occurrences in Late and Middle Archaic times on high terraces and ridges containing Rio Grande gravels (Kelly 1979; Warren 1986) or Uvalde gravels (Hester 1975a; Davis 1992). There is no doubt that these same chert resources were also used in Paleoindian and Early Archaic times (e.g., Berger and Associates 1989). In areas where these outcrops did not occur (e.g., McGraw 1979:24), stream pebbles, gravels, silicified wood, and quartzite were exploited.

Elsewhere in southern Texas, especially in Webb and La Salle counties, Desmuke, Matamoros, and Catan points appear to be markers of the Late Archaic (see Figure 18b-c), along with Olmos tools. I suspect that we will eventually find (as the data suggest from 41ZV10) that the Late Archaic can be broken into two parts, or that it would be wise to use the concept of a "terminal Archaic" for sites with Ensor, Frio, Catan, and Matamoros points in particular. This is because they often show up in the early Late Prehistoric sites in the region (cf. Creel et al. 1979).

Cemeteries may have continued to be used in this period, as they did on the Texas coastal bend (e.g., the Oso cemetery, 41NU2) and in Bexar County (41BX1; Lukowski 1987). However, isolated burials with grave goods provide other insights into burial patterns. On the lower Nueces, in the area of present Lake Corpus Christi, a single burial associated with Ensor points was found (Hester 1989c). In Karnes County, the Rudy Haiduk site burial, with corner-tang bifaces, Marcos points (see Figure 18i-j), and other Late Archaic indicators has been published (Mitchell et al. 1984), and another, with an Ensor point in the chest area, was reported by Huebner et al. (1995). A burial found by McGraw (1983) in a Holocene Rio Grande terrace south of Laredo may also date to this period. The disturbed burials at the Shrew

site are likely Late Archaic (Labadie [1988:110] places Burial I, with the associated large triangular, edge-polished biface [Figure 19a], in the "latter part of the Archaic").

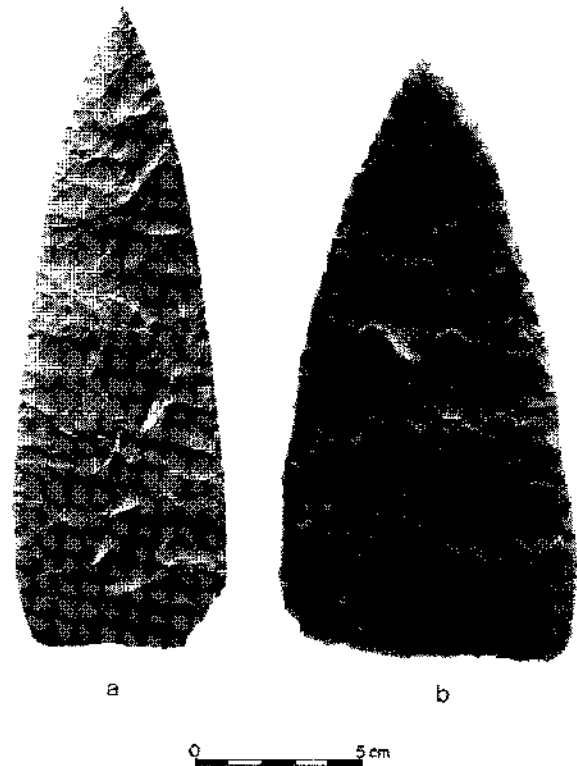


Figure 19. Large Triangular Bifaces from Southern Texas: a, 41WN73, Shrew Site (Labadie 1988); b, 41AT111 (Hester and Barber 1990). Courtesy, Texas Department of Transportation and Southern Texas Archaeological Association.

There may have been increased trade with Central Texas in the Late Archaic. Large, small-stemmed bifaces (Figure 20a-b; Hester and Green 1972) are found on an occasional basis, including a specimen from Frio County, and one with a cache of 50 bifaces (Figure 20c-g), many made of Edwards chert (Michael B. Collins, personal communication, 1995), found with a burial at Falcon Reservoir in late 1994. Large triangular bifaces (see Figure 19b) of Edwards chert are found in several areas of South Texas (e.g., the Riley cache [Figure 21]; Miller 1993; see also Hester and Barber 1990).

### Late Prehistoric

The Late Prehistoric in southern Texas has been extensively studied and published on (see



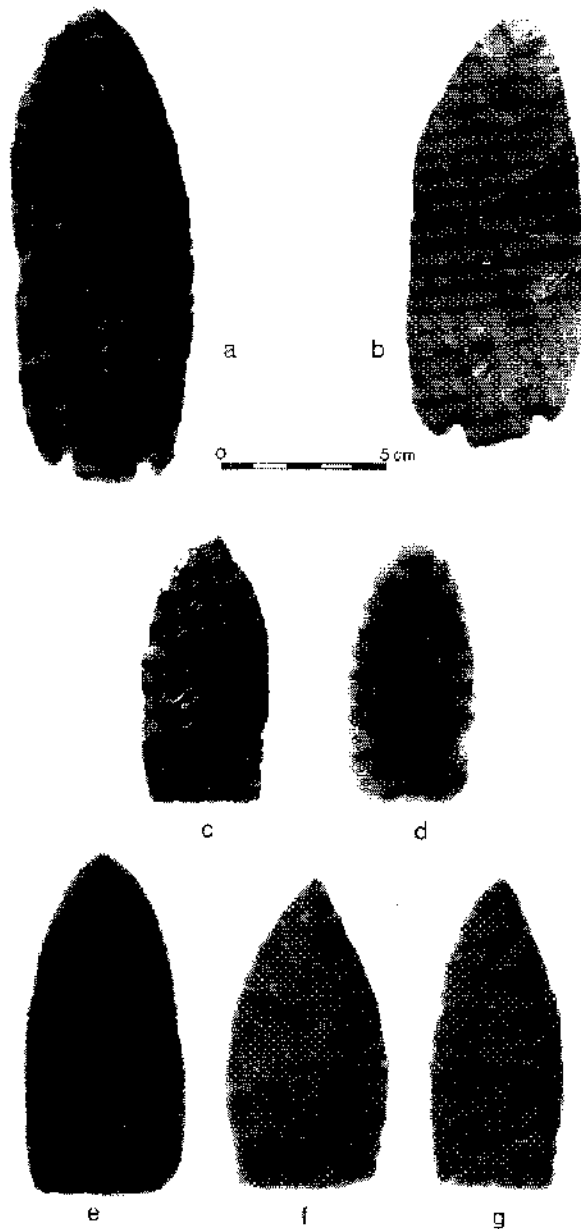


Figure 20. Selected Specimens from Cache at Falcon Lake: a, stemmed biface from Falcon Lake cache; b, specimen from San Saba County (Hester and Green 1972); compare with a; c-g, selected triangular bifaces from cache (c-d, Rio Grande gravels; a, e-g, Edwards chert). Courtesy of Cynthia Scott and James B. Boyd.

Black 1986, 1989; Highley 1986 for summaries). It shares cultural patterns with Central Texas to a certain extent, especially in the occurrence of the Toyah horizon in the region (Black 1986). The earlier parts of the Late Prehistoric are less clear. For example, "dart points" such as Ensor,

Matamoros, Catan, and Zavala often occur in what are otherwise Late Prehistoric contexts, some even in very late contexts. These are small points and surely could have been used with the bow and arrow. Whether they were "recycled" by Late Prehistoric hunters, or were made and used as part of the bow and arrow system is hard to tell (evidence for the latter comes from 41LK106 [Creel et al. 1979]).

If we use the Central Texas sequence as an analogy, we can argue that Edwards and Scallorn points (Figure 22a-c) represent the first diagnostics of the Late Prehistoric period. At Blue Bayou (41VT94), Huebner and Comuzzie (1992) report a Scallorn point in a Late Prehistoric cemetery radiocarbon-dated in the 6th century A.D. Another Scallorn point (Figure 22c) was found with a burial in Frio County (Hester et al. 1993). Scallorn points, and arrow points resembling Edwards (Turner and Hester 1993), are widespread in South Texas, but we have so little on their cultural context that it is unclear as to their affinity with Central Texas. This is further complicated by their apparent co-occurrence with Perdiz points at sites like 41ZV155 (Tortuga Flat [Inman n.d.]), and with pottery, straight-stemmed arrow points, and late radiocarbon dates at 41MC222 (Hall et al. 1986). A distinctive artifact that does appear at this time is the arrow shaft straightener (Figure 22d), made of limestone, and often broken from repeated reheating in the arrow-straightening process (Turner and Hester 1993).

The introduction of pottery is another thorny issue. Once it was thought that bone-tempered pottery was introduced by the Spanish missionaries (Suhm et al. 1954). Subsequently, Hester and Hill (1971b) conclusively demonstrated the prehistoric origins of this pottery (see also Black 1982). It has been assumed that it was largely introduced via the Toyah horizon (Black 1986).

However, at 41LK106 (Creel et al. 1979), there is bone-tempered pottery associated with Matamoros points at a hearth in Unit B. Though not directly radiocarbon dated, other dates for the Late Prehistoric at 41LK106 are comparatively early, ca. A.D. 860-1250.

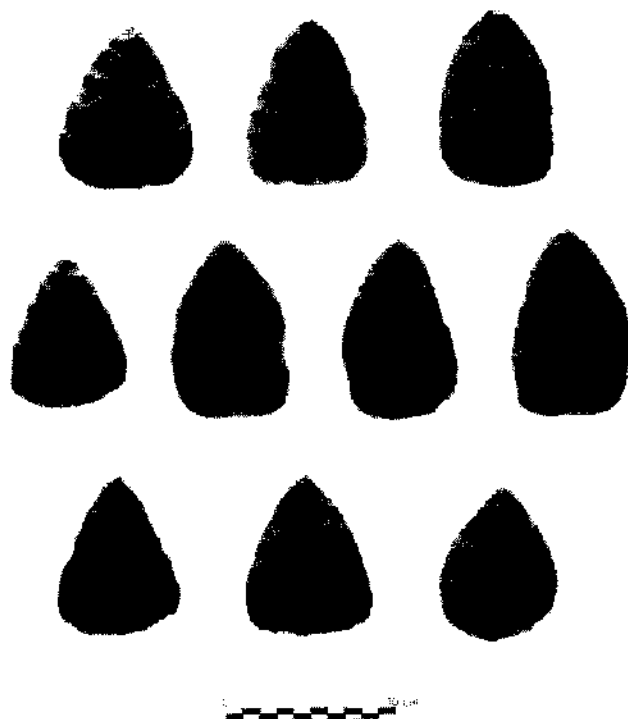


Figure 21. Selected Specimens from the Riley Cache, Atascosa County, Southern Texas (see Miller 1993). All specimens are of Edwards chert.

Further uncertainties about Late Prehistoric internal chronology are seen along the Rio Grande below Laredo. Here, Starr points are common, but undated. They apparently have several variants about which little is known. Another type, Caracara (Figure 23; Saunders and Hester 1993; see also Fox 1979:Figure 17), is also undated but recent burials with associated Caracara points found at Falcon Reservoir may yield radiocarbon assays. Toyah points are also found with some frequency in that area, and are occasionally seen at other South Texas sites. These are assumed to date very late in the Late Prehistoric period, but we know nothing about what cultural pattern they might represent.

Across southern Texas, including portions of the coastal bend (Ricklis, this volume), the best documented Late Prehistoric pattern is the Toyah horizon (Black 1986), dating between A.D. 1250/1300 to 1600/1650. Several Toyah open camp sites have been excavated, including: Hinojosa (41JW8; Black 1986), 41LK201 (Highley 1986), 41ME19 (Hester and Kelly 1976), and the material culture reported from surface contexts at Berclair (41GD4; Hester and Parker 1970). Cultural traits include Perdiz points (Figure 24), small end scrap-

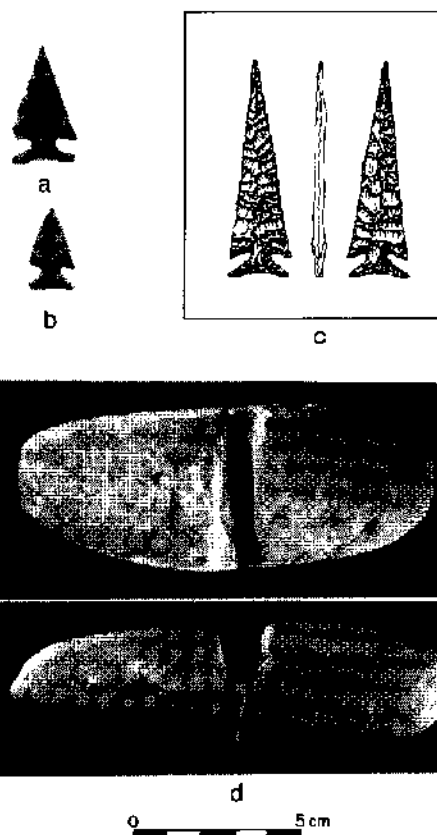


Figure 22. Late Prehistoric Artifacts from Southern Texas: a, Edwards; b, Scallorn (a-b, Loma Sandia [Taylor and Highley 1995]); c, Scallorn point associated with a burial in Frio County (Hester et al. 1993; drawn by Pam Headrick); d, arrow shaft straightener from Briscoe Ranch, Dimmit County (top and side views; courtesy Dr. Dorothy M. Brown [Hester and Brown 1988]). Courtesy, Texas Archeological Research Laboratory; Texas Department of Transportation; and the Southern Texas Archaeological Association.

ers (sometimes made on blades), flake knives (again, some made on blades), beveled knives (Figure 25; see Brown et al. 1982) bone-tempered (Leon Plain) pottery (Figure 26), perforators made on flakes, ceramic figurines, and perhaps pipes, marine shell and freshwater mussel shell ornaments, tubular bird bone beads, and spatulate objects made on bison bone fragments (see Figure 24j).

Faunal remains are well preserved at these sites, with up to 45 taxa represented. While there is abundant bison bone, white-

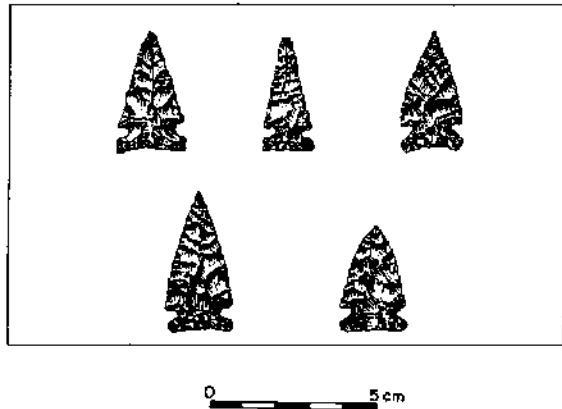


Figure 23. Caracara Points from the Falcon Lake Vicinity (from Saunders and Hester 1993 and Turner and Hester 1993) Drawings by Kathy Roemer. Courtesy of the Southern Texas Archaeological Association, and Gulf Publishing Co., Houston.

tail deer may have been more extensively hunted, along with pronghorn and a variety of smaller game. Processing areas and bone discard locales are noted at 41LK201 and 41JW8. Turtles, freshwater mussels, and land snails continue to be a part of the diet.

Toyah sites are located along present stream channels or nearby sloughs (e.g., 41LK201), sometimes buried just below the surface of natural levees paralleling the streams. This is a pattern for other Late Prehistoric sites in much of southern Texas (e.g., Mariposa [Montgomery 1978] and in the East Chacon study area [McGraw and Knepper 1983]).

Black (1986, 1989) reasons that the Toyah archeological record represents either population

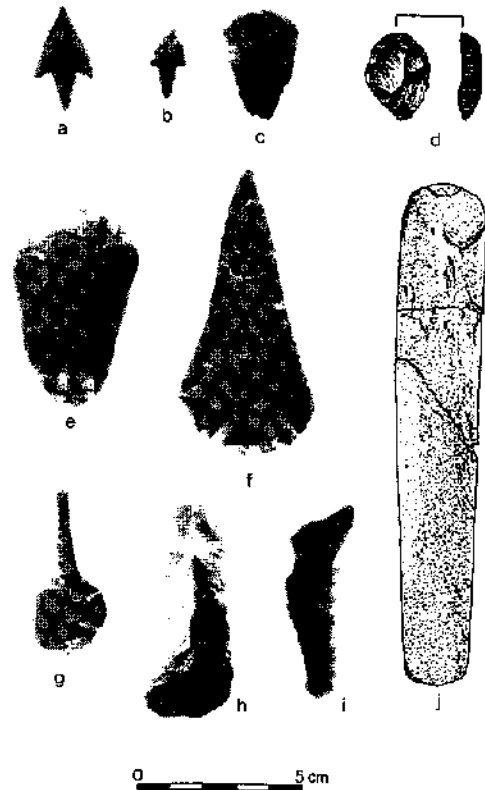


Figure 24. Artifacts of the Toyah Horizon from Southern Texas: a-b, Perdiz points; c-e, end scrapers; f, beveled knife; g, perforator made on flake; h, i, flake-blade knives; j, bone spatulate object (a-c, b-i from 41GD4 [Hester and Parker 1970]; d, 41JW8 [Turner and Hester 1993]; e-g, 41LK201 [Highley 1986]; j, 41VT66 [Huebner 1987]). Courtesy, Center for Archaeological Research, The University of Texas at San Antonio, and Southern Texas Archaeological Association.

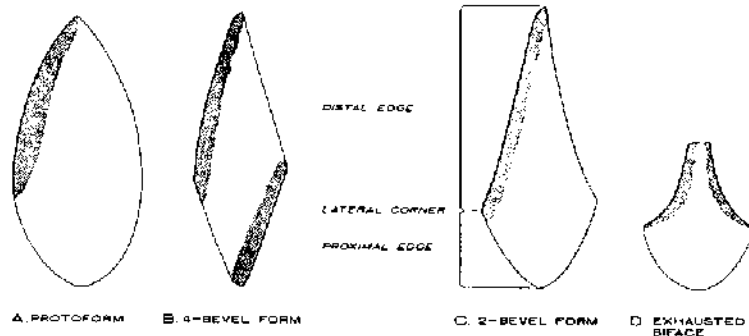


Figure 25. Beveled Knife Forms in Southern Texas (from Brown et al. 1982:Figure 22). Drawn by Kenneth M. Brown. Courtesy, Center for Archaeological Research, The University of Texas at San Antonio.

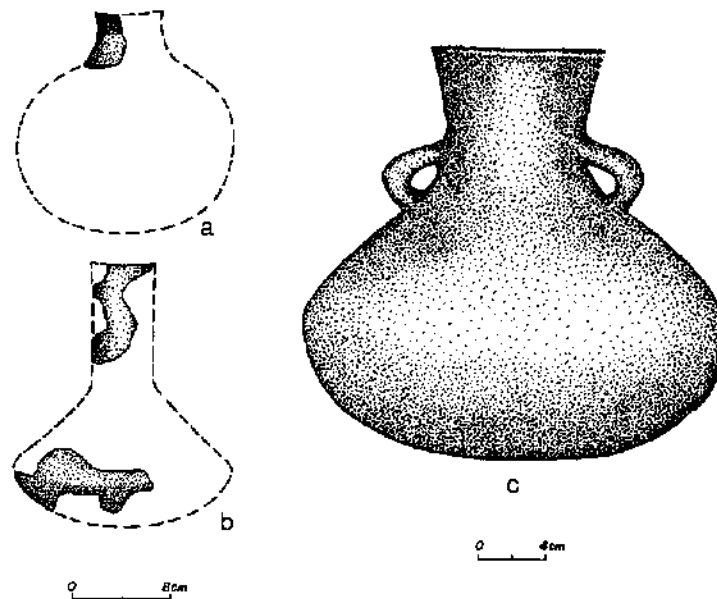


Figure 26. Pottery from Southern Texas: a, olla with fugitive red firing; b, bottle; c, olla (41LK201 [Highley 1986:Figure 38a-b and Figure 40]). Courtesy, Center for Archaeological Research, The University of Texas at San Antonio.

movement or the cultural diffusion of traits (perhaps largely associated with bison hunting practices). He favors the latter idea (see also Hester 1975b), and thus proposes the use of the term "horizon" when referring to Toyah manifestations.

Supportive of Black's argument is the presence of selected Toyah traits in contemporary Late Prehistoric sites in parts of South Texas. For example, in the Chaparrosa Ranch area, along Tortugas Creek in Zavala County, and south into Webb, Zapata, and other counties, sites often yield Perdiz points, bone-tempered pottery, beveled knives, or some combination of Toyah traits (e.g. 41ZV155 [Inman n.d.]). However, the whole assemblage is not present at South Texas sites, and often, bison is absent (or poorly represented) in the faunal list (e.g., 41ZV10 [Hester 1978a]).

There are also sites like 41MC222 (Skillet Mountain #4 [Hall et al. 1986]) in the Choke Canyon area that have produced bison (indeed, it appears to be a bison-butcherer station), and bone-tempered pottery, but stemmed arrow points that are not Perdiz, as well as the absence of beveled knives, end scrapers, etc. Scallorn and Edwards points are also present.

I suspect that native peoples of Late Prehistoric times had adopted all or some of the traits of

the Central Texas Toyah, or even that Central Texas hunting parties ventured onto the coastal plain (cf. Hester and Parker 1970). The uneven diffusion of Toyah traits across the region indicates that they should be considered horizon-markers, and not part of a "phase" (Johnson 1987).

The latter part of the Late Prehistoric, which includes Toyah, also has evidence of South Texas connections to a north-south Plains trade network. Recognizable remnants of such trade are the bits of Idaho (Malad) obsidian that show up in southern Texas at this time (Hester et al. 1991).

Equally intriguing as a problem of cultural interaction is the archeological record in the Rio Grande delta during the Late Prehistoric (Hester 1969, 1988, 1994b). Numerous sites and their assemblages have been recorded and studied by A. E. Anderson (1932), Richard S. MacNeish (1958), and others (Prewitt 1974; Hester 1978b, 1994b). This cultural pattern, known as the Brownsville Complex (see Ricklis, this volume) is noted for manufacture of great numbers of shell ornaments (Figure 27a-c, g). Numerous artifacts of bone were also made (Figure 27d-f, h-j). The Brownsville Complex groups utilized clay dunes for camp sites and for cemeteries (e.g., Hester et al. 1969; Prewitt 1974). They were hunters (using Cameron and

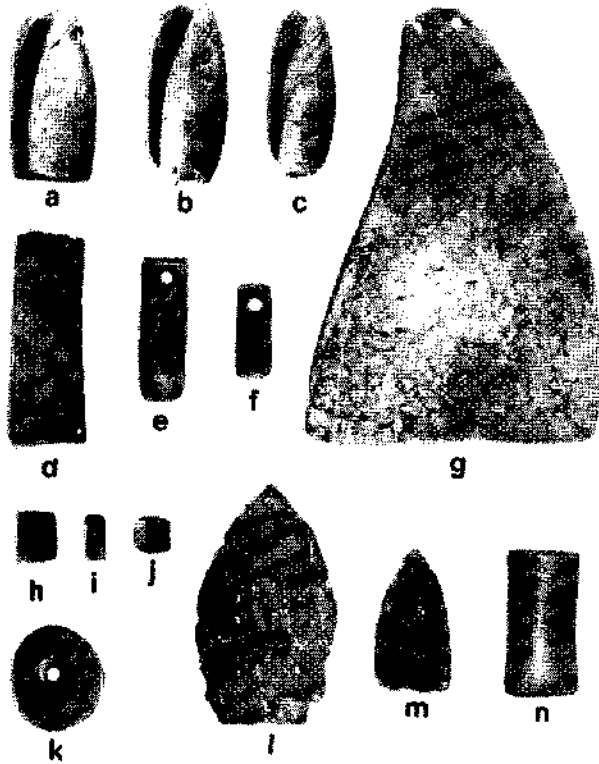


Figure 27. Selected Artifacts of the Brownsville Complex. Specimens from the Floyd Morris and Ayala sites in Cameron and Hidalgo counties (Collins et al. 1969; Hester 1969): a-c, *Oliva* shell tinkler and beads; d-f, carved bone pendant; g, conch shell pendant (length is 16.4 cm); h-j, tubular bone beads; k, disk-shaped stone bead; l-m, triangular bifaces; n, jadeite bead from Mexican source. From Hester (1980:Figure 4.10).

Starr points [Turner and Hester 1993]), gatherers and fishers, but we know little else about them (Kibler [1994:62] suggests they were “logistical collectors;” see also Ricklis [1990]).

Anderson, early in his research, also noted the occasional discovery of artifacts from what he termed the “Huastec” (notes on file at TARL). In 1917, he recorded a conch whorl ornament with an engraved human face that was clearly not locally made. He also found several large pottery vessels, or portions thereof, and knew enough about Mexican cultures to link these to the “Huastec.” These identifications were confirmed and the vessels partially illustrated by Mason (1935; Hester 1988:3). Ekholm (1944) published what is still the definitive study of archeology in the Huasteca region, and he also noted the presence of vessels from this Mesoamerican culture in the Rio Grande delta. In

MacNeish’s (1958) survey of Tamaulipas, along the coastal plain south of Brownsville, he revisited some of Anderson’s sites and found more Huastecan pottery.

In addition to the Mesoamerican ceramics, Anderson also collected several bits of obsidian and some pieces of jadeite and serpentine. These, too, were items of material culture exotic to the lower Rio Grande Delta. Later studies, such as excavation of the Floyd Morris cemetery site in Cameron County (Collins et al. 1969), uncovered a large tubular jadeite bead (see Figure 27n) with Brownsville Complex materials. Surveys by R. J. Mallouf yielded two additional obsidian flakes in Willacy County (41WY40), and Day (1981) recovered several obsidian flakes from 41WY72.

Where did these artifacts originate and how did they get to the Rio Grande delta? The ceramics include ollas, bowls, and many fragments of vessels and sherds. Some have black-on-white decoration, while others are polychrome. These are clearly from the Huasteca, and date to Periods V and VI of Ekholm’s (1944) sequence. This is the Early and Late Postclassic, from ca. A.D. 1000-1520 (Willey 1966:90). In terms of context, they come from at least 16 sites. Most of the complete vessels occurred with burials, although Anderson and MacNeish both collected Huastecan sherds from delta sites with no apparent burial as-

sociations. One of the ollas came from a site known as Tanque Salado (Figure 28), likely associated with a female burial. On it is a motif almost identical to one illustrated on a Huastecan vessel in Ekholm (1944:Figure 131). Another olla was found with a child’s burial (Cayo Atascoso clay dune site) in 1928 in Cameron County. Three other vessels, all from the Tamaulipan side of the delta, were with or near burials; they included a Huastecan bowl and substantial portions of two ollas from the Loma de la Pesca and La Loma Atravesada sites.

The polychromes, described as Tancol Polychrome by Ekholm (1944:433), and the Huasteca Black-on-White, are probably all from Period VI, dated between A.D. 1200-1520. However, a corrugated sherd may date to the Las Flores phase, or Period V, the Early Postclassic (ca. A.D. 1000-1200, again based on Ekholm’s study (1944:395).

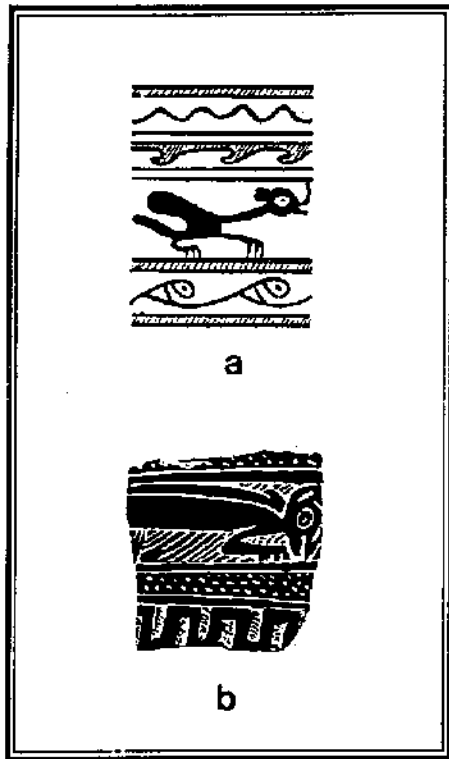


Figure 28. Comparisons of Design Elements on Huastecan Pottery and Vessel Found in the Brownsville Complex: a, portion of a design from an olla found at Tanque Salado (A. E. Anderson Collection); b, design element from a Huastecan vessel reported by Ekholm (1944:Figure 131).

The geologic sources of several obsidian flakes from the delta have been pinned down with precision, with the techniques of nuclear chemistry used by the Texas Obsidian Project (Figure 29; Hester et al. 1991). For example, a tiny flake of black opaque obsidian found by Anderson in Cameron County is linked to the Zacualtipan source in the state of Hidalgo. Seven obsidian flakes from 41WY72 are all of green obsidian (Day 1981). Visually, these appeared to be from the Pachuca, or Cerro de las Navajas source, the most famous in ancient Mexico. X-ray fluorescence analysis confirmed this (Kibler 1994:16). Finally, two flakes found by Mallouf at 41WY40, have also been identified as to source, although when we first analyzed them in the late 1970s, their source was unknown. Recently, however, David O. Brown of Austin, provided obsidian samples from a source known as Ojos Zarcos in Queretaro state not far from Guanajuato. Colleagues at the Lawrence Berkeley Laboratory, used precise

x-ray fluorescence analysis (PXRF [Giauque et al. 1993]), and convincingly linked it to the 41WY40 specimens.

The jadeite and serpentine artifacts found in the delta area include a tiny celt-like specimen and a piece of worked serpentine. There is also the tubular bead noted earlier from the Floyd Morris site in Cameron County, along with what Anderson described as a spherical or jade(ite) bead no longer available for study. The geologic sources of these are unknown. They would have to come from beyond the Huasteca, perhaps in Oaxaca or any number of other areas where jadeite and serpentine are known in central and southern Mexico. What is important here is their occurrence; though they are not true jade, they are "green stone" of the sort very important in Mesoamerican cultures.

What processes might have been involved in trade or contact between the Brownsville Complex and ancient Mesoamerica? First of all, it is safe to say that the main conduit was the Huastecan culture, the northern edge of which is about 500 km down the Gulf coast from the delta (Figure 29). During the Early Postclassic, the Huasteca maintained trade relations with the Toltec empire. Late Postclassic Huastecan culture was part of the Aztec empire and paid tribute to them (Hosler and Stresser-Pean 1992). Clearly, then, the region was closely linked with central Mexico. In the Late Postclassic, it is equally clear that the well-known Aztec traders, known as the *pochteca*, interacted with the Huastecs. Indeed, it is said that the markets of the Huasteca competed with those of Aztec Tenochtitlan (Fagan 1984:66). Throughout the Postclassic the Huastec merchants could have obtained obsidian and jade through Toltec or Aztec trade networks.

But how and why did these Huastecan commodities reach the Brownsville Complex? There are a series of frontier Mesoamerican villages in the Sierra de Tamaulipas dug by MacNeish (1958) and Stresser-Pean (1977). At first glance, they look to be likely intermediaries. MacNeish (1958) notes Huastecan Period VI "trade ware" in late sites in the Sierra de Tamaulipas, and Stresser-Pean's (1977) study of the site of San Antonio Nogalar in the southern Sierra de Tamaulipas also illustrates late Huastecan ceramics.

There is also the broad flat coastal plain east of the Sierra de Tamaulipas that could have been traversed by Huastec merchants, or perhaps travel

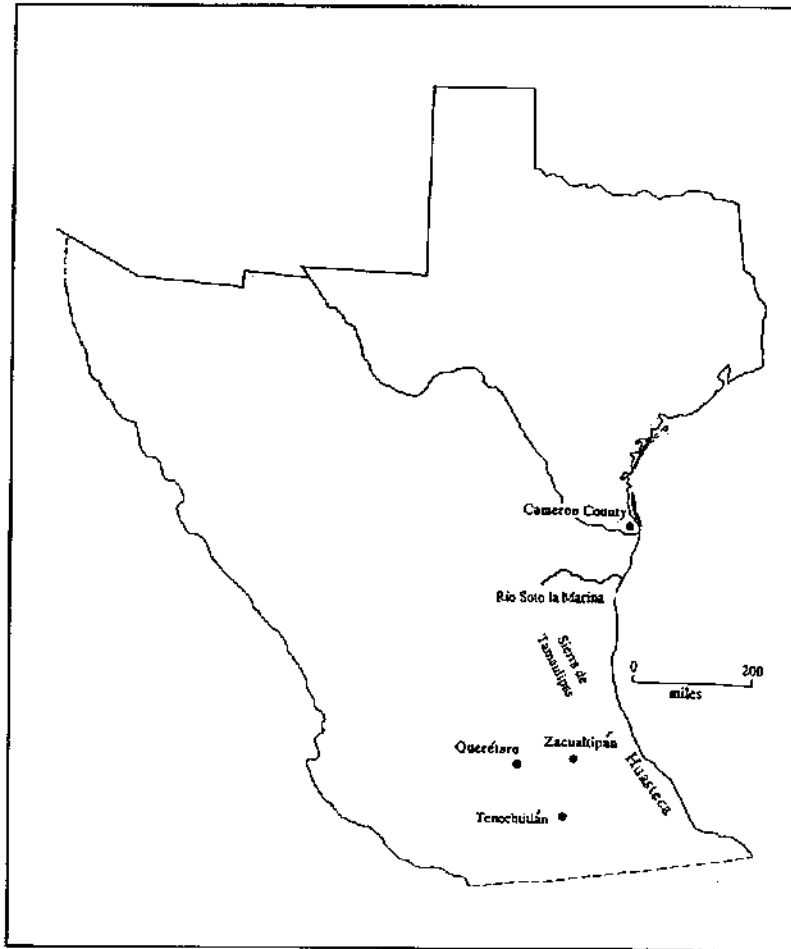


Figure 29. Map Showing Location of Geologic Sources of Obsidian From Brownsville Complex Sites (from Hester 1994b:Figure 2). Courtesy, Southern Texas Archaeological Association.

was by boat along the coast. MacNeish (1947) found what he termed Huastecan campsites north of the Rio Soto la Marina and near the Laguna Madre, only 250 km south of the Rio Grande. What drew the Huastecans north to the delta? I believe it was the shell ornament production of the Brownsville Complex. We cannot yet resolve the "chicken-or-the egg" dilemma of which came first—the shell beads or the Huastecs? Doubtless the hunters and gatherers making the prodigious numbers of shell ornaments were after more than a few pots, obsidian flakes, and poor quality jadeite! There were surely other commodities that have not been preserved. And, were the Huastecs only interested in the shell beads for themselves? Brownsville-style *Oliva* tinklers occur among the Huasteca (Ekholm 1944), are depicted on Huasteca stone sculpture, and MacNeish (1947) states that

Brownsville Complex shell ornaments are common in Huasteca sites. But are these from the delta or made by the Huastecs themselves from Gulf coast shell in their region? We cannot answer this question with the paucity of modern excavation data from the Huasteca or the Rio Grande delta. It is interesting to note that one commodity specially favored by the Aztecs for their Tenochtitlan markets were marine shells and marine shell ornaments, perhaps largely supplied through Huastec tribute.

#### Protohistoric

Adkins and Adkins (1982:242) define "protohistory" as "the transition period between the prehistoric and historic periods denoting a phase for which few written records are available, and for

which most evidence is derived from archaeology." In the archeology of the Plains, the Protohistoric concept is often used (e.g., Baugh 1986). It includes sites up to ca. 1750 at which Southwestern Indian and some European trade goods appear, but recognizes that Euro-american explorers and settlers had not yet entered the area in sufficient numbers to have "impacted the economy of the Southern Plains peoples" (Baugh 1986:183). This is exactly what we have in South Texas in the 16th and 17th centuries, before the Spanish explorers and mission system "impacted the economy" of the Late Prehistoric groups.

There are a number of sites that fall into this era. Especially well known are several in Zavala County (Hester and Hill 1975) with radiocarbon dates in this time frame. Only 60 km to the west, missions were established at what is now Guerrero, Coahuila, in the early 18th century (Eaton 1981), drawing their neophytes in part from this very area. Thus, in South Texas, the Protohistoric period seems an apt term for Native American sites dating after Cabeza de Vaca's unfortunate shipwreck, and the even more unfortunate arrival of Spaniards in the 1600s. These initial entries had no lasting effect on the native groups (unless it was the initial introduction of disease, so rampant in the 18th century), and left few written records about them. Strictly speaking, the native cultures at this time are neither Late Prehistoric nor Historic, and thus despite the views of some colleagues (McGraw et al. 1991:116, 118; Hinds 1995), I think the Protohistoric is a cultural-historical concept; absolute dates are not significant, but rather it is the potential to address important issues of culture process that is important about this period. Once we learn more about this critical time frame, we can talk with more clarity about the continuity, or lack thereof, of native culture into the mission setting (Hester 1989d). For example, given the long tradition of making bone-tempered pottery in South Texas, extending back to A.D. 800-1000, I think it is confusing to refer to the mission-era bone-tempered material as "Goliad," unless it has designs or motifs that are definitely of mission origin. Clearly, the Toyah ceramic traditions were still in place south of San Antonio and towards the coast. Such pottery seems to have disappeared, however, at the Protohistoric sites in the Chaparrosa Ranch area, perhaps one reason no bone-tempered ware is present in the Guerrero missions.

## CONCLUDING REMARKS

This paper has attempted to summarize the present status of research in South Texas prehistory. There are numerous reports in the CRM literature that I have doubtless missed, and I apologize to their authors for these inadvertent exclusions. Many, however, contain either negative evidence or limited information, and I simply did not have room, within the scope of this paper, to include these results.

The cultural-historical emphasis of much of this paper provides the only logical way that we have to organize the available archeological data. As noted on several occasions, we have few large projects on which to draw for discussions of settlement, subsistence, and behavioral change (e.g., Hall et al. 1986; Fox et al. 1974). Other sets of archeological data, such as those from Chaparrosa Ranch, have been presented in preliminary summaries (Hester 1978a), but have still not been analyzed in a complete and comprehensive manner.

An effort was made in the late 1980s to use a different approach to the synthesis of archeological information from Central, lower Pecos, and southern Texas (Hester et al. 1989). The Southwest Division Corps of Engineers, working with the Arkansas Archeological Survey, commissioned overviews of the major parts of the Southwest and Southern Plains. The concept of "adaptation types" (Fitzhugh 1975) was employed (Hester 1989e), and while there were problems with this approach, I think some useful new viewpoints were obtained.

For example, the "specialized hunter" adaptation type reflected the focus (we assume) of Clovis and Folsom as well as those of the Toyah horizon at the other end of the time spectrum. "Holocene hunters and foragers" encompassed the cultural patterns of South Texas peoples from Late Paleolithic times up through the Late Holocene, including the early Late Prehistoric and the Protohistoric. Lumping the archeological phenomena of southern Texas into these broad groups does have a certain appeal! However, to look at issues like climate change, shifts in resource focus, and the spread of horizons (or ethnic groups/phases), we still must press on with obtaining the empirical data so badly needed for future progress in understanding the ancient cultures of this region. We do not have enough substantive information to enter even a simple debate over whether these peoples were "collectors"



or "foragers" (cf. Bettinger 1991; see also Bousman et al. 1990). Using the geoarcheological approach has much potential for understanding site formation processes. Improved data recovery methods, such as fine-mesh water-screening and flotation, may lead to better samples of botanical remains (as we are now learning by processing old soil samples from Central Texas burned rock middens; Stephen L. Black, personal communication, 1995). Long-term microwear research of lithic tools, with experimental components, is vital; casual observations and ruminations about edge-beveling and function are no longer sufficient to study the use and curation of tools. Ethnohistoric research pioneered by T. N. Campbell needs to be continued through careful scholarship. Yet with this, and more, in the final appraisal, we need more well excavated, stratified sites, and more chronometric dates for associated cultural and ecological remains.

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