



# JOURNAL HOUSTON ARCHEOLOGICAL SOCIETY

Number 127

January 2001



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# Houston Archeological Society Journal

Number 127, January 2001

## Contents

Accomplishments of the Houston Archeological Society Leland W. Patterson .....	1
An Angostura Point from Walker County, Texas William E. Moore .....	6
Current Data on Gar Scale Arrow Points in Southeast Texas Leland W. Patterson .....	7
The Thirty Eight Hill Site: A Small Paleoamerican Campsite in Brewster County, Texas Wilson W. Crook, III .....	9
Excavations at the Smart Site, 41FB287, Fort Bend Co., Texas Leland W. Patterson, Joe D. Hudgins, and Etta Palmer .....	14

## Houston Archeological Society

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ISSN-8756-8071

# Accomplishments of the Houston Archeological Society

Leland W. Patterson

## Introduction

At the start of a new millennium it seems appropriate to summarize more than 40 years of activities by the Houston Archeological Society (HAS). The HAS was founded in 1958, and has made a significant number of contributions to the archeology of Southeast Texas. The HAS conducts archeological research throughout this region, which is a 21 county area shown in Figure 1. Some work has also been done in Colorado and Fayette Counties on the western side of Southeast Texas.

This article summarizes the wide variety of activities by the HAS. HAS members have expertise in many categories of archeology, often at the level of professional groups. Also, the HAS has enough members to execute large projects, such as excavations at major sites.

## Field Activities

### Site Discovery

A number of HAS members do surveys to discover new archeological sites. Several individuals have each recorded over 100 sites. Examples are surveys done by Joe Hudgins in eastern Wharton County and western Fort Bend County, and the project by Richey Ebersole that has recorded over 100 shell midden sites in the Galveston Bay area. After site discovery, there is often intensive surface collection or excavation at the site. Archeological sites are often found by surface collections made by people who are not HAS members. The study of the large collections made by Andy Kyle resulted in the recording of 78 prehistoric sites in seven counties (Kindall and Patterson 1986).

### Surface Collections

Surface collections from disturbed sites are an important part of the regional archeological data base. Data from surface collections for specific sites can be used for research on many subjects, such as geographic distributions of artifact types, settlement patterns, and population dynamics. HAS members have published many surface collections made by themselves and by other people. As shown in Table 1, the HAS has published 155 surface collections from specific sites in 14 counties of Southeast Texas. Also, surface collections have been published by HAS members for Colorado, Fayette, and Nacogdoches Counties, outside of Southeast Texas.

### Excavations

Excavated sites are important to determine cultural sequence and technological change. As shown in Table 1, HAS projects have resulted in the publication of 33 excavated sites in seven counties. Many of these sites have long occupation sequences. A high proportion of prehistoric sites in Southeast Texas are multi-component sites.

The HAS has many members who are qualified to do formal excavations of archeological sites, with ample equipment available for field projects. The HAS has a good record of prompt publication of the results of excavation projects.

Excavation projects by the HAS have made a major contribution to knowledge of Late Archaic mortuary sites in the western part of Southeast Texas, such as the Goebel site (Duke 1981, 1982a,b,c), the Peikert site (Hudgins and Kindall 1984), the Ferguson site (Patterson, Hudgins, et al. 1993), and the Bowser site (Patterson, Black, et al. 1993; Patterson, Hudgins, et al. 1998).

## **Regional Chronologies**

Research by the HAS has been important in establishing prehistoric cultural chronologies for Southeast Texas, especially for the inland part of this region. Stratigraphic sequences from excavated sites are used to establish relative cultural chronologies. For determining absolute chronologies, the HAS has obtained 22 radiocarbon dates and 14 Oxidizable Carbon Ratio (OCR) dates, with some dates obtained for every prehistoric time period from Paleoindian through Late Prehistoric, and also a few historic Indian dates. Research by the HAS has been especially important for establishing early cultural chronologies for the Paleoindian, Early Archaic, and Middle Archaic time periods, such as excavations at sites 41HR315 (Patterson 1980), 41WH19 (Patterson et al. 1987), and 41HR223 (Patterson et al. 1994).

## **Analysis of Archeological Materials**

The HAS has several members who have acquired expertise in the analysis of many types of archeological materials, such as projectile points, general lithics, ceramics, faunal remains, and fired clayballs. Therefore, analyses for HAS projects can be done at a high level of expertise. Bill McClure has made major contributions to subsistence patterns of hunter-gatherers in Southeast Texas by analysis of faunal remains. Lee Patterson has done much work in lithic analysis, including development of some analytical methods.

## **Publication**

Publication by the HAS started with a newsletter that became a journal in 1982, edited first by Alan Duke and then by Dick Gregg. A report series was started in 1967 for papers too large to fit in the HAS Journal, such as results of major excavations. There is an ongoing special publication series for a bibliography of the prehistory of Southeast Texas (Patterson 1999). The HAS has published a detailed synthesis of Southeast Texas archeology (Patterson 1996).

Several HAS members have publications in archeology in journals outside of Southeast Texas, such as *La Tierra*, the *TAS Bulletin*, *Lithic Technology*, and *American Antiquity*.

## **Computerized Data Bases**

Computerized data bases are maintained for substantive archeological data from published sites of the inland (Patterson 1989a) and coastal margin (Patterson 1989b) parts of Southeast Texas. These data bases are updated about every three years. A relational data base program has been used which can link tables to allow complex queries to be made. Southeast Texas is the only region of Texas that has substantive data bases designed for research use.

## **Historic Research**

While much of the research by the HAS and its individual members has concentrated on the prehistory of Southeast Texas, including historic Indians, research has also been done on early historic sites in this region. Joe Hudgins (1984) has published results of archeological investigations at Post West Bernard of the Army of the Republic of Texas. Archeological investigations are being done for six sites on the retreat route of Mexican Army units in 1836, with one site already published (Hudgins and Dimmick 1998).

## **Public Education**

HAS meetings have well qualified speakers on a wide variety of archeological subjects, and the general public is welcome to hear these speakers. Sheldon Kindall has given a one-day field school in archeological techniques for a number of years. Attendance has included university students and the general public as well as HAS members. Several HAS members have given lectures on archeology at local schools. Many Boy Scouts have attended HAS excavations for merit badge work.

## **Assistance to Professionals**

From time to time, HAS members have assisted in excavation projects by professional archeologists, such as the Alabonson Road site project of Texas A&M University (Ensor and Carlson 1991), and excavations at Ashton Villa on Galveston Island.

## **Participation in TAS Activities**

Many members of the HAS are also members of the Texas Archeological Society (TAS), and actively participate in TAS activities. HAS members often attend the TAS summer field school, and TAS annual meetings. HAS members have served as president of the TAS, as regional TAS officers, and on TAS committees. HAS members have published in the TAS Bulletin and newsletter, and have given lectures at TAS meetings.

## **Participation in THC Activities**

Several HAS members participate in the Texas Archeological Stewardship Network of the Texas Historical Commission (THC). The THC sometimes requests information on the current condition of archeological sites in Southeast Texas. The THC occasionally requests the recording of surface collections from archeological sites, such as site 41FY516 in Fayette County (Patterson and Hudgins 1992).

## **Financial Considerations**

Activities of the HAS are self-funded, with no use of public funds. This enables the HAS to execute archeological projects where public funding would not be available for work by professionals, especially for archeological sites on private lands. I estimate that the HAS has contributed the equivalent of about one million dollars if HAS excavation projects had been done as CRM projects by paid professionals.

## **Summary**

This article has summarized the wide range of activities by the Houston Archeological Society. Projects by the HAS and individual members have made major contributions to knowledge of the archeology of Southeast Texas, especially for private lands where no professional resources are available for investigations. Much of the data for defining cultural sequence and lifeways of Indians in Southeast Texas have been provided by HAS research. The HAS has also made significant contributions to public education in archeology. HAS research has added to the knowledge of the early history of Texas. Accomplishments of the HAS are good examples of contributions that serious avocationalists can make in archeology.

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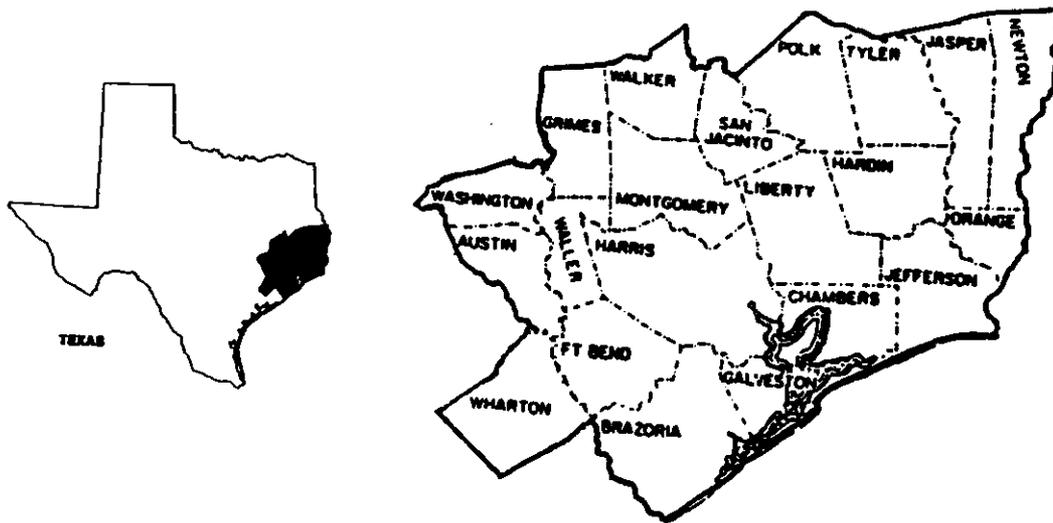


Figure 1. Southeast Texas Study Area

Table 1. HAS Site Publications

County	excavated	surface collection
Austin	1	2
Brazoria	0	1
Chambers	1	2
Fort Bend	8	10
Hardin	0	1
Harris	3	90
Jasper	0	3
Liberty	1	13
Montgomery	0	1
Polk	0	6
San Jacinto	1	1
Tyler	0	2
Waller	0	6
Wharton	18	17
total	33	155

# An Angostura Point from Walker County, Texas

William E. Moore

In June of 1991, Roger G. Moore and I were returning from a survey in East Texas. On the way home we decided to drive some of the back roads in Walker County. On a sandy road we became stuck. While Roger stayed with the car, I walked to the nearest house to get help. I returned with two locals who agreed to pull us out. While one of them was attaching the chain to the bumper of Roger's car, I noticed something in the road and picked up what turned out to be a large Angostura dart point. After parking the car at the top of the hill where we would not get stuck we walked down the road and looked for additional evidence of a prehistoric site. Our efforts resulted in two additional finds – a distal tip of a dart point or biface and a flake tool. This site was recorded at TARK as 41WA116.

The following description and illustration of the point in Figure 1 were provided by Bradley F. Bowman of the Museum of Archaeology and Material Culture in Cedar Crest, New Mexico. The Angostura point weighs 15.52 g. It is 64.3 mm long, 23.3 mm wide, and 7.66 mm thick. In the illustration, the dots at the base indicate basal grinding. The artifact is currently in the possession of the author and may be examined by other archaeologists on request. Mr. Moore may be reached at [brva@txcyber.com](mailto:brva@txcyber.com).

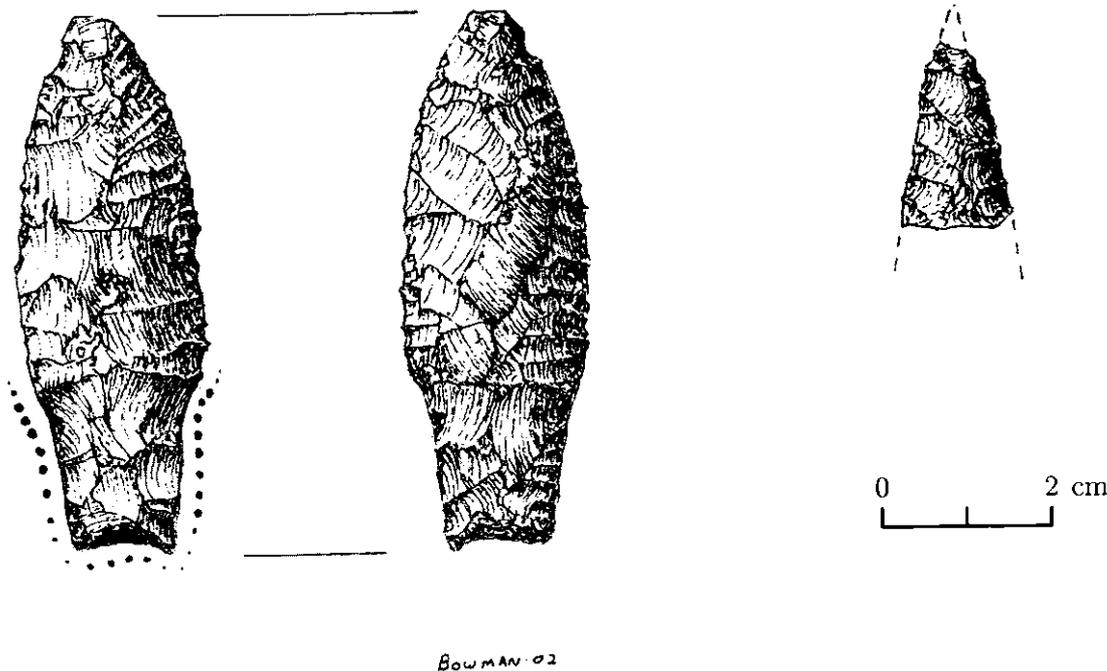


Figure 1. Angostura Point and Stone Tool Tip

# Current Data on Gar Scale Arrow Points in Southeast Texas

Leland W. Patterson

## Introduction

A previous article (Patterson 1994) noted that gar scale arrow points were used in Southeast Texas, but that evidence was confined to a few specimens at archeological sites. It was further noted that more use of gar scale arrow points would be expected in the lithic-poor area of the coastal margin of this region. Significant numbers of gar scale arrow points have now been found at archeological sites in both inland and coastal margin subregions of Southeast Texas. This article summarizes current data for gar scale arrow points in this region.

Because gar scales cannot be chipped like chert by pressure flaking, gar scale arrow points were manufactured by abrasion with sandstone tools. Modifications to gar scales to make arrow points are usually formation of well-pointed tips, and occasional modifications to make well-formed stems or smooth lateral edges. To identify gar scale specimens that have been modified to form arrow points, a 10-power magnifier is useful.

It is fairly common to recover gar scales at sites in Southeast Texas (Patterson 1989a,b), but specimens are often diamond-shaped objects that are too small for use as arrow points. There are ethnographic references to Indians using gar scale arrow points in the Southeastern United States (Swanton 1946:573,575). It is concluded that use of gar scale arrow points in Southeast Texas may have been more common than previously reported.

## Inland Examples

All published examples of gar scale arrow points at inland sites in Southeast Texas are from Fort Bend County. Examples include one specimen from site 41FB198 (Patterson and Hudgins 1991), six specimens from site 41FB228 (Patterson and Pollan 1996), and two specimens from site 41FB245 (Patterson et al. 1997). It should be noted that Fort Bend County is not a lithic-poor area. The use of gar scale arrow points in Fort Bend County cannot be explained as caused by a scarcity of chert to make stone arrow points. The total of nine gar scale arrow points reported for Fort Bend County is a small number compared to the many chert arrow points published for sites in this county (Patterson 1999).

## Coastal Margin Examples

It would be expected that the use of gar scale arrow points would have been common in the lithic-poor area of the coastal margin of Southeast Texas. However, in the previous article on gar scale arrow points (Patterson 1994), only two examples from the coastal margin of this region could be given, including a specimen from site 41CH273 (Nash and Rogers 1992: Figure 8b), and an unpublished specimen from site 41HR422 (William McClure, personal communication 1994).

Recently, two shell midden sites on the coastal margin of Southeast Texas have been published with many gar scale arrow points. There were 26 gar scale arrow points at site 41HR72 (Patterson et al. 2002), and 41 found at site 41GV53 (Patterson et al. 2001). Judged by the large numbers of gar scale arrow points at these two sites, it appears that use of gar scale arrow points on the coastal margin of Southeast Texas may have been fairly common. The previous scarcity of gar scale arrow points on the coastal margin may be due to lack of close examination of gar scale specimens at sites in this subregion of Southeast Texas.

It is interesting to note that excavations at 41GV53 place some of the gar scale arrow points in the Early Ceramic Period, before the start of bifacial stone arrow points at this site in the Late Prehistoric period, after AD 300 (Patterson et al. 2001). This should not be surprising, because the use of the bow and arrow in the inland part of Southeast Texas, using unifacial stone arrow points, starts much earlier than the start of bifacial stone arrow points at the beginning of the Late Prehistoric period in this subregion (Patterson 1992).

It can also be noted that while there are large numbers of gar scale arrow points at sites 41HR72 and 41GV53, stone arrow points are far more numerous at these sites.

## Conclusions

This article has summarized current data as of 2002 on gar scale arrow points at archeological sites in Southeast Texas. It is concluded that gar scale arrow points were used occasionally in the inland subregion of Southeast Texas, and that use of gar scale arrow points in the coastal margin subregion may have been fairly common. It is suggested that gar scale specimens from sites in Southeast Texas be closely examined to identify modifications to form arrow points.

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# The Thirty Eight Hill Site: A Small Paleoamerican Campsite in Brewster County, Texas

Wilson W. Crook, III

## Introduction

During the period 1969-1975 the author visited the area around Terlingua, Brewster County, Texas, on numerous occasions as part of an on-going study of the region's mercury minerals (Crook 1977). On one such visit in March of 1974, a detailed surface exploration was conducted of the three abandoned mines immediately east of California Hill (Colquitt-Tigner, Waldron, and Little 38 Mine). While walking up a minor drainage below the Little 38 Mine, the author discovered a small area of chipped stone debris. Subsequent surface exploration showed the debitage covered a roughly circular area about 10 meters across. Several artifacts consistent with the Plano-Cordilleran tradition of the Paleoamerican period were present on the surface. Due to the exposed nature of the site, its small size, and the importance of its artifact assemblage, the author decided to conduct an immediate salvage excavation.

Areal extent of the site was determined by surface survey. Two test pits showed the site to be deflated, with little to no stratigraphic component. No artifacts were recovered below a depth of 4 cm.

The site is named for its location and has been plotted on master site maps at the Texas Archeological Research Laboratory. This paper provides a brief description of the previously undescribed Paleoamerican occupation.

## Description

The Thirty Eight Hill Site (41BS602) lies on the southwest flank of Thirty Eight Hill, approximately 6.5 kilometers (4 miles) west of the town of Terlingua. Thirty Eight Hill is composed of a thick series of Cretaceous Age limestones which have been extensive honeycombed by solution cavities. The largest of these, known locally as the Terlingua Sinkhole, is so well developed that it contains water year round, a notable rarity in a region known for its aridity. In fact, the mines in the Thirty Eight Hill area are the only ones in the entire Terlingua district that did not have to import supplies of fresh water (Yates and Thompson 1959). This abundance of water is most likely the reason for the site's location.

Although the local basement rock is limestone, most of the surface is covered by a coarse, sandy alluvium overlain by a finer grain aeolian sand. Wind periodically moves the finer material, covering and uncovering the pediment surface. This explains the common lack of stratigraphy at this and other desert sites.

The Thirty Eight Hill site is located in the Trans-Pecos ecological region, an area of vegetation described as creosotebush-lechugilla shrub (McMahon et al. 1984). Distribution of the predominant vegetation of creosotebush-lechugilla shrub is on the lower slopes and intermountain valleys of the Trans-Pecos. Commonly associated plants include mesquite, yucca, lotebush, ocotillo, catclaw, whitebush, ceniza, pricklypear, tasajillo, chino grama, black gamma, and tarbush.

## Artifact Assemblage

A total of 42 chipped stone and bone tools and tool fragments were recovered from the Thirty Eight Hill site. In addition, 29 pieces of unworked debitage were also found, both on the surface

and from the salvage excavation. Typology and composition of both the stone tool assemblage and the associated debitage are detailed in Tables 1 and 2.

Two projectile points were recovered from the site. The most striking is a large, leaf-shaped point constructed of red-brown obsidian. Extensive collateral pressure flaking characterizes both faces (Figure 1). Dimensions are 13.7 cm in length by 3.5 cm at its greatest width. The point is similar in shape, size, and construction to those ascribed to the Lerma typology from Mesoamerica (MacNeish 1958, 1975, 1983).

Lerma points are known from both Mesoamerica and from the Lower Pecos region of South Texas. They have generally been ascribed to the Late Paleoamerican period, but are known to extend into the Archaic Horizon of South Texas where they have close affinity with Desmuke and other general leaf-shaped bifaces (Kelly 1989). However, in shape, size, and construction material, the point recovered from the Thirty Eight Hill site more closely resembles those found at La Calsada and Santa Isabel Iztapan in northern Mexico (Nance 1971).

The second point recovered is the broken base of an apparently large projectile made of gray chert. Sides of the basal fragment have been extensively ground and there is evidence of pressure retouch prior to grinding. The point is almost identical in shape and composition to that found by Luis Aveyra (1956) in association with Lerma points and mammoth remains at Santa Isabel Iztapan, Mexico.

Other artifacts recovered from the Thirty Eight Hill site include an ovoid biface, a square-based biface, flake side scrapers, end scrapers (both thumbnail and larger distal end uniface), and a number of retouched flake limaces and unretouched blades. In addition, a well-used obsidian core was found. The latter displays several long flake scars where long blades have been removed. A representative sample of the worked stone assemblage is shown in Figure 2.

The chipped stone artifact assemblage represents both bifacial and blade-and-core technology. The latter predominantly utilized obsidian whereas the site's bifacial artifacts are generally constructed of chert or chalcedony. As can be seen in Tables 1 and 2, composition of the unworked debitage mirrors that of the site's tool assemblage. Artifact construction appears to have been limited to minor retouch and tool repair; little to no original knapping appears to have occurred at the site. The site's relatively small size and lack of extensive debitage, including little to no cortex material, coupled with a high tool-to-debitage ratio (1.4:1), all suggest the occupation was more probably seasonal or even a one-time kill location.

In addition to the chipped stone material, nine small fragments of bone were recovered. Eight of the fragments are unworked and, although fragmentary, contain large interior pores suggestive of large mammals. The other bone fragment has been intentionally shaped to form a rounded tip. Microscopic examination shows prominent cutmarks as well as polish, both characteristic of extensive use, possibly as a pressure flaking tool. All of the bone fragments readily adhere to the tongue, again suggesting age.

## **Cultural Affiliation**

The artifact assemblage recovered from the Thirty Eight Hill site is consistent with the Plano-Cordilleran tradition as described from central to northern Mexico. MacNeish (1983) characterized his "Stage III" of the Paleoamerican horizon of Mesoamerica as containing bifacial leaf-shaped Lerma points, well-made snub-nosed end-scrapers, graters, bifacial ovoid knives, square-based knives, burins, and blades, the latter typically worked into side scrapers. Most of the tools appear to have been initially constructed by percussion, but many also show evidence of pressure retouch. MacNeish found evidence for this culture extending from central Mexico north to the

State of Tamaulipas and up to the Rio Grande. The tools are typically found in association with extinct Pleistocene fauna, the subsistence pattern appearing to be based largely on hunting.

Age of the Stage III horizon is not well documented with MacNeish (1983) providing a provisional date between 11,000 and 15,000 BP. A more precise date for the Lerma phase of Tamaulipas is  $9,270 \pm 500$  BP.

Thirty Eight Hill appears to be a northwestern extension of this same stage of Paleoamerican occupation with virtually every diagnostic feature identified by MacNeish present. The size of the site probably indicates a small campsite associated with seasonal occupation. The high tool-to-debitage ratio coupled with the lack of any evidence of primary tool manufacture (solely retouch and tool repair) further indicates the temporal nature of the site.

As mentioned previously, the presence of a permanent source of water in the Terlingua Sinkhole 1 km north of the site is a unique feature to the area. Not only would this source have been known to the hunters of the region, but it was probably a major lure for game as well. While only a few small fragments were found, the presence of large mammal bone in association with the artifact assemblage further supports the idea that the site's occupation was the result of hunting activity.

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Table 1. Flaked Stone Artifact Assemblage

Flaked Stone Artifact Assemblage Thirty Eight Hill Site, Brewster County, Texas					
Artifact Type	Artifact Composition				Total
	Obsidian	Flint/Chert	Chalcedony	Basalt	
Dart Point	1	1	-	-	2
Knife/Biface	-	2	1	1	4
Scrapers					25
• Side scraper	-	8	2	-	
• End scraper	-	1	-	-	
• Thumbnail End	-	5	-	-	
• Limace	3	2	1	-	
• Worked Blade	3	-	-	-	
Unworked Blade	4	2	-	-	6
Graver	-	3	-	-	3
Core	1	-	-	-	1
<b>Total</b>	<b>12</b>	<b>24</b>	<b>4</b>	<b>1</b>	<b>41</b>
	<b>29%</b>	<b>59%</b>	<b>10%</b>	<b>2%</b>	<b>100%</b>

Table 2. Unworked Debitage Composition

Unworked Debitage Composition Thirty Eight Hill Site, Brewster County, Texas					
	Debitage Composition				Total
	Obsidian	Flint/Chert	Chalcedony	Basalt	
Unworked Material	6	21	2	-	29
Percentage	21%	72%	7%	-	100%

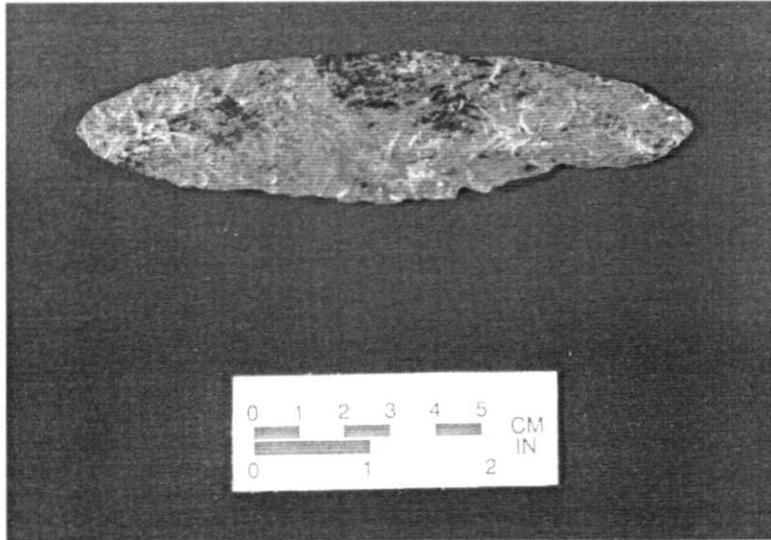
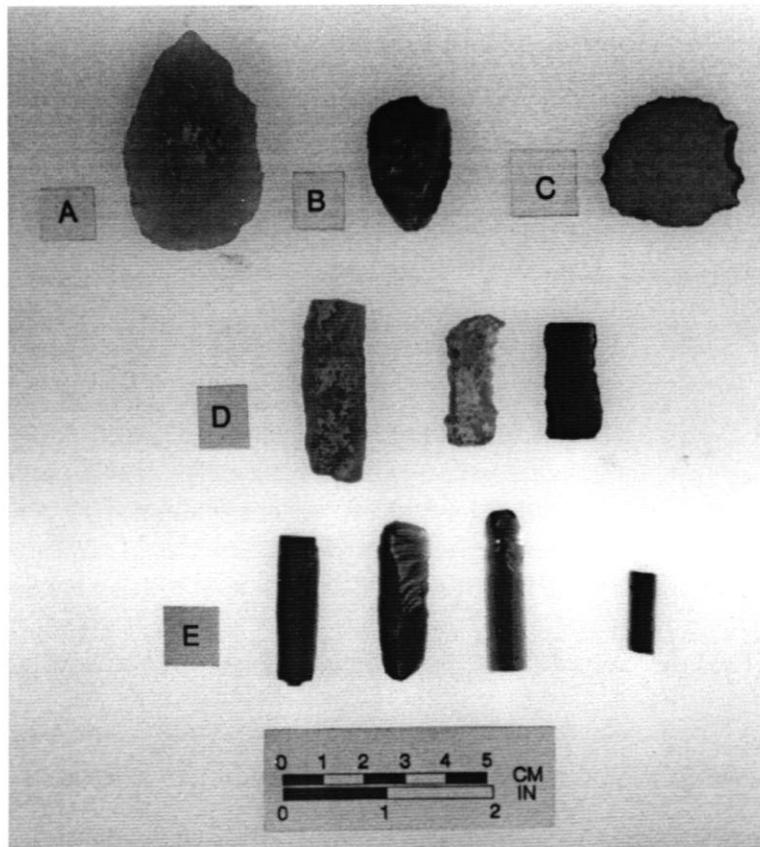


Figure 1. Lerma Point



A: ovoid biface, B: thumbnail scraper, C: side scraper  
D: retouched flake limaces, E: unretouched flake blades

Figure 2. Chipped Stone Artifacts

# Excavations at the Smart Site, 41FB287, Fort Bend Co., Texas

Leland W. Patterson, Joe D. Hudgins, and Etta Palmer

## Introduction

This article gives the results of excavations by the Houston Archeological Society at the Smart site, 41FB287, in Fort Bend County, Texas. Work at this site was made possible through the courtesy of the landowner, John Smart.

Individuals who participated in the excavations include Dan August, Richard Carter, Wanda Carter, Jean Epperson, Dick Gregg, Harold Graham, Joe Hudgins, Sheldon Kindall, Tom Palmer, Etta Palmer, Lee Patterson, Bob Shelby, Steve Sheron, Jo Ann Stuart, Bob Whitcomb, and Roy Whitney. Field work was directed by Joe Hudgins. Etta Palmer handled the field records and measured the site dimensions.

There is evidence of occupations at this site during the Late Archaic (1500 BC-AD 100), Early Ceramic (AD 100-600), and Late Prehistoric (AD 600-1500) time periods. Artifact types found here are typical for sites of inland Southeast Texas, except for a large stone bead, which indicates long-distance trade. Only three pits were excavated, because of the disturbed nature of the site and a relatively low yield of diagnostic artifacts.

## Site Setting

Site 41FB287 is located near the bottom of a gently sloping hill in sandy soil. Bessies Creek is several hundred meters from the site. The general setting is a mixture of coastal prairie and woodlands. A variety of floral and faunal food resources would have been available to prehistoric site occupants.

## Excavation Details

Layout of excavations is shown in Figure 1. Three one-meter square pits were excavated in soft, sandy soil. All soil was processed through 1/4-inch (6 mm) mesh screens. Pit A was excavated to a depth of 65 cm, where a deeper shovel test in one corner did not yield many artifacts. Later excavations in Pits B and C had much deeper strata with cultural materials. Pit C was terminated at a depth of 110 cm when clay was encountered. Pit B was excavated to a depth of 140 cm, and a deeper shovel test in one corner of the pit yielded small amounts of artifacts to a depth of 180 cm. Excavations were done in 10 cm depth intervals because no natural stratigraphy was apparent.

## Site Disturbance

There are several indications of stratigraphic disturbance at this site. Metal items were found in Pit B at 10-20, 20-30, and 50-60 cm depths. Two pieces of plastic were found in Pit A at an excavation interval of 60-65 cm.

None of the three potsherds recovered appear to be in original stratigraphic sequence, as further discussed in the section on ceramics. An Alba arrow point found in Pit B (110-120 cm) is much too deep to be in stratigraphic position for the Late Prehistoric period that this artifact type represents. Small amounts of freshwater mussel shell scattered throughout various strata also indicate site disturbance.

Much of the site disturbance appears to be from gopher activity. Some evidence of gopher burrows was observed in various strata, and there were gopher remains in Pit B at depths of 40-50, 80-90, and 100-110 cm.

## **Projectile Points**

An Alba arrow point (Figure 2B) from the Late Prehistoric period (AD 600-1500) was found in Pit B (110-120 cm). This position is much too deep to be the original stratigraphic position of this specimen. A Morhiss dart point stem (Figure 2A) from the Late Archaic (1500 BC-AD 100) period was found in Pit C (70-80 cm), which might be in original stratigraphic position. A dart point blade fragment (Figure 2I) was found in Pit A (60-65 cm).

## **Ceramics**

Only three potsherds were found by the excavations. As noted above, none of the sherds were in original stratigraphic position. An O'Neal Plain sherd with coarse sand temper found in Pit C (20-30 cm) is from the Early Ceramic (AD 100-600) period. The stratigraphic position of this specimen is above Bone Tempered sherds from the Late Prehistoric (AD 600-1500) period. Two Bone Tempered sherds from the Late Prehistoric period were found in Pit B at 50-60 and 100-110 cm excavation depth intervals. Both sherds were too deep to be in original stratigraphic positions.

## **Stone Bead**

A large stone bead (Figure 2E) was found in Pit C (90-100 cm), with a length of 35.6 mm, a diameter of 19.0 mm, and a weight of 7.0 gm. Stone beads were not made in Southeast Texas. This specimen is additional evidence of long-distance trade during the Late Archaic period (Patterson 1996:69), such as the stone beads found at the Ferguson site, 41FB42 (Patterson et al. 1993).

## **Stone Tools**

Only four specimens of formal stone tool types were found. A small scraper (Figure 2J) was found in Pit C (50-60 cm). Three graters (Figure 2K,L,M) were found in Pit A (40-50 cm), Pit B (120-130 cm), and Pit C (80-90 cm), respectively. Only small numbers of formal stone tool types are usually found at prehistoric sites in Southeast Texas, because the dominant stone tool type was the unmodified utilized lithic flake (Patterson 1996:36). Formal unifacial stone tool types are easy to make, and were used as expedient tools in the same manner as utilized flakes.

A sandstone abrader was found in Pit B (110-120 cm) with dimensions of 36 by 29 by 14 mm. Another sandstone abrader was found in Pit C (90-100 cm) with dimensions of 26 by 23 by 14 mm.

## **Lithic Manufacturing**

Lithic manufacturing at this site was mainly for the production of projectile points. Manufacturing of dart points is indicated by two bifacial preform fragments found in Pit A (50-60 cm) and Pit C (70-80 cm). Lithic flake size distributions given in Table 1 also indicate manufacture of bifacial projectile points. The relatively small total of 484 chert flakes represents only a modest amount of lithic manufacturing at this site. The increase in percentages of small flakes of sizes

under 15 mm square at excavation depths above 50 cm may indicate emphasis on manufacturing of bifacial arrow points in the Late Prehistoric period.

Lithic raw materials were brought to this site in the form of flake blanks that were produced at remote lithic sources. No chert cores were found to indicate primary reduction of chert cobbles at this site. The small percentages of flakes with remaining cortex also indicates that primary reduction of chert cobbles was not done at this site. For flakes of sizes over 15 mm square, there were 3.2% primary flakes (covered with cortex), 9.7% secondary flakes (partially covered with cortex), and 87.1% interior flakes (no remaining cortex). Chert cobbles would have been available a few kilometers south of this site at the Brazos River, and perhaps also at nearby Bessies Creek.

A small quartzite hammerstone (34 mm diameter) found in Pit B (10-20 cm) indicates use of hard percussion in lithic manufacturing. There is evidence of heat treatment of chert shown by waxy luster, reddish coloration, and small potlid surface fracture scars on flakes. Heat treatment of chert lowers tensile strength to improve knapping quality of chert used to manufacture bifacial dart points.

Three small prismatic blades (Figure 2F,G,H) were found in Pit C (60-70 cm), Pit C (90-100 cm), and Pit B (100-110 cm), with widths of 10.0, 15.9, and 10.3 mm, respectively. These small blades were probably not purposefully made, but rather were produced fortuitously during manufacture of dart points.

## **Fired Clayballs**

A total of 188 fired clayballs were recovered by excavations at this site. Fired clayballs were used as heating elements for earth ovens (Patterson 1995a). Table 2 gives data on fired clayballs for each stratum, including numbers of clayballs, weight, and size range. There are a relatively modest number of clayballs. The greatest use of earth ovens at this site appears to be in the Late Archaic period.

## **Freshwater Shellfish**

Freshwater mussel shell was found throughout the various excavated strata, but only in small quantities. Freshwater mussels were probably found in nearby Bessies Creek. Weights of mussel shell found in each stratum are given in Table 3. The small quantities of shell indicate that freshwater shellfish were not an important food source at this site.

## **Vertebrate Remains**

Vertebrate types identified at this site include gopher, deer, turtle, and fish. A large fish otolith is from a freshwater drum. Much of the vertebrate remains are small pieces of bone from unidentified species, with much burned bone. Deer and turtle are the most common animal remains found at prehistoric sites in Southeast Texas (Patterson 1995b: Table 2, 1996: Table 16).

A fairly complete gopher skeleton was found in Pit B (100-110 cm). Quantities and weights of vertebrate remains for each stratum are given in Table 4.

## **Modern Materials**

As noted above, modern materials found in various excavated strata are indications of site disturbance. A small metal rod was found in Pit B (10-20 cm), and machine cut nails were found in Pit B at 20-30 cm and 50-60 cm. Two pieces of plastic were found in Pit A (60-65 cm).

## Conclusions

Site 41FB287 is a prehistoric campsite used on a seasonal basis by nomadic hunter-gatherers. Time-diagnostic artifact types show occupation events in the Late Archaic, Early Ceramic, and Late Prehistoric time periods at this site. Judged by the fairly small quantities of various artifact types, there were only short-time occupation events at this location. All artifact types from this site are typical of types found at prehistoric sites of inland Southeast Texas, except for a large stone bead that represents long-distance trade.

While site 41FB287 is a disturbed site, data obtained here are still important for the regional archeological data base, especially for studies of settlement patterns and population dynamics.

## References Cited

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Table 1. Lithic Flake Size Distributions

depth, cm	flake size, mm square (% of flakes)							no. of flakes
	<15	15-20	20-25	25-30	30-35	35-40	40-50	
0-30	90.4	3.2	3.2		3.2			31
30-40	80.6	8.3	8.3	2.8				36
40-50	74.4	17.9	5.1	2.6				39
50-60	55.0	30.0	2.5	2.5	5.0	2.5	2.5	40
60-70	52.7	25.0	12.5	4.2	2.8	1.4	1.4	72
70-80	53.8	20.5	20.5	2.6			2.6	39
80-90	48.9	26.7	13.3	6.7	4.4			45
90-100	47.9	34.8	4.3	6.5	4.3	2.2		46
100-110	75.8	14.6	4.8	1.6	3.2			62
110-120	64.9	21.6	10.8	2.7				37
120-130	41.6	37.5	12.5	4.2	4.2			24
130-140	46.2	23.1	30.7					13
								<u>484</u>

Table 2. Fired Clayballs (all pits)

<u>depth, cm</u>	<u>no.</u>	<u>weight, gm</u>	<u>size range, mm square</u>
0-30	3	81	15-50
30-40	2	15	20-25
40-50	9	49	15-35
50-60	14	57	15-35
60-70	43	424	15-50
70-80	23	204	15-40
80-90	23	193	15-40
90-100	16	283	15-50
100-110	27	269	15-40
110-120	10	51	15-35
120-130	7	46	15-35
130-140	6	170	20-50
140+	5	47	20-35
	<u>188</u>		

Table 3. Freshwater Mussel Shell

<u>depth, cm</u>	<u>weight, gm</u>			<u>total</u>
	<u>pit</u>			
	<u>A</u>	<u>B</u>	<u>C</u>	
0-30		2.3	0.3	2.6
30-40	3.9			3.9
40-50	8.0		3.3	11.3
50-60	5.0	0.1	0.6	5.7
60-70	16.5			16.5
70-80			1.0	1.0
80-90		0.6	8.8	9.4
90-100		0.3	37.3	37.6
100-110			48.3	48.3
110-120		17.0		17.0
120-130		2.8		2.8
130-140		51.5		51.5
140+		26.4		26.4

Table 4. Vertebrate Remains (all pits)

<u>depth, cm</u>	<u>no. of pieces</u>	<u>weight, gm</u>
0-30	29	12
30-40	19	5
40-50	29	9
50-60	39	13
60-70	39	28
70-80	20	4
80-90	35	17
90-100	49	20
100-110	35	10
110-120	32	15
120-130	14	21
130-140	28	9

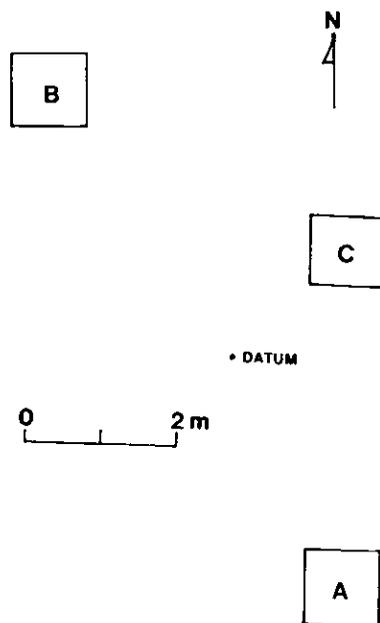
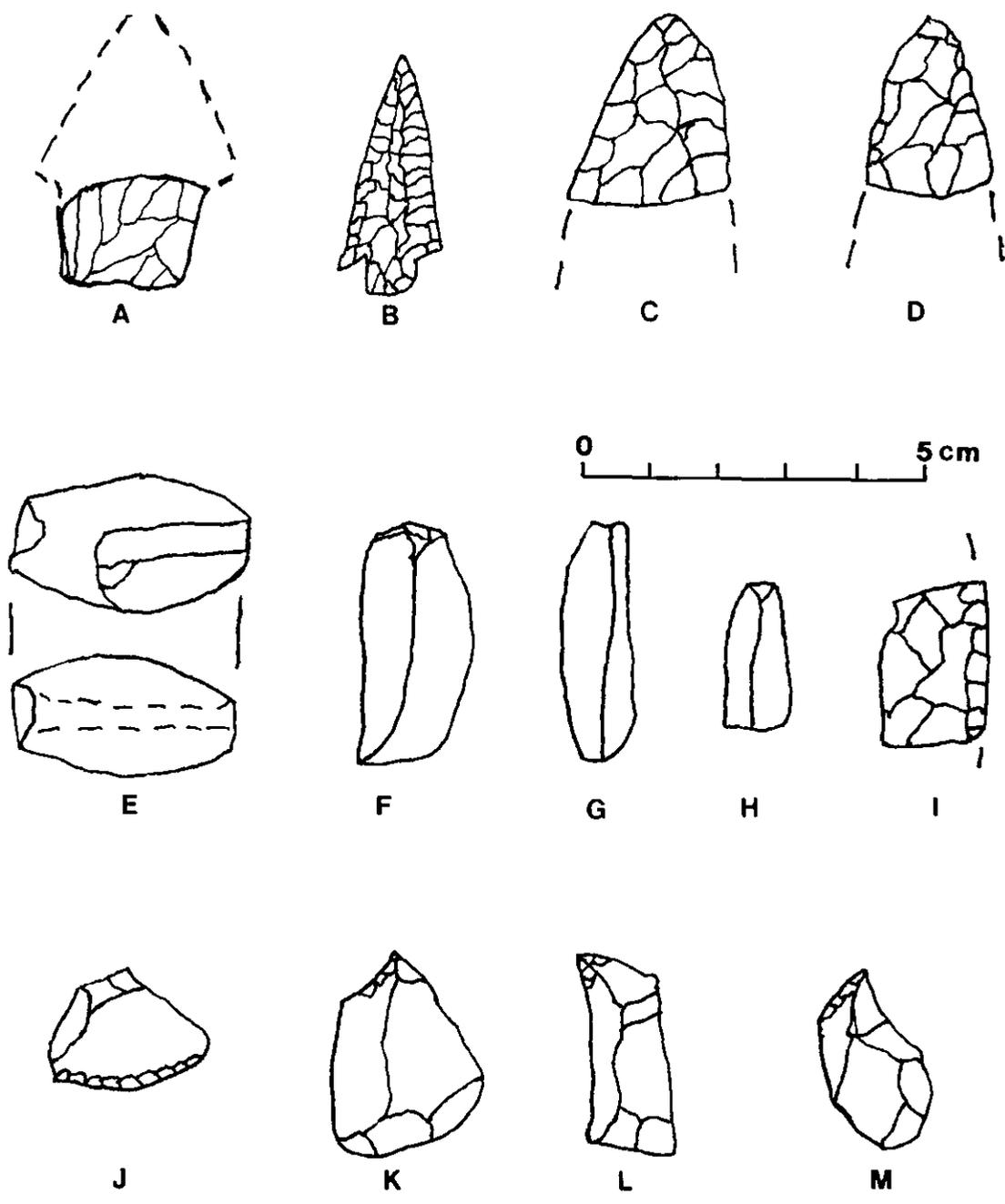


Figure 1. Excavation Layout



A - Morhiss point; B - Alba point; C,D - preform fragments;  
 E - stone bead; F,G,H - prismatic blades; I - dart point fragment;  
 J - scraper; K,L,M - gravers

Figure 2. Lithic Artifacts