

**INVESTIGATIONS OF SITE 41HR72  
HARRIS COUNTY, TEXAS**

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## INTRODUCTION

This report describes a large surface collection of Indian artifacts made by George Wolf at site 41HR72 in Harris County. This site was recorded for state records by Alan Duke (1967). Appreciation is expressed to George Wolf for making this collection available for study.

Site 41HR72 is located on a ridge between Peggy Lake and San Jacinto Bay. The site has been largely destroyed by wave action and modern construction. The Wolf collection was made at the site edge, where erosion from wave action exposed many artifacts.

Judged by artifact types, site 41HR72 has an occupation sequence from the early part of the Late Paleoindian period through the Historic Indian period, a time interval of almost 10,000 years. Initial site occupations in the Late Paleoindian period (8000-5000 BC) were in a freshwater environment, when the location could be classified as an inland site. Sometime after 5000 BC, rising sea level created a brackish water environment at this location which permitted growth of Rangia shellfish. This site then became a typical coastal margin shell midden site.

Most of the artifacts found at this site are typical for coastal margin sites in Southeast Texas. The Wolf collection is distinguished by the large number of projectile points. Data from this collection are a significant contribution to the archeological database for Southeast Texas. Many archeologists tend to ignore the value of surface collections from specific sites (Patterson 1998c). Much of the significant archeological data for Southeast Texas is in the form of surface collections. The Wolf collection provides data that are valuable for studies such as lithic technology, ceramic production, subsistence, mobility, and long-distance trade with Central Texas.

This project was organized by Beth Aucoin.

## PROJECTILE POINTS

Projectile points found at 41HR72 are summarized in Table 1, for the Wolf and Duke (1967) collections. San Patrice and Early Side-Notched points are from the early part (8000-7000 BC) of the Late Paleoindian period, 8000-5000 BC (Patterson 1997). San Patrice points are shown in Figure 1. The Early Side-Notched points in Figure 2 could be classified as the Keithville variety (Turner and Hester 1993:134), found with San Patrice points at the John Pearce site in Louisiana (Webb et al. 1971:Figure 6). Another Early Side-Notched point (Figure 3) in the Wolf collection is like a specimen found at the John Pearce site (Webb et al. 1971:Figure 5g). The Wolf collection also has the stem from another Early Side-Notched point. The latter part of the Late Paleoindian period is represented by the stem of an Angostura point (Turner and Hester 1993:73).

There were 21 Gary points with contracting stems and 36 Kent points with straight stems found at 41HR72. These specimens may represent the Middle Archaic (3000-1500 BC), the Late Archaic (1500 BC-AD 100), and the Early Ceramic (AD 100-600) time periods (Patterson 1995:Table 3, 1996:Table 4). Some Kent points may actually be Early Stemmed points from the Early Archaic period (Patterson 1998a, 1996:Table 4). Two Ensor and three Darl points were found at 41HR72 which could be from the Late Archaic or Early Ceramic periods. Two Bone dart points (Figure 4) were found at this site. One specimen has asphaltum in the socket. Asphaltum was used as a hafting adhesive. Pieces of asphaltum can be found on beaches in Southeast Texas.

In addition to the above dart points, there is a Kent point that has the tip reworked for use as a perforator.

The Wolf collection from 41HR72 has 265 arrow points. This is a significant proportion of the arrow points found at all published coastal margin sites in Southeast Texas (Patterson 1996:Table 9). The 265 arrow points in the surface collection from 41HR72 and the 164 arrow points in the surface collections from 41GV53 (Patterson et al. 2001:Table 14) more than doubles the previous total of 402 arrow points from published sites on the coastal margin of Southeast Texas (Patterson 1996:Table 9). Four major arrow point types represent the Late Prehistoric period (AD600-1500), Perdiz, Alba, Scallorn, and Catahoula. There is no serial sequence of these arrow point types in Southeast Texas (Patterson 1996:21). For example, at site 41FB255 in Fort Bend County, Perdiz, Alba, and Scallorn points were all found with a single burial (Rogers et al. 2000). Some of the 10 unifacial arrow points found at this site may be from time periods earlier than the Late Prehistoric (Patterson 1992). The Historic Indian period at this site is represented by two Guerrero arrow points (Turner and Hester 1993:216).

In addition to stone arrow points at 41HR72, there are also 23 bone arrow points and 26 gar scale arrow points. Some of the gar scale arrow points are shown in Figure 5. Bone arrow points are found at coastal margin sites in Southeast Texas, but not generally at inland sites in this region (Aten 1983:Figure 13.3; Patterson and Ebersole 1992). A previous study of gar scale arrow points noted that there are only a few examples of this artifact type on the coastal margin of Southeast Texas (Patterson 1994). This situation has now changed, with 26 gar scale arrow points found at 41HR72, and 66 found at 41GV53 (Patterson et al. 2001). It seems likely that many previous investigators of coastal margin sites in Southeast Texas have not included close examination of gar scale specimens to find any that have been modified for use as arrow points. Modification of gar scales is done with an abrading tool.

## LITHIC ARTIFACTS

Aside from stone projectile points, a number of other lithic artifacts have been found at 41HR72. There is much chert debitage. Formal types of stone tools include 24 unifacial scrapers and 31 unifacial or bifacial perforators.

The Duke collection from this site has a large stemmed biface with a length of 21 cm (Duke 1967). The Wolf collection has two large bifaces (Figure 6) and a fragment of a large biface. All specimens are made of high quality Central Texas cherts. One of the two large bifaces has a length of 139 mm and a basal width of 45 mm. This specimen has a maximum thickness of 6 mm and a width of 36 mm at the point of maximum thickness, for a width-to-thickness ratio of 6.0. The other large biface has a length of 109 mm and a basal width of 43 mm. This specimen has a maximum thickness of 6 mm and a width of 34 mm at the point of maximum thickness, for a width-to-thickness ratio of 5.7. These large bifaces were probably made in Central Texas, where high quality cherts are available and where some knappers were experts in making large, thin bifaces with width-to-thickness ratios of over 4.0 (Patterson 1998b).

The Wolf collection has two sandstone abrading tools. This type of tool would have been used to make bone artifacts and gar scale arrow points.

An additional item of note is a possible plumb bob or pendant made of sandstone (Figure 12.2). Dimensions of this specimen are width at top, 7.5 mm; width at base, 17 mm; overall length, 26 mm; weight 10 grams. There is a single incised line beginning

approximately 3.5 mm below the top and curving downward to 9 mm on the opposite edge; the incised line then curves upward on the reverse side, stopping just short of the starting point of the incision. The lower exterior appears similar to a piece of whittled wood as there are indications that slices of the sandstone were shaved off prior to incising. A similarly shaped complete plumb bob, made of hematite with a length of 57 mm and a weight of 75 grams, was found at Lake Stevenson on Smith Point by Daniel Hartman in 1963.

## LITHICS ON THE COASTAL MARGIN

The coastal margin of Southeast Texas is a lithic-poor area. Excavations at large shell midden sites usually yield only modest amounts of lithic artifacts, probably because of the dispersed nature of occupation events over large site areas. Large surface collections from sites 41GV53 (Patterson et al. 2001) and 41HR72 show much higher utilization of lithic artifacts than would be expected from excavation results. Indians on some parts of the coastal margin of Southeast Texas seem to have had good access to lithic materials, whether by direct procurement, trade, or scavenging from nearby inland sites.

Access to lithic materials may have been better on the west side of the Galveston Bay System than on the east side. Significantly higher use of stone projectile points by coastal margin groups on the west side of the Galveston Bay System than by groups on the east side of the Galveston Bay System may indicate that the degree of rigidity of social boundaries between coastal and inland groups was variable in different geographic locations (Patterson 2000). All lithic sources in Southeast Texas are located in the inland part of this region at the Brazos and Colorado Rivers west of the Galveston Bay System.

## CHANGES IN MOBILITY

There are several indications, such as at large shell midden site 41GV53 (Patterson et al. 2001), that groups on the coastal margin of Southeast Texas became more sedentary with rising population levels starting in the latter part of the Late Archaic period. There was more intense use of sites in the Early Ceramic and Late Prehistoric periods, probably with longer occupation events. The large number of arrow points indicates more intense use of site 41HR72 in the Late Prehistoric period, consistent with data from site 41GV53. It should not be concluded, however, that groups on the coastal margin of Southeast Texas became completely sedentary in later time. Small sites along stream banks on the coastal margin indicate some degree of mobility.

## BONE ARTIFACTS

Bone artifacts were often used instead of stone tools in the lithic-poor area of the coastal margin of Southeast Texas (Aten 1983:262). Aside from bone projectile points, the Wolf collection from 41HR72 has 13 awls, 3 miscellaneous bone tools, and an engraved bone specimen. Some of the bone awls may have actually been used as pressure flaking tools to make stone projectile points. The three miscellaneous bone tools may have been used as scrapers or pottery smoothing tools. The engraved specimen (Figure 7) may have been used as a gaming piece. A drawing has been added to the photograph of the engraved bone specimen to more clearly illustrate the engraved pattern.

Some worked pieces of lightning whelk shell were found at this site, including some flat pieces and columellae.

## FAUNAL REMAINS

There is usually good preservation of animal bone at shell midden sites because shell carbonates create alkaline conditions. The Wolf collection from 41HR72 has remains of bison, deer, alligator, turtle, and unidentified small mammals. In additions to Rangia shell, some pieces of giant Atlantic cockle were found. Indians of Southeast Texas utilized a wide variety of faunal resources, depending on local availability (Patterson 1995:Table 2, 1996:Tables 16,17).

## FOSSILS

Three fossils were found at 41HR72. George Wolf has identified these specimens as a wolf incisor, a horse tooth, and a fragment of a mastodon tooth. The relationship of these items to Indian groups at this site is not clear. Perhaps these fossils were found and curated by Indians.

## CERAMICS

The pottery sherds in this collection represent surface collecting during the late 1970s through the mid-1980s. The source of the pottery is a shell midden along the eroding banks of a small inlet between Peggy Lake and San Jacinto Bay. Collecting generally took place after stormy weather or high tides when wave action either eroded or redeposited portions of the midden, or after strong northerly winds had exposed previously submerged sections of the site. Consequently, no temporal or stratigraphic assessment can be made. A number of sherds have barnacles on interior and/or exterior surfaces and many surfaces are either damaged by weathering or are water smoothed.

This shell midden was reported by Alan Duke in 1967. At that time, 74 Goose Creek Plain and 7 incised potsherds were reported. Two other nearby sites, reported by Duke in 1970 and 1974, also yielded Goose Creek Plain and incised sherds as well as San Jacinto Plain. San Jacinto Incised pottery, as well as Goose Creek sherds with interior asphaltum and one Red-Filmed sherd, were found at the second site (1974).

The potsherds in this collection, n=746, include Goose Creek, San Jacinto, Baytown, O'Neal Incised and Bone-Tempered types, one possible Rockport Asphalt Decorated (black-on-gray) rim, and a partial vessel of possible Rockport Plain with asphaltum-coated interior and exterior surfaces. Red ochre was found on only two sherds, one of which is an incised rim and both of which are bone-tempered. Included in the collection are 46 vessel bases and 49 sherds with lace/suspension holes (Table 2). Only one sherd, a Goose Creek Plain rim, showed any evidence of interior incising, a single incised line. Neyland and Aten (1971) reported the presence and significance of interior incising in coastal Southeast Texas. At that time, only "15 sherds exhibiting interior incising" were known from collections that totaled "more than 20,000 sherds."

Recent investigations at 41GV53 yielded 47 sherds with interior decoration, thereby tripling the number of sherds with interior incising previously reported by Neyland and Aten. The designs on 45 Goose Creek sherds ranged from simple to more complex patterns of incised lines, deep-cut and drawn lines, fingernail punctations, and two sherds exhibiting incised straight and wavy lines (Patterson et al. 2001:Figures 4-24). Designs on two O'Neal sherds from this site displayed thicker incised lines. One of these sherds was a wall sherd with a lace hole (Figure 24).

A fresh break was made on all sherds in the 41HR72 collection and then examined using a loupe with 10X magnification; illustrations were drawn full-size and reproduced to 80% of their original size. Figure 16 is a full-size drawing. Analysis revealed that the largest sherds in the collection are San Jacinto and bone-tempered pottery measuring greater than 2x4 cm and 5x6 cm, respectively.

The texture of Goose Creek pottery ranges from "fine to coarse depending upon the sand or clay-grit particles," with the sandiest sherds feeling like sandstone (Suhm and Jelks 1954:57). The Goose Creek sherds in this collection include plain and incised rims, incised and punctated rims and body sherds, two with evidence of interior asphaltum, 26 sherds with lace holes, and seven vessel bases (Table 2). The collection also contains one cord-impressed rim (Figure 8M). A total of 407 Goose Creek sherds, representing 54.6% of the collection, were examined. Selected sherds are shown in Figures 8 and 17.

San Jacinto Sherds contain small to moderate amounts of grog temper and are shown in Figures 9-11 and 17. This group of 167 sherds, representing 22.4% of the total, contains plain and incised rim and body sherds, incised and punctated rims and body sherds, one incised and brushed rim (Figure 9H), and six incised asphaltum-coated body sherds which

appear to be part of the same vessel (Figure 11). One rim with two incised lines displays a group of 15 very fine punctations arranged in a rectangular pattern (Figure 10K). Three of the five incurving wall sherds, one of which is incised and punctated, are shown in Figure 9. Vessel bases are noded, conical, or rounded; one partial base with a single pod is shown in Figure 9G. Two of the rounded base sherds have asphaltum-coated interiors and may be part of the same vessel.

Baytown pottery, which contains an abundance of grog temper (Aten 1983:24; Patterson 2001:5), is represented in this collection by a total of 28 sherds or 3.7% of the total. Included in this group are four incised rims and two body sherds--five of which are from the same vessel, one noded base, 12 plain body sherds, and two body sherds with lace holes. The five matching sherds display finely incised horizontal lines with a slightly outflaring rim and an incised lip (Figure 12.1).

The 144 bone-tempered sherds (19.3% of total) display a variety of motifs ranging from simple horizontal incised lines, incised and punctated designs, one cord-impressed rim (Figure 13D), one possible O'Neal rim with very fine incised vertical lines above a deeper incised wavy line, one possible Rockport gray rim decorated with asphaltum, and two sherds with evidence of red ochre on their exterior. A vessel, possibly Rockport Plain with interior and exterior asphaltum-coated surfaces, partially was reconstructed using three sherds (Figure 16 and 18). The vessel with its inflected contours (Shepard 1995:Figure 22) has an estimated rim diameter of 10-10.5 cm, a neck diameter of 7.5-8 cm, an estimated body diameter of 11.5 cm, and an estimated height of 11-12 cm. The vessel's maximum thickness is 7 mm. The interior and exterior walls are nicely smoothed. The exterior is burnished, with some evidence of weathering/water smoothing and some fire mottling; the interior color is reddish-brown (Munsell 7.5YR5.5/4). Incised O'Neal and bone-tempered pottery are not commonly found at coastal margin sites in this region.

While no Tchefuncte or Tchefuncte-like sherds were present in the collection, three Tchefuncte-like fired clay lumps, with a total weight of 30 grams, were noted.

Two possible tools/pottery smoothers (Figures 17E-F) were also examined. One "smoother" is made from a bone-tempered, noded base that has a suspension hole. It's possible this item was worn as a pendant when not being utilized as a tool. The interior edge is smooth and angled toward the center. Dimensions of this item are 47 mm high, 44 mm wide, and 5 mm thick. The other possible "smoother" is made of chert; dimensions are 41 mm wide, 24.5 mm high, and 7 mm thick. Both sides of the semi-circular edge are angled and smoothed toward the straight edge; the edge of item F is more pronounced than the reverse side, F'. F' appears to be water-smoothed cortex, while F, which is water-smoothed, is rougher and without cortex. The cortex-covered side appears to have a small intrusion of quartz crystals stained with iron oxide.

The presence of asphaltum on interior or exterior pottery surfaces does not provide evidence that the Karankawa Indians were responsible for the pottery found along the San Jacinto Bay area. It is possible that the Indians who frequented the San Jacinto Bay area independently invented the use of asphaltum for pottery or that the practice diffused from the Karankawa. Asphaltum, from natural tar seeps, is found along the coast of the Galveston Bay system as well as the coast of the Gulf of Mexico.

While no specific dates can be applied to the pottery in this collection, analysis of the sherds has provided additional data regarding types of pottery made and utilized by Indian groups frequenting the San Jacinto Bay area. The collection also provides additional information for comparison of pottery types and decorative motifs found at other sites in the same vicinity as well as those found at other coastal margin sites.

## SUMMARY

This report has described surface collections from coastal shell midden site 41HR72. Data from surface collections are an important part of the archeological data base for Southeast Texas.

The large number of stone projectile points in the Wolf collection is in contrast to the modest amounts of stone projectile points usually found by excavations at shell midden sites. Excavations of shell middens are generally limited to small portions of the sites. The Wolf collection shows a much larger utilization of lithic artifacts than would be expected in the lithic-poor coastal margin of Southeast Texas.

The large number of projectile points at 41HR72 indicates intense use of this site in the Late Prehistoric period and probably also in the Early Ceramic period. It appears that there were longer occupation events with a more sedentary lifestyle during these time periods, when there was a high population level.

Occupations at this site during the Late Paleoindian period occurred when this location had a freshwater environment, as an inland site. With rising sea level, this location became a coastal margin site with a brackish water environment. This permitted the growth of Rangia shellfish which were utilized by Indians and resulted in the formation shell middens.

The large number of gar scale arrow points at 41HR72 and 41GV53 (Patterson et al. 2001) shows that the use of gar scale arrow points has been previously understated. Excavations at 41GV53 indicate that gar scale arrow points were used before the start of stone arrow points.

Analysis of sherds from 41HR72 has provided additional data regarding types of pottery made and utilized by Indians frequenting the San Jacinto Bay area. Decorative motifs on pottery at this site provide additional data on patterns used for ceramics on the coastal margin of this region.

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Table 1

## 41HR72 Projectile Points

<u>dart points</u>	<u>Wolf</u>	<u>Duke</u>
Early Side-Notched	4	
San Patrice	4	
Angostura	1	
Gary	21	
Kent	33	3
Ensor	2	
Darl	3	
bone	2	
preforms	5	
unclassified	5+	1
total	80+	4

<u>arrow points</u>	<u>Wolf</u>
Perdiz	125
Scallorn	6
Catahoula	7
Alba	46
Guerrero	2
unifacial	10
bone	23
gar scale	26
unclassified	20
total	265

TABLE 2

## Vessel Bases and Lace Holes

## VESSEL BASES

	Noded	Conical	Rounded	Rounded w/Asphalt	with Pod	Number	% of Total
Goose Creek	2	3	2			7	15
San Jacinto	23	6	1	2	1	33	72
Baytown	1					1	2
Bone Temper	3	1	1			5	11
Total	29	10	4	2	1	46	100

## LACE HOLES

	Rims	Wall	Depressed Areas/ Partial Holes		
Goose Creek	6	19	1	26	53
San Jacinto	5	14	1	20	41
Baytown		2		2	4
Bone Temper			1	1	2
Total	11	35	3	49	100

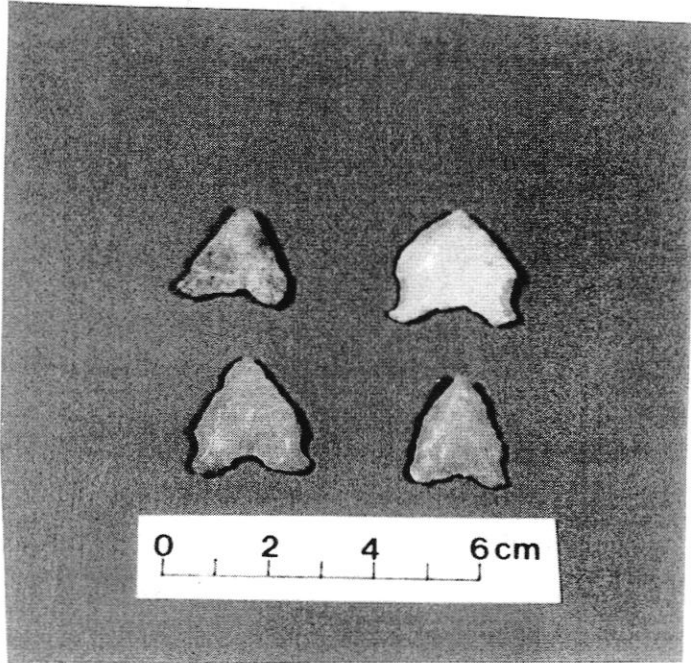


Figure 1: San Patrice Points

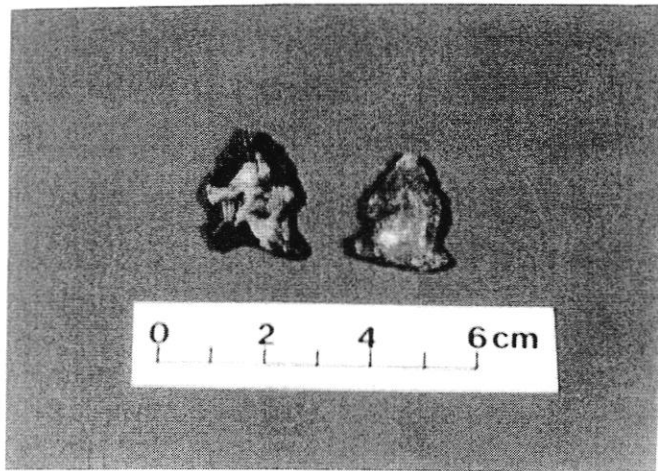


Figure 2: Early Side-Notched Points



























