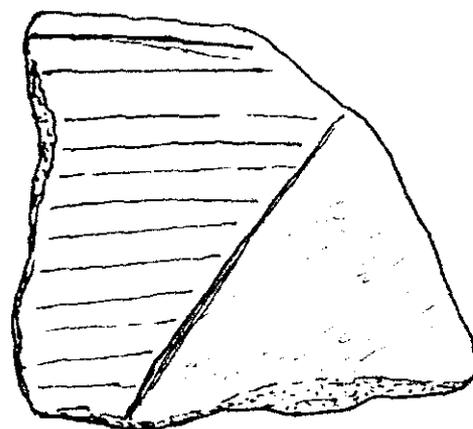
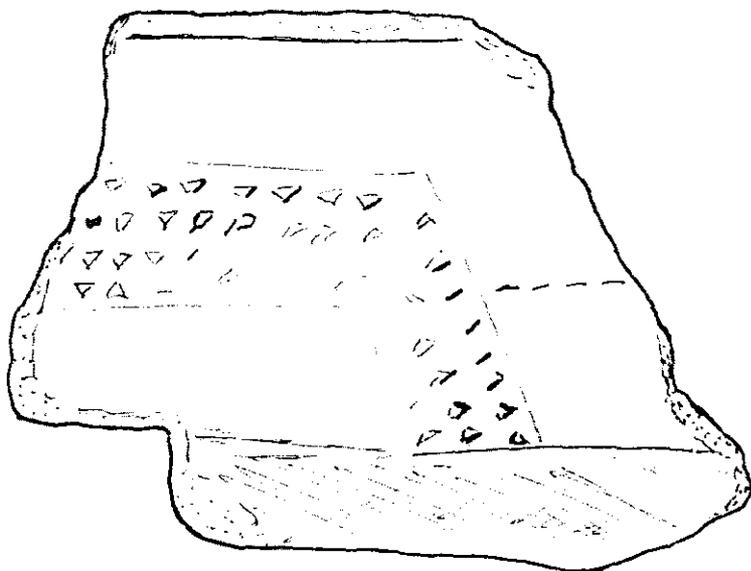




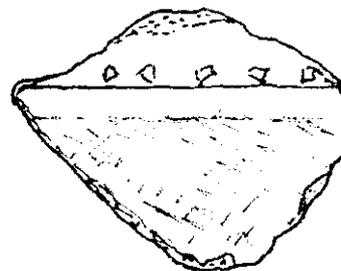
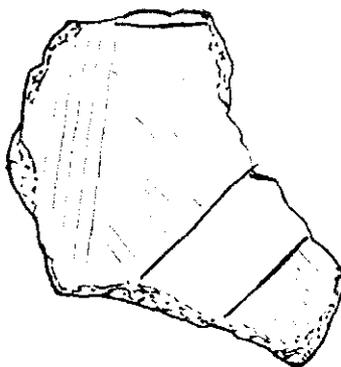
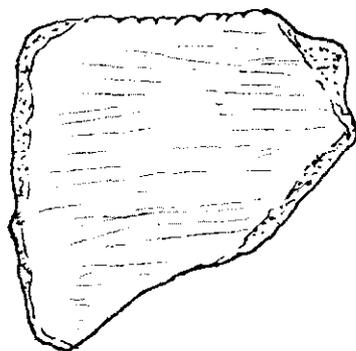
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Bone Tempered Pottery from Pine Gully Park



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Excavations at the Crutcher Site, 41FB282, Fort Bend Co., Texas

L. W. Patterson, J. D. Hudgins, E. Palmer, and T. Palmer

Introduction

This article gives the results of excavations by the Houston Archeological Society (HAS) in the spring of 2001 at the Crutcher site, 41FB282, in Fort Bend County, Texas. Clay Crutcher found this site while making a shallow drainage ditch on the family ranch. He then invited the HAS to do research at this site.

Individuals who participated in excavations include: Simon Ainet, Beth Aucoin, Pat Aucoin, Charles Boyle, Wanda Carter, Richard Carter, Dick Gregg, Sue Hamblin, Joe Hudgins, Sheldon Kindall, Roman Neumann, Jim Palmer, Tom Palmer, Etta Palmer, Lee Patterson, Gary Ryman, Bob Shelby, Dawn Smith, Allen Soukup, and John Winkler. Excavations were directed by Joe Hudgins. Etta Palmer handled field records. Site mapping was done by Tom and Jim Palmer. Faunal analysis was done by Bill McClure.

Site 41FB282 has an occupation sequence in the Late Prehistoric period (AD 600-1500). Diagnostic artifact types found here are typical of the Late Prehistoric in Southeast Texas, such as bifacial arrow points and bone tempered pottery. This location was a large campsite of nomadic hunter-gatherers with occupation events probably on a seasonal basis.

Site Setting

This site is located on a remnant terrace of the Brazos River adjacent to Bessies Creek, a former channel of the Brazos River. Occupations were located along the terrace edge near the steep terrace edge slope. The current channel of the Brazos River is a few miles to the west. The general area is a mixture of coastal prairie, woodlands, and river flood plain, which would have provided a variety of floral and faunal food resources.

Deer are still hunted in this area. Waterfowl are available on a seasonal basis. Bison were sometimes present, with somewhat greater numbers after AD 1300 (Story et al. 1990:425). This area is noted for large numbers of native pecan trees.

The Brazos River Basin is a source of alluvial deposits of chert cobbles, so that raw materials for the manufacture of projectile points and stone tools would have been available at short distances from this site.

Excavation Details

A total of eight one-meter square pits were excavated along the terrace edge, widely spaced to determine site size. Excavation layout is shown in Figure 1. The length of the site along the terrace edge is at least 80 meters. This site is unusually large for a Late Prehistoric site in this region. Occupation events seem to have been spread out along the terrace rather than concentrated in a small area.

All excavated soil was put through 1/4-inch (6 mm) mesh screens for artifact recovery. Excavations were done in arbitrary 5 cm stratum depths, because natural stratigraphy was not apparent on a visual basis. Excavation of each pit was terminated when culturally sterile clay was found. Termination depths for each pit are shown in Table 1. It may be seen that there is a wide variation in termination depths for the various pits. This suggests that the underlying clay undulates along the terrace length.

All strata with cultural materials were composed of brown sandy loam. Excavations did not encounter any hard soil. Some pits had signs of gopher tunnels as shown by lighter colored soil.

Projectile Points

Arrow points found by the HAS at this site are summarized in Table 2. There are five Perdiz points with contracting stems, and two Alba points with straight stems. Clay Crutcher had previously found another Alba point near Pit A. Three arrow point tip fragments and two arrow point preform fragments were also found. Standardized bifacial arrow point types, such as Perdiz and Alba, start about AD 600 in Southeast Texas, which is considered as the starting time for the Late Prehistoric period (Aten 1983:306; Patterson 1980).

Two unifacial arrow points were recovered. Unifacial arrow points in Southeast Texas start much earlier than bifacial arrow points. Unifacial arrow points have been found in this region from the Middle Archaic period (3000-1500 BC) through the Late Prehistoric period, until about AD 1500 (Patterson 1992).

A dart point fragment (Figure 2M) was found in Pit D (25-30 cm), and a dart point preform (Figure 2K) was found in Pit F (20-25 cm). The spear and spearthrower continued to be used in inland Southeast Texas in the Late Prehistoric period after the start of bifacial arrow points (Aten 1983:306; Patterson 1980). Clay Crutcher had previously found a small Gary dart point near Pit A.

It should be noted that Perdiz and Alba arrow points do not occur in chronological sequence at this site. There is no serial sequence for the major bifacial arrow point types in Southeast Texas (Patterson 1996:21), which are Perdiz, Alba, Catahoula, and Scallorn. At site 41FB255, Perdiz, Alba, and Scallorn points were all found with a single burial (Rogers 2000a,b).

Ceramics

Potsherds from 41FB282 excavations are shown in Table 3, including 21 Goose Creek Plain sandy paste sherds and 19 bone tempered sherds. Goose Creek pottery was used in both the Early Ceramic period (AD 100-600) and the Late Prehistoric period (AD 600-1500). Bone tempered pottery appears to have been used only in the Late Prehistoric period in the western part of Southeast Texas, as shown at sites such as 41FB224 (Patterson et al. 1996) and 41WH12 (Patterson and Hudgins 1989). The presence of bone tempered pottery at most excavation depths shows that 41FB282 is principally a Late Prehistoric site, with little indication of earlier occupation in the Early Ceramic period. Bone tempered pottery in the western part of Southeast Texas may be related to Leon Plain pottery that is found in the Colorado River Basin (Suhm and Jelks 1962:95).

The small number of potsherds found at this site is typical for inland sites in this region during the Late Prehistoric period. Mobile hunter-gatherers would not have used much pottery, because pottery is heavy and bulky and therefore difficult to transport. In the inland part of Southeast Texas, less pottery was used in the Late Prehistoric Period than in the previous Early Ceramic period, which may indicate that Indians were more mobile in the Late Prehistoric period than in the Early Ceramic period (Patterson 1996:54).

A polished flat chert pebble, 25 mm in diameter, found in Pit A (0-5 cm) may have been used for surface finishing of pottery.

Stone Tools

Stone tools from 41FB282 are summarized in Table 4, and some specimens are illustrated in Figures 2 and 3. There are seven unifacial scrapers, four graters, and four unmodified utilized

flakes. Other flakes may have also been utilized, but edge wear is often difficult to detect because edge-wear patterns are often slow to develop (Patterson 1981). Large stone tools found at this site are usually not found in Late Prehistoric context in Southeast Texas. The large stone tools from the Late Prehistoric period at 41FB282 can be explained by the close proximity of lithic sources in the Brazos River Basin.

Three of the utilized flakes have edge-wear patterns typical of cutting use, and one utilized flake has a cutting edge-wear pattern on one edge and a scraping edge-wear pattern on another edge (Tringham et al. 1974; Patterson 1975).

Lithic Manufacturing

Manufacture of projectile points at this site is shown by preforms and many of the chert flakes recovered. Hammerstones and chert cores also represent lithic manufacturing, summarized in Table 5. None of the chert cores are large enough for production of flake blanks used to make dart points. Flake blanks for dart point manufacture were likely to have been produced at lithic sources. The small chert cores shown in Table 5 were mainly used to produce small flake blanks for arrow point manufacture and flakes for small tools.

Flake size distributions are given in Table 6. Flake size distributions for excavation depths to 35 cm are typical of debitage from the manufacture of bifacial projectile points, with a high proportion of flakes of sizes under 20 mm square. There is a significant change in flake size distributions below depths of 35 cm, with fewer flakes of sizes under 15 mm square and more flakes of sizes above 20 mm square. Most flakes at excavation depths below 35 cm are from a single pit (Pit D). Pit D also has several chert cores at depths below 35 cm. It appears that lithic specimens from Pit D at depths below 35 cm represent a specialized area for the manufacture of flake blanks used for the making tools.

Prismatic Blade Technology

Prismatic blades are specialized flakes with lengths at least twice widths, with parallel lateral edges, and with one or more dorsal face ridges parallel to the lateral edges. Prismatic blades can be produced fortuitously or purposefully. There is evidence for purposeful production of small prismatic blades at 41FB282, in the form of prismatic blades, a polyhedral blade core, a blade core fragment, and blade core facial trim flakes.

Twelve small prismatic blades were found, as summarized in Table 7. A polyhedral blade core (Figure 3A) was found in Pit D (10-15 cm), a blade core fragment (Figure 3B) was found in Pit D (25-30 cm), and two blade core trim flakes (Figure 3C) were found in Pit C (5-10 cm). Blade core trim flakes are defined here as the first flakes removed from a blade core after the termination of blade production, when the core is expended by the production of flake types other than blades. It may be seen for the blade core shown as Figure 3A, that a single trim flake has been removed from the left side of the core face. In Southeast Texas, small prismatic blades were used to make perforators and unifacial arrow points. Small blades can also be used as blanks for making bifacial arrow points.

Faunal Remains

Very few bones were recovered at this site. Fragments of teeth of large bovids were from 30 to 35 cm in Pit D and from 20 to 25 cm in Pit H. These are either a domestic cow (*Bos taurus*) or a

bison (*Bison bison*). At the excavation depths involved, these tooth fragments are probably from bison. Seven other bone fragments were unidentifiable.

Fired Clayballs

Six fired clayballs were found in Pit D (40-45 cm). Diameters are 15, 15, 20, 20, 25, and 35 mm. These clayballs may represent evidence for an isolated earth oven, with clayballs used as heating elements. There is no evidence for the general use of earth ovens at this site.

Modern Materials

Some modern materials were found in the 0-5 cm excavation interval, not deep enough to indicate any significant modern disturbance to this site. Modern materials include a small metal strap (Pit A), two small pieces of glass (Pits F,H), and a .22 rifle shell (Pit C).

Summary

This article has given the results of excavations by the HAS at site 41FB282. This was a large campsite with an occupation sequence in the Late Prehistoric period (AD 600-1500). Artifacts found here that are diagnostic for the Late Prehistoric period are Perdiz and Alba arrow points, and bone tempered pottery. Large stone tools found at this site are not typical for the Late Prehistoric period in this region. This is explained by the close proximity of chert sources in the Brazos River Basin.

A variety of floral and faunal food resources would have been available for habitants of this site. Preservation of faunal remains is poor at 41FB282, but there is evidence of bison. This location was a campsite of nomadic hunter-gatherers that was probably occupied on a seasonal basis. Data from excavations at this site are a good contribution to the regional archeological data base.

Reference Cited

Aten, L. E.

1983 Indians of the Upper Texas Coast. Academic Press

Patterson, L. W.

1975 Lithic Wear Patterns in Deer Butchering. *Texas Archeology* 19(2):10-11

1980 The Owen Site: A Long Occupation Sequence in Harris County, Texas. Houston Archeological Society, Report No. 3

1981 Comments on Edge Wear Rates of Stone Tools. *Lithic Technology* 10(1):11-12

1992 Current Data on Early Use of the Bow and Arrow in Southern North America. *La Tierra* 19(4):6-15

1996 Southeast Texas Archeology. Houston Archeological Society, Report No. 12

Patterson, L. W., and J. D. Hudgins

1989 Excavations at Site 41WH12, Wharton Co., Texas. *Houston Archeological Society Journal* 95:1-11

Patterson, L. W., W. L. McClure, E. Palmer, and T. Palmer

1996 Excavations at 41FB224 and 41FB225, Fort Bend County, Texas. Fort Bend Archeological Society, Report No. 3

Rogers, R.

2000a Excavations at Site 41FB255. *Current Archeology in Texas* 2(1):17-17, Texas Historical Commission

2000b Archaeological Data Recovery at Site 41FB255, Fort Bend County, Texas. PBS&J report

Story, D. A., J. A. Guy, D. G. Steele, B. A. Burnett, M. D. Freeman

1990 Gulf Coastal Plain Adaptation Types: A Preliminary Statement. In: D.A. Story et al., The Archeology and Bioarcheology of the Gulf Coastal Plain, Arkansas Archeological Survey Research Series No. 38

Suhm, D. A., and E. B. Jelks

1962 Handbook of Texas Archeology: Type Descriptions. Texas Archeological Society, Special Publication No. 1

Tringham, R., G. Cooper, G. Odell, B. Voytek, and A. Whitman

1974 Experimentation in the Formation of Edge Damage: A New Approach to Lithic Analysis. Journal of Field Archaeology 1(1/2):171-196

Table 1. Terminal Depths of Pits

pit	depth, cm
A	20
B	15
C	15
D	55
E	40
F	30
G	25
H	35

Table 2. 41FB282 Arrow Points

type	pit	depth, cm	dimensions, mm			Figure
			L	W	T	
Perdiz	surf.			12.0	2.3	2A
Perdiz	F	0-5	37.3	16.0	2.5	2B
Alba	E	5-10	19.9	12.7	2.0	2C
Perdiz	E	10-15	34.2	14.5	3.2	2D
Alba	D	20-25		23.3	3.0	2E
Perdiz	H	25-30	28.0	16.2	4.0	2F
Perdiz	D	35-40	26.8	16.6	3.2	2G
preform	G	0-5				
preform	D	10-15		18.1	4.0	2H
unifacial	D	10-15	16.8	13.7	2.4	2I
unifacial	E	15-20	24.2	14.2	3.7	2J
tip frag.	F	15-20				
tip frag.	E	20-25				
tip frag.	F	20-25				

Table 3. 41FB282 Potsherds

depth, cm	Goose Creek	bone tempered	total
0-5	1	1	2
5-10	2	4	6
10-15	4	2	6
15-20	1	4	5
20-25	6	3	9
25-30	0	1	1
30-35	0	0	0
35-40	2	2	4
40-45	4	2	6
45-50	1	0	1
	<u>21</u>	<u>19</u>	<u>40</u>

Table 4. Stone Tools

item	pit	depth, cm	dimensions, mm			remarks
			L	W	T	
scraper	D	0-5	28.8	18.1	5.1	
scraper	G	5-10	27.2	23.9	3.8	
scraper	F	10-15	37.9	28.6	5.1	
scraper	F	15-20	55.9	34.5	10.0	Figure 2N
scraper	D	25-30	57.4	37.7	9.1	Figure 2L
scraper	D	35-40	22.6	18.8	6.6	
scraper	D	40-45	42.3	42.0	10.6	Figure 3G
graver	B	0-5	23.1	21.9	2.1	
graver	H	5-10	27.5	26.5	4.2	
graver	E	25-30	34.9	28.8	5.3	
graver	E	30-35	23.8	16.0	2.6	Figure 2O
utilized flake	D	5-10	26.4	18.0	4.0	cutting
utilized flake	D	25-30	40.6	26.0	3.4	cut, scrape
utilized flake	D	25-30	51.1	23.3	5.8	cutting
utilized flake	E	25-30	25.1	20.2	2.6	cutting

Table 5. Miscellaneous Lithic Specimens

pit	depth, cm	item
D	40-45	chert cobble, 40 mm diameter
D	25-30	quartzite hammerstone fragment
D	40-45	quartzite hammerstone fragment
G	5-10	chert core, 30 mm max. dimension
C	10-15	chert core, 35 mm max. dimension
D	30-35	chert core, 50 mm max. dimension
D	30-35	chert core, 35 mm max. dimension
D	35-40	chert core, 35 mm max. dimension
D	40-45	chert core, 40 mm max. dimension
D	40-45	chert core, 25 mm max. dimension
D	45-50	chert core, 50 mm max. dimension
D	50-55	chert core, 25 mm max. dimension

Table 6. Flake Size Distributions

depth, cm	flake size, mm square (% of flakes)						no. of flakes
	under 15	15-20	20-25	25-30	30-35	over 40	
0-5	69.1	17.5	10.3	3.1	0	0	97
5-10	74.8	15.3	6.4	2.3	1.2	0	171
10-15	78.6	14.8	5.6	0.5	0.5	0	196
15-20	71.9	22.8	3.5	0.9	0	0.9	114
20-25	73.5	17.3	6.2	2.0	0	1.0	98
25-30	83.3	11.7	3.3	0	1.7	0	60
30-35	73.0	16.2	2.7	5.4	0	2.7	37
35-40	45.7	5.7	37.2	11.4	0	0	35
40-45	40.0	20.0	23.4	13.3	3.3	0	30
45-50	33.3	26.7	20.0	6.7	13.3	0	15
50-55	16.7	16.7	33.2	16.7	16.7	0	6

Table 7. Prismatic Blades

pit	depth, cm	width, mm
F	5-10	8.4
F	5-10	12.0
F	5-10	14.0
G	5-10	13.7 (Figure 3E)
G	5-10	9.8
G	5-10	11.3 (Figure 3F)
D	10-15	9.8
H	15-20	9.7
E	20-25	7.9
E	20-25	15.5 (Figure 3D)
H	25-30	8.2
D	30-35	10.0

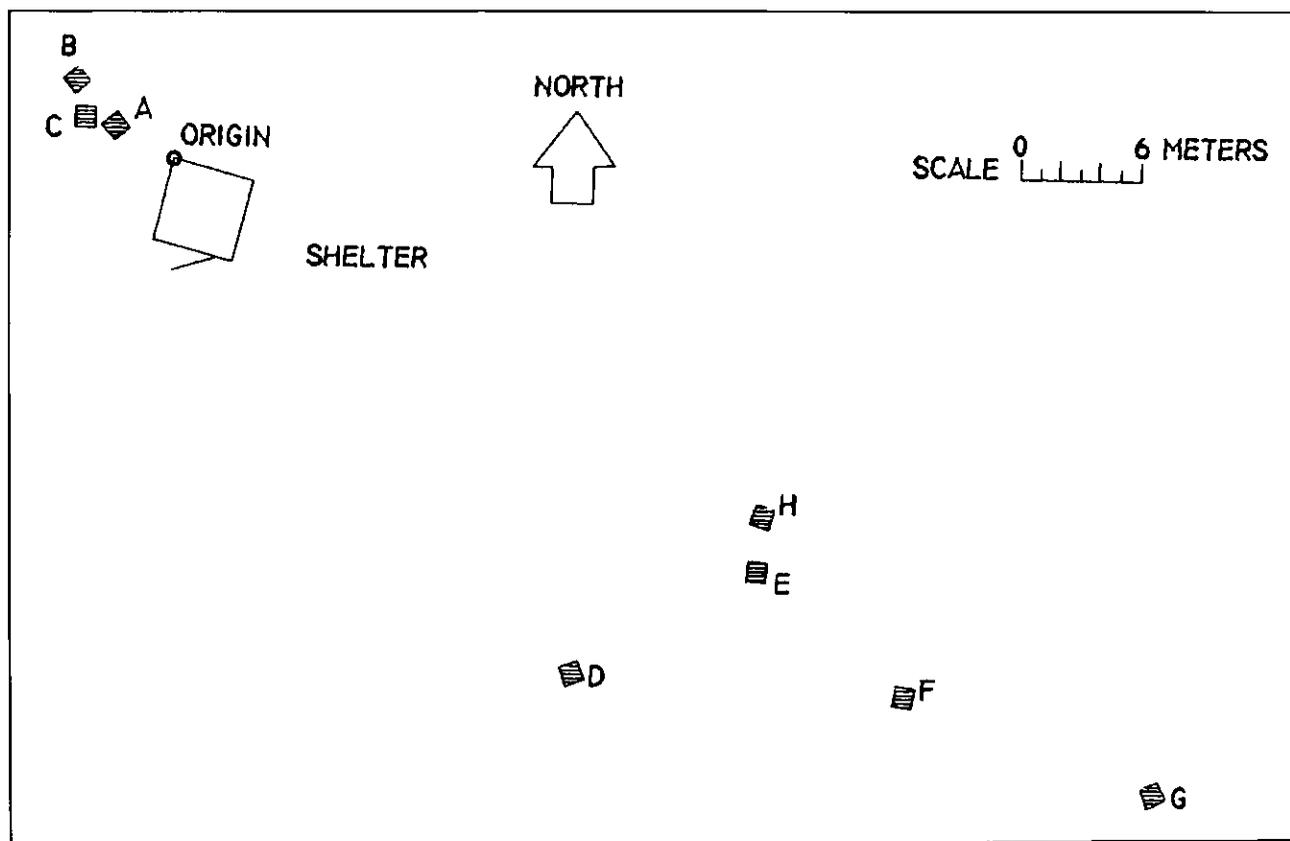
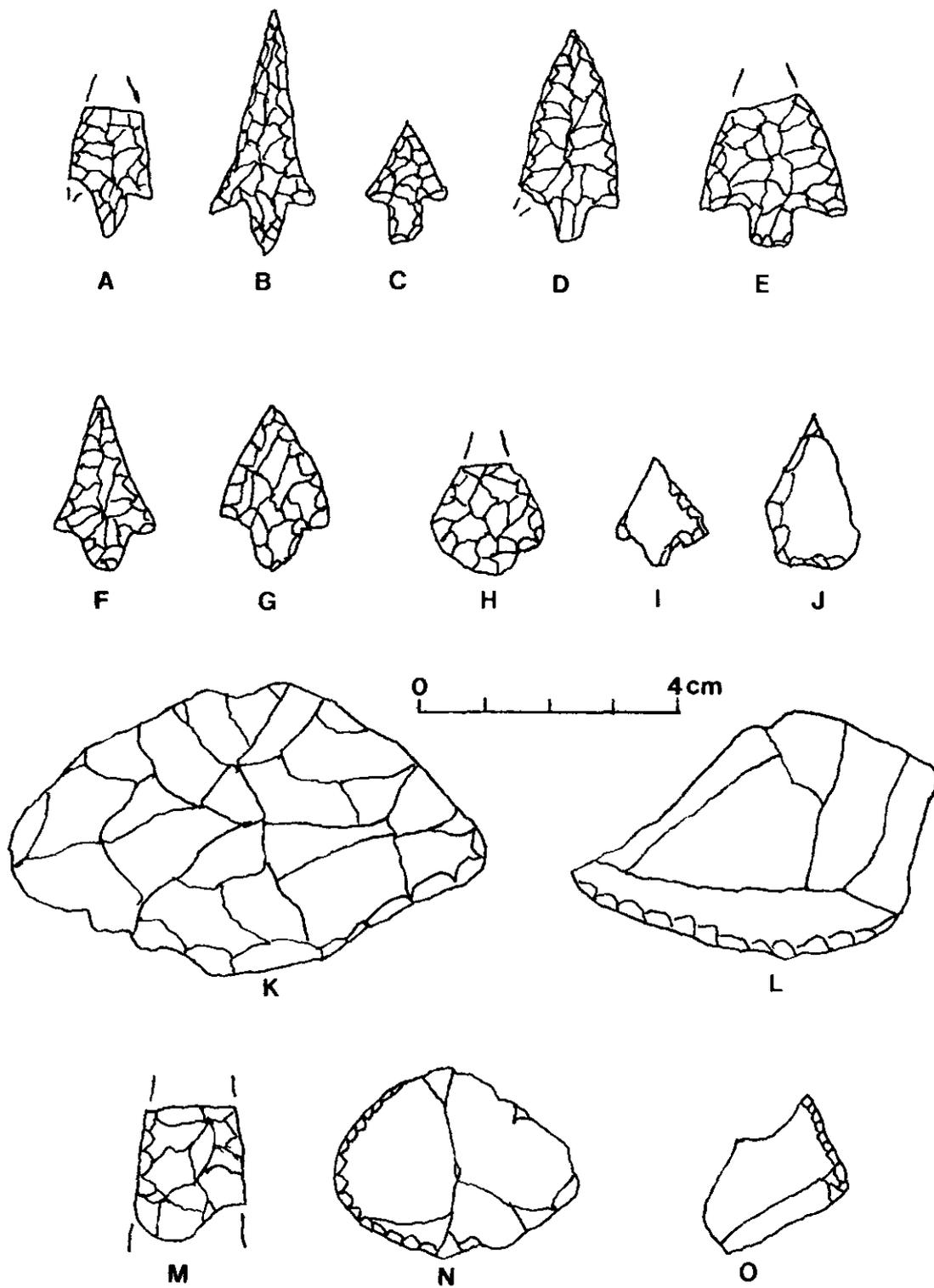
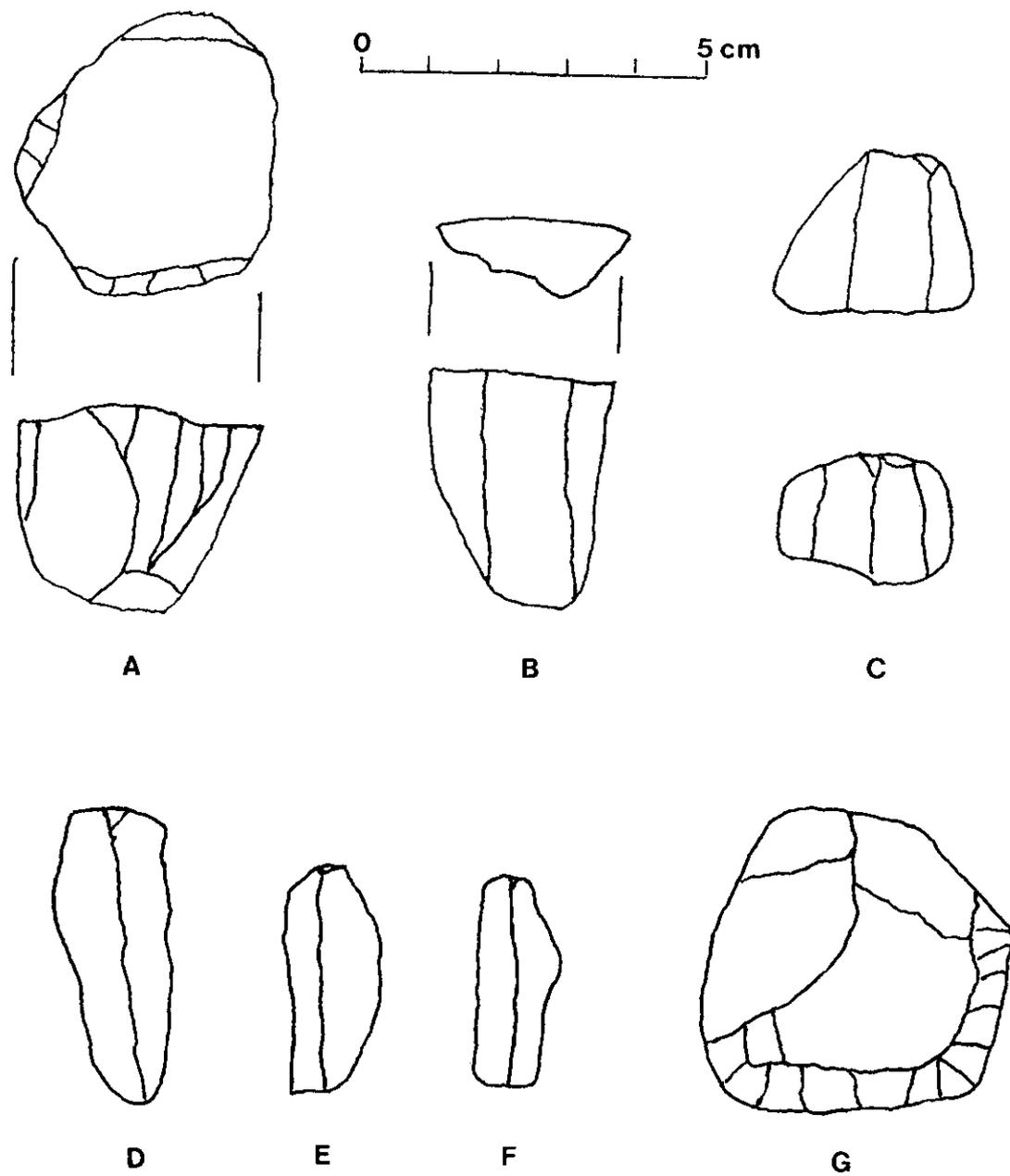


Figure 1. Excavation Layout



A,B,D,F,G – Perdiz points; C,E – Alba points;
 H – arrow point preform; I,J – unifacial arrow points;
 K – dart point preform; L,N – scrapers;
 M – dart point fragment; O – graver

Figure 2 Lithic Artifacts



A - blade core; B - blade core fragment;
 C - blade core trim flakes; D,E,F - prismatic blades;
 G - scraper

Figure 3 Additional Lithic Artifacts

Additional Data for the Prehistoric Sites at Pine Gully Park, Harris County, Texas

Elizabeth K. Aucoin

Introduction

This report describes three collections of artifacts from the environs of Pine Gully Park located in Seabrook, Harris County, Texas. Two groups of artifacts were collected offshore in early 1982 prior to the establishment of Pine Gully Park, previously known as the Seabrook Park Site on Galveston Bay (Anderson 1981). The third group of artifacts was collected in 2002 in association with the monitoring of eroding *Rangia cuneata* shell midden areas along the marsh, bordered by Pine Gully, and the redistribution of thousands of *Rangia* shells that make up the middens along the western edge of Galveston Bay.

The three collections include ceramics, projectile points of stone and bone, stone projectile point preforms, two dark brown cores, a stone graver, and one modified marine shell. Appreciation is expressed to George Wolf and George Wolf, Jr., for sharing their collections for this project. The third collection, in the possession of the author, includes several hundred Goose Creek Plain sherds and small conical bases, and bone tempered sherds. Deer teeth and bone (some fossilized), fish bone, bird bone, turtle bone, asphaltum (commonly found along Galveston Bay and the Gulf of Mexico), modern glazed and unglazed pottery, brick, oyster shell, and chert chips and chunks complete this collection.

It should be noted here that concrete riprap is periodically dumped along the edges of the park to control erosion. The riprap may be the source of some of the unmodified chert in the author's collection.

Previous Investigation

In December 1981, a cultural resource survey, conducted by Texas Anderson of Rice University, was undertaken at the proposed Seabrook Park site (Anderson 1981). During that survey, one historic site and four prehistoric *Rangia* shell midden sites were recorded: 41HR421, 41HR422/SM1, and 41HR420/SM2-SM4, respectively. Cultural materials collected from the prehistoric shell midden sites included Goose Creek Plain, Incised, and notched pottery, an unfinished Yarbrough dart point, a chert perforator, small chert chips, and two possible bone tools. Faunal remains included deer and unidentified mammal bone, bird bone, turtle bone, and alligator gar scales.

Environmental Setting

The *Rangia* shell middens at Pine Gully Park are typical of the shell middens found at Southeast Texas coastal margin sites. The Park site is bordered on the south by Pine Gully, a brackish water bayou, and on the east by Galveston Bay. Prior to the 1980s, subsidence due to the removal of ground water and natural gas, as well as erosion due to natural forces, impacted the Galveston Bay area, specifically the Seabrook area. Harris-Galveston County Subsidence District studies have indicated that subsidence has been arrested in this area due to the cessation of ground water removal, but data shows that this area suffered a subsidence of approximately 1.5-1.8 meters (5-6 feet) for the period 1906-2000 (Subsidence Data 2000: Figure 1).

The western coast of Galveston Bay, specifically in the Pine Gully Park area for purposes of this report, continues to be impacted by tropical storms and hurricanes and possibly by additional wave

action due to wakes from increased shipping traffic in the Houston Ship Channel. Shell Midden 4 (SM4) is located approximately 100 meters north of a 260-meter (850-foot) T-shaped pier built in 1982 at Pine Gully Park. This pier may also be responsible for altering wave action and water movement, thereby altering erosion patterns of the area (Figure 2).

The greatest damage, however, is due to episodes of extremely heavy weather and high waves that transport uprooted trees, utility poles, and sections of piers and wooden bulkheads, leaving a debris line along the wetland and bank areas. The water and debris undermines the bank area of this site as well as scours portions of the submerged shell middens, thereby redistributing enormous quantities of *Rangia* shell. One such occurrence was noted in January 2002 (Figures 3A,B), the probable result of Tropical Storm Allison that hit the area in June 2001. The shells had been bleached white, with no evidence of algae on the surfaces, indicating the shells had been exposed throughout the hot summer months. A small cove is being created and local residents are often seen swimming and wade fishing in the waters adjacent to an upland site.

During the winter months, primarily after a strong weather front from the North, the bay waters are pushed eastward, thereby exposing approximately 210-275 meters (700-900 ft) of sand that had previously been underwater. (These northers also expose normally submerged *Rangia* shell middens that are part of the Pine Gully archeological site; see Figures 4A,B.)

Rabbits, squirrels, and armadillos inhabit the upland site, while deer are still present in the surrounding area. No personal note was made of turtles or snakes. Fish, shrimp, and crab are still readily available in the waters adjacent to the park, but in lesser numbers and smaller size than twenty years earlier. Geese, ducks, herons, pelicans, and gulls are commonly seen resting on the water. Numerous other migratory birds are common to this area which is part of the Great Texas Coastal Birding Trail. The area is also part of the Pine Gully Wildlife Preservation Area.

Rattlebrush, Saltgrass, and Sea Ox-eye still flourish atop the wetland shell middens along Pine Gully. Embedded in the marshy vegetation are hundreds, more likely thousands, of very large oyster shells that are currently being exposed. Two specimens were collected that measure 83 by 119 mm and 76 by 130 mm.

Projectile Points

Projectile points are present in each of the three collections documented in this report. Collection A, belonging to George Wolf, contains five Perdiz arrow points, one with a reworked stem, and one Alba arrow point plus three bone dart points (Figures 5-6). Collection B, owned by George Wolf, Jr., contains one each: Ellis and Kent dart points, Alba arrow point, a possible Perdiz arrow point, an arrow point preform, and a bone dart point (Figures 7-8). Collection C, in the possession of the author, contains one Bulverde dart point made of brown chert (Figure 9).

The projectile point types from these collections would indicate an occupation sequence at Pine Gully from the Middle Archaic through the Late Prehistoric periods. The Middle Archaic period (3000-1500 BC) is represented by the Bulverde dart point. The Kent point may be from the Middle Archaic or later. The Ellis point is Late Archaic. The Perdiz and Alba arrow points are common point types at coastal margin sites for the Late Prehistoric period, AD 600-1500 (Patterson et al. 1999:2).

Lithic Tools

A single tool, a graver made from a river cobble, has cortex over most of the exterior surface. The reverse side resembles a single pot lid, with a smaller pot lid along the upper edge. The tip of the graver shows a small break. The paucity of lithic tools in these collections may be due to

two factors: the method of collection, surface collection of exposed artifacts, and the fact that the coastal margin of Southeast Texas is a lithic-poor region. Most lithic resources were probably secured from the west, either the Brazos or Colorado River regions.

Bone Artifacts

Bone projectile points and tools are common in the lithic-poor coastal margin sites in Southeast Texas. Collections A and B contain bone dart points. The largest specimen, a socketed point made from deer bone, measures 11.8 cm in length (Figure 8). Three other dart points can be seen in Figure 6. While socketed points with evidence of asphaltum used as a hafting agent have been found at coastal margin sites (Ambler 1967:7; Duke 1960; Patterson et al. 2002:1), there was no evidence of asphaltum on the specimens in the two collections.

Ceramics

Two types of pottery are represented in the three collections and are common for coastal margin sites in Southeast Texas. Collection A contains Goose Creek Plain and Incised sherds, a flat base, and decorated bone tempered sherds (Figures 10-12). Collection B contains only bone tempered sherds shown in Figure 13. Collection C contains Goose Creek Plain and Incised rims and wall sherds (Figure 14), as well as bone tempered sherds. In specimen 14A, the clay was folded from the interior to the exterior and then smoothed, much as one might do when smoothing a pie crust edge. Specimen 14D is light gray on both the interior and exterior surfaces; the upper-right incised area is water smoothed, revealing a dark gray inner layer. Goose Creek pottery, made from a sandy paste, "is the most common ceramic type in Southeast Texas in both the Early Ceramic and Late Prehistoric periods" (Patterson 1999:3). Aten (1983:297) indicates that ceramics appeared in the Galveston Bay area by AD 100.

The bone tempered pottery exhibits more elaborate or exotic motifs than does the Goose Creek pottery. For example, the incurving wall sherd of Figure 12A has an incised and punctated exterior with interior lip notching. Another incised and punctated incurving wall sherd can be seen in Figure 13D. A brushed rim with very fine lip incising, creating a scalloped effect, is shown in Figure 13F-F'.

While bone tempered pottery is a minor pottery type in Southeast Texas coastal margin sites, and none was recovered during the 1981 survey, this pottery type is present in each of the three surface collections in this report. This Late Prehistoric era pottery has been documented in other collections, as well as recovered during excavations at other coastal margin sites (Ambler 1967: Table 2; Gilmore 1974:27; Howard et al. 1991:35; Patterson et al. 2002:6).

Prehistoric Upland Midden Site

This prehistoric Rangia shell midden (41HR422/SM1) was recorded in 1981. At that time, a small, 0.5 by 1 meter, test pit was excavated on the "talus" slope. Artifacts recovered from the test pit included prehistoric and historic ceramics, bone, and one unfinished Yarbrough projectile point: the Yarbrough dart point dates this midden to the Late Archaic (1500 BC - AD 100) or Early Ceramic (AD 100-600) (Patterson 1996: Table 4).

During monitoring efforts in 2002, it was observed that the bank of this site was being undermined and portions of the bank were collapsing. In late July of that year, two in-situ pottery sherds in the bank of the midden were noted, photographed, and collected. Three weeks later it

was noted that a portion of the bank, behind the in-situ sherd location, was in danger of collapsing; one month later that portion of bank had collapsed.

The two in-situ sherds were identified as Goose Creek Plain. One sherd had previously been noted at a depth of about 30 cm below surface. This sherd measures 21 mm by 27 mm by 6 mm thick. The second sherd was at a depth of about 29 cm below surface. This sherd, measuring 15 mm by 22 mm by 7 mm thick, appears to have stain marks on both surfaces, possibly from decomposing roots. The horizontal distance between the two sherds was about 1 meter.

In late August 2002, the depth of the Rangia shell midden along the bank edge was measured as approximately 110 cm below surface. The area directly below the midden appears to be Beaumont clay. For purposes of comparison, the depth of a midden at another coastal margin site, excavated by members of the Houston Archeological Society in early 2001, was measured at 90 cm before reaching Beaumont clay (Patterson et al. 2001:4).

Conclusion

This report was originally undertaken as a means of documenting two small collections of artifacts recovered in early 1982. The report was then expanded to include artifacts collected during monitoring efforts at the Pine Gully sites in 2002, while providing information about the condition of the sites.

The projectile points, in the three collections documented herein, span the Middle Archaic through the Late Prehistoric periods, indicating a long occupation sequence at Pine Gully. Goose Creek Plain and Incised pottery are represented in the Anderson report (1981:26) and each of the three collections documented herein. Bone tempered pottery has been documented in other coastal margin collections and also recovered during excavations at other coastal margin sites. While no bone tempered pottery was previously recorded for the Pine Gully Park sites, this pottery type is also present in Collections A, B, and C. The projectile points and the bone tempered pottery provide additional technological information about these sites.

Episodes of heavy weather, accompanied by debris-filled high tides continue to scour and redistribute what remains of the offshore and wetland midden areas, while undermining the bank of the upland prehistoric site. Continued monitoring will remain a work-in-progress. A small, controlled excavation of the upland prehistoric site could provide additional information about the stratigraphy and occupation sequence of this site.

References Cited

- Ambler, J. R.
1967 Three Prehistoric Sites Near Cedar Bayou, Galveston Bay area State Building Commission, Austin, Report No. 8
- Anderson, T.
1981 An Archeological Survey of the Seabrook Park Site on West Galveston Bay, Department of Anthropology, Rice University, Houston
- Aten, L. E.
1983 Indians of the Upper Texas Coast. Academic Press

Duke, A. R.

1960 Scratching at Smith Point Houston Archeological Society Newsletter, Number 2

Gilmore, K.

1974 Cultural Variation on the Texas Coast: Analysis of an Aboriginal Shell Midden, Wallisville Reservoir, Texas. Texas Archeological Survey, The University of Texas at Austin, Research Report No. 44

Harris-Galveston County Coastal Subsidence District

2000 Subsidence Data. Friendswood, TX

Howard, M. A., G. L. Bailey, C. B. Bousman, K. M. Gardner, R. C. Fields

1991 National Register Testing at the Spanish Moss Site (41GV10) & 41GV53, Galveston County, Texas. Prewitt & Associates, Inc, Report of Investigations, Number 77

Patterson, L. W.

1996 Southeast Texas Archeology. Houston Archeological Society, Report No. 12

Patterson, L. W., R. L. Gregg, S. M. Kindall, G. Marubio

1999 The Whitehead Collection, Chambers County, Texas. Houston Archeological Society, Report No. 15

Patterson, L. W., S. M. Kindall, W. L. McClure, E. K. Aucoin

2001 Additional Investigations at 41GV53, Galveston County, Texas. Houston Archeological Society, Report No. 18

Patterson, L. W., E. K. Aucoin, R. L. Gregg

2002 Investigations of Site 41HR72, Harris County, Texas. Houston Archeological Society, Report No. 19

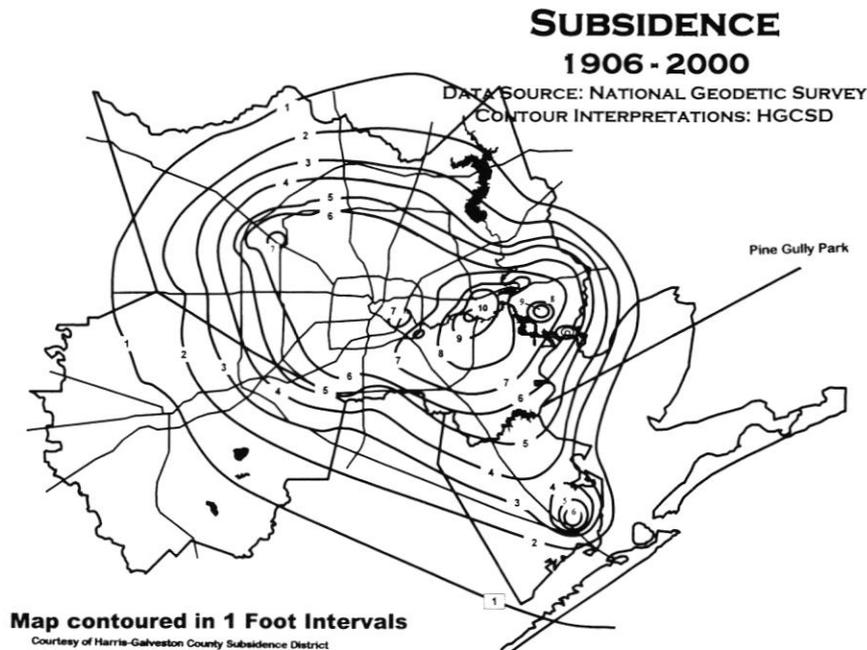


Figure 1. Subsidence 1906-2000



Figure 2. Two Views of the T-shaped Pier Built in 1982



Figure 3A. Looking West from Galveston Bay



Figure 3B. Westward Continuation of Shells Seen in Figure 3A



Figure 4A. Remnant of Shell Midden 2



Figure 4B. Shell Midden 4



A,C-F: Perdiz
 B: Alba

Figure 5. Collection A: Arrow Points



Figure 6. Collection A: Bone Dart Points



A: Ellis Dart Point
 B: Kent Dart Point
 C: Alba Arrow Point
 D: Preform
 E: Probable Perdiz Arrow Point

Figure 7. Collection B: Projectile Points

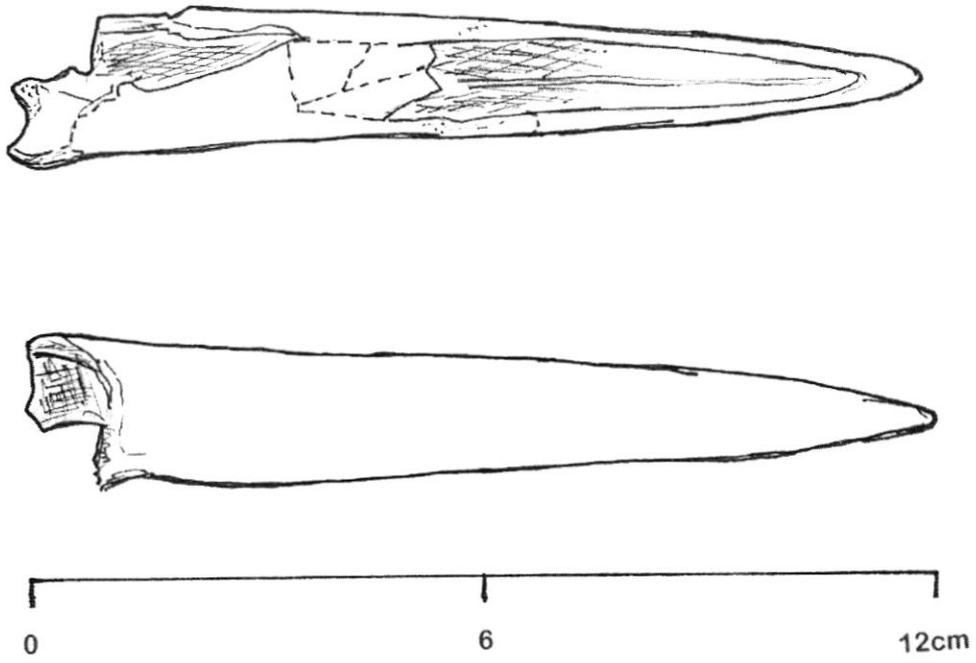
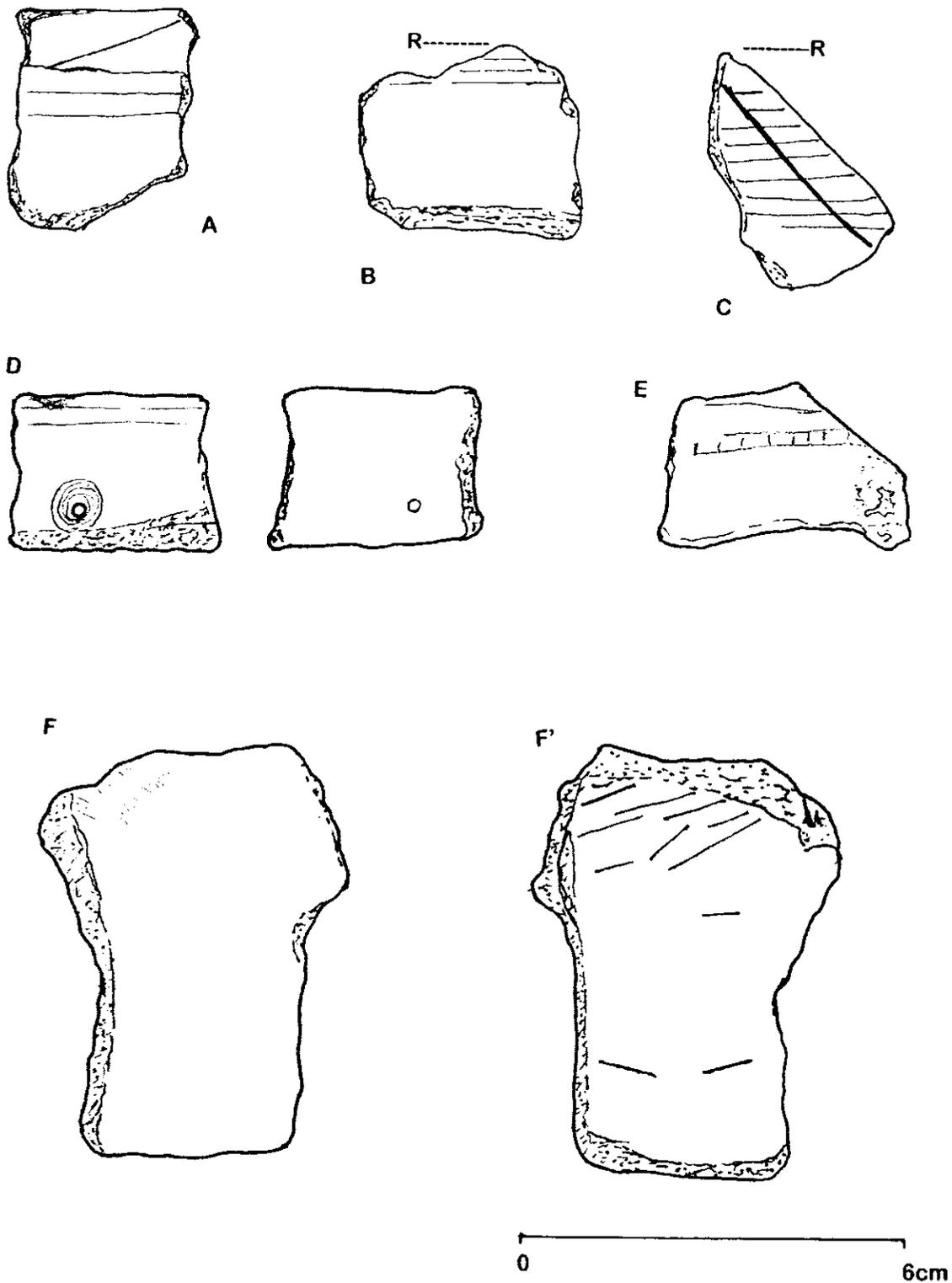


Figure 8. Socketed Bone Dart Point

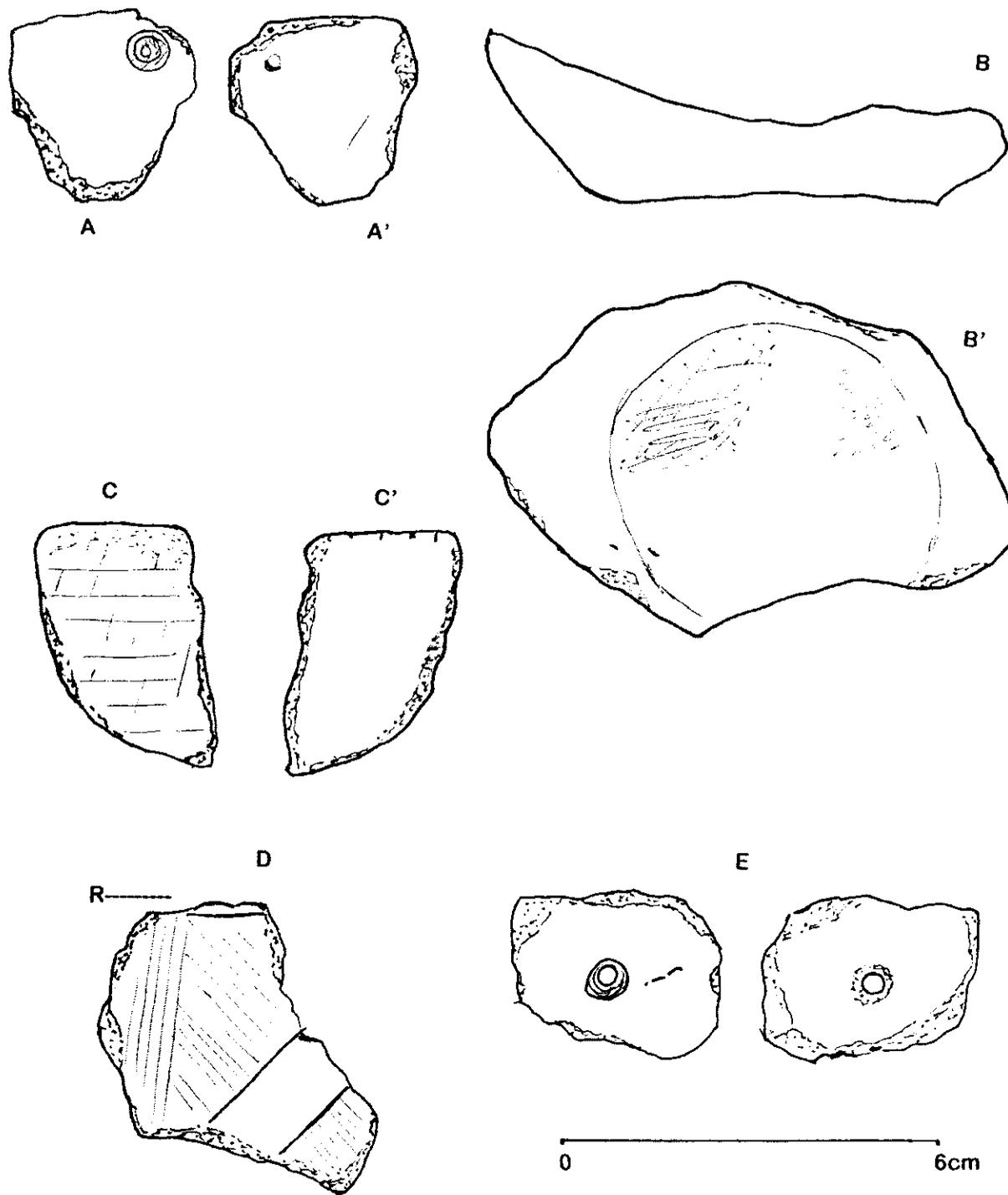


Figure 9. Collection C: Bulverde Dart Point



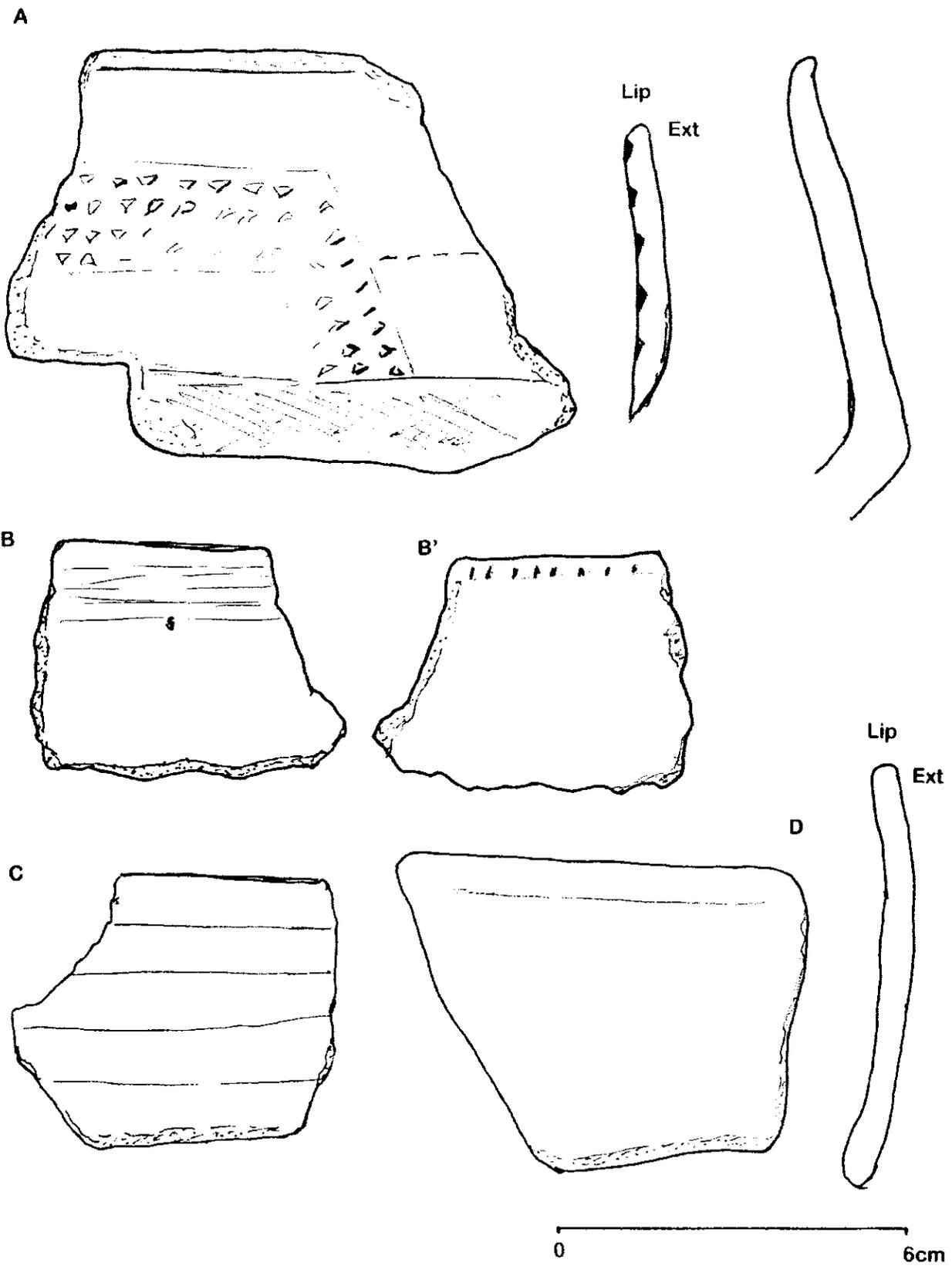
- A - C: Incised rims
- D: Incised rim with lace hole
- E: Incised wall sherd
- F, F': Wall sherd with interior incising

Figure 10. Goose Creek Pottery, Collection A



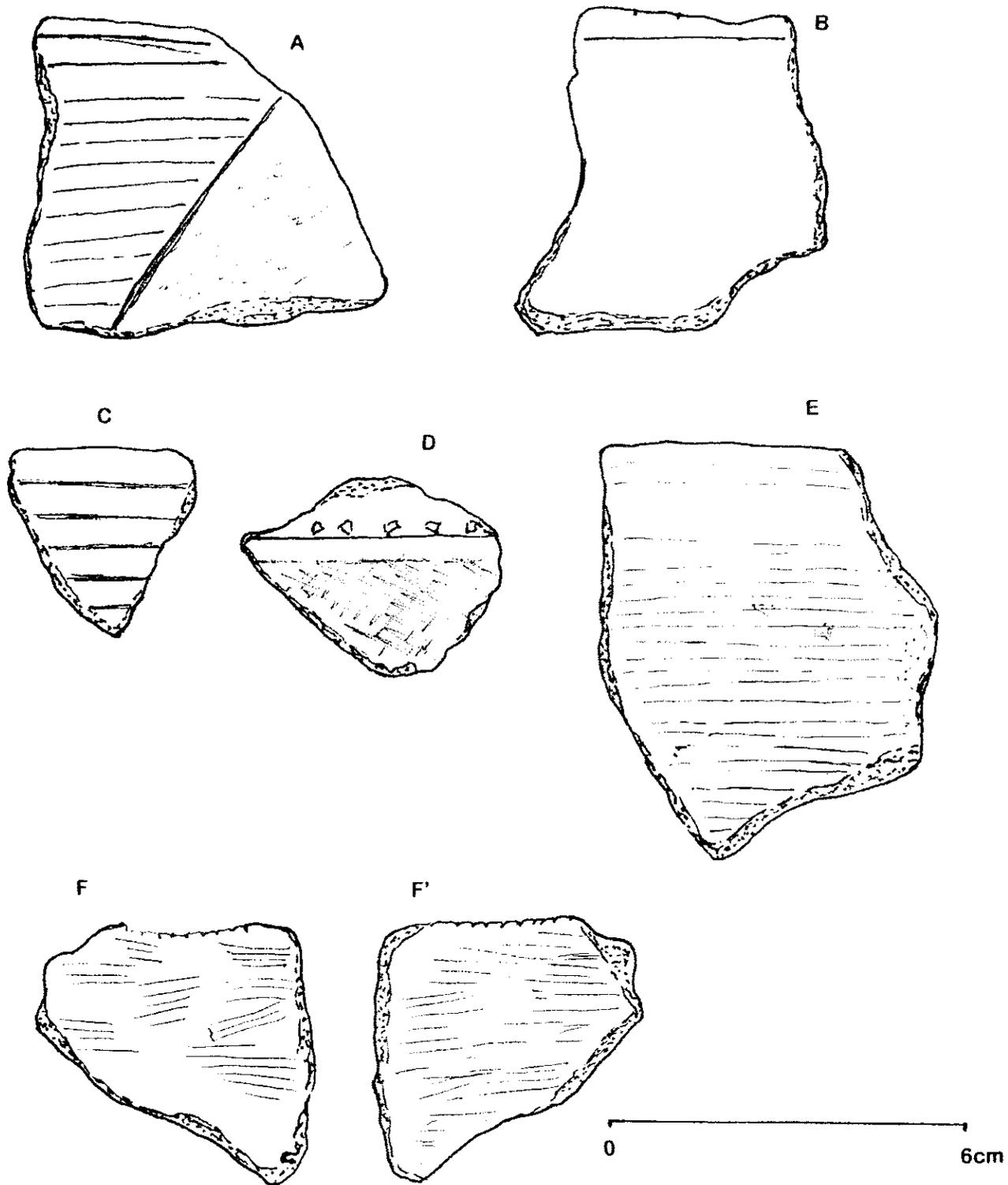
- A,A': Goose Creek wall sherd with lace hole
- B,B': Goose Creek vessel base (flat)
- C,C': Incised bone tempered rim
- D: Incised/scalloped bone tempered rim
- E: Bone tempered wall sherd with lace hole

Figure 11. Collection A



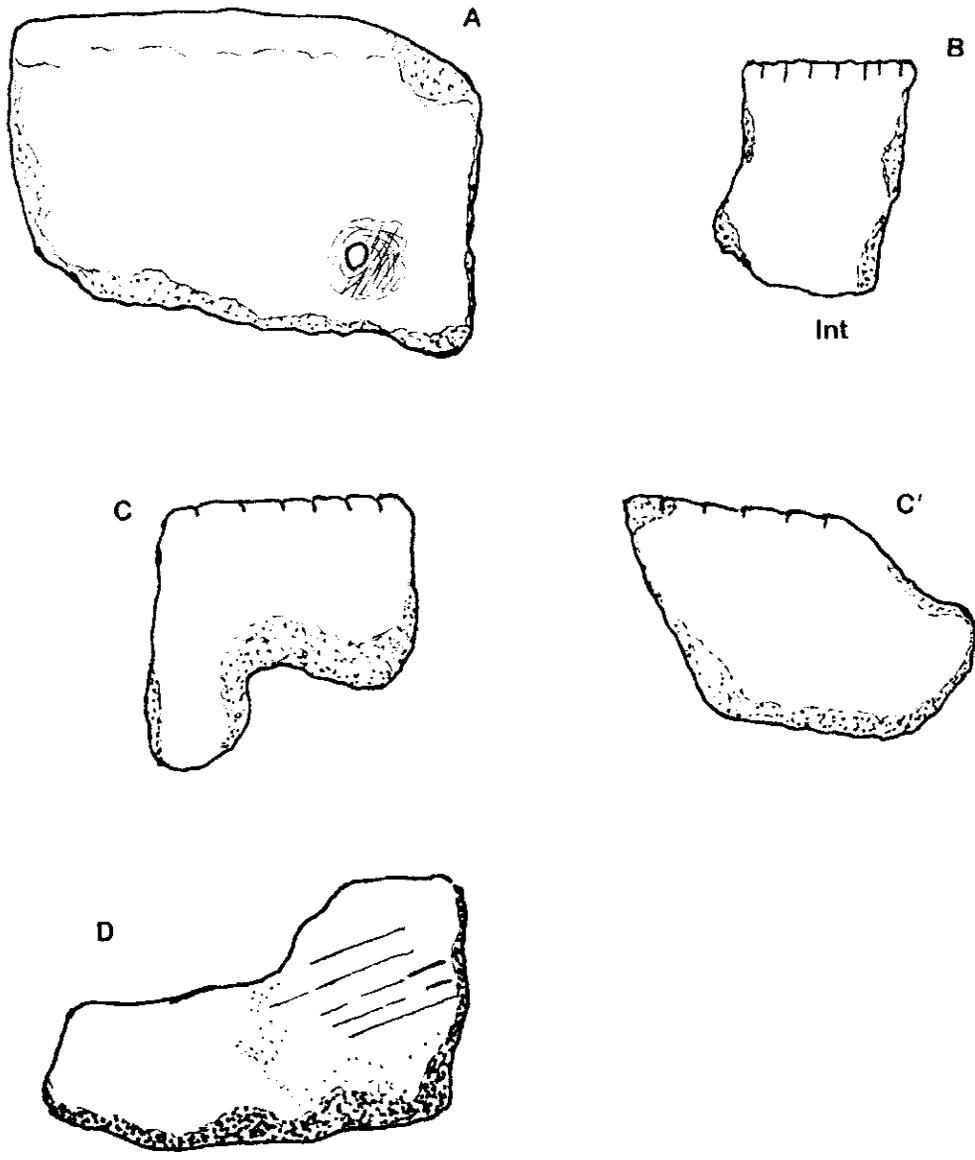
A: Incised and punctated rim with incurving wall, with top and side views
 B,B': Incised rim with interior incising
 C-D: Incised rims, with top view of D

Figure 12. Bone Tempered Pottery



- A - C: Incised rims
 D: Incised and punctated incurving wall sherd
 E: Incised rim with interior smoothing marks
 F, F': Brushed rim with finely incised lip

Figure 13. Bone tempered pottery, Collection B



0 6cm

- A: Plain rim with lace hole
- B: Incised rim
- C-C': Incised rims (same pot?)
- D: Incised rim, water smoothed

Figure 14 Goose Creek Pottery, Collection C