

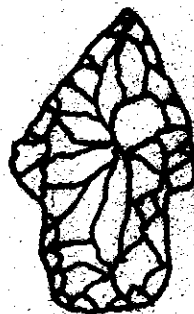
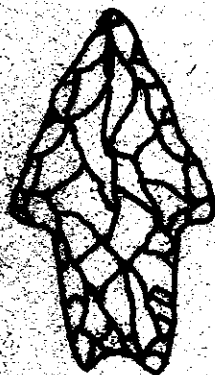
**EXCAVATIONS AT SITE 41FB28**

**FORT BEND COUNTY, TEXAS**

**Leland W. Patterson**

**Joe D. Huggins**

**William L. McClure**



**HOUSTON ARCHEOLOGICAL SOCIETY**

**Report No. 17, 2000**

## TABLE OF CONTENTS

	page
Introduction	1
Site Setting	1
Excavation Details	1
Site Chronology	1
Projectile Points	2
Stone Tools	2
Lithic Manufacturing	2
Ceramics	3
Fired Clayballs	4
Modern Materials	4
Faunal Analysis	4
Conclusions	5
References Cited	6

## TABLE LIST

1. 41FB28 OCR Dates
2. Date Ranges of Excavation Intervals
3. Projectile Points
4. Dart Point Preform Fragments
5. Lithic Flake Quantities
6. Flake Size Distributions
7. Prismatic Blades
8. Ceramics
9. Fired Clayballs

## FIGURE LIST

1. Excavation Layout
2. Projectile Points
3. Lithic Artifacts
4. Flake Size Distributions by Level
5. Flake Size Distribution, 20-30 cm

## INTRODUCTION

This report gives the results of excavations by the Houston Archeological Society at prehistoric site 41FB28 in Fort Bend County, Texas. The site was discovered and recorded for state records by Joe Hudgins. Persons who participated in excavations include Richard Carter, Wanda Carter, Duanne Clark, Bill Csanyi, Dick Gregg, Joe Hudgins, Terry Keiler, Lynn Mandola, Gene Marik, Tom Palmer, Etta Palmer, Jim Palmer, Lee Patterson, Peter Ragusa, Alicia Ragusa, Gary Ryman, Bob Shelby, Martha Tamez, Allen Soukup, Roy Whitney, and Kallie Yaw. Excavations were directed by Joe Hudgins. Etta Palmer handled field records. An excavation layout drawing was prepared by Tom Palmer. Analysis of faunal remains was done by Bill McClure, and artifact analysis was done by Lee Patterson.

This site has an occupation sequence from the Early Archaic through Late Prehistoric periods, a total time interval of about 6500 years. Artifact types recovered are typical of types found at many sites of inland Southeast Texas in the various time periods represented.

## SITE SETTING

Site 41FB28 is located on a knoll on a high terrace of the north bank of the San Bernard River. The site area is wooded with deciduous trees. The general area is a mixture of woodlands and coastal prairie. A wide range of plant and animal food resources would have been available for prehistoric Indians. Deer hunting is still done in this area.

## EXCAVATION DETAILS

An excavation layout drawing is shown in Figure 1. A total of nine one-meter square pits were excavated. It is estimated that the site is somewhat larger than 20 meters in diameter.

Excavations were done in arbitrary 5 cm depth intervals, because no natural stratigraphy was apparent in the dark brown or black soil. Excavations pits were done to depths where culturally sterile clay was found. All soil was processed through 1/4-inch (6 mm) mesh screens. Soil was difficult to excavate, and water was used at times to condition the soil before excavation. Not many cultural materials were found below 50 cm.

## SITE CHRONOLOGY

The chronological sequence of occupations at this site has been determined by a series of oxidizable carbon ratio (OCR) dates, and the relative sequence of artifact types. OCR dates for Pits B and C are given in Table 1. OCR dates for the 0-30 cm depth interval are too late for Pit B, compared to dates for Pit C, and for the relative sequence of artifact types. This indicates soil disturbance to a depth of at least 30 cm for Pit B.

Radiocarbon dates on charcoal from Pit A, adjacent to Pit B, confirm that there has been soil disturbance in the areas of Pits A and B. There is a radiocarbon date of 190 +/-50 BP (GX-26470) for the depth interval of 25-30 cm in Pit A, and a radiocarbon date of 110 +/-60 BP (GX-26725) for the depth interval of 30-35 cm in Pit A. Within the accuracy of radiocarbon dating, these two dates appear to be from the same tree root, which burned in modern time. Therefore, soil disturbance is indicated from modern burned tree roots, and

perhaps uprooting of the burned tree. There is also evidence of armadillo disturbance in the area of Pits A, B, and I.

Using the OCR dates from Pit C, which is three meters from Pits A and B, estimates of date ranges for excavation levels are given in Table 2. The main occupation sequence is from the Early Archaic period through the Late Prehistoric period.

## PROJECTILE POINTS

Projectile points from 41FB28 are given in Table 3, with diagnostic specimens shown in Figure 2. The excavation interval of 20-30 cm judged to represent the Late Archaic period yielded a large Kent point and two Morhiss points. An Angostura Late Paleoindian point was also found in this excavation interval, which appears to have been found by later Indians in the Late Archaic period. This specimen (Figure 2B) has a large impact fracture.

The excavation interval of 30-40 cm judged to represent the Middle Archaic period yielded a Pedernales point, a large Gary point stem, and a point with a broken stem that could be Bulverde or Pedernales. Large Gary and Kent points and Pedernales points all occur in both the Middle and Late Archaic periods. The Early Archaic excavation interval of 40-50 cm yielded the stem of an Early Stemmed point with ground stem edges. Another dart point stem fragment (Figure 3A) from this excavation interval may be from an Early Stemmed or Carrollton point. All of the diagnostic point types are in expected time periods (Patterson 1996:Table 4). No time-diagnostic projectile points were found in the 50-60 cm excavation level.

Ten fragments of dart point preforms are summarized in Table 4, with some specimens shown in Figure 3. All projectile points and preforms are made of chert. Dart point stem fragments probably represent breakage of points during the hunt. Spear shafts were then brought back to the campsite, where stem fragments were removed and discarded before replacement with new points (Patterson 1980a).

No arrow points which would represent the Late Prehistoric period were found at this site. Ceramic specimens of the bone tempered type found here represent the Late Prehistoric period.

## STONE TOOLS

Only six formal unifacial stone tools were found at this site, illustrated in Figure 3. This is typical for sites in Southeast Texas, where the dominant tool type is the unmodified utilized flake. A small scraper (Figure 3B) was found in Pit H (15-20 cm). The tapered proximal end of this specimen would have facilitated hafting to a wood handle. A perforator (Figure 3C) was found in Pit C (30-35 cm). Four graters were found in Pit E (15-20 cm, Figure 3F), Pit C (20-25 cm, Figure 3E), Pit B (20-25 cm, Figure 3G), and Pit F (40-45 cm, Figure 3D).

## LITHIC MANUFACTURING

No lithic cores were found at this site. It is likely that all lithic manufacturing was done with imported flake blanks and preforms. Most of the lithic manufacturing appears to have been done to produce bifacial dart points. A total of 1412 chert flakes were recovered, with quantities for each excavation pit shown in Table 5. Only a small number

of flakes were found below 50 cm. The modest number of total flakes shows that lithic manufacturing was not done on a large scale at this site.

The manufacture of bifacial dart points is shown by preform fragments and by flake size distributions. Flake size distributions for various excavation intervals are given in Table 6. Flake size distribution for bifacial reduction of a flake blank tends to give a straight line for a plot of percent of flakes with a logarithmic scale versus flake sizes with a linear scale (Patterson 1990). All flake size distributions shown in Table 6 have good approximations of straight lines for the main portions of the plots, except for the 50-60 cm excavation interval. An example is shown in Figure 5 for the 20-30 cm excavation interval.

All remaining cortex on flakes is of the weathered type typical of chert cobbles from the Colorado and Brazos Rivers. Large chert cobbles with maximum dimensions of over 200 mm can be found in the Colorado River basin, that would be suitable for producing flake blanks to make large dart points with lengths of over 50 mm. Smaller chert cobbles with maximum dimensions of under 80 mm can be found in the Brazos River basin, that would be suitable for producing flake blanks to make small dart points with lengths of under 50 mm. The large Angostura, Kent, Bulverde, and Gary points from this site were probably made from flake blanks obtained at Colorado River sources. Other smaller dart points from 41FB28 could have been made from either Colorado or Brazos River cherts.

For flakes of sizes larger than 15 mm square, there are 2.2% primary flakes (covered with cortex), 8.8% secondary flakes (partially covered with cortex), and 89.0% interior flakes (no remaining cortex). This indicates that flake blanks brought to this site had little remaining cortex.

Seven small prismatic blades were found as summarized in Table 7. It is not clear whether this small number of blades was produced purposefully or fortuitously during manufacture of dart points.

It is common for higher percentages of smaller size flakes to be found in later occupation periods at sites in Southeast Texas (Patterson 1980b:Figure 19; Patterson et al. 1987:Figure 20). This is probably the result of using smaller flake blanks in later time periods, as dart points tended to be smaller in later time periods, especially the Early Ceramic and Late Prehistoric periods. The trend of higher percentages of smaller size flakes in later occupation periods is not apparent at site 41FB28, however. Figure 4 shows no real trends in flake sizes at various excavation levels. This might be explained by larger dart points at this site being made at other locations. Another possible explanation is that highly trimmed flake blanks and preforms were brought to this site for dart point manufacture. This situation was also observed at nearby site 41FB42 (Patterson et al. 1993:Figure 9).

## CERAMICS

A total of 15 potsherds over 15 mm square were found, as shown in Table 8. This small amount of pottery may indicate little use of pottery at this site or may be a sampling bias. The single Goose Creek sherd at 25-30 cm in Pit I is probably this deep due to biodisturbance, perhaps by an armadillo. Most sherds in the 5-10 cm excavation interval are of the bone tempered type. In the western part of Southeast Texas, bone tempered pottery is from the Late Prehistoric period (Patterson and Hudgins 1989; Patterson et al. 1996), and may be related to the Leon Plain type found in the Colorado River basin

(Suhm and Jelks 1962:95). Goose Creek pottery occurs in both the Early Ceramic and Late Prehistoric periods.

No pottery was found in the 15-20 cm excavation interval that OCR dates (Table 2) indicate to be the Early Ceramic period. This may be due to sampling bias, or a problem in determining the exact stratigraphic boundary between the Early Ceramic and Late Prehistoric periods. An alternate interpretation is that the 5-10 cm excavation interval represents the Late Prehistoric period and the 10-15 cm excavation interval with only Goose Creek pottery represents the Early Ceramic period. Pottery was found mainly on the south side of the site.

## FIRED CLAYBALLS

A total of 4682 fired clayballs were found at 41FB28, with clayballs found at all excavation levels (Table 9). Clayball sizes range from 15 to 70 mm square. The smallest size clayballs were probably formed by attrition of large size clayballs during reuse.

Fired clayballs were used as heating elements for earth ovens, as demonstrated experimentally by Hudgins (1993). Earth ovens in Southeast Texas were used from the start of the Late Paleoindian period (8000-5000 BC) through the Proto-Historic period (AD 1500-1700). Clayballs occur at sites throughout Southeast Texas, but are found at only a small proportion of sites. It has been proposed that earth ovens in Southeast Texas were used mainly for processing of certain plant foods, such as roots, on a seasonal basis (Patterson 1995).

## MODERN MATERIALS

A few items of modern materials were found at excavation levels near the site surface, indicating some modern surface disturbance. A metal piece was found in Pit G (0-5 cm). A metal can rim and five thin pieces of metal were found in Pit F (0-5 cm). At the 5-10 cm excavation interval, a piece of glass and a thin piece of metal were found in Pit I, and a piece of glass was found in Pit F. A piece of glass was also found at 10-15 cm in Pit I, the same pit where a potsherd at 25-30 cm indicates biodisturbance.

## FAUNAL ANALYSIS

Excavations at site 41FB28 yielded 401 bones and fragments of bones of animals. These bones were identified to the extent feasible by direct comparison with bones of known animals. Very few of the bones were complete. With the exception of some armadillo bones, all had been exposed to fires, including one of the armadillo bones. Soil conditions apparently were not favorable for preservation of bones unless they had been burned. Only 31% of the bones could be attributed to particular kinds of animals. The varieties that were identified are box turtle (*Terrapene* sp.), mud turtle (*Kinosternon* sp.), opossum (*Didelphis virginiana*), nine-banded armadillo (*Dasypus novemcinctus*), white-tailed deer (*Odocoileus virginianus*), and either cow (*Bos taurus*) or Bison (*Bos bison*). Many of the bone fragments were from uncertain turtles or deer-size mammals.

Bones were recovered from each of the pits and at all levels. The bones of armadillo and opossum were all in the upper level. Armadillos arrived in this part of Texas sometime after 1900 (Davis and Schmidly 1994:83), so the armadillo was not associated with prehistoric activities. Since one of the armadillo bones had been burned, there must have

been a fire at the site after 1900. The opossum bones are all from the upper level of Pit H, and had been burned. The burned proximal end of a toe bone of a cow or bison was recovered between 5 and 10 cm in Pit F. Perhaps these two animals also were not associated with the prehistoric occupants.

Turtles and deer were on the menu of the people who lived on the site during all of the time that it was occupied. This scant evidence can not determine other items that were consumed.

## CONCLUSIONS

Site 41FB28 is a prehistoric site in the western inland part of Southeast Texas, with an occupation sequence from the Early Archaic through the Late Prehistoric time periods, an interval of about 6500 years. Judged by the large number of fired clayballs and relatively small amounts of lithic materials, this site may have been used primarily as a seasonal processing station for plant foods, with some hunting and lithic manufacturing activities also indicated. The long occupation sequence may indicate reuse of this site for seasonal scheduling of resource procurement. Sites with long occupation sequences are common in Southeast Texas (Patterson 1996:Table 19).

Only a small portion of this site has been excavated, and much of the site area remains available for future research.

REFERENCES CITED

- Davis, W.B., and D.J. Schmidly  
1994 Mammals of Texas. Texas Parks and Wildlife, Austin
- Hudgins, J.D.  
1993 Cooking with Clayballs. The Cache 1:47-52, Texas Historical Commission
- Patterson, L.W.  
1980a The Significance of Dart Point Stem Breakage. Bulletin of the Texas Archeological Society 51:309-316  
  
1980b The Owen Site, 41HR315: A Long Occupation Sequence in Harris County, Texas. Houston Archeological Society, Report No. 3  
  
1990 Characteristics of Bifacial Reduction Flake Size Distribution. American Antiquity 55(3):550-558  
  
1995 Prehistoric Earth Ovens in Southeast Texas. Houston Archeological Society Journal 111:17-20  
  
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., J.D. Hudgins, R.L. Gregg, and W.L. McClure  
1987 Excavations at Site 41WH19, Wharton County, Texas. Houston Archeological Society, Report No. 4
- Patterson, L.W., J.D. Hudgins, R.L. Gregg, S.M. Kindall, W.L. McClure, and R.W. Neck  
1993 Excavations at the Ferguson Site, 41FB42, Fort Bend County, Texas. Houston Archeological Society, Report No. 10
- 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
- Suhm, D.A., and E.B. Jelks  
1962 Handbook of Texas Archeology: Type Descriptions. Texas Archeological Society, Special Publication, No. 1

Table 1  
41FB28 OCR Dates

depth, cm	Pit B		Pit C		
	lab no.	date, BP	lab no.	date, BP	date, BC/AD
5-7	4385	213(A)	4454	421	AD 1529
15-17	4386	626(A)	4455	1661	AD 289
25-27	4384	1163(A)	4456	2840	890 BC
35-37	4413	4758	4457	4498	2548 BC
45-47	4414	6657	4458	6056	4106 BC
50-52	4415	8195	--	--	--

A- dates too late, soil disturbance

Table 2  
Date Ranges of Excavation Intervals

<u>period</u>	<u>date range, BP</u>	<u>date range, BC/AD</u>	<u>depth, cm</u>
Late Prehist.	1400-500	AD 600-1500	5-15
Early Ceramic	1900-1400	AD 100-600	15-20
Late Archaic	3500-1900	1500 BC-AD100	20-30
Middle Archaic	5000-3500	3000-1500 BC	30-40
Early Archaic	7000-5000	5000-3000 BC	40-50
Late Paleo	10000-7000	8000-5000 BC	50+

Table 3

## Projectile Points

<u>type</u>	<u>level, cm</u>	<u>pit</u>	<u>dimensions, mm</u>			<u>Figure</u>
			<u>L</u>	<u>W</u>	<u>T</u>	
dart point frag.	15-20	B	--	--	--	--
Morhiss	20-30	A	39.0	23.2	7.7	2C
Morhiss stem	20-25	H	--	--	7.5	2D
Kent	28	A	83.9	24.7	9.0	2A
dart point frag.	25-30	C	--	--	9.6	--
Angostura	25-30	D	--	25.5	8.7	2B
Bulverde(?)	30-40	A	--	36.8	8.4	2E
dart point frag.	30-35	E	--	--	5.6	--
dart point tip	35-40	I	--	--	--	--
Gary stem	35-40	F	--	--	7.3	2G
Pedernales	35-40	C	46.0	26.1	7.5	2F
dart point tip	40-45	B	--	--	--	--
dart point stem	46	A	--	--	--	3A
Early Stemmed	48	H	--	--	6.2	2H

Table 4

## Dart Point Preform Fragments

<u>level, cm</u>	<u>pit</u>	<u>dimensions, cm</u>			<u>Figure</u>
		<u>L</u>	<u>W</u>	<u>T</u>	
15-20	E	--	--	--	3L
25-30	E	--	--	--	--
30-35	H	--	--	--	--
30-35	D	--	--	--	--
35-40	E	--	--	--	3K
35-40	C	--	--	--	--
40-45	D	--	25.6	11.7	3I
45-50	I	--	--	--	--
45-50	H	--	22.7	9.3	3J
45-50	E	--	--	--	--

Table 5  
Lithic Flake Quantities

depth, cm	excavation pit								
	A	B	C	D	E	F	G	H	I
0-5		8	0	1	1	3	0	13	3
5-10	4(A)	0	0	1	8	6	1	63	1
10-15		6	5	2	2	7	1	8	3
15-20	7(B)	3	9	1	3	6	3	4	7
20-25		7	10	6	15	10	9	5	3
25-30	35(C)	4	18	12	9	13	21	5	9
30-35		15	13	12	9	11	20	12	14
35-40	63(D)	38	30	33	18	28	16	22	29
40-45		33	25	53	8	37	8	53	37
45-50	81(E)	77	31	31	4	23		34	28
50-55		21	17	16		7		17	
55-60				3				4	

A: 0-10 cm, B: 10-20 cm, C: 20-30 cm, D: 30-40 cm,  
E: 40-50 cm

Table 6  
Flake Size Distributions  
(percent of flakes)

flk. size, mm square	excavation depth, cm						
	0-10	10-20	20-30	30-40	40-50	50-60	
under 15	52.2	57.1	49.7	55.1	58.6	50.6	
15-20	37.2	31.2	33.0	27.7	30.2	34.1	
20-25	7.9	7.8	10.5	11.5	7.1	5.9	
25-30	2.7	3.9	4.2	3.4	2.5	4.7	
30-35	--	--	2.1	1.7	1.6	4.7	
35-40	--	--	0.5	--	--	--	
40-50	--	--	--	0.3	--	--	
50-60	--	--	--	0.3	--	--	
flakes	113	77	191	383	563	85	

Table 7

Prismatic Blades

<u>depth, cm</u>	<u>pit</u>	<u>width, mm</u>
10-15	G	11.8
10-15	D	11.5
35-40	B	12.1
35-40	B	13.3
40-45	D	8.7
40-45	D	8.9
40-45	D	12.0

Table 8

41FB28 Ceramics

<u>depth, cm</u>	<u>pit</u>	<u>no. of sherds</u>	<u>type</u>
25-30	I	1	Goose Creek
0-5	H	1	bone tempered
5-10	F	3	bone tempered
5-10	D	3	1 Goose Creek, 2 bone tempered
5-10	H	2	bone tempered
10-15	F	<u>5(A)</u>	Goose Creek
		15	

A- three sherds under 15 mm square not counted

Table 9

## Fired Clayballs

<u>depth, cm</u>	<u>no.</u>	<u>wt., gm</u>	<u>size range, mm square</u>
0-5	39	197	15-35
5-10	59	198	15-30
10-15	86	417	15-35
15-20	182	892	15-40
20-25	451	2986	15-60
25-30	779	6369	15-70
30-35	850	5689	15-60
35-40	917	6111	15-60
40-45	712	4838	15-70
45-50	476	3302	15-60
50-55	115	757	15-50
55-60	16	177	15-40
	<u>4682</u>		

NORTH

G

C

B  
A

I

D

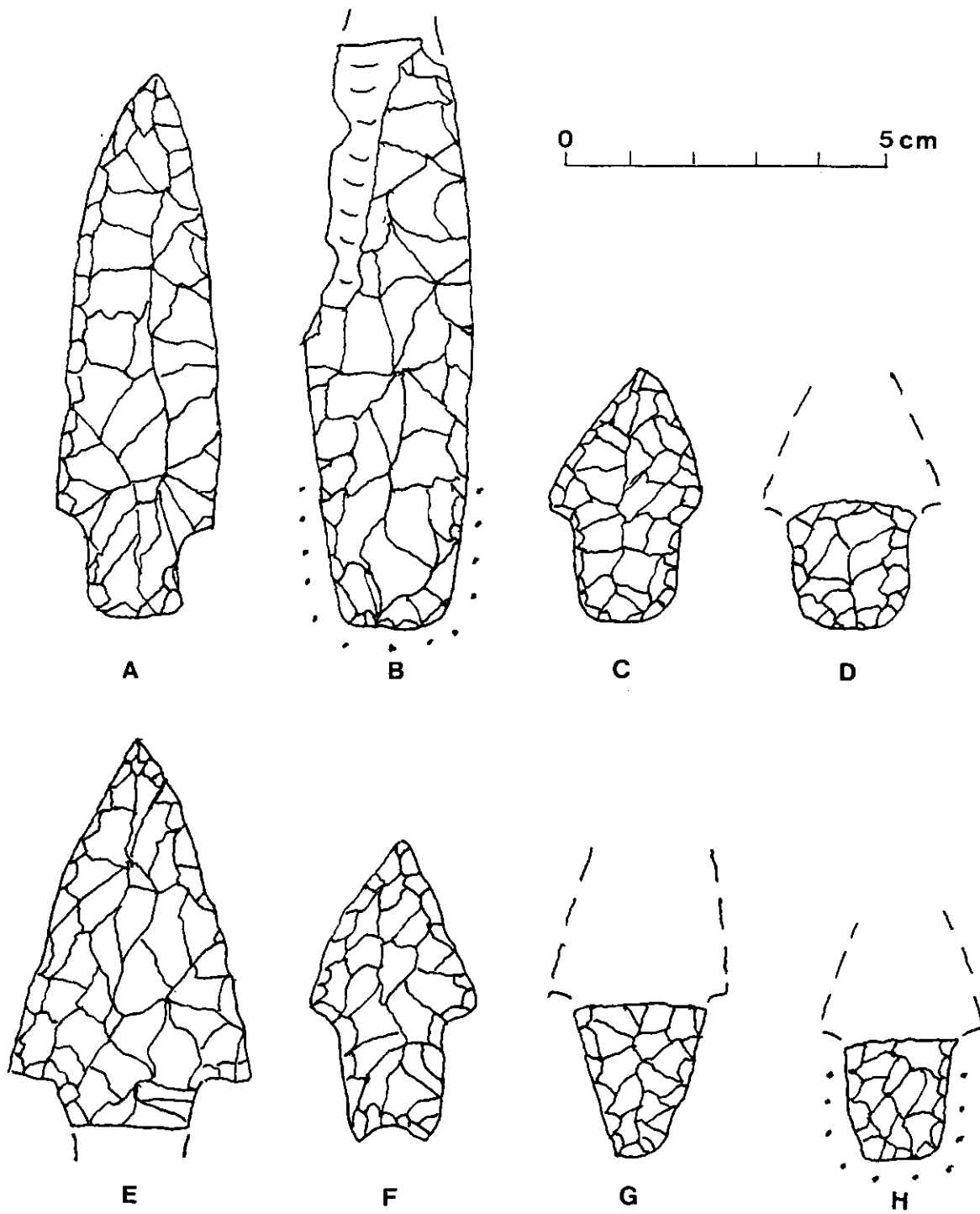
E

H

F

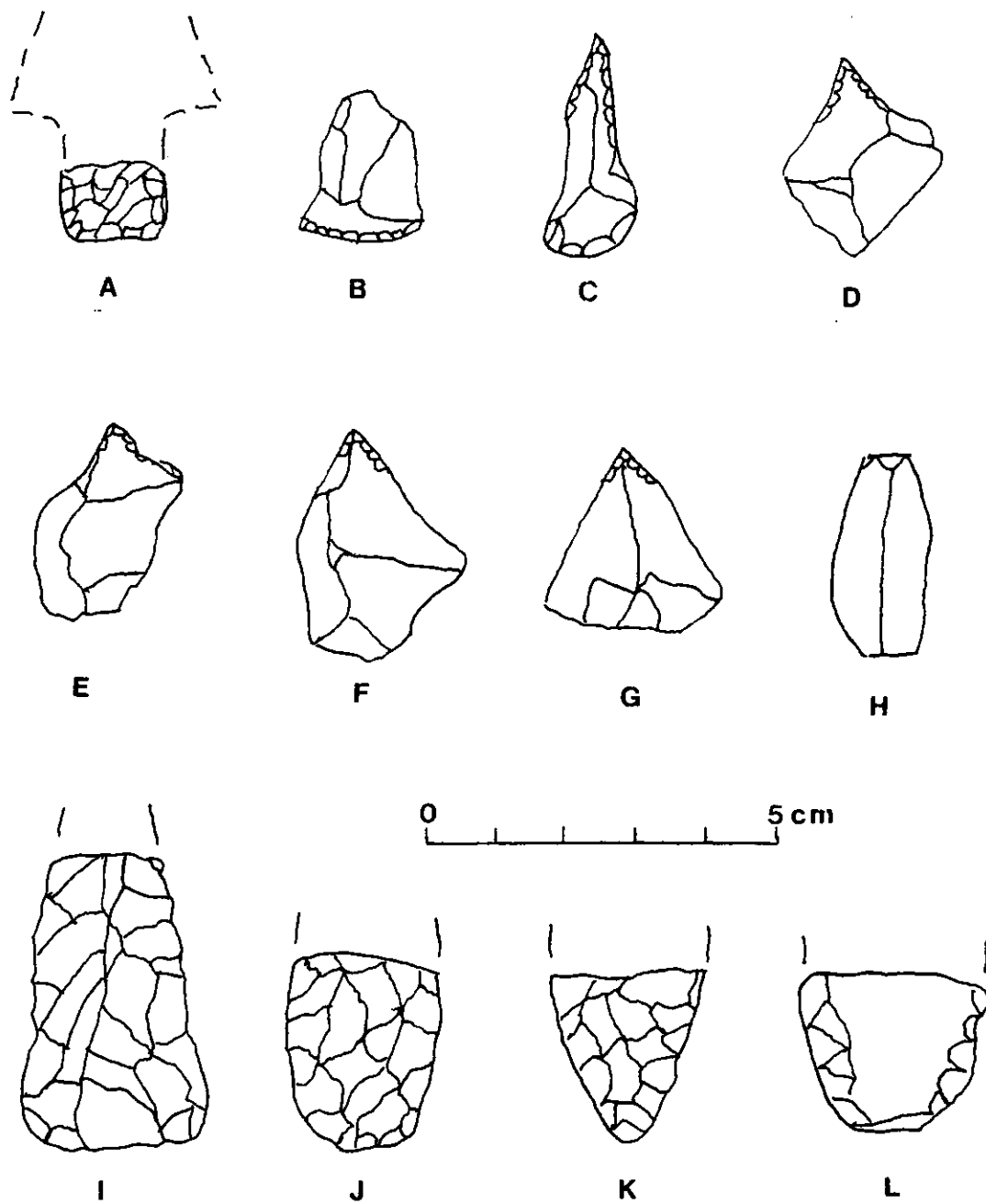
4IFB28

FIGURE I: EXCAVATION LAYOUT



**FIGURE 2: PROJECTILE POINTS**

**A- Kent; B- Angostura; C,D- Morhiss; E- Bulverde (?);  
 F- Pedernales; G- Gary; H- Early Stemmed; dots show  
 ground edges**

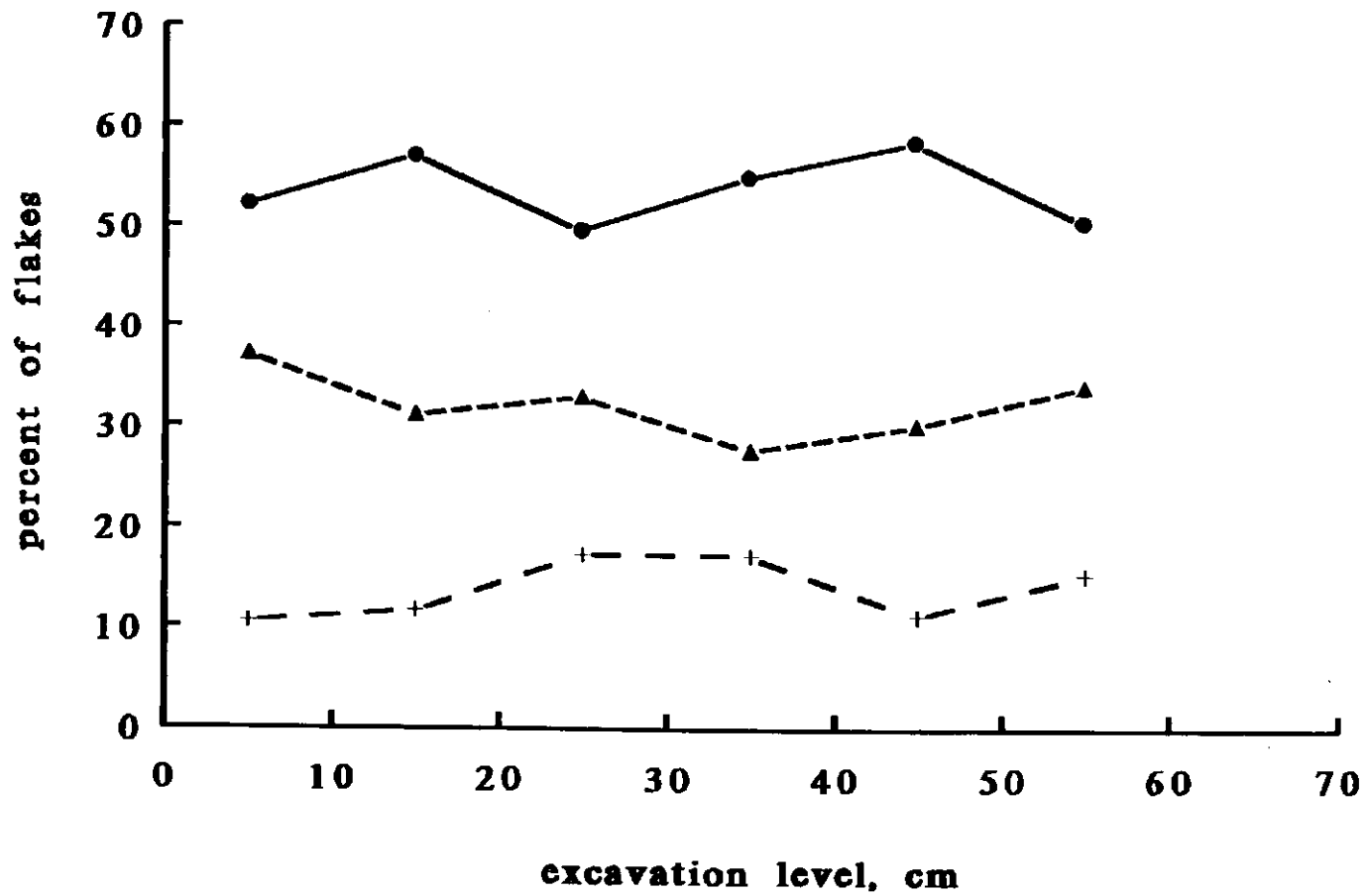


**FIGURE 3: LITHIC ARTIFACTS**

**A- dart point stem, B- scraper, C- perforator,  
D to G- gravers, H- prismatic blade, I to L- preforms**

**Figure 4**  
**Flake Size Distribution by Level**

—●— under 15, —▲— 15-20 —+— over 20  
mm square



**Figure 5**  
**Flake Size Distribution, 20-30 cm**

