

EXCAVATIONS AT THE GOLOBY SITE
41WL3, WALLER COUNTY, TEXAS

LELAND W. PATTERSON
JOE D. HUDGINS
ETTA PALMER
TOM PALMER

HOUSTON ARCHEOLOGICAL SOCIETY
REPORT NO. 22, 2003

EXCAVATIONS AT THE GOLOBY SITE, 41WL3, WALLER CO., TEXAS

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

INTRODUCTION

This report gives the results of excavations by the Houston Archeological Society (HAS) at prehistoric site 41WL3 in Waller County in 2003. This project was possible through the courtesy of the landowner, G.W. Goloby.

Persons who participated in the excavations include Nancy Adams, Beth Aucoin, Pat Aucoin, Truett Bell, Wanda Carter, Richard Carter, Dick Gregg, Diane Goloby, Joe Hudgins, Cindy Leinweber, Etta Palmer, Tom Palmer, Lee Patterson, Gary Ryman, Jo Ann Stuart, Bob Shelby, Bob Whitcomb, and John Winkler. Excavations were directed by Joe Hudgins. Etta Palmer handled field records and site measurements. Tom Palmer prepared the site layout drawing.

Site 41WL3 is a very large site. Artifact types indicate an occupation sequence from the Late Paleoindian (8000-5000 BC) through the Late Prehistoric (AD 600-1500) time periods. This site is a seasonal campsite of nomadic hunter-gatherer groups with frequent occupation events. Lithic manufacturing was a major activity at this location. Occupation events occurred in a dispersed manner over the large area of this site.

ORIGINAL SITE REPORT

Site 41WL3 was originally recorded for archives of the Texas Archeological Research Laboratory in 1971 by Calvin Howard. One potsherd and a variety of lithic artifacts were reported, including choppers, a hammerstone, gouges, a graver, scrapers, a mano, a corner-tang biface, dart point preforms, and many arrow and dart points. There were eight Scallorn arrow points and nine Perdiz arrow points. Outline drawings were shown for 49 dart points. Dart point types that can be identified from the outline drawings include Plainview, San Patrice, Bulverde, Williams, Wells, Morhiss, Marcos, Gary, Kent, Palmillas, Yarbrough, Ensor, Ellis, and Fairland. Projectile point types indicate an occupation sequence from the Late Paleoindian (8000-5000 BC) through the Late Prehistoric (AD 600-1500) time periods.

Site 41WL3 is bisected by an east-west road. The current farmer on the site area south of the road has a dart point collection with types mainly from the Late Archaic (1500 BC-AD 100) and Early Ceramic (AD 100-600) periods, such as Kent Gary, and Ellis.

SITE SETTING

Site 41WL3 is located on farm fields on a high terrace along Irons Creek, with a length of several hundred meters and a width of about 70 meters. The Brazos River is about one kilometer to the west of the site, where chert cobbles would have been available to provide easy access to lithic raw materials. A variety of floral and faunal food resources would have been available. There are many native pecan trees at this location. The general area is a mixture of woodlands and coastal prairie. The high terrace at the site is probably a remnant terrace of the Brazos River.

EXCAVATION DETAILS

Excavations by the HAS were done on the north side of the road that bisects the site. An excavation layout drawing is shown in Figure 1. A total of eight one-meter square pits were excavated in three widely spaced locations. Excavations in each pit were terminated at depths where cultural materials were no longer present. At Location 1, Pits A and H were terminated at depths of 40 cm and 30 cm, respectively. Pits B and C were terminated at a depth of 65 cm. Differences in pit depths at Location 1 indicate different erosion and soil buildup rates within this area.

At Location 2, Pits D and E were terminated at a depth of 30 cm. At Location 3, Pits F and G were terminated at depths of 30 cm and 35 cm, respectively.

All soil from excavations was processed through 1/4-inch (6 mm) mesh screens. Soil was sandy and easy to screen at depths near the surface, with increasing clay content and more difficult digging and screening as depth increased. Excavations were done in arbitrary 5 cm depth intervals because of lack of visible stratigraphy.

SOIL DISTURBANCE

Site 41WL3 has been disturbed by several causes, including plowing, erosion, gopher activity, armadillo activity, and modern trash dumping. Also, some of the early projectile points are not in original stratigraphic position probably because the points were found by later Indians.

Location 3 was a modern trash dump area, with modern materials as deep as 20 cm in Pit F and 25 cm in Pit G. Gopher holes were observed at this location. An armadillo hole was observed in Pit E.

Plow disturbance was to a depth of about 20 cm from the soil surface. However, where erosion has occurred, plow disturbance

would affect soil depths of earlier time periods, such as in Pits A and H, compared to deeper stratigraphy in Pits B and C.

DART POINTS

As noted above, projectile point types given in the original site report indicate an occupation sequence from the Late Paleoindian through the Late Prehistoric time periods. Projectile points found by HAS excavations indicate the same time range as point types in the original site report.

Dart points found by excavations are summarized in Table 1, and are illustrated in Figure 2. Dart point types from the Late Paleoindian period are an Early Side-Notched point (Figure 2D from a shovel test at Location 2, and an Early Corner-Notched point (Figure 2E) from Pit C (40-45 cm). Neither of these points are in original stratigraphic context. A fragment of an Early Stemmed point (Figure 2F) from the Early Archaic period (5000-3000 BC) was found in disturbed context in Pit G (15-20 cm). The broken blade from this specimen has been reworked to form a new point tip.

Pedernales points were found in Pit C (35-40 cm) and Pit E (8 cm). The specimen in Pit E was disturbed by armadillo activity. The specimen in Pit C is probably from the Late Archaic period (1500 BC-AD 100). Both specimens are made from dark brown chert that probably came from the Colorado River Basin.

An Ellis point (Figure 2H) from Pit B (35-40 cm) is from the Late Archaic period (1500 BC-AD 100). A Kent point (Figure 2G) is from the Middle Archaic (3000-1500 BC) or Late Archaic. A Gary point stem from Pit C (35-40 cm) is from the Late Archaic period. A large Gary point (Figure 2A) from Pit B (10-15 cm) is in disturbed context. Dart point fragments were found throughout the excavations. The temporal placement of dart point types is from a previous publication (Patterson 1996:Table 4).

ARROW POINTS

In Southeast Texas, standardized bifacial arrow point types start at about AD 600, and unifacial arrow points start much earlier in the Middle Archaic period, 3000-1500 BC (Patterson 1992). In the original site report, there were eight Scallorn and nine Perdiz bifacial arrow points. Only one bifacial arrow point was found by HAS excavations, in Pit C (5-10 cm). This specimen (Figure 3A) is a preform with a length of 30.9 mm, a width of 19.0 mm, and a thickness of 4.8 mm.

Ten unifacial arrow points were found by excavations, as summarized in Table 2. Some specimens are illustrated in Figure 3. Unifacial arrow points at this site may cover a time range

from the Late Archaic through the Late Prehistoric periods, which is not unusual. It can be noted that there was continued use of unifacial arrow points in the Late Prehistoric period after the start of standardized bifacial arrow point types (Patterson 1992).

CERAMICS

As summarized in Table 3, only a modest quantity of potsherds were found by the excavations, including 35 Goose Creek Plain and 8 Bone Tempered sherds. Bone Tempered pottery is from the Late Prehistoric period (Patterson 1999:21), and Goose Creek pottery is from both the Early Ceramic (AD 100-600) and Late Prehistoric (AD 600-1500) periods. The small number of potsherds recovered probably shows occupation events in the Early Ceramic and Late Prehistoric periods were generally for short time intervals, indicating a high degree of mobility.

One Goose Creek Incised sherd and one O'Neal Plain sherd were found on the site surface. O'Neal Plain pottery with coarse sand temper was used in the Early Ceramic period.

As shown in Table 3, there were three sherds in Pit C at 35-40 cm and one sherd in Pit B at 40-45 cm. These sherds are mixed with Late Archaic preceramic artifacts, possibly due to gopher activity.

STONE TOOLS

Stone tools recovered by excavations are summarized in Table 4, and some specimens are illustrated in Figure 3. Formal tool types include five graters, a scraper, and a perforator. Also an unusual chipped slate specimen was found that may have been used as a chopper. This specimen has a length of 115 mm, a width of 75 mm, and a thickness of 20 mm. Few 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.

PRISMATIC BLADES AND BLADE CORES

A prismatic blade is a lithic flake type with parallel lateral edges, a length at least twice the width, and at least one dorsal face ridge parallel to the lateral edges. Purposeful production of prismatic blades results in residual cores that are polyhedral, with several parallel flake scars. A small number of prismatic blades can be produced fortuitously by general flintknapping activities, but polyhedral blade cores are only made by purposeful production of prismatic blades. Small prismatic blades have been found at many sites in Southeast Texas (Patterson 1998).

There were 24 small prismatic blades and two blade core trim flakes recovered by the excavation, as summarized in Table 5. Some specimens are shown in Figure 3. An important use of small prismatic blades was for the manufacture of unifacial arrow points.

Three polyhedral blade cores were found, in Pit B (30-35 cm), Pit F (0-5 cm), and Pit F (5-10 cm), with the first two blade cores illustrated as Figures 30 and 3N, respectively.

LITHIC MANUFACTURING

There is much evidence for lithic manufacturing at this site, with many chert flakes, chert cores, quartzite hammerstones, and dart point preforms. A total of 5212 chert flakes were recovered, as given in Table 6 for each level of each pit.

Flake size distributions at various excavation depths give evidence of site disturbance, and depth range for the Late Prehistoric period. Flake size distributions for Location 1B (Pits B,C) are given in Table 8, with indications that these pits are relatively undisturbed. High percentages (over 70%) of flakes under 15 mm square at depths of 0-30 cm are typical of the Late Prehistoric period (AD 600-1500) with much lithic manufacturing activity to make bifacial arrow points. The depth interval of 30-35 cm with 60.2% of flakes under 15 mm square might represent the Early Ceramic period (AD 100-600), with small dart points but no bifacial arrow points.

Flake size distributions for Location 1A (pits A,H) are given in Table 7. These pits are only about half as deep as at Location 1B (Pits B,C), but proportions of depths with over 70% flakes under 15 mm square are about the same for Locations 1A and 1B (about half of the pit depths have over 70% of flakes under 15 mm square). This shows that there was slower soil buildup for pits A and H than for Pits B and C.

Flake size distributions for Location 2 (Pits D,E) are given in Table 9. The fluctuation of percentages of flakes under 15 mm square indicates disturbance from plowing.

Flake size distributions for Location 3 (Pits F,G) are given in Table 10. Modern trash at various depths of these pits show much disturbance at this location. Flake size distributions reflect this disturbance, with no strata have high percentages (over 70%) of flakes under 15 mm square.

Remaining cortex on flakes is given in Table 11. The percentages of remaining cortex on flakes are very similar for all excavation locations. This shows that a uniform lithic procurement strategy was being used. Flake blanks and small cores made from chert cobbles at nearby Brazos River sources were brought to the site. Few whole chert cobbles were brought

to the site (Table 13), but many small chert cores were brought to the site (Table 12). Percentages of interior flakes (no remaining cortex) are about 10% higher for site 41WL3 than for a chert cobble flaking experiment (Patterson 1981:32) that simulated only flake blanks being brought to a remote site. This difference possibly shows the effect of small cores as well as flake blanks being brought to 41WL3.

The high level of lithic manufacturing at site 41WL3 is also shown by many quartzite hammerstones (Table 14) and many dart point preforms (Table 15).

FIRED CLAYBALLS

Fired clayballs were used as heating elements for earth ovens (Patterson 1995). A total of 905 fired clayballs were recovered by the excavations with sizes of 15-70 mm square. Quantities of fired clayballs are given in Table 16 for each level of each pit, and weights of fired clayballs are given in Table 17. Earth ovens were probably used to process plant foods, such as roots.

MODERN MATERIALS

Modern materials were found mainly at Location 3 (Pits F,G). The depths of modern materials indicate much disturbance in these pits. Location 3 appears to be a dump area for modern trash, although there was little visible evidence of modern trash on the surface. Pit F and G also had evidence of disturbance by gophers.

INTERPRETATION OF SITE CHRONOLOGY

The interpretation of the occupation sequence of 41WL3 is based mainly on the chronological placement of projectile point and pottery types. None of the excavation pits at this site are stratigraphically pristine, because of several types of soil disturbance. Artifact types from the original site report and those recovered by HAS excavations both show the same occupation sequence from Late Paleoindian through Late Prehistoric time periods.

CONCLUSIONS

Site 41WL3 is a very large site with dispersed occupation events over the site area. There is an occupation sequence from Late Paleoindian through Late Prehistoric time periods. Prehistoric sites with long occupation sequences are common in Southeast Texas (Patterson 1996:Table 19). There was a high level of lithic manufacturing activity at this site, especially

because of nearby sources of chert cobbles at the Brazos River. Occupation events appear to have been frequent, short-time events, dispersed over the large site area.

Although site 41WL3 has several types of soil disturbance, data from excavations are still significant for regional studies on subjects such as lithic procurement, lithic manufacturing, settlement patterns, population dynamics, and pottery usage. This site is especially important because of the small number of published prehistoric sites in Waller County.

REFERENCES CITED

Patterson, L.W.

- 1981 A Chert Cobble Flaking Experiment. *La Tierra* 8(4):29-34
- 1992 Current Data on Early Use of the Bow and Arrow in Southern North America. *La Tierra* 19(4):6-15
- 1995 Prehistoric Earth Ovens in Southeast Texas. *Houston Archeological Society Journal* 111:17-20
- 1996 Southeast Texas Archeology. *Houston Archeological Society, Report No. 12*
- 1998 Prismatic Blade Technology in Southeast Texas. *Houston Archeological Society Journal* 121:14-23
- 1999 An Introduction to Pottery Analysis in Southeast Texas. *Houston Archeological Society Journal* 125:17-22

Table 1

DART POINTS

type	pit	depth cm	dimensions, mm			figure
			L	W	T	
Gary	B	10-15	72.5	24.2	11.4	2A
tip fragment	A	15-20				
fragment	A	25-30				
tip fragment	B	35-40				
Ellis	B	35-40	38.9	25.4	8.0	2H
Pedernales	C	35-40		25.3	6.9	2B
Gary stem	C	35-40				2K
tip fragment	B	40-45				
Early Corner-Notched	C	40-45	51.3	21.6	7.7	2E
fragment	B	45-50				
Kent	C	50-55		17.5	6.0	2G
Pedernales	E	8	68.6	29.0	7.6	2C
Early Side-Notched	S*	10	39.9	19.8	6.3	2D
tip fragment	F	5-10				2J
tip fragment	F	5-10				
Early Stemmed	G	15-20				2F
fragment	G	25-30		22.5	6.5	
fragment	H	15-20		27.3	8.5	2I

S*- shovel test at Location 2

Table 2
UNIFACIAL ARROW POINTS

<u>pit</u>	<u>depth, cm</u>	<u>dimensions, mm</u>			<u>figure</u>
		<u>L</u>	<u>W</u>	<u>T</u>	
	surface	19.8	14.0	2.1	3F
	surface	15.7	14.0	2.3	
B	0-5	20.4	15.9	2.0	
A	5-10	20.3	14.1	3.5	3E
C	20-25	23.9	9.6	2.4	
C	25-30	21.9	9.7	2.3	3D
B	35-40	21.5	11.9	4.3	
D	5-10	31.6	21.7	3.2	3B
G	20-25	24.6	15.3	3.7	3C
H	25-30	23.9	9.4	2.5	

Table 3

CERAMICS

<u>pit</u>	<u>depth, cm</u>	<u>Goose Creek Plain</u>	<u>Bone Tempered</u>
A	0-5	1	
B	0-5	3	
A	5-10	1	
C	5-10	1	
B	10-15	1	
B	15-20	4	
B	20-25	2	
C	20-25	1	
B	25-30	1	1
C	35-40	1	2
B	40-45	1	
E	5-10	1	1
D	10-15	1	
E	10-15		1
D	20-25	1	
E	20-25	2	
F	5-10	3	
G	5-10		1
F	10-15	2	
G	10-15	1	
G	15-20		1
G	20-25	1	
G	25-30	1	
H	0-5	4	
H	5-10		1
H	10-15	<u>1</u>	
		35	<u>8</u>

Table 4
STONE TOOLS

<u>type</u>	<u>pit</u>	<u>depth, cm</u>	<u>figure</u>
chopper ?	A	5-10	
graver	B	0-5	
graver	B	0-5	
graver	C	40-45	
scraper	C	40-45	3Q
graver	F	5-10	3R
graver	F	15-20	3S
perforator	F	15-20	3P

Table 5
PRISMATIC BLADES

pit	depth, cm	dimensions, mm			figure
		L	W	T	
A	5-10	29.6	14.3	4.0	3J
C	5-10	21.5	9.5	2.6	
B	20-25	23.0	6.8	1.5	3L 3G
C	20-25	23.6	11.7	1.9	
C	20-25	25.1	12.5	2.2	
C	25-30	30.4	15.2	4.3	
C	25-30	25.6	8.7	2.6	
B	35-40	34.3	15.3	4.8	
B	35-40	23.9	9.3	2.1	
C*	35-40	46.2	18.8	7.5	
B	40-45	26.5	10.0	2.6	
B	45-50	46.2	15.1	3.2	
E*	10-15		19.4	4.1	3K
D	15-20	19.6	7.2	1.5	
E	15-20	31.0	15.7	3.5	
E	20-25		9.5	2.9	
E	20-25	33.1	12.8	3.6	
F	5-10	37.4	13.3	4.8	
F	10-15	28.0	12.8	2.7	
F	15-20		17.3	6.3	
F	15-20	29.4	12.6	5.2	
F	20-25	42.3	14.7	5.5	
H	5-10	19.2	9.3	2.4	3H
H	5-10	19.6	10.7	2.8	
H	10-15	28.3	14.6	3.3	
H	25-30	19.4	10.4	1.7	
H	25-30	19.4	10.4	1.7	

*- blade core trim flake

Table 6

CHERT FLAKE QUANTITIES

depth, cm	pit							
	A	B	C	D	E	F	G	H
0-5	201	88	37	64	41	95	74	112
5-10	124	107	109	138	92	115	110	95
10-15	106	71	66	109	60	152	90	91
15-20	56	106	80	90	64	125	133	41
20-25	28	90	148	62	26	99	182	38
25-30	29	179	92	31	24	33	109	20
30-35	9	134	103				8	
35-40	1	94	132					
40-45		80	95					
45-50		95	85					
50-55		28	42					
55-60		24	40					
60-65		7	9					
	<u>554</u>	<u>1097</u>	<u>1038</u>	<u>494</u>	<u>307</u>	<u>619</u>	<u>706</u>	<u>397</u>

Table 7

FLAKE SIZE DISTRIBUTIONS, LOCATION 1A (Pits A,H)

<u>depth, cm</u>	<u>flake size, mm square (% of flakes)</u>					
	<u>under 15</u>	<u>15-20</u>	<u>20-25</u>	<u>25-30</u>	<u>30-35</u>	<u>over 35</u>
0-5	75.1	17.3	5.3	1.3	1.0	
5-10	77.2	16.4	3.6	1.4	1.4	
10-15	75.1	15.2	8.2	0.5		1.0
15-20	54.6	26.8	11.3	3.1	3.1	1.0
20-25	47.0	19.7	12.1	12.1	9.1	
25-30	46.9	24.5	12.2	4.2	10.2	2.0
30-35	44.5	11.1	11.1	22.2	11.1	

Table 8

FLAKE SIZE DISTRIBUTIONS, LOCATION 1B (Pits B,C)

<u>depth, cm</u>	<u>flake size, mm square (% of flakes)</u>					
	<u>under 15</u>	<u>15-20</u>	<u>20-25</u>	<u>25-30</u>	<u>30-35</u>	<u>over 35</u>
0-5	75.2	13.6	7.2	1.6	1.6	0.8
5-10	81.6	15.3	2.8	0.9	0.4	
10-15	73.0	17.5	7.3	2.2		
15-20	78.3	15.0	5.0	1.1	0.6	
20-25	75.4	16.3	5.8	2.1	0.4	
25-30	71.6	17.0	5.2	4.4	1.4	0.4
30-35	60.2	25.0	8.5	3.0	2.5	0.8
35-40	54.4	24.3	9.8	6.6	3.6	1.3
40-45	49.1	17.7	17.2	8.0	4.6	3.4
45-50	45.0	18.3	13.9	10.6	9.4	2.8
50-55	38.6	18.6	28.6	2.8	8.6	2.8
55-60	39.1	17.2	15.6	14.0	10.9	3.2
60-65		31.3	12.5	37.5	12.5	6.2

Table 9

FLAKE SIZE DISTRIBUTIONS, LOCATION 2 (Pits D,E)

depth, cm	flake size, mm square (% of flakes)					
	under 15	15-20	20-25	25-30	30-35	over 35
0-5	62.9	25.7	3.8	3.8	1.0	2.8
5-10	75.7	13.9	7.8	1.3	0.9	0.4
10-15	65.7	26.0	6.5	1.8		
15-20	53.2	22.2	14.3	4.5	4.5	1.3
20-25	26.1	18.2	27.8	14.8	14.8	2.3
25-30	43.6	20.0	14.5	12.8	7.3	1.8

Table 10

FLAKE SIZE DISTRIBUTIONS, LOCATION 3 (Pits F,G)

depth, cm	flake size, mm square (% of flakes)					
	under 15	15-20	20-25	25-30	30-35	over 35
0-5	55.6	23.7	11.8	5.9	3.0	
5-10	54.2	25.8	13.3	3.1	2.7	0.9
10-15	63.6	20.2	11.7	3.3	1.2	
15-20	65.1	19.4	8.1	3.5	3.1	0.8
20-25	56.6	17.8	11.8	7.8	4.6	1.4
25-30	28.9	19.7	27.5	12.0	7.7	4.2

Table 11

REMAINING CORTEX ON FLAKES
(flakes over 15 mm square)

flake type	% of flakes			
	Location 1A	Location 1B	Location 2	Location 3
primary	2.4	3.0	0.9	1.9
secondary	26.4	26.5	28.3	26.4
interior	71.2	70.5	70.8	71.7

Table 12
CHERT CORES

<u>depth, cm</u>	<u>pit</u>	<u>maximum dimension, mm</u>	<u>depth, cm</u>	<u>pit</u>	<u>maximum dimension, mm</u>
0-5	C	54	15-20	E	44
10-15	A	26	20-25	E	44
10-15	A	30	0-5	F	30
10-15	A	31	0-5	F	33
10-15	A	39	0-5	F	38
15-20	A	33	0-5	F	43
15-20	A	39	0-5	G	46
20-25	A	28	5-10	F	43
20-25	A	43	10-15	F	44
25-30	A	44	10-15	G	35
25-30	B	32	10-15	G	75
30-35	B	64	15-20	F	39
35-40	C	31	20-25	G	43
35-40	C	31	20-25	G	44
35-40	C	36	25-30	G	47
35-40	C	40	25-30	G	45
40-45	B	38	0-5	F	36
40-45	C	35	5-10	F	45
45-50	B	35	5-10	F	44
45-50	B	41	5-10	G	34
45-50	C	38	5-10	G	40
50-55	B	35	15-20	F	42
50-55	B	43	15-20	F	55
60-65	B	42	15-20	G	39
60-65	B	53	20-25	F	24
60-65	C	39	20-25	F	37
			20-25	G	36
			25-30	F	41
			25-30	F	42

Table 13

WHOLE CHERT COBBLES

<u>depth, cm</u>	<u>pit</u>	<u>maximum dimension, mm</u>
50-55	B	48
50-55	C	42
50-55	C	43
15-20	D	50

Table 14

QUARTZITE HAMMERSTONES

<u>depth, cm</u>	<u>pit</u>	<u>maximum dimension, mm</u>
5-10	A	46
5-10	B	42
20-25	A	35
20-25	A	65
20-25	B	fragment
30-35	C	35
35-40	B	39
35-40	B	53
40-45	B	fragment
40-45	C	62
45-50	C	32
55-60	C	fragment
0-5	E	50
5-10	E	34
5-10	E	48
15-20	E	36
20-25	E	37
5-10	G	61
5-10	G	fragment
20-25	F	38
20-25	G	47
25-30	F	46

Table 15

DART POINT PREFORMS

<u>pit</u>	<u>depth, cm</u>	<u>dimensions, mm</u>			<u>figure</u>
		<u>L</u>	<u>W</u>	<u>T</u>	
A	0-5				
B	0-5		44.1	7.5	
C	5-10				
B	15-20	92.1	69.4	13.7	
B	25-30				
A	30-35	53.1	37.3	14.5	4B
S*	36	98.0	21.2	20.5	
C	45-50		26.7	9.6	4D
C	45-50		18.7	7.7	4E
B	50-55		38.6	7.7	4C
B	55-60				
C	55-60				
C	55-60		21.8	14.1	
C	5-10				
E	0-5				
E	5-10		31.0	8.1	4F
E	10-15			6.6	
D	20-25				
D	25-30		29.8	7.0	
E	25-30		34.5	10.8	
F	15-20	64.5	33.0	15.0	
F	20-25		20.5	11.1	4G
F	20-25			11.3	
G	20-25	75.7	32.3	16.3	4A

S*- shovel test

Table 16
FIRED CLAYBALL QUANTITIES

depth, cm	pit							
	A	B	C	D	E	F	G	H
0-5	10	3	1		2	9	7	2
5-10	5	1	1	1	2	7	8	3
10-15	16	5		2	4	7	3	13
15-20	13	5	2	4	14	8	7	11
20-25	25	5	4	10	23	23	19	16
25-30	31	23	4	10	9	20	27	8
30-35	4	17	21				4	
35-40	1	44	41					
40-45		44	22					
45-50		64	26					
50-55		44	25					
55-60		32	59					
60-65		5	19					
	105	292	225	27	54	74	7	53

Table 17
FIRED CLAYBALL WEIGHTS, gm

depth, cm	pit							
	A	B	C	D	E	F	G	H
0-5	59	29	64		25	73	83	9
5-10	63	24	2	6	19	37	68	28
10-15	140	46		10	25	70	27	79
15-20	111	35	17	29	175	145	70	97
20-25	192	54	37	393	250	183	225	97
25-30	216	236	69	166	75	140	485	77
30-35	17	234	348				41	
35-40	4	679	366					
40-45		460	213					
45-50		566	227					
50-55		330	288					
55-60		221	524					
60-65		22	246					
	802	2936	2401	604	569	648	1007	387

Table 18
MODERN ARTIFACTS

<u>pit</u>	<u>depth, cm</u>	<u>items</u>
F	0-5	1 sherd, 6 glass, 1 metal strap
G	0-5	1 glass
C	5-10	1 glass
F	5-10	1 cut nail, 6 glass, 1 sherd, 2 metal
G	5-10	1 sherd, 2 glass, 3 round nails
F	10-15	1 cut nail, 5 glass
G	10-15	3 cut nails, 1 glass
F	15-20	1 sherd, 2 cut nails, 1 glass
G	15-20	3 cut nails, 2 sherds, 2 glass
G	20-25	2 cut nails

3 METERS
G
F

LOCATION 3

60.4 METERS

10 METERS
E
D

LOCATION 2

LOCATION 1

NORTH-SOUTH LINE

221.6 METERS TO POST

106.6 METERS TO POST

72 METERS
70 DEGREE W OF N

46.6 METERS

H
C
B

NEW GATE POST

GATE



31.6 METERS

7.8 METERS

FIGURE ONE

7.7 METER

MT. ZION ROAD

GOLUBY

SITE
41WL 3

100%

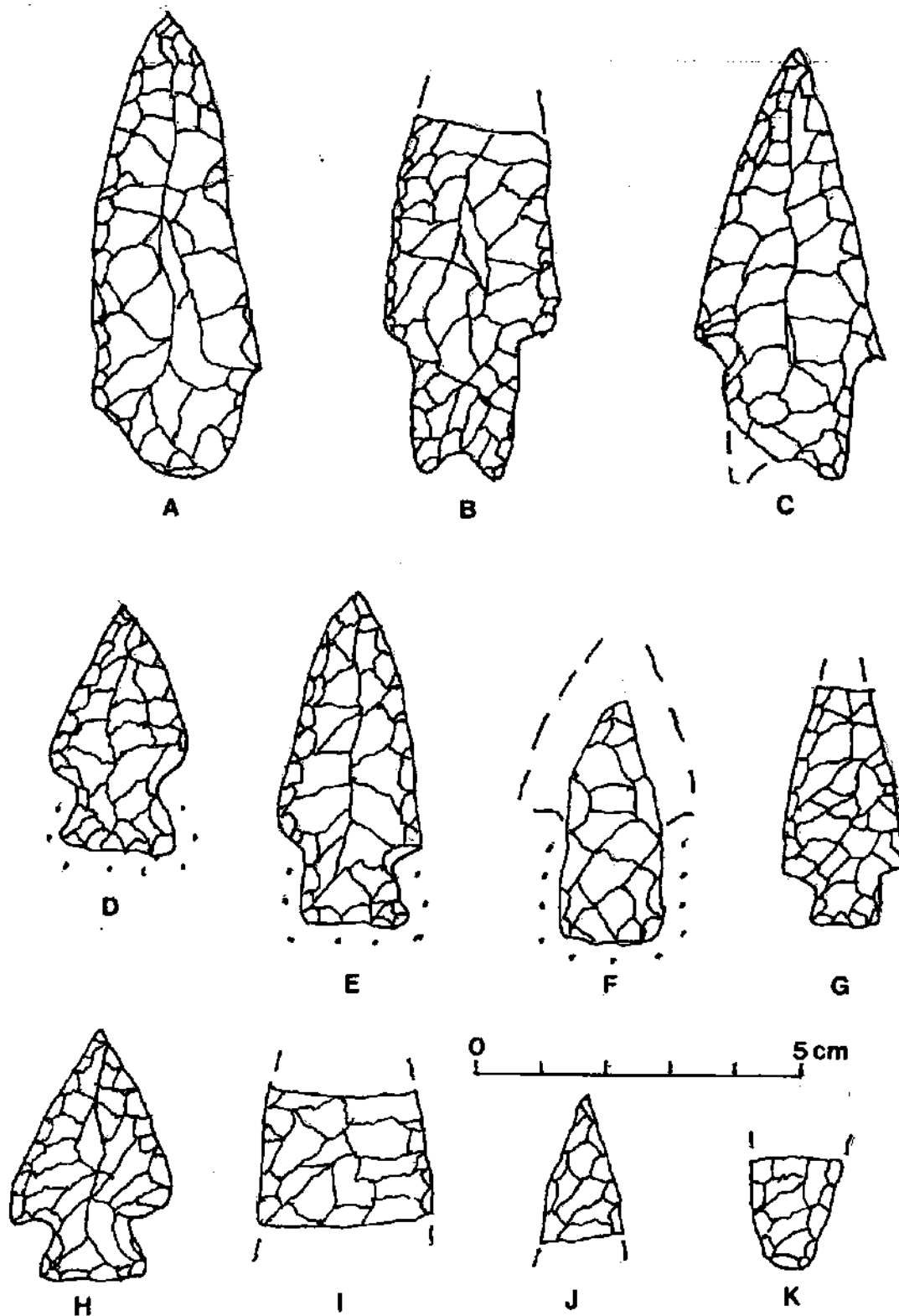


Figure 2: Dart Points

A- Gary; B,C- Pedernales; D- Early Side-Notched;
 E- Early Corner-Notched; F- Early Stemmed; G-Kent;
 H- Ellis; I,J- fragments; K- Gary stem

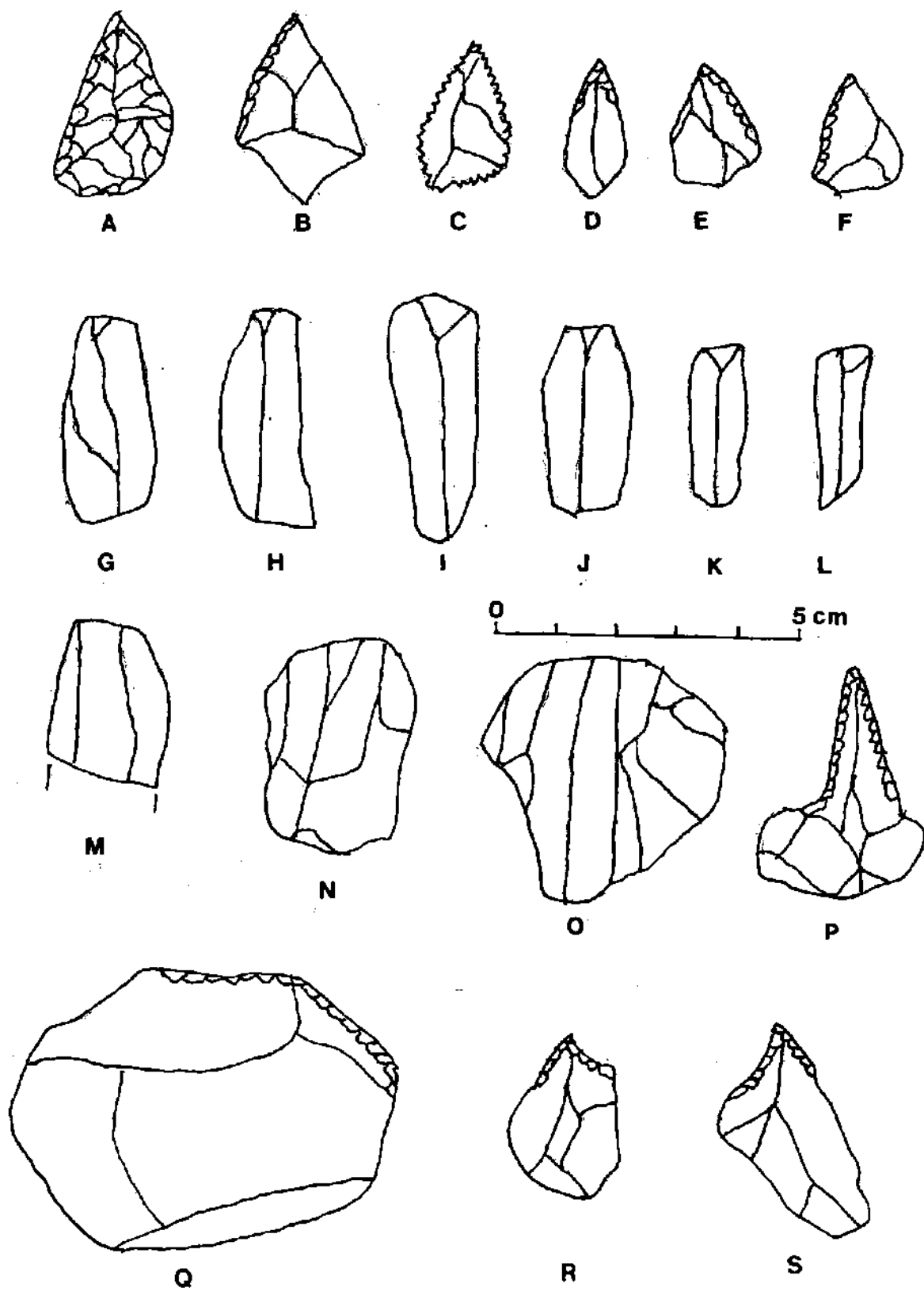


Figure 3: Lithic Artifacts

A-bifacial arrow point preform; B to F- unifacial points;
 G to L-prismatic blades; M- trim flake; N,O- blade cores;
 P- perforator; Q- scraper; R,S- graters

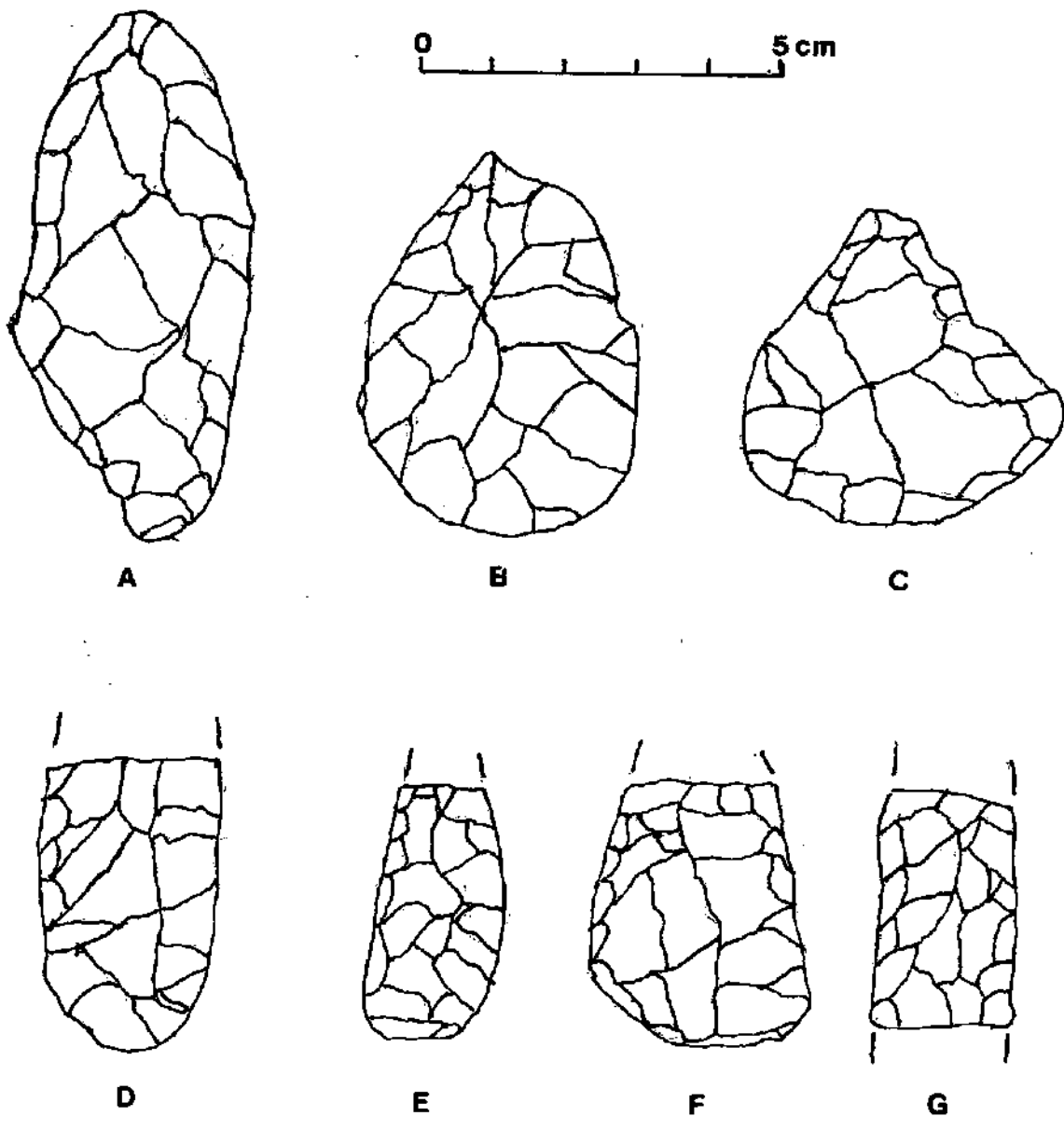


Figure 4: Dart Point Preforms