EXCAVATIONS AT 41WL25 AND 41WL26, WALLER COUNTY, TEXAS

Leland W. Patterson
Joe D. Hudgins
Etta Palmer
Tom Palmer

HOUSTON ARCHEOLOGICAL SOCIETY
REPORT NO. 20, 2003

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EXCAVATIONS AT THE TINGLE SITE, 41WL25, WALLER CO., TEXAS

INTRODUCTION

This article gives the results of excavations by the Houston Archeological Society at site 41WL25 in Waller County in early 2003. This project was possible through the courtesy of the landowner, Pat Tingle.

Individuals who participated in the excavations include Pat Aucoin, Beth Aucoin, Truett Bell, Wanda Carter, Richard Carter, Dick Gregg, Joe Hudgins, Etta Palmer, Tom Palmer, Jim Palmer, Lee Patterson, Peter Ragusa, Alicia Ragusa, Bob Shelby, Jo Ann Stuart, Bob Whitcomb, and James Woods. Field work was directed by Joe Hudgins. Etta Palmer handled field records, directed site measurements, and arranged for site access. Tom Palmer made the excavation layout drawing. Lee Patterson analyzed the artifacts.

Artifact types indicate a long occupation sequence, from the Late Paleoindian period (8000-5000 BC) through the Late Prehistoric period (AD 600-1500). Excavations at this site yielded only a modest amount of artifacts. It appears that occupation events were not frequent and were done in a dispersed manner. This was a campsite of nomadic hunter-gatherers. There is no preservation of floral or faunal remains.

SITE SETTING

Site 41WL25 is located on the highest elevation of a farm field adjacent to a creek. The general area is a mixture of woodlands and coastal prairie. A variety of floral and faunal food resources would have been available. The area still has a wide variety of wildlife.

EXCAVATION DETAILS

Excavation layout is shown in Figure 1. A total of nine pits were excavated to depths where cultural materials were no longer found. Final excavation depths were quite variable, as given in Table 1. Pits A and B were one-meter square and the other pits were one-meter by 1/2-meter. Soil is a brown sandy loam with some clay lenses. Excavations were done in 20 cm depth intervals because of low artifact yields. All soil was processed through 1/4-inch (6 mm) mesh screens. The initial 20 cm depth interval has been disturbed by modern plowing. Based on excavation results and surface survey, this site is well over 30 by 30 meters in area.

PROJECTILE POINTS

Few projectile points were found by the excavations, but five projectile points previously collected from this site can be used to judge the occupation sequence. These points are shown in Figure 2A-E. An Early Side-Notched point with ground stem edges is probably from the early part of the Late Paleoindian period in a time interval of about 8000-7000 BC (Patterson 1997). A Travis point is from the Middle Archaic period, 3000-1500 BC, or the Late Archaic period, 1500 BC-AD 100 (Turner and Hester 1993:189; Patterson 1995a:Table 3, 1996:Table 4). Two Williams points are also from the Middle Archaic or Late Archaic. A fairly small Gary point could be from one of several time periods, including the Late Archaic, Early Ceramic (AD 100-600) or Late Prehistoric (AD 600-1500). A small Kent point (Figure 2I) was also found on the site surface that may be from the Early Ceramic or Late Prehistoric.

A dart point preform fragment (Figure 2G) was found by a shovel test at a depth of 30+ cm. An early stage dart point preform (Figure 2F) was found in Pit E (40-60 cm). A dart point blade fragment (Figure 2H) was found in Pit B (35-40 cm). The small number of projectile point specimens found by the excavations indicates that occupation events were not frequent.

CERAMICS

Five Bone-Tempered sherds were found, with one in Pit B (0-20 cm), one in Pit G (0-20 cm), one in Pit H (0-20 cm), and two in Pit B (30-35 cm). In the western part of inland Southeast Texas, Bone-Tempered pottery is found in the Late Prehistoric period, AD 600-1500 (Patterson and Hudgins 1989; Patterson et al. 1996). Bone-Tempered pottery in this part of inland Southeast Texas may be related to Leon Plain pottery that is found in the Colorado River Basin (Suhm and Jelks 1962:95).

LITHIC MATERIALS

Only two formal unifacial flake tools were found, a scraper (Figure 2J) in Pit E (20-40 cm), and a scraper (Figure 2K) in Pit F (60-80 cm). It is common for sites in Southeast Texas to have few formal flake tools, because the dominant stone tool type was the unmodified utilized flake.

Chert flake quantities are given in Table 2 for each stratum of each pit. Only 403 flakes were found by the excavations. This small quantity is another indication that occupation events were not frequent at this site. Heat treatment of chert was done, as shown by waxy luster, reddish coloration,

and small potlid surface scars on flakes. Flake size distributions are given in Table 3. Flake size distributions for excavation depths of 0-60 cm are typical of bifacial reduction to make projectile points, with significant increases in percentages of smaller size flakes.

For flake sizes over 15 mm square, there were 3.7% primary flakes (covered with cortex), 22.8% secondary flakes (partially covered with cortex), and 73.5% interior flakes (no remaining cortex). The small proportion of flakes with remaining cortex indicates that little primary reduction of chert cobbles was done at the site. This is also indicated by the small number of chert cores. Only three cores were found, with one in Pit B (25-30 cm), one in Pit D (20-25 cm), and one from a shovel test at a depth of 30+ cm. These were all small cores, with maximum dimensions of 58, 41, and 59 mm, repectively.

Primary reduction of chert cores would have been done at lithic sources, to reduce transport weight and volume, with flake blanks then transported to this campsite. Chert cobbles can be found at the Brazos River, at a distance of about 9.7 km (6 miles).

FIRED CLAYBALLS

Nine fired clayballs were found by the excavations as given in Table 4. Fired clayballs were used as heating elements in earth ovens (Patterson 1995b), possibly to process plant materials such as roots.

MODERN MATERIALS

Modern materials found at this site are given in Table 5. Most modern materials were found on the site surface or at excavation depths of 0-20 cm, which represents plow disturbance.

CONCLUSIONS

Site 41WL25 is a large campsite of nomadic hunter-gatherers. Artifact types show an occupation sequence from the Late Paleoindian through the Late Prehistoric time periods. The small quantity of artifacts found by excavations indicates that occupation events were not frequent and were done in a dispersed manner. All artifact types found here are typical for prehistoric sites of the inland part of Southeast Texas.

Data for archeological sites in Waller County are limited because little survey work has been done in this county. Data on only a few sites in Waller County have been

published (Patterson 1984, 1994). Therefore, data for site 41WL25 are a good addition to the archeological data base for this county.

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Table 1
Excavation Depths

pit	final depth, cm
A	20
B	45
C	30
D	30
E	60
F	100
G	60
H	20
I	60

Table 2
Chert Flake Quantities

	depth, cm					
pit	0-20	20-40	40-60	60-80	80-100	total
A	15					15
B	18	17	3			38
C	10	4				14
D	23	19				42
E	10	17	39			66
F	26	33	16	12	10	97
G	20	33	9			62
H	26					26
I	3	25	15			43
	151	148	82	12	10	403

Table 3
Flake Size Distributions

flake size mm square	depth, cm (% of flakes) 0-20	20-40	40-60	60-80	80-100
under 15	56.3	58.0	51.3	66.7	40.0
15-20	25.8	27.0	28.0	25.0	20.0
20-25	13.2	7.4	13.4		20.0
25-30	3.3	4.1	6.1	8.3	20.0
30-35		1.4	1.2		
35-40	0.7	1.4			
40-50	0.7	0.7			
flakes	151	148	82	12	10

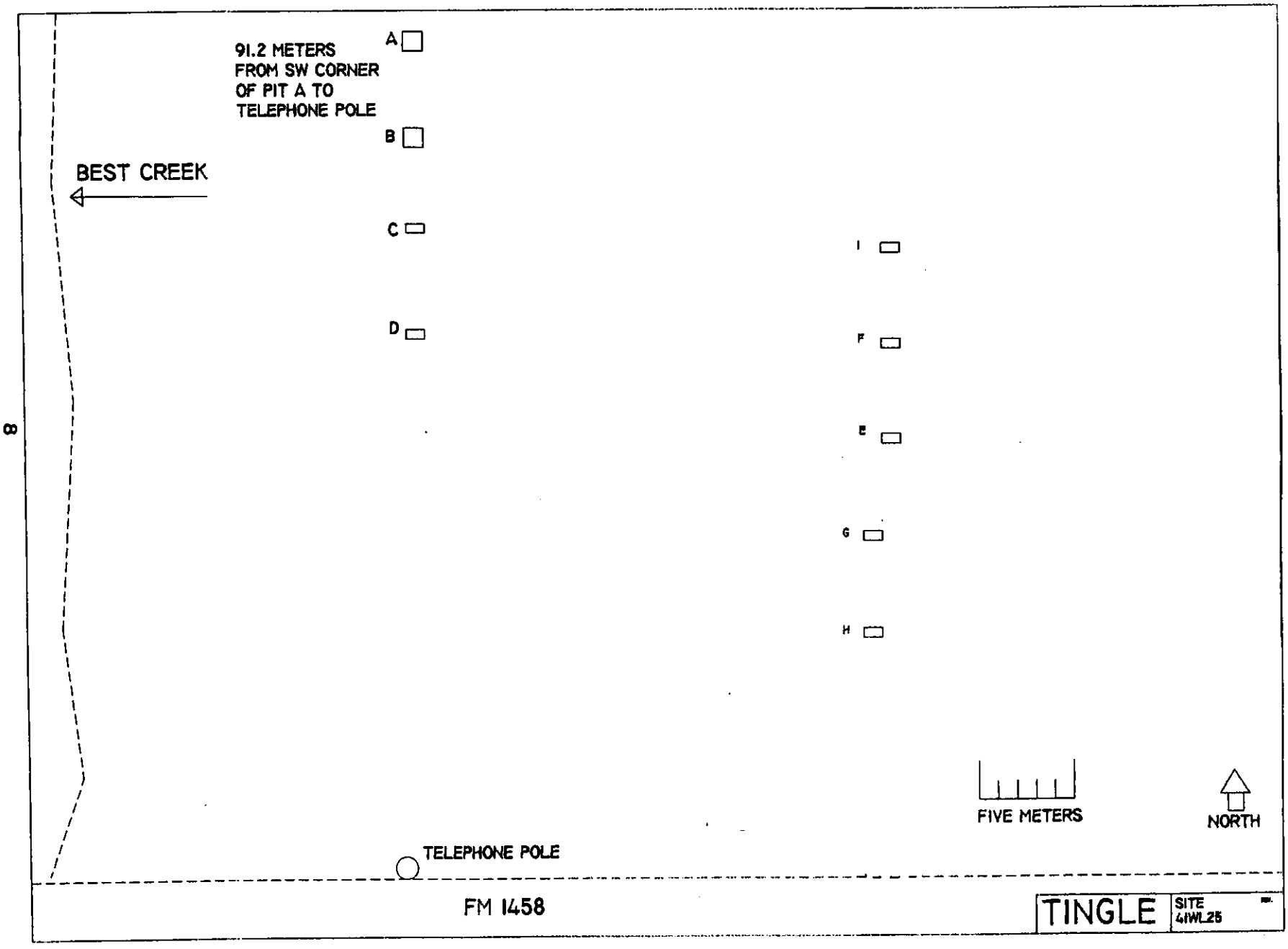
Table 4
Fired Clayballs

pit	depth, cm	size range mm square	no.
B	30-35	25	1
SH*	30+	20-25	2
B	35-40	15-35	4
I	40-60	50	1
B	40-45	20	1
			9

SH*: shovel test

Table 5
Modern Materials

pit	depth, cm	items
A	0-20	2 glass pieces
B	0-20	sheet metal
C	0-20	2 glass pieces, 1 modern sherd
D	0-20	1 nail, 2 glass pieces, 1 modern sherd
D	20-25	1 nail
G	20-40	1 nail
B	35-40	1 nail
-	surface	19 modern sherds, 11 glass pieces


91.2 METERS
FROM SW CORNER
OF PIT A TO
TELEPHONE POLE
A
B
C
D
I
F
E
G
H
BEST CREEK
FIVE METERS
NORTH
TELEPHONE POLE
FM 1458
TINGLE
SITE
41WL25

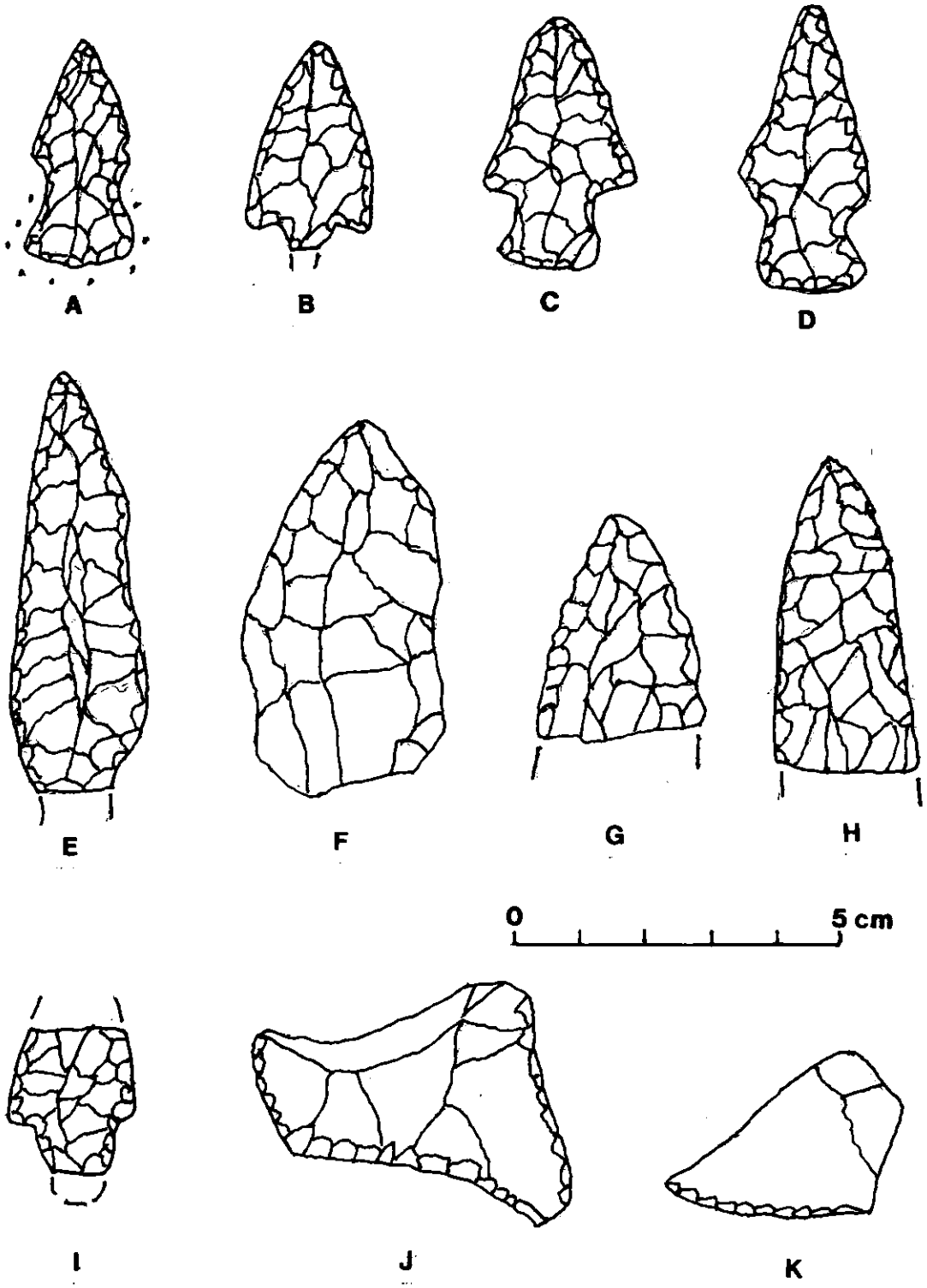


Figure 2: Lithic Artifacts
A- Early Side-Notched point; B- Gary point;
C,D- Williams points; E- Travis point; F,G- preforms;
H- dart point blade; I- Kent point; J,K- scrapers;
dots show ground edges

EXCAVATIONS AT THE PATTISON SITE, 41WL26, WALLER COUNTY, TEXAS

INTRODUCTION

This article gives the results of excavations by the Houston Archeological Society at site 41WL26 in March and April 2003. This project was possible through the courtesy of the landowner, Hazel Pattison.

Persons who participated in the excavations include Pat Aucoin, Beth Aucion, Truett Bell, Richard Carter, Wanda Carter, Dick Gregg, Joe Hudgins, Tom Palmer, Etta Palmer, Lee Patterson, Gary Ryman, Bob Shelby, Jo Ann Stuart, Bob Whitcomb, and John Winkler. Fr. Ed Bader and students from the University of St. Thomas participated for one day, including Summer Elliot, Marisa Garza, Christy Henderson, and Arlene Leggio. Field work was directed by Joe Hudgins. Etta Palmer handled field records and coordinated site measurements. Tom Palmer prepared the excavation layout drawing. Lee Patterson analyzed the artifacts.

Site 41WL26 was a campsite of nomadic hunter-gatherers, occupied for short time intervals on a seasonal basis. The occupation sequence is from the Late Archaic (1500 BC-AD 100) through the Late Prehistoric (AD 600-1500) time periods. Artifact types found here are typical of types from the western part of inland Southeast Texas. Prehistoric time periods used here are based on previous definitions (Patterson 1996:9).

SITE SETTING

Site 41WL26 is located on a natural sandy mound near a creek bank in a wooded area. The general area is a mixture of woodlands and coastal prairie. A variety of floral and faunal food resources would have been available for site occupants, including pecan nuts. There is no preservation of floral and faunal remains at this site.

EXCAVATION DETAILS

Excavation layout is shown in Figure 1. Three one-meter square pits were excavated to depths where clay was found without cultural materials. Pit A was closed at a depth of 145 cm, Pit B at 135 cm, and Pit C at 165 cm.

The site is capped with 30-35 cm of culturally sterile clay. All excavation depths containing artifacts were in brown sandy soil. Excavations were done in 5 cm depth intervals with no natural stratigraphy visible. All soil was processed

through 1/4-inch (6 mm) mesh screens. The sandy soil was easy to excavate.

PROJECTILE POINTS

Data on projectile points found by the excavations are given in Table 1, and projectile points are illustrated in Figure 2. A blade fragment of a bifacial arrow point is from the Late Prehistoric period (AD 66-1500). Morhiss and Yarbrough dart points are from the Late Archaic period (1500 BC-AD 100). The Kent point may be from the Early Ceramic period (AD 100-600). Attributes of dart point types from this site are consistent with detailed descriptions of point types given by Turner and Hester (1993) and Suhm and Jelks (1962).

Four unifacial arrow points were found, with two specimens from the Late Prehistoric period and two specimens from the Late Archaic period. Unifacial arrow points start in Southeast Texas in the Middle Archaic period (3000-1500 BC) and continue through the Late Prehistoric period (Patterson 1992). Standardized bifacial arrow point types start at the beginning of the Late Prehistoric period (Aten 1983:306).

CERAMICS

Only two potsherds were found, one in Pit B (70-75 cm) and one in Pit C (70-75 cm). Both of these specimens are from the Late Prehistoric period. The small pottery sample indicates that there were only short-time occupation events during the Late Prehistoric period because of high mobility of hunter-gatherers during this time period. Both sherds are Goose Creek sandy paste pottery.

In Southeast Texas, the Early Ceramic period (AD 100-600) is defined by the presence of pottery and dart points but no standardized bifacial arrow point types. Because of the small pottery sample, an Early Ceramic period cannot be defined in the stratigraphic sequence of this site. Because of the later start of pottery in the western part of Southeast Texas, site 41WL26 may not have much time interval for an Early Ceramic period. However, a definite Early Ceramic period is found at sites immediately south in Fort Bend County. In any event, the small pottery sample at this site indicates the high mobility of hunter-gatherer groups that visited this site after AD 100.

LITHIC MATERIALS

As is common for prehistoric sites in Southeast Texas, few formal unifacial tools were found at this site. A scraper (Figure 2I) was found in Pit B (60-65 cm), a scraper (Figure

2J) was found in Pit C (55-60cm), and a denticulate tool (Figure 2K) was found in Pit A (140-145 cm). The unmodified utilized flake was the dominant stone tool type in Southeast Texas.

A total of 2136 chert flakes were found by the excavations. Table 2 gives quantities of flakes for each depth interval of each pit. Flake size distributions are given in Table 3. The high percentages of flakes under 15 mm square and low percentages of flakes over 20 mm square indicate that lithic manufacturing at levels above 80 cm was mainly to produce bifacial arrow points. Below 80 cm, there are significant percentages of flakes larger than 20 mm square, reflecting the manufacture of dart points. Manufacture of dart points at greater excavation depths is also shown by dart point preforms. Dart point preforms were found in Pit B at 95-100 cm and 120-125 cm (Figure 3C). Dart point preforms were found in Pit C at 110-115 cm (Figure 3B), at 115-120 cm, and at 150-155 cm (Figure 3A).

A high proportion of the chert flakes at this site have a light brown color that is typical of cherts found in the lower Colorado and Brazos River Basins. Many of the chert flakes from 41WL26 have attributes caused by heat treatment, including waxy luster, reddish coloration, and small potlid surface scars. Heat treatment of chert lowers tensile strength to improve knapping quality.

The small percentage of flakes with remaining cortex indicates that not much primary reduction of chert cobbles was done at this site. For flakes larger than 15 mm square, there were 3.5% primary flakes (covered with cortex), 16.6% secondary flakes (partially covered with cortex), and 79.9% interior flakes (no remaining cortex). Chert cobbles can be found in the Brazos River at a distance of 9.7 km (6 miles) from this site. Primary reduction of chert cobbles was done at lithic sources to produce flake blanks for transport to remote campsites. Flake blanks were used for manufacture of projectile points and stone tools, with some used as tools without modification. The small number of chert cores found at this site also indicates that little primary reduction of chert cobbles was done here. Only two small chert cores were found at this site, in Pit A (96-100 cm) and Pit A (125-130 cm).

Three flat chert cobbles were found, in Pit A (130-135 cm), Pit C (100-105 cm), and Pit C (125-130 cm). Flat chert cobbles can be reduced directly to make projectile points in the same manner as flake blanks. Only one rounded chert cobble was found here, in Pit C (130-135 cm). Four quartzite hammerstones were found, in Pit A (130-135 cm), Pit C (100-105 cm), Pit C (125-130 cm), and Pit C (13-135 cm). Two of the hammerstones were split from use.

Chert cobbles from the nearby Brazos River typically do not have a maximum dimension greater than 80 mm. Most flake blanks produced from chert cobbles from the nearest Brazos River sources could not be used to make projectile points much longer than 55 mm. The Morhiss point (Figure 2A) from this site has an estimated length of 90 mm. This specimen was probably made of chert from the Colorado River Basin, where large chert cobbles can be found. This point may have been made at another location and then brought to site 41WL26. The nearest chert sources at the Colorado River are 45 km (28 miles) from this site.

FIRED CLAYBALLS

A total of 83 fired clayballs were found. Data on clayballs are given in Table 4. Diameters of clayballs ranged from 15 to 50 mm. Smaller diameter clayballs are due to attition from reuse. Clayballs were used as heating elements in earth ovens. A diagram of an earth oven in shown in Figure 4. Clayballs are common at sites in Southeast Texas (Patterson 1992). However, a high proportion of sites in this region do not have clayballs. Earth ovens were probably used on a seasonal basis to process plant materials, such as roots, at selected locations where suitable plant materials were available.

SITE CHRONOLOGY

Site 41WL26 has an occupation sequence from the Late Archaic (1500 BC-AD 100) through the Late Prehistoric (AD 600-1500) periods, for a total time interval of about 3000 years. Due to the small sample of ceramics, an Early Ceramic period (AD 100-600) cannot be defined in the stratigraphic sequence. Based on flake size distributions and a bifacial arrow point at 70-75 cm, the Late Prehistoric period has a stratigraphic sequence of a 30-80 cm depth interval. Excavation depths greater than 80 cm are earlier than AD 600, including the Early Ceramic and Late Archaic time periods.

CONCLUSIONS

Site 41WL26 is a campsite of nomadic hunter-gatherers, with occupation events on a seasonal basis. Stratigraphic distributions of artifacts show a continuous sequence of occupation events throughout the total time interval of the site. Artifact types are typical of types found in the western part of inland Southeast Texas.

Data from this site are a significant addition to the archeological data base for Waller County, because little archeological survey work has been done in this county. The

Houston Archeological Society is currently doing a series of projects in Waller County.

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Table 1
Projectile Points

point type	pit	depth, cm	dimensions, mm L	W	T	Figure
Morhiss	A	120-125	90E	38.5	9.5	2A
Kent	B	80-85	55.2	22.4	6.6	2C
Yarbrough	C	115-120	51.5	26.9	9.3	2B
dart point fragment	B	130-135				
bifacial arrow point	A	70-75		15.8	3.3	2D
unifacial arrow point	C	60-65	24.4	18.8	4.2	2E
unifacial arrow point	C	65-70	21.4	18.0	3.0	2F
unifacial arrow point	C	110-115	27.0	20.4	2.5	2G
unifacial arrow point	C	115-120	24.6	15.2	2.3	2H

Table 2
Quantities of Chert Flakes

depth, cm	pit A	pit B	pit C	total
30-35	10			10
35-40	20	3	7	30
40-45	19	7	9	35
45-50	16	10	17	43
50-55	15	12	19	46
55-60	18	14	12	44
60-65	18	19	24	61
65-70	24	17	42	83
70-75	22	39	26	87
75-80	20	24	22	66
80-85	22	28	28	78
85-90	19	35	29	83
90-95	22	26	36	84
95-100	33	74	23	130
100-105	29	32	67	128
105-110	53	57	31	141
110-115	29	32	53	114
115-120	51	39	26	116
120-125	54	68	32	154
125-130	46	37	49	132
130-135	43	22	50	115
135-140	32	4	49	85
140-145	39		43	82
145-150	6		70	76
150-155			42	42
155-160			34	34
160-165			28	28
165-170			9	9
total	660	599	877	2136

Table 3
Flake Size Distributions

depth, cm	flake size, mm square (% of flks) under 15	15-20	20-25	25-30	30-35	over 35
35-40	86.7	10.0		3.3		
40-45	85.7	14.3				
45-50	79.1	18.6	2.3			
50-55	76.0	19.6	2.2	2.2		
55-60	65.9	29.6	4.5			
60-65	90.2	9.8				
65-70	72.3	20.5	6.0	1.2		
70-75	74.8	21.8	2.3	1.1		
75-80	65.2	30.3	4.5			
80-85	65.4	21.7	9.0	2.6	1.3	
85-90	59.0	27.8	9.6	2.4	1.2	
90-95	63.5	22.4	9.4	1.2	3.5	
95-100	52.3	20.8	13.8	6.9	5.4	0.8
100-105	39.8	29.8	14.8	10.9	3.9	0.8
105-110	50.4	26.2	12.8	7.1	2.1	1.4
110-115	38.6	23.6	16.7	12.3	5.3	3.5
115-120	37.9	19.8	25.9	7.8	5.2	3.4
120-125	37.9	17.6	21.6	11.8	6.5	4.6
125-130	35.6	31.1	16.7	6.8	9.8	
130-135	37.4	31.3	15.7	10.4	3.5	1.7
135-140	34.1	23.6	17.6	5.7	14.1	4.7
140-145	32.9	20.8	25.6	13.4	2.4	4.9
145-150	46.2	27.6	11.8	10.5	3.9	
150-155	35.8	11.9	16.7	21.4	11.9	2.3
155-160	32.4	26.5	23.5	8.8	8.8	
160-165	32.2	21.4	17.9	14.3	7.1	7.1

Table 4
Fired Clayballs (all pits)

depth, cm	no.	wt., gm	mm square
35-40	1	18	30
45-50	3	54	20-50
50-55	3	5	15-20
55-60	3	6	15-20
60-65	1	4	20
65-70	2	5	15-20
70-75	1	10	30
80-85	5	54	15-40
90-95	5	20	15-25
95-100	4	113	15-50
105-110	2	58	35-50
110-115	10	57	15-35
120-125	8	90	15-40
125-130	11	87	20-30
130-135	7	55	20-40
135-140	2	73	40
140-145	6	54	20-35
145-150	1	3	20
150-155	5	168	25-50
160-165	3	32	20-35
	83		

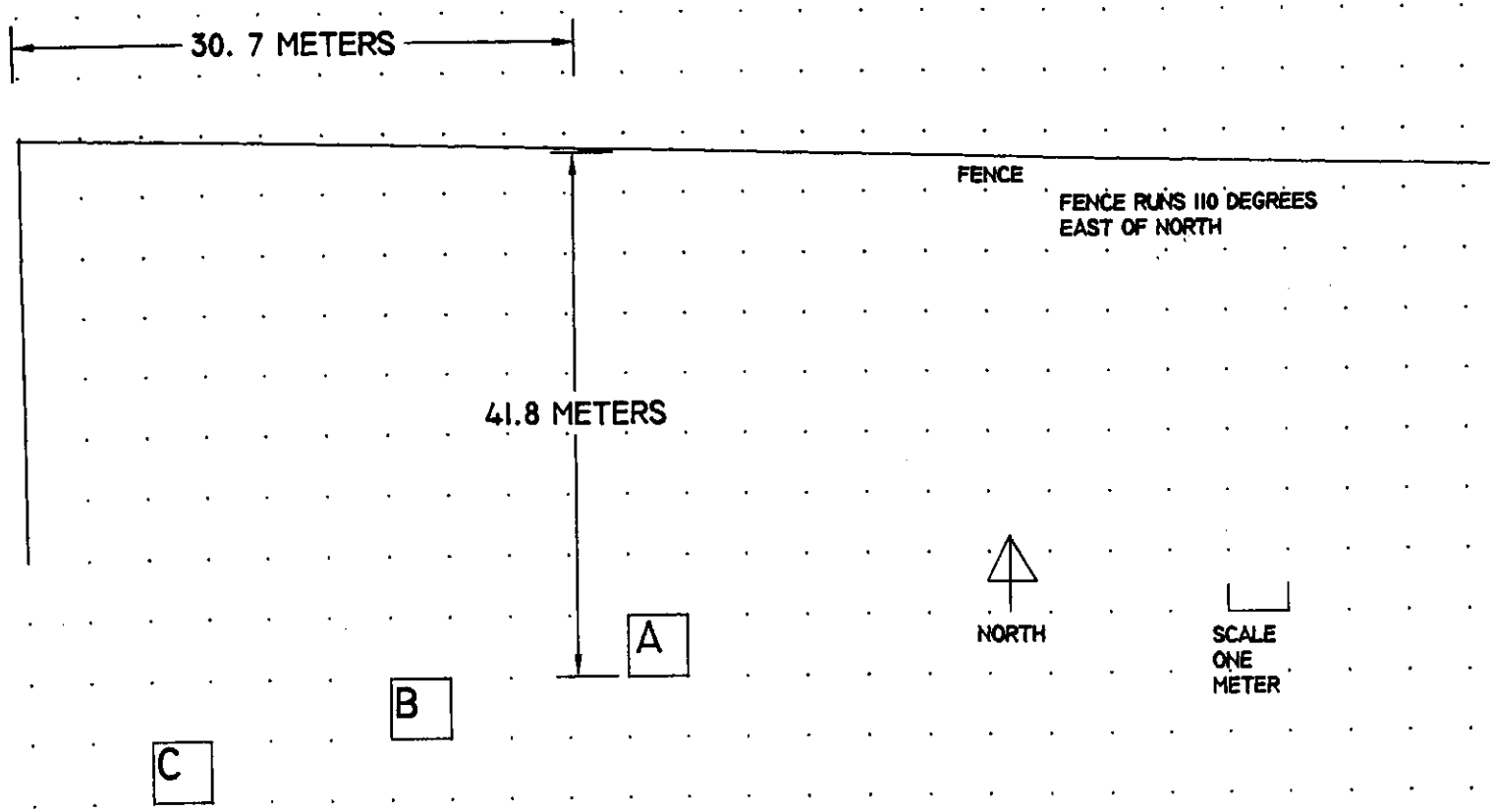

FIGURE ONE

PATTISON	SITE 41WL26	REV.

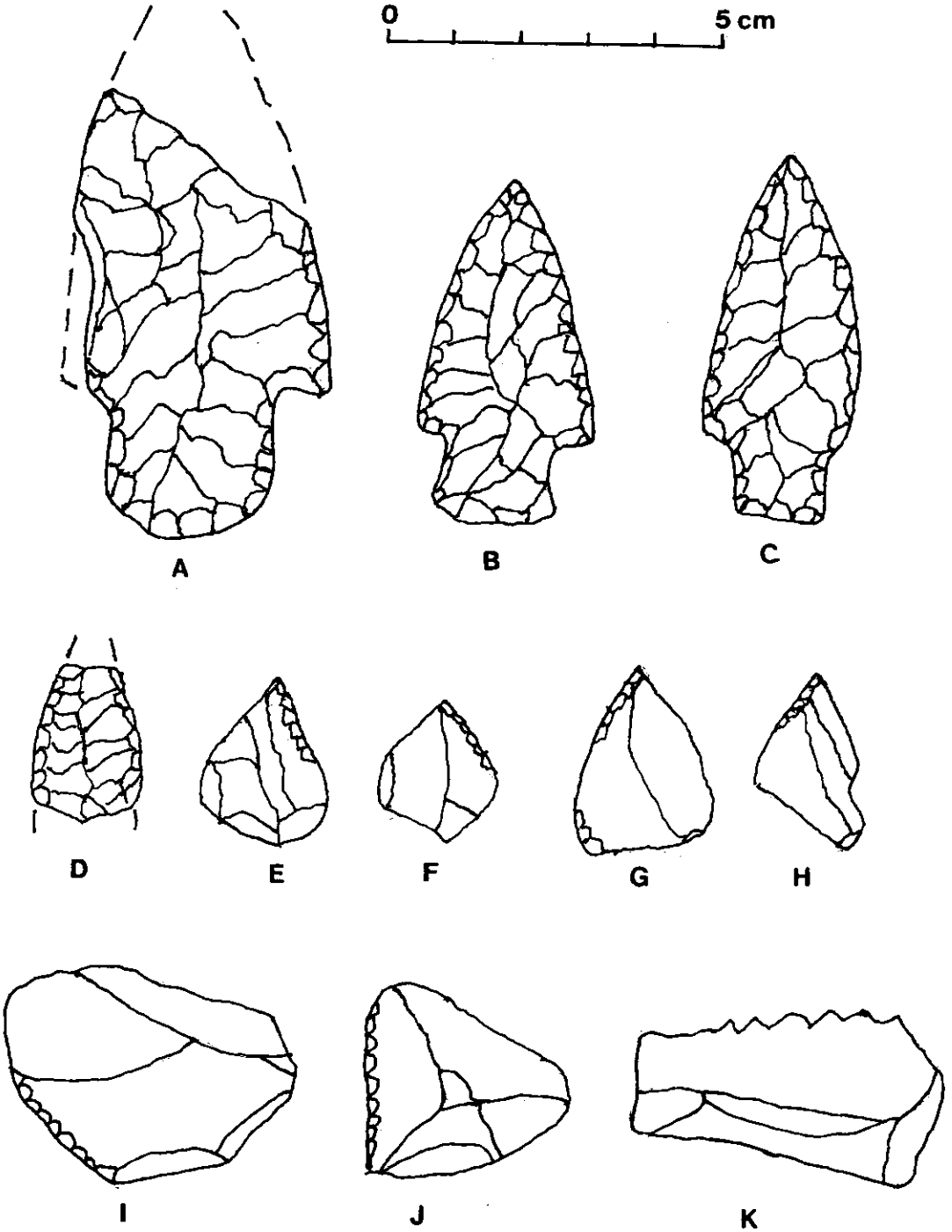

Figure 2: Lithic Artifacts

A- Morhiss point, B- Yarbrough point, C- Kent point, D- bifacial arrow point, E to H- unifacial arrow points, I,J- scrapers, K- denticulate

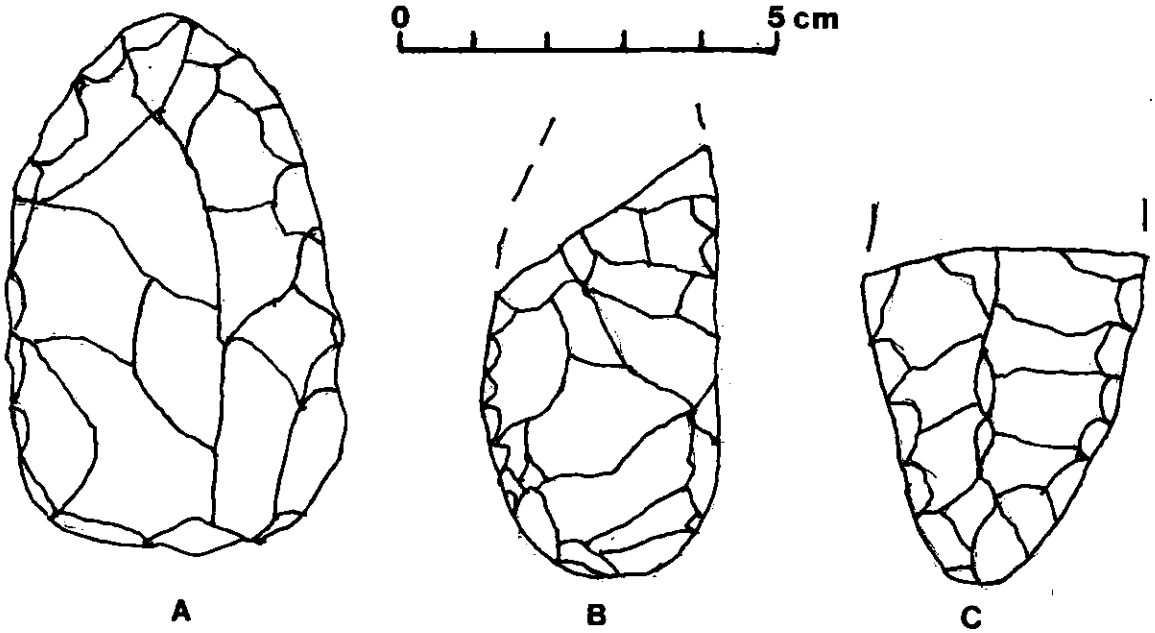

Figure 3: Dart Point Preforms

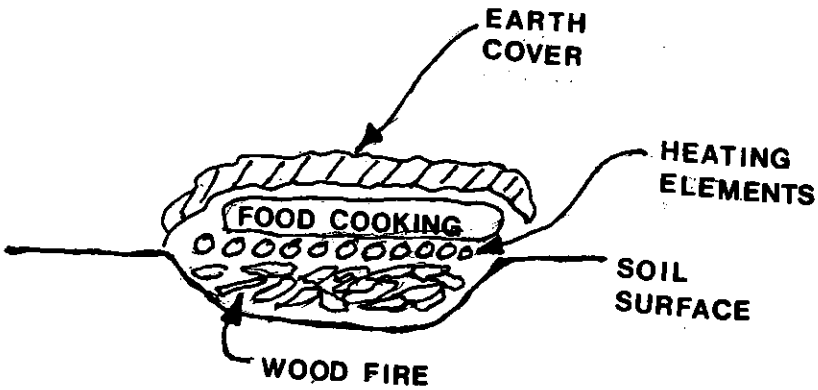

Figure 4: Earth Oven Diagram