

**THE KINGHORN SITE, 41AU88, AUSTIN COUNTY, TEXAS**

**Leland W. Patterson**

**HOUSTON ARCHEOLOGICAL SOCIETY  
REPORT NO. 23, 2005**

## INTRODUCTION

This report gives details of investigations at the Kinghorn site, 41AU88, in Austin County, Texas near New Ulm. Work here includes excavations by the Houston Archeological Society in the fall of 2004, and a collection of artifacts obtained by C. Hunter Meitzen. This project was possible through the courtesy of the landowner, Jacqueline Worcester Kinghorn.

Site 41AU88 has a long occupation sequence from the Late Paleoindian period (8000-5000 BC) through the Late Prehistoric period (AD 600-1500), based on the types of artifacts found here (Patterson 1996:Table 4). This location was a campsite of nomadic hunter-gatherers, with much evidence of lithic manufacturing to make stone tools and projectile points. The artifact types are typical of types found at prehistoric sites in the western part of inland Southeast Texas.

## EXCAVATIONS

### EXCAVATION DETAILS

Persons participating in HAS excavations include Dick Gregg, Joe Hudgins, Sheldon Kindall, Tom Nuckols, Etta Palmer, Tom Palmer, Jim Palmer, Gary Ryman, Bob Shelby, and John Winkler. Excavations were directed by Joe Hudgins, and field records were handled by Etta Palmer.

Judged by chert flakes on the surface, this site has an area of over one acre. The site is located on a hilltop and has sandy soil. There is a large pit where sand has been removed for modern construction. Excavations were made outside of the pit. As shown in Figure 1, three excavation pits were made. An initial test Pit 1 was 1 by 0.5 meters at the edge of the large sand removal pit, taken to a depth of 50 cm. Two one-meter square pits were then done, with Pit A to a depth of 110 cm and Pit B to a depth of 90 cm. All pits were excavated to depths where clay was found without cultural materials. No natural stratigraphy was visible in the three excavated pits. All soil was processed through 1/4-inch (6 mm) mesh screens.

### PROJECTILE POINTS

An Ellis dart point (Figure 2A) was found in Pit 1 (40-50 cm). The base of a Marcos dart point (Figure 2B) was found in Pit A (0-10 cm). Two dart point preforms were found in Pit 1 (40-50 cm), with one shown in Figure 2D. A dart point stem was found in Pit A (0-10 cm). Marcos dart points are from the Late Archaic period (1500 BC-AD 100), and Ellis points occur in the Late Archaic and Early Ceramic (AD 100-600) periods.

## LITHIC MANUFACTURING

Analysis of a previous sample of materials from this site showed that all phases of lithic manufacturing were done here, including primary reduction of chert cobbles to produce flake blanks, and subsequent manufacture of stone tools and projectile points (Patterson 2002).

A total of 718 chert flakes were found in the three excavated pits, as summarized in Table 1 for each stratum of each pit. Flake size distributions for each excavation level are given in Table 2. As would be expected, more larger size flakes were found at deeper (older) excavation levels. This reflects smaller dart points being made in later time, and finally bifacial arrow points in the Late Prehistoric period. The high percentages of flakes under 15 mm square at excavation depths from 0 to 30 cm indicates manufacture of bifacial arrow points in the Late Prehistoric period.

Three split chert cobbles were found in Pit A (80-90 cm). Quartzite flakes were found in Pit A (40-50 cm, 60-70 cm, 80-90 cm) and Pit B (40-50 cm, 80-90 cm), indicating use of quartzite hammerstones.

## STONE TOOLS

A bifacial gouge (Figure 2C) was found in Pit 1 (40-50 cm). No formal types of unifacial stone tools were found in the excavations. This is not surprising, because the unmodified lithic flake was the dominant stone tool type in prehistoric Southeast Texas. It should be noted that formal types of unifacial stone tools can also be regarded as expedient tools because they are easy to make.

## CERAMICS

Only a single potsherd was found by the excavations, in Pit B (10-20 cm). This specimen is bone-tempered, representing the Late Prehistoric period (AD 600-1500).

## MODERN MATERIALS

Modern materials were found in Pit B, indicating stratigraphic mixing. Modern materials include a modern ceramic sherd and a glass piece at 20-30 cm, a glass piece at 30-40 cm, barbed wire and glass at 50-60 cm, and barbed wire at 60-70 cm.

## MEITZEN COLLECTION

### GENERAL COMMENTS

A large collection of artifacts has been obtained by C. Hunter Meitzen by screening soil from the large modern sand pit. The collection includes projectile points, stone tools, potsherds, and a large assemblage of materials from lithic manufacturing. Old coins indicate modern use of the area many years ago. Meitzen has observed chert flakes over a large area outside of the modern sand pit.

### PROJECTILE POINTS

Projectile point types indicate a long occupation sequence, from the Late Paleoindian period (8000-5000 BC) through the Late Prehistoric period (AD 600-1500). A summary of projectile points is given in Tale 3.

The Late Paleoindian period (8000-5000 BC) is represented by San Patrice, Scottsbluff, and Plainview points (Figure 3). The Scottsbluff point has parallel flaking on the blade. San Patrice points are found throughout Southeast Texas (Patterson 1997a). Plainview points are found mainly in the western half of Southeast Texas (Patterson 1997b:Figure 1). Scottsbluff points are found occasionally in Southeast Texas (Patterson 1997b:Figure 3) and are common in Northeast Texas (Turner and Hester 1993:183).

The collection has two Early Stemmed points (Figure 6F,G) from the Early Archaic period (5000-3000 BC). In Southeast Texas, Early Stemmed points have straight stems (Patterson 1998), following Shafer's (1977:Figure 4) nomenclature for this point type in eastern Texas, rather than a notched point type called Early Stemmed by Turner and Hester (1993:106). The Middle Archaic period (3000-1500 BC) is represented by Bulverde points (Figure 4). Pedernales points (Figure 5) occur in the Middle Archaic and the Late Archaic (1500 BC-AD 100) periods.

The Late Archaic period is represented by Kent, Ensor, Gary, Marcos, Darl, Morhiss, Palmillas, and Ellis point types (figures 5,6,7). Some of these point types also occur in the Early Ceramic period (AD 100-600). The Late Prehistoric period (AD 600-1500) is represented by Alba, Perdiz, Scallorn, and unclassified bifacial arrow point types (Figure 8). The temporal placement of projectile point types in Southeast Texas has been previously published (Patterson 1996:Table 4).

## STONE TOOLS

The collection has two bifacial gouges, similar to the specimen illustrated in Figure 2C from the excavations. Bifacial gouges are occasionally found in the western part of inland Southeast Texas, such as at site 41WH2 (Patterson and Hudgins 1997). A sample from the collection had a graver and two scrapers shown in Figure 9 (from Patterson 2002:Figure 1). The dominant stone tool type in Southeast Texas was the unmodified utilized flake. A number of flakes in the collection have edge wear patterns characteristic of cutting and scraping. A large prismatic blade is illustrated (Figure 9B) that has an edge wear pattern characteristic of scaping along one entire lateral edge.

## LITHIC MANUFACTURING

The collection has large quantities of lithic materials from the manufacture of stone tools and projectile points. Whole chert cobbles and cores (Figure 10) made from chert cobbles indicate primary reduction to produce flake blanks, with subsequent manufacture of stone tools and projectile points. There are many by-product chert flakes in the collection, from lithic manufacturing activities. Quartzite flakes in the collection indicate use of quartzite hammerstones.

Primary reduction of chert cobbles, such as at this site, is usually found only where there are local sources of chert cobbles. At sites with significant distances from lithic sources, primary reduction was usually done at the lithic sources, to reduce transport volume and weight.

A variety of strategies were used for primary reduction of chert cobbles, as described for site 41FY56 in Fayette County (Patterson 1995). Two of these reduction strategies are indicated is the collection from 41AU88, resulting in bifacial and amorphous shaped cores. Experimental knapping of chert cobbles has previously been described (Patterson 1981).

A sample from the collection shows high percentages of larger size flakes with remaining cortex, with a trend toward lower percentages of smaller size flakes with remaining cortex (Patterson 2002:Table 2). A high proportion of larger size flakes represent primary reduction of chert cobbles, and a high proportion of smaller size flakes represent bifacial reduction to make projectile points. Chert materials from this region are tough. Heat treatment of flake blanks was done to lower tensile strength before bifacial reduction to make projectile points. Many flakes in the collection have evidence of heat treatment in the form of reddish coloration, small potlid surface fracture scars, and waxy luster.

## CERAMICS

There are only four potsherds in this large collection. A Goose Creek Plain sandy paste sherd could be from the Early Ceramic period (AD 100-600) or the Late Prehistoric period (AD 600-1500). Three bone-tempered sherd are from the Late Prehistoric period. The small number of bone-tempered sherds indicate short occupation events in the Late Prehistoric period. Hunter-gatherer groups became more mobile in the Late Prehistoric period in inland Southeast Texas (Patterson 1976). The single Goose Creek Plain sherd may indicate late introduction of pottery to the western part of inland Southeast Texas.

## SUMMARY

Site 41AU88 is a campsite of nomadic hunter-gatherers with a long occupation sequence from the Late Paleoindian period (8000-5000 BC) through the Late Prehistoric period (AD 600-1500). There is much evidence of lithic manufacturing at this site, starting with the primary reduction of chert cobbles. Artifact types here are typical of those from sites in the western part of inland Southeast Texas.

While there is much evidence of modern soil disturbance at this location, significant data have still been obtained for the regional archeological data base.

## REFERENCES CITED

Patterson, L.W.

- 1976 Technological Changes in Harris County, Texas. Bulletin of the Texas Archeological Society 47:171-188
- 1981 A Chert Cobble Flaking Experiment. La Tierra 8(4):29-34
- 1995 Chert Cobble Reduction at 41FY56, Fayette County, Texas. La Tierra 22(3):29-34
- 1996 Southeast Texas Archeology. Houston Archeological Society, Report No. 12
- 1997a Paleo-Indian Notched Projectile Points in Southeast Texas. Houston Archeological Society Journal 119:2-14
- 1997b Late Paleo-Indian Lanceolate Points in Southeast Texas. Houston Archeological Society Journal 118:5-13
- 1998 Early Archaic Projectile Points in Southeast Texas. Houston Archeological Society Journal 121:1-13
- 2002 A Lithic Collection from an Austin County Site. Fort Bend Archeological Society, Occasional Papers No. 5

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

- 1997 Bifacial Tools from 41WH2, Wharton Co., Texas. Houston Archeological Society Journal 117:15-19

Shafer, H.J.

- 1977 Early Lithic Assemblages in Eastern Texas. The Museum Journal 17:187-197, Lubbock

Turner, E.S., and T.R. Hester

- 1993 A Field Guide to Stone Artifacts of Texas Indians, Second Edition. Gulf Publishing Co.

Table 1  
Excavated Chert Flake Quantities

depth, cm	pit			total
	A	B	1	
0-10	20	15	11	45
10-20	25	26	19	70
20-30	27	15	14	56
30-40	27	36	28	91
40-50	73	29	19	121
50-60	26	28		54
60-70	16	69		85
70-80	40	37		77
80-90	37	36		73
90-100	25			25
100-110	21			21
	<u>336</u>	<u>291</u>	<u>91</u>	<u>718</u>

Table 2  
Flake Size Distributions

depth, cm	flake size, mm sq. (% of flakes)						
	under 15	15-20	20-25	25-30	30-35	35-40	over 40
0-10	89.1	8.7	2.2				
10-20	92.9	7.1					
20-30	78.6	17.8	1.8			1.8	
30-40	68.1	11.0	11.0	5.5		1.1	3.3
40-50	66.1	15.6	8.3	5.0	1.7	1.7	1.6
50-60	70.4	14.7	7.4	1.9	1.9		3.7
60-70	52.9	27.0	10.6		5.9	2.4	1.2
70-80	48.1	24.6	10.4	9.1	5.2	1.3	1.3
80-90	37.0	20.6	13.7	12.3	9.6	2.7	4.1
90-100	44.0	20.0	16.0	12.0	4.0	4.0	
100-110	47.6	19.0	14.3	4.8	4.8	9.5	

Table 3

## Meitzen Collection Projectile Points

<u>type</u>	<u>no.</u>
<u>dart points</u>	
San Patrice	1
Scottsbluff	1
Plainview	1
Early Stemmed	2
Bulverde	12
Pedernales	2
Kent	15
Ensor	14
Gary	2
Marcos	10
Darl	3
Morhiss	2
Palmillas	2
Ellis	2
preforms	30
unclassified fragments	32
<u>arrow points</u>	
Alba	1
Perdiz	5
Scallorn	6
unclassified	3

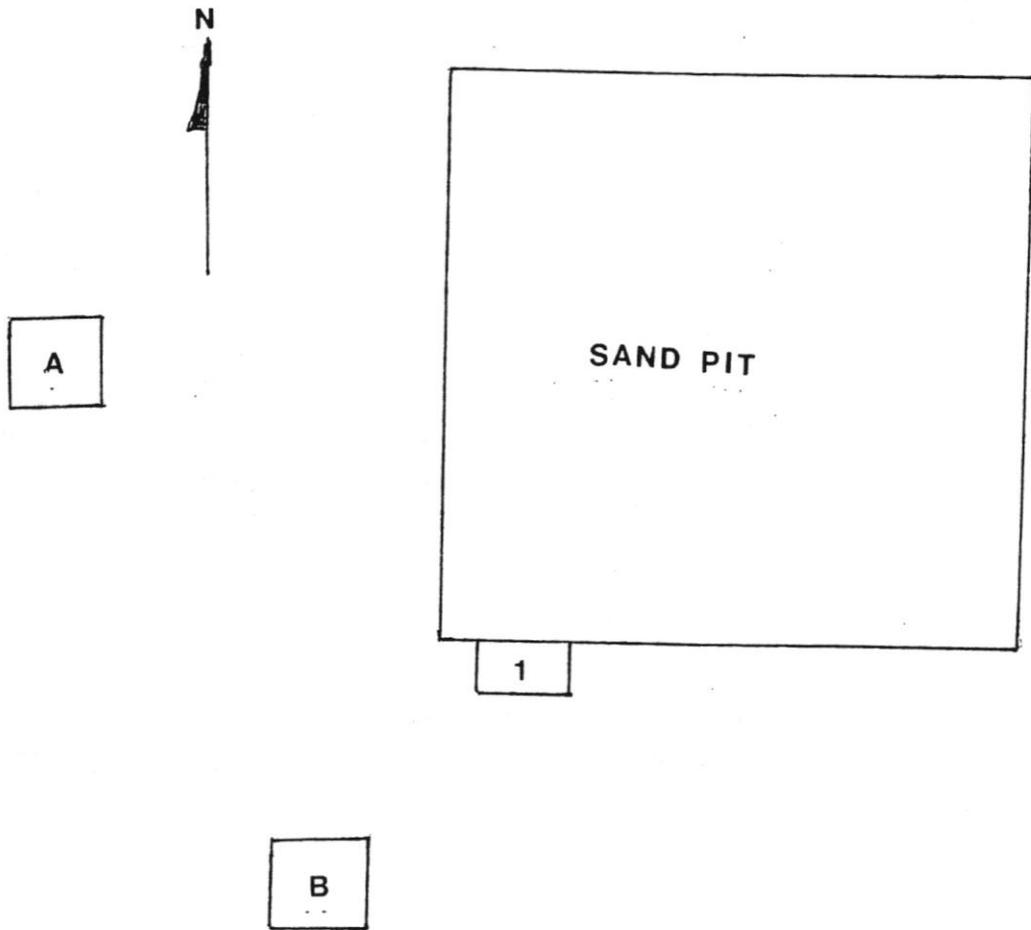


Figure 1: Excavation Layout

0 5cm

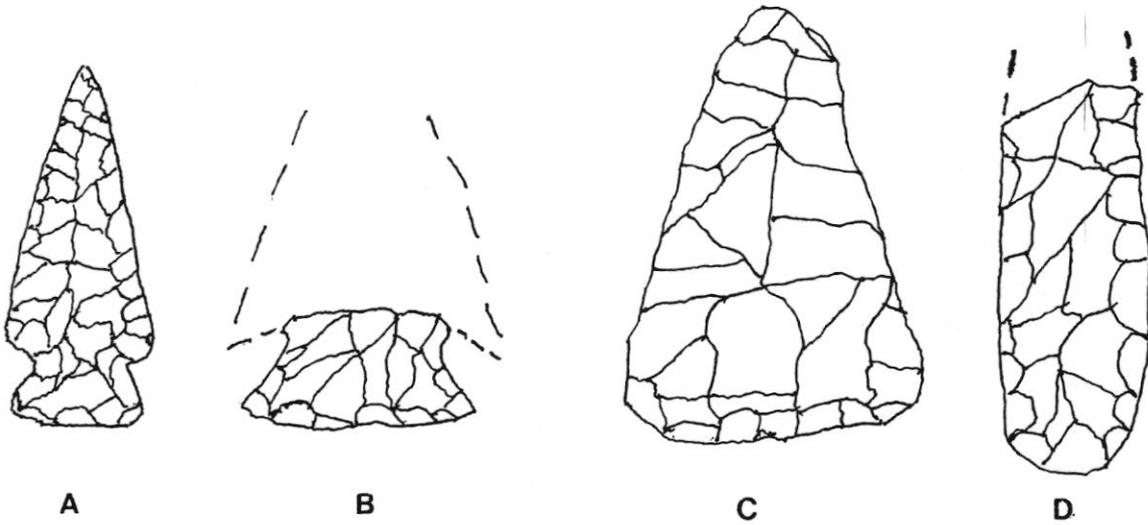
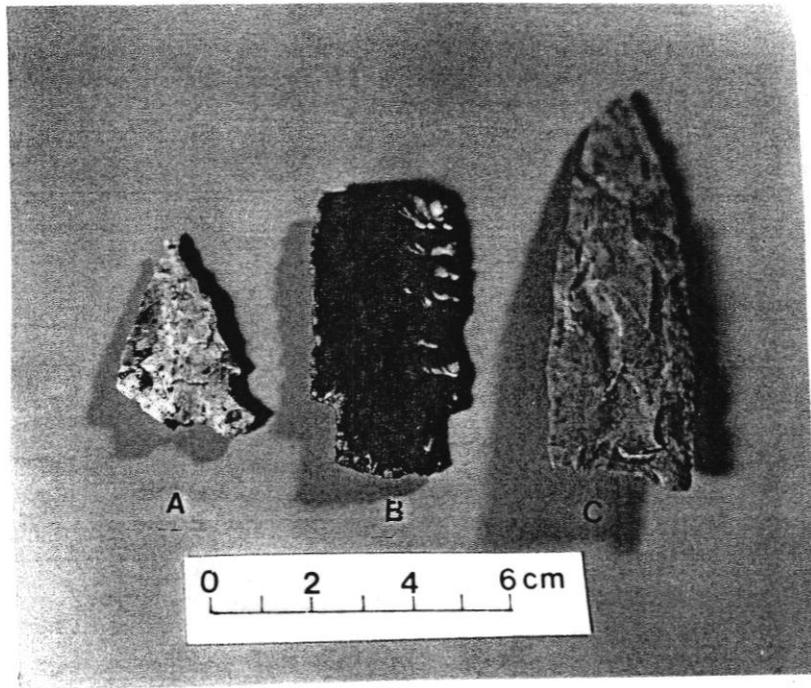
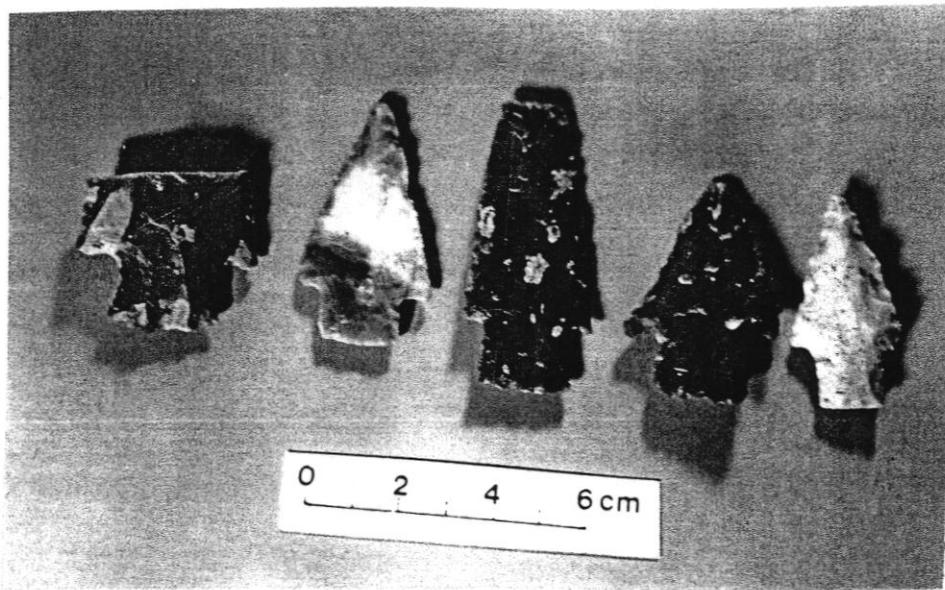


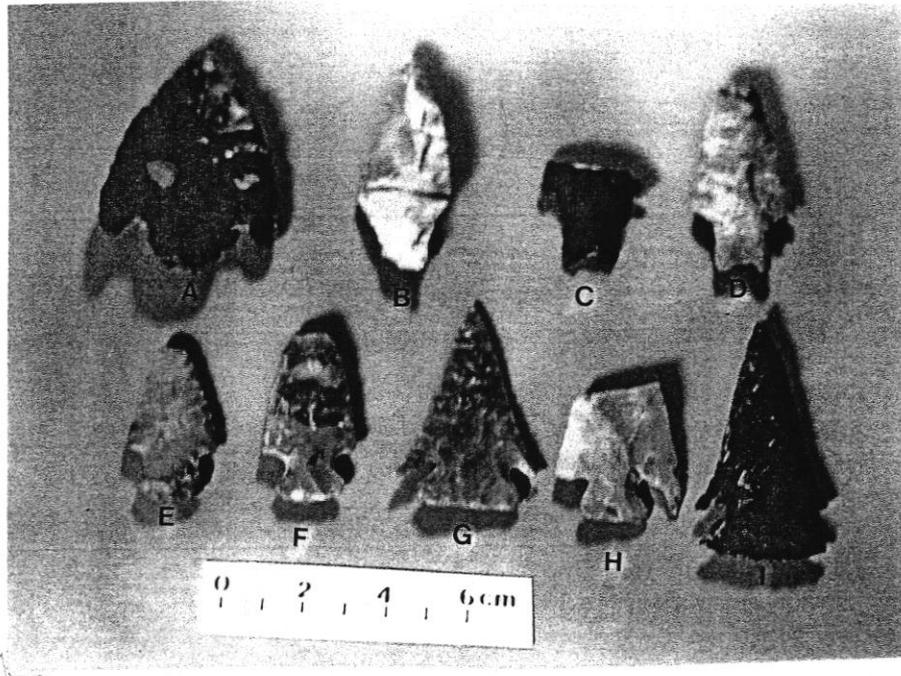
Figure 2: Artifacts from Excavations  
A- Ellis point, B- Marcos point, C- bifacial gouge,  
D- preform



**Figure 3: Paleoindian Points**  
A- San Patrice. B- Scottsbluff, C- Plainview

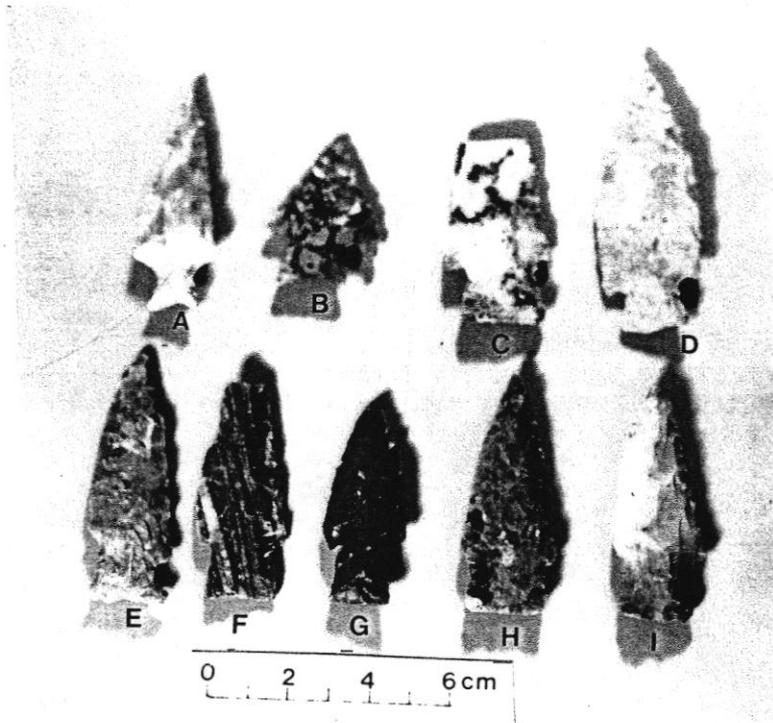


**Figure 4: Bulverde Points**



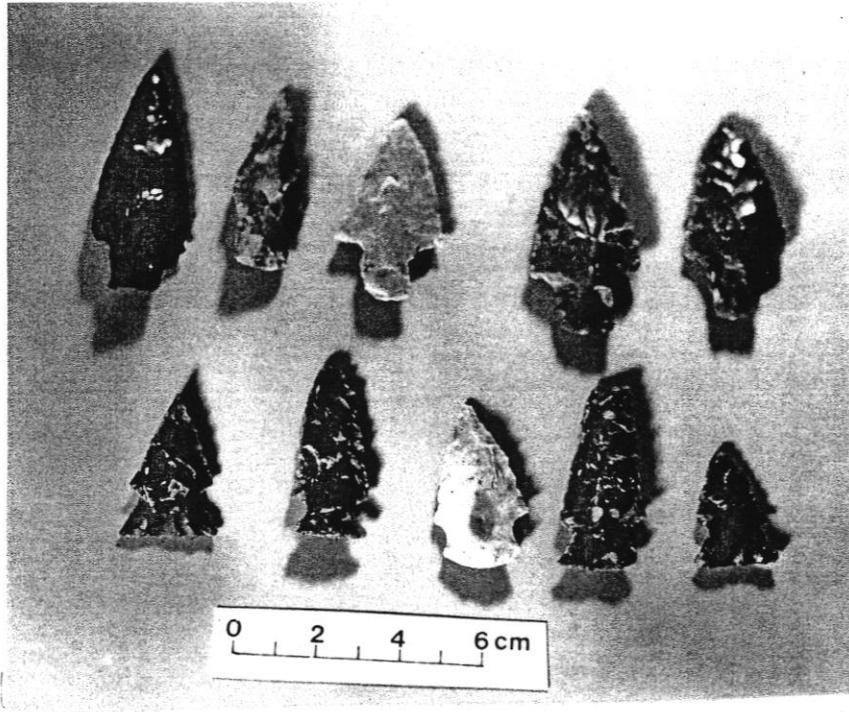
**Figure 5: Dart Points**

A,B- Gary; C,D- Pedernales; E,F- Palmillas;  
G,H,I- Marcos

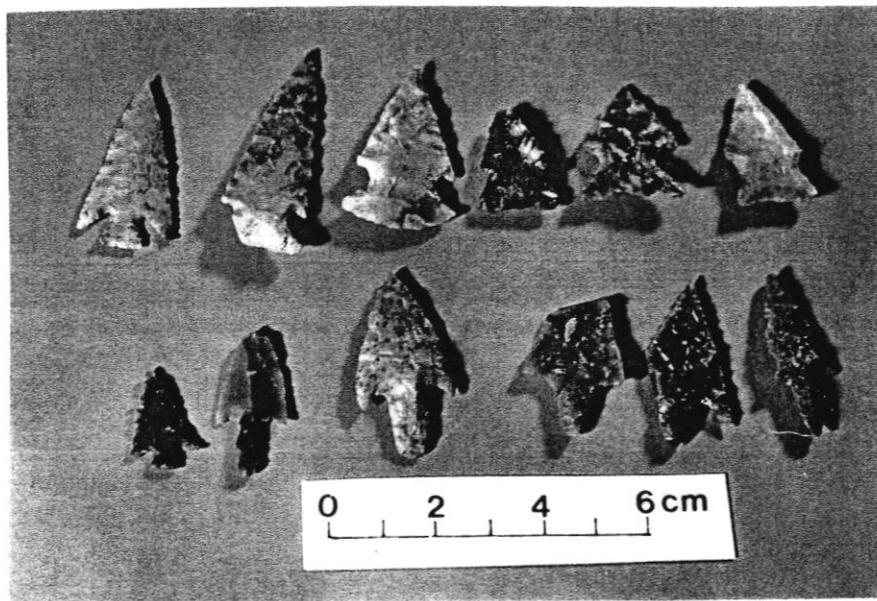


**Figure 6: Additional Dart Points**

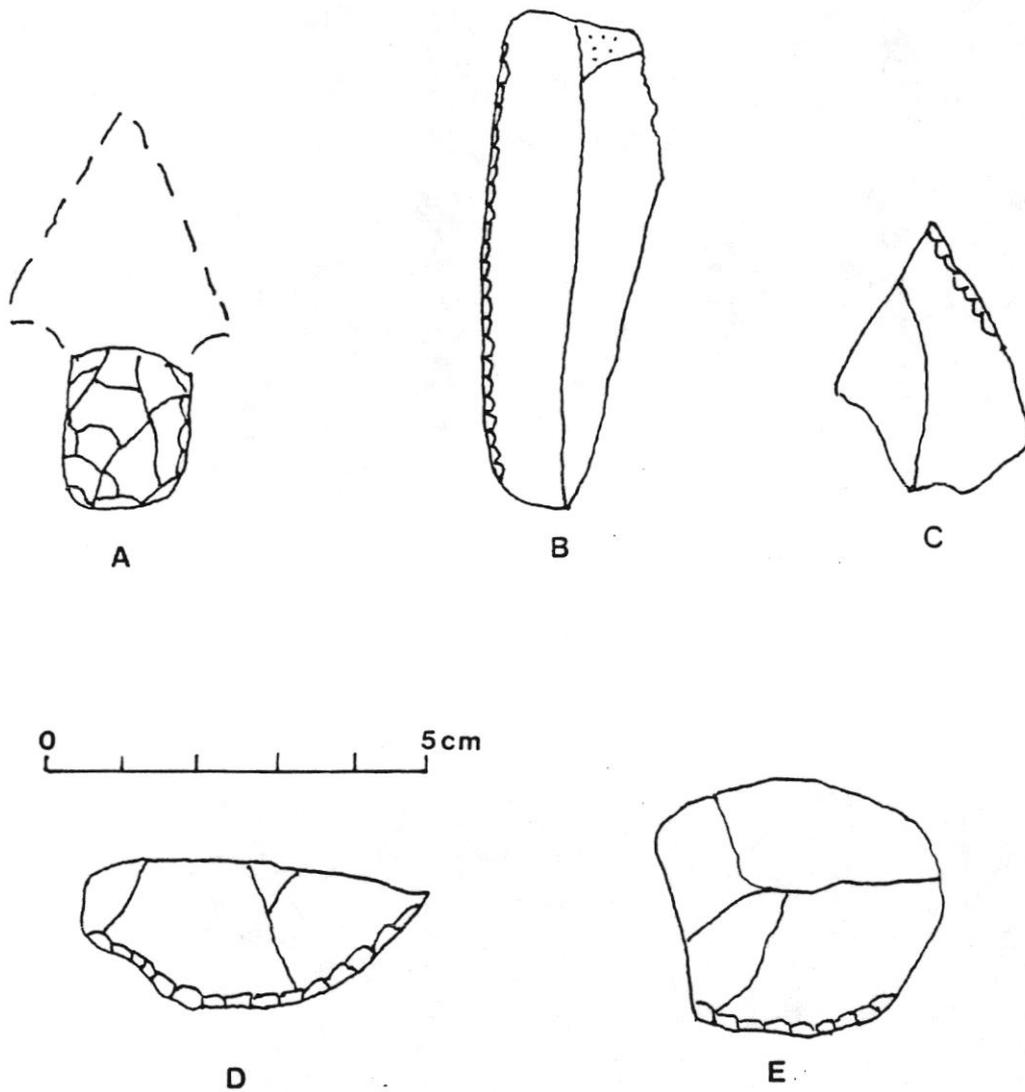
A,B,C- Darl; D,E- Ellis; F,G- Early Stemmed;  
H,I- Morhiss



**Figure 7: More Dart Points**  
top row: Kent, bottom row: Ensor

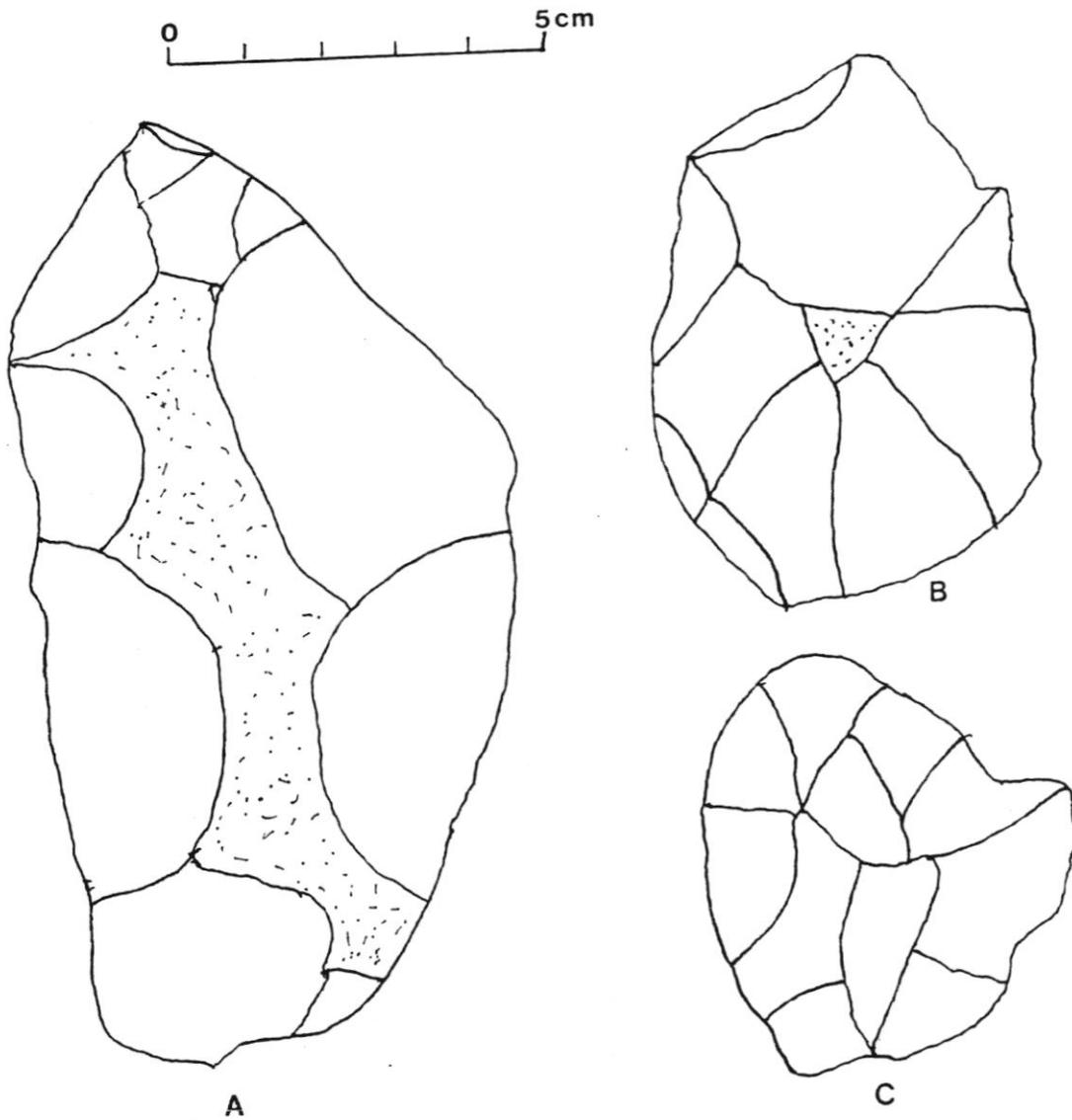


**Figure 8: Arrow Points**  
top row: Scallorn, bottom row: Alba (left), Perdiz



**Figure 9: Lithic Artifacts**

**A- dart point stem; B- prismatic blade, edge wear;  
C- graver; D,E- scrapers**



**Figure 10: Bifacial Chert Cores**  
A- whole cobble; B,C- reduced cobbles