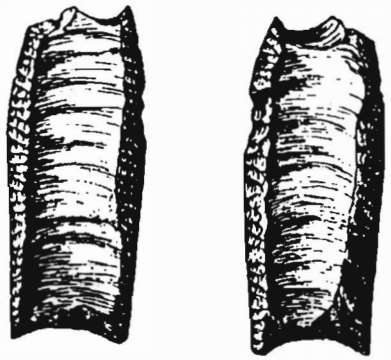
LA TIERRA



JOURNAL OF THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

January 1988

Volume 15, Number 1

LA TIERRA

Quarterly Journal of the Southern Texas Archaeological Association

Volume 15, Number [redacted]
January, 1988

Evelyn Lewis
Editor

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Manuscripts for the Journal should be sent to: Editor, **La Tierra**, Evelyn Lewis, 9219 Lasater, San Antonio, Texas 78250. Copies of past issues of the Journal and Special Publications are available from: Bette Street, 100 Kings Crown E., San Antonio, Texas 78233.

For membership information contact the Membership Chairman: Liz Smith, 1607 West Huisache, San Antonio, Texas 78201.

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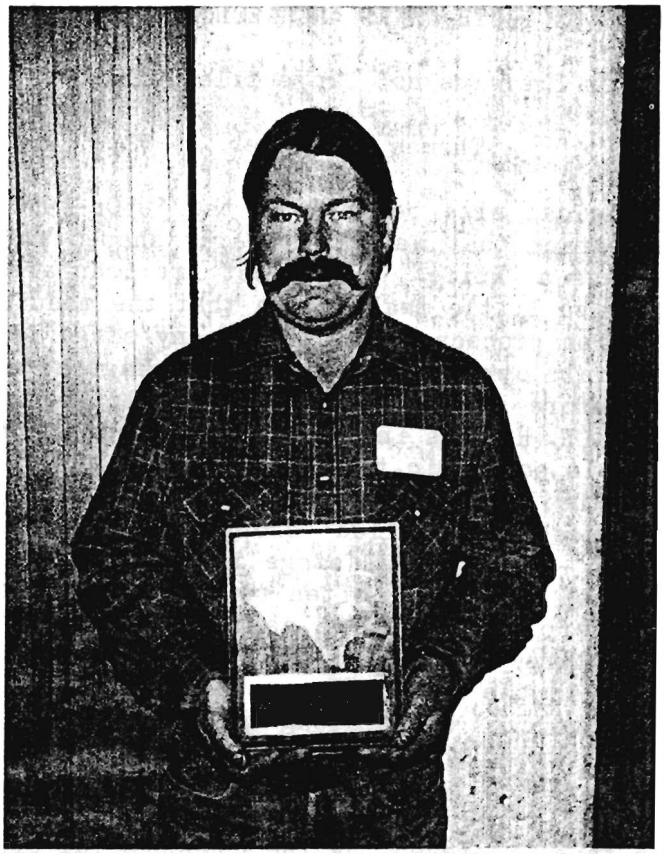
Library of Congress Catalog No. 76-649774.

All articles in **La Tierra** are now summarized in **Abstracts in Anthropology** published by the Baywood Publishing Company.

All contributions to this Non-Profit organization are tax deductible.

THE 1987 ROBERT F. HEIZER MEMORIAL AWARD



H. Ray Smith

In recognigion of his Outstanding Contributions to the archaeology of Southern Texas, the 1987 Robert F. Heizer Award is presented to Mr. H. Ray Smith of Montell and Uvalde, Texas. During this last year, Ray has worked with Joe Labadie of the National Park Service (NPS) on numerous occasions documenting rock art and recording and mapping sites in the Amistad area. There are many new, previously unknown sites, and a high percentage of the known sites in that area that have never been properly documented that need recording, mapping, and photographing. Ray has been one of the most active people in 1987 doing this much-needed task. This work is done under the NPS Volunteer In the Park (VIP) program, and Ray has actively recruited other STAA members to help in that program.

Ray is also commended for his continuing efforts toward preservation archaeology and particularly his time and efforts in the salvage of an eroding prehistoric burial in the bank of Turkey Creek on the Smyth Ranch in Uvalde County, Texas. In this 41 UV 130 salvage activity, he enlisted the help of several other STAA members for several weekends, to excavate the burial and two of the three hearths, to secure whatever archaeological information could be saved before the site was destroyed. He has also examined another recently uncovered burial in a bulldozer cut on the Frio River near the Kincaid Rock-shelter, and work there will entend into 1988. Ray in prior years has served as program chairman for STAA, hosted a quarterly meeting in Uvalde, has made presentations to STAA meetings, and published several reports in the STAA journal. In addition, he actively works with teachers in Uvalde in presenting programs to school children to heighten their awareness of archaeology and cultural resource conservation. He helps wherever he can in pursuit of all the goals of Southern Texas Archaeology.

NOTES ON SOUTH TEXAS ARCHAEOLOGY: 1988-1

On Preforms and Projectile Points

Thomas R. Hester

In Texas archaeological site reports in the 1950s-1960s (or even later), any percussion-flaked biface that was not clearly shaped as a projectile point was usually classified as a "knife." Like most American archaeologists of the period, there seemed to be little realization that the manufacture of a chipped stone point is a reduction process, and that at any stage in the manufacturing process, there were ample opportunities for breakage or abandonment of the lithic specimen well before it was finished. The lithic reduction sequences first illustrated by W. H. Holmes in the 1890s had been forgotten. However, with the renewed emphasis on lithic technology in the 1970s and 1980s, archaeologists began to view their non-projectile point lithics from a more realistic perspective. Crude bifaces once called "choppers" or "cores" could be recognized as "quarry blanks" -- an initial stage in the toolmaking process. Thinner, more carefully shaped bifaces -- often triangular or with rounded bases -- were identified as "preforms," bifaces nearing the final stage of projectile point manufacture. In large lithic assemblages, the archaeologist can often discern several stages in the reduction sequence and can identify blanks or preforms that relate to various steps along the line.

Perhaps most common among the preforms of south-central Texas are triangular to ovate percussion-flaked bifaces that were discarded because they broke during manufacture. Or if they are complete, there are usually "stacks" or protruberances on one face, representing the unsuccessful efforts of the flintknapper to further thin the biface. In practically all cases, the archaeologist can recognize the reason for abandoning the preform, whether breakage, inability to thin, or flaws within the material. The preform is thus a "fossilized" stage along the biface reduction trail and can be very informative when analyzing ancient lithic technologies.

Several archaeologists have recognized at least two types of biface reduction in south-central Texas sites. The first we could characterize as "preform production and reduction." The typical sequence of biface-making is followed, with the finished projectile point being formed by the notching and stem formation on a thinned preform. There are useful comments on this system in the Black and McGraw (1985) report on the Panther Springs site and in Turner and Hester (1985:22-31). A second point-making process seems to have followed a different sequence. This might be called the "let's get the stem right first" approach -- in which the ancient flintknapper took a large flake or very crudely shaped biface stem and carefully chipped the stem at one end before any further shaping of the point was initiated. An example from the La Jita site (41 UV 21) in Uvalde County is illustrated in Hester (1971:Fig. 15 a, b).

Recently, I examined two artifacts from the region that exemplify this latter system of projectile point reduction. In Figure 1, a,b, is an artifact from the Junction area. It appears to be a percussion-shaped biface that was rather roughly formed; before any final reduction was begun, the stem was carefully chipped. The stem attributes suggest that this was destined to be a Bulverde point, but was never finished. A second specimen (Figure 1, c,d,e) comes from 41 KE 92 in Kendall County. It is a large secondary cortex flake, 20 mm thick at the distal end where the bulb of percussion is still preserved, along with a fair amount of cortex on the distal surface. A glance at Figure 1, e, illustrates the rather ungainly nature of this specimen. Here again, no effort was made to thin or shape the distal portion of the specimen until the stem (and in this case, the barbs) were finished. This was likely intended to be a Marshall point. In this system of reduction, it appears that the prehis-

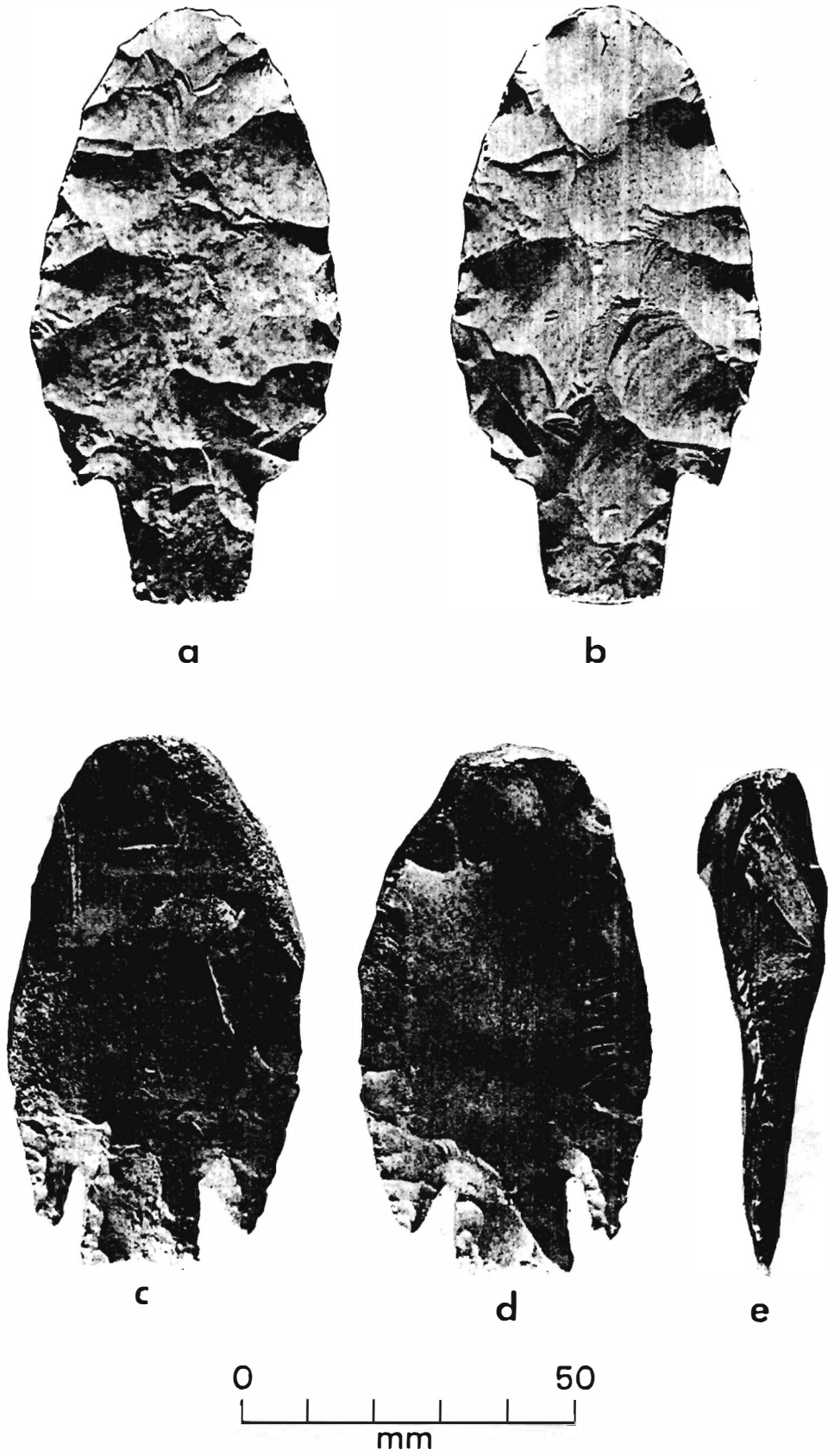


Figure 1. Dart Point Preforms from South Central Texas; a,b, from the Junction area; c,d,e, both faces and a side view of specimen from 41 KE 92.

toric craftsman felt that it was very important that the stem be precisely shaped before proceeding to complete the dart point. Such attention to stem detail surely warms the hearts of latter-day Texas typologists who rely almost entirely on stem attributes for classification purposes.

ACKNOWLEDGMENTS

I am grateful to Cecil Peel for showing me the specimen from Kendall County and to McLean Bowman of San Antonio for the loan of the Junction area specimen for photography.

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A FOLSOM POINT FROM HINDS CAVE, 41 VV 456
VAL VERDE COUNTY, TEXAS

Leland C. Bement and Solveig A. Turpin

Hinds Cave (41 VV 456), a large rockshelter near the Pecos River (see Figure 1) in Val Verde County, is best known for the long Archaic sequence preserved in deep, dry stratified deposits. However, some puzzling indications of a Paleo-Indian component were identified during Texas A&M's multi-season excavation of the site (Shafer and Bryant 1977; Lord 1984). In a private collection of lithic artifacts, primarily projectile points, is an almost complete Folsom point in the lot identified as coming from Hinds Cave. According to the owner, this specimen was recovered in the 1960s, prior to the Texas A & M University (TAMU) project, from deep in the deposits, in a small chamber extending into the back wall of the shelter. This description corresponds to the alcove in Area G of Hinds Cave (Shafer and Bryant 1977:66, 67).

This Folsom point is the first to be securely attributed to a long-inhabited rockshelter in this region. The only other Folsom from buried deposits was recovered from Bone Bed 2 in Bonfire Shelter (Dibble and Lorrain 1968), a stratum containing the skeletal remains of butchered bison and horse. Surface Folsom finds near Del Rio were mentioned by Greer (1968:184), and an isolated specimen was found in a pasture near Langtry (Skiles, personal communication).

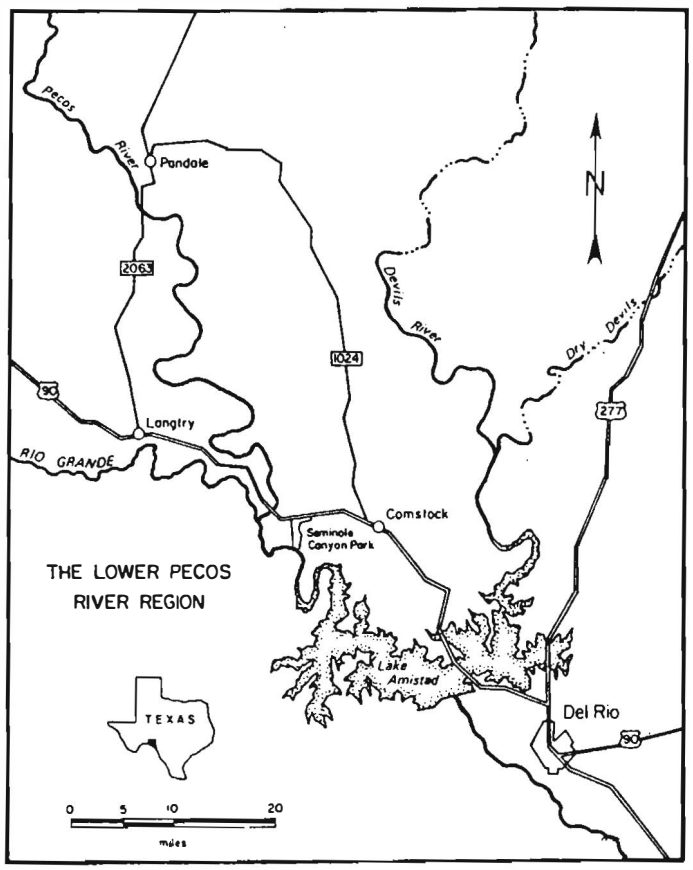

Figure 1. Lower Pecos Area of Texas. Insert shows location of area in the state.

The Hinds Folsom point is 4.6 cm long, 1.9 cm wide and .3 cm thick (Figure 2). The specimen is complete except for the tip, which was removed by an impact fracture. Broad channel flutes extend the entire length of the specimen on both surfaces. The fluting platform was obliterated by final refinement of the point. Edges on one surface exhibit the minute pressure flaking characteristic of the tool type. The edges are ground from the base to the recurve of the tip. A uniform white patina obscures the naturally translucent tan chert from which the point was formed.

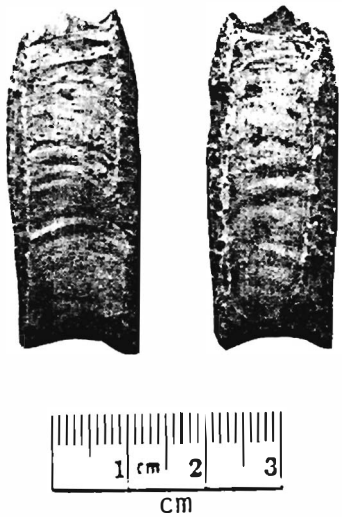

Figure 2. Folsom Point found in Hinds Cave (41 VV 456).

Although the context of the Hinds Folsom point can only be reconstructed from memory, the material evidence from Area G, the alcove, is in agreement with the collector's description. In Area G, TAMU excavated four units totaling 4.4 square meters in 20-cm increments to a depth of 80 cm (Shafer and Bryant 1977:66). The original surface was impossible to determine because relic hunters had stripped the upper fiber layer from this area. Dart point styles--Langtry, Val Verde, Pandale, Bandy and Golondrina--span the Early and Middle Archaic periods. Faunal remains included two bones--the distal and medial section of a metacarpal and an innominate--of the Late Pleistocene age horse (**Equus** sp.) (Lord 1984:10).

> The metacarpal was found near the wall of the alcove of Area G; gypsum crystals had formed on the bone. Prior to the formation of the crystals, the bone had been buried. (Lord 1984:107)

Horse remains from other areas of the site came from deposits radiocarbon dated to 6330±80 B.C. (TX-2314) in Area D, Analysis Unit 7, and possibly from Unit 8, which yielded a radiocarbon age of 7170±90 (TX-2866) (Lord 1984:34, 107, 124). Due to the lack of demonstrably Paleo-Indian artifacts, the **Equus** material was attributed to large carnivore activity predating the human occupation of the site. The addition of this Folsom point to the site inventory now places humans in the site at a time roughly contemporaneous with demonstrated exploitation of the Pleistocene horse (Lundelius 1984; Bement 1986). The intrasite evidence of **Equus** bone burning and patterned breakage (Lord 1984:247) is similar to that noted at Cueva Quebrada (Lundelius 1984) and Bonfire Shelter (Bement 1986) and suggests that Paleo-Indian hunters may be responsible for the lowest cultural levels in Hinds Cave.

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INTERIM REPORT ON THE FOX DRAW SITE (41 GL 175): AN ARCHAIC MIDDEN SITE IN GILLESPIE COUNTY, TEXAS

R. K. Saunders

ABSTRACT

This report describes the continuing excavation of a shallow midden site in Gillespie County, Texas. The second excavation of the series was carried out in May, 1986. The initial report of Phase I results can be found in Saunders (1986). Results from this second phase continue to indicate that the site was used by intermittent groups of hunter/gatherers over almost all of the Archaic period, and that toolmaking and repair was a major activity. The presence of large, thin bifaces which are believed, by professionals, to be "trade blanks" indicates that some of the occupants utilized the abundance of good chert, which was readily available. A large quarry site has been located near 41 GL 175. Artifacts which may belong to the Paleo-Indian period have been recovered, but since the morphology of the period is somewhat equivocal, the question of Paleo-Indian occupation is still to be resolved.

INTRODUCTION

A description of the site and the excavation procedure can be found in Saunders (1986). The site is located on a tributary of Threadgill Creek drainage in Gillespie County, Texas (See Figure 1). The site is being excavated in a series of digs lasting approximately ten days each. This is being done because the author is the only excavator, and unfortunately there are other demands on his time. Each dig has been given a sequential phase number, and the following is a list of the phases which have been completed, and the dates accomplished:

Phase 1	September 17 to September 28, 1985
Phase 2	May 20 to May 29, 1986
Phase 3	September 11 to September 22, 1986
Phase 4	April 15 to April 25, 1987
Phase 5	September 21 to October 1, 1987

An effort was made to condense the information obtained in Phases 2, 3, and 4 into a single interim report, but the large number of artifacts found in the three phases could not be described or illustrated adequately without exceeding the format constraints of **La Tierra**. Therefore the results obtained

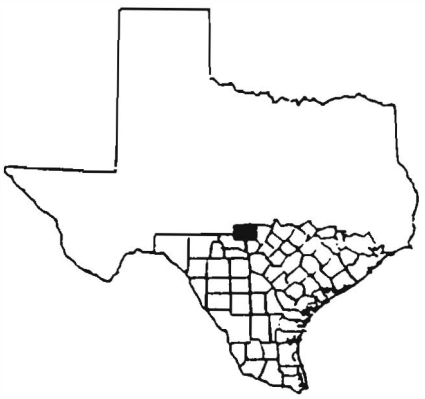


Figure 1. Map of Texas showing Gillespie County (darkened area).

for each phase will be summarized individually with an attempt to maintain continuity. Since a prime objective of this report is to record information which may be of assistance in delineating the life-style of Early Man, it seems compulsory that as much data as possible be presented.

As the work progressed, some changes in excavation procedure were made to facilitate changing objectives, and the learning process obtained from experience. The changes will be noted in the report as they occurred.

Hopefully, in the future, it will be possible to group some phases in a report by eliminating as much redundancy as possible.

PROCEDURE

As in Phase I, the areas to be excavated were laid out in one-meter-square units after establishing a datum point exactly 20 meters south of the initial baseline. All directions are based on a Project North assignment to the meridian line. Figure 2 shows unit locations and labeling for Phase 2 in relation to Phase 1.

Every unit was excavated using 10-cm levels and each level was screened using a one-quarter-inch mesh screen. Artifact provenience was recorded on a 10-cm grid. Black and white, as well as color, pictures were made of most of the artifacts **in situ**. A centimeter scale and compass were included in most of the pictures.

In Phase I the effort to save all of the very small chert thinning flakes from all levels in a unit was discontinued. Due to the very large number of flakes present, it was thought counterproductive to continue beyond three units. However, in order to check the initial results, it was proposed that additional data be obtained. As a consequence, all the flakes in Unit A-XVIII were counted, but in all the other units excavated only flakes the size of a dime or larger were saved and counted.

The snails were also counted in Unit A-XVIII, but in none of the other units.

Soil samples were not taken in Phase 2 because samples are available from Phase 1.

The original method of unit identification, which has been used in all the excavations to date, has been found to be somewhat confusing. So an attempt has been made to install a method which conforms more closely to the standard technique. The cross-reference can be found in Table 1. It contains designations of units excavated up to, but not including, Phase 5. Starting with Phase 5, use of the original designations will be discontinued. The more standard ones will be used thereafter.

THE ARTIFACTS

The artifacts found in Phase 2 have been separated into unit groups for the purpose of discussion and illustration. In each case only those believed to be unique, and complete enough to represent the original artifact, have been rendered.

In all, 66 artifacts showing evidence of man-made modification were found during Phase 2. Approximately half of these have been illustrated and described.

Unit A-XVIII; N18/E0. Figure 3

A. Fractured proximal end of a large biface made of dark brown chert. Found at a depth of 25 cm.

B. A classic Early Triangular point made of light beige translucent flint. Found at a depth of 30 cm. Period: Early Archaic, ca. 3700-3600 B.C.

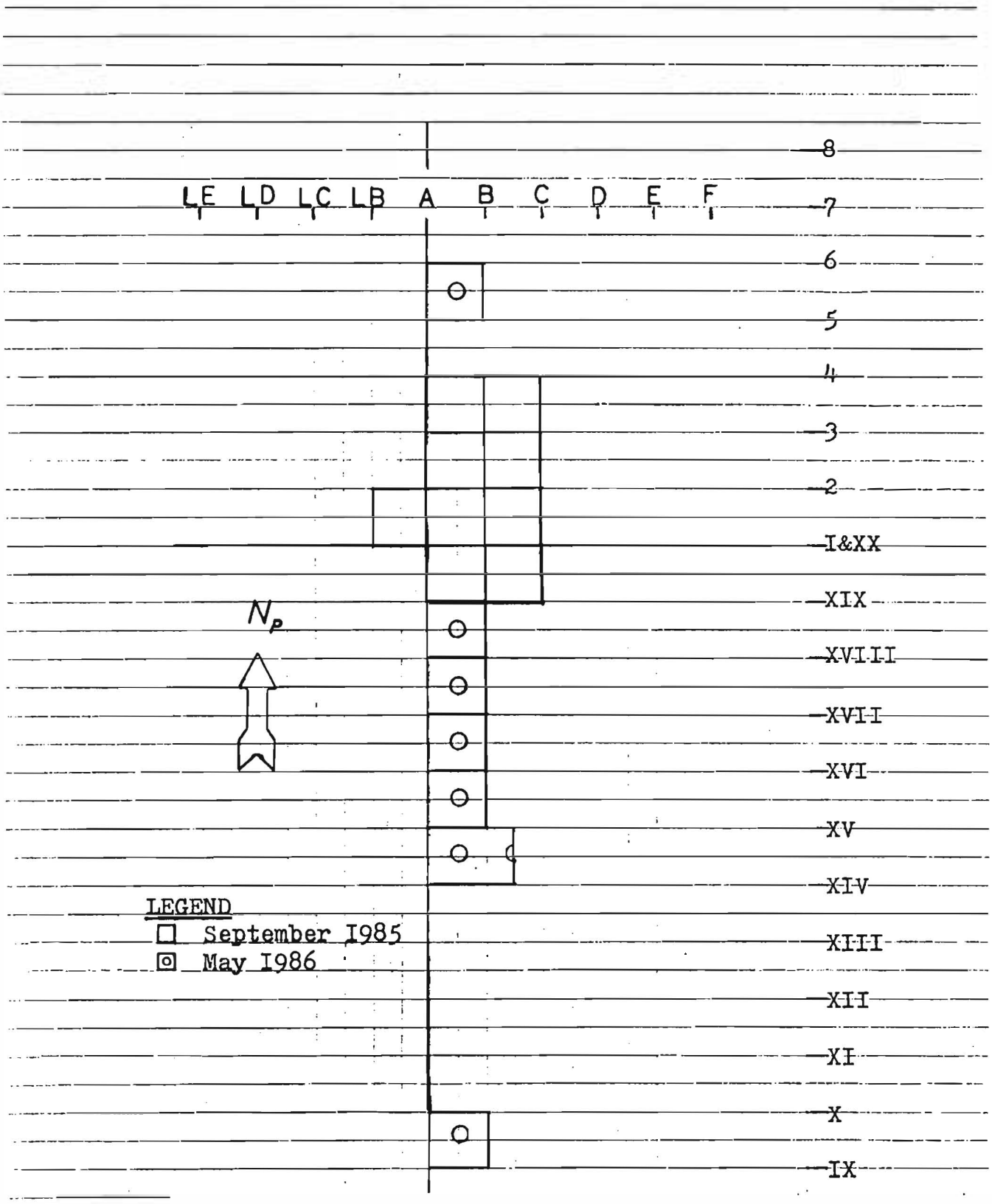


Figure 2. Site 41 GL 175 Excavation Sequence. Phases 1 and 2.

Table 1. Unit Designation Conversion Table

Original	Standard
A-5	N24/E0
A-4	N23/E0
A-3	N22/E0
A-2	N21/E0
A-1 & A-XX	N20/E0
A-XIX	N19/E0
A-XVIII	N18/E0
A-XVII	N17/E0
A-XVI	N16/E0
A-XV	N15/E0
A-XIV	N14/E0
A-IX	N 9/E0
B-3	N22/E1
B-2	N21/E1
B-1	N20/E1
B-XIX	N19/E1
B-XIV (1/2)	N14/E1/2
C-2	N21/E2
C-1	N20/E2
C-XIX	N19/E2
D-2	N21/E3
D-1	N20/E3
D-XIX	N19/E3
E-2	N21/E4
E-1	N20/E4
E-XIX	N19/E4
K-1	N20/E10

Intersection of Meridian and original Base Line.
Twenty meters from Datum.

Original	Standard
LB-1	N20/W1
LB-2	N21/W1
LC-1	N20/W2
LC-2	N21/W2
LD-2	N21/W3
LD-3	N22/W3
LD-4	N23/W3
LD-8	N27/W3
E-3	N22/W4

Note:
All designations are from the southwest corner of the unit

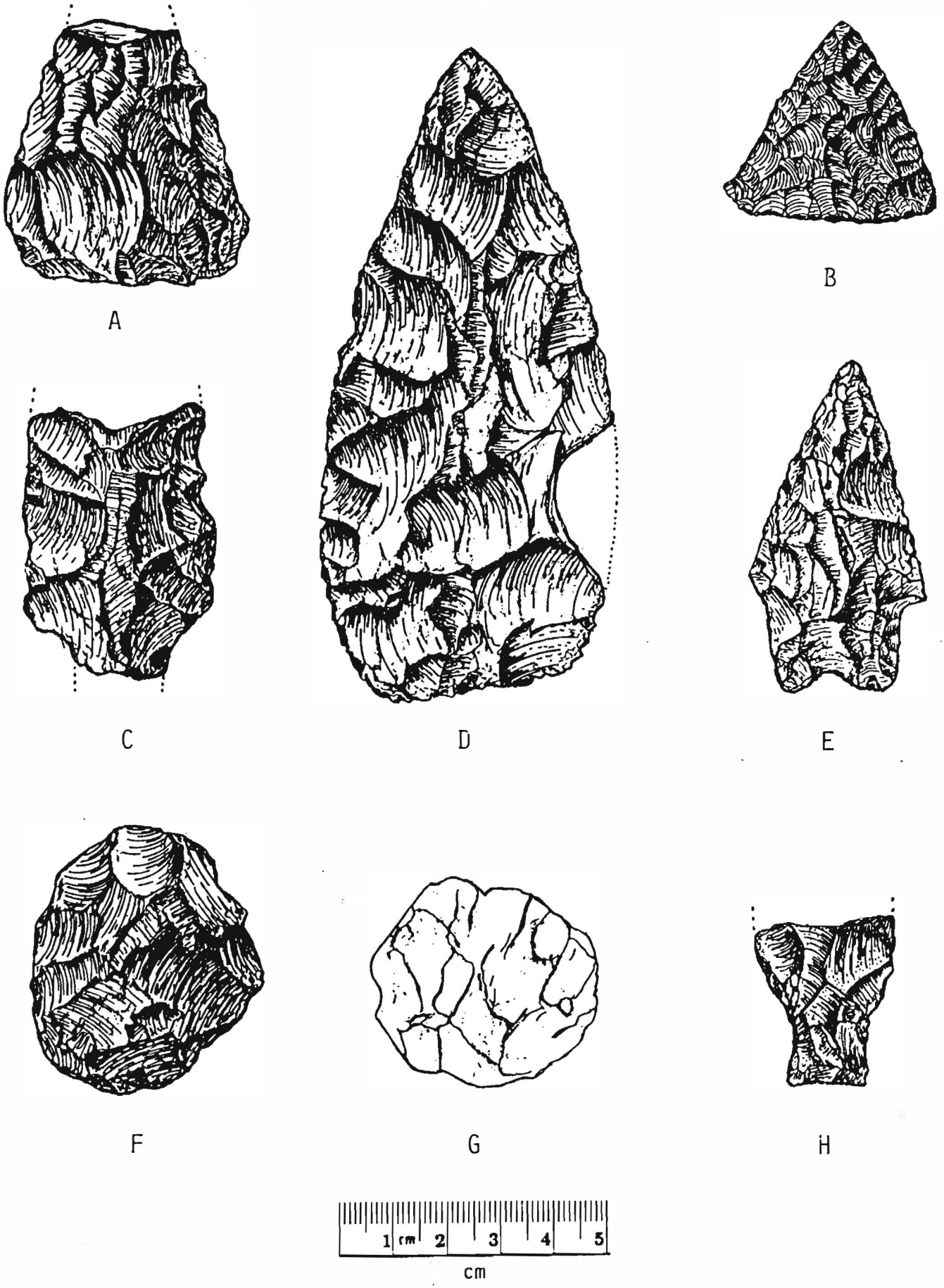


Figure 3. Artifacts from Unit A-XVIII. See text for description.

C. Fractured proximal end of a large point with a portion of the stem intact. Found at a depth of 7cm.
D. Large biface, possibly a "trade blank," made of dark brown flint with chert inclusions. Found at a depth of 44 cm. Width/Thickness ratio (W/T): 5.0/1.
E. A Pedernales point made of light brown flint with chert inclusions. Found at a depth of 29 cm. Period: Middle Archaic, ca. 2000-1200 B.C.
F. Fractured biface made of dark gray chert and found at 10 cm.
G. A crystal clear quartz preform. Probably an unsuccessful attempt to utilize this type of lithic material. Found in the 30-40 cm level but depth not recorded.
H. Proximal end of point with the stem intact. Made of two-tone gray chert. It appears to be part of a Travis point. Found on the screen. Period: Middle Archaic, ca. 2650-2050 B.C.

All the time periods shown are from Turner and Hester (1985).

Unit A-XVII; N17/E0. Figure 4.

A. Proximal end of a biface, possibly used as a knife. Made of a good quality dark brown flint. Found at 34 cm.
B. Proximal end of a Langtry point made of dark brown flint with gray chert inclusions. Found at 36 cm. Period: Middle Archaic, ca. 2500-1000 B.C.
C. A large chopper or preform made of light tan chert. Both sides contain cortex but the edges were worked all around on both sides. Found at 45 cm.
D. Distal end of a fine point made of grayish chert. Found at 38 cm.
E. Fractured biface made of good quality flint, possibly a knife. Found at 34 cm.
F. Proximal end of a very thin biface made of brown chert. All edges thinned, giving a sharp edge. Probably part of a knife. Found at 39 cm. W/T is 5.6/1.
G. Proximal end of a point made of light brown flint with gray chert inclusions. Found at 28 cm. It has characteristics which can be found in the following point types: Castroville, ca. 800-400 B.C.; Marcos, ca. 600 B.C.-200 A.D.; Marshall, ca. 1000 B.C.

Unit A-XVI; N16/E0. Figure 5.

A. A large biface made of brown and gray chert. Found at 33 cm. It could be a "trade blank" or a large unclassified biface similar to the Hare biface as described by Turner and Hester (1985). W/T is 3.0/1.
B. A long slender biface of light brown and tan chert found at 36 cm. Similar to points C and D in Figure 9 of the T. C. Kelly report on the Gamenthaler Valley (Kelly 1987). However, there is no evidence of basal edge grinding on this point. This may mean that it simply was never finished for use if, indeed, it is Paleo-Indian.

Unit A-XV; N15/E0. Figure 6

A. A point made of good quality gray chert. Found at 35 cm. Possibly a variety of Travis. Period: Middle Archaic, ca. 2650-2050 B.C.
B. A Pedernales point made of light brown flint. Found at 32 cm. One barb is missing but otherwise it is a fine specimen. Period: Middle Archaic, ca. 2000-1200 B.C.

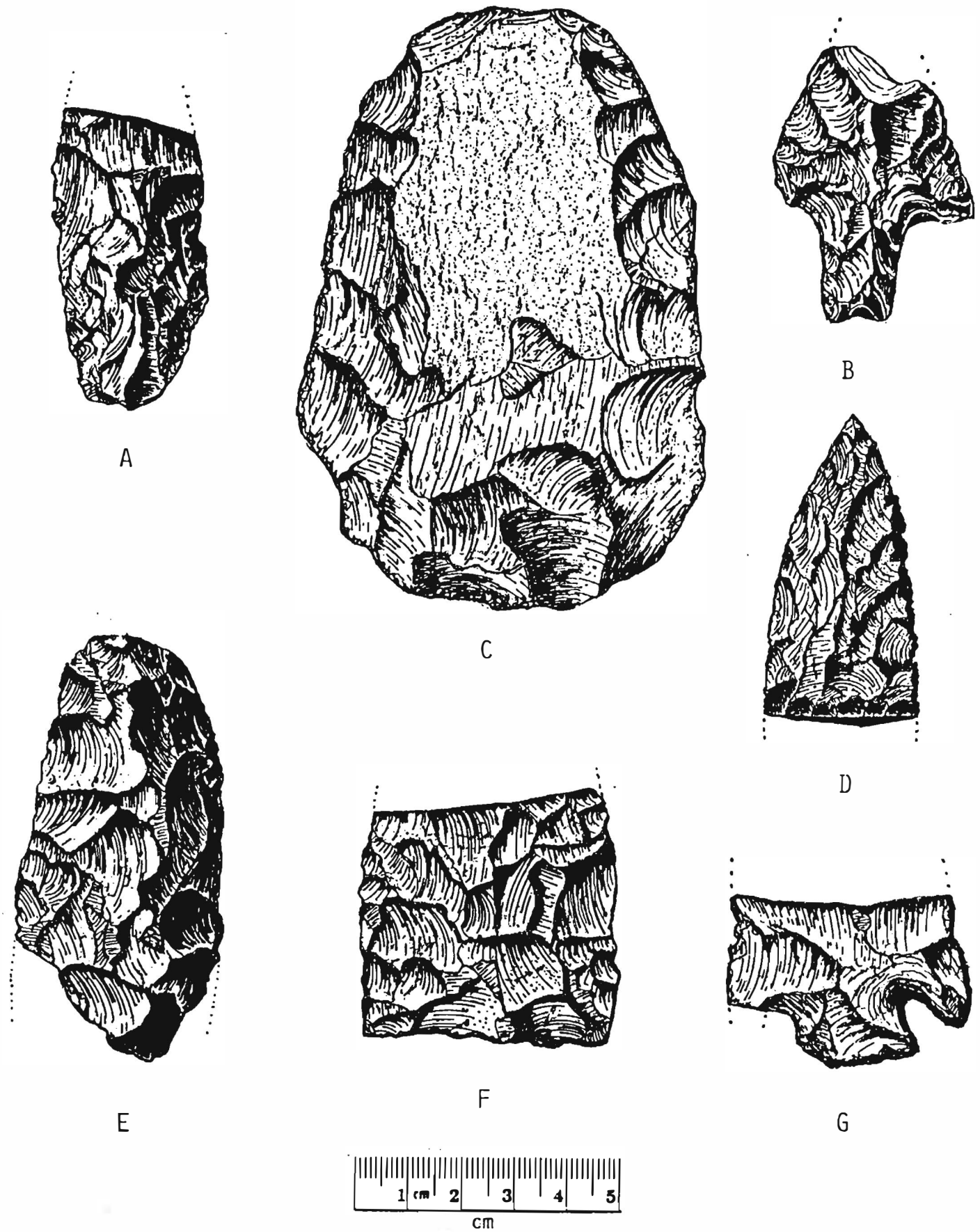


Figure 4. Artifacts from Unit A-XVII. See text for description.

A

B

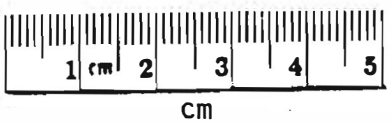
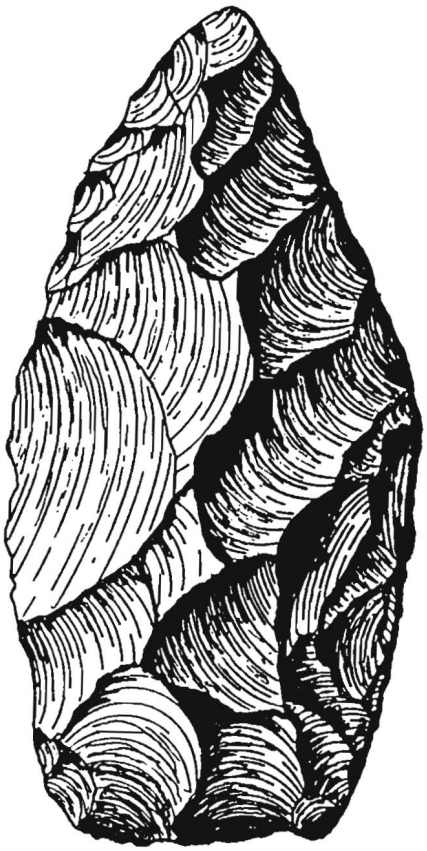


Figure 5. Artifacts from Unit A-XVI. See text for description.

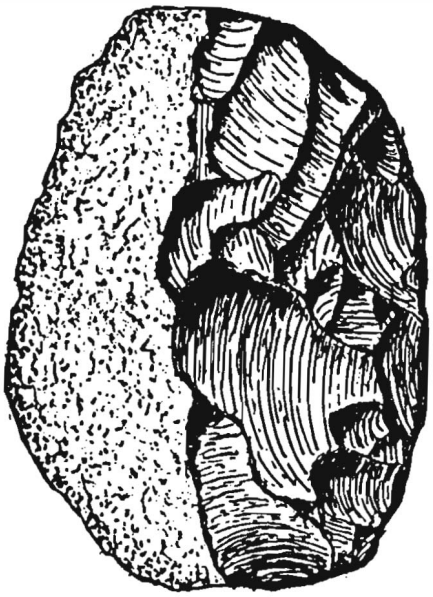
A

B

C

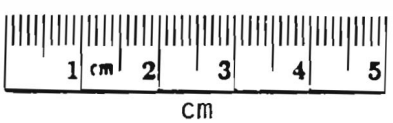


D



E

F



cm

Figure 6. Artifacts from Unit A-XV. See text for description.

C. This artifact is believed to be a Montell point although half the stem is missing. The remaining portion of the stem has the proper rectangular shape and angle of attachment seen in the bifurcated stems of whole points. It is made of brown flint with gray inclusions. Found at 19 cm. Period: Late to Transitional Archaic, ca. 1000 B.C.-A.D. 200.

D. This large biface is made of dark gray chert which appears to contain crushed marine shell inclusions. Dr. Thomas Hester suggests that this type of biface is a "trade blank" which can be used by the eventual owner to make a variety of tools, including projectile points. Found at 34-36 cm. Possible age: Middle Archaic. W/T is 3.5/1.

E. This artifact is a large decorticating flake which has been monofacially flaked on the cortex side to produce a sharp-edged scraper. No flaking was apparent on the ventral side of the artifact. Found during clean-up of material from the 30-40 cm level.

F. Same as D above except that it was made of light brown chert. W/T is 3.3/1.

Units A-XIV and B-XIV; N14/E0 and N14/E1. Figure 7.

A. The proximal end of a Bulverde point made from dark gray chert with small white spots. The stem is thin, finely chipped and is wedge-shaped in cross-section. Found at 40 cm. Period: Early Archaic, ca. 3000-2500 B.C.

B. The proximal end of a large biface made of high quality brown flint. Very good workmanship. Found at 15 cm.

C. A biface made of grayish tan chert with only the tip missing. It may have been a spear point or a knife. Found at 35 cm.

D. Fine distal end of a point made of black chert with dark gray inclusions. Found in the 30-40 cm level, but the depth was not recorded.

E. Distal end of a large "trade blank" biface made from the same chert as D above. Found in the 30-40 cm level.

F. Same as D above.

G. A biface made of dark brown chert having a slightly concave base. Similar to a San Gabriel biface, but may be somewhat older since it was in the same level with the Bulverde point.

NOTE: Only the southwest and northwest quadrants of N14/E1 were excavated.

Unit A-IX; N9/E0. Figure 8.

A. Proximal end of a large biface made of dark gray chert with marine shell (?) inclusions. Very thin. W/T is 7.4.

B. Distal end of a large biface made of light gray chert. Very thin. W/T is 6.7.

Unit A-5; N24/E0. Figure 8.

C. Distal end of a biface made from dark brown flint. It is well made with fine pressure flaking on the side not illustrated. It may have been a bifacially chipped knife as it seems too well made to be a preform.

D. Distal end of a point made of fine honey-colored chert. Found at 13 cm.

E. Proximal end of a biface of medium size, i.e., smaller than a "trade blank" but larger than most dart points. Made of translucent brown flint. Found at 22 cm.

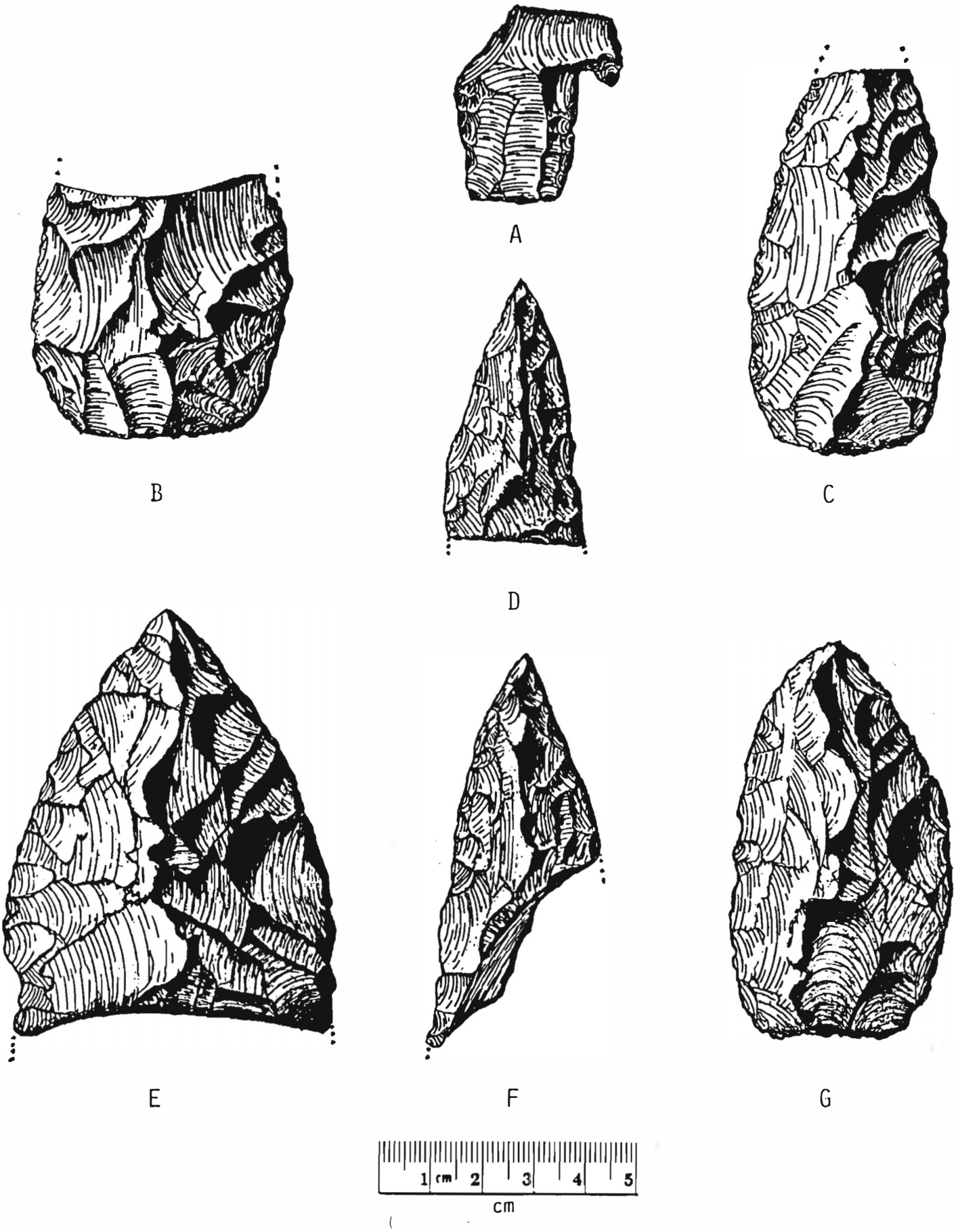


Figure 7. Artifacts from Unit A-XIV. See text for description.

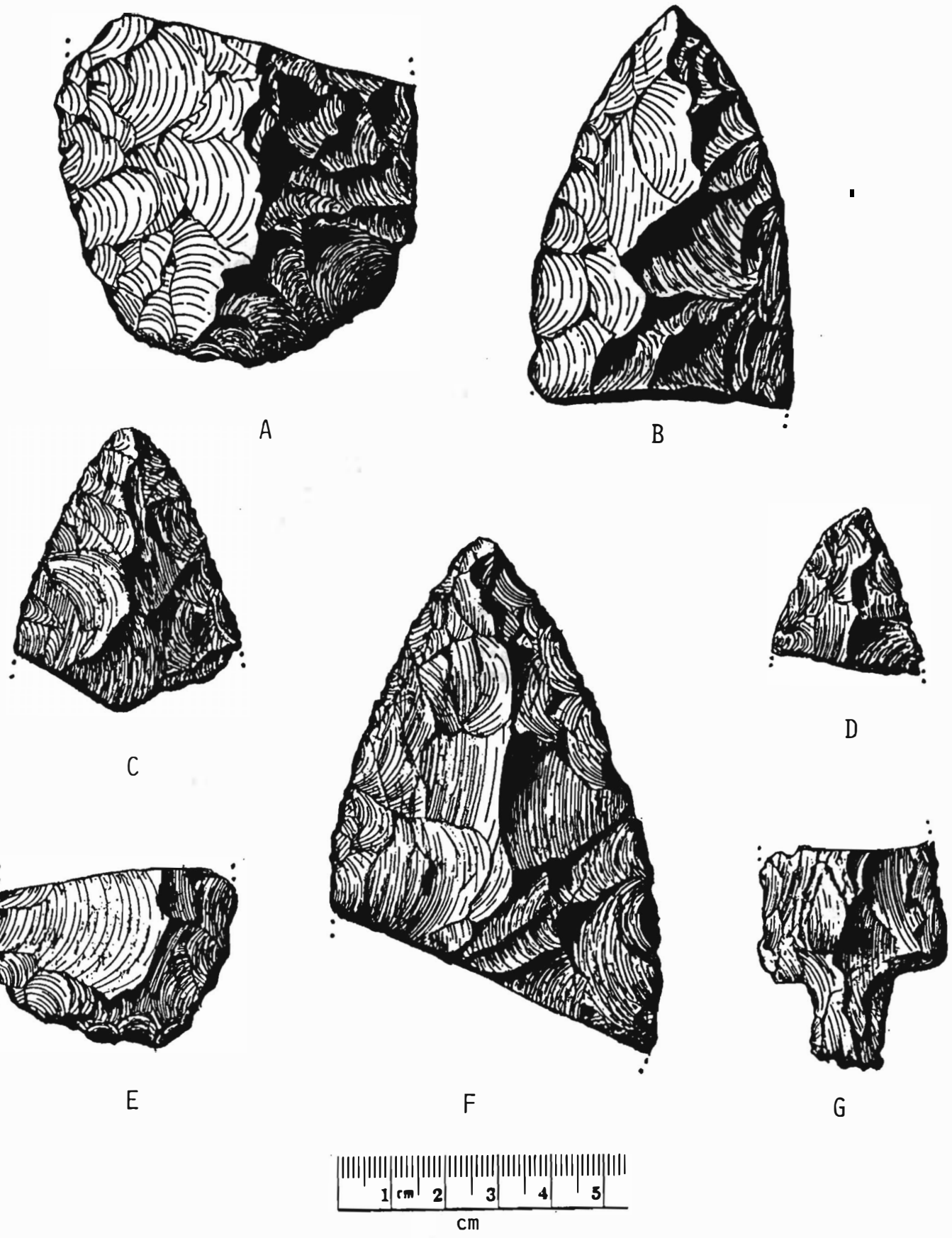


Figure 8. Artifacts from Unit A-IX (A, B) and Unit A-5 (C, D, E, F, G). See text for description.

F. Distal end of a "trade blank" made of dark brown chert. It is about 6 cm wide and is believed to have been about 11.5 cm long when whole. Found at 25 cm. W/T is 6.3/1.

G. Proximal end of a stemmed point made of brown flint with gray chert inclusions. It is believed to be a variety of Langtry. Period: Middle Archaic, ca. 2500-1000 B.C. Found at 14 cm.

Lithic Debitage and Flake Recovery, Unit A-XVIII; N18/E0.

The lithic debitage from Phase 2 was studied intensively in search of some evidence concerning possible changes in lithic reduction methods. As noted in the previous report, the Fox Draw site must have been a campsite for toolmaking and repair. The large number of all types of thinning flakes and debitage indicates this possibility. A certain amount of chert debitage was saved from each unit in Phase 2, but only in Unit A-XVIII was there a strong effort to save all of the debitage in each level. This was due to the very large number of Size 1 flakes found. Size 1 flakes (an arbitrary class) are about 15 mm in diameter and average less than 0.5 grams each. There were over 2,000 Size 1 flakes in Unit A-XVIII. As in Phase 1, this recovery was so time consuming as to be counterproductive and so was modified for all the other units. See the Phase 1 data for the arbitrary definition of flake sizes.

Table 2 is a summary of the number of flakes and pieces found in each level of Unit A-XVIII and the weight of the chert before washing. This data seems to indicate that the height of activity (intensity of effort or population density) occurred during the period when the 30-40 cm soil layer was deposited. In this level the number of pieces found rises to a peak from the lowest, most ancient, level and falls off again as the present surface is approached. Unfortunately, the absence of charcoal in all of the units excavated to date makes it unlikely that the peak time period can be established. However, about 10 grams of bone was recovered from the 30-40 cm level which may, at some future date, be helpful in making a date estimate.

Table 2. Chert Debitage from Unit A-XVIII. Phase 2, before wash.

Level	Number of Flakes & Pieces Found	Average Weight (ounces)
0-10	261	61.8
10-20	448	28.6
20-30	813	59.6
30-40	1,023	142.0
40-50	256	19.3
50-80	125	8.4
Total	2,926	319.7

Table 3 summarizes the size distribution for all of the lithic debitage recovered from 0 to 80 cm in Unit A-XVIII.

Table 3. Size Distribution of Lithic Debitage, Unit A-XVIII. Phase 2.

Size	Number of Flakes & Pieces Found	Average Weight (grams)
0	Unknown, through screen	-
1	2,135	0.414
2	485	1.93
3	207	6.31
4	72	24.7
5	27	171.

As in Phase 1, it was assumed that anything smaller than 10 mm passed through the 1/4-inch screen used. The total weight of chert debitage recovered from Unit A-XVIII was 320 ounces or 20 pounds.

Table 4 is a summary of both the stratigraphic and size distributions for the lithic debitage from Unit A-XVIII. Also shown are the average flake and piece weights which were found to be amazingly uniform for the smaller sizes. The sizing was done by visual comparison to a standard diameter circle.

Table 4. Stratigraphic and Size Distribution of Lithic Debitage, Unit A-XVIII, Phase 2.

Number of Flakes & Pieces Found

Level	Size 1	Size 2	Size 3	Size 4	Size 5
0-10	193	39	18	8	3
10-20	315	93	32	6	2
20-30	622	126	50	10	5
30-40	752	145	70	40	16
40-50	170	53	26	6	1
50-80	83	29	11	2	0
Total	2,135	485	207	72	27

Average Flake & Piece Weight (grams)

Level	Size 1	Size 2	Size 3	Size 4	Size 5
0-10	0.37	1.96	6.30	23.4	435.
10-20	0.40	1.83	6.43	23.7	83.7
20-30	0.42	1.94	5.68	25.0	130.
30-40	0.414	1.86	5.68	23.1	133.
40-50	0.47	2.01	6.55	18.9	76.6
50-80	0.41	1.96	7.22	34.1	-
Average	0.414	1.93	6.31	24.7	171.

Horizontal and Stratigraphic Distribution of Chert Debitage.

The horizontal and stratigraphic distribution of chert debitage is being monitored in each phase as a means of locating the center and intensity of lithic reduction activities for the numerous periods of occupation. As noted above, Size 1 flakes were saved only in Unit A-XVIII. Although they were very numerous, their combined weight was light and their omission in the other units only has a marginal affect on distributions. This factor probably did not affect the total recovery by more than ten percent.

Table 5 is a summary of the weight of lithic material found in each level of each unit excavated. The material was water washed before weighing to remove a small amount of soil. The washing was also helpful in the discovery of a number of artifact fragments which had been overlooked because ofthe dirt clinging to them. The total weight in each unit is shown as is the total recovery from all the units, bringing it to 1,306 ounces, or 81.6 pounds.

Table 5. Weight of Chert Debitage from All Units in Phase 2. After Wash. (In ounces)

Depth (cm)	Unit						
	A-IX	A-XIV	A-XV	A-XVI	A-XVII	A-XVIII	A-5
0-10	7.5	15.	14.	41.5	10.	61.	54.
10-20	5.	9.5	9.5	33.	20.	28.	42.
20-30	12.5	15.	26.	26.	16.5	60.	67.
30-40	35.	156.	76.5	84.	86.5	135.	20.
40-50	-	-	-	48.	65.	18.5	-
50-80	-	-	-	-	-	8.	-
Total	60.0	195.5	126.5	232.5	198.0	310.5	183.0

Total weight all units, Phase 2 = 1,306 ounces or 81.6 lbs.

SNAILS

The following table summarizes the number of the three varieties recovered from Unit A-XVIII, Phase 2, May, 1986.

Depth (cm)	Rabdotus	Polygyra	Helicina
0-10	1	0	6
10-20	1	0	3
20-30	0	4	21
30-40	3	7	127
40-50	1	1	23
50-80	1	0	9
Total	7	12	189

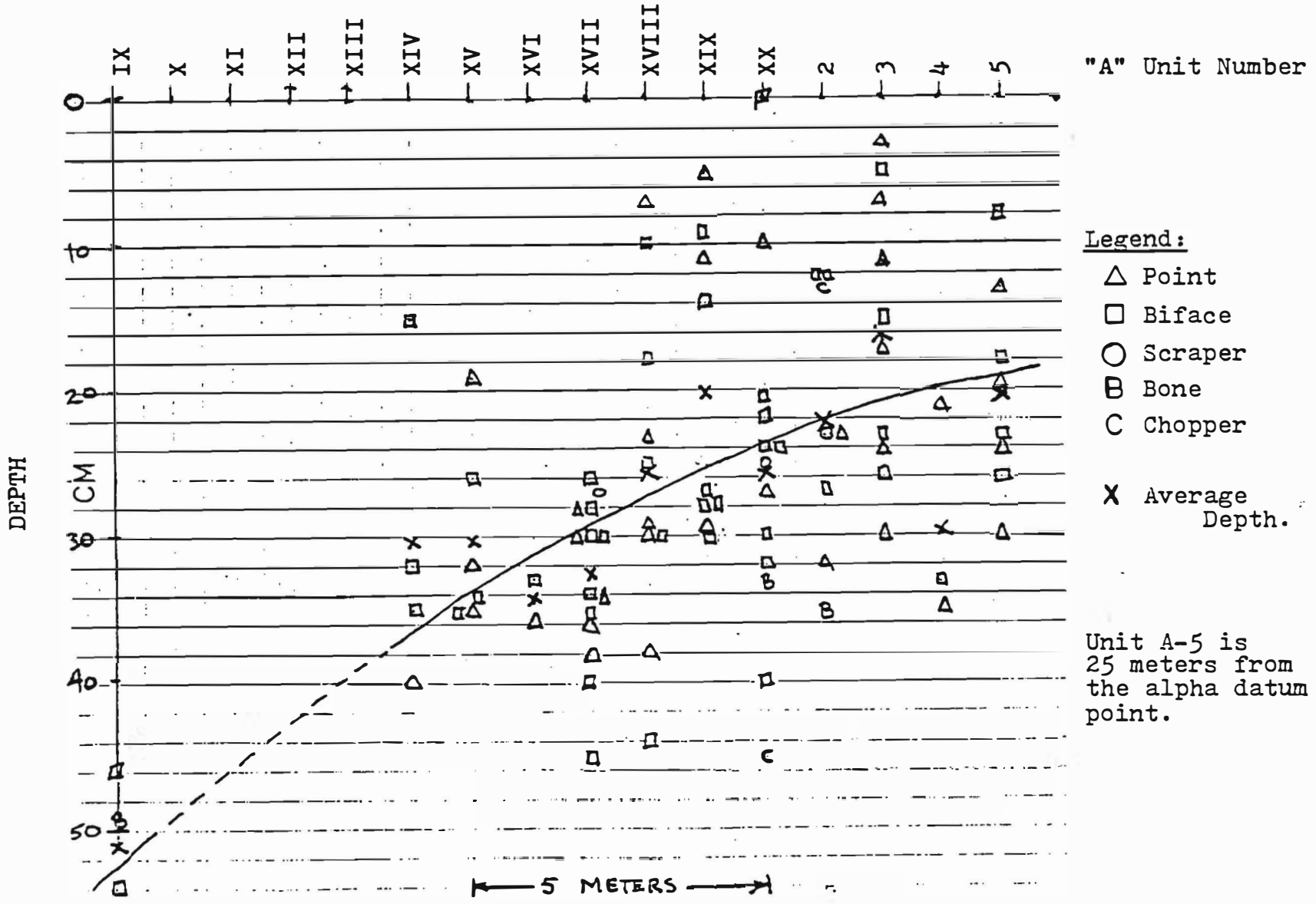
This snail count duplicates the results obtained in Phase 1.

BONE

Bone fragments were scarce, but, as in Phase 1, a few small pieces were found in the more calcareous levels. Weights of the only sizeable pieces found were: Unit A-IX (40-50 cm):4.5 and 0.0 grams; Unit B-XIV (30-40 cm): 3.8 and 1.3 grams; Unit A-XIV (30-40 cm): 3.9 grams. Again, it appears that the bones were broken in such a manner that the marrow could be recovered.

HORIZONTAL AND STRATIGRAPHIC DISTRIBUTION OF ARTIFACTS

There is considerable evidence that the land surface contours were quite different at this site during Archaic times. See Figure 10 which is a plot of the average depth at which artifacts were recovered during both Phases 1 and 2. There is a pronounced increase in depth as the excavations progressed south of the original baseline, which was A-I and A-XX (N20/E0). Because of the convolutions found in the bedrock level and this apparent change in the location of the soil surface in Archaic times, there is little hope that stratigraphic results can be used to estimate occupation periods. This fact, added to non-uniform soil deposition rates and other factors, could easily account for Pedernales and Early Triangular points, which may be 2,000 years apart in age, being found at essentially the same level. There are morphological constraints



This graph illustrates how the stratigraphic level producing artifacts varies as a function of the distance from the alpha datum for all the "A" units excavated.

Figure 10. Stratigraphic distribution of all artifacts found in a given unit.

as well. Perhaps the Pedernales is not a Pedernales. Were ancestral bifurcated stem points of very similar contours being made long before Middle Archaic times?

CHARCOAL

The apparent absence of charcoal at this site continues to be perplexing. Not a trace has been found in either Phase 1 or 2. Contributing to the problem is the color of the soil. It is quite dark in the upper levels, 0-40 cm, which could obscure the charcoal if it were badly decomposed. Below 40 cm the soil is very calcareous and light in color, but no charcoal has been seen.

Many of the midden rocks are darkened by what appears to be amorphous carbon deposits. Complete combustion of the fuel is hard to believe unless, perhaps, the fuel was the ubiquitous "prairie frisby" which would leave little, if any, sizable charcoal after combustion. If animal dung were the major source of fuel, then it seems plausible that the small particulate charcoal resulting from the dung fires might be leached out of the soil by the downward percolation of water, not by solution, but by an entrainment effect. Any part of the fuel which was unburned would also disappear rapidly. Is this theory the answer to the puzzle?

ARTIFACT ILLUSTRATION TECHNIQUE

The artifact illustrations were made by the author using the "rubbing" method described in the Phase 1 report. The rubbings were then enhanced by reinforcing the contour and arris lines with India ink. The compression rings--ripple rings radiating from the point of force--were simulated by using India ink and an ellipse maker inking template. One side of the illustration was darkened to indicate light direction. Hopefully, the results are an improvement over the rubbing as the method requires many man-hours to accomplish.

DISCUSSION

As in Phase 1, the objectives of Phase 2 were to observe and measure as many parameters as possible in understanding the lifestyle of early man. As can be seen in Figure 2, excavation continued along the east side of the project North/South meridian line.

Because the site is believed to cover a large area and to have a potential for containing significant information about prehistoric occupations, current plans are to excavate the site to the point of diminishing return. Daniel and Wisenbaker (1987) state that a number of professional archaeologists agree that fieldwork consistently reveals the necessity of having large areas examined in order to encompass the full range of settlement activity. The validity of this finding is being substantiated by the variety of artifacts being recovered at 41 GL 175. It is already obvious--to the author at least, since he has seen the results of all five Phases--that many different groups of hunter/gatherers camped at the site.

The extensive area of the site presents a number of problems. The area is a benchland about five to six meters above the creek bed which follows the creek for 60-70 meters. While the main lithic scatter (burned rock and chert debitage) of the midden is only about 30 meters across, there is evidence that campsites may be present along the creek on either side of 41 GL 175. The surface of the benchland is quite level so that shelters most likely would be randomly scattered. Early man would simply set up in the most convenient spot. If this is true, then the site is at least one-half acre in size and would be a formidable task to excavate in its entirety. The site size probably would not have affected greatly the location of the midden. Once the midden started to accumulate, it follows that successive campers would probably discard their refuse in the same place.

As has been previously stated, 41 GL 175 is believed to be a site where toolmaking and repair was a major activity. This proposal has recently been strengthened by the location of a very large quarry site on top of an adjacent mesa-like hill. The quarry covers an area of several acres, with large concentrations of preforms and broken bifaces. It is obviously a place where chert quality was assayed and initial reduction took place. Some form of percussion was the most obvious means of reduction. The source of the chert appears to have been lenticular nodules which had been leached out of the limestone top of the mesa. The evidence for the site being a preliminary work stage is the fact that, although there are hundreds of large broken bifaces present, no finished artifact has ever been found. Early man must have carried the "good stuff" back to his camp, of which 41 GL 175 was one, to do the finishing work.

As noted, the excavations are an ongoing effort and several sites on the Baethge ranch, previously unrecorded, have been pointed out to the author. These are in need of trinomial site numbers from the Texas Archeological Research Laboratory. In addition, a report describing the results of Phases 3 and 4, and possibly 5, if space in La Tierra is available, is planned for the near future.

When the report on each Phase of the work at 41 GL 175 is completed, perfect or near perfect projectile points, and any unusual artifacts, are returned to the ranch owner at his request. However, they will be available for study by qualified students or professionals. All the rest of the material recovered from the site, plus the associated catalogs and records, will be turned over to the Center for Archaeological Research, The University of Texas at San Antonio for curation or disposal, at their discretion.

ACKNOWLEDGEMENTS

The author would like to thank the James Baethge family for allowing me to dig into prehistory on their ranch, and to express my appreciation to Jim Mitchell for his helpful comments and input during the preparation of this report.

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METAL ARROW POINTS FROM THE VICINITY OF FORT LIPANTITLÁN (41 NU 54), NUECES COUNTY, TEXAS

Skip Kennedy and Jim Mitchell

ABSTRACT

Eight iron arrowpoints were recovered from the vicinity of historic Fort Lipantitlán in northern Nueces County, Texas. These specimens probably date to the early period of the fort (1831-1835) and were quite possibly being manufactured there for trade with the Lipan Apache, for whom the fort was named.

INTRODUCTION

Metal arrow points are of interest to archaeologists since they are diagnostic of the early historic period. In southern Texas and adjacent regions, a number of metal points have now been documented from historic mission sites (Mounger 1959; Schuetz 1969; Hester 1978; Mitchell 1980) and aboriginal contexts (Hester 1970; Mitchell 1974; Fox 1982; McReynolds 1982; Mitchell and Highley 1982; Smith 1984; Chandler 1986). Metal Points from such sites are of particular interest since they help date components to the early historic period and, in some cases, it may be possible to attribute them to specific ethnohistoric groups.

THE SITE

Fort Lipantitlán (41 NU 54) is located near the Nueces River in northwestern Nueces County (see Figure 1). The river is a natural boundary; in Spanish Colonial times it was the border between the provinces of Tamaulipas (before 1824, the colony of Nuevo Santander) and Tejas (formerly the colony of Nuevas Filipinas; later the Mexican state of Tejas y Coahuila). The site is near a crossing of the Nueces on the road (Camino Real) from Matamoros to Goliad (La Bahía), and there was apparently a small settlement near the ford even in the 18th century. The fort was established by the Mexican government in 1831, to control illegal Anglo immigration, after the McGloin colony of Irish settlers was established just downstream and across the river in Tejas. As it appeared in 1835, it was "a simple embankment of earth, lined within by fence rails to hold the fort in place...(Linn 1935:119-120, as cited in Ing 1975:3)."

In 1840, the vicinity of the fort was described as "situated on the southwest side of the Nueces, about four miles above San Patricio, in the woody fringe of the river, formerly contained about 40 houses, and was reputed one of the most beautiful and healthy villages of Texas (Moore 1965:122, as cited in Ing 1975:3)."

ARCHAEOLOGY

The state park portion of the site was tested archaeologically in 1974 during a Texas Parks and Wildlife Department project. The results of that investigation were relatively meager, consisting of 172 artifacts: 131 were small ceramic sherds (five of which were Mexican origin; the remainder were of European manufacture). Other artifacts included bottle glass, one possible gunflint, and one thick biface (Ing 1975).

Later surveys monitoring the park have also been minimally productive. In the early 1980s, Bateman recovered a few artifacts from the eastern corner of the park. These included two broken bifaces, 41 chert flakes, two percussion

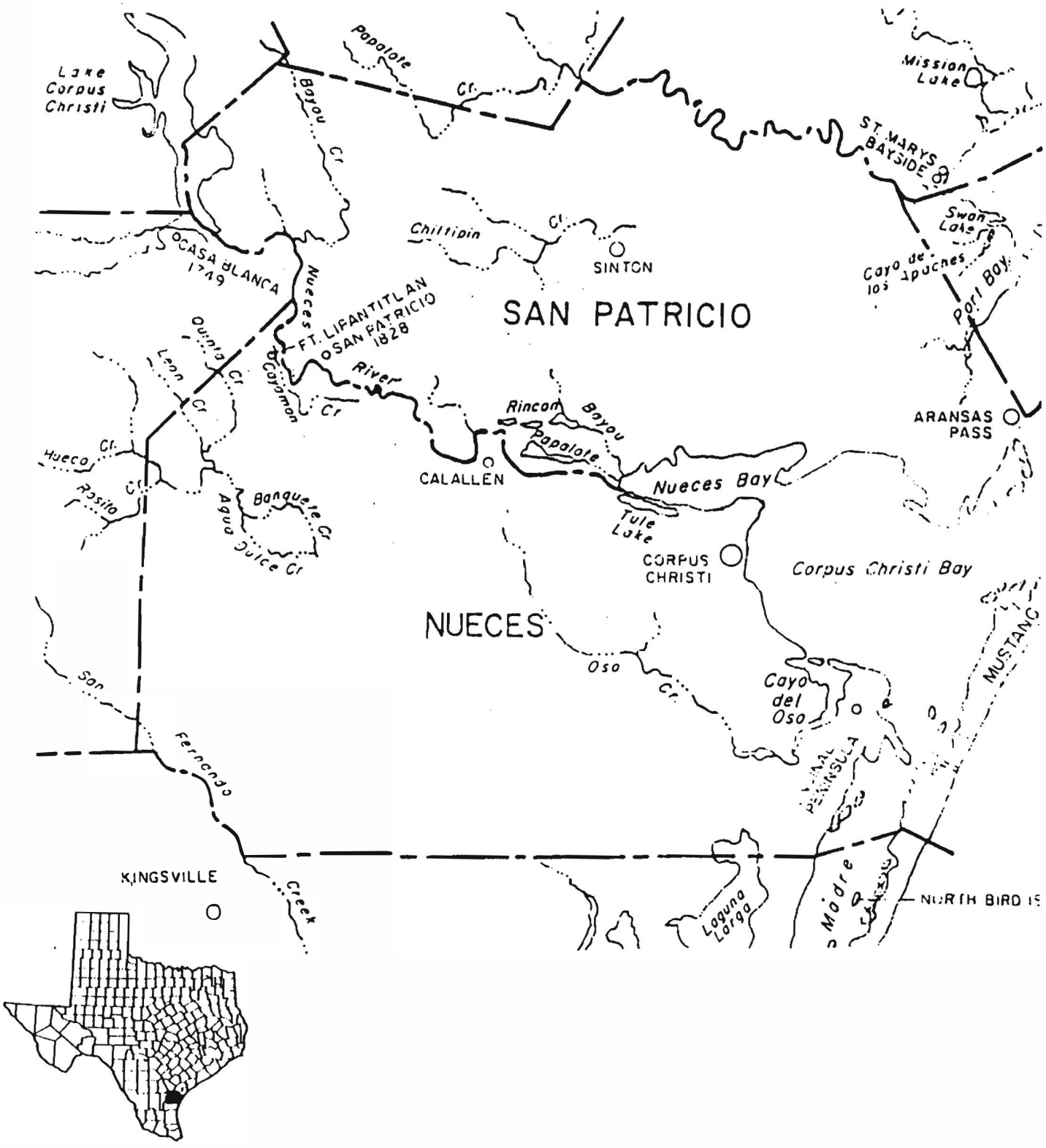

Figure 1. Map of Nueces and San Patricio Counties showing the relationship of Fort Lipantitlán and the village of San Patricio. Inset map of Texas reflects location in the state (map adapted from one created by Malcom Johnson, cartographer, Fredericksburg, Texas).

caps, eight colored ceramics, three pieces of bottle glass, 13 square iron nails, various pieces of lead, and one possible human finger bone (Bateman 1983).

More recently, archaeological work has concentrated on the adjacent private land, to test the theory that the fort and associated settlement may not totally be on the present state park. Ing (1975:3) noted that "it remains uncertain whether the state park encompasses parts of the Mexican or Texan encampments but in view of the artifacts (mostly of Anglo origin) recovered, it seems likely the Texan Camp Lipantitlán is located near, or perhaps partially, within the park."

With the gracious cooperation of the adjacent landowner, the general area near the park was surveyed, and several areas of potential interest were located. A metal detector survey was part of this investigation, and eight metal arrow points were recovered near the surface through this technique. Their locations were plotted on a site map (see Figure 2); three of the eight metal points were found clustered within a 6-meter square. The other five points were recovered some distance away; they appear to have been dispersed, perhaps when the area was cleared with a bulldozer in 1974. Four were recovered at the bottom of a slope scattered among mounds made in the clearing operation. The other point was an isolated specimen, found in the northeast quadrant of the search area; another large bulldozer mound is just off the map to the east of where this point was recovered, indicating a disturbed surface.

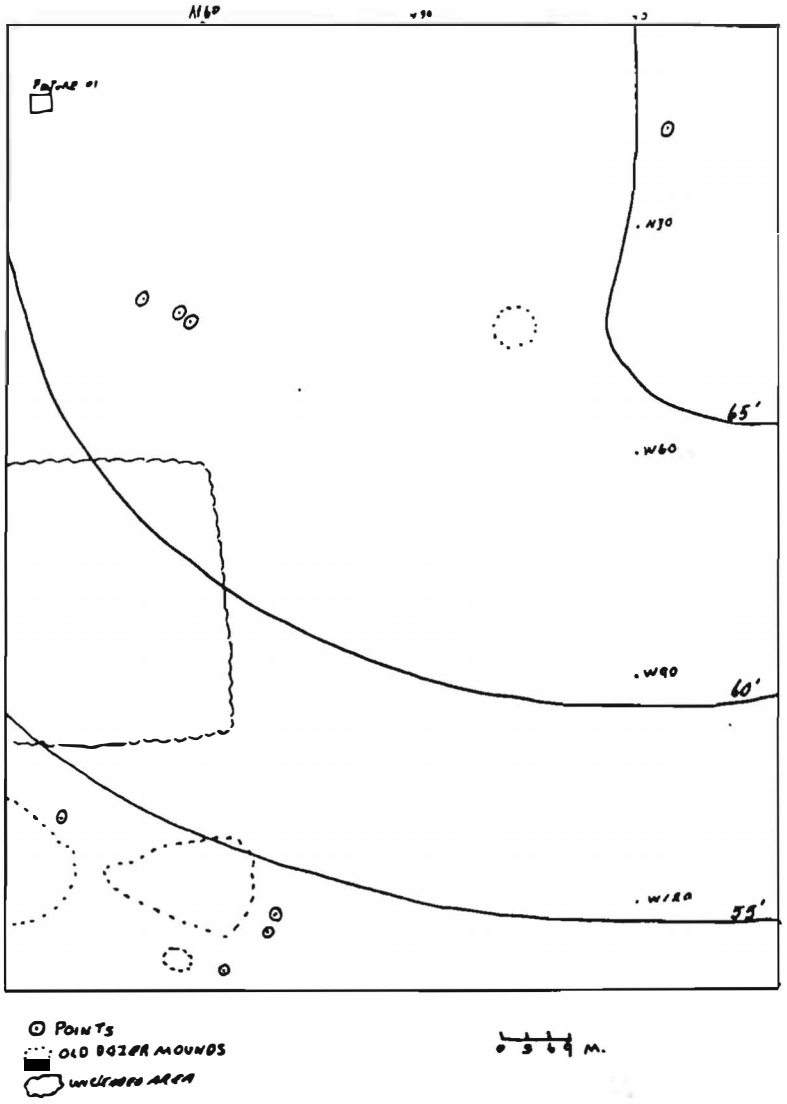

Figure 2. Field Map of Search Area Near Fort Lipantitlán State Park (adapted from field sketches).

THE METAL ARROW POINTS

The eight metal arrow points from the site are illustrated in Figure 3. All of the eight specimens appear to be cut from iron scrap, probably barrel strap. Several pounds of pieces of this strap including complete or near complete circles about 10 inches in diameter, were recovered from the general vicinity of the cluster of three projectile points. This strap was 1-2 mm in thickness. In addition, several pieces of metal that may have been cut in making points were also recovered.

The physical attributes of the eight specimens are shown in Table 1. Note that the points range in thickness between one and two mm, which is comparable to the barrel strap material recovered. Average length of the points was 50 mm with a range of 38.5 to 62 mm. Average maximum blade width was 18.38 mm with a range of 11.0 to 24.5 mm.

Table 1. Attributes of Lipantitlán Metal Points

Attribute/Specimen	A	B	C	D	E	F	G	H
Length	41.5	38.5	42.0	62.0	42.0	55.0	56.0	62.0
Max. Blade Width	13.5	12.5	24.5	24.0	11.0	22.0	19.5	20.0
Thickness	1.5	1.0	1.0	1.0	1.5	2.0	1.0	1.5
Stem Neck Width	4.5	6.5	n.a.	9.0	5.0	8.0	9.0	7.5
Stem Base Width	4.5	4.0	n.a.	8.0	6.0	6.5	9.0	6.0
Stem Length	12.5	11.5	n.a.	13.0	11.0	10.5	12.0	8.5

NOTE: Specimen identifications are the same as in Figure 3.

Specimens A, E, F, and H have both blade edges beveled or sharpened, but only on one face of the points; the remaining points do not appear to be sharpened. Apparently the points were manufactured by chisel cutting them into shape and some were then sharpened with a file.

All eight specimens were thoroughly cleaned and then dipped in a microcrystalline wax to protect them from further oxidation. They were not weighed prior to this conservation treatment, so no weights are included in Table 1.

FEATURE AND OTHER ARTIFACTS

The group of three points was recovered within 30 meters of the only major feature identified so far at the site. This feature includes two interlocking circles which may represent the remains of a stick and mud chimney; not enough other evidence remains in the area to determine if the feature was part of a structure or a freestanding oven (Anne Fox, personal communication, 1985).

Other metal objects found in the general vicinity of the points included barrel strap and iron fragments noted earlier, two flintlock gun cocks, forged and machine cut nails of various sizes, spoons and knives of several types, U. S. military buttons dating to the 1840s, Mexican military buttons, an 1841 U. S. large cent, and a well-worn Spanish 1/2 **real** dated 1768. Thimbles, sewing needles, scissors, and a number of musket balls were also recovered.

Ceramics recovered included late Mexican Majolicas, transferwares, edgewares, banded slipware, and several types of salt and lead-glazed Mexican

wares. Such ceramics are very typical of Spanish, Mexican and Anglo occupations. This very mixed assemblage suggests multiple occupations at the site, which are reflected in the historical records.

HISTORICAL BACKGROUND

In Spanish Colonial times, there was a crossing on the Nueces of the Camino Real at or near the present site of Fort Lipantitlán. An informal frontier hamlet apparently grew up at the crossing, possibly even before 1800, which may have included a customs house to control commerce (and smuggling) as well as a horse relay station and associated blacksmith shop. Dispatch riders were routinely sent from Matamoros to the presidio at La Bahía over this route.

After Mexico won its independence from Spain, General Don Manuel Mier y Terán was appointed leader of the Mexican Comisión de Límites, and charged with the responsibility of determining the boundary between Mexico and the United States in the Sabine-Red River area. The Comisión was also tasked with scientific duties: to collect information on the geography, natural resources, plant and animal life of the region, as well as data on the customs, dispositions, and habits of the native Indian populations (Ewers 1969:4). Jean Louis Berlandier, a French scientist, accompanied observations of the Texas Indians (cf. Berlandier 1969).

General Terán was well qualified for his mission; he was a graduate of the Mexican School of Mines and, prior to this expedition, headed the Artillery School. He had a lively interest in natural science, and a marked aptitude for mathematics and engineering (Ewers 1969:4). He reported in some detail on the Indian groups of southern Texas, including the Lipan Apache, whom he encountered in Laredo and south of San Antonio, Concerning this group, Terán reported in 1828, "they came many years ago to Tejas, with whose savage inhabitants they were not able to live in peace, and so continued their Southern migration as far as the deserted area between the Río Grande, the Nueces and Béjar" (Terán 1870:264).

In 1831, after he returned to Mexico City, General Terán ordered the establishment of Fort Lipantitlán across the river from the new Irish immigrant town of San Patricio. The military presence there was a measure to implement the Law of April 6, 1830, which was designed to stop illegal immigration from the United States to Mexico (Ing 1975:3). Lipantitlán was garrisoned by the Second Active Cavalry of Tamaulipas; some of the soldiers were accompanied by their families from Matamoros suggesting it was meant as a permanent installation.

The first Captain of the garrison was Enrique Villareal, who was a prominent rancher in the region. His son, who presumably was very familiar with the Fort Lipantitlán area, is reported to have stated in later years that "The Lipans camped on the Nueces River near where San Patricio is now to hunt Buffalo during the winter season" (Coopwood 1900:237).

Others have also documented the Lipan in the area:

> Many years ago the Lipan Indians were accustomed to camp on the Nueces near where San Patricio is now, to hunt and kill buffalo in that region during the winter season; and when the Mexican soliers under Captain Enrique Vilareal made their camp there, these Indians congregated round it, and it was finally named by Col. Terán, Lipantitlán, meaning Lipan Land (Morton 1944:216).

Little has been documented about the life at this remote post during its Mexican phase, but the threat of Anglo intrusion proved to be very real. On November 4, 1835, a group of Texians under Ira J. Westover took over the fort without firing a shot. Most of the garrison soldiers were out looking for

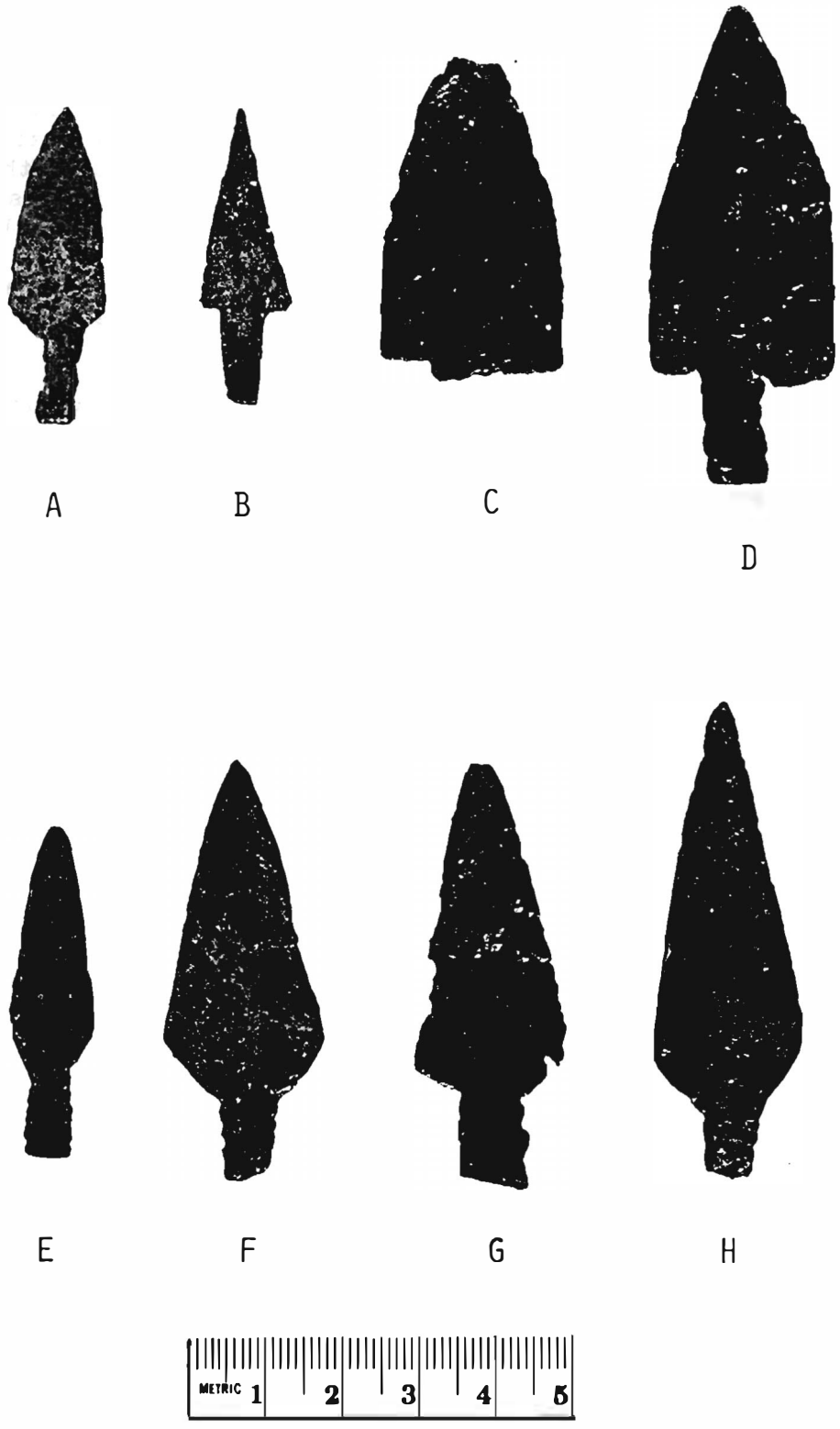

Figure 3. Eight metal points from the vicinity of Fort Lipantitlán (41 NU 54). A, E, F, and H have been beveled or sharpened on one face; the remaining specimens are not.

Westover as they had intelligence that he was coming to destroy the fort. Westover's men burned the fort and reportedly dumped two cannons in the Nueces River the next day as they withdrew back to Goliad. In a later conflict, early the next year, the Texians were victorious; the captured Mexican troops were parolled and most eventually escaped south to Matamoros.

After the battle at San Jacinto, the Mexican forces streamed south to the Rio Grande, taking with them much of the livestock of South Texas as well as those settlers who were loyal to the Mexican republic. For the next few years, the area between the Nueces and the Rio Grande was claimed by both sides and subjected to raids by both American cowboys and Rio Grande rancheros. The fort was occupied sporadically in 1838 and 1840 by groups of American Volunteers during the Mexican Federalist Wars. In 1842, General James Davis reoccupied the fort with 192 men; it was attacked on June 7th by General Canales with a large Mexican force (Ing 1975:3). The attacking force claimed the area south of the Nueces River as part of the Republic of the Rio Grande. Both sides claimed victory after the battle.

Subsequently, Fort Lipantitlán generally disappears from written history. The area was purchased in 1870 by Nicolas Bluntzer and most remains a part of the Bluntzer estate. In 1936, the site was acknowledged with a Texas Centennial Commission monument. In 1937, the Bluntzer heirs deeded five acres to the State of Texas and the present Fort Lipantitlán State Park was formally established to protect the site (Ing 1975).

DISCUSSION

The metal points recovered from the vicinity of Fort Lipantitlán are important artifacts which help to document the presence of an aboriginal group at or near a site which has heretofore been considered primarily a historic Mexican and Anglo military locale. As attested by early Mexican and Texan observers, the primary Indian group involved with this immediate area during this period was the Lipan Apache; the name of the fort itself strongly links the Mexican military outpost with this group of native Americans.

While the evidence is circumstantial, there is a very good probability that the metal arrow points documented here are artifacts associated in some way with the Lipan presence at the site. As noted by Baker and Campbell (1959), there are no clear and absolute criteria to distinguish metal points made by Indians from those made by others. These points, however, appear to have been chiseled into shape and the edges filed into their present beveled form; thus, they were probably not made by the Indians themselves. Could these metal points have been manufactured to trade to the Lipan for needed supplies of fresh meat?

Certainly, the evidence suggests that the metal points were probably made in the area in which they were recovered. A substantial amount of barrel strap material was recovered in the same vicinity; chiseled metal fragments which may be trimmings resulting from arrow point manufacture were also recovered. Other materials recovered from the area included guncocks, forged square nails, and many musketballs (including one possible musketball mold). The nearby feature was the remains of a stick and mud chimney which might have been "a freestanding oven"; another possibility, suggested by the evidence of metal-working in the area, is that the feature might have been a blacksmith's forge. A forge area would be one thing which would have been needed and reused by any occupying military force, which may account for the Anglo artifacts also recovered in the area.

This is a hypothesis which deserves further investigation. If such speculations can be confirmed, then the metal points recovered here may have been manufactured where they were found, and may have not yet been traded to the

Lipan hunters. Such points might well have served as a type of currency for bartering with the Indians; a fair market exchange of metal artifacts for needed food supplies.

ACKNOWLEDGEMENTS

A very special thanks to the present landowner, Mr. Bill Bluntzer, and his family for permitting the survey and testing of the site. Thanks also to the Corpus Christi Museum and Dr. Herman Smith for both field work and conservation treatment of the metal specimens recovered from the site. Jim Warren worked long and hard and deserves a lot of thanks for keeping the project going in the right direction. Bill Walraven and Eugenia Landis assisted greatly with extensive bibliographic research. Many thanks are also due the Nueces County Historical Commission for providing the Corpus Christi Museum with funds for the Lipantitlán Project.

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The Southern Texas Archaeological Association brings together persons interested in the prehistory of south-central and southern Texas. The organization has several major objectives: To further communication among avocational and professional archaeologists working in the region; To develop a coordinated program of site survey and site documentation; To preserve the archaeological record of the region through a concerted effort to reach all persons interested in the prehistory of the region; To initiate problem-oriented research activities which will help us to better understand the prehistoric inhabitants of this area; To conduct emergency surveys or salvage archaeology where it is necessary because of imminent site destruction; To publish a quarterly journal, newsletters, and special publications to meet the needs of the membership; To assist those desiring to learn proper archaeological field and laboratory techniques; and To develop a library for members' use of all the published material dealing with southern Texas.

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