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## Archaeological Testing at Site 41BP280, Bastrop County, Texas

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ARCHAEOLOGICAL TESTING AT SITE 41BP280  
BASTROP COUNTY, TEXAS

By  
Glenn T. Goode

Texas  
State Department of Highways and Public Transportation  
Highway Design Division  
March 1986

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## ABSTRACT

Archaeological site 41BP280 is located along SH 71 in east-central Bastrop County. Abundant evidence of prehistoric aboriginal occupation covers a narrow Pleistocene terrace which abuts the much higher Pleistocene terrace remnant upon which 41BP19 is located. Multiple cultural components are present at 41BP280, ranging in age from at least the Middle Archaic through the Late Prehistoric Periods. A large lithic artifact assemblage and abundant thermally altered stone were present in up to 1.20 meters of deposit. Site 41BP280 is a potentially important site; however, it is not recommended for additional excavation because that part of the site within the right-of-way of SH 71 will be preserved under 12 to 15 ft. of fill. A large portion of the site remains outside the right-of-way to the south of SH 71, and this portion of the site is believed to be worthy of designation as a State Archaeological Landmark.

## INTRODUCTION

Archaeological site 41BP280 is located along SH 71 in east-central Bastrop County (Fig. 1). The site was recorded by Glenn T. Goode of the State Department of Highways and Public Transportation (SDHPT) Archaeology Section in October 1985 and was recommended for test excavation. During the period October 29, 1985, through January 22, 1986, testing was conducted by Goode and from one to three employees of the local SDHPT office. Jerry Henderson of the SDHPT Archaeology Section also assisted for several days. An estimated 140 persondays were expended during the test investigation, which was conducted in accordance with Procedures for the Protection of Historic and Cultural Properties (36 CFR, Part 800), procedures prescribed and endorsed by the Federal Highway Administration. The objectives of the investigation were to determine eligibility for nomination to the National Register of Historic Places as prescribed by law and to evaluate the site for State Archaeological Landmark status. It was determined from the test excavations that the site meets the criteria for nomination to the National Register of Historic Places and also that it is worthy of designation as a State Archaeological Landmark.

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## SITE DESCRIPTION

Site 41BP280 is situated on a relatively high Pleistocene terrace north of a small tributary of Alum Creek (Fig. 2). This terrace is overshadowed by the much higher Pleistocene terrace remnant to the east; 41BP19 covers a large portion of this very ancient feature. Beginning along the lower northwestern margin of the older terrace, 41BP280 extends northward some 40 meters into the old right-of-way of SH 71. To the west and southwest the site extends a much greater distance, to the southern edge of the terrace and westward along it for a distance of approximately 250 meters.

Within the right-of-way intact deposits begin about 25 meters west of the higher terrace, the intervening area having been both eroded for millenia and altered recently by heavy equipment. A gravel road cuts through this area and runs the length of the site. From this private drive, the surface contour follows a gradual downward slope to the west and southwest. Almost the entire terrace has been cleared of native vegetation and planted in coastal bermuda grass. In several areas an uneven surface attests to the clearing and road building activities. Near the old right-of-way fence at least 50 cm of soil was removed and used as base for the gravel road.

Roots and disturbances found in excavation units confirm that abundant vegetation once covered the site. Today, large live oak and elm, hackberry, and yaupon occur near the higher terrace and the north fence. In addition, southward along and upon the higher terrace are cedar, bois d'arc, Texas persimmon, possum haw, and mulberry.

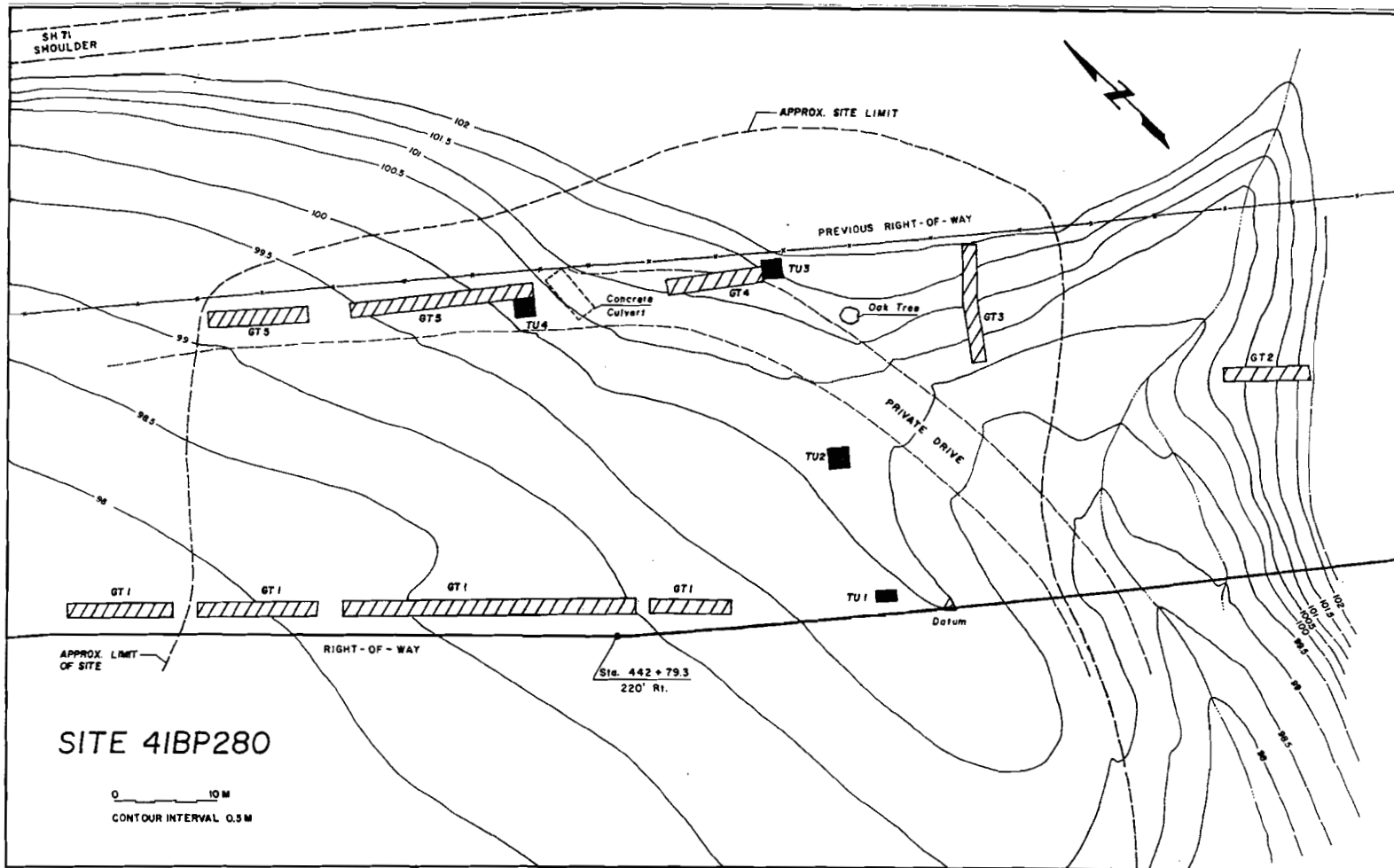


FIGURE 2. Contour map of Site 41BP280, showing test units and Gradall trenches.



## EXCAVATION PROCEDURES

Archaeological testing of Site 41BP280 was accomplished by hand excavation of 4 units and Gradall excavation of 5 trenches. Test Unit 1 was 1 by 2 meters in size and was excavated in two 1 by 1 meter units. Test Units 2, 3, and 4 were 2 meter squares, excavated in two 1 by 2 meter units. All units were excavated by arbitrary 10 cm levels, with the soil passed through .25-in. hardware cloth. Artifacts and thermally altered stone were bagged separately at the screen. After artifacts were picked from the burned rock, the rock was measured by volume and discarded.

A north-south grid line, 32° east of north, was established roughly perpendicular to the right-of-way fences. Station N0/E0 was set near the south right-of-way fence, 1 meter west of Test Unit 1. Test Unit 2 lay on the grid line, with Test Units 3 and 4 located at W5 and W29 respectively. A wooden hub driven to ground surface at the south right-of-way fence and designated 100 meters served as the elevation datum.

Tools found in situ and burned rock accumulations were recorded by plan drawings, photographs, and transit elevation. A surface contour map made by alidade and plane table completed the investigation.

## SOILS

Site 41BP280 is situated on a narrow remnant of a Pleistocene terrace of the Colorado River (Glen Evans, personal communication). Cultural materials are contained within a Holocene age colluvial mantle overlying the Pleistocene terrace. The terrace abuts Eocene sandstone deposits which are the base of the uplands northeast of the site as well as the base of the Middle Pleistocene terrace remnant upon which 41BP19 is located. These very ancient features are the sources of the colluvium which buried the cultural material of 41BP280.

The maximum depth of the colluvial deposit is about 2.5 meters recorded in Gradall Trench 5. A large amount of cultural material, artifacts and burned rocks, occurs in the upper 120 cm but decreases sharply at 120 to 140 cm. (Fig. 3). Although a small amount of cultural material was observed in the lower 1 meter and to the bottom of the colluvial deposit, there is no evidence of *in situ* cultural horizons. This deeper cultural material is redeposited, a larger amount occurring in a heterogeneous, discontinuous gravel zone than in the surrounding silty loam matrix. The gravel is classified as Willis Gravels of Early Pleistocene age. This material occurs as a scattered mantle atop the Eocene age uplands.

Underlying the colluvial deposit in Gradall Trench 5 is an olive-yellow silty clay which contains no artifacts. This soil represents the Pleistocene terrace which is identifiable over an area of several acres, but is highly eroded to the west. In other areas of the site, the Pleistocene clay stratum is orange to reddish orange in color.

The soil profile varies markedly across the site, moving south to north from Test Unit 1 to Test Unit 3 (Figs. 4, 5, and 6). In Test Unit 1 the deposit is sandy loam and sandy clay loam to a depth of about 1 meter, then increases in silt and clay content. Small pebble gravel also increases at this depth and the artifact sample decreases sharply. A substantial cultural zone which produced a *Pedernales* point occurs at 65 to 80 cm below surface.

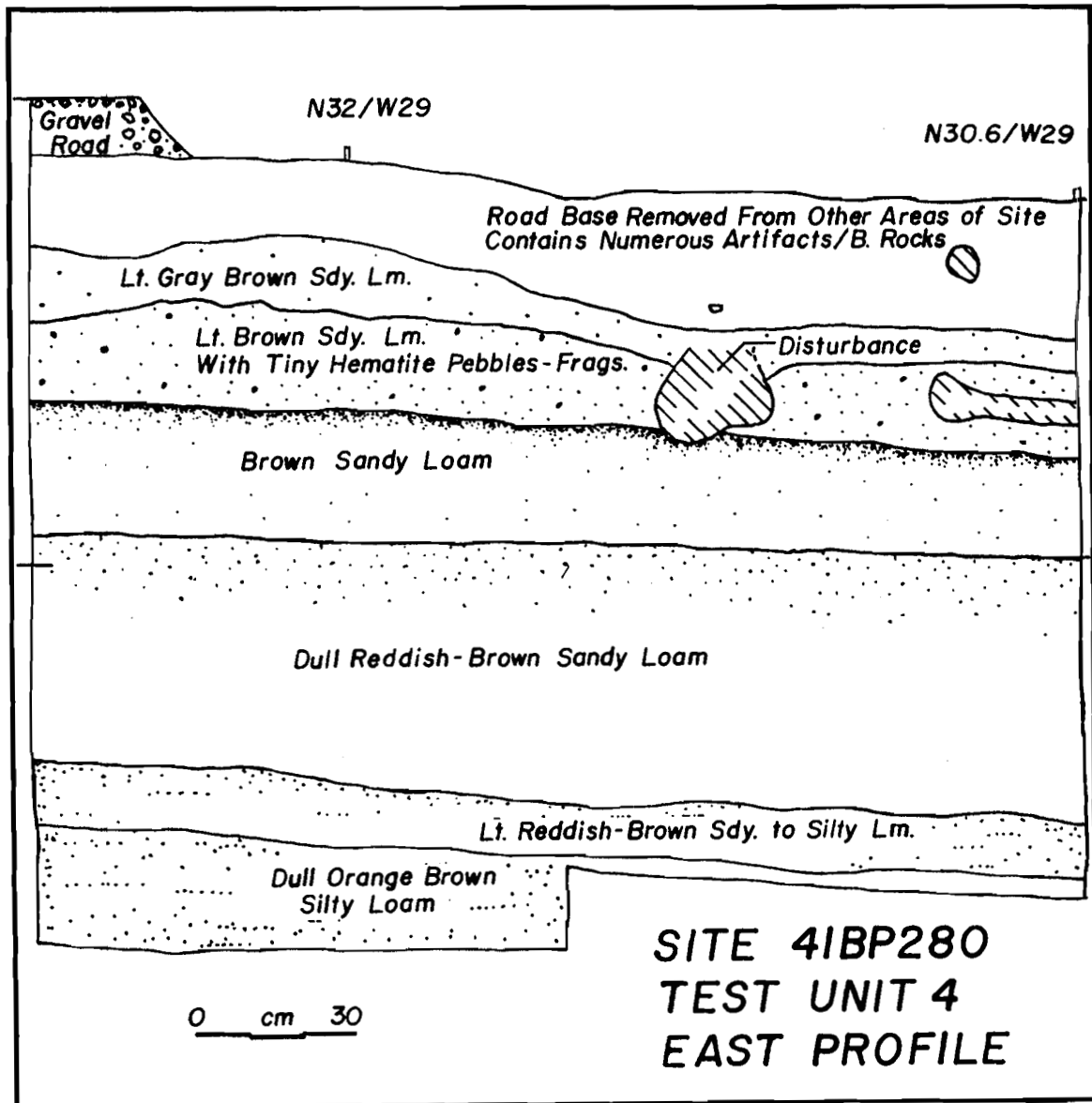


FIGURE 3. Soil profile of the east wall of Test Unit 4.

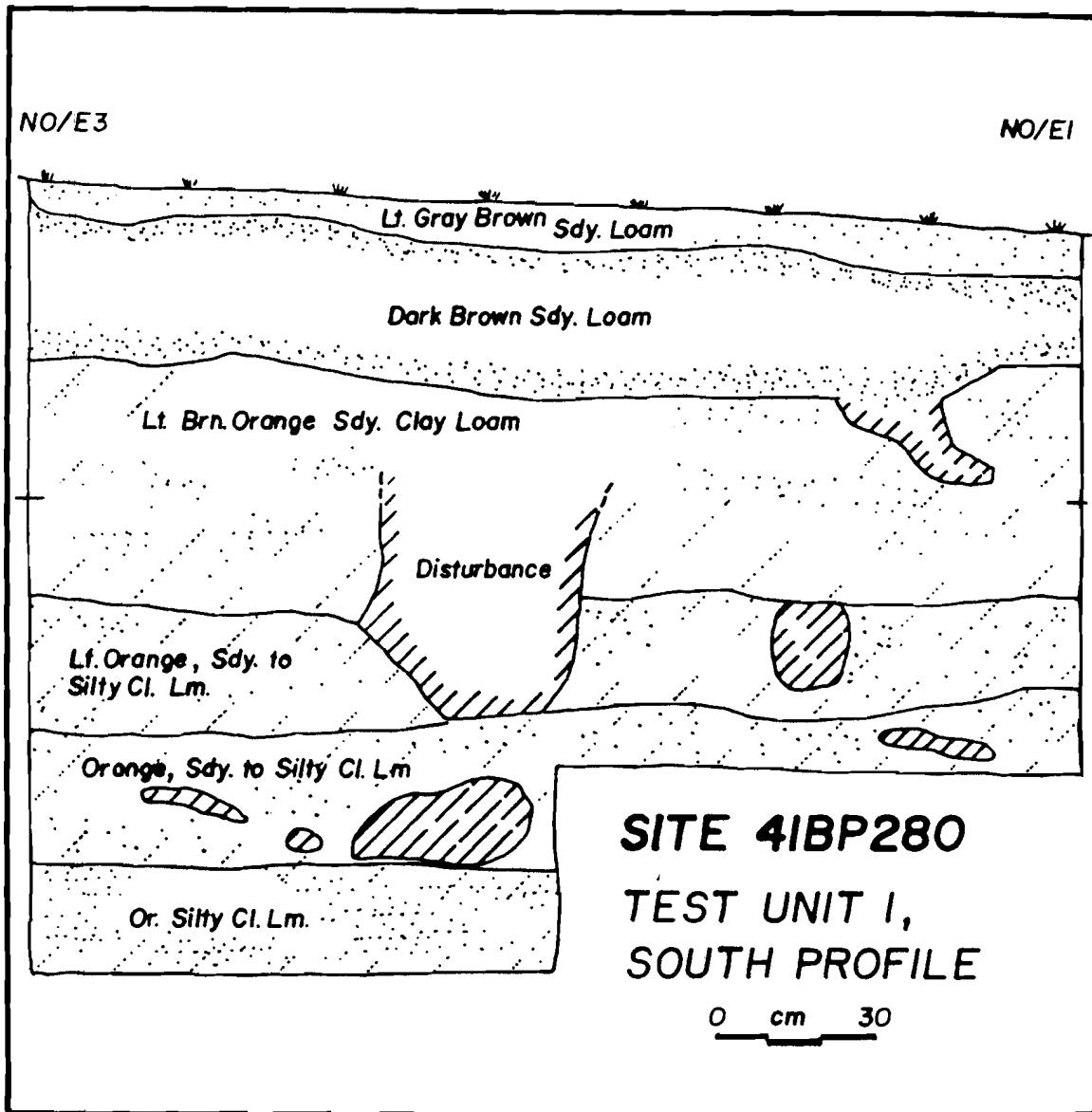


FIGURE 4. Soil profile of the south wall of Test Unit 1.

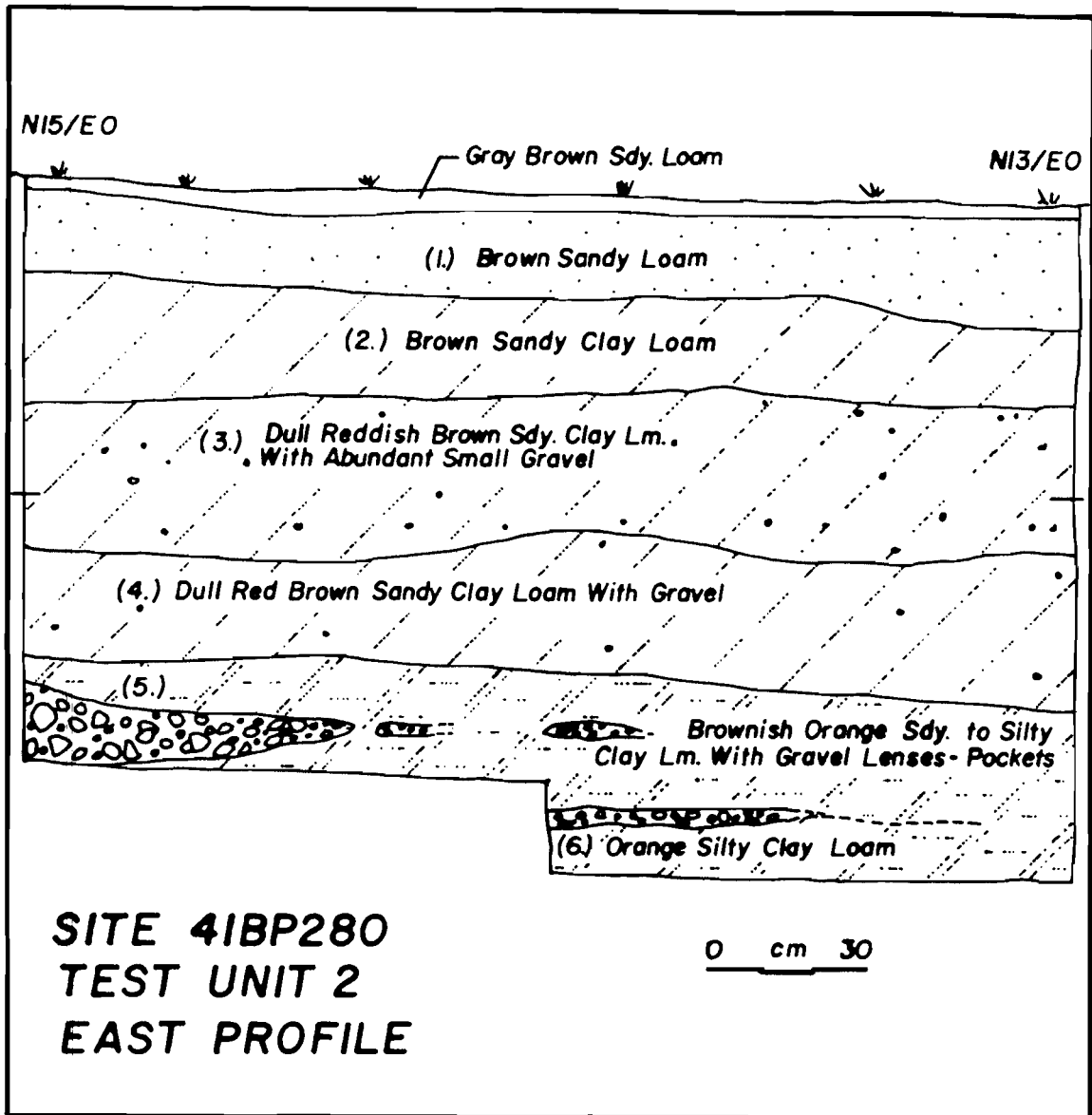


FIGURE 5. Soil profile of the east wall of Test Unit 2.

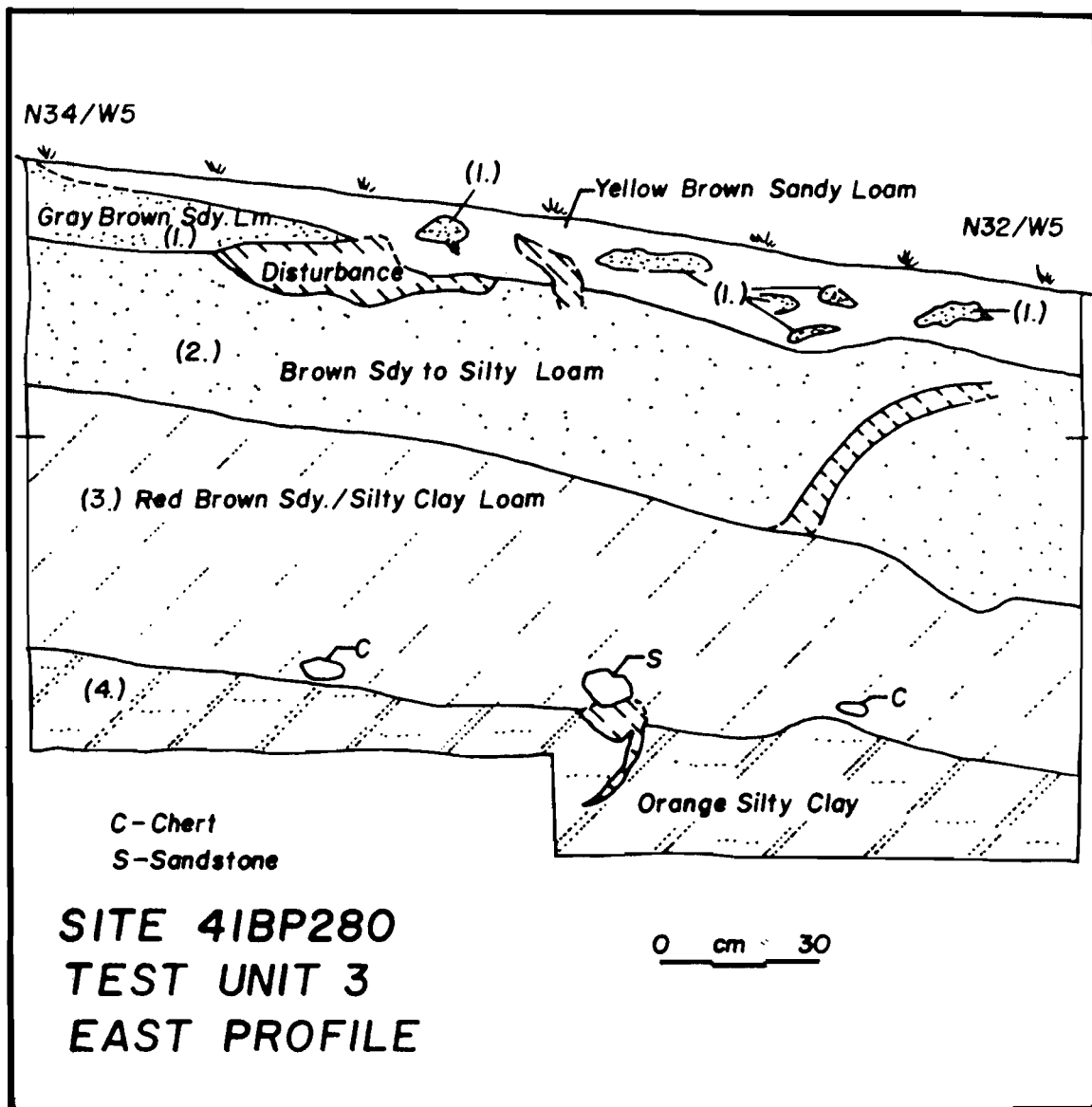


FIGURE 6. Soil profile of the east wall of Test Unit 3.

Cultural material in Test Unit 2 which was deposited at or near this locus occurs to a depth of only 35 cm; probably very little material is *in situ*. At this point, abundant gravel occurs with a sharp decline in cultural material. This condition continues through the test unit as gravel increases in size and abundance with depth. Cultural material is very sparse but present throughout the deposit. All cultural material below 35 cm is probably redeposited.

In the area of Test Unit 3 the upper 50 cm was removed by machinery. The sandy loam-clay loam deposits containing abundant cultural material extend to about 110 cm below the present ground surface. At this depth the soil changes to a silty clay which, except for the upper few centimeters, is culturally sterile.

## ARTIFACTS

The artifact assemblage is composed entirely of stone materials, predominately chipped stone with a small sample of ground and battered stone objects. Locally available raw material apparently was used in the manufacture of all tools. Chert and quartzite occur as Pleistocene gravel, while the sandstone and ferruginous sandstone represent locally formed resources.

Several classes of tools and debitage, typical of Archaic and Late Prehistoric cultures in this region--and in Central Texas to some extent--make up the chipped stone sample. Principal among these are: bifaces, unifaces, trimmed and use-modified flakes, and debitage. As usual, the debitage, including flakes and chips, cores, and manufacture failures, comprises well in excess of 90% of the total sample--some 8000 specimens.

Included in the ground and battered stone category are manos, metates, hammerstones, and a small, cylindrical object of ferruginous sandstone.

### Bifacial Artifacts

Bifacial implements representing dart point, arrowpoint, knife, adze, and perforator categories total 39 specimens. An additional 21 specimens are manufacture failures, mostly from the early stages of reduction.

#### DART POINTS

Stemmed, Group A (Fig. 7)

The *Pedernales* type is the most numerous among the diagnostic bifaces with 8 specimens. As is common with larger groups of the type, this sample could be divided into about three varieties. Overall, this group seems quite representative of the type as it appears over much of Central Texas.



0 inches 2  
0 cm 5

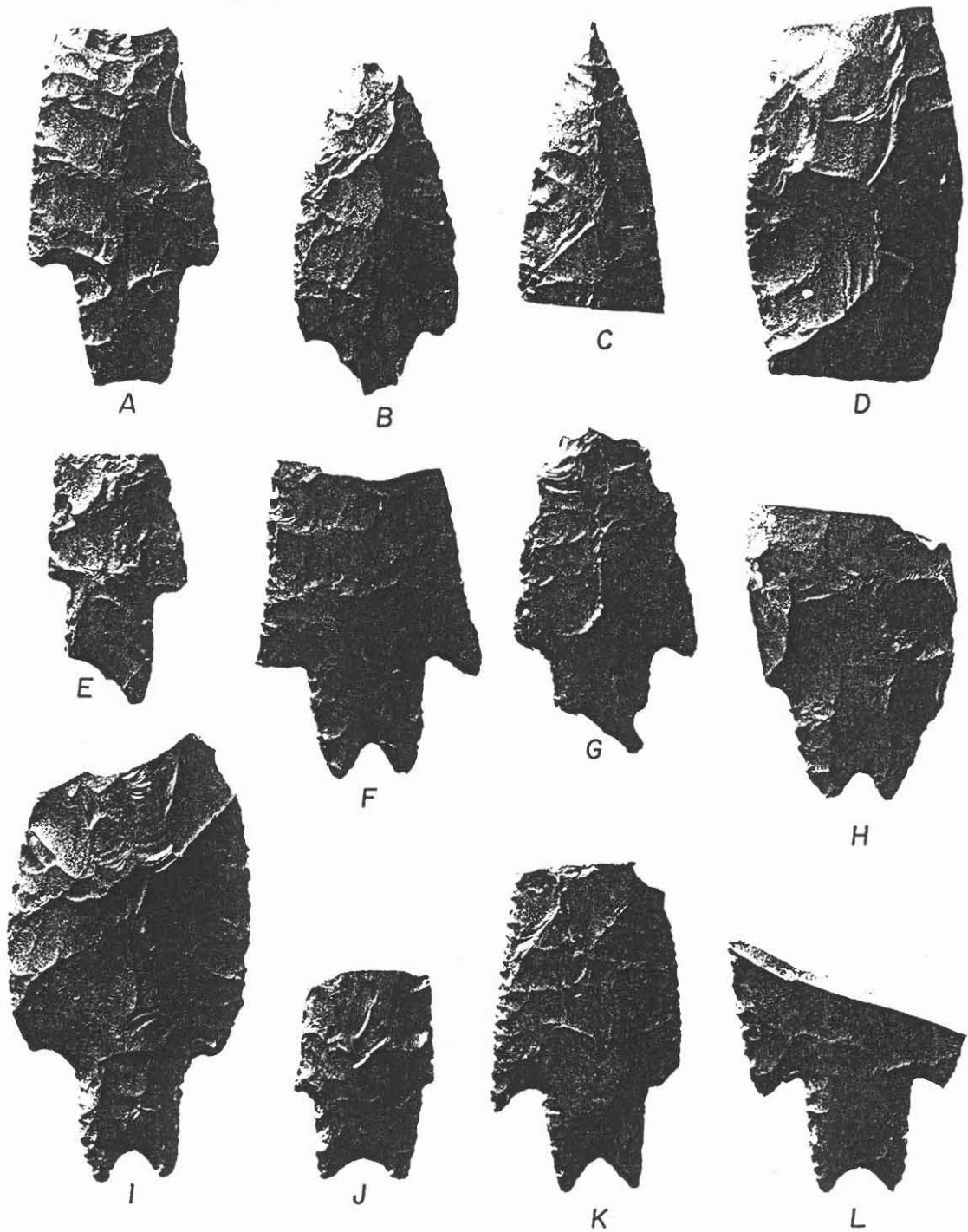


FIGURE 7. *Pedernales* and related bifaces.

The rudimentary stem of one incomplete specimen, with large basal thinning scars on both faces, indicates that here, as in Central Texas, the stem frequently was formed before thinning of the blade was completed. This piece is clearly a manufacture failure, probably broken on the site. Another specimen with a completed stem was broken either very near completion or during a retrimming attempt. This would have been a large tool, the extant section being 90 mm in length. Also, this biface appears to have been heat-treated.

Final unifacial sharpening on three specimens, on alternate faces of two, produced very finely serrated edges. These pieces would have been effective cutting tools.

Four other bifaces (Fig. 7A-D) which may belong to the same time period are a dart point with complete stem, one with a damaged stem, a distal section, and a proximal-medial section of an unstemmed knife. The stemmed specimen exhibits traits of both *Pedernales* and *Bulverde*. The stem contracts and is slightly concave, but is not wedge-shaped due to very little basal trimming. The blade is quite similar to the *Pedernales* group, including fine pressure sharpening and serration.

The blades of both broken specimens closely resemble the *Pedernales* group. Also, the piece with the damaged stem has alternate, unifacial edge sharpening similar to two of the *Pedernales* points. Workmanship of the distal fragment also resembles the traditions immediately following *Pedernales*: *Marshall*, *Montell*, and other Late Archaic styles. As the only specimen of its kind, the bifacial knife is not distinctive but it occurred in the same level with a *Pedernales* point.

#### Stemmed, Group B (Fig. 8A,C,E,I,L,M)

Stems of these six specimens were produced by shallow trimming of the lateral edges, resulting in straight, slightly expanding, and slightly contracting forms.

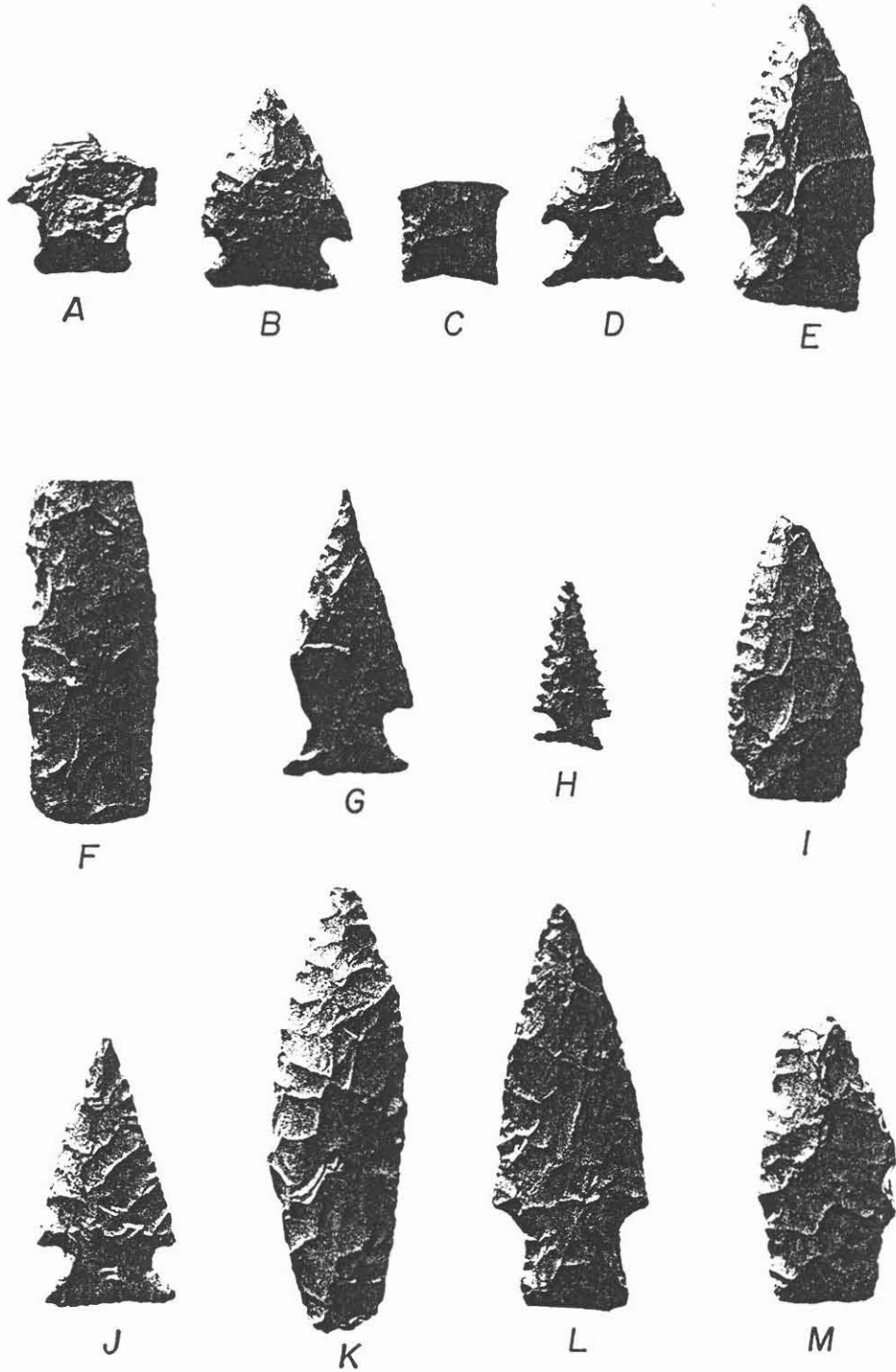


FIGURE 8. Projectile points. A-G, I-M, Archaic projectile points; H, Late Prehistoric arrowpoint.

Of these, only two specimens (Fig. 8C,I) can be assigned readily to current typology, the *Darł* type, although both are fragmentary. Specimen A may derive from the same general time period, but extensive heat damage prevents confident typing.

The contracting wedge stem of Specimen M is similar to *Bulverde*, but is shorter than average. It has been resharpened, removing the original, broader shoulders. This point occurred 20 cm below the expanding-stemmed Specimen L, and 50 cm above two *Pedernales* points. This piece is not the Central Texas *Bulverde* type, but could be of comparable age. If so, it is out of context.

Specimen L appears to belong to a generalized Late Archaic expanding stem tradition. Stratigraphically, it lay between Specimens K and M, as illustrated.

Specimen E was the deepest "diagnostic" form from Test Unit 3. It occurred near the bottom of the cultural deposit, underlying a *Pedernales-Bulverde* hybrid, which underlay *Ensor* and *Darł*. Its expanding stem is straight-based, very thin from basal chipping. If the stratigraphic context is in order, an age of about 3000 years could be suggested for Specimen E.

#### Side/Corner-Notched (Fig. 8B,D,J)

Three specimens in this category have traits of *Ensor* and *Fairland* types. Repeated sharpening has reduced the *Fairland* blade to a small, needle-point triangle.

The fourth specimen (Fig. 8G) is similar to a provisional type, *Sandbur*, from 41FY135 (Wayne C. Young, personal communication). Distinctive of this type is the broad and deep side-to-corner notch.

#### Lanceolate (Fig. 8F,K)

Specimen F appears to have been an unstemmed lanceolate form. Unifacial edge resharpening, beginning 25 mm above the base, on opposing faces

produces the look of a stem. The base is slightly convex and well thinned, producing a wedge-shaped haft area. A general similarity exists between this specimen and some of the lanceolates from 41BP19, but it can not be confidently placed with those Early Archaic specimens.

The appearance of a stem on Specimen K is also the result of edge resharpener. And, as on Specimen F, this resharpener produced an alternate bevel from the left edge. The haft area contracts to an irregular, generally convex base.

Although this specimen can not be classified by current typology, its stratigraphic position may be an indicator of a general time period. It occurred one level below an *Ensor* and one level above a generalized expanding stem form of probable Late Archaic age.

Similar generalized lanceolate specimens have been observed in private collections leading to the speculation that such forms may be common to the area, possibly ranging widely through the Archaic Stage. At least some specimens have been found with known Middle and Late Archaic forms.

#### ARROWPOINTS (Fig. 8H)

Specimen H is the only identifiable arrowpoint found at 41BP280. It is asymmetrical with pronounced serration of the blade edges. The base is slightly concave. Other Late Prehistoric artifacts include a preform fragment and two arrowpoint tips. One flake with preliminary chipping is another possible arrowpoint preform.

#### CHRONOLOGY OF DART POINTS AND ARROWPOINTS

Only Test Units 3 and 4 produced sufficient diagnostic bifaces to develop a chronological sequence for 41BP280. These are shown by level in Figure 9.

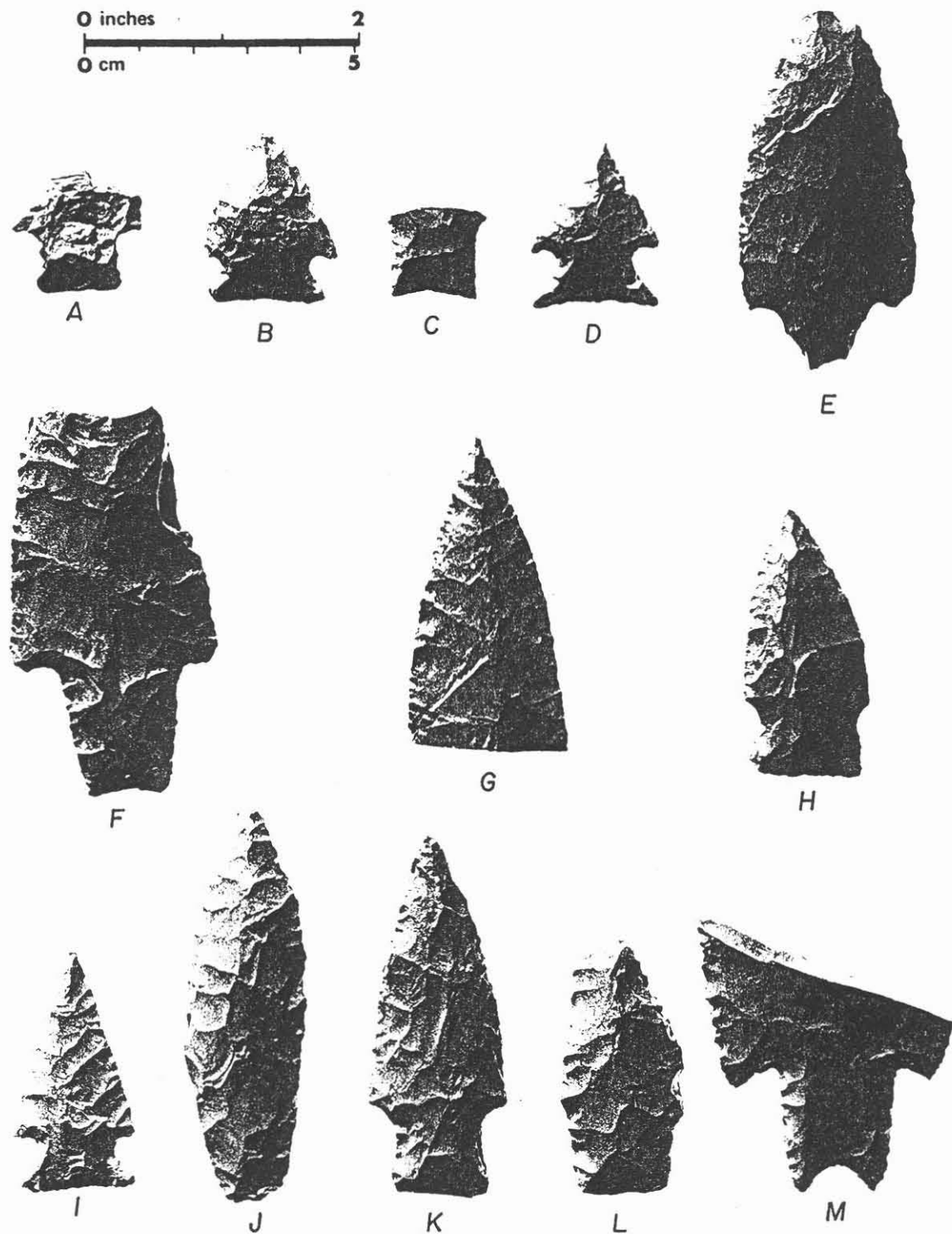


FIGURE 9. Chronological sequence of diagnostic bifaces. Test Unit 3: A-H. A,B, Level 4; C,D, Level 7; E,F, Level 9; G,H, Level 10. Test Unit 4: I-M. I, Level 2; J, Level 3; K, Level 4; L, Level 6; M, Level 11.

## OTHER BIFACES

Of the remaining 27 bifaces, only 6 will be discussed. The balance of the sample consists of initial and secondary biface fragments, for the most part manufacturing failures resulting from on-site reduction.

Three tool classes are represented by the 6 specimens. Four of these are either completed knives (Fig. 10A,B) or final stage manufacture failures (Fig. 10D,E). Specimens D and E provide an approximation of the maximum size of locally manufactured bifaces, although they would have been somewhat smaller if completed. Specimens A and B, 6 and 5 mm in thickness, exhibit good workmanship, the result of controlled billet and large pressure flaking. They lack distinctive edge sharpening or resharpening patterns.

Specimen C is an apparent perforating tool. It is made on a hard-hammer flake with minimal bifacial shaping to produce the desired shape. The tip is thin, flat, and sharp, more unifacial than bifacial in contrast to more typical bifacial, cylindrical specimens.

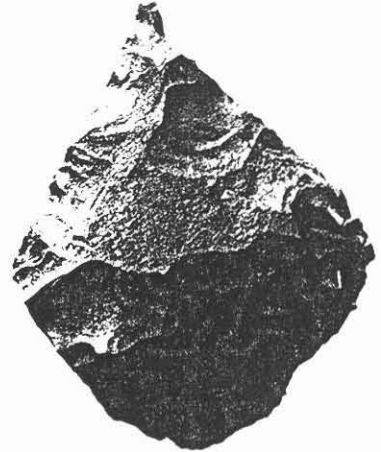
Specimen F is a *Guadalupe* tool, a surface find from the lower edge of the high terrace which marks the eastern boundary of 41BP280. This is the only adze from 41BP280 and none were found in the 41BP19 excavations (Lee Bement, personal communication), but several were collected during nonprofessional excavations of the southern half of 41BP19. These specimens have not been studied at this time, thus preventing any comparison. The ventral surface is fairly flat but with many prominent flake scar ridges in the extensively coarse chert. The bit is obliterated by several flake removals, some presumably removed through use. The dorsal face has a high prominent ridge and triangular cross-section produced by flaking from both lateral edges. Final edge shaping is unifacial--all scars are on the dorsal surface. Thickness is 28 mm.



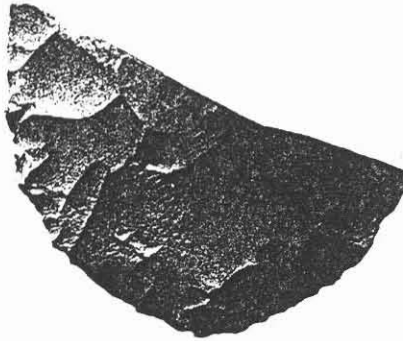
A



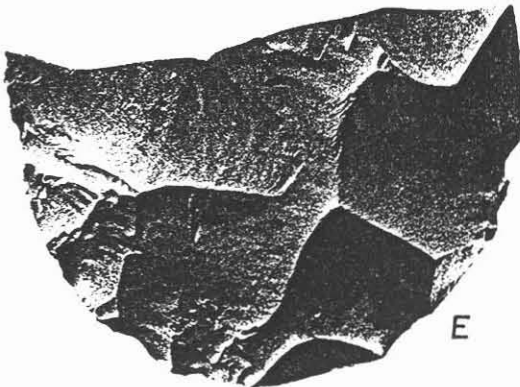
B



C



D



E



F

FIGURE 10. Other bifaces. A,B, thin bifacial knives; C, perforator; D,E, incomplete bifaces; F, *Guadalupe* adze.



## UNIFACES AND MODIFIED FLAKES (Figs. 11 and 12B)

With only 8 specimens, the unifacially shaped tool category is rather poorly represented. And only 3 pieces exhibit extensive shaping. This apparent dearth of shaped unifaces seems to be a trait of the study area, as opposed to the relative frequency of such tool forms in Central Texas.

Specimen A (Fig. 11) is a hard-hammer flake with a strongly curved section ideal for a scraping tool. This piece was not unifacially shaped; minimal trimming produced an apparent end scraper.

Specimens B and C (Fig. 11) are hard-hammer flakes trimmed with minimal shaping along one lateral edge. The shape of these flakes dictated that modification on the ventral surface would produce the most efficient tool. They would have been best suited for scraping or shaving activities.

Specimen D (Fig. 11) is a soft-hammer, interior flake. Trimming along the right lateral edge produced a pattern of continuous serration which would be effective for cutting or sawing of soft materials. This tool was found in a redeposited context so cultural affiliation is unknown.

Specimens E and F (Fig. 11) are shaped-trimmed along the distal and one lateral edge. These specimens may have served as scraping and shaving tools. Specimen E is particularly well shaped for shaving or planing tasks.

Specimens G and H (Fig. 11) are apparent tools with edges modified through use. Specimen G has discontinuous, bifacial nicking and edge rounding. Specimen H has minute, continuous nicking trim along both lateral edges.

The specimen in Figure 12B is a large hard-hammer spall retaining a large section of cortex. It is bifacially chipped along the left lateral edge and unifacially chipped along the right, or working, edge. Chipping in both cases was by hard hammer, producing a sinuous bifacial edge and a convex, flat unifacial edge with four prominent scar ridges forming a

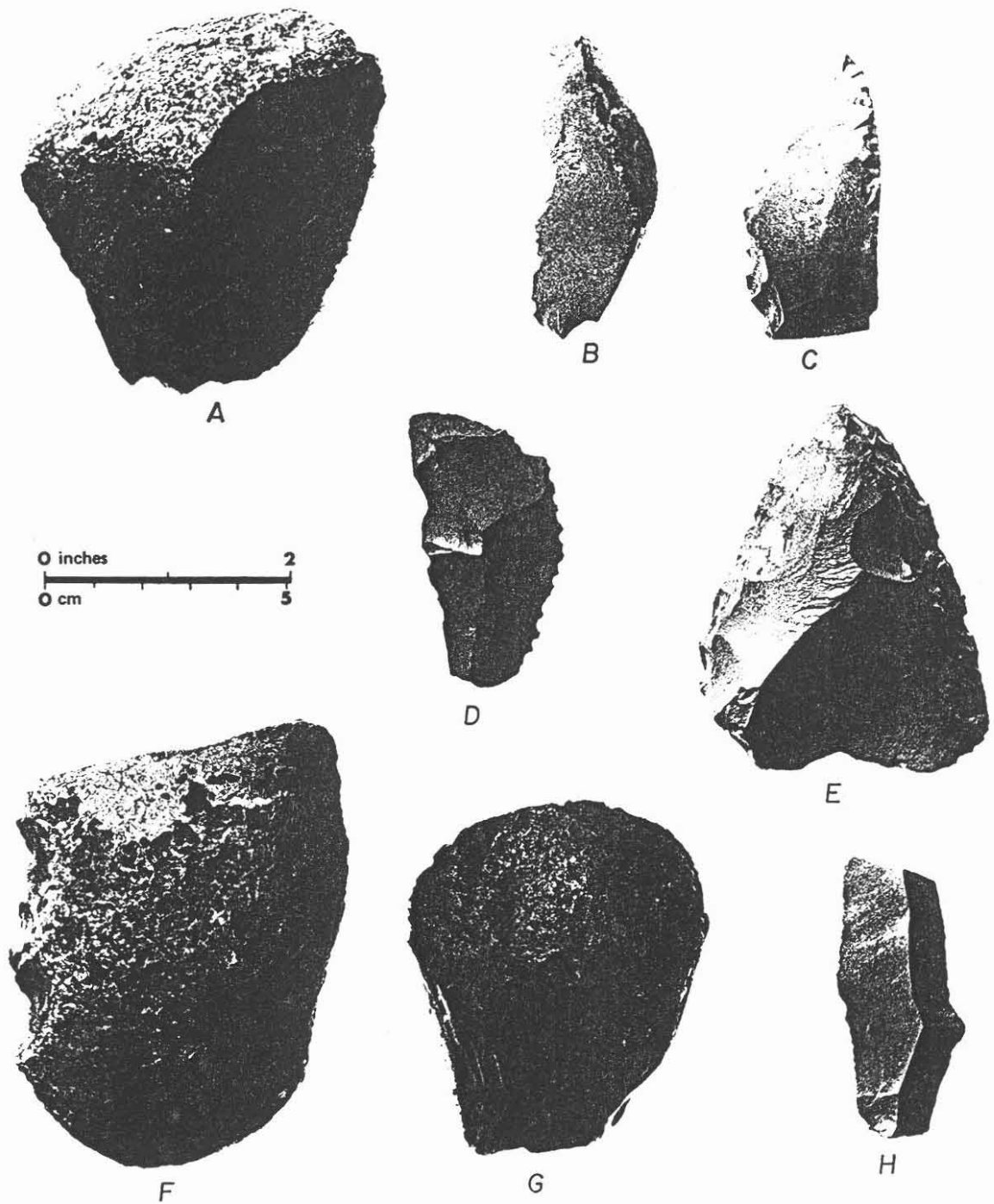
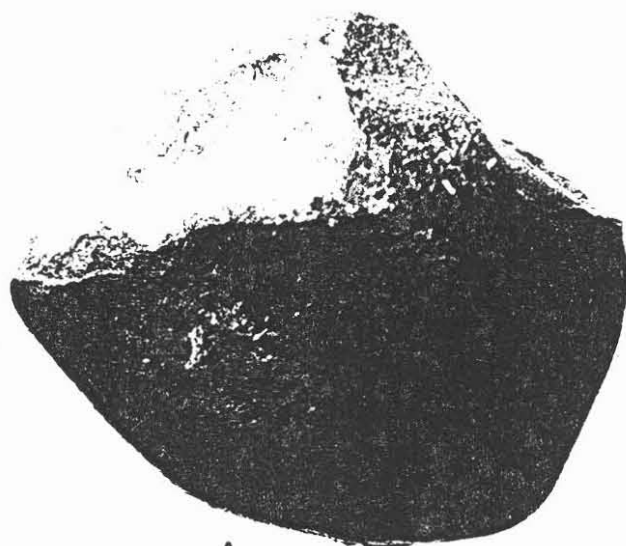


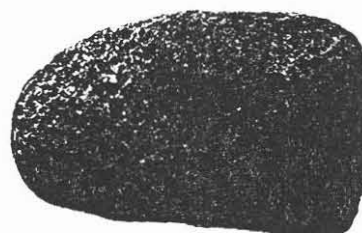
FIGURE 11. Unifaces and modified flakes. A-F, unifaces and trimmed flakes; G,H, use-modified flakes.



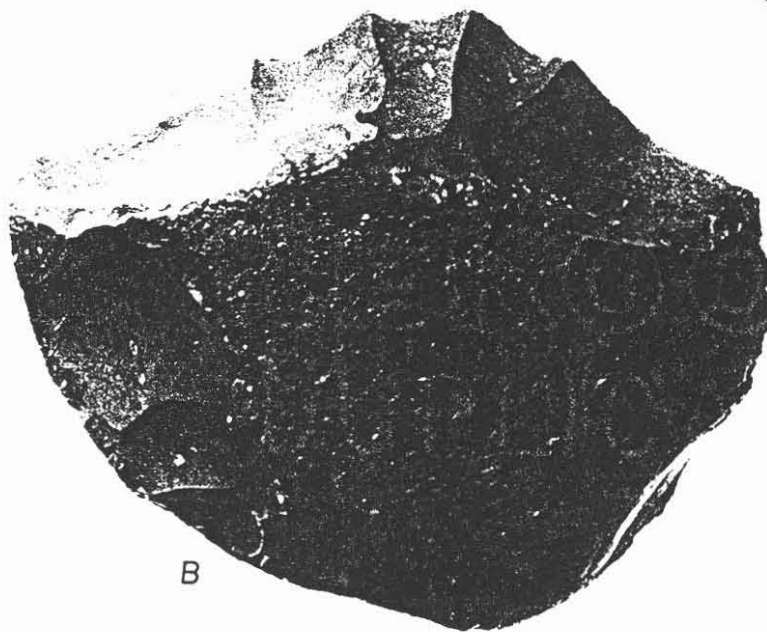
A



C



D



B

FIGURE 12. Uniface and ground and battered stones. A, chopper; B, uniface; C, ground stone; D, mano.

jagged edge. Five evenly spaced flake removals produced this effect. Almost the entire edge exhibits continuous shallow nicking or trimming scars, probably both.

#### GROUND AND BATTERED STONE (Fig. 12)

The extremely coarse chert cobble in Figure 12A may have been a chopping tool. The central section of a bifacial edge which appears to be mostly natural is partly chipped and heavily dulled and rounded.

The cylindrical ferruginous sandstone object in Figure 12C is subround at the intact end and ovoid in cross-section at the broken end. It is well smoothed over most of its surface, including the rounded edge of the end. Function is unknown.

#### Quartzite Manos

The grinding hand stones are both quartzite. The small but complete specimen (Fig. 12D) is smoothed on opposing faces. It is flat to slightly ovoid in cross-section. Length is 64 mm, width is 40 mm, and thickness is 24 mm.

#### Metates

Several sections of sandstone and ferruginous sandstone are metate fragments. One large specimen is 20 cm by 11 cm by 1.3 cm. It is highly smoothed on the flat, interior surface; the very slightly rounded back side is not smoothed, but has a number of long, parallel scratches.

Four fragments fit to form a section of a still larger metate. The material is soft, coarse-grained sandstone. It was found at a depth of 60 cm in Gradall Trench 4, broken by the Gradall.

#### Hammerstones

The two specimens of this category are small quartzite cobbles. Sufficient battering is present to suggest their use in striking other stones.

## LITHIC DEBITAGE

A brief debitage analysis intended only to provide quantity and size of a representative sample was performed. The samples are from 10 cm levels of 1 by 2 meter size. One level was selected from Test Units 1, 2, and 4; two levels from Test Unit 3. With the exception of Level 3 in Test Unit 3, each selected level produced at least one diagnostic biface. These are not shown in the following tabulation, however.

Sample	Flakes <40 mm	Flakes >40 mm	Bifaces	Cores
Test Unit 1, Level 7	175	12	1	2
Test Unit 2, Level 3	292	15	1	1
Test Unit 3, Level 3	180	9		3
Test Unit 3, Level 9	182	8	1	
Test Unit 4, Level 3	149	16		2
Total = 1049	978	60	3	8

The artifact total from these five levels is 1049 specimens. A conservative estimate of the total debitage sample is 8250 specimens.

During the debitage count, it was noted that hard-hammer flakes outnumber soft-hammer, especially in larger flakes with cortex. Both primary and secondary flakes of varying size are numerous. Add the cores and biface failures to the flake sample and it is clear that lithic tool manufacture was an important on-site activity.

## MODIFIED FLAKES

In a brief examination of the debitage, 52 flakes were selected which possibly are use-modified. Some obviously are tools; others probably are not. Not all modified flakes were included, only those thought most likely to be tools.

Modification is mainly random to continuous nicking, with occasional examples of small, continuous scars resembling trimming. Light polish and edge dulling were evident on a very small number of specimens; the microscope probably would reveal more.

## DISCUSSION OF DIAGNOSTIC BIFACES

Although the diagnostic biface sample is relatively large for the volume of excavation, it is too small to answer questions regarding projectile point typology and cultural chronology. In fact, it is sufficiently large only to generate additional questions. Therefore, only very general statements regarding cultural affiliation will be attempted.

Based upon identifiable specimens, the time span of major occupation at 41BP280 is about 2500 years, beginning in the latter portion of the Middle Archaic and continuing into the Late Prehistoric Period. *Pedernales* bifaces represent the earliest identifiable type recovered *in situ*. Although *Pedernales* or *Pedernales*-like specimens were found near the bottom of the cultural deposit in all test units and one Gradall trench, earlier, but much less evident, components may exist.

Two dart points in particular, among several untyped specimens, could date to an earlier time period. One is an expanding-stem form (Fig. 8E) found near the bottom of the deposit in Test Unit 3. Although it most closely resembles Late Archaic forms, its occurrence below a *Pedernales*-like form must be considered. Of course, it may be out of context, which is difficult to assess in a single, unfamiliar specimen.

The other point is a lanceolate form (Fig. 8F) which is somewhat unlike the Early Archaic forms from 41BP19, and possibly of lesser age. Also, it is unlike the other lanceolate at this site (Fig. 8K). By their context at 41BP280, both specimens would fall in a time range of about 3000 to 2000 years before present, but there is insufficient evidence to confirm this date.

Similar generalized lanceolate forms have been observed in other collections leading to the speculation that such forms are fairly common to the area, possibly having been used through a wide span of the Archaic Stage.

A *Hoxie* point found on the surface in a peripheral, disturbed area is a definite Early Archaic form. It would fit with the early material at 41BP19, but how it relates to 41BP280 is unknown.

By far the most numerous diagnostic artifact at 41BP280 is the *Pedernales* type, represented by 8 specimens. If 4 other specimens, which by stratigraphic context or technological similarity seem related, are added to this number, then the diagnostic count from later Middle Archaic times would make up half the total sample. This material seems especially relevant to interregional contact and hypothesized population growth or movement in the terminal Middle Archaic.

In a brief regional overview (Goode 1984), it was noted that *Pedernales* bifaces are the most numerous among Mid Archaic styles whose origins have been attributed to Central Texas. However, although this type is widespread, it is usually found only in small numbers at individual sites. Therefore, the presence of relatively large samples of *Pedernales* bifaces at sites such as 41BP19 and 41BP280 could point to strong cultural ties with Central Texas, possibly indicating an expanded sphere of influence of the Central Texas population.

During the latter portion of the Middle Archaic Period, Weir's (1976) Round Rock Phase, a significant population increase is hypothesized for Central Texas. Moving a step further, population expansion beyond previous territorial boundaries also could be hypothesized and would be recognizable by exported diagnostic artifacts in the neighboring regions.

The *Pedernales* point (Suhm and Jelks 1962), a stemmed biface used as a dart point or knife, or both, is the diagnostic artifact of this time period, being both abundant and widespread across much of Central Texas. Perhaps an indication of the scope of Round Rock Phase influence can be derived by calculating a ratio of the number of *Pedernales* bifaces at a site to distance from Central Texas. This would involve designating an arbitrary cultural boundary, perhaps the physiographic boundary of the Blackland Prairie and the Post Oak Savannah, as the eastern fringe of Central Texas.



Also, within the study area the same formula could be applied to quantify the occurrence of *Pedernales* bifaces relative to distance from the Colorado River.

Since the riverine environment probably served as a major thoroughfare into the Post Oak Savannah, a logical prediction would be that greater numbers of Central Texas artifact styles will occur in sites relatively near the river. Such a pattern may reflect simple diffusion of a popular tool form whose popularity gradually weakens with increased distance from the source. But, if an intrusive artifact style were found to be prolific throughout the region, numerous at sites occupying varied physiographic settings, then it could be hypothesized that Central Texas influence was substantial, maintaining cultural integrity over a large region. Very likely, population migration would be essential to the development of this pattern of cultural expression.

From quite limited evidence an hypothesis can be formulated which states that a condition intermediate of the two extremes existed. At 41BP19 and 41BP280 the impressive numbers of *Pedernales* bifaces seem to represent a phenomenon somewhat more complex than mere diffusion through casual contact. Sustained interrelationship with Central Texas people by the indigenous population, if not actual habitation by Central Texas people, is seen as a likely explanation of the presence of numerous *Pedernales* bifaces.

But the picture indicated by these two sites should not be viewed as the norm for a wide expanse of the region. More likely, larger samples will occur mainly at valley margin and nearby sites, their numbers diminishing gradually downriver and more sharply away from the river. From such a pattern it could be concluded that large-scale population movement was not a factor.

Moving downstream some 50 kilometers to the Sandbur Site, a predictably different pattern of Central Texas influence is revealed. Sandbur is another prominently situated valley margin site, somewhat like 41BP19. Here, the low number of *Pedernales* points indicates that Central Texas

influence is considerably diminished. In a very large collection of projectile points and bifacial knives, only two specimens resemble the *Pedernales* type. Also, earlier Mid Archaic styles of Central Texas-- *Nolan*, *Travis*, and *Bulverde*--are absent. In fact, aside from the Early Archaic, Central Texas influence seems rather slight in the Archaic Stage.

Located intermediate of 41BP19/280 and 41FY135 (Sandbur) are two recently investigated sites, 41FY98 and 41FY422 (Goode 1983), located approximately 20 kilometers downstream of 41BP19/280. These sites are also farther from the river than 41BP19/280, providing a situation for comparison and contrast.

Both sites are extensive but relatively shallow and produced only small samples of diagnostic tools. Site 41FY98 is situated on a broad terrace of Cedar Creek, a major tributary of the Colorado River; 41FY422 lies about 1.5 kilometers eastward upon a high Pleistocene terrace remnant in a wooded upland environment. These are not valley margin sites, but are located only 2 kilometers from the present river channel.

No *Pedernales* bifaces were found at 41FY98, but since only about one-third of the site area was investigated, the sample obtained may not be representative. Included in the small diagnostic sample from 41FY422 are two *Pedernales* bifaces. These are the only specimens attributable to a Middle Archaic time period, the heaviest occupation of the site apparently occurring in Late Archaic times.

This small sample of *Pedernales* material could be viewed as supportive evidence of the hypothesis that Central Texas influence is diminished farther from the river. However, samples are needed of many sites from such varied physiographic settings before any hypotheses are confirmed or disproved.

## SUMMARY AND RECOMMENDATIONS

The excavated record of aboriginal activity at Site 41BP280 indicates that intensified use of the terrace began somewhat prior to 3000 B.P. and continued sporadically into Late Prehistoric times. Distinctive *Pedernales* bifaces are the time marker upon which the earlier date is based; a *Seallorn* point is the distinctive artifact for determining the latter. Much earlier occupation of the site is suggested by two surface finds from peripheral areas. One is a *Guadalupe* tool, or adze; the other is a *Hoxie* point (Prewitt 1981). Both have been firmly placed in the Early Archaic of Central Texas and bordering regions. Beyond these specimens there is no indication that the site was a habitation locus during the Early Archaic occupation of 41BP19.

A large and varied inventory of stone tools and debitage was collected from the test excavation. Included in the artifact assemblage are tools used in the procurement and processing of foods, as well as tools associated with flint knapping and modification of soft materials.

Of particular significance are the diagnostic bifaces--projectile points and knives. From these it is apparent that a major occupation of 41BP280 occurred during a late Middle Archaic time period known as the Round Rock Phase (Weir 1976) in Central Texas. Although it seems probable that Round Rock Phase people participated in the habitation of 41BP280, the magnitude of their involvement in the local cultural process is not clear at this time. Continued occupation into the succeeding Late and Transitional Archaic Stages is quite evident, but perhaps at somewhat reduced intensity.

Very few specimens from the Late Prehistoric Stage were recovered. The only identifiable piece, a *Seallorn* point, dates to the earlier portion of the Late Prehistoric named the Austin Phase. Other Austin Phase and later Toyah Phase material has been found at 41BP19. Probable Toyah association with bison bone comes from a small shelter below 41BP19, overlooking Alum Creek. More intensive Late Prehistoric occupations than discovered in the test excavation probably exist at 41BP280, perhaps along the terrace edge near the tributary creek.

Especially important at 41BP280 is the relatively deep soil deposit containing cultural material. Across a large area flanked by Test Units 3 and 4 the deposit amounts to approximately 150 cm. In this area exists the greatest potential for recovery of diagnostic artifacts essential to definition of the various cultural horizons represented. Here, also, were found a variety of tool forms important in answering questions regarding subsistence practices. But more precise information about subsistence may be derived from animal remains. Although the recovered sample is small, the specimens are well preserved. Included in the few identifiable specimens are bison, turtle, and mussel shell.

Two other important research topics which could be addressed at 41BP280 are regional settlement patterns and interregional relationships, particularly with Central Texas. This site seems well suited to furthering knowledge of these integral aspects of aboriginal lifeways. As an instrument for contributing to the prehistory of a poorly understood region, Site 41BP280 holds considerable potential. The site should be considered for nomination to the National Register of Historic Places but is not recommended for further investigation because the site will be preserved under 12 to 15 ft. of fill. That portion of the site remaining to the south of the right-of-way should be considered for designation as a State Archaeological Landmark.

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