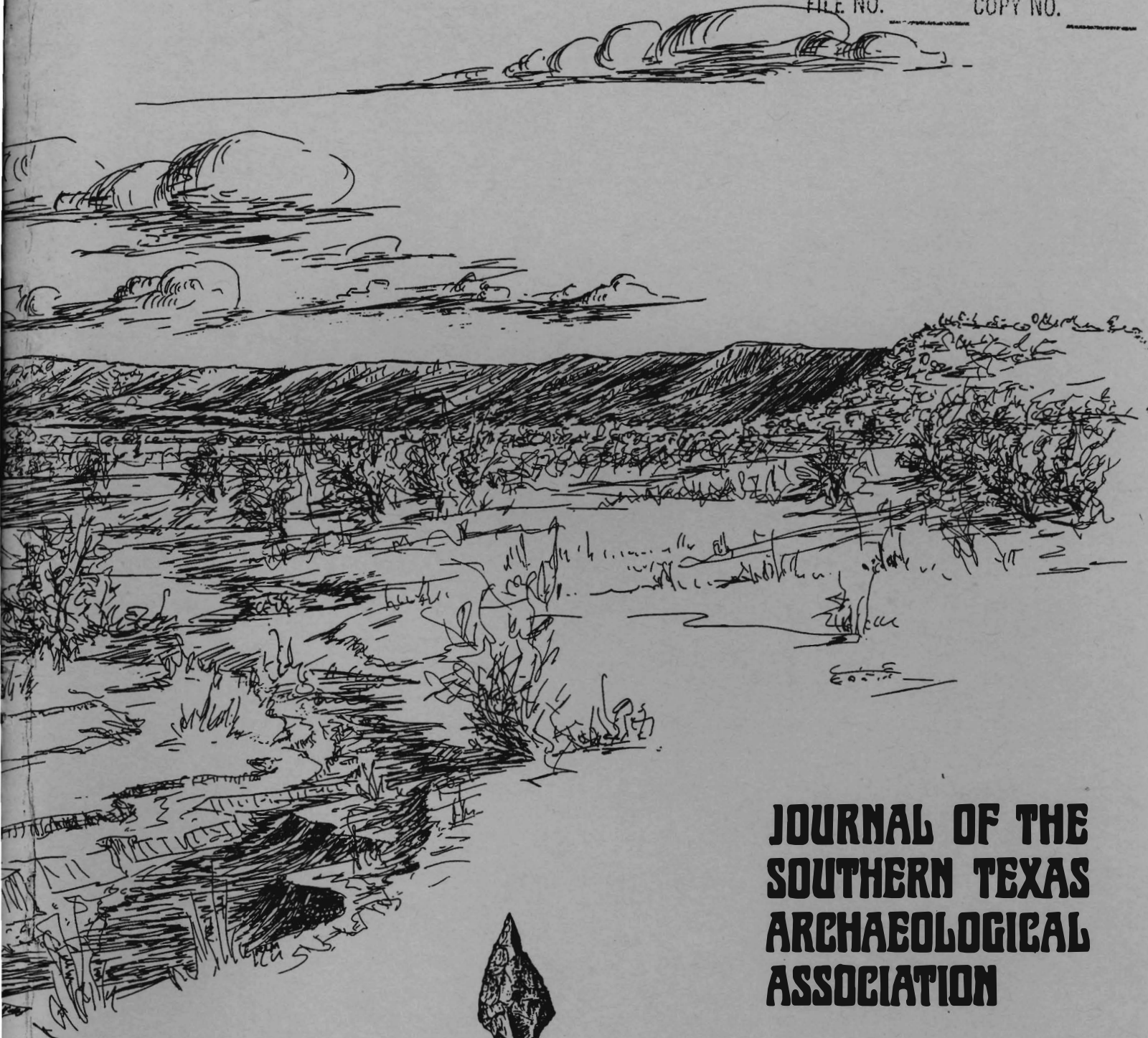


LA TIERRA

LIBRARY PROPERTY -
THE SOUTHERN TEXAS
ARCHAEOLOGICAL ASSOCIATION
FILE NO. _____ COPY NO. _____



**JOURNAL OF THE
SOUTHERN TEXAS
ARCHAEOLOGICAL
ASSOCIATION**



January 1987
Volume 14, Number 1

LA TIERRA

Quarterly Journal of the Southern Texas Archaeological Association

Volume 14, Number 1
January, 1987

Jimmy L. Mitchell
Editor

| | |
|---|----|
| THE ROBERT F. HEIZER MEMORIAL AWARD FOR 1986 | 1 |
| NOTES ON SOUTH TEXAS ARCHAEOLOGY: 1987-1 Problems and Progress in Paleo-Indian Studies in Southern Texas (Thomas R. Hester) | 2 |
| ARCHAEOLOGY OF THE GAMENTHALER VALLEY, GILLESPIE COUNTY, CENTRAL TEXAS: A PRELIMINARY REPORT (Thomas C. Kelly) | 5 |
| A CASE FOR THE HUNGRY SNAIL (Curtis Dusek) | 28 |
| NOTES ON A METAL ARROW POINT FROM MCCULLOCH COUNTY, TEXAS (Patsy Goebel, Robert Goebel, and Jim Mitchell) | 32 |
| TWO METAL POINTS FROM OSAGE, COLORADO COUNTY, TEXAS (Malcom L. Johnson) | 36 |
| AUTHORS | 40 |

Cover Illustration: Impressionistic view of the Gamenthaler Valley. See article by Thomas C. Kelly, page 5. Illustration by Richard McReynolds.

Manuscripts for the journal should be sent to: Editor, **La Tierra**, Jim Mitchell, 926 Toepperwein Road, Converse, Texas 78109. Copies of past issues of the journal are available from the Editor, also. To order Special Publications, order from the office, 123 East Crestline, San Antonio, Texas 78201.

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

For use of the STAA Lending Library, contact Lynn Highley or Anne Fox at the Archaeology Laboratory, The University of Texas at San Antonio, San Antonio TX 78285.

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 1986 ROBERT F. HEIZER MEMORIAL AWARD



On the Road to Belize
(Photo courtesy of
Rita Neureuther)

THOMAS C. KELLY

In recognition of his Outstanding Contributions to the archaeology of southern Texas, the 1986 Heizer Award is presented to Colonel Thomas C. Kelly of San Antonio, Texas. Although already well-known for his significant work with lithic technology and Paleo-Indian typology, Tom Kelly is always innovative, moving into new areas of archaeology, seeking new frontiers. He persistently works through the data, statistical procedures, and typological problems to develop a more coherent understanding of the past. Tom is particularly recognized for his recent years of work in the Gamenthaler Valley of Gillispie County, Texas, where over 100 Paleo-Indian points and 500 Archaic specimens have been documented in a two kilometer square locality. Excavations at 41 GL 160 provided evidence of a discrete Nolan occupation overlying Late Paleo-Indian levels (Texas Angostura, Barber, Golondrina, "Levi"). Tom Kelly has invested a tremendous amount of his personal energy as well as his money in pursuit of the proper study of the Gamenthaler Valley, since he fully recognized its scientific potential. Working under often extremely adverse conditions of heat or flood, without adequate numbers of volunteers to help, Tom Kelly, by his personal dedication as an archaeologist and scientist, has successfully salvaged a significant body of archaeological data from the area and is presently conducting its analysis. For all of this work and in recognition of his truly selfless dedication to the cause of Texas archaeology, the STAA is proud to honor Tom Kelly with the Robert F. Heizer Memorial Award.

NOTES ON SOUTH TEXAS ARCHAEOLOGY: 1987-1

Thomas R. Hester

Problems and Progress in Paleo-Indian Studies in Southern Texas

If you look back through the pages of this journal over the past 10 or 11 years, it is clear that there is a fascination with the earliest inhabitants of southern Texas -- the Paleo-Indians. Their distinctive projectile points are usually the only trace that we have of them, and the distributions of many of the regional types have been chronicled in *La Tierra*. These papers serve a useful purpose, and I will return to this later in these comments.

There are several aspects to the problems of studying Paleo-Indian cultures in southern Texas. First of all, and least important, is the fact that some of our colleagues have taken to referring to them as "Paleoindians" (I do not know when or where the hyphen went astray). Despite this identity crisis, there are more serious concerns about conceptualizing the temporal, paleoenvironmental, and technological boundaries of what is called "Paleo-Indian." Some archaeologists would argue that the term should not be used for those cultural patterns that follow the end of the Pleistocene, about 10,000 years ago. The post-Pleistocene patterns are now relegated by some to the "Archaic." I dislike this approach, as I see technological, settlement, and other cultural traditions that existed in the Pleistocene patterns that persist into the early post-Pleistocene. We have such poor control over the nature of the paleoenvironment 10,000 years ago that this may be a moot subject at present. A further problem is the lack of buried Paleo-Indian components in southern Texas; the surface finds are many, but the excavated materials are few. We can point to the Berger Bluff site in Goliad County being written up by Ken Brown of UTSA, to the St. Mary's Hall Plainview site dug by UTSA and the STAA in the 1970s, and we know of -- but can't get to -- deeply buried Paleo-Indian materials in Victoria County, at such sites as Willeke and Johnston-Heller. No mammoth kill sites of Clovis age and no Folsom kill sites where bison were slaughtered have yet been found on the south Texas coastal plain -- the nearest being the Folsom bison drive at Bonfire shelter in Val Verde County. To be sure, a number of localities with Pleistocene fauna have been documented, especially at La Paloma in Kenedy County and C. R. Lewis' ongoing, painstaking research on Petronila Creek, but no clear evidence of human association has yet been found in association with these. The best candidate for such associations is the Berclair Terrace site in Bee County excavated by the Texas Memorial Museum in the late 1930s. Given the nature of the excavation methods, it is unclear as to whether Paleo-Indian artifacts found at that locality were conclusively associated with Pleistocene fauna. In south-central Texas, along the southern edge of the Balcones Escarpment, the State Department of Highways and Public Transportation have dug site 41 BX 52, a campsite that yielded fluted points and associated lithics; and at Kincaid Rockshelter in Uvalde County, Paleo-Indian deposits were found by the Texas Memorial Museum. There may have been a Folsom occupation at that site, but the evidence was destroyed by looters.

There are other problems, of course, and these bear much discussion among archaeologists. But one that continues to plague us all is typology. Usually the fluted points, Clovis and Folsom, are pretty distinctive. But the lanceolate points of later Paleo-Indian times cause serious typological controversies. Just what is a Plainview point? Is it always distinct from the flared-base Golondrina point? Are Scottsbluff-like points in southern Texas the same as points of similar form on the Plains? What are Angostura points and what is their temporal placement? The Wilson Leonard site in Central Texas helps shed some light on this matter: according to Frank Weir, in a 1985 article, Angos-

tura is stratified above Scottsbluff (which is above Plainview) and clearly below the "Early Archaic" materials, including Gower.

The root of many of these typological problems is that the types were defined on fairly small samples of projectile points at a time when distributional data were sparse. The continued reporting of Paleo-Indian points in **La Tierra**, no matter what label is placed on the point -- as long as you have an accurate illustration -- further adds to our data base on these points and may eventually help to resolve some of the typological entanglements.

We have learned from many surveys in South Texas over the past 15 years or so that the Paleo-Indian sites are going to be hard to find. At Choke Canyon, no buried components were found. It may be that the shifting river channels in south Texas stream valleys have cut into such sites over the millenia and destroyed many of them.

There is progress, however, and we have to see the Paleo-Indian situation as an archaeological problem that will evolve and change through time. I noted Ken Brown's work at Berger Bluff earlier. His analyses should provide some important new data on paleoenvironment and animal species dating back perhaps 11,500 years ago. Many aspects of the St. Mary's Hall site have been written up, and when I get some spare time, I plan to pull together a publication on the discrete Plainview encampment found there.

Meanwhile, there is Col. Thomas C. Kelly, the recipient of the 1986 Heizer Award from the STAA. Kelly has been unrelenting in his pursuit of knowledge about the Paleo-Indians of southern and south-central Texas. Since the mid-1970s he has accumulated a vast amount of data on Plainview and Golondrina points, seeking to establish a consistent method of classifying these points based on significant attributes. This research is intended to constitute his Master's thesis in anthropology at The University of Texas at San Antonio. In the pages of **La Tierra** and in the Texas Archeological Society newsletter, **Texas Archeology**, he has published requests for assistance, and many Texas avocational and professional archaeologists have responded. He has also worked with many private and university collections to carefully measure (or in some cases, re-measure) the points needed for his research. All the while, he has fed this information into various computer programs as he searched for the right approaches to the typological issues concerning Plainview and Golondrina. Along the way, he has been side-tracked (and I think profitably so) by concerns about the typological definitions for other Paleo-Indian types. Most recently, he has put together a manuscript for the **Bulletin of the Texas Archeological Society** on the Lerma point. Those readers who are familiar with the North American literature, and pertinent literature from Mexico, know what a mess that "type" has been; those of you who have missed out on the saga of the Lerma point up to this moment can count yourselves as lucky -- and can wait until Col. Kelly's definitive report appears in print.

As Tom Kelly's thesis advisor, I wait eagerly (and patiently) for the finished product. I think his MA thesis will be a significant contribution to Paleo-Indian typological studies in Texas, and I trust the readers of **La Tierra** will help me in encouraging him to complete the job!

Meanwhile, Col. Kelly has undertaken some very useful test excavations at site 41 GL 160, the Gamenthaler site in Gillespie County, south-central Texas. He and I first learned about this site some years ago when the late King Harris and our colleague J. B. Sollberger (both of Dallas) helped us to obtain the loan of the Byron Barber, Sr. collection from the Gamenthaler Creek area. It contained a tremendous array of Paleo-Indian projectile points, and Kelly was soon up in the area, examining the sites and assessing their potential for producing buried components. He also used the collection for his typological studies and recognized a new type, aptly named Barber, which he published in **La Tierra** and which Sue Turner and I included in our 1985 book. This has turned out to be a very distinctive localized type, which in the past would likely have been lumped into the Golondrina group. It has now turned up at other

sites, and according to Frank Weir (personal communication) has been excavated at Wilson-Leonard.

Kelly's excavations in Gillespie County have been arduous. He has organized them on his own, with equipment help from the Center for Archaeological Research and some limited funds from the Friends of Archaeology program at UTSA. STAA members and UTSA students have volunteered their time. Much useful information has been obtained, but the lack of continuing volunteer help (in the numbers needed) and some bad luck with the weather (causing his units to collapse in the sandy soil) have been a source of frustration. Currently, the Gamenthaler collections are at the UTSA Archaeology Laboratory, and Roger Hemion and other STAA members are helping in the task of cataloguing. Kelly has been fortunate as well in securing the help of Richard McReynolds in drawing the Gamenthaler Paleo-Indian points, some of these recently published in a paper by Kelly in issue number 3 of the **Friends of Archaeology Newsletter**.

We congratulate Tom Kelly on this well-deserved recognition and we look forward to his continuing contributions to progress in the Paleo-Indian scene in southern Texas. One person can really make a difference in furthering the goals of archaeology; Tom Kelly has certainly done this, and his work serves as a challenge to other members of the Southern Texas Archaeological Association. We know, TK, that it has not always been "a piece of cake".

* * * * *



TEXAS
ARCHEOLOGICAL
SOCIETY

Highly respected annual Bulletin of the Texas Archeological Society; newsletter, Texas Archeology; one week summer field school; fall convention. Write to:

Texas Archeological Society
Center for Archaeological Research
The University of Texas at San Antonio
San Antonio, Texas 78285

ARCHAEOLOGY OF THE GAMENTHALER VALLEY, GILLESPIE COUNTY,
CENTRAL TEXAS: A PRELIMINARY REPORT

Thomas C. Kelly

ABSTRACT

The Gamenthaler Creek drainage in Gillespie County, Texas, has been hunted for artifacts for many years; over 600 Paleo-Indian and Archaic projectile points have now been recovered from this small valley. From 1977 through 1986, studies of private collections, surveys of sites in the valley, and preliminary excavations at two sites, have revealed evidence of various occupational episodes. Golondrina, Texas Angostura, Barber, Nolan, Pedernales, Marcos, and Frio dart points, and a single Edwards arrow point have been recovered demonstrating a long occupational sequence. Other artifacts, such as certain scrapers and a backed flake cutting tool, are now known to be associated with both Late Paleo-Indian and Nolan projectile points, implying a continuity of technology from Late Paleo-Indian levels into the Early Archaic component of the site. The extensive and generally discrete Nolan occupational zone at 41 GL 160 represents a unique opportunity to extend our knowledge of a relatively unknown Early Archaic component. The Gamenthaler Valley as a whole appears to be an extremely important archaeological locale which needs extensive long-term study.

INTRODUCTION

A projectile point collection belonging to Mr. Byron Barber of Dallas, Texas, was secured for study by the Center for Archaeological Research of the University of Texas at San Antonio (UTSA-CAR) in 1977. This collection had been recovered from the Gamenthaler Creek valley of Gillespie County (see Figure 1) over a number of years of surface collecting. The late R. King Harris of Dallas was instrumental in focusing our attention to this important collection.

The occurrence of 82 lanceolate dart points with ground basal edges in a total of 400 otherwise Archaic points in the Barber Collection indicated a strong Paleo-Indian presence in the Gamenthaler Valley. As an initial step, all the points in the collection were traced and recorded by Dr. Thomas R. Hester with student help, and the Paleo-Indian points were photographed, traced, measured and computer encoded using procedures explained in Kelly (1982).

Some of the lanceolate specimens in the Barber Collection appeared different from typical Plainview and Golondrina types. This different type also appeared in the R. E. Forrester Collection and at the Wilson-Leonard Site, 41 WM 235 (Weir 1984; Young 1983), which led to the establishment of the Barber point type (Kelly 1983b).

PRELIMINARY SITE SURVEY - 1978

In October 1978, Mr. Barber, J. B. Sollberger, and I walked over the sites in the Gamenthaler Creek drainage of Gillespie County from which the Barber Collection specimens were recovered. These sites were subsequently recorded with the Texas Archeological Research Laboratory (TARL) and UTSA-CAR as 41 GL 53, 41 GL 54, and 41 GL 93.

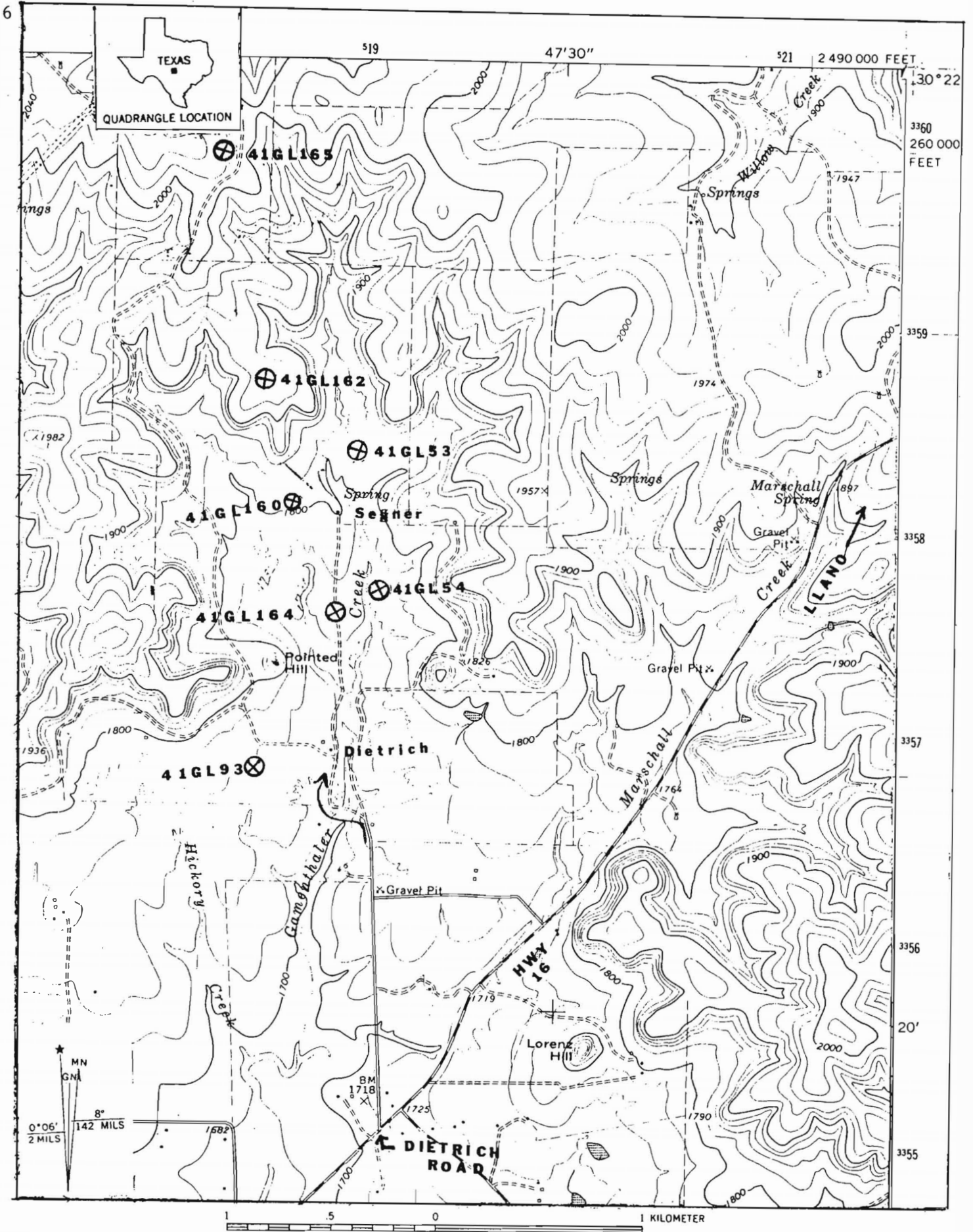


Figure 1. Map of the Gamenthaler Valley, Gillespie County, Central Texas (note relative location in Texas in insert, upper left).

41 GL 53

Mr. Barber indicated that the site recorded as 41 GL 53 had been a very prolific area for collecting. It is located on the east side of Gamenthaler Creek northeast of the Robert Segner farmhouse not far from a small, permanently-flowing spring in the upper part of the valley. It is in a marginal grazing pasture with indications of considerable deflation from slope wash exposing a basic red clay. Extensive debitage and several chert tools were observed, especially in the erosional gulleys.

41 GL 54

The largest of the three sites initially recorded is a site southeast of the Segner house approximately 500 meters away, on the Barnhard property. Considerable debitage covers two small pastures, with concentrations observed in erosional features. There were well defined occupational strata of considerable depth exposed in an eroded bank, which suggested considerable potential for the possibility of recovering significant archaeological information. A complete Early Archaic Nolan point with a Late Paleo-Indian Angostura preform approximately 50 cm below the present surface in this naturally exposed profile reinforced the impression that this was a very significant site.

41 GL 93

Farther downstream and southwest of the Dietrich farmhouse immediately south of Pointed Hill was another site where Mr. Barber had recovered most of the Paleo-Indian points in his collection. This site had been exposed about 1960 by flooding from a burst stock tank and is now destroyed. During our 1978 visit, only a very few flakes were visible on the surface, and no other artifacts were recovered.

1979 DOCUMENTATION EFFORTS

Inquiries in Fredericksburg in 1979 led to the study of a significant group of Paleo-Indian points in the collection of Mr. Dixon, the former Gillespie County Surveyor. Some of these points were from the Gamenthaler Valley. The collection was photographed and recorded (data on file UTSA-CAR) and were included in an ongoing study of Paleo-Indian projectile point types.

The identification of approximately 100 Paleo-Indian points from the several surface collections in the Gamenthaler Valley, an area only 1.4 kilometers wide and approximately 2.7 km long, certainly indicated an important Paleo-Indian presence in a very restricted locality. Initial efforts to obtain permission for subsurface testing were unsuccessful.

1983 SURVEY AND DOCUMENTATION

Another visit to the Fredericksburg area in early 1983 resulted, by a happy coincidence, in a meeting with Bob Segner, Jr., a professor at Texas A&M University, who had been surface collecting points for some time on the Segner farm. He expressed a keen interest in their significance and the prehistory of the Gamenthaler Valley.

A quick tour of the valley resulted in recovery of a number of artifacts, and subsequently, Mr. Segner secured his father's (Robert Segner, Sr.) permission for later subsurface testing of sites on the Segner farm. During this tour, he pointed out a site that Mr. Barber had not located, immediately west of the Segner home.

Grandfather Kromer (Mrs. Segner's father) had long ago made a massive collection from this site. This collection has mostly been dispersed and lost,

but in September 1984, Mrs. Annett Nagle (the senior Robert Segner's daughter) of Denver, Colorado, graciously permitted recording of the Paleo-Indian points in one surviving frame from the collection.

There are two small marginal pastures immediately west of the Segner home. The one furthest west has eroded exposures of bright red clay with the remaining topsoil containing a near-white sand. The closer field has a yellow sandy topsoil in the northern half of the pasture, with the southern half badly eroded to a yellow clay. Despite the 70 years of known collecting, projectile points are still found in both fields and they are littered with chert debitage and tools.

This site was recorded as 41 GL 160, and preliminary testing indicated it to be an important Paleo-Indian site with an interesting Early Archaic component of Nolan points and a set of associated tools. The identification and documentation of this site, along with obtaining permission for a subsurface study, has led to an expanded but intermittent archaeological testing and historical research program for the Gamenthaler Valley (1984 - 1986). The remainder of this report documents the preliminary results of these investigations.

HISTORY OF THE GAMENTHALER VALLEY

Fredericksburg was founded in 1846 by Germans and Danes under the leadership of John O. Meusebach. His peace treaty with the Comanche Indians permitted development of the area without further conflict. Gamenthaler was the earliest settler in the area near the intersection of Gamenthaler and Marschall Creeks. Both of these streams originate in springs at the northern end of their respective small valleys.

A typical one-and-a-half story home of that early period was built by a member of the Meusebach family on the east bank of Gamenthaler Creek. It is located on Dietrich Road and has been beautifully restored. Dietrichs and Kromers settled across the creek and in the upper end of the valley (see Figure 1). Most of these settlers maintained a small *Sontaghause* for Sunday services and festivities in the town of Fredericksburg. They managed to prosper on small farms that will not today support families.

Cattle, goats, sheep, hogs, and horses were produced, as well as oats, wheat, barley, corn, peaches, apples, and pecans; all these products are still grown today but mostly as an income supplement. Soils in the area are generally marginal and thin, particularly in the limestone hills. Erosion has occurred into the underlying red and yellow clays because of past overclearing and overgrazing.

GEOGRAPHY

The Gamenthaler Valley originates to the north in three small spring-fed arroyos just below the 2,000' contour line. The creek valley drops 100' within 300 meters to the south, then becomes very constricted and drops sharply to the valley floor. The 1,900' contour line outlines the Gamenthaler Valley to its end south of Pointed Hill. The valley is only 2.7 km long and its greatest width, just above the Segner Spring, is 1.4 km. Pointed Hill sets like a stopper in a bottle, with the west edge 100 meters away. The other edge is 800 meters to the east, with Gamenthaler Creek in between.

Pointed Hill is only 100' tall but is very steep with only a 100-meter diameter at the bottom and a flat top 10 meters in diameter. It completely dominates the valley and provides a superior overlook (Hester 1980) of the Pedernales floodplain to the south. Gamenthaler Creek joins Marschall Creek two km to the south which in turn joins Palo Alto Creek, which flows southeast into the Pedernales River 10 km east of the town of Fredericksburg.

No hunter could resist the ideal observation point provided by Pointed Hill. Climbing to its heavily brush-covered top, one finds a manmade circular area about two meters in diameter on the south side that was cleared of brush long ago. The rough limestone surface has been pounded comparatively smooth, probably with a large spherical chert hammerstone that is still there. A careful search of this area produced a handful of chert debitage from cracks and small depressions. It requires little imagination to visualize this as a manned lookout post with a sentry who whiles away the time resharpening projectile points and other tools.

The north side of the valley also has a lookout point which shows more recent use. Old cigarette butts, burned matches, and two 30/30 cartridge cases tell their own story.

The orientation of Pointed Hill in relationship to the recorded archaeological sites of the valley is strategic. Site 41 GL 93 (Barber's principal Paleo-Indian site, now destroyed) is 500 meters to the south. Site 41 GL 160 (Late Paleo-Indian - Early Archaic) lies 800 meters NNE with 41 GL 162 (an exhausted lithic resources procurement area) 500 meters further north.

Site 41 GL 53 is one kilometer NE of Pointed Hill and from the number of surface finds, it must also have been a Paleo-Indian camp. Site 41 GL 54 appears to have been the largest site in the area and is 600 meters ENE of Pointed Hill. Site 41 GL 164 is another large campsite 400 meters ENE between the main creek and its west fork.

Springs in the Gamenthaler Valley

The Segner Spring lies 900 meters NE from Pointed Hill, beyond the Segner House (see Figure 1). It is the only spring of six in the valley that is marked on most topographic maps. This small spring was a primary reason for locating the house here in the 1800s; it also was the center of Paleo-Indian activity in the valley.

Shiner (1983:3) refers to the Barber Collection and the associated spring (Segner Spring) as a "large spring with over 100 lanceolate points." Brune (1981:10) defines large springs as 280 to 2,800 liters per second flow (or $280 \times 60 \times 60 = 1,008,000$ liters per hour minimum flow to 10,080,000 liters per hour maximum).

From its present appearance and the configuration of the downstream drainage, it is doubtful that the Segner Spring ever flowed at more than a small fraction of these rates. Apparently, in this case it was not the size of the spring or the flow rate but probably its dependability which was the critical factor in both its prehistoric and historic utilization. There are five other small springs in the Gamenthaler Creek drainage which may also have been utilized.

There are many more and larger springs within a few kilometers. After all, this is the "Country of 1,100 springs" mentioned in certain beer ads. While there can be no doubt of their aboriginal importance, this particular spring contributes nothing to support Shiner's theory of "Big Springs and Paleo-Indians."

Knickpoints

Knickpoints as defined by Schumm and Hadley (1957) and elaborated by Frison (1978:192) are natural traps used by prehistoric hunters to efficiently kill numbers of game animals. They often occur as sheer or very steep barriers in deep arroyos. Game animals are driven into the mouths of these arroyos and intensive killing takes place from above as they pile up at the knickpoints. The Hawken Site (Frison et al. 1976) on the High Plains was the scene of three such events and over 300 projectile points were recovered from the site.

Bison jump sites such as Bonfire Shelter (Dibble and Lorrain 1968), in contrast, produce low numbers of projectile points since most of the killing was done by driving game over a high dropoff. The fall itself killed most of the animals and the use of spears was minimized.

The Gamenthaler Valley contains a number of natural knickpoints. The entrance between Pointed Hill and its companion to the east is flat and game animals coming up the west side of the creek could easily have been shunted up the west fork of the creek. The creek bed narrows and deepens rapidly with the sides becoming almost vertical. The confluence of two small drainages immediately south of site 41 GL 160 forms a three-meter-high knickpoint.

There are also very steep and deep banks south of the Dietrich home where a small Bison jump might be possible. This is a possibility which has not yet been explored. The main creek bed also has a natural knickpoint formed by the streambed below Segner Spring.

The valley bed is flat for some distance above (north of) Segner Spring. The upper main creek bed has more natural knickpoints of "last resort" with several very steep narrow arroyos. Similarly, the west side of the valley also ends in several knickpoints but they would probably be less efficient since they are not as steep and narrow.

HYPOTHETICAL SUBSISTENCE PATTERN

More than 100 Paleo-Indian projectile points and at least 500 Archaic points have been found on the surface of this very small valley with its natural knickpoints. Such a concentration of projectile points in such a limited area suggests a hunting-oriented economy, and yet the small size of the valley was probably not totally suited for year-round prehistoric occupation.

Given what we have learned to date of the geomorphology of the Gamenthaler Valley, and the distribution of its archaeological sites, it is plausible to hypothesize the following prehistoric subsistence program for the valley.

1. A few small bands or family-sized groups visited the Gamenthaler valley at some annually determined time for a coordinated hunt. Fall would be a logical time to procure a winter supply of meat.
2. Pointed Hill is a natural overlook point for coordinating activities and would be manned by a sharp-eyed scout during all daylight hours.
3. Grazing animals would be spotted on the open floodplain to the south and signals (smoke, flags, or other signs) from the lookout would direct those camped to the south to quietly surround or cut out a sufficient number of animals for the group's needs.
4. The camp (or camps) up the valley would position people at strategic points along the creek to funnel animals into the creek bed and, at the proper time, use noise, waving flags, or fire to induce a mad stampede up the final stretch. The pileup at the knickpoint would be the opportunity for maximum slaughter by spearmen positioned along the top of the arroyo.
5. Butchering would be done at the kill site with final meat processing done at the nearby campsites. Drying or smoking of large quantities of meat would be done, probably concomitant with hide processing.
6. Replacing and refurbishing of spears and spear points damaged during the slaughter would probably be done at the same time. There would also be some manufacturing of scrapers and meat or hide processing tools

as well, either in advance or as needed. The convenient lithic resources sites, 41 GL 162 and 41 GL 165, would be exploited for the raw material.

7. Compared to the open plains to the north and northwest, these sheltered valley sites might have provided preferred winter camps, especially in hard winters. The various small springs would provide dependable water and trees along the creek beds would be a source of adequate fuel.

PRELIMINARY RESEARCH DESIGN

Given the subsistence pattern hypothesized from the geographic features of the valley and pattern of surface archaeological evidence in the Gamenthaler Valley, the following possible research outcomes should be examined:

1. Heavy distribution of campsites around the choicest knickpoints is to be expected. This could be shown by mapping and analyzing all sites in the valley.

2. The knickpoints and campsites should have a high percentage of projectile points and a high percentage of broken or reworked points reflecting the killing and butchering of game.

3. If a large amount of meat was processed at the campsites, a high percentage of butchering and hide processing tools should be observed.

4. The soils of the valley are not conducive to good bone preservation, but a search should be made for bone beds as the most reliable proof of organized hunts. Knickpoints should contain heavy bones (backbones, pelvis, hooves, etc.) while campsites should have limb bones, ribs, etc.

5. Extended camping periods might be demonstrated by deposits of burned rock, charcoal, or the amounts and nature of chert debitage. Conversely, the lack of such evidence would probably indicate short-term hunting events.

6. The extensive lithic resource procurement areas which exist in the area should be examined and materials compared to determine lithic source utilization and preferences. Some nonlocal lithic materials would be expected if groups were using the valley only seasonally; such nonlocal materials may suggest other areas visited. Such lithic source information may indicate changing patterns or preferences through different time periods.

7. Intensive typological studies might also demonstrate seasonal travel routes and external cultural relationships; these may have been different for the various phases or components.

GAMENTHALER VALLEY PHASE I EXCAVATIONS - 1984

Between March and December 1984, an initial archaeological testing program was undertaken with strictly volunteer labor. Students from the University of Texas at San Antonio and members of the Southern Texas Archaeological Association expended 161 persondays of mostly weekend digging to secure the following results:

41 GL 53

Ten one-meter-square pits were excavated at site 41 GL 53 which revealed only a meager Late Prehistoric occupation. Thirty-two persondays were expended for the recovery of a single diagnostic artifact, an Edwards arrow point. Most of the effort was spent on a relatively undisturbed knoll in midpasture where about 20 cm of topsoil overlay 20 cm of red clay which in turn sat on top of a pure white limestone. Two pits were excavated near the creekbank below the spring where black topsoil extended to a meter in depth. Only a few flakes were recovered.

Since surface collections indicated a past heavy use of the site by Archaic and Paleo-Indian people, we can only conclude that the site was inadequately sampled or that slope wash has deflated the surface. The latter possibility is suggested by red clay exposure and numerous arroyos. Eventually, however, more tests should be made in the deep black soils to the south and east of Segner Spring.

41 GL 54

A surface survey of this site was conducted but permission to excavate the site could not be obtained. Three Texas Angostura points (Kelly 1983a) were found along with numerous camp tools such as scrapers and an interesting tool which needs further study, a backed flake. An Early Side-Notched point (see Figure 2, a - a') was recovered by Bob Segner, Jr., eroding out of the side of an arroyo on site 41 GL 54. This point has heavily ground basal edges, which is typical for the type (see Turner and Hester 1985:87 under Early Stemmed). Both the Texas Angostura and the Early Side-Notched points are associated with the Late Paleo-Indian period. This is the largest of the Gamenthaler Valley sites and appears to have very great potential for subsurface testing.

41 GL 93

Permission was given by Arthur Detrich to excavate on the Detrich Farm which is the largest property in the valley. While work was underway on the Segner Farm, Mr. Detrich had a stock tank (stockpond) excavated exactly where Mr. Barber had outlined his discovery of the exposed Paleo-Indian points. This tank was approximately 50 meters in diameter and three meters deep into a yellowish clay. A close watch was maintained as the tank was dug, and surveyed again after completion and several rains had occurred. A careful survey of the slight drainage above the tank was also accomplished on the chance that Barber's points might have washed down to the flat where he found them.

Absolutely no archaeological evidence was found remaining at this site. Possibly all the points had been completely exposed by natural erosion and collected. The complete lack of debitage may possibly indicate a cache rather than a campsite. In any case, site 41 GL 93 has, for all practical purposes, ceased to exist. The specimens in the Barber Collection were luckily recovered prior to the major modification of the site.

41 GL 160

The northern portion of a small field immediately west of the Segner home was selected for subsurface testing since it was covered with a topsoil in contrast to the exposed clay of the badly eroded southern section of the site. The land has a gentle slope from the hills northwest to southeast; thousands of years of erosion and slopewash have created a highly varied geomorphology.

A primary reference datum was established as a large nail driven into the north side of the only powerline pole in the pasture. The operating reference datum is a large steel bolt driven to ground level located 11.65 meters north

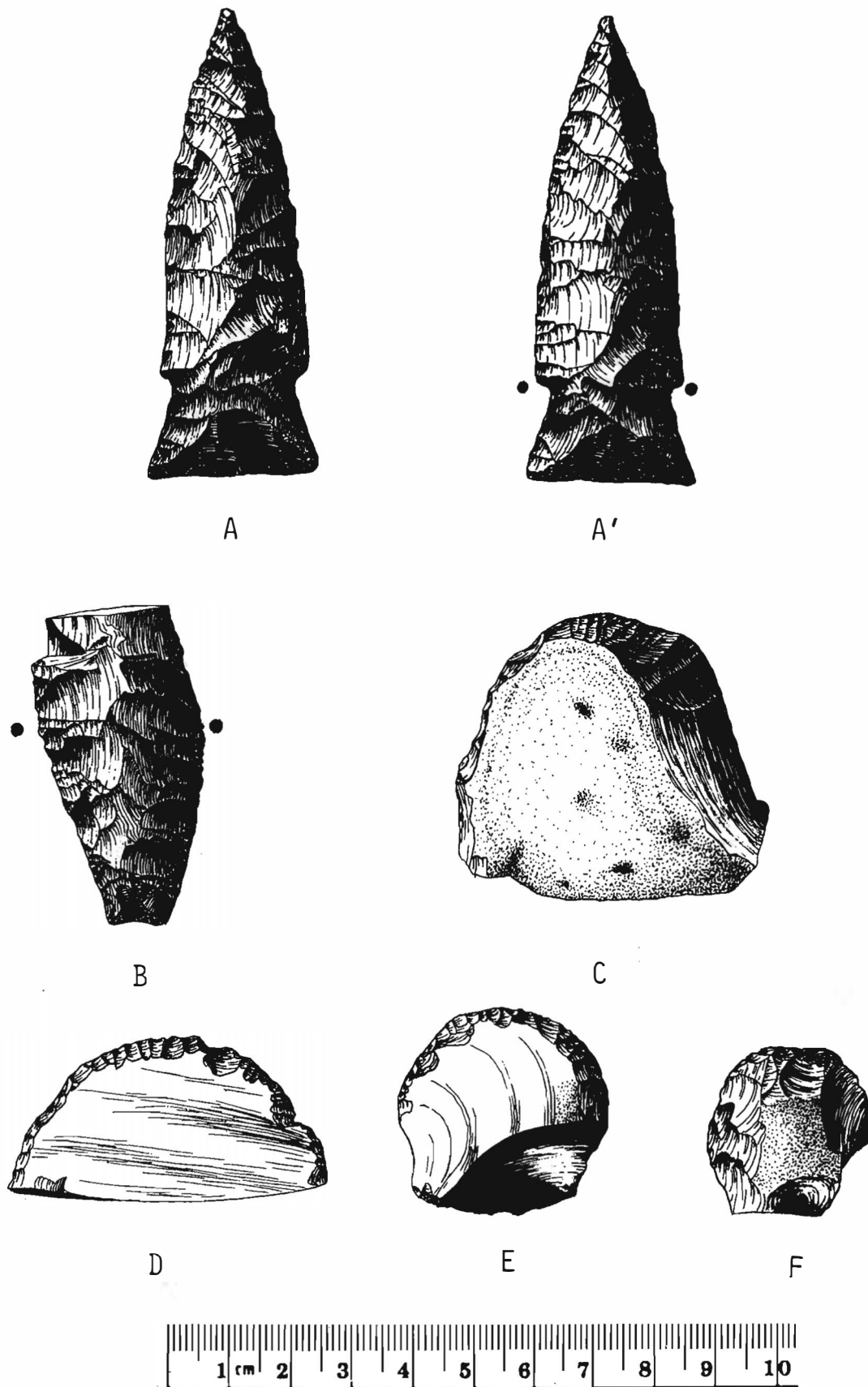


Figure 2. Surface Finds. A - A', Early Side-Notched point from 41 GL 54 (Bob Segner, Jr.); B, Late Paleo-Indian point; C - F, Semicircular scrapers possibly used in hide processing. Dots indicate extent of basal smoothing.

of the primary datum point, at an elevation of 554.94 meters (20 cm above the 1,820' elevation of the primary). The operating reference datum was arbitrarily designated North 0/East 0. The original layout for the excavation was accomplished with a handheld compass and 30-meter tape which was adequate for the first several two-meter. It eventually resulted in a non-right-angle error in the northern squares for subsequent plots, as shown on the planetable Site Map (Figure 3). Vertical controls were by line levels and string line from steel rods driven to ground level in the center of each two-meter square. These were later converted to metric elevations during plane table mapping.

Initial 10-cm levels were changed to 20-cm to fit the natural stratigraphy encountered below ground level. Except in a few exceptionally hard clay levels, digging was done carefully with trowels and artifacts (except small flakes) were three dimensionally plotted in situ. All materials were screened through 1/4" mesh screens.

Three exploratory one-meter squares, scattered across the field, were sufficient to locate the buried site. One test square (A), 11.4 m at N 53 degrees E from datum had a yellow sandy topsoil followed by 20 cm of undisturbed yellow sandy soil containing 52 chert flakes. Below this level, another 20 cm of a mottled yellow clay contained only three flakes.

A second one-meter square (B) in the northeast corner at the intersection of two fencelines, was tested. Here 20 cm of yellow sandy topsoil was followed by a bright red clay to the bottom of the test at 40 cm. Four flakes, all in the disturbed topsoil, were recovered. The SW corner of this unit is 35.1 m at N 51 degrees west of datum.

Square C at N13/E0 had yellow sandy topsoil to 20 cm, a thin layer of leached white, sandy soil to the 40-cm level, and a sandy soil becoming increasingly more yellowish clay with round, black-centered manganese nodules to the 60-cm level. Below this, the soil became mottled yellow clay with increasing numbers of larger manganese nodules to 80 cm, where digging was terminated because of the hard dry clay. Lithic flakes, a Nolan point at 37 cm, and a Texas Angostura point at 74 cm, suggested a site of some consequence. The initial test pit was in the NE quadrant of Square C and excavation of the remaining quads confirmed the presence of a substantial site. Another Nolan point was found at the 33-cm level and two more Texas Angostura points were recovered at 76 cm, clearly indicating a well-stratified deposit with Early Archaic and Paleo-Indian components. Eventually the NW/4 of C reached 100 cm with a large preform found at the 96-cm level. The SE/4 of C continued to 120 cm and some debitage was still being found.

Eleven two-meter-square units were excavated to varying depths, the deepest to 120 cm. A total of 125 persondays were expended on the site before running out of volunteers and into impossible weather. The 1984 summer drought hampered digging in the baked clay bottoms and then was followed by unprecedented rains. These factors plus cattle and goats using the pits as their watering holes played havoc with the site, since no funds were available for fencing the pits. Neat sharply profiled walls slumped into the bottom of the excavated units which generally dissolved into a shapeless pond. Considerable labor was required to resume controlled excavations at the site in 1985.

PHASE II DEVELOPMENTS: 1985 - 1986

The second phase of work in the Gamenthaler Valley was extremely sporadic because of the difficulties in securing volunteers and a continuing lack of funds. Nonetheless, several additional units at 41 GL 160 were excavated to various depths, and two additional sites were identified and recorded.

41 GL 160

The additional units excavated at 41 GL 160 bring the total number of two-meter squares to 15. A total of eight features were also recorded which reveal

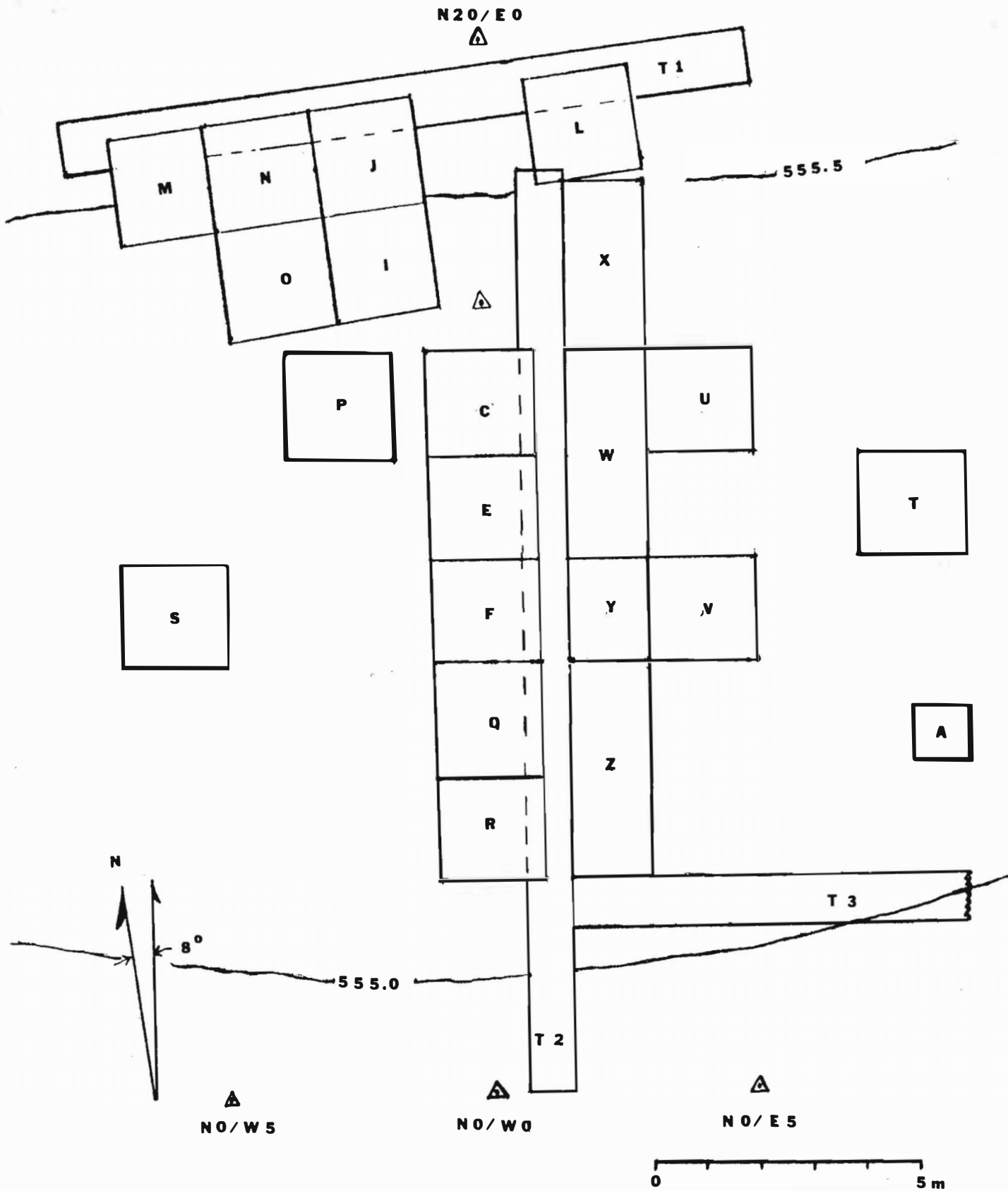
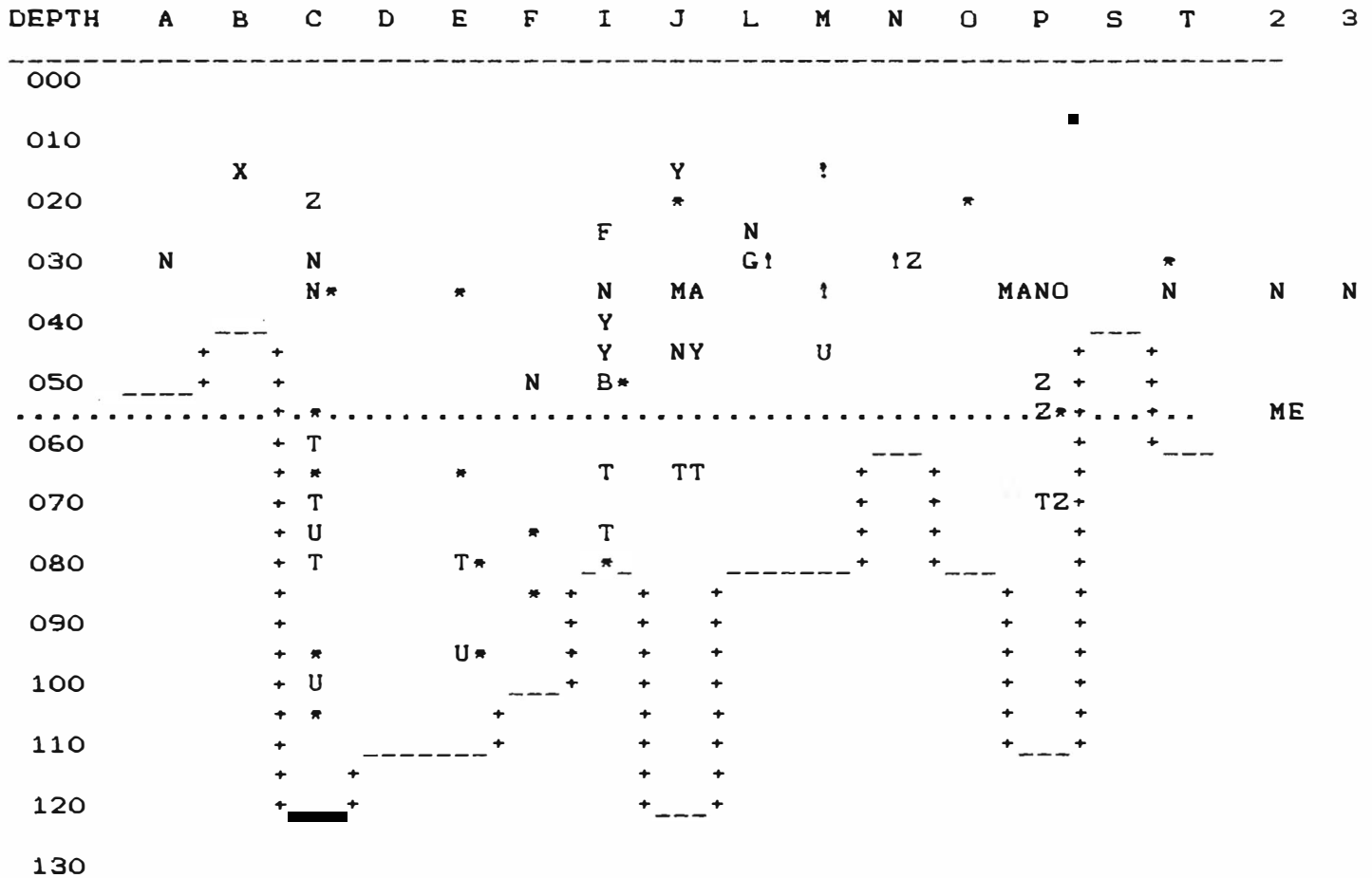


Figure 3. Excavation Units at 41 GL 160. Lettered Units = 2-meter square excavation units. T1 - T3 = End of season backhoe trenches to examine the geomorphology of the site.

ARTIFACT PROFILE EXCAVATED UNITS
41GL160



B-BARBER
 F-FRIO
 MA-MARCOS
 N-NOLAN
 T-TEXAS ANGOSTURA
 U-UNCLASSIFIED PALEO-INDIAN POINT
 G-GOLONDRINA
 !-GRAVER
 *-BACKED FLAKE
 ME-MESERVE
 X-SIDE SCRAPER
 Y-SEMI-CIRCULAR SCRAPER
 Z-END SCRAPER

Figure 4. Relative Stratigraphy of Artifacts by Unit at 41 GL 160. Note Concentration of Nolan at 30 - 50 cm versus Paleo-Indian types 60 cm and lower.

a great deal about the cultural processes at the site. These features are all concentrations of flakes only a few centimeters thick and approximately 50 cm in diameter. The flakes usually come from the same kind of chert core within a feature and many of the flakes have the distinctive prepared striking platforms with lipped ventral edges that are usually associated with bifacial reduction. As the only bifacial artifacts recovered so far are projectile points. One can conclude that each of these features represents the debitage of a single flint-knapper producing new points to replace those lost or damaged in a hunt.

Over 10,000 chert items were recovered from 41 GL 160 in both phases of the work. Most of these lithic specimens have yet to be analyzed, but STAA members have recently volunteered to perform the required laboratory work to facilitate this analysis. Preliminary field evaluation did identify several types of projectile points and important flake tools.

The vertical distribution of various artifacts is shown in Figure 4, which suggests at least two distinct cultural components at the site. The separation between the Nolan Early Archaic level and a deeper Texas Angostura Late Paleo-Indian component provides a unique opportunity to compare the utility tools such as scrapers and cutting tools of the two time periods.

Nine scrapers have been recovered in the 41 GL 160 excavations to date in both the Early Archaic and Late Paleo-Indian levels (see Figure 2, d - g for examples). These tools suggest possible hide preparation activities since these artifacts have considerable wear polish and very little edge damage.

The largest flakes recovered are often altered into what we might call a "Backed Flake," as a tool for slicing some material such as meat, since wear patterns show only slight nicks and light polish. These Backed Flakes (see Figure 5, a - c) are possibly the most important lithic artifacts recovered at the site. They are the larger flakes found during excavation of the site and, while quite varied in appearance, all have in common a razor sharp edge with cortex or deliberately dulled edges on the opposite edge. Most are configured in such a way as to be comfortably held in the hand. For the lighter stages of butchering, these make ideal knives and show a wear pattern commensurate with this function. Their number and distribution in a restricted area of the site suggests a specialized work area possibly for the cutting of thin strips of meat for sun or fire drying. Sun drying is the more likely probability since there has been no evidence of fire found anywhere in the site.

Lithic preforms ("quarry blanks," thick percussion bifaces) were also recovered for the site (see Figure 5, d - e). Such early stage bifaces suggest that lithic material was being brought to the site for finishing. Figure 5, d is an early stage biface recovered from the Late Paleo-Indian level where the specimen shown as 5, e was recovered from the Nolan component. Note the graver or burin on 5, e (arrow).

Projectile points recovered from the site included Late Archaic Marcos (see Figure 6, a) and Frio dart points, as well as other chert tools and bifaces in upper levels, their "correct" stratigraphic position. A number of Nolan points (see Figure 7) were recovered in squares A, C, F, I, J, L and T. These points are considered an Early Archaic type in Central Texas (Kelly 1962; Weir 1976) and have a distinctive steep, alternate beveling on the stem edges (Suhm and Jelks 1962; Turner and Hester 1985:132). The Nolan points seem to cluster between the 20-cm and 50-cm levels, with clear separation between them and most of the Late Paleo-Indian types.

However, three Barber points (see Figure 8) found at the 50-cm level in three different units may have some association with the Early Archaic Nolan points. Barber points were recovered clearly below the Angostura levels at the Wilson-Leonard Site (Young 1983, Weir 1984) closely associated with Plainview points (Frank Weir, personal communication 1985), Further testing is needed to clarify this anomaly.

Two Texas Angostura points (see Figure 9, e and f) were found between 60 and 70 cm in Units I and J. Similar points, including a reworked one with

alternate beveling of the blade (Figure 9, c; Site 41 GL 54, Bob Segner), have been found on the surface of other Gamenthaler Valley sites.

Two unclassified points (Figure 9, a and b) were found at 96 cm in Unit E and at 99 cm in Unit C. These points appear identical to points from the Levi Site (Alexander 1963) that were called Plainview-Angostura and were radiocarbon dated to 7000-9000 B.P. They are long, very slender, parallel-sided points with ground basal edges. The bases have slight concavities and the flaking is oblique parallel from upper right to lower left. The only thing they have in common with the Plainview type is a lanceolate form and ground basal edges. Likewise they do not resemble the points pictured by Wormington (1957) as Angostura. Possibly they represent another local Texas variant (a "Levi" type?). They are stratigraphically the earliest points in the site.

While no Plainview points were recovered from 41 GL 160, a number of them have been found on the surface in the Gamenthaler Valley and, since they are presumably earlier than any of the other points at the site, should be found at lower levels. Some trenching to a depth of two meters might provide earlier material, unravel the complicated geomorphology of the site, and give some understanding of the full sequence of occupation of the valley.

41 GL 164 and 41 GL 165

Two additional sites were documented during the Phase II work in the Gamenthaler Valley. Site 41 GL 164 is a very large site and, from surface indications, was probably an extensive campsite (see Figure 1). It appears to have fire hearths and thus might produce specimens of charcoal for radiocarbon dating of one or more of its components. The second site, 41 GL 165, is a massive lithic resources procurement area from which huge amounts of chert cobbles have been decorticated and taken away (see Figure 10 for examples). The few people who have seen this site have been very impressed both by its size and the quality of chert that was available. There certainly was no shortage of good chert in the Gamenthaler Valley during prehistoric times, which may be one of the reasons it was apparently a preferred living and hunting area.

Trenching and Backfill

In mid-summer 1986, the work at site 41 GL 160 was abandoned due to a lack of volunteers and funding. A progress report was drafted (Kelly 1986) and a grant from the Friends of Archaeology (UTSA-CAR) permitted hiring of a backhoe to excavate a stratigraphic section (shown in Figure 2). Dr. Vance Holliday, a geomorphologist then of Texas A&M University (now University of Wisconsin), was able to visit the site and will be preparing a summary of his findings to include in our final project report. The backhoe was also used to drain the existing pond and backfill the excavations.

TENTATIVE CONCLUSIONS

The first few years of archaeological investigation of the Gamenthaler Valley have included subsurface work at two sites (41 GL 54 and 41 GL 160), observation of land modification projects (41 GL 93), and surface survey and documentation of a number of other sites as well. The excavations at 41 GL 160 so far have produced no charcoal for radiocarbon dating, possibly because fires were not involved in the activities conducted. Processing of meat by sun drying is suggested by the extensive use of backed flakes. Hide preparation was a fairly minor activity indicated by only a few well made scrapers.

Site 41 GL 160 is a well stratified site with discrete Late Paleo-Indian and Early Archaic components, as well as a small Late Archaic presence. The discarding of damaged projectile points is clearly indicated in the Paleo-Indian levels by the quantity of broken bases; the extensive Nolan levels also

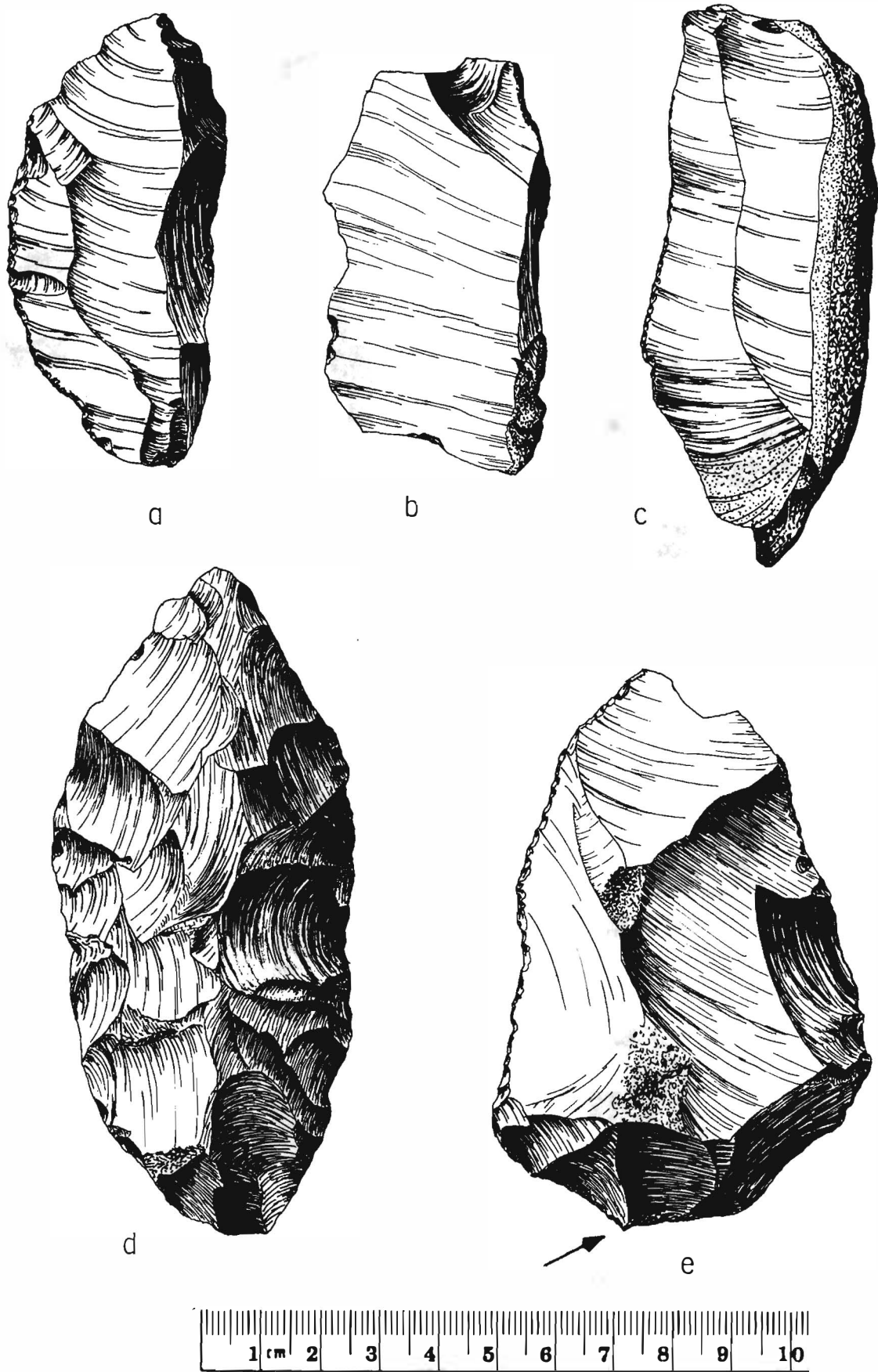


Figure 5. Lithic Materials from 41 GL 160: a - c, Backed Flakes; d - e, Early Stage Bifaces (a: Unit E, 95 cm level; b: Unit F, 77 cm; c: Unit N, 37 cm; d: Unit C, 95 cm, Paleo-Indian level; e: Unit L, 27 cm; Note graver in base at arrow).

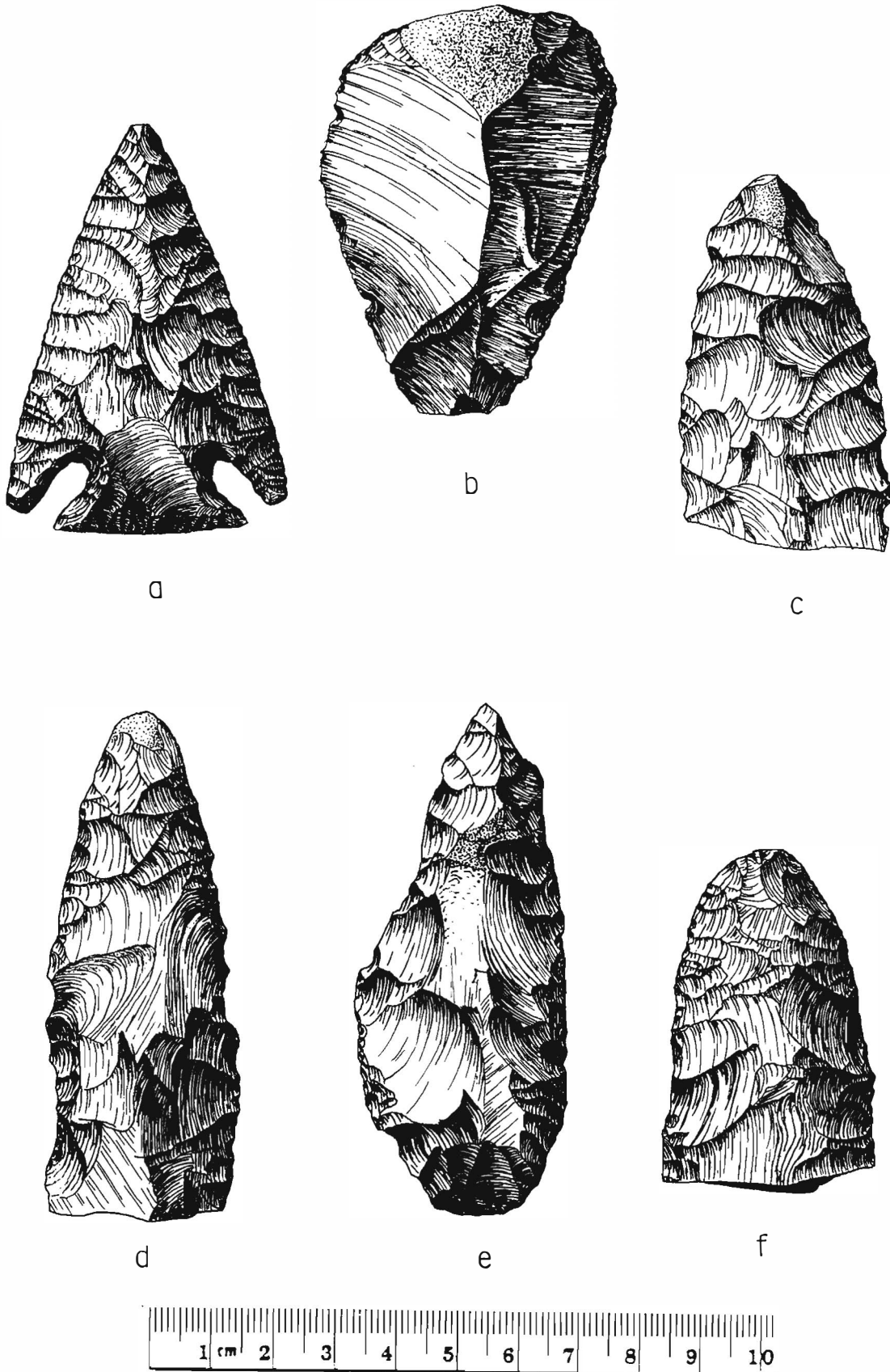


Figure 6. Additional Lithics from 41 GL 160: a, Marcos point, Unit J, 35 cm level; b, Semicircular scraper, Unit I, 44 cm (Nolan component); c - f, Late Stage preforms (c, Unit I, 27 cm; d, O, 40 cm; e, F, 68 cm possibly Late Paleo-Indian preform; f, Surface).

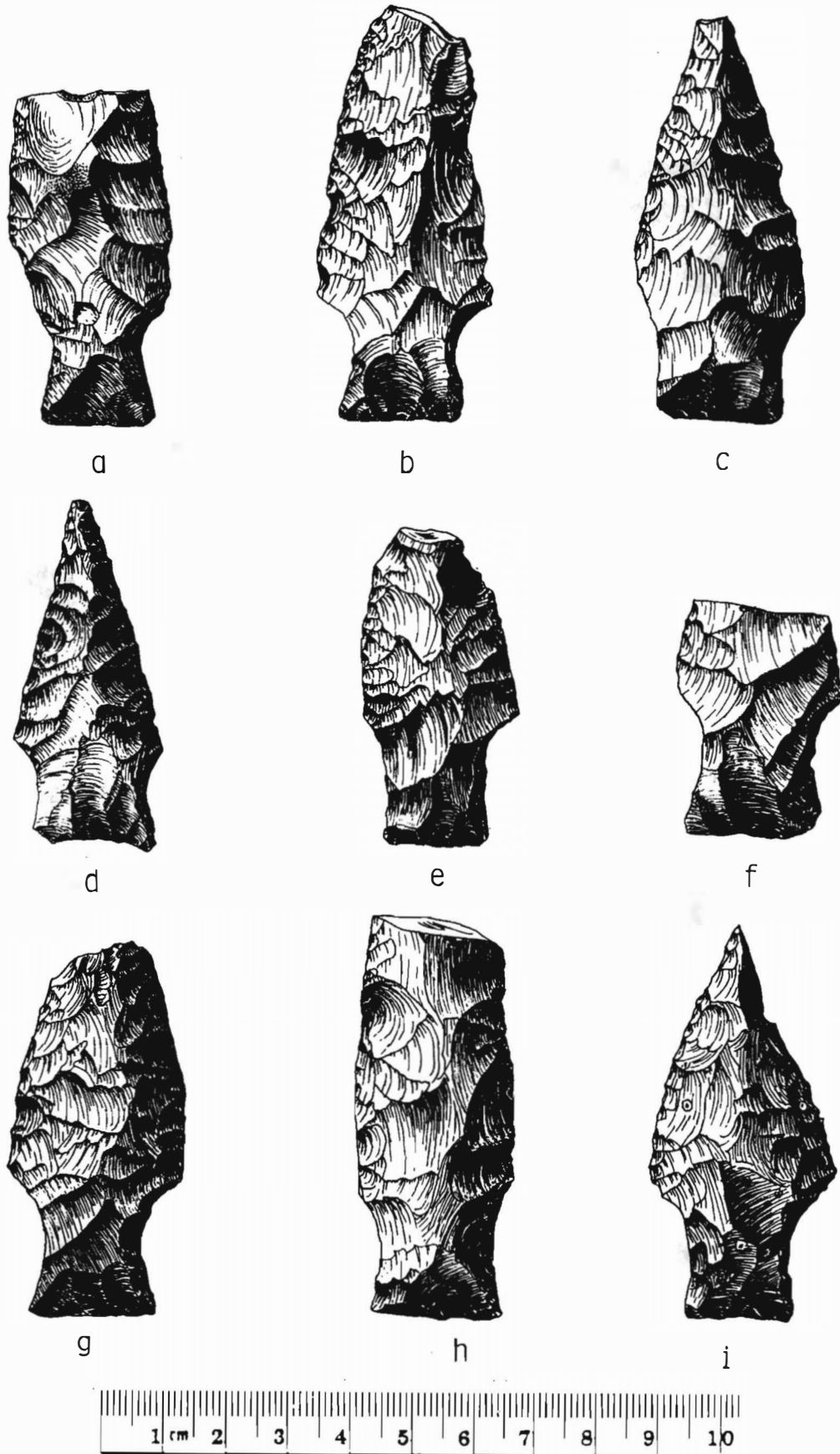


Figure 7. Nolan Points: a, Unit T, 36 cm; b & c, Unit C, 20 - 40 cm; d, L, 28 cm; e, I 53 cm; f, H, 0 - 20; g, F, 35 cm; h, J 40 - 50 cm; i, Surface.

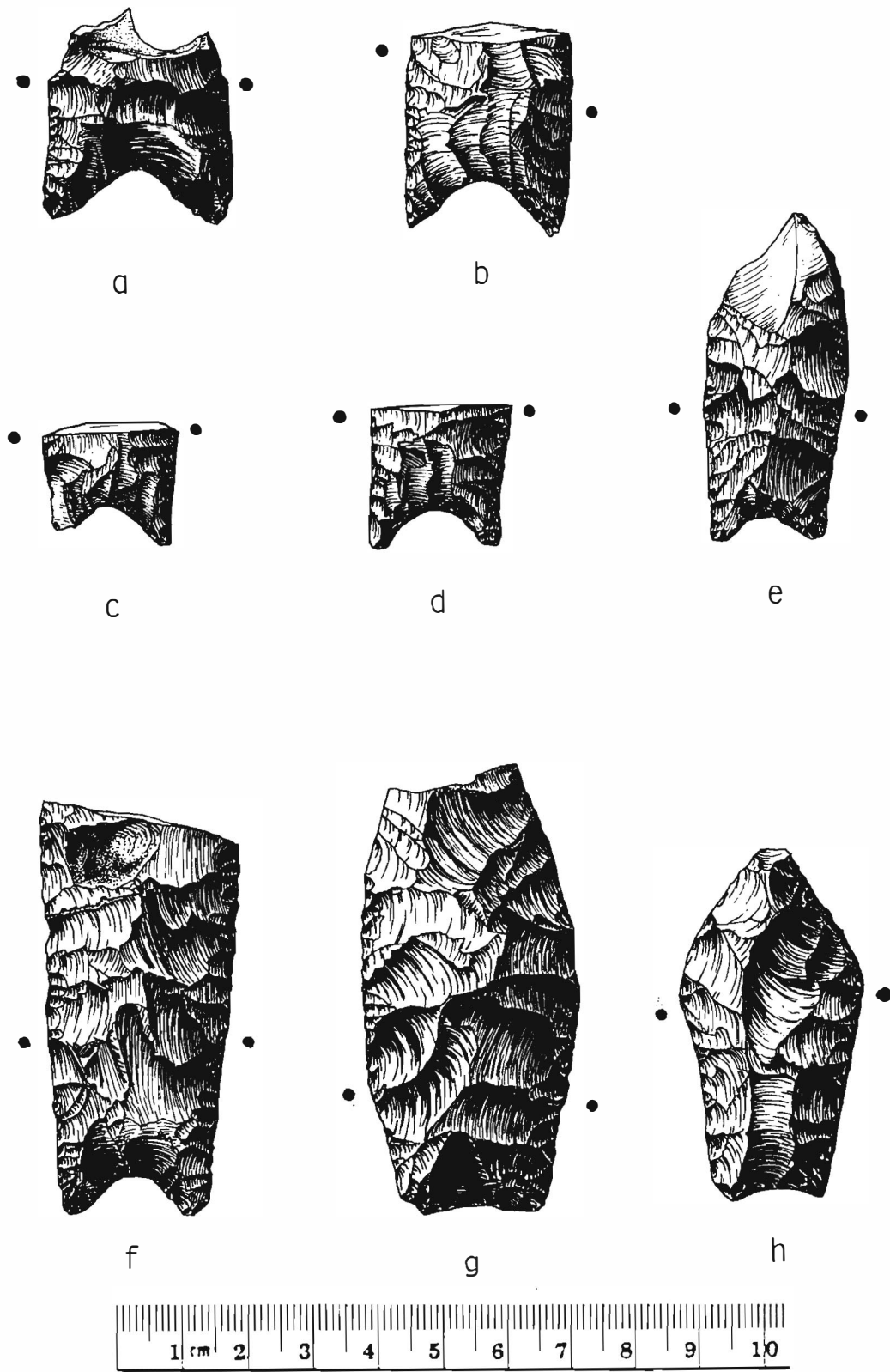


Figure 8. Late Paleo-Indian Points. a, 41 GL 160, Unit O, 44 cm; b, Surface of 41 GL 54; c, 41 GL 160, Unit M, 45 cm; d, Unit L, 29 cm; e, Surface of 41 GL 54; f, Unit I, 47 cm; g, Unit F, 64 cm; h, Surface of 41 GL 160.

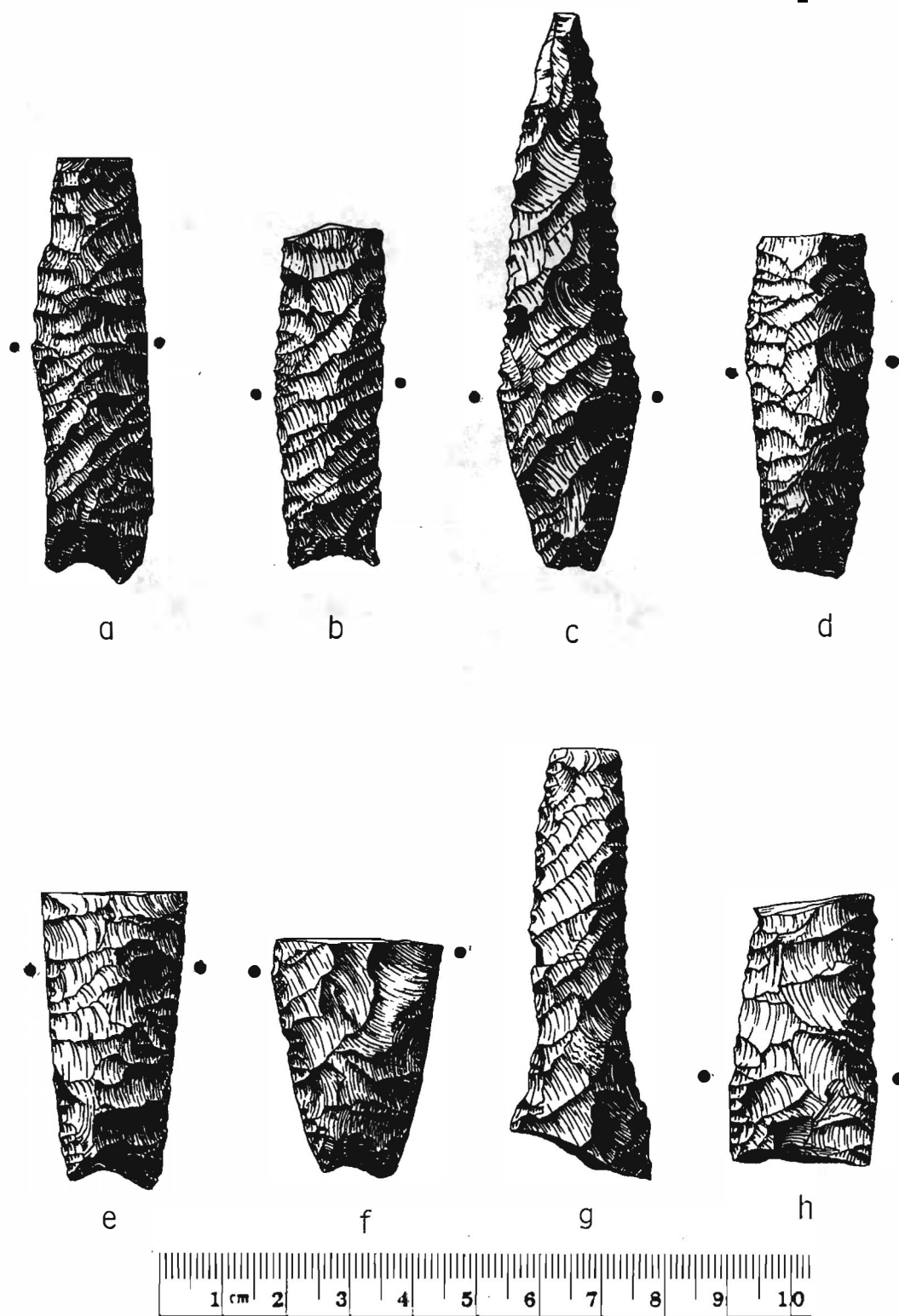


Figure 9. Additional Late Paleo-Indian Artifacts. a - b, "Levi" Points, 41 GL 160 (a, Unit E, 96 cm; b, C, 99 cm); c - d, Surface of 41 GL 54; e, J, 67 cm; f, S, 60 - 70 cm; g, upper section from Unit I, 52 cm; lower section Unit C, 71 cm; h, Possible nocking tool or saw, Unit C, 40 - 60 cm.

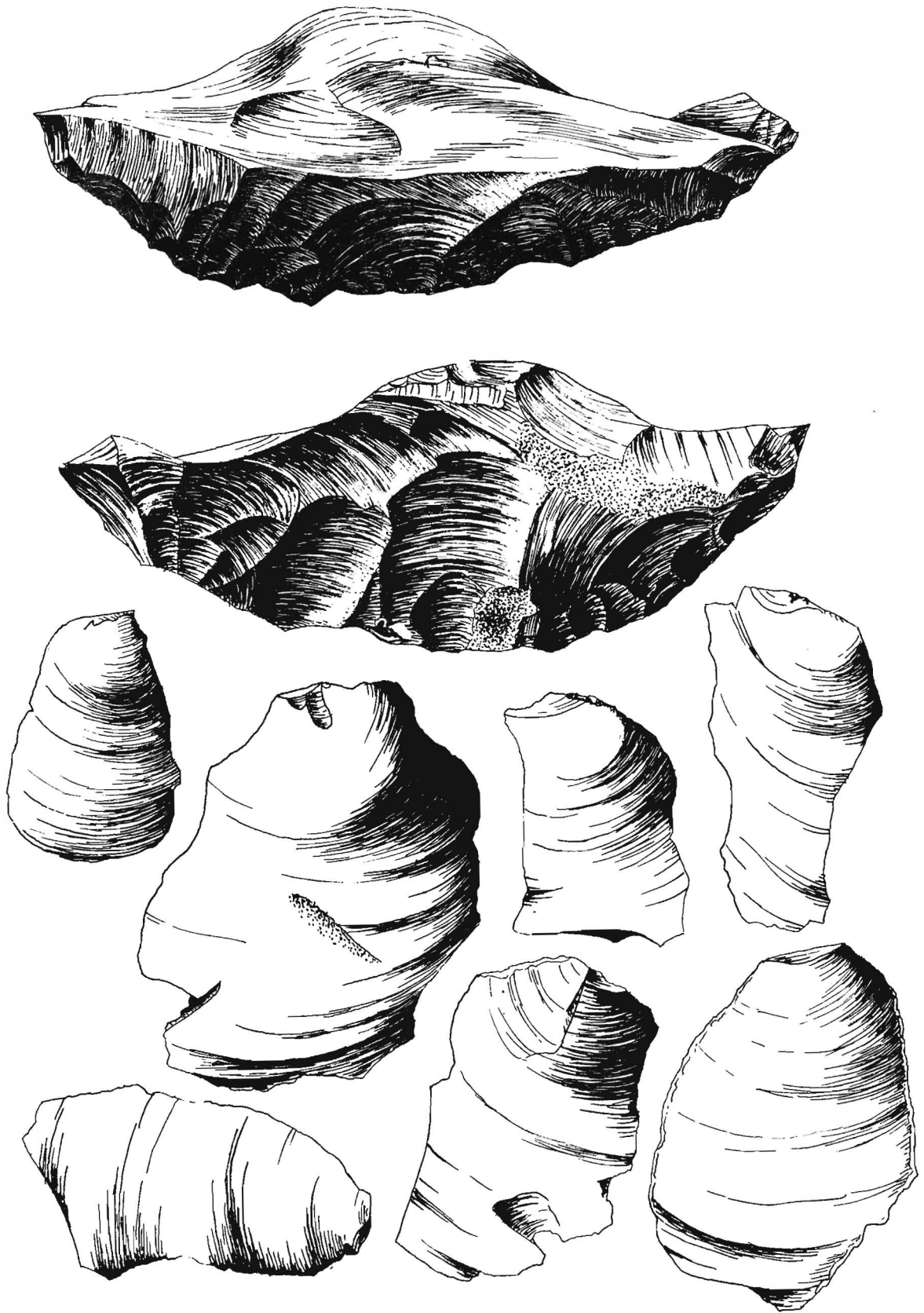


Figure 10. Decorticated Cobble and Flakes Typical of Debitage at Site 41 GL 165.

contain discarded points. In South Texas or on the coast, such points would have been reworked and used again. The abundance of good chert in two nearby quarry sites (41 GL 162 and 41 GL 165) eliminated the need for conservation of chert. More than 10,000 flakes were recovered with initial studies indicating heavy bifacing activity. As the primary types of bifaces recovered were either projectile points or various stages of preforms, the emphasis on projectile point manufacture is rather clear.

Using typology, observed stratigraphy, and Prewitt's (1981, 1985) cultural chronology for Central Texas, we can see that the earliest time period is probably prior to 6550 B.C., as represented by narrow, parallel-sided points ("Levi") similar to specimens incorrectly identified by Alexander (1963) at the Levi Rockshelter as "Plainview-Angostura."

Texas Angostura (Kelly 1983a) are well represented at the site and correspond to Prewitt's Circleville phase (6500 - 5000 B.C.). The best represented time period, however, is Prewitt's Clear Fork (2650 - 2050 B.C.) with an extensive discrete Nolan phase component. A comparison of associated tool inventories for this component and the deeper Late Paleo-Indian levels indicates almost identical functions and tool inventories. This infers a shared technology and a continuity of tool forms over a considerable timespan.

Three Barber bases recovered in the same levels as Nolan points at 41 GL 160 seem out of place, as Barber specimens were found clearly below Angostura at the Wilson-Leonard Site in Williamson County (Weir 1984, Young 1983). This is an anomaly which cannot be resolved without extensive further field work and analysis.

The Late Archaic is represented at the site by Marcos and Frio points in the upper levels (20 - 40 cm). Since only a single specimen of each type were recovered from an area of 15 two-meter squares, we can assume a decline in population or use of the valley during this timeframe, Prewitt's (1981, 1985) Uvalde and Twin Sisters phases (300 B.C. - A.D. 550).

The early Late-Prehistoric was not evidenced at 41 GL 160 but is indicated by a single Edwards arrow point recovered from excavations at 41 GL 53. Very few arrow points are seen in the various private collections from the Gamenthaler Valley, which suggests only very limited use of this area by Late Prehistoric groups.

While the limited surveys and excavations so far have not permitted testing of all the hypotheses of our research plan, everything recovered so far supports an initial theory that the Gamenthaler Valley was used periodically for organized game hunting, as well as seasonal camping. It undoubtedly provided a variety of attractions such as an abundant supply of water, wood, and plant foods, as well as a bountiful supply of good quality chert. In short, this small valley had just about everything a primitive people needed for a full lifestyle.

COMMENTS

As of the fall of 1986, the Gamenthaler Valley project has been suspended, although laboratory analysis and writing activities will continue for some time. The initial two phases of this project have only highlighted the very significant archaeological potential of this important little valley; much additional work is necessary to fully realize the scientific potential of the area.

The rarity of stratified Paleo-Indian sites in south and central Texas dictates that no further work be attempted without sufficient funds to do the job right. The remaining sites need to be located, mapped, and thoroughly documented. All sites should be tested to locate possible bone beds, additional lithic resource areas, campsites, and other functional localities. This valley is too potentially significant to approach in other than a comprehensive manner, with a thoroughly developed research proposal and adequate support.

We can only hope that such a research project with sufficient funding is undertaken by qualified researchers before the sites are totally destroyed by development of the properties. In the interim, we will continue analysis of the very significant materials recovered to date.

ACKNOWLEDGEMENTS

A sincere thanks to all the UTSA students and STAA members who have helped in this project; they number too many to acknowledge individually. I hope that the good times and shared experiences are a partial reward for your dedicated work. Tom Miller of Kerrville gets my special thanks; he was a tireless, perfect digger to the end of every day of this project. A special thanks to our gracious hosts, the Segner families, and particularly to Robert Segner, Jr., for securing initial permission to excavate 41 GL 160. Our thanks to Mr. Barber, Mr. Dixon, and Mrs. Nagle, for permitting us to document their collections. Thanks also to Arthur Detrich for permission and access to study site 41 GL 93, before it was reworked as a stock tank; Site 41 GL 165 was also accessed with his permission. In addition, I want to particularly thank Richard McReynolds for his very excellent line drawings of the Gamenthaler materials (some of these drawings were previously published in the **Friends of Archaeology Newsletter**; see Kelly 1986).

References

- Alexander, Herbert, Jr.
 1963 The Levi Site: A Paleo-Indian Campsite in Central Texas. **American Antiquity** 28:510-539.
- Brune, Gunnar
 1981 **Springs of Texas**, Vol. 1. Fort Worth, TX: Branch-Smith, Inc.
- Dibble, D. S., and D. Lorrain
 1968 Bonfire Shelter: A Stratified Bison Kill Site, Val Verde County, Texas. **Texas Memorial Museum, Miscellaneous Papers**, No. 1
- Frison, George C.
 1978 **Prehistoric Hunters of the High Plains**. New York: Academic Press.
- Frison, George C., Michael Wilson, and Diane J. Wilson
 1976 Fossil Bison and Artifacts from an Early Altithermal Period Arroyo Trap in Wyoming. **American Antiquity** 41(1):28-57.
- Hester, Thomas R.
 1980 **Digging Into South Texas Prehistory**. San Antonio: Corona Press.
- Kelly, Thomas C.
 1962 The Crumley Site: A Stratified Burnt Rock Midden, Travis County, Texas. **Bulletin of the Texas Archeological Society** 31:239-272.
- 1982 Criteria for Classification of Plainview and Golondrina Projectile Points. **La Tierra** 9(3):2-25.
- 1983a The Brom Cooper Paleo-Indian Collection from McMullen County, Texas. **La Tierra** 10(3):17-40.
- 1983b The Barber Paleo-Indian Point. **La Tierra** 10(4):10-25.

- 1986 The Gamenthaler Project: A Progress Report. **Friends of Archaeology Newsletter**, University of Texas at San Antonio Center for Archaeological Research, 3:11-19.
- Prewitt, Elton R.
 1981 Cultural Chronology in Central Texas. **Bulletin of the Texas Archeological Society** 52:65-89.
- 1985 From Circleville to Toyah: Comments on Central Texas Chronology. **Bulletin of the Texas Archeological Society** 54 (for 1983):201-238.
- Schumm, S. A., and R. F. Hadley
 1957 Arroyos and the Semi-arid Cycle of Erosion. **American Journal of Science** 255:161-174. ■
- Shiner, Joel L.
 1983 Large Springs and Early American Indians. **Plains Anthropologist** 28(99):1-7.
- Suhm, Dee Ann, and Edward B. Jelks
 1962 Handbook of Texas Archeology: Type Descriptions. **Texas Archeological Society Special Publication 1 and Texas Memorial Museum Bulletin 4.**
- Turner, Ellen Sue, and Thomas R. Hester
 1985 **A Field Guide to Stone Artifacts of Texas Indians.** Austin: Texas Monthly Press.
- Weir, Frank A.
 1976 The Central Texas Archaic. Unpublished PhD. dissertation, Washington State University, Pullman.
- 1984 The Wilson-Leonard Site: A Late Paleo-Indian Village in Central Texas. Paper presented at the Paleo-Indian Archaeology Symposium, Texas Academy of Sciences meeting, San Antonio, April.
- Wormington, H. M.
 1957 **Ancient Man in North America.** Denver, Colorado: Denver Museum of Natural History, Popular Series, No. 4.
- Young, Wayne C.
 1983 The Wilson-Leonard Site (41 WM 235). Paper presented at the Paleo-Indian Lifeways Symposium II, Lubbock, Texas.

A CASE FOR THE HUNGRY SNAIL

Curtis Dusek

ABSTRACT

Small holes in freshwater mussel shells have often been attributed to human workmanship, for use of the shell as a tool or ornament. Such holes may be a natural phenomenon--a carnivorous snail.

INTRODUCTION

Freshwater mussel shells occur quite commonly on prehistoric sites in South Texas--primarily on those sites which lie along rivers, creeks, and other primary drainages. Excavation and testing of sites along the Frio River during the Choke Canyon Project yielded a large quantity of mussel shells. Among these were a small number of mussel shells that had a small hole through the shell; the hole was almost always situated on or near the shell umbo. It was suggested that these holes were the result of intentional perforation by prehistoric peoples, possibly with the intent to wear the mussel shells as pendants or other decorative ornaments. Accidental perforation during excavation or screening was also suggested (Lynn, Fox and O'Malley 1977:136, 159; Hall, Black and Graves 1982:388-390; Highley 1986:77-79; Hall, Hester and Black 1986:337). Generally, no other modification to these shells is apparent, except that which can be attributed to natural wear and deterioration.

MARINE SHELLS

Many marine shells which wash ashore along Texas beaches today exhibit the presence of a small, neatly drilled hole, also primarily on or near the shell umbo. The similarity between these marine shells and perforated freshwater mussel shells from archaeological sites is striking (see Figure 1). It is commonly known that the holes in marine shells are the result of carnivorous gastropods which prey upon marine bivalves. The small hole is created by the gastropod using its radula to bore through the shell of the bivalve (Bennett 1967:180-182). The radula, also known as the lingual ribbon, is a fleshy strip covered on one side with many transverse rows of chitinous teeth. It is found within the throat of many gastropods and is used to tear and rasp food (Arnold 1968:340).

One group of carnivorous marine gastropods belongs to the family **Naticidae**, commonly known as the Moon Shell Family (Rehder 1981:483). These sand snails, as they are sometimes called, inhabit broad sandy and muddy flats of bays and estuaries where they commonly feed upon burrowing bivalves. They attack the bivalve using a combination of chemical and mechanical action. A special gland in the foot of the snail is applied to the shell of the bivalve. The snail then uses its radula to scrape this spot on the bivalve's shell. This process of soaking and drilling is repeated over and over again by the snail. Eventually a small circular hole is created through the shell of the bivalve. The snail then inserts its proboscis through the hole and uses its radula to tear out the soft inner tissue of the bivalve (Bennett 1967:154-156).

One member of the family **Naticidae** is popularly known as the Shark's Eye (**Polinices duplicatus**). It ranges from Cape Cod to Florida and the Gulf states where it inhabits shallow waters of both bays and the Gulf. Being an infaunal gastropod, it plows through the sand in search of bivalves to feed upon (Andrews 1981:40-41).

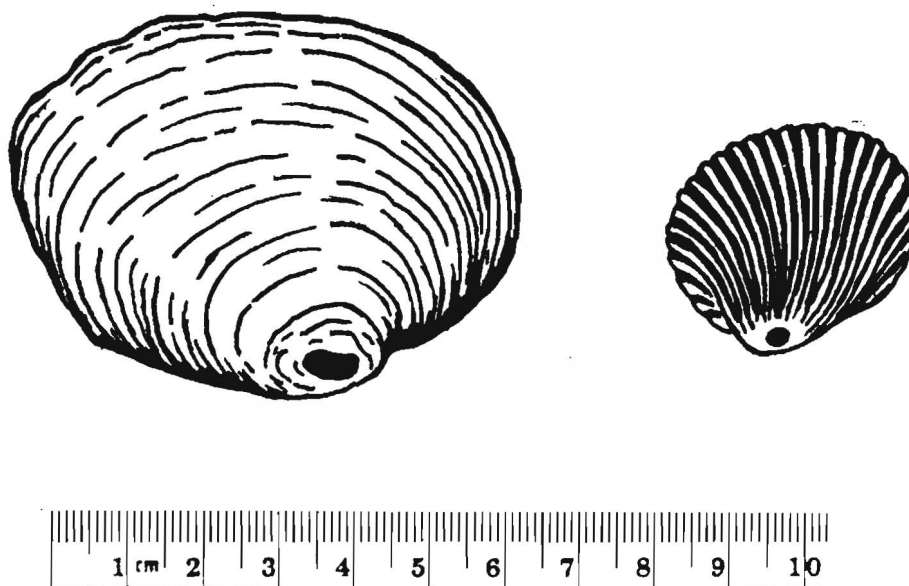


Figure 1. Hole in freshwater mussel shell (left) and in marine shell.

FRESHWATER MUSSELS

Although carnivorous marine gastropods are quite common, there is no mention in the literature of any freshwater gastropod that is known to prey upon freshwater mussels. Freshwater snails are generally divided into two main groups. The first group is known as the operculates. They possess gills, allowing them to live in oxygen-rich running water. The second group, known as the pulmonates, are believed to be descended from land snails that returned to the water. They do not have gills and therefore must periodically return to the surface of the water for oxygen (Credland 1976:73).

As noted before, the similarity between "perforated" mussel shells from archaeological sites and marine bivalve shells that have been penetrated by carnivorous gastropods is striking. If these mussels were utilized as pendants, as has often been suggested, it would be expected that some would be recovered in a context other than among general prehistoric camp residue. Most often they are found associated with the remains of freshwater mussels that were obviously collected as food. Besides the holes themselves, there is no other obvious modification to the mussel shells that might indicate their use as tools. Two mussel shell pendants found with Burial 1 at site 41 WB 20 near Laredo are quite distinct. One is made from a modified mussel shell and has five distinct holes drilled along one edge. The other has three holes drilled along the edge of the mussel shell. In both cases the holes are approximately 4 mm in diameter (McGraw 1983:83).

DISCUSSION

Although there is no known species of freshwater gastropod that is carnivorous, this does not necessarily preclude the fact that one may indeed exist or have existed in the prehistoric past. Even though not primarily carnivorous, a species may exist that would prey upon freshwater mussels if the opportunity were to present itself. An examination of mussel shells recovered

from various sites during the Phase I work at Choke Canyon was conducted by Harold D. Murray. He noted that the freshwater mussel genus **Anodonta**, although common in the Frio River today, was absent from among the large number of mussel remains he examined. Another species of mussel, **Truncilla**, however, was found, even though it is not known to inhabit this region of Texas today. This led Murray to believe that a change in unionid fauna may have occurred in the Frio River drainage since prehistoric times (Murray 1982:555). Since mussels and gastropods are members of the same phylum and inhabit the same type of environment, it would not seem unreasonable to suppose that a change in species of gastropod could also have occurred. The result of such a change may have been the disappearance of a carnivorous species of gastropod.

If perforated mussel shells are the work of carnivorous gastropods, then their presence in archaeological sites would seem to imply that some non-selective method of harvesting freshwater mussels was utilized by the prehistoric inhabitants of the area. If this were not the case, these gastropod-killed mussels would probably have been disposed of immediately after harvesting. Large quantities of very small mussel shells recovered from many archaeological sites also lend credence to a non-selective method of harvesting. Many mussel shells also tend to fill with sediment after the mussel dies. This makes it difficult to distinguish live mussels from dead ones when retrieving them from the bottom of murky waters.

The number of perforated mussel shells recovered from archaeological sites is small, especially when compared to the large quantity of mussel remains found at the same sites. Until a substantial number can be recovered and analyzed, the exact cause of the holes may remain a mystery. Assuming that they are the handiwork of prehistoric peoples is only one possibility. The evidence for their being the work of a carnivorous gastropod is, at best, circumstantial but quite possible. Until the evidence becomes overwhelming, or until the guilty culprit rears his ugly little proboscis above the water and makes himself known, the verdict will remain pending.

References

- Andrew, Jean
1981 **Texas Shells**. University of Texas Press, Austin.
- Arnold, Augusta F.
1968 **The Sea-Beach at Ebb-Tide**. Dover Publications, Inc., New York.
- Bennett, Isobel
1967 **The Fringe of the Sea**. Tri-Ocean Books, San Francisco.
- Credland, Peter
1976 Rivers and Lakes, In: **The Living Waters**. Doubleday and Company, Inc., Garden City, New York.
- Hall, Grant D., Stephen Black and Carol Graves
1982 Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I findings. **Center for Archaeological Research, The University of Texas at San Antonio, Choke Canyon Series 5**.
- Hall, Grant D., Thomas R. Hester and Stephen Black
1986 The Prehistoric Sites at Choke Canyon Reservoir, Southern Texas: Results of Phase II Archaeological Investigations. **Center for Archaeological Research, The University of Texas at San Antonio, Choke Canyon Series 10**.

Highley, Cheryl Lynn

1986 Archaeological Investigations at 41 LK 201, Choke Canyon Reservoir, Southern Texas. **Center for Archaeological Research, The University of Texas at San Antonio, Choke Canyon Series 11.**

Lynn, Warren M., Daniel E. Fox and Nancy O'Malley

1977 Cultural Resource Survey of Choke Canyon Reservoir, Live Oak and McMullen Counties, Texas. **Texas Historical Commission Archeological Survey Report 20.**

McGraw, Joachim A.

1983 Arroyo de los Muertos and other Prehistoric Terrace Sites along the Rio Grande, Laredo, Texas. **Center for Archaeological Research, The University of Texas at San Antonio, Archaeological Survey Report 106.**

Murray, Harold D.

1982 An Analysis of Unionids (Freshwater Mussels) Recovered in Phase I Archaeological Investigations at Choke Canyon Reservoir, Appendix V In: Archaeological Investigations at Choke Canyon Reservoir, South Texas: The Phase I Findings. **Center for Archaeological Research, The University of Texas at San Antonio, Choke Canyon Series 5.**

Rehder, Harald A.

1981 **The Audubon Society Field Guide to North American Seashells.** Alfred A. Knopf, Inc., New York.

* * * * *



TEXAS HISTORICAL COMMISSION
Office of the State Archeologist Report 34



THE BUTTRILL RANCH COMPLEX
Brewster, County Texas
Evidence of Early Ranching in the Big Bend
By Virginia A. Wulfkuhle

An adobe ruin near Buttrill Spring in the Rosillos Mountains is the site of the Buttrill Ranch headquarters, dating to the early 20th century. This report of archeological investigations includes a concise overview of ranching in the region, a brief history of the Buttrill family and later occupants of the ranch, a detailed description of the ruins, and analysis of a small collection of artifacts from the surface of the site. Accounts by local people, including a daughter of the Buttrill family who lived at the site, add color and depth to the historical background. Also included are discussions of the environmental setting and previous archeological investigations in the area. Located on the North Rosillos Mountains Ranch, this site was recorded in 1980 by the Office of the State Archeologist as part of a larger study of the archeological resources of the ranchlands, then owned by the Harte family and later donated by them to the Texas Nature Conservancy. *Office of the State Archeologist Report 34. xii + 63 pages. 47 illus. \$7.50 + .46 tax*

Order from:
Office of the State Archeologist
Texas Historical Commission
P. O. Box 12276
Austin, Texas 78711
Payable to THC - please add 75¢
postage.

NOTES ON A METAL ARROW POINT FROM MCCULLOCH COUNTY, TEXAS

Patsy Goebel, Robert Goebel, and Jim Mitchell

ABSTRACT

This report documents an unusual metal arrowpoint from McCulloch County. It was recovered from the surface of a ridge near the San Saba River in Central Texas.

INTRODUCTION

A number of metal arrow points have been reported in Central and South Texas in recent decades both from Hispanic mission contexts (Mounger 1959; Greer 1967; Schuetz 1969; Hester 1975; Mitchell 1980) and aboriginal settings (Mitchell 1974; Thompson 1980; Fox 1982). A major effort to document and classify metal projectile points in Texas and across the Southern Plains is being undertaken by A. J. Taylor and Kay Eades of the Center for Archaeological Research at UTSA, aided by members of the STAA (McReynolds 1982; Mitchell and Highley 1982; Parker 1983; Smith 1984; Chandler 1984, 1986). Documentation of additional specimens is needed from around the state and region to provide a better data base for typological studies and to further document the distribution of these historic artifacts.

THE MCCULLOCH COUNTY AREA

McCulloch County is located in the Colorado River drainage system of Central Texas, along the intersection of the Cross Timbers and Llano Basin geographic regions (see Figure 1). Vegetation in the area is predominately a Juniper, Oak, and Mesquite savanna.

Archaeologically, the county is largely unknown. As of April 1985, only 20 prehistoric sites have been recorded for McCulloch County, and most of these are general Archaic sites known primarily from surface collections (Biessart, Roberson and Spotts 1985). Eleven sites are burned rock middens; one burial and one rock art site have also been documented. Only four sites have been systematically tested through excavations. Given this limited amount of data, any additional archaeological information which can be recorded for this county represents a significant contribution.

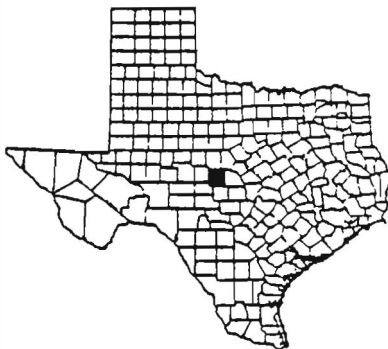


Figure 1. Location of McCulloch County, Central Texas.

THE SITE

The metal arrow point described here was found on the surface of a ridge between the San Saba River and Brady Creek in south-central McCulloch County. A number of flint or chert artifacts were found on the site including a probable Scallorn arrow point, a Pedernales dart point and a possible San Patrice, as well as a small, stubby projectile which could be either a dart point or transitional arrow point. Many flint or chert flakes were also scattered along the ridge. A variety of lithic tools (broken bifaces, scrapers, etc.) were also recovered. No other metal artifacts were found at the site.

At the base of the ridge, there are several mortars in the bedrock adjacent to a spring which feeds a small creek. The ridge itself divides the drainage of Brady Creek from that of the San Saba River, and the top of the ridge has good visibility over these two valleys. Given such visibility, the top of the ridge may have been used as an overlook, and the nearby spring, as a dependable source of water, would have been attractive as a campsite area for both prehistoric and historic Indian groups.

Various Apache, Comanche, and Wichita bands are known to have been in this region of Texas in early historic times. A legend of the local area is that the highest point of this ridge was where the Comanches held a council once a year. Thus, the site is known locally as "Comanche Hill."

THE ARTIFACT

This metal point is presently a stemless triangular blade made of iron (see Figure 2). The arrow point has a basal notch which is somewhat irregular and slightly off center. It is likely that the point was originally a stemmed form since a close examination of the notch reveals chisel cut marks on the base of the blade, but not in the basal notch. The point was probably formed by chiseling it from a thin, flat sheet of iron; there are no hammer marks which would indicate it had been flattened (as from a barrel hoop or other curved form). From a close examination of the metal around the notch, it would appear that the point originally had a straight or expanding stem. However, the chisel cuts for shaping the stem cut into the blade some 2 mm where it joined the stem, which may have weakened its hafting point. In use, perhaps on impact, the blade probably bent over and broke out from its stem leaving the present irregular notch.

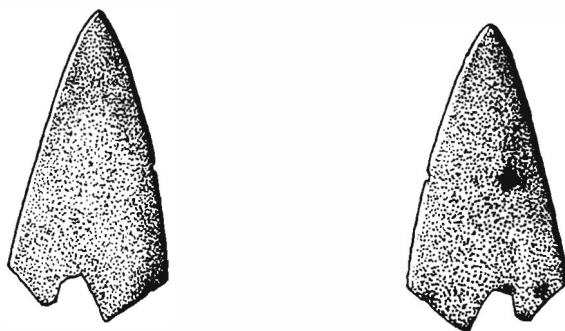


Figure 2. Two Views of an Iron Arrow Point, Comanche Hill, McCulloch County, Texas. (Illustration to scale, by Richard McReynolds).

The edges of the blade were ground sharp but presently evidence some wear and dulling. This metal point is about 42 mm in maximum length and 22 mm in maximum width. The notch is roughly 7 mm deep at its maximum and about the same in maximum width.

DISCUSSION

While a few triangular metal points with flat bases are reported in Texas (cf. Thompson 1980; Parker 1983), we could find no mention of basally notched metal points in the literature. Yet a close examination of the notching suggests that it was not intentionally produced in this shape, but was possibly a straight or expanding stem point. Thus, this damaged metal point appears to be a unique specimen; its original shape may or may not have been of a form which has previously been reported. Without knowing its stem shape, it cannot be classified or typed. Nonetheless, it represents a significant bit of information and helps document archaeologically the presence of historic Indian groups in the McCulloch County area of Central Texas and the Southern Plains.

ACKNOWLEDGEMENT

Our sincere thanks to Richard L. McReynolds for the excellent illustration of this specimen and for his observations of how the point was probably manufactured and damaged.

References

- Biessart, L. A., W. R. Roberson, and L. C. Spotts
 1985 Prehistoric Archeological Sites in Texas: A Statistical Overview. Austin: Texas Historical Commission, **Office of the State Archeologist Special Report 28.**
- Chandler, C. K.
 1984 Two Metal Projectile Points from Central Texas. **La Tierra** 11(3):13-16.
 1986 Notes on a Metal Projectile Point from Bexar County, Southcentral Texas. **La Tierra** 13(3):28-31.
- Fox, Daniel E.
 1982 Historic Investigations. In: Scott and Fox, Excavations at Site 41 LK 31/32 in the Choke Canyon Reservoir, South Texas. **Center for Archaeological Research, The University of Texas at San Antonio, Choke Canyon Series, Vol. 8.**
- Greer, John W.
 1967 A Description of the Stratigraphy, Features, and Artifacts from an Archeological Excavation at the Alamo. **State Building Commission Archeological Program Report No. 3.**
- Hester, T. R.
 1975 Material Culture of San Bernardo: Preliminary Comments. In: Archaeology and Ethnohistory of the Gateway Area. Submitted to the National Endowment of Humanities by the University of Texas at San Antonio.

- McReynolds, Richard L.
1982 An Iron Projectile Point from Gillespie County, Texas. **La Tierra** 9(2):30-32.
- Mitchell, J. L.
1974 Notes on Metal Projectile Points from Southern Texas. **The Journal of South Texas** 1:47-51.

1980 Brief Notes on the Archaeology of Mission San Juan Capistrano. **La Tierra** 7(4):30-32.
- Mitchell, J. L. and Lynn Highley
1982 Notes on a Metal Projectile Point from Southern Texas: The Brom Cooper Collection. **La Tierra** 9(1):21-23.
- Mounger, Maria A.
1959 Mission Espíritu of Coastal Texas: An Example of Historic Site Archeology. M.A. Thesis, Department of Anthropology, The University of Texas at Austin.
- Parker, Wayne
1983 Three Metal Projectile Points from a Historic Indian Workshop Site. **La Tierra** 10(1):39-42.
- Schuetz, Mardith K.
1969 History and Archeology of San Juan Capistrano, San Antonio, Texas. Vol. II. **State Building Commission Archeological Program Report No. 11.**
- Smith, Ray
1984 Notes on Three Iron Projectile Points from South Texas. **La Tierra** 11(3):28-30.
- Thompson, Marc
1980 A Survey of Aboriginal Metal Points from the Apachería. **The Artifact**, El Paso Archeological Society, Inc., 18(1):1-10.

TWO METAL POINTS FROM OSAGE, COLORADO COUNTY, TEXAS

Malcom L. Johnson

ABSTRACT

This article documents two iron projectile points found by a local resident in the early 1930s at the site of the old Osage community, in Colorado County.

THE SITE

According to local traditions, the community of Osage dates to an early phase of the Anglo settlement of Texas, possibly to the early days of the Republic of Texas (Richard Freis, personal communication, April 1984). Osage was established a couple of miles from the site of Burnham's fort and ferry. The ferry was located on an old trail crossing of the Colorado River which was built by Capt. Burnham from Tennessee about 1824. During the early days of the Texas Revolution, General Sam Houston was retreating with the Texian Army toward San Jacinto. He wanted to cross his men and equipment on the ferry and then destroy the fort and ferry so the Mexican army could not use it. But Sam Houston knew Burnham and his men would not stand to have their settlement burned. So a false message was sent that some Indians were attacking settlers at another location and they needed Burnham and his men to help. After all the men left, the Texian Army crossed on the ferry and then burned the ferry and the settlement, which reportedly included a small log fort, about twelve houses, and a blacksmith shop.

After the revolution, Osage grew to a small community with two or three saloons, a couple of drygoods stores, a school, and a blacksmith shop or two. The community was named Osage because it was established on a campsite used by a group of Osage Indians. Osage prospered until about 1873 when the town of Weimar was established on the newly-built Southern Pacific Railroad, about three or four miles southwest of Osage. Most of the buildings at Osage were disassembled and moved to Weimar. A few scattered farm homes remained, and the Osage Community school continued in use until fairly recent times.

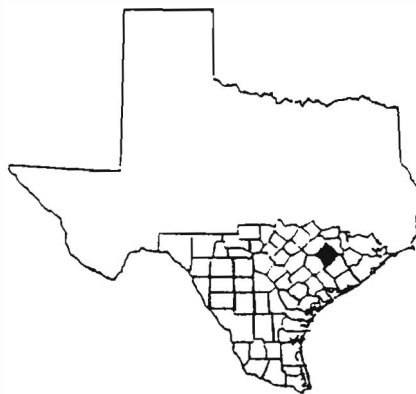


Figure 1. Map of Texas showing Colorado County (darkened area).

THE ARTIFACTS

Both the projectile points recovered from the Osage site appear to have been made from flat pieces of scrap iron. Both pieces must have been about 22 mm in width. Because of their different thicknesses, it is highly unlikely that both points were cut from a single piece of scrap.

The first specimen (Figure 2 A) varies from approximately 1.7 to 2.0 mm in thickness; the thickest portion of the scrap was used for the stem. It appears to have been cut with a chisel against a hard object such as an anvil or stone, as the cuts are fairly clean. Apparently it was first cut into a triangular shape, and then the basal corners were cut away to leave the forward-sloping shoulders, and more or less straight-sided stem with a square base. Then the blade was bifacially sharpened along both lateral edges, either with a metal file or a coarse grinding stone.

The second point (Figure 2 B) exhibits a different style of workmanship. In the center of the base is a portion of a drilled or punched hole for a rivet or small bolt. The hole measured approximately 6 mm (7/32 inch) in diameter. At first glance it appeared that this point had been made from a kitchen knife, but all the old kitchen knives I have examined at various antique shops and museums have been as thick or thicker in the handle than they were in the blade. This point is just the opposite; the stem is much thinner than the blade. This leads me to believe it was made from some type of hoop or metal banding that was thinned on the ends so it could overlap smoothly, and be riveted or bolted together. At 2.6 mm thick, it seems too heavy for a barrel hoop, yet it is too thin for a wagon or buggy wheel rim, unless it was one that was worn down a great deal. Metal bands from a large trunk or chest might also be a possibility. The metal band either broke or was cut through at the rivet hole. Narrow, more or less rectangular pieces were removed on each side of the basal area to form a fairly long, more or less straight-sided stem, and square shoulders. It is not clear if the cutting was done by a chisel or some combi-

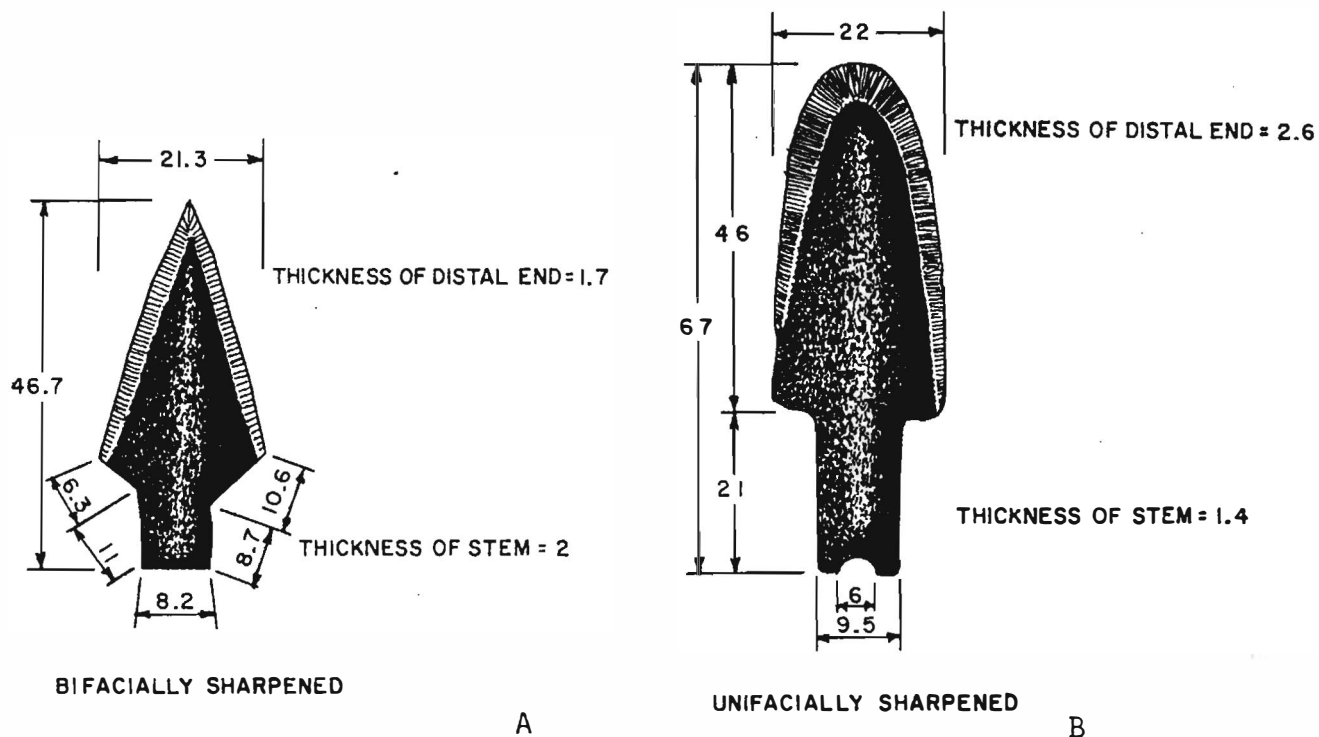


Figure 2. Metal points from Osage, Colorado County. All dimensions in millimeters.

nation of chiseling and sawing. The corners of the square shoulders appear to have been slightly rounded off. The distal tip was fashioned to a bluntly rounded shape instead of to a sharp point. This shaping of the blade seems to have been accomplished by heavy filing or grinding, but only uniaxially. The opposite, or bottom, side of this point is flat and is not ground or sharpened.

Whether these points are Indian made, or manufactured by a blacksmith, is uncertain. The first point (Figure 2 A) is fairly symmetrical and of reasonable workmanship to make one think that it could have been made in a local blacksmith shop, at Burnham's Fort or Osage, possibly as a trade item. The second point (Figure 2 B) probably is of Indian manufacture. A good deal of time and effort would have been required to grind and sharpen the blade uniaxially into its rounded form. I feel a blacksmith would have quickly shaped it to a point by cutting with his chisel, and then done the final sharpening.

COMPARISON OF OTHER METAL POINTS

Word and Campbell have reported on two metal points from Floyd County, Texas. One of their points (Word and Campbell 1962:Figure 1 A) is similar, but smaller and less symmetrical, than the point illustrated in this paper as Figure 2 A. The other point they illustrate is somewhat similar, but is longer and narrower in proportions, and has V notches cut into the stem. They consider the points to be of Indian manufacture.

Schuetz (1969:Plate 23G) has illustrated a metal point from Mission San Juan Capistrano that she feels may have been of Towakoni origin. It is slightly similar in outline to Figure 2 A; however it is smaller overall and has a longer stem to blade ratio. Additional metal points found at Mission Capistrano have been illustrated and discussed by Mitchell. One of these points (Mitchell 1980:Figure 1 E) is quite similar in outline, but is much larger than the Osage point (Figure 2 A).

A large metal point from Victoria County has been reported in the Brom Cooper collection (Mitchell and Highley 1982:21-23). In general outline it resembles Figure 2 A, except that the stem is notched or serrated and it is nearly twice the size of the Osage artifact. Another metal point has been reported from Gillespie County (McReynolds 1982:30-32). Its length and thickness are close to that of Figure 2 A, but it is narrower, the stem is serrated, and the shoulders are square cut.

Two other metal points from Central Texas have been reported by Chandler (1984:13-16). One of these points has an expanding stem and is barbed. The other point (Chandler 1984:Figure 2 B), with its length to width proportions square cut shoulders and serrated stem, seems to resemble the three unfinished points reported by Parker (1983), and the Gillespie County point reported by McReynolds, except that it is larger.

Three metal points from southwest Texas (Uvalde County) have also been documented; two of these points (Smith 1984:Figure 2 B and C) resemble one of the Osage points in size, shape and manufacturing techniques except they both have hack marks on their stems, while the Osage point (Figure 2 A) does not. Two of these Uvalde County points (Smith 1984:Figure 2 A and C) have holes punched in their blades (possibly made using the tang of a file?). It may be these points were meant to be used as poison arrows. If dipped in rattlesnake venom, droplets of the venom would cling and dry inside the holes and be carried into the wound.

HISTORIC INDIAN GROUPS

Several historic Indian groups were known to have been in the area. As stated earlier, a group of Osage Indians are reported to have camped at the site. Karankawa Indians were known to have travelled thirty miles farther upstream on the Colorado than Osage in the early 1800s (Gatschet 1891). There

were several instances of Comanche parties penetrating this far south, not to mention the various groups of Indians that were used as guides or bearers by the Spanish and Mexican forces along these early trails.

Mr. Freis recalls that when he was a child, about 1910 or 1912, there was a man who did farm work for his father, who went by the name of John Tillmann. Mr. Tillmann wore his hair in long braids nearly down to his waist, and was about sixty-five years old or older. Mr. Tillmann was a Seminole Indian who had been captured in a raid when he was a small child, and had been raised by a colored family in the area. The date of the raid could have been as early as the 1840s.

ACKNOWLEDGEMENTS

I would like to thank Mr. and Mrs. Freis for allowing me to report on these two metal points, and also for sharing some of the history they learned while growing up in the Osage community.

References

- Chandler, C. K.
1984 Two Metal Projectile Points from Central Texas. **La Tierra** 11(3):13-16.
- Gatschet, Albert S.
1891 The Karankawa Indians. The Coast People of Texas. Harvard University. **The Archaeological and Ethnological Papers of the Peabody Museum** Vol. 1, No. 2.
- McReynolds, Richard L.
1982 An Iron Projectile from Gillespie County, Texas. **La Tierra** 9(2):30-32.
- Mitchell, J. L.
1980 Brief Notes on the Archaeology of Mission San Juan Capistrano. **La Tierra** 7(4):18-20.
- Mitchell, Jim, and Lynn Highley
1982 Notes on a Metal Projectile Point from Southern Texas: The Brom Cooper Collection. **La Tierra** 9(1):21-23.
- Parker, Wayne
1983 Three Metal Projectile Points from a Historic Indian Workshop Site. **La Tierra** 10(1):39-42.
- Schuetz, Mardith K.
1969 The History and Archeology of Mission San Juan Capistrano, San Antonio, Texas. **State Building Commission Report** No. 11, Vol. 2.
- Smith, Ray
1984 Notes on Three Iron Projectile Points from South Texas. **La Tierra** 11(3):28-30.
- Word, James H. and T. N. Campbell
1962 Metal Projectile Points from Floyd County, Texas. **Texas Archeology** 6(2):8-9.

AUTHORS

CURTIS DUSEK was born and reared in rural McMullen County, Texas, near the town of Calliham, surrounded by archaeological sites. The area is now part of the Choke Canyon Reservoir area. Curtis moved north to study anthropology at UTSA and he has authored several reports on the archaeology of McMullen County sites for this journal. Curtis now works as a computer programmer and he and his family live in San Antonio.

PATSY AND ROBERT GOEBEL have a ranch in rural DeWitt County which has several archaeological sites. Mr. Goebel is a building contractor specializing in institutional cabinet installations. Patsy is Vice-President of the Board of Directors of the DeWitt County Historical Commission and recently authored Volume 1 of **DeWitt County Cemeteries**, a series designed to document the historic burial sites of the county. Both are members of the STAA and the Texas Archeological Society. They reside in Cuero, Texas.

THOMAS R. HESTER is our columnist and technical adviser for **La Tierra**, with his "Notes on South Texas Archaeology," and needs no introduction to most readers. Tom was born and raised in South Texas, earned degrees from the University of Texas at Austin and his doctorate from the University of California at Berkeley, where he studied with Robert F. Heizer. Tom has done field work in Texas, the Great Basin, Montana, Egypt, Mexico, and, most recently, has directed the extensive excavations at Colha in Belize. He was the first STAA Chairman, the second Editor of **La Tierra**, and for six years, the co-editor (with Harry Shafer) of the BTAS (most recently, for 1985). He is currently Professor of Anthropology at UTSA, Director of its Center for Archaeological Research, and Editor of **Lithic Technology** and the **Friends of Archaeology Newsletter**.

MALCOM L. JOHNSON is a former chairman of STAA who has also previously authored several articles for this journal. Malcom is also a cartographer of considerable talent. He was very active in the Coastal Bend Society prior to his move to the Hill Country a number of years ago, where he now raises peaches and works on a new house. Malcom currently lives just outside of Fredericksburg, Texas.

THOMAS C. KELLY is a retired Air Force Colonel, previous Chairman of the STAA, a research associate with CAR and an Anthropology graduate student at UTSA. He has completed archaeological field work in Texas, New Mexico, England, and Belize, and has authored a number of scholarly papers in this journal, the **Bulletin of the Texas Archeological Society**, and the UTSA-CAR research series. He is well known for his work in Paleo-Indian typology, lithic technology, and field research. He is presently working on analyzing the materials from the Gamenthaler Valley, completing his thesis research on Paleo-Indian typology, documenting additional private collections (including the Orchard Collection and additional Paleo-Indian materials from McMullen County), as well as undertaking six weeks of field work at the North River complex in northern Belize in Central America. When he is in town, Tom and his wife reside on Sharon Drive in northcentral San Antonio.

THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

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.

S T A A OFFICERS AND STAFF - 1987

| | | |
|------------------|--|--|
| CHAIRMAN | - Tom Guderjan (S.A.) | <u>Immediate Past Chairman</u> Tom Guderjan (San Antonio) |
| VICE-CHAIRMAN | - Paul Ward (S.A.) | <u>STAA Newsletter</u> Evelyn Lewis, Ed., (San Antonio) |
| SECRETARY | - Roger Hemion (S.A.) | <u>COMMITTEE CHAIRPERSONS</u> |
| TREASURER | - Paul Cook (Randolph AFB) | <u>Discovery Committee</u> C. K. Chandler (San Antonio) |
| LA TIERRA | | <u>Documentation Committee</u> Kay Hindes (Charlotte) |
| | | <u>Educational Programs Committee</u> Frances Meskill (San Antonio) |
| | | <u>Hospitality Committee</u> |
| | Editor - Jim Mitchell (Converse) | |
| | Staff Artist - Richard McReynolds (S.A.) | |
| | Columnist - Thomas R. Hester (S.A.) | <u>Mailing Committee</u> |
| | Production - Shirley Van der Veer (S.A.) | Roger Hemion (San Antonio) |
| | | <u>Membership Committee</u> Liz Smith (San Antonio) |
| Area Consultants | | <u>Program Committee</u> Joe Labadie (San Antonio) |
| | Tom Beasley (Beeville) | Don Lewis (San Antonio) |
| | Bill Birmingham (Victoria) | <u>Publicity Committee</u> Wilson McKinney (San Antonio) |
| | James Garber (San Marcos) | <u>Registration Committee</u> Frances Ward (San Antonio) |
| | Rita Gunter (Corpus Christi) | <u>Social Committee</u> Greg Helm (San Antonio) |
| | T. C. Hill, Jr. (Crystal City) | Mark Kuykendall (San Antonio) |
| | Malcom Johnson (Fredericksburg) | <u>Telephone Committee</u> Rita Neureuther (San Antonio) |
| | Tom Kelly (San Antonio) | <u>Field Directors</u> Anne Fox (San Antonio) |
| | Ed Mokry (Corpus Christi) | Tom Kelly (San Antonio) |
| | Lee Patterson (Houston) | Joe Labadie (San Antonio) |
| | | Smitty Schmiedlin (Victoria) |
| | | Ray Smith (Uvalde) |
| | | Shirley Van der Veer (San Antonio) |
| | Smitty Schmiedlin (Victoria) | <u>STAA Library</u> |
| | Ray Smith (Uvalde) | Housed in Archaeology Laboratory, UTSA campus (see Table of Contents) |