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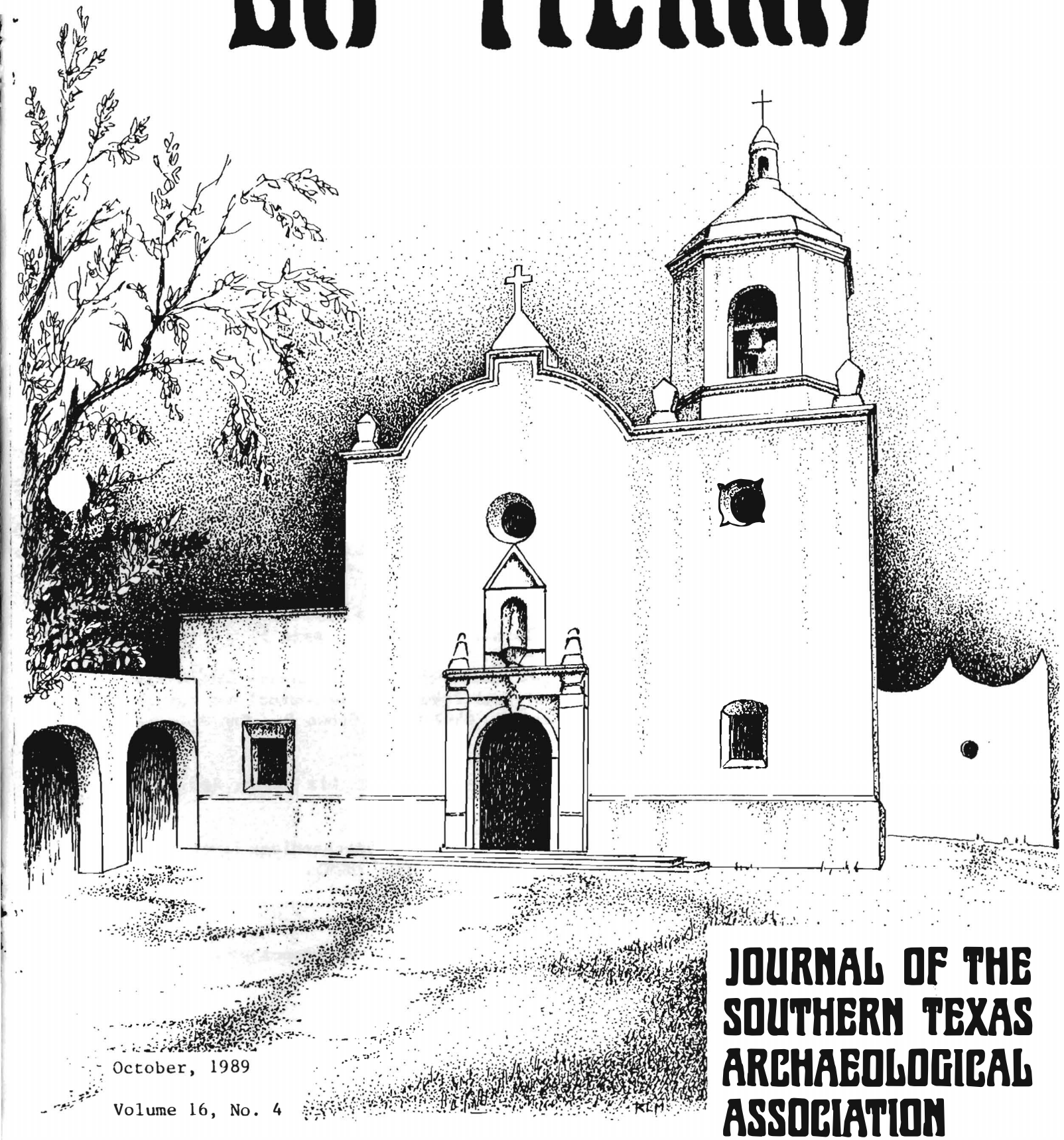

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LA TIERRA

QUARTERLY JOURNAL OF THE SOUTHERN TEXAS ARCHAEOLOGICAL ASSOCIATION

Volume 16, Number 4
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Evelyn Lewis
Editor

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About the Cover: Mission Espíritu Santo in Goliad County is depicted on our cover by Richard McReynolds. See David G. Turner's article on page 5.

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EDITORIAL

It is interesting to observe the changes that have taken place over my half century of Indian awareness. History records the conflicts throughout Texas with the Lipan Apaches and Comanches being prime troublemakers. Your editor grew up in Wisconsin hearing about Chief Black Hawk, the legendary hero of the Sauk and Fox Indian tribes. The uprising in 1832 affected the frontier life of the early settlers in northwestern Illinois and southwestern Wisconsin until the Battle of the Bad Axe, where most of his band of men, women and children were killed. Black Hawk escaped death, but was later captured.

As a result of the Woodlands tribes finding the central area along the Mississippi and Wisconsin rivers quite suitable for their needs, many a farm field turned up points at plowing time. As school kids we would walk the furrows to pick up 'Indian arrowheads.' But few landowners had any knowledge of the previous dwellers. To the farmer an Indian had no identity, nor did he deserve any.

Now all that has changed. Every state has acknowledged the value of researching and recording past history. And few have been more aware, and successful, than Texas with its many archaeological groups and its highly active state society. Through the activities of local and regional excavations throughout the state, and the reports and publications by the many members involved, the readers are being informed of historic and prehistoric activities in cities and villages throughout Texas. To follow the tracks of the many Indian tribes, as well as the occupation of the French and Spanish, has been an exciting adventure that continues beyond tomorrow.

We have many authors to thank for their thorough investigations and reporting. Dr. T. R. Hester, and his Notes on South Texas Archaeology found in each issue, has been an inspiration for serious students as well as the avocational archaeologist. Ken Brown never ceases to amaze us with his fine work and knowledge in the field and lab. Lee Patterson has been an avid worker and reporter for many years. And the students who have made it to their advanced degrees with honors - Grant Hall, Fred Valdez, Joe Labadie, Dan Potter, Steve Black, Lynn Highley, Jeff Huebner, A. J. Taylor - and others who are still working or transferred to other universities for their degrees, have all generously shared their experiences in *La Tierra*.

The many attractive covers and other drawings in our bulletin have been sketched by Richard McReynolds, our most capable staff artist. He's never too busy to take an assignment, and richly deserved the Heiser Award for 1988.

And let's give due credit to Shirley Van der Veer for her untiring efforts on the production end of the publication. With the knowledge of computer capability she can call up any name or manuscript upon request.

All of these aforementioned people have made my job as editor relatively simple, and a pleasure. Thanks for your support. Let's forge ahead into 1990 with new enthusiasm and more of those interesting manuscripts.

Evelyn Lewis
Editor

NOTES ON SOUTH TEXAS ARCHAEOLOGY: 1989-4

A Cremation Burial from a Site in Dimmit County, Southern Texas

Thomas R. Hester

When A. J. Taylor and Lynn Highley were completing their exhaustive analysis of the Loma Sandia prehistoric cemetery (41 LK 28), they asked me about a cremation burial I had reported from Dimmit County. At Loma Sandia, three or four of the numerous late Middle Archaic burials were cremations, a burial treatment quite distinct from the inhumations that were dominant at that cemetery. In reviewing the literature and files, they could find only one other record of a cremation from southern Texas -- recorded in the pages of the *Peña Pow-Wow*, the newsletter of the Carrizo Springs High School Archeological Society, in 1964. With 25 years having elapsed, I thought it would be of value to re-examine this find, and to make it more widely known through the pages of *La Tierra*, arguably the successor (and a much more sophisticated one) to that earlier journal of south Texas archaeology.

As reported in Volume II, No. IX of the *Peña Pow-Wow* (April 3, 1964), this cremation was found by J. W. House and the writer at a surface site near the town of Asherton in Dimmit County. The site had been root-plowed, and in one locale, hundreds of charred bone fragments were clustered. Among these were at least one human tooth and three cranial fragments. And, in the midst of the cremated materials were three mortuary offerings -- a round stone bead and fragments of two engraved mussel shells. All of this was in an area which we measured at the time as "...not much larger than one foot square." We did some digging around and under this concentration of highly fragmented skeletal material and failed to find any additional items. Though no temporally diagnostic artifacts were associated with the cremation, we recorded at the time the discovery of more than 70 *Leon Plain* potsherds and noted that local artifact-collectors had found, perhaps, 200 additional sherds at the site. One stemmed arrow point was found by us at the site (Figure 1, A). Although resembling *Perdiz*, it has a squared stem. At the time, we classified the point as *Alba*. However, it is rather similar to specimens reported from 41 MC 222 in the Choke Canyon Reservoir (see Hall, Hester and Black 1986: Figure 76), from deposits radiocarbon-dated from A.D. 1260-1290 (ibid.:266). Ceramics also occurred at 41 MC 22. Another arrow point is clearly of the *Scallorn* type (Figure 1, B). There are also two distinctly Late Prehistoric end scrapers (Figure 1, G) and two arrow point preforms. These data do not, however, conclusively date the cremation. This was a root-plowed field and while Late Prehistoric artifacts dominated, some Archaic artifacts were also found. They include: one *Frio* point (Figure 1, C), an *Ensor*-like point (Figure 1, D) and two side-notched points reminiscent of *Zavala*. All of these forms are very late in the Archaic of this part of southern Texas. Additionally, there were three triangular points (Figure 1, E, F), two perhaps *Matamoros* and a larger specimen that could be classified as *Tortugas*. A *Nueces* tool (bifacial) was also found, along with an ovate uniface (scraper), and two crude bifaces (preforms).

I recorded the site with the Texas Archeological Research Laboratory in May 1964, and it was assigned the number 41 DM 12. Subsequently, in June 1964, I revisited the site and collected a few more pieces of charred bone and a piece of cut mussel shell that may have also been a burial inclusion (all in the collections at TARL).

Little could be done with the cremated remains. They were examined in 1964 by Claud Bramblett (a physical anthropologist on the faculty at The University of Texas at Austin)

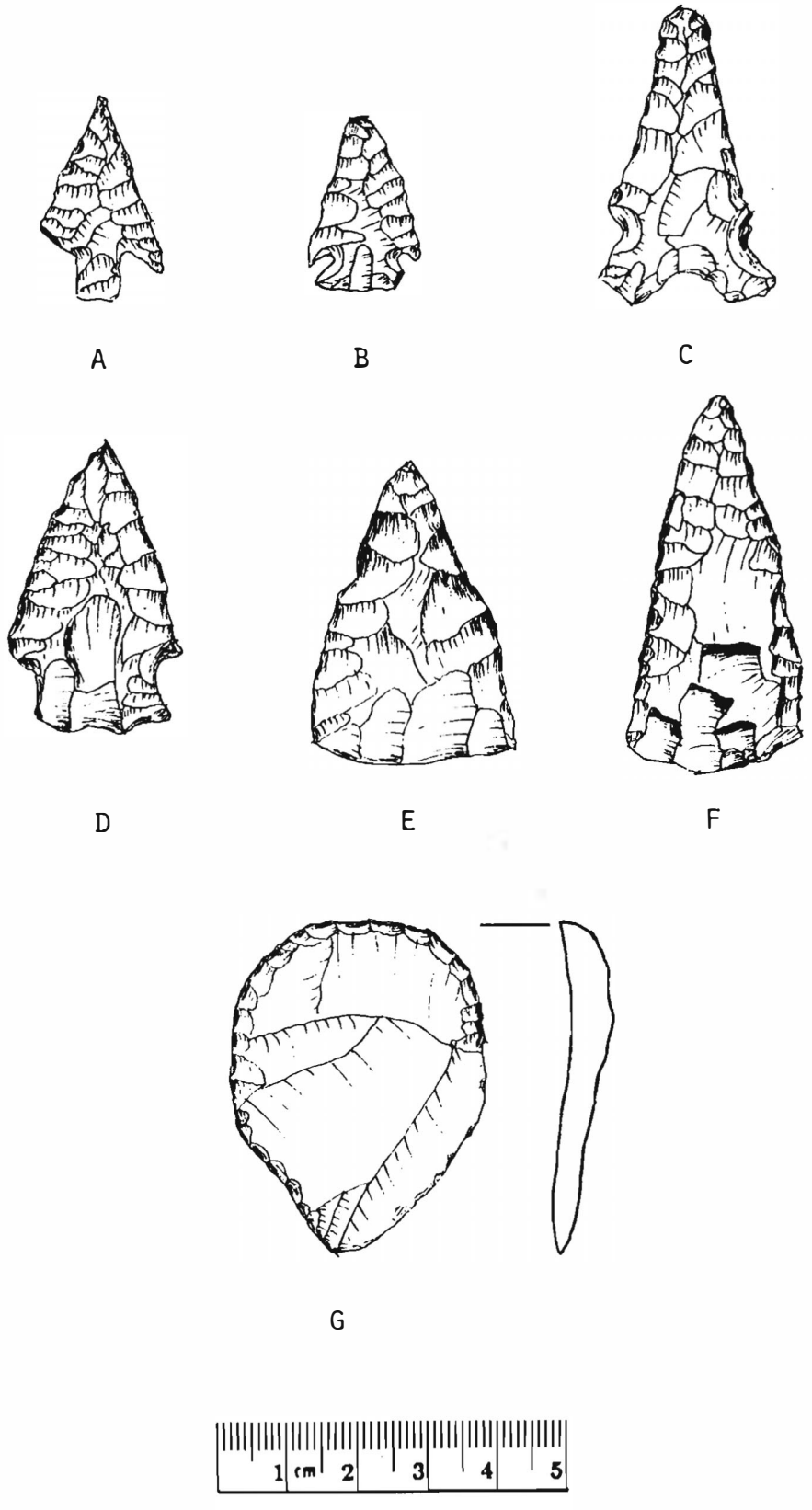

Figure 1. Lithic Artifacts from Site 41 DM 12. A, squared stem arrow point; B, *Scallorn*; C, *Frio*; D, *Ensor-like*; E, F, triangular dart points; G, end scraper (cross section shown). Illustrated actual size.

and confirmed as human. The size of the surviving tooth and the cranial fragments indicated that the cremated individual was an adult.

In summary, site 41 DM 12 has yielded a cremated burial, exposed and removed from its original context by modern-day root-plowing. Associated with the remains were a few grave goods, none of them time-specific. The preponderance of artifacts can be attributed to the Late Prehistoric. Given the abundance of pottery, it is likely that a Toyah horizon component is present at the site. However, there was a *Scallorn* point, a series of Late Archaic stemmed points, and three triangular points, and we cannot rule out the possibility that the 41 DM 12 cremation dates to some earlier occupation. Had we been more observant, or had we made a controlled surface collection of the root-plowed surface materials, we might have gotten a better clue as to the age of the cremation. There might have been preserved, even in this disturbed situation, some horizontal relationships or artifact groupings that would have pointed to the cultural association of the cremation. Twenty-five years ago, we didn't consider these field approaches, though hopefully today we would all use better recording prodedures.

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ERRATUM

We regret the misspelling of the artist's name in *La Tierra*, July issue (Volume 16, Number 3) on page 5. The drawings are by Pam Headrick.

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ARCHAEOLOGICAL RESEARCH AT MISSION ESPIRITU SANTO (41 GD 1): A SYNOPSIS

David G. Turner

Mission Espíritu Santo de Zuñiga on the Goliad State Historical Park property, 41 GD 1, has seen three major excavation projects between 1933 and 1977. The majority of this material has not been published.

Only three (3) "legitimate" projects have been conducted on the Mission Espíritu Santo site: Pearce and Jackson's 1933 investigation of the "Aranama Mound" abutting the west wall of the mission grounds; the Civilian Conservation Corps excavations and research carried out in conjunction with restoration of the mission and building of other park facilities; and a third project conducted by the Texas Parks and Wildlife Department archaeologist Robert Burnett in 1977.

The first archaeological work at Mission Espíritu Santo in 1933 by J. E. Pearce and A. T. Jackson was the excavation conducted in the area immediately outside the west wall of the mission. The "Aranama Mound" site abutted the west wall of the mission compound. Pearce and Jackson's physical description of the site states that the mound was built up on the second sloping river terrace. The western edge of the mound was 100 yards from the river; the eastern edge was bounded by the west wall of the mission compound. Length of the mound from east to west was "approximately 85 feet and the mound's width from north to south was 75 feet. Elevation of the mound was 11 2/3 feet, of which 7 feet was a natural knoll (Pearce and Jackson 1933:1).

Approximately five feet of mixed fill contained cultural material dating throughout the mission period (Pearce and Jackson 1933:1-4). The site was excavated by two crews, one supplied by the University of Texas and the other supplied by the County of Goliad and under the direction of the Goliad Park Commission. The County crew was to keep all the artifacts it collected, but the U. T. crew was to photograph and record all of the artifacts. The County-collected artifacts were to be used in the development of a museum display in one of the park buildings (ibid.:4).

Surface finds were described as pottery, chipped stone artifacts, and metal objects. These items were found all over the mission grounds, but were most abundant on the surface of the mound (Pearce and Jackson 1933:1-2).

In the section titled "Midden finds" in the Pearce and Jackson manuscript (1933:3-106), the artifacts and their provenience are described.

Pearce and Jackson conclude (1933:1) that "It would...seem that the Indians, during the mission period, lived just outside the mission confines." This is an intriguing concept: To date, the interpretation of other San Antonio River mission sites indicates that midden deposits were common surrounding the walls of the missions. However, these midden areas have been interpreted as trash dumps only and not as midden/occupation sites (Turner 1986:23; Hafernik and Fox 1984:5, Figure 2).

Pearce and Jackson never published their report. A typewritten, original manuscript is currently held in the files at the Texas Archeological Research Laboratory in Austin. This original copy is deteriorating rapidly. The Pearce and Jackson document provides a record of an excavated site which has not yet seen the light of publication.

The second major excavation report, also unpublished, on Mission Espíritu Santo was produced in 1959 as a Master's Thesis by Maria Allen Mounger. Copies exist in the University of Texas thesis files. This report was written after an unfortunate incident which damaged the excavated collections and the Civilian Conservation Corps excavation notes. Some-

time between the end of the Civilian Conservation Corps excavation work in 1941 and 1949, when the State Parks Board took control of the operation, the storage room on the Mission Espíritu Santo site was burglarized and vandalized. Artifacts such as coins, military equipment, and jewelry were stolen. The boxes in which items were stored were broken open and the contents scattered, and many of the papers, maps,notes, and drawings were destroyed or stolen. Displays and structures were also vandalized (Mounger 1959:133-134). No one was ever arrested in connection with this crime against knowledge, and nothing was recovered.

The remaining artifacts not used for display and teaching purposes at the museum on the mission site, are currently in the care of the Texas Archeological Research Laboratory.

The Mounger report, like the Pearce and Jackson report, is largely an artifact catalogue. Mounger was able to establish gross area provenience by use of an original base map, but vertical stratigraphy was lost.

Mounger described the excavation methods used by the Civilian Conservation Corps in studying and restoring the mission structures: Trenches were hand-dug, beginning at the known location of buildings. These trenches were cut at right angles to identified walls and extended out for distances of 30-40 feet. Depth of the trenches was down to the culturally sterile soils. (No measurement of this depth was given in Mounger's thesis). Larger trenches were cut parallel to the walls and extended from the walls to 6 and even 12 feet out. This technique allowed the archaeologists and architects to identify all wall lines.

After the wall lines were identified, accumulated fill in the rooms was removed, stratum by stratum, to the floor level of the Spanish colonial period. This floor was largely determined by the quantity and type of artifacts recovered. After the mission period floor was reached, each room's floor was sectioned through to culturally sterile levels. This allowed determination of construction and foundation building methods as well as glimpses of pre-mission site occupation.

In areas in which no buildings stood, the fill was removed in arbitrary levels until the mission period surface was reached (Mounger 1959:100-109).

Archaeologist Roland Beard's conclusions about the site are reported by Mounger: Industrial life of the mission centered around cattle ranching, given the amount of recovered horse and cattle tack compared to a relatively small number of farming implements. A large quantity of butchered cattle bone betrayed a primary dependence on this resource (Mounger 1959:111).

Indian pottery, specifically *Goliad* ware, was mainly recovered from a strip nearly 15 feet wide, extending around the inside of the entire compound's curtain walls. Majolica ware and later anglo-European wares were concentrated in the old convento and other buildings centrally located in the mission grounds. *Goliad* ware was also predominant in middens located roughly midway along the outside south, west, and north walls.

Lithic artifacts were recovered in greatest numbers in the "Indian areas" of the grounds and from lower (earlier) strata (Mounger 1959:115,116).

Several families lived in the old granary building between 1865 and 1920. This occupation is shown by pieces of iron from several stoves and numerous sherds of undecorated whiteware, mass-produced bottle glass, etc. (Mounger 1959:200-202).

In recent years, some of the lost field notes have been recovered by Texas Parks and Wildlife Department researchers. Many more papers may still be brought to light, and it is hoped that anyone who might have some of the papers and documents from Mission Espíritu Santo would turn copies of the papers over to a document preservation-equipped facility or contact the Texas Parks and Wildlife Department.

From the above comments, it is readily apparent that the 41 GD 1 site can give archaeologists and historians nightmares: Excavation reports and documents

were lost after the site was thoroughly investigated. This loss represents permanent damage to the knowledge which we can gain from the site. Much of this information can never be recovered or reconstructed.

In 1977, Texas Parks and Wildlife Department archaeologist Robert Burnett conducted a limited monitoring operation on the mission grounds. The work was in conjunction with trenching along the north wall of the church and granary buildings. The purpose of the work was to monitor the excavation and installation of an extension of a French drain along the wall.

Burnett was working in an area formerly excavated by the Civilian Conservation Corps. This project was, in fact, the archaeology of archaeology. The Civilian Conservation Corps field methods had been used in this area. Burnett described the strata as "...typical Civilian Conservation Corps trench fill ... (Burnett 1977:memo, Texas Parks and Wildlife Department). Very few artifacts were recovered, such as unidentifiable pieces of iron, some majolica sherds and several Goliad ware sherds.

At this time, the Texas Parks and Wildlife Department has no plans for further archaeological investigation of the Mission Espíritu Santo site. Ongoing research is focused on locating and analyzing, as well as possible, the results of prior archaeological studies. Other efforts are concentrated on education about archaeology and its importance in helping us develop a greater understanding of our history.

The only "conclusion" which can be made at this time is that research must continue. A fair understanding of the site can be pieced together from a study of the extant documents and artifacts. Periodcally, artifacts, papers, and informants come to light, but these provide only a small glimpse of the puzzle.

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AN ANDICE POINT FROM THE FIETSAM SITE (41 FY 52), FAYETTE COUNTY, TEXAS

William E. Moore

INTRODUCTION

The Fietsam Site, named for the landowner, Joe Fietsam, is located in Fayette County adjacent to an unnamed tributary of Lone Pool Creek which eventually drains into the Colorado River about five miles to the southwest. Much of the site was disturbed when gravel was quarried in the area.

This site has been visited by local collectors for many years, and I was told that many artifacts have been found there. Artifact types found at this site include arrow points, dart points, miscellaneous bifaces and tools, cores, hammerstones, and a possible corner-tang implement. No pottery has been reported.

In the early 1970s I visited several prehistoric sites in Fayette County. I made several trips to the Fietsam place and in 1972 I recorded the prehistoric site on their property with the Texas Archeological Research Laboratory (TARL) in Austin, Texas as 41 FY 52.

Mr. Fietsam has always been very courteous to me and his willingness to allow me to walk over his property is greatly appreciated. In March of this year I visited the site and learned that he had passed away. It is in his memory that I have prepared this article.

DISCUSSION

Andice is a newly established type, being first described in 1983 by Elton R. Prewitt (1983) based on materials excavated by J. E. Pearce from the Gault Farm site (41 WM 9) in Williamson County. According to Prewitt (1981:78; 1983:2), *Andice* points occur in the Early Archaic Jarrell Phase of the Central Texas archaeological region and are closely related to the *Bell* type. They are most commonly found along, and either side of, the Balcones Escarpment in eastern Central Texas and along the Gulf Coastal plain to the Victoria-Corpus Christi area on the Texas coast.

The specimen from 41 FY 52 (Figure 1) is typical of the *Andice* type. It was coded on Prewitt's Artifact Quantification Form and a copy has been included with the site records at TARL. The following measurements were taken: thickness, 7 mm; maximum length, 89 mm; maximum blade width, 58 mm; base width, 20 mm; haft length, 25 mm; neck width, 20 mm; and base depth, 1 mm.

The base is concave and no evidence of stem/base smoothing, beveled blade, beveled stem, or serration was observed. One barb is partially broken while the other barb and most of the blade are missing. One face has been thinned by the removal of at least two flakes that extend upward from the base to near the juncture of the stem and blade, a trait common to this type (Prewitt 1983:2).

Since the initial description of this type by Prewitt (1983), the *Andice* type has been discussed by Weber and Patterson (1985) and Weber (1986). An editorial comment concerning Weber and Patterson's article appears in Volume 12 (3):2 of *La Tierra*.

The discussion of *Andice* points by Weber and Patterson (1985) focuses on quantitative analysis of both *Andice* and *Bell* points. The authors concluded that *Bell* and *Andice* point types may represent a continuum of a single technological tradition of the Early Archaic period in Texas. It is their opinion that significant differences exist between the two types only in terms of stem length and maximum thickness. In all other attributes, the two groups of points were very similar.

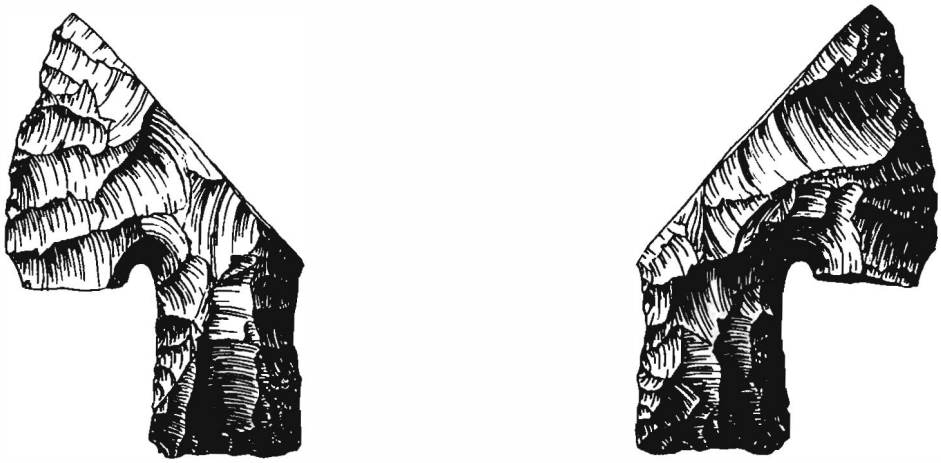

Figure 1. Obverse and Reverse Views of Andice Point from 41 FY 52.

Based on an earlier study by Weber and Patterson (1985), Weber (1985) divided a sample of 60 Andice and *Bell* points into six variant groups based on stem shape, and graphed the discriminant function values of each group. He concluded that quantitative data does not support the current typological constructs which separate Andice and *Bell* points.

CONCLUSIONS

The documentation of an Andice point from Fayette County adds to the data base for this type. Since it was collected from the surface in a disturbed context, no information concerning its relationship to other artifacts at the site can be made. This specimen is clearly within the known range of distribution for the type.

ACKNOWLEDGMENTS

My thanks to Mr. and Mrs. Fietsam for allowing me to explore their land over the years. Their cooperation and generosity will not be forgotten. Elton Prewitt examined and measured the specimen discussed in this article. The editorial assistance of Evelyn Lewis and the fine art work by Richard McReynolds are greatly appreciated.

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A COMMENT ON METAL ARROW POINTS

Kenneth M. Brown and A. J. Taylor

ABSTRACT

Kennedy and Mitchell (1988) propose that evidence of chiseling and filing of metal arrow points found at Fort Lipantitlán is an indication the points were made by blacksmiths and not by the Indians themselves. We would like to point out that 1) there is substantial evidence, both from ethnohistory and archaeology, of Indian manufacture of metal points with chisels and files; 2) the metal points illustrated are representative of those found through the Plains and there is no particular stylistic reason to attribute them to the craftsmanship of a local blacksmith; and 3) we are aware of no documentary references to Spanish or Mexican governmental agencies (unlike private traders or the Republic of Texas) supplying arrow points.

INTRODUCTION

In a recent report on metal arrow points from Fort Lipantitlán, Kennedy and Mitchell (1988:32) remark that the points "appear to have been chiseled into shape and the edges filed into their present beveled form; thus, they were probably not made by the Indians themselves." In a still more recent report on an arrow point found at a Nueces County site, Bauman (1988:37) endorses the same idea.

We would like to point out that the notion that evidence of chiseling and filing implies non-Indian manufacture is erroneous. There is abundant ethnohistoric and archaeological evidence, both from Texas and elsewhere, of Indian manufacture of metal arrow points, using either metal tools or more traditional ones such as sandstone abraders. Indians presumably acquired metal stock, chisels, and files quite early in the process of contact with Europeans, acquisition taking place by scavenging, theft, capture, or trade. In the southeastern United States, iron chisels and wedges were some of the earliest items of European material culture found in contact period sites; for example, the Spanish explorer Juan Pardo distributed 61 chisels, 77 wedges, 72 hatchets, and 30 knives to Indians in present South Carolina, North Carolina, and Tennessee in 1567-68, along with an additional 48 assorted chisels and knives, 42 chisel-like wedges, and 4 wedges left behind for the Indians (DePratter and Smith 1980:71, Fig. 3, Tables 1-2). Some of these have apparently been recovered in archeological context as grave goods from contact period sites in Georgia and Alabama (Smith 1987:149, 150, 154). Indians in central Nuevo Leon were just beginning to acquire metal arrow points at about 1650, according to De León, who observed that the points were "of flint and some are made of iron, if they find it at hand" (Brown 1988:11). Father Adamo Gilg, writing about the Seri Indians of northern Sonora in 1692, noted that "they manufacture bows, quivers, and arrows whose points heretofore were of stone," indicating that metal had replaced stone in northern Sonora by that date (DePeso 1965:55). By the early eighteenth century, an extensive brassworking industry is in evidence at the Utz site in Missouri, an Oneota village thought to have been abandoned by 1712. Items produced by Oneota craftsmen included brass arrow points, brass knives, and brass chisels, as well as a variety of other objects such as bracelets, pendants, tinklers, and the like (Bray 1978:34-62, Figs. 5-8, 11-14) probably mostly made from recycled brass kettles. Gilman (1982:Figs. 201, 203, 204, 205) illustrates arrow points and other artifacts made from recycled kettle metal. Included in the inventory of the Lewis and Clark expedition were 6.5 pounds of sheet iron strips and 12 pounds of brass strips specifically destined for trade with the Indians. Also accompanying the expedition were 17 dozen files and rasps and 9 chisels

(Burroughs 1961:296-297) intended for the use of the expedition itself. How many of these ended up in the hands of the Indians before the trip was over?

The advent of fur trading on the Plains provided a constant supply of trade goods for nomadic Plains tribes, and the frequent long-distance north-south movement and trading that characterized Plains Indians imply the opportunity for southward redistribution of fur trade goods into Texas. Figure 1 shows the number of files and ice chisels distributed from York Factory on Hudson Bay from 1719 to 1780, with as many as 500 files and 900 chisels distributed to Indians in a single year, generally at the price of one beaver each (Ray 1974:Table 1, Fig. 28). Hanson (1984:Plates 5, 6) reproduces catalog illustrations of some of the many kinds of files imported in 1780-1830 by the Hudson's Bay Company for the Indian trade. Inventories of fur trade goods at Brandon House in Manitoba list 39 unspecified files in 1810-11, 23 in 1811-12, 36 in 1813-14, and 42 flat

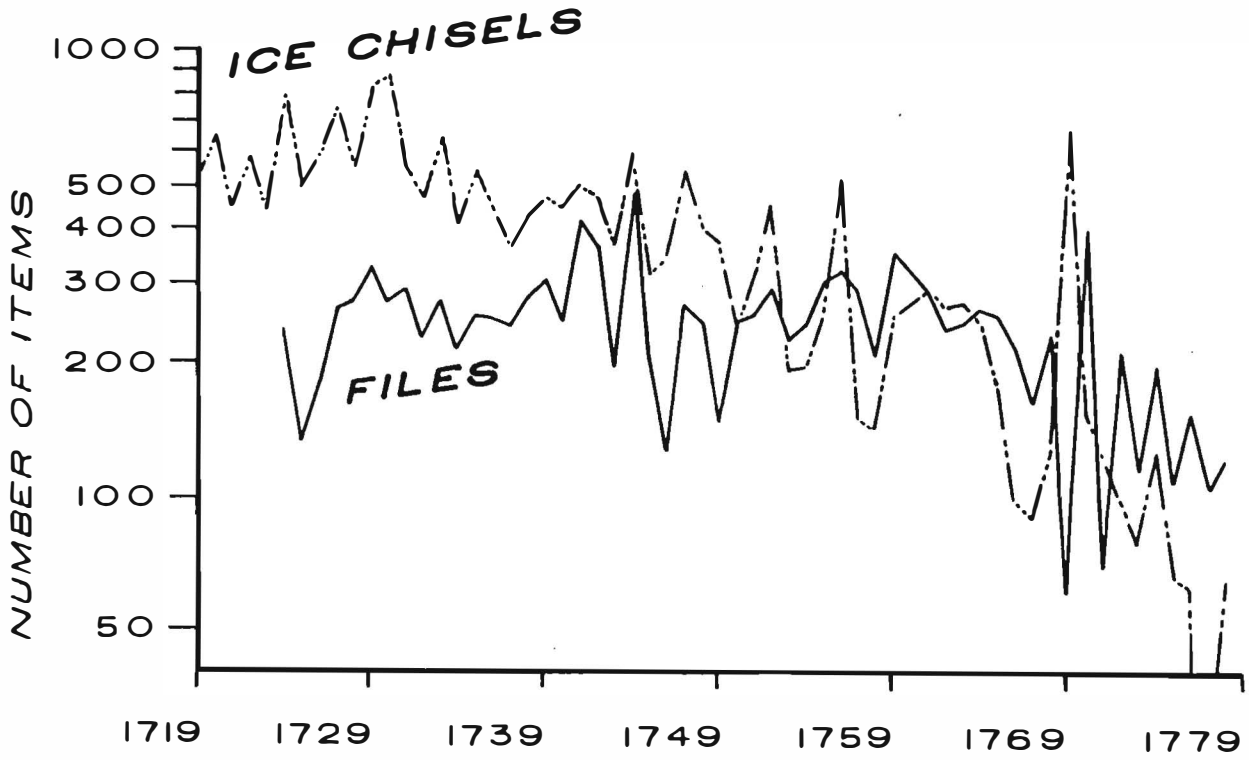

Figure 1. Number of files and ice chisels per year distributed to Indians at York Factory, Manitoba, from 1719 to the end of 1779 (adapted from Ray 1974:Fig. 28). Note Y axis is logarithmic, while X axis is arithmetic. While none of these items probably were ever exchanged as far south as Texas, the graph shows that files and chisels were significant fur trade goods, and is a reminder that they were also a component of the southern fur trade as well.

bastard files in 1813-14 (Wood and Thiessen 1985:Appendix, Table 4). Tables 1 and 2 in this paper list different kinds of files inventoried at fur trade posts in 1816 and 1839. Some of these chisels and files were lost by fur traders as a result of canoe accidents at portage sites and have since been recovered through underwater archaeological projects (see Gilman 1982:Figs.64, 195 for examples). Other files were used until worn and then converted into fleshers or chisels (Gilman 1982:Figs. 196, 198), or heated in a fire and used to burn cross-hatched patterns into wooden artifacts (Gilman 1982:Fig. 197).

TABLE 1. Types of Files Inventoried at Fort William (Northwest Company) in 1816 (from Hanson 1984:2).

Flat common files (6, 7, 8, 9, 10, 12, and 14 inch)
Smooth flat files (4, 5, 6, 7, and 8 inch)
Rat tail files (4, 8, and 10 inch)
Square files (8 inch)
Rasps (10 and 12 inch)
Half-round rasps, assorted
Pit saw files
Cross-cut files (7 inch)

TABLE 2. Types of Files Inventoried at Fort Clark (American Fur Company) in 1839 (from Hanson 1984:2)

2 dozen half round rasps (10 inch)
3-1/2 dozen smooth flat files (12 inch)
2 dozen flat files (11 inch)
7 dozen flat files (8 inch)
5 dozen flat files (6 inch)
4 dozen bastard files (14 inch)
6 dozen square files (6 inch)

Files and chisels were a component of the fur trade not only in Canada, but in the Plains region of the United States as well. Iron files were recovered from three graves at the Leavenworth site, an early nineteenth century (1802-1832) Arikara village-cemetery site in South Dakota. One of these, burial 211, was an infant with three iron arrow points, two sandstone shaft abraders, a bison rib shaft wrench, and an iron file, among other offerings (Bass, Evans, and Jantz 1971:85-86, 127).

DOCUMENTARY AND ARCHAEOLOGICAL EVIDENCE

Metal arrow points, to be sure, were produced both by commercial cutlery firms and by trading post blacksmiths, but many of them were made by the Indians themselves. Hanson (1975), in fact, suggests the greatest number were Indian made; an 1870 order for one thousand files for making arrow points suggests something of the magnitude of this activity (Hanson 1975:26). Sections of amputated gun barrels, pounded on one end into a flattened wedge shape, are relatively common finds at Norteño phase and other early historic sites, and probably represent attempts to recycle nonfunctioning firearms into chisels. Tabeau recorded Indians of the upper Missouri shortening the barrels of functioning guns to convert them into carbines, using the extra barrel section as raw material to make arrow points (Abel 1939:199). The occasional recovery of items such as chisels (Harris, Harris, and Woodall 1967:29; Duffield and Jelks 1961), files (Duffield and Jelks 1961:59; Hamilton 1960:Fig. 42), and metal scrap with

clear evidence of cut edges (Sudbury 1976:75-77) from historic Indian sites should also alert archaeologists to the possibility of such industry. Indeed, even the iron grist mill given to the Mandans by Lewis and Clark in 1804 was later dismantled and chopped up by the Indians to make arrow points (Russell 1967:328). Other kinds of metal artifacts known to be of native manufacture, such as brass wire bracelets, bear evidence of file and chisel marks (see Suhm 1962:96; Ray and Jelks 1964:135-137). Simmons and Turley note that

> Evidence indicates that the Wichita along the Red River produced projectile points, awls, scrapers, and other articles from scrap iron. Workshop areas that have been excavated yield hundreds of small metal fragments discarded in the manufacturing process. In practically all cases, it seems, the iron was worked cold. The blades of many Wichita axes and wedges show a profusion of chisel marks indicating that these tools served the Indians as makeshift anvils. Those examples of chisels that have been recovered were made from small iron rods rectangular in cross section. They are rather delicate instruments with a narrow cutting edge and a mushroom of metal on the butt end, caused by hammer blows (Simmons and Turley 1980:37).

Simmons and Turley also point out that neophytes at the Spanish missions of the Southwest were often taught blacksmithing by the friars or by professional blacksmiths such as the Flemish smith, Juan Banul, who worked at San Antonio de Valero in 1731 (Simmons and Turley 1980:33). Since Indian converts were constantly running away and returning to the missions, there must have been many opportunities for distribution among outlying Indian groups, not only of metal-working knowledge, but also of small tools acquired by pilferage as well. Father Joseph Och, a Jesuit missionary of the middle eighteenth century, in what is now the Mexican state of Sonora, complained bitterly about pilferage by his Indian charges, remarking that "besides foods they also steal other things that suit them: for example, knives and implements of iron" (Och 1965:181). The Texas missions also distributed tools such as chisels to the converts for their own use. Included, for example, in a 1772 inventory of mission San Antonio de Valero, are 11 chisels in one room, along with three chisels and four flat files at the forge, as well as with various quantities of iron and steel (Anonymous 1772:34, 35, 38; pagination given is from typescript).

By the first half of the nineteenth century, the Spanish missions of Texas were no longer in operation, but knowledge of techniques for cold working of metal was, by now, widespread among the Indians. Jean Louis Berlandier, describing Texas Indians as he saw them during his visits of 1828-29, wrote:

> The natives make most of their own weapons, with the exception of the blade of their lance, which is generally the blade of a Spanish sword. All the rest is of their own handiwork. In the villages they buy iron barrel hoops which they cut and work into heads for their arrows (Berlandier 1969:48).

Later in the nineteenth century, Clinton and Jeff Smith, young captives of the Comanche and Apache, reported their experiences as youthful tribal initiates:

> Here we met with another party of Mexicans, with their trading clothes on. This time they brought with them all kinds of paint, knives, steel with which to make arrow points, and many trinkets. The arrival of the steel in our camp caused a lot of work, for we were soon busy making bows and arrows, quivers and lariats (Smith and Smith 1977: 64).

In another episode, Clinton Smith accompanied a party of Indians intent on stealing a herd of horses. Although the horse pen was padlocked,

> One of the Indians happened to have a file which he used in making arrows, and he soon filed the chain (Smith and Smith 1977:146).

Another famous captive, Herman Lehmann, recorded that

> ...when the soldiers began to come onto the plains, we found old barrel hoops and other steel around their camps, and from this steel we made arrow spikes and discarded our old flint rock spikes. The Mexicans furnished us with files with which to fashion and sharpen our arrows (Greene 1972:67).

A collection of nine brass "C" bracelets, two iron or steel arrow points, and a proximal fragment of a rat-tailed file, all found "in a pile" (perhaps a cache, grave goods?) on the Henderson Ranch west of Ozona (Hester n.d.) might represent material evidence of this kind of Lipan or Comanche activity.

Sometimes raw material was acquired by theft rather than by trade. When French captain Jean Béranger sent his ship's launch ashore on the Texas coast in 1720 to procure fresh water, the water casks were stolen by Karankawa Indians in order to get the iron hoops (Carroll 1983:20). And after the famous sack of Linnville by the Comanches in 1840, the retaliating settlers captured a number of Comanche pack mules at the Battle of Plum Creek, many of them according to Jenkins (1973:65) "carrying hoop-irons to make arrow spikes." Buckelew, a captive of the Lipan Apache, spent a part of his captivity in the Mexican village of San Vicente, where

> A little Indian boy and I passed...one day, and he noticed a piece of hoop iron sticking under the roof. He told me to go in and talk to her and he would steal it, and divide it with me to spike my arrows. I did as he told me and pretty soon I looked out and saw that he was gone and the coveted piece of hoop iron had disappeared. We divided it equally, but I never got to use my part, as I made my escape pretty soon (Dennis and Dennis 1925:131).

Likewise, Clinton Smith noted that

> In slipping around through the white settlements the Indians would pick up all of the hoop iron they could find and would use this in making their arrow spikes. They also traded for this kind of iron from the Mexicans (Smith and Smith 1977:159).

Unfortunately, there are few ethnographic data yielding any real detail on the actual craft procedures involved. Grinnell (1962:351) mentions an incident among the Cheyenne where "in the spring of 1863, Nahktowun was sitting behind his lodge filing arrowpoints, which he had fastened into a cottonwood stick to hold them," suggesting a temporary haft was used to make the small points easier to manipulate during the edge-filing process. The Navaho cut barrel hoops into rectangular strips three inches long and then divided the rectangle along the diagonal, producing two points from each, finishing them with a file (see the pattern illustrated by Kluckhohn, Hill, and Kluckhohn 1971:40, Fig. 19.5).

During the Republic of Texas period, Texas had its own Indian Bureau which dispensed goods to various Indian groups; goods like vermilion or brass wire (for bracelets) intended to promote good will and dependence, as well as goods such as hoes, that were intended to encourage horticulture and sedentarism. These goods were paid for with public funds and bought from various Texas firms like the Torrey Brothers at Waco. Sometimes the Republic also employed gunsmiths like

Noah Byars to repair firearms for the Indians (Winfrey and Day 1966a:240), since by this time both guns and bows and arrows were in common use. The accounts of the Bureau rarely mention items such as "one box spears" (in 1844; Winfrey and Day 1966a:88), "10 Geo Arrow Points" (in 1845; Winfrey and Day 1966a:266), or "3 Dozen Arrow Points" (in 1846; Winfrey and Day 1966b:20), but frequently mention files (Winfrey and Day 1966a:185, 266, 276); 15-1/2 dozen files were sent to the trading house on Tehuacana Creek in Robertson County in 1844-45, for example (Winfrey and Day 1966a:item 211). In some cases, where quantities of hoop iron, cast steel, bellows, a vise, hammers, chisels, and files (Winfrey and Day 1966a:221) are listed they were items obviously destined for a post blacksmith, not for dispersal to the Indians, but in many cases the large numbers of unspecialized files bought must have been intended for the Indians. These records show that by the 1840s, large quantities of trade goods and tools were being provided to Texas Indians by the government itself. Trade with private suppliers, or outright theft must have circulated an even greater quantity of goods, so that items like chisels or files would have been quite accessible. Later in the nineteenth century, when the United States government assumed responsibility for dealing with the Indians, it also occasionally distributed trade goods; 10 files were included among goods distributed to Indians at Fort Laramie in 1867-68 (Murray 1977:3). Even when, in the late nineteenth century, Indian ownership of firearms became almost universal, the bow and arrow were retained, and Indian manufacture of metal arrow points continued. In fact, when Pennington did his field work among the Tepehuan of Chihuahua in 1960 and 1965, they were still making arrow points from pieces of iron obtained from mestizos (Pennington 1969:122).

Relatively little is known about metal arrow point workshop sites. One of the best examples is the Will Rogers State Park Site in Oklahoma, believed to represent an Osage Indian village dating from sometime in the period 1802-1840. Recovered from the surface were seven metal points and 85 pieces of scrap brass representing the waste material left over after triangular brass points were cut out by the Indians; included are V-shaped, triangular, rectangular, and other polygonal shapes (Perino 1971:Fig. 2). Irregular pieces of sheet brass were also recovered from the Stansbury site, a historic Indian site near Whitney, Texas (Stephenson 1970:103). Another example of historic Indian metal shop debris comes from Fielder Canyon Cave, where segments of flat hoop iron were cut into trapezoidal sections to be rolled into tinklers; various stages of reduction are present at this late nineteenth century Val Verde County site (Kirkland 1942:62, plate 15, items 9-15).

STYLISTIC CONSIDERATIONS

The eight metal arrow points reported by Kennedy and Mitchell show a respectable amount of stylistic diversity, ranging from round-shouldered, apparently serrated-stemmed examples (specimens A, E, F, G, H), to larger broad-bladed, square-shouldered examples (specimens D, D), to a single small, tapering-stemmed specimen (specimen B). This amount of diversity is well within the range of what might be expected within a single Indian band, or even within a single archer's quiver. Studies of quivers of arrows in museum collections sometimes show striking uniformity of metal arrow points within a single quiver (Jones 1969:75, Fig. 5, Tonkawa; Fowler and Matley 1979:Fig. 54, Southern Paiute), but in other cases many, or all, of the points in a single quiver, may be different (Jones 1969:Fig. 2). Possible reasons for uniformity or diversity are varied. Some sets of museum arrows may be uniform because they were especially commissioned by the ethnographer. In other cases, arrows in a single quiver may show diversity because their original owner won them in gambling contests. Arrows were a favorite item for gambling stakes among Plains Indians, and games of chance must have been responsible for a constant circulation of arrows, both within and between Indian groups all over the Plains.

The metal arrow points illustrated from Fort Lipantitlán were compared to A. J. Taylor's unpublished data bank of over 700 metal arrow points from the Plains. Of the arrow points illustrated by Kennedy and Mitchell, their specimen A resembles specimens recorded both from the panhandle and central regions of Texas, including one from near Fort Chadbourne. Specimen B resembles examples from the Texas and Oklahoma panhandles, from Union County, New Mexico, and from south of Meir in Tamaulipas, as well as one specimen from Mission San Juan Capistrano (Schuetz 1969:Plate 23, g) and another from Buffalo Pasture (39 ST 6), an Arikara site in Stanley County, South Dakota, dating from 1740-1795 (Lehmer and Jones 1968:Plate 18, b). Specimens C and D, possible preforms, somewhat resemble specimens from the panhandles of Oklahoma and Texas. Specimen E resembles examples from the panhandles, from east Texas, and south-central New Mexico. Specimens F, G, and H represent a common and widespread form occurring in most parts of Texas, some parts of New Mexico, Colorado, and Oklahoma, and also seem to resemble the Tonkawa points illustrated by Jones (1969:Fig. 5), insofar as one can judge from the photograph. A similar point was found at Presido La Bahía in Goliad County. Another example was recovered from Rocky Mountain House in Alberta, dating from about 1799-1834 (Noble 1973:Fig. 53, a).

In short, the Lipantitlán specimens are representative of metal arrow points found all over the Plains, in regions occupied by several different Plains tribes or bands. The diversity displayed in the collection is, as far as we know, typical of that found in Indian craftsmanship. There is no particular stylistic reason to attribute them to the work of a local blacksmith. A blacksmith might be expected to work from a single pattern and to produce a more uniform set of points, since conservation of raw material would presumably be less of a concern for a blacksmith than for an Indian metalworker. Perhaps Kennedy and Mitchell are right, and the points were, in fact, made by a local blacksmith; if so, the blacksmith did a remarkably fine job of replicating points found as far away as Colorado and Alberta.

POLICY CONSIDERATIONS

Relationships with the Lipan Apache were precarious at best, both during the Spanish colonial and Mexican Republic periods. The Lipan were equally willing to trade or raid. Governor Martínez, the last Spanish governor of Texas, complained in 1818 that "not a single day passes without the appearance of large bands of Comanches, Lipanes, Tahuacanos, and some renegade Spaniards who harass us with the greatest tenacity" (Martínez 1983:22). Ruíz, in 1828, regarded them as dangerous and prone to cattle-rustling (Ruíz 1972:6-7). The Spanish policy had been to attempt to maintain friendly relations with all but the most incorrigible tribes by dispensing presents and encouraging them to enter into peace treaties; instructions given in 1786 by viceroy Bernardo de Gálvez to Comandante General Jacobo de Ugarte y Loyola established a policy of peaceful relations in northern Mexico with the Apaches and provided for a system of "peace establishments" where Apaches were given rations and encouraged to settle. However, by 1831, lack of funding by the Mexican government led to discontinuance of the rations; soon after, raiding and general hostilities began. First the Mexican state of Sonora (in 1835) and later Chihuahua (in 1849) offered bounties on Apaches (Griffen 1985; see also Williams and Hoover 1983).

Trade during the Spanish colonial period was strictly controlled by the government and was not supposed to be a matter of private enterprise, except for occasional individuals who, like Anthony Glass (Flores 1985) or Joseph Blancpain, escaped, at least for a time, the vigilance of the Spanish, or in some cases, illicit trade carried on surreptitiously by the officials themselves.

A few lists of trade goods survive from this period. These are either lists of goods actually carried by traders, or ones recommended for trade with the Indians. These lists of trade goods seem never to mention arrow points, although other items such as muskets, pistols, machetes, hunting knives, axes

and so forth are mentioned (Faulk 1964:65). A list of goods seized from the French trader Blancpain on the Trinity River in 1754 includes 37 muskets, seven pairs of horse pistols, a pair of pocket pistols, 24 machetes, 36 harpoons, and six caulking chisels (these perhaps intended for maintaining Blancpain's boat, rather than for trade). No arrow points are mentioned (Blancpain 1755). In 1752, the Spanish in New Mexico arrested two more French traders (accompanied by Apaches) bringing Michilimakinac trade goods from New Orleans; included in the inventory of seized goods were 40 lbs of files (Thomas 1940:98). While these goods were chiefly intended for New Mexican settlers, the inclusion of vermilion and hawk bells among the wares suggests some trading with Indians was also done. Another list by Comandante General Salcedo of goods needed for the Indian trade, this one from 1808, listed 300 "treaty muskets," 260 hunting knives, 120 dozen hand axes and 30 dozen axe heads, but again no arrow points (Guice 1957:510).

Why should the Spanish government be willing to provide relatively sophisticated weapons like smoothbore muskets, but not metal arrow points? A clue can be found in Gálvez 1786 instructions to Ugarte y Loyola. Gálvez thought that Indian arrows were more effective (both more penetrating and capable of more rapid fire) than the muskets of the time, and he reasoned that muskets were more difficult to repair and to supply with ammunition. He recommended the Indians be supplied with cheap, easily damaged firearms, making them reliant on the Spanish for both repair and resupply. In time it was hoped the Indians would lose their skill with the bow and arrow and become dependent on the Spanish for weapons and ammunition (Moorhead 1968:127-128).

In summary, there are no documentary indications that it was ever Spanish or Mexican policy to distribute metal arrow points to quasi-hostile tribes such as the Lipan Apache. Admittedly, this doesn't prove that local residents might not have taken it upon themselves to be innovators in the field of policy. There is simply no documentary proof.

SUMMARY

Kennedy and Mitchell offer the hypothesis that metal arrow points were made at Fort Lipantitlán from hoop iron, by a post blacksmith, and traded to Lipan Indians for meat. Perhaps they are right, but there is little in the way of ethnohistoric support for such a hypothesis; instead, we suggest the points could have been made by the Indians themselves, perhaps during one of the periods when the site was not occupied by Spanish, Mexican, or Texan military forces, or they might have been made elsewhere and imported to the site. There is no documentary evidence of Spanish or Mexican governments supplying arrow points to Texas Indians, although private traders and the Republic of Texas certainly did so. We admit this isn't very damaging testimony against the blacksmith hypothesis, but we think it should be kept in mind. The variety of forms evident in the collection does not look like the kind of pattern work that would be turned out by a blacksmith who aimed to produce points in quantity for trade; instead, it looks exactly like what would be expected from a collection of points made by a variety of Indian craftsmen, perhaps from different regions or ethnic origins. The points themselves resemble other known specimens found all over the Plains. There are no stylistic features that bespeak non-Indian manufacture.

These, however, are rather minor objections withal. The only part of the Kennedy and Mitchell report to which we really object is the implication that evidence of filing and chiselling implies non-native manufacture. There is plenty of evidence to the contrary. North American Indians acquired chisels and files soon after contact with Europeans, and the fur trade fed vast numbers of such artifacts into the Plains, many of them entering Texas as a result of the north-south migratory, predatory, bison-hunting movements of equestrian Plains tribes. Likewise, both metalworking knowledge and tools were supplied to Texas Indians by the Spanish through the missionization process. Metal workshop sites like the Utz site or Fielder Canyon Cave, Indian burial sites with files and

chisels appearing as grave inclusions, and captivity narratives and other historical accounts of Indian manufacturing activities all offer abundant evidence that Indians not only had files and chisels, but knew how to use them. Lehmann's explicit statement that the Apache and/or Comanche were supplied by Mexican traders with files for making arrow points certainly bears this out. In summary, the blacksmith hypothesis may be correct, but file and chisel marks cannot be used to support it.

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We would like to thank Anne Fox for documentary assisstance, and for allowing us to plunder her personal library; and we suppose we should also acknowledge Coyote, for after all it was Coyote who first brought bows and arrows to the Lipan anyhow (see Opler 1940:115).

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PLEASE NOTE

La Tierra is now being published on acid-free paper, starting with the previous issue (Volume 16, No. 3).

A METAL ARROW POINT FROM TERRELL COUNTY, TEXAS

C. K. Chandler

ABSTRACT

This report documents an iron arrow point from south-central Terrell County in the eastern Trans-Pecos region of southwest Texas.

DISCUSSION

Metal arrow points are known to occur over much of the southern plains and deep into South Texas. They are always indicative of the historic period. Until the advent of the Spanish Entrada, metal weapons were unknown to the Southwestern Indians (Thompson 1980:1). Coronado met the Apache in 1541; Oñate named them in 1598, and Gaspar Castano de Sosa met them in Pecos County in 1590 (Walter and Rogers 1975:89). Terrell County was created in 1905 out of Pecos County.

By the late 1600s, metal objects such as arrow and lance points (and the material to make them) were widely traded to natives. The Spanish traded muskets, axes, metal knives, arrow points and entire lances for furs:

The Comanches relied almost entirely on metal for

> arrow points after they came in contact with the whites. Barrell hoops, bindings for boxes, even frying pans and similar pieces of metal furnished excellent material. After the point was sharpened, it was hardened by dropping it while red hot into cold water. The Mexican traders not only supplied iron points, but files with which to fashion and sharpen the arrowheads. Metal arrowheads became an important item of trade among most Indian tribes. Hundreds of thousands were manufactured to be exchanged for furs. They were put up in packages of one dozen each, cost the traders six cents a package, and were the means for obtaining enormous profits. Usually one package was exchanged for a buffalo robe (Wallace and Hoebel 1954:104).

In The Indians of Texas Newcomb reports the Comanche used the bow and arrow and the lance even after they got firearms from Europeans, and that Lipans preferred bows and arrows and continued to use them long after their use was discontinued by other tribes.

In the early 19th century the upper Lipans occupied much of the eastern Trans-Pecos but were being constantly harassed and driven south by the Comanche. The great Comanche war trail crossed the Pecos River at Horse Head crossing, on to Comanche Springs, Fort Stockton, and through the Glass Mountains to Mexico. An alternate branch of this trail went by way of Tunis Creek, Independence Creek, Meyers Springs, and on to a crossing on the Rio Grande south of Dryden to enter Mexico.

THE ARTIFACT

The metal arrow point reported here is a surface find recovered from the top of a bluff just west of Meyers Springs in Terrell County. Meyers Springs has long been a center of activity in the eastern Trans-Pecos. It is one of the very few dependable water sources in this arid area. Along a great bluff adjacent to the spring there are many rock paintings dating from the Archaic into historic times. It is almost certain the Lipan and Comanche both were frequent visitors to the spring. This arrow point is likely associated with one of these groups.

The artifact (Figure 1) is made of iron and is rusty over all surfaces with some deep rust pitting;

however, it is in reasonably good condition. It is 42 mm long and 14 mm wide at the shoulders. It is 1.5 mm thick and weighs 2.6 grams. The distal tip is bent at right angles to the blade, probably as the result of impact with a rock. Blade edges are alternately beveled. The stem is 6.6 mm long with a maximum width of 6 mm and is deeply notched on both edges. The stem is angled slightly off center and the base is not square with the long axis of the blade. The heavy rust coating obscures any file striations, but I believe the blade edges have been filed with a metal file and the stem notches are produced with the corner of a metal file.

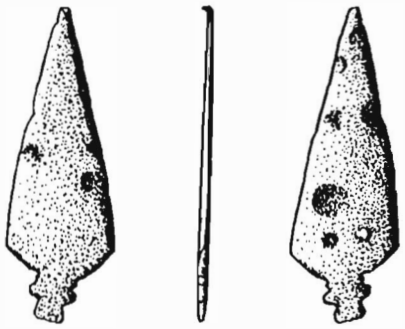

Figure 1. Metal Arrow Point from the Vicinity of 41 TE 9, Meyers Springs, Terrell County.

This point is made in the style of the Navajo template for making two points from a rectangular piece of barrel hoop with the use of metal shears. This template is illustrated in Figure 2 and is redrawn after Fishler in Klickholn et al. (1971:40).

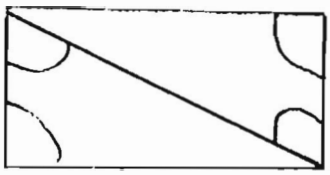

Figure 2. Navajo Template for making arrow points from a rectangular piece of barrel hoop with the use of metal shears.

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A BRASS ARROW POINT FROM SAN PATRICIO COUNTY, TEXAS

Jerry L. Bauman

ABSTRACT

This report documents a large brass arrow point recently recovered in the town of San Patricio, San Patricio County, Texas. The projectile was recovered, by the author, from the surface of a newly disturbed area.

THE SITE

San Patricio is situated in the southwestern corner of San Patricio County (see Figure 1). It lies about 1.5 miles northeast of the Bluntzer site (41 NU 209) and about 2.8 miles northeast of Fort Lipantitlán (41 NU 54). The town consists of a few restored buildings, several residential homes and businesses, and a large Fairground near the center of the town. Adjacent to the Fairground is where the arrow point was located.

In preparation for the annual "Rattlesnake Races" to be held at the Fairground on February 18 and 19, 1989, the town council decided to reopen one of the original roads which would provide another access to the grounds. A road was graded through a brushy strip of land located between a house and a restored building. The road was cut to a depth of eight inches and wide enough for two lanes of traffic. As a result, a variety of modern and historical artifacts was exposed. At the end of the graded road the brass arrow point was recovered.

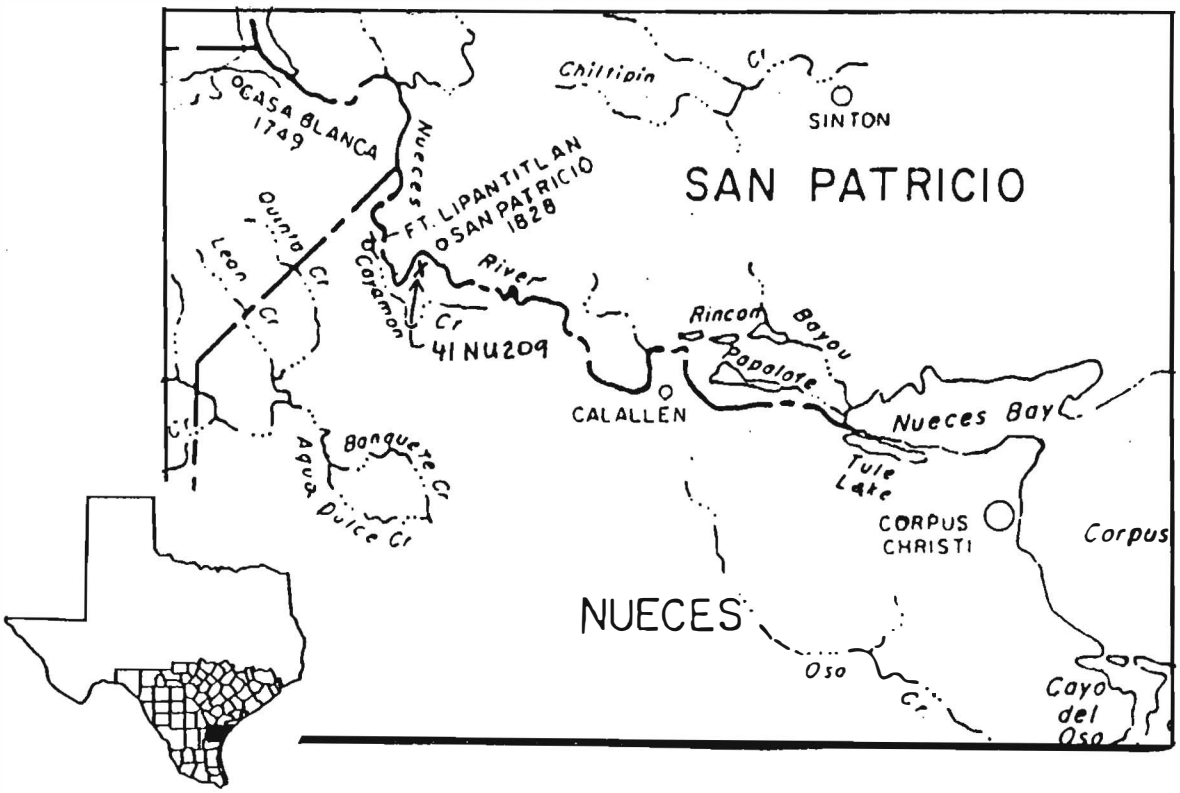


Figure 1. Partial map of Nueces and San Patricio Counties showing the relationship of Fort Lipantitlán and the town of San Patricio to the Bluntzer Site (41 NU 209). Map adapted from one created by Malcom Johnson. Inset map of Texas reflects location of San Patricio and Nueces Counties in the State.

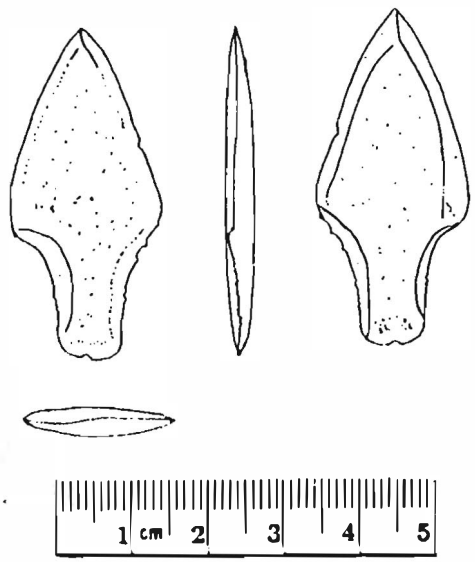
THE ARTIFACT

The arrow point (Figure 2) is Artifact No. 1 of the documented surface finds from the town of San Patricio. It is a broad-bladed stemmed projectile which was possibly cut by a hammer and chisel from a thick sheet of brass. Both the blade and the stem have been hammered out to a desired thickness, leaving the thickest part of the projectile at the junction of the blade and stem. Evidence of chisel marks have been obliterated by the sharpening of all of the edges. One face of the projectile is flat and smooth, while the other is convex and rough. Corrosion has left a thick and hard dark gray patina on the arrow point.

One edge of the blade is straight, the other is convex. The convex edge is 27 mm long and the straight edge is 26 mm long. The trailing edges of the shoulders are both 4 mm long. The blade edges have been sharpened from both faces in such a manner that it appears that the projectile is slightly beveled to the right. The roundness of the beveled edges suggests that they were sharpened with a grinding stone instead of a file.

The stem tapers toward a slightly convex and notched base. The base edge is hammered thinner than the stem. Both edges of the stem have been sharpened from both faces, and a series of small notches have been punched into them. The notches are angled toward the base, 10 notches on one edge and 11 notches on the other.

Dimensions of the projectile are: length--43 mm; width--18.3 mm; thickness--3 mm; stem length--15 mm; stem width--tapers from 11 mm to 7 mm; and weight--7.3 grams.



The Figure 2. Four views of brass arrow point found at San Patricio, Texas.

ASSOCIATED ARTIFACTS

Exposed on the surface of the dirt road was a small array of historical artifacts consisting of fragments of glass, crockery, and pottery, along with some metal objects. A few of the artifacts are of recent origin, but many are from the 1800s. All artifacts were collected by the author and recorded. The

area was later searched with a metal detector, in case other metal projectiles were present. However, no other projectiles were located. All recovered artifacts were donated to the San Patricio Museum for permanent display.

Metal objects consisted of fragments of sheet iron and tin, thick wire, square nails, cast iron stove fragments, brass and iron brackets, a brass buckle, an iron spoon, part of a trunk latch, clock parts, and a coil-formed pipe.

Glass shards were neck and base fragments of medicine, beer, wine and whiskey bottles. The colors of these fragments range from clear, pale green, dark green, and a very dark green (black). The modern glass fragments were of bowls and medicine jars made of milk glass.

Ceramic fragments consisted of crockery jugs, bottles, and jars, along with parts of American- and European-made plates, saucers, bowls and cups. The dishes varied from edgewares, plain hand-painted, to transfer prints of a variety of styles and colors.

HISTORICAL BACKGROUND OF SAN PATRICIO

On August 18, 1828, John McMullen and James McGloin were granted colonization contracts from the Mexican government to establish a colony of 200 families in the Lipantitlán area (Guthrie 1986:91-94). By 1829 a total of 53 families of Irish descent were signed up from New York and settled in the area now known as San Patricio (Old San Patricio) (ibid.).

Officially the town was established on October 27, 1831 and was named San Patricio de Hibernia (Saint Patrick of Ireland) (Guthrie 1986:91-94). The town was located on the left bank of the Nueces River and consisted of log and picket cabins (Webb 1952:559). A ferry at the Santa Margarita Crossing provided access across the Nueces River (Guthrie 1986:91-94). The town was presided over by the alcalde of Goliad (ibid).

In 1835 General Santa Anna suspended the Federal Constitution of 1824 and ordered all arms within Texas to be collected. Protection of the colonies was to be provided by troops at the Alamo, Goliad and Fort Lipantitlán (Guthrie 1986:91-94). San Patricio followed the other colonies in resisting Santa Anna's troops, and prepared for independence from Mexico.

On November 5, 1835, Captain Westover captured Fort Lipantitlán (Webb 1952:559). In preparation to take Goliad, Francis W. Johnson, with about 100 troops, used San Patricio de Hibernia as his headquarters. On February 27, 1836, Johnson and a detachment of 34 men were ambushed and defeated (Battle of San Patricio) near San Patricio, by Mexican forces under General José Urrea (ibid). Johnson and four of his men escaped; ten were killed and the rest were captured. The Mexican troops later burned the town after the citizens fled to Victoria (ibid.). Few of the townspeople returned that summer and the town remained largely deserted for five to eight years (Guthrie 1986:91-94).

The county of San Patricio was formed in 1837 with the town of San Patricio (the name had been shortened) as the county seat. During this period the town began to grow. San Patricio remained the county seat until 1893 when it was moved to Sinton (Webb 1952:559).

Prompted by Mexican raids into San Patricio in 1841, an armed force, the San Patricio Mainutemen, was formed. This year of raids again brought occupation by Mexican troops in 1842.

In 1845 General Taylor and a large consignment of U. S. troops came to the Coastal Bend area, as a show of force, to subdue mounting Indian uprisings. During his campaign General Taylor camped at San Patricio and, at the same time, rebuilt part of the town (Guthrie 1986:91-94).

After a devastating hurricane that wiped out Indianola in 1875, Saint Joseph Convent was relocated in San Patricio the following year. Some buildings of the convent were used to establish St. Joseph School for girls. Later, Saint Paul Academy for boys was formed at Round Lake, outside of town (Hebert 1981).

By 1880 the town had a population of 200 and boasted a gristmill, cotton gins, several schools and churches (Webb 1952:559), saloons, a blacksmith shop, and several hotels (Hebert 1981). The population grew to 400 by 1890, but with the shifting of the county seat to Sinton, it began to decline rapidly (Webb 1952:559). In 1940 the population was reduced to 50 and only one business remained.

COMMENTS

With this brass projectile, and two additional iron arrow points recently found at the Bluntzer site, a total of 12 metal projectiles have been found in a relatively small area (Bluntzer site, Fort Lipantitlán, and San Patricio). This large number of arrow points seems to suggest that the settlers and the Indians enjoyed a very active trade relationship, with metal projectiles being one of the prime sources of barter. At least one blacksmith shop--Lipantitlán (Kennedy 1988), with possibly a second--Bluntzer site (Bauman 1988) was producing large quantities of metal projectiles. Now, perhaps a third--San Patricio (Hebert 1981) blacksmith shop might have been making them. With three shops making the projectiles, there may have been enough produced to not only meet their needs but to supply area businesses and outlying settlers that may have come into contact with local Indian groups.

The style of the brass arrow point is similar to the iron arrow points that were being produced at Lipantitlán (Kennedy 1988). Normally this would suggest that the point was made at the Fort. However, since two other blacksmith shops may have been making metal projectiles, they could have copied this style. Also, this style is not unique to South Texas. C. K. Chandler reports on a brass projectile (Chandler 1986) of the same style being found in Bexar County. Apparently the style was very popular and widely used. Further probing of the blacksmith shops at the Bluntzer site and San Patricio is needed to establish that these shops were, indeed, producing metal arrow points.

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EARLY SETTLEMENT IN STONEWALL, TEXAS

Ellen Sue Turner

The largest groups of European immigrant farmers that settled in 19th-century Texas were Germans. The first half-century was the crucial period in the development of their agricultural way of life and in this 40-50 year period, aspects of their Old World farming heritage that were to survive in the New World were tested. By the outbreak of the Civil War, the idea was well established that German farmers in Texas were something special (Jordan 1966:40-45).

German nobility, mostly officers, were the organizers of the German emigration to Texas and the society "Mainzer Adelsverein" under the supervision of Prince Carl von Solms-Braunfels, and later Baron Ottfried Hans von Meusebach, obtained the right to settle Germans on a vast tract of land in west central Texas known as the Fisher-Miller Grant (Jordan 1966:42-43). The first wagon train of colonists left New Braunfels for Fredericksburg on April 23, 1846 and the approximately 120 men, women and children took 16 days to make the trip (Wisseman 1869:16). Less than two weeks later the management of the Adelsverein in New Braunfels sent word to the colony that they had been advised by Colonel Henderson, Governor of the State of Texas, that he had reason to believe that the Comanches would prove hostile toward the settlers. The settlers decided to remain and depend upon their own means of protection (Roemer 1935:156-159).

In 1847, a group of migrating Mormons established a settlement, called Zodiac, on the Pedernales about four miles east of Fredericksburg. The forty families, under the leadership of Elder Lyman Wight, introduced corn (a new and unfamiliar crop that was virtually absent in 19th-century Germany) and other grains to the area, and built a water-powered saw and grist mill and a wood-turning lathe on the Pedernales River. Baron von Meusebach, administrator of the Fredericksburg colony, welcomed the Mormons when they established their settlement. The immigrants had subsisted almost entirely on bread and meat with no fresh vegetables that first year, and 156 deaths had occurred out of 600 settlers, mostly from cholera, dysentary and "stomacacae" (Roemer 1935:234). Scurvy took a great toll. The Mormons taught the colonists what and how to plant at a time when they were near starvation (Wisseman 1869:21-22). In 1848 the vegetables and corn were harvested and the sickness gradually abated (Wisseman 1869:30). The Mormon community left for Utah in 1853 but the son of Elder Wight returned temporarily some years later and supervised the construction of the old Vander Stucken Flour Mill.

The Adelsverein was bankrupt by 1847 due to improper management and inadequate planning. However, the titles of German immigrants to land in the defunct grant were recognized by the state government, who legally owned the area, in the early 1850s.

In 1860, four or five families were living in log cabins near the Pedernales River in the area now known as Stonewall. The original land grants were made before 1837. A widow, Justa Flores, held a land certificate for approximately 4,600 acres of land on the day of Declaration of Independence from Mexico. She sold the land to William Richardson of Galveston for $800.00 in May 1837. Subsequently, the land changed owners and the Flores grant was divided into smaller tracts (Stonewall Centennial 1960). In 1860, Casper Danz and his wife bought three sections of land (2,200 acres) along the Pedernales River. He sold 188 acres to Frederich Sauer in June of 1869, and in March, 1872 he sold 209 acres to Henry Behrens. Danz kept the homestead property of 250 acres which his youngest son, Richard Danz inherited. This property is now part of the Lyndon B. Johnson State Park (Lindig 1970:70). Former President Johnson was born August 27, 1908 on a farm three miles east of Stonewall.

In 1870, I. M. Nuñez established a stage station about two miles south of the present Stonewall. Mail for early settlers was left with Nuñez. When a post office was established, Nunez insisted that it should be named Stonewall in honor of Stonewall Jackson, under whom he had served in the Civil War. Major Nunez laid out a town called Millville along the Pedernales River and divided 15 acres into town lots; these he sold to people who intended to build a home or establish a business. When the stage station was discontinued and the post office moved to Millville, the settlement was renamed Stonewall (Stonewall Centennial 1960:5-10).

Adreas Lindig was trained in his native Germany in quicklime production. He built the first lime kiln in Gillespie County on the property now known as "Hop Hill." It took about seven ox-wagon loads of rock for each "batch" of lime, and he used post oak wood burned in a cooking bed to produce the high heat required. The rocks were carefully placed into the oven to permit the intense heat to convert the limestone into quicklime. It took one hundred hours at approximately 1,000 degrees of heat to convert the limestone rocks. Post oak was burned outside the oven, and only the live coals were shoveled into the bottom. After the oven reached its peak of heat, it was sealed airtight and left in that condition for six days. The quicklime or powdered lime, when covered with water, was called slaked lime. Mixed with sand and water, the slaked lime was used for mortar and plaster. [An indigenous style of building developed in the Fredericksburg colony using a hewn-log framework filled with slaked lime mortar, reeds and sogel grass to form the distinctive "Fachwerk" construction (King 1969:188)] The Stonewall settlers learned the art of lime making from Lindig, and began building their own ovens and making their own lime. A two-story rock house using lime from the Lindig kiln and built in 1897 by Willie Meier is presently part of the ranch home of former President Lyndon B. Johnson on the LBJ Ranch near Stonewall. The rock walls on the old homestead of Hugo Weinheimer were 18 inches thick and the lumber for the rafters was sawed at the grist mill in Stonewall. The cypress shingles came from Comfort, where many trees on the Guadalupe River furnished the cypress for the area (Hugo Weinheimer, personal communication, 1976).

Every farm had a hand-dug well about 25 feet deep or more which furnished enough water for the household--including a hog and a horse. Hugo Weinheimer (personal communication, 1973; 1976) described how the well was dug when his parents decided to dig a well close to the house to alleviate the necessity of getting water from the creek with a 50-gallon barrel on a sled:

> The well was five feet in diameter and it was easy digging with a shovel the first six or eight feet. A frame was then built around the well and a strong post was set on each side of the frame with a gap in the posts to place the one-foot-thick log. This log had tapered ends and a wooden handle attached. To this log (windlass) a rope was fastened to raise and lower the strong wooden box. The person on top of the ground would hoist it up. He could move it to the side of the well and empty it. During this time the person in the well would dig some more dirt and rocks before the box was lowered to be filled again. The men could remove four feet of dirt in a day, but when they struck rock, which meant blasting, they could only dig one or two feet a day. The well on the old Weinheimer homestead was approximately 50 feet deep. They found a layer of two feet of hard rock at 35 feet. This was blasted with gunpowder. Below this formation of rock it was easy digging.

The residents of Stonewall measured the miles traveled on the roads to Austin and Fredericksburg by notching posts. They measured the miles by tying a rag in the front wheel of a wagon and counting the rounds. So many rounds made

a mile; they stopped, set a good cedar post and made a notch; the first mile one notch, the second mile two, etc. The measurements were very accurate (Lindig 1970:16).

Weinheimer (personal communication 1976) said that the Indians frequently stole horses so the settlers often chained and locked the horses in sheds at night or put them in the pasture with cows because the Indians wouldn't go for them there. Otto Lindig's mother and three little children were alone one day and the Indians stole a horse and a mule. Apparently, the mule wasn't fast enough and was returned the next morning; the horse was never seen again.

One of the favorite Indian incidents remembered by the residents of Stonewall pertained to the death of Joe Stahl in 1861. Stahl lived at Cave Creek and was killed by the Indians while hunting a calf on Richard Immel's place. Every man joined in the search and in the battle that ensued, an Indian was killed. The Indians returned that night to bury their dead brother and before leaving, they killed a horse and left it on the grave. For years the bones lay on the grave and were a topic of conversation for young and old.

Adam Nebgen had a one-stand cotton gin at Stonewall and the cotton was taken in baskets and fed by hand to separate the lint from the seed. The bales were pressed with horsepower. In the first years the whole family worked in the fields, and the cultivation of cotton began to yield good revenue, especially for those families who were blessed with many children and needed no hired help. By 1890, every farmer had a Mexican family on his place; these families lived the year around in tents. Ninety-five percent of all the land in Gillespie County was cleared with a grubbing hoe and axe (Lindig 1970:37). At the end of the century, wheat's place of importance in the area was challenged by cotton, but in the long run, wheat survived while cotton disappeared from the scene (Jordan 1966:129).

Experiments with wheat began as early as 1848, and during the great expansion of wheat culture from 1850-1860, it became almost the universal crop among the Germans of Gillespie County. In 1859, one German settler in Fredericksburg experimented with 110 different samples provided by the federal government. The colonists began to shift production to the winter to avoid the drought season and cattle and horses were pastured on the fields during the cold months to prevent the grain from heading too early in the spring. Lange's Mill, a stone structure in northwestern Gillespie County, was still standing in the 1960s after more than a century (Jordan:126-127).

Every farmer had sheep, and the wool for socks, gloves, underwear and bedcovers was spun with a spinning wheel; then knitted by the women (Lindig 1970:46). Among German settlers, sheep raising was combined with cattle ranching, and the rise of this unique combination of ranching economy is characteristic of this part of Texas. Hog production soon became a major activity for market for many of the German farmers, and the animals thrived on the abundance of acorns and pecans in the area. The large volume of beef and pork production among the Germans encouraged the survival of sausage making, an art brought from Europe by the immigrants and virtually jninown to the southern Anglo-Americans (Jordon 1966:150-153).

Wine-making among the Germans can be attributed to their agricultural heritage, but they had to abandon the domesticated grapes and wine-making methods they knew in Germany because the imported European vines would not grow properly in Texas. Once they mastered the technique of adding large amounts of sugar, they gathered the native wild mustang grapes and berries and utilized them. Most of the wine was made for home consumption, but the Texas Almanac in 1867 reported that some of the farmers around Fredericksburg were sending "as much as ten to twenty barrels of wine" to market (Jordon 1966:141).

Gardening was primarily the work of women and the settlements were characterized from the very first by numerous kitchen gardens. A great variety of vegetables was grown including not only those found in Anglo-American gardens but many such as kohlrabi, mustard, parseley and leek that were brought from

Germany. Two garden plantings were possible each year in the mild Texas climate and plantings were made in February and late summer. As a result, some fresh vegetables were available all winter (Jordan 1966:134-135).

Many local plants and shrubs were also utilized. Meusebach was fond of agarita, a native shrub which resembles the Christmas holly. Frau Meusebach made delicious jellies from the berries of the agarita and an eyewash from the roots. She used the roots of the yucca for a shampoo which gave her curls a beautiful sheen (King 1967:164). Food was kept in dirt cellars four feet deep and two feet above ground. The cellars were made of post oak logs, and the roof from post oak boards was split by hand (Lindig 1970:19).

Experiments were carried out with many trees common in Europe such as the apple, cherry and pear, but notable success was obtained only with peaches, and to a lesser degree with native pecans, plums and figs. As early as the 1850s it was evident that the peach tree offered the best possibilities (Jordan 1966:139); the community of Stonewall is now one of the largest peach producing areas in Texas.

The German-American farmers of Texas have by no means lost their cultural identity in the years that they and their forefathers have lived in the state, and they still retain a measure of distinctiveness today. The majority of the farms and ranches in Gillespie County are still owner-operated by descendents of the farmers who overcame untold hardships to win their soil and make it productive. One of the avowed purposes of the Adelsverein was to enlarge the sphere and influence of Germany. Certain members expected the idea to be obtained by a feudal entity, a German state or a German colony. A more desirable result came ultimately in the formation of a German community, a community which has retained its unique quality through the years.

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SITE 41 CD 122, A LONG OCCUPATION IN COLORADO COUNTY, TEXAS

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

ABSTRACT

This article describes an assemblage of lithic artifacts from preceramic site 41 CD 122 in Colorado County, Texas.

INTRODUCTION

Site 41 CD 122 is located on a ridge overlooking Cumming's Creek, a few miles north of Columbus, Texas in Colorado County. In the 1930s, Mobil Oil constructed a pump station on the ridge where site 41 CD 122 is located. The construction required a foundation to be dug to a depth of about 100 cm. According to the landowners, Mr. and Mrs. Don Rau, spoil dirt from the foundation was dumped about 40 meters south of this location and spread over an area of about 40 to 50 meters. Mrs. Rau has been surface collecting artifacts from the spoil area for several years. Her interest in these materials prompted her to contact Houston Archeological Society member Raymond McCausland to report this information. In April 1989, Ray McCausland and Joe Hudgins did a one-meter square test pit to determine the nature of the stratigraphy of this site. This article gives data on both the surface collection and the excavation results for this site.

Projectile point types indicate that this site has occupation components at least in the Late Paleo-Indian, Middle Archaic and Late Archaic time periods. The overall lithic assemblage indicates that site 41 CD 122 was probably a campsite with significant lithic manufacturing activities, using locally available chert raw materials. The long occupation sequence is not surprising, considering the large number of sites with long occupation sequences in adjacent Southeast Texas (Patterson 1983).

THE SURFACE COLLECTION

All of the time-diagnostic artifacts for this site are in the surface collection. The Late Paleo-Indian period is represented by a Plainview point and a Plainview point base (Figure 1, A,B). The Plainview point basal fragment has a long basal thinning flake scar on one side. Some analysts would classify this specimen as a Clovis point because of the long flake scar, but long basal thinning scars are fairly common on Plainview points and do not represent purposeful fluting. A possible Angostura point fragment (Figure 1, C) of the Late Paleo-Indian period was also found. Artifacts of the Archaic period are also present. There is a Travis point (Figure 1, E) from the Middle Archaic period (Turner and Hester 1985:153) and an Ensor point (Figure 1, D) from the Late Archaic period (ibid.:94).

Three complete bifacial preforms were found. One specimen (Figure 2,F) is for a medium size dart point, and two specimens (Figure 3, B,C) are for large size dart points. Seven preform fragments for large dart points were also found.

Other artifacts found here, typical of the Late Paleo-Indian period (Patterson 1977), include a thick, large scraper (Figure 2, A), a large prismatic blade (Figure 1, G) from the surface collection, and a blade core facial fragment (Figure 1, H), excavated at the 80-90 cm level. Five large miscellaneous bifaces were found, with three of these specimens illustrated (Figure 2 D, E, F). Four large chert flakes are also included in the surface collection.

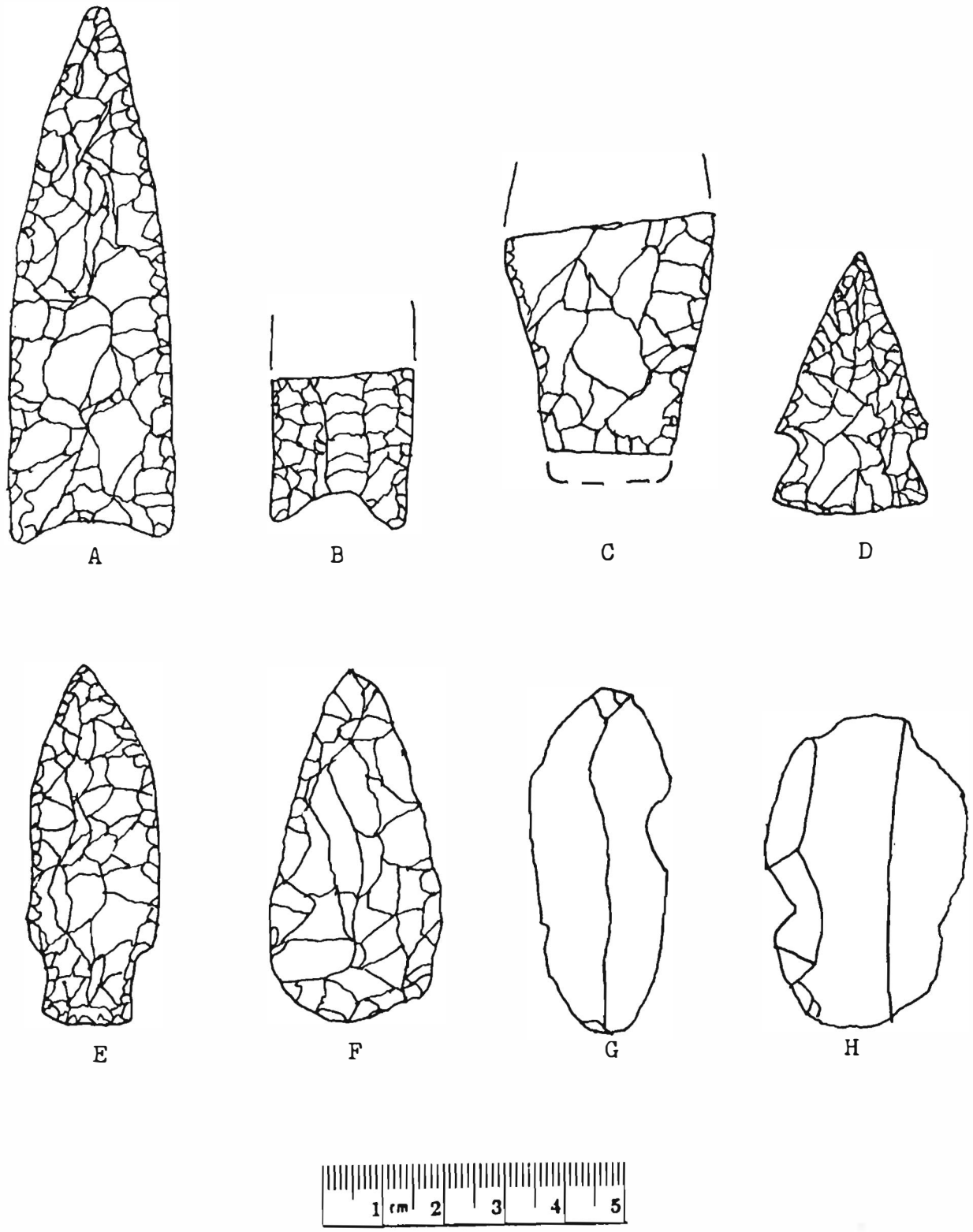

Figure 1. Site 41 CD 122 Lithic Artifacts. A,B: *Plainview* points; C: Angostura (?) point; D: Ensor point; E: *Travis* point; F: preform; G: prismatic blade; H: blade core fragment.

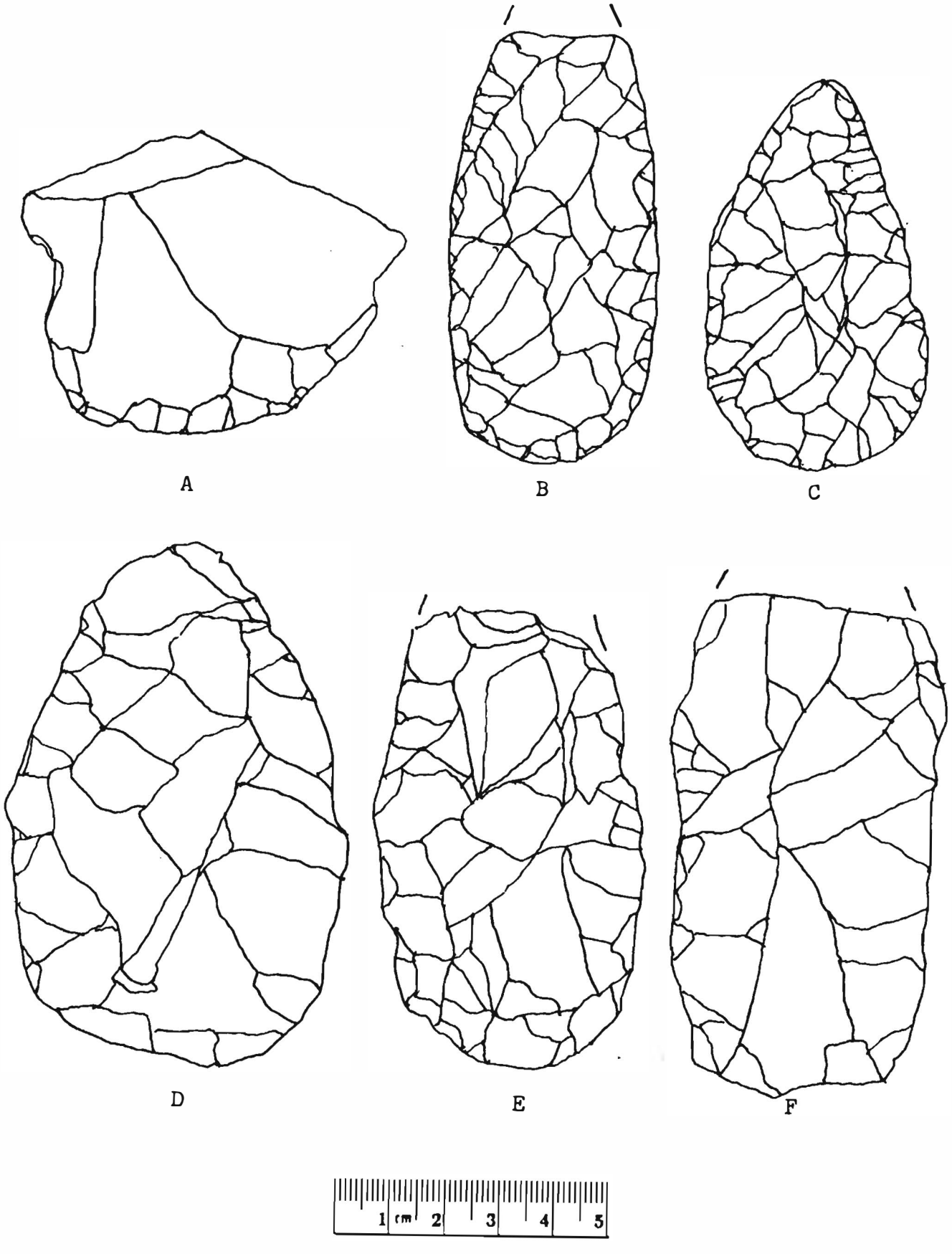

Figure 2. Site 41 CD 122 Lithic Artifacts. A: scraper; B, C: preforms; D, E, F: miscellaneous bifaces.

A large metate made of silicified sandstone, was also recovered. The outside dimensions are 230 mm long, 125 mm wide and 65 mm deep. There is a concave grinding area 180 mm long, 90 mm wide and 20 mm deep. A dumbbell-shaped coarse chert cobble was found in the same area. This might have been used as a mano, to complete the grinding tool set.

EXCAVATION RESULTS

A one-meter square test pit was excavated to a depth of 100 cm. Excavation was done in 10-cm levels and all materials were put through a 1/4" screen. This pit was located 10 meters south of the old pump station foundation. Some disturbance of the stratification was noted by the presence of iron nails at 25 cm and 40 cm depths from the surface. Disturbance could have been caused by gopher or construction activities. Soils at all depths to 90 cm could be described as sandy loam with natural gravels from pea size to golf ball size. There was a soil change to sterile clay at 90 cm.

Chert raw materials were available locally, and the lithic assemblage from this site shows that primary lithic reduction activities were done here as well as the final stages of manufacture of finished stone tools. Flake size distributions shown in Table 1 are not exponential curves that would be expected from bifacial reduction activities (Patterson 1982). Instead, the flake size distributions probably represent a mixture of bifacial reduction and primary lithic reduction activities. Many flakes show evidence of heat treating by waxy luster, potlid surface fractures and reddish coloration.

TABLE 1. Flake Size Distributions (% of total flakes).

Flake size, mm square	Excavation Level, cm							
	0-10	10-20	20-30	30-50	50-60	60-70	70-80	80-90
Under 15	9.4	17.2	18.8	11.1	17.1	36.8	23.5	5.6
15-20	40.6	41.4	29.6	40.0	43.9	40.9	41.2	38.8
20-25	21.8	19.0	26.6	18.9	19.5	13.2	11.8	27.7
25-30	6.3	8.6	12.5	8.9	9.8	3.9	11.8	5.6
30-35	9.4	8.6	3.1	11.1	4.9	1.3	3.9	16.7
35-40	3.1	5.2	7.8	4.4	2.4	1.3	3.9	5.6
40-50	3.1	--	1.6	5.6	2.4	2.6	3.9	--
Over 50	6.3	--	--	--	--	--	--	--
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total flakes	32	58	64	90	41	76	51	18

General lithic artifacts are tabulated in Table 2. Whole Chert cobbles, split chert cobbles and thick chert pieces reflect primary lithic reduction activities. Most of the cores have some remaining cortex from the original chert cobbles used. A quartzite cobble and quartzite pieces indicate the use of hard percussors.

TABLE 2. General Lithic Artifacts

Item	Excavation Level, cm							
	0-10	10-20	20-30	30-50	50-60	60-70	70-80	80-90
Chert cobble	2				1			
Split chert cobble			2	5	1			
Thick chert piece	3	2		12	4	8	8	2
Miscellaneous core		1	1		1	3		1
Quartzite pieces		1				2	1	1
Quartzite cobble				1				
Preform fragment		1						
Heat-damaged chert		12	24	41	24	29	35	18

Even though heat treating of chert was done at this site, the presence of many large size chert pieces at most excavation levels, that have been heavily damaged by heat, is somewhat puzzling. Heat treating of chert is very common throughout Southeast Texas, but is generally not accompanied by large numbers of chert pieces that have been heavily damaged by heat. Patterson has found, experimentally, that some types of chert can be damaged by heat at a temperature as low as 400°F. Perhaps Indians at this site were attempting to heat treat some local chert types that were not suitable for heat treating.

SUMMARY

This article has described as assemblage of lithic artifacts from site 41 CD 122 obtained by surface collection and excavation of one test pit. Occupations in the Late Paleo-Indian, Middle Archaic and Late Archaic time periods appear to be present. This was probably a campsite with significant lithic manufacturing activities. Primary lithic reduction activities were done here because of locally available raw materials in the form of chert cobbles. Further excavation work may be warranted here to determine if more diagnostic artifacts can be found in an undisturbed stratigraphic context.

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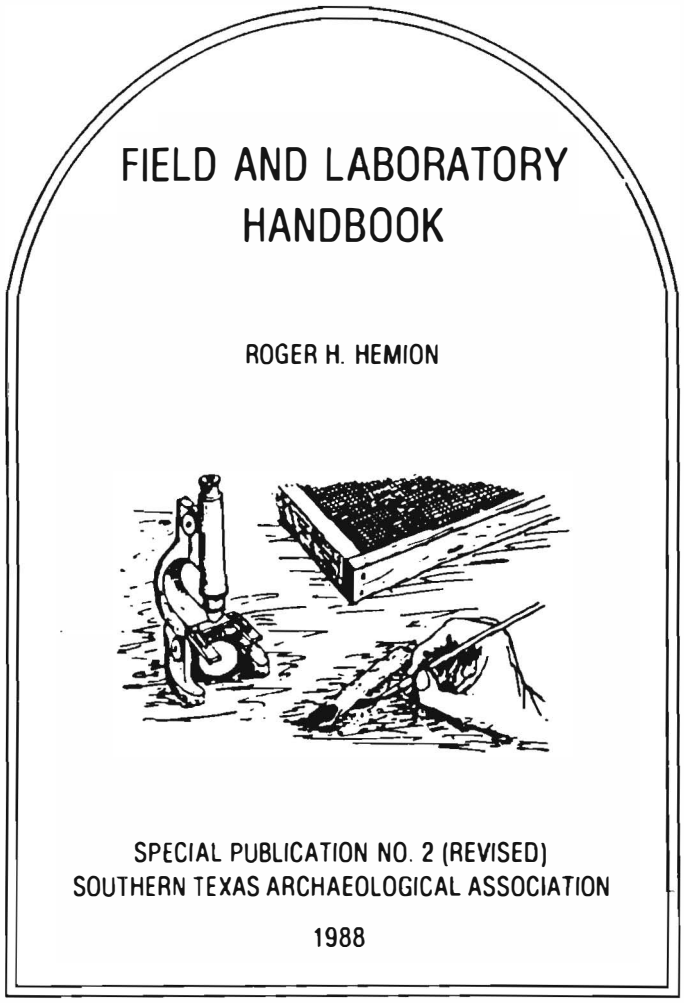

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