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## **EDITORIAL POLICY**

The purpose of this journal is to provide information on the archeology of the Texas Prairie-Savannah. We solicit articles from avocational archeologists, vocational archeologists and graduate students who have conducted extremely well done research.

As previously mentioned, the focus of the journal is articles on the Texas Prairie-Savannah; however, articles from adjoining areas also are welcome since the boundaries of the prairie-savannah are not well established but have transitional zones. Also, cultural boundaries are not truly dependent upon the boundary of some state that did not exist when the aboriginal inhabitants populated the area.

We prefer that an article not exceed 20 pages; however, there can be (and will be) exceptions.

IF YOU HAVE QUALMS ABOUT YOUR WRITING SKILLS, DO NOT LET THAT PROHIBIT YOU FROM SUBMITTING AN ARTICLE. THE INFORMATION THAT YOU PROVIDE IS MORE IMPORTANT. WE HAVE PEOPLE THAT WILL HELP YOU WITH THE WRITING.

Sincerely,

***Jesse and Antoinette Todd***

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## INTRODUCTION

**Jesse Todd and Lance K. Trask**

The Texas Prairie-Savannah Region comprises of 26 counties which are shown in Figure 1. The abbreviations for the counties is provided in Table 1. The general soil zones are illustrated in Figure 2.

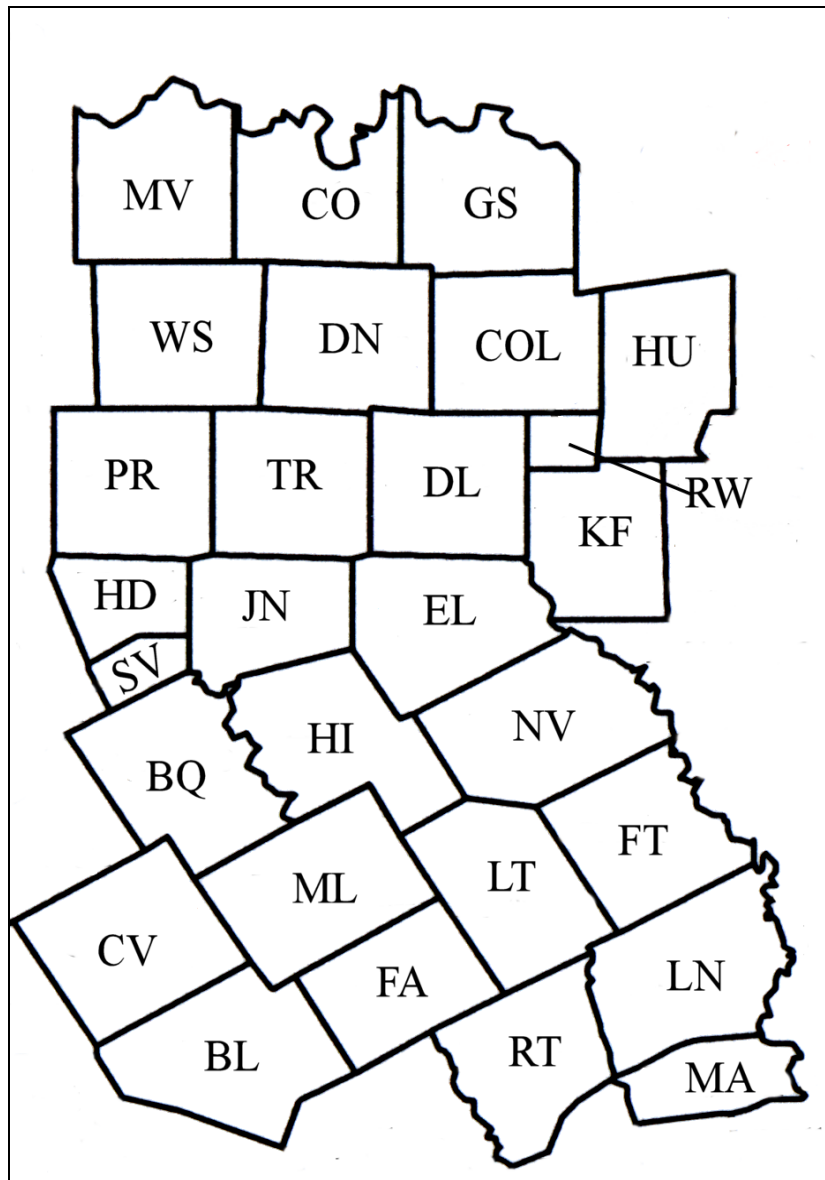


Figure 1. Counties within the Texas Prairie-Savannah. Abbreviations are explained in Table 1.

**.TABLE 1. COUNTY MAP ABBREVIATIONS AND COUNTY NAMES**

Abbreviation	County
BL	Bell
COL	Collin
CO	Cooke
CV	Coryell
DL	Dallas
DN	Denton
EL	Ellis
FA	Falls
FT	Freestone
GS	Grayson
HI	Hill
HD	Hood
JN	Johnson
KF	Kaufman
LN	Leon
LT	Limestone
MA	Madison
ML	McLennan
MU	Montague
NV	Navarro
PR	Parker
RT	Robertson
RW	Rockwall
SV	Somervell
TR	Tarrant
WS	Wise

## **AN ASSOCIATION OF WORKED FLAKES WITH PLEISTOCENE MAMMAL BONES IN DENTON COUNTY, TEXAS**

**Wilson W. Crook, III**

### **Introduction**

Human association with extinct Pleistocene mammal remains are known from several of sites in eastern North Central Texas including Lewisville (41DN72) (Crook and Harris, 1957, 1958; Stanford, 1982), Aubrey (41DN479) (Ferring, 2001), Brushy Creek (41HU74) (Crook and Hughston, 2009), and an un-named site near Lake Lavon in Collin County (Crook, 2011). Added to this list is another probable association near Hickory Creek in central Denton County.

After the discovery of the Lewisville site in the early 1950s, Crook and Harris extensively the explored the area for similar age sites. As the Lewisville site occurred near the junction of Hickory Creek with the Elm Fork of the Trinity, exploration upstream along Hickory Creek was one of the primary areas to survey. About 15 km (10 miles) upstream from the Lewisville site, a Columbian mammoth (*Mammuthus columbi*) was discovered and excavated by North Texas State University (now University of North Texas) in 1951-52. The mammoth was found in the base of a gulley in a small sand and gravel barrow pit for the adjacent Atchison Topeka and Santa Fe railroad. Extensive exploration by Crook and Harris in this pit revealed a pocket of burned mammal bones within the same geologic horizon as the cultural materials found at the Lewisville site. Careful excavation of the burned bones revealed the presence of three small worked flakes in clear association with the mammal remains.

In their original publication of the Lewisville site, Crook and Harris (1957) mention other sites in the Upper Trinity watershed which could potentially be related to Lewisville by either tool morphology and/or similar geologic occurrence. The Hickory Creek site (41DN63) was postulated to be evidence of a similar occupation due to its identical geologic context and relatively close proximity (15 km upstream along the same creek). However, while the site's location was mapped and field notes generated, no detailed site report was ever published. This paper thus serves to record the site and its artifacts and is based on both the original artifact collections and notes from my late father and R. K. Harris, all of which are in the writer's possession.

### **Site Description and Geology**

The Hickory Creek site (41DN63) lies in central Denton County about 5 km (3 miles) south of the county seat of Denton. The site is located northeast of Hickory Creek, about 600 meters downstream from the U.S. Highway 377 bridge across the Santa Fe railroad. In the early 1970s, the writer visited the site several times with Wilson W. Crook, Jr. During these visits I was shown the location of the original finds and their geologic context. The site itself covered a relatively small area, occupying no more than a few meters in one wall of the barrow pit. Fragments of bone could still be seen eroding out of pit, although none were burned like the original discovery and no additional worked flakes were found despite fairly extensive searches and partial excavations back

into the pit walls. Observed fauna included bison, camel, tortoise (probably *Testudo*) and gastropods (*Anguispira alternata*).

The original discovery consisted of three worked flakes found between burned bones later identified by the late Bob H. Slaughter of SMU as likely belonging to bison and camel. The flakes were in direct association with a number of small burned bone fragments which were too small and altered to be identified as to species. A small amount of charcoal was found in a clay lens next to the area where the burned bones and flakes were located. It should be noted that the hearth features at Lewisville were also found in similar clay features (Crook and Harris, 1957; 1958).

Since the 1970s, the site has changed appearance rather dramatically as the original barrow pit has been filled in and new pits have been opened in the area. The site today lies under a reclaimed portion of the workings and adjacent to extensive buildings housing earth moving equipment.

The stratigraphy of the site is identical to that found at the Lewisville site. The barrow pit was located in the second terrace above Hickory Creek, which is particularly well-developed both along the creek as well as along most of the Elm Fork of the Trinity. Both Shuler (1935) and Taggart (1953) mapped this as the "Love Field" terrace; Crook named this the "Pemberton Hill - Lewisville" or "T-2" terrace (Crook and Harris, 1957); and Ferring (1990) redefined it as the "Hickory Creek" terrace.

In Ferring's description of the Hickory Creek terrace, he described the terrace fill as the "Coppell Alluvium" which included a series of fine-grain sandy-clays with a gravel layer at the base. The entire section is overlain by a dark gray soil of more recent origin. Crook (Crook and Harris, 1957) subdivided the terrace into four components based on major unconformities separating depositional units. Exposed at the surface is a dark gray alluvium which contains small caliche nodules throughout. Crook called this unit the "Richards Formation", which is clearly younger than the rest of the underlying components of the terrace as it contains no fossil faunal remains. This unit varied from 1-1.7 meters in thickness across the pit.

Below the dark soil layer was a thick zone (5-6 meters in thickness) of medium to fine-grain yellow sandy-clay which Crook referred to as the "Upper Shuler Formation" (Crook and Harris, 1957). At least seven distinct depositional layers with temporary surfaces could be recognized, each representing major individual flooding periods over a considerable period of time. Both the Lewisville hearth material as well as the worked flakes described herein from the Hickory Creek site, were found on the surface of one of the depositional units in the middle of the Upper Shuler sands.

Below these sandy-clay layers is a fairly uniform 1.5 meter zone of very fine-grain laminated yellow-brown sand which Crook termed the "Lower Shuler Formation". These sands differ from the overlying units in being much finer-grained and deposited in a number of thin, parallel layers. Manganese oxide staining is more prevalent toward the base of these sands. Below this unit is a layer of iron-cemented gravels of indeterminate depth. Crook referred to these gravels as the "Hill Formation" and they are the source material for all gravel operations in the area. Local bedrock could not be determined from the exposure in the barrow pit, however, based on cuts along the Elm Fork immediately to the east it is presumed to be the Upper Cretaceous Eagle Ford Formation.

Fauna present in Hickory Creek terrace support a prolonged period of deposition. Slaughter et al. (1962) originally believed the faunal assemblage to be Sangamon in age.

However, later work in Denton County (Slaughter and Ritchie, 1962) and downstream along the Trinity in the Moore pit near Dallas showed the assemblage to more likely be of mid to late Wisconsin age (Slaughter, 1966). An age date of 28,840 +/- 4740 years BP was obtained from the upper Coppel Alluvium (Upper Shuler sands) in Denton County. While this date may not be precise, Ferring and Yates (1998) state an age of 30,000-40,000 years BP for the terrace is not unreasonable.

### **Artifact Description and Analysis**

Three worked flakes were recovered from the pit wall where a pocket of burned bones was located. These flakes are shown in Figure 1. For the purpose of this discussion they are referred to as numbers 1 through 3 from left to right in the figure.

The first flake is a purple-black quartzite (5RP 2/2) that appears to have a worked edge which has subsequently been dulled by use. Dimensions are 22.2 mm in length, 18.0 mm in width and 5.4 mm maximum thickness. Microscopic examination shows the presence of weathered brown iron inclusions, probably altered grains of pyrite (FeS<sub>2</sub>).

Flake #2 is white to light-gray chert (N9 to 5YR 8/1), the white color possibly being the result of surface patination. Dimensions are 24.3 mm x 19.8 mm x 6.8 mm. The flake fluoresces a strong orange-yellow color under both short-wave and long-wave ultraviolet light which is characteristic of Edwards chert. Microscopic examination shows some minor retouch along one edge.

Flake #3 is a red-brown to light brown medium-grain quartzite (5YR 5/6). Dimensions are 46.5 mm in length, 20.0 mm in width and 10.1 mm maximum thickness. The flake appears to have been broken to create to create a burinated edge (Figure 1; Figure 2).

Microscopic examination of the artifacts at 20-200x shows minor wear on most of the retouched faces. In addition, weak polish is present on the burin edge of flake #3, perhaps from use on bone. Examination of the distal end of the burin shows it was not used as a graver or borer.

### **Conclusions**

Based on the observations of Crook and Harris (Wilson W. Crook, Jr., personal communication, 1974), it appears certain that the three worked flakes found at the site were in direct association with burned Pleistocene mammal bones. However, examination of the bone fragments collected in the 1950s and remaining in the Crook-Harris collections does not show any direct use of the flakes on those bones (no cutmarks and/or scrapings).

The composition of two of the flakes (Flakes #1 and #3) is quartzite, typical of the Uvalde gravels which are common to the Upper Trinity River drainage system. These are undoubtedly of local origin. Flake #2 however, is made from high-grade chert, most probably from the Edwards Plateau of Central Texas. It is strikingly similar in color and texture to both the Clovis point found in hearth #1 by Crook and Harris in the original excavation of the Lewisville site and to flakes found in hearth material in the 1978-80 reinvestigation of Lewisville led by Dennis Stanford (Stanford, 1982). The close





Figure 1. Worked flake assemblage found in association with burned Pleistocene mammal bones. Left to right: Purple-black quartzite, heavily patinated white to light-gray Edwards chert; red-brown quartzite.



Figure 2. Red-brown worked quartzite flake with possible burinated edged.

proximity of the Hickory Creek site to Lewisville (only 15 km upstream) makes it possible that the two occupations are related. This observation is further strengthened by the fact that the flakes described herein were found on top of a depositional layer in the middle of the Upper Shuler sands (Coppell Alluvium) within the Hickory Creek terrace, precisely the same location as the finds at Lewisville. Thus the two sites appear to be contemporaneous in time.

Crook and Harris (1962) obtained several radiocarbon dates from the material in hearth #1 (and other hearths) at Lewisville which yielded a date of “greater than 37,000 years BP” (37,000-43,000 years BP). Subsequent excavations by Stanford (1982) showed that much of the carbon material in the hearths at Lewisville was actually burned lignite in association with charcoal from wood which had caused the older date. A corrected date of roughly 12,000 years BP was obtained which placed Lewisville more clearly in the range of a Clovis occupation. By geologic association, the Hickory Creek site is likely of similar age. The presence of human materials on a considerably older geologic formation remains an anomaly, but is believed to be due to occupation on a weathered surface (Stanford, 1982).

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## **TONK CREEK PETROGLYPH SITE RESURVEY, MC LENNAN COUNTY, TEXAS**

William A. Atlee

### **Abstract**

More than 100 petroglyphs were incised into the limestone bed of Tonk Creek near Crawford in western McLennan County, Texas by Native Americans. Over ten percent are interesting human figures. The site was first recorded by the author in 1956; however, in 1976 the Central Texas Archeological Society (CTAS) initiated a Bicentennial project to reinvestigate the site. Rainfall during the preceding twenty years had removed alluvial cover, which had concealed as many additional petroglyphs as had been originally recorded. Although an attempt was made by the CTAS to remap the entire site, most unfortunately, project results were never published nor purpose achieved. With some necessary qualifications and needed explanations, this paper attempts to report the 1976 discoveries, their relationship to previously known local petroglyphs, and to encourage further study of a significant Texas petroglyph site after the passage of over three and a half decades.

### **Introduction**

The Tonk Creek petroglyph site at Crawford, McLennan County, Texas was discovered and recorded by William A. Atlee in 1955 during severe drought conditions. Atlee was a geology student and member of the Central Texas Archeological Society (CTAS) at the time. The original report, 1956 *Central Texas Archeology (CTA)* Bull. 7, documented the location of fifty-one petroglyphs inscribed on the horizontal surface of the then exposed Lower Cretaceous Edwards limestone creek bed. The site, located northwest and upstream of the waterfall in the City of Crawford's Tonkawa Park, was originally assigned site number 39B76, subsequently changed to 41ML118. Although locally concentrated, the petroglyphs are scattered along the creek bed for a distance of over two hundred feet beginning about 100 yards above the waterfall.

In October 1976, the Central Texas Archeological Society of Waco undertook a Bicentennial project to revisit the site, compile and illustrate the petroglyphs and stimulate public awareness and appreciation of Central Texas prehistory. The results of the 1976 project were very positive. Following the drought of the 1950's which had allowed the original discovery and documentation of numerous petroglyphs, subsequent rains over the following two decades had removed alluvial deposits in the creek bed, which had concealed an additional fifty or more petroglyphs. Re-investigation of the site had doubled the number of known petroglyphs. Al Redder, Ralph Vinson, *et al*,

remapped and photographed the entire site; however, documentation of the new petroglyphs was never published. Of nine CTAS members originally involved in the site resurvey, only two, Al Redder and Jean Green, are currently alive. Ralph Vinson continued a personal interest in the interpretation and meaning of the petroglyphs for several more decades until his death in 2009.

During Vinson's later years, as he obsessively researched the meaning and interpretation of the petroglyphs, he collaborated with David Lintz, now Director of the Improved Order of Red Men Museum and Library in Waco, to publish his findings. Upon Vinson's death in July 2009, updated maps of the Tonk Creek petroglyph site and his comparative research and speculation with regard to the interpretation of the petroglyphic symbols were passed on to Lintz by Vinson's widow in early 2010. This report is derived primarily from Vinson's two base maps (modified into Figures 1 and 2) and photographs, and the author's 1955 personal, oriented map and photographs of the upstream portion of the site.

### **Purpose**

The primary purpose of this paper is to finally publish and make publicly available mapping of the petroglyphs discovered by the CTAS 1976 resurvey of site 41ML118, and their relationship to the previously mapped petroglyphs. We never saw them, nor did we ever hear them speak; and they will never know that now we seek to know them. The author also hopes to encourage professional mapping and additional research of the site.

Lintz's plans are possibly to publish a separate paper on Ralph Vinson's personal research regarding his interpretation of the symbols' meanings, comparison of the Tonk Creek petroglyphs to other petroglyph and pictograph sites in Texas and the Southwest, possible trade routes, and possible relationships of Mesoamerican civilizations with this and other selected sites.

### **Site Location**

The Tonk Creek petroglyph site is located approximately 17 miles due west of Waco and immediately north of the town of Crawford, McLennan County, Texas at an altitude of 650 feet above sea level. Tonk Creek originates in northeastern Coryell County and intermittently flows northeastward to its confluence with the Middle Bosque River, two and one half miles east of Crawford. Currently identified petroglyphs begin approximately one hundred yards northwest, upstream, above an approximately nine foot high waterfall in what was once the City of Crawford's Tonkawa Park. The majority of the glyphs occur within a distance of approximately one hundred and twenty feet, with most incised into the hard surface of a Lower Cretaceous Edwards limestone bed or layer, which is elevated about ten centimeters above adjacent stream channels. The edge of this elevated feature is shown as solid lines on Figures 1 and 2, between which most of the glyphs occur.

### **Nearby Glyph Site and Bluff Shelters**

There is another area of petroglyphs atop the limestone bluff on the southwest side of Tonk Creek, a short distance below the waterfall, and above a nearby shelter at the base of the bluff. Unlike the glyphs in the creek bed above the falls, these are all linear. There are approximately sixty straight grooves made with an abrading or scraping motion, probably from sharpening wood or bone implements. There is also a dendritic, linear glyph over five feet long, that Sam Horn (1935) thought closely resembled the local river and stream system. These were the only petroglyphs known to exist in north central Texas at the time.

Beginning just below the waterfall and extending downstream are eight bluff shelters of varying size. Several were probably habitable, with one being quite large, and containing multiple burials and numerous stratified artifacts. (Perkins, J. L.:1956) The shelters occur near the base of a northeast facing limestone bluff that reaches elevations in excess of fifty feet above the bed of Tonk Creek, which lies before them.

### **Evolution of 1976 and 2012 Site Mapping**

In the summer of 2012, Al Redder was kind enough to revisit the site with David Lintz and describe the manner in which the petroglyphs were mapped during the 1976 CTAS Bicentennial project. Redder located the nail in an elm tree on the northeast bank of Tonk Creek from which he had directed a bearing of S 30°W to an approximately two foot long iron rebar stake, (not located) across the creek. From this N30°E/S30°W reference line was established a vertical grid line at "1" on Vinson's grid across the creek (Figure 1) and a horizontal baseline, locally running up and down stream, bearing N60°W. From the original S30°W/N30°E survey line, a horizontal and vertical, five foot square, blue chalk line grid was "popped" onto the dry surface of the limestone creek bed, which had been swept clean of residual alluvial deposits. The individual glyphs were highlighted with chalk, and Redder made a 35 mm slide photo of each 5 foot square, displaying a north arrow from atop an eastward facing ladder (Redder, personal communication).

Following the establishment of the five foot square grid and Redder's photographing the site, a 2.5 foot square grid base map was made by Ralph Vinson on which to record the individual petroglyph locations. It was on the 2.5 x 2.5 foot grid (Figures 1 and 2) that Vinson individually attempted to sketch each petroglyph within the appropriate square. Unfortunately, his sketches, compared to oriented 1955 and later photographs were crude and sometimes inaccurately placed or oriented within the grid. Apparently Vinson became more focused on interpretation of the meaning of each petroglyph rather than the original 1976 project objective to "study, promote the conservation of, and make the public appreciative of this precious bit of the prehistory of Central Texas."

In the early 1980s, Vinson met David Lintz, then an employee at the Baylor University Strecker Museum, who had initiated excavation at the Waco Mammoth Site following its discovery in 1978. Vinson then, for the next two decades, focused his intellectual curiosity and time as a Baylor University museum volunteer and on excavation of the mammoth site. In July 2000, a naming gift was pledged to Baylor University and in May 2004 the Mayborn Museum Complex replaced the historic Strecker Museum and was opened to the public. The Baylor University Mayborn

Museum, in June 2009, honored Vinson for his over 14,000 known hours of volunteer work at the mammoth site and additional hours served at the museum. Unfortunately, his advancement of the 1976 CTAS Tonk Creek petroglyph project fell dormant during this period.

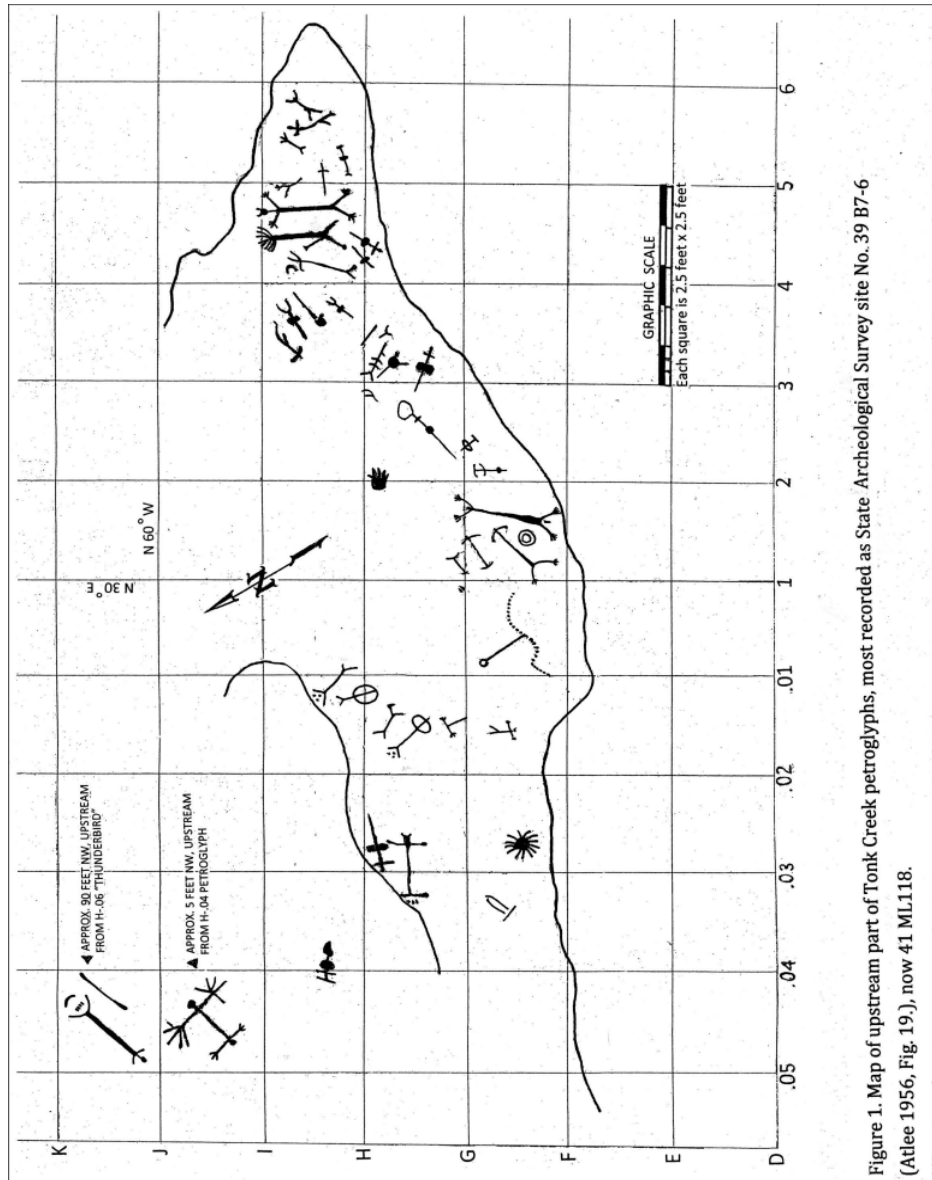


Figure 1. Map of upstream part of Tonk Creek petroglyphs, most recorded as State Archeological Survey site No. 39 B7-6 (Atlee 1956, Fig. 19.), now 41 ML118.

In the late 1990s, however, Vinson provided his Tonk Creek petroglyph site maps, photos, and personal research notes to the Strecker Museum to be formatted by Lintz into the *Occasional Papers of the Strecker Museum* No. 6. Organization of a publishable manuscript and exhibits began in March 1999 and proceeded until December of 2003 when the Strecker Museum became the Mayborn Museum. However, a publishable manuscript was never generated due to Vinson’s ongoing research into expanding areas of interest (Lintz, personal communication).

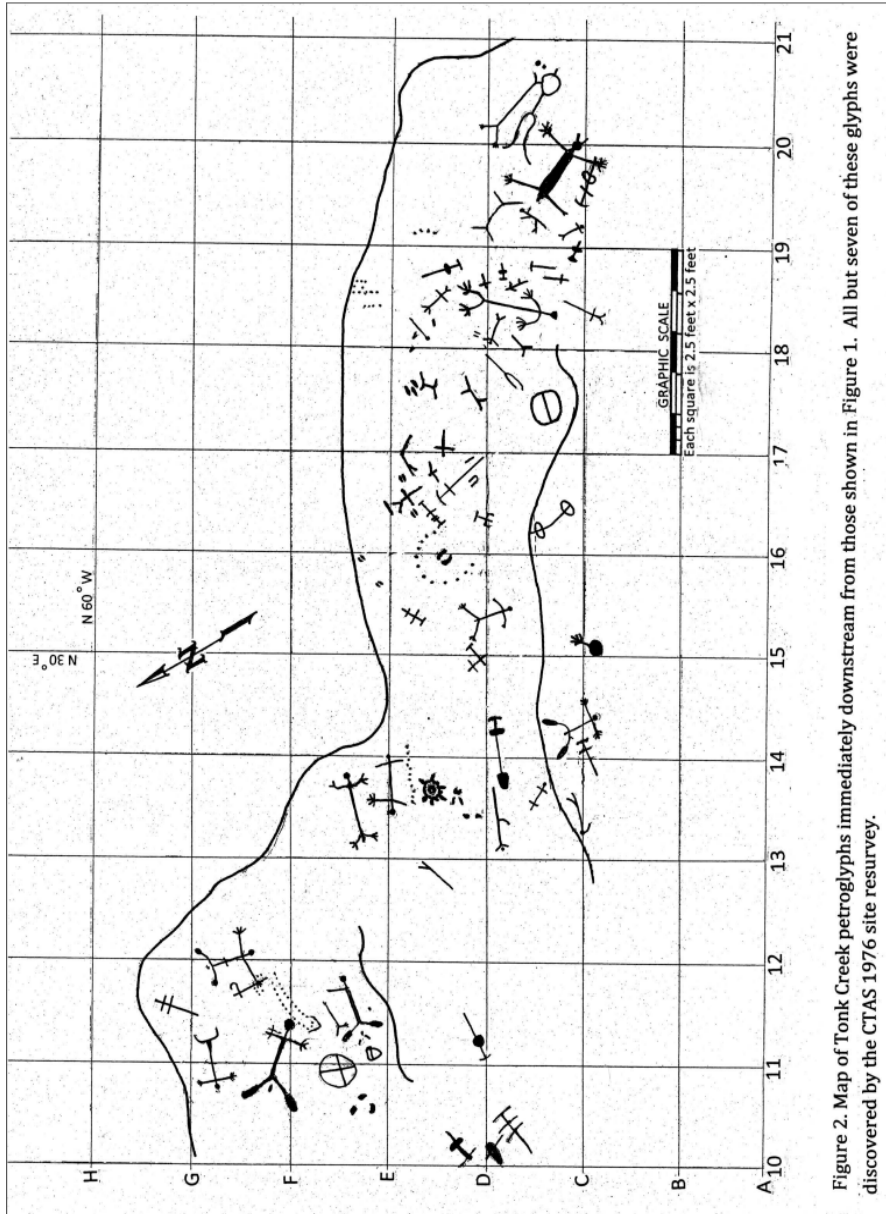
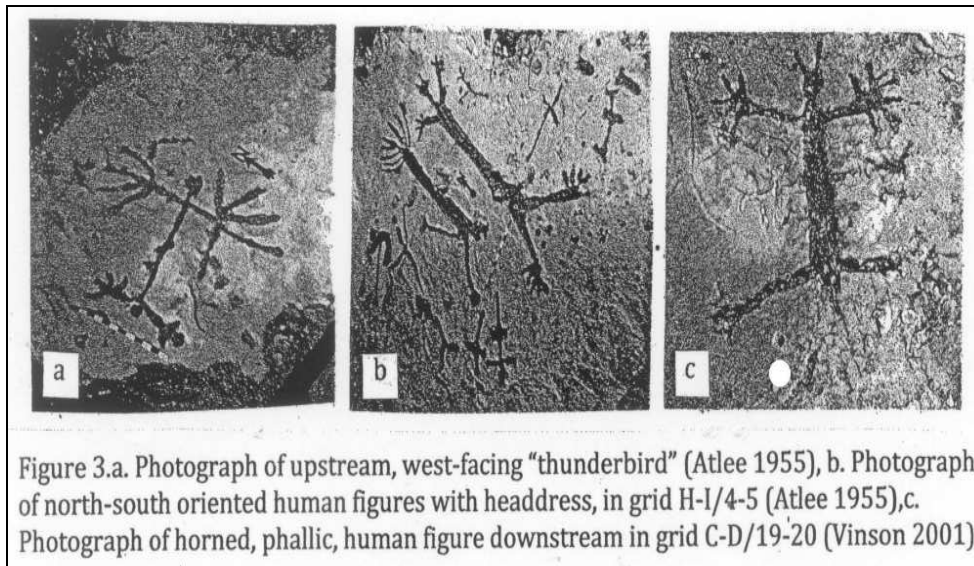


Figure 2. Map of Tonk Creek petroglyphs immediately downstream from those shown in Figure 1. All but seven of these glyphs were discovered by the CTAS 1976 site resurvey.

The two gridded maps on which Vinson sketched the location of petroglyphs measure 28 inches long and 20 inches high with neither a scale nor a north arrow. Inadequate attention was given to precise location, spacial relationships, and in some locations, orientation of groups of glyphs. For example, the author noted that the human figures and surrounding symbols (Figure 3a, b, c) located between vertical grid coordinates H-I and between horizontal coordinates 4-6 should be rotated approximately 45° counterclockwise, as shown in the author's 1956 photographs, map with north arrows, and site reconfirmation.



In 2010, the author learned of the existence of Vinson’s maps at the Red Men Museum and Library in Waco. Following several visits to review and discuss the material with David Lintz, it was decided that an attempt should be made to finalize a map of the Tonk Creek petroglyph site as currently defined. Lintz graciously supported the idea and loaned Vinson’s two gridded sketch maps and a photographic montage of the site, which had been constructed at the Mayborn Museum in an attempt to derive a publishable exhibit. Unfortunately, the photographs, displaying a one foot ruler, used to construct the montage were taken from varying distances from the glyphs photographed, resulting in scale variations as great as 100%. Also, some chalked-in glyphs were unclear or indistinguishable, photos of several areas were missing and locally some of the photos were incorrectly oriented. Therefore, the montage only served to reference the photographic configuration of individual symbols and to adjust their size to a common scale.

It was finally decided to use copies of Vinson’s original two gridded sketch maps, imperfect as they were, to construct maps reduced by two thirds for Figures 1 and 2 herein. Each of Vinson’s glyph sketches, its orientation, and relationship to adjacent glyphs were compared to all available photographs. Vinson’s sketches were then, removed and replaced with linear depictions of an actual photograph where available. Utilization of Al Redder’s 1976 photographic documentation would have been very beneficial, however, several years ago Redder donated his 35 mm photographic slides and notes to the Smithsonian Institution, Washington D.C. when they came to collect his Horn Shelter site data and artifacts. And, although he has a duplicate set of slides, he has been unable to relocate them (Redder, personal communication).



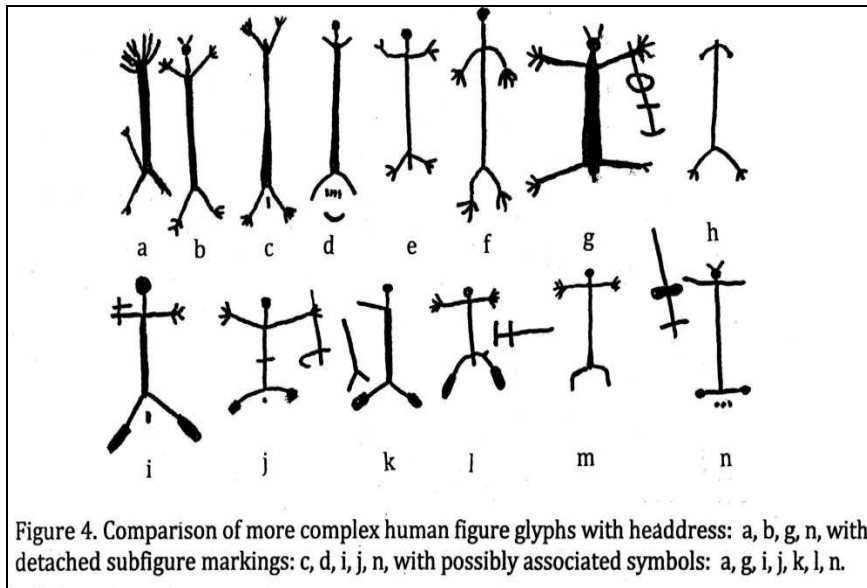


Figure 4. Comparison of more complex human figure glyphs with headdress: a, b, g, n, with detached subfigure markings: c, d, i, j, n, with possibly associated symbols: a, g, i, j, k, l, n.

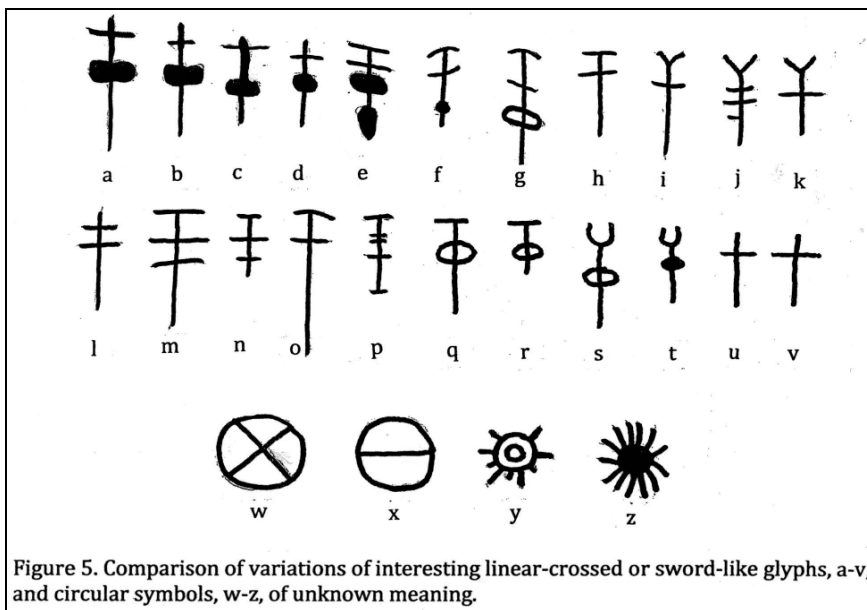


Figure 5. Comparison of variations of interesting linear-crossed or sword-like glyphs, a-v, and circular symbols, w-z, of unknown meaning.

The Tonk Creek petroglyphs may be roughly grouped into a number of different categories for comparison. Numerous, interesting human figures are scattered across the site. Figure 4 displays the more detailed human glyphs, some of which exhibit a headdress, possible associated symbols, and phallic or sub-figure markings. More obvious categories include depictions of human figures, animal and bird figures and tracks, numerous vertical linear features with a varying number of shorter, horizontal cross lines or either open or solid rounded features, which one might imagine penetrated or “skewered” thereon (Figure 5 ). Note that many display a representation of fingers and toes. There are also at least four circular glyphs, two of which have an interior line or lines across the circle, and two with lines radiating outward from the central circle

(Figure 5). Another repeated category is linear and curved rows of round incisions or “dots.” The meaning of the design of the rows of dots and their number also remains open to speculation. One fact, however, is certain—the inscriptions of the petroglyphs on the creek bed were made during periods of drought, which might suggest that the west-facing “thunderbird” figure upstream may have been a supplication for rainfall if such mythology existed at that point in time.

### **Estimated Age**

Several of the bluff shelters a short distance downstream from the Tonk Creek petroglyphs contained burials and artifacts useful in determining approximate periods of local prehistoric habitation. Three of nine types of atlatl dart points found range from 1000 AD to 6000 years BP. Five types go back 5000 years BP and six of nine types range back to 4000 BP. Considering a plot of overlapping ranges of occurrence of the recorded dart points, one might realistically conclude that the earliest archaic occupancy of the area occurred over 4000 years BP with possible occurrences until about 1000 AD. Four arrow point types from the bluff shelters suggest Late Prehistoric stage occupancy from approximately 1000 to 1500 AD. The bluff shelters and adjacent area were probably also intermittently utilized as a campsite by Native Americans during the past 500 years, until historic times. Whether the Tonkawa tribe of Native Americans ever, in fact, inhabited the immediate area is unknown to the writer. The Tonk Creek petroglyphs could certainly pre-date any possible historic Tonkawa occupancy in the area.

### **Conclusions**

Intermittently, for at least four or five millennia, nomadic inhabitants of central Texas have found the area surrounding the now “Tonk Creek Petroglyph Site 41ML118” a very desirable location to inhabit, hunt, procreate, and survive. At some point in time, or at various times, Native American inhabitants, inscribed glyphs of their desire into the limestone floor of what is now known as Tonk Creek, so named by modern Anglos for one of the most recently known Native American tribes that historically ranged throughout the area. No doubt the glyphs were carved, pecked or somehow abraded into the hard limestone while it was exposed during periods of drought.

Any symbol may have multiple meanings based upon the culture of the originator of the symbol and its context. As stated by the author in 1956, “The significance or meaning of these symbols is purely speculative. However, it may be assumed that they had either religious, social, or personal import for the people who inscribed them.” But, one must admit that speculation, assumptions, suppositions, and hypothesizing regarding the meaning and significance of any symbol could result in constructive argument and ongoing investigations and research.

In the mid 1950s, the author noted the probability of additional glyphs being obscured beneath alluvial overburden. Some twenty years later rainfall had removed and revealed numerous additional symbols. And now, Al Redder (personal communication) advised that he is confident that even more petroglyphs remain obscured beneath alluvial deposits adjacent to glyphs discovered during the 1976 CTAS resurvey of the Tonk Creek site.

The Tonk Creek Petroglyph Site is, undoubtedly, an archaeological treasure of, as yet, undefined dimension and imprecise documentation. Therefore, the author would hope that the information presented herein will stimulate and encourage some archaeological group with appropriate manpower, experience, shovels, and motivation to clear, correctly grid, photograph, and accurately map the entire Tonk Creek Petroglyph area for the benefit of future generations.

### **Acknowledgements**

The author thanks David Lintz, Director of the Improved Order of Red Men Museum and Library, Waco, Texas for proofreading the original manuscript and providing information regarding his lengthy involvement with helping Ralph Vinson advance his personal studies of the Tonk Creek petroglyph site and access to Vinson's gridded site maps and photographs. Al Redder of Waco also shared his recollections of the history of 1976 CTAS activities at the site and the manner in which a map grip was established. Also recognized for their participation in the CTAS Bicentennial Project are now deceased members: Richmond Bronough, R. B. Green, Tommy Laurence, Don Poston, Frank H. Watt, Dr. Walter Williams, and, of course, Ralph Vinson. And last, but not least, I thank Linda, my wife of over fifty-four years, for her typing of the manuscript and support.

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## **The Larrison Creek North (41MA36) Site in the Post Oak Savanna of East Central Texas**

**Timothy K. Perttula and Bo Nelson**

### **Introduction**

Aboriginal ceramic sherds from sites in the southern part of the Post Oak Savanna of Texas are not particularly common, even on sites that have received extensive data recovery excavations. The rarity of aboriginal sherds has contributed to the difficulty in characterizing their spatial or temporal nature, limiting the ability to establish with any reasonable certainty their origins or the ethnic affiliations of the aboriginal peoples that made ceramics, or clarify their relationships to other ceramic assemblages in the general region (see Perttula and Ellis 2013). This article presents archeological information about an important ceramic-bearing Late Prehistoric site in the Post Oak Savanna of East Central Texas, in the Trinity River basin.

### **Site Setting**

The Larrison Creek North site is on an apparent alluvial terrace (200-210 feet amsl) on the north side of Larrison Creek (Figure 1); Larrison Creek is an eastward-flowing tributary stream to the Trinity River in the Trinity River basin. The current channel of the creek is ca. 30 m to the south. The Old San Antonio Road (see McGraw et al. 1991) or El Camino Real de los Tejas crossing of Larrison Creek is about 3 miles to the north of the site.

The site area is in a pasture, with hardwoods lining the creek banks, and surface visibility ranges from 10-20% because of several gopher mounds on the sandy landform. The soils on the Larrison Creek North site are Eufaula loamy fine sand (Neitsch 1994), with A- and E-horizon zones ranging from 65-75 cm thick (overlying a strong brown clay B-horizon) in ST 803 and 804 at the southern end of the site to more than 100 cm in thickness across the remainder of the site. Several of the shovel tests (ST 800-804) have very dark grayish-brown A- and E-horizon sediments, suggesting the presence of prehistoric midden deposits. In addition to an existing pipeline that cuts across the site, other disturbances to the Larrison Creek North site include a ranch road, slope erosion, rodent activity, and the rooting activities of feral hogs.

This site was recorded during the archeological survey of the proposed ONEOK Arbuckle pipeline (Perttula and Nelson 2008). It has the most extensive prehistoric artifact assemblage of any of the sites recorded during the pipeline project, as well as the largest and best preserved midden deposit. The principal occupation appears to have taken place after ca. A.D. 1200/1300, in the Late Prehistoric period, contemporaneous with Aten's (1983) Old River period (see Ricklis 2004:Table 6.1) along the Upper Texas Gulf Coast and Middle/Late Caddo period sites (see Perttula 2004) in East Texas.

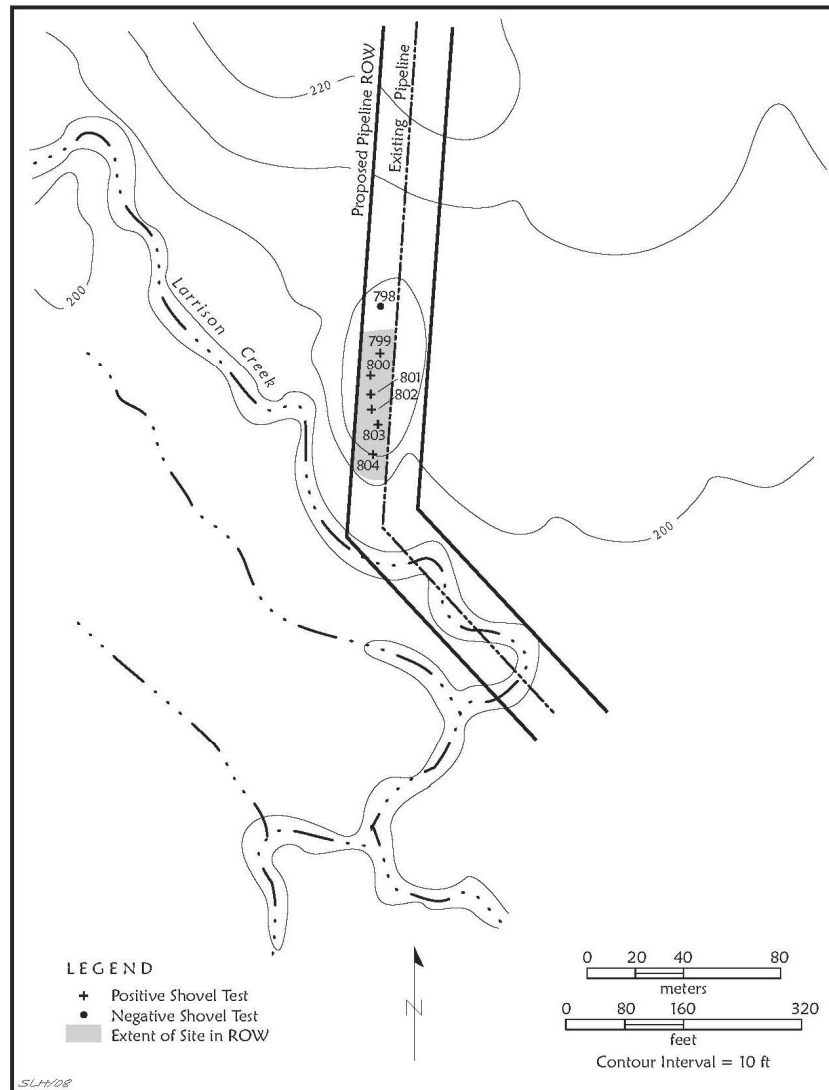


Figure 1. Map of the Larrison Creek North Site (41MA36).

### Artifact Assemblage

The six shovel tests with artifacts (ST 799-804) have archeological deposits that are at least 100 cm in thickness (see Figure 1). The artifact density in the positive shovel tests is 37.7 per positive shovel test or a very high 302 artifacts per m<sup>2</sup>. The highest densities of prehistoric artifacts are in ST 801 (n=51) and ST 802 (n=57) on the crest of the terrace (see Figure 1).

The prehistoric artifacts found at the Larrison Creek North site include wood charcoal (n=5, ST 801, 20-40 cm bs, ST 802, 20-40 cm and 60-80 cm bs, ST 803, 60-70 cm bs) and charred hickory nutshells (n=5, ST 800, 60-80 cm bs, ST 801, 80-100 cm bs, ST 802, 40-60 cm bs, and ST 803, 40-60 cm bs), three pieces of burned clay from hearths or cooking pits (ST 799, 40-60 cm bs, ST 800, 0-20 cm bs, and ST 802, 20-40 cm bs),

five ceramic sherds, three arrow points or arrow point fragments, a petrified wood core (ST 801, 60-80 cm bs), and 204 pieces of lithic debris.

The five ceramic body sherds found at the site are from four different shovel tests. Two are plain sherds with bone temper and a sandy paste (ST 803, 40-60 cm bs and ST 804, 60-80 cm bs); two others are plain Goose Creek Plain, *var. unspecified* sandy paste sherds (Aten 1983; ST 800, 80-100 cm bs and ST 802, 80-100 cm bs); and the last is a decorated sandy paste sherd (ST 802, 60-80 cm bs). This body sherd has several diagonal incised lines above a single horizontal incised line, and below (probably along the rim-body juncture) the incised decorative element is a single row of fingernail punctates. Similar decorated incised (parallel lines) and incised-punctated sherds (tool and fingernail impressed), sandy paste and bone-tempered, have been recovered from 41GM282 on the Navasota River (Rogers 1995:Figure 55). One sigma calibrated radiocarbon dates from 41GM282 range from A.D. 860-1030 to A.D. 1250-1400 (Rogers 1995:Table 41).

This ceramic assemblage with its mainly plain sandy paste pottery is part of a regionally distinct technological tradition in the east/southeastern boundaries of the Post Oak Savanna that is closely related to the Mossy Grove Culture/Traditions of coastal and inland Southeast Texas (cf. Story 1990). Sandy paste Goose Creek Plain pottery began to be made in the region at least 2000 years ago, but did not become key elements of specific assemblages until perhaps 1000 years ago, and only then in certain parts of the region, particularly sites in the Trinity and Navasota River basins (Perttula and Ellis 2013). The bone-tempered sandy paste wares differ technologically from the bone-tempered wares described as Leon Plain found in Central Texas sites (Kenmotsu and Boyd 2012:12-13), and were first made in the region as early as ca. A.D. 70 in the Trinity River basin and as early as ca. A.D. 400 in the Navasota River basin, but become most common in the archeological record after ca. A.D. 1000.

Two of the three arrow points are made of petrified wood. One is a Perdiz (post-dating ca. A.D. 1200/1250 in age, Turner et al. 2011) with a serrated blade (ST 799, 40-60 cm bs), and the other is a tip fragment (ST 803, 0-20 cm bs). The third arrow point is a fragmentary serrated Perdiz point of gray chert (ST 803, 0-20 cm bs).

The lithic debris from the site includes flakes and flake fragments from several raw materials, including petrified wood (n=172, 42.4% cortical), quartzite (n=11, 18.2% cortical), gray chert (n=10, 10% cortical), red chert (n=2, 100% cortical), brown chert (n=7, 42.9% cortical), black chert (n=1), and yellow chert (n=1). Petrified wood flakes account for approximately 84% of all the lithic debris from the site, and thus it was clearly the preferred raw material for chipped stone tool manufacture at the site. Most of the other raw materials, except perhaps for the gray chert and black chert, are probably all available in the local stream gravels. Other prehistoric sites along the proposed Arbuckle pipeline with comparable frequencies of petrified wood lithic artifacts are in Leon County (41LN462 and 41LN463) and Madison County (41MA37), in the middle reaches of the Trinity River stream basin (Perttula and Nelson 2008).

### Conclusions

The Larrison Creek North site has both lithic tools and chipping debris as well as ceramic sherds, along with preserved paleobotanical remains (charred nutshells and wood charcoal). There are also relatively extensive midden deposits at the site. The occurrence

of ceramics—albeit not necessarily in large quantities—as well as the presence of midden deposits, does point to the development of some occupational redundancy (i.e., a tethering to certain locations and a repeated and consistent use of those locations) in the use of the site in Late Prehistoric period times in this part of the Trinity River basin, around and after ca. A.D. 1200. In a study of the use of ceramics among Native American groups, Eerkens (2003:736) has suggested that “the degree of occupational redundancy in areas with resources suited to mass collecting and boiling [are]... correlated with pottery use.” This occupational redundancy may actually promote long-term trends in decreasing mobility and increasing sedentism, and in such settings the use of pottery may be also “associated with incipient agricultural strategies” (Eerkens 2003:736). In the case of this Late Prehistoric site in the Post Oak Savanna, in the Trinity River basin, the presence of pottery development—in conjunction with midden deposits—suggests that certain sites in the region were now being occupied for lengthier periods of time than was the case in Archaic and Woodland periods. Consequently, a site such as the Larrison Creek site likely has preserved residential features, middens, and even family cemeteries.

It is probable that the ceramics at the Larrison Creek site are the product of an indigenous population that developed a ceramic tradition dating from at least ca. A.D. 1200-1700 that was influenced by contacts with groups outside the area. As such, the ceramics found at the site represent evidence of a distinctive localized regional ceramic assemblage with ties to inland Mossy Grove Gulf Coastal Plain sites (see Story 1990:258 and Figure 39). These sites are found in the Brazos, Trinity, and Neches-Angelina river basins in Southeast, East Central, and East Texas. The ethnic affiliation of this indigenous population or populations remains unknown.

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## **MOUTH OF PILOT SITE (41COL4): A MID-SIZE LATE PREHISTORIC SITE IN COLLIN COUNTY, TEXAS**

**Wilson W. Crook, III**

### **Introduction**

Another of the sites used by Stephenson (1952), Harris and Suhm (1963), Lynott (1975) and others to define the Late Prehistoric period along the East Fork of the Trinity is the Mouth of Pilot site (41COL4). However, no in-depth excavation or detailed description was ever made in part because of its small size and the fact that an undetermined portion of the site appeared to have been eroded away by the action of Pilot Creek. As with Thompson Lake, which lies immediately upstream, the site was inundated in the late 1960's with the construction of Lake Ray Hubbard.

When the writer had the opportunity to study the collections of the late R. K. Harris at the Museum Support Center of the Smithsonian Institution, all the materials from the Forney Reservoir survey which are housed at the Texas Archeological Research Laboratory in Austin, as well as those from the Vance-Wilson-Housewright collection, all of the artifacts originally collected from the Mouth of Pilot site were tabulated. A total of 246 artifacts were collectively present. In addition, field notes from the above researchers regarding the site's location and description were studied. This paper thus serves to record the site and is a compilation of the work of previous investigators coupled with my own study of their surface collections.

### **Description**

The Mouth of Pilot site is located on the southeast side of Pilot Creek, about 6.5 km (4 miles) east of Wylie. The site occurs on a low sandy rise approximately 160 meters upstream from the creek's junction with the East Fork of the Trinity (and thus its name as "Mouth of Pilot"). The location of the site is in south-central Collin County, immediately



north of the Rockwall County line. The site only covered approximately 0.4 Ha (1 acre), and was exposed in a cutbank along Pilot Creek. As such, an unknown portion of the site had been eroded by the meandering action of the creek over time. Test pits dug by members of the Dallas Archeological Society in the 1940s and 1950s showed much of the site to be buried under about 30 cm of fine-grained silt, attesting to continual flooding and erosion of Pilot Creek. Below the sterile recent silt, the midden was demonstrated to average 45 cm in thickness. Elevation of the site is 132 meters (433 feet) above sea level. Both the site's name and location are on files with the Texas Archeological Research Laboratory (TARL) in Austin.

The vegetation and geology are identical to that of the Thompson Lake site (41COL3) which lies about a kilometer upstream. As these are described in detail in that site's report elsewhere in this journal, it will not be repeated here.

### **Features**

The Mouth of Pilot site was noted by both Wilson (1946), Harris and Suhm (1963) and by R. K. Harris (personal communication, 1974) as probably having a rim-and-pit structure, which is characteristic of many of the larger Late Prehistoric sites along the East Fork (Lynott, 1975; Crook, 2007; Crook and Hughston, 2008, 2009). Apparently the outline of part of the structure could be seen in the bank of Pilot Creek. Complete dimensions were not possible to determine but the structure appeared to be smaller than the pits recorded at Upper Farmersville, Branch, Hogge Bridge, Thompson Lake, Upper Rockwall and Lower Rockwall (R. K. Harris, personal communication, 1974).

Test pits dug from the creek into the rim-and-pit structure did not reveal any material difference in the artifacts found outside the structure, with the exception of a higher percentage of fire-cracked rock. Similar observations have been made on the content of the rim-and-pit structures at the Branch site (Crook, 2007), the Enloe Site (Crook, 1989), the Upper Farmersville site (Crook and Hughston, 2009), and the Sister Grove Creek site (Lynott, 1975).

### **Artifact Assemblage**

As mentioned above, the author has observed the collections of R. K. Harris, the 1963 Texas Archeological Salvage Project now present at the Texas Archeological Research Laboratory (TARL) in Austin, and the Rex Housewright-Lester Wilson-Bobby Vance collection. Together, these collections constitute nearly 250 artifacts from the site. The following summary is the first comprehensive compilation of the site's artifact assemblage.

#### **Chipped and Ground Stone**

A total of 246 artifacts have been recorded from the Mouth of Pilot site, of which 198 (80%) are chipped or ground stone tools (Table 1). Projectile points are the predominant type of chipped stone artifact, comprising 70% of the lithic assemblage and over 55% of all artifacts. As has been reported from other large East Fork Late Prehistoric sites (Crook and Hughston, 2009), dart points and arrow point occur together,

typically in near equal numbers. However, at Mouth of Pilot, just as was seen at the nearby Thompson Lake site, dart points are more abundant representing 75% of all projectile points.

Several dart point types have been identified from the site, although the predominant type is by far the Gary with some 60 specimens. Other dart point types present include Yarbrough (8), Ellis (7), Kent (3) and Dawson (2). Representative examples are shown in Figure 1. In addition, a number of broken dart points (23) were recovered which could not be definitively typed.

Local fine-grained quartzite is the predominant construction material in 88% of the dart points. Many of these points show a distinctive yellow or reddish coloration, indicative of heat treating to facilitate conchoidal fracture.



Figure 1. Representative projectile points from the Mouth of Pilot site. Top row (Left to Right): Alba (2), Catahoula, Scallorn (2), Perdiz (2). Bottom row (Left to Right): Gary (4), Yarbrough, Dawson, Kent (2).

A total of 34 arrow points have been recorded from the site. Alba is by far the most common form with some 16 specimens. Other arrow point types present include Catahoula (5), Scallorn (4), Perdiz (3), and Fresno (1) (Table 1). Five fragments of arrow points have been recorded which could not be definitively typed. As was observed in the dart point assemblage, local quartzite is the lithic material of choice, with 75% of all recorded specimens being constructed of local material. Other construction material utilized by the inhabitants includes chert of a number of different types and colors. Representative examples of arrow points from the site are shown alongside the dart points in Figure 1.

Bifacial cutting and/or scraping tools comprise much of the remainder of the lithic tool assemblage (Table 1). A total of 26 bifaces/knives were observed in the collections made available to the author, the overwhelming majority of which (88%) were made of local quartzite. The predominant form is a thick, ovoid-to-leaf-shaped implement but a few rectangular knives were also observed. Thirty bifacial and unifacial scraping tools were recorded representing a number of distinct types including thumbnail end-scrapers, “turtleback” side scrapers, unifacial flake side-scrapers, large concavo-convex side scrapers, and sub-triangular East Fork Bifaces (Crook and Hughston, 2007). Other chipped stone artifacts from the site include 2 well-made drills, one from a flake and the other from a re-worked Gary point.

Three artifacts of ground or polished stone have been recorded from the site. Two of these are small, one hand grinding stones made from sandstone; the other artifact is a small drilled stone bead. Figure 2 shows examples of the non-projectile point lithic assemblages from the site.

Of the 198 stone artifacts recorded, 84% are constructed of local, fine-grained quartzite; 13% of chert, both local and imported, and 3% from other materials (either sandstone or petrified wood). This dominance of local quartzite as the primary toolstone is characteristic of most East Fork Late Prehistoric sites (Crook and Hughston 2008).



Figure 2. Non-projectile point lithic artifacts from the Mouth of Pilot site. Top row (Left to Right): Drill, East Fork Biface (2), Side-scraper. Bottom row (Left to Right): End-scraper, Leaf-shaped biface (3).

Worked Bone and Shell

Nine pieces of worked bone have been recorded from the site. These include 8 flaking tools/awls mostly of deer ulnae, and a bone needle. In addition to the bone implements, a piece of worked pelecypod shell, constructed into a digging hoe, was reported.

Table 1. Mouth of Pilot (41COL4) Artifacts by Composition.

Artifacts	Chert	Quartzite	Other	Total
Dart Points				103
➤ Gary	4	54	1	
➤ Ellis	-	7	-	
➤ Yarbrough	1	7	-	
➤ Kent	-	3	-	
➤ Dawson	-	1	-	
➤ Unidentified	6	19	-	
Arrow Points				34
➤ Alba	3	13	-	
➤ Catahoula	2	3	-	
➤ Fresno	-	1	-	
➤ Perdiz	1	2	-	
➤ Scallorn	2	2	-	
➤ Unidentified	1	4	-	
Biface	3	23	-	26
Scrapers				30
➤ East Fork Biface	-	4	-	
➤ Other	3	21	2	
Drill	-	2	-	2
Mano	-	-	2	2
Stone Bead	-	-	1	1
Total Lithics	26 (13%)	166 (84%)	6 (3%)	198
Worked Shell				1
Bone Tools (all types)				9
Pottery				
➤ Shell Temper				19
➤ Grit Temper				15
➤ Clay Bead				4
Total Artifacts				246

Ceramics

A total of 38 pottery sherds have been recorded from the site. The ceramic assemblage is equally divided between shell-tempered and clay/grit-tempered sherds. Plain ware of all types of temper is by far the most common form of ceramic present

(90%). Shell-tempered sherds are exclusively of the Nocona Plain type and represent trade with the Henrietta Phase to the west. Clay/grit-tempered plain sherds are represented by Sanders Plain and Williams Plain types from East Texas. Other pottery types present at the site include Sanders Engraved and an unidentified incised ware.

### **Cultural Affiliation**

The observed artifact assemblage coupled with the site's location are consistent with other sites of the Late Prehistoric period along the East Fork of the Trinity River as originally characterized by Stephenson (1952) and subsequently redefined by Lynott (1975), and Crook and Hughston (2008, 2009). Sites belonging to this culture are confined to a relatively narrow north-south band from northern Collin County through Rockwall County and into parts of northwestern Kaufman and northeastern Dallas counties. To date, over 50 sites have been found which share similar cultural traits. Of these, about 20 are considered village sites with the others being smaller, seasonal campsites. In this regard, Mouth of Pilot fits into the former category but clearly at the smaller end.

### **Acknowledgements**

The author is indebted to the late R. K. "King" Harris who described the site in detail to me during the summers of 1974 and downloaded all of his knowledge of the size and description of the site and its suspected rim-and-pit structure. I would also like to thank Dr. James Krakker of the Smithsonian Institution (Museum Support Center) for allowing me to access the R. K. Harris collection. I would like to specifically thank Ms. Laura Nightengale, curator of the collections at the Texas Archeological Research Laboratory (TARL) in Austin, who repeatedly allowed the author access to the East Fork collections made by Harris and Suhm and others during the 1960's.

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## **THE THOMPSON LAKE SITE (41COL3): A LATE PREHISTORIC OCCUPATION IN COLLIN COUNTY, TEXAS**

**Wilson W. Crook, III**

### **Introduction**

Sites of the Late Prehistoric period occur along the East Fork of the Trinity and its tributaries in a roughly north-south line from Collin County in the north to north-central Kaufman County, some 70 km to the south. A number of the larger sites contain a unique rim-and-pit structure, whose function remains somewhat uncertain. One of the first of these sites to be discovered by members of the Dallas Archeological Society back in the late 1930's was Thompson Lake (41COL3). The Thompson Lake site was mentioned by both Wilson (1946) in his description of the rim-and-pit structures and by Stephenson in his original characterization of the Late Prehistoric of the East Fork in 1952. Because of the presence of a large, undisturbed rim-and-pit structure, the site was further recognized as having high excavation potential by Harris and Suhm (1963) in their appraisal of the archeological resources of the areas to be covered by the development of Forney Reservoir (now Lake Ray Hubbard). Sadly, no further excavation work was conducted as the Texas Archeological Salvage Project chose to excavate the Lower Rockwall (41RW1), Upper Rockwall (41RW2) and Glen Hill (41RW4) sites instead. As a result, the Thompson Lake site was inundated in the late 1960s. Despite being in the upper part of the lake just south of Lavon dam, the site has remained mostly covered, even during the severe droughts of 2004 and 2011, which all but drained some parts of both Lake Lavon and Lake Ray Hubbard. In addition to the lack of excavation, no description of the site and its artifacts was ever published.

Recently, the writer had the opportunity to study the collections of the late R. K. Harris at the Museum Support Center of the Smithsonian Institution, all the materials from the Forney Reservoir survey which are housed at the Texas Archeological Research Laboratory in Austin, as well as those from the Vance-Wilson-Housewright collection, which contained extensive material from all the Late Prehistoric sites along the East Fork. A total of 291 artifacts were collectively present from Thompson Lake. Moreover, copies of field notes from the above researchers were made available to the writer. This paper thus serves to record the site and is a compilation of the work of previous investigators coupled with a study of the surface collections made available to the author.

### **Description**

Thompson Lake is located on the east side of Pilot Creek, about 4 miles east of Wylie. The location of the site is in south-central Collin County, near the Rockwall County line. The site covers approximately 2 Ha (5 acres) on the floodplain. Elevation of the site is 131 meters (430 feet) above sea level. The name, Thompson Lake, appears to

have been for the old community of Thompson, coupled with the fact that there was a natural depression next to the rim-and-pit structure that often filled with water (the term "lake" being somewhat generous in its description). The name Thompson came from one of the early settlers of the area, Elbert Thompson, whose son, Lavon "Bud" Thompson is the namesake for the major reservoir north of the site. Both the site location and name are on file at the Texas Archeological Research Laboratory in Austin.

The Thompson Lake site lies within the Blackland Prairie physiographic province, a narrow north-south zone bounded by the Eastern Cross Timbers to the west and the Post Oak Belt to the east. Soils of the Blackland Prairie are for the most part, organic-rich, calcareous clays of the Houston Black-Heiden, Ferris-Heiden and Trinity-Frio soil groups (Coffee, Hill and Ressel, 1980). These soils are characterized by a low permeability, which effectively inhibits the growth of trees except along major waterways. The result is an alternating terrain of open prairie uplands interlaced by a serpentine network of riparian woodlands. The topography is gently rolling with wooded draws and mottes. Microtopographies, namely gilgai, create localized differences in disturbance and hydric regimes that contribute to the plant and animal diversity (Eidson and Smeins, 1999).

Vegetation of the Blackland Prairie consists of a number of grasses, the most common of which is little bluestem, although switch grass, Texas wintergrass, Indiangrass, silver bluestem and others have been reported (Gould, 1969). The riparian belts lining the streams and rivers typically contain cedar elm, bur oak, red oak, pecan, bois d'arc, honey locust and sugarberry. Underbrush is predominantly peppervine, trumpet creeper, greenbriar, hawthorne, honeysuckle, grapevine, Virginia wildrye, Indian currant, poison ivy and various berry-bearing vines.

### **Features**

The Thompson Lake site was described by both Wilson (1946), Harris and Suhm (1963) and by R. K. Harris (personal communication, 1974) as having a prominent rim-and-pit structure, which is characteristic of many of the larger Late Prehistoric sites along the East Fork (Wilson, 1946; Stephenson, 1952; Lynott, 1975a, 1975b; Crook, 2007; Crook and Hughston, 2008, 2009). The pit was located on the eastern side of the site away from Pilot Creek. Measured dimensions were 38 x 38 meters (125 x 125 feet), making it the largest rim-and-pit structure reported along the East Fork of the Trinity. A photograph of the structure taken during the 1963 Forney Reservoir appraisal is shown as Figure 1.

No excavation of the rim-and-pit structure was undertaken but several test pits were dug by members of the Dallas Archeological Society across the site as well as inside the pit. Outside the feature, occupational material was found from the surface to a depth of approximately 45 cm. Arrow points and pottery were recovered from the upper part of the midden with an increasing percentage of dart points with depth. King Harris (personal communication, 1974) and Lester Wilson (personal communication, 1973) both believed an Archaic level was present at the base of the site; however, without proper excavation they both said that this was uncertain. The author has demonstrated at both the Upper Farmersville (41COL34) and Branch (41COL9) sites that use of the atl-atl and dart points persisted along the East Fork well after the introduction of both the bow and arrow

and ceramics (Crook, 2007; Crook and Hughston, 2009). Therefore it remains uncertain whether the Thompson Lake site actually had an early pure Archaic occupation, or their test pits just showed a similar history to other sites in the area.



Figure 1. Photograph of the Thompson Lake (41COL2) rim-and-pit structure taken during the original 1963 Forney Lake (later Lake Ray Hubbard) survey. The late R. K. “King” Harris is standing on the pit rim. Note: The depth of the pit is about 10 feet.

Test pits dug inside the rim-and-pit structure did not reveal any material difference in the artifacts found outside the structure, with the exception of a higher percentage of fire-cracked rock. Similar observations have been made on the content of the rim-and-pit structures at the Branch site (Crook, 2007), the Enloe Site (Crook, 1989), the Upper Farmersville site (Crook and Hughston, 2009), and the Sister Grove Creek site (Lynott, 1975).

One of the more intriguing observations made about the rim-and-pit structure is that apparently the first settlers to the area (a Mr. Foote in 1851-52) noted that on one side of the pit, a narrow tunnel was present which led through the rim and into the center of the pit. This “tunnel”, was reportedly 1 meter high and 1.75 meters wide, and lined on both sides as well as along its roof with wood beams of bois d’arc (Wilson, 1946). The tunnel was filled in back in the late-1800’s so the structure would periodically fill with water from rains. Both Harris and Wilson relayed to the author that they had heard this story from a number of locals but had not personally seen any evidence of the tunnel’s presence. If the story is true, it could potentially lend some strength to the theory that the rim-and-pit structure served some special ceremonial purpose.



### **Artifact Assemblage**

As mentioned above, the author has observed the collections of R. K. Harris, the 1963 Texas Archeological Salvage Project now present at the Texas Archeological Research Laboratory (TARL) in Austin, and the Rex Housewright-Lester Wilson-Bobby Vance collection. Together, these collections constitute nearly 300 artifacts from the site. The following summary is the first comprehensive compilation of the site's artifact assemblage.

#### **Chipped Stone**

A total of 291 artifacts have been recorded from the site, of which 216 are chipped stone tools (Table 1). Projectile points are the predominant type of chipped stone artifact, comprising nearly 60% of the chipped stone assemblage and over 40% of all artifacts. As has been reported from other large East Fork Late Prehistoric sites (Crook and Hughston, 2009), dart points and arrow point occur together, often in almost exactly equal numbers. However, at Thompson Lake, dart points are more abundant, representing 65% of all projectile points.

Several dart point types have been identified from the site, although the predominant type is the Gary with some 34 specimens. Other dart point types present include Yarbrough (5), Ellis (5), Dawson (3) and Kent (2). Representative examples are shown in Figure 2. In addition, a number of broken dart points (34) which could not be definitively typed have been recovered. Most of these represent broken tips or mid-sections of points; many broken bases are characteristic of a distinctive point type (especially Gary points) and where possible, have been included in the typed specimens.

Local fine-grained quartzite is the predominant construction material in almost 90% of the dart points. Many of these points show a distinctive yellow or reddish coloration, indicative of heat treating to facilitate conchoidal fracture.

A total of 44 arrow points have been recorded from the site. Alba and Scallorn types are by far the most common form with some 13 specimens each. Other arrow point types present include Catahoula (8), Perdiz (3), Fresno (2), and Washita (1) (Table 1). Four fragments of arrow points have been recorded which could not be definitively typed. As was observed in the dart point assemblage, local quartzite is the lithic material of choice, with 86% of all recorded specimens being constructed of local material. Other construction material utilized by the inhabitants includes chert of different types and colors. Representative examples of arrow points from the site are shown in Figure 3.

Bifacial cutting and/or scraping tools comprise much of the remainder of the lithic tool assemblage (Table 1). A total of 36 bifaces / knives were observed in the collections made available to the author, the overwhelming majority of which (92%) were made of local quartzite. The predominant form is a thick, ovoid-to-leaf-shaped implement but a few rectangular knives were also observed. Forty two bifacial and unifacial scraping tools were recorded representing a number of distinct types including thumbnail end-scrapers, "turtleback" side scrapers, unifacial flake side-scrapers, large concavo-convex side scrapers, and sub-triangular East Fork Bifaces (Crook and Hughston, 2007). Eight specimens of the latter were observed, which is a high percentage given the relatively few lithic artifacts collected versus some of the more prolific East Fork sites (for example,

compare Thompson Lake’s 291 total artifacts to 3,419 recorded from the Branch site, 4,374 from Upper Farmersville, or 7,464 from Lower Rockwall). Other chipped stone artifacts from the site include 4 well-made drills.

Table 1. Thompson Lake site artifacts by composition.

Artifacts	Chert	Quartzite	Other	Total
Dart Points				83
➤ Gary	1	33	-	
➤ Ellis	-	5	-	
➤ Yarbrough	-	4	1	
➤ Kent	-	2	-	
➤ Dawson	1	2	-	
➤ Unidentified	5	28	1	
Arrow Points				44
➤ Alba	-	13	-	
➤ Catahoula	-	8	-	
➤ Fresno	1	1	-	
➤ Perdiz	2	1	-	
➤ Scallorn	2	11	-	
➤ Washita	1	-	-	
➤ Unidentified	-	4	-	
Biface	3	33	-	36
Scrapers				42
➤ East Fork Biface	-	8	-	
➤ Other	-	33	1	
Drill	-	4	-	4
Abrader	-	-	1	1
Mano	-	-	6	6
Total Lithics	16 (7%)	190 (88%)	10 (5%)	216
Worked Shell				6
Bone Tools (all types)				19
Pottery				
➤ Shell Temper				27
➤ Grit Temper				22
➤ Clay Bead				1
Total Artifacts				291

Seven artifacts of ground or polished stone have been recorded from the site. These include 1 grooved abrader and 6 manos or grinding stones. The relatively high number of manos from essentially surface collections potentially suggests agriculture was

a significant component of the lives of the occupants of the Thompson Lake site. Figure 4 shows examples of the non-projectile point lithic assemblages from the site.



Figure 2. Representative dart points from the Thompson Lake site. Top row (Left to Right): Kent (2), Ellis. Bottom row (Left to Right): Gary points of various forms.



Figure 3. Representative arrow points from the Thompson Lake site. Left to Right: Alba (3), Catahoula (3), Scallorn (2).



Figure 4. Non-projectile point lithic artifacts from the Thompson Lake site. Top row (Left to Right): East Fork Biface, Various scrapers (3). Bottom row (Left to Right): Turtle back side-scraper, Leaf-shaped biface (2), Small single hand mano.

Of the 216 stone artifacts, 88% are constructed of local, fine-grained quartzite; 7% of chert, both local and imported, and 5% from other materials (primarily sandstone). This dominance of local quartzite as the primary toolstone is characteristic of most East Fork Late Prehistoric sites, albeit Thompson Lake has a slightly higher percentage than in other sites studied by the author.

#### Worked Bone and Shell

Nineteen pieces of worked bone have been recorded from the site. These include 16 flaking tools / awls mostly of deer ulnae, and 3 bone needles. In addition to the bone implements, 6 pieces of worked shell have been recorded. All of these consist of pelecypod shells which have been deliberately worked into some form of scraping or digging tool.

#### Ceramics

A total of 49 pottery sherds have been recorded from the site. The ceramic assemblage is equally divided between shell-tempered and clay/grit-tempered sherds. Plain ware of all types of temper is by far the most common form of ceramic present (>90%). Shell-tempered sherds are exclusively of the Nocona Plain type and represent trade with the Henrietta Phase to the west. Clay/grit-tempered plain sherds are represented by Sanders Plain, Williams Plain, and other like Caddoan types from East

Texas. Other pottery types identified from the site include Sanders Engraved and Monkstown Fingernail Punctate. A single clay bead was also recovered and is shown with representative examples of the site's ceramic assemblage in Figure 5.



Figure 5. Representative ceramics from the Thompson Lake site. Top Row (Left to Right): Williams Plain (grit tempered) (3). Middle Row (Left to Right): Nocona Plain (shell-tempered) (2), Monkstown Fingernail Punctate. Bottom Row: Deer ulna flaking tool.

### **Cultural Affiliation**

The observed artifact assemblage coupled with the site's location are consistent with other sites of the Late Prehistoric period along the East Fork of the Trinity River as originally characterized by Stephenson (1952) and subsequently redefined by Lynott (1974a, 1975b), and Crook and Hughston (2008, 2009). Sites belonging to this culture are confined to a relatively narrow north-south band from northern Collin County through Rockwall County and into parts of northwestern Kaufman and northeastern Dallas counties. To date, over 50 sites have been found which share similar cultural traits. Of these, about 20 are considered major village sites with the others being smaller, seasonal

campsites. In this regard, Thompson Lake can clearly be regarded as one of the larger occupations in the region.

### Acknowledgements

The author is indebted to the late Lester Wilson and R. K. "King" Harris who described the site in detail to me during the summers of 1973-74 and downloaded all of their knowledge of the size and description of the prominent rim-and-pit structure. I would also like to thank Dr. James Krakker of the Smithsonian Institution (Museum Support Center) for allowing me to access the R. K. Harris collection. I would like to specifically thank Ms. Laura Nightengale, curator of the collections at the Texas Archeological Research Laboratory (TARL) in Austin, who repeatedly allowed the author access to the East Fork collections made by Harris and Suhm and others during the 1960s. All four of the above named individuals are my good friends and without their help, the recording of this site and its artifacts would not have been possible.

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## **PUEBLOAN INTRUSIVE ARTIFACTS IN ARCHEOLOGICAL SITES ALONG THE EAST FORK**

**Wilson W. Crook, III**

### **Introduction**

Puebloan intrusive artifacts are rare occurrences in northeast Texas, yet the sites of the Late Prehistoric along the East Fork of the Trinity have a number of reported finds (Lorraine and Hoffrichter, 1969; Crook, 1985, 2007; Crook and Hughston, 2009). A few of those were recorded by Journey and Young (2008) in their summary of southwestern pottery and turquoise in northeast Texas, but many of the finds from the East Fork were either not known by the authors or have been discovered and/or recorded in the last 15 years. Intrusive materials include obsidian and chalcedony lithic artifacts, Puebloan pottery types, and turquoise, *Olivella* shell, and red coral beads. Other associated artifacts, such as chalcedony drills and garnet bearing schist, are also likely to be of similar southwestern origin.

Over the last decade, the writer has had the opportunity to study the collections of the late R. K. Harris at the Museum Support Center of the Smithsonian Institution, all the materials from the Forney Reservoir survey which are housed at the Texas Archeological Research Laboratory in Austin, as well as those from the Vance-Wilson-Housewright collection, which is now in the possession of Mark D. Hughston and myself. In addition, a large number of private collections from the East Fork have been extensively studied. Collectively, these collections comprise nearly 30,000 artifacts and include at least 58 of probable Puebloan origin. This paper thus serves to record these artifacts for future research on prehistoric trade routes.

### **Artifact Description and Distribution**

Sites belonging to the Late Prehistoric period along the East Fork of the Trinity and its tributaries are confined to a relatively narrow north-south band from northern Collin County through Rockwall County and into parts of northwestern Kaufman and northeastern Dallas counties. To date, over 50 sites have been identified which share similar cultural traits. Of these, about 20 are considered village sites with the others being smaller, seasonal campsites.

Puebloan-related artifacts have been found at three of the region's largest sites, including Upper Farmersville (41COL34), Branch (41COL9), and Lower Rockwall (41RW1). In addition, the remains of an apparent southwestern trader's campsite were found several hundred meters west of the Branch site (Crook, 1985). Despite extensive examination of the collections from the other large East Fork sites, no additional definitive southwestern artifacts have been found from any of the other sites. The artifacts of Puebloan origin are described below and have been tabulated in Table 1.

## Upper Farmersville (41COL34)

The Upper Farmersville site lies in north-central Collin County, near the upper part of the observed occupational range of the Late Prehistoric on the East Fork and its tributaries (Crook and Hughston, 2008). Both in terms of aerial size as well as number of reported artifacts, the site is one of the largest occupations in the region. A complete description of the site and its artifacts can be found in Crook and Hughston (2009).

A total of 14 artifacts of probable Peubloan origin have been found. These include a triangular arrow point of obsidian, a side-notched arrow point of obsidian, a side-botched arrow point of white chalcedony, and 9 pottery sherds of various black-on-white painted wares. Of the three lithic artifacts, X-Ray Fluorescence (XRF) analysis conducted by the author shows the obsidian to come from the so-called "Polvadera Peak" area of New Mexico (Polvadera Peak, while a rhyolite dome, did not produce artifact quality obsidian; instead, the material should be labeled "El Rechuelos" for the four small obsidian domes north, west and south of Polvadera Peak). Likewise, XRF analysis of the chalcedony arrow point shows it to be nearly identical in trace element chemistry to similar material from the Taos-Santa Fe region.

The 11 Puebloan pottery sherds consist of 7 Santa Fe Black-on-White, 3 of general "Rio Grande Glaze", and 1 of Jemez Black-on-White. One of the Santa Fe Black-on-White pieces has been shaped intentionally by grinding on three edges and serration on the fourth edge. The sherds are all relatively small (<50 mm) and represent at a minimum, three vessels and most likely more. All date from either the end of the Coalition Period (1200-1325 AD) or the early Classic Period (1325-1600 AD), well within the dated horizon for the Late Prehistoric of the East Fork (~800-1600 AD). All 13 Puebloan artifacts from Upper Farmersville are depicted in Figure 1.

## Branch (41COL9)

Approximately 18 km (11 miles) southwest of Upper Farmersville is the Branch site, which is located on a small rise on the eastern side of the East Fork. A complete description of the site can be found in Crook (2007). Branch, and the neighboring Branch #2 site, has the largest amount of Peubloan intrusive artifacts in the region. At the Branch site, a total of 16 artifacts of probable Puebloan origin have been recorded including 5 obsidian arrow points, 2 pieces of worked obsidian, 2 sherds of Chupadero Black-on-White pottery, 1 drilled pendant of Mimbres Black-on-White, 3 turquoise beads, and 3 beads of *Olivella* shell. Of note, only one of the arrow points is a typical Puebloan triangular (or notched triangular) shape. Instead, the obsidian points found at Branch are relatively thick (5 mm vs 2-3 mm typical of most Puebloan points) and mimic the Alba barbed and/or Catahoula form which is common to the East Fork (Figure 2). Given the presence of 2 other pieces of worked obsidian, it may be that the inhabitants obtained a piece (or pieces) of unworked obsidian as opposed to trading for completed projectile points.





Figure 1. Artifacts of probable Puebloan origin from the Upper Farmersville site (41COL34). Top Row (Left to Right): Obsidian triangular and side-notched triangular arrow points (2), Chalcedony side-notched arrow point, shaped sherd of Santa Fe Black-on-White (Note serrated lower edge). Middle Row (Left to Right): Santa Fe Black-on-White (6). Bottom Row (Left to Right): Rio Grande Glaze (3), Jemez Black-on-White.

Both Chupadero Black-on-White and Mimbres Black-on-White (geometric) suggest a timeframe of 1150-1350 AD, again well within the known range of Late Prehistoric occupation along the East Fork. Two of the turquoise beads and the three *Olivella* shell beads were found by the author in a small 20 x 20 cm cache. Four of the obsidian arrow points were found on the surface nearby and may have been part of the original cache. In addition, three small bone beads were found in the cache but as bone beads are known from the area, they have not been included in the totals of Puebloan material. The Puebloan artifacts from the Branch site are shown in Figures 2 and 3.



Figure 2. Artifacts of probable Puebloan origin from the Branch site (41COL9). Top Row (Left to Right): Alba-like obsidian arrow points (3), Catahoula-like obsidian arrow point, side-notched obsidian arrow. Middle Row (Left to Right): Worked obsidian flakes (2). Bottom Row (Left to Right): Chupadero Black-on-White (2), Drilled pendant of Mimbres Black-on-White.

#### Branch #2

During 1973 and 1974, the writer worked for the Heard Natural Science Museum conducting a detailed site survey of Collin County. This involved extensive ground searches for new sites, especially in the vicinity of known large occupations. As a result of the survey, a small occupation was found immediately opposite the Branch site on a terrace above the western bank of the East Fork. Due to its proximity, the site was given the temporary designation of “Branch #2” (Crook, 1985).

The Branch #2 site consisted of occupational material covering about 100 square meters. A total of 28 artifacts were recovered, all of probable Puebloan origin. These included 1 obsidian triangular arrow point, 1 white chalcedony side-notched arrow point, 1 obsidian side scraper, 1 worked chalcedony flake, 5 sherds of Santa Fe Black-on-White pottery, 4 sherds of Chaco Black-on-White, 2 sherds of Black Mesa Black-on-White, 1 sherd of Zuni Glaze Ware, 2 “nuggets” of unworked turquoise, 1 turquoise bead, 1 chalcedony bead, 1 crinoid columnal stained with red ochre, 3 small chalcedony drills, 1

large quartzite platform with numerous drill holes on the upper surface, 2 pieces of red coral, and a piece of almandite garnet-bearing schist (Table 1). Of particular note, despite a detailed screening effort, no artifacts of local origin were found at the site. As such, it was suggested that the site represented the occupation of a trader, either of an intermediary from the west (such as from the Henrietta Phase), or possibly a Puebloan himself. The location so near the Branch site further suggested this site was the focus of his trade (obsidian toolstone, beads, ceramics) and the presence of Puebloan artifacts from the Branch site further indicates that such trade took place.

Pottery from the Branch #2 site suggests an age in the 1150-1300 AD timeframe. This is contemporaneous with the ceramics found both at Upper Farmersville and at Branch. The artifacts from Branch #2 were part of a display on local archeology at the Heard Museum in McKinney for over 20 years. However, the current museum administration has now removed all archeological materials from display and all attempts to recover original field notes, photographs, as well as photographs of the excavation as well as the Branch #2 assemblage have thus far failed.



Figure 3. Beads of probable Puebloan origin from the Branch site (41COL9). Left to Right: Bone beads (3), Small turquoise bead, *Olivella* shell beads (3), Large turquoise bead.

**Note: The bone beads, while found in association with the rest of the artifacts shown in Figure 3, are not definitively of Puebloan origin and, thus, are not included in the total count artifact count for the site.**

Table 1. Reported East Fork Lake Prehistoric Puebloan trade material.

Site	Arrow Points	Pottery	Other	Description
Upper Farmersville (41COL34)	3	11	-	1 obsidian triangular arrow point; 1 obsidian side-notched arrow point 1 chalcedony side-notched triangle point; 6 sherds Santa Fe B/W; 3 sherds Rio Grande Glaze; 1 sherd Jemez B/W; 1 shaped sherd Santa Fe B/W
Branch (41COL9)	5	3	8	5 obsidian arrow points; 2 worked obsidian flakes; 2 sherds Chuadero B/W; 1 drilled sherd Mimbres B/W; 3 turquoise beads; 3 <i>Olivella</i> shell beads
Branch #2	2	12	14	1 obsidian triangular arrow point; 1 chalcedony side-botched arrow point; 1 obsidian end scraper; 1 chalcedony worked flake; 5 sherds Santa Fe B/W; 4 sherds Chaco B/W; 2 sherds Black Mesa B/W; 1 sherd Zuni G/W; 2 nuggets of turquoise, 3 beads, 3 chalcedony drills, 1 quartzite drill platform, 2 pieces of red coral, 1 piece garnet schist
Lower Rockwall (41RW1)	-	1	-	Complete stirrup-spout vessel of Arboles B/W
Total Artifacts	10	27	22	59

Lower Rockwall (41RW1)

One of the more important finds of Puebloan material along the East Fork was the discovery of a stirrup-spout pottery vessel by Lorraine and Hoffrichter (1968) at the Lower Rockwall site. The Lower Rockwall is approximately 21 km (13 miles) south of Branch. The vessel was recovered on the eastern half of the site, outside the prominent rim-an-pit structure and about 1 meter below the surface. The vessel was nearly whole, missing only the neck portion of the stirrup spout. A detailed study of the temper confirmed the rock mixture (basalt with monocrystalline fragments of olivine, pyroxene and plagioclase) had a source in north-central New Mexico (McIntyre and McGregor, 1982). The vessel was identified as being Arboles Black-on-White with an approximate date of 950-1050 AD (Pueblo II Period). This fits well within the age date ranges observed for East Fork sites as well as a date of 1020 AD from the nearby Upper Rockwall site (41RW2) (Ross, 1966; Lynott, 1978). No other artifacts of possible southwestern origin were recovered from the site.

## Discussion

An established trade between the Puebloan southwest and East Texas has long been recognized (Kreiger, 1946). Strategic resources in this exchange have been thought to be bison hides, meat, turquoise and textiles from the Plains; bow wood and salt from East Texas (Creel, 1991). Evidence of this trade has been recorded from a number of Caddoan sites in East Texas (Housewright, 1946; Hayes, 1955; Prikryl, 1990; Jurney and Young, 1996). These include items such as turquoise beads and pendants and various Puebloan ceramics. While present in sites across East Texas, they typically represent a very minor component of the site's total artifact assemblage, with usually only a few pieces reported per site.

A relatively large number of Puebloan artifacts have now been recognized from the Late Prehistoric occupation of the East Fork. The total of 59 artifacts described herein represents a significant number of newly reported materials and strengthens the case for established trade routes from west to east over a long period of time. Moreover, the artifacts found in the East Fork sites indicates that beyond turquoise and ceramics, trade items likely included other bead material (red coral, *Olivella* shell) and exotic toolstone (obsidian, chalcedony). With regard to the latter, evidence from the Upper Farmersville and Branch sites suggest that this trade could have included both finished projectile points as well as raw toolstone.

Jurney (1994) postulates that one reason East Texas may have been a destination for trade with the Puebloan Southwest is the presence of bois d'arc. Native bois d'arc stands are prominent within the range of the Late Prehistoric of the East Fork and its tributaries, being widespread in the northern part of the occupation (Upper Farmersville, Branch) and gradually thinning toward the south. The Lower Rockwall site is near the southern end of this stand (Jurney and Young, 1996).

Crook and Hughston (2007, 2008) have demonstrated that the inhabitants made extensive use of bois d'arc, even to the extent of crafting a specialized stone tool (the "East Fork Biface") for working the hard wood. It is entirely plausible that some of this production could have been used in periodic trade in addition to local use. The Late Prehistoric of the East Fork are known to have imported a significant amount of ceramic ware from both the Henrietta Phase peoples to the west as well as from Caddoan peoples to the east (Crook and Hughston, 2008). Further trade for Puebloan materials could have been accomplished either through these groups or via direct contacts. It is uncertain if artifacts from the Upper Farmersville, Branch and Lower Rockwall sites represent entrepôts for traders traveling from the Puebloan southwest. However, the discovery of the small campsite of exclusive Puebloan material (designated as the Branch #2 site) suggests such a direct contact is possible.

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## **ANOTHER DRILLED VERTEBRA FROM THE NORTH SULPHUR RIVER**

**Barbara Elliott**

Since the 2012 publication of the *Archeological Journal of the Texas Prairie-Savannah*, another drilled vertebra has been recovered from the North Sulphur River. All that is needed is to find one in an archeological context.



Figure 1a. Obverse view of the drilled vertebra.



Figure 1b. Reverse view of the drilled vertebra.