



# JOURNAL OF TEXAS ARCHEOLOGY AND HISTORY



**Dr. Todd M. Ahlman, Editor-in-Chief**

**Steve Davis, Publisher**

**Volume 2 (2015)**

The cover art design for Volume 2 features the historic watercolors of prehistoric Trans-Pecos rock art that was documented by Forrest Kirkland from 1936-1943. High-resolution digital copies of the original artwork were generously provided courtesy of Texas Archeological Research Laboratory, The University of Texas at Austin.

On the front cover: the photograph featured on the front cover is Fig. 3: Kiowa winter camp; from *PLAINS APACHE TIPIS: RESIDENTIAL AND CEREMONIAL LODGES* by Michelle Stokely. Photo by Annette Ross Hume, 1901 or 1902, courtesy of the Research Division of the Oklahoma Historical Society.

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The Journal of Texas Archeology and History.org is an organization dedicated to furthering research, education and public outreach in the fields of archeology and history concerning Texas and its bordering states of Louisiana, Arkansas, Oklahoma, New Mexico and Northern Mexico; a region we call the “Texas Borderlands”. This volume is comprised of articles of original research that have been peer reviewed. It is our signature publishing effort for the year 2015 – “*The Journal of Texas Archeology and History, Volume 2*”.

The JTAH.org Editorial Board is comprised of:

#### Archeology Editorial Board

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Gustavo Ramirez Castilla, M.A.	<a href="mailto:gustavoramirez@gmail.com">gustavoramirez@gmail.com</a>
Jeffrey S. Girard, M.A.	<a href="mailto:girard@nsula.edu">girard@nsula.edu</a>
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Dr. Bradley J. Vierra	<a href="mailto:bvierra@srcrm.com">bvierra@srcrm.com</a>

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Dr. Todd M. Ahlman	<a href="mailto:t_a57@txstate.edu">t_a57@txstate.edu</a>
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Editor-in-Chief

Steve Davis	<a href="mailto:Steve.Davis.JTAH@gmail.com">Steve.Davis.JTAH@gmail.com</a>
Publisher	

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## **FOREWORD TO VOLUME 2 (2015): PUBLISHER'S REFLECTIONS**

This has been a busy, transitional year for the JTAH. Several important milestones have been achieved. Where to begin?

One year ago as I penned thoughts for the “Journal,” my mind and heart were full of gratitude and thanks for the efforts invested in producing our inaugural volume. This year is no different. There is one aspect of the JTAH organization that most are not aware—JTAH.org is 100% a volunteer effort and is financially supported through personal gifts. This, the second volume of open access, peer reviewed research, simply could not happen without supporters who believe in the cause of a totally free and independent publication. The “Journal” is available at no cost to both the author and any reader on the planet who has internet access with an interest in archeology and history of the “Texas Borderlands” region. That is our mission, pure and simple. And this is our signature publication.

We are fortunate to have eleven contributing authors this year who entrusted the fruits of their labor to us. It is our honor and privilege to make their research available to the world. For each of the articles published, and others not accepted, multiple reviewers contributed their valuable time and subject matter expertise to provide comments on the manuscripts.

2015 has been a year of growth. Very early in the year it became clear that structural and organizational changes were necessary in order to move forward. Furthermore, it was clear the JTAH had an opportunity to become involved in public outreach and to educate the public about the value of archeological and historic research.

It is our great good fortune that Dr. Todd M. Ahlman, Director of the Center for Archaeological Studies at Texas State University, agreed to come on board as our Editor-in-Chief mid-January. Todd not only brings expertise in archeology but also a strong background in corporate management gained from more than two decades in senior positions with CRM firms. Todd and I spent the better part of the first two quarters developing and implementing a plan of action which included goals and a mission statement. We incorporated the JTAH as a nonprofit entity on March 6, established a governing corporate board of directors, developed operating bylaws and were granted Internal Revenue tax code 501(c)(3) tax exempt status. Future financial supporters will receive a nice tax deductible letter of gratitude from the JTAH.org!

During the year we organized two major public outreach events for the Texas Archeological Society Annual Meetings held in Houston, October 23-25. The JTAH.org sponsored the Second Annual TAS Book Festival where eleven authors presented their recent book publications and was open to public participation. Additionally, we organized the Trans Rio Bravo/Rio Grande International Research Collaboration Symposium and Panel Discussion. Funds were raised to bring four senior archeologists from Mexico to express their perspective in this important discussion. We are especially grateful for financial support from the Summerlee Foundation, Dallas, TX.

We have already begun our planning for 2016 with three new initiatives on the drawing board for the year and have several articles in the works for Volume 3. It looks like another busy year ahead!

**Steve Davis, Publisher**

New Year's Eve 2015



## LIST OF AUTHORS

**Lennon N. Bates**, Research Assistant, Department of Chemistry, University of Central Arkansas, Conway, Arkansas ([lennonbates@crimelab.arkansas.gov](mailto:lennonbates@crimelab.arkansas.gov))

**Carolyn E. Boyd**, Research Director, Shumla Archaeological Research and Education Center, Comstock, Texas and Adjunct Faculty, Department of Anthropology, Texas State University, San Marcos. ([cboyd@shumla.org](mailto:cboyd@shumla.org)).

**Stephen L. Black**, Associate Professor, Department of Anthropology, Texas State University, San Marcos, Texas. ([sblack@txstate.edu](mailto:sblack@txstate.edu)).

**Amanda M. Castañeda**, Researcher, Ancient Southwest Texas Project, Texas State University, San Marcos, Texas. ([acastaneda10@txstate.edu](mailto:acastaneda10@txstate.edu))

**Mark Cioc-Ortega**, Professor, Department of History, University of California Santa Cruz ([cioc@ucsc.edu](mailto:cioc@ucsc.edu))

**Wilson W. “Dub” Crook, III**, Fellow, Houston Archeological Society, Kingwood, Texas. ([dubcrook@kingwoodcable.com](mailto:dubcrook@kingwoodcable.com)).

**Michelle D. Hamilton**, Associate Professor, Department of Anthropology, Texas State University, San Marcos, Texas. ([michelle.hamilton@txstate.edu](mailto:michelle.hamilton@txstate.edu)).

**Mark D. Hughston**, Brazos Gas Company, Dallas, Texas. ([Mhughston2002@yahoo.com](mailto:Mhughston2002@yahoo.com)).

**M. Katherine Spradley**, Associate Professor, Department of Anthropology, Texas State University, San Marcos, Texas. ([mks@txstate.edu](mailto:mks@txstate.edu)).

**Karen L. Steelman**, Associate Professor, Department of Chemistry, University of Central Arkansas, Conway, AR 72035. ([ksteel@uca.edu](mailto:ksteel@uca.edu))

**Michelle Stokely**, Assistant Professor, Department of Sociology and Anthropology, Indiana University Northwest, Gary, Indiana. ([mstokely@iun.edu](mailto:mstokely@iun.edu))



# CREVICE INTERMENTS DECONSTRUCTED

*Stephen L. Black, M. Katherine Spradley, and Michelle D. Hamilton*

## ABSTRACT

The discovery of two well-preserved human crania in a crevice overlooking a spring-fed creek near Austin, Texas, led to medico-legal, archeological, and bioanthropological investigations aimed at understanding the context and biological affinity of the crania. Archeological excavations uncovered no evidence that the crania were interred in the crevice during prehistoric times. Skeletal analysis showed they were of Native American ancestry. Radiocarbon dating indicated they are contemporary to one another and probably date to the seventh or eighth century A.D. Measured stable isotopic ratios of carbon ( $^{13}\text{C}/^{12}\text{C}$ ) and nitrogen ( $^{15}\text{N}/^{14}\text{N}$ ) derived from human bone collagen samples from the crania are not consistent with other burial populations from the region, having higher nitrogen values than all other comparative samples. The crania also showed polish from repeated handling and several of the molars in one cranium had been glued in place. Taken together, these lines of evidence suggest the crania were removed from an unknown locality outside the Central Texas region, kept in a private collection, and placed in the crevice recently.

## CREVICE INTERMENTS DECONSTRUCTED

The discovery of two well-preserved human crania in a narrow limestone crevice overlooking a spring-fed creek in western Travis County, Texas, led to medico-legal, archeological, and bioanthropological investigations aimed at assessing the contextual and biological affinity of the crania. While it was soon realized that the crania were not of modern age and thus of no interest to criminal investigators, from an archeological perspective their appearance in an open crevice with minimal protection from the elements was unexpected. Were these aboriginal interments? If so, the crania had the potential to add considerably to knowledge of the hunter-gatherer population of the region, provided they had been placed in the crevice in aboriginal times. This article describes how the significance, context, and cultural affiliation of the crania were assessed using a multidisciplinary approach.

## SITE SETTING AND BACKGROUND

The crevice where the crania were found lies within the Balcones Canyonlands along the eastern flank of the Edwards Plateau in Central Texas (Figure 1). In this area the limestone plateau is deeply dissected by steep-sided winding canyons prone to flash flooding, a major reason why the Colorado River was dammed in the 1940s to form the chain of reservoirs known as the Highland Lakes. The site of discovery overlooks a

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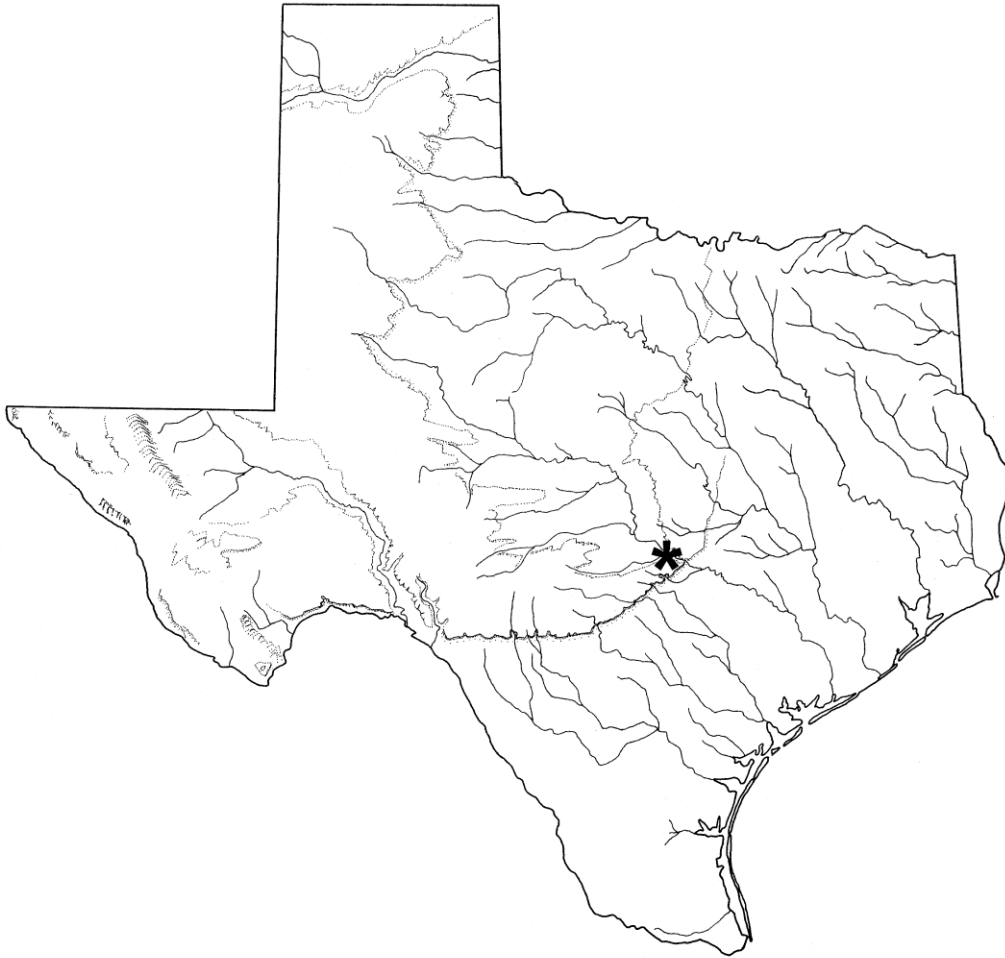


Figure 1. Location of the crania locality in Texas.

spring-fed creek that empties into the Pedernales River, a tributary of the Colorado River. The creek flows year-round as the result of natural springs upstream where permanent natural pools support stands of bald cypress, forming something of a deeply shaded oasis within the relatively dry, juniper-dominated limestone uplands.

The site lies within the Central Texas archeological region, which has an abundant and lengthy prehistoric record of hunter-gatherer life spanning over 13,000 years (Black 1989; Collins 2004; Prewitt 1985). In contrast to the adjacent Blackland Prairie and Texas Coastal Plains to the east and southeast, the Edwards Plateau lacks large cemeteries in open settings, although small numbers of burials are known from open campsites (Steele et al. 1999). Instead, most known prehistoric burials across the Plateau occur in sinkholes, rockshelters, and, occasionally, in crevices. Given the ample evidence of sustained human occupation in the region, it appears that the natural sinkholes that abound across the karstic limestone expanse of the Plateau were used as cemeteries (Bement 1994:133-135; Perttula 2001:34-41). Although multiple human remains have been recovered from several sinkholes, most of these locales have notoriously poor bone preservation

conditions (e.g., Alvarez 2005; Givens 1968). The Plateau's most thoroughly investigated sinkhole cemetery is the Bering Sinkhole site near Kerrville, Texas (Bement 1994). There the bodies seem to have been interred whole as evidenced by the recovery of both cranial and postcranial bones.

To the northeast of the Edwards Plateau along the Leon River and other Brazos River tributaries in western Bell County sizable rockshelters containing prehistoric cemeteries with dozens of graves are known to have existed (Russell 1936). Most appear to have been looted in the 1920s and 1930s with little or no archeological documentation. The Aycock site (also known as Kell Branch Shelter 1) is a partial exception. This large rockshelter along the Leon River contained a cemetery with at least 32 burials, including three "head burials" (Watt 1936). Two of these consisted of crania interred while still attached to several upper vertebrae, while the third (Burial 4) was characterized as "head only." These crania were found amid extended and flexed skeletons. Watt describes poorly controlled excavations and it is not at all clear that the crania were originally interred separately from postcranial elements or merely appeared that way when hastily exposed by untrained excavators.

In the vicinity of the two isolated crania interments reported in this article, dozens of prehistoric archeological sites have been recorded within a 15 km radius of the discovery locale, including small rockshelters on the canyon walls, open campsites on the terraces of the Pedernales and Colorado rivers, plant baking facilities known as burned rock middens, chert outcrops where flint was obtained for making stone tools, and various other sites that are collectively typical of the regional archeological record. Most of the known sites in the local area are along the Colorado River within Lake Travis. A modest amount of archeological research was done in the upper reservoir prior to the impoundment of Lake Travis in 1942, including the excavation of the Grelle site, a deep campsite that contained several human interments (Kelley 1941).

A recent article reporting an isolated interment exposed on the shore of Lake Travis summarizes the known burial sites from the Colorado River basin upstream from Austin (Malof and Taylor 2011:254-259). Of these, only a single burial was documented within a rockshelter in Burnet County on Lake Buchanan (Field 1956), and it was purposefully covered with limestone slabs like certain other documented interments along the Colorado River. Nearby the Burnet County rockshelter, along the same sandstone bluff, was a "disarticulated crevice burial. Only the arm and leg were in place, and there was no trace of the skull or teeth" (Field 1956:172). However, Field went on to note that the "site flooded at high water periods," suggesting the crevice interment may have been partially washed away.

## DISCOVERY

A hiker peered into a limestone crevice on the lower wall of a winding canyon and spotted an essentially intact human cranium on the floor of the crevice amid oak leaves and tree roots. The landowner contacted the Travis County Sheriff's Office and a deputy soon arrived, who confirmed it was human and gingerly removed the cranium from the tight quarters, whereupon a second cranium was found directly behind the first. Several detectives and an investigator from the Travis County Medical Examiner's Office examined the immediate vicinity and found no other human remains or associated material. Both crania were taken to the Medical Examiner's Office for evaluation of possible legal and forensic significance. The subsequent Medical

Examiner's report indicated that the two isolated crania were too old to be of forensic significance and likely represented two adult individuals of Native American ancestry. However, the medico-legal report did not address any contextual issues surrounding the crania. The skulls were returned to the landowner, who then contacted the Texas Historical Commission (THC) to determine if he had a Native American burial locale on his property.

THC archeologist Daniel R. Potter visited the find locale and briefly examined the crania. Potter realized that the finding of two well-preserved crania in a crevice that was relatively open-to-the-elements was somewhat suspect. Nonetheless, he could not rule out the possibility that the crevice had been the original interment location and that additional bones or associated grave inclusions might be present. Potter examined the crevice and the surface of the area around and above the crevice and found no artifacts or other indications of prehistoric occupation. Potter recommended that the landowner seek additional evaluation.

## ARCHEOLOGICAL INVESTIGATIONS

In May and June of 2009 we investigated the locale at the request of the landowner. Based on the initial archeological reconnaissance, two competing explanatory hypotheses were considered: Hypothesis A, the crania were originally deposited in situ in the crevice in prehistoric times (i.e., over 500 years ago) as part of purposeful, primary interments; or Hypothesis B, the crania were deposited secondarily in the crevice in recent times, perhaps by looters who had removed the crania from another, better-protected site. If Hypothesis A was valid, one would expect to find additional bones, assuming the crania had accompanied bodies, and perhaps grave offerings or associated artifacts such as projectile points. Although there are other alternatives (e.g., Hypothesis C, the crania were deposited secondarily in prehistoric times), it seems unlikely that the crania could have been present in the crevice for long without leaving other traces such as fragments of human bone. It was noted that a number of maxillary teeth were missing from both crania postmortem, suggesting that the missing teeth might still be present in the vicinity.

After photographically documenting the crevice and vicinity (Figure 2a-d), the brush overhanging the crevice was cleared and careful examination began. The locale consists of a narrow crevice and an adjacent low overhang at the base of a low, north-facing limestone valley wall. The walls of the crevice and the roof of the overhang are massive limestone blocks that have partially separated from the bedrock through geological processes. The crevice is little more than 50 cm wide at its mouth (opening), narrowing to less than 30 cm wide where the crevice terminated, approximately 3 m into the bluff. The crevice is partially filled with boulder-sized angular bedrock fragments, smaller limestone rocks, leaf litter, silt, and roots. The jumbled in-filled materials appear to have accumulated naturally, rather than having been purposefully added. The adjacent low overhang extends approximately 2.5 m into the bluff along the crevice and gradually angles outward. At the mouth of the overhang its ceiling is about 70 cm above the bedrock floor, the maximum amount of clearance in the entire overhang. As one stoops and enters the overhang, the roof slopes steeply downward to the rear of the overhang. While native peoples in the region often made use of natural rockshelters, this particular overhang has little or no useful floor space.



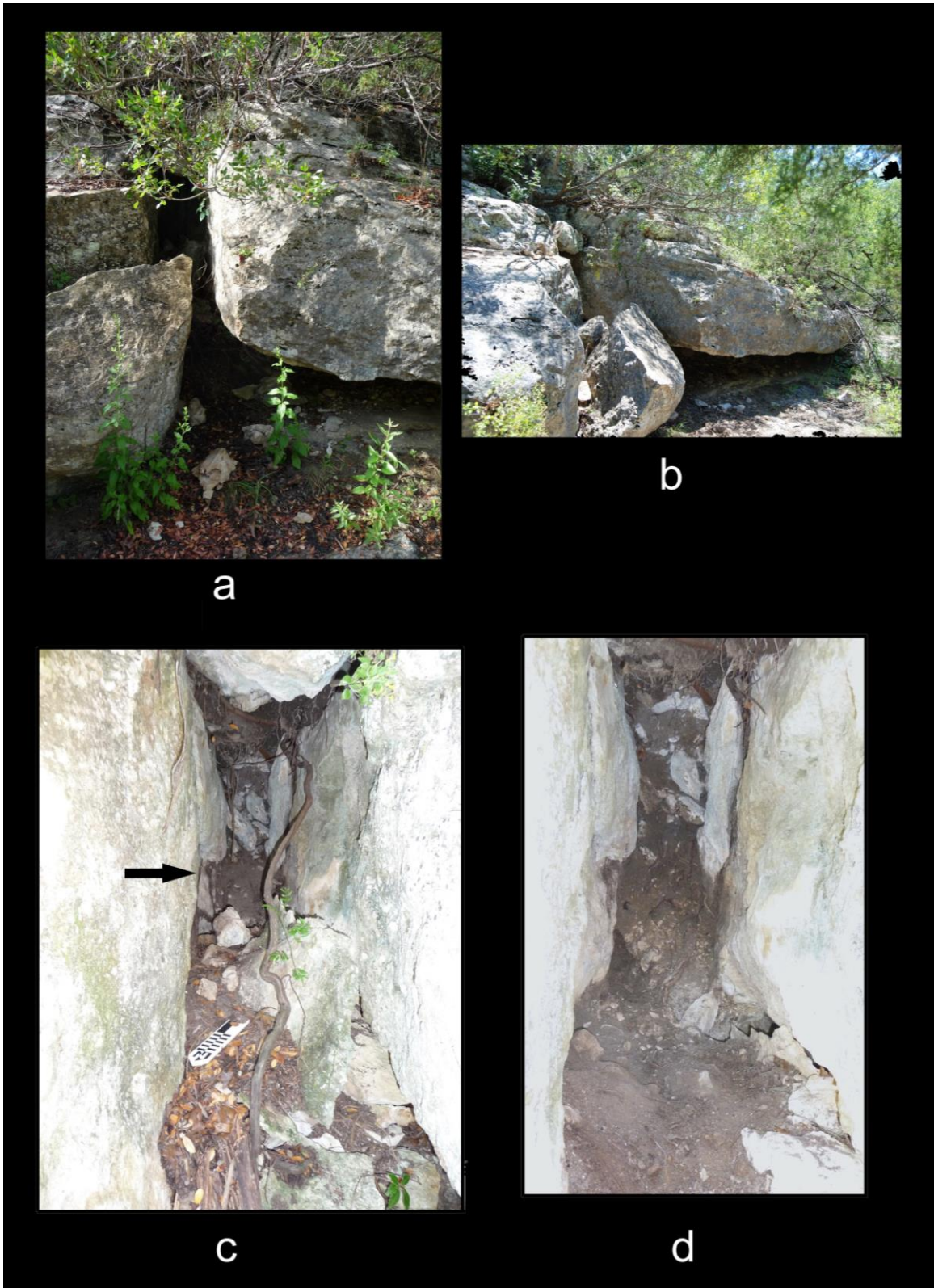


Figure 2. Find locality: a, front view of crevice; b, side view of crevice showing the low overhang; c, interior of crevice before archeological excavation (arrow points to approximate spot where crania had been removed); and d, interior of crevice after excavation.

The mouth of the crevice and overhang is about 5 m from the edge of the nearby spring-fed creek, which is normally less than 15 cm deep at this point. The floor of the outside edge of the overhang is less than 50 cm above the normal pool elevation of the creek. The crania were resting about 1 m above the surface of the creek. Although the creek has a relatively small drainage basin, the crevice and overhang are well below high-water flood levels in recent decades, and likely for millennia. Within the overhang, two rounded “columns” of unconsolidated but compact, silty, poorly-sorted sediment extend from the bedrock floor to the ceiling of the overhang. These remnants show that the overhang was once filled with sediment, and that most of the original fill had been scoured out by floodwaters. Given the unconsolidated appearance of the sediment columns, the “original” fill is likely of relatively young age, no more than a few thousand years at most. Indeed, it is reasonable to speculate that the overhang and the adjacent crevice would have experienced multiple cycles of fill and erosion during the Holocene.

The field investigation was done with the working assumption that the crevice had been a primary burial site. Both the crevice (see Figure 2a) and the adjacent overhang area (see Figure 2b), where 10-15 cm or so of sediment covered most of the bedrock floor, were carefully searched. The overhang floor deposit consisted of fairly loose, unconsolidated silt containing gravel-sized angular limestone spalls that graded into dust-sized particles intermixed with leaf litter. The sediment was excavated from an expedient “trench” 40-50 cm wide and 10-15 cm deep that roughly paralleled the crevice such that it encompassed the material directly down slope from where the crania had been found. It was reasoned that if skeletal materials had been housed in the crevice for any considerable length of time, skeletal fragments would have likely washed down slope from the crevice as colluvial deposits. The excavated sediment was screened through 1/4- and 1/8<sup>th</sup>-inch mesh and carefully search for fragments of bone, teeth, and artifacts. None were found.

Within the crevice the loose limestone rocks, leaf litter, and tree and vine roots were carefully removed in the immediate area where the crania were found as well as deeper within the crevice (see Figure 2c). Finding no trace of bone or a purposeful grave, hand excavations continued into the relatively compact, finer-grained fill directly beneath where the crania had been located. The sediment was screened and searched for fragmentary skeletal and artifactual material with the same result: none was found. The fine matrix was a gray silt containing unsorted decomposed limestone fragments and pebbles, none of them noticeably rounded by stream abrasion. Because the crania had rested against the “back wall” of the compact crevice fill, the fill was cut back approximately 20-30 cm farther to search for any sign of additional remains (see Figure 2d). Once again, none were found.

In summary, the archeological investigation of the crevice and overhang revealed no evidence that the crania had originally been interred there, with or without other skeletal elements. The lack of additional skeletal fragments fails to support Hypotheses A or C. This leaves Hypothesis B as the best explanation to account for the finding of two crania. In other words, it is highly likely that the crania were deposited in the crevice relatively recently, probably within a decade of being discovered. Otherwise, the bones would have quickly deteriorated given the clear evidence that the crevice was exposed to moisture, roots, rodents, insects, and slope wash from the hillside above the crevice, as well as periodic inundation from creek flooding. The preservation conditions are judged to be very poor as the crevice would have alternated between dry and wet conditions depending on the weather, the alternating cycles being deleterious to skeletal preservation.

## **SKELETAL ANALYSES**

### **Condition of Remains**

Both isolated crania were originally given Medical Examiner case numbers; however, they will be referred to here as C1 (Cranium 1) and C2 (Cranium 2). Based on the overall color and texture of the bone and the overall biological morphology, both crania are archeological in nature and not of forensic significance.

The preservation of C1 is excellent (Figures 3 and 4). The entire cranium is complete with only a portion of the left mastoid process broken postmortem, as indicated by the light (fresh) color of the fracture in comparison to the rest of the cranium. The cranium exhibits differential staining with colors of light brown to dark brown to black. The majority of the cranium is light brown with dark brown coloring on the superior and inferior portions of the vault. The cranium has some weathering indicative of water damage on the left fronto-parietal region of the coronal suture. A light coating of soil is evident in the orbital sockets as well as the nasal aperture. The frontal bone and parietal bones possess a shine on the surface of the bone, a typical finding when bone has been continuously handled or touched as trophy or display objects (Haglund and Sorg 1997). Roots are also present in the orbital area suggesting the cranium has been in contact with an earthen surface.

The preservation of C2 is also excellent (Figures 5 and 6) with the exception of the postmortem fractures at the cranial base. Additional postmortem damage is seen on the cranium in the eye orbits and the anterosuperior portion of the maxilla above and around the zygomaticofacial foramen and the left mastoid process. In addition, the left zygomatic arch is almost completely broken off and the occipital bone, at the base of the cranium, is completely broken off. Rodent gnawing is evident on the occipital bone around the posterior portion of the fracture margin. The cranium is stained a light to dark gray and has soil and roots in the cranial vault suggestive of contact with an earthen surface. Additionally, close inspection of this cranium revealed the presence of adhesive material (presumably glue) securing several teeth into their alveolar sockets, strongly suggesting a secondary deposition by an unknown modern individual.

### **Sex and Age**

Sex and age were assessed following standard methodology outlined in Buikstra and Ubelaker (1994). Following methods outlined by Ascadi and Nemeskeri (1970), both crania exhibit features suggestive of males. These features include projecting nuchal crests, rounded supraorbital margins, and large supraorbital ridges. Although sex estimation is considered population specific, Walker (2008) found the Ascadi and Nemeskeri method suitable for Native Americans.

Age was estimated based on degree of cranial suture closure following the methods of Meindl and Lovejoy (1985) and further refined based on observations of dental loss and attrition. Based solely on cranial sutures, age is estimated between 28 to 56 years for C1. However, based on the antemortem tooth loss of this individual, the age is most likely 50+ years of age at death. Age is estimated between 31 to 61 years for C2, although a more likely age is between 30-40 years based on the dental attrition of this individual.



Figure 3. Anterior view of C1.



Figure 4. Inferior view of C1. Note the rectangular section of the occipital that was removed for radiocarbon dating.



Figure 5. Anterior view of C2.



Figure 6. Inferior view of C2.

## RADIOCARBON ASSAY AND STABLE ISOTOPIC ANALYSIS

Samples from both crania were submitted for radiocarbon assay to determine their chronological age. The samples consisted of a rectangular section from the occipital region of specimen C1 and a molar from specimen C2. They were submitted to Beta Analytic for collagen extraction, AMS (accelerator mass spectrometer) dating, and isotopic measurement. The resulting radiocarbon assays (Table 1) were very similar and strongly overlap at the 2 sigma probability level.

**Table 1. Radiocarbon and Isotopic Data.**

Item	Sample Beta No.	Measured Radiocarbon Age (B.P.)	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	Conventional Radiocarbon Age (B.P.) (OxCal 4.2)	Calibrated Age Range 2 sigma
C1	297583	1170 + 30	-16.8‰	10.2‰	1300 + 30	A.D. 660-770
C2	297584	1150 + 30	-17.0‰	11.1‰	1280 + 30	A.D. 660-775

The conventional radiocarbon ages before present were calibrated using OxCal 4.2 with the following results. At the 95 percent probability level, C1 has an age estimate range of A.D. 660-770, while C2 has a range of A.D. 660-775. The radiocarbon ages of both crania are slightly younger but strongly statistically overlap with the radiocarbon age of the isolated burial from the nearby Carpenter Bend site, with a reported age of  $1350 \pm 40$  B.P., which yields a calibrated 2 sigma range of A.D. 615-770 (Malof and Taylor 2011). In terms of the local chronological sequence, all three of these individuals date to the Terminal Archaic period, at the end of the long Archaic era during the transition from the use of atlatl to the bow and arrow as the primary weapon system. While adoption of the new weapon system is traditionally considered the hallmark of the Late Prehistoric era, Lohse et al. (2014) argue that the new era did not begin until A.D. 1300 with the return of bison to the region and the onset of the Toyah phase (or interval).

The ratios of stable isotopes of carbon ( $\delta^{13}\text{C}$ ) and nitrogen ( $\delta^{15}\text{N}$ ) derived from human bone collagen reflect dietary contributions from plants and animals (Mays 2010:265-277). Katzenberg (2008) provides a useful overview of stable isotopic analysis. Of these two isotopic ratios, carbon data is available from a larger number of human burials from hunter-gatherer contexts.

The measured stable isotope values for Cranium 1 (-16.8‰  $\delta^{13}\text{C}$  and 10.2‰  $\delta^{15}\text{N}$ ) and Cranium 2 (-17.0‰  $\delta^{13}\text{C}$  and 11.1‰  $\delta^{15}\text{N}$ ) are quite similar to one another, although C2 has a slightly more enriched nitrogen ratio. The isotopic values of the crania fall within the general range of hunter-gatherer populations, rather than sedentary populations reliant on maize, which became a dietary staple in many areas across temperate North America after A.D. 1000.

A recent in-depth study of carbon and nitrogen isotopes from various hunter-gatherer burial populations in the adjacent Gulf coastal plain of Texas suggests that the values derived for both crania are consistent with what would be expected from inland populations (Hard and Katzenberg 2011). The closest geographic comparisons are with two prehistoric cemeteries just below the Edwards Escarpment in and near San



Antonio, Texas, some 125 km to the south. A sample of six individuals dating to the Late Archaic period from the Olmos Dam site have significantly lower nitrogen values (8.7 to 9.3‰) as well as somewhat lower carbon values (-17.3 to -19.3‰; Hard and Katzenberg 2011:Table 7b). Seventeen hunter-gatherer burials from the Coleman site also have significantly lower nitrogen values (7.6 to 10.0‰; Mauldin et al. 2013:Table 2), although the carbon ratios of both crevice crania fall within the Coleman range of carbon ratios from collagen (-15.6 to -18.2‰).

Turning to the Edwards Plateau, there are fewer comparative samples and only carbon isotopes are available for most. Focusing on  $\delta^{13}\text{C}$  values, the ratios derived from both crania at -17.0‰ and -16.8‰ are lower than the Carpenter Bend individual (-18.3‰), the geographically closest comparison (Malof and Taylor 2011). Looking to the west, both crania ratio values fall slightly below the mean value (-17.4‰) from seven samples representing at least five individuals from the Stiver Ranch Burial Sinkhole near Junction (Alvarez 2005) and well above the -15.8‰ mean value from 16 individuals from Bering Sinkhole to the northwest of Kerrville (Bement 1994:Table 15). The  $\delta^{15}\text{N}$  values (10.2‰ and 11.0‰) of both crania are also well above the 8.1‰ mean from the Bering Sinkhole population.

In summary, while the  $\delta^{13}\text{C}$  values from the recovered crania are within the range of prehistoric burials across and just below the Edwards Plateau, the  $\delta^{15}\text{N}$  values are significantly higher than the comparative sample from the greater region. This suggests that the individuals represented by these crania had a substantially different diet than would be expected from a local population. The high nitrogen values could indicate a diet heavily reliant on fish like that Hard and Katzenberg (2011) inferred from riverine populations on the Texas coastal plains.

## SUMMARY AND CONCLUSIONS

Two isolated and well-preserved crania found in an unprotected limestone crevice along a creek west of Austin, Texas, are of Native American ancestry as shown by skeletal analysis. Radiocarbon dating shows they are contemporary to one another and probably date to the seventh or eighth century A.D. at the end of the Archaic era. Archeological excavations uncovered no evidence that the crania were interred in the crevice during prehistoric times. There were also clear indications that the crania had been stored and handled after original disinterment. Traces of an adhesive in the maxilla of one cranium suggested that several of the teeth had been glued in place. The other cranium had traces of handling polish on the frontal and parietal bones.

A plausible, but speculative, explanation consistent with the facts is that the crania were removed from an unknown locality, kept in a private collection and handled for a period of time and then surreptitiously placed into the crevice to “return” the human remains to the earth. Regardless of motivation, the crevice where the crania were found in 2009 was not the original locality where the deceased were interred. This assessment is based on the lack of additional evidence of human osteological or dental material in the crevice, and the fact that the crevice is essentially open to the elements and is situated less than 1 m above a permanent stream prone to periodic flooding. The chance of an interment remaining intact and undisturbed in such a setting for over a thousand years is considered extremely unlikely.

Several lines of evidence also suggest that the crania are probably not from the prehistoric populations of the region. To begin with, prehistoric human remains previously found on the Edwards Plateau, such as the

skeleton found less than 15 km to the north along the Colorado River (Malof and Taylor 2011), are characteristically poorly preserved relative to the condition of these crania (cf. Steele et al. 1999:144). Measured stable isotopic ratios of carbon ( $^{13}\text{C}/^{12}\text{C}$ ) and nitrogen ( $^{15}\text{N}/^{14}\text{N}$ ) derived from human bone collagen samples from the two crania are not consistent with other burial populations from on and near the Edwards Plateau. The nitrogen values are higher than all other comparative samples from the region, suggesting a different diet, perhaps very high in fish.

## UNEXPLORED RESEARCH AVENUES

This study shows the value and necessity of taking a multidisciplinary approach to evaluating the significance, context, and cultural affiliation of isolated human skeletal remains. While the origin and specific cultural affiliation cannot be determined from the available data, as more craniometric, isotopic, and genetic data become available from prehistoric North American populations, future studies may be more precise in identifying regional populations for isolated crania recovered from looted or disturbed contexts.

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# CERAMIC TYPES FROM LATE PREHISTORIC SITES ALONG THE EAST FORK OF THE TRINITY RIVER

*Wilson W. Crook, III and Mark D. Hughston*

## ABSTRACT

Ceramics are one of the key diagnostic artifacts that define the Late Prehistoric culture of the peoples that lived along the East Fork of the Trinity and its tributaries. We are completing a 42-year re-evaluation of the Late Prehistoric period of the area and have studied nearly 32,000 artifacts, of which over 10,200 are ceramic sherds. From this study, 20 distinct ceramic types have been recognized. Plain ware, both shell-tempered and sandy paste/grog-tempered, are the predominant ceramic types present, comprising over 90 percent of the total ceramic assemblage. While there is little direct evidence for indigenous manufacture, the abundance of these types suggests they were produced locally. Lesser quantities of decorated ware of distinct Caddo ceramic types from the Red River and East Texas suggest they are likely the product of exchange. There is also a small amount of Puebloan material indicative of a longer distance exchange.

## INTRODUCTION

Numerous sites of the Late Prehistoric period occur along the East Fork of the Trinity River and its tributaries in a roughly north-south corridor from Collin County in the north to northwestern Kaufman County, some 70 km to the south. Over 50 sites have been identified that share similar cultural materials (Figure 1). Of these, we have arbitrarily designated 20 as “major sites” based on their aerial size (>0.5 hectares) and number of artifacts recovered (>100), with the others being smaller, seasonal campsites. The observed artifact assemblage in all of these sites is very homogeneous and consistent with the Late Prehistoric period along the East Fork as initially characterized by Stephenson (1949b, 1952) and subsequently redefined by Lynott (1975a, 1975b), Crook (1987, 1989, 2007a), and Crook and Hughston (2008, 2009). The age of the Late Prehistoric period along the East Fork has been radiocarbon-dated from ca. A.D. 700 to A.D. 1600 (Valastro et al. 1967; Marmaduke 1975; Lynott 1975a, 1978; Crook and Hughston n.d., in press).

The sites along the East Fork and its tributaries differ in terms of cultural material from Late Prehistoric sites to the west along the Elm Fork of the Trinity, to the east in the Sulphur River drainage, as well as farther south along the main branch of the Trinity (Figure 2). Sites along the Elm Fork have a significantly higher percentage of triangular arrow points (Fresno, Harrell, and Washita types) and have a larger proportion of shell-tempered ceramics, both of which are more characteristic of the Henrietta phase of the southern Great Plains (Stephenson 1949a; Prikryl 1990). Sites east of the East Fork in East Texas belong to the Caddo tradition (Perttula 1992).

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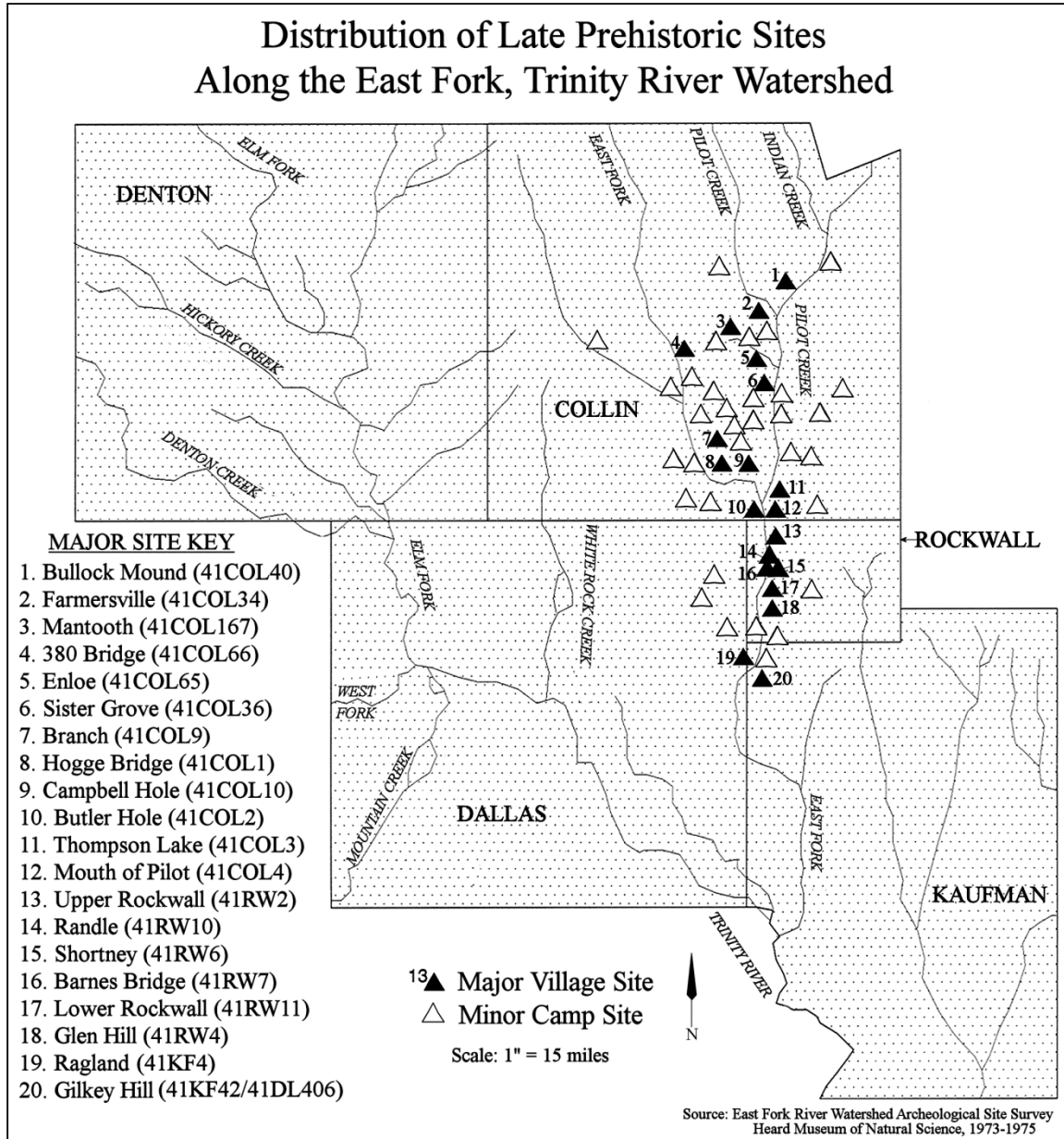


Figure 1. Distribution of Late Prehistoric sites along the East Fork of the Trinity River and its tributaries. Major sites are identified by solid black triangles and identified by name; minor seasonal campsites are shown as unfilled triangles.

Likewise, sites to the south along Richland Creek, such as Bird Point Island (41FT201) and Adams Ranch (41NV177), are characterized by a number of traits that differ from those characteristic of the East Fork Late Prehistoric. Chief among these are: (1) different shaped house structures, (2) extensive use of *Psoralea*, the Prairie Turnip, absent in archeological deposits along the East Fork, (3) the virtual absence of any shell-tempered ceramics which comprise nearly 50 percent of East Fork ceramics, (4) the occurrence of Hayes and Cuney points and the lack of Catahoula and Fresno points, (5) the occurrence of different utilitarian tools such as the Bristol biface and the complete absence of sub-triangular scrapers such as the “East Fork Biface” (Crook and Hughston 2007), and (6) the absence of tools made from worked mussel shell. Moreover, while both the Richland Creek and the larger East Fork sites have a distinctive rim-and-pit structure (the so-called

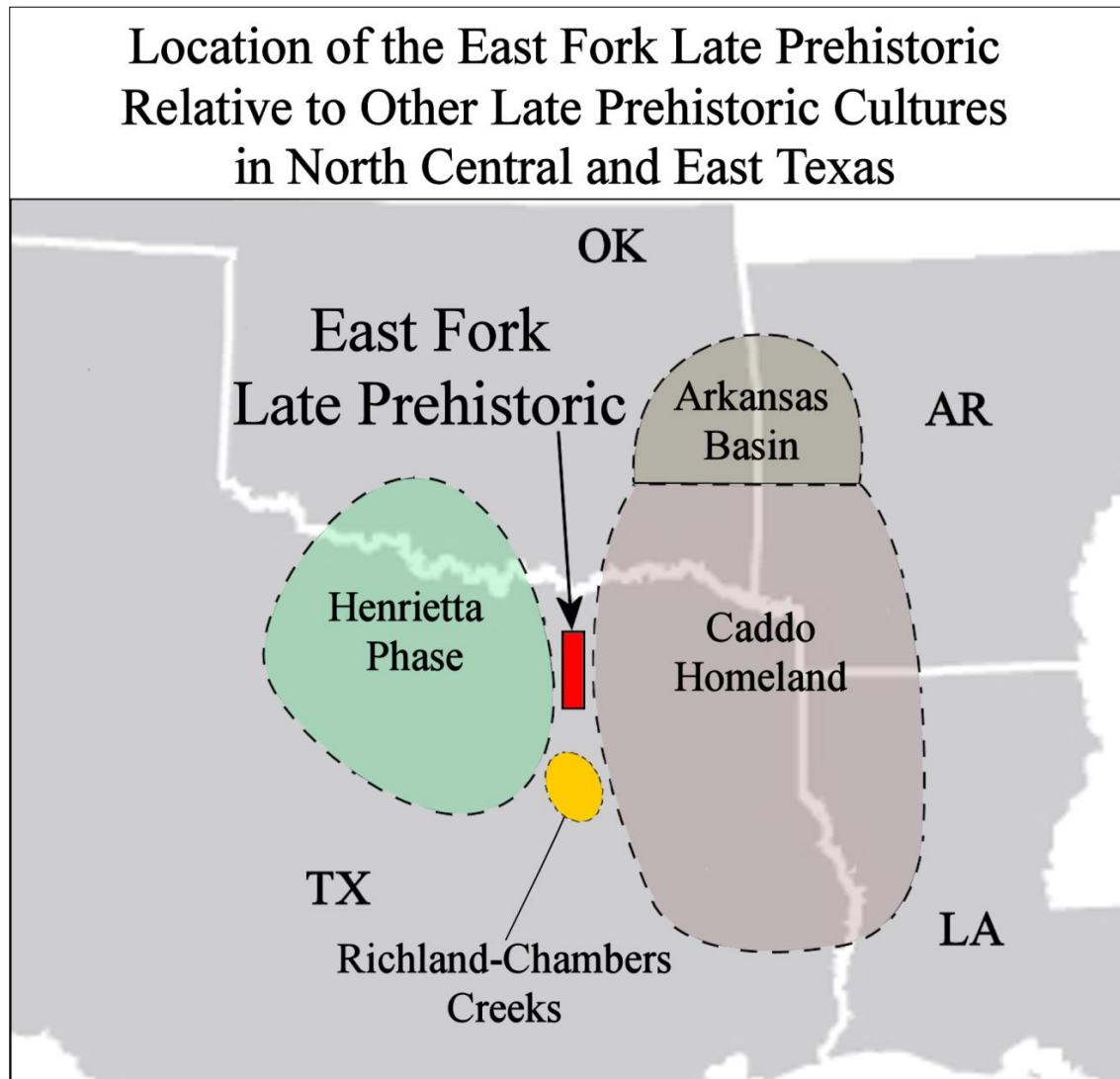


Figure 2. Location of the East Fork Late Prehistoric relative to other Late Prehistoric cultures in North Central and East Texas.

“Wylie Pits”), their use appears to be very different. Bruseth and Martin (1987) found that the pit structures at Bird Point Island and Adams Ranch were created in Archaic times and changed functions from a cemetery in the Late Archaic to a roasting pit and then to trash pits in the Late Prehistoric. The Archaic burials always occur in the center of the pits, not in the rims. The rim-and-pit structures along the East Fork all date to the Late Prehistoric and were consistently used as roasting pits, with the rims being reserved for burial of high status individuals (Lynott 1975a; Crook and Hughston 2008). Thus, while having a material culture that shares traits with their surrounding neighbors, the Late Prehistoric inhabitants of the East Fork appear to have had a unique set of cultural traits that sets them distinctly apart.

Ceramics are one of the key diagnostic features that were used initially to define the Late Prehistoric culture of the peoples that lived along the East Fork of the Trinity River and its tributaries (Stephenson 1952).

However, there is very little evidence in the archeological record that the ceramics found in East Fork sites was manufactured locally (Stephenson 1952; Ross 1966; Lynott 1975; Crook and Hughston 2008). The only such direct evidence for local manufacture is a single shell-tempered plain bowl from the Upper Farmersville (41COL34) site that fell apart during firing and was tossed into a trash pit (Crook and Hughston 1986). As a result, previous researchers have concluded that the majority, if not all, of the ceramics found across the district appear to be present as a result of exchange (the term “exchange” is used here as a proxy for all forms of trade and exchange interaction) (Harris 1948; Stephenson 1952; Ross 1966; Lorrain and Hoffrichter 1968; Lynott 1975a).

We are currently in the process of completing a 42-year re-evaluation of the Late Prehistoric period of the East Fork. As part of this study, we have examined all the collections from previous excavations in the area as well as those of most local avocational collectors. To date, this study comprises nearly 32,000 artifacts, of which over 10,200 are ceramic sherds. With regard to the ceramic assemblages from different East Fork sites, each sherd has been categorized with regard to the following: plain or decorated, the type of decoration present, the type of temper used, surface color, texture, the color and nature of the paste, the presence of slip, etc. Very few sherds were observed that have compound decorative elements, such as incised-punctated. For the sake of simplicity, those sherds that had dual elements have been categorized based on which element was the dominant form of decoration. Typologies used follow those defined in Suhm and Krieger (1954) and Suhm and Jelks (1962). We also used the typological identifications made by certain previous researchers such as R. K. “King” Harris.

A select number of “grit”-tempered sherds (n=504) were viewed under a binocular microscope (20-60x) to determine if the “grit” (sand) was inherent to the clay formation or was a later added product. In all cases, there was no evidence that any sand grains had been pounded or ground. As the local clays in the East Fork area are all sandy in nature (Hanson and Wheeler 1969; Pringle 1977; Coffee et al. 1980), we have concluded that any locally manufactured grit-tempered ceramics on the East Fork used the indigenous clay sources without the need for adding any sand. As a result, for the purposes of this study, the term “grit” has been replaced by “sandy paste.” To better quantify the character of ceramic pastes, a more detailed petrographic study of East Fork ceramics is planned for the future. In addition, 30 representative sherds of a number of different types from East Fork sites have been submitted for Instrumental Neutron Activation Analysis to further assess the likelihood of local ceramic manufacture.

From this study, four major groups of ceramic vessel manufacture have been identified: (1) a plain, sandy paste-grog-tempered ware of the type found in Fourche Maline and Fourche Maline-like cultures to the northeast along the Red River in East Texas, (2) a shell-tempered plain ware similar to that found to the west of the East Fork in the Henrietta phase of the southern Great Plains, (3) decorated and plain ceramics of known Caddo types from both along the Red River as well as from the Upper Neches, Angelina, and Sabine River basins, and (4) a small amount of distinctly Puebloan ware, that, based on typology, mostly originates in north central New Mexico. This article records for the first time the entire known ceramic assemblages of the East Fork and further discusses the possible evidence, based on these ceramic assemblages, of contact between the Late Prehistoric populations living in the Upper Trinity River basin, those in the Plains to the west as well as the Caddo peoples to the east-southeast.



## **EAST FORK CERAMIC ASSEMBLAGES**

As part of our re-evaluation of the East Fork Late Prehistoric, the curated collections from all of the previous major excavations along the East Fork have been extensively studied. This includes the work of Stephenson (1952) from the Hogge Bridge (41COL1), Branch (41COL9) and Campbell Hole (41COL10) sites, those from Ross' (1966) excavation of the Upper Rockwall (41RW2) site, Lorrain and Hoffrichter's (1968) excavation of Lower Rockwall (41RW1), Dawson and Sullivan's (1969) work at the Upper Farmersville site (41COL34), and Lynott's (1975a) excavation of the Sister Grove Creek (41COL36) site. In addition, we have studied the private collections of R. K. "King" Harris in the Smithsonian Institution, as well as those of the members of the Dallas Archeological Society (Rex Housewright, Lester Wilson, J. B. Sollberger, Wilson "Bill" Crook, Jr., Bobby Vance and others) who did much of the early work on the East Fork sites. The results of our own excavations are also a significant part of this work (Crook 1985, 2007a, 2007b, 2013; Crook and Hughston 1986, 2008, 2009; Crook and Perttula 2008).

Table 1 includes the total ceramic assemblage for the Late Prehistoric sites of the East Fork, both by site and by major ceramic type. As can be seen, plain ceramic types, both shell-tempered and sandy paste-grog-tempered ware, comprise 84 percent of the ceramic assemblages. Shell-tempered plain ceramics (primarily Nocona Plain) represent almost half of the recovered sherds. Only slightly less common is sandy paste-grog-tempered plain ceramics. The type Williams Plain as well as various un-named sandy paste-grog-tempered plain ceramics comprise this assemblage. Slipped Sanders Plain ceramics account for 7 percent of the ceramic sherds, incised ceramic sherds of a number of types represent 4 percent, with punctated (3 percent), engraved (1 engraved), and brushed (1 percent) sherds comprising most of the remainder of the assemblage. A small amount of Puebloan trade ware (29 sherds) has been recovered from four sites on the East Fork.

As noted, the individual ceramic types that make up this assemblage can be divided into four general wares. Each of these will be discussed below, including the specific types that have been identified within the wares. All typologies used follow those defined in Suhm and Krieger (1954) and Suhm and Jelks (1962), except for Sanders Plain, which follows the revised typological definition of Brown (1996).

### **Sandy Paste/Grog-Tempered Plain Ware**

The most common sandy paste grog-tempered ceramic type is Williams Plain. A total of 3,642 sherds have been recorded in the East Fork assemblages, representing 36 percent of all East Fork ceramics (see Table 1). Williams Plain has been found in all of the larger sites and in many of the smaller campsites. Williams Plain sherds occur in a wide range of colors ranging from buff to tan to gray-brown to brown to black and most shades in between. Temper also includes a wide range of materials but is typically grog and bone is rarely used. The latter, when present, is characterized by large fragments often up to 5 mm in size. Sherds are typically very thick, and vessel bases in excess of 20 mm in thickness are not uncommon. Vessels of this type are almost exclusively flat-bottomed, flower pot-shaped bowls and jars (Schambach 2002). Figure 3 (upper right) shows a typical sherd of Williams Plain from the Mantooth site (41COL167).

**Table 1. East Fork Late Prehistoric ceramic sherd totals by site.**

Site Name	Plain Shell Temper	Plain SP Grog Temper	Slipped SP Grog Temper	I	P	E	B	Puebloan Trade Ware	N
Hogge Bridge	230	76	89	15	56	1	1	–	468
Butler Hole	48	30	14	24	26	–	–	–	142
Thompson Lake	27	16	6	2	1	–	1	–	53
Mouth of Pilot	19	11	4	2	–	–	2	–	38
Branch	627	313	38	35	12	9	6	4	1,044
Campbell Hole	29	17	11	1	2	–	–	–	60
Upper Farmersville	691	205	84	39	18	16	35	11	1,099
Sister Grove Creek	72	33	–	22	1	–	–	–	128
Enloe	65	–	11	–	–	6	–	–	82
380 Bridge	83	1	21	–	2	–	–	–	107
Mantooth	25	20	12	2	3	1	1	–	64
Lower Rockwall	1,281	1,300	292	99	80	38	42	1	3,133
Upper Rockwall	396	357	66	79	29	4	20	–	951
Glen Hill	659	706	8	83	28	–	6	–	1,560
Shortney	36	7	4	4	–	–	–	–	51
Barnes Bridge	1	14	–	–	–	–	–	–	15
Randle	70	119	41	7	2	–	–	–	239
Ragland	35	132	4	4	2	1	3	–	181
Gilkey Hill	290	183	–	6	5	2	8	–	494
38 Small Sites	187	102	–	–	7	–	–	12	308
Totals	4,871	3,642	775	424	274	78	125	28	10,217
Percentage	48%	36%	7%	4%	3%	1%	1%	<1%	

SP=sandy paste; I=incised; P=punctated; E=engraved; B=brushed

Williams Plain is widely recognized as one of the diagnostic artifacts of the Woodland Fourche Maline culture of southeastern Oklahoma and southwestern Arkansas (Schambach 1998, 2001). While the Fourche Maline culture is suggested by Schambach (1995, 2002) to have extended into Northeast Texas as far as the George C. Davis (41CE19) site, it is not universally recognized as such. Story (1990) referred to this period as the Early Ceramic Stage in East Texas, representing the general time span between ca. 200 B.C. and A.D. 800 when ceramics are first adopted and produced in the region; most Northeast Texas archeologists currently use the Woodland period terminology.

In Northeast Texas, the Woodland period follows the end of the Archaic period and precedes the development of the post-A.D. 800 Caddo tradition (Cliff 1998). A similar culture is present in sites along the East Fork. While many of the East Fork sites are on land that has been extensively cultivated, a few sites with stratigraphically intact areas have been excavated. These include the Sister Grove Creek site (Lynott 1975a), the Enloe site (41COL65) (Crook 1989), the Branch site (Crook 2007a), and part of the Upper Farmersville site (Crook 2009; Crook and Hughston 2009). These excavations have shown that while ceramics are typically pene-contemporaneous with arrow points, it is also present in archeological deposits that predate the introduction of the bow and arrow and concurrent with the use of dart points, primarily the Gary point. The only ceramic type present at these earlier horizons is Williams Plain. As such, Williams Plain is seen as the



Figure 3. Williams Plain (upper right) from the Mantooh (41COL167) site, Collin County, Texas. Note the difference between Williams Plain and the shell-tempered Nocona Plain (upper left). Bottom Row: Monkstown Finger nail Impressed sherds from the Branch (41COL9) site, Collin County.

earliest ceramic ware on the East Fork. Williams Plain was continued to be made until at least A.D. 1200 in Northeast Texas Caddo sites, which may help explain its abundance in the region (Timothy K. Pertula, personal communication, 2014).

## Shell-Tempered Plain Ware

While Williams Plain is the most common sandy paste grog-tempered ceramic along the East Fork, the single most common ceramic type is shell-tempered Nocona Plain (see Table 1), comprising nearly 50 percent of all the ceramics. Nocona Plain is a diagnostic ceramic type on sites of the Henrietta phase in the southern Great Plains to the west (the Henrietta Phase extends eastward as far as the West and Elm Forks of the Trinity 60 km west of the East Fork) (Prikryl 1990; Brack 1999; Bell and Brooks 2001). Sherd color ranges from buff to all shades of red-brown to brown to black. Vessels are limited to large, flat-bottomed bowls and jars that are relatively thick and crudely made with interior and exterior surfaces only roughly smoothed. Nocona Plain is characterized by its distinctive shell temper (typically from local riverine mussel shells) that is almost always plainly visible on the surface (see Figure 3, upper left). Occasionally with burial and time the shell temper on the surface of sherds has been leached, leaving large, irregular holes on the exposed surfaces. The base of a typical flat-bottomed Nocona Plain bowl from the East Fork is shown in Figure 4.

While it remains uncertain how much of the Nocona Plain found along the East Fork is of local production, at least one large bowl was discovered at the Upper Farmersville site that is clearly an attempt at local manufacture (Crook and Hughston 1986) (Figure 5). The bowl was found to be over-fired on one side and under-fired on the opposite side. Large frothy bubbles were present in parts of the over-fired side while the opposite side was in a very friable condition not unlike sun-baked clay. The vessel was found in an area of site where trash (burned bone, lithic debitage) was buried, obviously discarded after its failure to fire properly. Because no other definitive evidence of local manufacture has been found in the region, the remainder of the Nocona Plain ceramics has been assumed by previous researchers to have been imported via trade (Stephenson 1952; Ross 1966; Lorrain and Hoffrichter 1968; Lynott 1975a). However, the large number of Nocona Plain sherds found on East Fork sites (see Table 1) would suggest that most of this type was manufactured locally.

Recently a nearly complete shell-tempered vessel was recovered from the Sister Grove Creek site in Collin County. The vessel is a small jar, 95.5 mm in height. It has a rounded base (approximately 71.2 mm across) with a gently rounded body that slopes inward near the base of the rim and then flares outward (Figure 6). Two strap handles were once present, one having probably been broken during use given the weathered nature of the break. The remaining handle is curved, with a length is 21.8 mm and a width is 20.0 mm; thickness of the handle is 4.0 mm. The vessel is plain with no exterior decoration other than prominent lip notching every 7-8 mm around the edges of the rim.

Wall thickness of the vessel varies from 5.0 mm near the rim to 6.0-6.8 mm on the main part of the body to 7.5 mm at the base. These thickness data suggest that the vessel appears to have been built from the base upwards to the rim (cf. Krause 2007). It is tempered with shell and finely-crushed grog and has a compact clay paste. The color of the vessel is quite variable, primarily due to extensive fire mottling, ranging from very pale brown (10YR 7/4), gray-brown (10Y 3/1), greenish-gray (5GY 5/1), to gray-brown (2.5Y 5/2). Cores of the sherds are darker than the surfaces, suggesting the vessel was fired in a low oxygen or reducing environment, and then pulled from the fire to cool. Both the interior and exterior surfaces of the jar are highly smoothed, almost polished in surface treatment.



Figure 4. Base of a large, flat-bottomed Nocona Plain vessel from the Upper Rockwall (41RW2) site, Rockwall County, Texas. Note the large pieces of mussel shell temper clearly visible on the surface of the vessel walls.



Figure 5. Top view of a large, flat-bottomed Nocona Plain vessel from the Upper Farmersville (41COL34) site, Collin County, Texas. Note the frothy nature of the over-fired portion at the top of the image. The white material is plaster placed to stabilize the reconstruction by the Heard Museum of Natural Science, where the vessel is curated.

The vessel is clearly different from all other shell-tempered ceramics from the East Fork. Overall shape (rounded base as opposed to flat bottom), wall thickness, the presence of strap handles and prominent lip notching all serve to make it unique among shell-tempered ceramics from the East Fork. Moreover, the amount of shell used as temper is considerably less and smaller in size than a typical Nocona Plain vessel. Plain shell-tempered ceramics from Caddo sites along the Red River have generally not been named as most shell-tempered vessels are almost always decorated (Timothy K. Perttula, personal communication, 2014). Plain shell-tempered ceramics from the Lake Texoma area (Haley's Point site, 34MA15) have been described as Woodward Plain, *var. Haley's Point*, but it has not been described as having strap handles or lip notching (Rohn 1998). The Woodward Plain type as defined is similar to the vessel described herein but again, the presence of handles and lip notching on the Sister Grove Creek specimen is unique (Freeman and Buck 1960).



Figure 6. Shell-tempered jar with strap handle from the Sister Grove Creek site (41COL36).

### **Decorated and Plain Caddo Ceramic Wares**

Approximately 16 percent of the total ceramic assemblage from the East Fork includes sherds from decorated and/or plain Caddo types from various locations in East Texas. Most common are ceramics associated with the Sanders phase. Types present in East Fork sites include Sanders Plain (775 sherds), Sanders Engraved (69 sherds, Figure 7), Monkstown Fingernail Impressed (221 sherds, see bottom row of Figure 3), and Canton Incised (three sherds). There are also 328 sherds of a sandy paste-grog-tempered ceramic that may be a variety of Sanders Plain in that they have a maroon to dark brown slip instead of a red slip. All of these types are characterized by a coarse sandy clay, grog temper, a highly smoothed surface treatment, and frequent slips on vessel interior and exterior surfaces (Sanders Plain and Sanders Engraved in

particular). Slip colors on sherds from Sanders Plain and Sanders Engraved vessels varies from red to yellowish-orange to maroon, dark brown, or black depending upon whether the vessel was fired in an oxidizing or reducing environments. Vessel shapes are typically large, wide, bowls, jars, and water bottles. Of note, one of the few complete ceramic vessels recovered from the East Fork was a Sanders Engraved water bottle found in a double burial at the Upper Farmersville site (Harris 1948; Harris and Suhm 1963). Sanders phase ceramics originate around the site of the same name in Lamar County and along the Red River, as well as in sites in the upper Sabine River basin.



Figure 7. Caddo engraved ceramics from East Fork sites: Top Row L-to-R: Poynor Engraved – Mantooth site (41COL167); Holly Fine Engraved – Branch site (41COL9). Bottom Row L-to-R: Sanders Engraved – Upper Rockwall site (41RW2); Sanders Engraved – Upper Farmersville site (41COL34).



The age of Sanders phase ceramics is generally thought to be between ca. A.D. 1100-1300, at the end of the Early Caddo period (ca. A.D. 1000-1200) and the early part of the Middle Caddo period (ca. A.D. 1200-1400) (Perttula 2002), but the phase is not well-dated. This temporal interval corresponds well with radiocarbon dates from Late Prehistoric sites on the East Fork, which largely cluster between ca. A.D. 980-1150 and ca. A.D. 1250-1400 (Lynott 1978; Crook and Hughston n.d., in press). Bruseth et al. (1995) and Schambach (1995) both see the Sanders site (41LR2) as the locus of a major trading center, importing Spiroan material and other items from Oklahoma and exporting Caddo ceramics and bois d'arc wood to the north. As the East Fork sites have produced a number of artifacts, including a slate gorget, boatstones, and both polished and chipped stone that appear to have their origins in eastern Oklahoma and southern Arkansas, it is possible that the East Fork inhabitants participated in this exchange system to some limited extent (Crook and Hughston 2008; Skinner et al. 2014; Crook 2014a).

Other Caddo ceramics recovered from the East Fork include a small amount of Alto and Frankston phase ceramics from East Texas. Alto phase ceramic types present in sites along the East Fork includes Crockett Curvilinear Incised (six sherds), Davis Incised (three sherds), Dunkin Incised (one sherd), Holly Fine Engraved (four sherds), Hickory Fine Engraved (three sherds), Pennington Punctated-Incised (12 sherds), and Weches Fingernail Impressed (one partial vessel and three additional sherds, Figure 8). Each of these occurrences is likely only from a single vessel and thus they are not common in East Fork sites. Vessel types include mainly large bowls and jars.



Figure 8. Weches Fingernail Impressed sherd from the Gilkey Hill site (41KF42/41DL406), Kaufman and Dallas counties (from the R. K. Harris Collection currently curated at the Smithsonian Institution).

Additional Caddo ceramic types found in East Fork sites includes Haley Complicated Incised (one sherd) from the Haley phase in southwestern Arkansas; Harleton Applied (two sherds) from the Titus phase; and Hempstead Engraved (one sherd) from the Texarkana phase and farther east in southwestern Arkansas. There are also sherds from Killough Pinched (one complete vessel and 10 other sherds), Maydelle Incised (one vessel reconstructed from 34 sherds and three additional sherds), and Poynor Engraved (one sherd, see Figure 7) vessels, all types from the Frankston phase (both Killough Pinched and Maydelle Incised are also common in Titus phase ceramic assemblages as well as mid-Sabine River basin Middle Caddo sites). Lastly, a single Foster Trailed-Incised vessel (reconstructed from 21 sherds) from the Texarkana and Belcher phases of the Late Caddo period along the Red River was recovered from the Sister Grove Creek site (Crook and Perttula 2008). While these types represent only 74 sherds (<0.1 percent) of the total East Fork ceramic assemblage, several complete vessels have been recovered. These include a small jar of Killough Pinched found in the rim of the pit structure at the Upper Farmersville site (Crook 2014b), the previously mentioned Maydelle Incised jar reconstructed from a find of 34 sherds at the Lower Rockwall site (Crook 2014c), and the Foster Trailed-Incised jar found at the Sister Grove Creek site (Crook 2007b; Crook and Perttula 2008).

Ancestral Caddo ceramics from burial features on sites in East Texas indicate that Killough Pinched and Maydelle Incised vessels (Figures 9-10) were made by the Caddo in the Upper Neches River basin, the mid- and upper-Sabine basin, and in the Big Cypress Creek basin between ca. A.D. 1200-1680 (Perttula 1992; Perttula et al. 2011). Killough Pinched is most common in the Upper Neches River basin in contexts dating after ca. A.D. 1400 (Timothy K. Perttula, personal communication, 2014). The same is true for the Maydelle Incised type.



Figure 9. Killough Pinched vessel from the Upper Farmersville site (41COL34).



Figure 10. Maydelle Incised vessel reconstructed from 34 sherds found by a local collector in the early 1960s at the Lower Rockwall site (41RW1).

Foster Trailed Incised (Figure 11) is a relatively common Caddo ceramic type made primarily by the Belcher and Texarkana phase Caddo peoples living in the Great Bend area of the Red River valley in southwestern Arkansas, northwestern Louisiana, and a small part of northeastern Texas (Perttula 2005; Schambach and Miller 1984; Webb 1959). This includes several counties in the southwestern part of Arkansas (Little River, Hempstead, Miller, and Lafayette counties), Bowie County, Texas, and downstream to various sites near Shreveport, Louisiana, in Bossier and Caddo parishes (Webb 1959; Kelley 1997). Ceramic analyses by Schambach and Miller (1984) indicate that different varieties of Foster Trailed-Incised tended to have been made and used by Late Caddo groups between ca. A.D. 1500 and ca. A.D. 1700. This time period corresponds precisely with a calibrated radiocarbon date obtained from the Sister Grove Creek site of A.D.  $1590 \pm 70$  (Lynott 1975a, 1978).

### **Puebloan Ceramics**

A few sherds of Puebloan ceramics have been found at the Upper Farmersville site, the Branch site, a small campsite near the Branch site (Crook 1985), and at the Lower Rockwall site, where an almost complete stirrup-shaped vessel of Arboles Black-on-White was recovered (Lorrain and Hoffrichter 1968). Puebloan ceramic types identified from these four sites include Arboles Black-on-White (one vessel), Black Mesa Black-on-White (two sherds), Chaco Black-on-White (four sherds), Santa Fe Black-on-White (12 sherds), Mimbres



Figure 11. Foster Trailed-Incised jar from the Sister Grove Creek site (41COL36).

Black-on-White (two sherds), Jemez Black-on-White (one sherd), Rio Grande Glaze ware (three sherds), Chupadero Black-on-White (two sherds), and Zuni Glaze (one sherd) (Figure 12 and Table 2). In addition, a shaped sherd of an unidentified, highly-weathered Black-on-White type was found at the Branch site.

At both the Upper Farmersville and Branch sites, other artifacts of Puebloan origin in addition to ceramics have been recovered, including obsidian and chalcedony arrow points, worked flakes, *Olivella* shell beads, and turquoise (Crook 2013; Crook n.d., in press). X-Ray Fluorescence (XRF) analysis of the obsidian artifacts, specifically bivariate plots of zirconium with rubidium and yttrium with zirconium, indicates a north central New Mexico origin, including El Rechuelos (“Polvadera Peak”) and Valles Rhyolite (Crook n.d., in press). XRF analysis of the turquoise is indicative of Los Cerrillos material from the same region.

The age of the Puebloan ceramics ranges from ca. A.D. 900-1100 for Arboles Black-on-White (McIntyre and McGregor 1982) to A.D. 1300-1700 for Rio Grande Glaze ware and Jemez Black-on-White, as well as the period in between. These ages correspond to the Developmental Period (Pueblo II), the Coalition Period (Pueblo III), and the Classic Period (Pueblo IV), and correlate well with the radiocarbon data from the East Fork that cluster around ca. A.D. 980-1150 and 1250-1400+ (Lynott 1975a; Crook and Hughston, in press). Most of these ceramic types originate in north central to northwestern New Mexico, matching well with the obsidian XRF data.



Figure 12. Puebloan ceramics from Late Prehistoric sites along the East Fork. Top Row L-to-R: Chupadero Black-on-White (2), Mimbres (Classic III) Black-on-White – Branch (41COL9); Second Row L-to-R: Chaco Black-on-White – Upper Farmersville (41COL34); Third Row L-to-R: Santa Fe Black-on-White – Upper Farmersville (41COL34); Bottom Row L-to-R: Rio Grande Glaze – Upper Farmersville (41COL34).

**Table 2. Puebloan ceramics from East Fork Late Prehistoric sites.\***

Site	Arboles B/W	Black Mesa B/W	Chaco B/W	Mimbres B/W	Santa Fe B/W	Chupadero B/W	Zuni Glaze	Jemez B/W	Rio Grande Glaze
Lower Rockwall	1	-	-	-	-	-	-	-	-
Branch	-	-	-	2	-	2	-	-	-
Branch #2	-	2	4	-	5	-	1	-	-
Upper Farmsville	-	-	-	-	7	-	-	1	3
<b>Totals</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>12</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>
Tree Ring Age Date** (A.D.)	900-1100	1060-1180	1075-1150	1000-1140	1150-1425	1050-1150	1325-1400	1300-1750	1300-1750

\*The total does not include one highly weathered Black-on-white sherd that could not be typed.

\*\*Tree ring age data from New Mexico Office of Archeology Studies Pottery Typology Classification System (<http://www.ceramics.nmarcheology.org/index/the-classification-system.htm>).

B/W=black on white

## CONCLUSIONS

Ceramics are a consistent item in almost all Late Prehistoric sites along the East Fork of the Trinity. However, the number of recovered sherds (n=10,217) is not a particularly high amount given the number of sites and the length of time ceramics were probably present in the district (ca. A.D. 800-1600). As a result, while present, ceramics are a relatively minor component of site artifact assemblages relative to lithic artifacts.

Beginning sometime before A.D. 900, Williams Plain flat-bottomed jars were introduced into the East Fork. While no complete vessels of Williams Plain have been recovered from the East Fork, basal and rim sherds indicate that most if not all vessels were thick, medium-sized, flat-bottomed bowls and jars. While there is no direct evidence for the local manufacture of Williams Plain along the East Fork, however, their sheer number (n=3,642) indicates that most, if not all, of the sherds are from vessels produced locally. Williams Plain continued to be the predominant ceramic type in the region until ca. A.D. 1200-1300.

Based on stratigraphic evidence from Upper Farmersville (Crook and Hughston 2009, n.d., in press), Branch (Crook 2007), and Upper Rockwall (Ross 1966; Valastro et al. 1967), distinctive Caddo ceramics of the Sanders and Alto phases appear in small numbers in the largest East Fork sites between ca. A.D. 1100-1300. Evidence of this includes the presence of sherds of the Sanders Plain, Sanders Engraved, Monkstown Fingernail Impressed, Canton Incised, Crockett Curvilinear Incised, Pennington Punctated-Incised, Weches Fingernail Impressed, and Holly Fine Engraved types. Given the relatively limited nature of these ceramics (less than 10 percent of the total ceramic assemblage for the East Fork), their presence is likely the result of exchange rather than local manufacture. Additional exotic items appear on East Fork sites in the same time frame, including an engraved slate gorget from the Upper Rockwall site (Skinner et al. 2014), boatstones from igneous rock from Upper Farmersville (Crook and Hughston 2009), a cache of unique Cahokia-like arrow points made from Ouachita cherts from the Upper Farmersville site (Crook 2009), and polished conch shell and conch beads from a number of sites (Crook and Hughston 2008).

The limited nature of this exchange is evidenced by the high value placed on exchange items. For example, the neck on the Sanders Engraved water bottle found at the Upper Farmersville site had been broken near the lip but had been meticulously sanded to maintain its usefulness prior to the owner's death (Harris 1948). Its final placement in a burial in between a man and a woman facing each other also signifies its value as a high status item (Crook and Hughston 2009). Similarly, a well-made Sanders Engraved bowl was placed with a high status burial in the rim-and-pit structure at the Upper Rockwall site that dated to A.D. 1300 ± 120 (Ross 1966; Valastro et al. 1967).

Sometime around this time (ca. A.D. 1200-1300), shell-tempered plain ceramics were introduced into and began to be made locally on the East Fork. This is evidenced by the proliferation of Nocona Plain pottery, which then subsequently became the single most common ceramic type on East Fork sites (48 percent of the total ceramic assemblage). Coincident with this development was the increase in bison herds throughout the southern Plains and into north central Texas (Lynott 1979; Lohse et al. 2014). Undoubtedly hunting forays to the west brought the East Fork inhabitants into contact with Henrietta phase peoples of the southern Great Plains, and the exchange of technology led to the manufacture and use of shell-tempered wares.

Concurrent with this contact with Henrietta phase peoples was a further link to the west with the Puebloan peoples of northern and northwestern New Mexico. While not abundant, Pueblo ceramics, obsidian artifacts, turquoise, as well as red coral and *Olivella sp.* shell from Baja California have all been found in East Fork sites (Crook 1985, 2013). Moreover, based on the ceramic types present, this contact (either directly or via an intermediary) occurred several times from at least A.D. 1000 to as late as A.D. 1400-1500 (Crook 2013).

A very limited amount of interaction was also established with the Caddo peoples living to the east/southeast in the upper parts of the Neches, Angelina, and Sabine River basins. On the East Fork, this contact is represented by sherds from Frankston phase ceramics including Killough Pinched, Maydelle Incised, and Poynor Engraved (Perttula 2002; Perttula et al. 2007; Perttula et al. 2011). Ceramic analyses indicate that many of these pottery types were primarily made and used by the Caddo after A.D. 1400, especially Poynor Engraved vessels (Timothy K. Perttula, personal communication, 2014). Given the very limited presence of these ceramic types (typically less than 10 sherds of each type for the entire district), their occurrence is mostly likely the result of exchange and not the product of local manufacture. The local value of such items is supported by the burial of single Killough Pinched and a Maydelle Incised vessels in the rims of the large, central rim-and-pit structures at the Upper Farmersville and Lower Rockwall sites (Crook 2014b, 2014c).

The acquisition of Caddo (and Puebloan) materials begs the question: what did the inhabitants of the East Fork have to exchange for these ceramics and other goods? Three natural resources were abundant in the region: (1) whitetail deer, (2) quartzite, and (3) potentially bois d'arc wood. Whitetail deer and quartzite were items common to all of East Texas and thus were probably not exchangeable goods. However, bois d'arc, along with the English yew tree, is the finest wood for the construction of bows in the world. This is due to its incredible work to maximum load strength which is as much as two to three times that of most local woods (Bush 2014). As such, bois d'arc was in continual demand by those people who used the bow and arrow and lived outside its natural range. This would include the Henrietta phase people of the southern Great Plains, the Puebloan peoples of New Mexico, the Spiroan trade centers of eastern Oklahoma and their extensive trade partners, and even some of the more southern Caddo groups.

It is unknown if bois d'arc trees were present along the East Fork during the Late Prehistoric. Schambach (1995) has proposed that bois d'arc in Texas was originally limited to a small area along Bois d'Arc Creek in Fannin County. Journey (1988, 1994) and Weniger (1996) studied Texas General Land Office records prior to 1860 and concluded that the original distribution of bois d'arc was limited to a 12 county area of Northern Texas, including the area occupied by East Fork Late Prehistoric peoples (Collin, Rockwall, northwestern Kaufman, and extreme northeastern Dallas counties) (Figure 13). In fact, the distribution of East Fork Late Prehistoric sites (see Figure 1) is almost coincident with Journey's known distribution of bois d'arc (Journey 1988, 1994), a remarkable coincidence if bois d'arc was not present at the time.



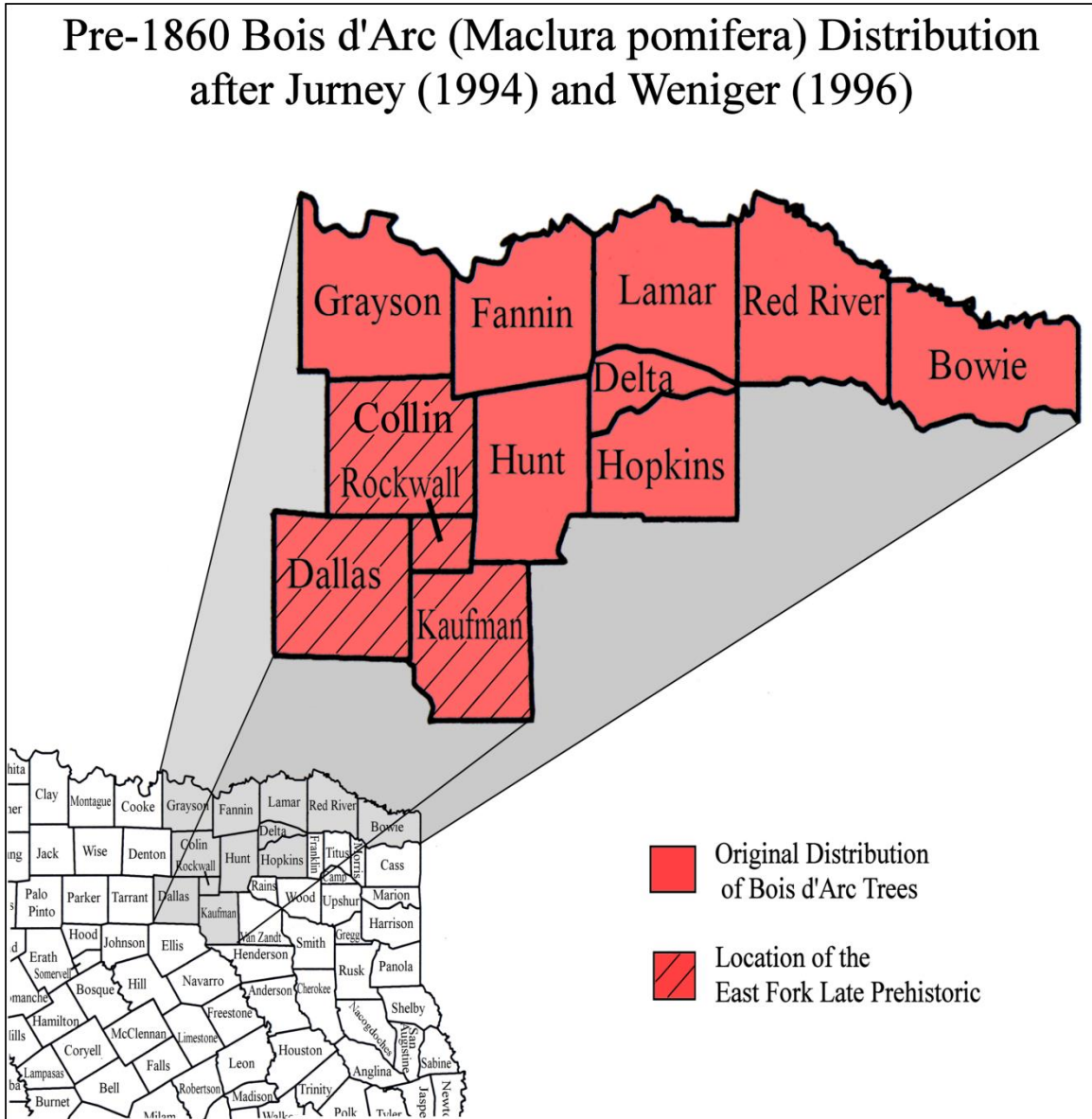


Figure 13. Pre-1860 distribution of Bois d'Arc trees in Northern Texas, after Journey (1994) and Weniger (1996). Counties containing East Fork Late Prehistoric period sites are cross-hatched.

Our research has identified a distinctive sub-triangular shaped scraper (the “East Fork Biface”) that has been shown experimentally to be a specialized woodworking tool (Crook and Hughston 2007). Experimental evidence on green bois d’arc has produced the same type of edge crushing and wear striations seen on recovered archeological specimens. It is postulated, therefore, that if bois d’arc was indeed present along the East Fork in Late Prehistoric times, the aboriginal peoples living on the East Fork then likely produced staves of bois d’arc both for internal use but also for export in exchange for ceramics and other items of value not indigenous to the region (Crook 2014a).

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# A BLACK DEER AT BLACK CAVE: NEW PICTOGRAPH RADIOCARBON DATE FOR THE LOWER PECOS, TEXAS

*Lennon N. Bates, Amanda M. Castañeda, Carolyn E. Boyd, and Karen L. Steelman*

## ABSTRACT

A Pecos River style painting of a black deer from Black Cave Annex (41VV76a) in southwest Texas was radiocarbon dated. Using plasma oxidation and accelerator mass spectrometry, we obtained an age of  $1465 \pm 40$  RCYBP (2 sigma calibrated age range of A.D. 470-660). This age is younger than the accepted age range for Pecos River style paintings, which is approximately 4000-3000 years B.P. This new measurement in association with other younger dates prompts us to question whether the Pecos River style endured for a longer time period than previously thought. More radiocarbon research is needed in order to understand how this anomalous result might fit within the Lower Pecos Canyonlands rock art chronology.

Keywords: Pecos River Style, rock art, pictographs, plasma oxidation, radiocarbon dating

## INTRODUCTION

In the 1990s, archeologists and chemists began to collect paint samples in the Lower Pecos River region of Texas in order to radiocarbon date the different pictographic styles. This region was the original study area for Dr. Marvin Rowe and his laboratory at Texas A&M University, when developing the plasma chemical-extraction technique to date pictographs (Russ et al. 1990). The chronology for the Lower Pecos rock art (Figure 1) is based on 29 Pecos River Style dates (Table 1); one date for a Red Monochrome image at 41VV233 (CAMS-11891:  $1125 \pm 85$  RCYBP, hereafter, years B.P.); one date for a Red Linear image at 41VV162a (AA-10549:  $1280 \pm 150$  years B.P.); and one for a stylistically unclassified charcoal deer at 41VV75 (CAMS-29315:  $1280 \pm 80$  years B.P.) (Hyman and Rowe 1997; Rowe 2004, 2005; Boyd et al. 2014; Steelman et al. in prep.). These dates are associated with 15 images from 10 sites. All were determined using plasma oxidation and AMS radiocarbon dating.

For the Pecos River Style, there are 20 accepted radiocarbon dates, ranging from 4200 to 2750 years B.P. (Hyman and Rowe 1997; Rowe 2004, 2005; Steelman et al. in prep.). An additional three results were rejected due to high levels of background contamination in the unpainted rock or laboratory error associated with replicate measurements (see Chaffee et al. 1993; Pace et al. 2000; Rowe 2004 for a detailed explanation regarding these results). Six other dates at San Vicente in

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Mexico and the White Shaman site in Texas were also considered unreliable due to younger results outside the expected age range for the style, even though there was no laboratory reason to do so (Rowe 2004, 2005; Steelman et al. in prep.). In this study, we report a new radiocarbon result for a black manganese-pigmented deer at Black Cave Annex (41VV76a), the first Pecos River style deer to be dated. We obtained a radiocarbon age of  $1465 \pm 40$  years B.P., calibrated at 2 sigma to A.D. 470-660, which is also younger than the currently accepted range for the style (Figure 1 and Table 1). This new result, as well as previously obtained younger dates, have prompted us to investigate the temporal span of Pecos River style pictographs. The purpose of this article is not to complete a comprehensive, comparative review of all Pecos River style radiocarbon dates, as this requires the full attention of a separate manuscript (Steelman et al. in prep.). Instead, we intend to describe the procedure and context of the newly acquired radiocarbon date so it can be positively identified as Pecos River style, shown to have been obtained using proper laboratory methods, and provide an incentive for reconsidering what we thought we knew about the age of Pecos River style pictographs.

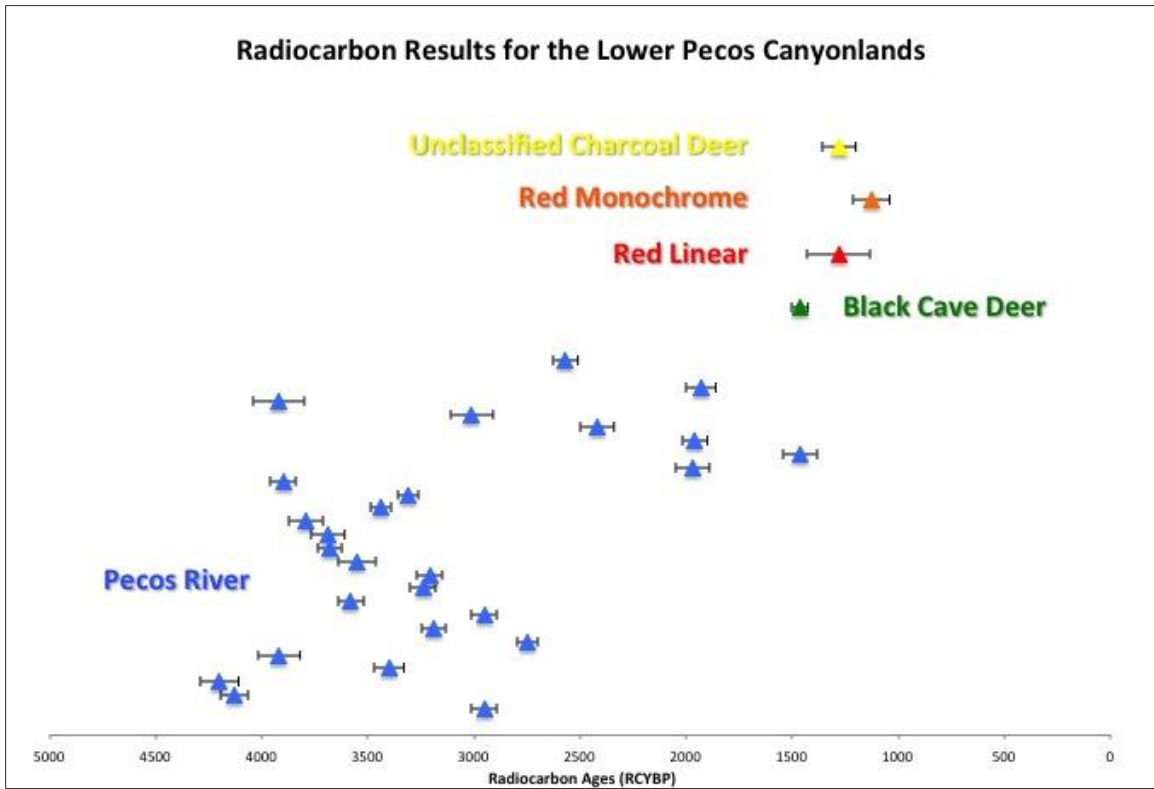


Figure 1. Age results for Pecos River style, Red Linear style, Red Monochrome style, and an unclassified charcoal deer. The green triangle represents the new result obtained in this study. Error bars represent the 1 sigma counting error of the AMS measurement.

**Table 1. Radiocarbon results for the Pecos River Style (Hyman and Rowe 1997; Rowe 2004, 2005; Steelman et al. in prep.).**

Site and Sample No.	AMS ID	Radiocarbon Age (years BP)	Corrected Age (years BP)
41VV75			
1	ETH-5909	3865 ± 100	3920 ± 100
29A	CAMS-17316	2750 ± 50	
29B	CAMS-17897	3190 ± 60	
37A	CAMS-14087	2950 ± 60	
37B	CAMS-14088	3580 ± 60	
37C	CAMS-14089	3240 ± 60	
37D	CAMS-14090	3210 ± 60	
37E	CAMS-17990	3550 ± 90	
37F	CAMS-18206	3680 ± 60	
47A	CAMS-23927	3690 ± 80	
47B	CAMS-25384	3790 ± 80	
47C	CAMS-26762	3440 ± 50	
47D	CAMS-25368	2340 ± 80	rejected
47E	CAMS-25885	3310 ± 50	
47F	CAMS-25884	3900 ± 60	
Jackrabbit Shelter			
41VV576			
1a	ETH-6962	3355 ± 65	4130 ± 65
1b	AA-7063	4200 ± 90	
3A	ETH-7047	3000 ± 70	3400 ± 70
3B	AA-8426	1450 ± 75	rejected
Crab Shelter			
41VV50			
3A	AA-8699	2950 ± 60	
White Shaman			
41VV124			
1	CAMS-34204	1970 ± 80	
2	CAMS-48212	1460 ± 80	
3A	CAMS-60896	1960 ± 60	
4	CAMS-60935	2420 ± 80	
Cedar Springs			
41VV696	CAMS-62184	3010 ± 100	
Mystic Shelter			
41VV612	CAMS-25882	3920 ± 120	
San Vicente			
2	CAMS-43673	1930 ± 70	
3	CAMS-45378	2570 ± 60	
Abrigo Diego			
2a	CAMS-45379	2500 ± 60	rejected
Black Cave Annex			
41VV76a	CAMS-152885	1465 ± 40	

## LOWER PECOS CANYONLANDS

The Lower Pecos River region is a rocky, semi-arid canyonland located in southwestern Texas and northern Mexico (Turpin 1995, 2004). The area is centered on the confluence of the Pecos River and the Rio Grande, extending approximately 160 kilometers in each direction (Turpin 1995). The region is situated at the boundary of three major vegetation zones in North America: the Tamaulipan Thorn Shrub of northeastern Mexico and southern Texas; the Edwards Plateau Oak–Juniper; and the Sotol–Lechuguilla Chihuahuan Desert Shrub of Trans–Pecos Texas and north central Mexico (Dering 1999; Turpin 2004). This landscape is capped by a thick layer of Cretaceous limestone, and incised by deep, narrow canyons. Wind, water, and chemical weathering have created thousands of rock shelters in the canyon walls.

Over the last 13,000 years, the rock shelters have provided refuge for the prehistoric inhabitants of the region (Shafer 1986; Turpin 2004). Due to the dry conditions, the Lower Pecos contains one of the oldest and best-preserved records of hunter-gatherer lifeways in North America (Dering 1999, 2002). The Lower Pecos region houses over 200 rock shelters painted with a vast array of pictographs. These painted images range in age from 4200 years B.P. to after European contact (Boyd 2003; Chaffee et al. 1993; Jackson 1938; Kirkland and Newcomb 1996; Turpin 2004). Of interest, the 4200 year old painting is the oldest directly dated pictograph in North America (Chaffee et al. 1993).

Pecos River style pictographs are the most commonly depicted rock art style in the region. These painted murals often include anthropomorphs, zoomorphs, and a wide range of geometric imagery and enigmatic figures that are not identifiable as human or animal. Many of the anthropomorphic figures are polychromatic, painted with short limbs and elongated bodies, ranging in height from 10 cm to over 8 m (Boyd 2003; Turpin 2004, 2011). Deer and felines are the most common zoomorphic figures depicted in Pecos River style paintings. The majority of deer and feline figures are painted red, but deer have also been found painted in yellow, black, white, or a combination of these colors (Boyd et al. 2014).

In addition to the Pecos River style, four other pictograph styles are found in the Lower Pecos Canyonlands: Red Linear, Bold Line Geometric, Red Monochrome, and Historic (Boyd 2003; Turpin 2004). Red Linear style is characterized by a matrix of attributes, and opposed to Pecos River style anthropomorphs, the figures more closely resemble the human form (Boyd 2003). On average, Red Linear anthropomorphs are 10 cm in height (Boyd et al. 2013). The zoomorphs are frequently executed with exaggerated features, such as absurdly long necks or legs. Enigmatic imagery of the Red Linear style consists mostly of net and snare depictions. Red Linear pictographs, contrary to the name of the style, have been found to be painted in red, black, yellow, and white (Boyd et al. 2013). The Bold Line Geometric style tentatively dates to the Late Prehistoric period (dating after ca. A.D. 500), and is characterized by bold geometric designs including zigzag, lattice, and herringbone patterns (Turpin 1986). Small human- and insect-like forms painted in deep red are the only figures that are not geometric (Turpin 1986). The Red Monochrome pictographs are the most recent of the four major prehistoric rock art styles defined in the Lower Pecos. This style consists of life-size frontally posed human figures wielding bows and arrows, accompanied by realistically depicted animals (Turpin

1984). Historic period rock art depicts horses, crosses, names, dates, missions, and other historic imagery (Boyd 2003).

## **PREVIOUS RESEARCH AT BLACK CAVE AND BLACK CAVE ANNEX**

Black Cave Annex (41VV76a) is located in Seminole Canyon State Park and Historic Site, immediately downstream from Black Cave (41VV76). The rock art imagery at both sites had been previously recorded to varying degrees by Emma Gutzeit and Mary Virginia Carson in 1931 (Emma Gutzeit and Mary Virginia Carson field notes and original paintings, on file at the Witte Memorial Museum), Forrest Kirkland in 1934 (Kirkland and Newcomb 1996), A. T. Jackson in the 1930s (Jackson 1938), David Gebhard in the 1960s (Gebhard 1965), the Texas Archeological Society Rock Art Task Force led by Teddy Stickney in 1993 (Texas Archeological Society Rock Art Task Force records, on file at the Texas Archeological Research Laboratory, The University of Texas at Austin), and most recently by Shumla Archaeological Research and Education Center in 2010 (records on file at Shumla in Comstock, Texas). In addition to rock art recording, Mark Parsons conducted a small, shallow test excavation in 1962, but few undisturbed deposits were found at the site due to previous looting and flooding, particularly from the flood of 1954 (Parsons 1962). Additional work at Black Cave was done in conjunction with Solveig Turpin's survey (Turpin 1982a, 1982b) of Seminole Canyon State Park and Historic Site. Charcoal samples were taken from remnant hearths on the upstream end of the shelter, which yielded conventional radiocarbon dates of  $6800 \pm 160$  years B.P. (TX-4335),  $5650 \pm 140$  years B.P. (TX-4336), and  $5500 \pm 80$  years B.P. (TX-4334) (Turpin 1982a:Table 6).

## **METHODS**

### **Rock Art Recording**

As a part of Shumla's Lower Pecos Rock Art Recording and Preservation Project (Johnson et al. 2011), Black Cave and its Annex were intensively recorded in 2010. At Black Cave Annex, poorly preserved paintings are found on the downstream canyon wall, directly adjacent to the main Black Cave shelter. Black Cave Annex contains Pecos River style pictographs, including a panel painted directly above a small solution cavity (Figure 2). Five impaled deer (three red and two black) form a composition around a central polychromatic Pecos River style anthropomorph. This figure has small single pole ladder-like symbols running parallel to its torso, two darts in its left hand, and a dart-loaded atlatl in its right hand. All of the darts in this composition are fletched and have stylized tips resembling the single pole ladder motif. The dart loaded in the anthropomorph's atlatl is impaling one of the red deer. This deer and three others are facing panel left towards a large accretion on the wall. The fifth deer is positioned to the right of the group and is facing panel right. An enigmatic figure with an antler rack and a diagonal line of paint splatter is located panel right of the anthropomorph, completing the composition. All five deer measure between 35 and 50 cm in length, are impaled with red darts, and have hooves and dewclaws painted on their legs. The artist used controlled strokes to create lines of paint inside of the body, in-filling each of the five deer figures. This technique is

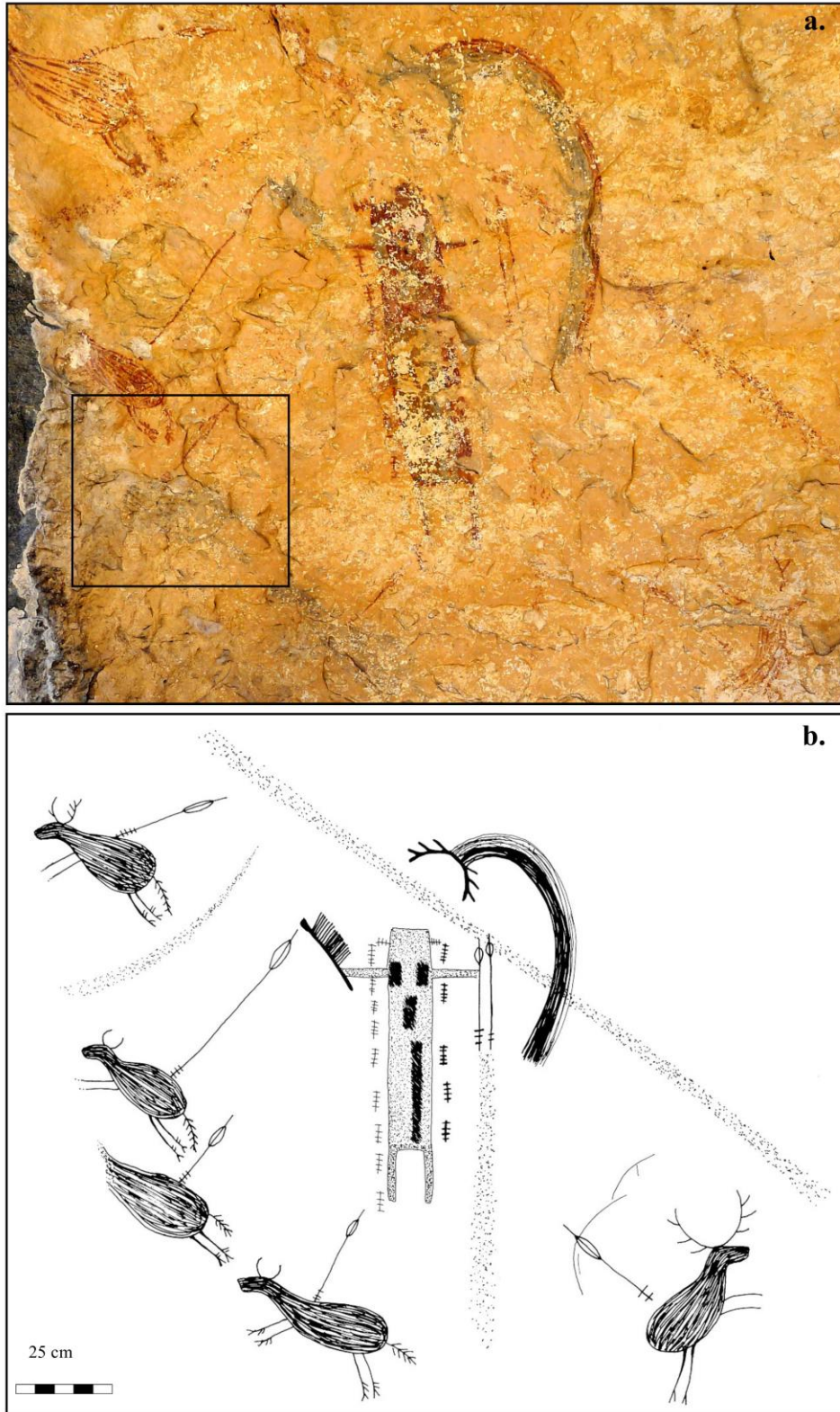


Figure 2. Pecos River style composition at Black Cave Annex (41VV76a). Deer sampled for radiocarbon dating (motif Z011) is outlined: (a) photograph; (b) artist rendition copied from Kirkland and Newcomb (1996).

commonly employed within the corpus of Pecos River style imagery. All of the figures within the composition appear to be painted on the same rock surface with the same red and black pigments. In a concurrent study, Koenig et al. (2014) used a portable X-ray fluorescence spectrometer to confirm that all black Pecos River style paintings, including the black deer dated in this study, are composed of manganese pigment.

### Sample Collection

During a site visit, Steelman noted that one of the black deer (motif Z011) contained several fragile pieces of rock substrate that would soon exfoliate from the wall (Figure 3). Because these fragments contained pigment, we selected this figure for radiocarbon dating with permission from Seminole Canyon State Park and Historic Site. The sample consisted of a rock spall containing black pigment from the body of the deer. The collected spall was located at the point where the red dart entered the body. Prior to sampling, all figures were documented with photographs, descriptions, and drawings. Photographs of sampling locations were taken before and after collection (Figure 4). Individual sterile surgical scalpel blades were used to collect the paint sample from a surface area on the order of  $\sim 2\text{-}3\text{ cm}^2$ . A background sample of unpainted rock substrate was also collected as a control. The paint and background samples were stored in folded aluminum foil squares and placed in labeled plastic bags until the commencement of laboratory analysis. To avoid modern contamination, latex gloves were worn during sample collection and later in the laboratory during any handling of samples.

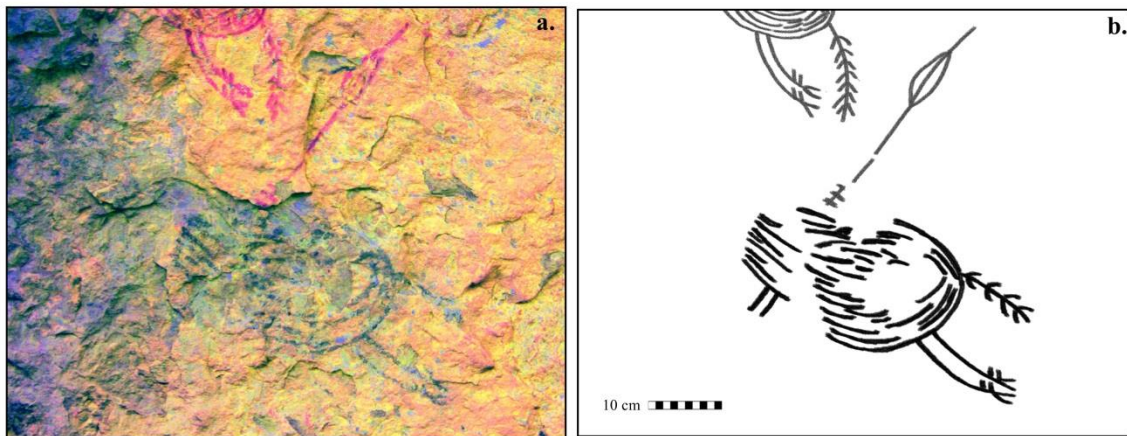


Figure 3. Close-up of motif Z011 prior to sample collection: (a) photograph; (b) illustration. The photograph has been enhanced using D-Stretch with the ybk color channel (Harman 2014).

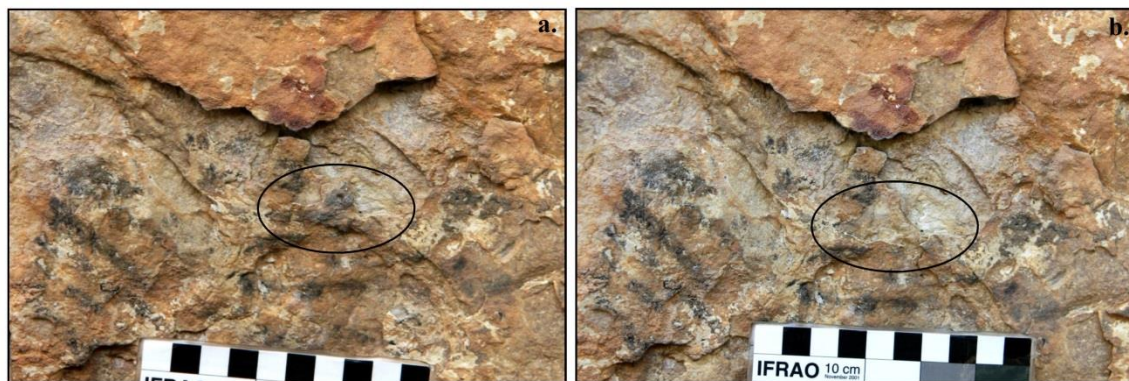


Figure 4. Photographs of the sample location (a) before and (b) after collection. Circle indicates location of collected spall.

### Chemical Pretreatment

Before plasma oxidation, the paint and background samples were subjected to chemical pretreatment to remove potential humic acid contamination. Humic acids, naturally present in soil samples and derived from the decay of organic matter, appear brownish-orange in a basic solution. From our experience, the presence of humic acids is minimal for paint samples collected on rock substrates.

For sample preparation, we used a mortar and pestle to powder the collected paint and rock specimens. We examined the samples at 40X magnification to remove any visible contaminants such as fibers, hair, rootlets, or spider webs with micro-tweezers. Two black fibers were found in the paint sample and three black fibers were found in the background sample. All fibers were removed prior to analysis; they were unfortunately too small to date separately.

After removing visible contaminants, both the paint sample and background sample underwent chemical pretreatment. During this process, the samples were weighed and placed into sterile, plastic centrifuge tubes with 3 mL of dilute (1.0 Molar) sodium hydroxide solution. These tubes were set into an ultrasonic water bath at  $50 \pm 5^\circ\text{C}$  for one hour. Then, the samples were centrifuged for 15 minutes. The liquid above both samples was colorless and transparent, indicating that no humic acids were present. After decanting the basic liquid, 4 mL of distilled, de-ionized water was added to both tubes, which were placed into an ultrasonic water bath at  $50 \pm 5^\circ\text{C}$  for another hour. The tubes were then centrifuged, the liquid was decanted, and the solid samples were stored in distilled, de-ionized water. We used vacuum filtration with a water aspirator to collect the solid samples onto previously baked ( $500^\circ\text{C}$ ) quartz-fiber filters. The filters were dried in an oven at  $110^\circ\text{C}$ , wrapped in aluminum foil, and stored in a desiccator.

### Plasma Oxidation and AMS Radiocarbon Measurement

Our laboratory at the University of Central Arkansas (UCA) employed a custom-built plasma oxidation apparatus to convert organic material in this paint sample to carbon dioxide for accelerator



mass spectrometry (AMS) radiocarbon dating. The apparatus, routinely kept under vacuum at a pressure of  $\leq 1 \times 10^{-6}$  torr, utilized ultra-high purity (UHP, 99.999 percent) oxygen and argon gases to minimize contamination. We cleaned the apparatus sample chamber by igniting successive oxygen plasma reactions at 1 torr oxygen gas and 100 or 150 watts radio frequency power for one hour each. These cleaning oxygen plasma reactions removed any organic material on the inside of the chamber introduced by previous samples or modern contamination from handling.

Next, we loaded the sample into the chamber. Argon gas was blown through the apparatus creating a positive pressure that prevented atmosphere from entering the instrument. We ignited successive argon plasma discharges, at 1 torr and 40 watts radio frequency power for one hour, to remove adsorbed gases by impinging on the surface of the sample. Argon was used because it is an inert gas and will not chemically react with the sample.

Finally, the sample was oxidized with oxygen plasma gas at a pressure of 1 torr and 100 watts radio frequency power. The organic material in the sample was converted into carbon dioxide and water during the one hour exposure. This same process was carried out on the background sample to ensure that organic contamination in the rock substrate was not significant. For the paint sample, product carbon dioxide and water were flame-sealed into a glass tube cooled to liquid nitrogen temperature ( $-196^{\circ}\text{C}$ ). The collected glass tube was sent to the Center for Accelerator Mass Spectrometry (CAMS) at Lawrence Livermore National Laboratory for graphitization and radiocarbon measurement.

## RESULTS AND DISCUSSION

The oxidized paint sample from Black Cave Annex contained sufficient carbon for radiocarbon dating. This age result is summarized in Table 2. The  $\delta^{13}\text{C}$  value was assumed to be  $-25\text{‰}$  as no stable carbon isotope measurements were made. Calibration was performed with the OxCal computer program version 4.1 (Bronk Ramsey 2009, 2014) using the IntCal13 calibration curve (Reimer et al. 2013). Although calibrating a single rock art date using only the counting error from the AMS laboratory may provide a falsely narrow calendar age range, Rowe has shown that replicate studies on Lower Pecos rock art (dates from multiple paint samples from the same painting) produce a  $\pm 250$  years B.P. variation (Rowe 2004; Steelman et al. in prep.).

**Table 2. Radiocarbon results for Pecos River Style Black Deer (motif Z011).**

Site	UCA ID	CAMS ID	$\mu\text{g}$ carbon	$^{14}\text{C}$ Age (years B.P.)	Calibrated Date (2 sigma cal A.D.)
Black Cave (41VV76)	B156	152885	110	$1465 \pm 40$	470-485 (1.1%) 535-660 (94.3%)

For the background sample, negligible amounts of carbon ( $<1 \mu\text{g C}$ ) were extracted from the unpainted rock. In addition, Rowe has analyzed numerous rock samples from the Lower Pecos and generally found insignificant amounts of organic carbon on the limestone surface of the canyon walls. Of concern, Black Cave is one of the many sites in this area where kerosene had been used to enhance faded images during photography (e.g., Gebhard 1960; Greider 1965). If kerosene contamination had been present on the rock surface, we would have obtained an age much older than observed. For

example, Chaffee et al. (1994) dated a kerosene treated sample in Utah and obtained a radiocarbon result of  $32,900 \pm 900$  years B.P. (AA-8747). However, with such a young age for the black deer, there is no evidence of kerosene contamination.

The black Pecos River style deer from Black Cave Annex was chosen for radiocarbon dating because a portion of the image was becoming detached from the shelter wall. By removing the sample we did no more harm to the pictograph than would have been done from natural weathering. Obtaining radiocarbon samples from pictographs is not always this easy. We must decide between selecting locations that will not further damage the art or locations that answer a specific archeological research question. It is desirable when these circumstances coincide, but often times one is sacrificed in favor of the other. In this case, we took advantage of a deteriorating pictograph in order to expand our knowledge about the temporal range of the Pecos River Style.

While the AMS radiocarbon age of  $1465 \pm 40$  years B.P. is only one new measurement, the result is intriguing. However, as so often happens, we have created more questions than answers:

- Is our single radiocarbon date for the black deer incorrect due to inhomogeneous contamination across the rock surface?
- Are all the figures in the composition the same age?
- Did the Pecos River style endure for a longer time period than previously thought?

## CONCLUSIONS

We determined a single radiocarbon age of  $1465 \pm 40$  years B.P. for a painting of a black deer at Black Cave Annex in the Lower Pecos Canyonlands. This is the first radiocarbon result for a Pecos River style deer. Although this new assay is younger than the previously accepted age for the style, we maintain that this deer is Pecos River style based upon artistic execution, relative size, pigment similarity, and overall compositional aspects.

With six other Pecos River Style dates that fall outside of the expected age range for the style, this younger result for the black deer at Black Cave is put into context (Rowe 2004, 2005; Steelman et al. in prep.). If this had been the only younger result for the style, we would have most likely dismissed it as a laboratory outlier. Instead, it has caused us to revisit previous results to conclude that there is either a problem with the dating or our interpretation of the data. If these younger dates are correct, then the currently defined Pecos River style was produced in the Lower Pecos for over 2500 years. In order to understand the chronology of Lower Pecos Canyonlands rock art, it is critical that we obtain more radiocarbon dates so that we may answer some of the questions posed by this study.

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# FIRST IMPRESSIONS: ANGLO TRAVELERS AND THE ORIGINS OF EL PASO, TEXAS, 1846-1852

*Mark Cioc-Ortega*

## ABSTRACT

El Paso del Norte was a thriving agricultural region on the Santa Fe-Chihuahua trail when the U.S.-Mexico War (1846-1848) and the 1849 gold rush turned it into a border town on the southern route to California. The diaries and letters of the Anglo-American soldiers, engineers, and gold seekers who passed through the area in the 1840s and 1850s document the emergence of a new political and economic landscape that helped define the pattern of Anglo-Mexican relations in the new town of El Paso, Texas (across the Rio Grande from El Paso del Norte), well into the next century.

Key Words: El Paso, El Paso del Norte, Ciudad Juárez, argonaut, gold rush, Santa Fe-Chihuahua trail, Upper Emigrant trail, Lower Military trail, Ponce Ranch, Coons' Ranch

## INTRODUCTION

Around 40,000 “argonauts” (gold seekers) traveled to California on the Oregon trail during the 1849 gold rush, and an additional 20,000 or so took more southerly trails. The southern routes included the well-established Santa Fe-Chihuahua trail, which linked Missouri to New Mexico; and the newly charted Upper Emigrant and Lower Military feeder trails, which stretched across Texas from Austin and San Antonio to El Paso del Norte (modern-day Ciudad Juárez, Mexico). As Patricia Etter (1998:34) wrote in *To California on the Southern Route 1849*, these trails funneled around 7,000 gold seekers (over one-third of the southern travelers) through the El Paso del Norte region: “Most folks on the so-called feeder trails got along fairly well,” Etter noted. “There were hardly any skirmishes with Indians (more individuals were hurt or killed with their own guns); cholera disappeared as they moved inland; water, wood, and feed for animals were generally available; the animals were not yet trail worn; and they could all refresh and recruit in numerous New Mexican villages. But there would be hard times ahead as they entered the western desert, where water was the most prized possession.”

El Paso del Norte was an important stopping point on the southern routes: it was a major Mexican entrepôt on the Santa Fe-Chihuahua trail and also the western terminal of the Texas feeder trails. A thriving agricultural town with many downstream villages (San Lorenzo, Senecú, Ysleta del Sur, Socorro, and San Elizario), it offered the argonauts one of their best opportunities to replenish supplies, repair wagons, and regain strength before facing the arid terrain ahead. There was also a swath of land north of El Paso del Norte,

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known as Ponce's Ranch, which was located on the American side of the U.S.-Mexico border; over 500 acres in size, it was large enough to serve as an Anglo "suburb" of El Paso del Norte until it became the town of El Paso, Texas, during the course of the 1850s.

Many argonauts kept diaries and wrote letters as they journeyed toward San Diego and Los Angeles, and a few also wrote reminiscences about their trail-time experiences many years later. When one adds other related accounts and records—by soldiers and topographical engineers who came through El Paso del Norte during the U.S.-Mexico War (1846-1848), by member of the International Boundary Commission (1849-1856), and by the traders who regularly plied the Sante Fe-Chihuahua trail—the number of these eye witness accounts swells even more. Taken together, they provide an illuminating snapshot of the El Paso del Norte region in the late 1840s and early 1850s as seen from the perspective of the Anglo-American travelers.

Some of these diarists and letter writers were quite loquacious, while others were tight-lipped. Some were full of energy and anticipation, while others were exhausted and despondent. Most offered positive descriptions of the region, while some expressed disappointed with what they saw. A few left the area as fast as their mules and horses could take them, while others stayed on permanently or returned later. Despite the variations, some common narrative themes can be discerned, which can be grouped loosely under the following rubrics: descriptions of the local geography, climate, and agriculture; impressions of the Mexican villages and inhabitants; and reflections on the future of the region now that the Treaty of Guadalupe Hidalgo (1848) had turned the El Paso del Norte region into a borderland.

That they came with fresh eyes can scarcely be doubted: few had ever heard of the region or been exposed to Mexican culture before they arrived. However, they were not blank slates: they filtered what they saw through a pre-existing lens of expectations and prejudices in ways that greatly colored their perceptions and descriptions. All wrote in English and identified themselves to one extent or another as Anglo-Americans (or simply Americans), a catch-all racial designation of that era for whites of Euro-American descent who identified with the political and cultural norms of the United States. All but two of the writers were men. Only a handful donned the scientific mantle of "objective observer" or the anthropologist's pose of "neutral narrator." And those who did—such as John Bartlett and William Emory—were mostly working for the federal government or writing travelogues for posterity, or both. The vast majority wrote for themselves or their immediate families, not for publication, and they tended to give vent to their class, race, and gender biases without restraint. Taken together, they document the birth of an American political landscape, racialized and gendered according to U.S. norms, that helped establish the pattern of Anglo-Mexican relations in the El Paso del Norte region for many decades to come.

Many historians have chronicled the emergence of Anglo settlements in the El Paso del Norte region during the second half of the 19<sup>th</sup> century. They generally fall into one of two groups: those who view the new town of El Paso, Texas, as a tolerant bi-national community that offered a congenial blend of American and Mexican lifestyles; and those who view El Paso as a bifurcated community in which an Anglo overclass and a Mexican underclass interacted across a racial divide, often peaceably but sometimes not. The first group of historians typically begins with the 1840s and 1850s, a time when Anglo-American entrepreneurs—such as James Wiley Magoffin, Simeon Hart, and Hugh Stephenson—infused new commercial life into the region. These entrepreneurs entertained in grand style, forged friendships with upper-class Mexican men, and married well-bred Mexican women—creating a seamless web of Anglo-Mexican commercial relationships

stretching from Santa Fe in the north to Chihuahua City in the south that fostered a tradition of bi-ethnic cooperation (Strickland 1963; Sonnichsen 1968; Timmons 1990). The second group tends to focus on the 1880s and beyond, when the railroads arrived and the city's population boomed. This was the time when Anglo-Americans came to fully dominate the region, with Anglo Protestants firmly in control of the political, social, and economic life of the region, even while the cultural and religious life remained largely Mexican and Catholic (García 1981; Ramirez 2000). This article strikes a middle ground: it argues that the gold seekers of the late 1840s and early 1850s provided a foreshadowing of the bifurcated community that would more fully emerge three decades later when the railroads opened up the region to extensive Anglo settlement.

## LANDSCAPES OF DEARTH, LANDSCAPES OF ABUNDANCE

The diarists and letter writers were traveling westward, mostly from southern and borderline southern states such as Missouri, Tennessee, and Texas, but sometimes from as far away as the northeastern seaboard (where they would typically take a ship from New York to New Orleans or Galveston before joining one of the feeder trails). They were thus coming from wetter, greener, and cooler climes and their descriptions make clear that they were overwhelmed by the dry heat and stark aridity of west Texas and southern New Mexico. "The children of Israel while journeying to the promised land, with all their suffering for three hundred years, could hardly have endured what we did while traveling through that horrid valley of dry thorns," wrote the argonaut H.S. Brockway (1982:2-3), as his group passed through New Mexico's aptly named Jornada del Muerto ("the dead man's route") on the way to El Paso del Norte. "Fancy yourselves traveling under an almost vertical sun—the air full of dust, and the thermometer standing at 110—and you will get a faint idea of our situation." Relief came a few days later when the group reached the water-rich Rio Grande, but the river gave Brockway little cause to rejoice: "Here we learned the wretched condition of a company who had left Texas about six weeks before us. They had been so near starvation as to be compelled to eat their mules and horses, and came in on foot, in parties of six or eight. They have not all been heard from yet, and probably never will be."

Brockway had a flair for the dramatic, but similar stories of adversity can be found in many of the diaries and letters. Travelers ran out of food and water. They lost track of the route and went round in circles. Their pack animals grew sick and died. They were attacked by Apaches. Even the soft-spoken Louisiana Strentzel (1983:265-266), one of only two female narrators among the argonauts (and by far the most thoughtful, practical, and even-handed of them all) warned her friends not to follow in her footsteps: "If you do come I advise you to come by water, it is far less expensive and you can come in half the time that you can by land. I cannot advise any family to come the overland route." Realizing that her friends would likely ignore her advice, she then proffered practical suggestions for weathering the heat and terrain:

prepare well for the journey and travel in small consolidated companies, say about ten wagons and twenty or twenty-five men, to each family I would say one light strong carriage for women and children to ride in (with two mules)...Put nothing in your wagon except provisions and clothing and such articles as are indispensably [sic] necessary on the road. Bring vessels to haul about fifty gallons of water; india-rubber sacks are the best...We brought our own cow clear through. She has been worth thousands of dollars to us, yes, I may say millions, for she has been the means of preserving the lives of our children.



One of her two children, the two-year old Louisa “Louie” Strentzel, would go on to become an accomplished pianist and the spouse of California naturalist John Muir.

Whether travelers took the Santa Fe-Chihuahua trail or one of the Texas feeder trails, they most likely arrived in the El Paso del Norte valley on the left bank (more often referred to as the north or east bank) of the Rio Grande, on a small curvature of land that had just passed into American hands. Not many of the travelers mentioned the only significant landmark on the north bank of the river, Ponce’s Ranch. Established by Don Juan María Ponce de León in 1827, it was renamed Coons’ Ranch (often misspelled Coon’s) after Benjamin Franklin Coons purchased it in 1849, and it was renamed again Smith’s Ranch after William “Uncle Billy” Smith took possession of it in 1853.

The Ponce-cum-Coons-cum-Smith ranch looms large in El Paso history because it later became the heart of the town’s business district. But at the time it did not make much of an impression on the Anglo travelers. The usually loquacious George Gibson (1974:311-312), who traveled with Doniphan’s army in 1846-1847, gave only a terse description: “Early in the afternoon we reached Ponce’s Ranch on this side, and passing over a pretty bottom with rows of cottonwood and vineyards on each side, reached the ford and were soon across the river.” Even after Coons built a trading post on a portion of the ranch and leased another portion to the U.S. Army as a military outpost, Anglo visitors remained largely indifferent to this burgeoning new settlement. The argonaut David Demarest, who wrote vivid and detailed descriptions in his diary of the downstream villages of Ysleta and Socorro (which he misnamed “Elleto” and “Sonora”), had little to say about Coons’ Ranch when he came through in September 1849: “Moved up to Coon’s—had to take to the hills as the Valley is full of water” (Demarest 1849-1850). Similarly, the vivacious Robert Eccleston (1950:150-151), who also passed through in September 1849 en route to California, showed little curiosity about the site: “We passed Coon’s Ranch, occupied by the government. We then passed through something resembling an Arcade-trees (cottonwood) about 4 ft. apart, shading it. It was very muddy & part of the road was entirely under water.”

It was the right bank (more often called the south or west bank) that interested Anglo travelers upon their arrival in the El Paso del Norte region. From Ponce’s Ranch or anywhere else on the north side of the Rio Grande, they could behold the lush and verdant Mexican agricultural community of El Paso del Norte just across the river, beckoning like a siren’s song. Josiah Gregg (1844:76), who came through in the early 1840s as a Santa Fe trader, set the literary tone for subsequent travelers in his description of the town:

The valley of El Paso is supposed to contain a population of about four thousand inhabitants, scattered over the western bottom of the Rio del Norte [Rio Grande] to the length of ten or twelve miles. These settlements are so thickly interspersed with vineyards, orchards, and cornfields, as to present more the appearance of a series of plantations than of a town: in fact, only a small portion at the head of the valley, where the plaza publica and parochial church are located, would seem to merit this title.

Marcellus Edwards (1936:245), a soldier in Doniphan’s army, was even more enthralled:

El Paso appears to be the garden spot of Mexico. Nature has been more lavish with her care towards this place than any I’ve met with. The valley is thickly settled for ten miles

below, with orchards and vineyards, so that each family has more fruit of every kind than it can consume...They raise apples, peaches, pears, etc., which they dry and preserve for winter. Each family has a supply of wine of their own manufacture, and being the pure juice of the grape, when rightly made, is of an excellent flavor, scarcely equaled by any wines in the world.

Friedrich Adolph Wislizenus, a doctor who accompanied Doniphan's army, was similarly impressed: "Stretched out along the river to the length of many miles, all the houses surrounded by gardens, orchards, and vineyards, and rich settlements, with cornfields, as far as the eye can trace the stream, lining its green bank—such a scenery will always be attractive; but to a traveler, who has passed over the lonesome plains and through the dreary Jornada del Muerto, it appears like an oasis in the desert" (Wislizenus 1848:40) (Figure 1). And William Emory, a topographical engineer and head of the International Boundary Commission, wrote in the 1850s: "The town of El Paso is itself but one extended vineyard in the hands of many proprietors... The grapes, peaches, figs, melons, and the fruits generally of this valley, are of very superior quality. There are two descriptions of grapes—one white, the other large and blue; both are very luscious, having no trace of the musky taste of American grapes, and in skilful [sic] hands make delicious wine and good brandy" (Emory 1857-1859:91).

None of the Anglo visitors were particularly good at guessing the size of El Paso del Norte's population—their estimates varied from 1000 to 10,000—but they were remarkably consistent in their assessment of the local products and delicacies, which they devoured with gusto. The grapes, peaches, and onions received almost universal praise, as did the local wines and the "Pass whiskey" (a brandy distilled from local grapes). The quinces, figs, melons, and raisins were also generally well liked, while the pears and apples got mixed reviews. The prepared foods were highly praised, especially the tortillas and chili peppers, which the emigrants found to be both novel and tasty. Frank Edwards (1847:98), a soldier in Doniphan's army, was especially impressed by a "hot piece of baked pumpkin" that someone gave him, which he declared to be "far superior in flavor to those at home;" and it did not bother him a whit that the local "peons" laughed at him for his "unaristocratic relish for what is here grown only for the pigs and servants." William Henry Glasgow, meanwhile, loved the "*peach pies... with onions in them,*" which he tasted while visiting Doña Ana, a small town upstream from El Paso del Norte (Glasgow and Glasgow 1993:102). And Thomas Eastland, a gold seeker who arrived at Ysleta (downstream from El Paso del Norte) in September 1849, could hardly believe his good fortune: "We have rented a room in the midst of a Vineyard, Fruit Trees & C for \$3 *per month,*" including the "*run of the Ranche* (we will eat Grapes enough to amount to twenty times that sum) and have our Mules & Horses attended to and Grazed for 25 Cents a head *per month*" (Eastland 1939:120).

These assessments turned negative in the course of 1849, as El Paso del Norte's resources became depleted by thousands of visiting argonauts. However, the food and supply shortages lasted only briefly and the Americans were soon praising the food and accommodations once again.



Figure 1. Close-up of the El Paso del Norte region ca. 1860s (Comisión Internacional de Límites entre Mexico y los Estados Unidos 1911). The most prominent settlements include “Paso del Norte,” renamed Ciudad Juárez in 1888 to honor Benito Juárez; “Franklin,” the oft-used name for the new El Paso, Texas, to avoid confusion with nearby Paso del Norte; and “Magoffinsville,” James Magoffins’ short-lived settlement and army post, later absorbed into El Paso. Nearly all of the orchards and vineyards were located on the Mexican side of the Rio Grande.

## PROFILING BY RACE AND GENDER

Perhaps nothing offers a more tell-tale sign of things to come than Anglo reactions to the local inhabitants of the El Paso del Norte region. Only a handful of the diarists and letter writers even realized that they were passing through a multiethnic and multicultural region. Most tended to lump all the locals under the rubric of “Mexicans” (or the pejorative “greasers”), distinguishing among them solely along class lines, with the wealthier and more powerful inhabitants being spared most of the verbal barbs directed at the poor and unwashed.

There was, however, a striking difference between the way they wrote about women and men, with the women being almost universally praised and the men almost uniformly criticized. This is not altogether astonishing, when one keeps in mind that most of the soldiers and argonauts were single men in their 20s and 30s, who likely viewed the women as potential lovers. The argonaut Cornelius Cox, for one, found the women “kind, warm-hearted and generous to a Fault,” but thought the men were ignorant, indolent, and cowardly (Cox 1849). After a brief excursion into El Paso del Norte, Robert Eccleston (another argonaut) was similarly moved to write: “There is one thing I can say favorable, & that is that I saw three or four beautiful women in the place” (Eccleston 1950:152). In 1847, one of Doniphan’s military commanders, John Hughes,

worried that the abundance of “fair señoritas” would lead to desertions in his ranks, and his fears were well founded: when Major Isaac H. Duval visited El Paso del Norte in 1849, he came across no less than 25 veterans of the U.S.-Mexico War who had stayed behind when the rest of Doniphan’s army pushed farther into the Mexican interior (Hughes 1997:140; Duval 1987:76-77). The argonaut Thomas Eastland (1939:127) was a rare dissenter: “The Señoritas of El Paso are a poor looking set—I have not observed even a passable face, compared with our American beauties—I have looked in vain for those ‘dark liquid eyes,’ ‘long silken eye lashes,’ and ‘fawn like figures’ *some travellers* talk of—no such things in these diggings [sic]—all poetry.” But Eastland was writing a letter to his wife, which no doubt shaped his choice of words.

If Anglo travelers thought the women were naturally beautiful, they viewed the men as naturally lazy, indolent, uninventive, gamble-happy, and prone to thievery (even the local priests were not spared). “Wheat and corn are the only grains raised here and they do well even with the very bad management they get,” declared David Demarest (Demarest 1849-1850). “We were very much surprised to see so large a town destitute of the common comforts of life,” stated an anonymous traveler on June 4, 1849: “And this state of privation is in a region where every inducement is offered to the tiller of the soil, but such is the characteristic indolence of the Mexicans” (Anonymous 1977:269-70).

Similarly, John Murchison, who was to die in a rifle mishap a short time later, vented his spleen at the “miserable lazy perished out Mexicans who pretend to live in this region” (Lagrange Company 1849). The surgeon Samuel Woodhouse (2007:52), who passed through El Paso del Norte in 1851, echoed the same sentiment: “The soil on this side of the river is exceedingly rich and could be made a perfect garden. Nature does everything for them [the Mexicans], but they are exceedingly lazy.” Meanwhile, Thomas Eastland outdid them with his shrill contempt and his staccato-like writing style:

A good and industrious American farmer, with a few Hands, could make a fortune here in a few years—the soil is rich, easily irrigated, and can be cultivated with great ease—land is very cheap, and many of the Mexicans are anxious to sell out—scarcely any Vegetables are raised—Cotton & sugar can be grown successfully indeed any and every thing—The Inhabitants are very indolent, possess none, or very few implements of husbandry, indeed it seems that their Crops Grow without cultivation—Ploughs are unknown—a heavy unwieldy hoe is used instead—it is astonishing to walk through the fields, and see how luxuriant and healthy everything looks—the Grape Vines are filled with fruit, as well as the Peach, Apple, Pear & Quince trees—the Corn is excellent, and the Grain unusually [sic] full... Visited El Paso—it is a miserable place, nothing to eat for Man or Beast—the citizens lazy, mean & thieving, I am greatly disappointed in this place, it has always been represented as an Eden—I am sure Old Adam would not have thought so, barring the fine Grapes & other fruit (Eastland 1939:120-21).

Only a handful of the diarists were wholeheartedly positive about the locals. One of them was George Kendall, a survivor of the ill-fated Santa Fe expedition of 1841, who thought the locals were “more honest, industrious, cleanly, and better disposed towards foreigners than those of any town of equal size I passed through in my long journey” (Kendall 1935:35). Another exception was Benjamin Harris, who was enamored by the “one-storey adobe houses,” the “novel costumes of males and females,” the “divine and beautiful Spanish language,” the enterprising spirit of the men, and the abundance of “fashionable ladies”

(Harris 1960:151-152). Meanwhile, William Whiting was one of the few Anglos to recognize that San Elizario (downstream from El Paso del Norte) was not peopled by ethnic Mexicans but by “remnants of the old Indian tribes long since reduced by the Spaniards.” They are “a frugal and peaceable race,” he declared, and “there is far greater appearance of plenty and comfort here” than elsewhere in the valley (Whiting 1938:316).

While Whiting and a few others had positive things to say about the “tame” Native Americans, none had anything but contempt for the “wild” ones, especially the Apaches, who dominated the plains surrounding the Rio Grande. In fact, Apaches were the only group more reviled than Mexican men. The diarists made frequent reference to the difficulties that the Apaches caused them on their journey, mostly through the rustling of horses and cattle but also occasionally through kidnappings and deadly ambushes. Once again it was Thomas Eastland who best expressed these sentiments, by putting words into the mouths of the Apaches:

The neighboring tribes of Indians, particularly *Apaches*, are very troublesome, and swear eternal hostility, of course Uncle Sam must take his rod out of pickle, and teach them obedience—I understand that they bitterly complain at our Treaty stipulation with Mexico, to protect that Government from their Marauding incursions, and boldly ask ‘What are we to do if we are to be deprived of that immemorial privilege of our race, to *steal* all the property we want from the Mexicans, and make of their Nation as many captives every year, as answer our purposes? We dont [sic] know how to work, we cant [sic] plough, and sow and reap as the white men, nor can we learn—our Men Women and Children, have been *educated to live by stealing*, and we will not submit to the Government of the U.S. in thus meddling with *our institutions*,’—so you see, nothing short of their entire subjection, will ensure security to either the Mexicans, or our own people on the Frontier...The Texas Rangers are alone fit for this kind of warfare, the Indians know them and fear them, and acknowledge no other superiors or equals (Eastland 1939:122).

### AMERICAN SUPERIORITY AND THE FUTURE OF THE EL PASO DEL NORTE REGION

Given these attitudes, it is not surprising that many of the travelers felt that what was most needed was an infusion of manly men into the El Paso del Norte region, in the form of American soldiers, topographers, and immigrants. Indeed, the diaries and letters fairly burst with the trope of Manifest Destiny. “If this valley were cultivated by an energetic American population,” wrote John Hughes to the War Department in 1847, “it would yield, perhaps, ten times the quantity of wine and fruits at present produced. Were the wholesome influences and protection of our republican institutions extended to the Rio del Norte [Rio Grande], an American population possessing American feelings and speaking the American language would soon spring up here. To facilitate the peopling of this valley by the Anglo-American race nothing would contribute so much as the opening of a communication between this rich valley and the Western States of our Union by a turnpike, railroad or some other thoroughfare which would afford a market for the fruits and wines of this river country” (Hughes 1997:142) (Figure 2).

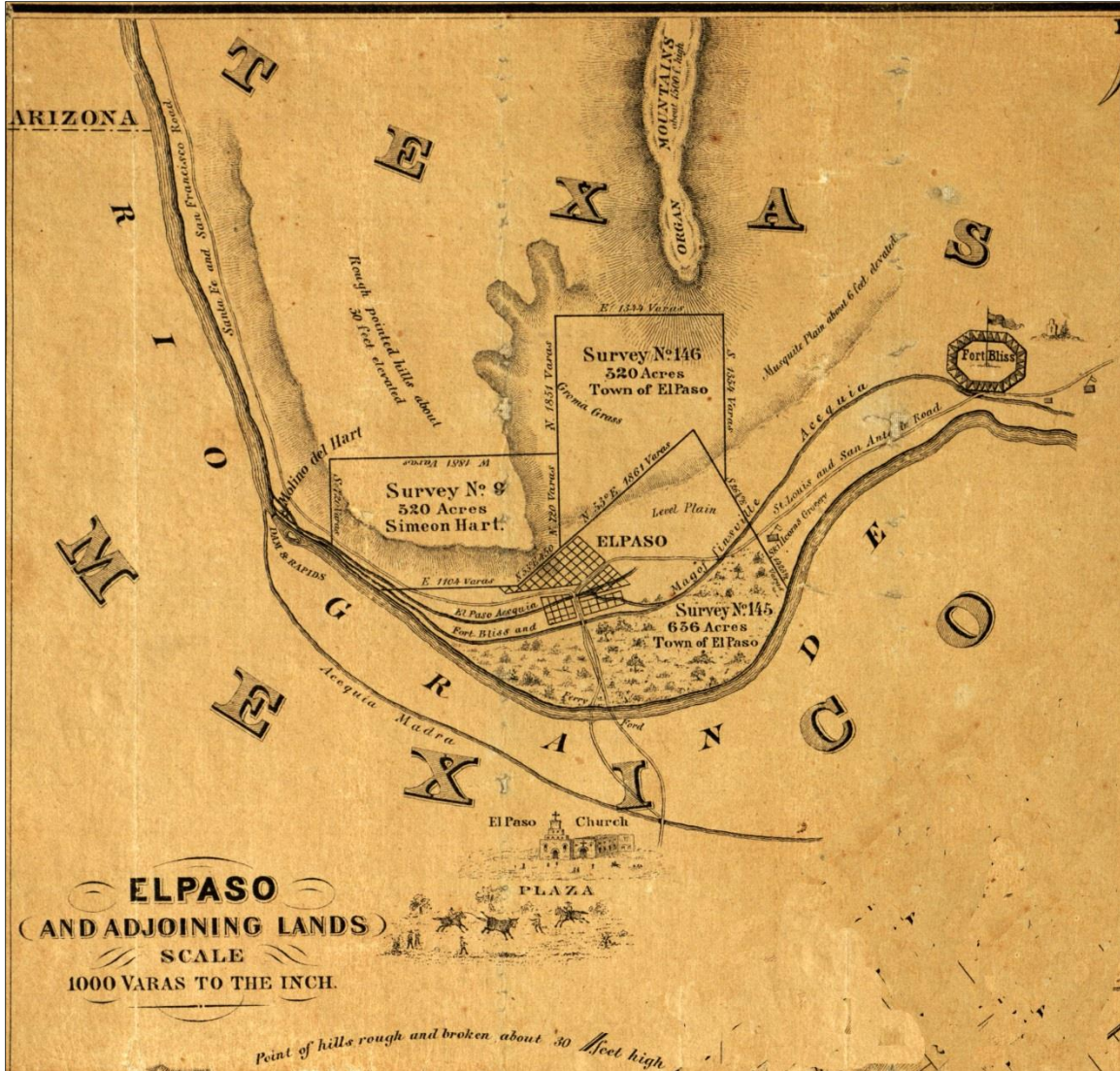


Figure 2. Close-up of Anson Mills, “Plat of El Paso” (1859) showing the new settlement of El Paso, Texas, on the American side of the Rio Grande (El Paso County Historical Society 1859). The gridded area is the heart of the Ponce Ranch and the future downtown El Paso. “Fort Bliss,” shown on the right side, was located at Magoffinsville. The “El Paso Church” and “Plaza” near the bottom of the map show the location of El Paso del Norte (Ciudad Juárez).

Similarly, George Ruxton (1916) proclaimed: “Should this department [the river stretch between El Paso del Norte and New Mexico] fall into the hands of the Americans, it will soon become, a thriving settlement; for the hardy backwoodsman, with his axe on one shoulder and rifle on the other, will not be deterred by the savage, like the present pusillanimous owners of the soil, from turning it to account.” And William Whiting, who was part of a military reconnaissance to find a route between East Texas and the El Paso del Norte region, expressed much the same sentiment: “In their system of agriculture nothing is seen to be admired but the irrigation, and that could be vastly improved by the introduction of American industry and ingenuity...Indolent and improvident, these people rarely raise more than sufficient for their own immediate wants” (Whiting 1938:301).

Perhaps the diary of L. N. Weed most jarringly reveals the confusion of values that made it so difficult for the argonauts to fully appreciate the region for what it was, namely an extraordinary outpost of Hispanic civilization in the middle of the vast Sonora desert. Weed was an unabashed racist (his diary is chock full of references to skin color and ethnicity) who had traveled by sea from New York to Galveston in March 1849, where he had joined a large party that took the Upper Emigrant trail to California. “The Mexicans make much of Americans, the men through fear, the women love,” he confided to his diary on June 13, 1849, en route to El Paso del Norte. “If an American is sick the females will watch beside his sick bed with as much earnest devotedness as a kind mother or sister could do. They appear to realize that the Americans are a superior race” (Weed 1849:37-38).

## CONCLUSION

There were some striking contradictions in the Anglo depictions of the El Paso del Norte region. The town and its surrounding villages could not possibly have become such a large commercial entrepôt and thriving agricultural oasis if all of the Mexican men were the lazy, thieving, good-for-nothing gamblers that the Anglos thought them to be. Someone had constructed the churches and schools, the adobe houses and neighborhoods, the orchards and vineyards, the dams, and acequias. Someone was still maintaining the ditches, tilling the soil, picking the fruits and vegetables, harvesting the grapes, producing the wine, and distilling the “Pass whiskey.” Surely all of this was not due solely to the labors of beautiful women with their “dark liquid eyes” and “fawn like figures.”

Blinkered by their own prejudices, the Anglos all too often left the concept of *hard work* out of their calculations. They could see the handiwork, just not the hands behind it. From their perspective, the north bank of the river had been left underdeveloped because the Mexicans lacked the proper tools to transform its rocky soil into agricultural space and also because they lacked the proper firepower to control and defeat the Apaches. The south bank, meanwhile, was productive because of its naturally rich and well-watered soil and not because its landscape had been arduously improved upon, generation after generation, by laborers who had gradually turned a desert into an agricultural oasis.

In effect, the Anglo travelers insinuated a false passivity into the landscape (or, put differently, they “feminized” the landscape) in ways that reinforced their cultural prejudices: El Paso del Norte’s soil was *naturally* bountiful, just as El Paso del Norte’s women were *naturally* beautiful. The Mexicans were fortunate rather than productive, lazy rather than busy, lucky rather than plucky. In this sense, the Anglo soldiers and argonauts were merely replicating the same conquering mentality that had played itself out in the New World since the days of Columbus: justifying colonial expansion on the grounds that the local inhabitants were not fully utilizing the land; mistaking human-created landscapes for natural ones; and presuming that everything would improve once they were in charge of affairs.

Things did in fact begin to change once the Anglos gained a toehold at Ponce’s Ranch (the future El Paso, Texas), just across the river from El Paso del Norte. But the changes did not occur at the pace, or in the manner, that the argonauts had so confidently foreseen. The burgeoning town never attracted the “hardy backwoodsman, with his axe on one shoulder” as Ruxton predicted (perhaps because deserts have so few trees!). But it did lure a lot of gamblers, drunks, murderers, thieves, desperadoes, misfits, con men, fringe

characters, and ne'er-do-wells, whose behavior turned the argonauts' prejudice about Hispanics on its head. "Nobody worked," Owen White, one of El Paso's early pioneers and its first historian, wrote: "that is, nobody except Mexicans worked regularly. The 'white men' in the community did practically nothing for the very simple reason that there was nothing to do, and the very natural result of this pleasing state of affairs was that Uncle Ben Dowell's saloon sheltered the entire American male population of the town for the greater part of every day and for nearly all of every night" (White 1924:67).

Security remained a problem for decades as well. Military outposts came and went, as the U.S. Army struggled with the question of how best to secure its new southern frontier. First came the Post Opposite El Paso (better known as Coons' Ranch) from 1849-1851. Then came Fort Bliss at Magoffinsville (1854-1868), which was destroyed by a flood. The fort was moved to Concordia in 1868 and then disbanded in 1876. Then, after the El Paso Salt War (1877-1878) revealed the deep underlying tensions between Anglos and Mexicans, the U.S. Army finally established a permanent military outpost in the city. The war with the Apaches also dragged on, belying the notion that Uncle Sam was any better at punishing (taking "his rod out of pickle" to use Eastland's colorful phrase) Native Americans than was the Mexican government. Small and large skirmishes continued in and around the El Paso del Norte region, on both sides of the border, for many more decades. Victorio and his forces held out until 1880, as did Geronimo and his forces until 1886.

In 1847, John Hughes foresaw the construction of a "turnpike, railroad or some other thoroughfare" to the El Paso del Norte region that would open up "a market for the fruits and wines of this river country." Instead, the Texas town of El Paso had to make do for nearly three decades with a handful of stagecoach companies, none of which were capable of delivering the region's produce and wine to the nation's dinner tables. And when the railroads finally did arrive in 1881, they did not turn the El Paso del Norte region into America's premier vineyard but instead paved the way for it to become a modest hay, alfalfa, and cotton-growing region and a major hub for the Mexican cattle trade. Meanwhile, the ever-increasing demand on the water resources of the Rio Grande upstream in Colorado and New Mexico, as well as the completion of Elephant Butte Dam in 1916, led to the dwindling of the fruit trees and vineyards on both sides of the river. By 1900, the self-sufficient "plantations" of yesteryear were giving way to mono-crop fields and an export-driven agricultural market.

The racial divide also continued to grow, slowly but inexorably, as more and more Anglos settled in the region. El Paso incorporated as a city in 1873 and selected its first Anglo mayor, the saloon keeper Ben Dowell. A few years later, in 1883, it snatched the county seat from San Elizario in a fraudulent county election. The railroads, meanwhile, stimulated a population boom. Though Anglos would never outnumber ethnic Mexicans (except briefly in the 1890s), they exerted an influence on the fast-growing city far out of proportion to their numbers, imposing their vision of the area as an outpost of American civilization. "The City of El Paso is no longer a mere suburb [of El Paso del Norte]," the city business directory proudly proclaimed in 1885 (Rackliff & Wainey 1885:2). In 1887, the *El Paso Times* devoted a special issue to the Anglo pioneers "whose efforts the present El Paso is indebted for commencing a work that has made the city what it is—an American community instead of one thoroughly Mexican" (*El Paso Times* 1887). And in 1923 the boosterish Gateway Club told its readers: "Our many Mexican-American citizens and our nearness to old Mexico solve the servant problem in El Paso. Mexican women and girls are inherently tidy and obliging and can easily be trained to become excellent household help. Domestic labor is abundant and inexpensive. A



housemaid, a man to care for the garden or lawn, and similar help, may be hired for a small fraction of the wages paid this class of help elsewhere” (Gateway Club 1923).

None of these political, military, economic, and social transformations were inevitable. Yet all of them were clearly foreshadowed in the diaries and letters of the Anglos passing through El Paso del Norte in the late 1840s and early 1850s. First impressions had fateful consequences: the prejudiced stereotypes that they recorded in their travel accounts were premonitory of the racially divided society that El Paso would soon become—and long remain.

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# PLAINS APACHE TIPIS: RESIDENTIAL AND CEREMONIAL LODGES

*Michelle Stokely*

## ABSTRACT

For many Americans, tipis symbolize the nomadic Native American culture and lifestyle. This understanding has been so extensively advanced by paintings, advertising, films, and television that tipis have come to be associated with Native American groups in almost all geographical regions. Tipis were, however, an integral part of residential and ceremonial life in the Great Plains where both construction and use were closely tied to indigenous social organization, politics, war, and spirituality. Among the Kiowa and Plains Apache, residents of the Southern Plains, some tipi covers were painted to reflect war deeds or spiritual blessings. This paper examines the construction, decoration, ownership, and destruction of historic Plains Apache tipis, as well as modern uses of the iconic structures.

## INTRODUCTION

Easily transported tents, made from abundantly available bison hides, were an important aspect of life for both nomadic Native American hunting tribes and sedentary horticulturists who also participated in extended hunting activities. Written descriptions of tipis can be found in early European travel narratives, military reports, and other historical documents. Additionally, anthropologists working with Native American community members collected tribal knowledge about the construction, transportation, and use of these mobile structures, as well as associated decorative symbolism. Unfortunately, such valuable information is not available for all Plains tribes. Compared with other tribal groups, less is known about Naisha (Plains Apache) culture, primarily due to the small size of this community and their infrequent contact with Euro-Americans until the reservation-era. Treaties and other governmental documents provide a general outline of Naisha tribal leadership and territorial movements, but little discussion of indigenous social life or material culture. Fortunately, Plains Apache elders entrusted some of this valuable information to anthropologists James Mooney in the late 1890s, J. Gilbert McAllister in the 1930s, and University of Oklahoma students in the 1960s. These primarily unpublished sources make it possible to better understand Plains Apache culture, social organization, and spirituality, as well as their use of tipis.

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## THE PLAINS APACHE

Several Apachean-speaking groups, the ancestors of today's Naisha, Lipan, and Jicarilla tribes, lived in or near the Great Plains prior to the arrival of Europeans. Unfortunately, contact records were not always precise and different names were applied to various tribal groups, making it difficult to accurately identify specific Native communities. Spanish accounts made reference to the Querchero, pre-horse Plains Apacheans living in the Southern Plains as well as bands of Lipan Apache residing in Texas and Northern Mexico (Chebahta and Minor 2007:8-9, Gunnerson 2001:239; Opler 2001:941-943). Perhaps the earliest recorded descriptions of Plains Apachean people can be found in materials produced by members of Coronado's 1541 expedition into eastern New Mexico and the Texas panhandle. These records indicated that the expedition encountered some Apache when they

came to a settlement of Indians who are called Quercheros, who travel around with these cows...They have little field tents made of the hides of the cows, tanned and greased, very well made in which they live while they travel around near the cows, moving with these. They have dogs which they load, which carry their tents and poles and belongings (Newcomb 1969:145).

Apache people were also encountered by Don Alonso de Onate's expedition from the northern Spanish colony of New Mexico into the Southern Plains in the fall of 1599. Along the way expedition members saw buffalo and met Native people who traded meat, hides, and salt with the Taos Pueblo. The Spanish also observed several villages, located near the Canadian River in present day Colorado, noting:

there were fifty tents made of tanned hides, very bright red and white in color and bell-shaped, with flaps and openings, and built as skillfully as those in Italy and so large that in the most ordinary ones four different mattresses and beds were easily accommodated. The tanning is so fine that although it should rain bucketfuls it will not pass through nor stiffen the hide, but rather upon drying it remains as soft and pliable as before...the sargento mayor bartered for a tent and brought it to this camp, and although it was so very large, as has been stated, it did not weigh over two arrobas (Bolton 1952:226-227).<sup>1</sup>

The Spanish accounts further described the indigenous lifestyle noting, "they live in rancherias in the hide tents hereinbefore mentioned. They always follow the cattle, and in their pursuit are as well sheltered in their tent as they could be in any house" (Bolton 1952:230).

The Naisha Apache were occasionally mentioned in other European accounts of Native life in the Plains. Several French historical sources reference the Gattacka, a Pawnee term applied to Apache people in the Plains, with similar variations used by the Wichita, Arikara, Omaha, and Ponca (Foster and McCullough 2001:939). These French sources indicated that the Gattacka were participating in the Southern and Central Plains horse trade during the 1600s and 1700s (Mooney 1979:248, 250; Foster and McCullough 2001:927-928). By 1800 American sources, including Lewis and Clark,

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<sup>1</sup> Approximately 50 pounds (Ewers 1997:67).

affiliated the Plains Apache with the Kiowa, noting that both tribes camped in the Northern Plains (Mooney 1979:157-160, 248, 251). During the mid-1800s the Kiowa, Comanche, and Naisha Apache participated in various treaty discussions with the United States, including the 1867 Treaty of Medicine Lodge Creek that created their shared reservation in Oklahoma's Indian Territory (Hagan 1990:27-44). Subsequent military and Agency records record tribal movements and activities, particularly the Kiowa and Comanche raids into Texas and Mexico, that culminated in the Red River War, 1874. Unfortunately, these documents offer less information on indigenous cultural practices or artistic expressions of the period, although missionary records offer some valuable clues. In 1900 the shared KCA reservation was dissolved by the Jerome Agreement; enrolled tribal members selected, or were assigned, 160-acre allotment parcels for the purpose of farming or stock raising, with the remainder eventually sold to non-Native buyers (Hagan 1990:262-285). Allotment produced significant changes in Native politics, economics, demography, religion and education, but many of the tribal cultural practices, including the social and ceremonial uses of tipis, were maintained into the twentieth century and beyond.

## PLAINS TIPIS

The Lakota term *tipi* has generally been applied to the conical shaped hide tents used by Native American people living in the Plains. The Naisha Apache term *agosbi* identified the tipi home, while *agosbihi je istree* referred to a painted tipi cover. A typical Plains tipi was formed by placing 20 cedar or pine poles, approximately 25 feet in length, in an oval shape around a tripod base, and wrapping them with a cover made from 8 to 12 bison cow hides,<sup>2</sup> anchored to the ground (Libhart and Ellison 1973:9, 11, 14; Ewers 1978:6-7). Additional features included ear flaps, moved by poles, to direct smoke, as well as a door, wooden ground stakes, and cover lacing pins. Interestingly, there were regional as well as tribal variations in the tipi shape, number of poles used, and decoration. Kiowa and Plains Apache tipis used a three pole foundation, providing greater stability (Laubin and Laubin 1957:17). Regional differences can be seen in the shape of smoke flaps, doors, seam stitching, and method of securing the cover to the ground (IACB 1973:14). Additionally, tipi size gradually increased as Native people acquired horses, and later, light weight canvas.<sup>3</sup>

A variety of wood was historically used for tipis, partially based upon availability. Hardwoods, such as ash or chokecherry were generally selected by Plains people for use as ground stakes and lacing pins (Laubin and Laubin 1957:24), while Naisha ground stakes were made from Western soapberry, which was also used for canvas wall tent poles after allotment (Jordan 2008:160). Southern Plains Native people acquired lodge-pole pine by traveling to the Black Hills or the Rocky Mountains, but also used locally available western yellow pine and red cedar. The Plains Apache generally preferred eastern red cedar harvested in the Wichita Mountains of Southwest Oklahoma for their tipi poles. Women would select the trees, while men cut them; poles would be brought to camp where they were cleaned and dried for two weeks (Saddleblanket 1967:21-23). Broken poles could also be

<sup>2</sup> The Smithsonian collection includes an Arapaho bison tipi cover collected in 1874. This lodge was made using 14 hides (Ewers 1997:68-69).

<sup>3</sup> The hide cover for a tipi with a diameter of 20 feet weighed 100 pounds, while a 30-foot canvas cover weighed just 55 pounds (Laubin and Laubin 1957:121; Vestal 1957:14).

temporarily replaced with cottonwood until new cedar poles were obtained (Jordan 2008:147-148, 154). However, poles were sufficiently scarce that the Apache valued one pole equal to five horses (Rosoff 2011:9).

Plains tipis were generally made by several women working under the direction of an older, more experienced woman (Laubin and Laubin 1957:18-119), while Cheyenne and Arapaho tipi covers were made by members of a specialty society, the tipi-makers guild (IACB 1973:14). For their tipi covers, Apache women used 8 or 10 buffalo hides, with the heads trimmed off, and sewn together with sinew (Chaletsin 1961a). Kiowa and Apache women preferred summer killed bison hides, without thick winter hair, which were easier to process (Ewers 1978:7). Cleaned hides were smoked to improve waterproofing; as they aged, hides became darker and eventually needed to be replaced. Plains tipis included hide or canvas interior liners, known as dew cloths, to direct air drafts, reduce condensation, and offer privacy (Laubin and Laubin 1957:48-49). Liners were often decorated with painted designs (Laubin and Laubin 1957:49, 55; Zeller 2011:83). Tipi doors were made from bison hide, blankets or canvas, and were occasionally painted (Laubin and Laubin 1957:44-45). After the decline of the Plains bison herds in the late 1800s, Native people turned to domesticated cow hides and canvas to make covers and liners, and today modern tipis are made from strips of light weight canvas sewn together (Laubin and Laubin 1957:25-32).

The majority of tipi covers were left plain, although some covers were specially painted by men to reflect war deeds or religious concepts that had been acquired in a dream. John Ewers estimated that perhaps only 20 percent of Kiowa and Apache tipi covers were painted; these recognizable lodges were owned primarily by leading men, but could be inherited within family lines (Ewers 1978:8). As with new lodge construction, cover painting was a community activity. Tipi covers were painted by 20 or 30 male friends who were honored with a feast provided by the owner (Laubin and Laubin 1957:167-168; Ewers 1978:7). As tipis aged or deteriorated, covers were replaced with fresh hides and the designs were transferred to the new covers.

## **PLAINS APACHE SOCIAL ORGANIZATION AND RESIDENTIAL TIPIS**

As previously noted, Plains tipis were constructed and maintained by Native women. The making and raising of a new home was a community event in which the owner provided food, offered prayers, and honored the women who had assisted (Laubin and Laubin 1957:75).

Each Apache tipi was home to a couple and their children, as well as any visiting relatives (McAllister 1935:27), while a widow retained her own lodge as long as she was physically able (Chaletsin 1961b). Apache tribal members camped in family groups, known as *kusterae* (McAllister 1935:27). Women selected family camp sites that were close to water and firewood, spacing their lodges approximately 30 to 50 yards apart (Chaletsin 1961c) (Figure 1). During the summer months several Apache families camped together, forming a *gonka* (McAllister 1935:26-27) (Figure 2).





Figure 1: Kiowa or Apache camp near the Washita River, Oklahoma Territory. Photo by Annette Ross Hume, 1901 or 1902. Research Division of the Oklahoma Historical Society.



Figure 2: Apache Indian camp on the Washita River. Photo by W.E. Irwin, 1894. Research Division of the Oklahoma Historical Society.

Apaches joined the Kiowa camp for the annual summer Sun Dance, placing their tipis on the northeastern side of the large camp circle. Years later, the placement of individual tipis within the 1867 Kiowa Sun Dance camp circle would be recalled by tribal elders and documented by Mooney (Ewers 1978:8, 11). This illustration includes the names of 10 Apache men, including several who owned a painted lodge. During the winter, family groups often located their tipis in river bottoms, where they were sheltered from the wind (Figure 3). Willow windbreaks (Figure 4) were occasionally placed around tipis in winter camps (IACB 1973:14-15). The Naisha Apache created their winter windbreaks using bloodweed stalks, fastened to frames made from willow or oak (Jordan 2008:40). These breaks would remain in place, offering protection for campsites that were used repeatedly (Saddleblanket 1967:26-27).

Small tipis were also made by women and their daughters, offering young girls the opportunity to learn valuable sewing skills and to play house (Figure 5), while even smaller tipis were made for their dolls (Laubin and Laubin 1957:141-142). In examining Plains Native social life, Christina Burke noted:

In general, girls' games were played close to the family tipi. Girls played house and practiced cooking, gathering food, sewing clothing, caring for dolls, and moving camp. They set up toy tipis for their dolls and occasionally had play tipis that were large enough to crawl inside. Toy tipis were often adorned just like the family tipi, with beaded rosettes, quilled tabs, and even pictographs documenting the military exploits of male relatives. Girls also had toy travois, the sledges that were used to transport household goods when communities moved camp (Burke 2011:181).

Plains Apache girls also played with toy tipis, using bloodweed stalks for their poles (Jordan 2008:141). In collecting memories of Naisha daily life, McAllister recorded that "most of the day was spent by both boys and girls playing together. They would get sticks and put them up like a tipi. They get a calf hide and put it over. If the parents love their children they will fix a pretty good sized tipi and they play in that" (McAllister 1935:87).

Mobility was an important aspect to life on the Plains, particularly for those tribes that relied upon migratory bison herds. During the summer Apaches moved their camp every week or two as food and firewood became scarce (McAllister 1935:27). Prior to the arrival of horses, Plains Native people used dogs to help move tipi covers and family possessions, aided by a travois made from smaller tent poles. Later, tipi poles were attached to either side of horses, although the dragging motion tended to wear down the poles' ends, hastening the need for replacement. In the late reservation-era, Native people were able to move large tipis, poles, and household items with wagons and teams of horses (Laubin and Laubin 1957:124). After allotment, equipment was occasionally shipped long distances in railroad cars. In 1912 several Kiowa and Plains Apache families traveled south from Oklahoma to participate in the Waco, Texas Centennial, held at the Cotton Palace. Alonzo and Rose Chalepah, as well as their two year old son Alfred, attended this event. Years later Alfred recalled:



Figure 3: Kiowa winter camp. Photo by Annette Ross Hume, 1901 or 1902. Research Division of the Oklahoma Historical Society.



Figure 4: White Buffalo's Kiowa tipi with winter windbreak. Photo by Annette Ross Hume, 1901 or 1902. Research Division of the Oklahoma Historical Society.



Figure 5: Postcard of child, possibly Cheyenne or Lakota, with play tipi. Postmarked Alliance, Nebraska. June 26, 1909. Collection of the Author.

Waco [Texas] was havin' centennial and I think about ten [Kiowa] families and my parents, the only Apaches that was involved. They got [railroad] coach, the one that carries packages and mail. [George Gert] said bring your tipi poles, tipi, beddin' and what you need, said it's gonna' be a one month event. That's the way I understood it. My father had to haul the poles to town and we had to load up those coaches. They set one day to load up our equipment and that's the story that my dad told me. It took about three days to get to Waco. When we got to Waco they help us unload; they had wagons to unload our equipment, tipi pole and all that stuff and we camp there. (A. Chalepah Sr., personal communication, August 3 and September 12, 2000).

Apache families also traveled by horse drawn wagons, transporting camp materials throughout the region. Today the small number of tipis owned by Apache families are moved using pickup trucks and trailers.

## MOONEY'S KIOWA AND NAISHA RESEARCH

A better understanding of Southern Plains Native people is due to the work of anthropologist James Mooney who collected important details about Kiowa and Plains Apache tribal history, social organization, and material culture. Mooney began working for the Bureau of American Ethnology in 1885; in 1891 he traveled to Indian Territory to continue his studies of Cherokee culture, as well as to conduct an investigation of the Ghost Dance (Moses 1984:54). By 1895, Mooney had begun his

research on several aspects of Kiowa and Apache culture, including language, calendars, painted tipis, and war shields (Moses 1984:97). To accomplish this work, Mooney interviewed a number of tribal elders, recording personal narratives as well as explanations of historic events and heraldic designs. Through his research, Mooney learned that

Ownership of a painted tipi could only be transferred to a blood relative or a relative by marriage. Because the supernatural power associated with the tipi was the property of the family, the members were reluctant to allow it to be given outside the family, fearing that death or misfortune would be visited on them. Occasionally, but only rarely, a painted tipi was loaned to a relative with permission to make it once and live in it until it wore out, but without the right to renew it or claim it afterward.

Blessed with supernatural power, painted tipis were treasured by their owners, who usually lived in them for many years. Thus an owner became closely identified with the lodge in which he lived. Indeed, some owners came to be called by the names of their tipis (Powell 2013:2:148-149).

Mooney's work was significantly advanced by the contributions of Silver Horn, a Kiowa artist, who drew many of the tipi and shield designs in Mooney's notebooks and also participated in Mooney's examination of Kiowa pictorial calendars (Greene 2009:17). Kiowas occasionally included images of painted tipis in their ledger art, as well as in their summer and winter count historical calendars. These art forms have been well discussed by Candace Greene (2009), Joyce Szabo (2007, 2011) and other scholars. One possible Apache painted tipi appears in a ledger art scene drawn by the Kiowa artist Wo-Ha. This illustration depicted a mixed camp at the Treaty of Medicine Creek and featured several painted Kiowa lodges, Wichita grass houses, and one tipi painted in yellow wedges (Harris 1989:92-93). Curiously, this yellow wedge lodge is reminiscent of a tipi illustration attributed to Alfred Chalepah's paternal grandfather Itselpa, also spelled Zelspa (Mooney MS 2538 Box 2, F3).<sup>4</sup>

Inspired by the information he had collected, Mooney conceived of a project in which small painted model tipis, as well as miniature shields on tripods, would be made and arranged in a camp circle recalling the Kiowa Sundance of 1867. Silver Horn and Paul Zotom, another Kiowa artist, constructed and painted the tipi models using deer hide, standing 26 inches high and spread 56 inches wide (Ewers Box 26, F2). Boas' biographer, L.G. Moses described this activity:

It took many hours of delicate labor to fashion a single tipi. All the models were made from wooden dowels, chamois for the unpainted tipis, and buckskin for the painted ones...Mooney had hired several Indians to paint the covers. They worked from colored pencil drawings of the original designs collected by Mooney from informants who had either owned a painted tipi at one time or remembered the designs of others'. The artists used commercial paints rather than vegetable- and mineral-based paints (Moses 1984:109).

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<sup>4</sup> A similar painted tipi also appears in Black Bear's calendar marking the summer of 1881; perhaps this drawing recorded Itslepa's death (Stokely 2014:354).

Despite Mooney's plan, only 30 Kiowa and Apache painted tipi models were actually made, with 17 identified as representing Apache covers. Mooney arranged for his tipi models, as well as miniature shields and tripods, to be displayed at the Trans-Mississippi and International Exposition held in Omaha in 1898 (Mooney 1899:147). Mooney also invited a group of Plains Apaches to attend this event where they erected their canvas tipis, enclosing one in a willow windbreak (Mooney 1899:133-134). Mooney attempted a similar tipi model project with the Cheyenne and he hoped to display 80 painted and 120 plain models at the 1904 St. Louis Louisiana Purchase Fair, recreating the Cheyenne's 1874 Sundance. Ultimately, however, only 18 Cheyenne tipi models were produced, with 11 subsequently sent to the Field Museum in Chicago (Fagan 1988:262; Powell 2013:2:214).

Mooney never completed his studies of Kiowa, Apache, or Cheyenne heraldic designs, and his work remained largely unpublished (McCoy 1995:69). However, part of the material was used for an exhibit organized by the Smithsonian's Renwick Gallery of the National Collection of Fine Arts. This exhibit displayed 25 of the Kiowa and Apache tipi models, with supplemental information provided by John Ewer's accompanying catalog, *Murals in the Round* (Ewers 1978). The Kiowa and Apache shield and tipi models commissioned by Mooney are now archived at the Smithsonian's Museum Support Center, located in Suitland, Maryland. Information, including notes, drawings, and photographs about the tipi and shield models, is scattered across Mooney's and Ewer's professional papers, part of the National Anthropological Archives, also located in Suitland, Maryland. A growing number of scholars have used these materials in the past 20 years to greatly expand our understandings of Native life in the Southern and Central Plains. The Smithsonian has recently digitized some of Mooney's material, including drawings of tipis and shields, making them more available to scholars and the public. These illustrations can be accessed at <http://anthropology.si.edu/naa/exhibits/kiowa/mooney.htm> with the drawing for Itselpa's lodge available at <http://sirismm.si.edu/naa/kiowa/08934300.jpg> and Daveko's Moon Tipi illustration at <http://sirismm.si.edu/naa/kiowa/08934800.jpg>

## THE PLAINS APACHE MODELS AND DRAWINGS

In 1904, Mooney discussed tipi and shield designs with a number of leading Apache men, including All Over Medicine (born 1844), Black White Man (1858), Bitsidi (1851), Daho (1853), Daho's brother, Jack (1842), Apache Jim (1864), Saddle Blanket (1848), and Apache John (1849) (Ewers Box 26). Another informant, Pablito Diaz, had been born in Mexico in 1840 but captured in Parral, Chihuahua by the Apache in 1847 (Mooney 1899:136). All of these older men had knowledge or personal experience with painted tipis and war shields. Mooney's interviews elicited information on the traditional religious beliefs that influenced the various designs and informed appropriate social behavior around spiritually powerful objects, such as shields and heraldic tipi covers. Additionally, Mooney's notebooks contained illustrations of several other Apache tipis that were not used for the models; unfortunately, these illustrations contain fewer details. Importantly, the men also provided valuable genealogical information to Mooney, extending Apache social history back into the early 1800s.

## Tipi Cover Origins

Mooney learned that the designs painted on Kiowa and Apache tipis and war shields came from a variety of spiritual sources; for example, Old Man Tipi Pole's lodge cover was believed to have been the result of mescal use by Bilatsashi (also spelled Bilatzachai) sometime before 1861, while Itselpa's tipi design was influenced by peyote (MS 2538, Box 2 F3, F46). Interestingly, Mooney's notes generally do not record the precise details of the dreams or visions that produced the various designs; likely the specifics were unknown to his informants in the 1890s, or they did not possess the right to reveal such powerful information. When Mooney consulted with Apache John about the origins of his grandfather's lodge design, John indicated that he did "not know how he got it but know [it] was when he went pray on hills" (MS 2538 Box 2, F3). Another lodge, featuring a bear design, was made following a dream in which the bear himself refused to reveal knowledge about some of the design elements (Ewers Box 26, F2).

Perhaps the best known Apache lodge, the black and red striped Moon Tipi, was dreamed by Daveko I in 1867 and later used by his son Daveko II.<sup>5</sup> McAllister subsequently learned some of the details of this tipi's origins:

Daveko's father had dreamed of this tipi after a Klintidie dance...They had danced four days and nights without sleep. On the fourth night at midnight, Daveko's father walked out on the prairie for the rest of the night. Toward morning he fell down and went to sleep and had the vision of his tipi...The power who gave it said, "I'm favoring you with this tipi which will never fall down even in the worst storm. Also you will not die of anything but old age." In the worst storm the relatives would come to this tipi, which never blew down. (McAllister 1970:45).

## Ownership and Inheritance

As previously noted, Mooney learned that tipi designs could be given away or inherited, but usually within a family. In some instances the gift was acknowledged by an exchange of horses; for example, White Man's mother gave two horses for the right to remake the Bear Tipi sometime after her brother's death in 1870 (Ewers Box 26, F2). Daveko II gave his brother Sunte<sup>6</sup> a tipi in exchange for horses in 1878. Later this lodge design was passed to Archilta, another brother (Mooney MS 2538 Box 2, F3). Generally designs passed from father to son, although occasionally daughters, brothers, or even sisters inherited them. A yellow tipi dreamed by Bagina was given to his son, Wolf on the Hill, who gave it to his daughter, Growing Old (Mooney MS 2538 Box 2, F3). Another tipi made by Bagina was given to his son, Dayetsisa; later it was passed to Dayetsisa's brother Jeliatlan; and finally it was conveyed to Jeliatlan's son, Spotted Thunder. Taho, Spotted Thunder's son, was born in 1853

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<sup>5</sup> Daveko I died in 1867 or 1868; Daveko II was born approximately 1818 and died in 1897 or 1898 (McAllister 1970:36).

<sup>6</sup> Also recorded as Soontay (approximately 1853-1909), allotment #932 (Bittle n.d: List of Kiowa Apache Allotments).

and lived in this lodge as a child. Taho did not claim ownership of the design, but he helped to construct the tipi model for Mooney (Ewers Box 26, F2).

An owner could lend a tipi to another tribal member, but this did not include the right to renew the lodge or to claim ownership over the design (Mooney MS 2531, vol 1:95). The dynamics of this restriction can be seen in the contested ownership of the Saye lodge, also known as White Man's Yellow Tipi. This lodge was owned by five generations in White Man's family including his father, Thin Bear (or Poor Bear), one of the Apache headmen who signed the Treaty of Medicine Lodge in 1867. Following Thin Bear's death in 1868, his wife remarried and the lodge design passed to her new husband, Daze, and later to their son, Haschilt, White Man's half-brother, who continued to use the design until 1902. However, ownership of this lodge design was contested and briefly claimed by Belo Cozad, Daze's grandson; the lodge had apparently once been loaned to Cozad's father, but ultimately he did not possess the right to remake it (MS 2538 Box 2, F3).

### **Cover Designs and Embellishments**

The Saye lodge had the longest remembered lineage, perhaps going back to the late 1700s. It was painted yellow with a red moon symbol on the back and was augmented with feathers. Another old lodge, the Dawokahi Tipi, was dreamed by Apache John's grandfather, and last made in 1860. This lodge was also painted yellow with two red moon symbols, as well as a blue crescent moon. Bagina's Dayetsisa (Rainbow) Tipi, last owned by his grandson Spotted Thunder and made in 1863, was painted red and embellished with three circular rainbow elements. It is possible that these solid color lodges represent the earliest Apache design style and color preferences. Traditionally, the Plains Apache placed great spiritual value on the sun, moon, stars and sky, with the colors yellow and red representing the rising and setting sun. While Mooney's notes do not indicate the meanings or significance of tipi colors, other sources offer valuable clues. McAllister learned that "one such tipi painted a solid yellow was associated with the sun..." (McAllister 1955:168). In 1949 anthropologist Charles Brant interviewed tribal member Joe Blackbear who recalled tipi construction and painting:

Old Man Taho sought permission from the other old people to duplicate the tepee, and when the older people consented, the women began sewing the new tepee. They bought some yellow powder in town and also a red powder...They painted the entire tepee yellow...They did it by mixing the yellow powder with water and rubbing it on with rags. In the old days they used clays for paints. The yellow stood for the yellowish color in the sky at sunrise and sunset (Schweinfurth 2002:53).

Interestingly, two lodges appear to demonstrate a transition from the old to a newer design approach. Instead of being painted with a solid color, these covers were painted in yellow triangular wedges and featured decorated doors. The Batikade lodge was painted in yellow sections with white dividing bands, augmented by buffalo tails. Zselpa's tipi featured yellow, and possibly red, triangles with a blue crescent moon painted near the top. Zselpa (also identified as Itselpa) received this design while under the influence of peyote, and it was last remade by his son, Batikaole, around 1870 (Mooney MS 2538 Bx 2, F3). In contrast, lodges dreamed by Daveko I, as well as other men after



1867, take yet another approach. These tipi covers were primarily painted in triangular wedge sections using dark blue or red colors and had a crescent moon or red sun design painted near the top. Mooney's notes indicate that at least three tipis were dreamed by Daveko I and featured triangular sections of dark colors, supplemented by crescent moon symbols, while a fourth cover was painted in blue sections and included a rainbow design. All these covers were dreamed during the dance in 1867 and later given to various tribal members. Spotted Thunder also dreamed and painted several covers with dark triangular shapes, including one that featured ten bear paws, last seen in 1866 (Mooney MS 2538 Box 2).

Other Apache tipi covers included figures: a bear, eagles, humans, and images that resemble humans. The Bear Tipi held by White Man's family was particularly distinct; Mooney recorded that this lodge was dreamed by White Man's Kiowa grandfather and depicted a large blue bear hugging the red tipi. It also utilized a bearskin door (Ewers Box 26, F2). Interestingly, this lodge cover was similar to a Blackfoot painted tipi that featured a red bear hugging the lodge, with a bearskin door. In his analysis of this Blackfoot tipi, Ted Brassler has suggested that the design may actually be Tsuu T'ina (formerly referred to as Sarcee or Sarsi), a Canadian Athabaskan First Nation, in origin and linked to a story in which a bear fosters a boy and later provides spiritual gifts to tribal members (Brassler 1979:37). Brassler noted the possible connections between the Blackfoot, Tsuu T'ina, Kiowa, and Apache, concluding that similar bear lodge designs may have been the result of contact between the tribes around 1800 (Brassler 1979:35, 37, 39). The Kiowa and Plains Apache had frequent contact with northern tribal groups. Lewis and Clark recorded that the Kiowa and Apache were camped in the Black Hills region in 1805, where they traded horses with Mandan and Arikara villagers (Mooney 1979:251; Rhonda 1984:48, 67). The Apache have ancestral stories that may connect them with the Tsuu T'ina, while Mooney noted that several prominent Kiowa were of Tsuu T'ina descent (Mooney 1979:160). As a result of kinship and trade contact, this bear imagery may have been shared among the various tribal groups.

Only one Apache tipi features human figures; it is painted yellow with two individuals holding a pipe. This design was dreamed by Standing Among Men, while under the possible influence of mescal in 1861, and was passed to his daughter, Make See Plain, in 1862. Mooney's model was made by the original owner's son who lived in the tipi, but did not know the meaning of the design (Ewers Box 26, F2). John Ewers speculated that "the pipe held by the man and boy probably signifies the medium through which powers of the sky were transmitted to the human owners of the tipi" (Ewers, Box 26, Exhibition Labels, 8).<sup>7</sup> A possible figural tipi cover was dreamed by Daveko II and given to his brother Soontay and later to Achilta; this design includes four ball-topped cone-shaped elements, although Mooney's notes do not discuss their meaning or significance. Other tipi covers that were not recorded by Mooney, but are known to Alonzo Chalepah, included Apache John's Eagle tipi, a Buffalo tipi, and a Star lodge that featured six white stars appearing on a black background (A. Chalepah, personal communication, December 24, 2013).

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<sup>7</sup> An alternative explanation is offered by Apache tribal member Alonzo Chalepah, interpreting the design as showing how adults demonstrate leadership and guidance to the tribe's youth (A. Chalepah, personal communication, December 24, 2013).

Several of the Apache's painted tipis covers were further embellished with eagle feather pendants, buffalo tails, ermine skins, or a small medicine bag placed near the top. Most of the doors were left plain, but a few were decorated with rainbow designs. While the majority of wooden poles were plain, some were stained red with local clay and decorated with red hide, or cloth, streamers. Several of the painted lodges also had an associated war shield placed on a pole or tripod, displayed just outside of the tipi (Mooney MS 2538 Box 1, F38, F46, F85; MS 2538 Box 2, F3). Like the painted tipis, some Kiowa and Plains Apache buffalo rawhide shields were painted with important designs, believed to offer spiritual protection. As with painted tipis, shield designs were dreamed or acquired in visions, often the same ones as the tipi covers, and could be given away to relatives or close friends. Mooney recorded information on the origins and histories of shields (McCoy 1995; 2003a; 2003b) and he also arranged for small models to be reproduced for display with his tipi models. Apache informants, including Apache John, Apache Jim, and other leading men, drew shield designs in Mooney's notebooks, listing their owners and speculated on the design meanings. The men also described the rules for proper shield display, both inside and outside of the tipis.

Unfortunately, Mooney's notes do not include information on the tipis' interior features, such as liners or other decorative elements. In consulting with male informants, it appears that Mooney did not collect information about Apache women's contributions to tipi interiors and decorative elements.<sup>8</sup> However, Rose Chalepah Chaletsin and Connie Mae Saddleblanket described some of the furnishings, including bedding and willow backrests, to William Bittle and his students in the 1960s (Chaletsin 1961d; Saddleblanket 1967:24-25).

### **Painted Tipi Social Life**

Unlike ordinary residential lodges, painted tipis regulated Plains Apache social behavior. Mooney's informants discussed a number of rules and taboos associated with these special homes, enhancing our understandings of Apache spiritual concepts. White Man's Bear Tipi was believed to have powerful healing properties that could cure the sick; however, only members of the family were allowed to sleep inside. The Saye lodge, also owned by White Man's family, permitted overnight guests, but only if they left a small bow and arrows as offerings tied to a pole inside the tipi. Without this gift, it was believed the occupants would not be able to sleep. Additionally, if a ceremony was held inside this lodge no one was permitted to leave until morning (Mooney, MS 2538 Box 2, F3). Drums and medicine pipes were not to be taken inside the tipi owned by Standing Among Men, and one of the lodges dreamed by Daveko I did not allow boys to play inside for fear that the owner would be injured while hunting or on a military raid. Apache Jim explained that it was taboo to remove arrows from the Dawokahi tipi prior to smoking. Such taboos suggest that the Apache believed relationships existed between their spiritual universe and everyday lived reality; following these rules helped the Apache to regulate social order and avoid spiritual harm.

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<sup>8</sup> Compare with discussions of tipi furnishings and cover embellishments, including porcupine quillwork ornaments made by Arapaho women (Hail 2011:120-130; Anderson 2013:47-54).

Just as there was a proper way to live with these painted tipis and to pass on the designs to others, there was also a ritual method for disposal of decaying hide covers while retaining ownership rights. Mooney's abbreviated notes indicated:

When simply allow a tipi to lapse, cut out from it a small piece, usually round piece at the upper back where tail or other pendant is inserted and preserve this in a small box and throw the rest away. When [the owner] wish to renew the tipi, give piece to whoever they give the claim to make a new tipi. Throw the piece away; carry it to a distant place, dig a hole to represent a buffalo wallow, hold the piece to the sun and pray: "now I got a new tipi, help me walk straight" then put in the hole and cover with buffalo chips. Owners were advised not to destroy their old poles, but to give them to friends (Mooney, MS 2538 Box 2).

In contrast, some tipi designs were intentionally discarded by their owners. One notable example was Daveko's red and black Moon Tipi, well known among the Plains Apache. Both Daveko I and his son were considered to be powerful medicine men, and this lodge design had been received in a vision following four days of fasting and dancing. Together, these aspects made this lodge particularly powerful. Following the death of Daveko II, his step-son Apache Sam Klinkole ritually discarded the lodge in a process recorded by Mooney. It was "thrown away by spreading flat in a buffalo wallow with a prayer at sunrise. This is the regular Apache way to throw away tipi forever. Sometimes it was put on a hill, spread flat in a hollow dug to represent a buffalo wallow" (Mooney, MS 2538 Box 2). Like the destruction of Daveko II's Moon Tipi, other aspects of Plains Apache culture and religion were also avoided, or intentionally set aside, as community members attempted to exist within the new reality of reservation life.

## **RESERVATION AND ALLOTMENT-ERA ADJUSTMENTS**

The painted buffalo hide tipis described by Mooney's informants existed in the mid-1800s, but most were not renewed during the reservation-era as Southern Plains Native people gradually shifted to canvas tents and wood houses. To discourage camp life, the United States government constructed 10 wooden houses across the reservation, at a cost of \$600 each, giving them to tribal headmen, including Taha and White Man (Mooney 1979:342-343). Despite pressure to settle, many KCA members continued to use tipis made with canvas. By 1886 only nine Kiowa families resided in wooden houses; these were subsequently abandoned or rented to Anglos (Meadows 2008:148-149). Sixty additional houses were constructed in 1892 (Mooney 1979:364), but Kiowa tribal members still preferred the outdoor life as Baptist missionary Isabel Crawford observed in 1896: "the home of Lucius Aitsan was a little two-roomed cottage...there were two tepees and an arbor in the yard." (Crawford 1998:32-33). Like their Comanche and Kiowa neighbors, most Apaches preferred to live in tipis, tents, and summer brush arbors instead of the government's wooden houses. Apache elder Alfred Chalepah noted that

a lot of people live out in the country and after they start buildin' the road some ask for government houses, that's two room house. A few Apaches got it but [some] don't like [to]

live in the house, they prefer tent like Apache Stevie. They build him good house...and I don't think he slept one night in it (A. Chalepah Sr., personal communication, September 12, 2002).

When asked about early allotment-era life, Connie Mae Saddleblanket recalled:

We live in tipi. Pretty near all the time. See the government went and furbished two room houses for the people, but we don't live in there. They don't care to live in there. We're just outside all the time in the tipi... We just live in a tipi. That was nice, though. Maybe a house could be not too far, we don't camp too far from the house...I like to stay in the tipi (Saddleblanket 1967:23-24).

The camp lifestyle persisted into the early twentieth century, partially extended as many Native people became landless following the breakup of the commonly held reservation into individually allotted parcels, some of which were immediately sold for much needed cash. As a result, tents and arbors were erected on lands held by relatives. To avoid overstaying their welcome, or to find new sources of firewood and food, many tribal members drifted from place to place much as they had done in the past. Alfred Chalepah, Sr. described his own family's experiences in the 1920s:

My grandpa [Archilta] had two wives; [his] other wife, Me Ka, [was] Mescalero. My mother and her mother live on south side [of his allotment]; they had two tents joined together, and the other [wife] lived on the north side. After my grandmother died, we didn't have no place to go. We live in wagon, go west of Fort Cobb [to visit] Big Man, my father's mother's brother. We go over there and stay in the wagons. We stay there so long and then we go [visit other relatives]. We stay at Big Man's awhile and sometimes we go to Redbone. (A. Chalepah Sr., personal communication, June 13, 2000).

Gradually, canvas wall tents purchased at area hardware stores replaced tipis. Connie Mae recalled: "Mr. Boke...had tents and they buy them over there.<sup>9</sup> And they don't give too much. I don't know how much they give but anyhow they buy them over there. And they began using tent...just here and there using tipi. Like us, we use tipi, me and my aunt. My folks they use tent" (Saddleblanket 1967:25-26). By the time of his fieldwork in 1933 and 1934, McAllister concluded that painted tipis were non-existent: "only one such tipi has been used recently (fifty years ago), though formerly there were probably more" (McAllister 1955:167). However, McAllister's fieldwork photographs show several plain canvas tipis being used for social gatherings (Figure 6), as well as for Native American Church meetings.

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<sup>9</sup> Boake's Stores were located east of Rainy Mountain School, as well as in Anadarko, Oklahoma. The stores sold dry goods, groceries and harness, often on credit (Silverhorn 1967:5; Meadows 2008:298).



Figure 6: Ben Chaletsin's Tipi and camp. Photo by J. Gilbert McAllister, 1934. Collection of the Author.

## SOCIAL AND CEREMONIAL USES OF TIPIS

In addition to residential activities, tipis were used for ritual purposes including feasting, naming of children, warrior society meetings, and religious ceremonies. Joe Blackbear recalled that his family put up a large tipi and offered a feast when he was given a name in 1878 (Brant 1991:39-41). Another important social gathering initiated Apache children into the Rabbit Society. Here, families celebrated their children's good health by sponsoring a meal and a dance. McAllister reported that "all the children gathered in the tipi of the people who were giving the dinner. The sides were rolled up and the parents and visitors sat around watching...In dancing the children imitated rabbits, hopping up and down with slightly bent knees and with hands slightly cupped and held beside their head in imitation of rabbits ears" (McAllister 1935:92, 93).

Tipis were also used for adult society meetings. Many of the Kiowa and Plains Apache men belonged to warrior groups whose members would host meetings in their own tipis; rolling up the tipi covers provided ventilation during the meetings and allowed community members to witness the proceedings (Meadows 1999:62, 65; Swan and Jordan 2011:152, 156). Interestingly, Kiowa ledger art drawings depict society meetings held inside a tipi (Swan and Jordan 2011:154). McAllister's informants noted that the wives of Apache Manatidie Society members remained outside of the tipi during meetings, although occasionally the cover was also rolled up to allow others to watch the dancing (McAllister 1935:107, 109). Apache Klintidie Society meetings also took place within a tipi

(McAllister 1935: 215). The Izuwe, an Apache women's society, met in a tipi specially erected by a man who had been successful in war (McAllister 1935: 114).

Historically, the Apache also sought safety and spiritual comfort within special tipis; for example, the homes of the tribe's sacred medicine bundle keepers<sup>10</sup> were seen as sanctuaries for women who were accused of adultery (McAllister 1935:104). Tipis were used for healing rituals and for Native American Church meetings, offering a quiet place for prayer, songs, spiritual reflection, and also social connection. In his examination of the Native American Church, Weston LaBarre noted that "the first Kiowa meetings took place within a circle of upright poles, with canvas stretched around it, open to the sky." (LaBarre 1971:61). Even in the early part of the twentieth century, new tipi making remained a communal event, requiring the support and assistance of family and friends, as Alfred Chalepah, Sr. recalled:

In [1931 or 1932] my cousin, Ward Archilta, and my father were chosen to raise funds to buy poles and canvas to make tipi. [At] that time they have to borrow; some people don't have tipi so they thought might be good idea to get tipi and poles. If [someone] gonna have peyote meetin' they could have right to use. It didn't take that long, even though money was hard. They ask for canvas, I think the canvas was thirty-two inches [wide]. It's pure canvas, not too heavy or too light. They got almost hundred and twenty-five yards. They got my mother and Old Lady Black Bear and somebody else, those three women, and so they got it together. We felt like we should put it up and break it in, so they got my father to run that meetin' and they got Ward to beat drum... Well, we got it together so we put it up and we had peyote meetin' that night and next day everybody felt good about it. So anytime anybody wants to have peyote meetin' you're free to use it, but bring it back. Yeah, them poles too, ropes and those pots and pans and all that ya know. That's the way we operated. (A. Chalepah Sr., personal communication, September 5, 2000).

In 1949 Charles Brant attended a meeting and observed that "the tipi was made of Sherman duck canvas, several strips being sewn together. It was placed with the door facing eastward. On the inside, buffalo grass was placed around the outer edges and covered by canvas for the participants to sit on" (Brant 1950:215). The same layout continues today; Native American Church meetings now take place within a canvas tipi that comfortably accommodates 30 participants (LaBarre 1971:46). A small number of canvas tipis are owned by individual Apache families (Figure 7), as well as by the tribe, and are borrowed whenever a Native American Church meeting is planned (Brant 1950:217; A. Chalepah, personal communication, November 11, 2013).

Canvas tipis are still incorporated into important community cultural events, such as the Manatidie Blackfeet Society dances and Apache summer youth programs, events that take place in the tribal park located east of Carnegie, Oklahoma (Figure 8). Several of these canvas tipi covers were sewn by sisters Gertrude Chalepah and Irene Chalepah Poolaw, generally regarded as the tribe's last tipi makers.

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<sup>10</sup> Tribal members continue to respect these sacred items and have requested limited academic discussion of them.

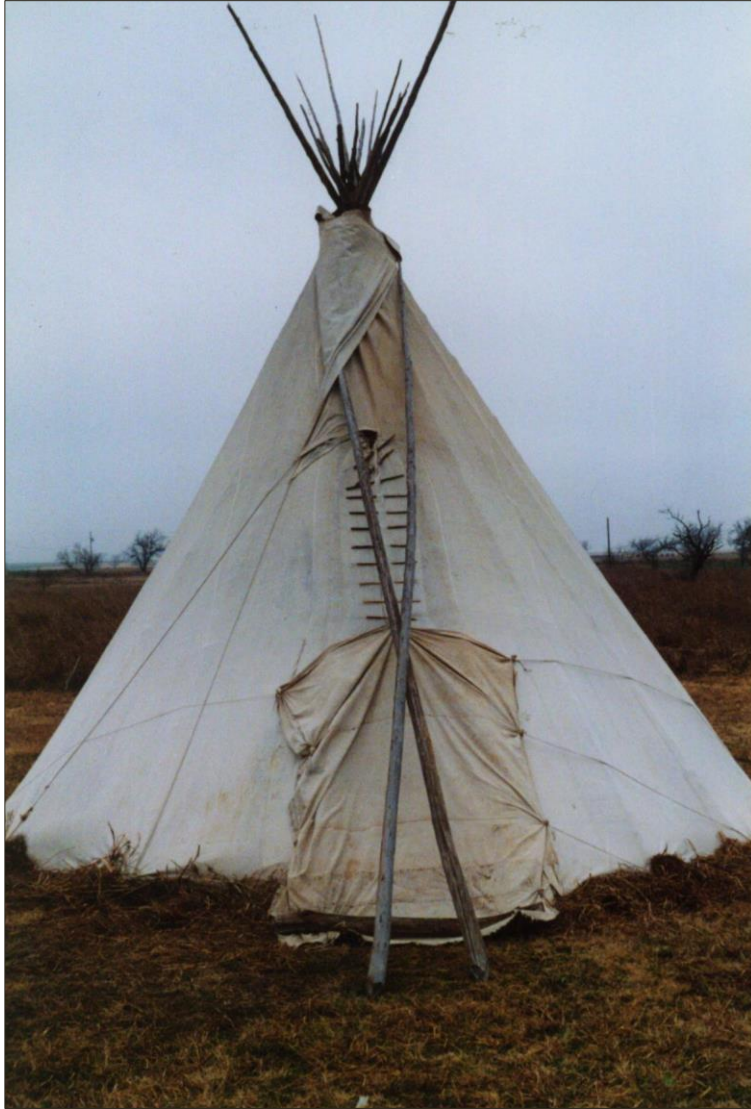


Figure 7: Chalepah family Native American Church tipi with closed smoke flaps. Photo by the Author, December 2002.

### **REPLICA PAINTED TIPIS**

Contemporary painted tipis can be seen each August, displayed on the grounds of the Southern Plains Indian Museum, located in Anadarko, Oklahoma. In 1973, the Department of the Interior's Indian Arts and Crafts Board worked with the Southern Plains Museum to exhibit 12 tipis made and painted by contemporary Native American artists. This exhibit featured examples of Cheyenne, Comanche, Kiowa, and Plains Apache lodges. Two of the covers were sewn by Gertrude and Irene



Figure 8: Tipis at Apache youth camp, Photo by Author, Summer 2001.

Chalepah, using a tipi previously owned by Ben Chaeltsin for their pattern (IACB 1973:43). Apache artist Elton Stumblingbear applied latex paint to one canvas cover, replicating Daveko's Moon Tipi (IACB 1973: 26). The Museum continues to erect several of the painted tipis in conjunction with the American Indian Exposition, an annual fair that celebrates food, dancing, and art, as well as contests for the best tipi and brush arbor display (Ellis 2003:156). A photograph of the assembled painted tipis has also been used for a tourist postcard, printed by the Prairie Production Company of Tulsa, Oklahoma, and sold in Oklahoma stores. Once again the iconic structure is offered to the general public as representing Native Americans in Oklahoma; unfortunately, few details are offered on the postcard to inform consumers of the tipi's deeper meanings in Southern Plains indigenous culture.<sup>11</sup>

## CONCLUSION

For mobile bison hunters of the Great Plains, portable hide tents offered a comfortable and efficient home. Native women worked together to construct and maintain the tipi residences, as well as their internal furnishings. But tipis were more than mere homes to Native peoples; they were also important indicators of family size, wealth, prestige, and essential kinship connections. Additionally, they provided leading men with a visual format to express military honors and personal relationships with the spiritual universe.

<sup>11</sup> For more discussion of postcards in Oklahoma, see Stokely (2015).



As occupants of the Southern Plains, the Kiowa and Plains Apache embraced a lifestyle that was nurtured and sustained by migratory bison and horse herds. Their material culture, social organization, military societies, and relationships with other Native peoples developed and adapted to meet the challenges and rewards of life in the Plains. For many Kiowa, Comanche, Plains Apache, and other Native peoples, success depended upon supernatural blessings acquired in dreams or visions. Native art forms expressed these important and essential spiritual understandings, and were communicated to others on painted tipi covers and war shields.

By the late nineteenth century, declining bison herds, confinement to reservations, and non-Native influences rapidly altered Southern Plains Native communities. At nearly the same moment in time, anthropologists began collecting cultural information. James Mooney's work with Kiowa and Apache elders has proved invaluable to scholars seeking a better understanding of tribal histories, social organization, family genealogies, military activities, language, and spirituality of the 1800s. Although incomplete, Mooney's research on painted tipis offers us a glimpse into Southern Plains Native life as it transitioned into the twentieth century.

Kiowa, Comanche and Apache people continue to reside in the Southern Plains of Oklahoma. Here they maintain important connections to family, land, and history, while developing and adapting their social institutions, economies, and governmental services to meet the needs of tribal members today. Cultural affiliations, such as the Manatidie Society and Native American Church, help community members to maintain essential connections. Tipis continue to serve as symbols of the historic past, but also function as important markers of cultural continuity into the twenty-first century and perhaps beyond.

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