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Timothy K. Perttula

Introduction

The A. C. Saunders site (41AN19) is an important ancestral Caddo settlement in the upper Neches River basin in Anderson County in East Texas (Figure 1). The site is one of only a few ancestral Caddo sites with mound features in the upper Neches River basin, particularly those that are known to date after ca. A.D. 1400, but this part of the upper Neches River basin, including its

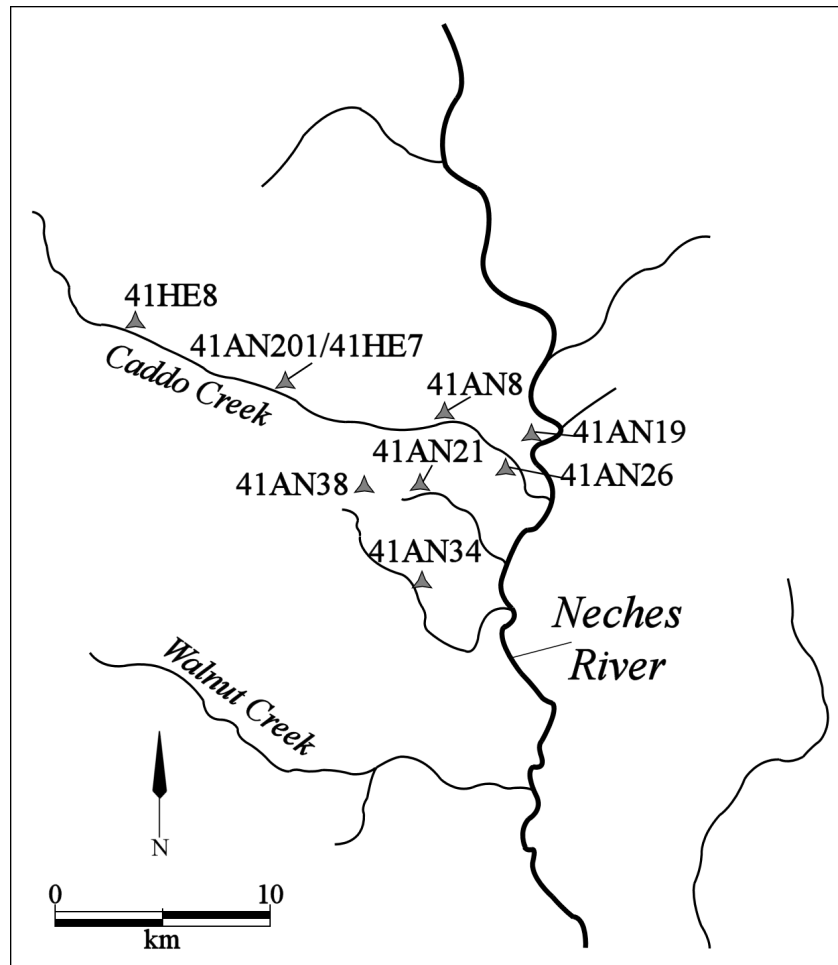


Figure 1. The A. C. Saunders site in the upper Neches River basin and important excavated Caddo sites in the Caddo Creek valley and surrounding drainages in Anderson and Henderson counties, Texas.

many tributaries, such as Caddo Creek just to the south and west (see Perttula and Walters 2016), was widely settled by Caddo farmers after that time. These Caddo groups left behind evidence of year-round occupied settlements with house structures, middens, and outdoor activity areas, impressive artifact assemblages, as well as the creation of numerous cemeteries, most apparently the product of use by families or lineage groups.

The Cultural Setting of the A. C. Saunders Site

What makes the A. C. Saunders site unique in upper Neches River basin Caddo archaeology are the two mound features there, situated on a broad upland landform less than a mile west of the Neches River and a comparable distance north of the confluence of Caddo Creek with the Neches River (see Figure 1). The first mound (Feature 1) is an ash mound that has been linked with the use of fire temples and perpetual fires by the *xinesi* of Hasinai Caddo groups in historic times (Jackson 1936; Kleinschmidt 1982, 1984; Perttula 1992; Wyckoff and Baugh 1980). The second mound (Feature 2), not far to the southeast, is a thick midden mound that accumulated over a large structure. The concentrated midden accumulation near the ash mound suggests it may represent the remains of multiple feasting events (e.g., Kassabaum 2019) and other ritual activities where large amounts of food were consumed, clay pipes were smoked, and cooking and serving vessels were used, and thus the discarded fragments of these activities created the midden deposits. These items constitute a discrete and substantial corpus of material culture remains that have played a large role in defining and framing the archaeological character of what has come to be known as the Late Caddo period Frankston phase (ca. A.D. 1400-1680), since the A. C. Saunders site is the quintessential Frankston phase site in East Texas. As such, these material culture remains curated at the Texas Archeological Research Laboratory at The University of Texas at Austin are a means to better understand the character of the tools and ornaments, the everyday things, used by Caddo peoples in the upper Neches River basin.

Feature 2, Midden Mound

UT archaeologists completed excavations at the A. C. Saunders site in 1931 and 1935 (Jackson 1935, 1936). This work focused solely on the two mounds (Figure 2), with no investigations done to identify non-mound habitation areas or associated cemetery areas. The Feature 2 midden mound was approximately 125 ft. (38.1 m) south-southeast of Feature 1. The midden mound, which was 60 x 50 ft. in length and width (18.3 x 15.2 m) and stood 2.6 ft. in height (0.8 m), was totally excavated in 1935 in a ca. 55 ft. square unit, with organically-enriched midden deposits with ash removed in three 10 inch levels labeled ACS 1, ACS 2, and ACS 3 (Jackson 1936:136, 153). Directly beneath the midden deposits was evidence that a large circular structure (Feature 3), marked by an arc of 99 post holes identifying the outer wall of the structure (Perttula 2020:Figures 6 and 7), stood here and was subsequently buried by the midden mound deposits. Several interior post holes may represent the center post (12 inches in diameter and 2.5 ft. in depth) as well as various internal partitions.

The midden deposits above Feature 3 contained an abundance of ceramic sherds, estimated at 600 lbs. in weight (Jackson 1936:139), as well as ca. 400 lbs. of well-preserved animal bone and fresh water mussel shell. The recent analysis of the ceramic vessel sherds from Feature 2 suggest it accumulated from ca. A.D. 1480 to the early 17th century (Perttula 2020).

Only a small portion of the animal bones and mussel shell remains were retained by The University of Texas archaeologists, unfortunately, including only 527 mussel shell valves (Neck

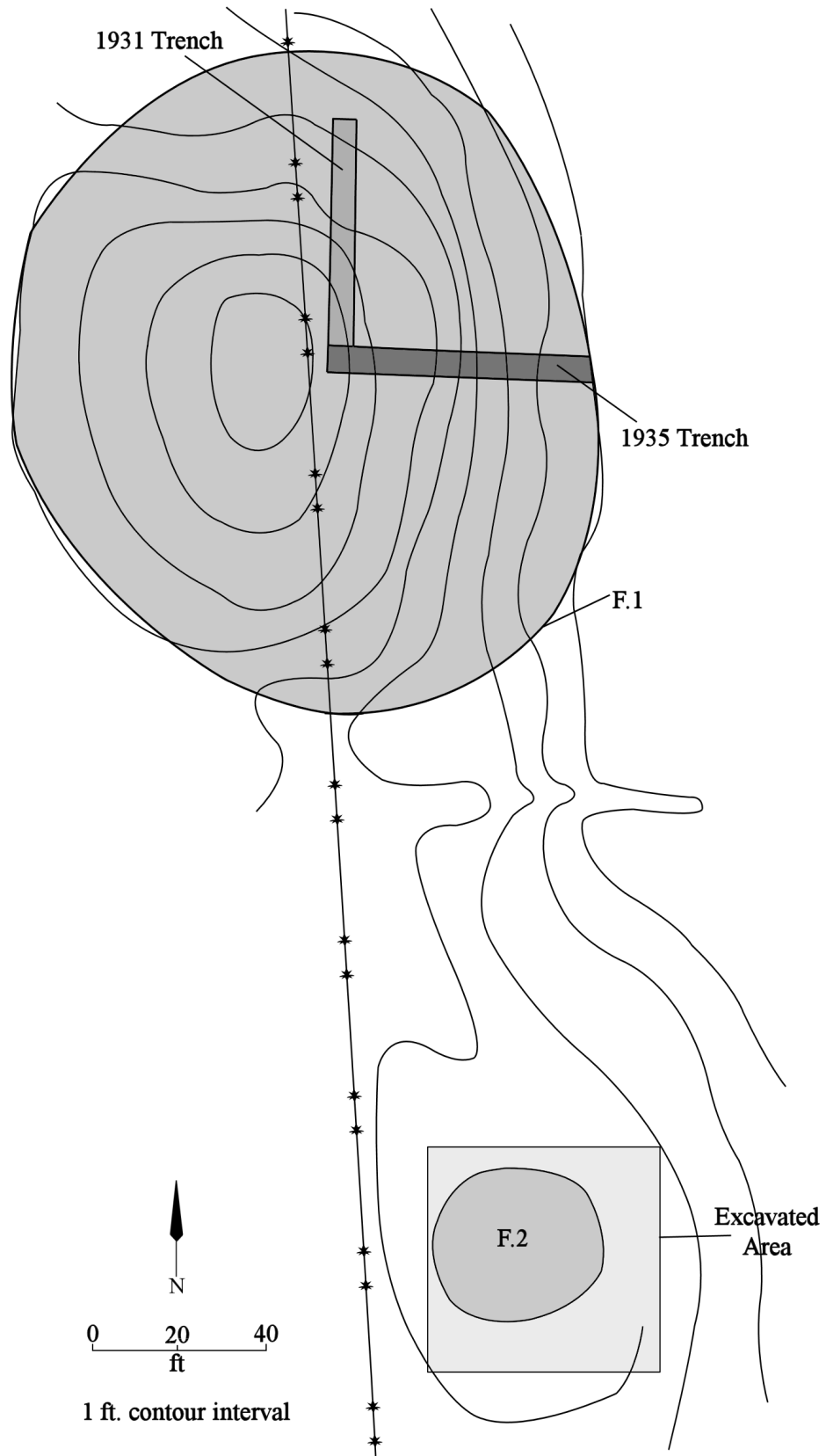


Figure 2. Feature 1 and 2 mounds at the A. C. Saunders Site.

1982) and 151 animal remains (Kleinschmidt 1982:266-271). The bone tools, shell tools, and shell ornament remaining in the collections from Feature 2 are the subject of this article.

Bone Tools

There are 69 animal bone tools in the A. C. Saunders collection, most of them made from deer bone. Most of these are either ulna tools (Figure 3a-c, n=34) or antler tools (Figure 4, n=15).

The deer ulna tools may have been used as awls to pierce hide or leather. The pieces have modified distal shafts with visible striations, smoothing, or polishing from repeated use. The distal ends range from square or rounded with blunt ends, or pointed, and the modified shafts range from 1.8-6.7 cm in length.

Most of the deer antler tines (n=15) have been rounded or smoothed to a blunt end, and they range from 10.2-16.1 cm in length, but others have been sharpened to a point, perhaps used for lithic knapping and working to pierce or cut deer hides. One of the antler tines had been cut at both ends, possibly forming a bone bead (Jackson 1935:Figure 12d).

Four tools are made from deer metatarsals (Figure 5) and are likely beamers used in deer hide cleaning. They have been smoothed or polished on their shafts, and one had been split length-wise to create two separate tools, one sharpened to a point.

One piece from a deer metacarpal bone has been made into a tool by smoothing its entire shaft, possibly for deer hide work. Ten deer bone pieces are thin tubular fragments with smoothing and polishing, possibly from use as needles or pins (Figure 6a-b).

There are also five bird bone tools in the assemblage. Four have been smoothed, two of these as long points that are probably needles or pins, and one is a hollowed-out long bone tube (Figure 7). Jackson (1935:25) suggests this may have been a bone bead.

Shell Tools

The shell tools (n=18) are on complete or nearly complete freshwater mussel shell valves. Eleven of the valves from *Tritogonia verrucosa* and *Lampsilis teres* have use wear on the bottom edges of the valves (Kleinschmidt 1982:66 and Figure 10), perhaps from use as spoons or digging tools. The other seven have single drilled or punched perforations on the upper valves (Figure 8a-b). These are from *Plectomerus dombyanus*, *Amblema plicata*, *Lampsilis hydiana*, and *Tritogonia verrucosa* species.

Experimental archaeological work and micro-wear studies on burins summarized by Robinson (2020) from the Edd Melton site (41BL1138) has made a strong case that such single perforated mussel shell valves were used as net weights. These shells would likely have been tied to the bottom parts of net cordage to function as weights or sinkers.

Shell Ornament

The one shell ornament in the A. C. Saunders collection is a marine shell columella fragment from a conch or whelk, likely collected from the Gulf of Mexico. The columella has been split lengthwise, and then two small holes were drilled through one end (Figure 9), likely for suspension on a necklace.



Figure 3. Deer ulna tools from the A. C. Saunders site: a, ACS 1; b, ACS 2; c, ACS 3.



Figure 4. Deer antler tools from the A. C. Saunders site, no recorded provenience.



Figure 5. Deer metatarsal tools from the A. C. Saunders site, no provenience.

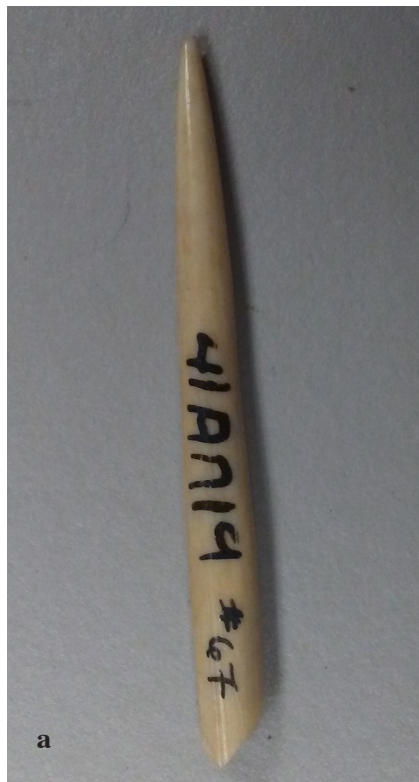


Figure 6. Polished bone needles or pins from the A. C. Saunders site: a, ACS 1; b, ACS 3.



Figure 7. Bird bone tube or possible bead from the A. C. Saunders site, ACS 2.



Figure 8. Perforated mussel shell valves from the A. C. Saunders site: a; *Lampsilis hydiana*, no provenience; b, *Plectomerus dombyanus*, ACS 2.



Figure 9. Drilled columella ornament from the A. C. Saunders site, no provenience.

Summary and Conclusions

During the extensive archaeological investigations in 1935 by the University of Texas (UT) of the Feature 2 midden mound at the A. C. Saunders site (41AN19) in the upper Neches River basin, a number of bone and shell tools, and a shell ornament, were recovered and retained in UT collections, where they are still available for study. I discuss and illustrate representative examples of several kinds of bone and shell tools preserved in ca. A.D. 1480-early 17th century Frankston phase Feature 2 midden deposits where domestic and feasting remains accumulated. The deer bone tools include ulna awls, antler flakers, metatarsal and metacarpal beamers, as well as deer and bird bone needles or pins. There is also one possible bird bone bead in the collection.

Freshwater mussels were likely gathered for food by ancestral Caddo peoples during certain seasons of the year, and their valves were mainly discarded in the Feature 2 midden deposits as food trash. However, a certain number of the valves have evidence of use along their edges, either from being used as spoons or digging implements, or the valves have a single perforated or drilled hole. It is likely that these perforated mussel shell valves were net weights, suggesting that not only did the ancestral Caddo peoples at A. C. Saunders make and use cordage for nets, but that they harvested fish from the Neches River with these nets.

Acknowledgments

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