

The McKee Site (41GU117) Excavations, Guadalupe County, Texas

David L. Calame, Sr., Glenn T. Goode, Richard McReynolds, and Timothy K. Pertulla

Introduction

The McKee site came to the attention of the archaeological community early in 2009. The late Bruce Moses, then Chairman of the Southern Texas Archaeological Association (STAA) and an archaeologist with the Center for Archaeological Research at the University of Texas at San Antonio, saw a local news clip about a Seguin citizen who had discovered an archaeological site on his property within the city limits of Seguin in Guadalupe County, Texas (Figure 1).

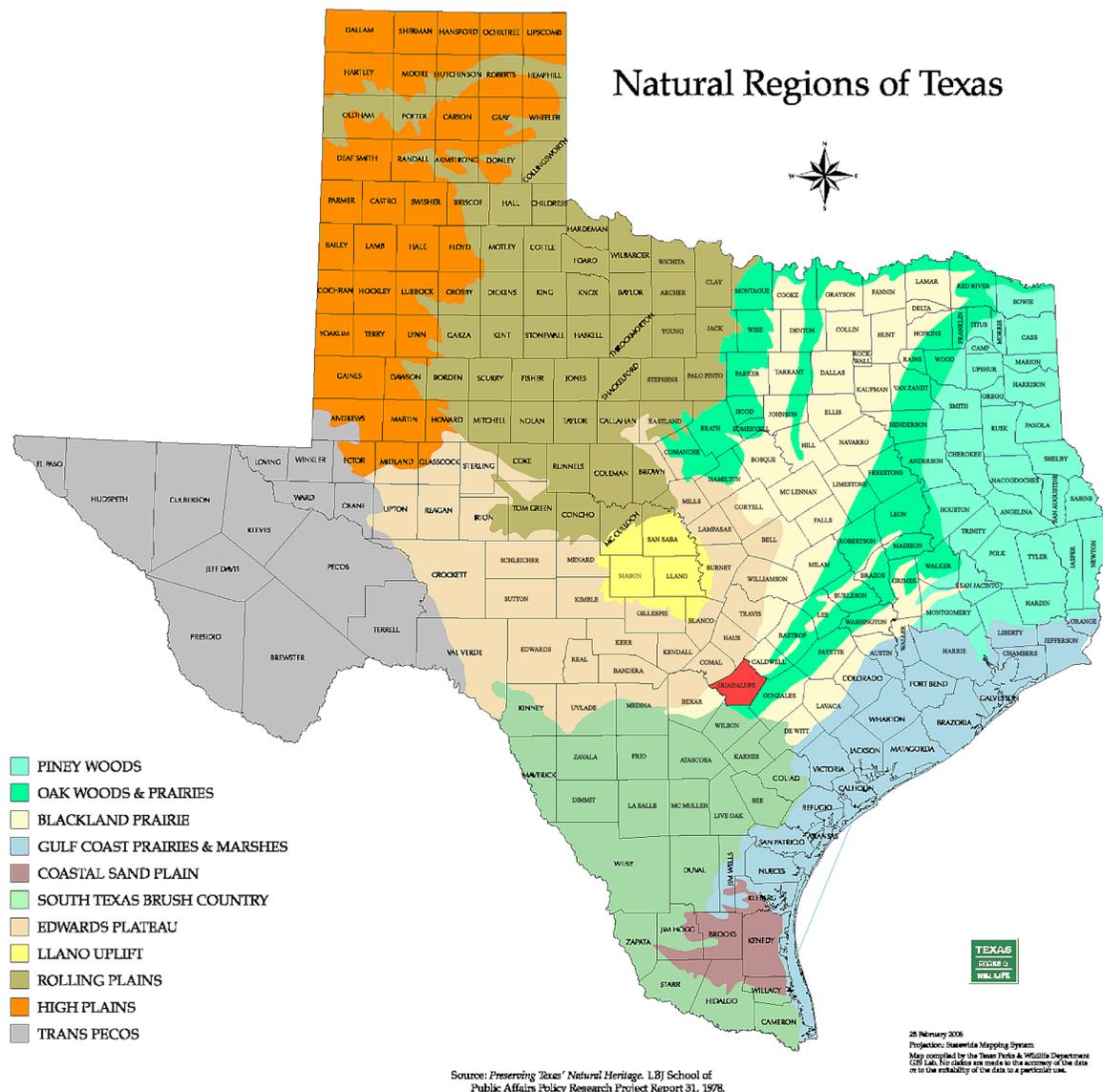


Figure 1. Guadalupe County in South Texas. Figure prepared by Lance Trask.

The property owners, Floyd and Jodie McKee, had discovered the site when they excavated a soil borrow pit along the bank of the Guadalupe River, on which their property fronts, to place topsoil on their nearby front yard and pasture. After an overnight rain, the McKee's awoke to find their front yard littered with stone tools and dart points. The McKee site, about an acre in size, is on an alluvial terrace (500 ft. amsl) of the river.

Mr. Moses contacted David L. Calame, Sr., who was the STAA Documentation Chair at the time, and asked that he visit the property owners and the site and see if there may be a possibility for STAA to get involved in investigations there to learn more about the site, or at least that the site collection be documented. Calame, Sr. was invited by the McKee's the very next day to view the entire assemblage, which contained a few older Paleoindian points such as Angostura and one Midland, as well as Early Archaic Gower and Martindale points, but generally appeared to be a typical Middle Archaic, Late Archaic, and Late Prehistoric projectile point assemblage for a South Texas site, with Andice/Bell, Castroville, Ensor, Frio, Montell, and Pedernales projectile points, Scallorn and Guerrero arrow points, drills, and scrapers, except regarding one artifact type. In the assemblage were a group of 57 Guadalupe tools. Those Guadalupe tools came from within a 15'x15' borrow pit. Most of those tools would readily be described as totally exhausted and so the Guadalupe tools found within the borrow pit might have been in a "discard area" of the site for that time period. The Area A excavation block was approximately the same dimensions as the borrow pit and immediately southeast of it, yet only seven Guadalupe tools were found in situ. Within the borrow pit, McKee may have dug up a pile of discarded Guadalupe tools, which suggests that those tools were all used within a short period of time.

Little is known of this very unique and highly distinctive tool type, found only in South Texas below the Balcones Escarpment between the Rio Grande and Colorado River, "but concentrated in the Guadalupe and San Antonio River basins" (Turner et al. 2011:232). According to Turner et al. (2011:232), this tool form is:

percussion-flaked, thick, and crude. Most have triangular cross sections...At the distal end, there is an abruptly truncated bit that angles from the dorsal edge toward the proximal end. The bit is usually unifacially worked, often by the removal of narrow, blade-like flakes around the curved distal bit, and the working-edge angles are generally steep, ranging roughly from 55 to 85 degrees.

Guadalupe tools are not uncommon within this geographical area, but certainly not in these numbers!

Once the McKee's were made aware of this very unique facet of the archaeological site on their property, they immediately requested that Calame, Sr. make recommendations on how to best proceed. A meeting was then held between the McKee's and the STAA Board and other special guests, including Ellen Sue Turner, which included a site visit. The McKee's agreed to allow STAA to undertake test excavations at the site, which began in May 2009.

The Excavations

The whole area around McKee's borrow pit was determined to be a pig sty associated with historic plantation operations, but the depth disturbed by "hog wallowing" was unclear and could not be determined in McKee's borrow pit profile. The first obviously intact level in the borrow pit

profile, and also noted in a drainage ditch running from McKee’s borrow pit approximately 30 m east parallel to the Guadalupe River (Figure 2), was an occupation level marked by a heavy layer of mussel shell, fire-cracked rock, and lithic debitage. As exposed in the drainage ditch, this occupation level or horizon was on average slightly deeper than 120 cm bd.

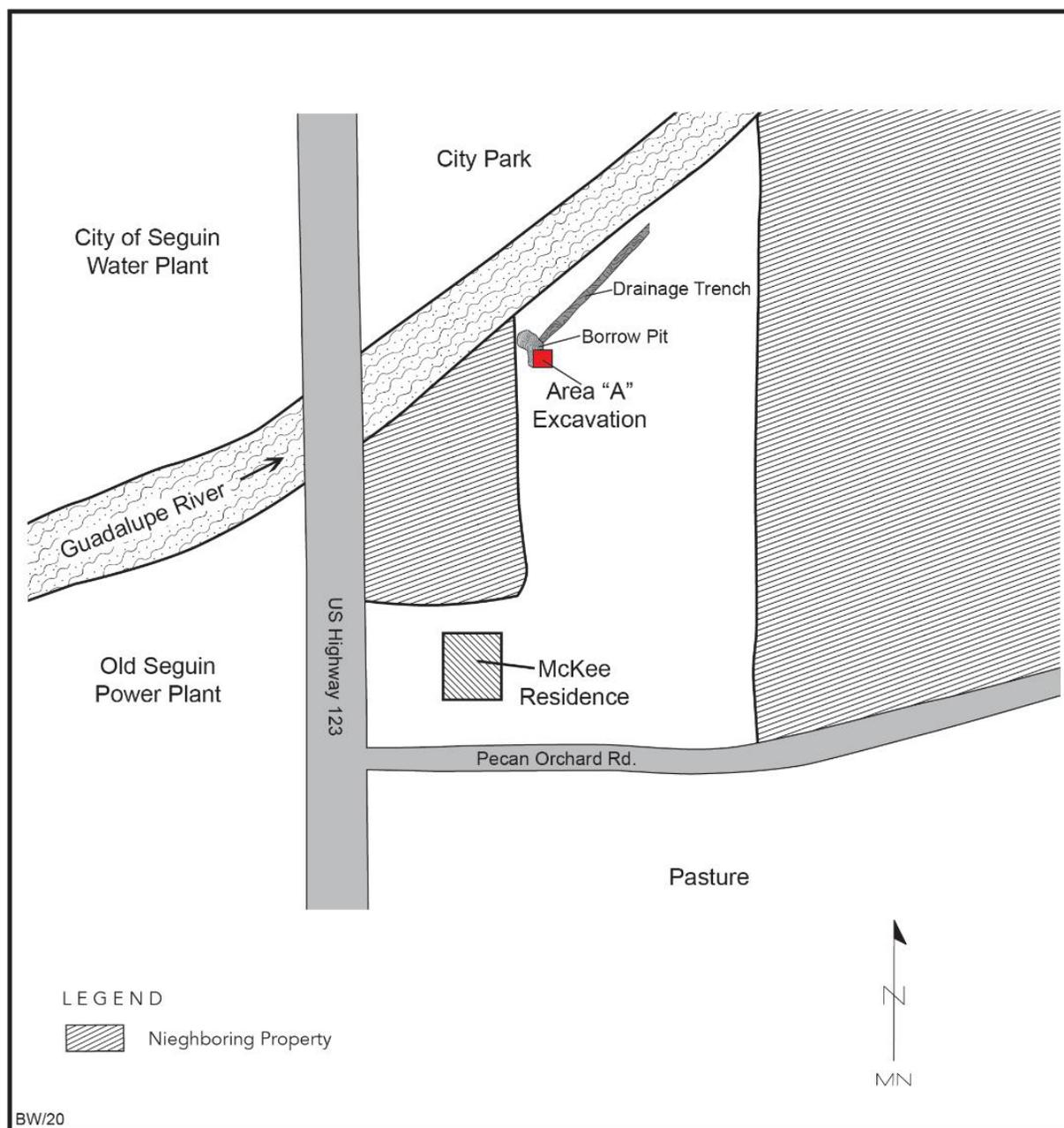


Figure 2. Map of the McKee Site and immediate environs.

It was suggested that the first 60-70 cm of the sediments could readily be removed by using an available backhoe on site without disturbing the archaeological deposits. Shovel skimming of units would then be used in a 4 x 4 m block laid out adjacent to McKee’s borrow pit (see Figure 2). The block of units—Units A-D (west to east) and 1-4 (north to south)—was accordingly laid out (Figure 3), and excavations began May 16, 2009, and continued through early July 2011, when excavations under STAA stalled. At the request of the McKee’s, excavations resumed in August 2014 under

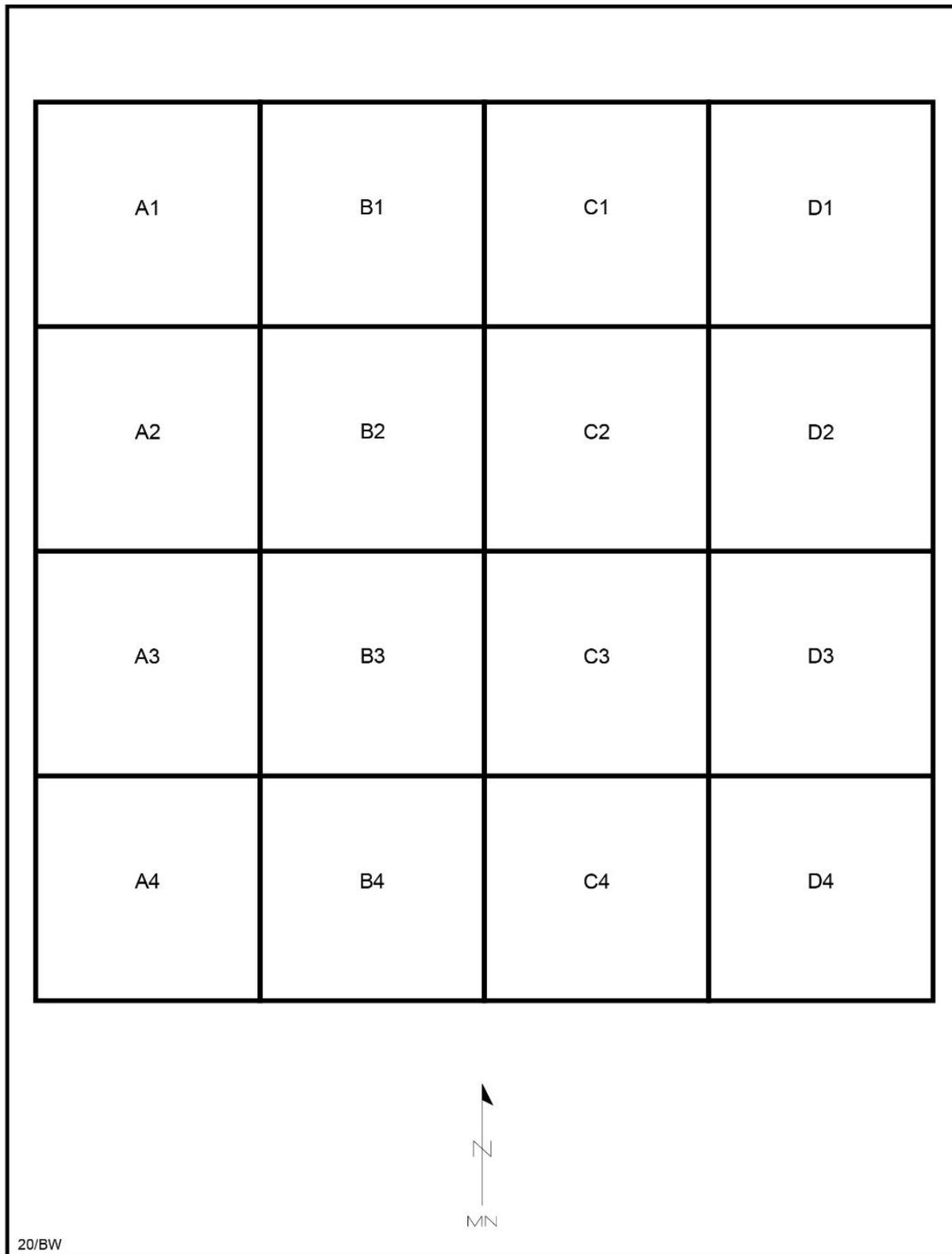


Figure 3. 4 x 4 m block excavations at the McKee Site.

the auspices of the newly formed Borderland Archaeology under the direction of Co-Principal Investigators Glenn T. Goode and David L. Calame, Sr.

Borderland Archaeology took over excavation with the 120-130 cm bd level and continued the shovel skimming technique employed by the STAA. The disturbed deposits ended just above 120 cm bd. Almost immediately we began encountering mussel shell, fire-cracked rock, and lithic debitage. Once intact archaeological deposits were identified in the silty sediments, excavations techniques changed from shovel skimming to troweling of the archaeological deposits. The first possible Guadalupe biface (UI 1001) was encountered in unit B2 at a depth of 136.5 cm bd.

In all, seven Guadalupe bifaces were found in controlled excavations between 130-141 cm bd (UI's 3121, 3134, 3146, 3147, 3153, 3178, and 3181) (Figure 4a-b) and an Early Triangular point (UI 3130) was recovered at 133 cm bd (Figure 5). All Guadalupe tools, the Early Triangular dart

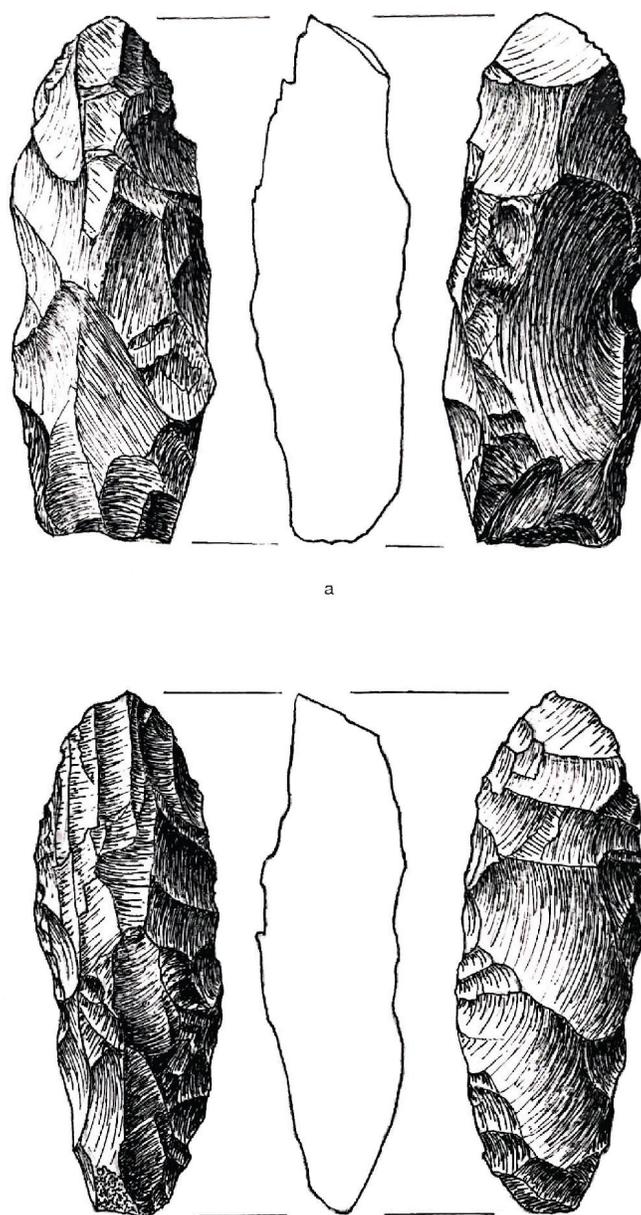


Figure 4. Guadalupe tools from 41GU117: a, UI 3178; b, UI 3134.

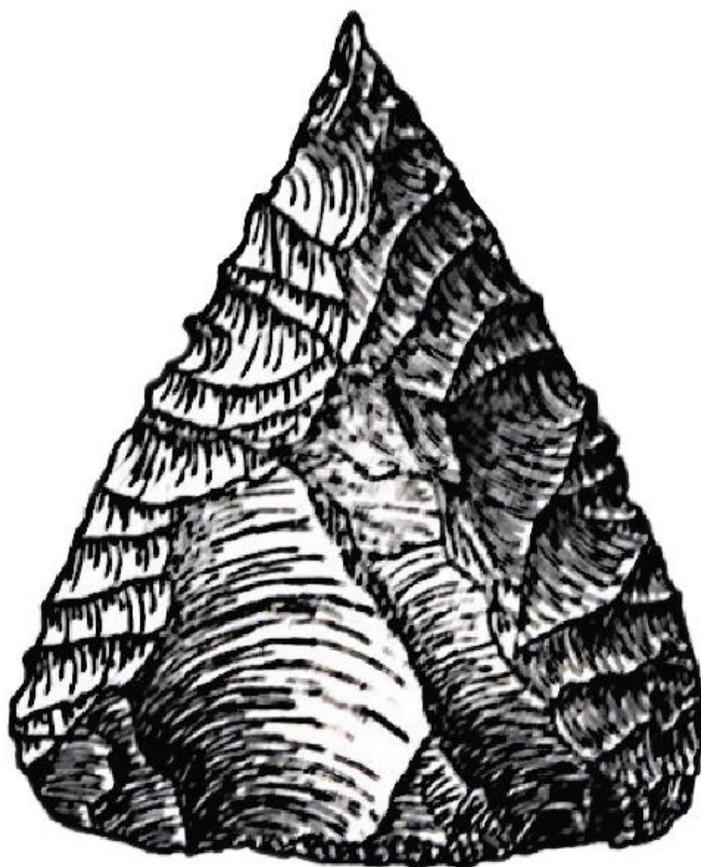


Figure 5. Early Triangular dart point from 41GU117.

point, and the radiocarbon-dated charcoal samples were found within Level 14 (Figure 6). The tools were made from Uvalde gravels (see Stoutamire and McBride 2020), which are available in the immediate area and also in the bed load of the Guadalupe River.

A small triangular adze (UI 3183) was found immediately below the deepest Guadalupe biface in Level 15 at 142 cm bd. The bottom quadrant of a bifurcated projectile point (UI 3164), identified as an Early Archaic Merrell point (see Turner et al. 2011:134), was found in Level 16 at a depth of 154 cm bd in association with clusters of fire-cracked rocks (Figure 7) that may be part of a rock hearth or a hot rock cooking feature (see Black et al. 1997), and a sample of charcoal was obtained (UI 3131) at a depth of 155 cm bd. A Gower point (3168) (see Turner et al. 2011:112) was discovered below this cluster of fire cracked rocks at 160 cm bd. The landowner's examination of the excavated borrow pit suggested that the archaeological deposits at the McKee site extended to at least 1.8 m below datum, but the STAA/Borderland Archaeology excavations reached 170 cm bd in one unit.

Radiocarbon Dates

Two samples of charcoal (UI 3133 and 3126) from the McKee site were sent to Dr. Raymond Mauldin at the Center for Archaeological Research at UTSA, who processed the samples and sent them to DirectAMS of Bothell, Washington. The first sample (FS 234, UI 3133) is from Unit B4,

Table 1. Results of the radiocarbon dating of organic remains from the McKee site (41GU117).

Sample #	Direct-AMS #	Conventional age (B.P.)	1 Sigma Calibration (B.C.) and probability	2 Sigma Calibration (B.C.) and probability
FS 234	D-AMS 025827	2487 ± 26	757-733 (0.16) 690-678 (0.07) 672-661 (0.07) 649-545 (0.70)	772-532 (0.98) 530-518 (0.02)
Median probability: 637 B.C.				
FS 226	D-AMS 025828	5256 ± 29	4222-4209 (0.1) 4156-4132 (0.2) 4067-4033 (0.34) 4025-3992 (0.36)	4228-4200 (0.11) 4170-4126 (0.21) 4123-4090 (0.08) 4082-3981 (0.60)
Median probability: 4059 B.C.				

level 13 (130-140 cm bd), while the second sample (FS 226, UI 3126) is from level 14 (130-140 cm bd) in Unit B1.

The results of the radiocarbon analyses are provided in Table 1. The conventional ages range from 2487 ± 26 B.P. to 5256 ± 29 B.P. The radiocarbon dates were calibrated at 1 sigma (68.3 percent probability) and 2 sigma (95.4 percent probability) using INTCal 13 and Calib 7.1 (Reimer et al. 2013; Stuiver et al. 2020).

When calibrated to 2 sigma, the median probability of the two dates are 637 B.C. and 4059 B.C. Also at 2 sigma, the likeliest age range of the two wood charcoal samples are 772-532 B.C. (0.98, 2 sigma) and 4170-3981 B.C. (0.89, 2 sigma). The splits in the 2 sigma calibrated age ranges suggests there were two different periods of use of the McKee site during the Late Archaic and the Middle Archaic, or more likely that the FS 234 sample was contaminated by overlying disturbed pig sty deposits. The age of the Guadalupe tool recovered in association with the wood charcoal in FS 226 is consistent, however, with the ca. 3500 B.C. or earlier date offered by Turner et al. (2011:232) for

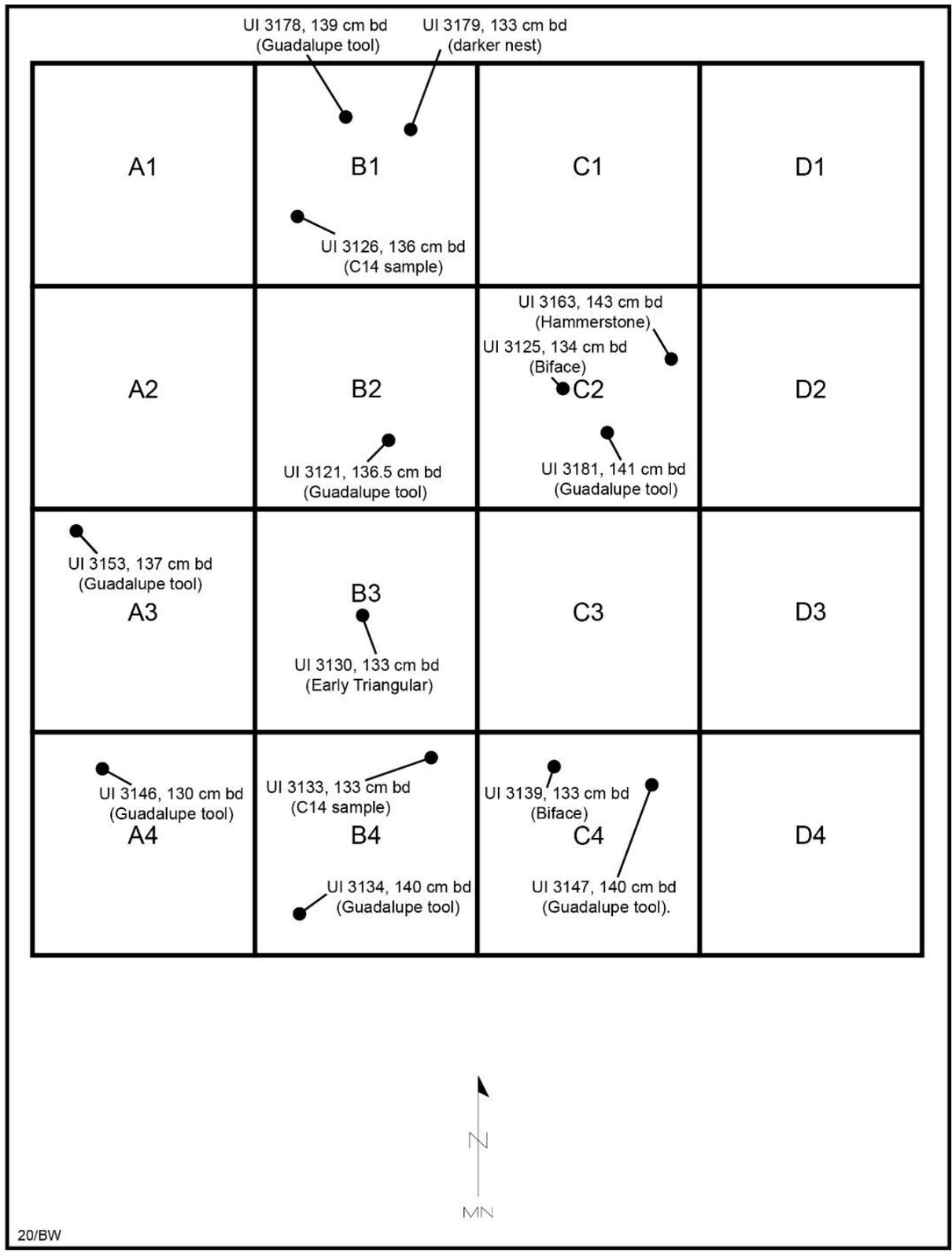


Figure 6. Plotted UIs in the 4 x 4 m block excavation at the McKee site.



Figure 7. Fire-cracked rock feature in Unit D2, level 16, at the McKee site.

the age of this tool type. It is also consistent with the estimated conventional age of Early Triangular dart points: 5900-5300 B.P. or 3950-3350 B.C. (Turner et al. 2011:88).

Summary and Conclusions

The McKee site (41GU117) on the Guadalupe River was discovered by the property owners in 2009, when rains exposed many stone tools and projectile points in soil that had been removed from a borrow pit on an alluvial terrace near the river. Among the many tools were a notable abundance of distinctive Guadalupe tools, several Paleoindian projectile points, as well as a number of Early Archaic, Middle Archaic, Late Archaic, and Late Prehistoric projectile points and tools. The Southern Texas Archaeological Association (STAA) contacted the landowners about conducting archaeological investigations at the site, and the McKee's agreed to allow the STAA to initiate test excavations in May 2009.

The STAA excavations were in a 4 x 4 m block placed next to the borrow pit, and the excavations continued until July 2011. In August 2014 excavations were renewed under the direction of Borderland Archaeology. The block excavations were shovel-skimmed until an occupation horizon marked by mussel shell, fire-cracked rock, and lithic debitage was encountered between 120-130 cm bd, at which point the block units were troweled, and key artifacts and charcoal samples were piece-plotted in the units.

The excavations reached to a maximum of 170 cm bd. Between 130-150 cm bd, seven Guadalupe tools or bifaces were recovered in the buried archaeological deposit, along with an Early Triangular dart point and several charcoal samples. An Early Archaic Merrell point fragment was found at 154 cm bd, 12 cm below the horizon with the Guadalupe tools and an Early Archaic Gower point was discovered below this cluster of fire cracked rocks at 160 cm bd. Two charcoal samples from 130-140 cm bd were submitted for radiocarbon dating, and the one reliable Middle Archaic period date associated with the Guadalupe tools and the Early Triangular dart point at the McKee site has an associated 2 sigma calibrated age range of 4170-3981 B.C. (0.89), and a median calibrated probability of 4059 B.C.

Acknowledgments

We thank the landowners, Floyd and Jodie McKee, for allowing archaeological investigations at the McKee site (41GU117) on their property by both the STAA and Borderland Archaeology. We also appreciate the hard work of the STAA and Borderland Archaeology volunteers in completing the block excavations at the site. Lance Trask prepared Figure 1, while Brian Wootan prepared the others based on drafts provided by David L. Calame, Sr. The artifact drawings were done by Richard L. McReynolds.

References Cited

- Black, Stephen L., Linda W. Ellis, Darrell G. Creel, and Glenn L. Goode
1997 *Hot Rock Cooking on the Greater Edwards Plateau: Four Burned Rock Midden Sites in West Central Texas, Volumes I and II*. Studies in Archeology No. 22, Texas Archeological Research Laboratory, The University of Texas at Austin, and Archeology Studies Program, Report 2, Texas Department of Transportation, Environmental Affairs Department, Austin.
- Reimer, P. J., E. Bard, A. Bayliss, J. W. Beck, P. G. Blackwell, C. Bronk Ramsey, C. E. Buck, H. Cheng, R. L. Edwards, M. Friedrich, P. M. Grootes, T. P. Guilderson, H. Hafliðason, I. Hajdas, C. Hatté, T. J. Heaton, A. G. Hogg, K. A. Hughen, K. F. Kaiser, B. Kromer, S. W. Manning, M. Niu, R. W. Reimer, D. A. Richards, E. M. Scott, J. R., Southon, C. S. M. Turney, and J. van der Plicht
2013 IntCal13 and MARINE13 radiocarbon age calibration curves 0-50000 years cal BP. *Radiocarbon* 55(4):1869-1887. DOI: 10.2458/azu_js_rc.55.16947
- Stoutamire, S. and M. McBride
2020 A Rock's Long Journey: Unraveling Bedrock Sources to Deposition Areas for the Uvalde Gravels. *Bulletin of the Texas Archeological Society* 91:187-203.
- Stuiver, M., P. J. Reimer, and R. W. Reimer
2020 CALIB 7.1 at <http://calib.org>, accessed February 22, 2020.
- Turner, E. S., T. R. Hester, and R. L. McReynolds
2011 *Stone Artifacts of Texas Indians*. Taylor Trade Publishing, Lanham, Maryland.