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AN EARLY RADIOCARBON DATE FROM A PREHISTORIC SITE IN ANDERSON COUNTY, TEXAS

Timothy K. Perttula

Clyde Amick and Ed Furman, avocational archaeologists, have been investigating a prehistoric archaeological site in Anderson County, Texas, that became exposed when an asphalt company began to mine sand from an alluvial terrace along Town Creek (Amick n.d.). The archaeological site (41AN115) is about 15 km west of Palestine, the county seat for Anderson County.

One of the mining cuts in the terrace exposed deep alluvial deposits and a concentration of ash and charcoal from a feature, probably a hearth. The feature was exposed from 107-122 cm below the surface, and was found associated with several lithic flakes, a scraper, and a small flake knife. Amick and Furman excavated a 2 x 2.5 ft. unit in the cutbank to better expose the feature, which turned out to be 51 cm in diameter. They collected the feature contents for analysis, and at my suggestion, provided the 30 g of charcoal from the feature for radiocarbon analysis. In addition to the scraper and flake tool, as well as local and non-local lithic flakes, the feature contained pieces of ferruginous sandstone fire-cracked rock.

The charcoal sample was submitted to Beta Analytic Inc. for radiocarbon dating, and the results indicate that the ash and charcoal feature, and the associated artifacts, were deposited at the site between 4400-4000 years ago. This is about the beginning of the Late Archaic period in Northeast Texas. According to Beta Analytic Inc., the sample (Beta-166266) has a measured radiocarbon age of 3840 ± 50 B.P., with a $^{13}\text{C}/^{12}\text{C}$ ratio of -27.1 o/oo. Correcting for isotopic fractionation, the conventional radiocarbon age is 3810 ± 50 B.P. (Figure 1).

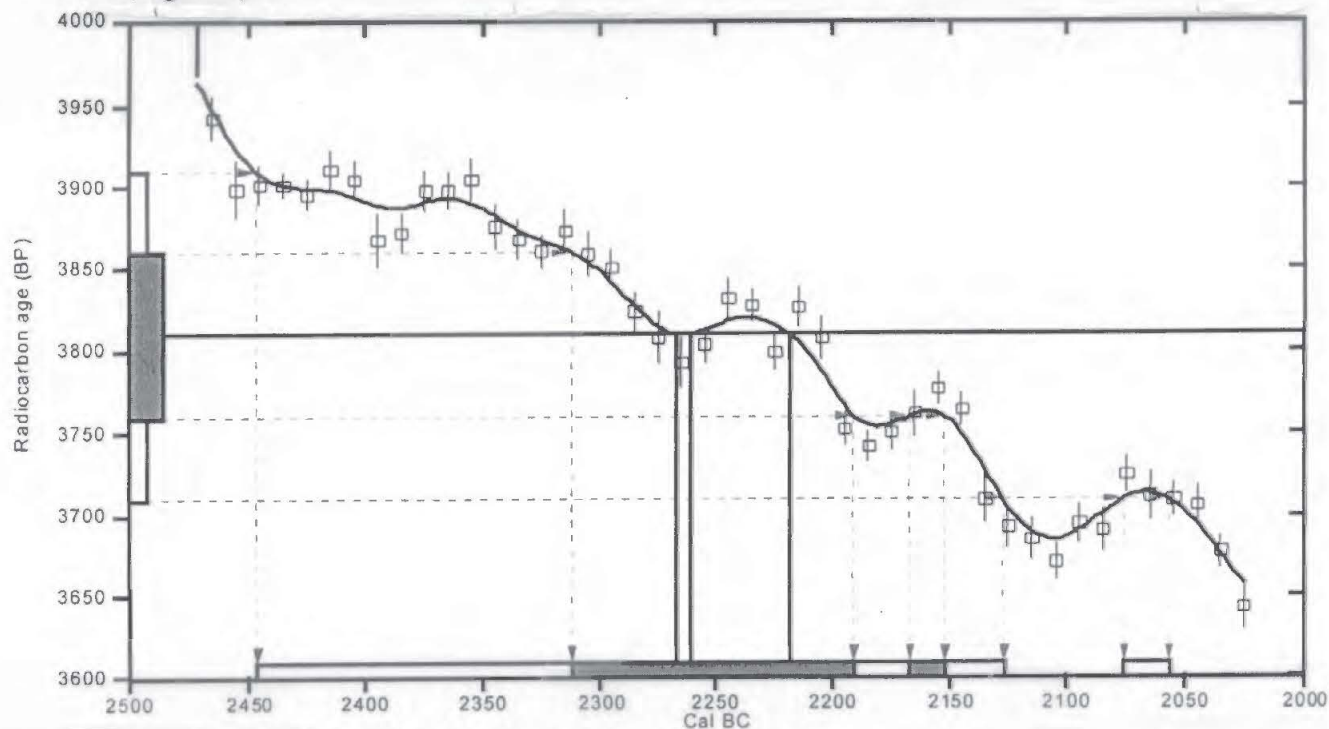


Figure 1. Calibration of Radiocarbon Date from 41ANI 15, Anderson County, Texas.

Following Stuiver et al. (1998) and Talma and Vogel (1993), the one sigma and two sigma calibrated age ranges of the radiocarbon sample from 41AN115 are 4100-4260 B.P. and 4010-4400 B.P., respectively. The two sigma calibrated results indicate that there is a 95% probability that the ash and charcoal feature dates between 2060-2450 B.C., with calibrated intercepts at 2220 B.C., 2260 B.C., and 2270 B.C. (see Figure 1).

There are very few well-dated Late Archaic archaeological components in Northeast Texas, based on a recent summary of radiocarbon and Oxidizable Carbon Ratio dates from prehistoric sites in the region (Pertulla 1998). These include a buried shell lens at the Winston site (41HE245) on the Trinity River that dates from 766-1084 B.C.; a buried scatter of burned rocks and lithic artifacts at the W. S. Long #3 site (41HP118) in the South Sulphur River floodplain that dates from 924-1222 B.C.; and a small concentration of lithic tools and burned rocks at the Mockingbird site (41TT550) in the Big Cypress Creek basin that dates between 408-828 B.C. (Pertulla 1998:310).

The preservation of deeply buried Late Archaic archaeological deposits and features with preserved organic materials at 41AN115 indicates that the site has considerable potential to shed new light on the settlement and subsistence strategies of Late Archaic peoples in Northeast Texas. Hopefully additional archaeological investigations can be conducted at 41AN115 before it is destroyed by sand mining operations.

REFERENCES CITED

- Amick, C.
n.d. MS in preparation on the Fire pit Site (41AN115).
- Pertulla, T. K.
1998 A Compendium of Radiocarbon and Oxidizable Carbon Ratio Dates from Archaeological Sites in East Texas, with a Discussion of the Age and Dating of Select Components and Phases. *Radiocarbon* 39(3):305-341.
- Stuiver, M. et al.
1998 INTCAL98 Radiocarbon Age Calibration. *Radiocarbon* 40(3):1041-1083.
- Talma, A. S. and J. C. Vogel
1993 A Simplified Approach to Calibrating C14 Dates. *Radiocarbon* 35(2):317-322.