A PRELIMINARY REPORT ON THE SANDERS #1 SITE (40CH193), CHEATHAM COUNTY, TENNESSEE

D. Shane Miller, John B. Broster, Gary L. Barker, David G. Anderson, and Stephen B. Carmody

Archaeological components dating to the Paleoindian and Early Archaic periods (>8000 rcybp) are relatively rare in the southeastern United States. However, the Middle Cumberland River contains several previously reported stratified sites dating to this time period. Here, we provide a preliminary description of one of these sites (Sanders #1, 40CH193), where lithic material, charcoal fragments, and a probable hearth feature were found eroding out of the shoreline of the Cumberland River 4.0 to 4.5 meters below ground surface. A radiocarbon date derived from this feature (AA96399; 9412 ± 54 ^{14}C yr BP; 10,649 ± 88 cal yr BP) indicates it is Early Archaic in age and may be associated with the Lost Lake and Kirk Corner–Notched bifaces recovered from the shoreline lag deposits. Other temporally diagnostic Paleoindian and Early Archaic artifacts were also recovered from the shoreline lag deposits, thus making a direct association between the radiocarbon date and the corner-notched bifaces somewhat tenuous at this time.

One of the most significant issues in Paleoindian and Archaic period archaeology in the southeastern United States (>8000 14C yr BP) is a lack of sites with dated components (Anderson and Sassaman 2012:50; Anderson et al. 1996:13–15; Goodyear 1999; Miller and Gingerich 2012), despite having perhaps the densest concentrations of artifacts dating to this time in North America (Anderson et al. 2010; Meltzer 2009). Moreover, many of the dates that serve as the foundation of the region's culture historical sequence were processed using the "conventional" method prior to the inception to the more precise Accelerator Mass Spectrometer (AMS) method (Haynes et al. 1984). As a result, the identification of Late Pleistocene and Early Holocene archaeological sites that contain datable material should be considered a high priority (e.g. Anderson 2005:30–32). Unfortunately, in addition to general taphonomic biases that work against the preservation of organic materials (e.g., Schiffer 1988; Surovell and Brantingham 2007), there appears to be broad-scale geomorphic factors that have also inhibited the discovery of early sites in the region (Dunnell 1990:11–12; Goodyear 1999).

One exception to this trend appears to be the Cumberland River drainage, and in particular, the section of the river that traverses the Nashville Basin (Barker and Broster 1996; Broster et al. 2006; Goodyear 1999). In this area, multiple sites have been discovered that contained deeply buried archaeological deposits and preserved organic material that can be radiocarbon dated (Broster et al. 2012). One example is the Sanders #1 site (40CH193), which was initially exposed in a bank along the Cumberland River in Cheatham County. This article provides an overview of the fieldwork and materials recovered from this site, including the results of a radiocarbon date from a probable hearth feature found eroding out of the embankment. In addition, the authors discuss the significance of this date in regards to other recorded dates in the Cumberland and Tennessee River drainages.

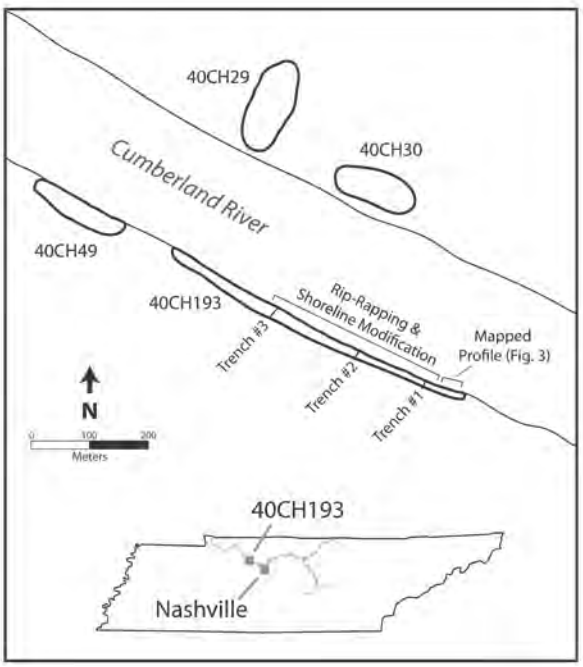

FIGURE 1. Site map of the Sanders #1 site.

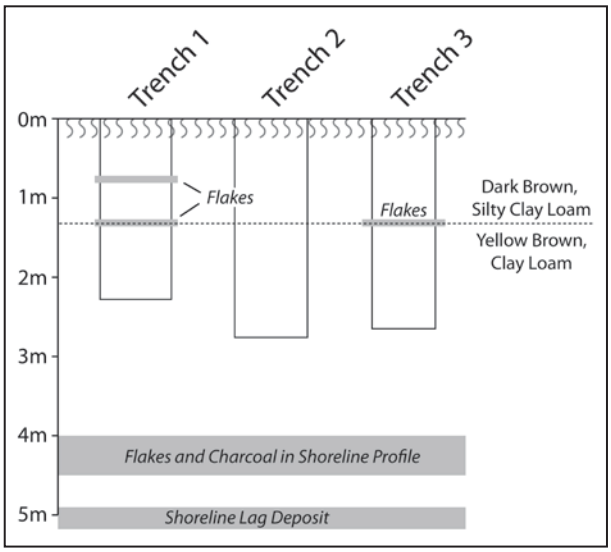

FIGURE 2. Schematic illustration of trench and cutbank profiles recorded by Barker in January 2004.

Site Description

The Sanders #1 site was originally recorded in December 2003 by Gary Barker as part of a limited archaeological assessment of measures proposed by the Nashville District, US Corps of Engineers to stem shoreline erosion (Barker 2004). During the initial site reconnaissance, Barker identified artifacts in secondary context in a shoreline lag deposit and visibly eroding out of the bank profile. A survey of recently disturbed ground surface landward of the river bank resulted in the discovery of only a few lithic flakes. To further evaluate the extent and context of the deposits, Barker opened three backhoe trenches at equal intervals across the site (Figure 1). All three were excavated perpendicular to the shoreline and placed between two and five meters back from the embankment. A similar profile was observed in all three trenches, which consisted of a 20-cm thick surface A horizon that overlaid dark brown, silty clay loam sediments extending to 1.25 meters below surface (mbs), below which the sediments graded to a yellow-brown, clay loam (Figure 2). No other obvious stratigraphic boundaries were observed in the profiles. In Trench #1, Barker noted flakes at 0.84 mbs and also recovered two lithic decortication flakes *in situ* at 1.24 mbs. No *in situ* artifacts were recovered in Trench #2, while three bifacial thinning flakes were recorded at 1.26 mbs in Trench #3. Finally, Barker noted a layer of lithic flakes and charcoal eroding out of the shoreline at 4.0–4.5 mbs, which was below the maximum depth of the three backhoe trenches.

TABLE 1. Radiocarbon Assay from Feature #1 at the Sanders #1 Site.

AA #	AA96399
Material	Wood (angiosperm)
$\delta^{13}C$	–26.6
^{14}C age BP	9412 ± 54
Calendar Years BP*	10,649 ± 88

*Calibrated with Oxcal 4.1 using the IntCal 09 curve (Bronk Ramsay 2009).

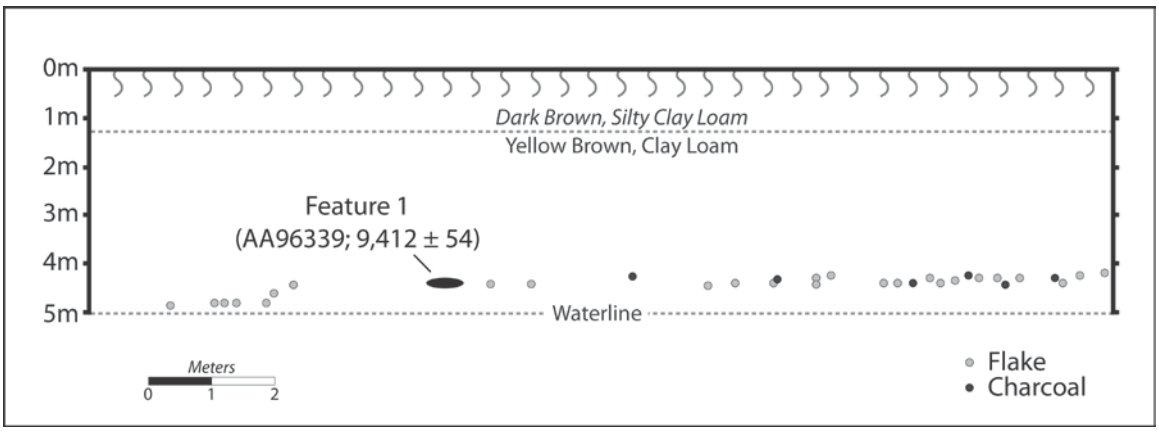

FIGURE 3. Schematic illustration of the cutbank profile mapped by Barker and Broster in June 2004, showing location of radiocarbon sample.

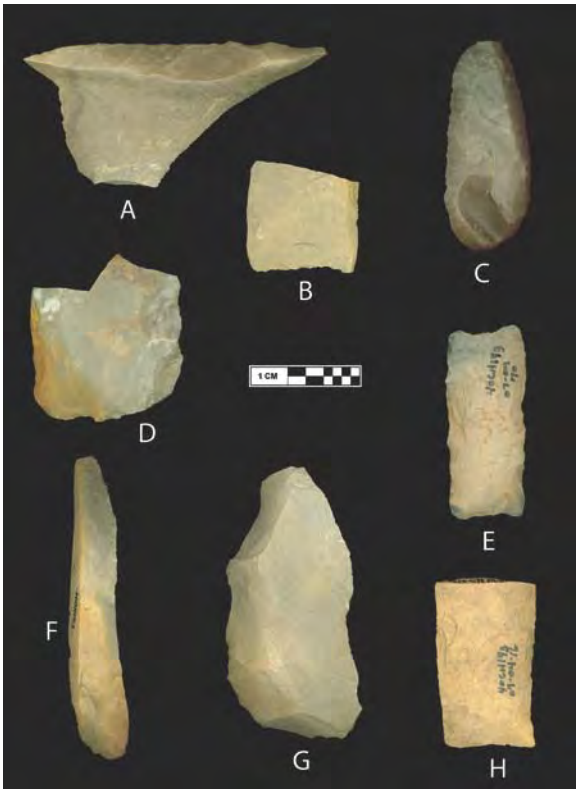

FIGURE 4. Selected artifacts recovered from the shoreline lag deposits at the Sanders #1 site: A) Overshot flake; B) Clovis base (TN FPS#4478); C) Endscraper; D) End-thinned preform (TN FPS#4417); E) Unfluted Cumberland (TN FPS#5434); F-G) Prismatic blades; H) Beaver Lake/Dalton (TN FPS#4261).

Subsequent work conducted at the site by Barker and Broster in June 2004 involved mapping the artifacts visible in the bank at 4.0 to 4.5 mbs. A total of 25 flakes, seven large pieces of charcoal, a single large cobble, and a possible hearth feature were plotted (Figure 3). The feature was 50-cm wide and 20-cm thick, and consisted of burned clay and charcoal fragments. A fragment of unidentifiable wood charcoal was removed from the feature. This sample returned a date of 9412 ± 54 14C yr BP (10,649 ± 88 cal yr BP) (Table 1). The site was again visited in July 2009 by Broster, Miller, and local avocational archaeologist Bobby Hulan. Prior to the 2009 visit, the landowner removed a substantial amount of sediment along the riverbank to create a sloping shoreline, and deposited a layer of riprap at the base of the slope to protect against further erosion. However, one section of the shoreline was not altered, and at the waterline a light scatter of artifacts was observed eroding out of the profile at 4.5 mbs.

A total of ten bifaces recovered from the shoreline lag deposits have been included in the Tennessee Fluted Point Survey (TN FPS) maintained by the Tennessee Division of Archaeology (Broster and Norton 1996; Broster et al.

TABLE 2. Bifaces from the Sanders #1 Site in the Tennessee Fluted Point Survey.

TN FPS #	Max Leng h (mm)	Basal Concavity (mm)	Body Width (mm)	Basal Width (mm)	Max Thickness (mm)	Flute Present	Edge Grinding	Raw Material	Type
3482	151.12	8.63	51.19	42.55	7.09	Yes	Yes	Dover	Clovis (re-sharpened)
4261	45.86	0	29.38	25.24	8.81	No	Yes	Ft. Payne	Beaver Lake/Dalton Base
4417	38.12	n/a	42.99	43.6	11.52	Yes	No	Ft. Payne	Clovis preform base
4419	64.21	n/a	34.11	29.19	8.21	No	No	Ft. Payne	Clovis preform base
4430	50.62	n/a	23.61	24.31	8.13	No	No	Ft. Payne	Harpeth River Dalton
4478	30.76	0.97	30.99	29.6	5.67	Yes	Yes	Ft. Payne	Clovis base
4501	36.03	n/a	34.25	34.23	8.75	No	Yes	Ft. Payne	Early preform base
4502	14.03	0.37	n/a	34.9	6.12	Yes	No	Ft. Payne	Clovis preform base
4852	81.44	n/a	42.51	n/a	12.85	No	No	Ft. Payne	Clovis preform
5434	53.24	,65	24.3	21.99	10.87	No	Yes	Ft. Payne	Unfluted Cumberland

FIGURE 5. Early Archaic bifaces recovered from the shoreline lag deposits at 40CH193.

2012) (Figure 4; Table 2). Of these artifacts, six were identified as having characteristics consistent with Clovis biface manufacture (e.g., Howard 1990; Morrow 1995; Smallwood 2010). With the exception of one untyped early stage biface, the remaining bifaces were identified as Middle or Late Paleoindian types. Prismatic blades and overshot flakes have also been recovered from surface lag deposits. This is commonplace in Paleoindian site assemblages across the region, including Carson-Conn-Short (Broster and Norton 1996), Widemeier (Broster et al. 2006), Adams (Sanders 1990), and Topper (Smallwood et al. 2012). Finally, Early Archaic Kirk corner-notched and Lost Lake corner-notched projectile points (e.g., Justice 1995: 55–56, 73) were also retrieved from the shoreline lag deposits (Figure 5).

Discussion

Based on the limited fieldwork conducted at the Sanders #1 site, it appears there are at least three cultural strata present at 84 centimeters, 1.25 meters, and 4.0–4.5 meters below

TABLE 3. Selected Paleoindian and Early Archaic Radiocarbon Dates from the Tennessee and Cumberland River Valleys.

Site Name	Lab Number	Date	Component	Reference
Russell Cave	I–828	8145 ± 275	Early Archaic (Bifurcate?)	Griffin 1974; Futato 1977:39
Dust Cave	Beta–65184	8330 ± 170	Kirk Stemmed	Sherwood et al 2004:538
Dust Cave	Beta–81608	8470 ± 50	Kirk Stemmed	Sherwood et al 2004:538
Russell Cave	I–822	8485 ± 275	Early Archaic (Bifurcate?)	Griffin 1974; Futato 1977:39
Puckett	Tx–7413	8490 ± 180	Kirk Corner Notched	Norton and Broster 1993:35
Ice House Bottom	I–9137	8525 ± 355	Kirk Corner Notched	Chapman 1976:3–4
Harrison Branch	GX–4119	8545 ± 245	Early Archaic	Chapman 1976:3–4
Russell Cave	I–2239	8550 ± 320	Early Archaic (Bifurcate?)	Griffin 1974; Futato 1977:39
Rose Island	GX–3598	8660 ± 180	St Albans Bifurcate	Chapman 1976:3–4
Rose Island	GX–3168	8700 ± 300	St Albans Bifurcate	Chapman 1976:3–4
Ice House Bottom	I–9138	8715 ± 140	Kirk Corner Notched	Chapman 1976:3–4
Rose Island	GX–3167	8800 ± 270	St Albans Bifurcate	Chapman 1976:3–4
Johnson	Tx–7694	8810 ± 80	Kirk Corner-Notched	Barker and Broster 1996:98
Puckett	Tx–7412	8820 ± 180	Kirk Corner-Notched	Norton and Broster 1993
Dust Cave	Beta–147136	8830 ± 50	Kirk Stemmed	Sherwood et al 2004:538
Johnson	Tx–7693	8830 ± 170	Kirk Corner-Notched	Barker and Broster 1996:98
Stanfield-Worley	M–1153	8920 ± 400	Dalton/Early Side- Notched	DeJarnette et al 1962:85–87
Rose Island	GX–3597	8920 ± 325	LeCroy Bifurcate	Chapman 1976:3–4
Johnson	AA–8860	8925 ± 75	Kirk Corner-Notched	Barker and Broster 1996:98
Johnson	Tx–7543	8940 ± 110	Bifurcate	Barker and Broster 1996:98
Johnson	Tx–7695	8980 ± 90	Kirk Corner-Notched	Barker and Broster 1996:98
Stanfield–Worley	M–1348	9040 ± 400	Dalton/Early Side-Notched	DeJarnette et al 1962, Josselyn 1964
Johnson	AA–9164	9050 ± 85	Kirk Corner-Notched	Barker and Broster 1996:98
Johnson	AA–9168	9090 ± 85	Kirk Corner-Notched	Barker and Broster 1996:98
Rose Island	GX–3565	9110 ± 145	Kirk Corner-Notched	Chapman 1976:3–4
Ice House Bottom	GX–4127	9175 ± 240	Kirk Corner-Notched	Chapman 1976:3–4
Rose Island	GX–3564	9330 ± 250	Kirk Corner-Notched	Chapman 1976:3–4
Stanfield–Worley	M–1347	9340 ± 400	Dalton/Early Side-Notched	DeJarnette et al 1962, Josselyn 1964
Ice House Bottom	GX–4125	9350 ± 215	Kirk Corner-Notched	Chapman 1976:3–4
Widemeier	Beta–234592	9390 ± 50	Early Archaic	Broster et al 2008 64–65
Patrick	GX–4122	9410 ± 290	Kirk Corner-Notched	Chapman 1976:3–4
Sanders #1	**AA96399**	**9412 ± 54**	**Kirk Corner–Notched/Lost Lake?**	**This article**
Ice House Bottom	GX–4126	9435 ± 270	Kirk Corner-Notched	Chapman 1976:3–4
Stanfield-Worley	M–1346	9440 ± 400	Dalton/Early Side-Notched	DeJarnette et al 1962, Josselyn 1964
Johnson	Beta 66202	9510 ± 250	Unknown	Barker and Broster 1996:98
Johnson	AA–9165	9555 ± 90	Kirk Corner-Notched	Barker and Broster 1996:98
Stanfield-Worley	M–1152	9640 ± 450	Dalton/Early Side-Notched	DeJarnette et al 1962:85–87, Josselyn 1964
Dust Cave	Beta–81606	9720 ± 70	Early Side-Notched	Sherwood et al 2004:539
Puckett	Beta–48045	9790 ± 160	Dalton	Norton and Broster 1993
Dust Cave	Beta–81611	9890 ± 70	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–133788	9950 ± 50	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–65177	9990 ± 140	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–147132	10010 ± 40	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–81610	10070 ± 70	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–81602	10070 ± 60	Early Side-Notched	Sherwood et al 2004:539
Dust Cave	Beta–133791	10100 ± 50	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–147135	10140 ± 40	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–133790	10310 ± 60	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–65181	10310 ± 230	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–41063	10330 ± 120	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–81609	10340 ± 130	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–40680	10345 ± 80	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–100506	10370 ± 180	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–65179	10390 ± 80	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–81613	10490 ± 60	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–40681	10490 ± 360	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Dust Cave	Beta–81599	10500 ± 60	Quad/Beaver Lake/Dalton	Sherwood et al 2004:539
Lagrange Shelter	GX–2774	11290 ± 635	Paleoindian?	Dejarnette and Knight 1976:38
Johnson	Tx–7000	11700 ± 980	Clovis?	Barker and Broster 1996:98
Johnson	Tx–7454	11980 ± 110	Clovis?	Barker and Broster 1996:98
Coats-Hines	Beta–125350	12030 ± 40	Mastodon butchering?	Deter-Wolf et al 2011:152
Coats-Hines	Beta–288801	12050 ± 60	Mastodon butchering?	Deter-Wolf et al 2011:152

surface. While no temporally diagnostic artifacts were recovered *in situ*, a radiocarbon date from a probable hearth feature indicates that the deposits at 4.0–4.5 meters below surface are likely Early Archaic in age. In comparison to other dated Paleoindian and Early Archaic sites from the Tennessee and Cumberland River drainages (Table 3), it is closest in age to the Early Archaic component at the Widemeier site (Broster et al. 2006) and the components from the Patrick and Ice House Bottom sites associated with Kirk Corner-Notched bifaces (Chapman 1976:3–4, 1985:146). Consequently, the hearth feature from Sanders #1 is likely associated with the Kirk Corner-Notched and larger Lost Lake Corner-Notched bifaces that have been recovered from the shoreline lag deposits. However, multiple other temporally diagnostic Paleoindian and Early Archaic artifacts also were recovered from these shoreline deposits, and at this time it is unclear whether these artifacts originated from any of the strata mentioned above, or from an unobserved stratum located beneath the waterline. Additional fieldwork and analysis is necessary to: (1) more accurately determine the site depositional history; (2) clarify the age and culture affiliation of the deposits; and (3) assess if any preserved archaeological deposits remain at the site.

Conclusion

The Middle Cumberland region is one of the few areas of the southeastern United States where stratified Paleoindian and Early Archaic period occupations have been reported. Some of the most significant sites include Johnson (Barker and Broster 1996), Widemeier (Broster et al. 2006), and Puckett (Norton and Broster 1993). Sanders #1 may be another site that has the potential to provide valuable information regarding the age and cultural associations of the earliest inhabitants of the southeastern United States. However, like the three sites listed above, Sanders #1 has suffered substantial erosion from the effects of channel migration, fluctuating water levels, and wave action along Cheatham Lake. Ongoing development and widespread looting of sites continues to occur along the Cumberland River. Finding, examining, and protecting stratified sites (like 40CH193) that can help bolster the cultural historical foundations of the Paleoindian and Archaic periods is a major challenge facing researchers.

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D. Shane Miller
School of Anthropology
University of Arizona
P.O. Box 210030
Tucson, AZ 85721-00030

John B. Broster
Tennessee Division of Archaeology
1216 Foster Ave., Cole Building #3
Nashville, TN 37243

Gary L. Barker
Tennessee Department of Transportation
James K. Polk Building, Suite 900
505 Deaderick Street
Nashville, TN 37243-0334

David G. Anderson
University of Tennessee
Department of Anthropology
250 South Stadium Hall
Knoxville, TN 37996-0720

Stephen B. Carmody
University of Tennessee
Department of Anthropology
250 South Stadium Hall
Knoxville, TN 37996-0720