

# Hester:

## The Paleoamerican Site That Wasn't Supposed to Be There

by Mark R. Barnes

Colored bits of stone caught the eye of two amateur projectile-point collectors in early 1973 as they combed the ground abutting a creek in northeastern Mississippi. This region in the Eutaw Hills had never produced a find of major archaeological significance and was now home to an unglamorous gravel operation. Thanks to their alertness and the guidance of professionals, collectors Glenn Beachum and Alan Harrison were about to make an important contribution to early Southeastern prehistory, for the Hester site they discovered is today recognized as a nationally significant middle- to late-Paleoamerican (10,000–11,000 CALYBP) and early-Archaic (9000–10,000 CALYBP) base camp.

### From responsible avocationalists into the hands of capable professionals

Recent plowing had removed dense forest litter that normally blanketed the ground, and Beachum and Harrison recognized that the stone flakes—colored bright yellow, orange, pink, and red—that stood out in stark contrast against sandy tan soil were lithic debitage. After a few weeks of digging, they recovered nearly twice as many Paleoamerican and early-Archaic diagnostic lithic artifacts as had previously been found in all of Mississippi. Fortunately for American archaeology, they suspected their material came from stratified contexts that might contain even more early human artifacts. Rather than relegating their finds to a coffee can, they took them to Sam Brookes and Sam McGahey, staff archaeologists with the Mississippi Department of Archives and History in Jackson. By a happy coincidence, the scientists had a professional interest in Paleoamerican and Archaic cultures in a state more noted for its prehistoric Woodland and Mississippian earthworks.

Three seasons of investigations by Brookes and McGahey confirmed stratified cultural deposits up to 4 ft deep, making Hester one of the largest intact Southeastern base camp sites containing discrete cultural components of the Paleoamerican and Archaic periods. Archaeology at Hester, which lies on the boundary of the Tennessee and Mississippi River basins, clarified prehistoric projectile-point chronology, revealed innovations in lithic technology, and enlarged our understanding of early explorers and settlers of the Eutaw Hills.

### Peeling back layers tells the history of Hester

The Hester site lies on an alluvial floodplain next to a small creek, which empties into the Tombigbee River. The Eutaw Hills soil consists of micaceous glauconite sand layers, which in the area of the Hester site overlie Tuscaloosa chert deposits. These chert deposits, exposed by erosion in the nearby creek,

were doubtless a principal reason for repeated occupations. Hunter-gatherers scouting for an ideal location for a base camp sought to satisfy three requisites: a reliable source of water, an ample supply of food, and stone for making tools. At Hester they found all three. Although the Tuscaloosa chert was inferior in knapping quality to, say, fine Edwards chert, we'll see how resourceful toolmakers found a way to work around the deficiency in local toolstone.

Brookes and McGahey visited the site in December of 1973 and immediately excavated five 5-by-5-ft test pits to define the depth and extent of the site and hopefully to determine which cultures had occupied Hester and their sequence. Their excavations revealed four distinct soil zones at the Hester site:

- 1) a surface layer of black sandy humus 1.2 ft deep;
- 2) a layer of red-brown sand, extending to 3.4 ft below the surface;
- 3) a layer of yellow sand 3.4–4.4 ft below the surface;
- 4) a layer of white sand that overlies the tan Tuscaloosa chert deposits. This lowest sand layer is a culturally sterile, naturally occurring level.

The surface layer, as expected, was a plowzone. Strata containing cultural materials of the middle-Archaic, late-Archaic, Woodland, and Mississippian periods, identified by ceramics and projectile points, had been deflated by cultivation and their contents hopelessly intermixed.

In the reddish brown sand layer investigators found evidence of early- and middle-Archaic occupations (10,000–7000 CALYBP). The early-Archaic artifacts, made almost exclusively of native Tuscaloosa chert, included Lost Lake, Greenbrier, Pine Tree, Decatur, Eva, Morrow Mountain, Beachum, and Big Sandy projectile points, along with stone cores, large flakes, prismatic blades, nutting stones, unifacial endscrapers, and bifaces. To Brookes and McGahey the range of flaked-stone and finished tools indicated that “tools were completely finished at the site,” indicative of a base camp occupation.

The upper portion of the yellow sand layer contained middle- and late-Paleoamerican (Quad and Dalton) artifacts (11,000–10,000 CALYBP) made of local tan-colored Tuscaloosa chert. Two fluted Paleoamerican points were found in 1978 toward the lower part of this layer, one Clovis and one Cumberland. They were made not of local tan chert, but of blue-gray Fort Payne chert from the Tennessee River Valley of northern Alabama nearly two hundred miles to the east. Al Goodyear, principal investigator of the Topper site in South Carolina (MT 21-4, “Clovis at Topper”), finds it significant that both fluted points came from “the lower portion of the yellow sand zone” (middle and late Paleoamerican, Quad and Dalton occupations). For Dr. Goodyear, this is strong evidence for the presence of one or more occupations of fluted-point makers of the Paleoamerican period. Brookes likewise concludes that the presence of Fort Payne chert material associated with a pre-11,000 CALYBP Paleoamerican occupation at the Hester site is evidence of initial inhabitants of the Eutaw Hills emanating from the east to explore and eventually colonize the area of present-day northeast Mississippi.

McGahey, on the other hand, is more cautious about accepting as fact occupation at Hester as early as Clovis or

- Cumberland merely because of the presence of these fluted points. In the first place, he notes that they aren't in good context; moreover, he suspects that "they may all have been transported there by later prehistoric inhabitants." Perhaps, in his view, a member of the Dalton culture or some other Early American appreciated the fine workmanship in a discovered Clovis point. McGahey's skepticism underscores the need for further research at Hester.
- 13** **Fixing the boundaries of Hester**  
Brookes and McGahey's five test pits demonstrated that intact Paleoamerican and early-Archaic deposits extended to an astonishing depth of 4 ft. Brookes notes, however, that the horizontal sequencing of strata "was not readily apparent because only small widely scattered [test] pits were excavated," rather like a half-opened Christmas Advent calendar. In 1974 the scientists dug two more test pits and a trench 150 by 5 ft to verify the cultural strata sequence and determine the horizontal extent of the site.
- This 1974 trenching operation discovered, in addition to more of the same types of Paleoamerican and early-Archaic tools as found in the initial test pits, blade cores, *pièces esquillées* (lithics produced using a bipolar flaking technique), adzes, drills, knives, choppers, hammerstones, a mano, anvils, abrasers and grooved stones, fire-cracked rock, and bannerstones not found in earlier investigations.
- 16** In 1978, Brookes expanded excavations on either side of the 1974 trench, netting a total excavation of 1,350 ft<sup>2</sup>. Goodyear notes that this work conclusively confirmed "a good stratigraphic separation of the Early Archaic notched points associated with the dark red-brown sand zone from the Dalton (late-Paleoamerican) material in the yellow sand zone." What's more, these excavations also identified a previously undetected Quad (middle-Paleoamerican) horizon below the Dalton occupation in the lower portion of the yellow sand zone, pushing back the initial occupation of the site by another 1,000 years.
- 17** Follow-up investigations by Brookes and McGahey concentrated on areas of the site to the northwest of the area explored by the discoverers. This excavation area was given State site survey number 22Mo569 and the name Hester-Standifer, a combination of the landowner's name and a nearby geographical feature. Eventually the Hester site was expanded to the southeast of 22Mo569 to include the area first investigated by the collectors. This part of the Hester site was given the number 22Mo1011 and named the Beachum-Harrison site in recognition of the original discoverers. The Hester site, which embraces both sites and bears both State site survey numbers (22Mo569 and 22Mo1011), was listed in the National Register of Historic Places in June 1975. The Hester Site was designated a National Historic Landmark by the Secretary of the Interior in January 2001, under a joint Mississippi Department of Archives and History and Southeast Regional office of the National Park Service effort.
- 18** **Solving the mystery of the Technicolor stone flakes**  
Remember those brightly colored flakes of stone that originally caught Beachum and Harrison's attention? McGahey's exhaustive analysis of lithic material from the Paleoamerican and early-Archaic strata (the red-brown and yellow layers) determined that Hester toolmakers developed innovative heat-treating techniques to improve their ability to work the local inferior Tuscaloosa chert into useful tools. Heat treating changed the color of the tan chert to vivid reds, pinks, and yellows.
- 20** McGahey tells us that the earliest examples of heat treating, which apparently date to Clovis times, "often left little obvious indication on bifaces, the most common remaining indication being a reddened distal end, auricle or both. This phenomenon appears to be the result of heat treating at lower temperatures or at an earlier stage of reduction than was the case with the later technique." The later, improved technique, apparently begun at the Hester site in the lanceolate (early Dalton) period and further refined during the later (side-notched Dalton) period, was used almost exclusively in the succeeding early-Archaic period. Applied to the tan Tuscaloosa chert found at Hester, heat treating produces a complete color change and imparts to the chert "a bright, lustrous appearance after flaking."
- 21** Over the millennia, knappers at Hester applied their enhanced technique of heat treating Tuscaloosa chert so extensively that the practice may be responsible for the reddish brown hue of the early-Archaic soil layer.
- 22** **Tendrils of inquiry extend beyond Hester's borders**  
Of especial value to archaeologists are artifacts of the Dalton period found at the Hester site. Dating Dalton projectile points in the southeastern U.S. has always been problematic. Although research from some sites places Dalton points exclusively in the late-Paleoamerican period, evidence from other sites suggests manufacture of Dalton points continued into the early Archaic. The Dalton component at the Hester site, according to Brookes, is "the only known occurrence of such an isolated Dalton deposit in Mississippi and one of the few known in the Southeast." A dozen Dalton projectile points were uncovered in excavations at the Hester site—perfect specimens, since they aren't mixed with later cultural materials—along with Dalton-period tools including burins, knives, blades, flakes, end- and sidescrapers, graters, pitted stones, cores, *pièces esquillées*, and hammerstones.
- 23** "All categories of artifacts from the Dalton zone," says Brookes, "would seem quite in place in a hunting-butcherer station." The 1974 trenching operation uncovered evidence of at least two separate Dalton occupations at the Hester site. Dalton tools recovered from the trenching operation of 1974 didn't show sign of heat treating, were predominately lanceolate in form, and had little side notching. They differ markedly from Dalton points recovered by collectors Beachum and Harrison, which bore evidence of side notching and heat treating, indicative of a later Dalton occupation in which toolmakers used heat treating. Thus Hester has given us two discrete Dalton hunting and gathering occupations, one Paleoamerican and one early Archaic, separated in time, space, and by lithic technology. This nugget of information will pay off handsomely in dating Dalton artifacts at other early Southeastern sites.
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- 25**

**26 Informing us about adzes . . . and much more**

Early-Archaic occupations at Hester are a continuation and elaboration of the initial Dalton-period base camp occupation. Discoveries of adzes and nutting stones are evidence that activities expanded in the early Archaic to include woodwork-  
 27 ing and processing wild plant foods. McGahey notes that although no faunal remains were recovered from these occupation levels, remains of hickory nuts, walnuts, hack-berries, acorns, and wild plums were recovered from both late-Paleoamerican and early-Archaic occupation levels.

The Brand site in Arkansas, a Dalton-phase site, has produced adzes similar to those found in the early-Archaic level of the Hester Site. It's possible that adzes weren't found in the Dalton component at Hester because of sampling error.

28 Brookes considers it also possible that the adze was introduced as a new tool type from Arkansas during the succeeding early-Archaic period. If he's right, then the introduction of adzes into the Hester site during the early Archaic may signify a vector of transmission of new tool forms from the west into the Eutaw Hills of Mississippi.

The intact cultural stratigraphy of the Hester site has been of enormous help in identifying projectile points and assigning them to cultural periods at other Southeast sites. Unlike many Alabama sites where Big Sandy and Dalton artifacts have been  
 29 found together, at Hester there is, Brookes notes, "a clear separation between the two types, Dalton points lying beneath Big Sandy points. At the Hester site, therefore, it can be definitely stated that the Big Sandy occupation occurred after the Dalton occupation."

Other early-Archaic projectile points besides Big Sandy points, including Greenbrier, Jude, Plevna, Ecusta, Decatur, Autauga, Josselyn (Provisional type), Pine Tree, Lost Lake, and Beachum, were found at Hester above the Quad and Dalton yellow sandy layer. These points are similar to types  
 30 found at the Stanfield-Worley Rockshelter and Russell Cave, both in nearby northern Alabama, where Dalton and early-Archaic points shared the same stratum. Because of the mixed nature of these cave sites, John W. Griffin in 1974 postulated that Dalton and Big Sandy point makers coexisted; moreover, he doubts that Big Sandy points will ever be found in a pure context.

Brookes counters Griffin abruptly: "Hester has answered  
 31 Griffin's question: Big Sandy points are found in a zone above the Dalton assemblage."

Brookes also notes differences between Dalton and Big Sandy points made evident at Hester: color (Daltons are light yellow, whereas heat-treated artifacts of later cultures are over-  
 32 whelmingly reddish) and lithic technology (he is confident that analysis of flakes from Hester will find evidence of a different heat-treating technique). "Not only point form and soil zone," Brookes concludes, "but also technological aspects demand a separation."

McGahey offers helpful advice, based on his analysis of points recovered from Hester, on resolving a sticky problem that confronts researchers: differentiating early-Archaic Dalton and Greenbrier projectile points. Both are similar types quite close in time and usually not distinguishable, particularly when both types are made from tan Tuscaloosa chert. He notes

that Greenbrier points from Hester have a straight or slightly concave base, unlike a Dalton point, whose base is usually definitely concave. Greenbrier points in north Mississippi are more likely than not to show evidence of heat treating, which  
 33 changes the usually tan stone to a shade of red. Finally, McGahey observes that a Greenbrier point is likely to have been recycled as a wedging tool, the hard duty resulting in multiple impact flake scars emanating from the distal and proximal ends.

**Hester and our changing view of early cultures**

We used to think Paleoamericans were big-game hunters that lived only on the Great Plains and hunted exclusively megafauna. Decades of continuing research have altered our perception of these groups. Now we see they were in fact cultural innovators that explored and colonized many different ecological zones and exploited many kinds of game and plant foods. This is the changing "big picture" of the Paleoamerican and early-Archaic periods. The Hester Site, and others like it,  
 34 gift us with the minutiae of cultural information—how and from where areas were colonized and new tool types introduced; what activities were performed at a site and how these evolved through time; how these people physically modified the environment at this locale.

Preserving national landmarks like the Hester site is critical to future generations of researchers who will ask questions  
 35 about cultural data we may not even have conceptualized. 

This article and previous articles on the Borax Lake site (MT 22-2) and Hardaway site (MT 22-4) grew out of a National Park Service effort to develop National Historic Landmark studies for consideration by the Secretary of the Interior while I was employed as a Senior Archeologist with the National Register Programs Division of the Southeast Regional Office in Atlanta, Georgia. Albert Goodyear suggested the series of articles for the *Mammoth Trumpet* as a memorial to my colleagues and friends Robson Bonnichsen, who was instrumental in developing the Borax Lake landmark study, and Thomas Eubanks, Louisiana State Archeologist, whom I had worked with to preserve several sites in his state. Proceeds from these articles will be donated to the Archaeological Conservancy to help purchase and preserve archaeological sites in their memory.

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**Suggested Readings**

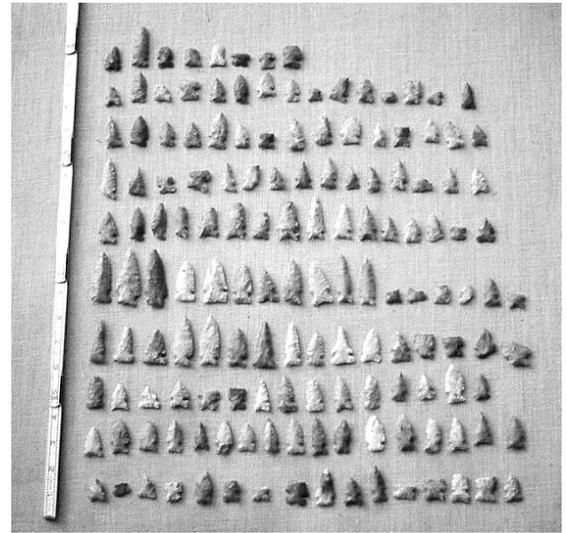
Brookes, S. O. 1979 *The Hester Site, An Early Archaic Occupation in Monroe County, Mississippi, I. A Preliminary Report*. Mississippi Department of Archives and History, Archaeological Report No. 5, Jackson, Mississippi. 38

Brookes, S. O., and S. O. McGahey 1974 Discovery of an Early Site in Northeast Mississippi. *Mississippi Archaeological Association Newsletter* 9:1-7. 39

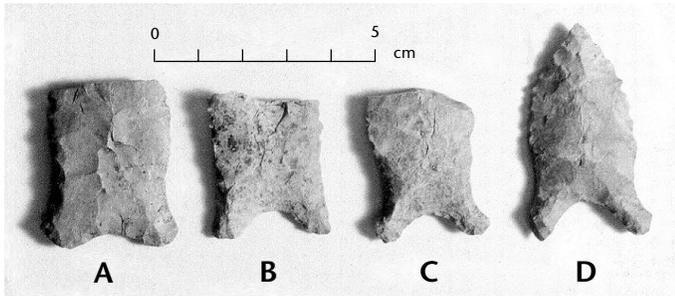
Goodyear, A. C. 1991 The Early Holocene Occupation of the Southeastern United States: A Geoarchaeological Summary. Manuscript submitted for publication, on file South Carolina Insti- 40

tute of Archaeology and Anthropology, University of South Carolina, Columbia, South Carolina.

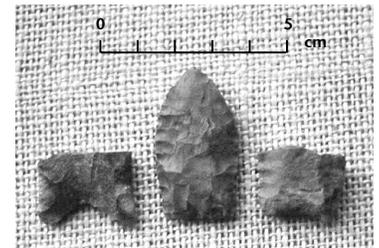
- 41 Griffin, J. W. 1974 Investigations in Russell Cave. *National Park Service, Archeological Research Series* 13.
- 42 McGahey, S. O. n.d. Paleo Indian and Early Archaic Historic Context for Mississippi. Manuscript on file at the Mississippi State Historic Preservation Office, Jackson, Mississippi.
- 43 ——— 1996 Paleoindian and Early Archaic Data from Mississippi. In *The Paleoindian and Early Archaic Southeast*, edited by David G. Anderson and Kenneth E. Sassaman, pp. 354–84. The University of Alabama Press, Tuscaloosa.



A few of the Archaic and Paleoamerican projectile points recovered at the Hester site in early 1973 by Beachum and Harrison. This evidence led McGahey and Brookes to undertake investigations in 1973, 1974, and 1978. 46



44 Two Paleoamerican fluted points (A–B) and two early-Archaic concave-based points (C–D) recovered in 1974 at the Hester site.



A complete fluted point and bases of two points recovered at the Hester site by Beachum and Harrison in early 1973. The point on the far left was made from dark gray Fort Payne chert native to north Alabama, probably deposited by some of the earliest occupants of the site. The other two points are made from locally available tan Tuscaloosa chert. 47

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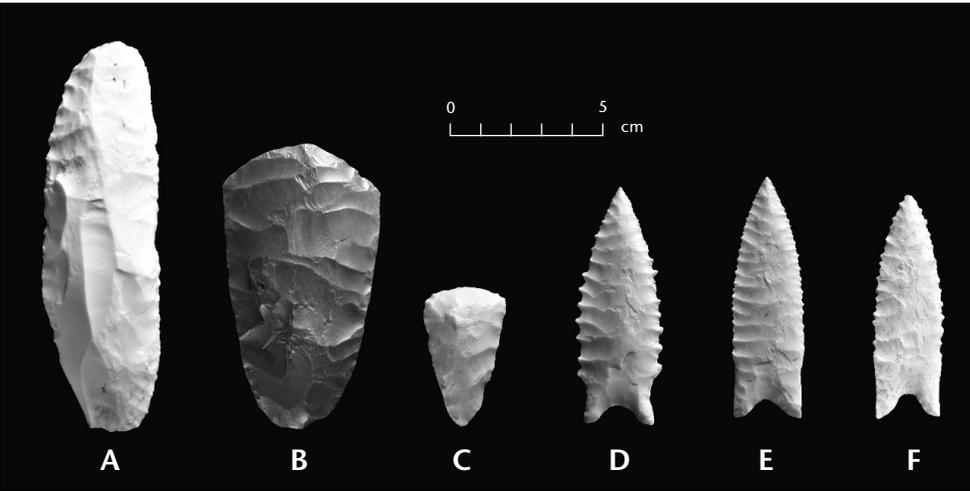


45 Overview of the Hester site, located in the background near the tree line, as it looked in 1974. The borrow pit in the foreground hasn't impacted the site.



A small early-Archaic projectile point recovered by Beachum and Harrison from the Hester site in early 1973. 48

SMITHSONIAN INSTITUTION, JAMES DI LORETO, PHOTOGRAPHER, CATALOG NOS. (A-F): MV4455, 526816, 526823, 526803, 818925



49 **Lithic artifacts of the Dalton culture from the Sloan site in Arkansas, which was occupied at the same period as the Hester site. A, unifacial knife; B, adze; C, endscraper; D-F, projectile points.**



50 **Byron Inmon, then a graduate student of the University of Arkansas, excavating at the Hester site in 1974 under the auspices of the Mississippi Department of Archives and History.**

