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Title: The Anderson Site Revisited: Results of Recent Investigations at 40WM9, Williamson County, Tennessee

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INVESTIGATIONS AT 40WM9, WILLIAMSON COUNTY, TENNESSEE

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ABSTRACT

Investigations at the Anderson site were initiated in August of 1989 to assess the impact of construction, looting, and land use changes upon the site area prior to preparation of a National Register nomination. Despite some damage to the cultural deposits, the site was found to retain much of its integrity as an estimated 80% of the midden appears to be intact. The 1989 work affirms that the Anderson site will continue to play an important role in future studies of Middle Archaic groups in Middle Tennessee.

Introduction

Between August 25 and September 7 of 1989, the Tennessee Division of Archaeology conducted limited investigations of the Anderson site (40WM9) in central Williamson County. This site is comprised of an extensive shell midden deposit along a low terrace which overlooks the junction of the Harpeth River and an unnamed tributary. Radiocarbon dates and artifactual material obtained from previous excavations between 1980-1982 date this site to the Middle Archaic period (Dowd 1989:178-181).

The 1989 investigations were initiated to obtain updated information prior to formally nominating the Anderson site to the National Register of Historic Places. Earlier work at the site in the early 1980s had provided information concerning cultural affiliation, function, activities, horizontal and vertical boundaries, site integrity, and material culture (Dowd 1981, 1989; Lindstrom and Steverson 1987). However, portions of the site area have experienced significant changes between 1982 and 1989. These changes, summarized below, necessitated a reexamination of the Anderson site cultural deposits prior to its National Register nomination.

The Anderson site was included within a tract of land sold in the mid-1980s for subdivision development. When construction activities commenced in 1988, the developer excluded the site and immediate surrounding area from the subdivision as this parcel occurred within a high-risk flood zone. Although deemed unsuitable for housing, this excluded tract was developed into a softball complex and donated to the city of Franklin. During construction an undisclosed amount of soil fill was apparently deposited across portions of the terrace where evidence of prehistoric activity had been noted. Possibly included in this fill area were the units excavated by Dowd and others between 1980 and 1982.

Several incidents of vandalism by relic collectors had also impacted 40WM9 since the completion of excavations in 1982. At least six potholes, ranging from one to seven meters in diameter, were dug in the northwest site area prior to park construction. Pothole depths varied up to a meter, with several holes exhibiting tunnels into the midden. Human remains scattered along the backdirt

piles provided indisputable evidence that an unknown number of burials had been looted in search of exotic artifacts. The city of Franklin, upon acquiring the land, erected a chain link fence around the potted site area to deter further vandalism.

Given these impacts to the Anderson site area, the 1989 investigation was oriented toward three specific goals: (1) prepare a revised contour map of the site area; (2) evaluate the condition of the extensive midden deposit identified from the 1980-1982 excavations; and (3) compose an overall assessment of park construction and vandalism impacts to the site. The remainder of this article will present the results of these particular tasks, as well as a brief discussion of the Anderson site within the framework of Middle Archaic occupations in Middle Tennessee.

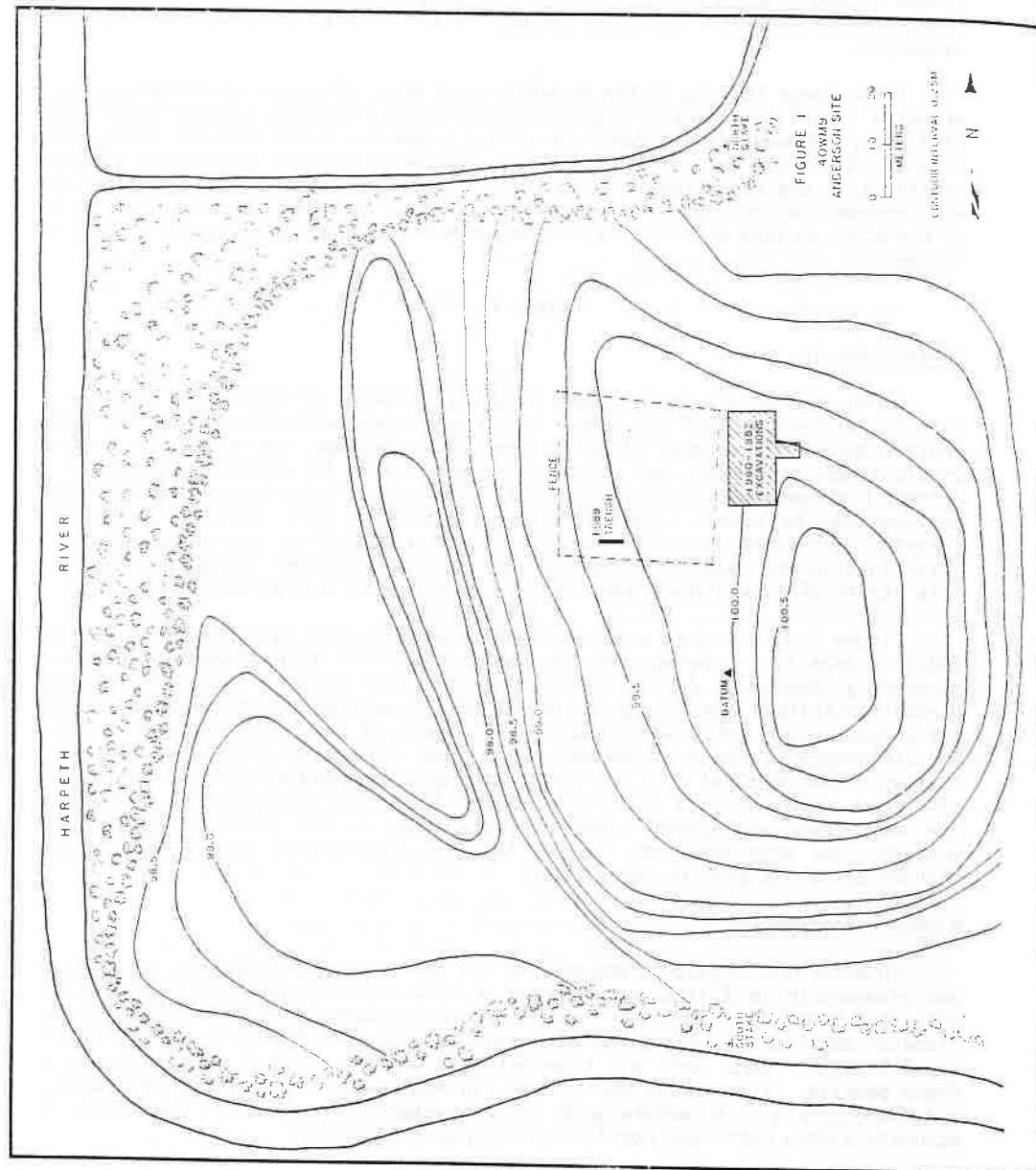
Project ResultsContour Mapping

A new contour map of the 40WM9 area was prepared to illustrate changes in site layout between 1982 and 1989. Using an alidade and plane table, the 1989 contour map was developed with the same baseline that had been set for the previous map. In 1982, two iron stakes were placed in wooded areas near the Harpeth River and an unnamed tributary to form a north-south baseline. Although portions of the forest adjacent to these waterways were likely subjected to clearing and other construction activities, a search at the start of this investigation was rewarded by relocating both stakes in their original position. This stroke of luck allowed the 1982 map baseline to be reestablished.

Figure 1 illustrates a significant change in site layout from the early 1980s, primarily in the eastern site area where fill (light orange clay) was apparently deposited during construction of the softball diamonds. This deposition shifted the high point of the site area some 30 meters southeast of the original high ground which had been just west of the 1980-1982 excavations. The difference in elevation between the earlier and present high area indicates that up to one meter of fill has been distributed across the eastern half of the site area. As a result of this recontouring, the southern and eastern site edges are now higher, and exhibit steeper slopes, than in 1982 (Dowd 1989:18). The western site area does not appear to have been significantly altered by mechanical forces or fill deposition.

Midden Investigation

In order not to disturb any more of the site than was necessary, the midden was assessed by profiling a segment of a large pothole which had been dug by vandals around 1987. This particular pothole measured roughly seven meters in diameter and had been dug to an approximate depth of 0.5 meters. A 3.5 meter segment of the south wall was troweled back (approximately 5 cm) to expose a fresh profile. Also, since the looters had not reached the base of the midden, a trench roughly 0.75 meters wide was excavated along the wall to obtain an accurate midden depth and complete stratigraphic profile.



Intact midden deposits (about 1.6 cubic meters) within the trench were removed as a single unit by shovel skimming and troweling, with all fill screened through 1/4" (and some 1/2") hardware mesh. No burials or other major features were exposed during the trench excavation. Artifacts recovered from the midden fill were taken back to the Division of Archaeology laboratory for cleaning and analysis.

Figure 2 illustrates the profile of the pothole trench. Similar to the results obtained by Dowd (1989:61-62) during the 1980-1982 excavations, the midden is continuous and separated by subtle differences in color and composition. Four stratigraphic zones were identified during both the 1980-1982 and 1989 excavations. These zones are further described in the following paragraph.

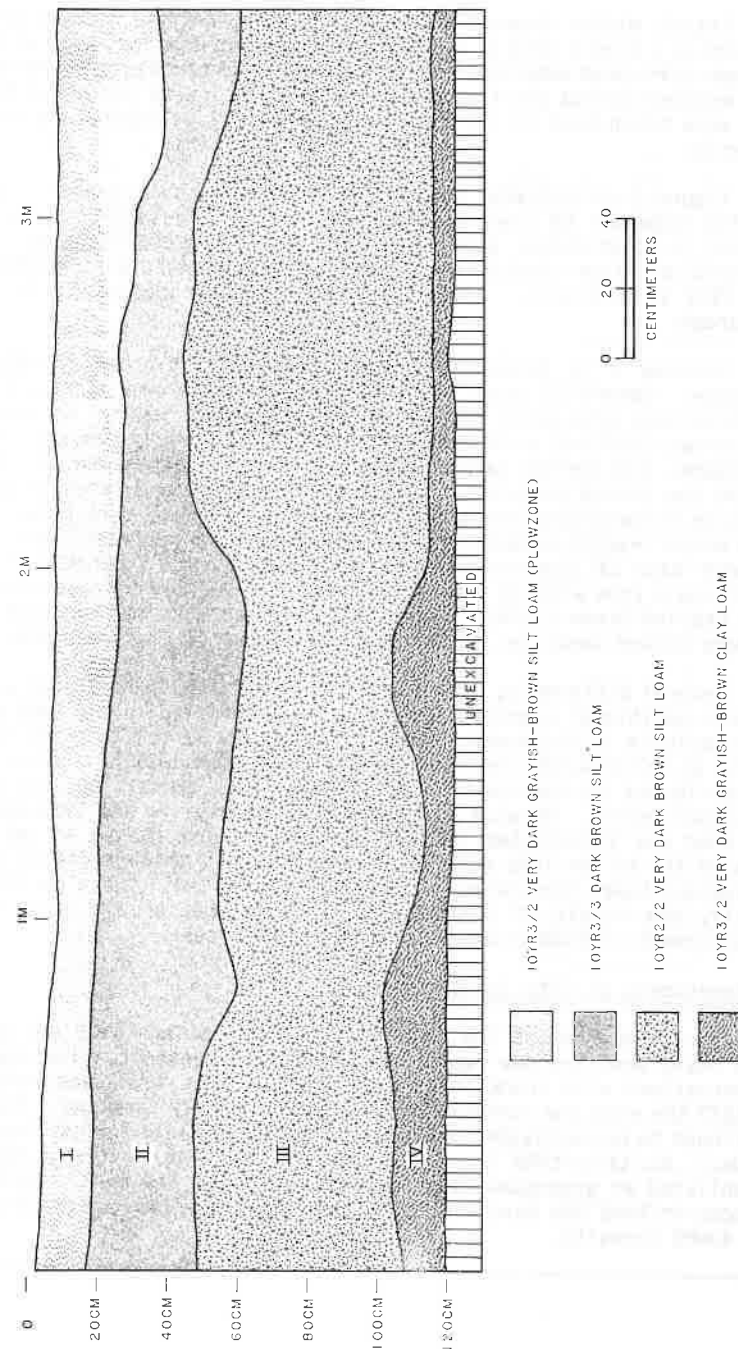
Stratum I is primarily a very dark grayish-brown (10YR3/2) silt loam plowzone. Generally thin, but variable amounts of orange clay (fill from park construction) also occur on top of this disturbed layer. Stratum II is a very dark brown (10YR3/3) silt loam which contains a moderate amount of mussel shell, limestone, and burned earth. Some ash was also observed in the midden fill during the trench excavation. This particular zone extends to a maximum depth of 60 cm below ground surface. Stratum III is a very dark brown (10YR2/2) silt loam which reaches a depth of 116 cm below ground surface. This layer exhibits a dense mass of gastropods that was not present in Stratum II. Stratum IV comprises a zone with no artifactual material and virtually no shell. This very dark grayish-brown (10YR3/2) clay loam layer appears to represent the end of the primary midden deposits, although small flecks of charcoal were observed.

Several differences between the 1980-1982 and 1989 profiles were noted which deserve additional comment. The plowzone identified in the 1989 profile is much more variable in thickness (ranging from 15 to 33 cm) than the fairly constant (20 to 25 cm) plowzone recorded in 1980-1982 (Dowd 1989:62). This difference can be attributed to construction activities, fill deposition, and possibly minor erosional forces. Stratum II is generally thinner in the 1989 profile (13 to 33 cm) than was illustrated in the 1980-1982 record (33 to 46 cm). Conversely, Stratum III in the 1989 profile is substantially thicker (46 to 71 cm) than the equivalent layer identified in 1980-1982 (25-55 cm). These variations are, most likely, the result of differential site occupation and use, along with the displacement of midden deposits by natural forces.

An Assessment of Site Integrity

A statement about the condition of the Anderson site can be made at this time based upon the new contour map, midden assessment, site observations, and conversations with Franklin park officials. When 40WM9 was initially recorded in 1972 the site and surrounding area was primarily farmland. The Anderson site continued to be cultivated until the property was sold for development in the mid 1980s. At this time the site reverted back to pasture, and was formally established as greenspace during construction of the park. Fortunately, these changes in land use have worked in favor of preserving a significant portion of the 40WM9 deposits.

FIGURE 2
40WM9
ANDERSON SITE
SOUTH WALL PROFILE OF POTHOLE



Conversations with city of Franklin park personnel have indicated that soil fill was placed across portions of the site area to make it more conducive for use as a picnic area and general greenspace. The soil used in this activity is reported to have come from borrow areas east of the site (near Highway 431). None of the original site area defined in the 1982 map appears to have been removed or used as fill during park construction.

One interesting fact to note is that while contractors were spreading fill across the site area, they were inadvertently aiding in the preservation of significant prehistoric deposits. This soil "cap" will help deter future relic mining by vandals and also protect the site from destructive natural forces. The 1989 contour map has identified the eastern site area as receiving possibly up to a meter of fill. Excavation units dug by Dowd and others between 1980-1982 appear to be included within this zone of fill. Also, the 1989 test trench identified a thin layer of fill that was included as part of the plow/disturbed zone (Figure 2).

Obviously looters did considerable damage to the northwest site area by digging sizeable holes and tunneling into the midden. In spite of their efforts, however, the vandals did not reach sterile deposits in most of the holes. Intact midden still exists in many of the potholes, as well as areas between these holes. The vandalized area occurs within the fence boundaries illustrated in Figure 1.

The facts discussed in the preceding paragraphs indicate that significant archaeological remains are still present at the Anderson site. Investigations in the northwest site area testify to the presence of over one meter of continuous midden deposits. Impacts to resources below the plowzone, except for the previously noted potholes, have been negligible. In addition, the eastern site area has been capped with up to one meter of soil fill, with much lesser amounts across the remainder of the locale. The authors estimate that approximately 80% of the site remains intact, and suggest that 40WM9 more than meets the criteria for eligibility to the National Register of Historic Places.

Artifacts Recovered from the 1989 Investigations

Chipped stone tools/debris and faunal remains comprise the primary artifactual materials recovered from the trench excavations. Unmodified river cobbles, as well as burned limestone fragments, were also found within the midden. These artifacts favorably compare with items found during the 1980-1982 excavations (Dowd 1989; Lindstrom and Steverson 1987).

Chipped Stone Artifacts

Projectile points, drills, bifaces, and lithic debris were among the chipped stone artifacts recovered from the excavation (Table 1). These artifacts are made of locally available cherts from river gravels and possibly nearby outcrops.

Table 1. Chipped Stone Items Recovered From 1989 Test Excavation at the Anderson Site, 40WM9.

Artifact	Sample Size/Weight(g)
Projectile Points	
Morrow Mountain Round Base	8/45.4
Anderson Corner-Notched	6/50.0
Morrow Mountain Straight Stem	4/26.7
White Springs	3/3.6
Anderson Site Provisional I	1/5.4
Gary	1/8.0
Kirk Serrated	1/8.4
Big Sandy	1/2.0
Unidentified Fragments	13/57.4
Drills	
Drills	2/5.9
Triangular Bifaces/Knives	2/29.0
Thick Bifaces	3/152.9
Thin Bifaces	11/110.1
Unidentified Biface Fragments	4/22.6
Modified Flake Scrapers	3/13.5
Modified Flake Cutting Tools	3/23.3
Cores and Core Fragments	7/533.3
Primary Flakes	16/75.1
Secondary Flakes	156/1006.3
Blank Flakes	544/1551.2
TOTAL	789/3740.1

Projectile Points

Notched and unnotched bifaces believed to have been used as dart points comprise this functional category. These artifacts exhibit a range of morphological characteristics and have been referred to by defined types when possible.

Thirty-eight projectile points and point fragments were recovered from the trench, of which 25 could be separated into previously recognized types. These identified types include Morrow Mountain Round Base, Morrow Mountain Straight Stem, Anderson Corner-Notched, Anderson Site Provisional I, White Springs, Gary, Big Sandy, and Kirk Serrated (Cambron and Hulse 1983; Dowd 1989; Lindstrom and Stevenson 1987).

Drills

Two drill fragments were found during the 1989 test excavations. One specimen is comprised of the proximal portion of the bit which flares outward to a straight base. This particular drill may be a reworked projectile point. The second drill is a distal bit section with parallel sides that dramatically contract near the tip.

Triangular Bifaces/Knives

Both of these well formed, somewhat triangular bifaces have thin cross-sections and display relatively small flake scars. The blade bases are generally straight, and the slightly sinuous blade edges curve gently inward. Bifacial microflaking is visible along portions of the blade edges.

Thick Bifaces

Three small cobbles with bifacial flaking and minimal shaping were recovered from the 1989 work. The flake scars are rather large, and the edges are sinuous. These artifacts are thick in cross-section with a variable amount of cortex remaining.

Thin Bifaces

"These specimens are the product of either further reduction and shaping of thick bifaces or bifacial modification of large flakes" (Drass 1981:207). Most of the Anderson sample exhibit thin cross-sections and sinuous edges. There is minimal to no cortex remaining on these bifaces.

Unidentified Biface Fragments

This category includes four fractured chert fragments which display some bifacial flaking but could not confidently be placed in the above-mentioned biface categories.

Modified Flakes

Modified flakes are those flakes which exhibit consistent, even flaking along one or more edges. Two functional subcategories have been identified on the basis of their morphological characteristics and wear patterns. These subcategories are scrapers and cutting tools. Scrapers are flakes exhibiting unifacial flaking along one or more edges, with fine unifacial microflaking along the same edge. Modified flake scrapers differ from formal scrapers in that they have been less extensively chipped and shaped. Cutting tools are bifacially retouched flakes with fine bifacial flaking along the same edge.

Cores and Core Fragments

Two cores recovered from the 1989 investigation represent moderate sized cobbles which exhibit a systematic pattern of flake removal. Both specimens had been split to create suitable striking platforms. The other five artifacts assigned to this category were relatively small cobble fragments that displayed irregular flake removal patterns.

Flakes

This category includes all the unmodified flakes created by the manufacture or maintenance of chipped stone artifacts. The specimens have been classified as primary, secondary, and blank flakes based on a cobble reduction sequence and the amount of cortex remaining on the flake's surface. Primary flakes exhibit cortex over their entire dorsal surface. Secondary flakes exhibit less than 90% cortex over their dorsal surface. Blank flakes exhibit no cortex except occasionally over their striking platform.

Faunal Remains

A large quantity of well-preserved animal bone was recovered from the 1989 trench excavation (Table 2). A cursory examination of this sample identified such species as deer, opossum, fox, raccoon, turkey, turtle, and unidentified small mammals and birds (Olsen 1964, 1968). These remains are consistent with the types of fauna identified from the 1980-1982 excavations (Dowd 1989:114-126).

Deer comprised the most identified faunal species with 146 elements, including cranial and antler fragments (30), vertebrae (27), ribs and fragments (21), phalanges and fragments (19), pelvic and scapula fragments (10), metatarsals (7), astragalus (5), tibia (3), ulna (3), femur (1), humerus (1), and unidentified (19). Two raccoon mandibles, one opossum mandible, one red fox mandible, and one gray fox mandible round out the identified mammals. Turkey (one tarsometatarsus and one carpometacarpus) and eastern box turtle (nine carapace/plastron fragments) elements were also recognized.

Approximately 5% of the 1989 faunal sample had been burned. In addition, cut marks associated with butchering activities were noted on a number of specimens. Only seven items could be identified as being intentionally modified. These items include five awl fragments (unidentified mammal), one hairpin fragment (unidentified mammal), and one fishhook section (large, unidentified bird).

Table 2. Faunal Remains Recovered From 1989 Test Excavation at the Anderson Site, 40WM9.*

Faunal Category	No. of Specimens
White-Tailed Deer	146
Turkey	2
Raccoon	2
Opossum	1
Red Fox	1
Gray Fox	1
Eastern Box Turtle	9
Unidentified Turtle	37
Unidentified Large Mammal	426
Unidentified Small Mammal, Rodent, Bird	134
Unidentified Large Bird	30
Modified Bone	7
TOTAL	796

* MNI not available

Concluding Remarks

The Middle Archaic period is relatively unknown when compared to other cultural periods within Middle Tennessee. This is primarily due to the sparse number of occupations identified for this part of the state, as well as the lack of organized excavations on known sites. In addition, many recorded Middle Archaic sites tend to be multi-component and/or have no intact cultural deposits.

Prior to 1980, most discussions of the Middle Archaic culture in Middle Tennessee focused upon the Eva site in Benton County (Lewis and Lewis 1961), or a synthesis of site information from adjacent states (DeJarnette, Kurjack and Cambron 1962; Griffin 1974; Lewis and Kneberg 1959; Walthall 1980). Reconnaissance surveys during the 1970s and early 1980s, along with several earlier studies, were moderately successful in recording Middle Archaic occupations within the Caney, Cumberland, and lower Duck drainages of Middle Tennessee (Autry and Jolley 1980; Jolley 1978, 1979, 1980; Morse and Morse 1964). Although these sites provide some idea of settlement patterning and site location, their general multi-component or ephemeral nature did not lend themselves to additional evaluation.

Most of our current knowledge about Middle Archaic occupations in Middle Tennessee is the result of archaeological investigations conducted for the proposed Columbia Reservoir in the central Duck River Valley of Maury and Marshall counties. This work was initiated by the University of Tennessee in 1972 (Dickson 1976) and continued into the early 1980s. The focus of this research was on Archaic occupations, and during the course of study several Middle Archaic sites were defined and further examined (Amick 1983; Hofman 1981, 1982, 1984a, 1984b; Hall et al. 1985; Smith 1981). The results of these studies provide researchers with the opportunity to formulate initial models of Middle Archaic settlement, subsistence, organization and variability for the Middle South region (Amick 1987; Hofman 1984c, 1985, 1986).

Several of these models have used the Anderson site as a source of comparative information to help answer regional questions about the Middle Archaic period. An example is Hofman's (1984a) study to initially outline a Middle Archaic cultural framework for Middle Tennessee and adjacent regions. Hofman argued for the definition of an Eva Horizon for Western and Middle Tennessee which was distinct from the Morrow Mountain Horizon of the southern Appalachian region. One approach used in this study was an examination of formal variations in Morrow Mountain and Eva projectile points within dated Middle Archaic sites, including 40WM9. Hofman concluded that these traditionally recognized "types" represent a continuum of variation within the same biface system, and are the result of a single cultural group.

Comprehensive reconnaissance and testing programs to record additional Middle Archaic sites are desperately needed to further augment studies such as the one mentioned above. Although the Columbia Reservoir Project provides a significant base of Middle Archaic information within the central Duck River Valley, archaeologists still know comparatively little about this period within other Middle Tennessee drainages.

Perhaps this fact is no more evident than in the Harpeth River watershed. Aside from 40WM9, there are no other intact single-component or stratified Middle Archaic sites recorded along the Harpeth River or its tributaries, with the possible exception of 40WM32 (Lindstrom 1979). Unfortunately, 40WM32 has been completely destroyed by recent construction activities. Considering the significant amount of information obtained (and still available) from the Anderson site, the Harpeth River Valley represents a logical place to initiate future surveys for Middle Archaic occupations.

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