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SECOND REPORT OF INVESTIGATIONS AT THE JOHNSON SITE, 40DV400: THE 1991 FIELD SEASON

John B. Broster and Gary L. Barker

ABSTRACT

Site 40DV400 is a predominantly Early Archaic camp with evidence of Paleo-Indian occupation. Intact features and cultural deposits associated with the early prehistoric components are evident in the stratigraphy of this river bank site. Although some information has been lost to previous erosion, archaeological excavations are warranted to recover important information concerning Early Archaic and Paleo-Indian occupations in the Middle Tennessee area.

Introduction

The Johnson site was first investigated by the Tennessee Division of Archaeology in 1990 (Broster, Johnson, and Norton 1991). A preliminary collection of prehistoric materials was gathered from the beach area and profiles were drawn of the exposed cultural strata. This work, along with information obtained through private collections, suggested that sporadic occupation occurred here as far back as the Paleo-Indian period. Two carbon samples taken last season support this assumption. One wood charcoal sample from a small basin-shaped feature produced a date of 12,660 +/- 970 yrs. B.P. (Tx-6999) (Broster, Johnson and Norton 1991).

From January through August 1991, the Johnson site was again monitored by the Division. Due to budgetary constraints the site was not excavated. However, the Division was able to conduct further research at the site through a series of intensive reconnaissance surveys. The resulting data from this season's effort are the topic of this paper.

Site Description

The Johnson site, located in Davidson County, Tennessee, is a multi-component habitation situated at the confluence of the Cumberland River and a major tributary. The site was first observed by private collectors frequenting the beach area in search of artifacts. Numerous chipped stone tools and debitage from early prehistoric occupations were observed eroding from the steep cut banks. Fortunately, the site was brought to the attention of Division archaeologists, and a large portion of the privately collected artifacts was subsequently recorded and photographed. This sample contained such Paleo-Indian projectile point types as Cumberland, Beaver Lake, Greenbrier and Clovis preforms. Numerous Early Archaic specimens, including Kirk Corner-Notched, Kirk Serrated, Harpeth River, and St. Albans, were also examined.

Result of 1991 Investigations

The Johnson site is constantly subjected to erosional forces enhanced by fluctuating water levels and other modern day uses of the river, such as barge

and leisure boat traffic. With this in mind, and the hope of subsequent testing in the future, the major goal of the 1991 field season was to assess the erosional impacts upon 40DV400. This assessment was initiated by profiling the existing bank stratigraphy (Figure 1). The site consists of several distinct cultural lenses visible in the steep vertical bank of the main river channel. Cultural deposits range from a maximum depth of 6.7 meters to 3.5 meters below present ground surface.

Horizontal measurements were also taken from the top of the bank to the beach area. To further document and evaluate the rate of destruction to the site, a series of photographs were taken at right angles from a single vantage point throughout the 1991 field season.

A series of controlled surface collections were then conducted between January and August 1991, to evaluate the rate and amount of lithic material that was being eroded from the site. Constant monitoring of the river level was required to determine the most productive times at which the site was to be collected. It became evident early in the season that several factors had to be considered when calculating rates: 1) our efforts were in competition with local collectors (it is believed that utilized flakes, crude bifaces and lithic debris were only marginally affected because they are not considered worthy of collection by most non-professionals); 2) the amount of cultural material removed by river action between survey intervals; and 3) the amount of temporally sensitive material eroded by runoff and redeposited between collections.

Through the course of the 1991 season a total of 1,564 artifacts was collected at 40DV400. These items were classified by three collection areas: 1) the lower beach; 2) the upper cultural horizon (bifurcate level); and 3) features and/or cultural lenses below the bifurcate level.

Artifacts found on the lower beach accounted for the majority of cultural material. This can be attributed to several factors: 1) the Johnson site is composed primarily of deep cultural deposits, the earliest of which are often submerged and at most are within centimeters of the river's edge; 2) these cultural deposits in the cut bank are continuously being saturated and dried providing for rapid erosional deterioration; and 3) because of the inclination of the bank these deposits are most affected by runoff from above.

Diagnostics collected on the lower beach consisted primarily of Early Archaic material. Twenty-eight projectile points and/or knives were recovered. Included in the count were twenty-four Kirk Corner-Notched (Figure 2), one Decatur and one St. Albans. It is believed that the Kirk material eroded directly from the lower levels of the site as no Kirk diagnostics were observed above the lower beach area. The St. Albans projectile point, however, is believed to be a direct result of runoff from the bifurcate level (Figure 3). This is suggested by the recovery of two St. Albans projectile points found "in situ" at this level early in the season. Carbon samples have been collected from this stratum and dates are forthcoming. A Paleo-Indian occupation was also represented in the lower beach material. One Beaver Lake projectile point, seven peripheral flake uniface knives, and four bifaces (which exhibit strong characteristics of Clovis preforms) were recovered (Figures 4 and 5). A Middle Archaic presence was inferred from a Benton point recovered on the lower beach. Since no Middle Archaic features have been observed in the bank stratigraphy, it is probable that this material was redeposited on the lower beach by erosional forces upon overlying areas. Numerous non-diagnostic lithic

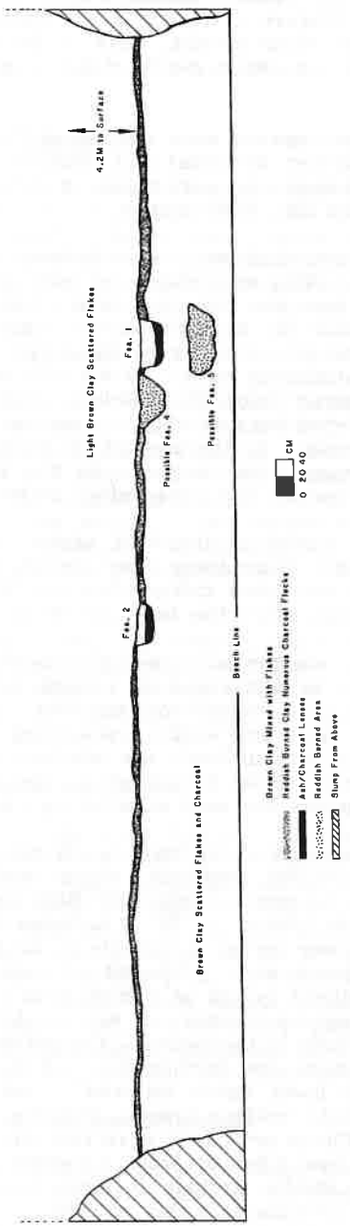

Figure 1. Profile and description of Stratum II.

material was also collected on the lower beach. Fifty-four broken preforms and/or bifaces, eleven indeterminate projectile point fragments, one piece of burned limestone, and numerous flakes were counted. Local Fort Payne chert is the predominant lithic material, followed by a Dover variety possibly from the Kentucky Lake area.

Of the 1,564 artifacts collected at the site, 1,075 (69%) were recovered on the surface of the lower beach. Eighty-five percent (n=30) of the diagnostic material from 40DV400 was also collected from this area of the site. Based on previously mentioned figures this material was found to be predominantly Early Archaic, followed by Late Early Archaic. The Paleo-Indian and Middle Archaic periods were also represented. Although uniface tools and performs were not included in the count, their presence can most likely be attributed to a Paleo-Indian component.

The second category of surface collected material was recovered from the upper horizon, below the bifurcate level. No diagnostic artifacts were collected on the surface of this stratum. However, as mentioned earlier one St. Albans was recovered on the lower beach. It is assumed that this projectile point was redeposited based on the fact that two St. Albans were recorded "in situ" at this level. This is understandable since this area is situated at a near vertical angle and the slightest run-off would easily wash material down to the lower levels. Although large amounts of lithic material were not expected to be recovered from this stratum, it was included as a separate category for collection in the hope that artifacts from it could be observed before redeposition and subsequent mixing with the lower beach material. The 149 artifacts obtained from the surface of this stratum comprise approximately ten percent (n=1,564) of the 40DV400 sample. The material recovered consisted primarily of lithic debitage. Numerous resharpening flakes with ground platforms, four flakes with apparent edge wear, and several cores were included in the count. Ft. Payne chert was found to be the predominant core material followed by the Dover variety. A small amount of chalcedony and fossiliferous material was also observed.

The third collection category is made up of material directly associated with features and/or cultural lenses. Five features were identified. Two other possible features were noted in the profile (Figure 1) and are included in this discussion. However, since no excavation has been conducted, only their dimensions can be given at this time. Features one through seven are described as follows:

Feature 1: Shallow basin hearth

This feature, first noted eroding out of the river bank, contained a mixture of wood charcoal, ash, bits of burned bone, and numerous chert flakes. Feature 1 measured 60 cm in width and 38 cm in depth, and originated from a distinct cultural level (Stratum II). The bottom 4 cm of fill accounted for the greatest concentration of lithics and wood charcoal. A radiocarbon date of 12,660 +/- 970 yrs. B.P. (Tx-6999) was obtained from this bottom layer of fill. Unfortunately, no diagnostic artifacts were associated with this feature.

Feature 2: Shallow basin hearth

Feature 2 was also exposed on the river bank within the same level as Feature 1. This hearth, located 2.58 meters to the east of dated Feature 1, was also associated with the top of Stratum II. The feature contained wood charcoal, ash, and several flakes. It appeared to be stratified, with at least two charcoal/ash levels being recorded within the feature. Feature 2 was 48 cm in width and 20 cm in depth from point of origin.

Feature 3: Charcoal and flake concentration

This concentration of materials appeared to originate from the Stratum I deposit associated with the St. Albans occupation of the site. The feature contained numerous flakes, one biface/preform fragment, one burned white-tailed deer patella fragment, and numerous pieces of wood charcoal. It may represent a surface burn or disturbed hearth on the bifurcate component living surface. Feature 3 measured 83 cm in width and 4 cm in depth.

Feature 4: Possible basin-shaped pit

The feature originated from the Stratum II deposit and was just to the east of Feature 1. This possible pit was 52 cm in width and 28 cm in depth. The pit was filled with reddish burnt sandy clay. No cultural materials were observed or recovered.

Feature 5: Reddish burnt clay deposit

This deposit, directly below Feature 1, was 78 cm wide and 32 cm deep. One burned sandstone fragment was the only cultural artifact recovered. Feature 5 may represent a surface burn from the habitation floor below the top of Stratum II.

Feature 6: Globular charcoal and nut filled pit

Feature 6 was exposed in the river bank some 19 meters east of Feature 1, and was one meter below the top of Stratum II. This pit contained wood charcoal, nut shells (probably hickory), and a few small retouch flakes. Although a carbon sample was obtained from this feature, the majority of the deposit remains intact.

Feature 7: Flake concentration

This feature was exposed at low water at the mouth of the adjoining tributary. Core fragments, flakes, and one Kirk Corner-Notched projectile point/knife (variety Pine Tree) were among the artifacts associated with this feature. All cultural material was embedded in the clay of Stratum III. Feature 7 may be a pit associated with Stratum II.

Conclusion

Based on the information gathered in 1990 and 1991, several intact cultural levels have been identified at the Johnson site. Stratum I is associated with a late Early Archaic occupation (St. Albans), and is some two meters above Stratum II. This second cultural stratum contains a mix of Kirk Corner-Notched and Paleo-Indian projectile points. The top of the level appears to date exclusively to the Kirk period, while the bottom of the level contains fluted projectile points (both Clovis and Cumberland). The interface between the Early Archaic and Paleo-Indian components remains unclear as it is based upon very limited testing. The importance of this site lies in its potential to provide the first data on stratified Paleo-Indian and Early Archaic occupations in the Mid-South.

Information recorded during 1991 lends great support to the argument that this site represents a series of culturally distinct projectile point manufacturing areas spanning some 3500 years. It is quite probable that other activities are represented at this site, but evidence to support this suggestion has not yet been recovered. The Johnson site definitely merits extensive testing in the near future to further assess its potential for providing important data on Paleo-Indian and Early Archaic lifeways in the Cumberland Valley. Such work should be undertaken as soon as possible since the entire site may erode into the Cumberland River in a relatively short time.

The site can be compared to other published Paleo-Indian sites in the region. Such sites as Nuckolls (40HS60), Nuckolls Extension (40HS200), and Twelkemeier (40HS173) appear to be much larger and contain numerous uniface tools which are generally lacking at the Johnson site (Lewis and Kneberg 1958; Broster and Norton 1990; and Norton and Broster 1991). The small area of the Paleo-Indian habitation at 40DV400 is very similar to that observed at the Pierce site (40CS24) in West Tennessee (Broster 1982). However, numerous uniface tools were found at Pierce. The Johnson site remains very distinct from those sites previously mentioned for several reasons, not the least of which is because it appears to contain intact cultural deposits.

Acknowledgements

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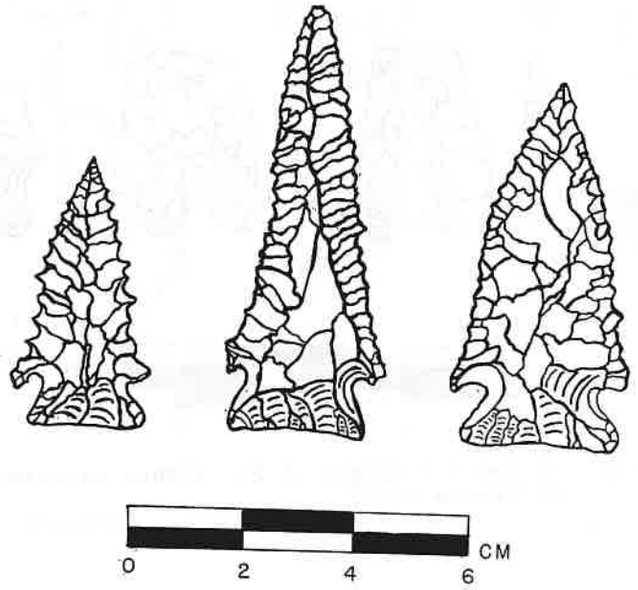

Figure 2. Diagnostic sample of Kirk material from lower beach.

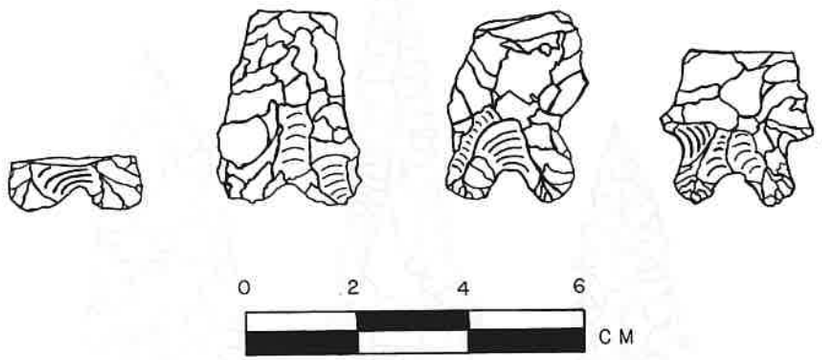

Figure 3. Diagnostic sample of St. Albans material from Bifurcate level.

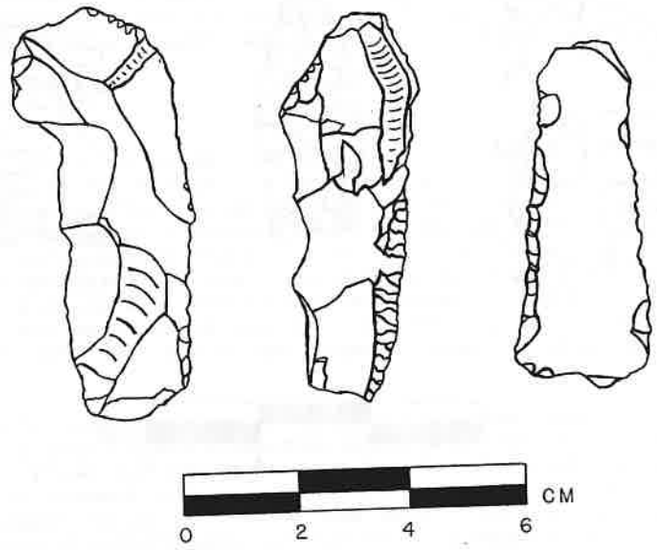

Figure 4. Uniface tools from lower beach.

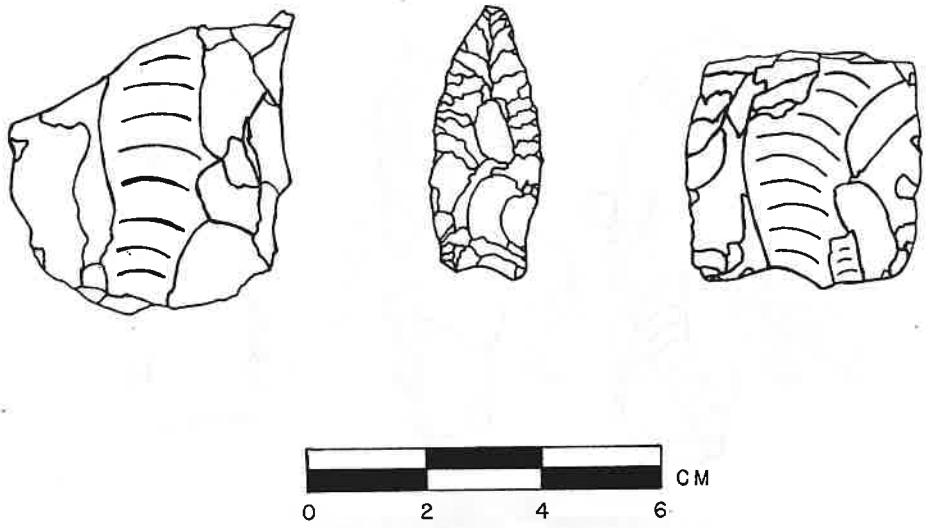

Figure 5. Diagnostic sample of Paleo-Indian material from lower beach.