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PUTATIVE POVERTY POINT PHASES IN WESTERN TENNESSEE: A REAPPRAISAL

Robert C. Mainfort, Jr.

ABSTRACT

Baked clay objects constitute a relatively common artifact class at archaeological sites in western Tennessee. Very few specimens have been recovered from excavated contexts in the study area. Some researchers claim that virtually all baked clay objects in the study area date to the Poverty Point period and that variations in the areal distributions of certain baked clay object stylistic attributes indicate the presence of as many as ten identifiable Poverty Point phases in western Tennessee. Drawing on a data base of over 260 sites that have produced artifacts of alleged Poverty Point age, previous interpretations of Poverty Point in the study area are systematically assessed. The results suggest that most previous interpretations are seriously flawed.

Introduction

Researchers have recognized the occurrence of baked clay (actually loess) objects (a.k.a. "Poverty Point objects" and "earth oven elements," hereafter, bcos) at archaeological sites throughout western Tennessee since the 1960s (e.g., Guthe 1964). Based on fieldwork conducted during the early 1970s, Smith (1972, 1979 and elsewhere) has asserted that bcos and certain projectile point styles in the study area are coeval, and that both the bcos and points are contemporary with the Poverty Point period (ca. 1500 B.C. - 500 B.C.) in the lower Mississippi Valley. Further, Smith has stated that as many as 10 Poverty Point phases (or districts or complexes or "provisional phases") are definable in western Tennessee based on "contrasting configurations of projectile point and baked clay object styles" (Smith 1972 and elsewhere; more recently, Smith and McNutt [1990] have dropped reference to projectile points as central to defining the phases in question).

That baked clay objects exhibiting some formal similarities with "Poverty Point objects" are present in western Tennessee is not contested by any researchers. They are present, and in considerable numbers, but the interpretation of these artifacts and their contexts is inadequately resolved.

In his reports on site survey in the Wolf and Loosahatchie drainages, Peterson (1979a, 1979b) questioned the existence of "a proposed Poverty Point period" in either drainage. More recently, I have disputed the validity of all of the major points raised by Smith concerning Poverty Point manifestations in western Tennessee (e.g., Mainfort 1986, 1989, 1994). Following various publications of Smith (e.g., 1979), these are:

- (1) Virtually all baked clay objects from western Tennessee date to the Poverty Point period.

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- (2) The available data indicate that certain styles of bcos have definable, restricted geographic and temporal ranges (i.e., certain styles are largely limited to specific drainages and others may be characterized as "early" or "late").
- (3) Certain projectile point types and/or styles (including several new types proposed by Smith) date to the Poverty Point period and consistently co-occur with bcos.
- (4) Data from excavations at sites 40FY13 and 40GB42 support the propositions above.
- (5) The available data suggest the presence of at least 8, if not more, Poverty Point "phases" (Smith 1972, 1979), "complexes" (Smith 1991), "districts" (Smith and McNutt 1990), or "potential phases" (Smith and McNutt 1990) in western Tennessee based on the relative frequencies of certain bco and projectile point styles.

Here, I present a systematic and comprehensive assessment of the key issues regarding baked clay objects in western Tennessee.

Historical Background

Various styles of baked clay (actually loess) objects are among the best-known artifacts of Poverty Point culture/period sites in the Lower Mississippi Valley. Smith (e.g., 1979a, 1991; see also Smith and Weinstein 1987 and Smith and McNutt 1990) assigns most, if not all, bcos in western Tennessee to the Poverty Point period. Some of these artifacts are stylistically similar to "classic" Poverty Point objects (e.g., Connaway *et al* 1977) and may indeed be of Poverty Point age. That baked clay objects occur in pre-ceramic contexts is well-established and this point requires little elaboration here.

In the Lower Mississippi Valley, however, it has also long been recognized that some forms of bcos persist into Tchula and Woodland times. For example, at the Early Marksville Crooks site 41 bcos, including several biconical and crude ellipsoidal specimens, were recovered from the mounds and adjacent barrow pit (Ford and Willey 1940: 119-121). In their site report, Ford and Willey also note that bcos occur in Tchefuncte (specifically including biconical specimens), Marksville, and Troyville contexts. Several years later, Ford and Quimby (1945) documented the occurrence of bcos (primarily biconical, but also cylindrical and spherical) in Tchefuncte contexts and relatively small biconical bcos were recovered from Tchula period deposits at the Jaketown site (Ford, Phillips, and Haag 1955). Ford (1963) found irregularly shaped bcos in association with fragments of two pottery vessels (one Tchefuncte Stamped and one Withers Fabric Marked) at the Early Marksville Helena Crossing site. Webb (1977: 57) acknowledges that use of baked clay objects "spans a long time period, before and after Poverty Point times." The occurrence of bcos in post-Poverty Point contexts is also mentioned in the syntheses of Phillips (1970), Morse and Morse (1983), and Toth (1989).

More recently, Rolinson and Jeter (1986) have reported the association of bcos and ceramics at several sites in southeastern Arkansas. A pit feature at the Loggy Bayou site

contained relatively large biconical and amorphous bcos, as well as Withers Fabric Marked and Tchefuncte Plain sherds. Excavations at the Grampus site yielded a biconical bco, and Tchefuncte Stamped, Lake Borgne Incised, Churupa Punctated, and Mulberry Creek Cordmarked sherds. Baked clay objects and ceramics have also been recovered in surface collections from several sites in the region.

Price (1986) reports the apparent association of bcos with Tchula horizon ceramics at sites in the southeast Missouri Ozarks. The associated points closely resemble several of Smith's "Poverty Point" types.

Excavations by Morse (1986, 1988) at the McCarty and Kellar sites in northeast Arkansas also demonstrate the persistence of bcos into post-Poverty Point times. At McCarty, biconical bcos are associated with a Tchula occupation (Morse 1986), while the roughly spherical bcos from Kellar were recovered from Late Marksville contexts (Morse 1988).

Baked clay objects also occur, of course, in preceramic contexts in the Central Mississippi Valley (*sensu* Morse and Morse 1983). For example, at the Weems site in southeast Missouri (Williams 1968), excavations demonstrated the association of spherical, biconical, and oval bcos with ceramics in the upper levels, while the lower excavation levels yielded similar bcos, but no ceramics. The salvage work at Weems largely confirmed Griffin and Spaulding's (1952: 1) earlier interpretation of the temporal placement of bcos in southeast Missouri: "Strata pit excavations in a number of sites suggest that the earliest pottery rather closely follows the clay ball time period . . ." A greater diversity of bco forms was recovered during excavations at the Harryette Campbell site (Williams 1972), but the cultural context is not clear. Although bcos and ceramics occur throughout the midden deposits, several excavated features contained bcos, but no pottery.

In sum, researchers throughout the lower Mississippi Valley have long recognized that baked clay objects are not limited to the Poverty Point period, but rather that they frequently occur in Tchula and Woodland contexts as well. Thus, the published literature, some dating back to the 1940s, provides no basis for Smith's (1972 and later) *a priori* assumption that all or most bcos in western Tennessee are of Poverty Point age.

Excavated Data from Western Tennessee

Smith (1972, 1979a, 1991; Smith and Weinstein 1987; Smith and McNutt 1990) has repeatedly cited an uncorrected radiocarbon age of 450 B.C. $\pm$ 95 on deposits at site 40FY13 that are said to represent a "Lambert" or "Loosahatchie" phase (i.e., Poverty Point period) component from which Harris Island projectile points were recovered. Smith (e.g., 1991, 1996) also reports the presence of Dalton and Benton components. The radiocarbon age, its context, and the associated artifacts present a number of interpretive problems. No description of the excavations at 40FY13 has been published, making it impossible for other researchers to assess the context of the date. Courtesy of the C.H. Nash Museum-Chucalissa, I examined the field notes from the site.

Now destroyed, 40FY13 was located southwest of Mason, Tennessee, on a terrace of the former channel of East Beaver Creek, about 250 m south of the East Beaver Creek Canal and 200 m east of U.S. 70. Several test units were excavated at the site in the spring of 1970; some additional investigations at the site evidently were conducted during the summer of 1971. According to Peterson (1979a: 31), an area measuring 10 feet by 60 feet was excavated; six 10 foot by 10 foot excavation units and an initial test pit are recorded in the field notes. Surface collections from the site produced numerous projectile points, including (as classified by Smith) Dalton (N=3), Mabin (N=4), "Form 16" Harris Island? (N=5), and Benton (N=16). No baked clay objects were recorded from the surface of the site, nor do the notes indicate that any bcos being recovered from excavated contexts.

Excluding the plowzone, cultural deposits in the excavated units at 40FY13 ranged from approximately 20 to 60 cm in depth. This inference, drawn from the field notes, is generally corroborated by Peterson's (1979a: 31) statement that undisturbed archaeological deposits were up to 18 inches thick below the plowzone. Modern tree root disturbances were recorded at the bases of several units and a historic fence post was recorded at the base of one unit. Profile drawings suggest that although three strata were recorded within the anthropogenic soils at the site, the distinctions between these zones were not pronounced. All cultural material below the plowzone in each of the excavated units was piece plotted by depth, including ferruginous sandstone and siltstone. The field notes suggest that very few whole or fragmentary points or other tools were recovered *in situ* and although stratigraphically isolatable cultural components may be present, clear evidence is lacking in the field records.

Twelve possible postmolds, none with a depth of more than 6-8 cm, were recorded at the "strata 2/3 contact zone" in unit 100R110; these apparently comprise the "small circular shelter" mentioned by Smith (e.g., 1972: 113). There is no indication that the possible postmolds were sectioned, making their identification as structural features tenuous. The field notes do not indicate the association of any points or bcos with the inferred structure. At the "base of stratum 3" in the same unit, seven additional possible postmolds were recorded; none of these were greater than 6-8 cm in depth. No structural outline is suggested by these possible postmolds; apparently Smith's (1991: 48) inference of "rectilinear to ovate structures with light pole framing" is based on these soil discolorations. A "tree mold" and an "historic post mold" were recorded at the base of this unit.

A radiocarbon assay was "obtained from charred nut hulls in the Late Lambert Phase component at 40 Fy 13" (Smith 1972: 113). No description of the sample and its context was published in *Radiocarbon* and the quoted passage is the only published reference to the specific context of the dated material. Field records indicate that dated material derived from a shallow (apx. 10-12 cm) concentration of charred nut hulls designated Feature 1, which was recorded in "stratum 3 - upper" in unit 100R130. The associated feature form records that only nut hulls and chert flakes were found within the feature. A notation on the feature form indicates that Smith originally identified the base of the overlying stratum 2 as a "Benton component," and in a recent publication, Smith (1991: 48) states that a "Benton component" at 40FY13 was

characterized by "midden and pits . . . heavily laced with charred hickory nut hulls." Since there are no references in the field records to nut hulls from any other provenience at the site, this can only be a reference to Feature 1. It is unclear how this feature can on the one hand be attributed to a "Benton component," while a radiocarbon assay on material from the feature is claimed to be associated with a Poverty Point period component.

All of the above raises a number of questions about the interpretation of stratigraphy and attribution of cultural components at the site, as well as the cultural affiliation of the material submitted for radiocarbon dating. Clearly, 40FY13 is multicomponent and based on the points collected from the surface, the most intensive utilization apparently occurred during the Benton period. Very little diagnostic cultural material seems to have been recovered *in situ*; at least, this is the case as represented in the field records I examined. The cultural affiliation of the charred nut hull feature is ambiguous, as indicated by the feature form and the lack of diagnostic artifacts from the feature. The records I examined provide no stratigraphic basis for attributing the feature to a "Late Lambert phase" (i.e., Poverty Point period) occupation; in fact, the feature was originally interpreted as occurring stratigraphically beneath a "Benton component."

In short, the only inference that may be safely drawn from the radiocarbon assay from 40FY13 is that there is a 67 percent probability that some nut hulls were burned approximately 2400 radiocarbon years ago. In light of these considerations, I consider the radiocarbon assay from 40FY13 to be irrelevant to discussions of Poverty Point or any other cultural period. Finally, based on inspection of the field records, the evidence for Poverty Point and Benton age structures at the site is unconvincing, and it is by no means certain that any of the possible postmolds actually were created by prehistoric posts.

Smith (e.g., 1979; Smith and McNutt 1990) has also stated in several publications that his test excavations at site 40GB42 identified a "stratigraphically isolatable" component that produced baked clay objects dating to Poverty Point period. More extensive excavations conducted at the site in 1991 clearly demonstrated that bcos occur in a severely disturbed and mixed deposit that contains abundant Tchula, Woodland, and some Mississippian cultural material (Mainfort 1994). Smith's (e.g., 1991: 55) cursory description and interpretation of the site are erroneous. There is no stratigraphically identifiable "Kenton" (i.e., "Poverty Point") component, no Benton component (the soil zone in question actually represents a buried A horizon and lacks Benton artifacts), and no "deep midden."

Not cited by Smith until recently (1991; Smith and McNutt 1990) in his discussions of "Poverty Point" in western Tennessee is the recovery of eight ellipsoidal fabric-marked bcos and fabric marked ceramics from an undisturbed stratum (Stratum VI) underlying Pinson Mound 12 (Broster and Schneider 1975; Broster *et al.* 1980; Mainfort *et al.* 1982; Mainfort 1986). Indeed, prior to recent excavations at the Barner and Fulmer sites (see below), Pinson Mound 12 represented the only locality in western Tennessee at which bcos had been recovered from a good stratigraphic context. Inexplicably, Smith (1991: 54) attributes the Pinson Mound 12 bcos to a "possible Harris Island component" (i.e., Poverty Point period) and, contrary to the excavator's published description, characterizes the depositional context as severely disturbed.

Smith (1990: 54) further states that "the stratum (i.e., Stratum VI--author) involved also produced large amounts of Early and Middle Woodland ceramics." This, too, is erroneous and misleading. Pinson Mound 12, Stratum VI yielded only 115 ceramic sherds, all of which are attributable to an early Marksville (Middle Woodland) component; no ceramics of demonstrable Tchula (i.e., "Early Woodland") age were recovered. The overlying Stratum V, which produced over 700 sherds and 13 bcos, was, in fact, described by the excavator as disturbed (Broster and Schneider 1975; Broster *et al.* 1980). A charcoal sample from the lower (arbitrary) level of Stratum V produced an uncorrected radiocarbon age of 2155 ± 115 years; an assay on charcoal from the upper (arbitrary) level of the same stratum returned an uncorrected age of 1695 ± 80 years (Mainfort *et al.* 1982).

Test excavations at the Barner site (40WK83) provided charcoal samples for two radiocarbon assays on baked clay objects from what appears to be a pre-ceramic context. The site is a midden mound situated on the south bank of a former channel of the North Fork of the Obion River, near Martin, Tennessee (Mainfort 1994; the radiocarbon determinations were carelessly omitted in this monograph).

Two 2 m by 2 m test units were excavated at the Barner site. In the first, a tightly flexed human burial was partially exposed, but not excavated. A large bell-shaped pit was exposed and excavated in the second test unit. Cultural material from the feature includes 6 bcos (3 biscuit-shaped plain, 2 biconical plain, one biscuit-shaped cane impressed), numerous unidentifiable bco fragments, a pp/k distal, and the base of a drill; no ceramic sherds were found within the feature. Identifiable botanical remains consist almost exclusively of charred hickory nutshell fragments.

Few sherds of prehistoric ceramics, most of which derived from the plowzone, were recovered from the Barner site. These include 5 Withers Fabric Marked, *var. Withers* and 5 Mulberry Creek Cordmarked, *var. Westover* (including a basal sherd from a flat-based jar) (see Mainfort and Chapman 1995 for ceramic paste descriptions). Other cultural material not associated with the bell-shaped pit includes 2 biscuit-shaped cane impressed baked clay objects, nearly 300 unidentifiable bco fragments, a ferruginous siltstone gorget fragment, and 3 pp/ks (one Pickwick, one Bakers Creek, one straight stemmed).

Two radiocarbon assays were obtained on charred materials recovered from the large pit in the second test unit: 3520 ± 90 bp (TX-7484) and 2630 ± 100 bp (TX-7485). The former was derived from a relatively small charcoal concentration within the feature and may more accurately reflect the actual age of the pit. In any event, these assays are the first and only radiocarbon determinations in western Tennessee on baked clay objects from what appears to be a pre-ceramic context and, in fact, the Barner site is currently the only site in western Tennessee at which stratigraphic evidence strongly supports a pre-ceramic age for bcos.

Shelby County, but sample sizes from the adjoining Fayette and Tipton counties are very small. The biconical form seems to occur most frequently in Fayette and Haywood counties, while ellipsoidal bcos are especially numerous in Madison and Weakley counties; all of these counties have relatively small samples.

Plain surfaces predominate in all counties, but this trend is especially pronounced in Fayette and Shelby counties. Decorated surfaces seem to be especially common in Gibson, Madison, and Weakley counties. Fabric marking is most characteristic of Madison County, while cord marking is strongly represented in Obion and Weakley counties; the latter samples are of small size. Biscuit-shaped bcos and cane impressed decoration are most common in Gibson and Weakley counties, so much so that these counties, or portions thereof, may be inferred with some confidence to represent a distinctive stylistic zone.

Not surprisingly, the data in Tables 2 and 3 indicate that there is regional variation in the distribution of baked clay object forms and surface treatments. Some of this variation is broadly consistent with the regional patterning represented by Smith's phases, while other variation is largely obscured by these constructs.

But what of Smith's phases/districts/complexes? Can these or generally similar groups be derived applying multivariate methods to a data set consisting of bco forms and surface treatments? Most of the 268 sites have yielded very few (if any) bcos, making them unsuitable for inclusion in virtually any kind of multivariate statistical analysis. To determine if Smith's groups of sites could be reproduced using multivariate exploratory data analysis, I extracted a sample of 30 sites (including as independent samples the artifacts collected by Smith and the Tennessee Division of Archaeology from 40GB42), representing all sites in the study area at which five or more bcos and their attributes have been reported. This sample represents less than 10 percent of the western Tennessee sites with presumed Poverty Point components.

To explore the structure of this admittedly paltry data set, I used average-linkage cluster analysis, a robust and commonly used clustering technique. The attributes used were baked clay object forms (spherical, biconical, ellipsoidal, biscuit-shaped, and cylindrical) and surface treatments (cord marked, fabric marked, and cane impressed; plain surface was not included because of the ubiquity of this attribute).

The resulting dendrogram (Figure 1) is somewhat ambiguous with respect to Smith's phases and, in fact, suggests that the data set is rather weakly structured. That is, there are relatively few compact, unambiguous groups evident in the dendrogram, while nearly one quarter of the sites represent outliers. Progressing from left to right in the dendrogram, the potential significance and reliability of the derived groups decreases.

Seven sites (40WK40, 40OB41, 40OB54, 40HD1, 40GB16, 40SY275, and 40WK72) are outliers, exhibiting little similarity with other sites. Two Madison County sites (40MD1 and 40MD8), both with ellipsoidal fabric-marked bcos, form a small (but not compact) cluster that roughly equates with Smith's Harris Island phase. Parenthetically, only three other sites within

this "phase" have produced bcos (but no ellipsoidal or fabric-marked specimens); an additional 24 sites were assigned to the phase based solely on the occurrence of "diagnostic" projectile point styles (Smith 1979: 84).

One relatively compact macrocluster includes five sites in Dyer, Gibson, Haywood, Madison, and Obion counties; this group has no counterpart among Smith's phases. Immediately below is a less compact macrocluster consisting of four sites in Dyer, Fayette, and Shelby counties; this group also lacks correspondence with any of Smith's phases. Two sites in Shelby County (40SY45 and 40SY56), each with cylindrical bcos, form a small cluster that corresponds to part of Smith's Nonconnah phase; although more appropriately viewed as an outlier, 40SY275 shows its strongest similarity with these two sites. One small, compact cluster includes 40SY47, 40GB7, and 40SY39; this group has no counterpart among Smith's phases. The largest macrocluster, with six sites in Gibson and Weakley counties (including both samples from 40GB42), includes representatives of Smith's Kenton and Stokes phases.

Several of the geographic trends mentioned above are underscored by the cluster analysis. Sites in Gibson County generally exhibit high frequencies of biscuit-shaped bcos and cane impressed decoration. Cylindrical bcos are presently known only from sites in Shelby County and ellipsoidal fabric-marked bcos seem to be particularly characteristic of some, but not all, sites in Madison County. These trends correspond in a broad sense to Smith's Kenton and Stokes, Nonconnah, and Harris Island phases/districts/complexes, but it also is apparent that these constructs are of no utility for understanding geographic variation in bco forms and surface treatments. Moreover, most of the sites used in this paper and/or by Smith have produced very small samples of bcos and are unsuitable for inclusion in multivariate analyses.

In sum, there clearly are trends in the spatial distribution of baked clay object attributes. Some of these correspond in a general sense to some of Smith's phases, but it is also clear that the phases/districts/complexes delimited by Smith do not accurately reflect variation in the archaeological record. Baked clay attribute frequencies among sites included in some of Smith's phases exhibit considerable variability. Comparisons based on bco attribute frequencies demonstrate that many sites grouped together by Smith are more closely related stylistically to sites located at considerable distances than to sites within the local phase or district to which they have been assigned.

Therefore, I recommend that use or reference to Smith's phases/districts/complexes be abandoned by researchers.

Smith (1972 and elsewhere) also has asserted that it is possible to distinguish between "early" and "late" Poverty Point phases in the study area; in a 1972 publication, Smith also includes a "middle" period. According to Smith (1991: 49): "Distributional data from beyond the geographic range of Pontchartrain (points--author) confirms the late appearance of the cordmarked, fabric impressed, and cane punctated objects, some of which may even have continued in use into the Early Woodland period," leading him to conclude that: "The Harris Island, Stokes, Kenton, and Reelfoot complexes all appear to be late, after the end of usage of

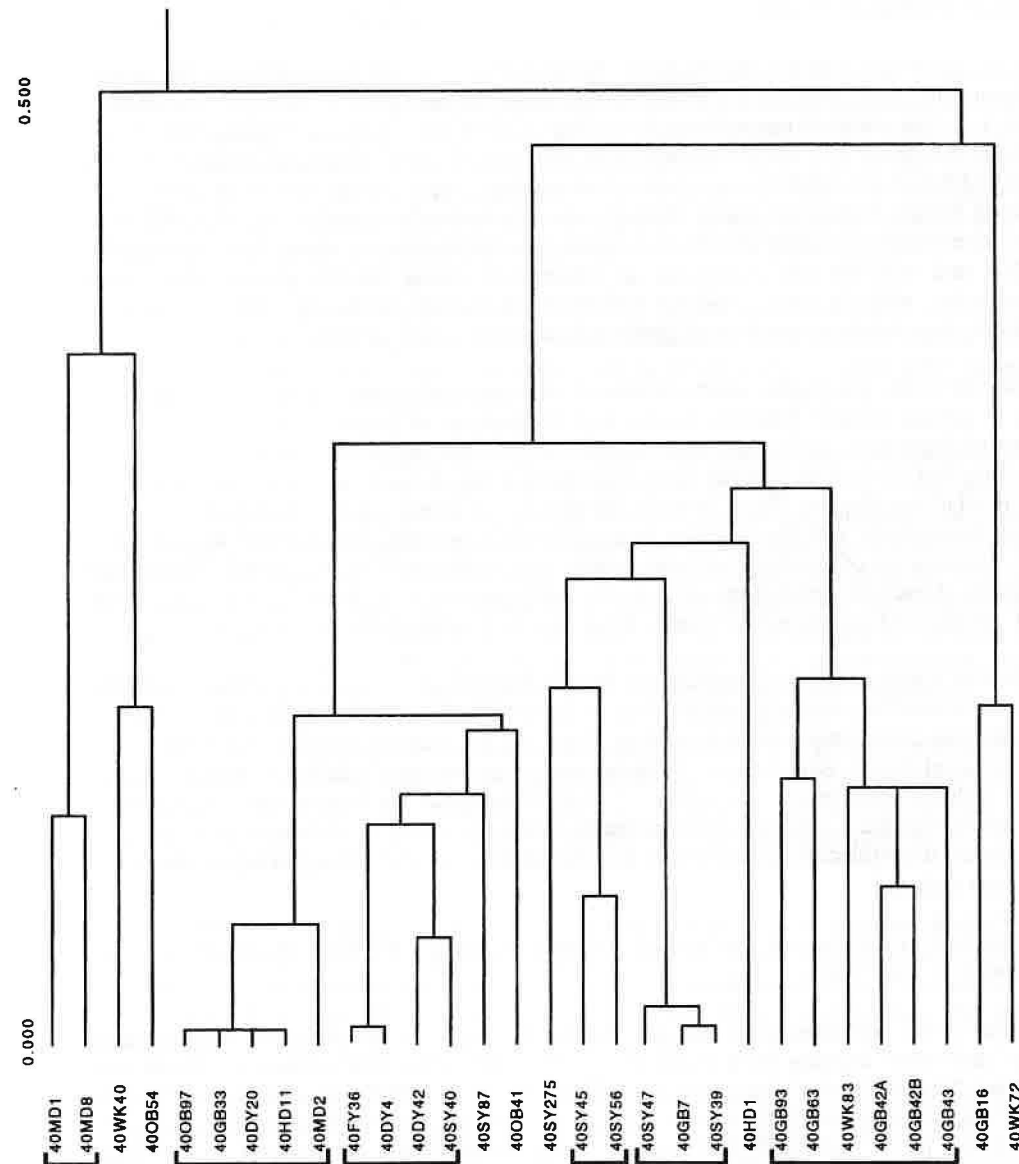


Figure 1. Dendrogram produced by average-linkage clustering. Macroclusters mentioned in text are identified along the left margin. 40GB42A refers to Smith's collection from the site; 40GB42B refers to material excavated by the Tennessee Division of Archaeology.

Pontchartrain points in the area, which was probably on the order of 800 BC according to the compilation of data presented by Webb (1977). In fact, the Kenton and Harris Island "phases" are claimed to have been formed by "later Poverty Point expansion" (Smith 1979a: 73).

The linchpin of Smith's argument seems to be the presumed terminal date for Pontchartrain points in western Tennessee. This reasoning can be questioned on several counts.

As noted by Brookes (1981), both Pontchartrain points and the closely-related Flint Creek points continued in use until at least 200 B.C. Brookes wisely cautions against the assignment of sites to the Poverty Point period based solely on the presence of Pontchartrain points and, parenthetically, also calls attention to the frequent occurrence of ceramics at purported Poverty Point sites. Moreover, the "C-14 dates presented by Webb (1977: 5)" (Smith and McNutt 1990: 39) have little, if any bearing, on the age range of Pontchartrain points.

The Nonconnah phase is the only one of his areal constructs that Smith presently claims can be divided into early and late groups of sites, although as noted above, several other "phases" are interpreted as "late," but without a corresponding "early." Do the data from the Nonconnah Creek drainage justify the proposed temporal placement of artifacts and sites?

	Pontchartrain	Motley	cylindrical bco	Harris Island	Arlington	biscuit bco	biconical bco	ceramics
Pontchartrain								
Motley	5							
cylindrical bco	4	3						
Harris Island	9	3	4					
Arlington	2	1	1	2				
biscuit bco	1	1	0	1	0			
biconical bco	3	3	2	3	1	1		
ceramics	12	6	7	8	2	1	5	
Total sites	14	6	8	9	2	2	5	21

Table 4. Points and baked clay object forms in Smith's Nonconnah phase/district/complex. Numbers reflect occurrences, not actual numbers of artifacts.

According to Smith, "The Early Nonconnah complex is definable by cylindrical baked clay objects, and Pontchartrain, and Motley, *var. C* points (Smith and Weinstein 1987: 36-45)," while "Late Nonconnah components lack the cylindrical baked clay objects and Pontchartrain points, but have biscuit-shaped plain and cane punctated baked clay objects added to the complex along with Arlington and Harris Island points" (1991: 51).

Data on presumed Poverty Point period artifacts in the Nonconnah Creek drainage is summarized in Table 4. These data provide little, if any, support for Smith's early/late distinctions. Consider the case for "early" and "late" point types. If Pontchartrain points are "early" and if Harris Island and Arlington points are "late," then the latter two should regularly co-occur and should rarely, if ever, co-occur with Pontchartrain points. Arlington points are reported at only two sites in the Nonconnah Creek drainage, both of which have also produced

Harris Island points; both sites have also yielded Pontchartrain points. Moreover, all nine sites with Harris Island points also have Pontchartrain points; in fact only five sites have produced Pontchartrain points and no Harris Island points.

On a more positive note, five of the six occurrences of Motley points are at sites that also produced Pontchartrain points; however, Motley, Pontchartrain, and Harris Island points co-occur at three sites.

What about the interpretation of cylindrical bcos as "early"? This artifact class has been recorded at a total of eight sites in the Nonconnah phase. Four sites have both cylindrical bcos and Pontchartrain points; four sites have produced both cylindrical bcos and Harris Island points. Three of the four sites with both cylindrical bcos and Pontchartrain points also have Harris Island points. Parenthetically, 12 of the 14 sites with Pontchartrain points also have yielded ceramics.

Although statements by Smith (1991; see also Smith and McNutt 1990) convey the impression that the early/late distinction within his Nonconnah phase is straightforward and easily demonstrated, it is quite evident that this is not the case. Indeed, there is little, if any, basis for distinguishing "early" and "late" sites using the artifact types and styles claimed to be characteristic of different temporal segments, whether within the Nonconnah Creek drainage or elsewhere in western Tennessee. At some point in time it should be possible to achieve finer temporal discrimination among the bco and projectile point styles discussed here, but doing so will require additional excavated data from unambiguous contexts.

Additional Data Considerations

In conjunction with the West Tennessee Tributaries Project (Mainfort 1994), I reanalyzed the bcos in several site collections housed at the C.H. Nash Museum-Chucalissa. Among these were several sites in Gibson County that have produced moderately large samples of bcos. From 40GB7, Smith (1979a: 85) reports 7 spherical plain, 9 biconical plain, 2 ellipsoidal plain, and 2 cubes (1 plain, 1 cane impressed). A much less definitive assemblage is suggested by reanalysis of the collection (the counts from which are used on this paper), which produced the following: 9 small plain fragments (probably spherical or biconical), 9 larger plain fragments (probably spherical or ellipsoidal), 1 irregularly shaped plain fragment (possibly rectanguloid), 4 cane impressed fragments (2 of which may have been biscuit shaped).

A larger collection from 40GB16 was reported as follows (Smith 1979a: 85): 7 spherical plain, 4 biconical plain, 5 ellipsoidal (3 plain, 1 cane impressed, 1 fingertip impressed), 17 biscuit-shaped (11 cane impressed, 6 fingertip impressed). Reanalysis suggests that the specimens originally identified as "spherical, plain" are all fairly small fragments; 3 probably represent spherical, ellipsoidal, or irregularly shaped objects with plain surfaces, while 4 are of indeterminate shape and virtually lack any preserved exterior surface. I was unable to determine the original shape(s) of the 4 reported biconical specimens and the 3 reported ellipsoidal plain specimens; all are small fragments with plain surfaces. Reinspection confirmed the presence of

11 probable biscuit-shaped, cane impressed bcos, all of which are represented by fragments. All of the reported biscuit-shaped, fingertip impressed examples are fragmentary. Only one could be confidently identified as biscuit-shaped, while 2 others probably represent cylindrical or ellipsoidal forms; the remaining 3 are of indeterminate shape.

Smith (1979a: 84) tabulated the following bcos from the Harris Island site (40MD8): 6 spherical fabric impressed; 4 biconical plain; 12 ellipsoidal plain; and 16 ellipsoidal fabric impressed. Reanalysis produced the following results: 1 biconical plain; 7 ellipsoidal plain; 14 ellipsoidal fabric impressed; 5 unidentified cordmarked; 8 unidentified fragments. A single biconical plain bco is reported from 40OB25 (Smith 1979a: 87); reanalysis found 4 unidentifiable fragments. A single spherical plain is reported from 40GB6 (Smith 1979a: 85); reanalysis found 1 spherical plain; 1 crude ellipsoidal fabric impressed; 8 unidentifiable plain fragments; and 1 unidentifiable fragment.

The disparities between published accounts and my reanalysis suggests that a comprehensive reanalysis of the bcos curated at the C.H. Nash Museum-Chucalissa should be undertaken. Such an effort might clarify geographic variability in baked clay object styles throughout western Tennessee.

Concluding Remarks

Although acknowledging that some "Poverty Point type artifacts" may persist "into a subsequent period," Smith and McNutt (1990: 38-39) aver that "most components (with 'Poverty Point' type artifacts - author) are assignable to one of the nine spatially distinct complexes (potential phases) defined for the period in the area." The evidence presented above demonstrates that neither of the two propositions contained in this statement are supported by the available data. It is possible, perhaps even likely, that many of the baked clay objects and projectile point forms considered by Smith to be "diagnostic" of the Poverty Point period actually date to that general time period, but this cannot be demonstrated at present. Excavated data from unambiguous contexts are required to resolve this issue. As I have shown, the excavated data from sites 40FY13 and 40GB42, repeatedly cited by Smith in support of his interpretations of Poverty Point and other time periods in the study area, are largely irrelevant to the key issues discussed here. Excavations at the Barner site suggest that some biscuit-shaped cane-impressed bcos date to Poverty Point times, while data from Pinson Mound 12 indicate that some ellipsoidal fabric-marked bcos are associated with Tchula period components.

Although Smith and McNutt (1990: 49-50) are essentially correct in stating that it really does not matter what one chooses to call a given archaeological time period, the actual age (or temporal period, such as "Poverty Point" or "Tchula" or "Marksville") of given classes of artifacts makes an enormous amount of difference and, indeed, is fundamental to archaeological interpretation. For example, the question of whether or not there actually is a several-fold increase in the number of archaeological sites between the Late Archaic and "Poverty Point" periods in western Tennessee (e.g., Peterson 1979a and b) is a matter of some importance to

researchers in the study area. Until we are able to distinguish components of these periods with some confidence, this issue will remain unresolved.

Since it cannot presently be demonstrated which, if any, bco styles and projectile point types are associated primarily with components of Poverty Point age in western Tennessee, any discussion of Poverty Point phases/districts/complexes is premature. Even if one is willing to accept the proposition that all bcos and "diagnostic" projectile points in the study area date to Poverty Point times, Smith's geographic constructs have little empirical basis, no explanatory value, and mask variability in the archaeological record. Some general spatial trends in the distribution of bco attributes in the study area were noted above. A GIS-based clinal study of bco stylistic data would probably reveal additional patterning.

Smith must be acknowledged for his considerable efforts and contributions over the past three decades and for calling attention to a rich corpus of data pertaining to archaeological sites and artifacts in the study area that date between approximately 1500 and 200 B.C. Advancing our understanding of the archaeological record often involves challenging existing interpretations, as I have done here. Several sites that hold data critical to resolving the issues raised here have been identified and it is clear that comparable sites are present in similar settings (e.g., Mainfort 1994). Existing collections can and should be reanalyzed with the goal of formulating well-grounded, unambiguous typologies for artifacts of this general age.

While much of the prehistory of western Tennessee remains rather poorly known and understood (e.g., Mainfort 1996; Smith 1996), the broad topic of Poverty Point sites in the study area is one for which I believe researchers are poised to make significant advances. This paper lays the groundwork for undertaking the necessary work that lies ahead.

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