LATE PERIOD CERAMIC VARIATION IN THE CENTRAL MISSISSIPPI VALLEY

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SLIDE Existing ceramic types and varieties in the study area, even with the imperfections readily admitted by Phillips (1970) and Phillips et al. (1951), perform the purpose for which they were created quite well, namely documenting variation in site assemblages over relatively long time spans. The use of these same types in the creation of cultural-historical units, which have both temporal and spatial dimensions, may be less appropriate and less successful. Moreover, the existing types have not proven useful in achieving *fine-scale* temporal resolution.

In a recent evaluation of late period phases in the Central Mississippi Valley, I noted that "these groups of sites . . . share virtually all of the current ceramic types used in this analysis and are distinguished by relatively small differences in type frequencies. In short, the picture that emerges is one of considerable stylistic uniformity in ceramics throughout the study area." Further, I suggested that ceramic variability in the study area could most profitably be examined using explicitly defined modes and motifs, the result being a data set from which much more pronounced stylistic differences could be identified between groups of sites.

Here I follow through with this proposed research. Specifically, I examine variation between late period assemblages in the study area using ceramic rim attributes or modes, rather than types. The results present a much different picture of the late period ceramic variability than provided by existing phases.

Mode or attribute analysis of prehistoric ceramics has been strongly advocated by some North American archaeologists for a number of years (Ramsden, Wright). These researchers recognize the utility of pottery *types* in establishing the general chronology for a region, but argue that working out the more intricate chronological and spatial relationships can only be tackled by using an analysis of individual ceramic attributes, which are more sensitive indicators of complex patterns of interaction than relatively grossly formulated types.

In contrast to the plethora of late period ceramic decorative modes (types and varieties) described for the study area (Phillips 1970), there is—at least in the sample I examined—surprisingly little qualitative variation in rim treatments, and of these only 3 occur in frequencies that exceed 10 percent in any of the assemblages analyzed. Indeed, the majority of the rim sherds analyzed exhibit none of the treatments discussed here.

SLIDE Let's look at the three most frequently occurring rim treatments are as follows. First is interior beveling, defined as an outflared flattening of the lip interior that resulted in the creation of an obvious angle of inflection between the vessel interior and the beveled area. In recording the data, I noted the degree of interior beveling (sharp, moderate, and slight), though here I discuss only the presence or absence of beveling, which avoids subjective judgments.

SAME SLIDE A second common rim mode is the beaded applique´ strip, which is basically "a notched applique´ band, positioned horizontally on the rim just below the lip." Like interior beveling, this attribute is considered characteristic of late period sites in the Central Mississippi Valley.

SLIDE Exterior notching, the last of the three attributes emphasized in this analysis, refers to closely spaced, short incisions that encircle a vessel immediately below the lip.

Notched lips, referring to notches placed into the top surface of the lip itself, is quite rare in the sample analyzed and was recorded as a separate attribute.

SLIDE Here is a second example of exterior notching.

SLIDE Two additional rim modes, both occurring in low frequencies, also were recorded. These are band of nodes, which "consists of a series of closely-spaced nodes arranged in a horizontal band around a vessel's circumference,"

SLIDE and widely spaced nodes, in which applique´ nodes are placed at wide intervals around the circumference. Note also the notched lip.

SLIDE I collected attribute data for 7,195 rims from 55 late period sites in the Central Mississippi Valley, ranging from Otto Sharpe to the north to the Kent phase area in the south. Phases represented include the Nodena, Parkin, Kent, Horseshoe Lake, Jones Bayou, Tipton, and Walls. Sample sizes range from 18 (Cheatam) to 473 (Berry).

While the numbers of rims per site are relatively small in some instances, the ceramic assemblages required to produce even these counts are quite large. For example, the 203 rim sherds from the Graves Lake site reflect a total ceramic assemblage of 2,751 sherds, the 115 rims from Richardson's Landing reflect an

assemblage of 1,067 sherds. Thus, although the actual counts per site are not always large, these numbers are properly viewed in the context of the total ceramic assemblages required to obtain the rims.

For analysis, the raw counts of rim mode frequencies for each site were converted to percentage occurrences.

SLIDE Despite the comments of Phillips et al. (1951) regarding the chronological importance of beveled rims, subsequent researchers typically have not included tabulations of this—or any other—attribute in discussions of ceramics from sites in the study area. A notable exception is John House, who refocused attention on interior beveled rims, which he refers to as the "Memphis Rim Mode."

The data suggest that the frequency of beveled rims has both spatial and temporal dimensions. The association of beveled rims with late occupations was noted over 50 years ago by PFG, and the data presented here support this inference. The Campbell and Otto Sharpe sites, both of which have produced European artifacts, have very high frequencies of beveled rims. But the situation clearly is not straightforward. For example, Clay Hill, Parkin, and Wildy—all sites with European artifacts—have rather paltry numbers of beveled rims.

The frequency of interior beveling varies not only over time, but also space. Interior beveling occurs infrequently in both the traditional Parkin and Kent phase areas. There is also a general trend for the frequency of beveling to increase from south to north within the study area.

Yet, the distribution defies simple explanation based solely on temporal and spatial dimensions. For example, interior beveling is very rare—more in line with the Parkin phase area—at Notgrass and Shawnee Village, both of which are located in the "core" area of the traditional Nodena phase and have important late period occupations.

SLIDE As with interior beveling, the frequency of beaded applique´ strips appears to increase over time. As seen here, the highest frequencies of beaded applique´ strips in the study area occur at the Campbell and Berry sites, both of which have post A.D. 1550 occupations. There is also a high frequency at the circa A.D. 1650 Otto Sharpe site, but not so high as at Notgrass, which lacks any reported European artifacts. The very low frequencies at Shawnee Village, Carson Lake, and Wildy are noteworthy.

Also like interior beveling, the frequency of bead applique´ strips generally increases from south to north. It might also seem apparent that there is a moderately strong correlation between frequencies of beaded applique´ strips versus interior beveling. A simple regression confirms this inference, but again the relationship is far from straightforward.

Upper and Middle Nodena are interpreted as sequentially occupied sites, with Upper Nodena representing the older. This interpretation is supported by the frequencies of interior beveling, which are much higher at Middle Nodena. Beaded applique´ strips, however, occur twice as frequently at Upper Nodena.

SLIDE Exterior notching varies largely independently of both interior beveling and beaded applique´ strips, and also does not exhibit a general increase from south to north in the study area. By far, the highest frequencies occur at Middle Nodena (35%), Campbell (32%), and 3CT40, all of which have very late components. Other late sites, however, have low frequencies of exterior notching. At Berry, the frequency is only 16 percent. More striking is Otto Sharpe —perhaps the latest site used in this study—with a frequency of only 5 percent.

SLIDE Data from Upper and Middle Nodena permit another important issue to be addressed, namely the relationship between the attribute frequencies derived from rim sherds and frequencies of the attributes in whole vessel assemblages. The University of Arkansas Museum curates a number of whole vessels from Upper and Middle Nodena. All were excavated from mortuary contexts in 1932. Admittedly, the whole vessels represent only a single cultural context, while the original context of the sherds is unknowable. While this is a limitation of the dataset, it is important to bear in mind that such a comparison could not even be attempted at most sites for want of a large sample of whole vessels.

Not surprisingly, the specific percentages of attributes are not the same between the whole vessels and the rim sherds. The differences in beveling and notched exteriors are fairly dramatic. On the other hand, the relative frequencies of attributes between sites are the same—there are higher frequencies of interior beveling and notched rim exteriors at Middle Nodena, while beaded rims are more common at Upper Nodena.

SLIDE What does all this variation mean? Using all sites previously assigned to a phase and for which data on more than 45 rims was available (N=47), I

performed a discriminant analysis to assess the degree to which the original phase assignments of sites, which were based on frequencies of ceramic types, are supported by the rim mode data. In essence, discriminant analysis assumes that one or more groups (in this case, phases) exist and that the objects (sites) being analyzed belong to one of these groups.

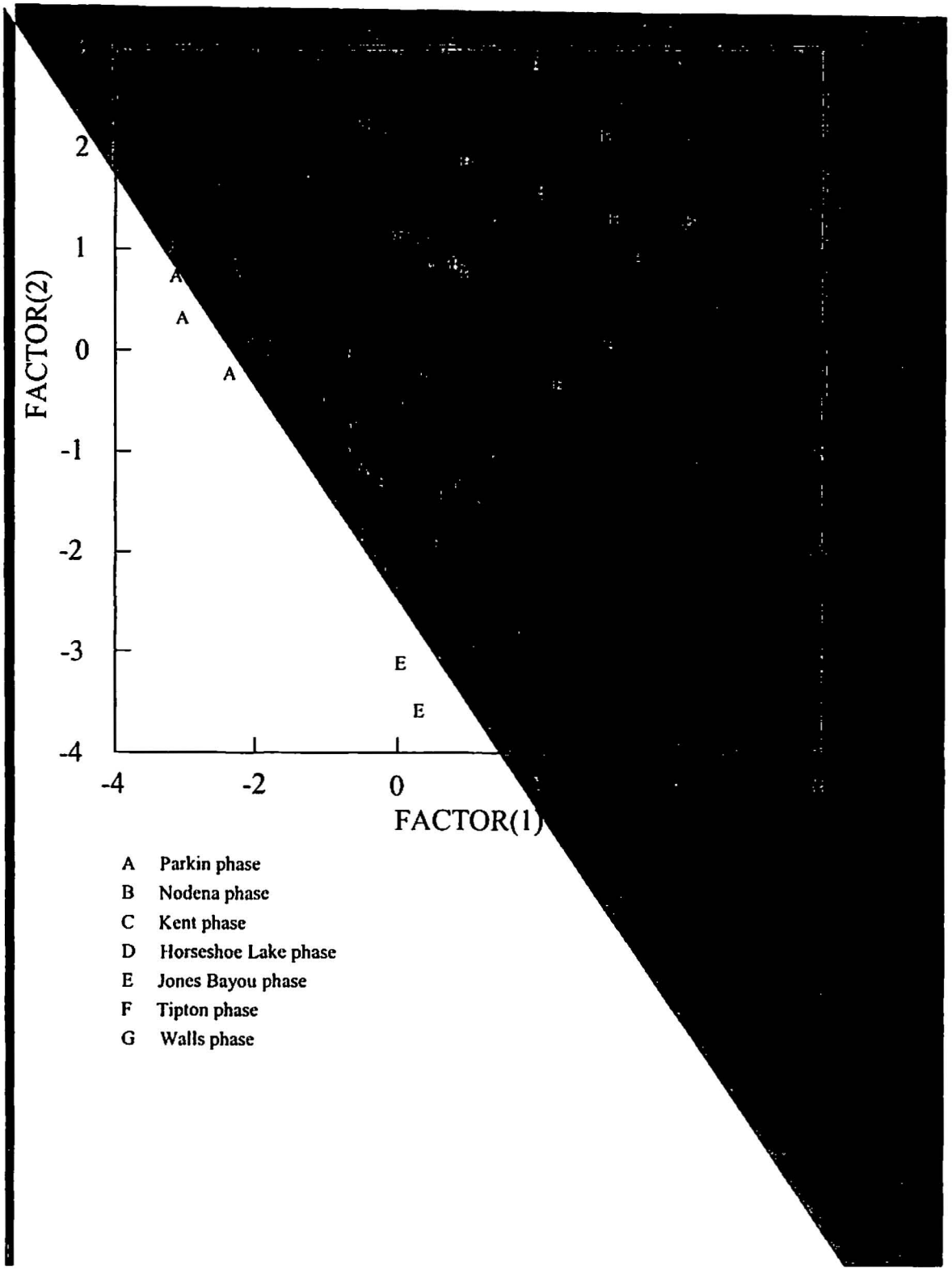
SLIDE A plot of the discriminant scores for each site assemblage in discriminant space reveals little evidence of distinct, segregated groups. The only exceptions are the sites assigned to the Parkin phase, all of which occur within a fairly compact sector of discriminant space because all exhibit very similar (and very low) frequencies of the rim modes considered here.

Sites assigned to the Nodena phase are widely distributed in discriminant space, a situation that reflects in part the large number of Nodena phase sites included in this analysis. Note, however, that the Nodena phase sites generally are segregated from sites along the St. Francis River assigned to the Parkin and Kent phases. This supports a dichotomy noted by Griffin and even earlier by C.B. Moore. The Walls phase, considered by Phillips (1970:936) to be "perhaps the most satisfactory phase dealt with in this entire study," appears rather nebulous.

SLIDE The data presented here demonstrate that the late period archaeological record of the Central Mississippi Valley is much more complex than is suggested by existing phase constructs. Shifting the focus of inquiry from

broad ceramic types and varieties to specific attributes and modes has revealed heretofore unrecognized variability that suggests the need to reevaluate most existing phase constructs. Indeed, this study casts doubt on the validity of assigning sites to phases based primarily on type frequncies of potsherds.

Although rim attribute data are arguably superior to sherd counts by type for examining spatial and temporal variability in the region, these data represent only small pieces of one class of material culture. Truly unravelling the late period cultures of the Central Mississippi Valley will require much finer temporal control, as well as detailed analyses of mortuary behavior and whole ceramic vessels.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B Nodena phase
C Kent phase
D Horseshoe Lake phase
E Jones Bayou phase
F Tipton phase
G Walls phase