Form and Function in Coles Creek Ceramics

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Introduction

Beginning with the assumption that ceramic vessels are utilitarian objects that reflect the needs and desires of their users (Braun 1980, 1983), functional analyses attempt to elucidate what activities took place on a given site. In particular, this study is part of a broader project aimed at using the ceramic assemblage from excavations at the Feltus site in Jefferson County, Mississippi to understand the activities taking place during the Coles Creek period.

Functional analyses often rely on collections of whole (or nearly whole) pots; however, like most archaeological assemblages, the Feltus collections are highly fragmentary. Thus, illustrations of 97 whole Coles Creek pots from Ford (1951) and Phillips (1970) form the basis of our analysis. To our knowledge, these are the only images of whole Coles Creek vessels in existence.

Objective 1: Devise a set of vessel forms common during the Coles Creek period

We identified six basic vessel shape categories by examining contour and proportion (Table 1). Figure 2 shows typical vessels from each category. Category definitions were based on:

- Number of points of vertical tangency (VT)
- Number of inflection points (IP) and/or corner points (CP)
- Location of narrowest point (NP)
- Location of widest point (WP)
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- Proportion (Table 1). Figure 2 shows typical vessels from each shape category.

The ratio of height to diameter at the most pointed vessel (WP) is most sensitive to general vessel shape. A histogram of H:WP values shows that there are noticeable differences between each of the categories (Figure 3).

Vessel forms that have the same ostensible definitions when relying solely on the above observations (i.e.: bowls and beakers, and restricted bowls and restricted jars) are clearly separated on these histograms (Figure 4). Vessel forms that have the same ostensible definitions when relying solely on the above observations (i.e.: bowls and beakers, and restricted bowls and restricted jars) are clearly separated on these histograms (Figure 4).

Since we quantified the variation among the vessel shapes, we quantified the variation within the categories to see if there was reason to subdivide them (e.g.: Ryan 2004; Wells 1998; Steponaitis 1981, 1983). Beakers appear to have three legitimate subcategories: shallow bowls (H:WP values below 0.20), medium bowls (H:WP values between 0.25 and 0.35, n=11), and deep bowls (H:WP values above 0.40, n=10) (Figure 4). Beakers also show potential subcategories. There is a natural break between H:WP values of 1.10 and 1.17. Visually, this represents a shift from beakers with walls that slant outward to the base to the rim (n=12) to beakers with more-curved vertical sides (n=14) (Figure 5). Pyramidal beakers represent the other end of this spectrum.

Objective 2: Record and quantify the range of variation within and between these forms

Measurements taken at characteristic points along the vessel contour facilitated looking at relative proportions. Because the vessel drawings were published with no scale, eight key ratios were used (Table 2).

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In addition to quantifying the variation among the vessel shape categories, we quantified the variation within the categories to see if there was reason to subdivide them (e.g.: Ryan 2004; Wells 1998; Steponaitis 1981, 1983). Beakers appear to have three legitimate subcategories: shallow bowls (H:WP values below 0.20, n=3), medium bowls (H:WP values between 0.25 and 0.35, n=11), and deep bowls (H:WP values above 0.40, n=10) (Figure 4). Beakers also show potential subcategories. There is a natural break between H:WP values of 1.10 and 1.17. Visually, this represents a shift from beakers with walls that slant outward to the base to the rim (n=12) to beakers with more-curved vertical sides (n=14) (Figure 5). Pyramidal beakers represent the other end of this spectrum.

Conclusions

When applied to the vessel drawings, our initial categories hold to both visual and quantitative measures. Moreover, these categories have some utility in determining vessel function. This rough categorization provides a starting point for a functional analysis, but other aspects of vessel shape must also be taken into consideration. Moreover, many scholars now recognize that size may actually be an equal (or better) determinant of vessel function (Braun 1993; Hally 1988; Whallon 1969). By using sherd sizes from the Feltus assemblage (from which direct quantitative measurements such as rim diameter can be taken, we will next work to locate additional subcategories based on size (Figure 7).

Works Cited


