Studies of Colonoware Variability in Virginia and South Carolina

Introduction

Colonoware is low-fired, hand-built, locally made pottery found on sites throughout the mid-Atlantic and Southeast in 18th and early 19th century contexts (Pergamon 1992; Neel Hene 1982).

Although research has suggested possible regional differences in Colonoware vessel use, much of this work has been impressionistic. Here, we quantitatively investigate these patterns using three shard attributes with data collected from ten sites in Virginia and two sites in South Carolina. We suggest that patterns of variation in size, thickness, decoration, and heavy use reveal regional differences in vessel use.

We keep two propositions in mind:
1. Wall thickness is an essential property of cooking efficiency in that thin-walled vessels conduct heat more efficiently than thick-walled vessels (Titi, Kilkgren, and Yokota 2001).
2. Decoration represents an increase in time investment without additional performance payoffs.

We use these two assumptions to help us distinguish between vessels used by their manufacturers for things like cooking and vessels produced for other purposes, which may include trade or consumption.

The Data

The Digital Archeological Archive of Comparative Slavery (DAACS) is a collaborative project housed in Monticello’s Department of Archeology. DAACS analyses record information about many ceramic attributes at the sherd level, including wall thickness, burning, and decoration.

Our first proposition relates to wall thickness and cooking efficiency. How does thickness vary through time and between regions?

When we plot mean sherd thickness and the estimated midpoint occupation date for each site, we see no evidence of change in thickness through time among the Virginia sites. We do see, however, that South Carolina sherds are thicker than Virginia sherds.

The histograms above show that Virginia sherds are thinner than South Carolina sherds. The 1-millimeter difference is statistically significant (p < .0001).

Now let’s investigate our second proposition.

Decoration and Burning

Our second proposition relates to time investment in pottery making, which can be measured in a number of ways. Here, we consider burning, and other decorations, listed below, to be indicative of greater effort invested than smoothed or otherwise unadorned vessel surfaces.

When a vessel is burned, a tool such as a stone is rubbed against its surface while leather-hard, compressing the walls of the vessel slightly. Since we established that the overall mean thickness for Virginia sherds is thinner than for South Carolina, does this translate into more burned vessels in Virginia than in South Carolina?

We do see proportionally more burned and other decorated sherds in the Virginia samples (65% of 644 total sherds) than we see in the South Carolina samples (15% of 273 total sherds).

In the South Carolina sample, we see no association between decorative technique and burning (p > .10). Whereas the burned sherds are thinner than the non-burned, the unburned sherds are not necessarily thinner than the unfired ones. There appears to be a different strategy in South Carolina for choosing cooking vessels that is not related to maximizing thermal efficiency.

In Virginia, an association between decorative technique and burning is evident (p < .0001), and burned sherds are thinner than unburned sherds. These data suggest the thinner vessels are being selected for cooking. The large number of unburned burned sherds indicates users were burned for reasons other than cooking.

Further, the histograms above also show that Virginia sherds are thinner than South Carolina sherds. The 1-millimeter difference is statistically significant (p < .0001).

Putting It All Together

In Virginia, an association between decorative technique and burning is evident (p < .0001), and burned sherds are thinner than unburned sherds. These data suggest the thinner vessels are being selected for cooking. The large number of unburned burned sherds indicates users were burned for reasons other than cooking.

The Cliff Notes

Virginia

• Burns cooking vessels
• More time investment

South Carolina

• Less burning
• Less time investment

This appears to suggest that vessel-use strategies differed between the two regions. We think that time investment in Virginia Colonoware is related not to creating the perfect cooking vessel but to enhancing vessel appearance for other purposes.