

The Stewart-Watkins Site at Monticello: an Investigation of Site Structure at the Domestic Sites of Free White Laborers and Enslaved African Americans.

Donald Gaylord and Derek Wheeler
Monticello Department of Archaeology

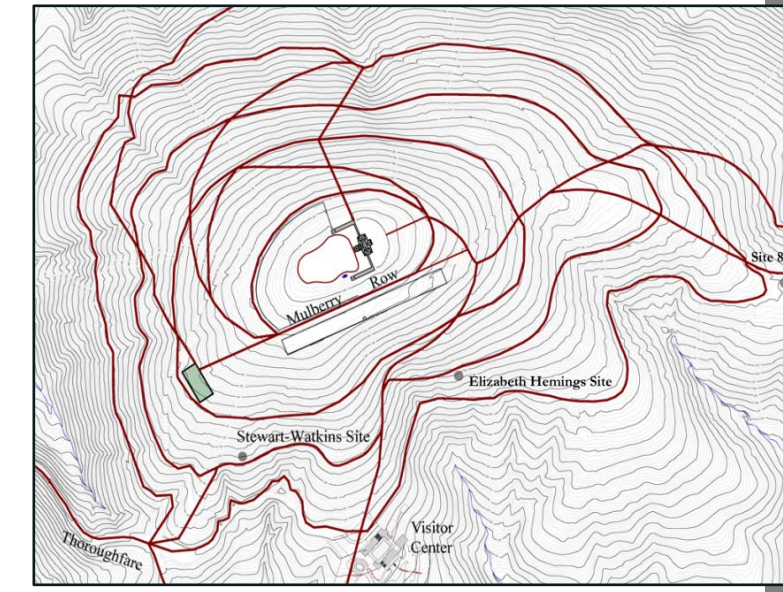


The Stewart-Watkins Site

historical and archaeological background

Located on the southern slope of Monticello Mountain, the Stewart-Watkins site is named for its two primary occupants: William Stewart, a blacksmith, and Elisha Watkins, a carpenter. Documentary evidence suggests that Stewart, along with his family, arrived in 1801 and stayed until 1809.

Watkins – another itinerant white worker – moved in shortly after Stewart's departure, but only lived at the site for a year. The dwelling appears to have been abandoned and dismantled following Watkins' departure in 1810 (Betts 1987: 425, 444, Oberg et al. 2008: 676, Heath 1991b:3).



Stewart-Watkins Site situated in the Monticello landscape.

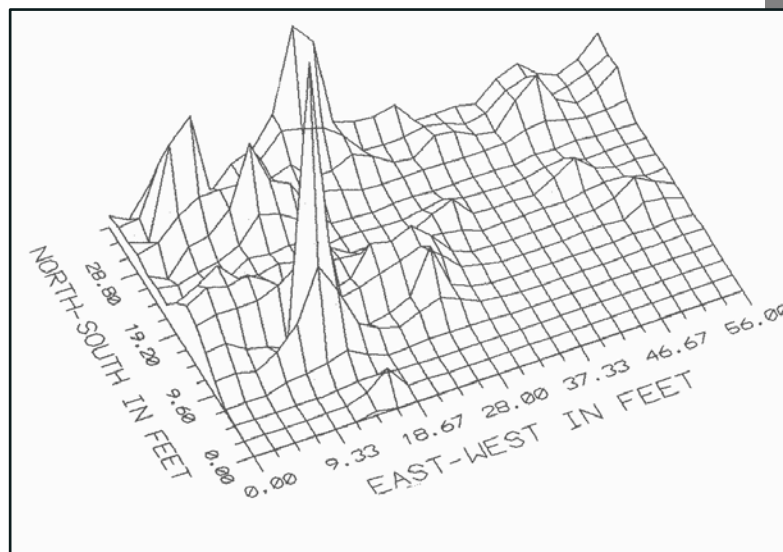
Dr. Barbara Heath headed the excavation of the site and her subsequent analysis of the architectural remains led to several conclusions (Heath 1999c: 208-209).

- The materials used for the building reflected the impermanent status of transient white workmen employed by Jefferson.
- The construction details such as the raised, wooden floor provided a greater degree of safety and convenience for the workmen than that enjoyed by their enslaved counterparts.
- The size of the building established the status of its occupants clearly above that of the enslaved folks at Monticello



Stewart-Watkins Site, house outline added in orange.

Heath's spatial analysis of the area in and immediately around the dwelling suggested that the western portion of the building was used by Stewart as storage for "...stockpiling scraps of metal and unfinished tools [out of] the scrutiny of Jefferson" while the eastern portion represented a concentration of domestic artifacts (1999c: 209-210). In terms of social status, the artifact assemblage at the Stewart-Watkins Site contained "...unvaried and worn ceramics, limited faunal remains indicative of a relatively monotonous meat diet, and a quantity of salvaged industrial materials and tools...[which] point...toward scarcity and economic powerlessness" (Heath 1999c: 208, 211).



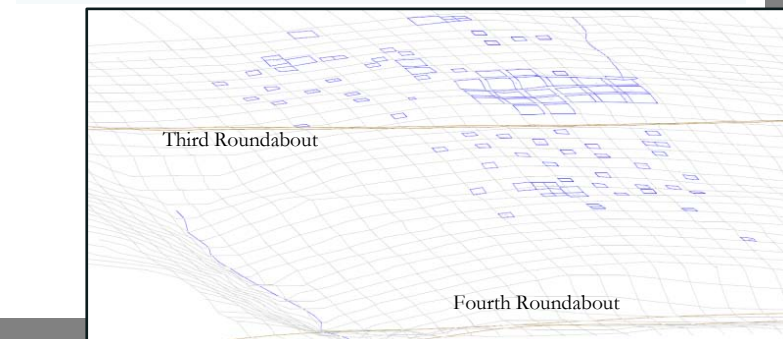
10.3. SURFER distribution map of industrial artifacts at the Stewart-Watkins house

From Heath 1999c

This poster will expand on Heath's work to include an analysis of the quadrats excavated in the areas to the north, west, and south of the domestic structure with a hope of identifying additional activity areas at the site. Also, we will compare the Stewart-Watkins site to more recently excavated slave-quarter sites at Monticello using artifact size distribution as a means for identifying differential use of space.

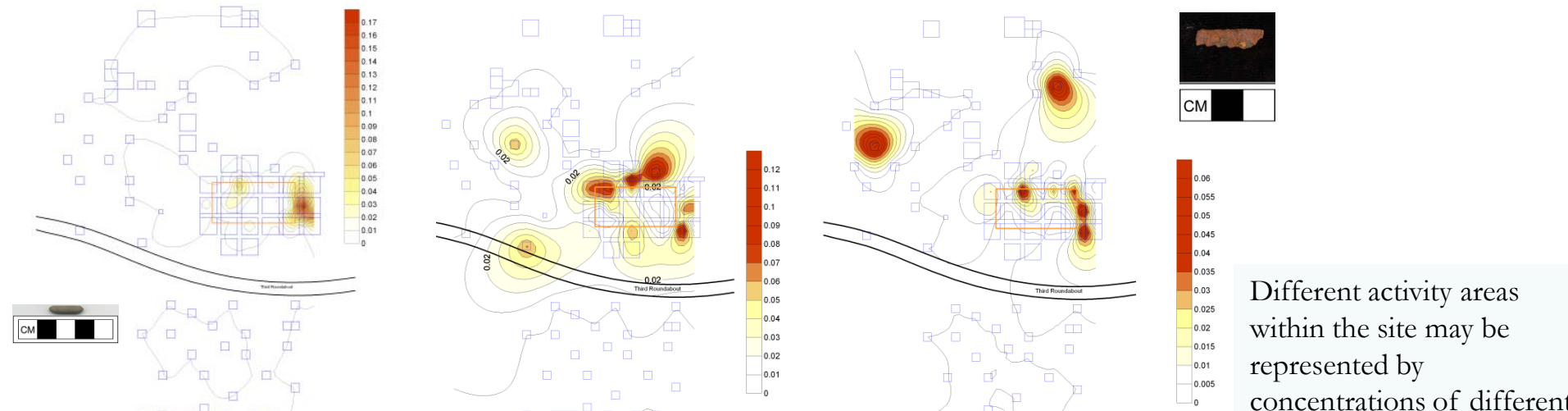


Stewart-Watkins Site, under excavation, showing landscape to the north of the house.

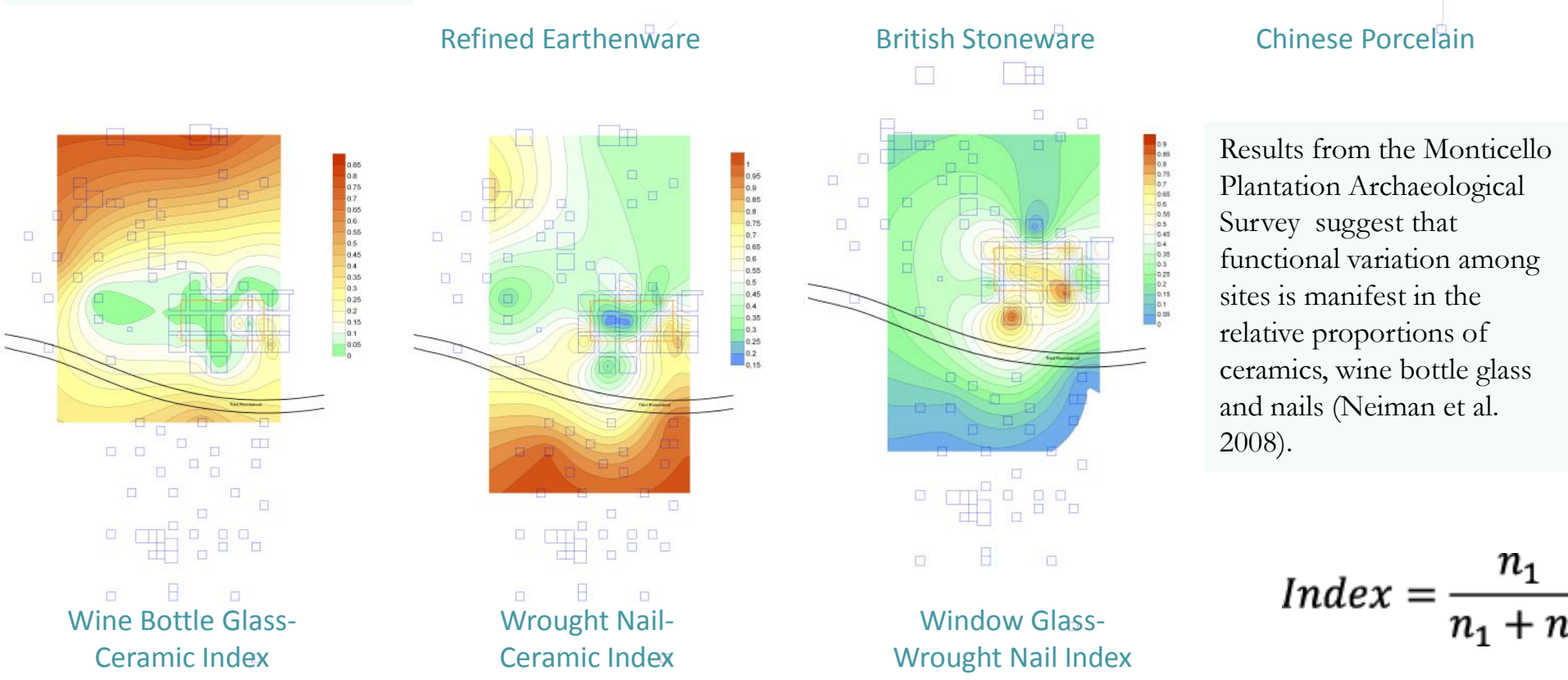
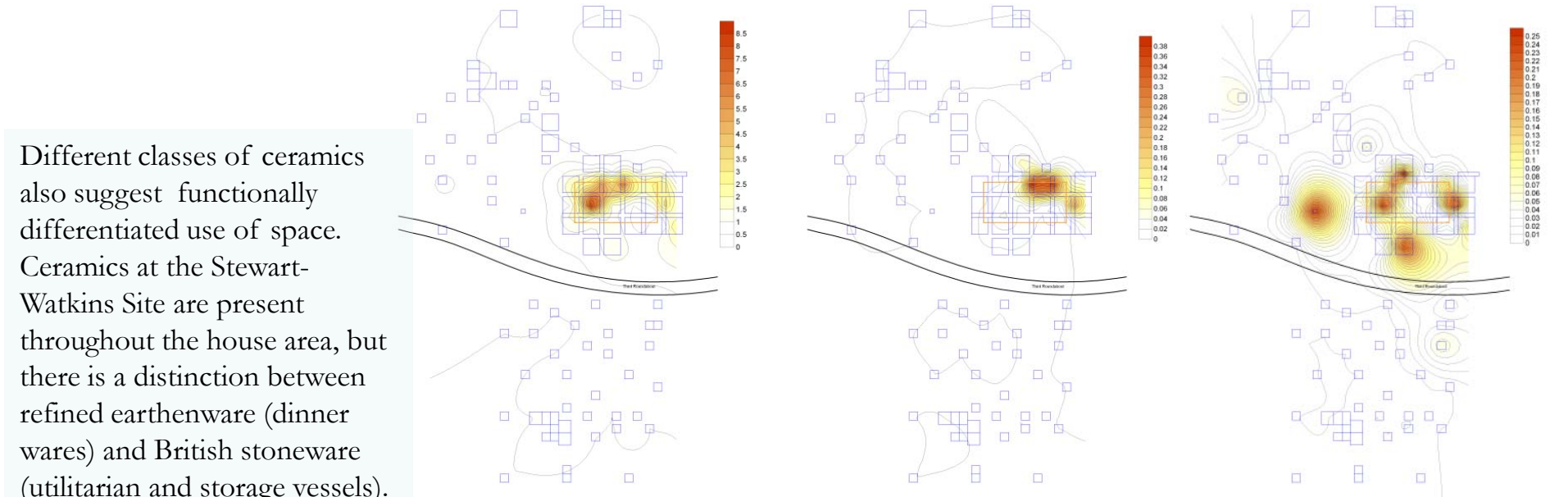
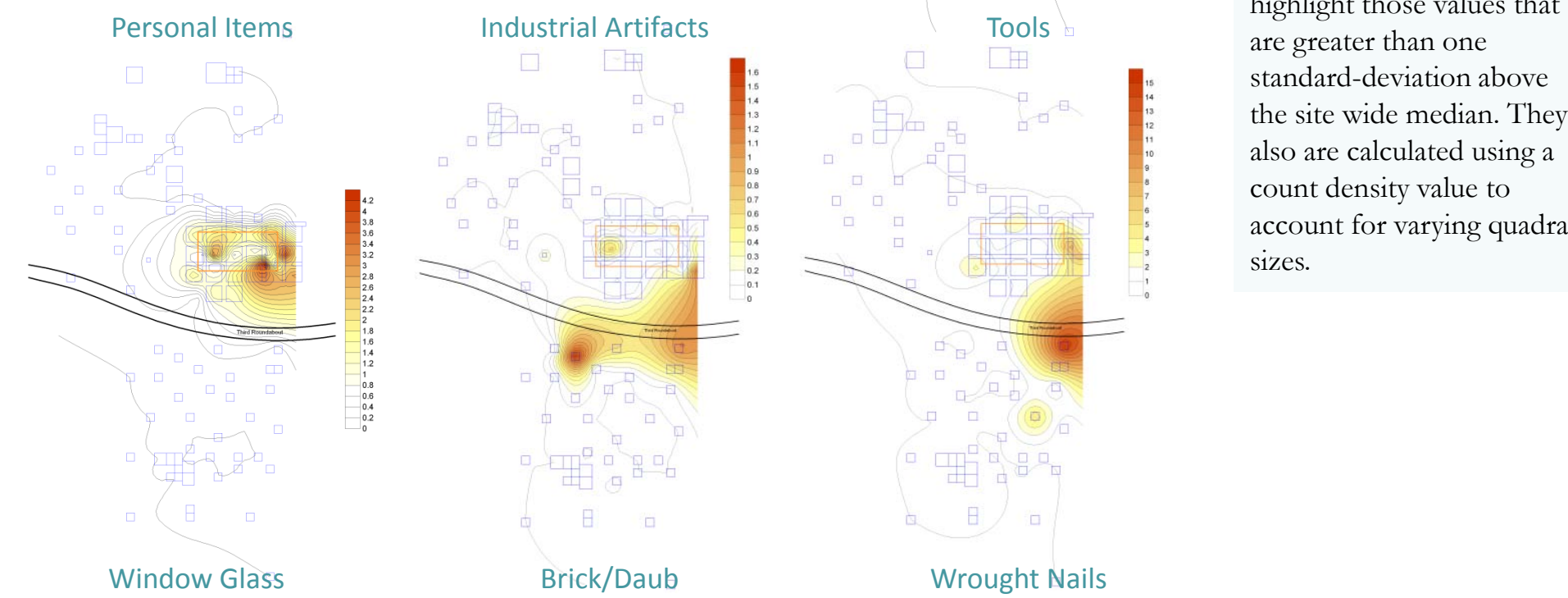


Spatial Structure of Artifact Classes

At the Stewart-Watkins Site



Different activity areas within the site may be represented by concentrations of different artifact classes (O'Connell 1987). These Surfer maps highlight those values that are greater than one standard-deviation above the site wide median. They also are calculated using a count density value to account for varying quadrat sizes.

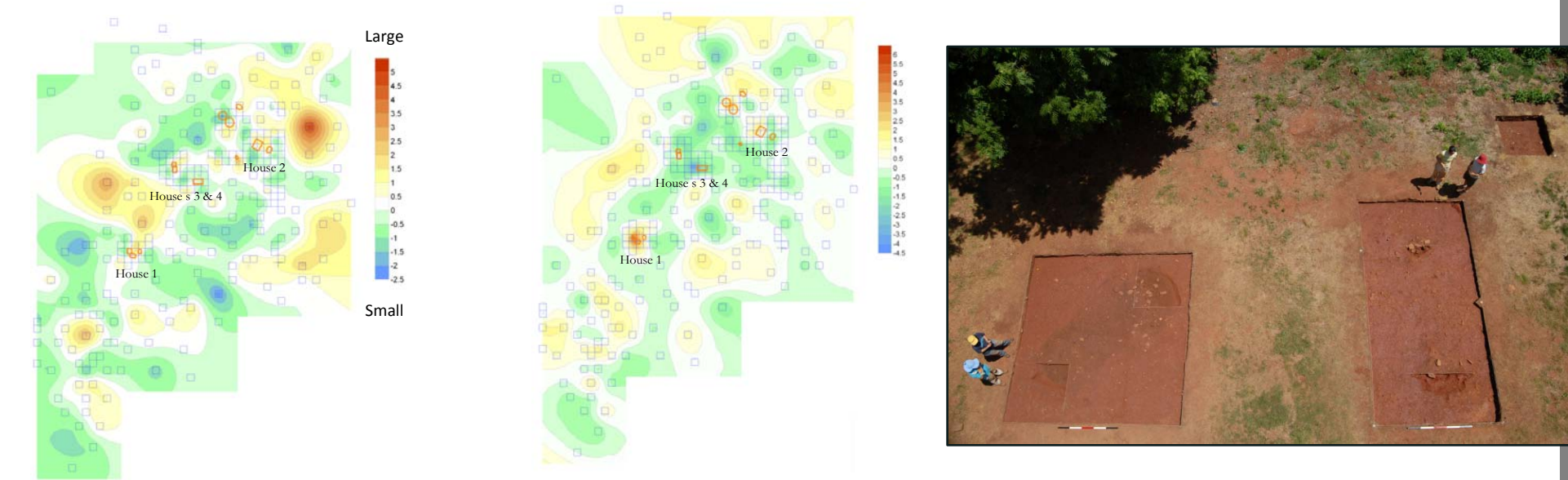


Different classes of ceramics also suggest functionally differentiated use of space. Ceramics at the Stewart-Watkins Site are present throughout the house area, but there is a distinction between refined earthenware (dinner wares) and British stoneware (utilitarian and storage vessels).

Results from the Monticello Plantation Archaeological Survey suggest that functional variation among sites is manifest in the relative proportions of ceramics, wine bottle glass and nails (Neiman et al. 2008).

$$Index = \frac{n_1}{n_1 + n_2}$$

Artifact Size and Spatial Structure



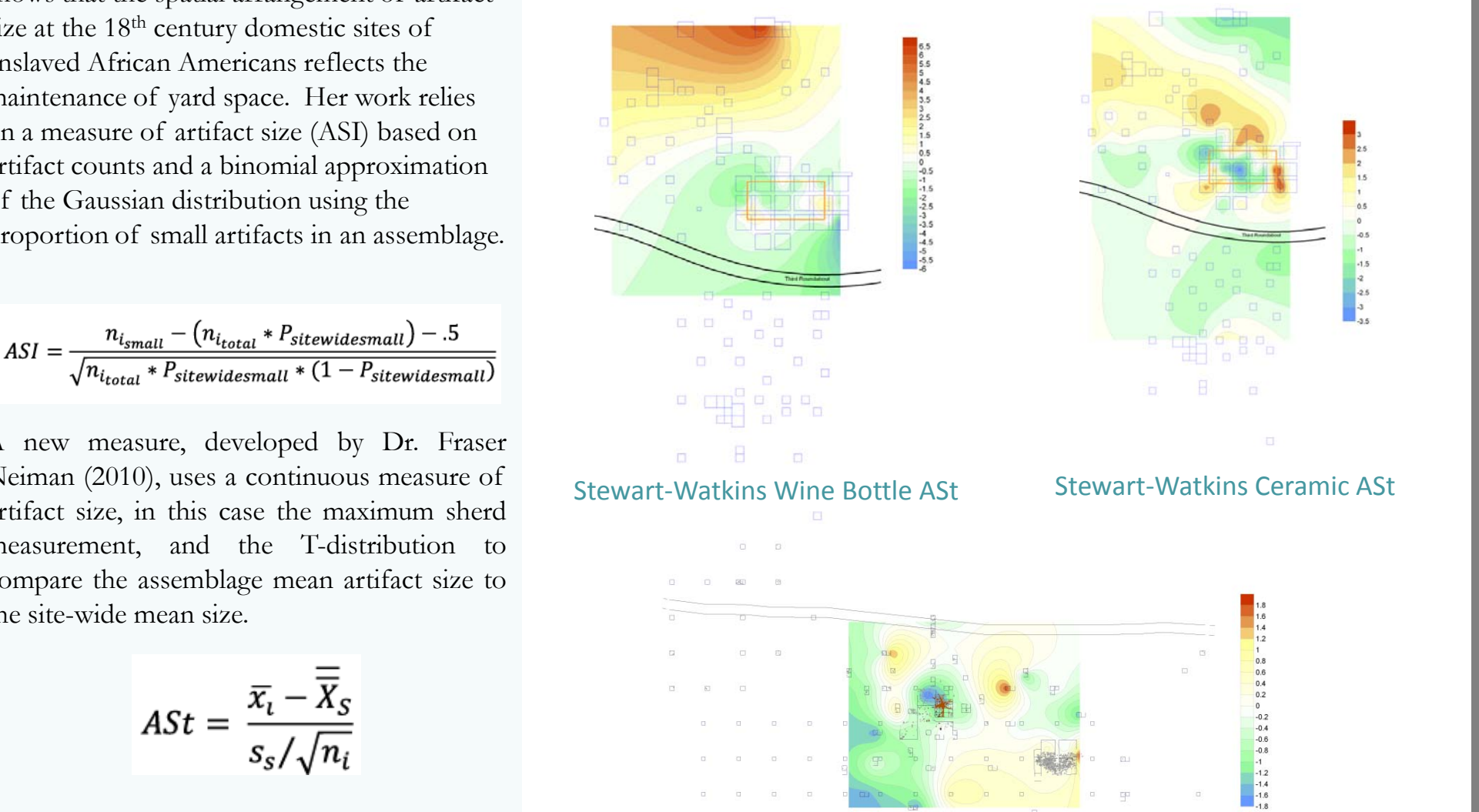
Site 8 Wine Bottle AS Site 8 Ceramic AS

Research by Dr. Sara Bon-Harper (2009) shows that the spatial arrangement of artifact size at the 18th century domestic sites of enslaved African Americans reflects the maintenance of yard space. Her work relies on a measure of artifact size (ASI) based on artifact counts and a binomial approximation of the Gaussian distribution using the proportion of small artifacts in an assemblage.

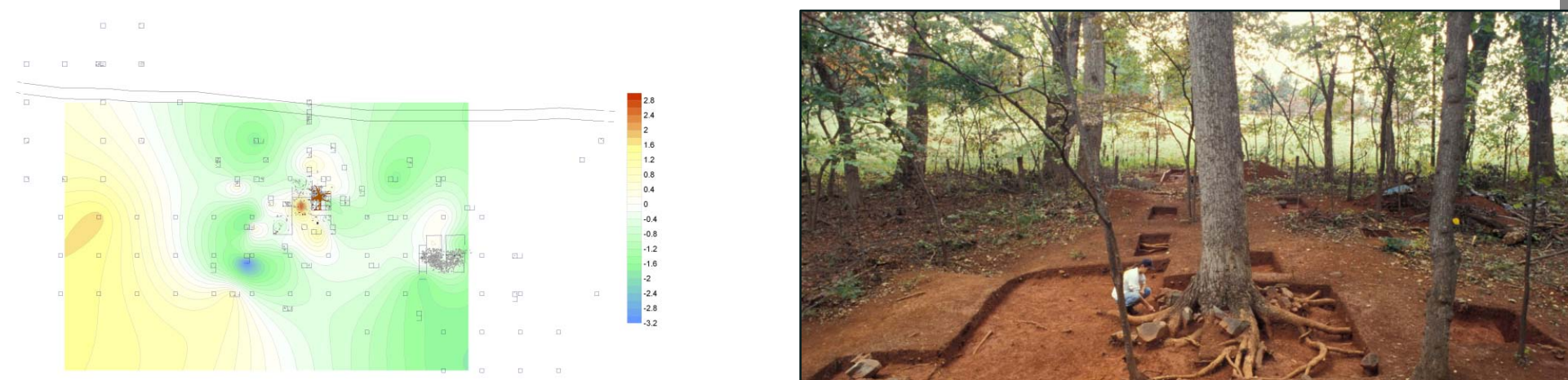
$$ASI = \frac{n_{small} - (n_{total} * P_{sitewidesmall}) - .5}{\sqrt{n_{total} * P_{sitewidesmall} * (1 - P_{sitewidesmall})}}$$

A new measure, developed by Dr. Fraser Neiman (2010), uses a continuous measure of artifact size, in this case the maximum sherd measurement, and the T-distribution to compare the assemblage mean artifact size to the site-wide mean size.

$$ASt = \frac{\bar{x}_i - \bar{X}_S}{s_s / \sqrt{n_i}}$$



Stewart-Watkins Wine Bottle AS Stewart-Watkins Ceramic AS



Elizabeth Hemings Wine Bottle AS



Site 8 midden features located adjacent to previously excavated dwellings allowing for the maintenance of yard space.



Elizabeth Hemings Site, showing the excavations immediately around the lone identified dwelling (tree growing through hearth).

Diversity and Richness

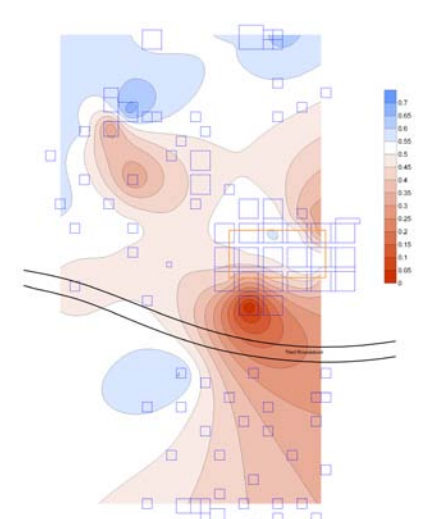
Research by Boone (1987) and Wheeler and Bon-Harper (2005) has shown that diversity and richness of artifact assemblages may point to the intentional disposal of artifacts in middens.

$$D = 1 - \frac{\sum_{i=1}^S n_i(n_i - 1)}{N(N - 1)}$$

Simpson's Diversity Index.

	Stewart-Watkins	Site 8	Elizabeth Hemings
Simpson's Diversity	0.545	0.386	0.269
Richness	46	41	10

Also, when accounted for sample size, the richness of an assemblage can say something about the nature of consumption at a site as compared to another site. These values are based on the general artifact assemblage as defined by DAACS.



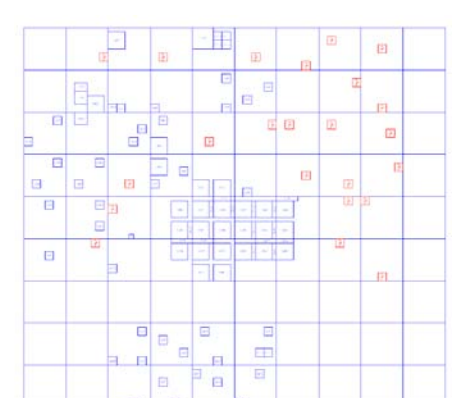
Simpson's Diversity Index Plotted at the Stewart-Watkins Site

Discussion and Future Research



View of Monticello Mountain showing the south-facing slopes where most free and enslaved inhabitants resided.

The concentrations of tools and industrial artifacts to the northwest of the house and the higher proportion of brick and nails south of the third roundabout indicate the presence of additional activity areas at the Stewart-Watkins site. The main pattern of difference with regard to artifacts size between Site 8 and Stewart-Watkins is represented in the distribution of large ceramics immediately surrounding the house at Stewart-Watkins. Whereas at Site 8 the larger ceramics and wine bottle glass exhibit the same pattern of removal to the periphery of the site. This may reflect a differential use of exterior space or a possible difference in the perceived interference potential between glass and ceramics.



Proposed excavation strategy for a complete stratified random sample at Stewart-Watkins.

For any spatial analysis to be successful, a sample that provides full coverage across the artifact scatter must be employed. Recent work at Monticello, including that done at Site 8, has employed a stratified random sample. Since only the north, west, and south of the Stewart-Watkins house were sampled a number of additional quadrats would need to be excavated along the eastern side of the site. As well, large gaps in the current sample would need to be filled in with quadrats, particularly immediately to the northeast of the domestic structure.

Betts, Edwin M., ed. 1987 [1953] Thomas Jefferson's Farm Book with Commentary and Relevant Extracts from Other Writings. University Press of Virginia, Charlottesville, Virginia.

Boone, James L. 1987 Defining and Measuring Midden Catchment. *American Antiquity* 52(2): 336-345.

Bon-Harper, Sara. 2009 "Spatial Variation and Activity Areas at Monticello's Site 8" Poster presented at the annual meeting of the Society for American Archaeology, Atlanta, Georgia.

Heath, Barbara J. 1991a Artisan Housing at Monticello: The Stewart/Watkins Site. *Quarterly Bulletin of the Archaeological Society of Virginia* 46(1):10-19.

Heath, Barbara J. 1991b A Report on the Archaeological Excavations at Monticello, Charlottesville: The Stewart/Watkins House 1989-1990. Manuscript on file at the Department of Archaeology, Thomas Jefferson Foundation, Charlottesville, Virginia.

Heath, Barbara J. 1999c "Your Humble Servant": Free Artisans in the Monticello Community. In "I, Too, Am America" *Archaeological Studies of African-American Life*, edited by Theresa A. Singleton, pp. 193-217. University Press of Virginia, Charlottesville and London.

Kelso, William M. 1997 *Archaeology at Monticello: Artifacts of Everyday Life in the Plantation Community*. Monticello Monograph Series. Thomas Jefferson Foundation, Charlottesville, Virginia.

Neiman, Fraser D. 2010 Three Ways to Measure Artifact Size Sorting. Manuscript on file at the Department of Archaeology, Thomas Jefferson Foundation, Charlottesville, VA.

Neiman, Fraser D., Karen Smith, Derek Wheeler and Sara Bon-Harper. 2008 Measuring Settlement Pattern Change on the Monticello Plantation Home Farm. Unpublished paper presented at the Annual Meeting of the Society for Historical Archaeology, Albuquerque, New Mexico. On file at the Department of Archaeology, Thomas Jefferson Foundation, Charlottesville, Virginia.

Oberg, Barbara, ed. 2008 The Papers of Thomas Jefferson. Volume 35, 1 August to 30 November 1801. Princeton University Press, Princeton, New Jersey.

O'Connell, James F. 1987 Aiyawara Site Structure and its Archaeological Implications. *American Antiquity* 52 (1):74-108.

Wheeler, Derek and Sara Bon-Harper. 2005 "Site Characterization: The Definition of Archaeological Sites using Plowzone Excavation Data" Poster presented at the annual meeting of the Society for American Archaeology, Salt Lake City.