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BURNED BUT NOT FORGOTTEN: FOODWAYS ANALYSIS OF COOKING SPACES FROM THE FIRST KITCHEN ON THOMAS JEFFERSON'S MONTICELLO PLANTATION

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To the Graduate Council:

I am submitting herewith a thesis written by Peggy Marie Humes entitled "BURNED BUT NOT FORGOTTEN: FOODWAYS ANALYSIS OF COOKING SPACES FROM THE FIRST KITCHEN ON THOMAS JEFFERSON'S MONTICELLO PLANTATION." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.

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ABSTRACT

This thesis research evaluates the macrobotanical assemblage identified in soil samples from contexts collected throughout the South Pavilion kitchen space (44AB089) at Thomas Jefferson's Monticello plantation in Charlottesville, Virginia. My primary research objectives strive to establish what types of plant remains are represented in soil samples recovered from three stratigraphically assigned temporal periods in this late eighteenth-century kitchen space. As the first kitchen at Monticello, where enslaved cooks prepared meals influenced by African American and French dishes for the Jefferson family until 1809, this site can help better establish an understanding of the cultural foodways and dishes within this time period. In addition, my research contributes to understanding an under-studied area of foodways research; specifically, early plantation kitchens of the Mid-Atlantic region of the eastern United States. Research topics include the differences and similarities in the activities performed in these food preparation areas across the plantation landscape, the roles and privileges associated with the cook's position, and the variety of plants used in cooking by enslaved individuals for consumption by both white and enslaved groups.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1: Introduction

Initial research conducted on late 18th- to early 19th-century American plantations of the Mid-Atlantic region generally focused on locating structures and artifacts associated with the wealthy plantation owner's household. It was not until the 1970s and 1980s that archaeologists began to contextualize the importance of physical structures through spatial analysis of the plantation landscape (Upton 1984; Deetz 1990; Orser 1990; Neiman 1993; Beaudry 1996; Singleton 1996). Through these investigations, archaeologists explored how power was communicated across a plantation based on how buildings, people, and spaces were physically organized in relation to the main house (Singleton 1999). Studying the plantation landscape allowed archaeologists to understand what and who was meant to be visible or given more agency as opposed to those hidden from view of the main plantation house (Vlach 1993; Fesler 2006; Leone 2016). Their research further questioned the connections between early plantation landscapes and the organization of people working on the estate, comparing locations of the main house and quarters for enslaved people, as well as investigating the social expectations and invisible boundaries that influenced people's movements across these landscapes (Fox-Genovese 1988; McKee 1999; Wilkins 2014; Deetz 2017).

More recently, researchers and foodways historians such as Kelly Deetz (2017) have recognized kitchens as particular spaces on plantation landscapes that deserve attention. Kitchens often appear in plantation inventories and insurance records. They were given a higher monetary value compared to the surrounding structures related to domestic labor, as they were outfitted with specialized tools and equipment required for preparation and storage of foods (Plante 1995:4; Deetz 2010, 2017; O'Connor and Neiman 2022:25). Historically, kitchens serving the planter's table were located either in the basement of the main house or as stand-alone structures.

Beyond serving as areas assigned for resource storage and preparation, kitchens were also spaces of social interactions. The white women of the household and enslaved cooks directly interacted with each other in these spaces daily. Kitchens were also specialized places where enslaved cooks exercised agency and influence among both the plantation owners and other enslaved individuals through their knowledge and execution of specialized foodways practices. Through the study of historic kitchens, researchers can explore the networks and social interactions established between individuals associated with these spaces in relation to their roles in the surrounding plantation landscape.

Archaeological researchers use a variety of information beyond the physical site itself to interpret relationships and occupational activities of enslaved individuals in these workspaces. Sources include historical records of enslaved individuals that infer household composition and family ties in relation to quarter housing (Heath 2010; Pargas 2010:142; Heath and Gary 2012), the assigned agricultural and domestic roles of the enslaved across plantations (Fox-Genovese 1988), networks of trade (Heath 2004) and dietary preferences or availability of resources for consumption (Covey and Eisnach 2009). But as Deetz (2010) points out, kitchen spaces have been underrepresented in archaeological research regarding the social relations and activities of enslaved domestic individuals on colonial plantation landscapes. Kitchen structures are often either overlooked or lumped in the site analysis with surrounding exterior domestic plantation structures.

To expand our understanding of these important spaces, I have investigated the South Pavilion kitchen (44AB089) at Monticello, Thomas Jefferson's plantation near Charlottesville in Albemarle County, Virginia. The South Pavilion is the oldest structure still standing on the Monticello plantation, dating back to 1768, and functioned as the original residence of Thomas and Martha Jefferson during the first construction phase of the main house. Jefferson moved into

the stand-alone two-story brick structure on November 26, 1770, and Martha Wayles Jefferson accompanied him after their marriage in 1772 (Bear and Stanton 1997:212). The first, or ground, floor of the South Pavilion housed the kitchen for the Jefferson family with the top floor established as the Jeffersons' living space. This kitchen space is where enslaved cooks prepared meals for the Jefferson family, their guests, and possibly other enslaved individuals until around 1809.

Research Objectives

Since this space was used as the first kitchen at Monticello, it is an influential structure that can aid our understanding of the complex social relationships that played out within this space. Primary interactions for the individuals present in the kitchen concentrated on foodways practices. Foodways include the variety of ways that people obtain, process, prepare, consume, store, and discard foods as mediated by their environment (Goody 1982). Foodways practices thus provide an avenue to archaeologically connect a person's socio-cultural background and status to tangible, material objects of study, such as food remains, cooking utensils, and food preparation, serving, and storage vessels. Foodways practices mediated many of these relationships, as enslaved cooks discussed meals of the day with Martha Jefferson, and later with her daughters Martha and Maria; prepared food for the Jefferson household; and perhaps pocketed and prepared their own food. Recent excavations of the South Pavilion have produced a large sample of paleoethnobotanical remains associated with discrete areas and periods of use in the kitchen. I have analyzed these plant samples to address the following objectives.

Research Question 1

> *What botanical specimens were recovered and identified from the kitchen space through this macrobotanical analysis, and do these botanicals change through time? Does the macrobotanical assemblage reflect the meals that may have been prepared in the kitchen in relation to the ingredients for recipes of the period? Does the distribution of specific macrobotanical remains in the kitchen differ spatially?*

I analyzed the macrobotanical assemblage by period and in spatial relation to the architectural features of the kitchen. This analysis helps us better understand some of the ingredients and fuels used in some late 18th- to early 19th- century plantation kitchens. The macrobotanical assemblage also sheds light on changes in use of the kitchen over the time span of initial construction, through renovations following Jefferson's return from France, and into its height of use as Jefferson entertained guests and family, until this space was replaced by a new kitchen in 1809. This research relies on the stratigraphic relationships established in the Harris Matrix from the site report.

Research Question 2

> *What do plantation kitchens, specifically in the case of the South Pavilion site, reveal about social interactions and relationships between enslaved cooks and their enslaver in these early domestic spaces?*

To answer this question, I examined historical documents about the cooks who used this space and how they interacted with Martha and the expanded white Jefferson household. I consulted plantation farm records for the individuals assigned to roles linked to the kitchen space and the foods grown and harvested in the nearby kitchen garden. I also applied theories in cultural anthropology and archaeology to answer these research objectives, specifically ideas adopted from Bourdieu's formulation of Practice Theory (Bourdieu 1989) and Peirce's application of Pragmatism (Agbe-Davies 2018). Practice theory focuses on the behaviors of individuals and how these behaviors are shaped by—and shape—the social standing/status of the individual as well as the context in which that status plays out (Gardner 2007). The behaviors examined, particularly in this research question, are related to foodways. It is important to understand the botanical assemblage but just as important to examine the contexts in which these foodways-related deposits were cooked and created (Agbe-Davies 2018:129). The plant remains are the "residues" of these behaviors in particular archaeological contexts; as such, it is possible

to infer something about the social behaviors and interactions that produced these remains. This pragmatic approach is a method that assists in stitching theory and archaeological techniques together to answer questions concerning the context of particular foodways-related interactions in a space (Agbe-Davies 2018:129).

Research Question 3

> *What can a comparative analysis of the macrobotanical assemblage from the South Pavilion kitchen and the botanical assemblage from Site 8 tell us about the different foodways practiced in each area and comparisons to contemporaneous sites in the larger Virgina region?*

My third objective involves a comparison of macrobotanical assemblages from contemporary contexts from quarters for enslaved agricultural workers at Monticello and the South Pavilion kitchen assemblage. Comparisons from two different types of sites within the same plantation help establish the different foodways practiced by peoples in each area, including how the meals created and plants discarded in these two areas of the plantation differ, in terms of both access to ingredients and methods of cooking and disposal. Comparing the plant data and foodways for enslaved domestic and agricultural workers establishes a baseline understanding of cooking spaces within contexts associated with enslaved laborers of the larger Virginia region. All three research objectives explore the nuances of roles on the plantation in these foodways settings to better understand spatial boundaries and social interactions among enslaved people living and using this kitchen.

Chapter 2: Literature Review

There are few sites where archaeologists have analyzed social interactions in plantation kitchens, especially where macrobotanical analyses have been conducted. Instead, research has focused on broad aspects of the plantation landscape and foodways practices of the elite and their enslaved domestic and agricultural communities from the early 18th to the mid-19th centuries in the Mid-Atlantic region. The following sections discuss previous archaeological research that provides context for understanding the connections between botanical remains and the individuals associated with these food-related activities.

Landscape and Plantation Archaeology

Scholars broadly interpret historical landscape studies as encompassing more than just the physical environment and include how individuals established and organized specialized places verses spaces (Neiman 1993; Beaudry 1996; Orser 1996; Walsh 1997; Epperson 1999**;** Heath and Bennett 2000; Heath 2016). Upton (1984, 1990) and Delle (1998) discuss the theme of landscape and the need to maintain control in areas of the plantation that are beyond the planter's reach. As research on early colonial landscapes and plantation social structures developed prior to the 1980's, archaeologists largely neglected analysis concerning the lifeways of the enslaved populations on working plantations (Singleton 1996:141), and later shifted focus on researching the lifeways of enslaved communities.

Early plantation archaeology in Virginia followed a similar trajectory, as antiquarians of the late 19th- to early 20th centuries excavated around large structures, like mansions and plantation fields, for evidence of intact structures and artifacts for display (Heath and Gary 2012:21). This work transitioned into a larger movement for preservation and restoration of these historic estates through the support and establishment of private and public organizations such as

The Colonial Williamsburg Foundation, the National Park Service, and the Garden Club of Virginia.

Plantation archaeology in Virginia emerged through a variety of research topics. Projects that combined a focus on landscape archaeology and plantation archaeology were highlighted in 1990 in an edited volume by Bill Kelso and Rachel Most (1990). James Deetz's (1990:1) work expanded beyond 18th-century plantations by focusing on the interrelationships between people and their environments that create these plantations as specialized spaces on the landscape (Heath 2016). Research undertaken from the 1970s to the 1990s evaluating changes specifically in housing for marginalized groups living at early Virginian plantations significantly broadened the scope of plantation archaeology and landscape studies (Kelso 1984; 1986; 1997; Neiman 1997).

Neiman's work focused archaeological research on the living spaces of enslaved people. Since then, plantation landscape research has revealed significant information about these enslaved communities including: their relationships with their plantation owners and overseers (McKee 1999:239; Pargas 2010:39), housing assignments and work spaces for agricultural and enslaved domestic workers in relation to the viewshed of the plantation house (Fesler 2004; Neiman 2008), and the spatial and social divisions of the individuals carving out their own communities and personal spaces based on their work role on the plantation (Heath 1999;2004; McKee 1999; Orser 2001; Delle, Mrozowski, Paynter ed. 2000). More current diaspora studies explore the laborers who maintained the backbone for the plantation system in colonial America by examining household variability (McKee 1999; Deetz 2010, 2017; Hacker 2016; Heath 2016; Crowder 2018; Franklin 2020). Lastly it is important to mention how these marginalized groups maintained a sense of control of their own lives through resistance, as seen in mobility (Camp 2004). Archaeologists use a variety of information beyond the physical site itself to interpret

relationships and occupational activities that enslaved people conducted in these spaces on the landscape.

Kitchens as Specialized Spaces in Foodways Studies

While analyses of plantation and landscapes in archaeological research have broadened, foodways specialist and historian Kelly Deetz (2010) points out that kitchen spaces have been overlooked and underrepresented in archaeological research of plantation landscapes. Literature on plantation studies lacks an examination of the kitchen as an individualized but complex space within plantation landscapes. Compared to other places on the plantation landscape, kitchens created opportunities for interactions between individuals, mainly the planter's wife and the enslaved cooks, in less formal social dynamics. Studies of foodways in kitchens thus offer more research potential than just physical interactions with food, by providing an understanding of the specialized activities and unique relationships carried out in this space (McIntosh 1995; Moss 2013). Kitchens are important not only as centers of plantation resources, but also as spaces that housed a variety of social interactions. These spaces were the centers for food production not only for the planter's household, but also any visiting guests. The quality of the food reflected both the taste of the individual who ordered it and the skill of the person who created it. Jefferson's taste was mediated through the cook's actions, so having a knowledgeable cook to assist in the decision-making in a kitchen was crucial.

Kitchens on plantations were multifunctional places that housed a variety of activities and interactions that allowed enslaved African American cooks more agency in their daily roles. These daily roles changed depending on the menu requested, the availability of the foods of the season and region, and the number of meals requested for the main table. Note that there were a variety people present on the plantation consuming meals from the planter's table, but who was in residence depended on the time of year. This agency was practiced through the enslaved

cook's advanced culinary knowledge of how to prepare a particular style of dish while also having the skills to perform the physical tasks of cooking. Cooks were trained as apprentices for years to achieve this level of cooking knowledge (Gordon-Reed 2008:171 Stanton 2012:184).

McIntosh (1995) stresses the importance of examining kitchens as social spaces. The relationships of the people in this space influenced the style and quality of food that they produced. Preparing and cooking food required a set of skills in addition to culinary talents, as cooking in plantation kitchens required an individual's constant physical presence and heightened attention. This specialized knowledge learned through the experience of repetitive cooking gave enslaved cooks some influence within the kitchen in their relationship with the white woman of the house as well as with other enslaved laborers. Enslaved cooks also gained some influence through their access to kitchen resources, including their controlled access to the plantation's privileged food supplies, the foods that elites discarded, and the equipment necessary to cook fine cuisine.

Enslaved cooks prepared meals for plantation owners as well as themselves in the same kitchen space (Deetz 2017:139). Domestic enslaved cooks were given opportunities to move across different boundaries of the cultural landscape. Individual duties and roles assigned to enslaved domestic people reflected the levels of trust and resource availability given to these individuals by their plantation owners (Stanton 2012:110). Jefferson's ledgers support that enslaved domestic people working near the main house, specifically the Hemings family, were given specialized access to higher quality resources, which indirectly elevated them in status compared to enslaved people farther from Mulberry Row (Stanton 2000:40). This elevated social role in the kitchen was established through the enslaved domestic cook's specialized culinary training, their physical location, and their controlled access to the plantation's privileged food

supplies. There is no clear understanding of the level of elevated status afforded to them by the planter and his family, as the relative agency is ambiguous and messy. However, their position within the plantation brought them closer to white freedoms not given to the field laborers as their advanced knowledge and skills elevated them in the planter's eyes. Due to their advanced skill and specialized training with food, enslaved cooks were part of a complex social system within the plantation. Enslaved cooks also often had greater ability to negotiate their labor than field workers. An example is seen through the roles assigned by Jefferson to the enslaved people during the harvest season (Stanton 2000:68). The harvest ledgers at Monticello note which individuals were assigned to what tasks. Some individuals who worked closer to the house were exempted from the hard labor, instead cooking in the fields for the harvest workers or continuing to work near the house (Stanton 2000:69).

Foodways Studies

While foodways studies did not become a recognized area of research until the late 1960s (Talmadge 1993), archaeological foodways methodologies and research were a contemporary avenue with landscape archaeology of the 1980s for studying groups less represented in the documentary record on plantation landscapes (Hastorf and Popper 1988; Heath and Breen 2017). The food remains recovered from archaeological sites expand on how the physical landscape also shapes an individual's foodways choices through cultural and seasonal resource availability. Foodways scholars examine links difficult to capture in the physical archaeological record: general foodways practices of Diaspora cultures (Crader 1984, Yentsch 2008), the importance of studying mundane lifestyle tasks for enslaved plantation cooks (Deetz 2017), and kitchen organization for foodways preparation and processing spaces on plantation landscapes (Deetz 2010).

Food is cooked in particular ways, with particular tools, and under particular orders.

These practices are shaped by a person's sociocultural background: the foods they grew up eating, the cooking techniques they learned at home, and the ingredients available to them, expected of them to eat, or appealing to them given their socioeconomic backgrounds (Hastorf 2017). Foodways thus provides an avenue to archaeologically connect a person's socio-cultural background and status to tangible, material objects of study, such as food remains, cooking utensils, and food preparation, serving, and storage vessels (Hastorf 2017). Foodways research further provides a way to interpret the particular methods and mannerisms that cooks of various cultural backgrounds used in their cooking. Yentsch (2008:68) notes that cooking styles associated with enslaved people are lacking in the historical record as those techniques were rarely written down since cooking was mostly observed and not recorded. Instead, the act of cooking was largely communicated through oral traditions (Whit 2009:52) or dictated by an observer, usually with the time and knowledge to read and write, i.e. a white individual (Yentsch 2008:68). A person's diet was dictated by the foods they grew up eating, what was regularly available to them, and in the case of enslaved people, how much time they had to acquire, prepare, and store foods to provide a stable diet. Cooking is a learned behavior influenced by one's cultural background and lived experiences (Hastorf 2017). Historically, people used close sensory contact while cooking as the majority of the recipes and food preparation techniques in this period were communicated through oral tradition and physical action (Whit 2009:52).

In colonial contexts, food origins and practices are difficult to assign to a particular group. "Given the mass exchange of foods and food habits that occurred between early Africans, Europeans, and Native Americans it is almost impossible for one group or another to claim any recipe as original or native to their culture" (Williams-Forson 2013:113). To better understand historical dishes, archaeologists use material artifacts, and botanical and faunal remains to establish connections, trends, and chronological dating of sites that parallel primary source

records of the period i.e., recipes and letters. Foodways research provides a larger opportunity to understand the complexity of how the ornamental and agricultural landscape changed as plantations developed. Such research addresses how, and which people established new fields, workspaces, and dwellings, or reorganized old ones, producing new crops and providing new edge habitats for wild plants. On a smaller scale, foodways research can also reveal how some spaces, such as kitchens, storerooms, and granaries, were designated for specialized food-related activities.

Foodways research provides an opportunity to understand not only the use of the surrounding landscape, but to understand how social and cultural interactions can be analyzed through botanical remains associated with food-related activities. Similar to the act of cooking, power dynamics were also learned through lived experiences on early historic plantations. In his regional work on historic plantation foodways of the upper South, Larry McKee (1999) equated food to power in plantation settings. Through food rationing and provisions, enslavers attempted to maintain authority over their enslaved workers; at the same time enslaved people supplemented their rations through other means (McKee 1999) including foraging in the surrounding landscape for wild resources, trading resources with other bondspeople from surrounding plantations, creating personal garden plots, and selling goods at local markets.

Beyond diets of the 18th - and 19th-century American elite, kitchens offer a glimpse into wider understandings in dietary practices on a plantation. Enslaved Africans prepared meals for themselves and for the plantation owners and slave owners (Deetz 2017:139). These enslaved cooks were given power through their culinary expertise to produce the foods consumed by the elites, to which the cooks then also had access, as well as producing the single pot meals cooked by the enslaved or rations dispersed to the other enslaved workers from the main house (Ferguson 1992). Historical researchers found that, “house servants tended to eat from the food

prepared in the master's kitchen, while field slaves lived and prepared meals in their own cabins" (McIntosh 1995:84).

Theoretical Approaches Supporting Archaeological Data

Practice theory is a way to help explain why people carry out mundane actions in a particular space. Bourdieu's theoretical approach of practice theory (Bourdieu 1989) can be applied to better understand social settings and structural organization that shaped and were shaped by the activities that took place in this kitchen space. Other theoretical approaches used to try to understand these blurred social spaces includes a pragmatic approach as advocated by archaeologist Anna Agbe-Davies' (2018) work with understanding the physical context where material culture is recovered. It is also important to briefly address the role of surveillance and control on the landscape as discussed through Michel Foucault's work with panopticons (Foucault 1995) and Terrence Epperson's work applying this approach to Virginia plantations (Epperson 2000:59).

To understand practice theory, it is also important to address Bourdieu's concept of habitus. Habitus is interpreted as a perception of the world as influenced by multiple aspects of human daily actions, including cooking practices (Atalay and Hastorf 2006). This concept of habitus extends beyond how an individual is perceived in society, as Bourdieu emphasized that habitus:

> … is not solely composed of mental attitudes and perceptions but it is also embodied in people's ways of standing, speaking, walking, feeling, and thinking…Within a given social field, the individual develops a certain habitus that is typical of his position with regard to class. Bourdieu views habitus as the set of socially learned dispositions, skills, and ways of acting that are often taken for granted, and which are acquired through the activities and experiences of everyday life (Moberg 2013: 223).

Ortner (2006) establishes the importance of applying practice theory through a landscape approach in archaeology in that, "Practice-based approaches are concerned with the relationship between agency and social structure, and how this relationship produces and reproduces the world around us" (Ortner 2006:141). The social structures and relationships established in kitchen spaces provided enslaved individuals with more than just a physical role with foodways. This kitchen created an opportunity of intersection between any individuals entering this space. Using archaeology, we have an opportunity to think critically about the social dynamics of enslaved people's actions associated with cooking in kitchens.

Food and power go hand in hand when determining an individual's position in society. Food equates to more than just power in a society; an individual's diet influences and is influenced by other categories of distinction, including social class, cultural traditions, gender roles, trade networks, economic status, and political influence. Food is thus more than just daily meals. Among elites, the sophistication of edible fare is central to the perception of wealth (Deetz 2017:100). The presentations of luxury foods at feasting events were expected by the social elite well before 18th-and 19th-century America.

The social space of the kitchen, in relation to Bourdieu's concept of practice theory, provided a position of elevated power for the Black cooks. Cooks demonstrated agency in this workspace and through their culinary expertise they exercised some power over the individuals consuming their dishes. The kitchen became a culturally significant space in the 18th-century plantation culture. Deetz (2017:139) argues that "African and European material culture coexisted in the kitchen." Cooks exercised agency in this workspace in creating meals in the styles of the requested dish, but also in how they chose to interpret the culinary dish they were asked to cook. The meals at the enslaver's table, specifically Monticello, were distinctly American in their use of ingredients but were largely influenced by British and French culture

and required more than just a one-course meal with a featured side. French food carried significant cultural currency and required culinary sophistication from the enslaved cooks (Deetz 2017: 114).

Discussion of Paleoethnobotanical Research on Virginia Plantation Sites

There are few sites where archaeologists have analyzed the interactions in colonial domestic kitchen spaces, especially those pertaining to foodways through macrobotanical analysis. Research conducted at contemporary sites in the Mid-Atlantic and Upper South regions interpreting foodways practices of enslaved Africans and African American individuals has generally focused on faunal remains. Only a handful of 18th- and 19th-century plantation sites in the greater Virginia region with preserved macrobotanical remains have been assessed. These include studies at Poplar Forest (Heath 2001; Raymer 2003; Bowes and Trigg 2012; Trigg and Henderson 2012; Henderson 2013), Montpelier (Henderson 2014), Stratford Hall Plantation (Crowder 2018), Rich Neck Plantation (Mrozowski, Franklin, and Hunt 2008), Mount Vernon (Shick 2005; McKnight 2015), Monticello (Hacker 2016),Wilton (McKnight 2000), and Belle Grove Plantation (Seminario 2023), but the analyzed contexts are primarily associated with enslaved agricultural workers rather than domestic workers.

By broadly comparing the macrobotanical assemblage from the kitchen with the assemblage from Site 8, a quarter site analyzed by Stephanie Hacker (2016), we can begin to understand the foodways of the enslaved people at Monticello and the meals most likely cooked from the plant taxa identified in the main kitchen and field quarter sites. The analysis of these two spaces is representative of actions made by enslaved peoples regarding foodways practices in different areas of the plantation landscape. Furthermore, the analysis can highlight differences, namely the specialized cooking activities practiced by enslaved African American peoples in a more formal kitchen with European influences.

Chapter 3: Site Background and Foodways Analysis at Monticello

My research site is situated on the property owned by the third president of the United States, Thomas Jefferson. The kitchen structure, known as the South Pavilion (44AB089), is located on the historic plantation of Monticello, a 5,000-acre property on land originally patented by Jefferson's father, Peter Jefferson, in 1740. Monticello is located southeast of Charlottesville in Albemarle County, Virginia (Figure 3.1). Charlottesville is geographically situated near a small tributary of the James River within the Piedmont uplands of the Northern Piedmont ecoregion. The Piedmont Uplands are characterized by Appalachian oak forests and the mixed mesophytic forests of the Eastern deciduous forest, composed primarily of hardwoods and variety of other taxa (Woods et al. 1996:19-20).

Site Location

Jefferson's 5,000-acre plantation was comprised of four primary quarter farms: Monticello, Tufton, Shadwell, and Lego (Figure 3.2). Peter Jefferson established the original home farm at Shadwell, but Thomas Jefferson inherited the plantation in 1767 and began his plans to move the home farm to Monticello. Beginning in 1767, Jefferson oversaw the leveling of the Monticello mountaintop and planned for construction of the South Pavilion and the first version of the main house, hereafter called Monticello I. Figure 3.3 depicts Jefferson's sketches turned into a conjecture scale drawing of the Monticello mountaintop with Monticello I (the earliest version of the mansion house and dependencies), and imagined terrace connecting the South Pavilion to an area of workshops and housing called Mulberry Row (O'Connor and Neiman 2022:16).

The South Pavilion is the oldest standing structure on the Monticello estate, dating to the early 1770s, which functioned as Jefferson's original residence during the initial construction phase of the main house. Jefferson first moved into the top story of the stand-alone, two-story

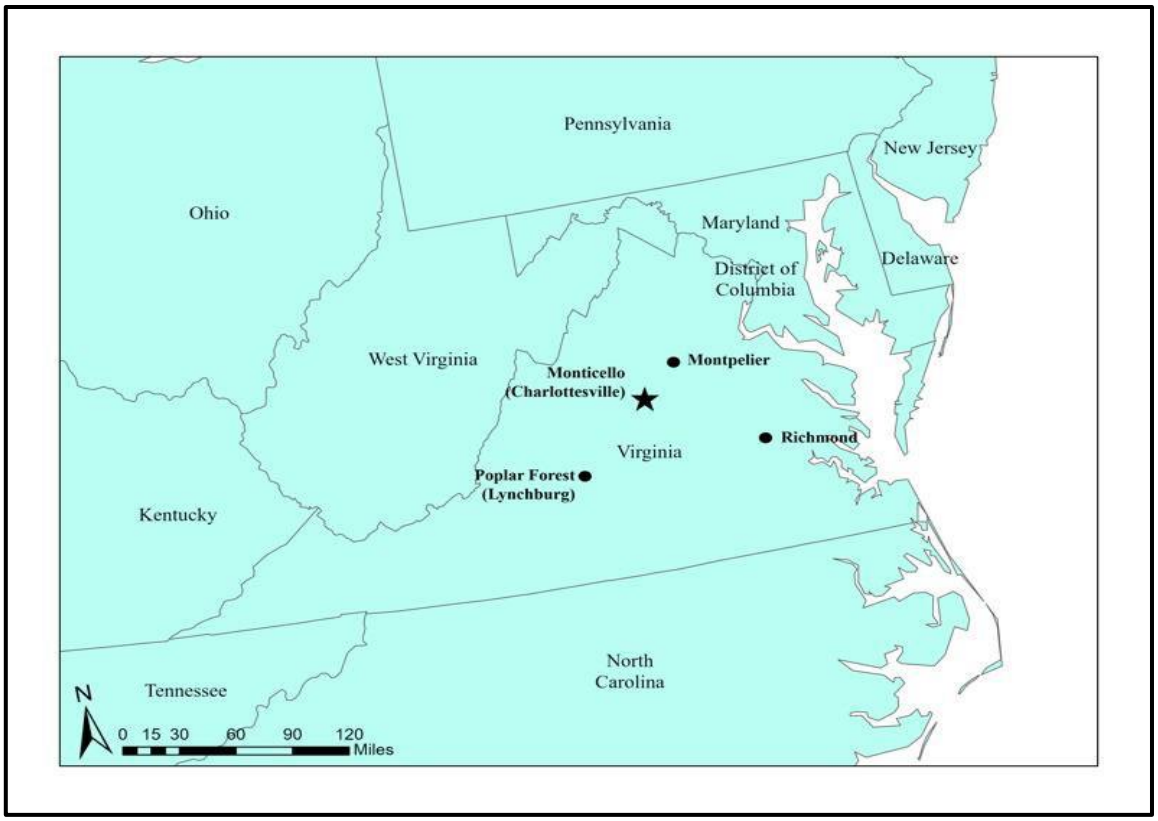

Figure 3.1. Map of Monticello in relation to Virginia. Map courtesy of Garrett Wamack 2022.

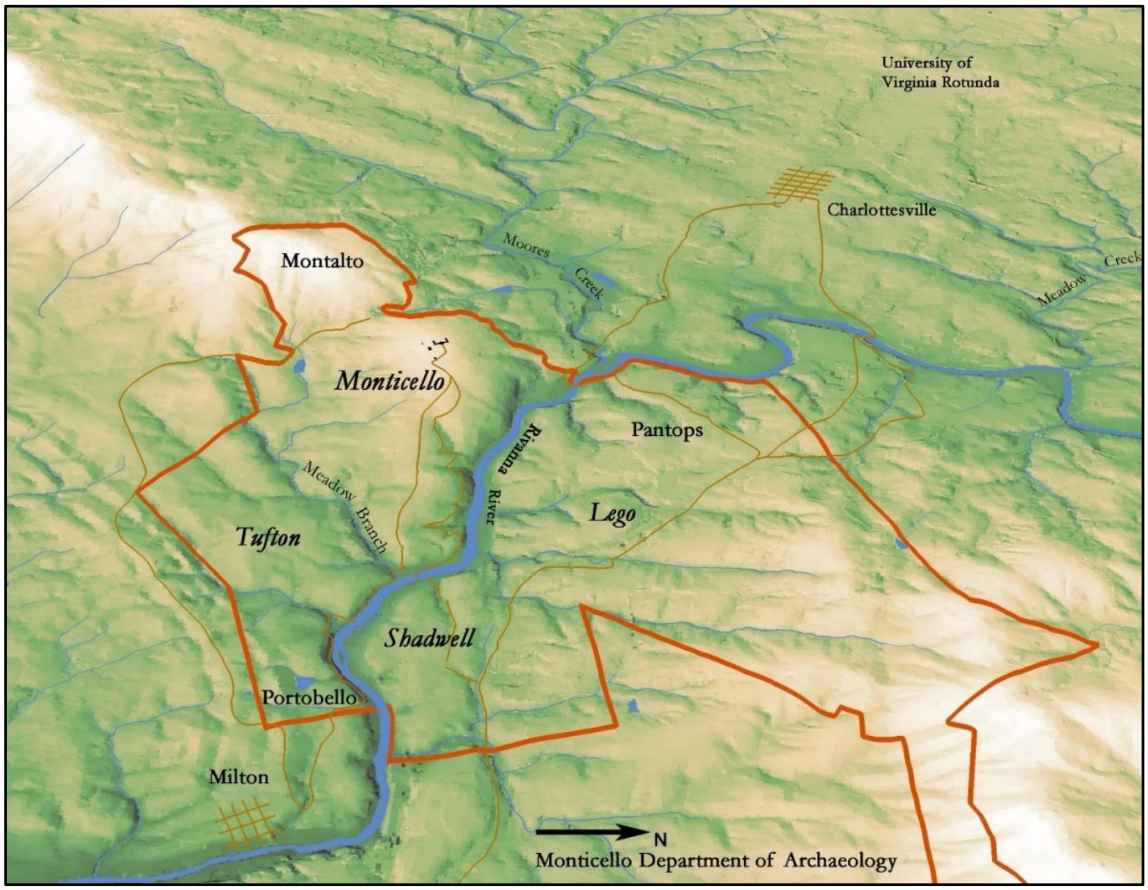

Figure 3.2 Map of Monticello quarter farms courtesy Derek Wheeler (Monticello Department of Archaeology 2010).

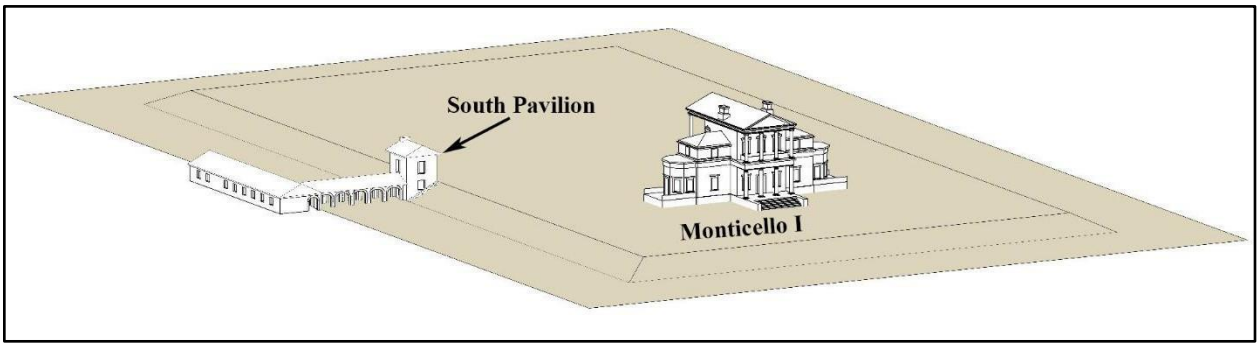

Figure 3.3. Composite schematic of several of Jefferson's architectural sketches (including N59, N32, and N34) by Mesick Cohen Waite Architects. The schematic depicts the imagined terrace, arcade, and dependency wing, connected to the South Pavilion with the first version of the main house (O'Connor and Neiman 2022:16). Reference site report for original architectural sketches.

brick structure on November 26, 1770, and Martha Wayles Jefferson joined him after their marriage in 1772 (Figure 3.4) (Bear and Stanton 1997:212). The ground floor of the South Pavilion housed Monticello's first kitchen with the top floor used as the Jefferson household living space. This kitchen is thus where enslaved cooks prepared meals for the Jefferson family, their guests, and possibly other enslaved individuals until about 1809, when the new larger kitchen in the South Wing was finished.

With the finished construction of the main house in 1775 (Monticello I), Martha Jefferson assumed the responsibility of a plantation household, a role that she was raised to take on one day. The planter's wife's responsibilities overseeing domestic life in the main house created consistent interactions between her and certain enslaved domestic workers. In the case of Monticello, Martha Wayles Jefferson, her first-born Martha Jefferson Randolph, and later the Jefferson grandchildren all interacted with the enslaved domestics in this plantation kitchen. Martha Jefferson played a significant role in the operation of the South Pavilion kitchen until her death in 1782 (O'Connor and Neiman 2022:29). From 1783 to 1809, the kitchen was run from afar from while Jefferson visited France and held public office. Martha Jefferson Randolph primarily assumed the head role of mistress once returning from France in the late 1780's. She and her children took part in controlling the duties of the later kitchen as the Randolph family moved full time to Monticello in 1809.

Jefferson left numerous sketches, personal letters, and scale drawings for structures already constructed or those he planned to have constructed on his properties. Two examples relating to the South Pavilion include entries in 1767 and 1769 where he described the South Pavilion as, "Outhouse 18. F. sq. 10. F. to water table. 12. F. upper story" (Bear and Stanton 1997:26; Beiswanger 1972:3) and also a sketch (N59) for the basement kitchen including, "a central fireplace, corner staircase, dresser, and stew stove" (Figure 3.5; O'Connor and Neiman 2022:11).

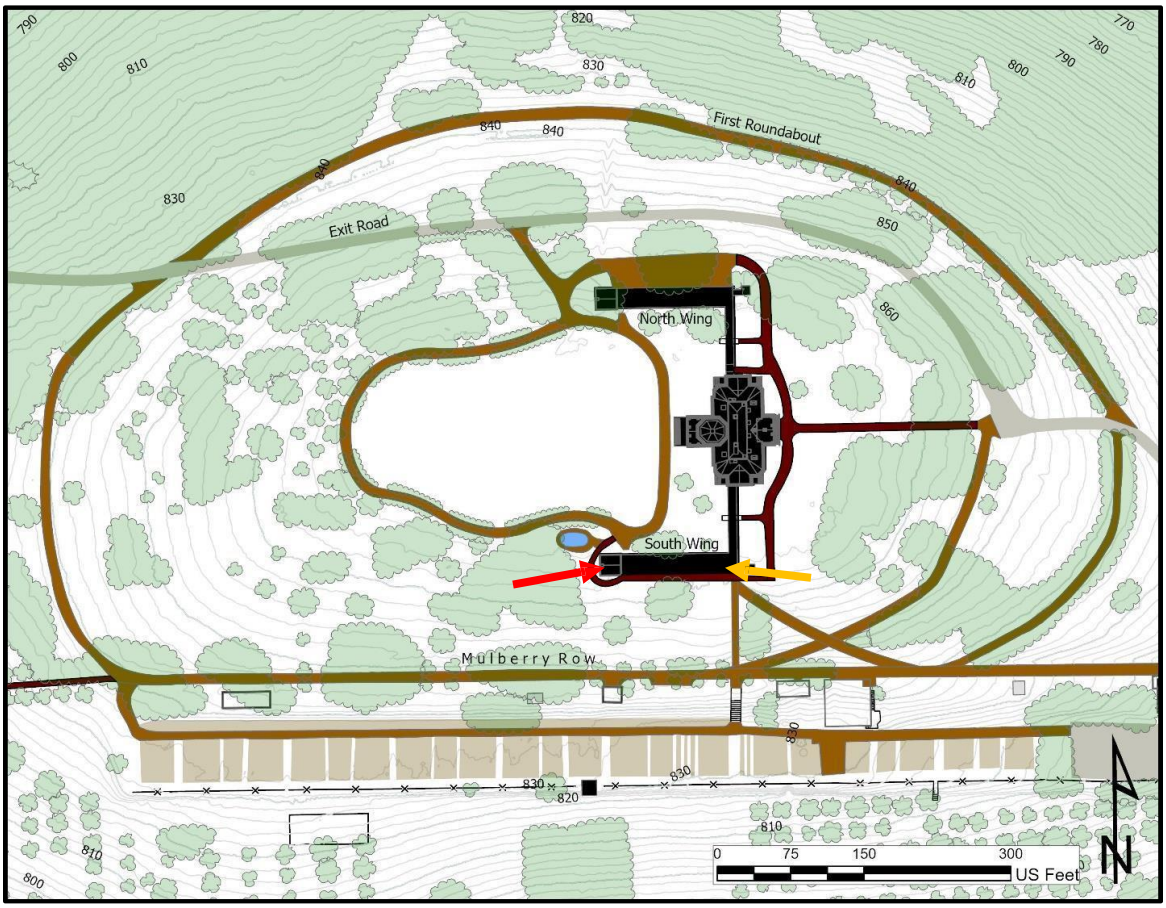

Figure 3.4. Monticello mountaintop with red arrow locating the South Pavilion and the yellow arrow showing the location of the 1809 kitchen (O'Connor and Neiman 2022:11).

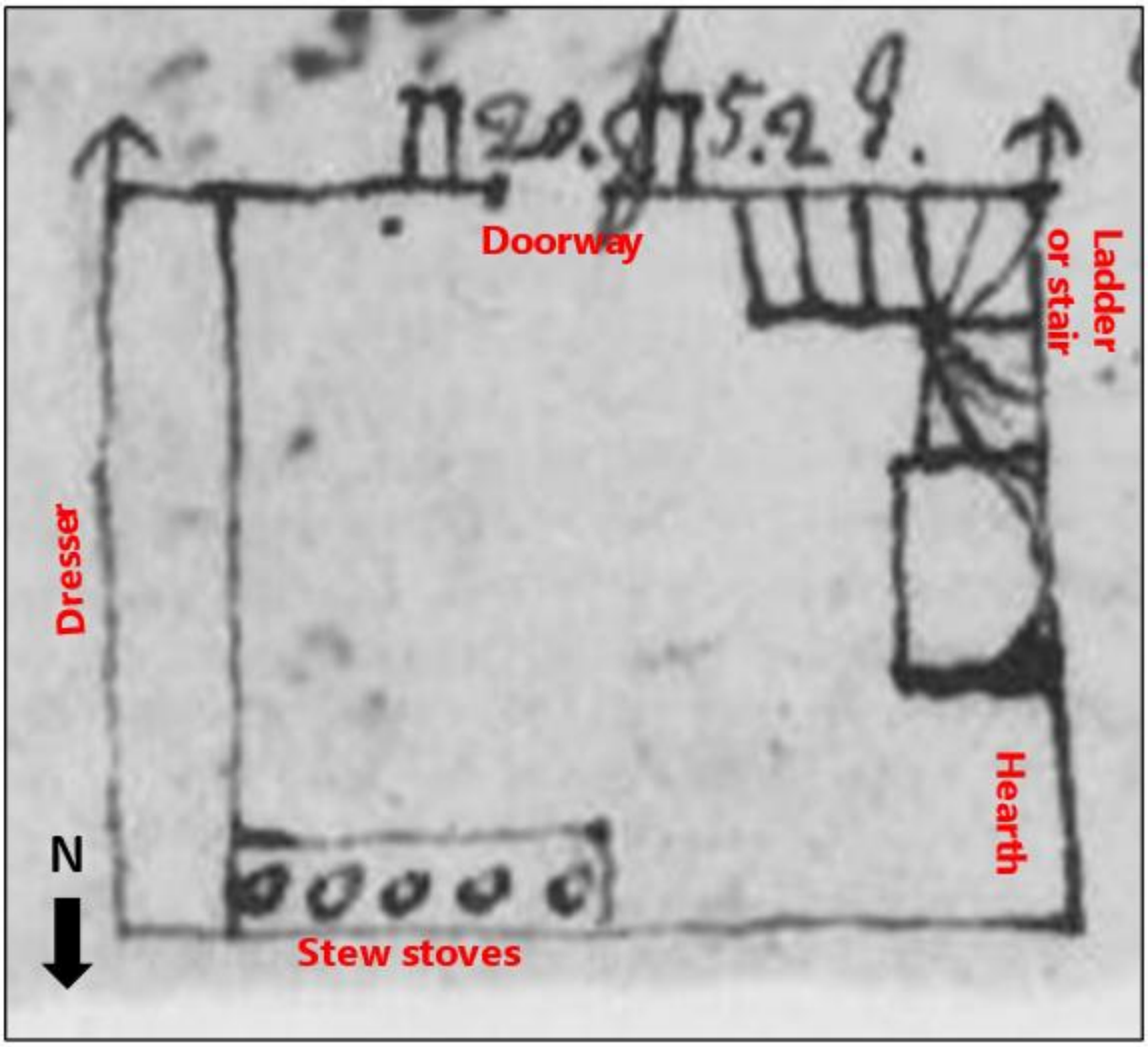

Figure 3.5. Modified N59 sketch (Jefferson c.1769) with magnified lo South Pavilion with a five-burner stew stove, dresser, stairs, and hearth. Digital image used courtesy of Huntington Library used from site report (O' Connor and Neiman 2022:14

Stew stoves are equivalent to a modern-day range cooktop and were essential culinary tools when cooking traditional French-style cuisine. The dressers captured in Jefferson's sketch were used as counter space to dress or plate food before the meal was presented to and consumed by the Jefferson family and house guests. Jefferson became infatuated with the French culture and cuisine during his time spent as the Minister to France from 1784-1789. He was also exposed to stew stoves in his early years during his time in Williamsburg, Virginia, as a student and later as governor (Thomas Jefferson's Monticello 2017).

Jefferson's personal records are useful in helping interpret archaeological assemblages and social interactions across the property, especially between individuals in the kitchen space. Jefferson used the lower floor of the South Pavilion as the primary kitchen until 1809 when a new kitchen at the end of the newly constructed South Wing was completed. The South Wing connected the main house to new domestic and workspaces. The new kitchen was larger and closer to the dining room, indirectly establishing the increasing importance of food etiquette and expectations for this social kitchen space (Figure 3.4). Sometime from 1808 to 1809, the lower floor of the South Pavilion was covered with three feet of fill to level the interior flooring of the building to the exterior ground surface. The space was converted to a wash house. Jefferson did not document where the fill used for interior leveling in 1808/1809 deposit was sourced on the nearby mountaintop.

Archaeological Site Background

The first excavation of the South Pavilion was led by restoration architect Milton Grigg in the 1940s prior to the installation of restrooms (O'Connor and Neiman 2022:26). The first excavation of the South Pavilion was led by restoration architect Milton Grigg in the 1940s prior to the installation of restrooms (O'Connor and Neiman 2022:26). During excavations, a brick floor and hearth components were discovered, briefly documented, then reburied for the

development of the space (Figure 3.6). The Thomas Jefferson Foundation's Department of Archaeology revisited this space in October of 2016 in preparation for a new exhibit and for mitigation work related to drainage and flooding issues along the north wall of the South Wing. This more recent excavation, directed by Crystal O'Connor, confirmed the presence of multiple architectural features documented by Jefferson in his N59 (Figure 3.5) sketch of the South Pavilion kitchen. This excavation also produced numerous soil samples for this research. Grigg's discoveries, specifically the brick floor and portions of the hearth, were re-exposed, and the bottom course of the deconstructed stew stoves and other architectural features related to food production were identified and thoroughly documented (Figure 3.6 and 3.7). More fine-grained stratigraphic analysis revealed five zones or periods of deposits during excavation, three of which span the use of the space as a kitchen (Periods 1-3) (O'Connor and Neiman 2022:46-48). Periods 4 and 5 will not be used in this analysis as they are outside the span of the kitchen-related deposits. These two final periods correlate with the conversion of the kitchen to a wash house (Period 4, c. 1808-1826) and activities relating to contractor repairs and 20th- century archaeological excavations (Period 5, 1826-2016) (O'Connor and Neiman 2022:46-48).

Due to this site's well-preserved nature and overall lack of disturbance, researchers can better understand use of the first kitchen through a spatial analysis of both architectural remains and the well-preserved macrobotanical assemblage extensively sampled from the site. Deposits associated with Period 1 through Period 3 were sealed beneath three feet of fill dumped into the room when the decommissioned kitchen was converted to a wash house (Period 4) ca. 1809. These sealed deposits were generally untouched until Grigg's excavation and accumulated in Periods 1 through 3 through activities of construction/leveling and cooking-related tasks. This will be important to remember when discussing the accumulation of the recovered plant taxa in each of the sampled areas of the kitchen.

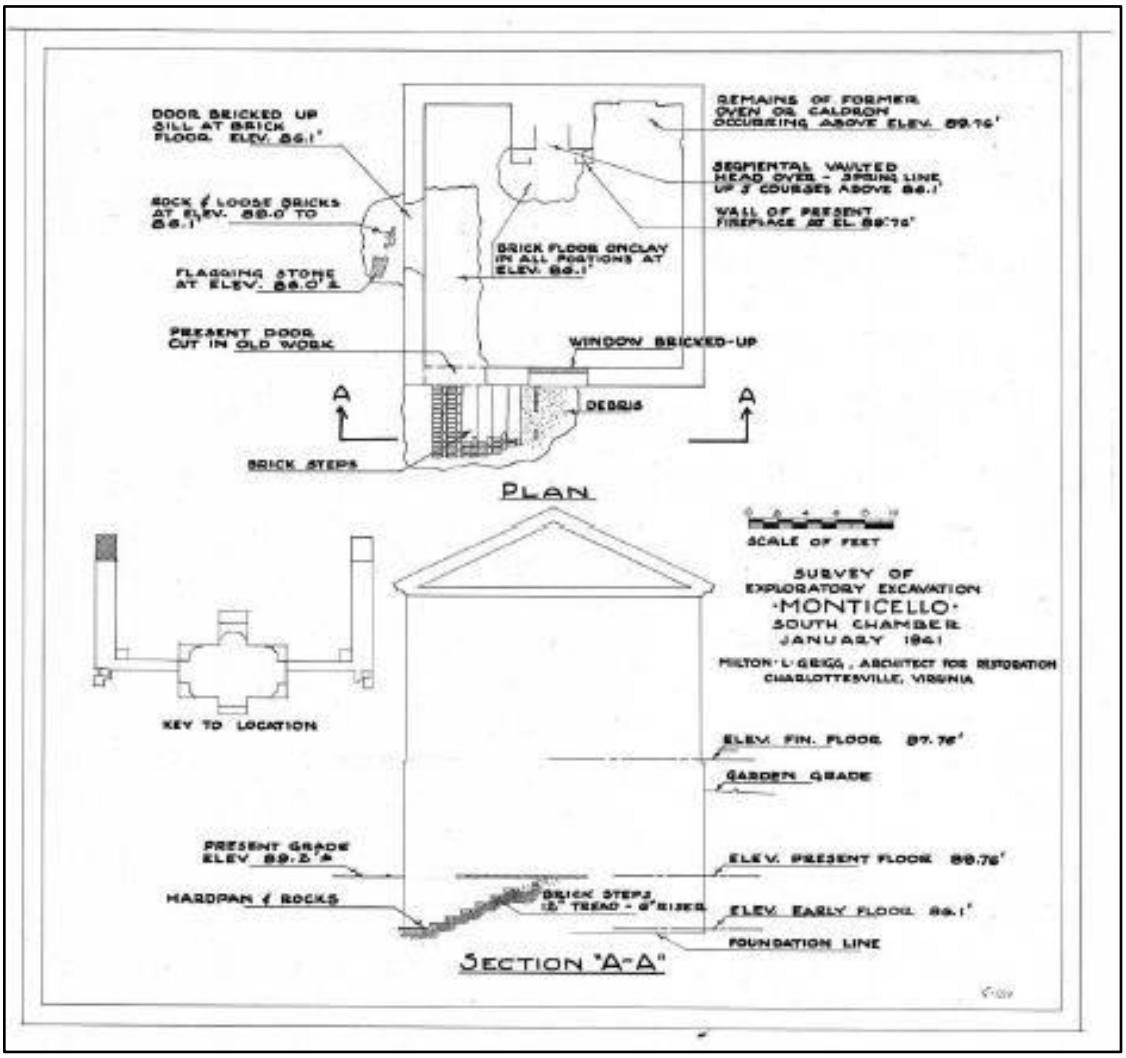

Figure 3.6. Milton Grigg's 1941 exploratory excavation plans of the South Pavilion (O'Connor and Neiman 2022:36).

Figure 3.7. Milton Grigg's 1941 exploratory excavation photo of the northwestern portion of the South Pavilion (O'Connor and Neiman 2022:37).

Kitchen Period 1 (1770-c.1775)

Period 1 is associated primarily with initial construction of the South Pavilion, including the kitchen (O'Connor and Neiman 2022:53). The construction of the South Pavilion began as early as 1767 but there is no evidence of use prior to Jefferson moving into the structure in 1770. The following timeline (Table 3.1) demonstrates events of Period 1 including architectural features that were added; information about these features in particular was uncovered through the archaeological excavations of the South Pavilion (O'Connor and Neiman 2022:52-74).

The earliest architectural features of the kitchen were likely constructed prior to Jefferson moving into the structure from Shadwell in 1770. These features include the hearth in the room's northwest corner, a floor of brick pavers, stairs, or ladder in the southwest corner, a bake oven along the west wall, and a dresser along the east wall (O'Connor and Neiman 2022:53).

Figure 3.8 illustrates these features of the kitchen while also demonstrating the physical location of the South Pavilion as a stand-alone structure built into the hill; Figure 3.9 shows an interior view of the Period 1 kitchen but omits the view of the dresser along the east wall.

Kitchen Period 2 (c. 1775-1790)

Period 2 is associated with the increasingly regular use of the kitchen for cooking. The Jefferson household was no longer living in the South Pavilion, having moved into the Monticello I main house in 1775. Period 2 kitchen modifications identified in the 2016 excavations include: the replacement of the southwest corner ladder with a winder stair, the replacement of the original brick paver floor in the north with bricks laid on end, the excavation of a ditch along the north and east walls for drainage, and the construction of two different stew stoves. The first stew stove was constructed after 1775 and deconstructed prior to the second stew stove which was constructed by c. 1789 (O'Connor and Neiman 2022:74). The stew stoves, according to the site report, do not correlate to each other and

Table 3.1. Period 1 events in relation to the kitchen space. Information pulled from site report and historians (Stanton 2000;2012; O'Connor and Neiman 2022:52-74).

Period 1: 1770 through Ca.1775				
1770	**1772**	**1773**	**1774**	**Ca. 1775**
Jefferson moved into the 2nd floor of constructed South Pavilion	Martha Wayles Jefferson moved to the South Pavilion	Ursula Granger and family moved to Monticello	Elizabeth Hemings and six Wayles-Hemings children moved to Monticello	Flooding event and construction of drainage trench
Constructed Architectural Kitchen Areas: -Brick pavers -Southwest corner ladder -Bake oven -Hearth -Dresser				

Figure 3.8. Reconstructed Period 1 kitchen viewed toward the northwest as built into the mountaintop as a standalone structure (Thomas Jefferson's Monticello Archaeology Department 2017a).

Figure 3.9. Interior reconstructed for Period 1 kitchen viewed toward the northwest (Thomas Jefferson's Monticello Archaeology Department 2017b).

likely did not exist at the same time. The following timeline (Table 3.2) demonstrates notable events during Period 2, including the addition of architectural features that were uncovered through the archaeological excavations of the South Pavilion (O'Connor and Neiman 2022:74-83), as well as dates associated with individuals at Monticello.

Beginning in Period 2, but post-1775, a piece of hand painted blue underglaze pearlware, possible Chinese House pattern, c. 1775 – 1810 (Maryland Archaeological Conservation Lab 2018), was discarded beneath the stew stoves. Archaeologists found it during profile excavations in the northeast corner of the kitchen, indicating the later construction of the stoves (O'Connor and Neiman 2022:89). The location of the stew stove vent holes, shown in Figure 3.10, demonstrates the original alignment of the first stew stove (c. 1775) compared to the second stew stove compartment locations (c. 1789). These three vent holes were discovered by archaeologists during the 2017 West Lawn Drainage excavations along the north wall of the South Pavilion (O'Connor and Neiman 2022: 61). The three holes, exposed below the levels of the current and Jefferson-era ground surfaces, are hypothesized to be air vents to function alongside the moat or drainage ditch as they opened to the exterior north wall for cooking ventilation. Usually, these holes were aligned and directly above the stew stove, but as seen in Figure 3.10 the stew stove foundation is offset from these vents to the east. Archaeologists determined the foundation in Figure 3.10 to be a later (ca.1789) stew stove. In addition, the drainage ditch parallel to the second (existent) stew stove continues under their masonry foundation, indicating that the construction cut for the ditch predates stew stove. Reference the site report for more details concerning this interpretation (O'Connor and Neiman 2022:61-62, 82-89). The extent of the unidentified pit is discussed in Chapter 4, but generally it is unclear whether it was present before or after the construction of the first stew stoves.

This sequence shows that the first stew stove was constructed, then the floor was replaced. The ditch was likely dug sometime prior to the construction of the second stew stove. Fill was added

Table 3.2 Kitchen Period 2 (c. 1775-1790) in relation to the kitchen space. Information pulled from site report and historians (Stanton 2000;2012; O'Connor and Neiman 2022:74-83).

Period 2: ca.1775 through 1790					
1775	**Ca. 1775**	**1782**	**1784**	**1789**	**Ca. 1790**
Jefferson household moves to main house	1st stew stove constructed in South Pavilion	Martha Wayles Jefferson dies in childbirth	Jefferson leaves for France followed by James Hemings	Jeffersons and Hemings return from France and 2nd stew stove constructed	North brick floor laidwith unidentified pitand drainage ditch filled to level for 2nd stew stove
Constructed Architectural Kitchen Areas: -Flooding event possible causing of unidentified pit and drainage ditch -1st and 2nd stew stove construction -Fill events of kitchen debris of the brickfloor, ditch, and unidentified pit deposits capped with clay					

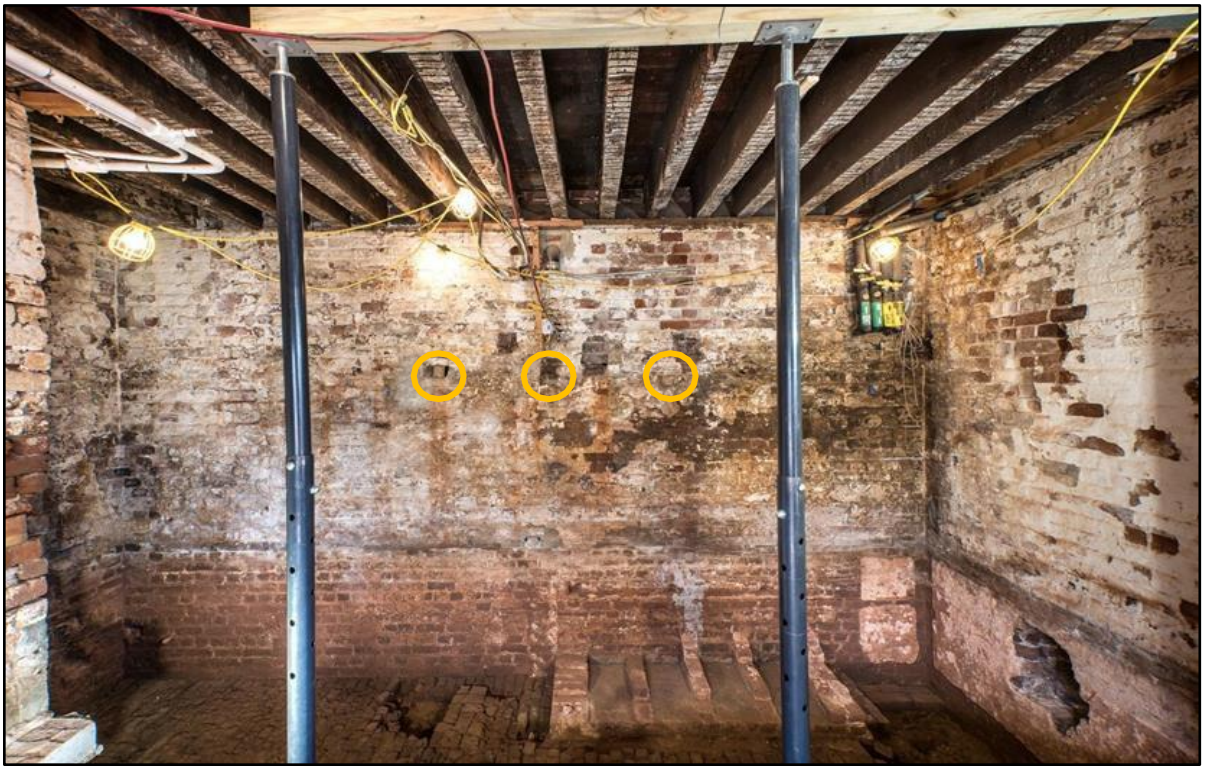

Figure 3.10. Three vent holes (circled in orange) associated with the first stew stove do not align with the second (Period 3) stew stove, as they shifted right (O'Connor and Neiman 2022:62).

to the unidentified pit and drainage ditch, leveling the area with clay for the construction of the second stew stove (end of 1789) as noted during excavations (O'Connor and Neiman 2022:84). This clay cap laid over the unidentified pit and ditch provided a level surface for the Period 3 stew stove and allowed the Period 2 deposits to be separated from the debris accumulated with the Period 3 stew stove. For more information on the installment of the stew stoves reference the site report (O'Connor and Neiman 2022:61).

Kitchen Period 3 (1790-c.1808)

Period 3 architectural modifications of the kitchen are linked to the return of Jefferson from France in 1789 and the beginning of construction in 1801 of the Wing additions, hereafter identified as Monticello II (Table 3.3). The Wings, finished in 1809, connected the South Pavilion to the main house. Jefferson only spent a portion of his time at Monticello when he returned from France, as he was also fulfilling his term as president (1801-1809) and designing a retreat at Poplar Forest, a plantation acquired through inheritance from his late father in-law. A variety of the Jefferson's remained at Monticello (i.e., Marth Jefferson and her children as well as some enslaved people) while Jefferson was in office. Architectural upgrades in the kitchen during Period 3, as seen in Figure 3.11, include the following: replacement of the dresser, and finished construction for the four-compartment stew stove (O'Connor and Neiman 2022:83-98).

The end of Period 3 was marked by the finished construction of Monticello II around 1809. The new L-shaped wing that extended to the South Pavilion housed domestic and workspaces for enslaved people, including a new kitchen and dairy (Figure 3.12). At this time the original kitchen floor was buried beneath three feet of fill so that the ground surface in the building would be on the same level as the newly constructed wing, and the space was converted into a Wash house (Figure 3.13).

Table 3.3. Occupational Kitchen Period 3 (1790- c. 1809). Information pulled from site report and historians (Stanton 2000;2012; O'Connor and Neiman 2022:83-98).

Period 3: 1790 through ca.1809						
1790 2nd stew stove construction finished	**1790-1791** Jefferson and Hemings at governor's mansion	**1793** Peter Hemings begins his apprenticeship under his brother James Hemings	**1796** James Hemings passes role of head cook to his apprentice Peter and gains his promised freedom from Jefferson	**1800** Ursula Grainger and family's death	**1801** James Hemings' death	**Ca. 1809** South Pavilion converted to Wash house
Constructed Architectural Kitchen Areas: -Replacement of dresser -2nd stew stove construction finished						

Figure 3.11. Interior reconstructed for Period 3 kitchen viewed toward the northwest c. 1790 Period 3 kitchen (Thomas Jefferson's Monticello Archaeology Department 2017c).

Figure 3.12. Period 3 in 1809 when the South Wing was connected to the South Pavilion (Thomas Jefferson's Monticello Archaeology Department 2017d).

Figure 3.13 interior of South Pavilion during Wash house occupation c.1809 (Thomas Jefferson's Monticello Archaeology Department 2017e).

History of African American Cooks in the South Pavilion Kitchen

Now that I have presented the chronological review and abbreviated history of the South Pavilion structure and kitchen, it is important to establish the histories of the enslaved people who lived at Monticello and the cooks involved in this space (Table 3.4). The information and facts found in Table 3.6 were pulled from variety of sources including Stanton (2000; 2012), Thomas Jefferson's Monticello website, and the site report (O'Connor and Neiman 2022). By defining the background and associated activities assigned to each of these individuals in the pre-1809 kitchen, researchers can piece together the activities performed and quite possibly find evidence of decisions made by the cooks.

A number of enslaved people were assigned roles including as domestic servant, cook, or brewer as documented in Jefferson's Farm and account books. Their tasks and roles seem to have changed depending on the events happening on the larger plantation, such as whether Jefferson and the main household members were present or traveling, whether guests were visiting the property, and whether additional hands were needed for harvests. Female domestic servants in particular had "little to do" while Jefferson was in Washington or away in Richmond, Williamsburg, New York, and Philadelphia (Stanton 2003:25). The following enslaved individuals are the main people who, from Jefferson's accounts, were primarily assigned to duties in the first kitchen. The history behind these enslaved cooks was collected from a variety of sources including Jefferson historians Lucia Stanton (1996; 2000; 2012) and Annette Gordon-Reed (2008).

Ursula Granger

It is unclear when kitchen activities first begin in the South Pavilion, but the first known cook was Ursula Granger, first noted in 1773. All cooking activities, and the people who performed them for Jefferson in 1770, and Martha Wayles Jefferson in 1772, are currently unknown. Further research through personal letters of Martha's finances and Jefferson's

Table 3.4. Demonstrates four periods of the kitchen as assigned in the archaeological site report in comparison to the cooks assigned in the kitchen space (Stanton 1996; 2000; 2012; O'Connor and Neiman 2022).

Periods and Domestic Cooks of the South Pavilion Kitchen			
Period	***Established Date Range***	***Important Events***	***Enslaved Cook Timeline***
Period 1	*c.1768-c.1775*	*-Jefferson moves to South Pavilion 1770* *-Jefferson moves from South Pavilion to Monticello I around 1775*	*1773: Cooks Ursula Granger and Suck Evans*
Period 2	*1775-1790*	*-Beginning of interior kitchen modifications/ construction of first designated spaces for activities in the kitchen. First stew stove constructed post 1775 but before 1789* *-Jefferson absent beginning 1784 due to work in France as Ambassador, but returns to Monticello in 1789* *-Interior architectural changes made throughout kitchen after Jefferson returns from France, including updated stew stove, and dresser*	*1784: James Hemings starts training in France as cook* *1786-1789: James Hemings acts as cook for Jefferson in France*
Period 3	*1790 -1808/9** ** This filling event likely took place around 1808, and prior to Jefferson's retirement from presidency in 1809.The kitchen was moved to the east end of the South Wing and this room was converted into a wash house.*	*-Evidence of main cooking activities and some interior architectural modifications made for changes in cooking style with Jefferson back from France in late 1789.*	*1793 -1796: Peter Hemings trains as cook under James and retired head cook Ursula Granger* *1796-1809: Peter Hemings head cook of South Pavilion* *1800 : Ursula Granger dies* *1801 : James Hemings dies*
Period 4	*1808/9-1826*	*-Martha Jefferson Randolph and household move to Monticello in 1809*	*1809: Edith Hern Fossett head cook of new kitchen*

bachelor years may shed light on which enslaved people were cooking for Jefferson prior to Ursula's arrival. In 1773, Martha Jefferson requested the purchase of Ursula Granger, whom she specifically sought out for her cooking skills. Jefferson's accounts show that he purchased Ursula, along with her husband George Granger, who became Jefferson's only African American overseer (Stanton 2003:14). Ursula's roles as documented in Jefferson's *Farm Book* include cook, wet-nurse to Martha Jefferson, housemaid, laundress, dairymaid, and cider brewer (Stanton 2012). Ursula died in 1800 at the end of the cider brewing season.

Isaac Jefferson Granger, Ursula's third surviving son, born in 1775, remembered that Martha Wayles Jefferson went to the South Pavilion kitchen and read to Ursula about what and how things should be cooked in the kitchen (Stanton 2000:33). Ursula is documented as joining Jefferson at many residences while away from Monticello, including the governor's mansion in Richmond. Jefferson's last documentation for Ursula includes her brewing job in November of 1800, soon followed by her death in the same year. She interacted with many of the domestic servants, including Suck, James Hemings, and Peter Hemings in the kitchen, all of whom helped with the brewing, with Ursula being the main supervisor for the brewing event.

Suck Evans

Suck Evans was the second cook documented on the Monticello mountaintop. Very little is known about her other than she entered Jefferson's rolls as cook at the age of 16 as part of his inheritance in 1774, coming from John Wayles' home plantation, The Forest, in Charles City County. Suck took on the role of 'under cook' to Ursula, who arrived a year earlier. In 1774, Suck married Jupiter, Jefferson's slave who was born and raised alongside him at Shadwell. Suck cooked with Ursula and Elizabeth (Betty) Hemings during wheat harvests and accompanied Ursula and Jefferson to cook at the governor's palace in Williamsburg and Richmond in 1780 and 1781.

James Hemings

Born enslaved in 1765 as the third child and second son of Elizabeth Hemings and John Wayles, James Hemings moved to Monticello from The Forest with his mother and siblings in 1774 at the age of nine. The Hemings family was given as an inheritance after John Wayles's death in 1773 to his son-in-law Thomas Jefferson and daughter Martha Wayles Jefferson. Jefferson wrote that by the age of 10 to 12, children would begin working on the Monticello plantation as either a farm hand or skilled worker (Stanton 2000). James' early roles at Monticello are lacking in Jefferson's documentation, but he is documented in 1781 as an enslaved valet in Richmond and Williamsburg when Jefferson served the role of wartime governor of Virginia. It was not until 1784 that James is connected with cooking, when Jefferson recorded that he accompanied Jefferson to France at age 19 to receive specialty training in the art of French cookery. He lived there from the fall of 1784 through 1787 (Craughwell 2012).

While in France, Jefferson provided James with a salary at the end of every month for his cooking services and lodging. At that time in France, slavery was illegal, and all Black and "mulatto" individuals were free people to do as they pleased according to social laws and etiquette (Stanton 2000). James would have been given his freedoms while in Paris, but he remained the property of Jefferson and eventually had to return to fill his role as head cook of the South Pavilion kitchen at Monticello. While in Paris, James trained under a caterer and restaurateur in the house of the Prince de Condé. James' talents and skills were valued by Jefferson, as James was appointed as chef de cuisine, or head chef, at the Hôtel de Langeac, the townhome and embassy of the American delegation in 1787. This position allowed him to serve as supervisor over other chefs that he trained, most of whom were white men. While in Paris, James learned numerous skills beyond his culinary training including reading and writing recipes, negotiating his own terms of freedom, and as referenced by Jefferson, becoming more fluent in the French

language and culture than quite possibly Jefferson himself (Stanton 2000; Craughwell 2012:37-38).

Upon his return to Virginia, James brought a variety of skills and recipes to Jefferson's culinary table through his work in the South Pavilion kitchen as head cook from 1789 to 1796. Recipes he was known for include gumbo, snow eggs, ash cakes, fried potatoes, waffles, beef burgundy, and macaroni and cheese (Stanton 2000:186; Craughwell 2012:185-199). When James returned to Monticello with Jefferson in the fall of 1789, the contract of his freedom included stipulations to apprentice his brother, Peter Hemings. Peter's trained under his brother from 1793 to 1796, when James received his freedom. One of his final tasks as head cook in the South Pavilion was to make an inventory of the kitchen utensils and tools. Some cooking utensils in his inventory included copper kettles, a brass mortar and pestle, coffee pots, chopping knives, waffle irons, copper stew pans, copper brazing pans, and small saucepans (O'Connor and Neiman 2022:25).

James likely negotiated for his freedom and was freed in February 1796. During his freedom, he traveled until he received a personal request from Jefferson for his return as a free, paid cook at Monticello in August and September of 1801 (Stanton 1996; 2000). Jefferson's records state that James was living in Baltimore at the time that he committed suicide in late fall of 1801 at the age of 36.

Nance Hemings

Nance Hemings was born in 1761 as the third child to Elizabeth (Betty) Hemings and John Wayles. Documentation concerning her work is scarce in Jefferson's Farm Book, but he listed her as an enslaved weaver (1776-1785) and assisted with the cooks and brewer (Stanton 2000).

Peter Hemings

Peter was born as the fifth child and third son to John Wayles and Elizabeth Hemings at The Forest plantation in 1770. In 1774, at the age of four, he was also inherited by Jefferson and went to the

Monticello plantation with his mother and siblings. Peter began work at the age of 12 at Monticello. He began his culinary training in French cooking under his brother, James Hemings in 1793. In 1796, he was given James' title as head cook. Peter remained a cook, brewer, and tanner up until 1826 (Stanton 2012).

Edith (Edy) Hern Fossett

Edith Fossett, at fifteen-years old, held the position as head cook in Washington in 1802 while Jefferson was serving his presidency, through the beginning of his retirement from office and return to Monticello in 1809 (Stanton 2000). Edith Fossett (niece through marriage to Peter) and Peter Hemings served as cooks in the second kitchen after the South Pavilion was converted into a wash house. She remained at Monticello and was sold during Jefferson's estate auction in 1826.

As seen through the number of individuals listed in this section the enslaved community in the vicinity of the kitchen contributed to the foods cooked for the main house. Heath (2004:23) noted evidence of personal foodways decisions and subsistence strategies in African American residents of Monticello through ledgers belonging to Jefferson's granddaughter, Ann Cary Randolph. In the ledger, Ann noted the profits made by enslaved people of the plantation through the sale of eggs, vegetables, fruits, and avian livestock to the Jefferson family (Stanton 2000:90; Heath 2004:23). Enslaved people, especially the cooks in this space, contributed to the foodways supplies and meal production in the South Pavilion kitchen. Through understanding the specialized skills they learned and knowing what kitchen equipment was available to them during a particular period of the kitchen, we can use the botanical assemblage to further interpret the foodways activities that may have been practiced in this particular kitchen context.

Chapter 4: Methodology

The kitchen's main occupational periods in the South Pavilion are associated with the building's exterior construction beginning in 1770 to its renovation as a wash house circa 1809. The macrobotanical remains from the kitchen are associated with the three different periods, demonstrating that even small bits of charcoal can provide data that inform larger research questions.

Preservation and Representation of Plant Materials

What is represented and preserved in any archaeobotanical assemblage is largely affected by the form of disposal of the plant remains, methods of recovery, and environmental factors that preserve the plant remains until excavation and recovery (Popper and Hastorf 1988:5). In the Southeast and mid-Atlantic regions, plants generally must be carbonized to be preserved. There is a lack of leafy greens in botanical assemblages as they do not survive carbonization (introduction to fire). There is also a lack of fleshy fruits and higher frequencies of by-products of plants, i.e., nutshell or corn cupules, as the latter are not consumed (Yarnell 1982:2). In this study, uncarbonized plants were considered likely contaminants, or at least cannot be distinguished from modern contaminants, and so these specimens were excluded from my analysis.

The preservation of these remains and the sources for these deposits was discussed in the previous chapter by kitchen areas per sampling area. It is important to stress that even though the kitchen floor was sealed in c. 1809 with three feet of fill, the deposits prior to Period 3 are sometimes unclear in terms of depositional accumulation as the sedimentary layers are so small it is hard to parse them apart. Some samples as noted from the site excavations are associated with leveling fill, but the source of this leveling fill on the mountaintop is unknown. The fill in these deposits would have also accumulated debris from cooking and construction activities, but it is

leveling fill, but the source of this leveling fill on the mountaintop is unknown. The fill in these deposits would have also accumulated debris from cooking and construction activities, but it is important to note that these samples have the possibility of including remains from both food-related and secondary fill deposits beyond the kitchen site's use.

Sample Biases

The preservation of the sealed deposits and documented history of the construction of the building makes the South Pavilion an excellent example for understanding activities of an early plantation kitchen. The preservation of the botanical remains is exceptional due to the protection provided by the building and the clay deposits that sealed out environmental factors that may have caused destruction to these sampled areas, but it is important to also consider the recovery methods of the samples. During the excavation, it was unclear which areas of the kitchen still had intact architectural features worth sampling, and the timeline for how these were constructed was unknown. This in the end affected the availability of samples from particular areas and time periods.

It is also important to remember that just because an item is absent from the botanical assemblage, it does not mean it was not used in that context. The physical plants recovered from an assemblage do not reflect the full use of plants at a site. Absence of plant material can be related to biases in how samples are collected, processed, and housed, as well as whether plant materials were carbonized through human interactions. These are all examples of limitations to consider with paleoethnobotanical analysis (Crowder 2018:45). However, items that do survive provide valuable information about plants that people used on a regular basis (Hastorf and Popper 1988; Pearsall 2000). The limited availability of samples by period and associated with known architectural kitchen features plays a big role in the overall assemblage of the South Pavilion kitchen. Further analysis of Periods not analyzed in this research may reveal the

presence of other plant remains not seen or represented in kitchen Periods 1 through 3. Even though there are multiple factors that affect the variety and quantity of plants in a botanical assemblage, the information that can be gained from the plant remains that are recovered can shed light on the activities, behaviors, and roles assigned to the users of the space (Ford 1979: 286).

Macrobotanical Sampling

A total of 86 soil samples were collected across the South Pavilion (44AB089) kitchen site for macrobotanical analysis. From these recovered soil samples, 84 were processed using flotation at Monticello and sent to the Paleoethnobotany Laboratory in the Department of Anthropology at the University of Tennessee, Knoxville for analysis. Throughout this data analysis process, all standard paleoethnobotanical procedures, steps, and protocols were followed (Pearsall 2000). Each sample was weighed and sifted through 2.0 mm, 1.4 mm, and 0.71 mm geologic sieves, followed by identification of botanical remains to the lowest taxonomic level. Anything not already represented in the 2.0 mm sieve was pulled from the smaller sieve sizes, and identified, counted, and weighed. Identifications for botanical remains were referenced to Martin and Barkley's (1961) *Seed Identification Manual* and modern comparative specimen collections housed in the Paleoethnobotany Laboratory in the Department of Anthropology and at the McClung Museum of Natural History and Culture at the University of Tennessee, Knoxville. The analysis was conducted under the supervision of Dr. Kandace Hollenbach.

Each paleoethnobotanical sample collected for analysis was assigned to one of five occupational periods. These periods were established through the site's stratigraphic Harris Matrix correlations in relation to the construction and period ranges of the South Pavilion structure (O'Connor and Neiman 2022:48). Figure 4.1 presents the South Pavilion archaeological site plan with sampled locations that correlate to the architectural cooking appliances used in the

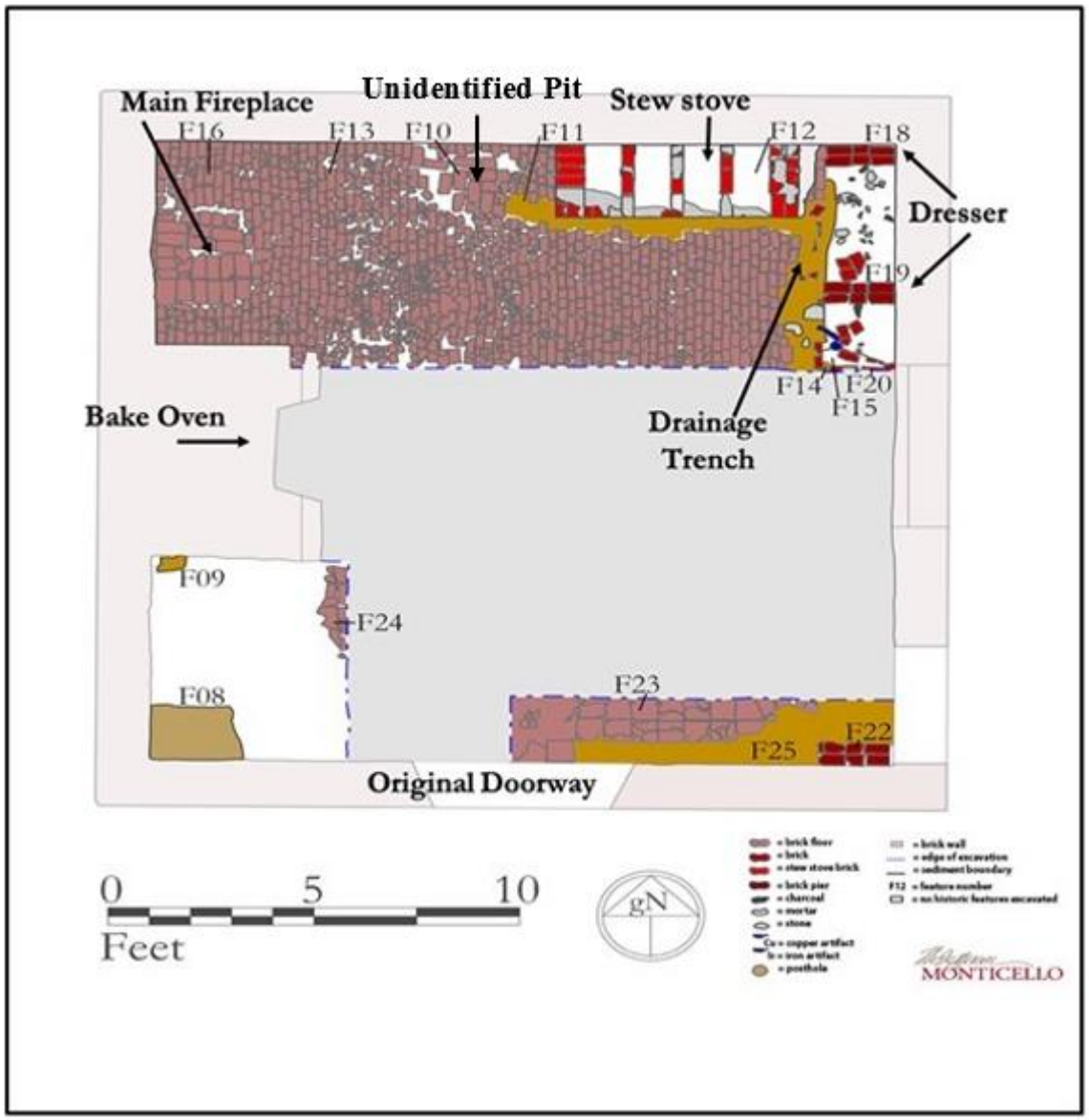

Figure 4.1. Modified site map of South Pavilion (O'Connor and Neiman 2022:51) with added references to main architectural kitchen features.

space. Considering my research questions and focus on foodways activities, I only use the samples assigned to the structure's first three kitchen periods and only those in the northern portion of the kitchen (Figure 4.2). These first three kitchen periods contribute to my analysis of foodways practices performed in this space. The southern area demonstrates higher foot traffic than the rest of the kitchen space, as the location of the door in the south wall meant people entered and exited the kitchen from the outside here. The samples and identified macrobotanical remains for these southern quadrats have higher probabilities of contamination by accidental or natural displacement (i.e., uncarbonized seeds brought in from people's clothing and footwear). The southern half of the kitchen also contained less foodways- related architecture. The northern units provide a pool of samples that more strictly relate to the food-related activities of the kitchen space.

Assigned Sample Areas of Period 1

Of the 84 samples sent for analysis, a total of 66 samples were associated with Periods 1 through 3. Of these, I analyzed 43 samples. A total of eight samples were processed from Period 1. These samples (n) all include associations related to activities involving the construction of the kitchen and foodways related activities from areas of the Dresser (n=2), the East (n=3) and West (n=1) brick floor, and the East wall (n=2). Table 4.1 presents the samples available for analysis and their spatial contexts by the kitchen period.

The brick floor is located across the northern portion of the South Pavilion kitchen. The northern portion is then divided into areas of the West brick floor (quadrats 2581, 2582, 2585, and 2586) and the East brick floor (quadrats 2583, 2584, 2587, and 2588). These areas were split into the East and West brick floor due to the nearby kitchen appliances that correspond to the activities in the east or west side of the kitchen.

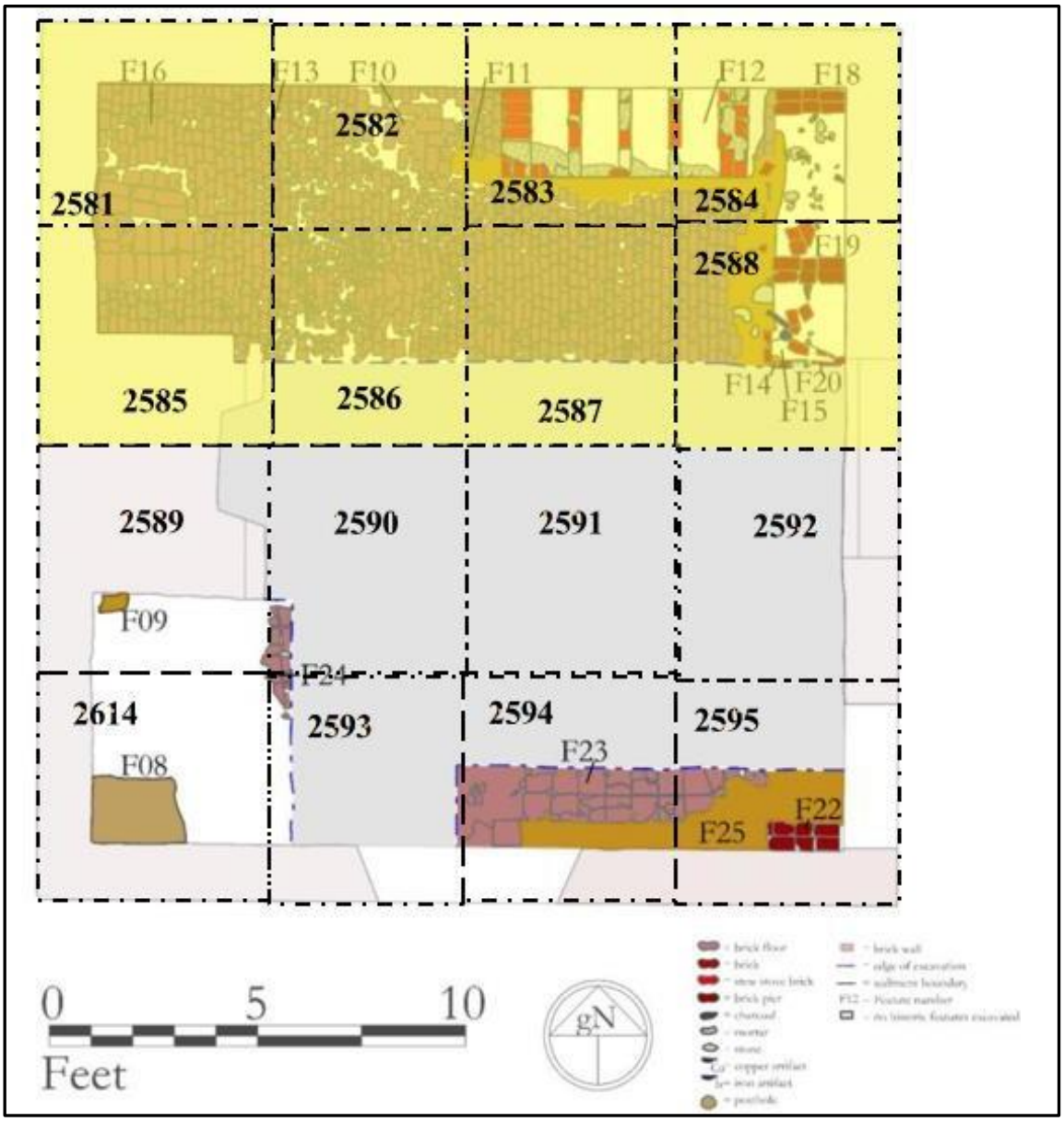

Figure 4.2. Archaeological site map of South Pavilion overlaid with features; northern yellow quadrats reference the location for samples included in this analysis.

Table 4.1. Stratigraphic groups assigned in site report from Period 1 (O'Connor and Neiman 2022:73).

Stratigraphic Group (SG)	Sample	Description	Interpretation	Associated Kitchen Area
SG03	2584Y 2588R	Mortar spatter on bedrock in northeast corner of Pavilion	Mortar spatter construction of Pavilion wall	East wall construction
SG07	2584BB 2584CC 2588V	Dense red clay	Leveling fill and accumulated debris	East brick floor
SG07	2582Z	Dense red clay	Leveling fill and accumulated debris	West brick floor
SG11	2588Q	Gritty brown silty	Fill to level floor under dresser	Dresser
SG12	2584V	Mottled and mortar-rich deposit	Fill to level floor under dresser	Dresser

The East wall is comprised of the northeastern portion of the South Pavilion kitchen, specifically samples that date stratigraphically to the construction of the east wall of the kitchen. These were associated with construction-related activities due to the mortar splatter found deposited on top of the bedrock where the samples were collected during excavations of this east corner of the kitchen (O'Connor and Neiman 2022: 70).

The Dresser samples were not grouped with the East wall since these stratigraphic groupings (SG11 and SG12) were associated with a leveling fill deposit found under the dresser (O'Connor and Neiman 2022:70). Given its distinct depositional history and the association of the dresser with foodways-related activities, it makes sense to consider this as its own area for analysis for Period 1.

Period 1 is associated primarily with initial construction of the kitchen space (O'Connor and Neiman 2022: 54) and has limited evidence for primary areas of activities for cooking-associated areas. It is also important to remember the nature of these samples, which are primarily fill deposits. This leaves analysis somewhat open-ended as there is not a clear understanding of where the sediments for these fill deposits derive from and how they were initially deposited, as well as whether these deposits are related to accumulation of debris associated with activities in the kitchen space.

Assigned Sample Areas of Period 2

A total of 11 samples were processed from Period 2, with only two sample areas that correlate from this occupation of the kitchen including the Unidentified Pit (n=6) and the Drainage Ditch (n=5) (Table 4.2).

The Unidentified Pit is a sampled area assigned to Feature 10 (Figure 4.3; see Figure 4.1 for location within the site). This unidentified pit is interpreted as being "possibly dug to

Table 4.2. Features and Stratigraphic groups assigned in site report for Period 2 (O'Connor and Neiman 2022:74).

Feature Number	Stratigraphic Group (SG)	Sample*	Interpretation	Order of Deposits	Associated Kitchen Area
F10	N/A	2582X	Fill in Unidentified pit	1st Pit Deposit	Unidentified Pit
F10	N/A	2582W	Fill in Unidentified pit	3rd Pit Deposit	Unidentified Pit
F10	N/A	2582V**	Brick laid flat over fill	4th Pit Deposit	Unidentified Pit
N/A	SG13	2582L	Fill to replace missing brick patch	Top of Pit Deposit 2582	Unidentified Pit
N/A	SG13	2583M	Fill to replace missing brick patch	Top of Pit Deposit 2583	Unidentified Pit
F11	SG14	2588U	Fill in Drainage Ditch for stew stove installation	1st Ditch Deposit	Ditch
F11	N/A	2588M	First sweeping event	2nd Ditch Deposit	Ditch
F11	N/A	2584S	Pre-stew stove kitchen trash; stew stove leveling fill	2nd Ditch Deposit	Ditch
F11	N/A	2584R	Pre-stew stove fill	3rd Ditch Deposit	Ditch
F11	N/A	2584Q	Pre-stew stove kitchen trash	4th Ditch Deposit	Ditch

*Note that for the sake of table spacing I shortened the sample numbers for this analysis (i.e. 2584R). Monticello's sample protocol uses the Quadrat followed by the assigned stratigraphic level followed by S for sample with an assigned sample number taken for the context (i.e. 2584R-S-02).
**Note that this sample had two samples taken from the sample level. See Appendix for exact sample numbers for these contexts.

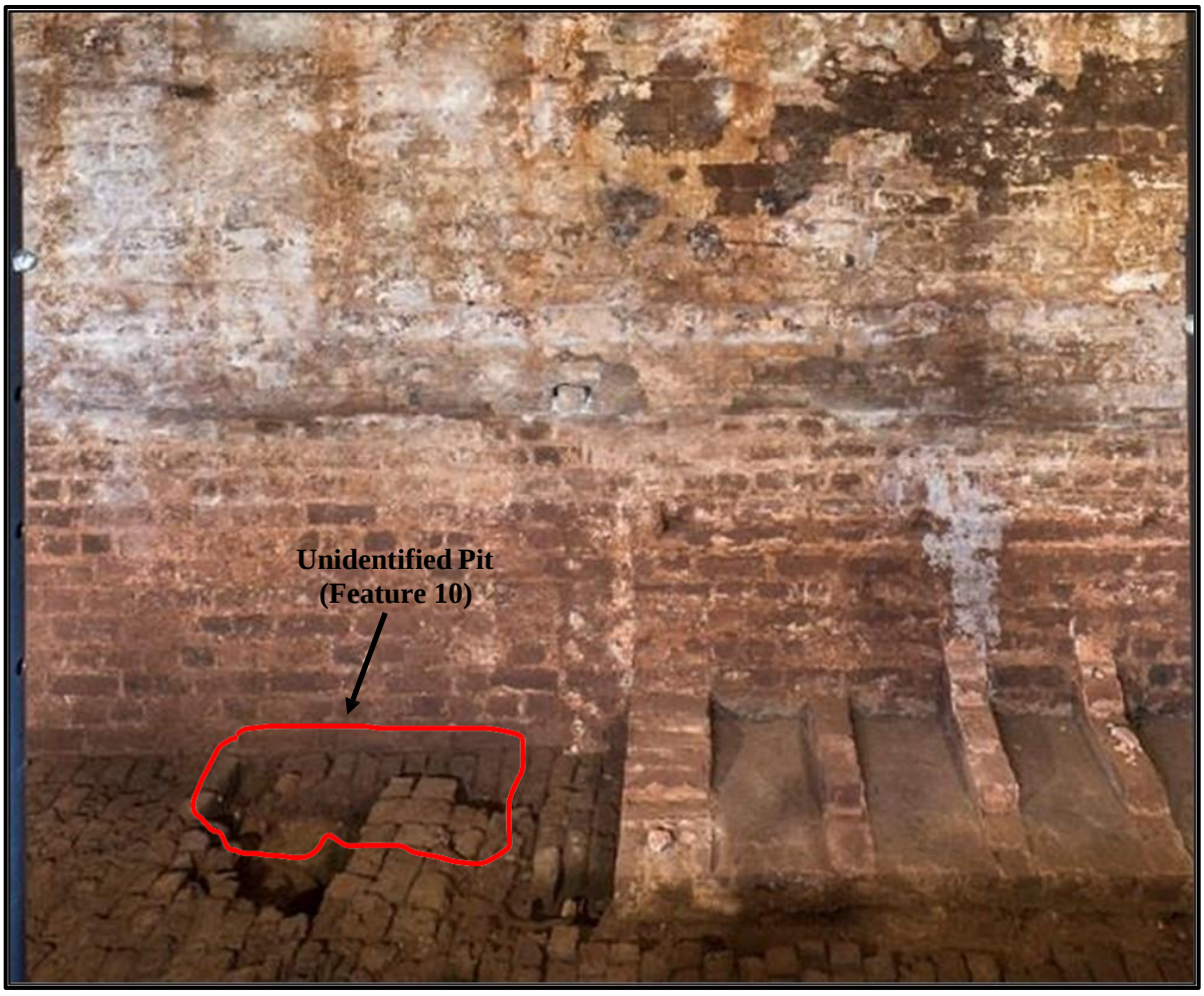

Figure 4.3. South Pavilion kitchen north wall with Unidentified Pit (Feature 10) outlined in red. View north (O'Connor and Neiman 2022:62)

mitigate a flooding event, or possible sump which may have connected to the Drainage Ditch assigned to Feature 11" (O'Connor and Neiman 2022:82). It is described (2022:82) as having "Flat, irregularly laid bricks. Roughly rectangular in shape with the longer axis running east- west" with dimensions of 2.5 x 2.8 ft. with a depth of 0.72 ft.

The shallow Drainage Ditch (Feature 11) is described as a ditch dug to mitigate flooding from the north wall of the Pavilion (Figure 4.1). This feature is 12.5 x 1.1 ft. with a depth of 0.5 ft. (O'Connor and Neiman 2022:82). Figure 4.4 shows the stew stoves post-excavation with the red arrows outlining the exterior limits of the hypothesized drainage ditch (Feature 11). The ditch samples used in this analysis are likely associated with multiple deposits in the area, as materials may have washed into the ditch from various areas of the kitchen. In this discussion this feature is assigned as Ditch but is made up of more complex deposits associated with either the dresser ditch or leveling fill for stew stove ditch deposits.

Both sample areas from Period 2 are complex and unknown in terms of depositional accumulation. It is also important to note that the samples from the Drainage Ditch are a combination of two areas that could be considered separately (dresser ditch and leveling ditch), but the depositional complexity and location of the samples in relation to the architectural features blur together. In the case of this analysis these samples were grouped together as the drainage ditch deposits but are split by associated contexts in Table 4.2.

Assigned Sample Areas of Period 3

A total of 24 flotation samples were analyzed from Period 3 (Table 4.3). I assigned the flotation samples associated with Period 3 to the following six areas: Brick Floors (West [n=3] and East [n=5]), Hearth (n=4), Ditch (n=7), Stew stove (n=4), and Dresser (n=1). Figure 3.10 illustrates the Period 3 kitchen while also demonstrating its location with the addition of the South Wing as completed in 1809.

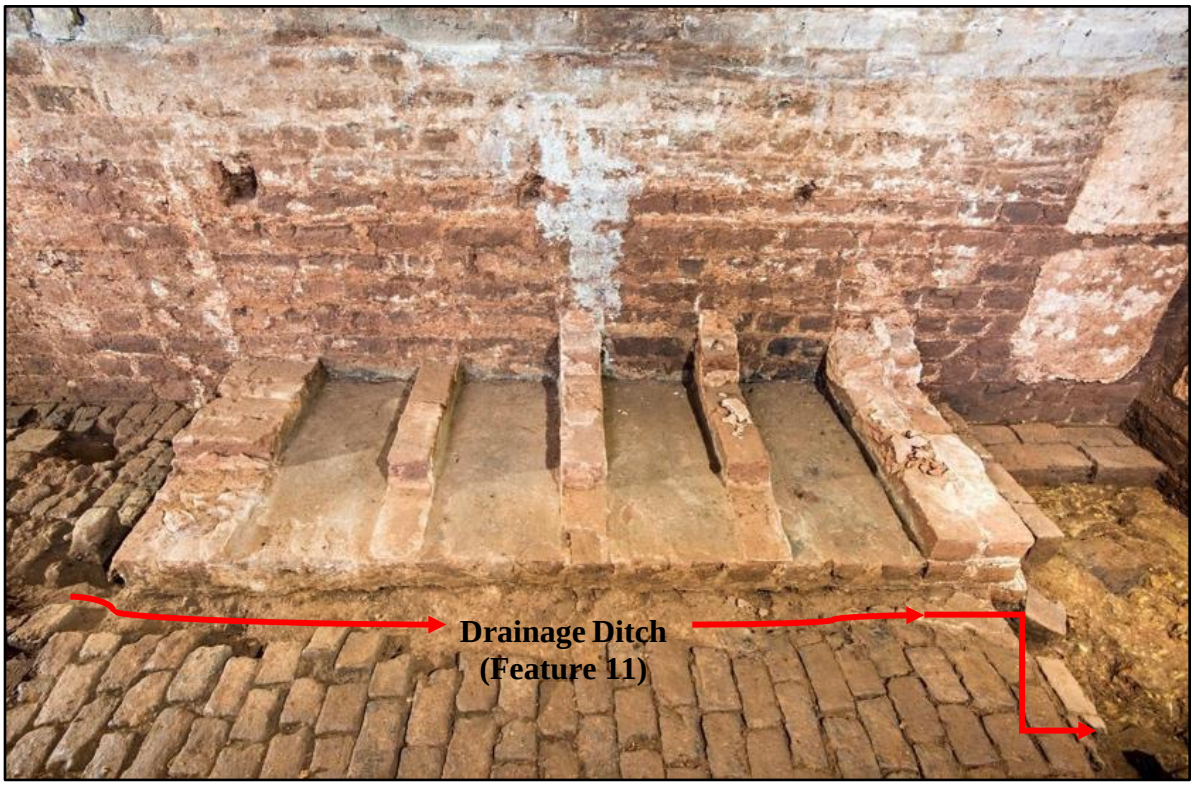

Figure 4.4. Period 2 Drainage Ditch in red in front of the stew stove (O'Connor and Neiman 2022:80).

Table 4.3 Features and stratigraphic groups assigned in site report for Period 3 (O'Connor and Neiman 2022:83).

Feature number	Stratigraphic Group (SG)	Sample	Description	Interpretation	Order of Deposits	Associated Kitchen Area
F11	N/A	2584P	Level fill for stew stove construction	Stew stove Ditch	1st Ditch Deposit for 2584	Ditch
F11	N/A	2588L	Kitchen debris swept into ditch	Dresser Ditch	1st Ditch Deposit for 2588	Ditch
F11	N/A	2588K	Kitchen debris swept into ditch	Dresser Ditch	2nd Ditch Deposit for 2588	Ditch
F11	N/A	2588J	Kitchen debris swept into ditch	Dresser Ditch	3rd Ditch Deposit for 2588	Ditch
F11	SG18	2584N	Top layer of kitchen debris swept into ditch	Stew stove Ditch	Last Ditch Deposit for 2584	Ditch
F11	SG18	2588I**	Top layer of kitchen debris swept into ditch	Dresser Ditch	Last Ditch Deposit for 2588	Ditch
N/A	SG19	2584M	Possible leveling fill for dresser leg	Dresser	N/A	Dresser
N/A	SG22	2582K 2582U 2586L	De-facto kitchen refuse between bricks of brick floor	West brick floor	N/A	West floor
N/A	SG22	2583K 2583Q 2584K 2587G 2588H	De-facto kitchen refuse between bricks of brick floor	East brick floor	N/A	East floor
F16	SG21	2581J 2585H 2585M 2586M	Ash from hearth in fireplace	Hearth	N/A	Hearth
F12	SG17	2583H 2583I 2583J 2584H	Remnants of coals from cooking on stew stove	Stew stove	N/A	Stew stove

*Note that for the sake of table spacing I shortened the sample numbers for this analysis. (i.e. 2583H). Monticello's sample protocol establishes the Quadrat followed by the assigned stratigraphic level followed by S for sample with an assigned sample number taken for the context (i.e. 2583H-S-03).
**Note that this sample had two samples taken from the sample level. See Appendix for exact sample numbers for these sampled contexts.

Figure 4.5 demonstrates approximate locations of the West versus East floor boundaries. Note that once again the deposits associated with the drainage ditch are grouped together as in Period 2, since the location of the ditch in front of both the stew stove and dresser blurs together debris from activities associated with these architectural features. The deposits assigned to the brick floor areas include the east and west half of the northern half of the South Pavilion. The western four quadrats and eastern four quadrats (Table 4.3) include deposits that were sampled from between the bricks. Excavators collected this loose kitchen debris until they felt the solid, inclusion-less clay that the bricks were placed directly on top of. Figure 4.5 documents the brick area looking west toward the hearth and the division between the West and East bricks.

The deposits from the hearth include four samples from the northwest portion of the kitchen within and were collected just outside the hearth, all of which were ash- and charcoal-rich deposits (Figure 4.6 and Table 4.3). The seven samples assigned to this area include deposits interpreted as kitchen debris (top layer) swept into the ditch. Some samples are closer to the stew stove or the dresser, but since they accumulated in the same ways and possibly through movement of water, they are grouped together as a Ditch area (Figure 4.7 and Table 4.3). The single sample assigned to this ditch area is due to its location and different depositional history. This sample was collected directly adjacent to the dresser leg, outside of the drainage ditch. The dresser ditch deposits are closer to the intersection of the stew stove and dresser (Figure 4.7 and Table 4.3). The deposits assigned to this area include four samples of charcoal, ash, and very little sediment. The samples were collected from all four interior compartments of the stew stove (Figure 4.8). There were larger pieces of carbonized wood recovered from these samples, which were wrapped in foil when removed from the stew stove compartment during excavations. During analysis these larger pieces were also analyzed and added to the wood total of the sample but were rehoused separately for future fuel analysis.

Figure 4.5. demonstrates brick floor areas of the kitchen facing west toward the hearth (personal photo).

Figure 4.6. Demonstrates excavated hearth area in northwest corner of the kitchen (personal photo).

Figure 4.7. Shows the northeast corner sampled areas for the Dresser (black arrows) versus the Ditch (yellow arrow) (O'Connor and Neiman 2022: 86).

Figure 4.8. Period 3 stew stove with ash deposits pre sample collection (O'Connor and Neiman 2022:90).

Concentrating only on the kitchen periods for this structure provides an opportunity to look at these macrobotanical assemblages with qualitative (i.e. presence and absence of certain taxa) and quantitative comparisons (i.e. density of plant remains recovered), and focus on changes in taxa through time relative to the kitchen's construction and the cooks' roles. The differences in spatial concentrations from recovered macrobotanical remains deposited near the oven, cook stoves, and dressers may also speak to the different activities in these areas.

Methods of Analysis

Ubiquity

Ubiquity was used to establish the frequency, or absence and presence, of a taxon throughout the soil samples (Popper 1988:60-61). Hollenbach (2009a:140) notes that when using ubiquity, it is important to consider the biases of a dataset that might affect the recovery and preservation of the sample. The samples must be comparable in volume and preservation (Hollenbach 2009a: 140; Hacker 2016: 44).

In this methodology, absolute counts and weights for the taxon are not considered, as the ubiquity is calculated by establishing the number of samples that contain the taxon and dividing this by the total number of samples analyzed for the assigned area (Popper 1988:61). As preservation and volumes of sediment need to be comparable during the method of ubiquity, I discuss the samples that may look irregular or an outlier due to larger sample volumes or the number of samples from an area. In terms of ubiquity, some samples were excluded from the analysis as they contained less than 1 liter of soil and therefore may be too small to contain a representative sample of certain botanical remains. See Appendix Table A-1. for reference of the samples excluded from the analysis due to their smaller size.

Ratios

As the kitchen samples have a variety of volumes and some mixed contexts, it is

important to include additional quantitative methods to explore patterns within the dataset. Ratios are used by paleoethnobotanists to standardize datasets for broad comparisons both within and between sites (Hacker 2016:45). Plant density is one type of ratio used in this analysis, as it takes into account differences in the sediment sizes of the sample caused by differences in recovery and depositional layers (Miller 1988:73). Density is calculated by dividing the total weight of the plant remains by the total volume of the original sample. The second ratio used in this analysis is percentages which help by standardizing a sample so that recovery of a taxon can be compared among contexts (Miller 1988:74; Hacker 2016:45). Here I primarily use the count of a taxon divided by the total plant weight in a sample to explore whether the recovery of a taxon changes through time or differs by area in the kitchen.

Box Plots

Box plots are used to graphically display datasets. The median is shown as the "waist" of the notched box; the ends of the box mark the 25th and 75th percentiles of the data. "Whiskers" extend from the ends of the box to the lowest values within 1.5 times the "hinge spread," or the difference between the 25th and 75th percentiles. Outliers are shown greater than 1.5 times the hinge spread whereas extreme outliers are shown greater than 3.0 times the hinge spread (Hollenbach 2009a).

The quantitative density data were statistically compared using box plots through the program MYSTAT. This program allows for statistical comparisons between and across the three kitchen periods through notching showing the 95% confidence intervals for the data for each period. This notching allows the researcher to see the range of the data, but also statistically how relatable each data set is to one another. I compare the sample data for the three kitchen periods for plant density, relative wood density, pinecone density, relative pinecone density, burnt/starchy food density, eggshell density, crop density, fruit density, and nut density. All three periods have a

range in the number and size of samples available for analysis per period; therefore, it is important to point out that logbase10 was applied to the y-axis of a majority of the comparable data sets. Applying the log to the data sets provides a cleaner spread of data for observing the statistical similarities and differences between plant densities of the three kitchen periods.

Methods Applied to Historic Documents

By taking the carbonized plant remains and extending the data analysis beyond the basic list of taxa counts and weights, we can provide a cultural perspective of how these now-carbonized remains were once plants chosen for a variety of foodways practices across the kitchen. Combining the analysis of the macrobotanical remains within particular kitchen areas with a review of historical documents allows for a clearer understanding of the types of foods people cooked and consumed in this space. These documents can also be compared to the foodways activities practiced by other enslaved peoples on the plantation. These historical documents include information about the appliances used to prepare the meals (Hemings Kitchen Inventory 1796) requested by the Jeffersons; the particular spatial arrangement of architectural kitchen features through comparison to Jefferson early kitchen sketch plans (Figure 3.5); descriptions of the kitchen recorded by enslaved individuals (Stanton 2012; Deetz 2017); and the types of recipes that were requested by the Jefferson household. Examples of these documents include *Thomas Jefferson's Cookbook* (Kimball 1949), Jefferson's *Garden Book* (Betts 1944), Jefferson's *Farm Book (*Betts 1955*)* and other agricultural records for the property, and first-hand accounts of the foods eaten by free and enslaved residents, and visitors to the plantation.

Focusing on the Monticello plantation, primary sources aid our foodways research by establishing connections, trends, and chronological dating relating to the kitchen site. The documentary evidence, combined with the spatial analysis of the plant remains, allows for better distinctions of cooking activities within the kitchen and furthers our understanding of the

specialized roles of enslaved cooks vis a vis the white individuals in charge of the home. These lines of evidence provide insight into how the enslaved cooks used the kitchen to develop and maintain a sense of autonomy and cultural identity through the combination of ingredients, construction and serving of particular dishes.

When addressing questions of food consumption in the kitchen, we cannot definitively establish which foods were consumed by white individuals versus the enslaved house workers and/or community of Mulberry Row. Through further analysis of the documentary records associated with the Monticello plantation (i.e., *Farm Book* (Betts 1955) *Garden Book*, (Betts 1944)), we can roughly establish numbers and types of rations allocated to enslaved individuals, but we cannot say that the enslaved cooks specifically consumed this food in this kitchen space. Through these documents I establish a clearer understanding of the foodways practices and roles associated with the individuals working and living in the first kitchen at Monticello.

Chapter 5: Macrobotanical Results and Data Analysis

The 43 samples analyzed from the South Pavilion Kitchen site (44AB089) yielded a total of 342.09 grams of plant materials, of which 324.15 grams are comprised of carbonized wood fragments. All other plant material includes a broad range of carbonized and uncarbonized remains, depending on the sample's depositional preservation, in categories of domesticated crops, wild plants, nuts, fruits, and miscellaneous taxa.

In this chapter I discuss my research objectives in relation to the summarized results of the macrobotanical assemblage of the South Pavilion kitchen site. One of my primary research questions investigated the types of botanical specimens recovered in the assemblage as well as primary spatial patterns for plant densities in the kitchen through time. The last part of this research question aims to discuss the types of meals that may have reflected the recipes of the period. The assemblages are not only discussed by category and frequency, but also by recipes recorded as cooked in the space from personal accounts and cookbooks.

I discuss the botanical results of the South Pavilion kitchen in a variety of ways. I begin by summarizing the carbonized plant taxa by the defined categorical groups of taxa noted above. This discussion provides an overview of the plant data as related to culinary use, procurement and provisional storage, medicinal usage, and nutrition (Groover and Baumann 1996; Hamby 2004). This discussion is weighted toward taxa with larger frequencies and unusual plants not commonly recovered in the archaeological record. Second, I discuss the ubiquity or frequency of the plant remains by associated periods and spatial areas of the kitchen by categories. This analysis allows for a deeper understanding of foodways activities associated with spatial areas of the kitchen through these byproducts and the architectural elements required to prepare the food.

I also attempt to explore the social relationships established between individuals through the physical actions and steps required to cook food in this space. I approach this question

through considering the architectural features in the kitchen in relation to the densities and frequencies of taxa recovered in the flotation samples. I also explore how foods were connected to the interactions of the individuals working in the kitchen in relation to the plantation household.

The Kitchen Plant Assemblage

Domesticated Crops

The crop taxa represented in Table 5.1 include pea, bean/persimmon, unidentifiable grain, and specimens tentatively identified as corn cupule or kernel, bean, smaller legumes (similar to clover), and unidentifiable tubers (see Appendix Table A-2 for taxa recovered by sample). These domesticated crops represent staples used in a variety of traditional 18th to 19th-century cuisines for all social classes. Not only were these crops good for provisional storage for future use, but the crops were also typical ingredients in dishes consumed and originally prepared in this kitchen. Corn, beans, peas, potatoes, and a variety of starchy tubers are referenced in recipes from Jefferson's kitchens, including potato soup, bean soup, and vegetable porridge (Kimball 1949). Peas are especially interesting as this is not something we usually see in the paleoethnobotanical record as the plant has little by-product and is usually consumed in whole. But as Jefferson had over 30 varieties grown from March through July in the kitchen garden (Hatch 2012:169), it is promising that the historical documents parallel the botanical record in this kitchen space. Historically, cowpeas and corn were commonly grown together as the corn crop ripened while the pea vines matured on the corn and were utilized in a number of ways (Hilliard 1972:177). Peas were a staple on the Monticello farm and often marked the first sign of spring through Jefferson's legendary pea contests (Hatch 2012:9).

Beans were another taxon favored by Jefferson growing a variety of species alongside peas in the kitchen garden (Hatch 2012:161) as well as being a plant taxon identified in this

Table 5.1. Domesticated Crops Recovered from the 44AB089 Flotation Samples

Common Name	Taxonomic Name	Seasonality	Period 1		Period 2		Period 3		Totals	
			Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)
Bean cf.	*Phaseolus vulgaris* cf.	Summer-Fall	6	0.01			1	0.01	7	0.02
Bean family	Fabaceae	Summer-Fall					1	0.01	1	0.01
Bean/Persimmon	*Phaseolus/ Diospyros*	Summer-Fall					8	0.00	8	0.00
Corn cupule cf.	*Zea mays*	Summer-Fall					3	0.01	3	0.01
Corn embryo cf.	*Zea mays*	Summer-Fall	1	0.00					1	0.00
Corn kernel cf.	*Zea mays*	Summer-Fall			1	0.01	17	0.04	18	0.05
Grain, unidentifiable	miscellaneous				1	0.00			1	0.00
Legume cf.*	Fabaceae cf.	Summer-Fall					1	0.01	1	0.01
Legume, weedy cf.**	Fabaceae cf.	Summer-Fall					1	0.00	1	0.00
Pea	*Pisum sativum*						1	0.00	1	0.00
Tuber cf.	miscellaneous		6	0.01	3	0.00	44	0.14	53	0.15

***This is most likely a type of clover crop.**

****The Legume, weedy cf. is smaller in size compared to the general Legume cf.**

Total Domesticated Crops	**95**	**0.25**

botanical assemblage. Beans were common foods consumed in a variety of cuisines and ethnic dishes and were dried for storage and preserved for later consumption (Covey and Eisnach 2009:78). Beans were cooked in a variety of ways at Monticello including soups, stews, baked, or as succotash, and cooked with corn cut from the cob (Sumner 2004:77-78). James Hemings referenced recipes for preserving French green beans for the winter months: "Let your snaps be green but their moisture dried out a little" (Kimball 1949:36).

The presence of tentatively identified remains, as seen through the corn in the forms of cupules and kernels, demonstrates the various by-products and processing stages of the botanicals recovered in this kitchen. As the tentative corn remains were few in number, it is most likely that the corn was processed prior to entering the kitchen and was mostly corn meal used for breads. Corn kernels are the edible portion of the plant and a staple ingredient in numerous dishes including corn breads, hoe or ash cakes (Hilliard 1972:49), corn on the cob, and corn cut off the cob and mixed in stews with beans (Craughwell 2012). Other parts of the plant not recovered in the archaeological record include corn husks used as medicinal treatments for aches and the flu (Covey 2007:93). Remains tentatively identified as tubers were also frequently present throughout the botanical assemblage. They are characterized by dense but spongy exterior surfaces, with occasional flaking of the exterior coat with a dense but bubbly interior. Tubers were grown frequently in the kitchen garden as Jefferson suggested that tubers be grown with maize (Betts 1944: 194).

Evidence of the tentative legume varieties reflects an additional avenue for understanding how unusual taxa may have arrived in the kitchen's deposits. Some plant remains recovered in this space may have originally been carried in through hitchhiking seeds. One is likely clover, which was used as a cover crop and fodder, but was also used in times of famine for bread and tea (Fernald, Kinsey, Rollins 1958:246). Clover is also used medicinally as a salve for burns,

cuts, and dry skin (Cavender 2003:98). The other is likely a weedy legume. Both were likely carried into the kitchen through foot traffic, adhering to people's clothing, or were accidentally included with other food crops processed in this space.

Nuts

The botanical assemblage shown in Table 5.2 contains a total of 53 nut specimens for a total weight of 0.15 g. The samples include acorn, acorn cf., hazelnut, hickory, hickory cf., unidentifiable nutshell, nutshell cf., and specimens identifiable only to the Walnut family. Most of the nut taxa were recovered from Period 3 as this is the primary cooking occupation for the kitchen (see Appendix Table A-2 for taxa recovered by sample). These edible wild resources were usually collected in the late summer to early fall, most likely by enslaved individuals, especially children (Stanton 2000:28-29; Sorensen 2011:149). To harvest these wild nut varieties, enslaved people, (Hacker 2016:53), ventured away from the mountaintop to the surrounding forest margins, particularly for hazelnuts, and further into the woods. Even though few nut taxa were identified from these samples, the nuts commonly found in the Piedmont region of Virginia include hazelnut, hickory, acorn, and black walnut (Hacker 2016:51). Acorns are not usually considered edible, particularly among Euro-Americans, and may have been more of an accidental inclusion in this depositional layer compared to the higher quality nuts. The unidentifiable carbonized nutshell fragment was partially identified as nutshell or peach pit because of its dense characteristics and slightly curved shape. As there was no animal poop recovered in this space it is unlikely that animals were bringing in these biproducts.

Nuts are a valuable wild resource for people who foraged for additional food provisions, such as enslaved people, as they are high in calories, fats, and protein (Scarry 2003:60). For plantation households, nuts were more often used to provide flavor and interest than calories (Hilliard 1972:89). Jefferson aimed to be self-sufficient by growing many foods on site (Hatch 2012:9), but there are still some foods that he ordered and brought in for specialty dishes. Walnuts and hickory were abundant

Table 5.2. Nuts Recovered from the 44AB089 Flotation Samples

Common Name	Taxonomic Name	Seasonality	Period 1		Period 2		Period 3		Totals	
			Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)
Acorn	*Quercus* sp.	Fall	2	0.00					2	0.00
Acorn cf.	*Quercus* sp. cf.	Fall			1	0.00			1	0.00
Hazelnut	*Corylus* sp.	Fall	1	0.00			2	0.02	3	0.02
Hickory	*Carya* sp.	Fall			3	0.00	3	0.01	6	0.01
Hickory cf.	*Carya* sp. cf.	Fall	1	0.00			2	0.01	3	0.01
Nutshell	miscellaneous	Summer-Fall			1	0.00	13	0.04	14	0.04
Nutshell cf.	miscellaneous	Summer-Fall			4	0.00	15	0.07	19	0.07
Walnut family	Juglandaceae	Fall					5	0.00	5	0.00
							Total Nuts		**53**	**0.15**

wild nut resource actively kept up on the landscape. Hazelnuts were more likely grown along wood lines of the property and harvested as early as late summer (Betts 1944).

Either wild or imported, nuts are good provisional foods, as seen in contexts associated with enslaved people as a form of food security in the sense that nuts can be stored for long periods of time for later processing and consumption. As acorns were seen more as a famine food, black walnuts are more commonly found in contexts associated with enslaved African American (Bowes and Trigg 2012; Henderson 2015) due to their abundant wild resource availability and their high nutritional value (Hilliard 1972:89). Hickories and black walnut trees were also used medicinally by individuals through bark for dental health and leaves for teas and ointments (Mrozowski et al. 2008).

Fruits

The fruits represented (Table 5.3) in the samples include plants that were found commonly on the property's natural landscape or cultivated in the vegetable garden and orchards and are primarily varieties with seasonality of the summer to fall. The taxa include blackberry/raspberry, uncarbonized blueberry, grape, grape cf., plum/ cherry cf., maypop cf., peach cf., and watermelon. Eight specimens were also classified as persimmons/beans; due to the small size of these fragments and the similarity of these two seeds, they are difficult to identify specifically as either bean or persimmon.

Persimmons were a common tree growing in the region and the fruits were often consumed by enslaved individuals on the surrounding property. Persimmons are referenced as being easily harvested by shaking or picking them off the tree and were used in a variety of dishes and drinks (Willison 1964; Covey and Eisnach 2009). This fruit was used in a variety of ways and even kept on hand until bursting ripe (Sokolov 1991:163). Persimmons are described

Table 5.3. Fruits Recovered from the 44AB089 Flotation Samples

Common Name	Taxonomic Name	Seasonality	Period 1		Period 2		Period 3		Totals	
			Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)
Blackberry/Raspberry	*Rubus* sp.	Summer					1	0.00	1	0.00
Blueberry, uncarbonized	*Vaccinium* sp.	Summer					1	0.00	1	0.00
Fruit cf.	miscellaneous						1	0.04	1	0.04
Fruit/Grain cf.	miscellaneous						5	0.01	5	0.01
Grape	*Vitis* sp.	Summer			1	0.00			1	0.00
Grape cf.	*Vitis* sp. cf.	Summer			1	0.00	2	0.00	3	0.00
Maypop cf.	*Passiflora incarnata* cf.	Summer					1	0.00	1	0.00
Peach cf.	*Prunus persica* cf.	Summer					1	0.00	1	0.00
Persimmon cf.	*Diospyros virginiana* cf.	Fall			1	0.00	4	0.02	5	0.02
Persimmon seed coat	*Diospyros virginiana*	Fall					1	0.00	1	0.00
Plum/cherry cf.	*Prunus* sp. cf.	Summer					1	0.00	1	0.00
Watermelon	*Citrullus vulgaris*	Summer					1	0.01	1	0.01
Watermelon seed meat	*Citrullus vulgaris*	Summer					2	0.00	2	0.00
Watermelon seed coat cf.	*Citrullus vulgaris* cf.	Summer					5	0.00	5	0.00
							Total Fruits		**29**	**0.08**

as being used for beer or wine in multiple slave narratives and recipes used in historical cookbooks of the period (Covey and Eisnach 2009:177; Harbury 2004:400; Twitty 2017:284) and possibly brewed at Monticello, with Ursula in charge of all brewing operations.

Peaches and cherries were two additional resources found wild and cultivated in the orchards on the home farm. Peaches were grown in abundance in the southern facing orchards at Monticello and were likely to be Jefferson's favorite fruit. Jefferson made numerous references to peaches in his *Farm Book* and had over six varieties grown in Monticello orchards (Colonial Williamsburg Foundation 2000:34). Peaches were also used by the enslaved population and referenced as having medicinal properties and were used in teas, ointments, and cold remedies (Hamby 2004; Covey and Eisnach 2009:176).

Cherries and plums were also popular fruits used for dishes prepared at Monticello. Recipes used in the South Pavilion kitchen for the main house include cherries for pastries, pies, and jams (Kimball 1949; Craughwell: 2012). Jefferson is referenced as having his enslaved head gardener plant cherry trees alongside the vegetable garden for shade and fruits (Colonial Williamsburg Foundation 2000). These wild and cultivated fruits were used medicinally as well, but mostly in the form of ointments and teas from the bark and leaves (Covey 2007). The grapes and raspberry/blackberries recovered in the samples were also wild and cultivated taxa in the South. Specifically, at Monticello grapes and blackberries grew in wild thickets within the wood lines as well as in the vineyards. Grapes, like most fruit, were picked by enslaved individuals and often eaten raw or sold in town (Covey and Eisnach 2009:174).

Watermelon and uncarbonized blueberry seed are two underrepresented fruit taxa. Fruits, especially berries, are underrepresented in the botanical assemblages, so the blueberry was mentioned in this analysis even though it was uncarbonized. Multiple portions of the watermelon seed were recovered including the seed coats, interior seed meat, and whole seeds. Recovered in the context associated with the hearth, these watermelon seeds may have fallen into the fire when they were being burned or roasted.

Watermelon seeds were commonly consumed as a light snack or at group events as the fruit was too large to consume by one individual. Jefferson references growing watermelons, pumpkins, and cantaloupes in the hills of the garden in 1774 (Colonial Williamsburg Foundation 2000:43; Hatch 2012:83). A neighboring farmer to Monticello at the Taylor Midland Plantation references gatherings of neighbors and friends in Orange, Virginia, in August of 1787 to eat watermelon and share follies of everyday life (Hatch 2012:55). Recipes for roasted watermelon seeds include instructions to toast near or in the fire till a golden-brown seed with lightly charred edges. The uncarbonized blueberry seed is unusual for this mostly carbonized assemblage, but Jefferson's farm books reference blueberries being harvested from mid-June through July in Jefferson's *Farm Book* (Betts 1955).

Miscellaneous

The miscellaneous plant category (Table 5.4) includes bark, buds from unidentifiable plants, burnt/starchy food remains, coffee, pinecone, pitch, a variety of unidentifiable seeds and plant remains from weeds and grasses, and a variety of unidentified wood specimens. Taxa of tentative identification or not mentioned above in the plant assemblage can be viewed in detail in the Appendix Table A-2.

Wood represented 91% of the carbonized assemblage by weight. Further identification of the wood specimens was beyond the scope of this thesis, but further research could focus on the analysis of the wood genera present, as these would indicate wood selected for fire fuels. Special note was taken of fragments of wood that had material adhering to it, as seen in specimens of wood with metal and mortar.

Out of the 43 samples from the South Pavilion, pinecone scales and pitch were the most common carbonized plant remains recovered after wood. The category "pitch" refers to amorphous vitrified materials, where the plant's starch and/or sugars are exposed to excessive

Table 5.4. Miscellaneous Recovered from the 44AB089 Flotation Samples

Common Name	Taxonomic Name	Seasonality	Period 1		Period 2		Period 3		Totals	
			Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)
Plants										
Bark	Unidentified	Fuel	32	0.31	67	0.32	545	9.03	644	9.66
Bark cf.	Unidentified	Fuel	8	0.00	7	0.00	80	0.38	95	0.38
Buffalo bur, uncarbonized	*Solanum rostratum*	Miscellaneous	0	0.00	1	0.00	0	0.00	1	0.00
Burnt food/Starchy	Unidentified	Foodways Activity	83	0.36	94	0.32	452	1.77	629	2.45
Coffee	*Coffea* sp.		0	0.00	0	0.00	2	0.01	2	0.01
Coffee seed coat	*Coffea* sp.		0	0.00	0	0.00	2	0.00	2	0.00
Coffee seed coat cf.	*Coffea* sp. cf.		0	0.00	0	0.00	7	0.00	7	0.00
Gall	Unidentified	Miscellaneous	1	0.00	2	0.00	3	0.00	6	0.00
Goosegrass	*Eleusine indica*		0	0.00	0	0.00	1	0.00	1	0.00
Grass family, uncarbonized	Poaceae		0	0.00	0	0.00	2	0.00	2	0.00
Holly, uncarbonized	*Ilex* sp.		0	0.00	0	0.00	1	0.00	1	0.00
Mallow family, seeds	Malvaceae	Miscellaneous	0	0.00	0	0.00	2	0.00	2	0.00
Morning glory, uncarbonized	*Ipomoea* sp.	Summer-Fall	0	0.00	0	0.00	1	0.00	1	0.00
Pinecone	*Pinus* sp.	Fuel	43	0.20	232	0.44	539	2.20	814	2.84
Pinecone cf.	*Pinus* sp. cf.	Fuel	0	0.00	7	0.01	79	0.24	86	0.25
Pitch	amorphous vitrified material	N/A	3	0.00	21	0.03	113	0.34	137	0.37
Pitch cf.	amorphous vitrified material		0	0.00	0	0.00	11	0.05	11	0.05
Purslane	*Portulaca* sp.	Summer-Fall	1	0.00	0	0.00	1	0.00	2	0.00
Purslane, uncarbonized	*Portulaca* sp.	Summer-Fall	0	0.00	0	0.00	3	0.00	3	0.00

Table 5.4 (continued) Miscellaneous Recovered from the 44AB089 Flotation Samples

Common Name	Taxonomic Name	Seasonality	Period 1		Period 2		Period 3		Totals	
			Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)	Ct	Wt (g)
Plants										
Spore clump	Unidentifiable	Unidentifiable	2	0.00	0	0.00	23	0.02	25	0.02
Stem	Unidentified	Miscellaneous	0	0.00	3	0.00	1	0.00	4	0.00
Stem, monocot	Poaceae	Unidentifiable	0	0.00	0	0.00	12	0.01	12	0.01
Uncarbonized Wood	Unidentified	Fuel	0	0.00	0	0.00	2	0.01	2	0.01
Unidentifiable	Unidentifiable	Unidentifiable	17	0.02	26	0.06	194	0.59	237	0.67
Unidentifiable seed	Unidentifiable	Unidentifiable	8	0.00	16	0.01	70	0.15	94	0.16
Non-Plants										
Bone/Fish scale	Unidentified	Foodways Activity	54	0.51	166	0.62	637	4.53	857	5.66
Cinder	N/A	N/A	0	0.00	0	0.00	45	0.30	45	0.30
Coal/slag	N/A	N/A	0	0.00	0	0.00	7	0.00	7	0.00
Daub	N/A		1	0.00	3	0.00	0	0.00	4	0.00
Eggshell	Unidentified	Foodways Activity	7	0.01	138	0.32	1366	3.22	1511	3.55
Metal flakes	N/A	Utensil*	0	0.00	0	0.00	14	0.12	14	0.12
Straight Pin (Copper)	N/A		2	0.02	3	0.03	4	0.03	9	0.08
Textile Fiber	N/A	Miscellaneous	0	0.00	1	0.00	0	0.00	1	0.00
Wood with Metal	Unidentifiable	Utensil*	0	0.00	0	0.00	14	0.15	14	0.15
Wood with Mortar	Unidentifiable	Construction/Fuel	0	0.00	0	0.00	7	0.09	7	0.09

***Metal fragments from remnants of fork with wood handle recovered in ash of Hearth.**

Total Miscellaneous	**5307**	**26.84**

amounts of heat, causing the specimen to become glassy and unidentifiable (Hacker 2016:59). The use of pinecone is unclear, but its presence in 86% of the botanical assemblage suggests that it was used as tinder for cooking fires. General fire conventions for a stove fire include a good base of kindling to nurture and build a mature flame. Pinecones, being plentiful across the native landscape and woodlands of the Monticello mountain, were dried and a readily available resource that could be quickly gathered with smaller kindling to add to the always necessary fires required in the kitchen (Deetz 2017). Other parts of the pine tree could be used as well: the shoots could be used to make candy and the pine needles made into teas for medicinal treatments (Covey 2007). Another known but unlikely use for the pinecones in this context of a plantation kitchen is their use as an emergency food source, where premature male cones were boiled and eaten (Hamby 2004). Records indicate Jefferson giving landscaping instructions to his trusted slave Wormley Hughes to, "…plant the Pitch pine in the woods along the new road leading from the house to the river, on both sides of the road" (Betts 1944: 355).

An additional parallel between the botanical record and the historical documents is through the presence of burnt/starchy food remains, found in the majority of the samples recovered across the nearly 40 years of the kitchen's usage. These carbonized organic remains have a spongy but dense texture, denser than seen in carbonized tubers and lacking the smoother outer cambium layer seen in tubers, but airier than the texture of pitch. A kitchen is guaranteed to have burnt debris scattered throughout the space because of cooking, but the consistency of these burnt/starchy food remains are constantly alike. Cooks often used remnants of leftover foods to make quick meals for themselves between tasks. An example of easy quick foods in historical accounts of the Monticello kitchen were the sweet potato hoe cakes made by James Hemings and given to Jefferson's granddaughters (Kimball 1949; Craughwell 2012). Hoe, ash, or Johnny cakes were a staple snack for enslaved and other laborers of the period, consisting of a starchy

base of flour, cornmeal or potatoes mixed together, cooked in the ashes of a spent fire, and removed with a long-handled tool similar to farming hoes These burnt/starchy specimens could be examples of burnt starchy food remains like hoe cakes or other breads.

The recovery of coffee from Period 3 deposits is also of particular interest, as well as their locational context. Period 3 is associated with James Hemings' time as the head cook of this space. Due to his specialized training in France, James frequently cooked with luxury taxa grown on the property as well as ordered from surrounding merchants. Hemings' kitchen was appointed with brass and copper equipment, specifically needed for his training in French styles of cooking, including a copper mortar and pestle used to grind spices, coffee, and other plants (Hemings 1796; Craughwell 2012). The base of a brass mortar was recovered during excavation in the northeast corner of the kitchen in the same context as the coffee beans. Coffee was popular among all individuals of the colonial period (Stanton 2000:20; Craughwell 2012:52), especially in the European culinary scene. The coffee recovered in this space may have been reserved for the Jefferson household, but enslaved people at Monticello are referenced drinking coffee during late night fires and playing the fiddle (Stanton 2000). This coffee would have been bought through money acquired through personal labors as the Jefferson household accounts reference the enslaved and laborers on the property selling personal provisions acquired through their own kitchen gardens, fishing labors, and chicken eggs, to Martha Jefferson for use on the main table (Stanton 2000:29, 90).

Another foodways-related category recovered in the assemblage is eggshell fragments. Although not plant remains, there were such high quantities of eggshell recovered from the samples that they are worth noting. Eggs are staple ingredients for the sauces and creams for which French food is known. An example of a recipe attributed to James Hemings was a type of custard named "snow eggs" requiring a minimum of 10 eggs poached (Craughwell 2012:198)

The small pot sauces famous in French cuisine would have been cooked on the stew stoves in the kitchen to make these favored family recipes.

Kitchen Comparisons by Period

Ubiquity Across Kitchen Periods

Ubiquity allows for broad comparisons through time of the frequencies of the types of plants and foodways remains found in the assemblage. Table 5.5 demonstrates the total ubiquity by period for the foodways-related material recovered from 35 of the 43 samples in the South Pavilion kitchen by the following categories: burnt/starchy remains, domesticated crops, eggshell, fruits, nuts, and pinecone. A total of 8 samples were dropped from the ubiquity analysis as they contained less than 1 liter of sediment. Some of the categories were specifically chosen due to the higher frequency throughout the kitchen periods, and their cultural significance in cooking techniques for cuisine prepared in the kitchen.

The ubiquity Table 5.5 demonstrates that burnt/starchy food remains are represented in a total of 26 of the 35 samples or 74% frequency across all three periods of the kitchen. There is an increase in the amount of burnt/starchy food remains recovered through time as Period 1, being a period primarily associated with construction related activities, contains the least at 43% frequency, while Periods 2 and 3 contain higher frequencies related to foodways activities at 78% and 84%.

Domesticated crops were recovered from 13 of 35 samples or 37%. Even though this category of food remains is one of the lower frequencies recovered from the kitchen samples, there is still an increase in the number of domesticated crops recovered from Period 1 through Period 3. Higher frequencies of domesticated crops in Period 3 suggests that more diverse dishes were being cooked during that latest period of use of the kitchen. Records of plants added to the Monticello vegetable garden and the larger Monticello mountain top during this period include sweet potato (planted 1786),

Table 5.5. Ubiquity of recovered Taxa by Periods of the South Pavilion Kitchen

Taxon	Period 1	Period 2	Period 3	Totals
	n= Samples per Period			
	n=7 [A]	***n=9 [B]***	***n=19 [C]***	***n=35 [D]***
Burnt/Starchy Food	43%	78%	84%	74%
Domesticated Crops	29%	33%	42%	37%
Eggshell	57%	100%	95%	89%
Fruits	0%	11%	32%	20%
Nuts	14%	44%	53%	43%
Pinecone	71%	100%	95%	91%

A: Period 1 contains 8 samples in total, but since sample 2584CC contained less than 1 Liter it was dropped from the ubiquity analysis; therefore leaving 7 samples for Period 1.

B: Period 2 contains 11 samples in total, but since sample 2584Q and 2584R contained less than 1 Liter of soil, the 2 samples were dropped from the Period 2 ubiquity analysis This leaves 9 samples for analysis of Period 2.

C: Period 3 contains 24 samples in total but since samples 2583J, 2584H, 2584P, 2585M, and 2586M contained less than 1 liter of soil, these samples were dropped from the ubiquity analysis for Period 3. This leaves 19 samples for analysis of Period 3.

D: A total of 43 samples were processed, but 8 of these samples contained less than 1 liter of sediment and were dropped from ubiquity analysis. This leaves a total of 35 samples for analysis.

over 40 varieties of beans (planted 1774-1820), and over 30 varieties of peas (planted 1773-1820) (Colonial Williamsburg Foundation 2000: 26-43).

Eggshell was present in 31 of 35 samples or 89% and speaks to the type of foodways activities conducted throughout this space. The fragmentary nature and size of eggshell causes a problem for cleanup and disposal of the egg post-cooking, which may explain why eggshell is present in 89% of the samples. Small eggshell fragments can easily be swept into the cracks of the brick floor or carried in a flooding event to other areas of the space, but the higher concentrations of eggshell lean toward evidence of steps conducted when assembling a meal. Eggs were a primary ingredient used in sauces, especially French cuisine, which was the preferred style of cooking for the food prepared for the main table as discussed earlier in this chapter with James Heming's snow egg recipes and custards.

Fruit was recovered from 7 of 35 samples, or 20%. Fruit has the lowest frequency of the plant categories recovered from the kitchen. Period 1 contained no fruit, but there is still an increase in the taxon's presence in Period 2 and 3 samples. Records of plants added to the Monticello vegetable garden and the larger Monticello mountain top during this 38-year period of the South Pavilion kitchen's usage include: cherries (planted 1769-1811), grapes (planted 1777, 1796, 1802, 1807-1822), peaches (planted 1771, 1786, 1796), and six varieties of watermelon (planted 1774-1809, 1812, 1820) (Colonial Williamsburg Foundation 2000:26-43). Note that fruits are typically underrepresented in paleoethnobotanical samples.

Nuts were recovered from 15 of 35 samples, or 43%. Nuts, like the four other plant related categories, increase through periods of the kitchen's use. Records of plants added to the Monticello kitchen garden and the larger Monticello mountain top during this kitchen period include: black walnut (planted 1771), and two varieties of hazelnut trees (*Corylus americana* planted 1771 and *Corylus avellana* planted 1774) (Colonial Williamsburg Foundation 2000:26-43).

Pinecone was recovered from 91% of the samples, making a total of 32 of 35 samples

positive for pinecone. Like the other categories, pinecone increases in ubiquity over time. This finding supports the claim that pinecone was not an accidental inclusion in these samples, but rather an active component in the foodways activities of the kitchen. Due to the lack of known edible recipes, pinecone was likely used in this space for fuel related purposes.

Summary of Findings

A factor affecting the presence or absence of these plant remains is the type of features or deposits that these samples were recovered from in relation to the locations of architectural features associated with cooking activities in the space. The general trend seen in the data set shows an increase in plant density through the three periods of the kitchen over an estimated 40 years of use.

Plant Density Data of Kitchen Periods 1-3

The following boxplot (Figure 5.1) shows the total plant density for each period of the kitchen as calculated by the total plant weight (grams) of each sample divided by the total volume (liters) of the sample. This graph ultimately shows how much carbonized plant material was recovered per volume sampled, and therefore represents the intensity of plant deposition during each period.

The box plots in Figure 5.1 demonstrate that there is a range in the data not only between the kitchen periods, but also in the size and number of samples in each kitchen period. The box plots show the increased progression of plant density from Period 1 through 3. There tends to be lower plant densities for the samples from Period 1, with a middle range in plant densities for Period 2, and the highest plant densities for the samples of Period 3. Because the notches for each boxplot do not overlap, the differences in plant density between each period are statistically significant.

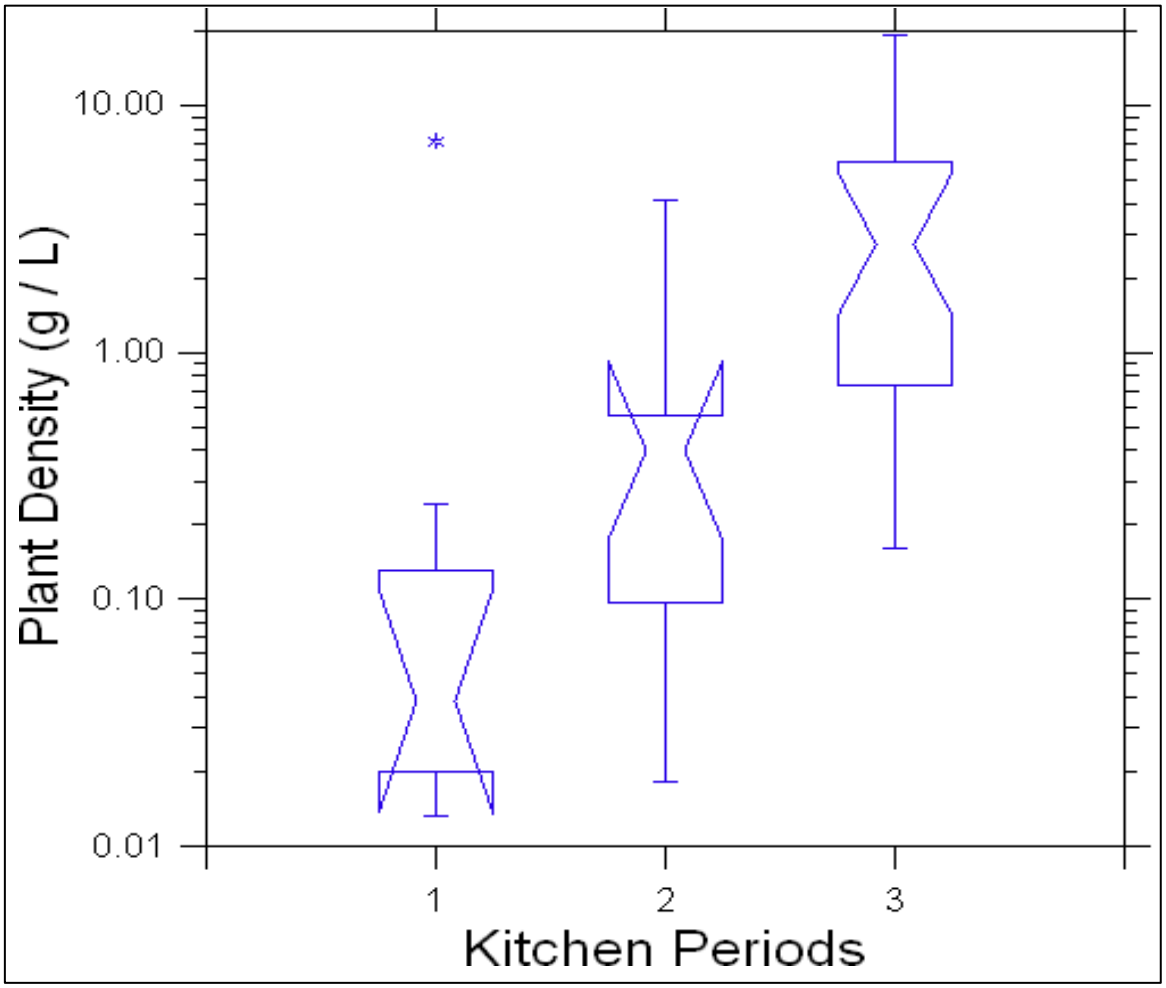

Figure 5.1. Plant Density by Kitchen Periods from the 44AB089 macrobotanical assemblage. Note the y-axis transformed by log10.

The bulk of the data follows this trend except for a single outlier sample from Period 1 that lies closer in variability to the upper quartile range of data from Period 3. This outlier sample (2588Q-S-08) is associated with a context collected from under the Dresser assigned as leveling fill. There are a total of two samples associated with the Dresser with the second (2584V-S-19) also being assigned as leveling fill, but the second deposit's location lies directly north of this outlier sample. It is unclear when the Dresser was constructed over the leveled brick floor during Period 1 in relation to the accumulation of this deposit, but both samples yielded a variety of plant remains beyond wood including domesticated crops, pinecone, and burnt/starchy food. Because of this diversity of plant remains, it is likely that kitchen debris from activities conducted near and associated with this context were swept under the Dresser.

This outlier sample's overall volume was 12 liters of soil, whereas the other seven samples had much lower volumes ranging from 0.2-2.0 liters of soil. This sample has a higher plant density of 7.14 g/liter of carbonized plants, but most of this sample is comprised of wood at 84.85 g out of the total plant weight of 85.70 g. The second Dresser deposit yielded a plant density of 0.25 g/liter of carbonized plants with the total plant weight of 0.49 g with 0.45 g of that being carbonized wood. The remainder of the samples for Period 1 ranged from 0.01-0.25 g/liter of carbonized plant remains. The fact that both Dresser deposits contain higher wood weights and similar food-related plants remains suggests that this area of the kitchen has the highest potential for understanding activities related to cooking during Period 1.

In sum, the boxplots demonstrate an increase in plant deposition through time, which coincides with changes in kitchen use. The data supports the progression of kitchen use, with construction-based activities and fewer food-related activities present in Period 1, but glimpses of foodways activities are captured in deposits near the Dresser. This period is followed by evidence of architectural changes associated with foodways activities in Period 2, causing the

increased plant density. Finally, the Period 3 samples yielded the highest plant density with most of the food- related activities conducted at this time, as the kitchen's primary architectural changes came to an end and its use increased.

Relative Wood Density Data of Kitchen Periods 1-3

The boxplot in Figure 5.2 establishes the total relative wood density of each period of the kitchen as calculated by the total wood weight (grams) of each sample divided by the total plant weight (grams). This relative wood density shows how much of each sample's carbonized plant materials is represented by wood compared to the remaining plant materials recovered.

The box plots of Figure 5.2 demonstrate that the relative wood densities for the kitchen periods are closer in statistical significance than the overall plant densities. The relative wood density for Period 1 is higher than the samples from Periods 2 and 3. The notches for Period 1 may slightly overlap with the notches for Period 2 but do not overlap with Period 3, demonstrating that Periods 1 and 3 are statistically significantly different from each other. The relative wood density data for all three periods show that most of the samples range in having 80-100% of the plant weight comprised of wood. The decrease in the relative density of wood demonstrates that more of the plant remains recovered from Period 2 and 3 samples are related to foods than fuels.

All three periods have outliers or extreme outliers in the data variability. Period 1's outlier sample of 86% wood to plant weight, from the East brick floor context 2588V-S-14, falls within the range of Period 2's and 3's data but below the 25th percentile for Period 1. This sample has similarities in wood density that are more relatable to the kitchen activities of Period 2 and 3. This sample's total plant weight of 0.07 g included 0.06 g of wood. The remainder of the plant weight for this sample contains pinecone, which was also likely used as a fuel source.

Period 2's outlier sample (2584Q-S-14) is associated with a pre-stew stove two Ditch

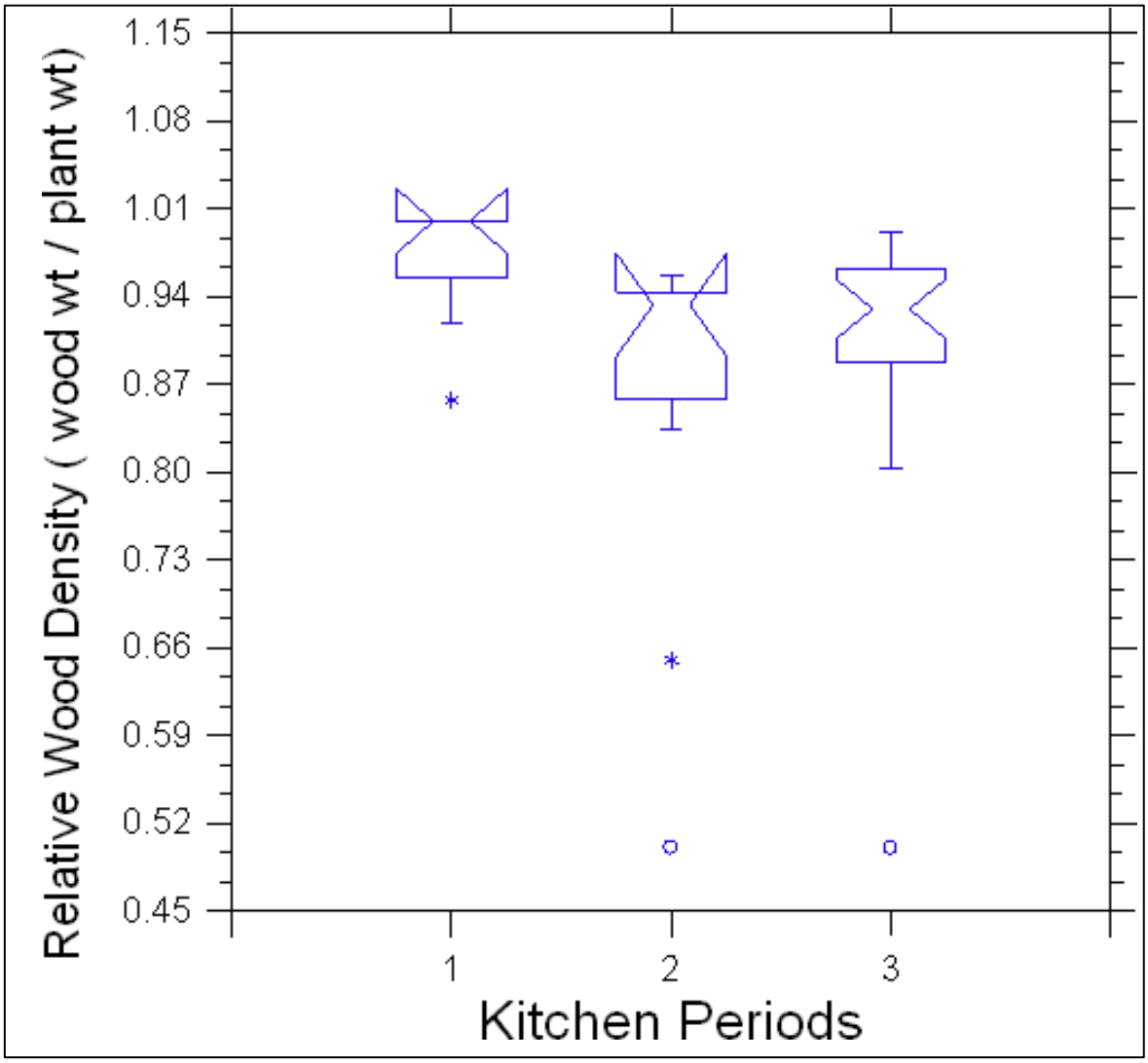

Figure 5.2. Relative wood density of the Kitchen Periods from the 44AB089 macrobotanical assemblage.

context that yields 65% wood to the overall plant weight density. This sample is from an area of the kitchen where fuels were used for cooking, but also in a ditch feature designed to reduce flooding and where kitchen debris could easily accumulate. The deposit contains a total of 0.20 g of carbonized plant material comprised of 0.13 g of wood and the remaining 0.07 g assigned to pinecone, burnt/starchy food remains, and fruit. This outlier is similar to the Period 1 outlier sample, in that they both contain a higher concentration of pinecone, another possible fuel source.

Period 2 and 3 each have extreme outliers of 50% for their relative wood density data sets: Period 2's sample derives from the unidentified pit context (2582V-S-12) and Period 3's from the Hearth context (2586M-S-01). Period 2's extreme outlier sample has the highest volume of sediment at 11 liters compared to the other 10 samples, but this is not the reason for the data being an extreme outlier. The sample's total wood weight yields 0.10 g, making up half the total plant weight for the sample at 0.20 g. This extreme outlier is just one of six samples located in the Unidentified pit, which likely accumulated kitchen debris.

The Unidentified pit's proximity to the flood-prone north wall of the kitchen may have been the cause for the location of this debris accumulation, but it is the only sample of the six where fuel sources make up the entirety of the plant density. This sample, according to the site's Harris Matrix, is the last deposit associated with assigned Feature 10, but not the last deposit of the Unidentified pit (SG 13 sample from 2582L). The only other plant recovered from this outlier deposit was pinecone, whereas the other five contain food-related plants rather than just fuels.

Period 3's extreme outlier sample is one of four samples associated with the Hearth, but it is the only sample located just outside the Hearth and adjacent to the Bread oven. This extreme outlier has the lowest volume of sediment at 0.25 liters with 0.02 g wood weight to the total plant

weight of 0.04 g. The remainder of the sample's plant weight is comprised of burnt/starchy food remains and is also the only Hearth-associated deposited without pinecone. The lack of pinecone may be related to its location outside the Hearth and adjacent to the Bread oven or simply to its small size so it lacks other taxa collected in the larger samples. The three deposits located inside the Hearth also yielded the burnt/starchy food remains, as well as other food-related plants, but also held evidence of pinecone.

Pinecone Density Data of Kitchen Periods 1-3

The following boxplot (Figure 5.3) shows the total pinecone density of each period of the kitchen as calculated by the total pinecone count in each sample divided by the total carbonized plant weight (grams) of the sample. This demonstrates how much of each period's total carbonized plant sample is made up of pinecone compared to the other plants recovered in the same sample.

The box plots of Figure 5.3 demonstrate the pinecone density data of the three kitchen periods and mimic the data set seen in the relative wood density graph (Figure 5.2). The data suggests that pinecone may have been used as a fuel source. Similar to the relative wood density, the pinecone density data shows higher fuel-related activities for Period 1 and less frequent use of pinecone relative to other plants in Period 3. By Period 3, the samples contained statistically significantly fewer pinecone scales than seen in Period 1, as the notches for Period 1 and Period 3 do not overlap. In sum, the presence of pinecone mimics the wood density of the kitchen periods, demonstrating that if the data set consistently yields a higher density pinecone there are also higher wood densities in those samples.

Figure 5.3. Pinecone density of the Kitchen Periods from the 44AB089 macrobotanical assemblage. Note the y-axis transformed by l

Burnt/Starchy Food Density Data of Kitchen Periods 1-3

The following boxplot (Figure 5.4) shows the total burnt/starchy food density of each period of the kitchen as calculated by the total burnt/starchy food count of each sample divided by the total plant weight (grams) of the sample. The data demonstrates how much of the period's total carbonized plant sample is made up of burnt/starchy food compared to the other plants recovered in the same sample.

The box plots of Figure 5.4 demonstrate that there is a range in the data not only between the kitchen periods, but also within each kitchen period. The data show a gradual decrease in burnt/starchy food remains from Period 1 through 3, but these values are statistically similar with little to no differences as the notches of all three box plots overlap. The widest spread of data is seen in Period 3 with ranges of 0.31 – 175.00, which also captures the full ranges of data values for Periods 1 and 2. The presence of this burnt/starchy food also confirms food-related activities were conducted in some form in all three periods of the kitchen.

A more detailed discussion of the spatial distribution of these burnt/starchy food remains will be presented in the following section, but it useful to consider here the samples associated with the broad range of values in Period 3, as this is the primary cooking period of the kitchen. The highest density sample (2586M-S-01) of burnt/starchy food remains from Period 3 is associated with the Hearth. Of the total plant density associated with a 0.25-liter sample 50% was wood followed by pinecone. This finding may be related to its small size, but the sheer amount of plant remains recovered from such a small sample suggests that foodways activities extended at least to just outside the Hearth. The lowest density sample (2588I- S-03) from Period 3 corresponds to the Drainage Ditch area of the kitchen space near the northeast corner of the Dresser. This sample contains additional evidence of food-related activities seen from the presence of eggshell, nuts, and pinecone.

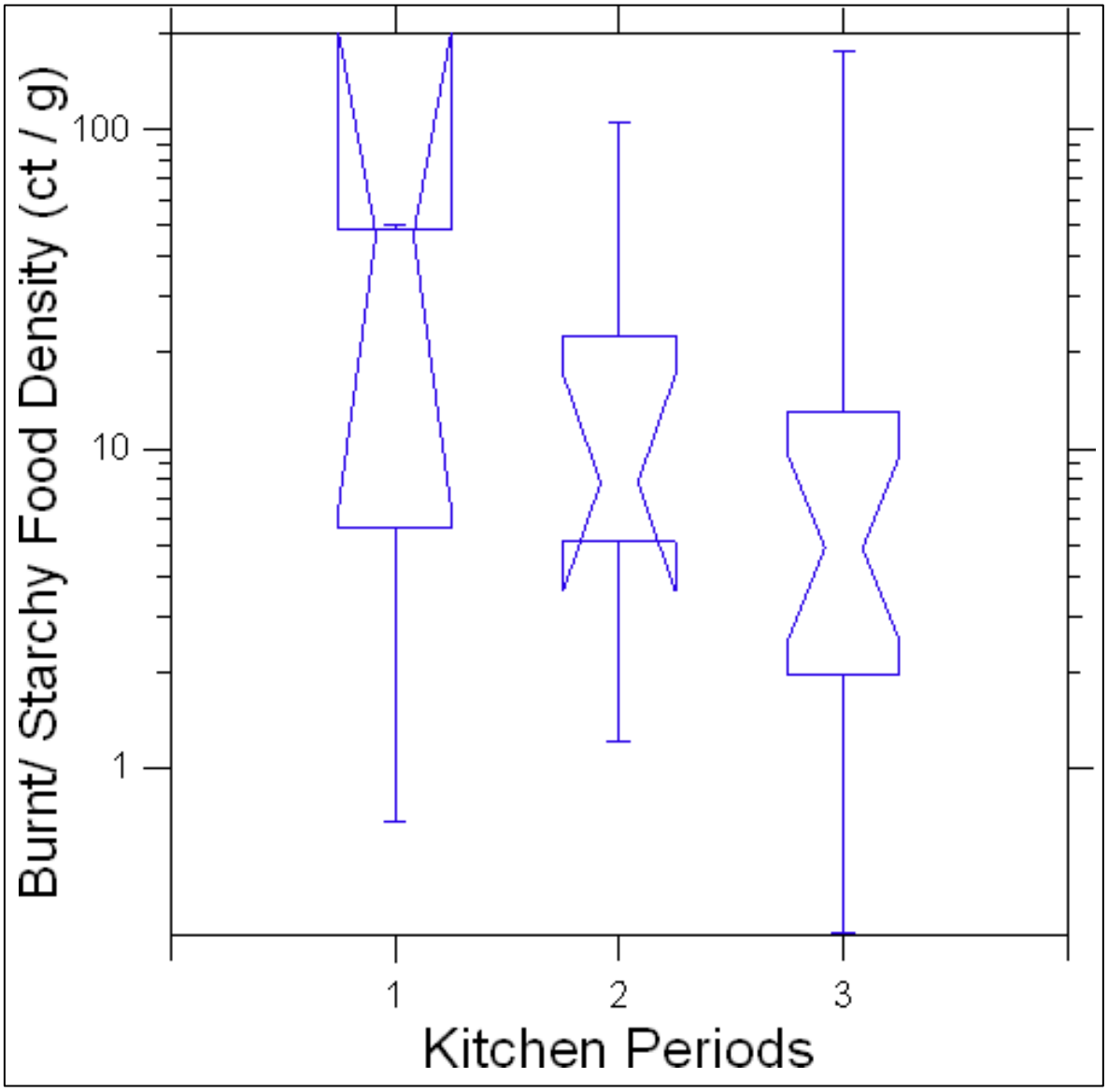

Figure 5.4. Burnt/Starchy food density of the Kitchen Periods from the 44AB089 macrobotanical assemblage. Note the y-axis transformed by log10.

Eggshell Density Data of Kitchen Periods 1-3

The following boxplot (Figure 5.5) shows the total eggshell density for the samples of all three kitchen periods, as calculated by dividing each sample's eggshell count by the total volume (liter) of the sample. This demonstrates how much of the analyzed assemblage contains eggshell and gives an indication of cooking-related activities.

The boxplots of Figure 5.5 demonstrate that there is a range in the data not only between the kitchen periods, but also within the samples of Periods 2 and 3. The boxplots between the three periods show that statistically there is a significant difference in the data for Period 1 compared to Period 3, as their notches do not overlap. Period 2 falls between these two. The progression of eggshell from lower densities in Period 1 to higher densities in Periods 2 through Period 3 correlates with other trends suggesting an increase in foodways-related activities in the later periods of the kitchen.

Kitchen Spatial Comparisons by Periods

In the following section, I discuss the spatial distribution of foodways materials for each kitchen period. I treat each period separately because the contexts change significantly through time as various components of the kitchen were constructed or modified.

Ubiquity of Period 1

The ubiquity table (Table 5.6) demonstrates the samples include a broad assemblage of plant remains. From the seven samples analyzed and included in the ubiquity analysis, the highest categories present across Period 1 include pinecone (71%) and eggshell (57%) followed by less than 50% of the samples that contained burnt/starchy food remains, crops, and nuts. There was no fruit recovered from the Period 1 samples. The majority of the samples were

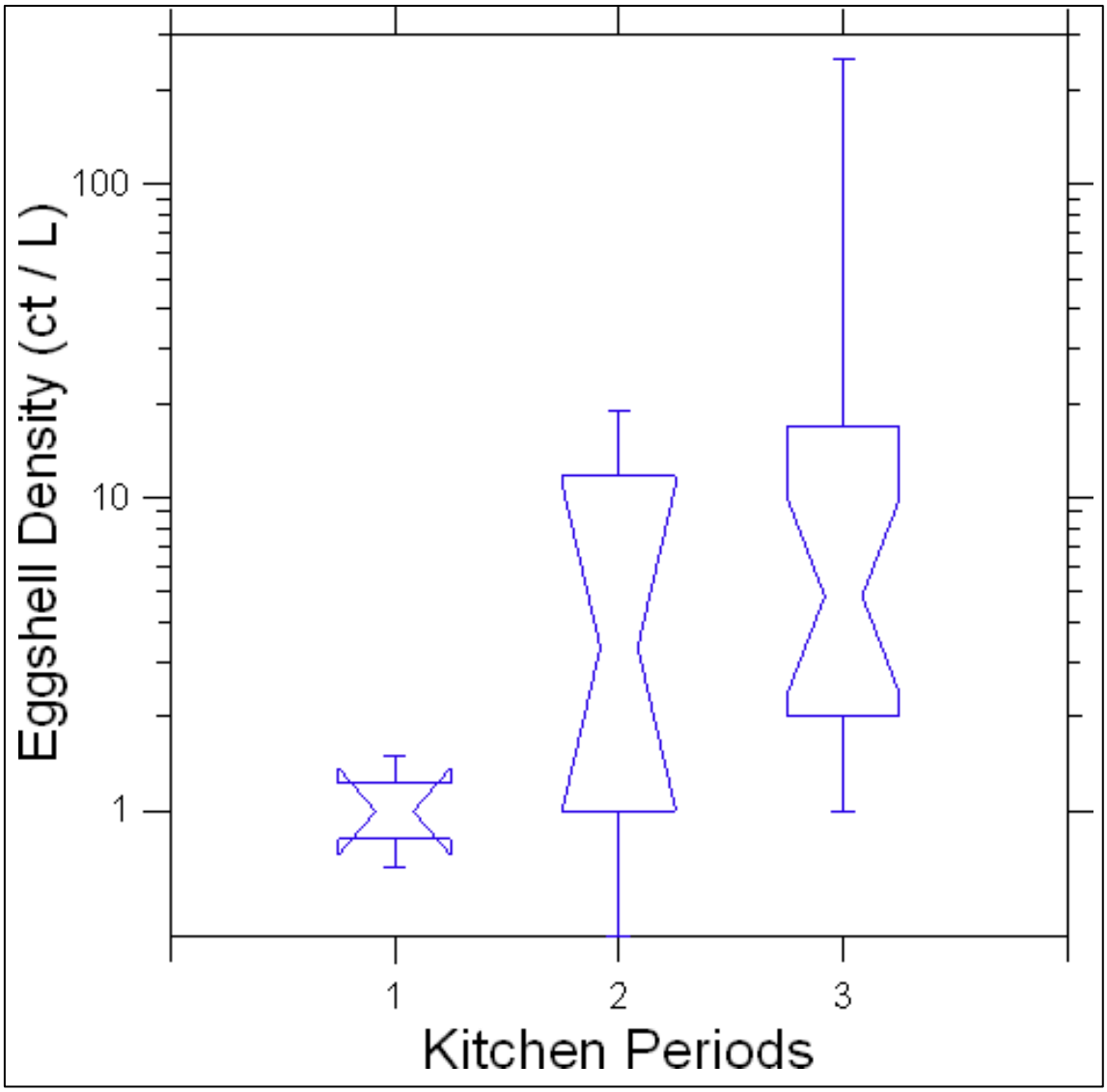

Figure 5.5. Eggshell density of the Kitchen Periods from the 44AB089 macrobotanical assemblage. Note the y-axis transformed by log10.

Table 5.6. demonstrates Period 1 ubiquity of taxa by spatial location in the kitchen.

Kitchen Area	Burnt/Starchy Food	Domesticated Crops	Fruit	Nuts	Pinecone	Eggshell
	n=8 Samples per Period 1[A]					
	n= 3 of 7 (43%)	***n= 2 of 7 (29%)***	***n= 0 of 7 (0%)***	***n=1of 7 (14%)***	***n= 5 of 7 (71%)***	***n=4 of 7 (57%)***
Dresser *n=2*	100%	100%		50%	100%	100%*
East Wall *n=2*					50%	50%
East Brick Floor *n=2*					100%	50%
West Brick Floor *n=1*	100%					100%*

A: Period 1 contains eight total samples, but one sample (2584CC-S-26) had less than 1 liter of sediment available for analysis. Due to this only seven samples of the original eight are used for Ubiquity analysis of Period 1.

**These look to have the same frequency, but there are higher counts of eggshell found near the Dresser followed by the West Brick Floor. Reference Appendix Table A-2 for counts by context.*

concentrated in deposits associated with the Dresser and this area captures frequencies of every category of taxon except fruit.

The Dresser area has two samples which contain the highest frequencies of taxon: 100% of the burnt/ starchy food remains, domesticated crops, pinecone, and eggshell. Nutshell is only represented in one Dresser area sample at a 50% frequency. We can see that there is some overlap between kitchen areas, but looking more closely at the individual samples we see that there are differences in counts for pinecone and eggshell (Appendix Table A-2.) in the samples with the same frequency percentages. This finding will be discussed in more detail later in this chapter concerning density.

Period 1 (1770-1775) for the kitchen demonstrates the least evidence in activities related to foodways. The first two years of the structure's use were related to construction-related activities, as evidenced archaeologically through mortar splatter on the bedrock related to the East Wall's construction, and meals cooked for bachelor Thomas Jefferson. It is not until later in Period 1, in the latter half of 1772 when Martha Wayles Jefferson moved into the top story of the South Pavilion, that foodways activities picked up in the kitchen.

The East Wall deposits date to the beginning of the South Pavilion's construction, whereas the Dresser was constructed after the exterior walls were built. The Dresser area was an area of the kitchen where ingredients were prepped or finalized for dressing or plating the meal. The contexts are concentrated in the northeast portion of the kitchen, where the Dresser was the only known architectural feature used for cooking during this period. The Stew stove was not constructed until sometime after Period 1.

As the majority of this period deals with construction and fill deposits for the kitchen, there is a possibility that taxa like pinecone, nuts, and burnt/starchy food were brought in from another area of the mountain where these taxa were previously deposited in the sediment, and

then used as a secondary deposit for fill dirt for leveling of the Dresser legs. It is also possible that the plant remains associated with kitchen activities were swept under the Dresser during cleaning events and incorporated into the fill dirt used for the leveling of the Dresser leg. Given the higher concentration of food-related plants only in the Dresser area, the latter seems more likely. This concentration suggests that the botanical remains associated with the Dresser accumulated through time with a hypothesized increase in foodways-related activities during Jefferson's married years, beginning in the latter half of 1772, two years after the building's construction.

The areas of the East and West Brick Floor are more difficult to interpret as the deposition of these contexts is nearly impossible to understand. The cracks between the bricks, presumably initially filled by debris during sweeping events and routine droppings, were continuously accumulated contexts. Depositional layers accumulated in cracks between the bricks and were then disturbed through active foot traffic, flooding, and additional sweeping events. The primary categories recovered from these two areas include pinecone, eggshell, and burnt/starchy food. All of these categories reference the use of a fuel source from carbonized remains of pinecone, hypothesized as an active choice for fire kindling, and food debris swept away from primary cooking areas.

Plant Density Kitchen Areas of Period 1 Samples

Figure 5.6 demonstrates a boxplot that supports the ubiquity analysis for Period 1. This kitchen area density analysis shows many of the plants are concentrated in northeast corner of the kitchen where the Dresser was located, facilitating the majority of the foodways activities during this period of the kitchen's beginning occupation.

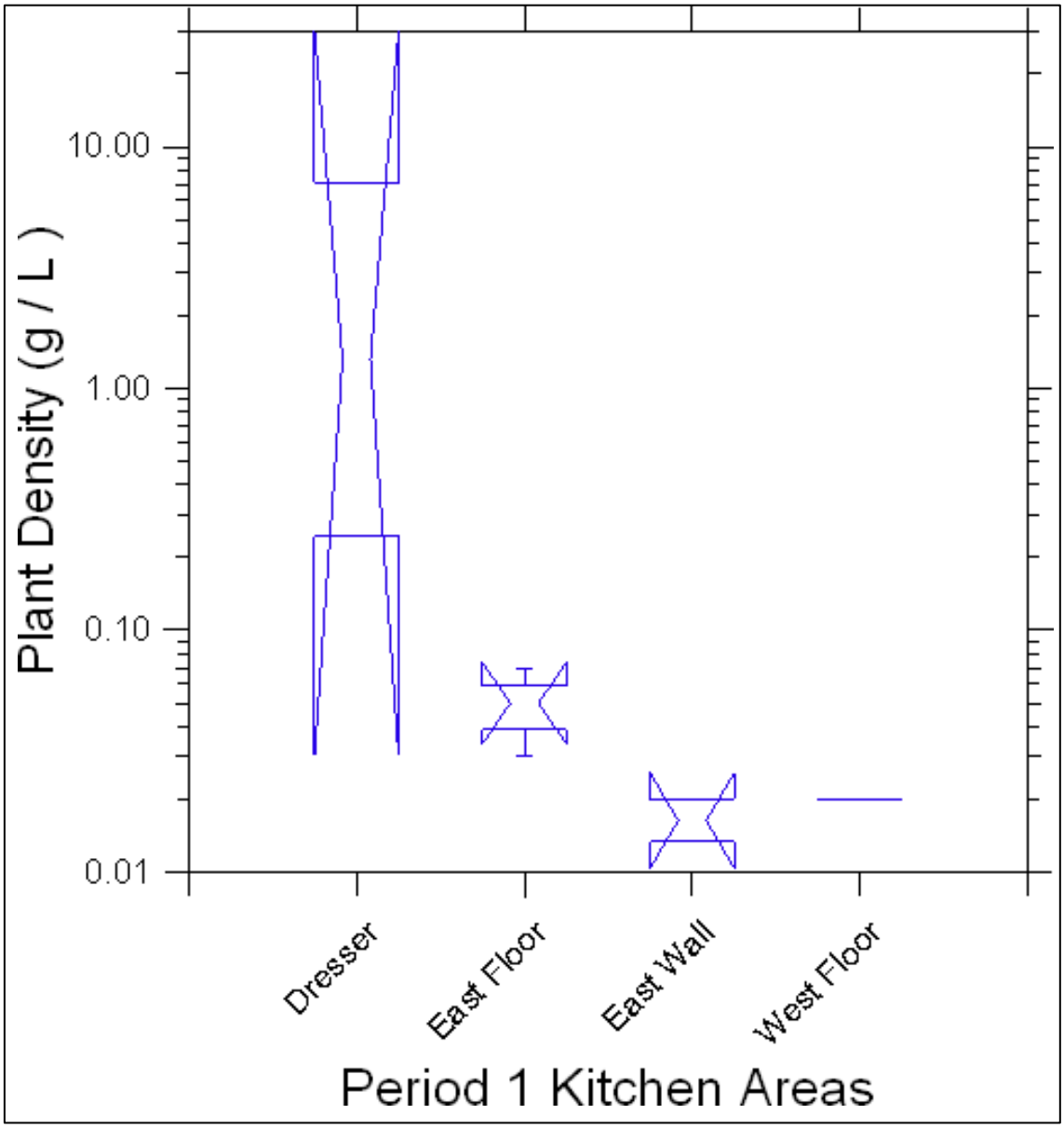

Figure 5.6. Plant density of Kitchen areas sampled from Period 1macrobotanical assemblage. Note the y-axis is transformed by log10.

Ubiquity of Period 2

The ubiquity Table 5.7 demonstrates that a variety of plant remains were recovered from Period 2 contexts of an Unidentified pit and a multilayered Ditch feature. Of the 11 samples analyzed, only 9 were used for the ubiquity analysis. Reference Table 4.2 for reviewing the contexts of these sampled deposits. The lack of samples in other areas of the kitchen associated with Period 2 decreases possible comparisons for this data assemblage, as only sampling two areas of the kitchen limits the context of the larger foodways activities in play.

Pinecone and eggshell were consistently recovered in every sample associated with Period 2, followed next in frequency by burnt/starchy food remains at 100% for the Ditch and 67% for the Unidentified Pit. Fruit, low in frequency of the samples at 18%, was recovered in 33% of the Ditch contexts. The nut taxa skewed more frequently in the Unidentified Pit samples at 50%, compared to 33% for Ditch samples. Domesticated crops, in few at a total of 33% frequency across the samples, were recovered from both the Unidentified Pit and Ditch at 33% frequency.

Plant Density Kitchen Areas of Period 2

Figure 5.7 demonstrates a boxplot that complements the ubiquity analysis for Period 2. As previously discussed, Period 2 only includes samples collected from two areas of the kitchen. Both areas are relatively close in proximity to each other and prove to have no statistical significance in the relation of their data sets, as the notches overlap, although minimally.

Ubiquity of Period 3

The ubiquity Table 5.8 captures Period 3 sample areas from six areas of the kitchen space: Hearth, Stew Stoves, Dresser, Ditch, and East and West Brick Floor. Reference Chapter 4 for definition definitions and contextual information concerning these areas of the kitchen. A total

Table 5.7. demonstrates Period 2 ubiquity of taxa by spatial location in the kitchen.

Kitchen Area	Burnt/Starchy Food	Domesticated Crops	Fruit	Nuts	Pinecone	Eggshell
	n=11 Samples per Period 2 [A]					
	n= 7 of 9 (78%)	***n= 3 of 9 (33%)***	***n= 1 of 9 (18%)***	***n=4 of 9 (44%)***	***n= 9 of 9 (100%)***	***n= 9 of 9 (100%)***
Ditch [B] *n=3* [C]	100%	33%	33%	33%	100%	100%
Unid. Pit *n=6*	67%	33%		50%	100%	100%

A: Note that a total of 11 samples were taken for analysis from Period 2, but 2 of the 11 samples (2584Q-S-14 and 2584R-S-15) were dropped from the Ubiquity analysis as they contained less than 1 liter of sediment. This leaves a total of 9 from the original 11 samples available for Ubiquity analysis of Period 2.

B: Note that all associated contexts assigned with the Ditch were grouped together. Please reference Table 4.2 for deposition by context association for the Ditch samples

C: Note that 2 of the 5 samples associated with the Ditch were dropped from analysis as they contained less than 1 liter of sediment. This leaves only 3 samples associated with the Ditch for Period 2 Ubiquity analysis.

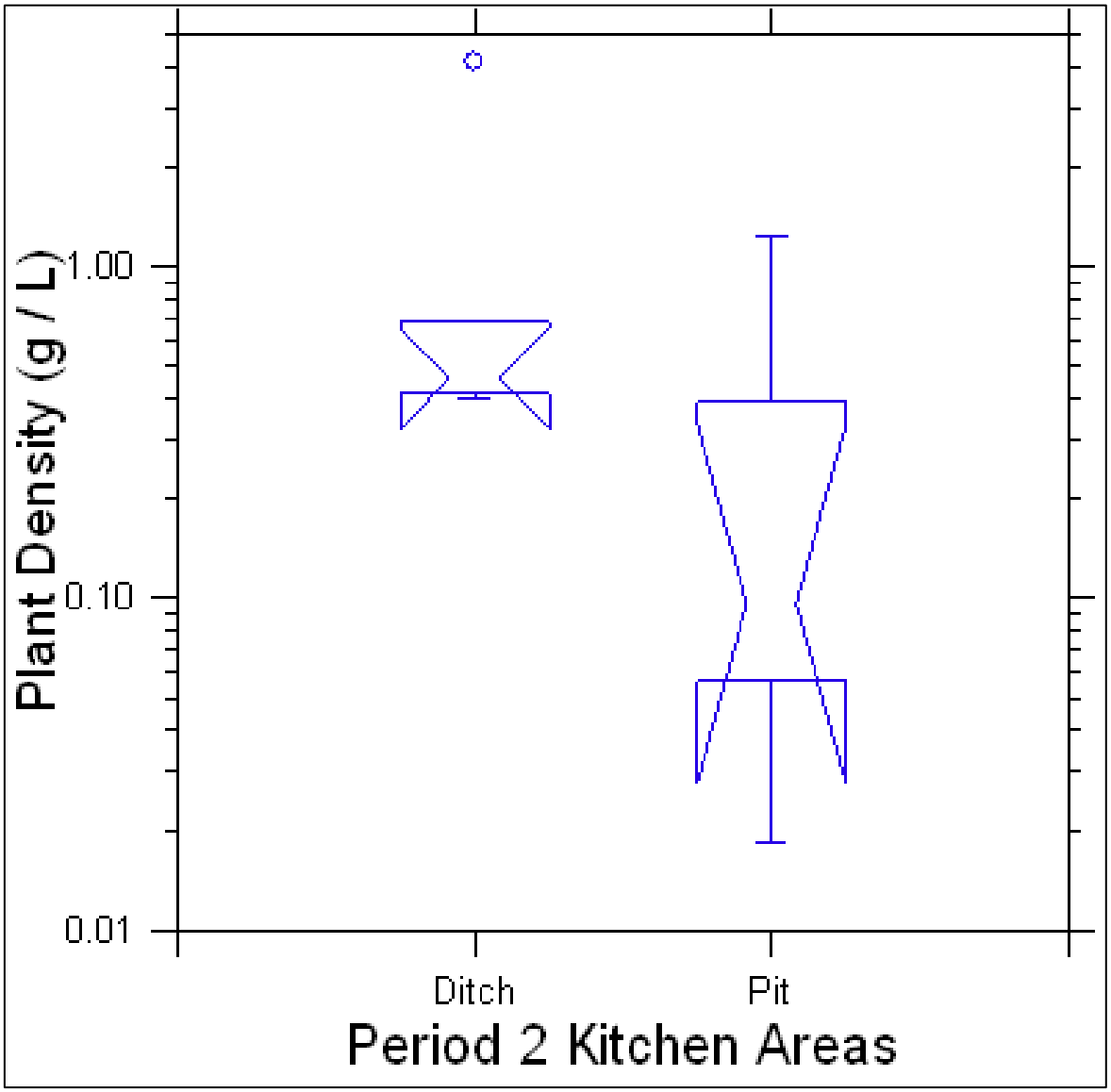

Figure 5.7. Plant density of Kitchen areas sampled from Period 2 macrobotanical assemblage. Note the y-axis transformed by log10.

Table 5.8 Demonstrates Period 3 ubiquity of taxon by spatial location in the kitchen.

Kitchen Area	Burnt/Starchy Food	Domesticated Crops	Fruit	Nuts	Pinecone	Eggshell
	n=19 Samples per Period 3 [A]					
	n= 16 of 19 (84%)	***n= 8 of 19 (42%)***	***n= 6 of 19 (32%)***	***n= 10 of 19 (53%)***	***n= 18 of 19 (95%)***	***n= 18 of 19 (95%)***
Hearth n= 2 [B]	100%	50%	50%		100%	100%
West Brick Floor n= 3	100%	33%	33%	67%	67%	100%
Ditch n= 6 [C]	83%	50%	33%	83%	100%	100%
East Brick Floor n= 5	80%	40%	20%	60%	100%	100%
Stew Stove n= 2 [D]	50%				100%	50%
Dresser n= 1	100%	100%	100%		100%	100%

A: Note that a total of 24 samples were taken for analysis from Period 3, but 5 of the 24 samples (2583J-S-16, 2584H-S-07, 2584P-S-13, 2585M-S-04, and 2586M-S-01) were dropped from the Ubiquity analysis as they contained less than 1 liter of sediment. This leaves a total of 19 of the original 24 samples available for Ubiquity analysis of Period 3.

B: Note that 2 of the 4 samples associated with the Hearth were dropped from analysis as they contained less than 1 liter of sediment. This leaves only 2 samples associated with the Hearth for Period 3 Ubiquity analysis.

C: Note that 1 of the 7 samples associated with the Ditch were dropped from analysis as they contained less than 1 liter of sediment. This leaves only 6 samples associated with the Ditch for Period 3 Ubiquity analysis.

D: Note that 2 of the 4 samples associated with the Stew stoves were dropped from analysis as they contained less than 1 liter of sediment. This leaves only 2 samples associated with the Stew stoves for Period 3 Ubiquity analysis.

of 24 samples were analyzed from Period 3 with the highest categories of taxon represented by pinecone and eggshell, followed by burnt/starchy food remains. From these 24 samples a total of 5 had less than 1 liter of sediment, so only 19 were used for the ubiquity analysis for Period 3.

The Dresser area has the fewest samples available for analysis with only one sample compared to the seven from the Ditch, five from the East Brick Floor, four samples in both the Hearth and Stew Stove, and three from the West Brick Floor. However, given the prominence of the Dresser as an architectural feature in the kitchen and its notable contextual differences from the Ditch and East Brick Floor, I felt it was important to consider it separately.

All categories of taxa are represented in every sample area of the associated Period 3 areas, with the exception of nuts, which were not recovered from the Hearth or Dresser. Across all 19 samples from Period 3, both pinecone and eggshell are represented at 95% frequency, followed by burnt/starchy remains at 84%, and nuts, domesticated crops, and fruits at 53% or less frequency. Period 3 also sees an increase in the amount of foodways remains and larger varieties of foodways-related taxa.

The ubiquity Table 5.8 demonstrates eggshell and pinecone are represented at the highest frequencies of the food-related categories with eggshell at 100% frequency across all areas of the kitchen except the Stew stove at 50%. Pinecone tends to have a higher frequency in the east area of the kitchen space as all areas contain 100% pinecone frequency except the West Brick Floor (67%). Burnt/starchy food remains were present in the highest frequency of 100% near the Dresser, Hearth, and West Brick Floor, but decrease in frequency in samples near the Ditch (83%) and East brick Floor (80%), followed by the Stew Stoves (50%). The highest nut frequency was in the Ditch at 83%, followed by the East and West Brick Floors. Nuts were not represented in the Stew Stoves, Dresser, or Hearth. Fruits and Domesticated crops were relatively infrequently recovered; while the Dresser area is listed at 100%, only one sample was analyzed.

Overall, the highest presence of foodways-related remains are concentrated in the Ditch area, and perhaps the Dresser area, of Period 3. This pattern may be due to the high number of activities concentrated in this northeast area of the kitchen, with plant remains tending to collect in the Ditch context in front of the Stew Stoves and Dresser. Again, it is important to note that the Dresser frequency is skewed by the single sample analyzed. In sum, the context of the Ditch captures the broadest range of botanical materials and frequency in relation to the number of samples. Similar depressions in high-activity areas would be ideal contexts to sample in future sampling strategies for kitchen sites.

Plant Density Kitchen Areas of Period 3

Figure 5.8 demonstrates a boxplot that complements the ubiquity analysis for Period 3 by establishing plant density values by areas of the kitchen. As previously discussed, a total of six areas were sampled and analyzed within the Period 3 kitchen occupation. The highest plant density values are concentrated in the Stew Stove followed by the Ditch area. The Dresser's single sample also has a plant density that is higher than the lower ranges present in the Hearth, East, and West Brick Floors, and follows trends for the other samples in the northeast portion of the kitchen. The Hearth and Brick Floor deposits are statistically similar in data sets as the notches for these areas overlap.

Relative Wood Density Kitchen Areas of Period 3

Figure 5.9 demonstrates a box plot showing the density of wood used in certain areas of the kitchen. The majority of the density data seems to range from 0.75 to 1.0, but the Hearth is an outlier with the widest range in the data set ranging from 0.50 to 0.96. The Hearth and the Stew Stove tend to have higher densities for wood, but this makes sense as these are the two areas of the kitchen with an active heat source for cooking.

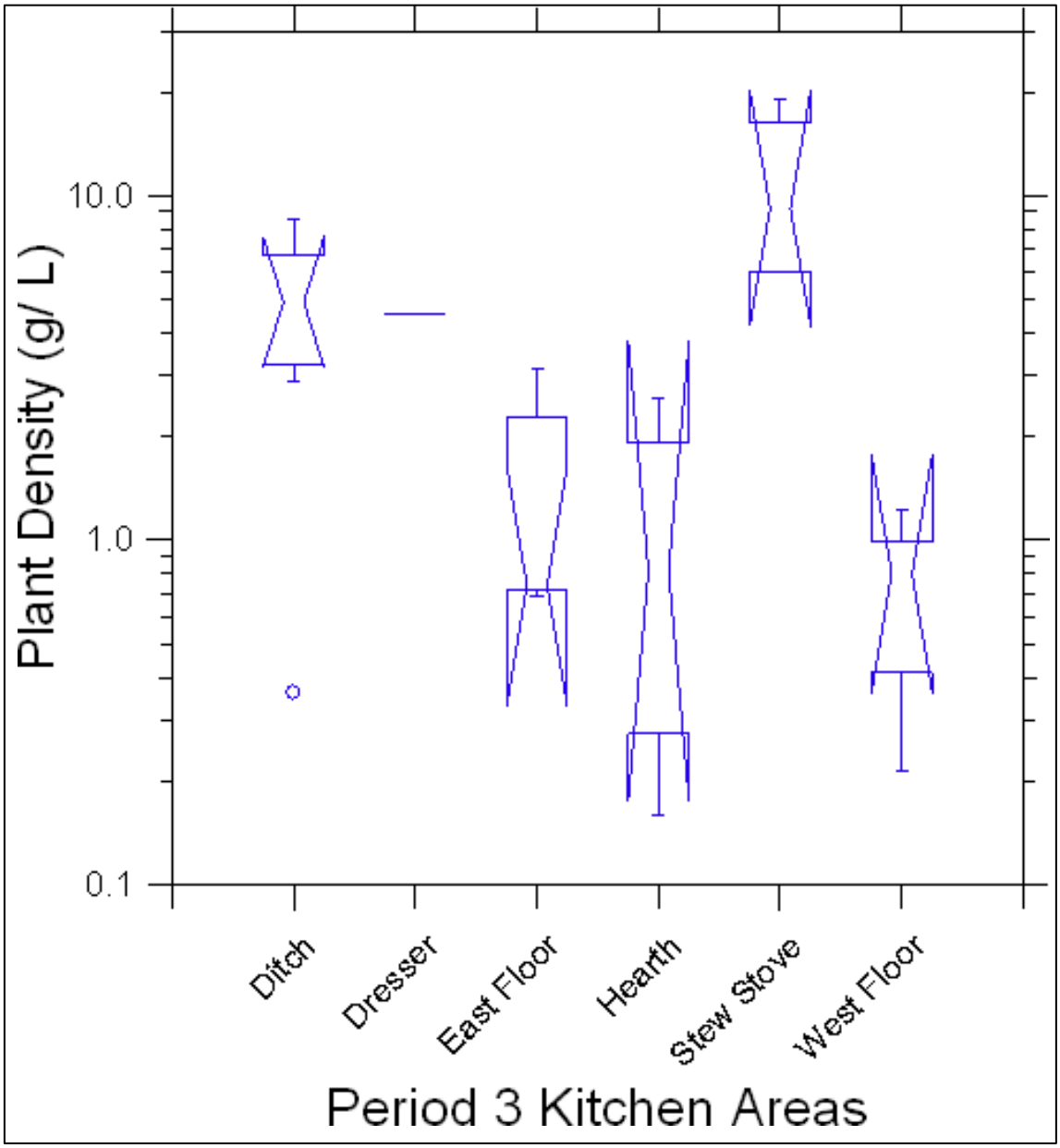

Figure 5.8. Plant density of Kitchen areas sampled from Period 3 macrobotanical assemblage. Note the y-axis transformed by log10.

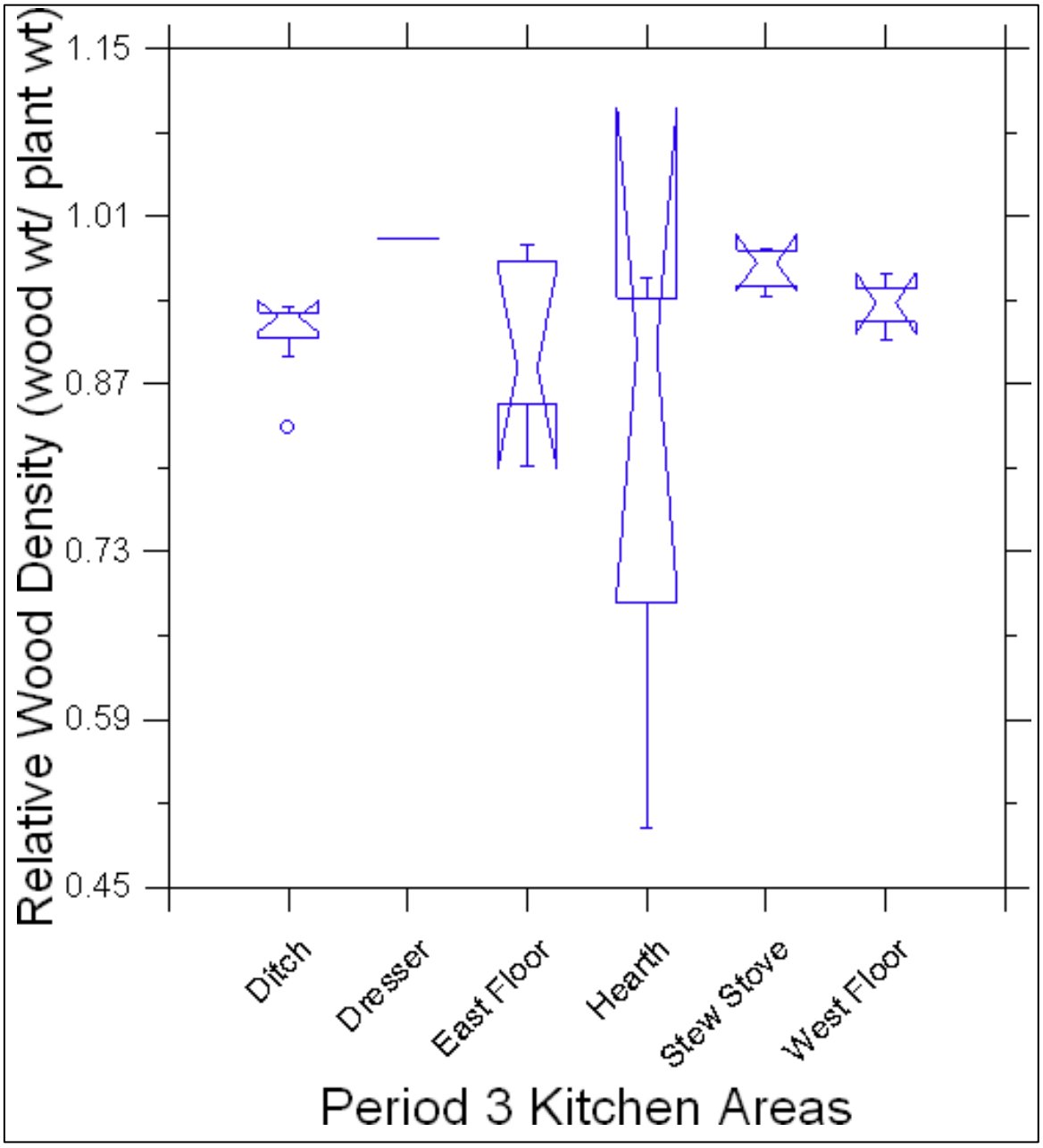

Figure 5.9. Relative wood density of Kitchen areas sampled from Period 3 macrobotanical assemblage.

Burnt/Starchy Food Density Kitchen Areas of Period 3

Figure 5.10 demonstrates a boxplot that compares densities of burnt/starchy food remains across the sampled kitchen areas to better understand the ubiquity data set. The burnt/starchy food remains had the highest frequencies in the Hearth, West Brick Floor, and Dresser areas of the kitchen; the density data set shows the Hearth and West Brick Floor to be most similar. The Ditch, East Brick Floor, and Stew Stoves are lower in frequency, but the East Brick Floor is more of the middle range of the density data with significantly larger fragments. Although the notches overlap and there are no statistically significant differences, we see a general decrease in overall density of burnt/starchy food remains in the eastern portion of the kitchen space. This supports the hypothesis that the burnt/starchy food remains may be related to burnt bread or ash cakes, as the bread oven is located near the Hearth in the west side of the kitchen. It makes sense to still see some remains near the east as the food was possibly swept in this area and the widespread distribution of the burnt/starchy remains suggest just how much there was in this space. These hoe/ash cakes were easy, quick foods that provided a snack needed in this fast-paced labor role.

Eggshell Density Kitchen Areas of Period 3

Figure 5.11 is a boxplot that compares densities of eggshell across the sampled kitchen areas to better understand their distribution beyond the ubiquity data set. Eggshell was present in all samples except two from the Stew Stove area. The highest density in eggshell is seen as outliers in the data set for the East Brick Floor and the Ditch, but the broadest data set in density was collected from the West Brick Floor. The East Brick Floor, Hearth, and Stew Stove are statistically similar in the range of the data set densities. The similarity between the Hearth and the eastern contexts (Stew Stove, Dresser, and East Floor) was not expected, nor the high values for the West Brick Floor. The presence of

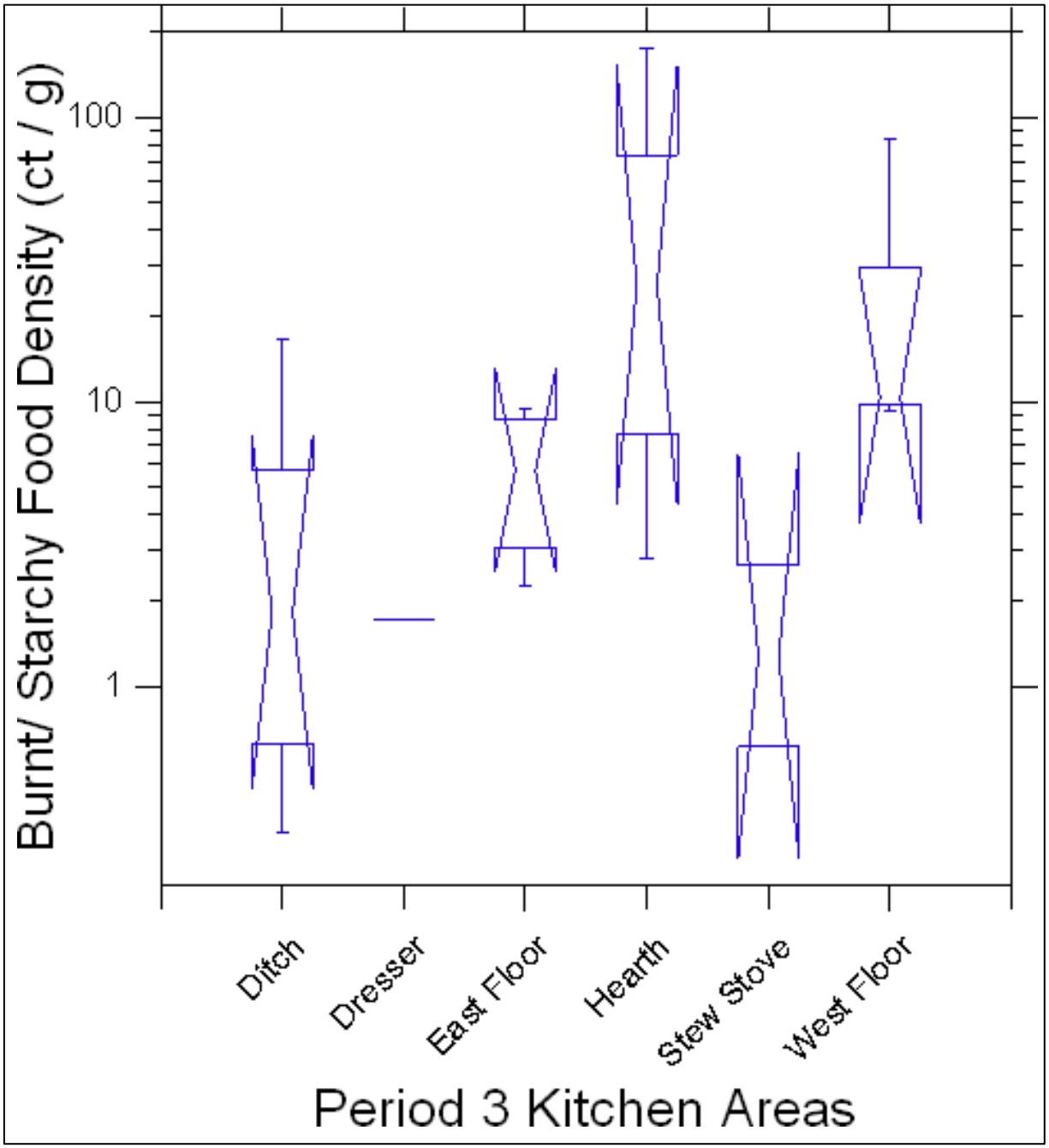

Figure 5.10. Burnt/Starchy food density of Kitchen areas sampled from Period 3 macrobotanical assemblage. Note the y-axis transformed by log10

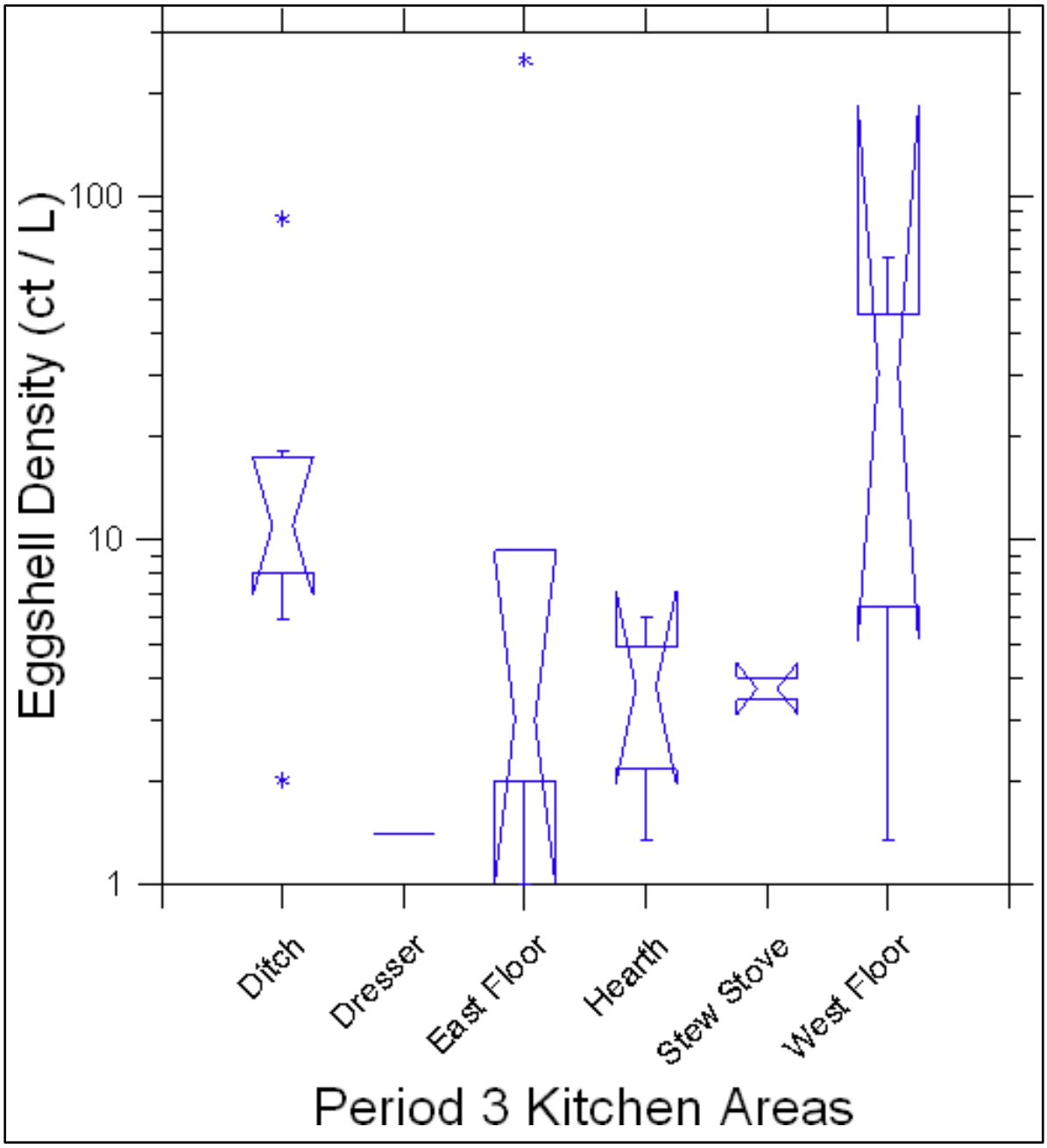

Figure 5.11. Eggshell density of Kitchen areas sampled from Period 3 macrobotanical assemblage. Note the y-axis transformed by log10.

eggshell helps support areas of the kitchen where the cooks assembled recipes, or disposed of food remains. Since eggs are common ingredients in sauces and dishes associated with French cuisine, I expected that recovery of eggshell would have been greater in the eastern area near the Stew Stoves and much more limited in the western half of the kitchen. Monticello's Department of Archaeology also suspects there may have been a table or non-affixed area in the middle of the kitchen or along the southern wall for preparation that does not show up archaeologically.

Pinecone Density Kitchen Areas of Period 3

Figure 5.12 is a boxplot that compares densities of pinecone across the sampled kitchen areas to better understand the data beyond the frequencies. Pinecone was found across all six Period 3 areas, and their densities are also generally statistically similar, as the notches of most overlap. However, the highest density area for pinecone is the Hearth, which does not overlap with the Ditch or the West Brick Floor. The Ditch, East Brick Floor, and Stew stove are generally similar, as the notches overlap. The lowest density areas are the Dresser and West Floor. The densities of pinecone may be related to where people used kindling.

Crop, Fruit, and Nut Density of Period 3

There are too few crop, fruit, and nut taxa recovered to make meaningful comparisons between the Period 3 sample areas of the kitchen. It is interesting to note that the highest frequency area for these three categories is the Ditch. The West and East Brick floors have similarities in the types of nuts, crops, and fruits found, but the West Floor has a broader data set and the East Floor had larger sized fragments of nut remains.

Plant Assemblage Summary

While somewhat limited, the flotation sample data give a picture of plants (food and fuels) and other foods (eggshell, burnt/starchy material) prepared and/or used in the kitchen. Changes

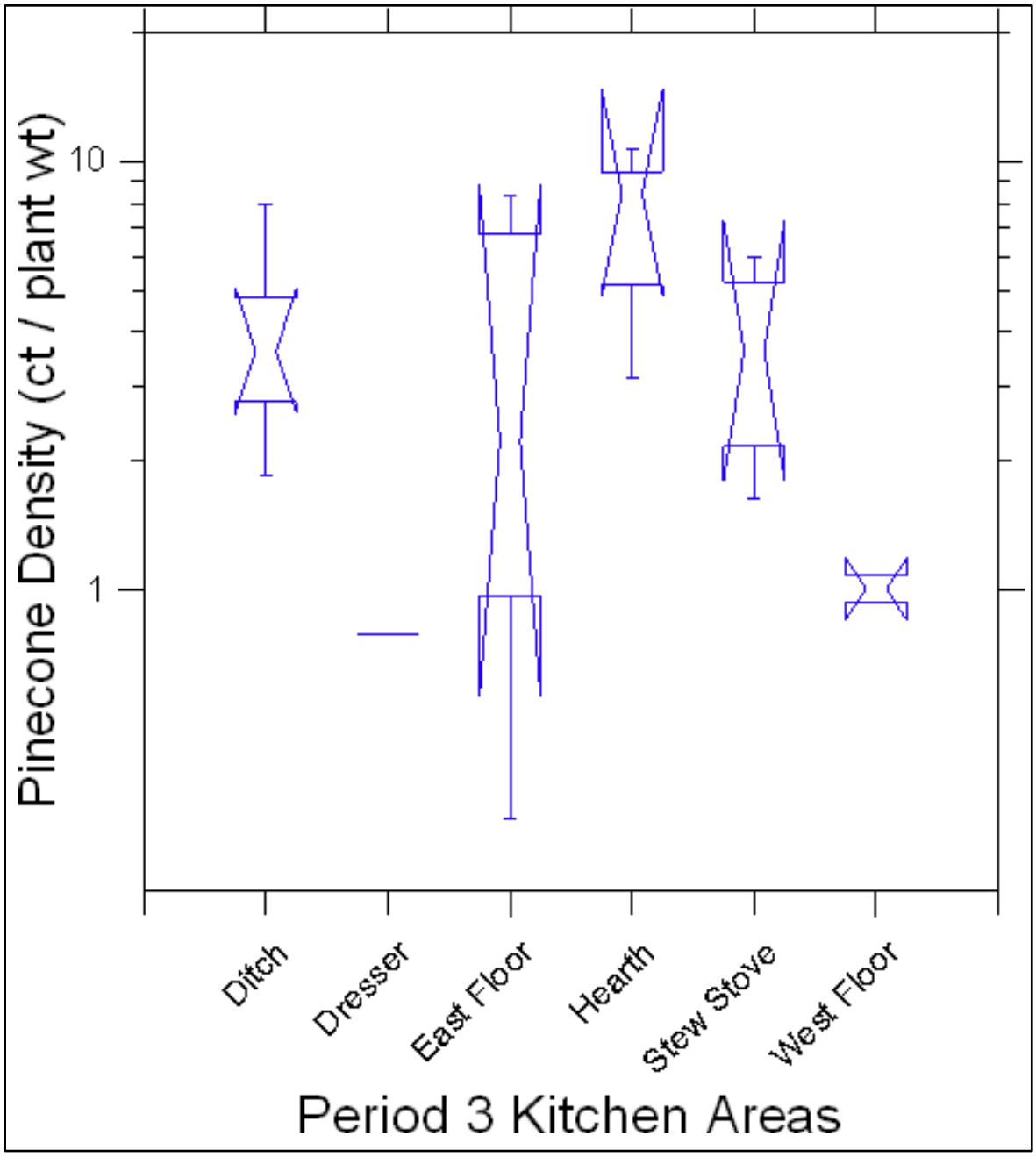

Figure 5.12. Pinecone density of Kitchen areas sampled from Period 3 macrobotanical assemblage. Note the y-axis transformed by log10.

through time show an increase in foodways activities that follow changes in the architecture and use of the kitchen from Period 1 to Period 3. We see an increase in foodways- related architecture in correlation with an increase of plant densities from Period 1 through Period 3. The ratio of carbonized wood to other plants decreases through time. Pinecone mimics this trend, supporting the hypothesis that pinecone was used as a fuel for the kitchen space, but that use decreased over time in relationship to other plant materials. Over all three occupations, the highest categories present across the kitchen assemblage include pinecone, eggshell, and burnt/starchy food remains. There are some spatial differences that suggest more intensive foodways activities in the eastern half of the kitchen (dresser, stew stoves, ditch) even as early as Period 1, and greater use of fuels (wood, pinecone) near the Hearth and Stew Stoves. It is interesting to note that relatively few identifiable grains or seeds were recovered, such as corn kernels or wheat berries. This may be because the plants brought into the kitchen space were ingredients that had already been processed, such as corn meal or wheat flour. The next chapter includes a comparison of this kitchen assemblage with contemporaneous sites in the larger Virginia region.

Chapter 6: Discussion and Site Comparison

In this chapter I discuss my research questions two and three. My second research question investigates the social interactions and relationships between enslaved cooks and their enslavers in these early domestic spaces. This discussion primarily leans on historical documents and theoretical paradigms, as aided by the botanical assemblage from the South Pavilion, to explore how enslaved cooks may have negotiated agency through foodways practices. The agency practiced by these enslaved cooks is discussed further later in this chapter. It is important to note that through this research process I found it hard to discuss my second research question without the aid of my third research question. For this reason, I begin by addressing the third question, comparing data between the South Pavilion kitchen and the enslaved foodways contexts at Site 8 at Monticello. I then compare the South Pavilion assemblage to associated enslaved foodways contexts of the larger Virginia region. This third question establishes a base line comparison for contexts associated with enslaved laborers of post-colonial kitchen plantations sites of Virgnia. The data then aid the discussion of the second research question that is hindered by the fact that social interactions and relationships related to cooking are hard to tease out in the archaeological record without supporting documentation.

Discussion of Research Question Three:

The third research question compares the assessed botanical assemblage from the kitchen to other botanical assemblages associated with enslaved people in the region. As there are no known available kitchen sites with botanical assemblages, this comparison must be made with contexts associated with enslaved domestic workers at other plantation sites in the region. I begin with a comparative analysis of the macrobotanical assemblage from a contemporary quarter site at Monticello (Hacker 2016). Both spaces, used during the last quarter of the 18th century, are

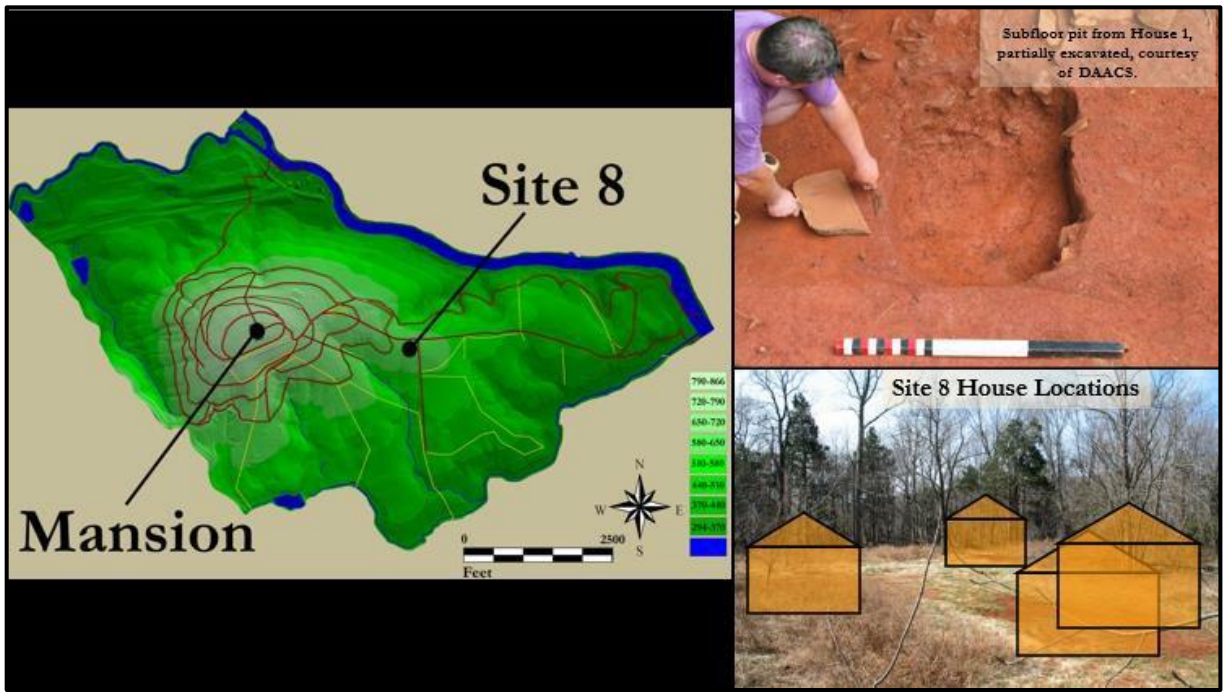

Figure 6.1. demonstrates a combination of information regarding Site 8 courtesy DAACS and Derek Wheeler (DAACS 2016)

sites in which enslaved laborers prepared, consumed, and discarded food refuse.

Stephanie Hacker, a UT-Knoxville Master's student, conducted the macrobotanical analysis for Site 8 (44AB442) in 2016 under the direction of Dr. Kandace Hollenbach. Site 8 housed enslaved agricultural laborers on the Monticello quarter farm from 1770 to 1800. Figure 6.1 depicts a property map of where the two sites are located on the Monticello mountain landscape.

Hacker (2016:40) described that this site was plowed throughout the early 19th and 20th centuries. Archaeologists discovered evidence of artifact concentrations likely associated with four structures whose chronologies were established through correspondence analysis of ceramics excavated from the plow zone: House 1 dates from the 1770s to the 1780s; and Houses 2, 3, and 4 date from the 1780s to the1790s. A shared yard and nearby vegetable gardens provided spaces for growing food and communal living. Food may have been prepared and consumed in the houses as well as in the shared yard, both less formal types of cooking spaces than the South Pavilion kitchen. Sampled features include subfloor pits and a single cellar that were filled when the occupants moved from these cabins around 1800. This move happened soon after Jefferson switched his main crop at Monticello from tobacco to wheat in the 1790s, using more level terrain for wheat fields and relocating the residents to the sloping terrain of the plantation. Hacker (2016:88) concluded in her botanical analysis that the enslaved occupants of these quarters were supplementing their diet with wild resources of the surrounding landscape due to not having enough calories. The depositional history of the two sites is a key component in this comparison. The nature of how these contexts were created greatly differs in that the Site 8 pit and cellar deposits were purposely filled with sediment from the surrounding area whereas the deposits sampled from the kitchen are the result of sweepings and foodways-related activities within the space.

Archaeological research performed on a variety of subfloor pit features in Virginia indicates that when an interior pit was put out of commission while the structure was still occupied, the

occupants generally emptied the pits of all contents and filled them with relatively refuse-free fill to prevent a smell from decomposition (Samford 2007:174). When structures were no longer in use, pits were filled with soil that could contain secondary refuse since the area, in most cases, was no longer going to be inhabited (Samford 2007:175). It is also important to note that Site 8 is organized as a quarter site where enslaved people used the yard spaces as multifunctional spaces compared to the kitchen, which was methodically laid out and constructed.

The macrobotanical assemblage from Site 8 showed higher numbers of wild resources (chenopods, goosegrass, pokeweed, copperleaf, and chickweed) and domesticated crops (corn, wheat, beans, grains, and oats) than the assemblages recovered from the South Pavilion Kitchen (Table 6.1). These findings support the idea that enslaved agricultural workers living further from the main house supplemented their diets through foraging nearby wild resources (Hacker 2016:78). The plant types also shed light on how the enslaved used their yard space. The high frequencies of corn cupules demonstrate the disposal of by-products through burning of waste, mainly corn cobs. It is also possible that the enslaved people used corn cobs for fuels. Recovery of crops, including wheat, beans, oats, and corn kernels, suggests that Site 8 occupants may have grown these crops in their gardens. The provisions they received from Jefferson are more likely to have come in the form of cornmeal than whole grains (Betts 1944; 1955; Stanton 2000; 2012).

In comparison to the South Pavilion's crop assemblage, there is a lack of crops represented in the kitchen contexts. The scarcity of corn in the kitchen assemblage supports the notion that many ingredients came to the kitchen already processed for cooking and accumulated in the act of cooking. There is also a lack of wild resources in the kitchen's assemblage compared to the high presence of wild plants recovered from Site 8.

One taxon with high concentrations at both sites but not discussed in Hacker's analysis is pinecone. In my analysis I hypothesized that the presence of pinecone, which follows the trend of carbonized

Table 6.1 Comparative data of Monticello kitchen assemblage to Monticello Quarter Assemblage.

	Site 8 House 1	Site 8 House 3	Site 8 House 4	Site 8 House 2	Kitchen Period 1	Kitchen Period 2	Kitchen Period 3
	1770-1780	*1780-1790*	*1780-1790*	*1790-1800*	*1770-1780*	*1775-1790*	*1790-1809*
Taxa							
Fruit	**n=count**						
Blackberry/raspberry	3	20	1	72			1
Blackberry/raspberry uncarbonized	31	10	4	5			
Blueberry	1						
Blueberry uncarbonized							1
Cherry				33			
Cherry cf.				2			1
Fruit cf.							1
Fruit/Grain cf.							5
Grape	4			4		1	
Grape cf.				1		1	2
Maypop cf.							1
Peach	23	4	14	54			
Peach cf.				1			1
Persimmon	13		3	3			
Persimmon cf.			3			1	5
Plum				1			
Prunus				32			
Prunus cf.	2		10				1
Watermelon							8
Nuts							
Acorn	5		1		2		
Acorn cf.	13					1	
Black walnut	3		7	1			
Black walnut cf.	1						
Black walnut/peach	8	38	16	51			
Hazelnut					1		2
Hazelnut cf.		1					
Hickory	5	23		16		3	3
Hickory cf.	7				1		2

Table 6.1. Continued.

	Site 8 House 1	Site 8 House 3	Site 8 House 4	Site 8 House 2	Kitchen Period 1	Kitchen Period 2	Kitchen Period 3
	1770-1780	*1780-1790*	*1780-1790*	*1790-1800*	*1770-1780*	*1775-1790*	*1790-1809*
Taxa							
Nuts (continued)				**n=count**			
Nutshell	1	1	2			1	13
Nutshell cf.	3					4	15
Peach/nutshell		6	1	14			
Walnut family	16			7			5
Domesticated Crops				**n=count**			
Bean cf.					6		1
Bean embryo cf.			1				
Bean family		2					9
Buckwheat cf.				1			
Corn cupule	12	66	17	15			
Corn cupule cf.		5	2				3
Corn embryo cf.					1		
Corn kernel	11	2	4	5			
Corn kernel cf.	8	3	8	2		1	17
Cucurbit rind			1				
English pea			1				
Grain kernel							
Grain kernel cf.			2			1	
Legume cf.							1
Oat				1			
Pea							1
Tuber cf.					6	3	44
Wheat	3	23	2				
Wheat cf.	2	2		1			
Miscellaneous				**n=count**			
Bedstraw cf.			1				
Buckwheat family							
Buffalo bur uncarbonized						2	
Burnt food/Starchy					83	94	452

Table 6.1. Continued.

	Site 8 House 1	Site 8 House 3	Site 8 House 4	Site 8 House 2	Kitchen Period 1	Kitchen Period 2	Kitchen Period 3
	1770-1780	*1780-1790*	*1780-1790*	*1790-1800*	*1770-1780*	*1775-1790*	*1790-1809*
Taxa							
Miscellaneous (continued)				**n=count**			
Cheno/am	2	936	7	178			
Cheno/am cf.	1						
Coffee		11					
Copperleaf			1				
Dock	1	2	5	6			
Dock cf.				1			
Dock/buckwheat family							
Eggshell					7	138	1366
Goosegrass	1	192	1	91			1
Grass family uncarbonized							2
Holly uncarbonized							1
Knotweed				1			
Mallow family							2
Morning glory							1
Oxalis		3	12	1			
Pinecone					43	232	814
Pinecone cf.						7	86
Pink family	41		4	28			
Pink family part carb.	86			1343			
Pitch	787	509	929	130	3	21	137
Pokeweed	17	23	1	32			
Pokeweed cf.	2	29	2	8			
Purslane	1	2	42		1		1
Purslane uncarbonized							3
Purslane cf.		2					
Smartweed		4	1	8			
Spikerush				1			
Spurge family			1				
Weedy legume		1	4	385			1
Total	**1114**	**70**	**504**	**1909**	**1111**	**3003**	**2535**

wood, suggests that pinecone was used as a fuel source in the kitchen. Pinecone is likely not something that would be used as a staple food ingredient for the main table and Hacker may have passed it over in her discussion since pines are native to the surrounding landscape. Since Hacker's site contexts, which are secondary and tertiary refuse, are likely to have pinecone in the deposits, it was not an outlier that stood out as a possible fuel source and there was no evidence of burned pinecone in the assemblage. It is interesting that pinecone was used as a fuel source in a formal context of the kitchen space, but not in the informal context of the field quarters. Hacker (2016) discussed the high frequencies of pitch and the possibility of pitch being either resin from pine or starch-based plants similar to tubers. This notion parallels the findings from the kitchen as there were high concentrations throughout all deposits of pitch, burnt starchy materials, and in some instances possible tubers.

In the kitchen deposits, the highest categories of foodways material recovered from across the site were both eggshell and burnt-starchy food remains. Eggshell was not collected in Hacker's assemblage, but it is extremely likely to be present since there are records of both enslaved domestic and field laborers selling eggs from their own poultry to the South Pavilion kitchen (Heath 2004). The two taxa identified only in the kitchen samples provide additional insight into differences between these two separate communities' diets. Burned starchy foods and starchy tubers from the kitchen samples are hypothesized to demonstrate a variety of different foods accessible to workers in the kitchen. Burned and overcooked foods not fit for the master's consumption, as possibly decided by the cook, were likely consumed by the enslaved kitchen staff. Which foods were consumed by enslaved workers in this space compared to the main house is unknown, but these starchy cooked food remains may be representations of burned crumbs from breads like cornbread or hoecakes. These were staple snacks of enslaved people as meals during the day were usually eaten while working and breads were easily stored in a pocket or apron for quick consumption (Covey and Eisnach 2009).

Fruits and nuts were recovered from both assemblages, but there is presence of watermelon, hazelnuts, and coffee only in the kitchen. As the occupants of Site 8 had their own vegetable gardens, it is interesting that there were no melon taxa recovered, especially since there are also records of enslaved people selling melons to the kitchen and the local town market (Stanton 1996). The presence of hazelnuts and coffee recovered from the kitchen illustrates the luxury ingredients available for cooking in this space. Coffee would not have been a readily available resource for Site 8 occupants as it was an expensive import. It is not possible to determine if the hazelnuts are native or imported, but hazelnuts were documented as being grown within the natural landscape (Colonial Williamsburg Foundation 2000) and could have been available for foraging for those in the field quarter. However, gathering this nut variety required more effort, as the nuts must be picked from the shrub rather than collected from the ground (Scarry 2003). For this reason, hazelnuts could also be considered a higher-cost item. Their presence supports the idea that elite French cuisine was cooked in the kitchen space for the main table, as it is less likely for the enslaved to have consumed such luxury ingredients, particularly coffee.

Regional Plant Assemblage comparison

While there are few sites that analyze macrobotanical remains from early historical kitchen spaces for a regional site comparison, Mrozowski et al. (2008) discuss the types of plant remains recovered from multiple enslaved contexts in Virginia. Mrozowski et al.'s Table 5 (2008:718-719) presents the botanical assemblage from Rich Neck Slave Quarter Site (44WB52) alongside four additional sites: Wilton Plantation quarter site on the James River in Henrico County (Higgins et al. 2000), Southall's Quarter in James City County (Pullins et al. 2003), and the North Hill (Heath 2007a) and Quarter (Heath 2007b) sites at Thomas Jefferson's Poplar Forest in Bedford County (Heath 2001; Raymer 1996, 2003). The faunal analysis at James Madison's Montpelier, a neighboring plantation in Orange, Virginia (Henderson 2015), and the eggshell

analysis from a mid-19th century quarter at Poplar Forest (Lamzik 2013) are additional sources worth comparing to Monticello's foodways analysis (Crader 1984). Montpelier's comparative foodways data, even though the focus is on animal remains, helps establish baseline foods of the region as currently there is no discussion concerning the botanical assemblage of the site (Pavao-Zuckerman et al. 2020). Even though these sites are associated with field quarters and slave yards rather than a formal kitchen space, and the sampling protocols and assemblage sizes vary, the six sites still are useful in understanding foodways-related assemblages characteristic of contexts associated with enslaved people at Virginia plantations of the late 18th to early 19th century.

These six sites provide a broad reference to what the researchers generally interpret as plantation rations supplemented by items grown by enslaved people in their gardens and gathered from the immediate area; these assemblages are similar to Site 8 and differ from the kitchen's assemblage. A first glance of Mrozowski et al.'s table (Table 6.2) shows a broad range of wild taxa similar to Site 8, but we also see wide varieties of fruits and nuts not present at Site 8 such as melons, cherry, strawberry, lima beans, peanut, and sunflower (Mrozowski et al. 2008: Table 5).

Fruits and garden crops at the six sites and Site 8 include high frequencies of persimmon, blackberry/raspberry, corn, little barley, wheat, and oats. Melon was recovered from Rich Neck and the South Pavilion kitchen site but not Site 8. The researchers of the South Yard site from Montpelier do not reference archaeobotanical remains but do mention that kitchen gardens were prevalent source of supplements to rations for the enslaved (Pavao-Zuckerman et al. 2020:120). Neither coffee nor hazelnut were found from the six site assemblages: it is safe to say that coffee, and perhaps hazelnut, are characteristic of luxury goods and not easily accessible to the larger enslaved plantation population. Coffee is referenced in records both at Montpelier

Table 6.2 Mrozowski et al.'s Table 5 (2008:718) to reference comparative data of the regional sites.

Common Name	**Count by Site**				
	Rich Neck	*North Hill*	*Quarter*	*Southall's Quarter*	*Wilton Period*
Garden/Orchard					
Bean	23	-	-	-	-
Blackberry/raspberry	3	26	3	-	3
Cherry	6	-	2	-	3
Common bean	3	6	1	1	4
Cowpea	187	-	-	-	-
Elderberry	-	1	-	-	-
Grape	-	3	2	-	-
Huckleberry	-	-	2	-	-
Lima bean	1	-	-	-	-
Melon	2	-	-	-	-
Peach	-	158	38	-	-
Peanut	1	-	-	-	-
Poppy	-	1	-	-	-
Strawberry	-	4	-	-	-
Squash	1	-	-	-	-
Sunflower	-	1	2	1	-
Sweet potato	-	-	-	-	244
Violet	-	1	-	-	-
Crops					
Corn	30	273	45	53	6
Little barley	18	-	-	-	-
Oats	-	1	-	-	3
Rye	4	4	-	-	-
Sorghum	-	5	-	-	-
Wheat	6	134	3	12	8
Wheat or Oat	-	-	-	2	-
Cultivated Grain	-	3	16	-	-

Table 6.2. Continued

Common Name	Count by Site				
	Rich Neck	*North Hill*	*Quarter*	*Southall's Quarter*	*Wilton Period*
Wild Plants					
Acorn	11	2	-	-	-
Bedstraw	1	4	2	-	-
Carpetweed	-	1	-	-	-
Goosefoot	-	34	2	-	1
Hickory	-	12	3	13	2
Hickory/walnut	-	45	-	-	-
Honey locust	250	-	-	-	-
Knotweed	-	41	-	-	7
Pennsylvania smartweed	-	14	2	-	-
Persimmon	-	1	3	1	-
Pigweed	-	2	-	-	-
Purslane	-	1	-	-	-
Sheep sorrel	1	-	-	-	-
Sorrel/dock	-	20	-	-	-
Sumac	-	16	-	-	-
Vervain	-	2	-	-	-
Walnut family	-	-	-	10	-
Walnut	-	-	-	2	-
Black walnut	113	-	11	31	3
Weeds					
Copperleaf	-	1	-	-	-
Jimsonweed	-	8	1	-	-
Nightshade	-	2	-	-	-
Prickly mallow	-	2	-	-	-
Ragweed	-	23	-	-	-
Sedge	3	-	-	-	-
Agropyron	-	4	-	-	-
Goosegrass	-	1	1	-	-
Grass family	-	17	4	-	-
Bean family	-	1	-	-	-
Total	**664**	**870**	**129**	**126**	**281**

(Pavao- Zuckerman et al.2020) and Monticello (Craughwell 2012) as being prepared for the main table,but only the South Pavilion kitchen currently has evidence of this recovered luxury taxon in an assemblage.

Historians and archaeological researchers agree that “house servants tended to eat from the food prepared in the master’s kitchen, while field slaves lived and prepared meals in their own cabins” (McIntosh 1995:84). In the case of Monticello, the enslaved people living closer to the main house had the opportunity to receive food from the main kitchen but likely cooked in quarters along Mulberry Row. This statement confirms the need for comparative research as conducted with research question three to confirm that the botanical record of the kitchen appears vastly different than the quarter contexts which reflect the deficiency of rations issued to enslaved people.

Discussion of Research Question Two

The second research question attempts to investigate the social interactions and relationships between enslaved cooks and the household who held them in bondage. I hoped to find evidence of these relationships in the kitchen and larger domestic spaces, but archaeologically speaking this was messy to tease out. It is also difficult to establish what cooks consumed in this space and how much agency enslaved cooks practiced in this space. When addressing this question, we cannot definitively establish which foods in this kitchen were consumed by white individuals versus enslaved domestic workers and/or community along Mulberry Row. In attempts to answer some part of this research question it is important to reflect on the documentary accounts, theoretical methods, and archaeology.

First, through analysis of the documentary and archaeological records associated with Monticello and other sites in Virginia, we can roughly establish what enslaved people consumed

and what the cooks were cooking. Examples of these documents include Thomas Jefferson's Cookbook (Kimball 1949), *Farm Book* (Betts 1955) and other agricultural records for the property, and first-hand accounts of the foods eaten by free and enslaved residents and visitors to the plantation. I approached this research question through an analysis of the kitchen contexts where this botanical assemblage was recovered, through historical documents about the cooks and their relationships with the Jeffersons, and through contemporary cookbooks. The documentary evidence, combined with the spatial analysis of the kitchen, allows for better distinctions of cooking activities within the kitchen to further our understanding of the specialized roles of the enslaved cooks versus the free individuals in charge of the home.

It is important to discuss where people worked in the kitchen. When Martha Jefferson came down the kitchen ladder in Period 1, she most likely interacted with the head cook as discussed in the Isaac Jefferson account (Stanton 2000). Her meetings likely focused in the southern portion of the kitchen away from the cooking tools, with Ursula, and later other enslaved cooks, mediating the position between the female head of house and the other cooks in the northern portion of the room. The Period 2 stair addition may have marked a new relationship in this space, at least in Martha's entrance to the kitchen. It is hard to discuss these beginning periods as there is a lack of samples associated with them.

Agbe-Davies' (2017) work advocating for the need to understand the contexts in which artifacts are recovered is highly beneficial to this research. To understand activities, actions, and relationships performed in a space, we must study the structure and context of the space. In my research project, it is important to know how to cook, but in order to achieve the culinary knowledge to make a meal, one must also know how to use the tools to cook. Understanding the architectural tools available in the kitchen allows archaeologists to understand the level of skill and knowledge required of the people who performed these advanced culinary duties. French

culinary skills and techniques were beyond the resources of what the enslaved cooks were provided and acquired to use in their usual one-pot meals. This level of skill to navigate and prepare food with specialty utensils was a leg up for the enslaved cooks within the broader aspect of cooking in the enslaved community. The relationships and social interactions are nearly impossible to archaeologically tease out in this kitchen space, but knowing this level of cooking skill and the fact that there are records of favored dishes cooked by the enslaved cook suggests their elevated agency as privileged domestic slaves in the eyes of the Jeffersons. Note that privileged is a loose term here, as the levels of freedom given to the enslaved varied, and privilege and elevation may be in the eye of the beholder.

Since his first introduction to the style of French cooking in school, Thomas Jefferson required the style of French cuisine to be present at his table. Martha Wayles Jefferson interacted with the head cooks on a daily basis within the kitchen and dictated to them what was requested (Stanton 2000; Deetz 2017). Historical documents provide some information on these head cooks, including Ursula, James, and Peter Hemings, and their training and expertise in French cooking, as well as the foods they cooked (Stanton 2012). The enslaved cooks at Monticello were known around the Virginia region for their cooking, and their recipes were often requested by visitors and the Jefferson grandchildren including James Hemings' snow eggs and sweet potato ash cakes (Craughwell 2012; Deetz 2017). Knowing the skills and family favoritism that the Jeffersons gave to the enslaved cooks, we can hypothesize that the cook and their assistants had access to higher quality foods from this kitchen.

It is further of interest that the assemblage from the field enslaved quarter contained a diversity of native resources compared to the more processed foods of the kitchen assemblage. Hacker (2016) concluded that the residents of the field quarter site exercised agency to harvest and grow food around their yard spaces. The presence of some species of native plants means

that the enslaved field laborers had the ability to move around the landscape to gather necessary supplies, but in the sphere of their assigned work role and Saturday and Sunday free times. On the other hand, the kitchen assemblage contains remnants of few to no wild resources, confirming that the individuals were not supplementing their diet with wild resources cooked in the kitchen, as seen consumed by enslaved people (Klippel et al. 2011).

The difference between the quarter and the kitchen assemblages reflects the ideas that (1) the enslaved cooks who consumed food from this space had less agency in their food consumption decisions, or that (2) the individuals associated with this space had enough food and access to higher quality goods, or that (3) the enslaved cooks had less time in their schedules to venture far enough away to supplement their diet. Their degrees of freedom in terms of mobility varies but overall, there is an unclear boundary of how far enslaved domestic servants could traverse the landscape without being questioned compared to enslaved field hands. Workers in the kitchen had less direct supervision compared to the agricultural fields, but in general how much of that supervision was directly overseen versus how much was through "panoptic" supervision (Foucault 1995) is unclear. The best way to understand these interrelationships of the kitchen is through the aid of documentary accounts.

Chapter 7: Conclusion

The Monticello South Pavilion kitchen is a well-preserved glimpse into a late colonial and early federal kitchen on a plantation landscape. As a result of this preservation, the structure itself holds nearly 40 years (1770-1809) of history for the inner workings of kitchen-related activities. Studying this structure in comparison to other contexts within the plantation allows us to see with a finer lens into cooking at these sites. It is important to use the remains that are present at the site to interpret the lifeways of individuals whose experiences were either silenced, or when present, were told from the perspective of the enslaver rather than by the enslaved. My research also demonstrates the value of collecting flotation samples instead of simply assuming that there is no preservation that will yield enough data for interpretation. My results will hopefully convince other researchers that the data and interpretations we can glean from them is worth the effort of collecting, processing, analyzing, and storing these samples. The following section reviews a summary of results from each research question.

Research Question One:

> *What botanical specimens were recovered from the kitchen space through this macrobotanical analysis, and do these botanicals change through time? Does the macrobotanical assemblage reflect the meals that may have been prepared in the kitchen space in relation to the ingredients for recipes of the period? Does the distribution of specific macrobotanical remains in the kitchen differ spatially?*

Archaeologically, the site's deposits for this research question can be assigned to three periods (O'Connor and Neiman 2022:48), and architectural assessments of kitchens (Warner 2015) demonstrate uses of the space for specialized cooking techniques related to stew stoves and a bake oven. A comparison of the plant remains between the three periods for this structure provides an opportunity to look contextually at these macrobotanical assemblages with qualitative (i.e., presence/absence of certain taxa) and quantitative (i.e., density of plant remains

recovered) comparisons, and to focus on changes in taxa through time relative to the spatial organization of the space. The differences in concentrations from recovered macrobotanical remains deposited near the hearth, stew stove, and dresser may also speak volumes to the different activities in these areas. The spatial analysis of the plant remains establishes the specialized cooking activities primarily performed in these particular spaces of the kitchen. Examples include that the Dresser space throughout all three periods maintains a diversity of plant material, the brick floor contexts primarily contain burnt material possibly swept from cooking areas, and that pinecone was used as a fuel source from all areas throughout the use of the kitchen.

As I examined the context of the space to understand how these activities may have been performed, we see the kitchen space changed through time as it became more architecturally equipped for specialized food practices. By examining the recovered plant remains in relation to the structural changes of the cooking space, I have a better understanding of the cooking activities associated with these deposited taxa. Rather than only focusing on the counts, weights, and frequencies of the types of plant taxa categories recovered from the kitchen, this research expands on the data to establish the processes and activities conducted in particular areas of the kitchen. Conducting a spatial analysis of the kitchen allows for better distinction of cooking activities in that space to further understand the specialized roles of the enslaved cooks as well as trends seen throughout the kitchen's full occupation.

Research Question Two:

What do plantation kitchens, specifically in the case of the South Pavilion site, reveal about social interactions and relationships between enslaved cooks and their enslaver in these early domestic spaces?

The South Pavilion kitchen is a complicated space to interpret when sorting out social interactions and boundaries of the cooks and on the landscape. There are very few records

documenting the social exchanges within the space other than Martha interacting with Ursula, and James being favored for his recipes. We can make assumptions by the spatial organization of the kitchen that individuals not meant to cook were not in the northern portion of the room near the primary cooking areas, i.e., stew stove and the open hearth, but rather closer to the formal entrance. Enslaved cooks in this space lacked free time of the enslaved field workers as the enslaved cook's day was determined by the master's household and not the agricultural calendar. Even though they lacked free time after usual work hours, their position as domestic cooks gave them access to higher quality food than the enslaved field hands. The mobility of enslaved people across the landscape allowed them to retain a bit of freedom over their own timetable, but usually only in the after hours of the day and on Sundays. In sum, the degree of mobility for all enslaved people is greatly impacted by the "panoptic" eye of the Jeffersons, but an individual's proximity to the main house proved a degree of favoritism achieved through skill. In the end this question remains inconclusive at the limits of the research.

Research Question Three:

> *What can a comparative analysis of the macrobotanical assemblage from the South Pavilion kitchen and the botanical assemblage from Site 8 tell us about the different foodways practiced in each area and comparisons to contemporaneous sites in the larger Virgina region?*

I compared the macrobotanical remains from Jefferson's first kitchen with the macrobotanical assemblage from a contemporary quarter site for enslaved field workers, Site 8, analyzed by Stephanie Hacker (2016). Both spaces, used during the last quarter of the 18th-century, are sites in which enslaved laborers prepared, consumed, and discarded food refuse. The comparisons made between the sites included differences and similarities in the activities performed in these food preparation areas, and the variety of plants and foods identified in spaces associated with enslaved individuals such as the kitchen. The kitchen, as it was more formalized, had a range of architectural improvements and utensils unknown to enslaved field hands who

cooked within an open-air yard. There was also a difference in fuel sources and a lack of wild resources seen in the kitchen compared to the field quarters. The kitchen provided more of a formal place with kitchen implements as it was constructed to cook meals; whereas the field quarter site was constructed to provide enslaved laborers a location with the minimum resources needed to survive, not to cater to the planter's household.

Broader Impacts and Future Research Opportunities

Through this research, I explored social relationships on the Monticello plantation through foodways, including (1) the social divisions between elite white plantation owners and their enslaved domestic cooks within a specialized kitchen, and (2) the differences between enslaved domestic cooks and enslaved agricultural laborers on the same plantation. The knowledge gained in the excavation of the kitchen in tandem with the analyzed assemblage of carbonized plant remains provides a variety of opportunities to ask further research questions that contribute to foodways studies.

Among the plant assemblage, an additional research avenue could include the choices in fuels for cooking. Such an analysis would require further identification of the wood specimens and spatial comparisons of those taxa recovered in different areas of the kitchen. These samples could also be compared to wood fuels used by enslaved agricultural laborers at Site 8. A less Monticello specific question raised in this study of the kitchen includes if choices in types of fuels are dependent on the cultural dish? This would include examining if pinecone is also used as a common fuel source in other plantation kitchens of the late 18th-century.

A major contribution to this research would be the inclusion of the eggshell faunal analysis for this kitchen through ZooMS, with the aid of Lamzick's 2013 master's research that identified morphological characteristics in bird shell identification. This would include a further study of choices in eggs for French sauces. Additional research that would contribute

significantly to this research would be the analysis of soils samples taken from Mulberry row. These samples were taken during excavations for future botanical analysis but were never processed to be identified. Artifacts, such as ceramics, utensils, and small finds would also be beneficial, as these analyses would establish a well-rounded foodways interpretation of this space to understand the roles of highly trained enslaved cooks in Virgnia.

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2017c Period 3 kitchen digital rendering. On file at the Department of Archaeology, Monticello, Charlottesville, VA.

2017d Period 4 South Pavilion, including a Wash House in the basement, and Wing, digital rendering. On file at the Department of Archaeology, Monticello, Charlottesville, VA.

2017e South Pavilion as a Wash House digital rendering. On file at the Department of Archaeology, Monticello, Charlottesville, VA.

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Appendix

Table A-1. Samples by Period noting exclusions from analysis.

Period 1 Contexts	Associated Kitchen Area	SG	Volume
2582Z-S-09	Leveling fill for brick floor	SG07	2
2584V-S-19	Fill to level floor under dresser	SG12	2
2584Y-S-21	Mortar splatter from construction of South Pavilion wall	SG03	1.5
2584BB-S-25	Leveling fill for brick floor	SG07	1
2584CC-S-26*	Leveling fill for brick floor	SG07	0.2
2588Q-S-08	Fill to level floor under dresser	SG11	12
2588R-S-11	Mortar splatter from construction of South Pavilion wall	SG03	1
2588V-S-14	Leveling fill for brick floor	SG07	1

**Period 1 contains 8 samples in total, but since sample 2584CC contained less than 1 Liter it was dropped from the ubiquity analysis: therefore leaving 7 samples for Period 1.*

Table A-1. Continued.

Period 2 Contexts	Associated Kitchen Area	Feature_SG	Volume
2582L-S-03	Fill to replace missing bricks in repair patch (F10)	SG13	3
2582V-S-05	Bricks laid flat over fill in unidentified pit	F10	2
2582X-S-07	Fill in pit where bricks laid flat	F10	4
2583M-S-20	Fill to replace missing bricks in repair patch (F10)	SG13	1
2582V-S-12	Bricks laid flat in unidentified pit west of the Stew Stoves	F10	1
2584Q-S-14*	Pre-stew stove kitchen trash layer	F11	0.5
2584R-S-15*	Pre-stew stove fill	F11	0.25
2584S-S-16	Pre-stew stove kitchen trash; stew stove leveling fill?	F11	2.5
2582W-S-06	Fill in unidentified pit where bricks lay flat	F10	1
2588M-S-07	First sweeping event	No SG	2
2588U-S-13	Fill deposited in drainage ditch to allow installation of stew stove	F11_SG13	3

**Period 2 contains 11 samples in total, but since sample 2584Q and 2584R contained less than 1 Liter of soil, the two samples were dropped from the Period 2 ubiquity analysis This leaves 9 samples for analysis of Period 2.*

Table A-1. Continued.

Period 3 Contexts	Associated Kitchen Area	Feature_SG	Volume
2588H-S-10	De-facto kitchen refuse, between brick flooring	SG22	1
2587G-S-02	De-facto kitchen refuse, between brick flooring	SG22	1.5
2586M-S-01*	Hearth in northwest corner fireplace	F16	0.25
2586L-S-02	De-facto kitchen refuse, between brick flooring	SG22	1.5
2585M-S-04*	Hearth in northwest corner fireplace	F16	0.5
2585H-S-03	Hearth in northwest corner fireplace	F16	2
2584P-S-13*	Unexcavated ditch fill in southeast corner of the Pavilion	F25	0.5
2584M-S-10	Possible leveling fill for dresser legs	SG19	5
2584K-S-08	De-facto kitchen refuse, between brick flooring	SG22	1
2584H-S-07*	Remnants of the coals from cooking on the stew stove	F12	0.5
2583Q-S-21	De-facto kitchen refuse, between brick flooring	SG22	1
2583K-S-17	De-facto kitchen refuse, between brick flooring	SG22	1.5
2583J-S-16*	Remnants of the coals from cooking on the stew stove	F12	0.5
2583I-S-15	Remnants of the coals from cooking on the stew stove	F12	1.5
2583H-S-05	Remnants of the coals from cooking on the stew stove	F12	1.75
2582U-S-04	De-facto kitchen refuse, between brick flooring	SG22	1.5
2582K-S-02	De-facto kitchen refuse, between brick flooring	SG22	8
2581J-S-02	Hearth in northwest corner fireplace	F16	6
2588I-S-02	Top layer of kitchen debris swept into drainage ditch	SG18 _F11?	9
2588J-S-04	Kitchen debris swept into drainage ditch	F11	1
2588K-S-05	Kitchen debris swept into drainage ditch	F11	1
2588L-S-06	Kitchen debris swept into drainage ditch	F11	1

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**Period 3 contains 24 samples in total but since samples 2583J, 2584H, 2584P, 2585M, and 2586M contained less than 1 liter of soil, these samples were dropped from the ubiquity analysis for Period 3. This leaves 19 samples for analysis of Period 3.*

Table A-2. Tax Count and Weight by Periods and Sample Number

Sample Number	Common Name	Count	Weight
Period 1			
2582Z-S-09	Eggshell	3	0.01
2582Z-S-09	Pitch	1	0.00
2582Z-S-09	Burnt food/ Starchy	2	0.00
2582Z-S-09	Unidentifiable	1	0.00
Total		**7**	**0.01**
2584BB-S-25	Pinecone	2	0.00
2584BB-S-25	Bark	1	0.00
2584BB-S-25	Spore clump	1	0.00
2584BB-S-25	Pinecone	2	0.01
Total		**6**	**0.01**
2584CC-S-26	Unidentifiable seed coat	1	0.00
Total		**1**	**0.00**
2584V-S-19	Eggshell	2	0.00
2584V-S-19	Bark	8	0.01
2584V-S-19	Bark cf.	4	0.00
2584V-S-19	Gall	1	0.00
2584V-S-19	Purslane	1	0.00
2584V-S-19	Bean cf.	6	0.01
2584V-S-19	Tuber cf.	2	0.00
2584V-S-19	Unidentifiable	3	0.01
2584V-S-19	Burnt food/ Starchy	23	0.02
Total		**50**	**0.05**
2584Y-S-21	Eggshell	1	0.00
2584Y-S-21	Unidentifiable	1	0.00
2584Y-S-21	Bark	1	0.00
Total		**3**	**0.00**
2588V-S-14	Eggshell	1	0.00
2588V-S-14	Pinecone	10	0.01
2588V-S-14	Pitch	1	0.00
2588V-S-14	Plant parts Uncarbonized	1	0.00
Total		**13**	**0.01**
2588R-S-11	Pinecone	3	0.00
2588R-S-11	Unidentifiable	1	0.00
2588R-S-11	Spore clump	1	0.00
Total		**5**	**0.00**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 1			
2588Q-S-08	Burnt food/ Starchy	58	0.27
2588Q-S-08	Pinecone	24	0.19
2588Q-S-08	Tuber cf.	4	0.01
2588Q-S-08	Bark	22	0.30
2588Q-S-08	Bark cf.	4	0.00
2588Q-S-08	Pitch	1	0.00
2588Q-S-08	Corn embryo cf.	1	0.00
2588Q-S-08	Hazelnut shell	1	0.00
2588Q-S-08	Acorn	2	0.00
2588Q-S-08	Hickory cf.	1	0.00
2588Q-S-08	Unidentifiable	10	0.01
2588Q-S-08	Unidentifiable seed	1	0.00
2588Q-S-08	Unidentifiable seed fragments- irregular shape	3	0.00
2588Q-S-08	Unidentifiable seed coat	3	0.00
2588Q-S-08	Plant parts Uncarbonized	2	0.00
Total		**137**	**0.78**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 2			
2584Q-S-14	Eggshell	4	0.01
2584Q-S-14	Pinecone	19	0.02
2584Q-S-14	Burnt food/ Starchy	21	0.02
2584Q-S-14	Stem	3	0.00
2584Q-S-14	Bark cf.	1	0.00
2584Q-S-14	Grape seed cf.	1	0.00
2584Q-S-14	Unidentifiable seed coat	4	0.00
Total		**53**	**0.05**
2588U-S-13	Eggshell	10	0.00
2588U-S-13	Pinecone	32	0.04
2588U-S-13	Burnt food/ Starchy	14	0.02
2588U-S-13	Bark	7	0.00
2588U-S-13	Acorn cf.	1	0.00
2588U-S-13	Hickory	3	0.00
2588U-S-13	Grape	1	0.00
2588U-S-13	Persimmon cf.	1	0.00
2588U-S-13	Unidentifiable	4	0.00
2588U-S-13	Unidentifiable seed	1	0.00
Total		**74**	**0.06**
2582W-S-06	Eggshell	38	0.10
2582W-S-06	Bark	5	0.05
2582W-S-06	Burnt food/ Starchy	4	0.02
2582W-S-06	Corn kernel cf.	1	0.01
2582W-S-06	Pinecone	4	0.01
2582W-S-06	Tuber cf.	2	0.00
2582W-S-06	Pitch	1	0.00
2582W-S-06	Unidentifiable 1	1	0.00
Total		**56**	**0.19**
2582V-S-12	Eggshell	8	0.02
2582V-S-12	Uncarbonized Indeterminate seed coats	2	0.00
2582V-S-12	Pinecone	4	0.01
2582V-S-12	Bark	6	0.03
2582V-S-12	Unidentifiable	2	0.01
2582V-S-12	Unidentified seed	2	0.01
Total		**24**	**0.08**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 2			
2582V-S-05	Eggshell	23	0.01
2582V-S-05	Nutshell cf.	2	0.00
2582V-S-05	Bark	7	0.01
2582V-S-05	Bark cf.	2	0.00
2582V-S-05	Pinecone	1	0.00
2582V-S-05	Pinecone cf.	1	0.00
2582V-S-05	Burnt food/ Starchy	7	0.01
2582V-S-05	Pitch	1	0.00
2582V-S-05	Plant parts Uncarbonized	2	0.00
2582V-S-05	Unidentifiable	4	0.04
Total		**50**	**0.07**
2582L-S-03	Eggshell	3	0.01
2582L-S-03	Pinecone	1	0.00
2582L-S-03	Burnt food/ Starchy	4	0.01
2582L-S-03	Pitch	5	0.01
2582L-S-03	Bark	3	0.00
2582L-S-03	Nutshell interior	1	0.00
2582L-S-03	Nutshell cf.	1	0.00
Total		**18**	**0.03**
2584S-S-16	Eggshell	1	0.00
2584S-S-16	Burnt food/ Starchy	9	0.03
2584S-S-16	Pinecone	7	0.00
2584S-S-16	Pinecone cf.	2	0.00
2584S-S-16	Bark	2	0.00
2584S-S-16	Bark cf.	4	0.00
2584S-S-16	Gall	2	0.00
2584S-S-16	Unidentifiable seed	4	0.01
2584S-S-16	Unidentifiable	3	0.00
2584S-S-16	Pitch	3	0.01
2584S-S-16	Grain Unidentifiable	1	0.00
Total		**38**	**0.05**
2584R-S-15	Eggshell	3	0.00
2584R-S-15	Burnt food/ Starchy	1	0.01
2584R-S-15	Plant parts Uncarbonized	3	0.00
2584R-S-15	Pinecone	1	0.00
Total		**8**	**0.01**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 2			
2588M-S-07	Eggshell	35	0.07
2588M-S-07	Burnt food/ Starchy	10	0.02
2588M-S-07	Pinecone	158	0.32
2588M-S-07	Pinecone cf.	1	0.00
2588M-S-07	Bark	17	0.10
2588M-S-07	Pitch	3	0.01
2588M-S-07	Cinder/ash	5	0.12
2588M-S-07	Unidentifiable	2	0.00
2588M-S-07	Unidentifiable seed coat	1	0.00
Total		**232**	**0.64**
2582X-S-07	Eggshell	12	0.10
2582X-S-07	Pinecone	4	0.02
2582X-S-07	Burnt food/ Starchy	24	0.18
2582X-S-07	Bark	20	0.13
2582X-S-07	Nutshell cf.	1	0.00
2582X-S-07	Unidentifiable	9	0.00
2582X-S-07	Unidentifiable seed fragment- irregular shape	4	0.00
2582X-S-07	Tuber cf.	1	0.00
2582X-S-07	Pitch	7	0.00
2582X-S-07	Textile Fiber	1	0.00
Total		**83**	**0.43**
2583M-S-20	Eggshell	1	0.00
2583M-S-20	Pitch	1	0.00
2583M-S-20	Unidentifiable	1	0.01
2583M-S-20	Unidentifiable seed	1	0.00
2583M-S-20	Pinecone	1	0.00
2583M-S-20	Plant parts Uncarbonized	2	0.00
2583M-S-20	Buffalo bur Uncarbonized	1	0.00
Total		**8**	**0.01**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2581J-S-02	Watermelon	1	0.01
2581J-S-02	Watermelon seed coats cf.	5	0.00
2581J-S-02	Watermelon meat	2	0.00
2581J-S-02	Pinecone	40	0.14
2581J-S-02	Pinecone cf.	9	0.00
2581J-S-02	Bark	30	0.36
2581J-S-02	Bark with large wood fragments	4	1.19
2581J-S-02	Unidentifiable	13	0.03
2581J-S-02	Pitch	2	0.01
2581J-S-02	Burnt food/Starchy	44	0.18
2581J-S-02	Corn kernel cf.	1	0.00
2581J-S-02	Unidentifiable seed coat	5	0.00
2581J-S-02	Unidentifiable seed fragments-round	10	0.03
2581J-S-02	Unidentifiable seed fragments-irregular shape	32	0.01
2581J-S-02	Plant parts Uncarbonized	5	0.00
2581J-S-02	Eggshell	8	0.04
Total		**211**	**2.00**
2582K-S-02	Burnt food/ Starchy	59	0.34
2582K-S-02	Bark	13	0.12
2582K-S-02	Pinecone	5	0.01
2582K-S-02	Pinecone cf.	1	0.00
2582K-S-02	Unidentifiable	6	0.06
2582K-S-02	Unidentifiable seed	9	0.01
2582K-S-02	Pitch	5	0.01
2582K-S-02	Grape cf.	1	0.00
2582K-S-02	Bean cf.	1	0.01
2582K-S-02	Corn cupule cf.	2	0.01
2582K-S-02	Blueberry Uncarbonized	1	0.00
2582K-S-02	Goosegrass	1	0.00
2582K-S-02	Nutshell	2	0.02
2582K-S-02	Gall	1	0.00
2582K-S-02	Persimmon cf.	1	0.01
2582K-S-02	Weedy legume cf.	1	0.00
2582K-S-02	Purslane Uncarbonized	3	0.00
2582K-S-02	Eggshell	533	1.33
Total		**645**	**1.93**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2582U-S-04	Pitch	3	0.03
2582U-S-04	Plant parts Uncarbonized	4	0.01
2582U-S-04	Nutshell cf.	1	0.0
2582U-S-04	Unidentifiable seed coat	2	0.03
2582U-S-04	Burnt food/ Starchy	27	0.02
2582U-S-04	Bark	1	0.00
2582U-S-04	Eggshell	73	0.16
Total		**56**	**1.34**
2583I-S-15	Unidentifiable seed coat	1	0.01
2583I-S-15	Unidentifiable seed	1	0.01
2583I-S-15	Bark	5	0.05
2583I-S-15	Pinecone	15	0.06
2583I-S-15	Unidentifiable seed fragment- irregular shape	2	0.02
2583I-S-15	Unidentifiable seed coat	1	0.01
Total		**25**	**0.16**
2583K-S-17	Bark	35	0.23
2583K-S-17	Blackberry/raspberry	1	0.00
2583K-S-17	Pinecone	1	0.00
2583K-S-17	Burnt food/ Starchy	27	0.27
2583K-S-17	Corn cupule cf.	1	0.00
2583K-S-17	Pitch	1	0.00
2583K-S-17	Unidentifiable seed coat	6	0.00
2583K-S-17	Unidentifiable	3	0.00
2583K-S-17	Plant parts Uncarbonized	1	0.01
2583K-S-17	Mallow family	2	0.00
2583K-S-17	Holly Uncarbonized	1	0.00
2583K-S-17	Grass family uncarbonized	1	0.00
2583K-S-17	Pea fragment	1	0.00
2583K-S-17	Eggshell	14	0.08
Total		**95**	**0.59**
2584P-S-13	Pinecone	1	0.00
2584P-S-13	Burnt food/ Starchy	3	0.01
2584P-S-13	Bark	2	0.01
2584P-S-13	Tuber cf.	1	0.00
2584P-S-13	Walnut shell	2	0.00
2584P-S-13	Nutshell	3	0.01
2584P-S-13	Eggshell	1	0.00
Total		**13**	**0.03**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2583Q-S-21	Burnt food/ Starchy	7	0.02
2583Q-S-21	Unidentifiable	1	0.00
2583Q-S-21	Bark cf.	3	0.00
2583Q-S-21	Pinecone	5	0.00
2583Q-S-21	Pitch	1	0.00
2583Q-S-21	Plant parts Uncarbonized	2	0.01
2583Q-S-21	Nutshell cf.	1	0.00
2583Q-S-21	Coal/slag	7	0.00
2583Q-S-21	Eggshell	1	0.00
Total		**28**	**0.03**
2583J-S-16	Bark	5	0.32
2583J-S-16	Bean/Persimmon	8	0.00
2583J-S-16	Pinecone	27	0.09
2583J-S-16	Pinecone cf.	17	0.04
2583J-S-16	Pitch	3	0.00
2583J-S-16	Unidentifiable	34	0.07
2583J-S-16	Unidentifiable seed 1	1	0.00
2583J-S-16	Unidentifiable seed coat	10	0.03
2583J-S-16	Unidentifiable seed 2	1	0.00
2583J-S-16	Unidentifiable seed 3	2	0.00
2583J-S-16	Plum/cherry cf.	1	0.00
Total		**109**	**0.55**
2584K-S-08	Eggshell	3	0.00
2584K-S-08	Burnt food/ Starchy	7	0.21
2584K-S-08	Bark	5	0.22
2584K-S-08	Pinecone	7	0.00
2584K-S-08	Nutshell	2	0.01
2584K-S-08	Unidentifiable	9	0.18
2584K-S-08	Unidentifiable seed	1	0.00
Total		**34**	**0.62**
2586L-S-02	Eggshell	2	0.01
2586L-S-02	Bark	8	0.00
2586L-S-02	Burnt food/ Starchy	19	0.06
2586L-S-02	Pinecone	2	0.00
2586L-S-02	Unidentifiable	4	0.01
2586L-S-02	Maypop cf.	1	0.00
Total		**36**	**0.08**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2583H-S-05	Eggshell	6	0.04
2583H-S-05	Pinecone	64	0.25
2583H-S-05	Pinecone cf.	6	0.01
2583H-S-05	Burnt food/ Starchy	15	0.11
2583H-S-05	Bark	33	0.55
2583H-S-05	Coffee	2	0.01
2583H-S-05	Coffee seed coat	2	0.00
2583H-S-05	Coffee seed coat cf.	7	0.00
2583H-S-05	Unidentifiable seed	5	0.00
2583H-S-05	Unidentifiable	12	0.00
2583H-S-05	Plant parts Uncarbonized	1	0.00
2583H-S-05	Pitch	8	0.01
2583H-S-05	Wood with Metal	14	0.15
2583H-S-05	Large Softwood w bark	2	3.36
2583H-S-05	Large Hardwood frag	9	4.09
2583H-S-05	Large wood w bark	1	0.00
Total		**187**	**8.58**
2588J-S-04	Eggshell	11	0.05
2588J-S-04	Burnt food/ Starchy	49	0.05
2588J-S-04	Bark	24	0.19
2588J-S-04	Pinecone	31	0.11
2588J-S-04	Pitch	14	0.02
2588J-S-04	Gall	1	0.00
2588J-S-04	Tuber cf.	26	0.10
2588J-S-04	Unidentified seed	1	0.00
2588J-S-04	Unidentifiable seed coat	1	0.00
2588J-S-04	Unidentifiable	58	0.14
2588J-S-04	Hickory nutshell	3	0.01
2588J-S-04	Nutshell cf.	2	0.01
2588J-S-04	Walnut family	3	0.00
Total		**224**	**0.68**
2588L-S-06	Eggshell	11	0.02
2588L-S-06	Bark	9	0.16
2588L-S-06	Pinecone	23	0.11
2588L-S-06	Pitch	3	0.02
2588L-S-06	Plant parts Uncarbonized	2	0.00
2588L-S-06	Unidentifiable	4	0.02
Total		**54**	**0.32**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2588I-S-02	Eggshell	53	0.16
2588I-S-02	Bark	180	3.24
2588I-S-02	Bark cf.	39	0.38
2588I-S-02	Fruit cf.	1	0.04
2588I-S-02	Fruit/Grain cf.	5	0.01
2588I-S-02	Hickory cf.	2	0.01
2588I-S-02	Pinecone	96	0.38
2588I-S-02	Pinecone cf.	37	0.17
2588I-S-02	Purslane	1	0.00
2588I-S-02	Pitch	24	0.11
2588I-S-02	Pitch cf.	11	0.05
2588I-S-02	Peach cf.	1	0.00
2588I-S-02	Nutshell cf.	7	0.04
2588I-S-02	Hazelnut	2	0.02
2588I-S-02	Tuber cf.	14	0.04
2588I-S-02	Vascular bundles	11	0.01
2588I-S-02	Unidentified seed	3	0.00
2588I-S-02	Unidentifiable 1	57	0.30
2588I-S-02	Unidentifiable 2	14	0.05
2588I-S-02	Unidentifiable seed	3	0.01
2588I-S-02	Unidentifiable seed coat	13	0.01
2588I-S-02	Uncarbonized Morning glory seed	1	0.00
2588I-S-02	Unidentified 1	2	0.13
2588I-S-02	Unidentified 2	14	0.21
2588I-S-02	Burnt food/ Starchy	45	0.20
2588I-S-02	Unidentified monocot stem	1	0.00
2588I-S-02	Unidentifiable stem	1	0.00
2588I-S-02	Corn kernel cf.	4	0.02
2588I-S-02	Spore clump	1	0.00
2588I-S-02	Cinder	45	0.30
Total		**688**	**5.89**
2586M-S-01	Eggshell	1	0.01
2586M-S-01	Burnt food/ Starchy	7	0.02
2586M-S-01	Bark cf.	1	0.00
Total		**9**	**0.03**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2584H-S-07	Eggshell	2	0.01
2584H-S-07	Burnt food/ Starchy	8	0.03
2584H-S-07	Pinecone	18	0.01
2584H-S-07	Bark	5	0.01
2584H-S-07	Unidentified seed 1	3	0.00
2584H-S-07	Unidentified seed 2	4	0.00
2584H-S-07	Unidentifiable	2	0.00
2584H-S-07	Unidentifiable seed	1	0.00
2584H-S-07	Grass Family Uncarbonized	1	0.00
2584H-S-07	Nutshell cf.	1	0.00
2584H-S-07	Bean family	1	0.01
Total		**46**	**0.07**
2584M-S-10	Eggshell	7	0.00
2584M-S-10	Bark	8	0.06
2584M-S-10	Bark cf.	29	0.00
2584M-S-10	Pinecone	18	0.04
2584M-S-10	Pitch	3	0.00
2584M-S-10	Burnt food/ Starchy	39	0.07
2584M-S-10	Corn kernel cf.	11	0.02
2584M-S-10	Persimmon cf.	3	0.01
2584M-S-10	Persimmon seed coat	1	0.00
2584M-S-10	Tuber cf.	3	0.00
2584M-S-10	Unidentifiable	15	0.00
2584M-S-10	Unidentifiable seed coat	1	0.00
2584M-S-10	Uncarbonized Wood	2	0.01
Total		**140**	**0.21**
2588K-S-05	Eggshell	86	0.21
2588K-S-05	Burnt food/ Starchy	18	0.05
2588K-S-05	Pinecone	22	0.04
2588K-S-05	Pinecone cf.	2	0.00
2588K-S-05	Unidentifiable	5	0.00
2588K-S-05	Bark	43	0.30
2588K-S-05	Bark cf.	4	0.00
2588K-S-05	Nutshell	3	0.00
2588K-S-05	Plant parts Uncarbonized	3	0.00
2588K-S-05	Unidentifiable seed coat	3	0.00
2588K-S-05	Grape cf.	1	0.00
Total		**190**	**0.60**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2584N-S-11	Eggshell	128	0.40
2584N-S-11	Bark	42	0.71
2584N-S-11	Pitch	10	0.03
2584N-S-11	Burnt Food/Starchy	27	0.05
2584N-S-11	Pinecone	90	0.81
2584N-S-11	Pinecone cf.	1	0.01
2584N-S-11	Nutshell cf.	2	0.01
2584N-S-11	Unidentified Tree Seed	1	0.01
2584N-S-11	Legume cf.	1	0.01
2584N-S-11	Unidentifiable	7	0.04
Total		**309**	**2.08**
2585H-S-03	Eggshell	7	0.04
2585H-S-03	Pinecone	10	0.01
2585H-S-03	Bark	1	0.01
2585H-S-03	Burnt food/ Starchy	20	0.03
2585H-S-03	Bark cf.	3	0.00
2585H-S-03	Pitch	4	0.01
2585H-S-03	Unidentifiable	2	0.01
2585H-S-03	Metal flakes	14	0.12
Total		**61**	**0.23**
2588I-S-03	Eggshell	67	0.25
2588I-S-03	Spore clump	22	0.02
2588I-S-03	Pinecone	38	0.07
2588I-S-03	Pinecone cf.	4	0.00
2588I-S-03	Bark	81	1.25
2588I-S-03	Pitch	6	0.01
2588I-S-03	Unidentifiable	19	0.03
2588I-S-03	Burnt food/ Starchy	6	0.03
2588I-S-03	Nutshell	3	0.00
Total		**246**	**1.66**
2585M-S-04	Eggshell	3	0.00
2585M-S-04	Burnt food/ Starchy	22	0.03
2585M-S-04	Bark	2	0.00
2585M-S-04	Pinecone	6	0.01
Total		**33**	**0.04**

Table A-2. Continued.

Sample Number	Common Name	Count	Weight
Period 3			
2587G-S-02	Eggshell	374	0.43
2587G-S-02	Bark	3	0.00
2587G-S-02	Bark cf.	1	0.00
2587G-S-02	Pitch	27	0.11
2587G-S-02	Nutshell cf.	1	0.01
2587G-S-02	Pinecone	1	0.00
2587G-S-02	Corn kernel cf.	1	0.00
2587G-S-02	Gall	1	0.00
Total		**409**	**0.55**
2588H-S-10	Eggshell	2	0.00
2588H-S-10	Pinecone	4	0.00
2588H-S-10	Pinecone cf.	2	0.01
2588H-S-10	Bark	1	0.00
2588H-S-10	Burnt food/ Starchy	3	0.00
2588H-S-10	Pitch	1	0.00
2588H-S-10	Plant parts Uncarbonized	1	0.00
2588H-S-10	Unidentifiable seed coat	1	0.00
Total		**15**	**0.01**

Table A-3. Scientific Names of Taxa Recovered from 44AB089.

Common Name	Taxonomic Name	Item Type	Category
Acorn	*Quercus sp.*	nutshell	nut
Acorn cf.	*Quercus sp.*	nutshell	nut
Bark		bark	fuel
Bark cf.		bark	fuel
Bark with large wood		bark	fuel
Bean	*Phaseolus vulgaris*	seed	crop
Bean cf.	*Phaseolus vulgaris*	seed	crop
Bean family	*Fabaceae*	seed	miscellaneous
Bean family cf.	*Fabaceae*	seed	miscellaneous
Bean/Persimmon		seed	miscellaneous
Blackberry/raspberry	*Rubus sp.*	seed	fruit
Blueberry uncarbonized	*Vaccinium sp.*	seed	fruit
Bud		not applicable	miscellaneous
Buffalo bur		seed	miscellaneous
Burnt food/Starchy		not applicable	miscellaneous
Chenopod	*Chenopodium berlandieri*	seed	starch/oil seed
Cinder		not applicable	miscellaneous
Coal/slag		not applicable	miscellaneous
Coffee		seed	miscellaneous
Corn cupule cf.	*Zea mays*	cupule	crop
Corn embryo cf.	*Zea mays*	seed	crop
Corn kernel	*Zea mays*	kernel	crop
Cucurbit rind	*Cucurbitaceae*	rind	crop
Dock	*Rumex sp.*	seed	miscellaneous
Eggshell		other	miscellaneous
Fruit cf.		seed	fruit
Fruit/Grain cf.		seed	fruit/crop
Gall		not applicable	miscellaneous
Goosegrass	*Eleusine indica*	seed	miscellaneous
Grape	*Vitis sp.*	seed	fruit
Grape cf.	*Vitis sp.*	seed	fruit
Grass family	*Poaceae*	seed	miscellaneous
Hazelnut	*Corylus sp.*	nutshell	nut
Hickory	*Carya sp.*	nutshell	nut
Hickory cf.	*Carya sp.*	nutshell	nut
Holly uncarbonized		seed	miscellaneous
Legume cf.		seed	miscellaneous
Mallow family		seed	miscellaneous
Maypop cf.		seed	fruit

Table A-3. Continued

Common Name	Taxonomic Name	Item Type	Category
Monocot stem	*Poaceae*	non-woody stem	miscellaneous
Nutshell		nutshell	nut
Nutshell cf.		nutshell	nut
Pea	*Pisum sativum*	seed	crop
Peach cf.	*Prunus persica*	seed	fruit
Persimmon cf.	*Diospyros virginiana*	seed	fruit
Pinecone	*Pinus sp.*	other fruit	miscellaneous
Pinecone cf.	*Pinus sp.*	other fruit	miscellaneous
Pitch		amorphous plant tissue	miscellaneous
Pitch cf.		amorphous plant tissue	miscellaneous
Plant parts		other	miscellaneous
Plum/cherry	*Prunus americana*	seed	fruit
Purslane	*Portulaca sp.*	seed	miscellaneous
Purslane Uncarbonized	*Portulaca sp.*	seed	miscellaneous
Spore clump		amorphous plan	miscellaneous
Textile Fiber		other	miscellaneous
Tuber cf.	*Ipomoea*	other	crop
Uncarbonized Indeterminate seed coats		seed	miscellaneous
Unidentifiable		amorphous plant tissue	miscellaneous
Unidentifiable seed		seed	miscellaneous
Unidentified		seed	miscellaneous
Walnut	*Juglans sp.*	nutshell	nut
Walnut family	*Juglandaceae*	nutshell	nut
Watermelon	*Citrullus vulgaris*	fruit	fruit
Watermelon seed meat	*Citrullus vulgaris*	fruit	fruit
Weedy legume	*Fabaceae*	seed	miscellaneous
Wood		wood	miscellaneous

Vita

Peggy Humes was born in Edmond, Oklahoma, on April 5th, 1993, to parents Tom and Sonya Humes. She graduated in 2014 with a B.A. in Anthropology and minors in Museum Studies, American and European History from The University of Tulsa in Tulsa, Oklahoma.

After graduating from undergrad Peggy continued to develop her archaeological skills before applying to graduate school. She worked with numerous organizations including The Montpelier Foundation, The University of James Madison, The George Washington Foundation, The Thomas Jefferson Foundation, multiple resource cultural management firms in Virginia, The United States Forest Service, and The National Park Service. While working in the Department of Archaeology at Thomas Jefferson's Monticello she was fortunate enough to find a great mentor who pushed her to apply to graduate school.

Peggy entered the graduate program at the University of Tennessee, Knoxville in the fall of 2018 where she thrived until covid-19 hit the world. During the spring of 2020 she spent time away with her family to cope with the numerous losses. From fall of 2021 through fall 2022 she briefly did a stint as the Research Archaeologist at the University of South Alabama with the Mobile, Alabama I-10 Bridge Project. She returned to finish her degree in the spring of 2023 under the support of her advisors, family, and friends. Peggy finally earned her M.A. in Anthropology in the fall of 2023. Peggy is currently working as a consultant archaeologist for the Archaeological Research Center in Saint Louis, Missouri.