Archaeobotanical Analysis and Interpretations of Enslaved Virginian Plant Use at Rich Neck Plantation (44WB52)

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# ARCHAEOBOTANICAL ANALYSIS AND INTERPRETATIONS OF ENSLAVED VIRGINIAN PLANT USE AT RICH NECK PLANTATION (44WB52)

Stephen A. Mrozowski, Maria Franklin, and Leslie Hunt

*Archaeobotanical analysis remains one of the least-utilized strategies for investigating the lifeways of African diasporic peoples despite the fact that the field of African diaspora archaeology has grown exponentially over the last 30 years. We consider the botanical remains from the Rich Neck Slave Quarter site as constituting a significant line of evidence for illuminating the nature of plant use among enslaved Afro-Virginians. As a result of the ambitious flotation program undertaken during the excavation of the Rich Neck site, the botanical assemblage provides evidence allowing for interpretations of the role of plants in enslaved subsistence and potential medicinal practices. Our research illustrates that Afro-Virginians actively participated in the creation of cultural practices related to plant use, and strategically shifted their production activities in response to both internal and external factors that influenced their lives within the context of plantation slavery.*

*El análisis arqueobotánico continúa siendo una de las estrategias menos utilizadas para investigar la vida de los pueblos africanos en diáspora a pesar del hecho de que el estudio de la arqueología de la diáspora africana ha crecido exponencialmente durante los últimos treinta años. Consideramos que los restos botánicos del sitio "Rich Neck Slave Quarter" constituyen una línea de evidencia significativa para iluminar el uso de plantas por "afro-virginians" esclavizados. De los resultados del ambicioso programa de muestreo flotación utilizado durante de la excavación del sitio "Rich Neck", la colección botánica provee evidencia que permite interpretaciones del papel de las plantas en la subsistencia de los esclavos y de potenciales prácticas medicinales. Nuestra investigación ilustra que los "afro-virginians" participaron activamente en la creación de prácticas culturales relacionadas con el uso de plantas, y cambiaron estratégicamente sus actividades productivas en respuesta a factores internos y externos que influenciaron sus vidas dentro del contexto de la esclavitud en la plantación.*

For nearly three decades, the Colonial Williamsburg Foundation has made a concerted effort to expand its scholarly and interpretive focus to include the free and enslaved Afro-Virginians who played an essential role in the cultural, social, and economic development of Virginia's colonial capital of Williamsburg (Figure 1) during the eighteenth century. Part of this effort has involved the archaeological investigations of sites inhabited by enslaved Africans and blacks. One such site is the eighteenth-century slave quarter associated with the Rich Neck plantation (site 44WB52; Agbe-Davies 1999; Franklin 2004; McFaden et al. 1999; Muraca et al. 2003). Located just over 3 km south of Williamsburg's historic district, Rich Neck (Figure 2) was one of the early English colonial settlements that constituted what was known as Middle Plantation, the seventeenth-century community that preceded Williamsburg (Muraca 1993). During the early 1990s, Colonial Williamsburg archaeologists uncovered the remains of a large manor house and ancillary structures associated with the seventeenth-century occupation of the site (Figure 3). In 1993, Phase I and II testing of areas west of the seventeenth-century homestead led to the discovery of an eighteenth-century dwelling, designated Structure 1 (see Figure 3), once occupied by enslaved blacks. The remains of an additional dwelling (Structure 2; see Figure 3) were located the following year. Together, Structures 1 and 2 and their related features form the site component known as the Rich Neck Slave Quarter.

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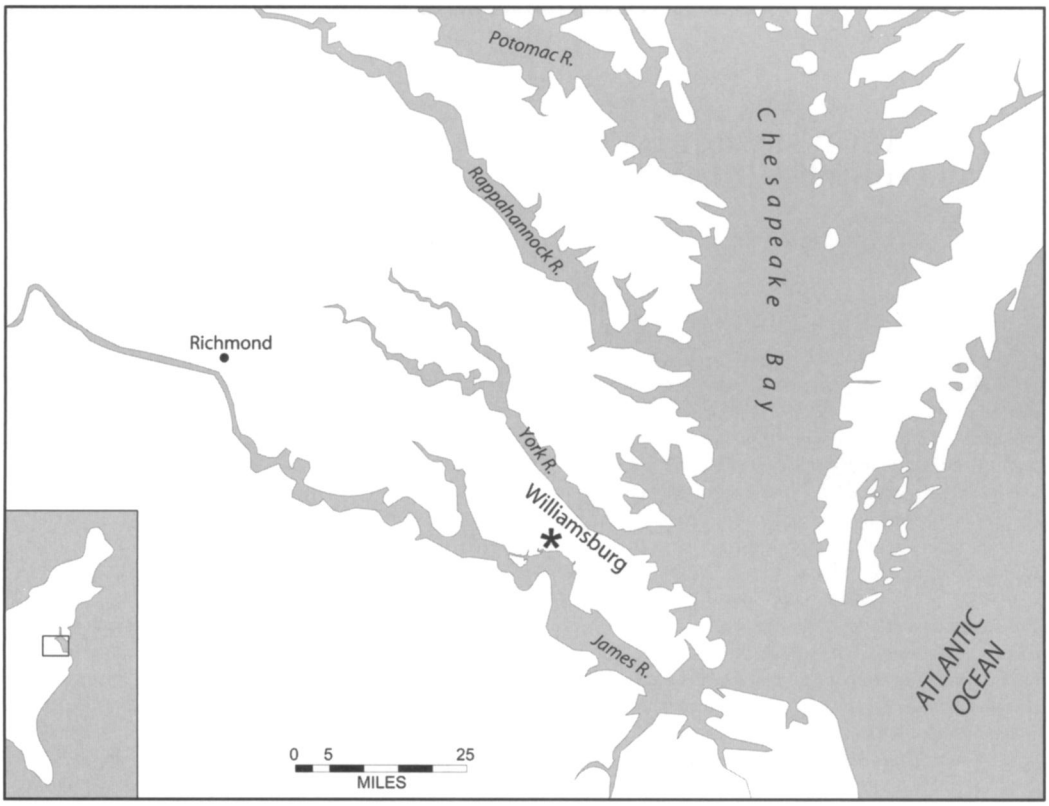


**Figure 1. Williamsburg, Virginia.**

## Research Goals

In this paper, we present the results of the macrobotanical analysis that was carried out in conjunction with the excavation of features associated with Structure 1. There were two major goals guiding the botanical analysis. Given the limited but growing number of archaeobotanical assemblages from African-American sites in North America (Gardner 1983; McKnight 2000, 2003; Raymer 1996, 2003; Rock and Newsom 1987), we sought to maximize our returns by undertaking a program of botanical analysis that in almost every case involved the flotation of entire context matrices. This approach contrasted with commonly employed sampling protocols that seldom involve the flotation of complete contexts and often focus on rich contexts such as privies and/or trash pits (e.g., Lennstrom and Hastorf 1995). The primary purpose behind this program was to recover as rich an assemblage as possible of the plants used by the site's inhabitants. The second goal, developing a more comprehensive knowledge of African-American plant use, was by far the most central. Interpretive efforts focused on the notion of "well-being" in developing a framework for assessing not only household economy, but also the possible use of plants for more than purely caloric needs. Efforts were also made to investigate plant use over time in order to gain a clearer understanding of the demographics of the slave quarter at the household level. Since households are dynamic and transform as members age, leave, or enter the group, a temporal analysis of the exploitation of plants might reveal changes in the household life cycle that led to shifts in household production strategies. Finally, we compared the archaeobotanical results from Rich Neck with other African-American habitation sites in Virginia in order to arrive at a more comprehensive portrait of the enslaved household economy.

### *Plant Use and Notions of Well-Being*

Various labels have been assigned to the economic


**Figure 2. Location of the Rich Neck Plantation site (44WB52), Williamsburg.**

use of plants by human populations. Subsistence and diet are two of the most commonly used terms by both prehistorians and historical archaeologists (e.g., Deagan 1996; Pearsall 1989; Reitz and Scarry 1985; Scarry and Reitz 1990; Scott 1996). Plants provide more than just sustenance; they can be used for medicinal or recreational purposes (Mrozowski 1983; Wilkie 1996), or as ornamentals in landscapes that hold symbolic importance for those who construct them (Heath 2001; Heath and Bennett 2000; Mrozowski 1987, 1991, 1999, 2006; Shackel 1996). In this sense the notion of well-being is designed to broaden the interpretive possibilities of archaeobotanical data beyond the essential economic roles plants play in human society. For example, ornamental plants and grasses served as expressions of class identity during the eighteenth and nineteenth centuries (Mrozowski 1991, 1999, 2006). Flowers seldom contribute to diet (although there are exceptions) but add color or pleasant fragrances to a domestic environment (e.g., Heath and Bennett 2000; Raymer 2003:38). Jimson weed (*Datura stramonium*) provides an example of a plant that served multiple purposes. To start, *Datura* is one of several plants in its family that readily colonizes freshly or continuously disturbed ground, the kind commonly found in association with human settlement. Despite its toxic properties, the seeds of the plant have also been found in archaeological contexts that suggest their consumption (Mrozowski 1983, 2006; Raymer 2003). During the nineteenth century, jimson weed leaves were smoked for medicinal purposes. They were particularly soothing for individuals with

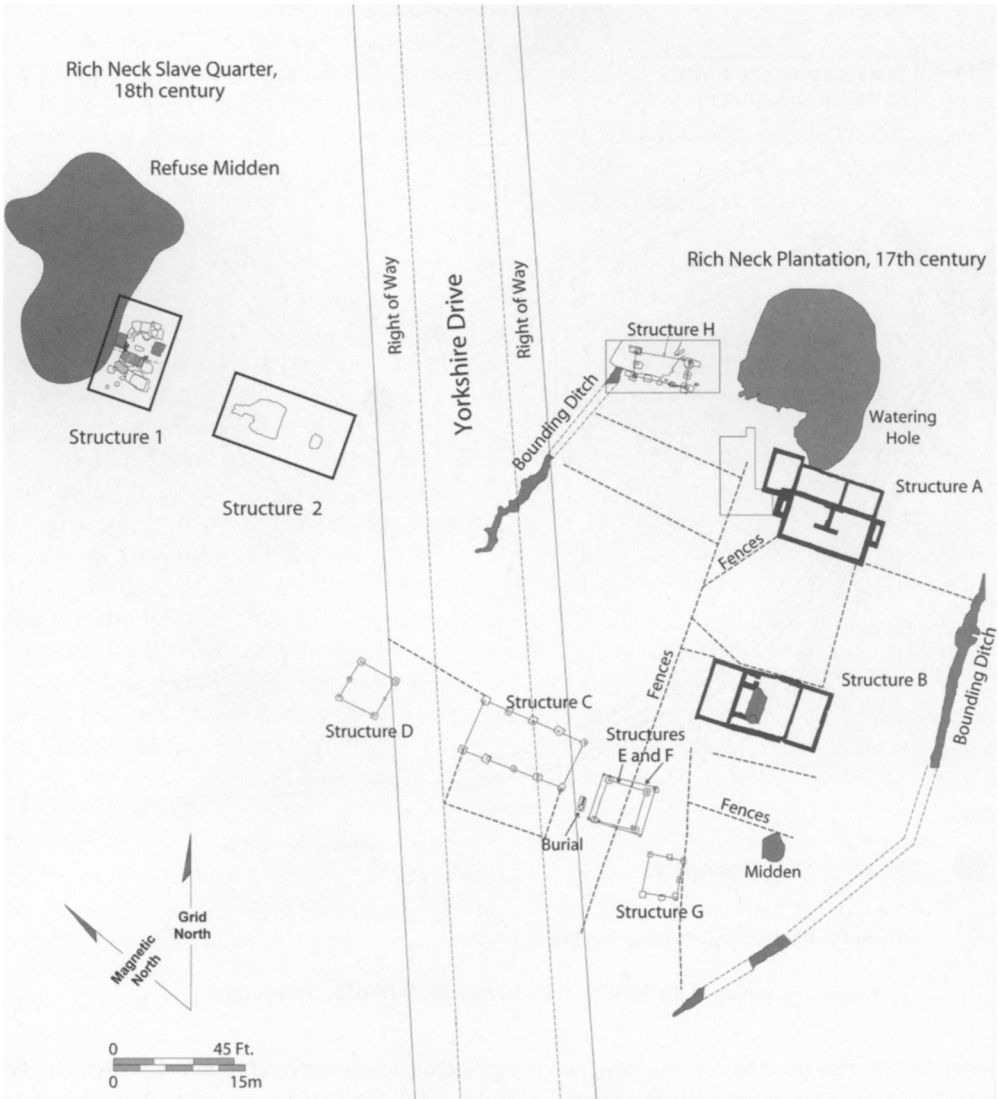


**Figure 3. The Rich Neck Plantation site (44WB52).**

bronchial conditions. Mixed with wine or other alcoholic beverages, jimson weed seeds served to deaden the pain of wounds, or could be consumed for recreational purposes (Mrozowski 1983).

Plants also served spiritual purposes in Native American, African American, and British American societies throughout colonial America. Pounds (1994) provides numerous examples of the manner in which medieval traditions of plant use remained prominent well into the eighteenth century. The Iroquois never distinguished between food and medicine (Parker 1975). Like many other Native American groups, the Iroquois perceived food as part of a larger cultural system that linked them to their greater economic and spiritual world. Similarly, the diversity of cultural traditions brought by Africans to the New World spawned a variety of ways in which plants served nutritional, medicinal, symbolic, and "religious-magical," or ritual, purposes (Edwards-Ingram 2001; Franklin 2001; Grime 1979; Groover and Baumann 1996; Leone et al. 2001; Wilkie 1996, 2000:166–197, 2003; Yentsch 1994). The WPA ex-slave narratives provide numerous examples of African-American

plant use, as interviewees often commented on both foodways and the use of plants in folk medicine (e.g., Perdue et al. 1992; Work Projects Administration [WPA] 1994; Yetman 1970).

The difficulty that we faced with our analysis of the Rich Neck botanical assemblage was whether it was possible to distinguish among the different ways that the site's inhabitants may have used plants. Our choice of well-being as an interpretive concept stemmed in large measure from the significance it possesses for indigenous peoples today. In contemporary contexts well-being is described as a state of mind that can help in coping with destabilizing factors such as violence in the home, racism, and economic deprivation (Kowal et al. 2007). The term actually employed by the indigenous peoples of Australia and the Torres Strait is "Social and Emotional Well-Being" or SWEB (Kowal et al. 2007), which is consistent with sentiments expressed by indigenous peoples in New Zealand and North America concerning the need for culturally specific measures of health (Beals et al. 2003; Durie 1999). In our own research we asked whether there were remains of plants that might have had a positive effect on the social and emotional health of the Rich Neck population. As such we see well-being as complementing diet. We believe the comparison of Rich Neck's enslaved Africans with the indigenous peoples of Australia, New Zealand, and North America to be valid given that all of these groups have experienced long-term discrimination, and economic and biological deprivation as a direct result of colonialism. We believe the enslaved Afro-Virginians experienced comparable if not more difficult conditions than those confronting the indigenous peoples of today. Despite some limited success, this aspect of our focus on well-being served better as a point of departure for the comparative analysis of assemblages from similar sites in the region.

The interpretation of botanical remains from Rich Neck was also influenced by recent scholarship on creolization as a theoretical framework for examining the creation and transformation of African diasporic cultures (Burton 1997; Dawdy 2000; Ferguson 1992; Franklin 1997; Joyner 1984; Trouillot 1992). The appeal of creolization theory among historical archaeologists as a means to investigate creole cultures stems partly from its use by other scholars since the 1970s researching the emergence of cultural traditions in the New World born of colonization and slavery (e.g., Braithwaite 1971; Drummond 1980; Mintz and Price 1992). Although the process of creolization is variously defined, its proponents generally agree that active participation in the creation of new cultural forms and practices resulting from social interaction is a major hallmark of creolization theory (Gundaker 1998; Hannerz 1996). Drawing from a range of sources, African Americans within the plantation context reconfigured and transformed their cultural and social institutions in ways that simultaneously articulated with, and diverged from, African, European, and Native American cultures. The character of the interaction between the enslaved community at Rich Neck and the broader Tidewater Virginia society is therefore an integral aspect of our research on the nature of plant use at Rich Neck. Thus, evaluating the species present and the ratio of wild to domestic plants over time are pivotal for addressing the question of how enslaved Virginians achieved well-being by developing a foodways system and a medicinal tradition that incorporated elements of African, European, and Native American practices of plant use. In forging new identities under oppressive conditions, among the challenges enslaved Virginians faced in procuring wild plants was heightened social control by slaveowners intent on restricting their autonomy, including illicit treks beyond the plantation. For newly arrived Africans, another challenge would have been to become familiar with a completely different environment, and to develop knowledge of foreign natural resources.

We begin with a brief historical context of the site, a summary of the excavation results, and a portrait of Rich Neck's household organization based upon primary documents and the scholarship on enslaved social structures. This is followed by a discussion of the sampling program employed at Rich Neck. Finally, we propose an interpretation of the use of plants by Rich Neck's inhabitants largely through the lens of well-being, which includes both a consideration of dietary and medicinal uses. Our interpretation includes a consideration of plant use over time and what this potentially reveals with regard to household demographics and the nature of enslaved life at Rich Neck. We conclude with a comparative analysis of botanical assemblages from slave-related sites in Virginia as a step toward defining broader patterns of enslaved household

consumption and production practices with regard to plant use.

## The Rich Neck Slave Quarter

In 1635, a wealthy merchant and land speculator by the name of George Menefie purchased a 1,200-acre tract of land referred to as "Rich Neck," about 8 km from what was then the seat of the English colonial government at Jamestown (McFaden et al. 1999). Over the next 30 years, Rich Neck was sold several times before Thomas Ludwell purchased the property in 1665. Philip Ludwell, his brother, inherited the property upon Thomas' death. Although the Ludwells resided at Rich Neck during the seventeenth century (in Structure A, shown in Figure 3), the family moved to nearby Greenspring plantation sometime between 1704 and 1706. Rich Neck would thereafter serve as a satellite, or outlying, plantation with a resident community of enslaved families who worked mainly as field hands.

The Ludwells were one of the most prosperous and politically connected families in colonial Virginia (Shepperson 1942). During the time that Structure 1 was occupied, Philip Ludwell III's estate included nine working plantations and 235 enslaved blacks and Africans (Virginia Magazine of History and Biography [VMHB] 1913). Rich Neck plantation alone consisted of 3,865 acres. Upon his death in 1767, the estate was divided between his two surviving daughters. Lucy Ludwell and her husband John Paradise thereafter owned most of Rich Neck; sister Hannah Philippa received 1,000 wooded acres of the property. Yet during the time that Structure 1 was occupied, Ludwell III resided in England, as did Lucy and John afterwards (Shepperson 1942). A plantation manager was left in charge of Rich Neck and the other Ludwell plantations, and the enslaved field hands on outlying quarters were probably under the supervision of white overseers. Various Ludwell descendants owned Rich Neck plantation until it was finally sold out of the family in 1814 (Shepperson 1942).

The Rich Neck site as a whole encompasses the extensive remains of a seventeenth-century plantation complex (McFaden et al. 1999; Muraca et al. 2003), an eighteenth-century slave quarter represented by Structures 1 and 2 (Agbe-Davies 1999; Franklin 1997, 2004; see Figure 3), and a nineteenth-century slave dwelling (Samford 1991; see Figure 2). The dwelling site, which is the subject of this article, Structure 1, consisted of the remains of a mortared brick, H-shaped chimney foundation and associated hearth fill and builder's trench, a robber's trench (evidence of brick salvaged from the chimney following abandonment), and 15 subfloor pits distributed on both sides of the hearth (Figure 4; Table 1). The subfloor pits functioned mainly as storage space for foodstuffs and personal belongings. Due to the common practice of storing root crops in these belowground pits they are referred to as root cellars (Doepkens 1991:112, 116–117; Edwards-Ingram 1999:158–159; Kelso 1984:117; Linebaugh 1994:11; Linebaugh and Jones 1991; Mouer 1991; Samford 1996:89–95). Dwelling sites inhabited by enslaved Virginians during the colonial era often possess multiple root cellars (Fesler 2004a; Heath 1999:35–37; Kelso 1984; Samford 1996, 1999). Where dirt floors were present within houses, as was the case at Rich Neck, these features are commonly found cross cutting one another. This pattern of overlapping, subsurface pits is the telltale evidence of the construction, use, and filling of defunct cellars with refuse, and the subsequent act of digging new ones over old ones over time. Household members used this strategy in order to maximize limited floor space, and to maintain root cellars near the hearth in order to keep stored foodstuffs from freezing during the winter.

The absence of postholes and builder's trenches suggested that Structure 1 was either a framed house with ground-laid sills, or a log cabin. The dwelling was thus a wooden, two-room house, also known as a duplex or double-pen cabin (Herman 1984:267; Vlach 1993:158–160), with a central chimney and a dirt floor. A wall divided the structure into two separate rooms, designated Residences A and B (Figure 4), with separate entryways. The size of the house can only be roughly estimated as at least 6-m wide by 11-m in length based upon the locations and boundaries of the subfloor pits. This house form was most often associated with enslaved field hands during the eighteenth century (e.g., Kelso 1984:28–29, 1997:66-67; Vlach 1993:158–160).

Archaeologists also excavated 14 miscellaneous natural and cultural features in conjunction with

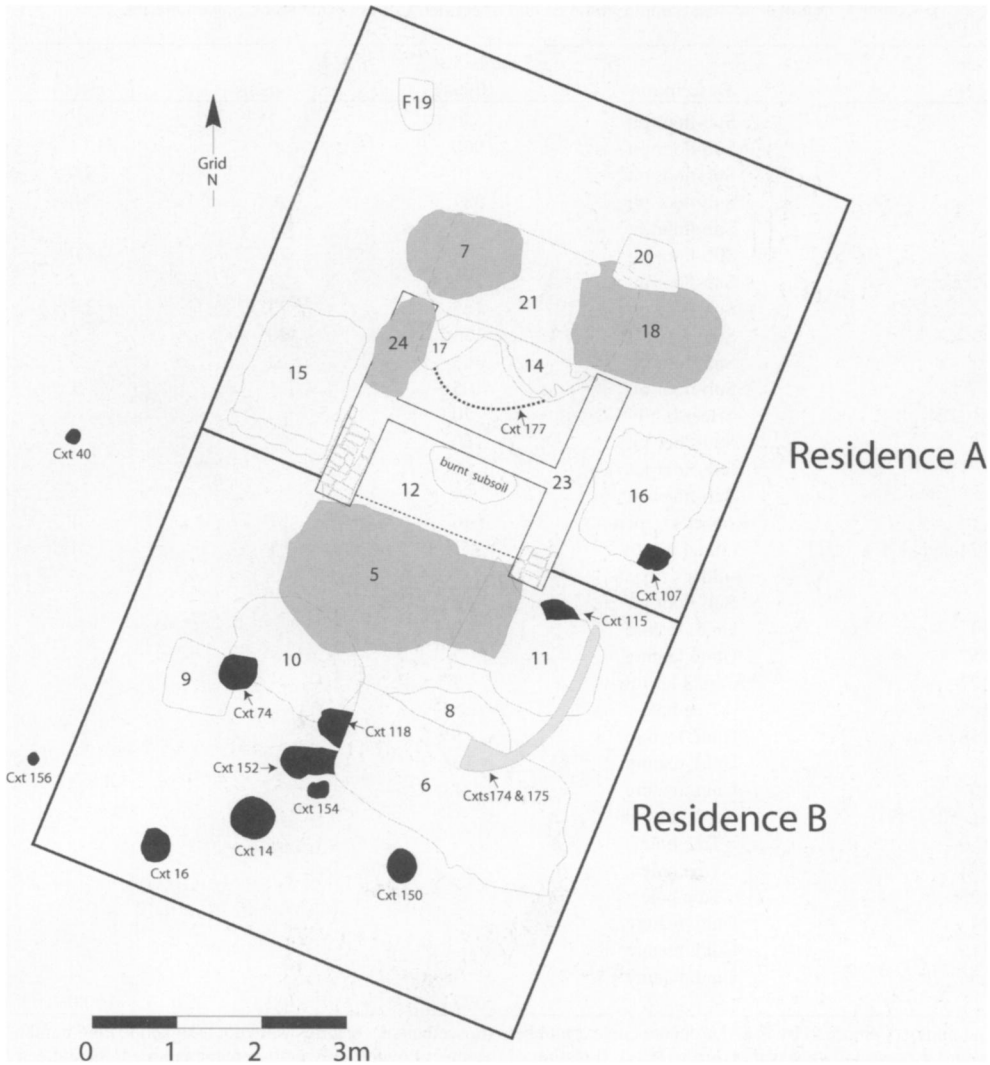


**Figure 4. Plan of Structure 1 features, Rich Neck Slave Quarter.**

Structure 1 remains. These included two animal burrows that intruded subfloor pits, and eight unidentified features. Four potential postholes were subsequently identified as tree holes (Figure 4; Table 1). A refuse midden was identified just west of Structure 1 (Figure 3) through spatial analysis of artifact densities and ceramic crossmending. As was the case with the vast majority of rural Tidewater sites dating from the colonial period, Rich Neck was reclaimed for agriculture. Thus, extensive plowing of the site disturbed features to approximately 30 cm below grade, and destroyed any potential ephemeral features such as staked fencing.

The analyses of ceramics and coins helped to establish the occupation span of Structure 1 as circa 1740–1770s. The relatively modest ceramic assemblage of 1,612 sherds and 128 vessels consisted mostly of creamwares (17.6 percent), tin-glazed earthenwares (19.8 percent, including delftwares), and white salt-glazed stonewares (15.2 percent), all of which are typical for mid-eighteenth-century Chesapeake sites. No pearlwares were present in feature contexts. Their absence from within sealed contexts was significant in dating the site since the TPQ (*terminus post quem*) for pearlware is 1775 (Miller 1991:8; Seidel 1991). Thus, the ceramic assemblage suggested an occupation span dating

Table 1. List of Features, Sample Volumes and Specimen Counts, Rich Neck Slave Quarter.

| Feature or Context No. | Description | Sample Volume (liters) | *N* Specimens | % |
|---|---|---|---|---|
| 5 | Sub-floor pit | 1580 | 347 | 49.6 |
| 21 | Sub-floor pit | 900 | 120 | 17.1 |
| 10 | Sub-floor pit | 630 | 62 | 8.9 |
| 15 | Sub-floor pit | 387 | 21 | 3.0 |
| 16 | Sub-floor pit | 315 | 1 | .1 |
| 6[a] | Sub-floor pit | 265 | 77 | 11.0 |
| 18 | Sub-floor pit | 255 | 24 | 3.4 |
| 17 | Sub-floor pit | 165 | 23 | 3.3 |
| 7 | Sub-floor pit | 155 | 20 | 2.9 |
| 8 | Sub-floor pit | 105 | 2 | .3 |
| 14 | Sub-floor pit | 105 | 1 | .1 |
| 12, 68AL-124 | Hearth fill | 70 | - | - |
| 11[a] | Sub-floor pit | 60 | - | - |
| 20 | Sub-floor pit | 60 | - | - |
| 19 | Sub-floor pit | 50 | - | - |
| 24 | Robber's trench | 40 | 1 | .1 |
| 68AL-174 and -175 | Animal burrow | 22 | 1 | .1 |
| 23 | Builder's trench | 12 | - | - |
| 9 | Sub-floor pit | 10 | - | - |
| 68AL-14 | Unid. feature | 9 | - | - |
| 68AL-152 | Unid. feature | 7 | - | - |
| 68AL-177 | Animal burrow | 7 | - | - |
| 68AL-107 | Tree hole | 5 | - | - |
| 68AL-118 | Unid. feature | 5 | - | - |
| 68AL-16 | Unid. feature | 3 | - | - |
| 68AL-40 | Unid. feature | 1 | - | - |
| 12, 68AL-125, -197 | Burnt subsoil | - | - | - |
| 68AL-150 | Tree hole | - | - | - |
| 68AL-154 | Tree hole | - | - | - |
| 68AL-1256 | Tree hole | - | - | - |
| 68AL-74 | Unid. feature | - | - | - |
| 68AL-115 | Unid. feature | - | - | - |
| 68AL-156 | Unid. feature | - | - | - |
| Totals | | 5223 | 700 | 100.0 |

*Note*: The numbers preceded by "68AL" denote context numbers (miscellaneous features were not assigned feature numbers).
[a]This feature was partially excavated during Phase II testing of the site, allowing only a 50-percent sample to be collected for analysis during Phase III excavations.

mostly to the third quarter of the eighteenth century and ceramic seriation produced a mean date of 1753.49 (Franklin 2004:87). Additional evidence helped to refine the occupation span. The artifact TPQ indicated site abandonment after 1773, the year stamped on Virginia halfpennies recovered from root cellar contexts. The archaeological evidence, therefore, suggested that the dwelling was inhabited for roughly 30 years from the early 1740s to the 1770s.

### *Rich Neck's Social Organization*

An important component of our second research goal entailed a consideration of plant use at the household level of analysis. This goal was part of a broader agenda to comprehend enslaved household function and to discern how such households, as dynamic social units, shifted in organization over time (Franklin 2004). Transitions in plant exploitation might be linked to the household life cycle where death, birth, and marriage patterns influenced the growth or decline of a household. Household strategies might also have shifted as members reached puberty and adulthood, increasing the demand for various resources. Moreover, with regard to enslaved households, the break up of families as a result of sale (Gutman 1976; Wilkie 2003:70–72), the removal of members to labor on

other plantations owned by the same planter, and successful escapes to free territory were also factors that affected household structure and production. In light of our second research goal, this section summarizes Rich Neck's household structure and the role of enslaved households within the context of the slave quarter.

As with societies elsewhere (e.g., Barile and Brandon 2004; Yanagisako 1979), enslaved blacks and Africans created families, households, and communities, and individuals simultaneously belonged to, and variously participated in, each (Anderson 2004; Battle 2004; Fesler 2004a; Gutman 1976; Malone 1992; Walsh 1997; Wilkie 2000). Enslaved families were ubiquitous by the mid-eighteenth century in Virginia, particularly among plantations belonging to wealthy slaveowners (Kulikoff 1986:358–365). Yet exogamy was a common practice among enslaved Virginians, where individuals chose spouses who resided on other plantations (Gutman 1976:131, 134–137, 140–142; Stevenson 1996). As a consequence of these "abroad" marriages, enslaved women and their children commonly lived on one quarter while husbands and fathers lived on another (Sobel 1987:163). Family break-ups through sale and inheritance also contributed to the widespread distribution of both immediate and extended family members. With each proceeding generation, enslaved individuals like those at Rich Neck who belonged to wealthy planters increasingly had relatives living across different plantations (Kulikoff 1986:363; Walsh 1997). One result was that enslaved individuals and families also formed wider, more inclusive social groupings that contributed to the economic, social, and cultural life of the slave quarter community. We identify these groups as households, although similar social units are also referred to in the literature on slavery as extended families, kin groups, social networks, and communities (Berlin 1998:131–132; Walsh 1997:49–50; White 1999; Young et al. 2001: 694–695).

Scholars have variously conceptualized the household (Allison 1999; Beaudry 2004; Bender 1967; Goody 1972; Hammel and Laslett 1974; Hendon 1996; Mrozowski 1984; Spencer-Wood 2004; Trigg 2004; Wilk and Ashmore 1988; Wilk and Netting 1984; Wilk and Rathje 1982). Yet, a cross-cultural definition has failed to materialize given that the reasons why and the ways in which people form households across space and time are both situational and culturally specific. We distinguish "household" from "family" in that kinship was not necessarily one of the organizing principles around which enslaved households were formed. Neither was co-residence, although enslaved householders more often than not resided within the same slave quarter, if not under the same roof. The enslaved household is defined here provisionally as a social unit that worked cooperatively in production, distribution, and social reproduction activities within the domestic context. Household production is defined as "human activity that procures or increases the value of resources" (Wilk and Netting 1984:6). The major contribution to household production among Virginia's enslaved households was the pooling of labor in subsistence activities, and likely in maintaining cabins and outbuildings, fences, roads, and the communal spaces surrounding the quarter (Fesler 2004b:216–217; Franklin 2004:141–166). Yards served as extensions of the house, and within these shared spaces household members spent their leisure time and socialized. The women in particular used yard areas to cooperate in chores such as laundering, sewing, and food preparation (Battle 2004; Edwards 1998:268-270; Heath and Bennett 2000; White 1999:119–125). Household distribution took the form of sharing resources (Wilk and Netting 1984:9), including food, from time to time. The game captured from communal hunts would be distributed among household members (Tuma 2006; Young et al. 2001), or members might share tools and other scarce resources. Household members also participated in social reproduction, in that childrearing was a shared responsibility within the slave quarter (Edwards-Ingram 2001:51; Stevenson 1996:175–176, 179; Walsh 1997:144–145; White 1991:114–115, 1999; Wilkie 2003:65). Adults socialized children with regard to gender norms, community values, and survival strategies that helped them to cope with the perils and oppressive forces of slavery (Wilkie 2003:68-69). They also gained a sense of collective identity through these social interactions.

Most of what is known about the social structure of the slave quarter population at Rich Neck comes from information provided in a probate inventory taken in 1767 after the death of Phillip

Ludwell III, who owned Rich Neck beginning in 1726. The inventory of the Rich Neck quarter records the names, sexes, and relative ages of its inhabitants by listing individuals in the order of adult males, adult females, boys, and girls (VMHB 1913). By comparing the Rich Neck inventory to another Ludwell estate appraisal that listed enslaved individuals by sex, value, occupation, and exact age (Lee Family Papers 1638–1867), it was possible to estimate the ages of Rich Neck's residents (Franklin 2004:25–28). To summarize, in 1767 21 people lived at Rich Neck: 10 men, five women, three boys, and three girls. Of the adults, as many as five individuals—four men and one woman—were near or above the age of 60 years, and were probably too old to work full-time in the fields (Franklin 2004:25-28). The remaining 10 adults were roughly between the ages of 18 and 50 years, and were considered "full" hands. At least two of the women were of child-bearing age, and the presence of five mature men and six children suggests that one or two nuclear families may have lived at the quarter. An alternative and equally viable interpretation is that the women with children were married to spouses who lived on other plantations.

As many as half of the 21 members of this community may have occupied Structure 1, and these were likely families, one to each room, given the common practice by slaveowners of providing separate living quarters for enslaved families (including women in abroad marriages with children [Sobel 1987:111]). The varying ages, including the advanced age of as many as five people by 1767, illustrates this community's generational depth. Some of these elders were probably born in Africa, as the African slave trade to Virginia was most active between 1700–1740 (Berlin 1998:110–111; Kulikoff 1986:65; Morgan 1998). The age and sex distribution indicates that extended families, where conjugal or single-parent families shared their home with additional relatives or fictive kin, were also present (Berlin 1998:131–132; Gutman 1976; Kulikoff 1986:358–371; Malone 1992; Walsh 1997). This may have been particularly true for the elders, who had lived most of their lives at Rich Neck and spent their last years together with their adult children or other relations.

The social organization of this slave quarter was consistent with the norm for outlying Tidewater plantations during the eighteenth century. Ten full hands and their families (Walsh 1993), or between 15 and 30 enslaved Virginians (Kulikoff 1986:365), typically worked under the supervision of an overseer or foreman. We propose that at Rich Neck, the 21 individuals who lived at the quarter comprised a single household with members participating in a range of household activities to varying degrees, and each bringing diverse expertise (knowledge and skills) and resources to share with other members (Fesler 2004a; Samford 2004). The procurement, preparation, distribution, and consumption of plants for sustenance and perhaps medicinal purposes, and the attendant schooling of children in these strategies and practices, at least partially occurred at the household level of organization. The research on enslaved social organization, particularly for Virginia (e.g., Fesler 2004a, 2004b; Kulikoff 1986:358–371; Walsh 1997), underscores the fact that slave quarters were populated with a fairly heterogeneous mix of solitaires (typically single males, or men with families on other plantations, and the elderly), and a diverse assortment of family arrangements including both nuclear and extended families (Gutman 1976; Malone 1992). Household formation ensured its members that a support network extending beyond kinship ties existed to alleviate domestic workloads, childrearing responsibilities, and to provide for well-being in the form of shared food and healthcare.

Having established the social organization related to plant use at Rich Neck, in what follows we address our two research goals. The discussion begins with our collection protocol and a summary of the plant species recovered from the site. This is followed by the diachronic analysis of plant use and what the evidence reveals about the potential relationship between the household lifecycle and household strategies concerning plant use at Rich Neck. Finally, we attempt to provide an interpretation of African-American plant use from a more comprehensive comparative perspective as it relates to the concept of well-being defined earlier in our paper.

## Methodology: Botanical Sampling and Identification

### *Methods and Materials*

We attempted to sample the full range of archaeo-

logical contexts present at Rich Neck in order to avoid the pitfall of sampling bias where only pits or hearths are sampled (Lenstromm and Hastorf 1995; see Table 1). Archaeologists excavated the 15 subfloor pits, or root cellars, of Structure 1 following natural strata. In nearly every instance the soils comprising each context were collected and floated in their entirety using a Flotec flotation device. The three exceptions included two subfloor pit contexts within Features 6 and 11 partially excavated during Phase II testing, and one context within Feature 10 discussed below. In addition, the fills from two animal burrows that cut into root cellars, five unidentified features, a robber's trench, a builder's trench, and hearth fill associated with Structure 1 were floated (Table 1). We also sampled one tree hole, initially identified as a possible posthole. Context volumes ranged from one to 815 liters. The 815-liter sample was retrieved from context 68AL-133, which was composed of a very fine, clay-like soil from within Feature 10, a root cellar. It was the only context within Feature 10 that was not entirely floated. A total of 325 liters was processed from context 68AL-133, while an additional 490 liters have been stored for future analysis. In all, a total of 5,223 liters of soil (not including the 490 liters from context 68AL-133 which remain to be floated) from a total of 69 contexts were floated and analyzed. These included soils from all of the 15 subfloor pits found in association with Structure 1, as well as those collected from the 11 additional features. All fractions from all contexts were scanned using a stereoscopic microscope. At Rich Neck, off-site control samples were used to determine which modern species we could expect as contaminants. Although several studies have demonstrated that noncharred seeds recovered from historic sites can survive in both wet and dry contexts (Miller 1989; Mrozowski 1983), off-site controls raised serious doubt about the contextual integrity of the noncharred Rich Neck botanical remains. In this case, the modern seeds found in the control sample corresponded with the overwhelming majority of uncharred remains found in the archaeological contexts. Fortunately, none of the charred remains recovered from the archaeological contexts appeared in the control samples. Therefore, only charred specimens were analyzed. It should be noted here that although root crops such as yams and potatoes were more than likely stored in Structure 1's root cellars, they generally leave behind no macrobotanical evidence (for a rare exception see McKnight 2003).

Mrozowski and Hunt identified and quantified seeds and nutshells through comparisons with type specimens housed at the Department of Archaeological Research at Colonial Williamsburg. This comparative collection was drawn from several sources including the Herbarium of the College of William and Mary and historic seed collections from Thomas Jefferson's Monticello. In addition to these type specimens, several species were purposely charred in order to supply information on changes in seed morphology that might aid in our identification. Each identifiable whole seed, nutshell, or fragment consisting of at least half of a seed or nutshell was counted as one unit. Given that the overwhelming majority of the seeds recovered from Rich Neck were whole seeds, we feel confident that almost all of the seeds counted from the site are accurately identified and form a representative assemblage of the macrobotanical material we recovered. Of the 700 seeds and nutshells, 698 came from subfloor pit features. Samples from only two of the remaining features contained seeds: one each from the robber's trench (Feature 24) and an animal burrow (context 68AL-174). A total of 664 seeds and nutshells were identified to some taxonomic level; only 5.1 percent of this assemblage was unidentifiable. Being able to identify such a high percentage of the specimens recovered (94.9 percent) supports what we believe is the truly representative character of the botanical assemblage. Still, we realize that greatly fragmented and therefore unidentifiable seed bits could represent more friable types of charred seeds and this would skew the representation of taxa.

Sixty-seven of the 69 contexts (the two remaining contexts were within Features 6 and 11) were examined in their entirety. Of the 67 contexts, 45 of these (67.2 percent) had fewer than one specimen per 10-liter sample. The other 22 contexts had a specimen density of greater than or equal to one specimen per 10-liter sample. Had we depended upon the protocol of collecting only a 10-liter sample of fill from each context, we would likely not have found specimens in these 45 contexts. The specimens we did find in these low-density contexts represented the same taxa as the specimens we recovered from the 22 high-density contexts.

Table 2. Rich Neck Slave Quarter Botanical Assemblage.

| | Common Name | Genus or Species | Count | % | Ubiquity |
|---|---|---|---|---|---|
| Cultivated genera/species | Bean | *Phaseolus* sp. | 23 | 3.5 | 12.0 |
| | Corn | *Zea mays* | 30 | 4.5 | 15.0 |
| | Cowpea | *Vigna* sp. | 187 | 28.2 | 24.0 |
| | Kidney bean | *Phaseolous vulgaris* | 3 | .5 | 6.0 |
| | Lima bean | *Phaseolous lunatus* | 1 | .1 | 3.0 |
| | Melon | *Citrullus lanatus* | 2 | .3 | 6.0 |
| | Peanut | *Arachis hypogaea* | 1 | .1 | 3.0 |
| | Little barley | *Hordeum pusillum* | 18 | 2.7 | 9.0 |
| | Rye | *Secale cereale* | 4 | .6 | 6.0 |
| | Squash | *Cucurbita pepo* | 1 | .1 | 3.0 |
| | Wheat | *Triticum aestivum* | 6 | .9 | 12.0 |
| Wild genera/species | Acorn | *Quercus* sp. | 11 | 1.7 | 9.0 |
| | Bedstraw | *Galium* sp. | 1 | .1 | 3.0 |
| | Black walnut | *Juglans nigra* | 113 | 17.0 | 24.0 |
| | Blackberry | *Rubus* sp. | 3 | .5 | 6.0 |
| | Cherry | *Prunus* sp. | 6 | .9 | 18.0 |
| | Honey locust | *Gleditsia triacanthos L.* | 250 | 37.7 | 30.0 |
| | Sedge | *Carex* sp. | 3 | .5 | 3.0 |
| | Sheep sorrel | *Rumex acetolsella* | 1 | .1 | 3.0 |
| No. of identifiable specimens | | | 664 | 100.0 | |
| No. of unidentifiable specimens | | | 36 | | |
| Total | | | 700 | | |
| | | | | | |
| No. of cultivated species/genera | | | 276 | 41.6 | |
| No. of wild species/genera | | | 388 | 58.4 | |
| Total | | | 664 | 100.0 | |

Note: Plant species ubiquity was determined by the percentage of features ($n$ = 26) in which a plant species was found.

If, however, we had used only sampling protocol, by probability we might have missed many specimens occurring in small numbers or singly in even a high-density context. Some of these potentially missed specimens represent species that were culturally significant. For example, we found a small number of wheat grains that probably would have been missed through protocol sampling. Now we have evidence that this field crop was more than likely cultivated at one time on the Rich Neck plantation.

## Results of the Botanical Analysis

The botanical assemblage from the Rich Neck Slave Quarter represents one of the most comprehensive ever collections amassed from an African-American site in North America. Although the assemblage is not large, a total of 664 identifiable specimens from 17 genera, including 12 identified species, were represented (Table 2). Overall, the assemblage is comprised of both cultivated (41.6 percent) and wild (58.4 percent) species. Most numerous among the cultivated plants are two species of legume: cowpea (*Vigna* sp.), and bean (*Phaseolus* sp.). The latter is present in two varieties: lima bean (*Phaseolus lunatus*) and the kidney bean (*Phaseolus vulgaris*). There is also one specimen each of squash (*Cucurbita pepo*) and peanut (*Arachis hypogaea*) seeds. The assemblage also includes Little barley (*Hordeum pusillum*), corn (*Zea mays*), and a smaller number of wheat (*Triticum aestivum*) and rye (*Secale cereale*) seeds that represent crops that were most likely grown on Ludwell plantations, and then provisioned to the enslaved population. The fruits include melon (*Citrullus lanatus*), cherry (*Prunus* sp.), and blackberry (*Rubus* sp.); the latter two were probably foraged. Other wild plants that appear to have been collected on a regular basis were black walnut (*Juglans nigra*), acorns (*Quercus* sp.), and most predominately, honey locust (*Gleditsia triacanthos*).

Given that we employed such an intensive sampling program, the 664 identifiable specimens

recovered seemed small when compared to the 20,000 seeds recovered at King's Bay Plantation in Georgia (Rock and Newsom 1987). However, 75 percent of that entire assemblage was composed of one species: pokeweed (*Phytolacca americana*), and these were recovered from two privy pits. The Rich Neck assemblage is much more comparable to other Southeastern sites where botanical materials were recovered from similar contexts such as subfloor pits and trash pits (e.g., Gardner 1983; Heath 2001; Raymer 1996, 2003). At present, the Rich Neck assemblage can be compared with four analogous sites from Virginia alone (see Comparative Perspectives below). We proceed with the analysis and interpretation of the Rich Neck botanical assemblage and follow with a comparative analysis of enslaved Virginian plant use.

*Interpretations of Plant Use*

If we look at the assemblage as a whole, we can make several observations concerning the use of plants by the site's inhabitants and the production strategies related to well-being they may have employed. First, the evidence of such common field crops as corn, wheat, and to a lesser degree, barley and rye, indicates some access to commercially produced crops. Ludwell's probate inventory of 1767 (VMHB 1913) lists barrels of corn and mill pecks (i.e., milled grains; a "peck" is the equivalent of eight dry quarts) stored along with tobacco at Rich Neck, and it is almost certain that these were part of the rations distributed on site to the enslaved population. Wheat and rye suggests that bread was part of the diet, although it is just as likely that these grains were prepared as gruels similar to those eaten by the Anglo-American population during this period.

It appears that gardening was widely practiced among enslaved blacks. Archaeologists have relied on the evidence for fenced enclosures, plant remains, irregular soil disturbances, and soil rich in chemicals associated with decaying organic matter to interpret gardening activities at slave-related sites (Heath 1999; Heath and Bennett 2000). Documentation by travelers and slaveowners, plantation records, accounts listing the purchases of slaves, and notations on plantation maps corroborate the archaeological evidence (Edwards-Ingram 2001:44; Gibbs 1999; Moore 1989:74–75; Westmacott 1992:16–18). In 1732, William Hugh Grove described the plots of ground that enslaved people farmed while traveling through Virginia. He noted that they were permitted to cultivate "little Plats for potatoes or Indian pease and Cimnells [squash]" (Stiverson and Butler 1977:32). In 1774, Philip Fithian, a Virginian tutor, observed enslaved individuals working small plots "allow'd by their Master" in which potatoes and peas were grown (quoted in Gibbs 1999:10). Enslaved blacks not only used gardens as a way to supplement their diets, they also engaged in the sale of agricultural produce (Heath 2004:23; Heath and Bennett 2000:42; Walsh et al. 1997:89). The evidence for gardening at Rich Neck includes the presence of several weeds commonly found in gardens (sedge, sheep sorrel, and bedstraw) and the remains of squash, melon, beans, and cowpeas that are normally considered garden crops. The cowpea, which appeared in large numbers, is an annual of African origin that is widely cultivated in warm climates. Better known as black-eyed peas, they could be eaten fresh or boiled.

The honey locust (*Gleditsia triacanthos* L.) is a fast-growing tree of the *Caesalpiniaceae* family, and is native to the central part (north to south) of the eastern United States. It attains heights up to around 40 m and the fruits are long (30–45 cm), twisted pods that hang on the branches throughout the winter (University of British Columbia 2003). It is prevalent on disturbed sites, and its range was probably extended by Native Americans who used the dried pulp of the honey locust pods as a sweetener and thickener and ate the cooked seeds (Duke 1983a). The Cherokee used honey locust pods to sweeten worm medicine and in an infusion for measles (Moerman 1998). An infusion of the bark was taken for whooping cough and also used as a bath for dyspepsia. In addition to these medicinal uses of honey locust, the Cherokee also included it in their diet. They were known to employ the seed pulp as a drink, and consumed the raw pods. Moerman (1998) notes other Native groups who used honey locust, including the Creeks, who prepared a decoction of the sprigs, thorns, and branches as a bath to prevent smallpox, while the pod was considered an effective antidote for children's complaints (Moerman 1998). The Delaware exploited honey locust bark and mixed it with the bark of other plants for blood purification, and as a tonic for coughs. The Rappahannock employed an infusion of the bark and roots as a cough and cold med-

icine. Similarly, the Fox used honey locust bark for colds, fevers, measles, and smallpox (Duke 1983a). Duke and Wain (1981, as cited in Duke 1983a) reported the pods to possess anodyne (bringing relief from discomfort), mydriatic (dilatory), and narcotic properties. Finally, Duke (1983a) notes that alcohol could be made by fermenting honey locust pulp, and the seeds used to produce a beverage much like coffee. There are historical accounts of honey locust in Virginia that may illuminate some of the different ways the Rich Neck household used the plant, including as a sweetener. Grove noted in his Williamsburg travel diary of 1732 that the honey locust contained "a sweet pulp like honey which John the Baptist lived on" (Stiverson and Butler 1977:37). An ex-slave by the name of Peter Randolph also wrote of honey locust in his autobiography. Randolph lived on a plantation in Prince George's County, Virginia, during the nineteenth century. He noted that persimmons and honey locust were brewed together in water to make a beverage that slaves carried in gourds to the fields:

> they get a barrel and put the "simmons" into it, and put water there too, and something else that grow on trees, that they call "locusses", which are about ten inches long, and two across. They put the "locusses" and "simmons" into the water together, and let them stand for two or three days [Randolph 1969:31].

It is likely that Rich Neck's householders used honey locust for a multiplicity of dietary and medicinal purposes, and possibly as a fuel.

Another plant that was well represented in the botanical assemblage from Rich Neck was black walnut (*Juglans nigra* L.). Black walnut trees served as both a shade and ornamental tree, usually growing up to 33 m tall (and possibly rising to 100 m). These trees are often unbranched for the first 9 m. The nuts are used in baked goods, pastries, and sweets. Historically, people have used the plant as a folk remedy to eliminate intestinal parasites, to reduce lymphatic swelling, to ameliorate skin problems such as eczema and poison ivy, and to treat vaginal infections. There are numerous companies touting the efficacy of their products containing black walnut. Duke (1983b) lists herpes, indolent ulcers, scrofula, ague, quinsy, gangrene, leprosy, and wounds as being treated by medicaments drawn from various parts of the plant.

Native Americans have made broad use of the black walnut tree, as demonstrated by the following examples of Cherokee, Delaware, and Rappahannock uses (Moerman 1998). The Cherokee made an infusion of the plant to wash sores, used an infusion of bark for smallpox, and of leaves for goiter. They chewed on the bark to relieve toothaches and pulverized the leaves for rubbing onto body parts affected by ringworm. Nuts were used for food, both alone and mixed with other plant foods such as hominy and beans, and black walnuts could be dried for future use. The bark, roots, and husks made a brown dye, and the leaves provided a green dye. Similar to Cherokee usage, the Delaware employed the juice from green fruits for ringworm, the sap for inflammation, and a bark tea for removal of intestinal bile. They scattered leaves about living quarters to dispel fleas. The Rappahannock took an infusion of bark to prevent dysentery, while bark from the north side of the tree was compounded into a poultice for sufferers from chills. Moreover, a root bark infusion was used to "roughen the intestines" (Moerman 1998:280–281).

The presence of honey locust seeds and black walnut shells in such large numbers may, in part, be a result of preservation as these were the most robust remains in the assemblage. Although we have previously suggested that both honey locust seeds and pods were consumed at Rich Neck, the seeds along with nutshells could have been waste products used as fuel. Still, their presence suggests to us a population that was meeting a variety of needs through a household economy that relied upon both wild and cultivated species. In addition to the plant domesticates noted above, Rich Neck's household seems to have relied upon black walnuts for a food source (as well as acorns). The WPA ex-slave narratives include interviews of individuals who recalled collecting acorns (Yetman 1970:100) and black walnuts as children: "Us little tykes would gather black walnuts in de woods and store 'em under de cabins to dry" (Yetman 1970:71). It is possible that black walnut tree bark was used for making medicinal teas as well.

The combination of plants that possessed nutritional value and curative properties argues for a household that had at their disposal the means to go beyond dietary concerns to meet the needs of the well-being of their members. We cannot confirm that all of the propositions for medicinal plant

use discussed above were actually practiced at Rich Neck. There is, however, evidence that strengthens the likelihood of medicinal plant use that can be drawn from other archaeological studies (Edwards-Ingram 2001; Wilkie 1996, 2003), as well as from recollections of ex-slaves documented by the Virginia Writer's Project (Perdue et al. 1992).

Although medicinal plant use at Rich Neck is inconclusive, the botanical remains still allow us to reach two other conclusions. First, the level of botanical continuity between the early and later phases of occupation suggests a degree of household stability over time, if not growth, for over 30 years (see Diachronic Analysis below). The stability of social units was more the norm for enslaved families and households attached to large plantation holdings in Virginia, as was generational depth (Walsh 1997). Debt was a major reason for selling enslaved blacks, and since these individuals belonged to prosperous planters their prospect of being sold off was lessened. Second, Rich Neck's household attempted to supplement and diversify their diet, as evidenced by the presence of wild species, and common garden species that would probably not have come from the plantation or market. Thus, enslaved Virginians possessed some self-autonomy and control within their system of foodways, and probably with medicinal practices. This interpretation is supported by the faunal evidence from the site (Franklin 2001, 2004). We recovered a wide array of wild species including opossum, squirrel, raccoon, white-tailed deer, and Canadian goose. Turtles, blue crabs, oysters, clams, and 20 varieties of fish rounded out the assemblage. When combined with the lead, net weights (for fishing), gunflints, and various-sized lead shot excavated from the site, the evidence clearly indicates that the Rich Neck household actively participated in hunting, fishing, trapping, and gathering in order to supplement their diets.

*Diachronic Analysis of Botanical Remains*

Household production at Rich Neck largely involved the pooling of labor in domestic activities, and we include the procurement of plants as one example. The analysis of plant exploitation over time might not only reveal the kinds of production strategies used by Rich Neck's household, but it may also provide evidence for the household lifecycle. Adjustments in plant use might signal an alteration in household demographics (for example, an increase or decrease in membership, or children achieving young adulthood status), although other factors (such as landscape changes, modifications in plantation provisions, etc.) must also be considered. The delineation of the depositional history of Structure 1 features was first required in order to interpret plant use over time. The site's phasing (Table 3) was determined by an analysis of the stratigraphic relationships of contexts within and between Structure 1 features, ceramic crossmends, and the dates derived from artifacts (ceramics and coins) recovered from subfloor pits (Franklin 2004:141–166).

In order to facilitate a comparison of the botanical material representing the various site phases, the contexts from which they were recovered (mainly pit fill) were grouped according to their relative date of deposition (Table 3). Botanical data were recompiled according to this classification (Tables 3 and 4). Since botanical remains from three of the subfloor pits (Features 5, 10 and 21) were deposited in discrete filling episodes with different relative dates of deposition, the specimens from individual contexts within these three features were separated and grouped in their related phases. Tables 3 and 4 represent only those features that were included in delineating the site's depositional history (thus excluding 68AL-174, an animal burrow with one honey locust seed), and that contained contexts with plant remains. For these features, the sample volumes listed in Table 3 (a total of 4,547 liters) include only those that contained plant specimens.

The archaeological contexts associated with Phase I (Feature 23, a builder's trench) contained no botanical material. Phase VI (post-abandonment) is represented by one unidentifiable seed from the robber's trench (Feature 24). In contrast, contexts associated with Phases II-V contained a wealth of botanical material. Since we are concerned here with the period associated with the occupation of Structure 1, Phase VI is omitted from this analysis.

The results indicate that there are pronounced differences between the phases (Table 4). The assemblage associated with the early phase of occupation (Phase II) contains fewer specimens and is less rich. No evidence of provisioned crops (corn, wheat, rye, and barley) appears in this assemblage.

Table 3. Specimen Counts by Site Phase, Structure 1.

| | Phase | TPQ | Feature or Context No. | Volume[a] (liters) | $N^b$ | $N^c$ | % |
|---|---|---|---|---|---|---|---|
| Construction of Str. 1 | I | 1720 | | — | — | — | — |
| Early Occupation | II | 1745 | 5, 8, 14, 17, 21 | 580 | 44 | 4 | 7.0 |
| Middle Occupation | III | 1765 | 5, 10 | 1270 | 248 | 12 | 37.2 |
| Late Occupation | IV | 1773 | 5, 10, 18, 21 | 1585 | 257 | 14 | 38.7 |
| Str. 1 Abandonment | V | 1773 | 6, 7, 15, 16 | 1087 | 114 | 5 | 17.0 |
| Post-Abandonment | VI | 1773 | 24 | 25 | — | 1 | .1 |
| Totals | | | | 4547 | 663 | 36 | 100.0 |

Note: The sub-floor pit features and robber's trench (Feature 24) represented in this table contained contexts that were both included in the determination of Structure 1's depositional history and that included plant remains. An animal burrow (context 68AL-174) produced a single honey locust seed, but this feature was not included in site phasing. See Table 1 for a list of all of the features sampled.

[a]The sample volumes listed include only those that contained plant specimens. For the total sample volume per feature, see Table 1.

[b]Identified specimens.

[c]Unidentified specimens.

Table 4. Distribution of Plant Specimens by Site Phase, Structure 1.

| | Phase II | % | Phase III | % | Phase IV | % | Phase V | % |
|---|---|---|---|---|---|---|---|---|
| *Garden species* | | | | | | | | |
| Bean | 1 | 2.3 | 16 | 6.6 | 6 | 2.3 | — | — |
| Cowpea | 8 | 18.2 | 115 | 47.1 | 57 | 22.3 | 7 | 6.1 |
| Kidney bean | — | — | 2 | .8 | 1 | .4 | — | — |
| Lima bean | — | — | 1 | .4 | — | — | — | — |
| Melon | — | — | 1 | .4 | 1 | .4 | — | — |
| Peanut | 1 | 2.3 | — | — | — | — | — | — |
| Squash | — | — | 1 | .4 | — | — | — | — |
| *Commercial crops* | | | | | | | | |
| Corn | — | — | 11 | 4.5 | 15 | 5.9 | 4 | 3.5 |
| Pearl barley | — | — | 13 | 5.3 | 5 | 2.0 | — | — |
| Rye | — | — | 3 | 1.2 | 1 | .4 | — | — |
| Wheat | — | — | 2 | .8 | 1 | .4 | 3 | 2.6 |
| *Wild species* | | | | | | | | |
| Acorn | 8 | 18.2 | — | — | 3 | 1.2 | — | — |
| Black walnut | 18 | 40.9 | 37 | 15.2 | 53 | 20.7 | 5 | 4.4 |
| Blackberry | — | — | 2 | .8 | 1 | .4 | — | — |
| Cherry | — | — | 2 | .8 | 3 | 1.2 | 1 | .9 |
| Honey locust | 8 | 18.2 | 38 | 15.6 | 109 | 42.6 | 94 | 82.5 |
| Totals by phase | 44 | 100.0 | 244 | 100.0 | 256 | 100.0 | 114 | 100.0 |

*Note*: Specimens representing weeds (sedge, bedstraw, and common sheep sorrel; $n = 4$, Phase III; $n = 1$, Phase IV) are excluded.

In comparison with the Phase II specimens, the Phase III and IV assemblages are considerably richer with much higher specimen frequencies in most cases. Although corn, wheat, rye, and barley are present, the Rich Neck household depended more upon plants that they themselves produced or procured through gardening (peanut, melon, squash, bean, and cowpea) or foraging (honey locust, black walnut, cherry, acorn, and blackberry). Site inhabitants relied upon honey locust, black walnut, cowpeas, and corn with some regularity, and to a slightly lesser degree, beans and wheat. This observation is supported by the ubiquity measures for the site as a whole (Table 2). During the

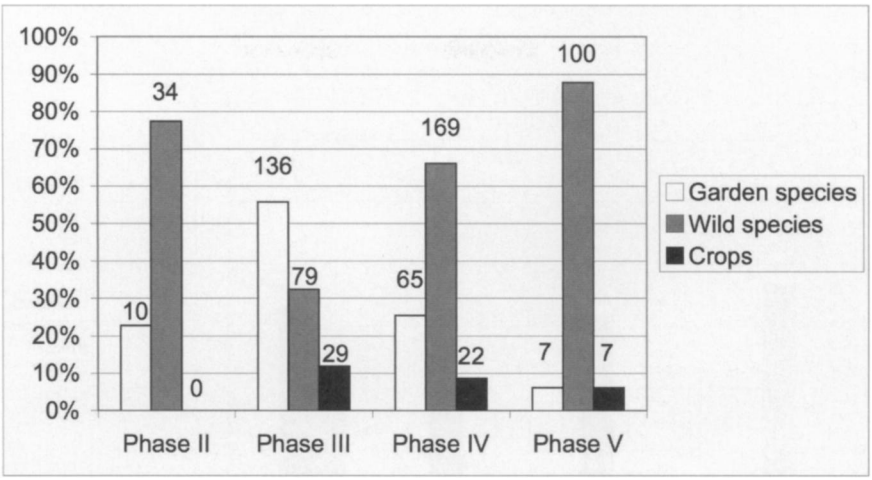


**Figure 5. Percentages of garden, wild, and crop specimens by site phase. Note: Sedge ($n$ = 3), bedstraw ($n$ = 1), and sheep sorrel ($n$ = 1) are excluded.**

phase associated with occupation leading up to site abandonment (Phase V), the only production activity associated with plant use (represented by the botanical remains) that seemed to hold steady was the gathering of honey locust.

The diversity and frequency of botanical remains by phase distribution suggest that household strategies related to plant production shifted diachronically (Figure 5). Over time, differences in botanical diversity argue for a broader subsistence base supported by gardening and foraging activities which both intensified during Phases III and IV. By Phase V, although there are over twice as many specimens present than in the Phase II assemblage, this is due solely to the large proportion of only one plant: honey locust (Table 4).

A number of factors influenced the acquisition, cultivation, and consumption of plants over time. From Phases II–IV, the changes in plant use might be related to the household lifecycle, with an increase of members or with children reaching young adulthood. Either case would necessitate more intensive production activities, as a result of higher rates of household consumption (e.g., Groover 2001). If so, the data strongly suggest that plantation rations did not keep up with demand, and that Rich Neck's household was largely responsible for the "well-being" of its members. Specimens representing garden crops and wild plants were more stable over time, and in the case of honey locust and black walnut, these generally multiplied in numbers. As Figure 5 illustrates, from Phases III-V there is an inverse relationship between specimens representing garden and crop domesticates on one hand, and wild plants on the other, suggesting that foraging became the primary strategy for procuring plants. Additional sources effectively demonstrate that enslaved blacks assumed the burden of supplementing their diet on a widespread basis and in large part as a result of meager rations (Perdue et al. 1992:72, 116, 124, 244–245, 274). The archaeological and historical records reveal that enslaved Virginians responded by taking food, protesting their allotments, keeping gardens and livestock, hunting and fishing, and hiring themselves out to raise cash in order to buy food (Atkins 1994; Berlin 1998:119, 136–137; Bowen 1996; Crader 1990; Genovese 1972:603–604; Heath 2004:29; Kulikoff 1986:392–393; McKee 1987, 1999; Morgan 1998:140; Perdue et al. 1992: 57, 306, 327; Samford 2004; Walsh 1997:100–102, 181). Enslaved subsistence strategies also served as a vehicle for creating distinctive creole foodways that played an important role in African American identity formation (Franklin 2001; Yentsch 1994).

In contrast to the plants produced by the household, there were also crops that households produced but nonetheless were most likely provisioned by the slaveowner (corn, rye, barley, and wheat). Of these crops, only corn appears to have been regularly consumed (Table 4). Corn was the most frequently provisioned staple throughout the plantation

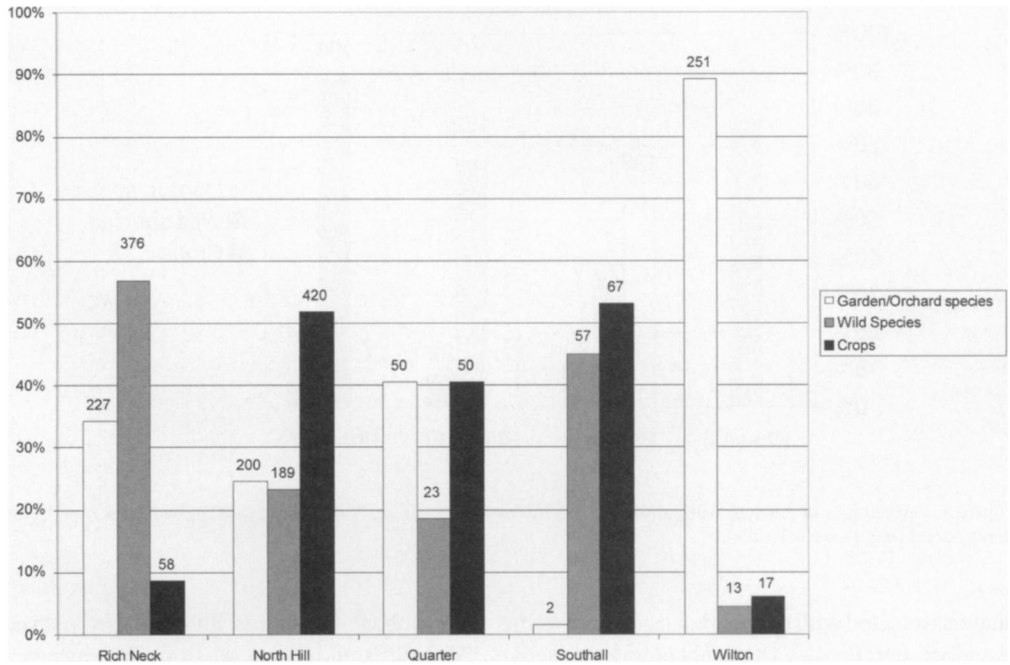


**Figure 6. Percentages of garden/orchard, wild, and crop specimens by site. Note: Specimens identified as "weeds" and "weed-grasses" are excluded.**

South (Heath 1999:60; Hilliard 1988). Virginia ex-slaves mentioned corn as a typical meal in their autobiographies (Fedric 2001[1863]:7; Randolph 1969:18; Smith 2001[1881]:8), and historical records for colonial Virginia confirm this (Morgan 1998:134; Sanford 1994:125; Walsh 1997:89). As previously noted, barrels of corn and mill pecks were stored at Rich Neck, and it is almost certain that these were part of the rations distributed to the enslaved population. The absence of corncobs also suggests, but does not confirm, that corn was rationed rather than cultivated in private gardens. While this may account for the presence of corn, wheat, rye, and barley in the Phase III and IV assemblages, it does not address their absence in the Phase II assemblage. Nor does a smaller household adequately account for the absence of grains. Instead, the plantation economy may have been the most influential factor.

The complete lack of provisioned crops during Phase II and their appearance thereafter (Figure 5) may possibly signal a transformation in the plantation economy. During the mid-eighteenth century, most Tidewater planters shifted from tobacco monoculture to crop diversification by cultivating corn and wheat (Samford 2004:153; Walsh 1997:119–120). As Lorena Walsh (1997:120) points out, this was "a strategy that spread risk and minimized the impact of price declines for any one of the three staple crops." Planters were also responding to the depletion of soils due to the overplanting of tobacco and the growing demand for cereal in Europe (Berlin 1998:134–135). Grains were used both to support the plantation, but more importantly, for export. The occupation span of the site (circa 1740–1770s) does correspond to the era when crop diversification heightened in Virginia. Ludwell and his predecessors undoubtedly had grains growing on their plantations prior to 1740, if only for supporting livestock and meeting subsistence needs. Yet the farming of corn and wheat in particular probably expanded on Ludwell plantations by mid-century, resulting in changes to the labor regiment and the food rations provided to the enslaved population by Phase III. A household with increasing members, or a household with children reaching young adulthood, however, may have contributed to the increase of garden and wild species as more food was needed. With a heightened demand on food resources, the production strategies controlled largely by the enslaved household stepped up in use and diversified.

The Phase V assemblage is less varied than either the Phase III or IV assemblages (Table 4). Overall, the specimens representing garden, wild, and crop genera and species decrease (although, again, honey locust is disproportionately present). The relative lack of black walnuts, which were consumed in more substantial numbers during the two previous phases, could be due to landscape changes, as could the absence of acorns. Yet the general decrease in plant diversity and seed and nutshell frequencies (especially garden and crop domesticates) during Phase V may have been the result of external pressures. By 1778, around the time that Structure 1 was abandoned, Williamsburg had become a battleground. American soldiers were encamped in town, and battles were waged within easy walking distance from Rich Neck. These events, no doubt, had a profound effect on the enslaved community. With the owners of Rich Neck residing in London throughout the war, the production of crops and other plantation tasks were probably disrupted. The decrease in plant domesticates (both crop- and garden-related) at Rich Neck may signify the effects of war and the anticipation of escape from bondage.

The results suggest a household subsistence regime based on both cultivated and wild plants, but with a more consistent reliance on wild plants throughout the occupation span of the site leading up to abandonment. While it may be tempting to attribute the changes in plant use over time solely to the life cycle of the household or other internal factors, we must contextualize Rich Neck more broadly within the plantation system, and greater colonial society, and recognize that the economic, social, and political forces at work played a major role in the lives of its inhabitants as well.

*Comparative Perspective*

In relation to our second goal, which was to discern the nature of African-American plant use, we embarked upon a comparative analysis of botanical assemblages from slave-related sites in Virginia. To date, nearly all of the archaeological analyses concerning enslaved African-American plant use consists of site-specific studies (for exceptions see Franklin 2004; Raymer 2003). We offer a preliminary, comparative assessment of botanical assemblages from five sites, including Rich Neck, in an effort to move toward a broader interpretation of the enslaved Virginian household economy. The four additional sites chosen for this analysis included the 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). Along with the Rich Neck Slave Quarter, all five sites were domestic sites occupied by enslaved blacks during the second half of the eighteenth century.

The Wilton Plantation quarter was part of a large tobacco plantation of 2,500 acres that belonged to the Randolph family over five generations (circa 1750–1840). Period I (circa 1750–1790) is considered here. During this time the single dwelling was occupied by 12 to 15 enslaved blacks. This group of skilled workers lived 365 m from the planter's mansion. Southall's Quarter was occupied between 1750 and 1800. Although it remains unknown who owned the plantation during the first half of the quarter's occupation, James Southall held deed to the 920-acre property between 1782 and 1801. Southall owned the Raleigh Tavern in Williamsburg, and he was an absentee planter who resided in town. Southall kept a rotating number of five to 12 enslaved individuals on his plantation (Pullins et al. 2003). His enslaved work force split their duties between the tavern and plantation where they tended his livestock operation and probably grew crops. The North Hill (circa 1770–1785) and Quarter (circa 1790–1812) sites were both part of the 5,000-acre, Poplar Forest plantation located in the Piedmont region (Heath 2001; Raymer 2003). The single household represented by the North Hill site consisted of residents who were mainly field hands who labored under the supervision of a plantation manager since Jefferson had yet to establish his villa retreat at the plantation. In contrast, the Quarter site occupants experienced the property's transition from a farm with an absentee owner to a plantation where Jefferson eventually took greater charge over his plantation affairs (Heath 2007b). The occupants of the three houses that make up the Quarter site were a mix of field hands and skilled artisans.

The intensive sampling and flotation program employed at Rich Neck contrasts with the sampling protocols employed at each of the other sites

Table 5. Botanical Specimens, Rich Neck Slave Quarter, North Hill, Quarter Site, Southall's Quarter, and Wilton Plantation Quarter (Period I).

| | Common Name | Scientific Name | Rich Neck | % | North Hill | % | Quarter | % | Southall's Quarter | % | Wilton Period I | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Garden/ Orchard | Bean | *Phaseolus* sp. | 23 | 3.5 | — | — | — | — | — | — | — | — |
| | Blackberry/ Raspberry | *Rubus* sp. | 3 | .5 | 26 | 3.0 | 3 | 2.3 | — | — | 3 | — |
| | Cherry | *Prunus* sp. | 6 | .9 | — | — | 2 | 1.6 | — | — | 3 | 1.1 |
| | Common Bean | *Phaseolous vulgaris* | 3 | .5 | 6 | .7 | 1 | .8 | 1 | .8 | 4 | 1.4 |
| | Cowpea | *Vigna* sp. | 187 | 28.2 | — | — | — | — | — | — | — | — |
| | Elderberry | *Sambucus Canadensis* | — | — | 1 | .1 | — | — | — | — | — | — |
| | Grape | *Vitis* sp. | — | — | 3 | .3 | 2 | 1.6 | — | — | — | — |
| | Huckleberry | *Gaylussacia* sp. | — | — | — | — | 2 | 1.6 | — | — | — | — |
| | Lima bean | *Phaseolous lunatis* | 1 | .2 | — | — | — | — | — | — | — | — |
| | Melon | *Citrullus lanatus* | 2 | .3 | — | — | — | — | — | — | — | — |
| | Peach | *Prunus persica* | — | — | 158 | 18.2 | 38 | 29.5 | — | — | — | — |
| | Peanut | *Arachis hypogaea* | 1 | .2 | — | — | — | — | — | — | — | — |
| | Poppy | *Papaver* sp. | — | — | 1 | .1 | — | — | — | — | — | — |
| | Strawberry | *Frageria* sp. | — | — | 4 | .5 | — | — | — | — | — | — |
| | Squash | *Cucurbita pepo* | 1 | .2 | — | — | — | — | — | — | — | — |
| | Sunflower | *Helianthus* sp. | — | — | 1 | .1 | 2 | 1.6 | 1 | .8 | — | — |
| | Sweet Potato | *Ipomoea batatas* | — | — | — | — | — | — | — | — | 244 | 86.8 |
| | Violet | *Viola* sp. | — | — | 1 | .1 | — | — | — | — | — | — |
| Crops | Corn | *Zea mays* | 30 | 4.5 | 273 | 31.4 | 45 | 34.9 | 53 | 42.1 | 6 | 2.1 |
| | Little barley | *Hordeum pusillum* | 18 | 2.7 | — | — | — | — | — | — | — | — |
| | Oats | *Avena sativa* | — | — | 1 | .1 | — | — | — | — | 3 | 1.1 |
| | Rye | *Secale cereale* | 4 | .6 | 4 | .5 | — | — | — | — | — | — |
| | Sorghum | *Sorghum* sp. | — | — | 5 | .6 | — | — | — | — | — | — |
| | Wheat | *Triticum aestivum* | 6 | .9 | 134 | 15.4 | 3 | 2.3 | 12 | 9.5 | 8 | 2.8 |
| | Wheat or Oat | *Triticum/Avena* | — | — | — | — | — | — | 2 | 1.6 | — | — |
| | Cultivated Grain | — | — | 3 | .3 | 2 | 1.6 | — | — | — | — | |
| Wild plants | Acorn | *Quercus* sp. | 11 | 1.7 | 2 | .2 | — | — | — | — | — | — |
| | Bedstraw | *Galium* sp. | 1 | .2 | 4 | .5 | 2 | 1.6 | — | — | — | — |
| | Carpetweed | *Mollugo verticillata* | — | — | 1 | .1 | — | — | — | — | — | — |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Goosefoot | *Chenopodium* sp. | — | — | 34 | 3.9 | 2 | 1.6 | — | — | 1 | .4 |
| | Hickory | *Carya* sp. | — | — | 12 | 1.4 | 3 | 2.3 | 13 | 10.3 | 2 | .7 |
| | Hickory/Walnut | — | — | 39 | 4.5 | — | — | — | — | — | — | |
| | Honey locust | *Gleditsia triacanthos L.* | 250 | 37.7 | — | — | — | — | — | — | — | — |
| | Knotweed | *Polygonum* sp. | — | — | 41 | 4.7 | — | — | — | — | 7 | 2.5 |
| | Pennsylvania smartweed | *Polygonum pennsylvanicum* | — | — | 14 | 1.6 | 2 | 1.6 | — | — | — | — |
| | Persimmon | *Diospyros virginiana* | — | — | 1 | .1 | 3 | 2.3 | 1 | .8 | — | — |
| | Pigweed | *Amaranthus* sp. | — | — | 2 | .2 | — | — | — | — | — | — |
| | Purslane | *Portulaca oleracea* | — | — | 1 | .1 | — | — | — | — | — | — |
| | Sheep sorrel | *Rumex acetolsella* | 1 | .2 | — | — | — | — | — | — | — | — |
| | Sorrel/Dock | *Rumex* sp. | — | — | 20 | 2.3 | — | — | — | — | — | — |
| | Sumac | *Rhus* sp. | — | — | 16 | 1.8 | — | — | — | — | — | — |
| | Vervain | *Verbena* sp. | — | — | 2 | .2 | — | — | — | — | — | — |
| | Walnut family | *Juglandaceae* | — | — | — | — | — | — | 10 | 7.9 | — | — |
| | Walnut | *Juglans* sp. | — | — | — | — | — | — | 2 | 1.6 | — | — |
| | Black walnut | *Juglans nigra* | 113 | 17.0 | — | — | 11 | 8.5 | 31 | 24.6 | 3 | 1.1 |
| Weed | Copperleaf | *Acalypha virginica* | — | — | 1 | .1 | — | — | — | — | — | — |
| | Jimsonweed | *Datura stramonium* | — | — | 8 | .9 | 1 | .8 | — | — | — | — |
| | Nightshade | *Solanum* sp. | — | — | 2 | .2 | — | — | — | — | — | — |
| | Prickly mallow | *Sida spinosa* | — | — | 2 | .2 | — | — | — | — | — | — |
| | Ragweed | *Ambrosia* sp. | — | — | 23 | 2.6 | — | — | — | — | — | — |
| | Sedge | *Carex* sp. | 3 | .5 | — | — | — | — | — | — | — | — |
| Weed—Grass | Agropyron | *Agropyron* | — | — | 4 | .5 | — | — | — | — | — | — |
| | Goosegrass | *Eleusine indica* | — | — | 1 | .1 | 1 | .8 | — | — | — | — |
| | Grass Family | *Gramineae* | — | — | 17 | 2.0 | 4 | 3.1 | — | — | — | — |
| Unknown (Bean Family) | | | — | — | 1 | .1 | — | — | — | — | — | — |
| Unknown (Composite Family) | | | — | — | 1 | .1 | — | — | — | — | — | — |
| Totals | | | 664 | 100.0 | 870 | 100.0 | 129 | 100.0 | 126 | 100.0 | 281 | 100.0 |

(McKnight 2000, 2003; Raymer 1996, 2003). This might explain the differences between the number of specimens recovered from Rich Neck ($n$ = 700; Table 2) and those recovered from the Wilton ($n$ = 281; 244 of which represent one plant type, sweet potato), Southall's Quarter ($n$ = 126), and Quarter sites ($n$ = 129) (Table 5). However, the same cannot be said of the North Hill site where the assemblage consisted of 870 specimens (Table 5). The size of the North Hill assemblage may also explain the richness of the archaeobotanical record with 39 different genus or families represented and 16 species identified (Raymer 2003:8). Although the Rich Neck assemblage has close to the number of species identified ($n$ = 12), the number of actual plants represented is dwarfed by that from North Hill (19 vs. 39). Given that the sampling regime employed during the collection and processing of samples from North Hill was not as comprehensive as that employed at Rich Neck, it seems that at best our approach resulted in a maximum return on what appears to be a less than rich botanical record.

Despite the differences in sampling protocols and overall sizes of the assemblages, the five sites are comparable in some respects since broad patterns of household production strategies and plantation rationing systems do emerge.

Foremost among these are the similarities in a reliance on gardening and foraging to complement a varying dependency on crops. In fact, all five assemblages contained maize and wheat specimens, which indicate that these crops were regularly rationed to both skilled and field laborers across Virginia plantations. Householders at Rich Neck and North Hill also consumed other field staples such as rye, barley, and sorghum that appear in smaller numbers. The inhabitants of all five sites participated in gardening, yet the only species found among all of the assemblages was the common bean. Similarly, nuts and fruits were recovered from all of the sites, but no single species appeared in all the assemblages. All but the Wilton assemblage included more than a single fruit species such as blackberry/raspberry, peach, melon, and persimmon, and the majority of the assemblages contained black walnut and hickory remains.

The presence of both garden/orchard and field crops speaks to a level of comparability regarding the participation in gardening and a reliance on slaveowners' provisions at all of the sites. The same is also true of the reliance on wild fruits and nuts and their obvious link to foraging behavior. There are other plants that appear to have been part of the diet that suggest an even heavier reliance on foraging among some of these populations. The gathering of goosefoot, knotweed, and smartweed appears to have dietary implications. The leaves of these ruderals could have served as greens in the diet of the North Hill inhabitants where they appeared in the greatest numbers.

While our analysis reveals a broad pattern of gardening and foraging activities, and a dependence on provisioned crops to support enslaved households' dietary, and possibly medicinal needs, there are notable differences in the overall percentages of garden/orchard, crop, and wild specimens between the sites (Figure 6). For example, gardening appears to have been a less important household economic strategy at the North Hill and Southall's quarters (Figure 6). Since crop specimens dominate the assemblages from these two sites, site inhabitants may have received larger rations that alleviated their need to forage and garden. Conversely, given that the Wilton quarter was home to skilled workers, one might have expected that their overall standard of living (which would include more rations) might be better and therefore alleviate the need to maintain a garden, but the evidence does not support this hypothesis. Moreover, the opposite is true, although this is based almost exclusively on the sweet potato remains found at the site. Yet, if these are removed then the entire Wilton assemblage is quite small. One downside to this is that it weakens the comparative value of the assemblage as a whole, which is unfortunate because it stands out as indicating much less reliance on foraging than at the other sites. In fact, there were smaller percentages of foraged plant remains not only in the Wilton assemblage, but also from the two Poplar Forest ones (Figure 6). The greater dependence on foraged plants among the Rich Neck and Southall's Quarter occupants is difficult to explain. Although both sites were outlying plantations with slaveowner absenteeism (which may have provided greater opportunities to venture beyond the quarters in search of wild plants), the Poplar Forest sites were also occupied during a period of planter absenteeism. Thus, whether this variability in the percentages of wild plants otherwise reflects differences in the amount

of time available to devote to foraging or is just an artifact of preservation is not clear.

Although the level of variability evident between the five botanical assemblages is somewhat striking, it probably reflects points along a continuum of household production strategies commonly practiced by enslaved Africans on Virginia plantations. From this perspective, notable differences such as the large number of cowpea and honey locust seeds recovered from Rich Neck, which appear nowhere else, are still viewed as part of the same overall economic strategy shared by other enslaved communities regardless of their status as field hands or skilled laborers. That is, there was a continuing need to complement their rations with plants grown in their gardens or foraged in the environments available to them. Some of these plants functioned in a variety of cultural contexts and as such enhanced the overall well-being of these groups. Perhaps the most obvious examples are the sunflower seeds found at both sites at Poplar Forest and Southall's Quarter. Sunflowers provided seeds that could be consumed, but they also served as ornamental plants. The same is true of the lone violet seed recovered from the North Hill quarter. This too suggests a plant whose chief purpose may have been as an ornamental.

The small numbers of ornamental plants represented in the five assemblages does tend to weaken any argument for their importance. Yet, this assumes a connection between the ubiquity of the plant type and its significance to the groups who cultivated them. A similar assumption concerning material culture is now being challenged in favor of a more complementary approach in which individual artifacts are not ignored because of small numbers (Mrozowski 2006). From this perspective ornamental plants may have been equally important as those which played more significant roles in the diets of the various populations.

## Conclusion

Rich Neck was a semi-rural plantation whose residents worked to achieve some level of autonomy within the system of slavery by creating their own forms of social organization and by instituting cultural practices that included plant use. Rich Neck's enslaved community may have been passed down the Ludwell line relatively intact for over 100 years (from 1665 to the 1770s), helping to maintain a relative degree of family and household stability over time that was nurtured within this quarter (e.g., Walsh 1997). The temporal analysis of botanical data further suggests household growth during the time of Structure 1's habitation.

The process of creolization may be evident in the use of plants at Rich Neck, through the blending of knowledge from Native American, Anglo-American, African, and creole (i.e., American-born) black cultural practices. Until at least the end of the seventeenth century in Virginia, Native Americans were also enslaved alongside Africans, and their presence in the Tidewater and social interactions with Africans were more common than in the following century (Morgan 1998:477–480). Information about the possible uses native plant species, such as honey locust and black walnut, may have been passed on to Africans by local Indians, although this notion carries with it diffusionist overtones that negate the obvious possibility that Africans learned how to use these plants on their own. There seems little question that Africans carried knowledge of wild plant use with them to the New World, which presents yet another example of social interaction and potential for creolization linked to plant use. By the mid-eighteenth century, the age distribution among the 21 individuals residing at Rich Neck indicates that as many as five elderly individuals may have been African born. These Africans could have been responsible for the transmission of knowledge concerning medicinal plant use, food preparation techniques, and the cultivation of African plant species (e.g., black-eyed peas) to their American-born children and other enslaved blacks present (Franklin 2001; Yentsch 1994). Nor can we preclude the social interaction between English colonists and enslaved Africans and blacks, and the influence this had on each group's foodways. Along with the introduction of Old World plant and animal species to Virginia, methods for raising livestock, cultivating commercial and garden species, and food preparation techniques were also initiated within the plantation context. For example, plantation provisions included pork and beef, which were heavily relied upon for protein among the enslaved at Rich Neck (Franklin 2004:185–205) and elsewhere in Virginia (Atkins 1994; Bowen 1996; Crader 1990; Kelso 1997; McKee 1987, 1988).

A final quote from the traveler William Hugh Grove helps to conceptualize how enslaved Virginians drew from various sources in producing a creolized foodways system. Grove observed the use of corn among the enslaved:

> Tis the only support of the Negroes, who roast it in the ear, bake it for bread, boyl it when hulled, and like our buttered wheat, the children and better sort breakfast with it and make farmity. The first they call homeny, the latter mush. To hull it they beat it in a mortar as the scots doe their barley [Stiverson and Butler 1977:33].

Thus, enslaved Africans grew corn, a native crop, using hoe cultivation taught first to English colonists by Indians (Potter and Waselkov 1994). They prepared corn by baking, roasting, and stewing, which were cooking techniques with both West African and European antecedents (Franklin 2001; Yentsch 1994). While Grove notes that the Scots used mortars, the mortar and pestle were also commonly used in West Africa to process grains. This one example illustrates the results of a complex web of social interactions that led to a more expansive knowledge base of foodways to which Native Americans, Africans, and Anglos contributed and variously drew from in creating emergent household economies and foodways systems.

Our interpretations of the botanical remains from Rich Neck assume that the foods—and possibly medicines—they represent were embedded within a broader cultural matrix that is indicated by the results of the comparative analysis. As evidence of subsistence they speak to a varied diet that included field crops like corn, wheat, and barley as well as garden species like beans, melon, and squash. The tree fruits were possibly consumed in a variety of ways, providing an insight into different food preparation strategies. Nuts from black walnut and oak trees could have been eaten either raw or roasted, and whole or mashed. Honey locust and black walnut were more intensively exploited, suggesting that these tree products in particular were a regular part of the household diet. Honey locust represents one possible example of a plant that may be best thought of as adding to the overall well-being of the group, rather than solely providing caloric and nutritional intake. The fact that it could have served as a sweet for both children and adults may elevate its status as a food that contributed to a sense of well-being for the Rich Neck inhabitants. Conversely, it can be argued that if social and emotional well-being contribute to the physical well-being of a population then many of the food-related plants could be interpreted in the same manner that we have chosen to interpret the honey locust remains from Rich Neck.

The role of wild plants, while obviously important, should not cloud the significance of planter provisioning with regard to slaves' diets. The comparative analysis revealed that some enslaved households may have received larger rations that likely played a role in their decision to pursue gardening at a much smaller scale than at the other sites. The presence of a number of staple crops indicates a well-developed plantation economy in which food was being produced for the tables of all involved. Another possibility is that the staples represent food that was both provisioned and sometimes poached. Isaac (1982:52–53) imagines a slave's landscape as being comprised of places that were off limits to slaves: "Here would stand a cornhouse, perhaps, that was from time to time illicitly opened, by loosening the boards in the gable end, to supplement the rations of hungry families." Combined with the knowledge of useful wild plants to add variety to their diet, Rich Neck's household may well have taken the opportunity to add to their stores through the illicit means Isaac envisions.

Combined with the results of the faunal analysis, the botanical data also speak to a diversified household economic strategy that relied upon wild plants and animals, a pattern found in other studies of African-American populations including the Wilton, Southall's Quarter, Quarter, and North Hill sites (Heath 2007a, 2007b; Higgins et al. 2000; Pullins et al. 2003), as well as others throughout the southeastern United States (Ferguson 1992; McKee 1999; Reitz 1986, 1994; Wilkie 2000:134–147; Yentsch 1994). Beyond what this says about the richness of their diet, the many fish, small mammals, birds and wild plants indicate that Rich Neck's household members did not simply confine themselves within the boundaries of the slave quarter. With or without the threat of punishment for leaving the quarter, these individuals clearly did so in order to exploit the natural resources surrounding them.

In terms of what the results suggest about the

character of plant use at Rich Neck over time, there are clearly defined patterns. There are differences in assemblage diversity and specimen frequencies between the early and later phases of occupation that point to the intensification of production and consumption activities associated with plant use. Changes in the frequencies of grains over time may have resulted from modifications to the plantation economy, while the lack of wild species by Phase V might indicate landscape changes. Yet shifts in dietary preferences, the household life cycle, and the pressures of war on the home front are also significant factors that should be taken into considerations While our interpretation of the relationship between transformations in plant use and the household life cycle is inconclusive, we hope that it serves as a point of entry for future household-level analyses of slave-related sites that may help to clarify the issue. The centrality of the household in enslaved societies as a form of social organization and as a key site for sociocultural and economic production certainly merits further research.

If there is one conclusion that can be offered without qualification, it is that the sampling program conducted was successful. This is based upon a comparison of the Rich Neck botanical assemblage with those from other slave-related sites such as King's Bay Plantation, and Yaughan and Curriboo plantations (see also Franklin 2004:167–184). The practice of collecting limited numbers of samples from selected features in the field, or subsampling after the material has been collected, have proven utility under constraints of time or funding. What these approaches do not appear to generate is a more comprehensive representation of the richness of plants being exploited. We attempted to eliminate "feature bias" where only pits and hearths are sampled by sampling additional types of contexts. As Lennstrom and Hastorf (1995:702) posit, "knowing where archaeobotanical remains do *not* occur is just as important as knowing where they are found" (emphasis in original). That only two of the 700 specimens we recovered were from nonpit features suggests that charred plant remains were deposited in root cellars on enslaved Virginian sites as the result of cultural activities. These included the maintenance of the communal refuse midden (Figure 3) and hearth areas through sweeping and controlled refuse disposal, and the filling of defunct pits with trash initially disposed of in the refuse midden (Franklin 2004:141–166). Based on the results from Rich Neck, it seems clear that the sampling approach we employed produced evidence of greater plant diversity and a more accurate representation of the site's botanical assemblage. This is consistent with the results of similar experiments conducted by Pearsall (1989), who found that greater diversity was seen with more sampling.

Another benefit of the Rich Neck botanical analysis is to provide further data for comparative studies. Only with the kind of comparative analysis carried out here can we begin to explore the broader, more entangled issues of African diasporic cultural transformations in the Americas. Plants were part of the landscape of eighteenth-century Virginia that contributed to the cultural consciousness of Afro-Virginian populations. Whether the environment was seen as foreign or familiar, it became part of the world as experienced. Part of that experience was realized through the exploitation of both wild and domesticated plants in the forging of cultural practices, social institutions, and a collective identity among the enslaved Africans and blacks who lived at Rich Neck.

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