

Mark P. Leone  
 James M. Harmon  
 Jessica L. Neuwirth

## Perspective and Surveillance in Eighteenth-Century Maryland Gardens, Including William Paca's Garden on Wye Island

### ABSTRACT

Since 1981, 18th-century formal gardens and landscapes in Annapolis have been archaeologically explored to demonstrate that they are exercises in using solid geometry to control perspective. Building on this earlier work, William Paca's last garden, built on Wye Island in the late 1700s, is interpreted to explore the methods by which these gardens were constructed and the meanings and uses of the gardens. Scholars have suggested that by the 1720s the genteel in America routinely created gardens as extensions of their homes. The desire to manage the views in gardens is in the application of the laws of geometry to wilderness. It is suggested that these ordered landscapes, as centerpieces of leisure in the midst of the working plantation and as places to display oneself to visitors and workers alike, were also consonant with slaveholder ideology and the ideals of the new republic.

### Introduction

Since 1981, 18th-century formal gardens and landscapes in Annapolis have been archaeologically explored to demonstrate that they are exercises in using solid geometry to control perspective. The hypothesis that such landscapes were built to create and manage optical illusions was developed because few American scholars had explored the volumetric quality of 18th-century gardens. Such gardens were built to create a focal point that managed the view and helped to create the illusion that the object in sight was either closer or farther away than the viewer could guess, depending on the way that the space used was structured (Brown 1990; Leone and Shackel 1990; Ernstein 2004:88–121). The ways in which these illusions were constructed

on the ground is further examined here through a description of recent archaeological work on William Paca's late-18th-century plantation on Wye Island on the Eastern Shore of the Chesapeake Bay in Maryland (Figure 1).

Some attention will also be given to the reasons why such formal geometric shapes were created as part of the landscape of the 18th-century Chesapeake. Scholars have suggested that many of the genteel in the American colonies, especially those in regions that were closely tied to European markets like much of the Tidewater Chesapeake, routinely created gardens as extensions of their homes by the 1720s. The desire to build geometric shapes into the land and manage the views in gardens lay in the application of the laws of geometry to "wilderness"; that is, gardens represented an application of the laws of God as understood by humans. Gardens, and houses for that matter, built in the baroque fashion demonstrated the owners' abilities to shape land and to change perceptions of the space around them. Gardens also created a stage upon which the genteel performed. The vistas of gardens, like the Chinese porcelain tea set in the house, were designed to instruct, inspire conversation, and display the knowledge of the connoisseur (Bushman 1992:127–133).

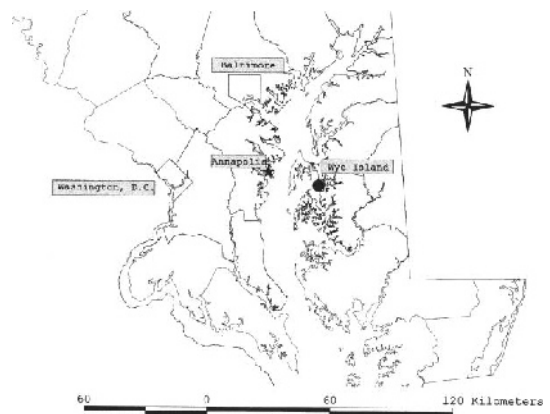


FIGURE 1. Study area location. Data source: ESRI, Redlands, CA. (Drawing by J. Harmon, 2004.)

It is suggested here that formal gardens also played a role in developing and instructing a new nation as to the proper way to organize nature, farm the land, and manage workers, enslaved or free. Scholars have suggested that the majority of formal gardens constructed in the Chesapeake in the 18th century were created for slave- and land-holding gentry. Further, the formal geometry of such gardens, popular long after such conventions were rejected in England for more fluid, naturalistic gardens, reflected a reaction to the expanses of open land, creating the desire for ordered landscapes, not ones that echoed the wilderness that the colonists faced (Sarudy 1998:141). Also consonant with the slaveholder ideology were the ordered landscapes, the hierarchy of movement throughout the gardens, the control over access to the gardens, the use of gardens as places to display oneself to visitors and workers alike, and the emphasis on the great house and garden of leisure in the midst of the larger working plantation. The romantic landscape garden that became fashionable in England in the late-18th and early-19th centuries, which emphasized a turn to more private and personal use of the space, did not answer the slaveholders' needs to engage in rituals of hierarchy and control every day. William Paca's garden on Wye Island offers an interesting case study of the Chesapeake formal garden of the late-18th century, a garden that attempted to incorporate some of the latest garden designs from England while maintaining the geometry and formalism of the new nation.

Three major 18th-century city gardens have been explored in the city of Annapolis by Archaeology in Annapolis since the program began in 1981: the William Paca Garden, built about 1763, the Ridout Garden of about the same period, and the garden designed and built in 1771 by Charles Carroll of Carrollton (Figures 2 and 3). The Paca garden was excavated by three archaeologists between 1968 and 1972, and subsequent analysis focused on the use of rules of perspective in its design (Leone 1984; Paca-Steele and Wright 1987; Brown 1990; Ernstein 2004). The Ridout garden, a largely unaltered site on city lots that were not subdivided over time, remained within one family's ownership. It was mapped topographically in the mid-1980s (Hopkins 1986). The Charles Carroll garden

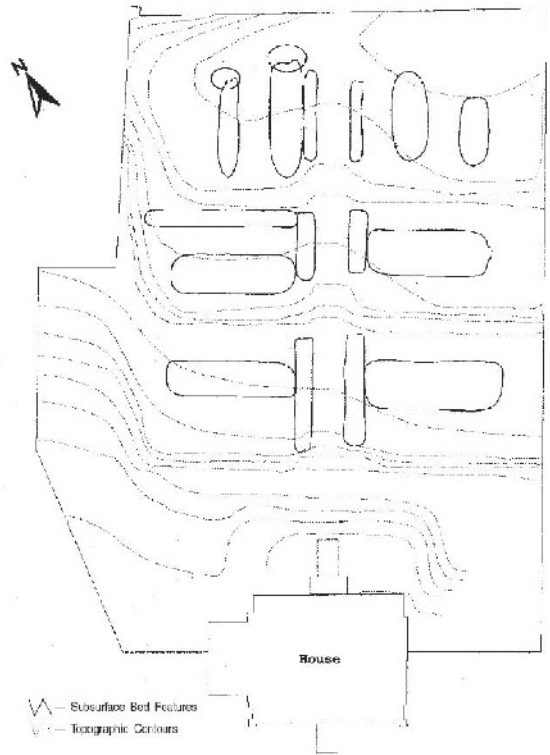


FIGURE 2. Joseph Hopkins topographic map of the Ridout Garden, Annapolis, Maryland (after Hopkins 1986; digitized by Thomas Cuddy, 2004).

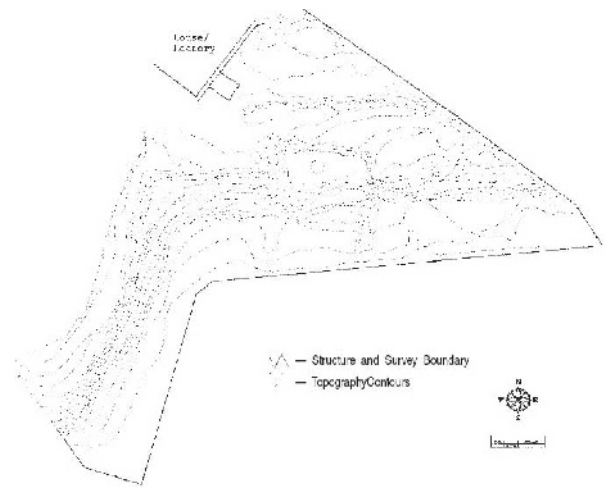


FIGURE 3. Roulette and Williams topographic map of the Charles Carroll Garden, Annapolis, Maryland (after Palus and Kryder-Reid 2002:figure 4.4).

was mapped topographically in the early 1980s. This topographic map was the first to accurately record the terraces and was essential to Paul Shackel's work (Leone and Shackel 1990), which

demonstrated that the garden was a perfect 3 x 4 x 5 Pythagorean triangle. A series of soil cores taken from the site at that time indicated that the site was largely intact as well (Palus and Kryder-Reid 2002:4.5–4.12).

These three sites comprise the body of archaeological data that has been used to identify and describe the use of planned volumes to create geometric landscapes and to create the illusions of distance or, alternatively, closeness. An important aspect of the sites that contributed to these analyses is that there was an adequate record of the depositional and structural integrity within each to work out a realistic appraisal of how these gardens must have worked optically. In these gardens, archaeologists were often able to recover the beds through stratigraphic excavation and careful mapping. The presence of distinct patterns of dark organic soil and profiles of cross sections allowed for mapping all three dimensions of the beds as well as the relationship of the beds to each other. There was also little evidence of gullies or slumping to indicate erosion of terrace edges over time. The details of the archaeology of the Paca Garden (Shellenhamer 2004) and of the Carroll Garden (Palus and Kryder-Reid 2002) indicated how these places were constructed and provided a three-dimensional map of how these spaces looked over time. The topographic map of the Ridout Garden (Figure 2) was equally revealing, as documentary evidence indicates that this was an unaltered space, under the control of one family over time. With little change to the lot over time, it appeared fairly certain that the features as mapped represented the 18th-century garden plan.

Eighteenth-century gardens were not built in a vacuum, nor do contemporary archaeologists work in one. The complement to the archaeological evidence for these deliberately shaped spaces of the 18th century was the contemporary books and other literature that provided instruction on how to build formal landscapes in the city or in the countryside. These books, in particular Batty Langley's (1728) *New Principles of Gardening*, Richard Bradley's (1717) *New Improvements of Planting and Gardening*, and Philip Miller's (1731) *The Gardener's Dictionary*, were well known and widely used in the English-speaking world, including Annapolis (Sarudy 1989: 153–159). These books went through many

editions, are recorded in inventories of period libraries, and were used in the same way, by informal and formal practitioners alike, as were contemporary architectural pattern books. This literature contains detailed descriptions of how to build garden features and how to create flower beds, groups of shrubbery, and other plantings (Miller 1755). Miller also details the specific rules and formulas for building *volumes*, or three dimensional spaces made of hedges, according to the laws of perspective, information that has helped archaeologists understand the gardens that the authors have explored archaeologically. These specific rules are illustrated in garden paintings found throughout Barbara Sarudy's (1989) work.

Early to mid-18th-century prints and descriptions also contain a great deal of information about the appearance and construction of English and American gardens. From all these sources it is apparent that mid-18th-century gardens contained avenues of trees, terraces and falls, lawns, and planting beds in which flowers, vegetables, herbs, and shrubs were grown (Sarudy 1998; Laird 1999). Planting beds were often in geometric shapes, usually enclosed with privet or boxwood, clipped into a regular border to emphasize the geometric form. The plants in beds were usually the first part of the garden to go when the owner, adequate staff, or both were no longer there to direct or carry out maintenance work.

The 18th-century garden literature also details plans that use converging and diverging lines of sight to manipulate the relationship between distance and a focal point. For example, if a garden in an urban space was small and its designer wanted it to appear larger, then the lines of sight on a focal point, such as a gazebo or some other monument, would converge. The sides of a path leading to the focal point would not be parallel but would draw together as they approached the distant object. The sides of the garden beds or the clipped sides of hedges could be shaped so that they converged as they approached the object of view, thus drawing the eye forward while creating an image of distance or length that was not there.

Such constructions or design elements were identified in both the Ridout and Carroll gardens through topographic mapping. There were no surviving design elements that suggested

lines of sight in the Paca garden because large portions of the garden were destroyed early in the 20th century when it was removed to build a hotel. William Paca's house in Annapolis still stands and was built in 1763 when he was a young man and recently married for the first time. Paca's Annapolis house has survived to the present initially because in the early-20th century, the house became the frontispiece for a large hotel that served U.S. Naval Academy visitors, legislators, and others and because Annapolis, a famous backwater after independence, became one by being bypassed in the Industrial Revolution. When the hotel was demolished in the 1960s, the house was saved through the efforts of the Historic Annapolis Foundation.

The original 18th-century garden was not as lucky as the house. Only the descending ground planes remained, as evidenced by the sloping foundations of the original and extant garden walls, buried beneath the parking lot of the hotel. The terraces, or *flats*, of the garden descended from the viewer at the top of the garden. They were connected by *falls*, or slopes, built on a 3:1 angle; for every foot of height there was 3 ft. of width (Paca-Steele and Wright 1987; Leone and Shackel 1990). These landscape features were used to create the illusion of distance in Paca's Annapolis garden.

In the Ridout garden, elements of the original beds have survived, and these were useful in understanding how such features were built and used to create perspective (Figure 2). On the terraces, three sets of beds flanked a central ramp as it descended over three *parterres*, or terraces. The front ends of the beds were equidistant and parallel to each other. However, the beds became narrower as they receded from the viewing platform at the top of the garden. While they remained rectangular in actuality, they looked like trapezoids, as the back edges appeared to be converging lines guiding the view down the ramp to the focal point.

Four additional beds on the lowest terrace at the bottom of the Ridout garden also contributed to the creation of perceived distance through control of perspective. The four large beds comprise two pairs or sets that run parallel to the main walk. They are of the same length but are of two different widths. The beds that are situated on the inside, closer to the garden's main axis or central path, are wider

than the outer beds. The outer, narrower, beds are parallel. This arrangement helped build the lines and volumes that created the illusion of distance that was begun on the upper terraces by the three sets of beds there.

The beds in the Ridout garden were discovered by accident. When the garden was mapped, slight depressions were noticed during visual reconnaissance. By systematically exploring and marking the locations of these depressions, it was possible to map the outline of the beds. Although the outlines are accurate, no excavation was done in these areas to determine depth, stratigraphy, or subsurface shape. Given their position on the garden terraces and the lack of extensive modifications to the remainder of the yard space over the last two centuries, they are assumed to be expressions of original beds or at least of original design.

There is no archaeological evidence for beds from Paca's Annapolis garden. However, a large body of historical evidence supports their likely existence, and some archaeological evidence exists for beds from other contemporary Annapolis gardens. Today, in the Paca garden, the beds, planted as *parterres*, are tightly planted to give the appearance of being woven or sculpted. The beds comprise four large outdoor rooms and are a powerfully evocative reconstruction of what might have been there. Peale mentions the *parterres* on the terraces of Charles Carroll's garden, but the actual outlines of beds were found only in the Ridout garden.

Early 18th-century efforts at controlling perspective in formal gardens have been relatively well documented in Annapolis. Such controlled perspectives, meant to be experienced by the walking visitor, act on the eye to create the illusion that a garden focal point is either bigger or smaller than it is in fact and to create illusions throughout the garden that place the viewer at the center of shifting perspectives. This set of optical facts, combined with baroque theories of power, makes the viewer the subject of the geometric manipulation of the garden space and reveals rules of perspective and geometry known and used by the master builder. The application of the laws of geometry indicated that the builder understood geometry, understood the laws of nature and of God, and knew how to put them to his or her own use (Bacon 1968). Those in the know, who came to walk

in the garden and experience the execution of this knowledge, shared in the appreciation of this skill, witnessed the power the builder had over those he compelled to work for him, and understood that the builder was at the top of the hierarchy, regardless of whether he was a plantation owner, a royal functionary, or a head of state.

Formal, geometric landscapes did not disappear with the initiation of republican government, but they did change. Both Jeremy Bentham (Bowring 1962) and Michel Foucault (1979) pointed out that when the citizen replaced the monarch as the source of power, citizens learned to watch each other so as to enforce the rules for proper civic behavior, another source of power. Such surveillance was internalized to become self-discipline and was institutionalized in the new American republic through many mechanisms (Leone and Shackel 1987; Shackel 1993), such as the adoption of genteel codes of behavior (forms of disciplining speech, dress, manners, and consumerism), the growth of social structures that monitored public behavior (e.g., the poor house), and through the use of panoptic structures such as prisons and state houses (Leone and Hurry 1998). Many American plantations were built with the understanding that the plantation house could serve this panoptic purpose (Epperson 1999). It is suggested here that William Paca used accepted ideas of perspective when designing both his home in Annapolis and his new plantation and garden on Wye Island. William Paca built a house and garden where he could see and be seen and did so to reinforce and teach hierarchy, not equality.

#### William Paca's Garden at Wye Island

These understandings of perspective and surveillance, and the archaeology of Annapolis' gardens, served as the background for beginning long-term archaeological work on William Paca's second garden, located at Wye Hall Plantation on Wye Island. When Paca retired from active political life in Annapolis, he began to build an elaborate neoclassical house and to develop the surrounding grounds, beginning in about 1792. The garden was one of two designed in the neighborhood of Wye Island by a professional landscape architect, Luke O'Dio, whose correspondence with Thomas

Jefferson about both gardens survives in the Jefferson Correspondence collection in the National Agricultural Library (O'Dio 1802).

By 1798, Paca's holdings on Wye Island included 1,414 acres of land, roughly half of the island. Much of this land came to Paca through marriage to his first wife, Henrietta Maria Lloyd. The tax assessment from that year lists two outbuildings and the main house at Wye Hall (U.S. Bureau of the Census 1790; Federal Tax Assessment 1798). One of these outbuildings presumably was a carriage house that is still extant today, albeit in much modified form, to the southeast of the garden terraces. These same records report holdings of 100 slaves. Like most large plantations on the Eastern Shore, the Wye Hall land was used primarily in the production of wheat and tobacco.

In 1876, Paca's great house on Wye Island burned down along with most of its contents, including, most people suspect, his archive of personal papers, as he is one of the signers of the Declaration of Independence whose papers do not survive. The shell of the house was rebuilt but in a different form by the Paca family who owned the property into the early-20th century. The debris from this fire was used as fill in specific spots in the landscape but was not broadcast wholesale. The rebuilt house was in turn torn down in the 1930s, after the Paca family sold the property, and the present house was built in the late 1930s. The current building sits on or very near the footprint of the original, the proposed plans for which survive (Figure 4).

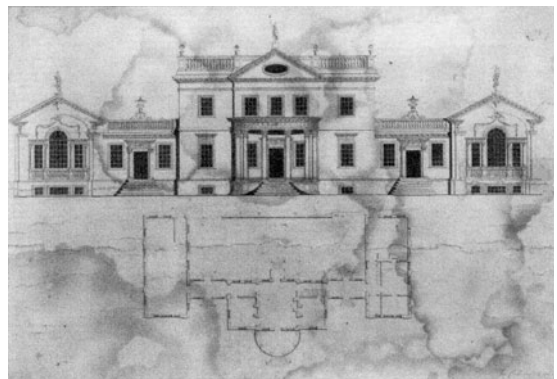


FIGURE 4. Joseph Clarke's elevation and plan of the 1792 House at Wye Hall Plantation. (Courtesy of the Maryland Historical Society, Baltimore, MD.)

Paca's Wye Island garden is one of a handful of large rural gardens dating to the late-18th or early-19th century that have been excavated archaeologically. This investigation represented an opportunity to examine landscape and garden design in the new republic, to explore the influence of the English landscape-garden tradition in America, and to describe large-scale landscape modifications in plantation settings. In addition, with the extensive work done by Archaeology in Annapolis on urban, earlier 18th-century gardens, there was an opportunity for comparison of garden design style and rationale. The two Paca gardens were built at least 30 years apart. Did the principles used to build them change? This last question contains within it the beginning of an essential exploration of what gardens have in common over time, including an attempt at understanding what purposes they served.

The investigation of Paca's Wye Island garden was framed with two thoughts. First, William Paca was one of Maryland's foremost political figures. He signed the Declaration of Independence, would not support the U.S. Constitution without the Bill of Rights, was the third elected governor of Maryland, was re-elected twice, and was the first federal judge in Maryland. William Paca was a wealthy lawyer and knew and had frequent interaction with the other founders of the country (Stiverson and Jacobsen 1976; Russo 1990). Paca was familiar with the ideas, philosophies, and plans of the Maryland gentry and lived in the active, aggressive, intellectual world they shared. This leads to a first assumption. Such people were not only building a new country with new institutions, but they also set out to build active models in society that would create and re-create the ideas they were working with. They did not just write documents but also built institutions to transform society as they knew it. Houses and plantations were models for this transformation, not simply demonstrations of their owner's wealth or taste. Plantations (and slave ownership)—as the physical embodiments of Euroamerican aspiration—ratified, taught, and extended personal authority and power. Houses and plantations were locales that presented opportunities to generate social interactions that had transformative authority. This understanding of the reflexive nature of the material world provides the underlying assump-

tion for the investigation of Paca's Wye Island plantation reported on here.

Earlier analyses of William Paca's house and garden in Annapolis also served to help frame the study of his later home on Wye Island (Leone 1984, 1987; Leone and Shackel 1990). This work on gardens in Annapolis was aimed to shift the focus away from seeing Paca's garden as a reflection of his personal taste, as unique, and as a flat space. Rather, research has been directed toward demonstrating that Paca's taste was a part of his social politics and that the garden was an active part of the construction of gentility as a form of personal discipline, power, and a particular rationalized world that served the gentry of Maryland. The garden books mentioned earlier show that Paca's Annapolis garden was a product of standard landscape-design practice and would compare with many other contemporary gardens, whether Paca designed it himself or hired someone like O'Dio to do so. Paca's garden was a volumetric space, built according to well-known period formulas, constructed using the principles of perspective, all of which deliberately shaped the land and instructed visitors in hierarchy, authority, and learning. This position also influenced the work on Paca's landscape on Wye Island.

The work on the Wye Island plantation that is discussed here began in the summer of 2000 but was preceded in the 1980s by testing done by Anne E. Yentsch, Karen Bescherer, and Conrad Goodwin (Bescherer and Yentsch 1989). At that time, excavations of several deposits associated with the plantation kitchen wing were carried out, demonstrating that some of the archaeology of the plantation was intact. Further, an excellent and comprehensive topographic map of the great garden terrace was made at the time (Figure 5). This map reveals the essential features of the formal garden that one could recognize without massive excavation.

During the 2000 excavation season, a research strategy designed to survey the landscape that made up the historical period core of the plantation was implemented. The purpose of this work was to document the spatial structure of the working plantation, to look for evidence of the larger design of the garden, and to explore the relationship of the garden to the whole. A systematic shovel test survey was the primary means of recovering this layered

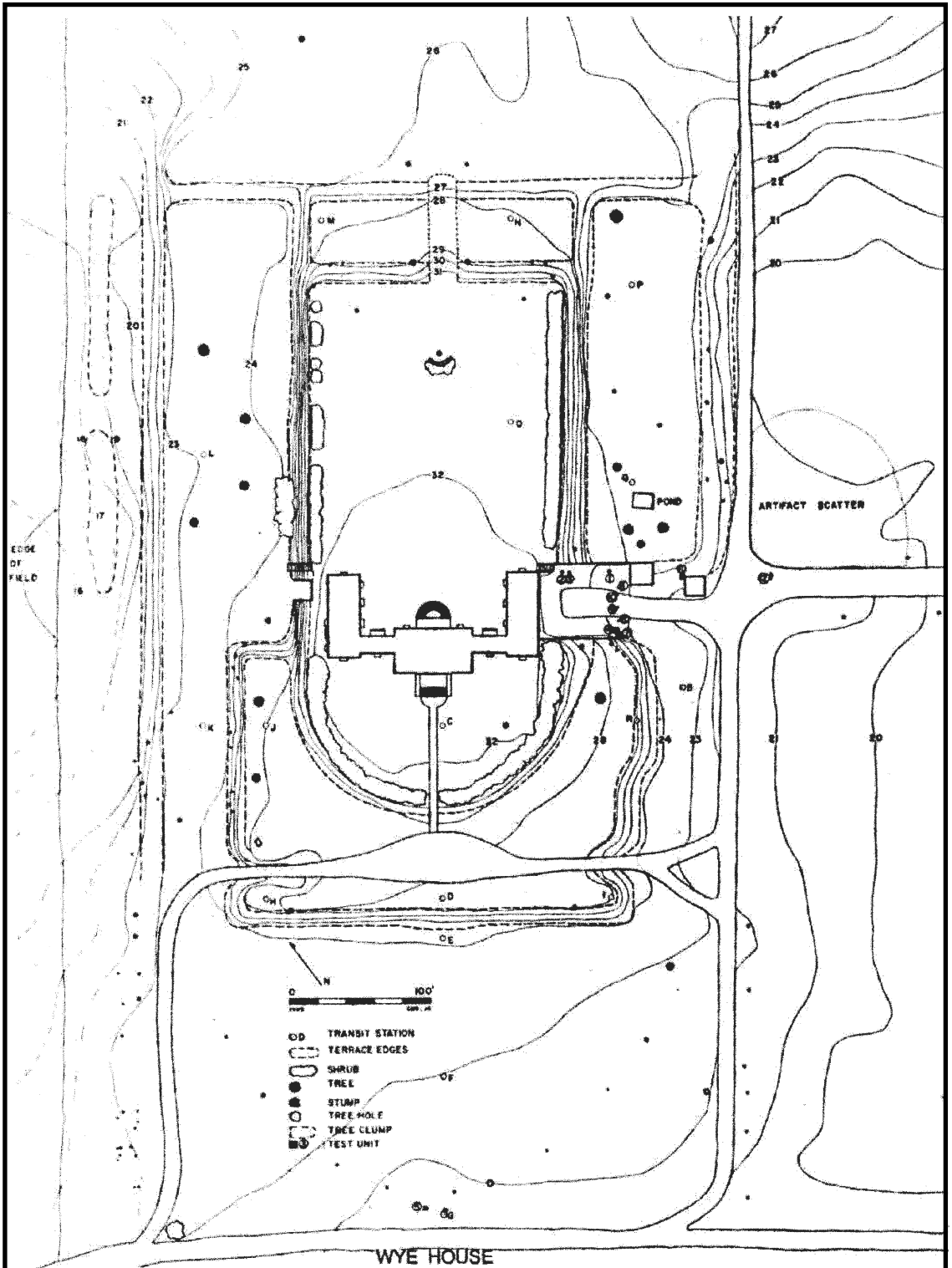


FIGURE 5. Conrad Goodwin map (1989) of Wye Hall's terraces (after Bescherer and Yentsch 1989).

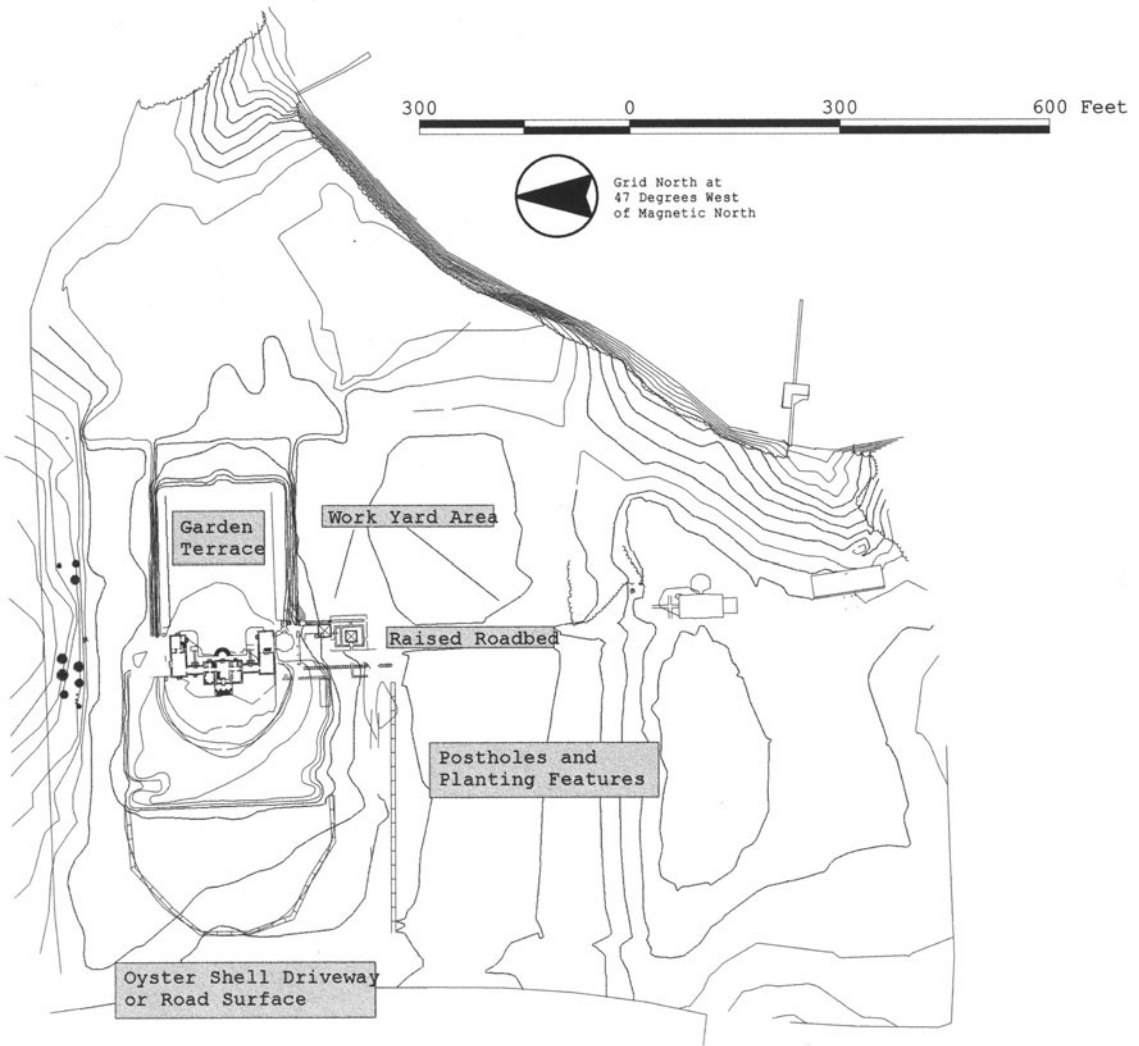


FIGURE 6. Plantation landscape features. (Drawing by J. Harmon, 2004.)

and changing layout. These shovel tests were eventually supplemented by a series of larger excavation units and backhoe trenches. The first, and most significant, of the results of this investigation was the finding that much of the landscape, and much of the archaeology of the late-18th- and early-19th-century occupations, was largely intact (Harmon et al. 2003).

Features were identified in areas near the house and terraces that were helpful in interpreting the layout of the core of the plantation (Figure 6), including evidence of an oyster-shell driveway or road surface in the large yard area west of the house and a series of postholes and

planting features adjacent to the access road that parallels the house site. The latter were interpreted as evidence for a fence line, with plantings placed at intervals along its inner edge. Although the date at which they were removed or buried remains uncertain, they do not predate the original Paca house and are most probably evidence for the layout of this part of the yard during the early- to mid-19th century.

The area surrounding a raised roadbed, which connects the house site with the still extant carriage house to the southeast, was also tested during the 2000 fieldwork. This road feature can actually be traced to the far end of the



island, reported to be the site of late-17th and early-18th-century occupations. Further, it forms the principal north-south axis around which much of the Paca plantation was organized. Artifacts and features associated with a work yard were concentrated in a zone (approximately 200 x 50 feet) along the side of this road. Evidence for at least one structure was found here, which was present as early as the late-19th century. The function of this area changed through time, although it generally served as a utilitarian work yard in various forms. Use of the area for this purpose persisted until the middle of the 20th century.

During this initial field season, a utility-and-waterline trench (27-ft. long, 5-ft. deep) was excavated across the narrow dimension of the large platform immediately outside the garden door of the house. The profiles of this trench revealed microstratigraphic evidence of dozens of relatively small loads of silty sand soils of local origin that were carried there to make the garden platform. This stratum was about 3 ft. deep and was undisturbed wherever it was found on the terrace. The platform dates to at least the 1790s, as this stratum was overlain by garden beds containing artifacts dating to the construction of the original Paca House. William Paca owned 100 slaves on this plantation at this time, as recorded in the 1798 Federal Tax Assessment, which leads to the suggestion that the labor of enslaved people built the massive earthworks on Wye Island. This interpretation is supported by interviews taken in the late-19th and early-20th centuries that record traditions of slaves using baskets and wheelbarrows to build the garden.

The initial trench showed no evidence of planting beds. However, it was hypothesized (based on period sources as well as the advice of Michel Conan, director of Landscape Studies at Dumbarton Oaks who came to see the garden at the authors' invitation) that the terrace would not have been empty but would have contained extensive flowerbeds, shrubs, and trees to provide shade from the hot Chesapeake sun. All would have been oriented toward the water view. Much of the most recent research on the plantings in English and American gardens of the late-18th and early-19th centuries also suggested that the height of the plants and shrubs would be graduated in size up to the sides of

the terraces so as to create a widening funnel of the view to the water.

#### 2001–2002 Investigation of the Terrace Garden Site

A more intensive testing and excavation program oriented toward two specific goals was needed to address this hypothesis regarding the overall structure of the garden on the terrace. First, it was necessary to determine if more intensive testing would indeed reveal evidence of the original garden design. Second, it was necessary to assess the extent to which disturbance and later modification of the terrace may have impacted any preserved features. Although the initial testing had shown that intact areas were on the terrace, it was also clear that some surfaces had been disturbed by construction of the extant house.

Given these goals, relatively large exposures were necessary to identify and examine the garden's structure. The most efficient method was to excavate a series of large but shallow trenches with a backhoe. Once the sod layer and approximately 8–12 in. of surface soils were removed, each trench was shovel-scraped and then troweled to reveal any features present. Eventually, 24 of these trenches were excavated across the terrace (Figure 7).

Shortly after the investigation on the terrace was begun, relatively large and well-preserved features that were associated with the late-18th-century garden were found. After the initial trenches on the north side of the terrace were excavated, two distinct types of features were identified, consisting of actual planting beds and a series of smaller, more isolated soil stains identified as the locations of individual trees or other plantings.

Three major planting bed features were identified. These features were initially identified as large, dark grayish-brown soil stains that were distinct in color from the surrounding yellowish-brown soils that made up the terrace matrix. The terminal ends of the bed features were all rounded. The beds were all located on the northern half of the terrace. One bed was 12 ft. wide; its immediate partner was 6 ft. wide. The narrower bed was located nearer the centerline of the terrace. Based on the one bed fully exposed during excavation, a

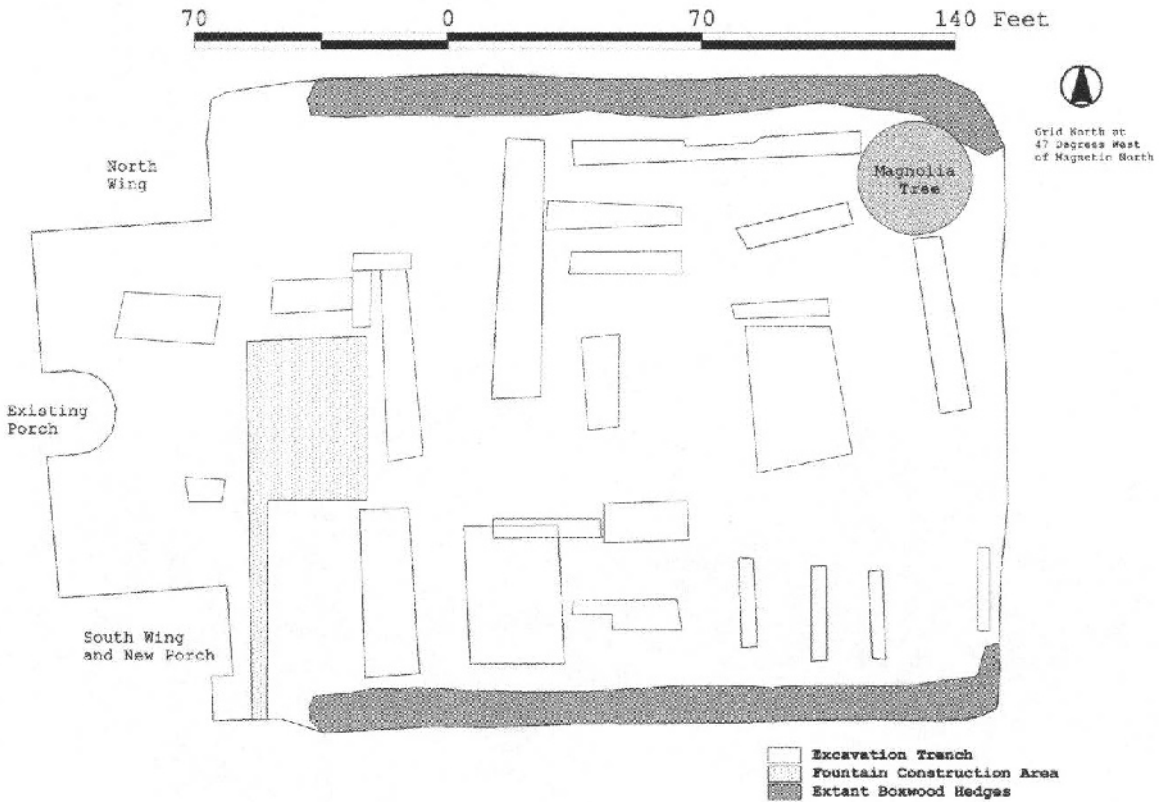


FIGURE 7. Locations of the trenches excavated on the garden terrace, 2000–2002. (Drawing by J. Harmon, 2004.)

projected length for the beds was approximately 60 ft.

The long edges of these beds were scalloped and slightly irregular, particularly along the long axes. In some cases, larger, but shallow, lobe-shaped structures extended from the sides of the beds (Figure 8). These features were created by the use of edging plants, probably of a shallow-rooted variety. Jay Graham, landscape architect for the current reconstruction, suggested that these plantings may have been boxwood on the basis of their depth, size, and form, but no archaeological evidence for a particular type of plant was recovered. Although soil samples were taken, they have not been analyzed to date, and no identifiable seeds or plant remains were recovered during fieldwork.

A much deeper and more regular depression was discovered within the bed section nearest the eastern edge of the terrace. Here, the

depression was found to extend 12 in. beneath the base of the bed feature, which was itself about 6 in. thick. The excavation of a section across the depression revealed a pit with relatively straight sides that was 12 in. wide and 12 in. deep (Figure 9). The pit contained the base and portions of the body of a dark olive-green wine bottle of late-18th-century origin. Similar artifacts have been found as “paving” in planting features in roughly contemporary kitchen gardens in Williamsburg, Virginia, where they were interpreted as aids to drainage (Brown and Samford 1990:108–109).

Several features located in a number of the trenches excavated on both the north and south sides of the main terrace were found to be associated with these beds. The features were relatively widely dispersed and were made up of dark brown to yellowish brown soil stains. The shapes of these stains varied, but all were

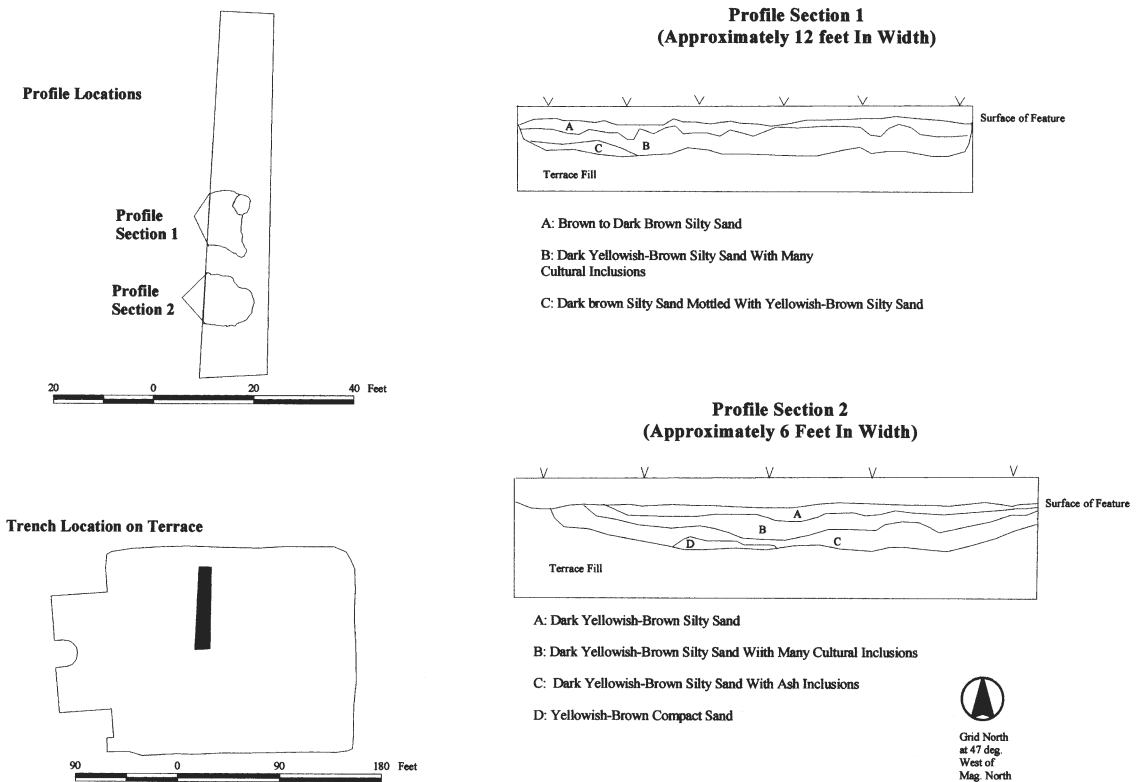


FIGURE 8. Garden bed plans and profiles, north-central section of the terrace. (Drawing by J. Harmon, 2004.)

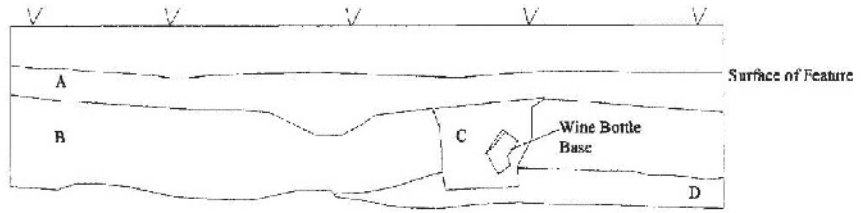
relatively amorphous, oval to round. Sections were excavated from several of the more discrete features on both sides of the terrace. Excavated features were found to be 12–24 in. deep and had rounded bottoms with lobate extensions (Figure 10). This same pattern was echoed within the southeastern quadrant of the terrace. Based on the authors' conversations with two landscape architects, it was hypothesized that these features had been the locations of individual plantings, tall enough to provide shade and larger than those that would have been planted in the beds (Jay Graham and Kevin Campion 2002, pers. comm.).

A wide range of artifacts was recovered from the sections that were excavated from the planting beds. Much of this material was burned oyster shell and brick fragments, but a large amount of glass, many nails and other unidentifiable metal fragments, bone, bottle glass, and ceramics were also found. Several brass and

shell buttons were also recovered. The material dates from 1790 to 1820.

The ceramics recovered from the bed features provided some information relevant to determining a date for the beds. Sherds of creamware and Chinese porcelain originating in Canton were recovered from all three of the beds. These wares are usually dated as originating as early as 1780 on Maryland sites, declining in importance after 1820 (Reeves et al. 1991, after Maryland Geological Survey, Division of Archaeology Historic Artifact Chronology). One remarkable artifact that was recovered from the largest of the bed features was a single 18th-century cuff link, probably made of a silver-plated base metal.

Given the O'Dio letter cited above and the presence of the late-18th- and early-19th-century artifacts in the features, it appears that the beds were created around 1792, at or near the time the original house was constructed. Evidence of importation of burned material into the garden



A: Dark Yellowish-Brown Silty Sand (Interior Bed Feature)

B: Yellowish-Brown Silty Sand Mottled With Dark Yellowish-Brown Silty Sand (Interior Bed Feature)

C: Yellowish-Brown Silty Sand With Large Bottle Fragment

D: Strong Brown Sandy Clay (Terrace Fill/Subsoil)

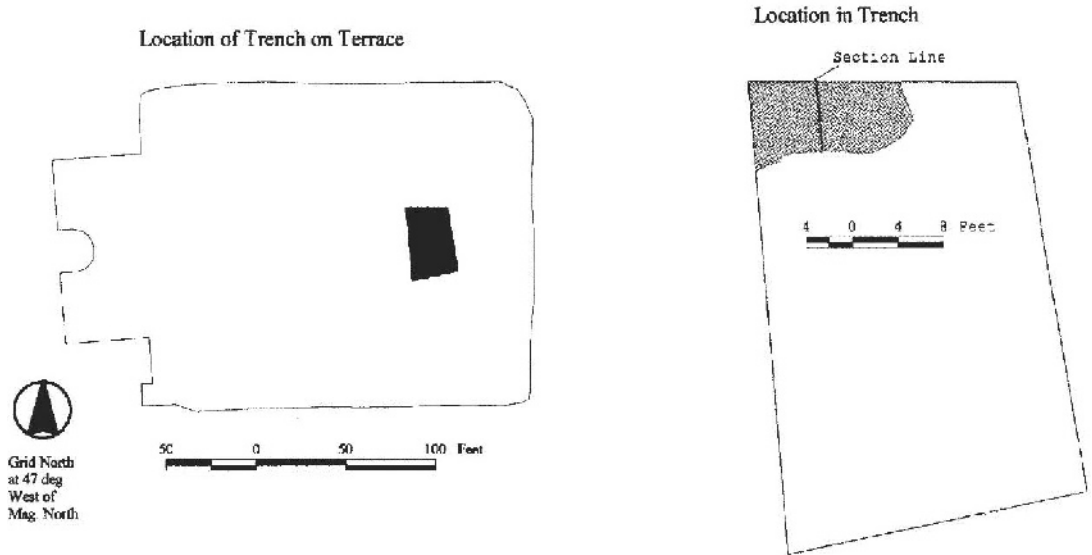


FIGURE 9. Plan and profile of bed feature with bottle base, northeast section of the terrace. (Drawing by J. Harmon, 2004.)

area seems to indicate that the garden beds were abandoned and filled when the original house was destroyed in 1879. This fits well with the known historical chronology for the terrace and house and is not contradicted by any other archaeological or historical evidence. Therefore, it appears that the original Paca and O’Dio design for the garden survived for approximately 80 years.

Figure 11 presents an interpolated layout for the original late-18th-century garden that is derived from the locations of the archaeological features. This reconstruction is based on features indicat-

ing that the garden was slightly asymmetrical and assumes that it was roughly a mirror image from one side of the terrace to the other. The dividing line within this mirror image would have been a perpendicular axis running from the center of the central block of the house down the center of the terrace east to the edge of the river.

Interpreting the Results of the Archaeology: Formal Dimensions of the Paca Garden

Excavation and mapping of archaeological features in the Wye Hall garden reveals that a

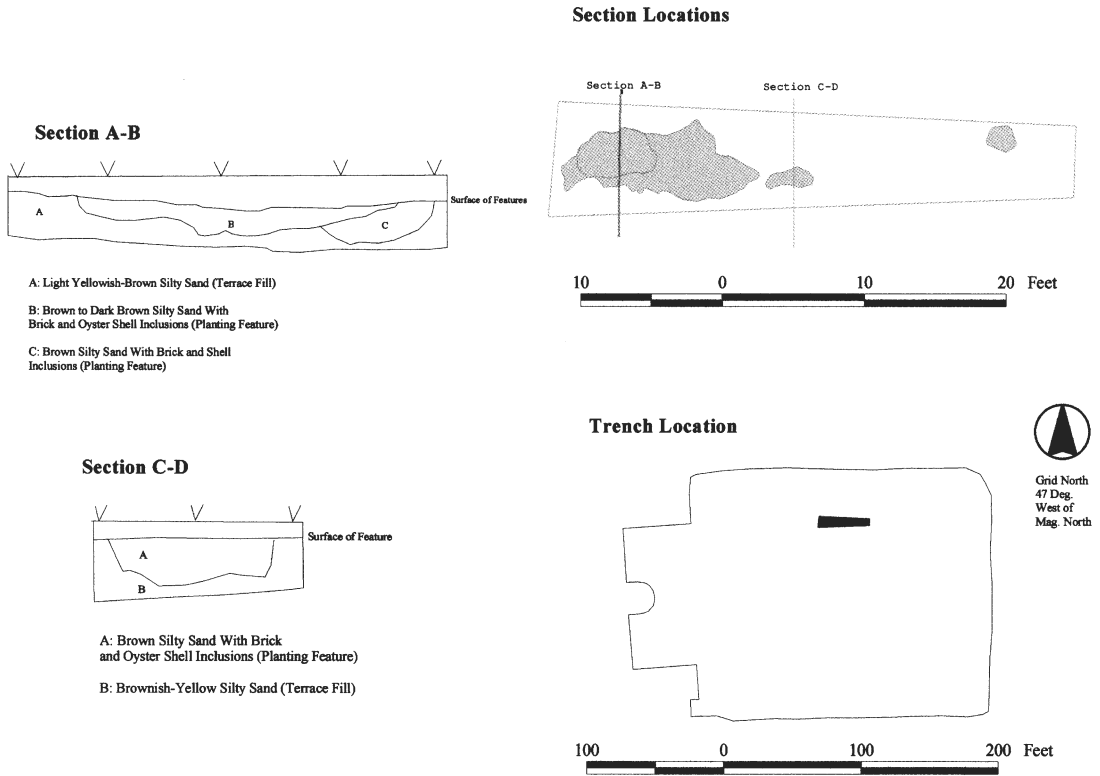


FIGURE 10. Representative plan and profile of isolated planting features. (Drawing by J. Harmon, 2004.)

regular geometric pattern underlies the architecture of the garden. The first aspect of this pattern lies within the dimensions of the terrace itself. The highest portion of the terrace is 210 ft. long and 180 ft. wide (Figure 5). If the lower terrace is included, then the total length of the structure is 300 ft. The uppermost terrace's elevation is approximately 6 ft. above the surrounding side yards, and the lower terrace is approximately 3 ft. lower than this surface. All of these dimensions are evenly divisible by a factor of three. In addition, the long dimensions of the terrace parallel the line of sight from the rear of the house to the water and, being divisible by 3, form the "square and a half" geometric form that is the initial basis for the creation of an illusion of perspective distance.

The garden's geometry in relation to the factor of three is continued within the size and layout of the beds. They are 12 and 6 ft. wide respectively, with the narrower bed located

nearer to the center of the terrace. The bed that contained the bottle-filled planting feature, farthest east of the house on the main terrace, echoed these dimensions. The total length of the beds, as evidenced by one full exposure, was approximately 60 ft.

In addition to their size, the placement of the beds on the terrace is also governed by the factor of three. The outer edge of the large bed discovered on the northern side of the terrace is approximately 60 ft. from the northern edge of the platform. Although the edges of the beds exposed by the excavation are irregular, they are approximately 6 ft. apart. Finally, if these beds are assumed to be one-half of a mirror image, with similarly placed beds on the south side of the terrace, then the two groups of beds would range between 15 and 30 ft. apart, with the distance increasing farther from the house.

The exact angle at which the beds diverge from the centerline of the terrace is difficult

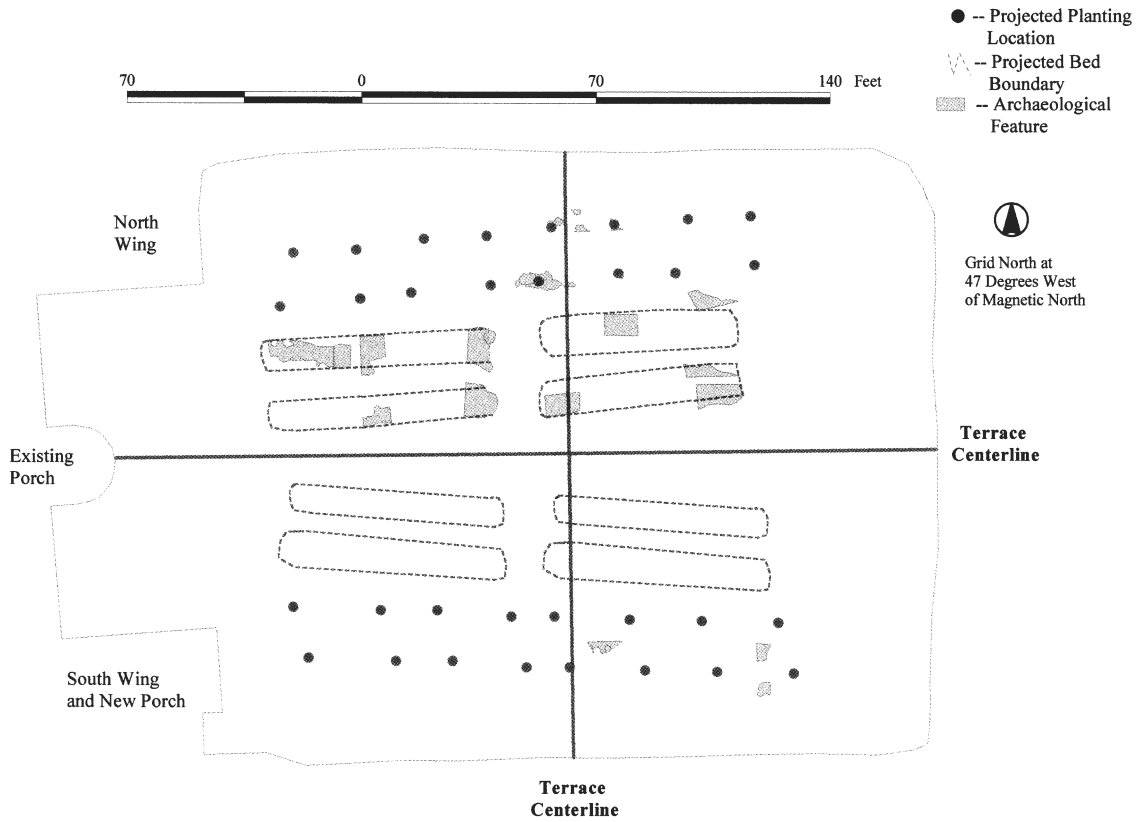


FIGURE 11. Late-18th-century garden layout. (Drawing by J. Harmon, 2004.)

to determine because of the relatively limited exposure afforded by the excavation. It is clear that the beds do diverge with distance from the house. The hypothetical layout indicates that this angle from centerline may be as much as 15° over a distance of approximately 120 ft.

Given the design of Paca’s earlier garden in Annapolis (ca. 1760s), these findings are not entirely unexpected. When William Paca built his earlier garden in Annapolis, the ideas that the rules of perspective and diverging lines of sight could be used to manage a garden’s focal point and that a sympathetic underlying regularity to the geometric layout of the garden as a whole would further manage the way the garden was viewed were well established.

However, by the late-18th century, rectilinear gardens of the style that Paca had built in Annapolis were no longer popular in England. The rectilinear designs of both beds and layouts had given way to more curvilinear styles. The

curved ends of the beds, the lack of rigid symmetry in the layout of the terrace as a whole, and the flanking plantings that would have varied in size and placement provide evidence that the design of this garden was developed in response to changes in England. The demi-lune shape of the terrace in front (west) of the house introduced a curving form to all those who approached the house. Further, the geometrically constructed garden sits within a larger managed landscape that provided the park-like setting more typical of the English landscape garden of the later 18th century.

Great flat terraces surround the geometric raised garden, all of which show little evidence of early cultivation. The soil profiles seem to indicate these areas had been planted in grass, and few structures appear to have been built on these flats. Evidence from the first season of archaeological investigation also suggests that these flats were fenced and that, at least across

the front of the yard, no access existed up the flat terrace to the main door of the house. Rather, the fencing lines found seem to indicate that access to the house came by carriage road to the side entrance. Guests entered the garden from inside the house, either to the back main terraces or to the front demi-lune and grassy flats. Such a pattern of access to the garden is well in keeping with the English landscape tradition of using the pleasure gardens surrounding a great house as a park to stroll, converse, and enact the rituals of gentility.

#### Later Features: The Post-1880 Garden

Some evidence for a later garden on the site was also recovered during this investigation. This evidence is much more fragmentary than that for the earlier garden, and it is impossible to hypothesize a layout for this later design as a whole (Figure 12). Most of the features associated with this phase are located near the

western edge of the terrace, in and around the areas of the terrace most intensively impacted by construction. Further, much of the evidence is in the form of dispersed lenses of rounded gravel that formed pathways and lined beds. This construction technique proved to be much less resistant to the vagaries of preservation than the beds and planting features associated with the earlier Paca and O'Dio design.

The first, and most well preserved, of the features associated with this phase of the garden consists of the remnants of a large platform located on the north side of the current porch. This feature was located just a few inches below the ground surface, and within the trench it measured approximately 12 x 6 ft. in area. The northern edge of this feature had been interrupted by a drainage trench excavated when the current house was built (Figure 12).

The platform feature consisted of a very compact mixture of pale yellow sand and shell-tempered mortar. The feature ranged

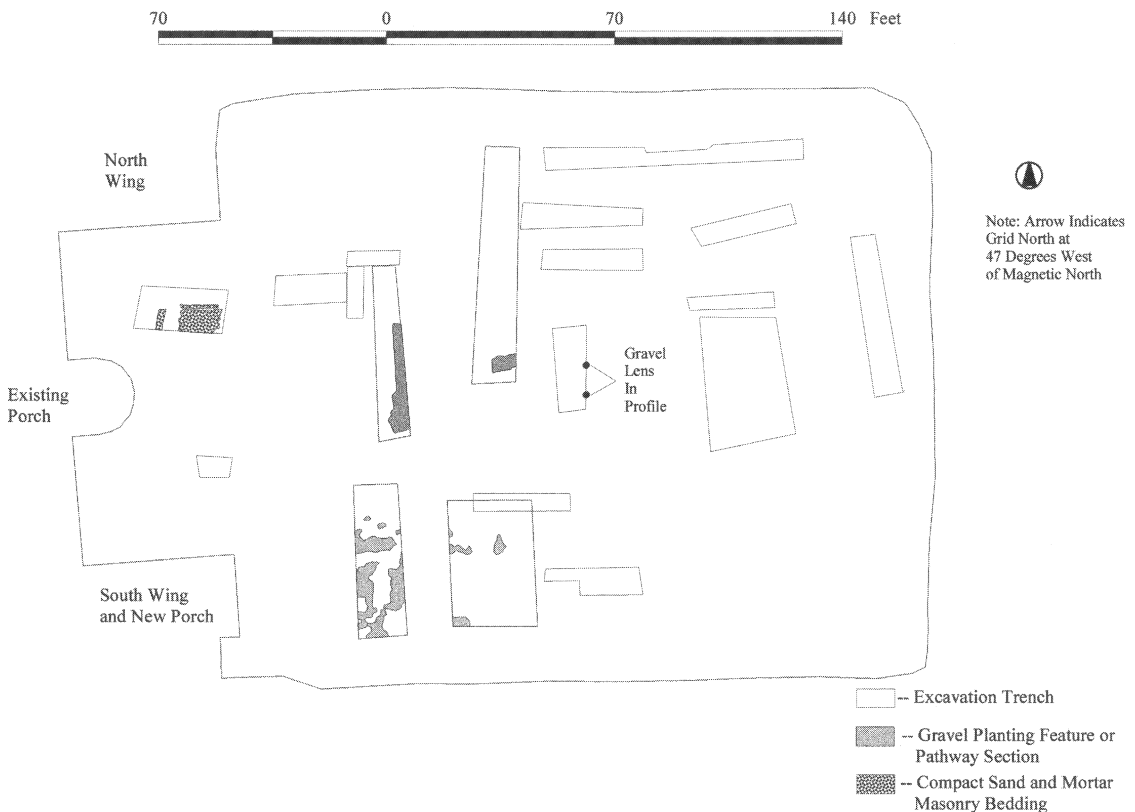


FIGURE 12. Post-1879 garden features. (Drawing by J. Harmon, 2004).

between 3 in. and 6 in. in thickness and was the underbedding for a brick pavement from which the bricks have been removed. A few partial bricks were present within the feature, which were probably part of a viewing platform associated with the second house, extant between approximately 1879 and the middle 1930s.

The second set of features associated with this phase of the garden is a series of remnants of gravel pathways that were located immediately beneath the ground surface. Deposits of well-sorted, yellowish brown pea gravel formed paths or walkways on the terrace. The remnants indicate at least one path down the central axis of the terrace and one perpendicular crossing path. There did not appear to have been any excavation done in establishing the paths, and there was no evidence for any edging or other element that would have bounded them. One section of the crossing gravel path contained a small section of dry-laid handmade brick, which formed a small platform (ca. 2 x 4 ft.) on a line immediately down the central east-west axis of the terrace.

The final set of features that were associated with this phase of the garden was located within the southwestern quadrant of the terrace. Here, relatively large gravel beds were discovered that were much more amorphous in form than the deposits identified as pathway remnants. Sections from these features were excavated, and they were found to be of varying depth, ranging between 3 in. and 12 in. in thickness with irregular bottoms. These are apparently the remnants of shallow gravel beds that were placed around the bases of larger plantings, either trees or fairly significant shrubs. The growth of roots out from the centers of these beds pushed the gravel into the forms that were identified when the trenches were excavated. Although it is difficult to make a precise determination, it is probable that the plant species were of a shallow-rooted variety, in that the major direction of this growth appears to be out rather than down.

Based on their stratigraphic position, the features that make up this phase of the garden have been identified as being later in time. All are located just beneath the ground surface, several inches above the earlier beds described in the preceding section. In one case, the gravel and brick pathway features are actually

superimposed over the earlier 6-ft.-wide bed described above. The remnant of the viewing platform by the current porch is located at approximately the same elevation.

The historical record relating to the plantation and house suggests that this iteration of the garden may relate to the second house, built between the destruction of the original in 1879 and the construction of the current house in the late 1930s. By ca. 1940 no evidence of these pathways or beds was visible within the aerial photos taken at the time the current house was being built. It is probable that this design existed only for the approximately 50-year period between these two dates. Given the fragmentary nature of the evidence for this phase of the garden, no overall layout can be hypothesized. There were at least two elements to this later phase, the pathways and the gravel beds surrounding larger plantings or trees. This garden probably only occupied a portion of the terrace, insofar as features were located only on the western portion of the terrace, nearer the house. Unfortunately, this area was also subjected to the most disturbance by various modifications of the house and immediately surrounding yard.

#### Summary and Conclusions: Perspective and Surveillance in the Wye Hall Garden

Three gardens were built on William Paca's Wye Island plantation: one for Paca's original house, one for the rebuilt house, and a third for the colonial revival mansion. The built platforms around the house remain symmetrical, connected to access roads, farm buildings, and fields, but significant parts of the original, large-scale planned landscape have disappeared from view. Nothing is known about the productive landscape or the landscape of the producers, the enslaved African Americans. Censuses show a slave population that grew from 100 in 1790, to 150 in 1860 (Maryland State Archives 1860). For example, slave quarters certainly were on this property, but no information shows how they were planned in relation to the rest of this large systematic effort.

However, the Wye Hall investigation has yielded a number of discoveries about the spatial organization and morphology of the 1790s garden. The original beds were ordered in sets



around a central axis. Those beds closer to the central axis were 6 ft. wide; the beds that were farther away, closer to the terrace edge, were 12 ft. wide. These beds are not situated on a perfect perpendicular to the house and were not parallel to the axis but, rather, were on a divergent angle that pointed the beds away from the garden door. The beds served to direct one's view toward the house or away from it toward the Wye Narrows to the east. Each of the beds had rounded ends and was deeper in the middle than at the edge, with deeper depressions punctuating the midlines, suggesting the presence of shrubs within them. Lawn surrounded the beds; there was no evidence of brick or gravel paths. Finally, there was a row of shrubs or small trees on the edge of the terrace beyond the beds. The garden does not appear to have been entirely symmetrical, although absolute confirmation of this was difficult because recently buried utilities limited the area that could be excavated.

Trenches dug into the terraces comprising the center of Paca's late-18th-century landscape revealed that they were built up with thousands of basketfuls of soil. The house stands on what may have been a slight natural rise that was built up through the addition of many feet of fill and rests on a deep cellar, which further elevates the structure above the surrounding landscape. The house, elevated above the surrounding plain, set off by series of geometric shapes that constituted the formal garden, stood like a centerpiece in a well-designed stage setting. Even today, when approaching the house, it is clear that one is encountering a powerful human constructed and ordered landscape.

The current house, which is clearly inspired by the original, has windows in all directions and allows sight in all directions, also like the original. The fields, a river on either side, and most human activity connected with work were and are visible from the house, while much activity within and around the house was also constantly visible. The transparency of Paca's Wye House was aided by the way the beds on the terrace work. From the garden door of the house and from all the windows on the garden side, the lines of the beds diverge, thus creating a powerful optical illusion that draws all objects closer. From the water and surrounding fields, these same beds and plantings focused views

toward the house and its occupants, who could easily be seen from backlit windows, and made the house appear bigger and taller than it was.

The authors' hypothesis is that the original house was not built for privacy; nor was it a retreat. It was the active center of the working plantation and a constant, visible reminder of the wealth, style, and social position of its owner. The activities of the homeowner and family would have always been easy to view from the land around the house. Therefore, was the idea behind the house that the owner was to be noticed? Did the refined life of the master of the house serve as an example for all to see? Was the transparency of the house supposed to aid in the surveillance of a slave-based business? Was the labor of the slaves that is embedded in the terraces supposed to be an advertisement for the virtues of a slave economy? Do they work together to show how the management of a post-independence plantation should work?

Chandra Mukerji (1997) argues that Louis XIV built a version and a vision of the territory of the new nation of France at Versailles. The Sun King combined military skills of engineering with French aesthetics and the politics of social life to create a model of how France should work. Landscape was not incidental but was an extension of this model for society; it was ordered, hierarchical, and controlled by men. This powerful, general hypothesis is in accord with the argument that Paca was demonstrating his command of natural law in his Annapolis garden; he could show that he, by manifest example, could be thought of as belonging to the apex of the order that resided in the natural hierarchy among humans. Even though the garden books and themes of garden design most familiar to Paca were English in origin, they drew heavily on French and Italian precedents and shared with the works of Louis XIV a common baroque ideology.

At Wye Hall, Paca had achieved the power he had wished for 35 years earlier as expressed by his Annapolis garden. But his wealth was still based on slavery, the antithesis of the liberty, democracy, and the freedoms that he worked so hard to achieve for many others. Wye Hall is not just an old-fashioned garden that replays the rules used by Paca and his contemporaries in Annapolis in the 1760s and 1770s. Gardens were too dynamic in these societies to be seen

that way. Besides, Paca's Wye Island neighbor and peer, John Beale Bordley, was actively experimenting with horticulture and animal husbandry, and he wrote a book on improving farming to encourage other gentlemen farmers to use their land to develop self-sufficiency (Bordley 1799). Paca was not only aware of the early science of farming, but he was also aware of the effort of his Annapolis neighbor, Charles Carroll of Carrollton, also a signer of the Declaration of Independence, to industrialize Baltimore using iron smelting, canals, railroad construction, and other techniques of mass production. Carroll used both free and slave labor and was concerned with the role of wage laborers in the new democracy where they might vote. Just as Paca used natural law in his first garden to demonstrate his control over nature, he employed the same principle at Wye. He created an intimate view in an enormous space. However, because he built a house that could be seen through, in the midst of a theatrical garden that enhanced the view all people had of him, it is hypothesized that he also sought to simultaneously design a surveillance environment for slave management that incorporated ideas of manipulating views by using lines of sight. He used his lifestyle as an example.

While the Wye Island garden is more than a large-scale version of Paca's Annapolis garden, it is very much in the same geometric, formal, late-baroque tradition as the earlier garden. Indeed, many scholars have noted that American gardens, and Chesapeake gardens in particular, embodied the geometric rules of design long after the English had abandoned such formal designs for the curvilinear and naturalistic designs of the landscape garden. Europeans noted this American preference for Italian Renaissance design and the French iteration of this style that was popular in the 18th and 19th centuries. Following the American Revolution, professional gardeners and landscape architects from Europe began to target the newly opened market, selling to the emerging national elite. Favoring the more formal styles of the Continental gardeners, it is not surprising that Paca and Jefferson were interested in hiring Luke O'Dio (Sarudy 1998: 141–144). This suggests that the ideology of slave-holding society found particular resonance with the continued use of the geometric garden and its underlying concepts.

The formalism of the tightly controlled and centralized French nation found an echo in the world of control and surveillance that was slave society. Garden, house, and personal comportment all became outward signs of the appropriate order for society and of the inner psychic comportment necessary to be a model citizen therein. These are well illustrated by George Washington's *Rules of Civility* (Phillips 2003). In slave societies, hegemonic sway extended from these constant rituals of status, to the daily surveillance of the master and overseer, to the violence of punishment and patrollers. The threat of death, or corporal punishment, underlay and gave great power to the image of the master in his house on the hill. William Paca's Wye Island garden thus served to represent, ratify, and extend his power; and it served to create a vehicle for surveillance. The garden also suggested a model of how slaves and poor whites should act in the model society, all while hiding the violence that kept the system running (Faust 1982; Isaac 1982).

William Paca hired Joseph Chase to design his Wye Hall house. Paca had been governor of Maryland close to the time of the design and building of the Maryland State House dome that Chase designed in Annapolis in 1788. The hypothesis about the purpose of using sight for surveillance as a management strategy at Wye follows upon previous research about the Annapolis dome (Leone and Hurry 1998). The new dome was more like a panopticon than it is either a dome or a tower. It is argued here that it is an all-seeing, elevated platform with two functions, just as Jeremy Bentham proposed for his contemporary panopticon or reform house (Bowring 1962). First, from an elevated platform in the middle of a central place from which everybody could be seen, a viewer could look in all directions to see whether his or her charges were behaving. Second, because people who are watched can also imagine themselves to be watched, they, by assumption, will memorize and internalize the rules of proper behavior and develop consciences. Documents at the Maryland State Archives (2004) suggest the effect of 1788 dome on the state house:

The dome which Clark designed and built for the State House has been the defining landmark of the Annapolis skyline for 208 years. It was also, for many years,

a popular spot from which to observe the city and the Chesapeake Bay beyond. Charles Wilson Peale planned a domestic cyclorama of Annapolis with eight views from the dome and a centerpiece drawing of State Circle from Cornhill Street. Thomas Jefferson spent a most enjoyable three hours in September 1790 on the balcony of the dome with James Madison, Thomas Lee Shippen, and an Annapolis friend who entertained them with the gossip related to each of the houses they could see from their perch above the town.

This quote indicates how a panopticon should work—as a surveillance device. It is proposed here that the state house dome of the 1780s and Wye Hall Plantation of the early 1790s are both panopticons or at least combine many of the elements and effects of a panopticon. Mark Leone and Silas Hurry (1998) also argue that Paca would have known of Bentham's work, which was used by Benjamin Latrobe, architect of Baltimore's cathedral and of the U.S. Capitol building after it was burned by the British. The research at Wye Island indicates that Paca adapted these ideas to American uses at that plantation. William Paca was likely to be aware of this possibility for the dome. It is suggested that he combined use of a panopticon with those of older, hierarchical baroque ideas for building spaces to highlight authority. At Wye, panopticism was achieved by the techniques of the transparency of the house and the optical illusions created by the lines of sight in the garden. Paca combined the rules of perspective and the effects of the panopticon to show an emerging nation how to make a slave-based plantation work by watching. Combined with the ability to enforce his will through whatever physical means necessary, the effects of the panopticon certainly gave great authority to William Paca's plan for surveillance.

## ACKNOWLEDGMENTS

The authors are grateful to the owner of Wye Hall, who is the sponsor of the archaeology reported on here, for the opportunity to excavate the property. Jay Graham, the landscape architect for the current reconstruction, suggested the archaeological project and has helped to inform and coordinate it. Jean Russo corrected an earlier version of this essay and provided important parts of the research background. Julie Ernststein discovered the letter from Luke O'Dio to Thomas Jefferson. She made many important suggestions that have improved this essay substantially. Michelle

Niedzwiedek conducted most of the archival research associated with this project, under the direction of Jessica Neuwirth. Anna Hill and Kristofer Beadenkopf directed portions of the fieldwork and performed much of the laboratory analysis that supported this work. We are also indebted to Christine Jirikowic for the invitation to participate in the Gunston Hall symposium where this paper was originally presented. We are grateful to the reviewers—Gregory J. Brown, Julie H. Ernststein, and Matthew Johnson—who made many helpful suggestions that greatly improved this work.

## REFERENCES

- BACON, EDMUND N.  
1968 *Design of Cities*. Viking Press, New York, NY.
- BESCHERER, KAREN, AND ANNE YENTSCH  
1989 Initial Archaeological Testing at Wye House, Wye Island, Maryland. Report to Historic Annapolis, Inc., Annapolis, MD, from Historic Annapolis Foundation, Annapolis, MD.
- BORDLEY, JOHN BEALE  
1799 *Essays and Notes on Husbandry and Rural Affairs*. Printed by Budd and Bartram for T. Dobson, Philadelphia, PA.
- BOWRING, JOHN (EDITOR)  
1962 *The Works of Jeremy Bentham*, Vol. 4. Russell and Russell, New York, NY.
- BRADLEY, RICHARD  
1717 *New Improvements of Planting and Gardening*. W. Mears, London, England.
- BROWN, C. ALLAN  
1990 Thomas Jefferson's Poplar Forest: The Mathematics of an Ideal Villa. *Journal of Garden History*, 10(2): 117–139.
- BROWN, MARLEY R., AND PATRICIA M. SAMFORD  
1990 Recent Evidence of Eighteenth Century Gardening in Williamsburg, Virginia. In *Earth Patterns*, William Kelso and Rachel Most, editors, pp. 103–121. University of Virginia Press, Charlottesville.
- BUSHMAN, RICHARD L.  
1992 *The Refinement of America: Persons, Houses, Cities*. Alfred A. Knopf, New York, NY.
- EPPERSON, TERRANCE W.  
1999 Constructing Difference: The Social and Spatial Order of the Chesapeake Plantation. In *"I, Too, Am America" Archaeological Studies of African-American Life*, Theresa A. Singleton, editor, pp. 159–172. University of North Carolina Press, Charlottesville.

- ERNSTEIN, JULIE H.  
 2004 *Constructing Context: Historical Archaeology and the Pleasure Garden in Prince George's County, Maryland, 1740–1790*. Doctoral dissertation, Department of Anthropology, Boston University. University Microfilms International, Ann Arbor, MI.
- FAUST, DREW GILPIN  
 1982 *James Henry Hammond and the Old South: A Design for Mastery*. Louisiana State University Press, Baton Rouge.
- FEDERAL TAX ASSESSMENT  
 1798 Federal Direct Tax 1798. Microfilm, Maryland State Archives, Maryland Hall of Records, Annapolis.
- FOUCAULT, MICHEL  
 1979 *Discipline and Punish*. Random House, New York, NY.
- HARMON, JAMES, ANNA HILL, KRISTOFER BEADENKOPF, JESSICA NEUWIRTH, MARK P. LEONE, AND JEAN RUSSO  
 2003 Archaeological Investigations at Wye Hall Plantation, Wye Island, Queen Annes County, Maryland. Report from Archaeology in Annapolis. Manuscript, Historic Annapolis Foundation, Annapolis, MD, and Department of Anthropology, University of Maryland, College Park.
- HOPKINS, JOSEPH W. III  
 1986 *A Map of the Ridout Garden Annapolis, Maryland*. Historic Annapolis Foundation, Annapolis, MD.
- ISAAC, RHYS  
 1982 *The Transformation of Virginia, 1740–1790*. University of North Carolina Press for the Institute of Early American History and Culture, Chapel Hill.
- LAIRD, MARK  
 1999 *The Flowering of the Landscape Garden: English Pleasure Grounds 1720–1800*. University of Pennsylvania Press, Philadelphia.
- LANGLEY, BATTY  
 1728 *New Principles of Gardening*. A. Bettesworth and J. Batley, London, England.
- LEONE, MARK P.  
 1984 Interpreting Ideology in Historical Archaeology: Using the Rules of Perspective in the William Paca Garden in Annapolis, Maryland. In *Ideology, Representation, and Power in Prehistory*, Christopher Tilley and Daniel Miller, editors, pp. 25–35. Cambridge University Press, Cambridge, United Kingdom.  
 1987 Rule by Ostentation: The Relationship between Space and Sight in Eighteenth-Century Landscape Architecture in the Chesapeake Region of Maryland. In *Method and Theory for Activity Area Research: An Ethnoarchaeological Approach*, Susan Kent, editor, pp. 604–633. Columbia University Press, New York, NY.
- LEONE, MARK P., AND SILAS D. HURRY  
 1998 Seeing: The Power of Town Planning in the Chesapeake. *Historical Archaeology*, 32(4):34–62.
- LEONE, MARK P., AND PAUL A. SHACKEL  
 1987 Forks, Clocks, and Power. In *Mirror and Metaphor: Material and Social Construction of Reality*, Daniel W. Ingersoll, Jr., and Gordon Bronitsky, editors, pp. 45–61. University Press of America, Lanham, MD.  
 1990 Plane and Solid Geometry in Colonial Gardens in Annapolis, Maryland. In *Earth Patterns*, William Kelso and Rachel Most, editors, pp. 153–167. University of Virginia Press, Charlottesville.
- MARYLAND STATE ARCHIVES  
 1860 Federal Census 1860, entries specific to William B. Paca. Microfilm M7229-2, Frames 225 and M5167-1. Maryland State Archives, Maryland Hall of Records, Annapolis.  
 2004 Maryland State House, Annapolis, MD Maryland State Archives, Annapolis. May 2004 <<http://www.archives.state.md.us/msa/stager/s1259/121/5847/html/story.html>>.
- MILLER, PHILIP  
 1731 *The Gardener's Dictionary*. Philip Miller, London, England.  
 1755 *Figures of the Most Beautiful, Useful, and Uncommon Plants Described in the Gardener's Dictionary*. Philip Miller, London, England.
- MUKERJI, CHANDRA  
 1997 *Territorial Ambitions and the Gardens of Versailles*. Cambridge University Press, Cambridge, United Kingdom.
- O'DIO, LUKE  
 1802 Letter to Thomas Jefferson, 23 June. Thomas Jefferson Correspondence Collection, Special Collection Division, National Agricultural Library, Beltsville, MD. <[na1.usda.gov/speccol/](http://na1.usda.gov/speccol/)>.
- PACA-STEELE, BARBARA, AND ST. CLAIR WRIGHT  
 1987 The Mathematics of an Eighteenth-Century Wilderness Garden. *Journal of Garden History*, 6(4):299–320.
- PALUS, MATHEW M., AND ELIZABETH B. KRYDER-REID  
 2002 Archaeological Investigations Conducted at the St. Mary's Site (18AP45), 107 Duke of Gloucester Street, Annapolis, Maryland, 1987–1990, Vol. 1, Site History, Results, and Recommendations. Report to Charles Carroll House, Inc., Annapolis, MD, from Historic Annapolis Foundation, Annapolis, MD.
- PHILLIPS, JOHN T. II  
 2003 *George Washington's Rules of Civility*. Goose Creek Productions, Leesburg, VA.

REEVES, STUART, JEAN B. RUSSO, DENNIS J. POGUE, AND  
JOSEPH M. HERBERT

- 1991 Myrtle Point: The Changing Land and People of a Lower Patuxent River Community. *Jefferson Patterson Park and Museum, Occasional Papers, No. 3*. Maryland Historical Trust, Crownsville, MD.

RUSSO, JEAN

- 1990 *William Paca House and Garden*. Historic Annapolis Foundation, Annapolis, MD.

SARUDY, BARBARA WELLS

- 1989 Eighteenth-Century Gardens of the Chesapeake. *Journal of Garden History*, 9(3):101–159.  
1998 *Gardens and Gardening in the Chesapeake, 1700–1805*. The Johns Hopkins University Press, Baltimore, MD.

SHACKEL, PAUL A.

- 1993 *Personal Discipline and Material Culture: An Archaeology of Annapolis, Maryland, 1695–1870*. University of Tennessee Press, Knoxville.

SHELLENHAMER, JASON P.

- 2004 The Archaeology and Restoration of the William Paca Garden, Annapolis, Maryland: 1966–1990. University of Maryland <<http://www.bsos.umd.edu/anth/arch/pacagarden/index.htm>>.

STIVERSON, GREGORY A., AND PHOEBE R. JACOBSEN

- 1976 *William Paca: A Biography*. Maryland Historical Society, Baltimore, MD.

U.S. BUREAU OF THE CENSUS

- 1790 *Heads of Families at the First Census of the United States Taken in the Year 1790: Maryland*. Reprinted in 1977 by the Genealogical Publishing Company, Baltimore, MD.

MARK P. LEONE

DEPARTMENT OF ANTHROPOLOGY  
1111 WOODS HALL  
UNIVERSITY OF MARYLAND COLLEGE PARK  
COLLEGE PARK, MD 20742

JAMES M. HARMON

NORTHEAST REGION ARCHEOLOGY PROGRAM  
NATIONAL PARK SERVICE  
15 STATE STREET  
BOSTON, MA 02109

JESSICA L. NEUWIRTH

OFFICE OF ACADEMIC PROGRAMS  
HISTORIC DEERFIELD, INC.  
DEERFIELD, MA 01342