

2002

Domestic Brick Architecture in Early Colonial Virginia

Douglas E. Ross

College of William & Mary - Arts & Sciences

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**DOMESTIC BRICK ARCHITECTURE IN
EARLY COLONIAL VIRGINIA**

A Thesis

Presented to

**The Faculty of the Department of Anthropology
The College of William and Mary in Virginia**

In Partial Fulfillment

**Of the Requirements for the Degree of
Master of Arts**

by

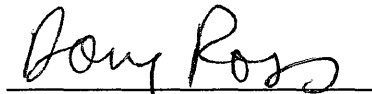
Douglas E. Ross

2002

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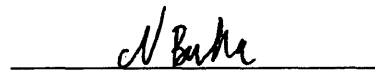
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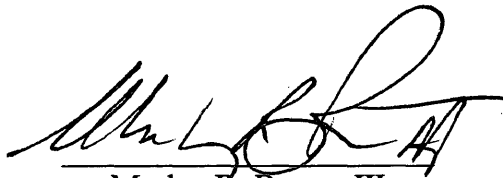


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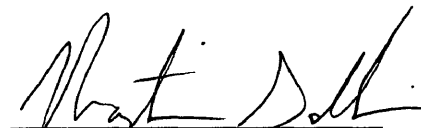
Approved, April 2002



Norman F. Barka



Marley R. Brown III



Martin D. Gallivan

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The work included herein, particularly the results of the fieldwork at Turkey Island that inspired the entire project, would not exist without the encouragement and advice of Martin Gallivan, who constantly reassured me that it was possible despite its detractors, and the unwavering friendship of Courtney Birkett, who spent nearly as many weekends in the field as I did.

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Finally, this research might have dragged on indefinitely had I not received the following words of wisdom one night in a Chinese restaurant: 'You should evaluate the progress of a long-term project'.

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ABSTRACT

The purpose of my research was to clarify the social and economic significance of brick domestic architecture in early eighteenth century Virginia, a period for which few if any well-dated examples are known from prior to c. 1720, and to use the findings to reevaluate the significance of brick for the entire first century and a half of English settlement in Virginia. An associated goal was to use this understanding to aid in interpreting the results of my excavations at Turkey Island, a seventeenth to nineteenth century tobacco plantation in Henrico County owned by the Randolph family.

Structural data on all known brick houses built before 1750 were collected to develop an interpretive context for colonial brick architecture. These data were compared with existing studies of contemporary houses constructed partially or entirely of wood to determine the degree of similarity or difference in their developmental trends over time.

Results indicated differences in such features as size and entry type between brick and earthfast structures across the first century and a half of English settlement in Virginia. Seventeenth century earthfast houses demonstrate characteristics related to the adaptation to an agricultural lifestyle in a new environment, whereas brick houses appear to be influenced more by architectural fashions in England. However, following a severe economic depression in the late seventeenth and early eighteenth centuries, which forced even the wealthiest colonists to build smaller houses, changing global economic conditions resulted in a convergence in the form of houses built of brick and of wood. It is at this time that size became more of a discriminating factor of wealth and status.

Chronological data obtained from the database of brick houses suggest that the mansion at Turkey Island was not constructed until after 1750, and that the predecessor it was mistaken for was probably a much smaller house with no more than two rooms on the ground floor, having been built during the depression. One possible candidate for this earlier house was excavated at neighbouring Curles Plantation also owned by the Randolph family.

**DOMESTIC BRICK ARCHITECTURE IN
EARLY COLONIAL VIRGINIA**

INTRODUCTION

The study of Virginia's early domestic architecture, like other aspects of its colonial past, has experienced a number of transformations since the late nineteenth century when interest in architectural history began to develop into a formalized discipline in its own right. These shifts in focus and methodology are readily apparent in the literature on the subject, as well as the intellectual background of the individuals producing it, and have been examined at length in review articles by Upton (1988) and Wells (1998). Initially, the focus was on exceptional houses, particularly eighteenth century brick dwellings once owned by the colony's wealthiest inhabitants. These studies primarily examined issues of structure and design, and attempted to link individual homes to specific European precedents and local or imported builders. This type of scholarship has continued to the present, but was overshadowed beginning in the 1970s by a change in emphasis within the social sciences towards the social context of human behaviour (including the built environment), and towards the study of individuals poorly represented in traditional histories. In the realm of architectural history it meant increased attention to what came to be known as vernacular architecture, particularly post-built structures, as well as a concern with landscapes and how house design reflected and also helped to alter or maintain the social status quo. There was also an increased emphasis on variation and change over time between these two interrelated aspects of human behaviour. Concurrent with these developments was a broadening in the range of

disciplines that tackled the study of colonial architecture in Virginia, expanding from preservationists and professional architectural historians to include folklorists, cultural anthropologists and archaeologists. Some attempt has also been made to move beyond a narrow focus on colonial domestic architecture to studies of non-domestic structures and those dating to the post-revolutionary period.

That having been said, the current study may seem to be somewhat of an anachronism in focusing on domestic brick architecture of the seventeenth and early eighteenth century in Virginia, particularly in being non-landscape oriented. There is, however, precedent as well as justification for doing so. Recent work by Pickett (1996), D. Brown (1998), Levy (1998) and Muraca et al. (2000) focusing on domestic brick architecture in seventeenth century Virginia, highlights the inaccuracies inherent in the earlier literature and demonstrates that the intellectual reorientation of the 1970s did not come about because the research potential of masonry architecture had been exhausted. These works and others, coupled with increasingly reliable dates for a number of important structures, as well as the results of recent archaeological and architectural investigations, provide valuable raw data for a timely re-evaluation of Virginia's domestic brick architecture at the turn of the eighteenth century.

My investigation draws on recent archaeological excavations at Turkey Island, the original plantation home of the Randolph family, in combination with data on all known pre-1750 brick houses in Virginia, to develop an interpretive context for masonry architecture in the colony during its first century and a half of development. This interpretive context includes quantitative summaries of structural features useful in dating houses with poor or ambiguous documentary or archaeologically derived chronologies, as

well as an examination of the changing meanings and significance of brick architecture across the seventeenth and early eighteenth centuries. I compare the results with data on houses built largely or entirely of wood to investigate whether such patterns of change are common to all early colonial homes or whether construction material was in any way indicative of unique social or economic strategies. The work of Levy (1998) suggests that houses of the wealthy planter elite were influenced to a greater degree by fashionable trends in England than those of less affluent colonists, and it is my contention that the use of brick was related to this distinction. In addition, I also compare the architectural remains at Turkey Island to the trends identified in the brick data as a means of verifying the chronology of the house inferred from existing historical records, and thereby clarifying existing ambiguities in its interpretation. Placing Turkey Island within (or excluding it from) the interpretive context for pre-1750 brick architecture will help to confirm or challenge the perceived patterns in the data, and will aid in understanding the history of the plantation within the broader scope of colonial history.

In Chapter I I survey and discuss the voluminous body of literature on colonial domestic architecture in Virginia, drawn primarily from the fields of architectural history and archaeology, with particular emphasis on the use of brick. It is here that I present the range of interpretive perspectives that currently exist, and from which I draw heavily in succeeding chapters. Those sources that bear directly on my work are discussed at some length, whereas more peripheral studies are mentioned only briefly.

Chapter II introduces the history and archaeology of Turkey Island in Henrico County from the early seventeenth century to the Civil War, when the structure under investigation was destroyed. Biographical information is included on the individuals who

may have been involved in the house's construction or renovation, and which is valuable in understanding the social and economic context that produced it. I discuss the existing documentary and archaeological evidence relating to the brick mansion and the tentative interpretations that have been drawn from it.

Chapter III comprises the bulk of the quantitative data presented in this study, whereby I introduce previous work on seventeenth century brick architecture and combine it with my own database of all known brick houses from between 1700 and 1749, drawn from published and unpublished sources. I highlight data on certain variables including measures of house size and locations of particular structural features, which are comparable to those examined by previous investigators. I indicate where the studies agree and where they differ, and briefly outline the implications of these results. The significance of geographical distribution of brick houses is also addressed in this chapter in relation to existing spatial models.

In the final chapter, Chapter IV, I engage in a detailed discussion of the implications of the findings presented in Chapter III related to the contrasts between brick houses and those built of wood, and the changes in house form over time. A particular focus is the varying amount of diversity revealed in the data from the seventeenth and eighteenth centuries, and this variation is interpreted by invoking the concept of style as defined and employed by archaeologists. Finally, I address the issues involved in dating and interpreting Turkey Island by comparing it to the quantitative data compiled in Chapter IV and in light of the conclusions drawn from the discussion of style as applied to brick architecture.

CHAPTER I

A LITTLE HISTORY, WITH PARTICULAR REFERENCE TO BRICK DOMESTIC ARCHITECTURE

The previous chapter outlined the goals of this study of brick architecture and the methods with which I have attempted to address them. In this chapter I discuss some of the results from the better part of the last century of the considerable volume of research concerning Virginia's early colonial architecture. In this discussion I focus particular attention on those works of the past three decades, including those of Upton, Neiman and Reiff, which figure prominently in my analysis. This background is important in introducing existing interpretations (and methods of reaching them) of the changing form and social significance of Virginia's early domestic architecture that act as a point of departure for my study.

The early twentieth century in Virginia saw the emergence of professional architectural historians, who began appearing on university campuses and among the ranks of preservation organizations, both public and private.¹ These individuals were instrumental in developing the research agenda that would remain dominant for over half a century. In particular, early investigations into Virginia's architectural past focused primarily on surviving specimens of exceptional character belonging to identifiable members of the colonial elite. Researchers emphasized structural and design elements of

¹ Portions of this chapter rely heavily on the work of Upton (1988) and Wells (1998).

domestic architecture and their derivation from European precedents. At the forefront of this work were Fiske Kimball and Thomas Waterman, who spent a considerable amount of time tracing the sources of decorative elements and floor plans of local houses to eighteenth century architectural design books and constructed examples in England. Waterman (1939, 1945) was particularly intent on identifying and attaching individual builders (local or imported) to specific houses based on hints from historical documents and then, through structural similarities, to entire groups of houses.

Because of the orientation of many early investigators towards preservation and restoration, a considerable amount of attention was focused on attempting to strip away centuries of accumulated alterations to reveal a house's original appearance, particularly the exterior. This preoccupation is exemplified in the work of Waterman and Barrows (1932). In fact in most of Waterman's work, his elevation and plan drawings are modified renderings with additions and subtractions of elements thought to have been removed or added (Wells 1998:365-66). Similar attempts were made in the context of the Historic American Buildings Survey (HABS), initiated in the early 1930s in an attempt to document America's rapidly vanishing architectural heritage. Unfortunately, especially in the case of the HABS, documentary sources received little attention, and so the records tend to be sparse on historical context and on detailed discussions of structural changes, although Waterman's published work is better in this respect.

Another effect of the interest in individual building histories for the purpose of restoration was an attempt to determine specific dates of construction, although with little interest in examining the broader historical context by developing abstract developmental sequences for Virginia. In this respect, the architectural traditions of England and Europe

served as adequate contexts in which to situate local structures because investigators believed them to be modelled on English prototypes. For Waterman (1945:29) and others the sudden appearance of a number of great houses at the beginning of the eighteenth century was due to the massive influx of slave labour at this time, which allowed planters to *afford* to build in the classical style of their counterparts in England. One exception to this view was the work of Henry Chandler Forman between the 1930s and 1970s, which proposed an *evolutionary* sequence of development for the domestic architecture of the Chesapeake (Wells 1998:372-3). In contrast to Waterman who associated variations in size and formality of style with wealth and status, Forman (1945) argued that smaller, asymmetrical ‘Medieval’ style houses predated larger, more classically inspired, symmetrical ‘Georgian’ ones. Those examples he viewed as exhibiting features of both styles were labelled ‘transitional’ and placed in a chronologically and developmentally intermediate position. Forman based his sequence (as did most early investigators) more on stylistic grounds and comparisons with contemporary trends in England than on specific evidence from documentary or archaeological sources. More often than not a misinterpretation of the documents that *were* consulted exacerbated this problem. One significant result of this trend, coupled with a lack of understanding of the importance of post technology, was the attribution of a considerable number of extant structures (later confirmed to be eighteenth-century in date) to the seventeenth century. These problems are not unique to this early period, however, and in fact still plague investigators to this day.

In addition to conducting a considerable amount of architectural fieldwork, Forman was also involved in the archaeological excavation of colonial structures in

Maryland and Virginia. At the same time as architectural historians were preparing measured drawings of standing structures, multidisciplinary teams of architects, historians, engineers, archaeologists and labourers were excavating the ruins of colonial structures in Jamestown and Williamsburg. The term 'multidisciplinary' is somewhat misleading in that it suggests cooperation among specialists in diverse field to produce results beneficial to all. In fact such was not the case in Williamsburg, where for many years starting in the late 1920s architectural reconstruction was the principal goal of archaeological excavation (Noël Hume 1994:319). Also at Jamestown, under the auspices of the Works Progress Administration, conflict between architects (including Forman) and archaeologists regarding who was best qualified to excavate architectural remains plagued the work between 1934 and 1936 (Cotter 1994:26-31). In its beginnings, then, the relationship between architectural history and archaeology was somewhat unbalanced, although it did contribute significantly to the understanding of Virginia's built environment during the colonial period. Early on archaeology demonstrated its value to architectural reconstruction in the important role it played, in combination with documentary and architectural research, in the reconstruction or restoration of key structures in Williamsburg, including the Governor's Palace (excavated in 1930), the Capitol, and the Wren Building at the College of William and Mary (Noël Hume 1994:74-114).

The work at Jamestown between the 1930s and 1950s, directed by such pioneers in historical archaeology as J.C. Harrington and John Cotter, played a significant role in the interpretation of brick architecture in Virginia. The presumption that all (important) structures had brick foundations determined the priorities and methods of archaeological

investigation and insured that little else was recorded. Discovery of such a considerable number of brick foundations at Jamestown reinforced the existing view derived from standing structures that Virginia's seventeenth century architectural heritage consisted of a considerable quantity of brick.² The excavation of Governor Berkeley's brick mansion at nearby Green Spring in 1928 and again in 1954 provided further support for this conclusion (Dimmick 1929, Caywood 1955). Otherwise, Jamestown has exerted little influence until recently on the understanding of the origin and development of Virginia architecture. One exception might be the work of Harrington on brickmaking at Jamestown. Harrington's (1950) excavation of brick and tile kilns on Jamestown Island emphasized the local nature of the manufacturing and construction process and argued for the potential of local innovation, although he notes that on the whole it followed English precedent fairly closely. Another study by Herbert Claiborne (1957) on Virginia brickwork went a step further and attempted to identify local trends in the use of bonding patterns and decorative techniques such as glazed headers and rubbed and gauged work. His fieldwork also resulted in a valuable database containing details of brickwork for a number of colonial homes, churches and public buildings.

In the 1950s and 1960s the work of Marcus Whiffen (1958, 1987 [1st ed. 1960]) on the public and domestic buildings of Williamsburg challenged some of the methods and conclusions of previous scholars and perpetuated others. Unlike Kimball and Waterman, Whiffen emphasized the importance of local influences such as environment, laws and available materials on the form of local buildings, and downplayed the

² Attributing most archaeological remains at Jamestown to the seventeenth century was always fairly secure for a capital that was burned in 1698 and moved to Williamsburg in 1699, slowing development to a near halt.

significance of published sources such as English design books (Upton 1988:419-20, Wells 1988:373-7). He also demonstrated (in contrast to Forman) that many small asymmetrical houses actually belonged to the eighteenth century. Like his predecessors, however, he viewed buildings strictly in terms of structure and design and was more concerned with details of particular specimens than of general trends or concepts of chronological development. One particular aspect of design that Whiffen and his mentor Paul Buchanan popularized was the identification of classically derived geometric principals they believed to have been employed in determining the relative proportional dimensions of particular structural elements. Investigators achieved varying degrees of success in demonstrating these principals on such structures as the Wythe House in Williamsburg, Stratford Hall, and by later investigators at Sabine Hall and Westover (Whiffen 1987, Robert E. Lee Memorial Association 1998, Rasmussen 1980, Wenger 1980).

Two events, one in the late 1950s the other in the mid 1960s, were prelude to a series of important developments that followed which significantly altered the academic climate in which Virginia's traditional architecture was interpreted. The first event was the appointment of Ivor Noël Hume as Director of Colonial Williamsburg's Department of Archaeology in 1957. Noël Hume was particularly influential in introducing a systematic excavation regimen that allowed for even the most ephemeral features to be identified and given fair treatment. He directed some of the early excavations that identified post structures, and was a mentor to other excavators who did. Furthermore, his efforts elevated the status of archaeology in the eyes of other disciplines including architectural history, and demonstrated the value of a manner of excavation driven by

more than simple architectural goals.³ The other event was the introduction of the National Historic Preservation Act (NHPA) of 1966, which led directly to the creation of the Virginia Historic Landmarks Commission (VHLC) (Wells 1998:382). This preservation initiative inspired a rash of architectural fieldwork unknown since the early days of the HABS thirty years before, and exposed a whole new generation of investigators to a body of primary data ripe with interpretive potential.

At this point three additional influences need to be invoked which set the agenda for the interpretation of this ever increasing body of raw material. During the 1960s many historians, in harmony with the social upheaval in contemporary society at large, began to shift their emphasis towards the study of people less well represented in popular histories and to study the relationships between them rather than as individuals or groups in isolation. Also, as Upton (1988:434) describes this new social history: “by focusing on the structure of local society, rather than the ties of its elite members to a metropolitan culture, the emphasis had turned from antecedents to context, from the ways Virginia was like England to the ways Virginia was like itself”. This shift exerted a considerable influence on architectural historians, who began to broaden the range of building types examined, and to place them in their geographic and historical contexts as part of landscapes influenced by local environmental and historical variables.

The second important influence arrived from outside disciplines such as folklore and anthropology that brought their own techniques and perspectives to the study of colonial architecture. The most influential of these was Henry Glassie’s (1975) study of

³ In heaping so much praise on one man and his students I do not mean to belittle the efforts of other archaeologists such as Buchanan and Heite (1971) and Barka (1976), who also made important contributions at this time, the former in fact as part of the VHLC.

folk housing in Middle Virginia, which applied a structuralist perspective to architectural variation amongst a group of farmhouses in a geographically circumscribed area west of Richmond, Virginia. Glassie borrowed the concepts of competence and performance from linguistic theory to identify the basic grammar or shared set of principles used in constructing all the houses in his study⁴. The identification of these shared principles demonstrated a basic similarity between the houses and explained the variation as a product of unique combinations of the basic rules in the form of spatial units, similar to the manner in which letters are arranged to form different words. Glassie also applied the structuralist assertion that humans use bilateral oppositions to classify the world to explain how Virginian's organized their domestic space. From an examination of the study houses he concluded that over time they became less public and more private, less asymmetrical and more symmetrical, less complex and more simple. This work and others provided a means of interpreting and classifying the wide variety of house forms encountered by fieldworkers that were not consistent with those discussed in the standard publications of pioneers such as Waterman (Wells 1998:382-3). Despite criticisms levelled at this work in regard to the proper dating of the survey houses, *Folk Housing* remains one of the most important studies of Virginia architecture and continues to influence the research of most investigators. One study resulting directly from a combination of the renewed bout of preservation-oriented fieldwork and Glassie's influence was Herman and Orr's (1975) examination of eight early eighteenth century houses in a small area of Northampton County on the Eastern Shore of Virginia. The

⁴ In architectural applications the term competence refers to the conceptual rules or grammar dictating how structural elements are to be combined, whereas performance refers to these combinations as they are actually realized in practice.

authors explained the essential similarity in the plans and exterior design of these brick and brick-ended structures as resulting from a collective mental set of rules dictating repeated formal elements. They argued that England was the source of the formal rules, but that their material realization in Virginia was a response to local needs and influences. In fact, these locally inspired houses represented the generative forms from which all subsequent tidewater architecture developed. A key aspect of their argument is the importance of built examples in addition to mental rules in influencing the form of subsequent structures. This concept is developed more fully in Herman's (1978) dissertation.⁵

The third key influence is directly related to the other two and concerns the parallel shift in the priorities of historical archaeologists towards a broader range of social groups and a growing concern with landscapes as well as individual sites. The emphasis on more systematic methods of excavation and artifact recovery developed in the 1960s allowed for the consistent identification of more subtle features such as post holes. At the same time, the new interest in less affluent farmers and slaves placed greater importance on these features, which in the past were overlooked in favour of brick foundations. The few post structures uncovered at Jamestown were only identified because of their association with brick chimneys, and even then they were given little attention (see Cotter 1994). The preservation movement that allowed for architectural fieldwork also provided money for a considerable increase in the amount of archaeological fieldwork in the 1970s

⁵ Early investigators such as Waterman (1945:31) were not ignorant of the importance of local precedents, arguing that the Governor's Palace in Williamsburg played a significant role in the rash of brick mansion building that followed its construction (1706-22). However, its significance was interpreted more in terms of popularizing English academic architecture and as an instigator of competition among elites than contributing to a local vernacular style.

(Hudgins 1993). This excavation explosion in Virginia and neighbouring Maryland revealed the numerical dominance of post-built over brick structures among all strata of society in the seventeenth and eighteenth centuries, and called for a re-evaluation of the architectural heritage of the Chesapeake.⁶

The culmination of these factors was the publication of “Impermanent Architecture in the Southern American Colonies” (Carson et al. 1981), by a multidisciplinary group of architectural historians, historians and archaeologists. This article summarized the work of the previous decade and provided a new perspective on the development of domestic architecture in Maryland and Virginia from the early seventeenth to the mid eighteenth century. The authors argued that the predominance of post-built structures in the Chesapeake was initially a measured response to economic conditions associated with a tobacco economy. Because tobacco profits related to the amount of available labour, it made economic sense to start out by focusing resources on acquiring servants or slaves and minimizing other expenses by building cheap temporary dwellings to be replaced when the resources were available. Another important factor in the development and persistence of this so-called ‘impermanent’ architecture was the high mortality rate until the end of the seventeenth century that mediated against planning too far ahead. It disrupted the reproduction of domestic units in a manner that forced each generation to start anew, rather than amassing resources cumulatively in a way that permitted the upgrade of living arrangements. In the poorest areas, such housing was often not replaced until the turn of the nineteenth century. Among smaller planters the

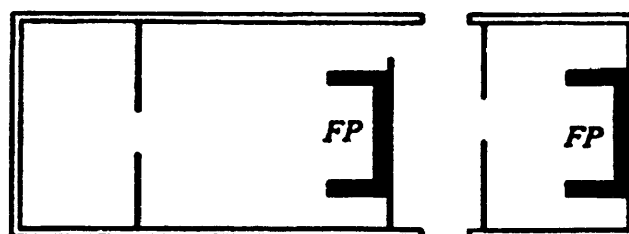
⁶ Ironically, this archaeological renaissance also led to the excavation of a number of important seventeenth and eighteenth century brick dwellings, which were somewhat overshadowed by the new emphasis on less substantial architecture. Examples include Kelso (1984), Mitchell (1978), Shott (1976), and Hudgins (1976, 1981).

authors noted a correlation between the appearance of more substantial (i.e. brick, or with brick foundations) houses and the switch to a diversified economy based on crops other than tobacco, which required less capital invested in labour.

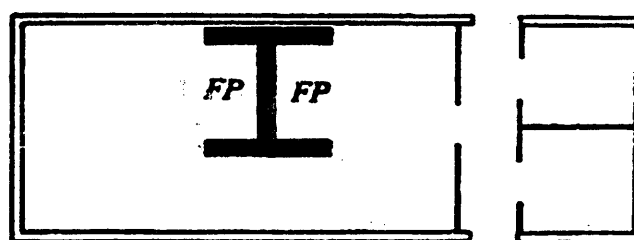
Another important article published on this topic was by Fraser Neiman (1978), who discussed many of the same issues addressed by his colleagues in relation to his work at the Clifts Plantation in Westmoreland County. However, Neiman took issue with the concept of 'impermanence'. Applying modern standards of permanence to the seventeenth century was ethnocentric and implied that so-called 'impermanent' structures were erected because settlers could not afford the more substantial houses they preferred. Neiman emphasized that choice rather than necessity prompted the use of post construction, and argued that elaborate architecture was simply not a matter of general importance in the seventeenth century. In interpreting the architectural changes identified at the Clifts manor house, Neiman echoed Glassie's assertion that houses as products of a shared set of ideas in the minds of the builders were a window into the culture that produced them. Architectural change implies cultural change, and studying one should provide valuable insight into the other. Neiman proposed that the earlier cross-passage plan at the Clifts (providing equal access to living quarters and service areas) was well suited to a domestic situation in which there existed a close relationship between masters and servants. The closing of the cross-passage and its replacement by a lobby entrance (see Figure 1) indicated a shift in social relations between these two groups in the last quarter of the seventeenth century, towards an ejection of servants from the domestic core. The increase in separate outbuildings for functions that originally took place inside the house accompanied this ejection. This trend correlated well with those identified by

FIGURE 1
CROSS PASSAGE AND LOBBY ENTRY PLANS

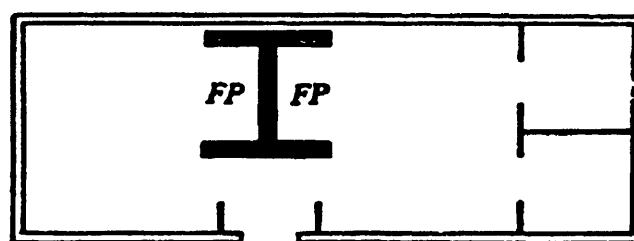
(Neiman 1990)



A.



B.



C.

Figure 5.5 Three 3-unit house plans representative of the "types" recognized in literature on English vernacular architecture. A: Cross passage with fireplace backing onto passage; B: Cross passage with fireplace away from passage; C: Lobby entry.

Glassie, and included the increasing specialization of room function and the increase in brick architecture as planters more and more felt the need to display status.

While archaeology provided important clues to the origins and development of colonial architecture, another study by Dell Upton (1980, 1982a, 1982b) tackled these issues through the examination of standing structures and probate inventories.

Increasingly the emphasis moved away from a focus on European antecedents to one of local influence and development, and Upton's primary goal was to study this process of localization in Virginia (Upton 1980:2). Like Neiman, Upton drew heavily on the work of Glassie and of linguists like Chomsky that inspired it, and invoked the concepts of competence and performance to examine architectural variation in southeastern Virginia. To identify the generative grammar or competence employed by colonial builders and inhabitants to define domestic space, he interrogated 364 probate inventories from between 1646 and 1720 to develop an emic classification of room names. Upton found that at the core of each house was a room called the Hall and an almost equally important inner room called the Parlour or Chamber, to which all other rooms were subordinate. From this data could be determined the rules for room placement and naming. With this understanding Upton had a concept of what the ideal colonial house looked like (competence), though what truly interested him was how and why the houses that were actually built (performance) varied over time and space.

What Upton discovered for the seventeenth century was a significant amount of architectural variation, but with one-room houses predominating. Two-room (hall and parlour) and three-room (hall, parlour, and service with a through passage) were also common, the latter especially among the wealthy. Between the mid seventeenth and

early eighteenth centuries Upton observed an increase in houses with eight to eleven rooms up to the 1680s followed by a rapid decrease, and an increase in two-room houses at the expense of larger ones. Lobbies and porches also increased in frequency during this time period. Upton argued that the temporary increase in large houses reflected a wave of emigration documented as occurring at this time, and that the increase in two-room houses and those with lobbies and porches reflected the isolation of service spaces and servants from the core of the household. Lobbies and porches were employed as a buffer, controlling access between the outside and the primary living quarters. Homes with these entrance features continued into the eighteenth century but were never as popular as two-room hall and parlour houses, which always remained dominant. In fact, the two-room plan with its single entrance into the general-purpose hall made access to the more private parlour/chamber more difficult than a lobby entry. These changes were already in place by the time slaves replaced servants on Virginia plantations, and so appear to be the result of increasing social distance between planters and their white servants. This increased distance resulted from the planters' need to retain their servants indefinitely to offset decreasing tobacco prices, and their justification for betraying the traditional servant-master relationship.

In the early eighteenth century, continued Upton, tobacco prices were at low ebb and did not improve until the second quarter of the century. As a result, little large-scale house construction occurred at this time, most large mansions belonging to the period after 1730. Having reduced the size of their houses in the late seventeenth century, wealthy planters began increasing them at this time, often making them two rooms deep and adding a central passage and a third staple living space – the dining room. The

central passage probably developed from the porch or lobby as a means of controlling access to the various rooms, and in fact replaced them by the middle of the century. Double-pile houses (with *four* rooms per floor) were a Renaissance influence from Europe, employed locally as one means of making space for the dining room. The problem was that the Virginia room-naming lexicon only included *three* major units: the hall, parlour/chamber and the dining room. This mismatch between the local needs and the adopted style is suggested by the inventories, which often refer to the fourth room as the 'back room' with no specified function, and in a number of built examples that eliminate the fourth room by constructing a single-pile house with an ell for the third room.

Upton concluded by suggesting that Virginia domestic architecture, even the classically inspired mansions of the wealthy, was more a product of local needs than of influences from Europe. Its similarity to the architecture of Europe and the other Anglo-American colonies was the result of a shared competence, its uniqueness the product of local performance.

In step with the increasingly common view of researchers such as Neiman and Upton that material culture took an active role in shaping as well as reflecting society, was Carter Hudgins' (1981, 1984) interpretation of Robert "King" Carter's brick mansion Corotoman in the context of eighteenth century Virginia society. Hudgins (1984:62) noted that at the beginning of the eighteenth century wealthy planters rarely built in brick and those who did preferred the traditional two-room plan. Immigrants to Virginia initially retained their middling English values and had little need for large elaborate houses. However, three powerful forces caused the most successful of these arrivals and



Figure 2. Excavated foundations of Corotoman (Green et al. 2001).

their sons to rethink their views on how they accommodated their families (Hudgins 1984:128-32; 1981:202). First, it was common amongst the gentry in England to deride the colonials as rude and uncivilized, who for their part were desperate to demonstrate their social equality by mimicking English behaviour. Second, smaller planters were well aware of the equally humble origins of their wealthier neighbours, and refused to accept the increasing social distance that these nouveaux riches were attempting to manufacture between them, especially in their attempt to dominate colonial politics. The potential threat that the greater numbers (and thus greater numbers of votes) of these middling gentlemen posed was very real indeed. Third, the influx of a new social and cultural element into the colony in the form of enslaved Africans upset the balance formed by what was until c. 1720 essentially a unified popular culture. All three of these factors contributed to the insecurity of Virginia's wealthiest colonists, which they attempted to

rectify partially by means of material symbols to create social barriers between them and their social inferiors.

In interpreting the physical form of Corotoman (c. 1720) Hudgins looked to the public buildings of Williamsburg as an important influence, a source that had been recognized for decades as critical in the development of Virginia's eighteenth century elite architecture. The unique gallery that had graced the more public river façade of Carter's 90-foot-long mansion (along the right hand side of the house in Figure 2) was compared with those at the Wren Building at the College of William and Mary and the state Capitol, both of which were newly constructed when Carter began his house. It is possible that Carter borrowed from the architectural repertoire of public buildings to symbolically link himself and his status with the authority of the local government. In fact, Corotoman displayed a number of classical features that were just beginning to be introduced into the colony, but it also included a single-pile plan that links it with the more traditional modes of building of the seventeenth century. In this respect, Hudgins views Carter's mansion as transitional in form.

Mark Wenger (1986, 1989), employing Upton's work with probate records as a point of departure, examined the development of the interior of eighteenth century Virginia houses, particularly the newly introduced central passage and dining room. Wenger noted a development in the function of the central passage from its use as a simple intermediary between the outside and the various rooms of the house to a room in its own right. The passage appeared in the first quarter of the eighteenth century as a waiting area and instrument of control, restricting access to the more private rooms of the house. Soon, however, it became increasingly important as a seasonal living space on

account of the refreshing draft its opposed doors allowed in the heat of the summer. This informal summer hall increased in size and by the third quarter of the century was being transformed into a year-round saloon, nearing and later surpassing the old hall in importance. The dining room was introduced into the Virginia repertoire at the same time as the passage, at a time when servants were being ejected from the house and rooms were becoming functionally specialized. Initially, the dining room was smaller and less elaborate than the hall, and served primarily to remove informal activities from it. Gradually, however, as mealtimes were gaining greater importance as ceremonial expressions of gentility during the 1720s, the dining room increased in size and importance as a formal entertaining room. By the last quarter of the century the hall was no longer used for dining. According to Wenger (1989:149), these trends were probably part of a broader tendency of Anglo-Americans between 1660 and 1760 to differentiate, sort and categorize their material world, as argued by Deetz (1996).

Amongst the mountainous volumes of literature produced on colonial Virginia architecture, Daniel Reiff's (1986) *Small Georgian Houses in England and Virginia* was the first explicit attempt to treat early eighteenth century brick houses as a distinct data set. His aims were posed as a series of questions (Reiff 1986:17):

1. Are there parallels in England to the notable Virginia houses of the first half of the eighteenth century?
2. If so, what is their character and how close are they to the Virginia dwellings?
3. What are the common English ancestors?
4. How did the style develop in America?
5. What was the role of pattern books – in England as well as Virginia?

What is clear from the list of aims is that this book is the intellectual successor of the work of Kimball and Waterman in its attempts to locate specific antecedents for local

house forms. Reiff revealed that his approach emphasizes style, but that floor plans are also an important variables. What he discovered by examining the architectural history of both countries was that the closest parallels to the two-story, double-pile, hipped roof, brick houses with a central passage of wealthy Virginia planters were not to be found amongst the repertoires of professional architects. He rejected the direct influence on Virginia architecture of large high-style English Renaissance houses that previous investigators held up as prototypes, citing significant differences in size, plan, building material, and degree of decorative elaboration. Rather, Reiff identified a vernacular tradition of small brick houses in the southeast of England that possessed an almost identical suite of features as could be found in Virginia (Reiff 1986:123). These houses appear to be an independent and indigenous vernacular tradition, which by the end of the seventeenth century had developed a compatibility with Renaissance ideals, enough to incorporate subtle classical details, likely inspired by small high-style country houses, which they resembled in shape and size. The central passage appears to be unique to this regional tradition. In Virginia a combination of seventeenth century indigenous development combined with knowledge of the architecture of southeast England (perhaps in the design of Williamsburg's early brick buildings), may have led to the emergence of a similar tradition.

Upon closer examination of Virginia's architectural development, Reiff argued that it wasn't until the end of the seventeenth century that a form developed that established an enduring 'type' (Reiff 1986:202). This type appeared in the form of the two-room Adam Thoroughgood House, c. 1680, and probably evolved from a combination of locally derived features and those common in different parts of England

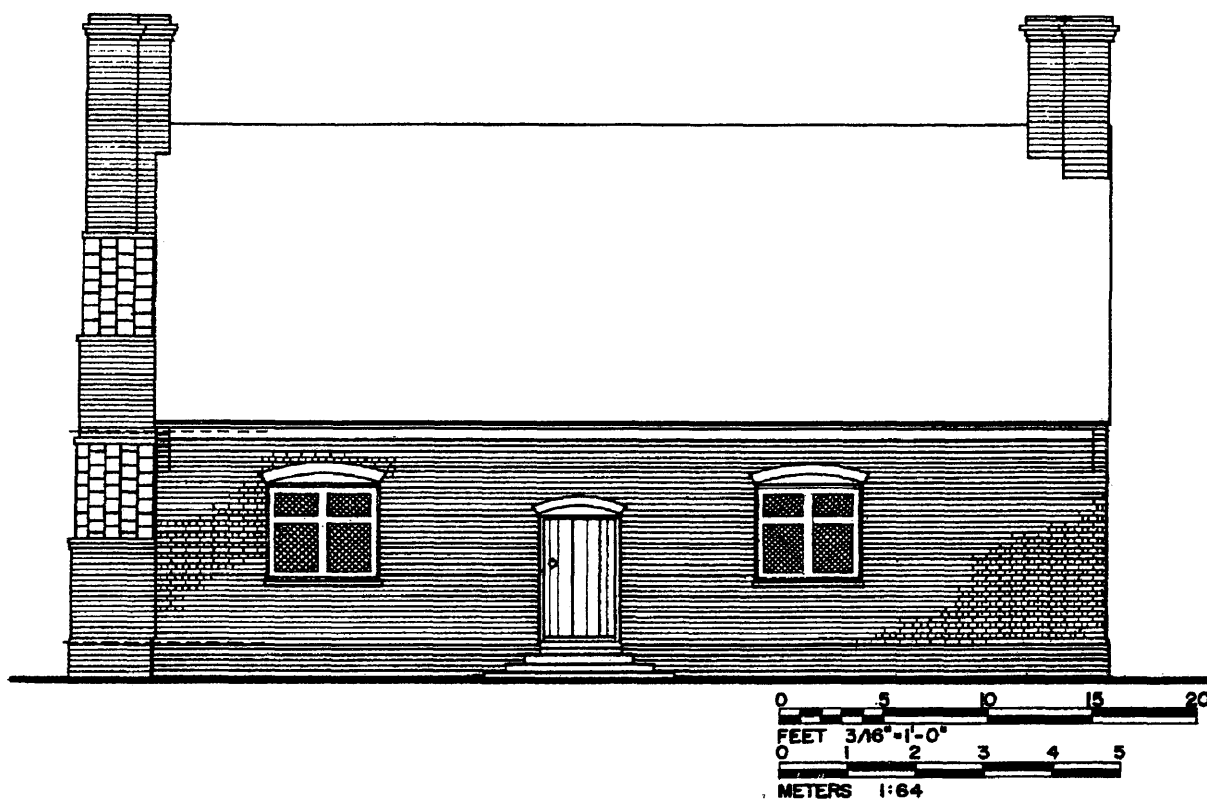


Figure 3. Adam Thoroughgood House, Virginia Beach (HABS).

(where various settlers came from), as it had no prototype overseas. It dominated brick architecture until the mid eighteenth century, although c. 1700 5-bay façades and central passages emerged which around 1710 would produce the second major type, the one common to both England and Virginia that would persist until the 1750s (Reiff 1986:206-12). Here Reiff acknowledges the significance of *both* the Governor's Palace and earlier two-room vernacular tradition in the origin of this new form, and it is here that he diverges from his intellectual mentors of the 1930s and 40s. In fact, although he does not explicitly acknowledge it, Reiff's discussion of 'types' is vaguely similar to Glassie and Upton's concept of architectural competence. This connection is evident in his argument that most apparently unusual forms are simple variations or elaborations on the basic

type, although there are a few anomalies that he refers to as transitional because of their apparent combination of older and newer design elements.

There are two additional points to make about Reiff's book. First, although he was not the first to make this observation, in discussing possible sources for the design elements of Virginia's brick houses, he dismissed the use of English pattern books because they are not documented as having been present in the colony until the mid eighteenth century. Second, Reiff made some interesting observations regarding the dissimilarities between the brick houses of southeast England and Virginia. Two of the distinctions he noted are that the Virginia examples tend to be slightly larger, and that they tend to possess richer exterior detailing and wider passages (Reiff 1986:307-12). These differences probably reflect the fact that they were built by and for different classes of people. In England, these houses belonged to middle class farmers, whereas it was only the wealthiest planters who owned similar homes in Virginia. Englishmen rich enough to build larger houses would have opted for high style designs as befitted their elevated status. The equivalent middle class houses in Virginia were the popular two-room hall and parlour variety. Wider passages in Virginia undoubtedly reflected an adaptation to the local environment, where they doubled as living spaces in the summer.

A decade after his initial discussions of the material from the Clifts Plantation site, Neiman (1990, 1993) revised his interpretations with comparative material from other sites and a theoretical approach based on Neo-Darwinian evolutionary theory. This work represents a considerable departure from the methods of architectural interpretation that preceded it. Neiman argues for the importance of fundamental theory in archaeology that explicitly defines the forces responsible for differential persistence of particular

cultural traits in time and space (Neiman 1990:2). If adopted more widely, this attention to the mechanisms of change and the learning rules by which colonists evaluated alternative behaviours would prevent much of the uncontrolled speculation that dominates current archaeological interpretation. One particular rule Neiman identified as key to the evaluation of alternative behaviours in the Chesapeake was the differential rates of resource acquisition resulting from the selection of one alternative over another; this seems to be the cause for the two dominant elements of colonial society – tobacco and indentured servitude.

The differential persistence of house plans (and the organization of plantation work in general) at the turn of the eighteenth century was due to a number of forces brought about by low tobacco prices and the decreased availability of indentured servants from Europe. Previous studies of the evolution of domestic space focused on probate inventories and extant structures in England and Virginia, with minimal emphasis on archaeology. Furthermore, house form had in the past been studied using a series of traditional types that were identified by an unsystematic set of defining characteristics that masked variation, and maintained an ambiguous set of necessary conditions for inclusion (Neiman 1993:258-9). In order to properly examine variation, Neiman argues it is necessary to understand the factors governing the use and arrangement of living space. By consulting ethnographic data Neiman concluded that domestic space tends to be divided into general and special activity areas, and that the nature and spatial relationships of these areas depend on the degree to which activities that occur within them interfere with one another. From these observations he suggested three aspects of variation that were sensitive to changes in the arrangement of living space: 1) size (which

varies to the degree special and general activity areas are combined in a structure), 2) entry type (special activity areas will have exterior access), and 3) heat source (typical of general activity areas) (Neiman 1993:257-8).

Employing these variables Neiman examined a sample of 65 archaeological and standing structures from the early seventeenth century to 1720, separated into twenty-year intervals. What he found by examining the variables in isolation was that 3-room houses disappeared after 1680 and 2-room houses predominated (Neiman 1993:261-7). Direct entries decrease in popularity up to 1680 while lobbies were more popular, although after 1680 direct entries were almost universal. In terms of heat sources, central and end chimneys appeared with equal frequency until 1680, after which end chimneys were dominant. By cross-tabulating the results it was observed that the period after 1680 saw the nearly universal appearance of 2-room houses with direct entry to one of the rooms and end chimneys, at the expense of other variables.

Traditional interpretations of these developments were based on Eric Mercer's work that attributed similar trends in England to changing social relations between owners and workers. Neiman complained that these explanations (which he lumps under the term 'discrepancy hypotheses') lack a focus on the mechanisms of the change and rely on unevaluated "common sense" generalizations about human behaviour, i.e. that people are xenophobic by nature (Neiman 1990:265-9). He also criticized Upton's work, suggesting that his empirical data were flawed and pointed to recent research indicating the influx of servants Upton refers to in his interpretation never occurred. His preferred alternative is based on forces associated with economic stress caused by low tobacco prices and lack of productivity gains between c. 1680 and 1720. As a result of these

factors sorting pressure towards a more efficient labour strategy would favour options that lowered production costs. Drawing from behavioural theory, Neiman argued that these cost-reduction strategies would be seen as defections or betrayals by labourers, which would result in increased theft of the owner's property in retaliation. The change in house plans was the product of this chain of events and the owners' attempts to limit the potential for illicit resource procurement (Neiman 1990:271-4). To evaluate these competing hypotheses at the Clifts (which manifests the relevant architectural trends) Neiman established a set of expectations for each: the economic hypothesis would favour a direct-entry house and multiple functionally specific outbuildings to maximize surveillance and minimize theft; the discrepancy hypothesis would favour a lobby entry and fewer general-purpose outbuildings to maximize isolation of servants/slaves, while minimizing cost. Independent data from plowzone artifacts, supports the economic hypothesis for the Clifts, and in fact suggests that economic failure led to the replacement of ownership by tenants who employed more efficient labour strategies. Neiman cautioned that these conclusions are site specific, and calls for similar data from additional sites before they can be considered generally applicable.

Linebaugh (1994) promoted a set of forces other than social or economic for the initial removal of service activities and heat sources from the plantation house into outbuildings. Environment, in particular climate and fauna, was the initial driving force in the development of outbuildings in the Chesapeake in Linebaugh's estimation. The character of the local environment, unlike England, resulted in hot summers and was well suited to a wide variety of small mammals and insects. These factors made cooking and storage of food inside the house an unpleasant experience for the inhabitants. Many

scholars downplay the environmental impact and have attempted to discount primary sources suggesting its importance in the development of outbuildings, including continual pest control problems. Linebaugh places more value in these sources, and in climactic evidence of parallels in the rise and fall of average temperature and precipitation and the appearance and disappearance of outbuildings in England between the fourteenth and seventeenth centuries. In fact, the use of outbuildings in England was on the decrease during the settlement of North America, and evidence suggests that colonists who initially followed English precedent switched tactics in the next generation. He also pointed to the presence of kitchens in colonial New England houses where the winters are colder than in the southern colonies. Archaeological evidence from Virginia and Maryland is presented to demonstrate that outbuildings were present by the 1620s and were well established by mid century. While he refused to discount social and economic interpretations, Linebaugh insisted that environmental factors should not be ignored in interpretation of architectural change in the Chesapeake.

Following its relative neglect for several decades, the architecture of Jamestown's New Town garnered a new appreciation as part of the five-year Jamestown Archaeological Assessment (begun in 1992). Bragdon et al. (1993) set out to determine what (if anything) made Jamestown urban, by interrogating the town's physical layout, its range of architectural quality and forms, and the functions of the various structures identified. These researchers arrived at a conjectural plan that included a main street with the church at one end, the hypothesized governor's house at the other, and at cross axis a building thought to be the third quarter seventeenth century statehouse. This plan, they argued, compares in a basic way to the layout of later Williamsburg (Bragdon et al.

1993:232). Next, the authors point to building styles and standards, including a range in quality from a handful of cheap earthfast structures to three or four rather elaborate brick ones. The excavated remains of row houses, one of which they argued to have been inhabited by wealthy merchants, are cited as a particularly clear sign of self-conscious urbanity. In fact, Bragdon and her colleagues claim “the general dearth of small or poorly built dwellings reinforces the sense that there was at Jamestown a concentration of superior buildings remarkably different from what existed elsewhere in the colony” (Bragdon et al. 1993:234). The absence of three-room cross-passage houses common outside Jamestown at this time is also noted. Finally, the presence of functionally diverse structures representing domestic, commercial, industrial and political activity link Jamestown with urban centres in Europe, albeit not in scale or density. This urban arrangement and degree of elaboration was socially and architecturally idiosyncratic in the colony, but “the story is incomplete without Jamestown” (Bragdon et al. 1993:225).

Horning (1995) agreed on the urban aspirations of Jamestown, emphasizing the parallels to contemporary towns in England and Ireland, but took exception with some of the details. She provided more recent archaeological evidence suggesting that there was no elaborate governor’s house opposite the church, that the row houses were speculative ventures rather than elite housing, and that few elites actually lived in the town. Men like Secretary Richard Kemp built brick houses at Jamestown as part of government sponsored incentives, but lived elsewhere. Because of absentee ownership and frequent vacancy, these brick houses were often poorly built, in frequent disrepair and rarely outlasted their earthfast contemporaries. In contrast, Kemp’s nearly identical home at Rich Neck was much more solidly constructed. Jamestown is best interpreted as an

attempt by its promoters to mimic the developments of English towns, from its early attempts to foster economic diversity by encouraging industry, to its emphasis on building in brick (which in England was largely a safety measure against fire). The ultimate failure of Jamestown to match the success of its English counterparts was largely a result of tobacco monoculture. This narrow focus encouraged people to live on dispersed plantations and discouraged the economic diversification that would have brought labourers and merchants to Virginia (to populate urban centres). Jamestown supported neither a frontier craft industry nor an elite haven, and interpreted in such terms it *is* an aberration. Interpreted in its proper English context its presence makes perfect sense.

Although her work on the eighteenth century houses of the Northern Neck of Virginia deals primarily with data from the latter part of the century, Camille Wells (1994) introduces a number of important points relevant to housing and wealth and the representativeness of surviving structures. Her study compared standing and known archaeological houses to properties for sale in the Virginia Gazette between 1736 and 1780. Although the advertisements are an incomplete record of land sold during the period and represent the wealthy almost exclusively, they provide some intriguing contrasts to evidence provided by existing houses. Compared to 37% of standing structures, as few as 9.3% of those in the gazette were of masonry construction (Wells 1994:72-112). In terms of size, 58% of survivals enclosed 800 square feet or more, compared to 24% of measurements available from the documents. Of houses for which such data was available, 36% from the Gazette had one or two rooms, as opposed to 1 one-room and 5 two-room of 32 survivals.

Those structures that survive, points out Wells, do so *because* they are exceptional: their sturdy construction made them durable, and their considerable size and number of rooms made them adaptable to changing domestic preferences (Wells 1994:112). The association of these exceptional houses with wealth was demonstrated by comparing size and material to the wealth of the owner in a single year, as indicated by land tax. Of 30 individuals paying taxes on 500 or more acres, half built in brick or stone (although half also built with wood), and it was concluded that brick homes were usually beyond the means of those with less than 500 acres. Sixteen of seventeen two-story houses belonged to planters with at least 500 acres, and a similar association was noted for two-room depth. Some planters, however, built houses smaller than they could apparently afford, and it was argued that perhaps only those with large landholdings elsewhere and who viewed themselves in a regional context felt the need to build in brick or stone. Large houses coupled with small acreages in the sampled year suggested a decline in economic fortunes since the house was built.

In the mid 1990s a renewed emphasis on the significance of brick architecture in seventeenth century Virginia emerged with the work of Pickett (1996) and D. Brown (1998) and the recent excavation of several seventeenth century brick domestic structures. These projects include John Custis' Arlington on the Eastern Shore, the John Page House in Williamsburg, Richard Kemp's Rich Neck in James City County, and the Harris and Bacon houses on Curles Neck in Henrico County. Employing the Page House as a case study, Pickett examined an observed increase in the use of brick throughout the seventeenth century in the context of changing social structure and customs, and towards a revision of the 'impermanence' theory. Of twenty-one known structures (extant and

archaeological), he noted that only five were built before 1660, compared to sixteen for the remaining forty years of the century.⁷ Most of these pre-1700 houses had between two and four rooms with either direct entry or a porch tower (Pickett 1996:18, 31-33). Sixty-seven percent incorporated some manner of restricted entry, including porch towers, which increased towards the end of the century. Pickett argued that Virginia's social structure changed in the second half of the seventeenth century, partly as a result of the English Civil War that brought a number of loyalist elite to the colony in the 1650s (Pickett 1996:18-19). These elite, intent on recreating English culture and naturalizing social hierarchy in their new home, employed material symbols such as brick houses to foster unity amongst classes and erect barriers between them (Pickett 1996:34). By the last decade of the century property had become more important than name or blood for those wishing to hold high public office. Building in brick became synonymous with this unified political elite, to the extent that those who still lived in earthfast houses (however stylish) were signaling their inability or lack of desire to compete for power.

David Brown (1998) revised the list of known seventeenth century brick structures, removing some and adding others. Following his biographical sketches, he discussed such issues as economic, environmental and symbolic reasons for building in brick and stone, temporal trends, location, design choice and eventual destruction. He pointed out the importance of skilled labour throughout the century, and noted that the power of brick to the elite was rooted in its inaccessibility to the majority of people. Not only was brick important in strengthening group unity and maintaining boundaries, its

⁷ Of these 21, 15 had brick foundations and walls, 3 were frame with brick foundations, and 3 had brick nogged walls with brick foundations.

use was also encouraged by competition amongst the wealthiest individuals in the colony. Masonry construction developed steadily until c. 1650, when it experienced a lull, followed by a rapid and steady increase beginning in the 1660s. This inconsistency may have resulted from population fluctuation or an unstable economic or political climate linked to the English Civil War. The appearance of brick houses appears to correspond to settlement expansion, and their changing forms may have been influenced by environmental as much as social conditions, such as the decrease in central chimneys in response to a warm climate. The fact that only three of twenty-seven survive (eight having succumbed before the end of the seventeenth century and eight more by the mid eighteenth) suggests that changes in architectural fashions, such as an emphasis on size, symmetry, or particular design elements, may have been at work. In many cases these factors made rebuilding a more practical solution than renovation. War also claimed a number of brick houses, as did the demolition of many Middle Plantation structures to make way for the planned city of Williamsburg.

This challenge by Pickett and Brown to established views of Virginia architecture has continued through the close of the 1990s, most notably in the work of Levy (1998) and Muraca et al. (2000). Levy examined Richard Kemp's brick house at Rich Neck as part of an attempt to overturn the stranglehold that the impermanence theory has maintained on the field over the past twenty years. The increasing number of brick houses identified for the seventeenth century throws into question the assertion that the period prior to 1700 can be characterized as an age of impermanence for all strata of society. Furthermore, characterizing post structures as impermanent and brick structures as permanent creates a false dichotomy in a context where the opposite was commonly

true; many post structures had relatively long lives, while many brick structures had relatively short ones (Levy 1998:4). The significance of brick may not only be related to economic or ideological factors, but also to the fact that a considerable proportion of Virginia's gentry had direct contact with urban centres in England, while relatively few servants and middling planters did. Kemp built his brick houses at Jamestown and in James City County at a time when building in brick was just becoming fashionable in England (led by London). It is possible that subsequent trends in the development and increasing popularity of brick in Virginia were a direct response to similar trends in England, led by men who wished to demonstrate their knowledge of the most current fashions. Levy noted similarities between Thomas Ludwell's remodelling of Kemp's plantation house in the 1660s and contemporary country houses in England, which were becoming increasingly differentiated from urban dwellings. The house's increased number of single-purpose rooms paralleled changing English ideas of the nature of the family. As Levy concludes: "The defining element of late seventeenth-century elite architecture was this complex use of space and its ability to accommodate the new family ideal. An elite home need not be brick to fit this category" (Levy 1998:12). Because elite architecture in Virginia maintained a constant dialogue with changes in urban England throughout the century, it is best studied in isolation from the rest of Virginia's homes, which did not.

Muraca et al. (2000) argued that the preoccupation with the dominance of earthfast housing in the seventeenth century has closed investigators' minds to possibilities associated with those executed in brick. It has been assumed that those few that existed must have been simple emulations of contemporary post structures, with

minimal elaboration (Muraca et al. 2000:2). They note Cary Carson's recent work on such sites as Rich Neck and the John Page House, which has suggested that these houses were more substantial and ornately decorated than previously believed. In light of this new openness on the part of researchers to the significance of brick, the authors' study of county court records provides the potential for identifying additional examples via cases involving the sale of large quantities of bricks. Some court cases even refer directly to an individual owning a brick house. In light of this increasing body of data new lines of inquiry are appropriate, beyond those involving status. Such existing explanations do not account for brick houses owned by sub-elite individuals, and in fact are not tenable when brick is considered as other than a uniquely 'elite language' (Muraca et al. 2000:4). A universally applicable 'status' explanation also does not take into account the changing meaning of brick architecture as its frequency fluctuated over time and as new fashions replaced existing ones. Muraca and his colleagues reiterated Levy's concern over the forced dichotomy involving impermanence, and the focus on building material as the principal conveyor of meaning. Complexity may have been the symbol of elite housing regardless of how it was constructed (Muraca et al. 2000:5).

Parallel with the work in Virginia have been a number of similar studies in Maryland, which shared a similar colonial architectural tradition. King and Chaney (1999) echoed D. Brown's (1998) suggestion that competition between members of the elite may have been an important influence on the seventeenth century increase in brick architecture. They cite possible evidence in the relationship between Charles Calvert, third Lord Baltimore, and his uncle Philip, particularly the elaborate brick homes that each of them constructed, one after the other. The authors suggest that future research

into brick architecture should focus on regional as well as chronological variation, particularly in relation to variation in society and the economy, and into individual histories of those who took part in its construction (King and Chaney 1999:52). Shackel (1994), on the other hand, based on work in Annapolis, attributes the persistence of impermanent architecture in the seventeenth century to the desire on the part of colonists of different wealth levels to engage in reciprocal maintenance relationships with one another. The increasing differentiation of classes and desire to display status materially c. 1720 led to a breakdown of these relationships, as wealthy colonists began building more permanent houses of brick.

Unrelated to the Virginia context, but relevant to the study of architecture by historical archaeologists and to the discussion in Chapter IV, Burke (1999) has developed a theoretical link between material culture (specifically architecture) and ideology using the concept of style. Most theorizing on style in archaeology has come from the realm of prehistory, and Burke adopts Polly Wiessner's definition of style as material variation that originates from the human behavioural process of identification by comparison. Regarding this relationship between style and the creation of individual and group identities Burke (1999:28) argues "Style becomes one archaeological manifestation of ideology through its role as the material expression of aspects of contextual identity, and the negotiation through this of competitive strategies of status and power". By examining stylistic variation, then, it is possible to employ archaeologically recovered material culture to understand some of the means by which individuals and groups defined themselves and, through these definitions, legitimated their status. This link between the material and the behavioural is particularly germane to the study of Virginia architecture

because of the demonstrated tensions discussed by Hudgins between eighteenth century colonists of different social and economic standing.

It is in this historical and intellectual context that I have attempted to clarify the significance of homes constructed entirely of brick, employing the results of my work at Turkey Island as a case study. The next chapter introduces the history and archaeology of Turkey Island and some of the questions that prompted me to broaden my scope to include all known brick houses from the seventeenth and early eighteenth centuries.

CHAPTER II

THE HISTORY AND ARCHAEOLOGY OF TURKEY ISLAND

The excavations that I took part in at Turkey Island and the questions that they raised were the catalyst for the development of a more in-depth examination of colonial brick houses. I have employed Turkey Island as a case study to compare with the trends identified through the quantitative analysis presented in Chapter IV. This purpose of this comparison is not only to help date the house, but also to employ the implications of this likely date of construction in confirming or refuting existing interpretations of colonial homes in the early eighteenth century.

History

The history of Turkey Island (44HE239) is not unlike that of other large plantations in Virginia.¹ Located along the north side of the James River in Henrico County, this founding seat of the Randolph family was perhaps first occupied by Anne and Robert Hallam prior to 1638, the year Robert died and the property divided amongst his wife and children (Stivers 1964b:43). By the 1670s a large portion of this land was owned by Captain James Crewes, who was hanged in 1676 for his involvement in Bacon's Rebellion. William Randolph (1650-1711), who had immigrated to the colony about 1670, began acquiring real estate at Turkey Island in 1680 and by 1705 owned all

¹ Much of the following historical material was compiled in Jensen et al (1999) as part of the initial archaeological evaluation.

of the original 1000-acre parcel, in addition to adjacent Curles Plantation. That he was living on the property shortly after the initial purchase in 1680 is indicated by a 1682 document listing his address as Turkey Island (Jensen et al 1999:3).

Although his family was wealthy, like many of his fellow colonists Randolph was a second son, and may well have left England in order to seek out land and status unavailable to him in his home country. Fortunately his uncle Henry had been a planter in Virginia for nearly thirty years when William arrived, and his social and political connections were instrumental in introducing his nephew into the most influential circles in the colony (Cowden 1977:48-50). It was these connections that led to William's marriage to Mary Isham, the daughter of Henry Isham of Bermuda Hundred, and heir to a considerable amount of property in England and Virginia. During his forty years in Virginia William Randolph acquired thousands of acres of land, much of it along the north bank of the James west of Turkey Island. In addition to being a tobacco planter, the many political titles he would lay claim to throughout his career included local positions in Henrico County as clerk, coroner, justice of the peace, sheriff, burgess and colonel in the militia (Cowden 1977:61-72). He served for a time as Speaker and Clerk of the House of Burgesses, as well as Attorney General of the colony and trustee of the newly chartered College of William and Mary. Randolph did not stop there, however. He was also active as a merchant in the tobacco trade and operated a store on his home plantation, in addition to investing in lots in the newly established town at Bermuda Hundred in 1692 for which he was trustee (Cowden 1977:55, 59).

Between 1703 and his death in 1711 William Randolph began giving his firstborn son, William II, portions of his plantation at Turkey Island, the remainder of which would

be transferred to him upon his mother's death.² William II (1681-1742) served as clerk in Charles City County for several years before returning to Turkey Island to take up planting upon his marriage to Elizabeth Beverley in 1709 (Cowden 1977:142, 156). Elizabeth (1691-1723) was the daughter of Peter Beverley, a leading planter and politician in Gloucester County. Back in Henrico County William II maintained a legal practice and assumed the office of county clerk, which he added to his position as Clerk of the House of Burgesses, held since 1704. Other titles accumulated by Randolph included agent of the tobacco houses at Turkey Island and Bermuda Hundred, burgess and justice of the peace for Henrico County, member of the Council in Virginia, Colonel in the Henrico County militia, Visitor of the College of William and Mary, and vestryman of Henrico Parish (Cowden 1977:143-7). William II also succeeded his father as trustee of the town of Bermuda Hundred. Furthermore, like his father William II took an interest in acquiring large quantities of land, and had amassed tens of thousands of acres along the James and Appomattox at the time of his death, several of which he operated as tobacco plantations.

After 1738 William Randolph II presented Turkey Island to his eldest son Beverley and moved to another plantation in Goochland County, where he died in 1742. Beverley (1713-1750) married Elizabeth Lightfoot (c.1720-1770) in 1737, heir to a respectable sum of money. He was named justice of the peace for Henrico County, and at one time or another held additional local positions including judge of the court,

² William Randolph had 7 sons, all of whom lived to maturity: William II (1681-1742), Henry (c.1683-?), Isham (1687-1742), Thomas (c.1689-1729), Richard (c.1691-1748), John (c.1693-1737), and Edward (c.1695-?). Their careers as planters, politicians and merchants varied in degree of achievement, but the most successful were William II, Richard and John, and especially the sons of John. William also had 2 daughters, Mary and Elizabeth, who lived to maturity, and whose husbands or children were prominent in the colony.

surveyor of the roads, collector of tithables, tester of the weights at the tobacco warehouses, member of special inter-county committees, colonel in the militia, trustee of Bermuda Hundred, and vestryman for Henrico Parish (Cowden 1977:159). Although he was primarily a planter, owning plantations in several counties, Beverley also engaged in trade and probably also continued operating the store established by William I.

Beverley died childless in 1750 and his wife remarried in about 1754, and it wasn't until Ryland Randolph purchased the property from his cousin's estate in the late 1750s that the plantation seems to have been occupied once again. The third son of Richard Randolph of Curles Plantation, Ryland (c.1734-1784) pursued legal studies in England before settling at Turkey Island as a planter some time after his return to Virginia around 1756 (Cowden 1977:460-3). He owned tens of thousands of acres in several counties, producing primarily tobacco, wheat and corn, and there is little evidence that he ever practiced law. In addition to farming, Ryland also held public office at the local level, including justice of the peace and sheriff for Henrico County, and vestryman of Henrico Parish (Cowden 1977:463-6). Despite his large landholdings and political appointments, Ryland was perpetually in debt, perhaps because of his preoccupation with travelling and indulging his personal interests in the arts and sciences, as well as upgrading his home plantation. Ryland Randolph died a bachelor in 1784 and the home plantation of Turkey Island passed from the family forever.

Actually, it wasn't until 1793 that the family was separated from its birthplace, when Bowler Cocke VI purchased it from the estate of Richard Randolph II of Curles (Moore 1982:61, 64). Cocke (c.1750-1812), who served as vestryman of St. John's Church in Richmond and as a county justice, does not appear to have owned any property

in addition to what he purchased at Turkey Island and what he inherited from his father. Although his marriage records are ambiguous he did sire at least one son, Bowler F. Cocke (c.1783-1825), who, following his father's death sold the plantation to George Pickett in 1814 (Moore 1982:64, Stivers 1964a:7). George, the youngest of seven children, was in no way hindered by his diminutive rank amongst his siblings, becoming senior partner in the mercantile firm of Pickett, Pollard and Johnston in Richmond (Longacre 1995:3). To this successful career he added the operation of the plantation at Turkey Island, which he passed on to his son Robert. By the 19th century changing economic conditions, including a severe depression and competition from other parts of the country, made farming in eastern Virginia a shaky endeavor. In response, Robert looked to other sources of income for his family, particularly the coal business, and significantly downsized the plantation (Longacre 1995:7). His sons General George and Major Charles Pickett who grew up at Turkey Island, of course, are not known for their success as planters but rather for their role in the American Civil War.

Architecture

The architectural history of Turkey Island is incompletely documented, due in part to the absence of complete records for Henrico County during the eighteenth century. Existing records do place William Randolph on the property by 1682. In the absence of primary documentation or archaeological evidence, determining what manner of dwelling he inhabited or its exact location is at best a speculative venture. It is almost certain, however, that this house stood along the western 150 acres of the property, which is the only portion that Randolph owned prior to 1684 (Jensen et al 1999:6). It is also probable

that this structure was located in proximity to the waterfront, where the archaeological remains of the eighteenth century dwelling are located.

That there were two eighteenth century houses at Turkey Island is suggested by a pair of documentary sources. The first is the diary of William Byrd II, who made three revealing entries between August 1709 and September 1711. In each entry he recounts a visit to the Randolph family, during which he first called on Will Randolph (William II) and then walked to the house of Colonel Randolph (William I), or vice versa. It is clear from these brief narratives that by 1709 both father and son each possessed his own house at Turkey Island, and that they were easy walking distance from one another (Stivers 1964a:7-8). The presence of two houses by 1709 coincides with the return of William II to Turkey Island from Charles City County, to establish a household with his new bride.

The second document was written almost a century and a half later, in 1853, and appeared in the *Virginia Historical Register*. It is a short descriptive essay on Turkey Island signed R.P., presumably Robert Pickett, who owned the property at the time the piece was published. A portion of the text is worth reproducing at length because its contents have been the principal source for speculation on the architectural development of Turkey Island plantation, and a key source in the interpretation of the recent archaeological excavations:

And, lastly, there is the relic or remnant of an old dwelling house, once, no doubt, the mansion of the Randolphs, apparently of one story only, but originally of two stories, and, it would seem, from the ends of charred timbers still protruding from the walls, once surrounded by porticoes on three sides. The walls are very thick, built of brick that are said to have been imported from England, and the cement is still so hard in some places that it is difficult to

break or perforate it. This old house which must have been erected about a hundred and fifty years ago, and was the seat of a distinguished family, for some years, is now only a negro quarter, and occupied by such rude tenants as are usually found in such a habitation.

The present dwelling house on this place is of brick, and supposed to have been built above a hundred years ago. The walls are very thick, the basement story 2½ feet, though bearing only a single story above it. It is true, however, that the centre portion of the building was originally two stories high, and was capped by a very large dome; but in the year 1809, this part of the structure was burned down to its present height, and the rest was thereupon finished off in its actual style.

I ought perhaps to add, that the house before the change induced by the fire was generally considered one of the most beautiful buildings in all the lower country. The materials were all of the very best quality, and the workmanship of the finest taste. It is said to have been seven years in building. An old man now dead, told me some years ago, that he had been bred a carpenter, and had served his apprenticeship in a single room of that house, where he had learned more of his trade than one could now do in building, or helping to build, a hundred houses. This house in former days was known by all nautical men, as the Bird Cage, so called from its ornamental dome, and from the great number of birds which were always seen hovering and singing about it. In its present state, I can not say much for its external appearance, but I can still say that it has some substantial comfort within – and a warm welcome for all who may choose to come and see.

A number of relevant facts emerge from a close examination of this document.

First, it is clear that as late as the mid-nineteenth century there existed two structures on the property that were once two-story brick dwellings. Second, chronological information is presented that casts the ‘negro quarter’ as the earlier of the two, and suggests that it was constructed about a hundred and fifty years prior to Pickett’s essay, which would place its origins in the first decade of the eighteenth century. The estimated age for the ‘present dwelling house’ is about a hundred years, placing its date of

construction in the 1750s. Third, limited details of the construction, original appearance and subsequent alterations of these houses provide valuable interpretive data for the archaeological record. What is interesting is that Byrd's diary makes plain that two houses existed by 1709 (the year that William II moved back to Turkey Island), but Pickett's informants have told him that the house he inhabited was not built until several decades later. This disjunction suggests at least two possibilities: that Pickett was misinformed about the dates, or that there existed a third house that was present in 1709 along with the 'negro quarter', but which was demolished before Pickett's time to be replaced by the 'present dwelling house'. It is also possible that the house Pickett lived in was one of the two structures present in 1709, which was remodelled in mid century. This latter explanation would account for the testimony of the old carpenter cited by Pickett, who may have worked on a remodelling rather than a newly erected structure. The *Virginia Gazette* reported on July 14, 1768 that "On Wednesday the 6th instant, about dusk in the evening, the house of Ryland Randolph, Esq; in Henrico County, was struck with lightning; part of a chimney was thrown down, the roof shattered, the windows broken, and other considerable damage done". This event was likely the catalyst for the extravagant remodelling performed under the direction of Ryland Randolph, and observed by an eyewitness who visited the plantation circa 1770 while the work was in progress (Cowden 1977:466). These facts, however, do not preclude the second hypothesis, that the house was first built in mid-century (perhaps when Ryland acquired the property in the late 1750s), and then remodelled after the damage inflicted a decade later.

An additional documentary source sheds further light on the appearance of Ryland's house following the remodelling and prior to the fire of 1809. In 1796 and again in 1806, Bowler Cocke took out insurance on the property (Mutual Assurance Society 1796, 1806). The sketches attached to the documents describe a brick structure with a two-story central block flanked by single-story wings. Interestingly, the 1796 sketch shows a quarter located $\frac{1}{4}$ mile northeast of the house and another 100 yards to the southeast, one of which might be the quarter referred to by Pickett. Unfortunately, nothing is known of the house's appearance prior to the remodelling.

The Civil War saw the end to the Randolph-Pickett House and to Turkey Island as a productive plantation. Although the specific details of the house's demise are not clear, Stivers (1964a, 1964b) presents a hypothetical account of the timing and motivation of its destruction based on Civil War records and on the writings of General Pickett's wife, who claimed that General Butler purposely targeted the house in retaliation for a defeat at the hands of her husband. That the house was razed and dismantled by the end of the war is indicated in letters written by George and his brother Charles, who returned home to find their home plantation in ruins (Stivers 1964a:8-9). George and his wife lived at Turkey Island for a number of years in a small cottage they built after the war, before moving to Richmond (Longacre 1995:176-7).

Archaeology

In an effort to answer some of the questions posed by the scanty documentary record, and to come to a better understanding of the myriad and ever-changing range of activities and processes occurring at Turkey Island over its nearly four hundred years of

history, an archaeological evaluation was begun in 1999. At the request of the current landowner, George B. Little, William and Mary Center for Archaeological Research (WMCAR) summer interns designed and carried out a program of fieldwork in the summers of 1999 and 2000. Among the targets of the investigation were the visible remains of what was believed to be the brick house occupied by the Randolph, Cocke and Pickett families in the eighteenth and nineteenth centuries, and destroyed during the Civil War. In two seasons of work three 1-x-2-metre units and three linear trenches were excavated within the ruins to examine the subsurface integrity of the dwelling and clarify some of its structural details, ambiguously represented in the existing primary documents. The results were presented in two reports (Jensen et al. 1999, Ross et al. 2000).

In examining the evidence recovered from the excavations, I realized that it really was insufficient to contribute more than a confirmation that this was, in fact, a large brick house with some evidence of interior and exterior decorative elaboration. Nothing definitive could be said about its footprint or interior divisions that would link it to the insurance documents, or suggest the degree to which it had been modified or rebuilt through succeeding ownerships. I decided that this structure deserved a more serious examination, especially if it dated to the first decade of the eighteenth century, a period that is underrepresented in the architectural history of Virginia, and a period that saw a series of important changes in the social and material life of the region. It would also provide some valuable comparative material for the results of excavations conducted at neighbouring Curles Plantation throughout the 1980s and 1990s, once the home of Richard Randolph and his family. Consequently, in coordination with the landowner and with WMCAR, I reinitiated excavations on the remains of the house at the end of January

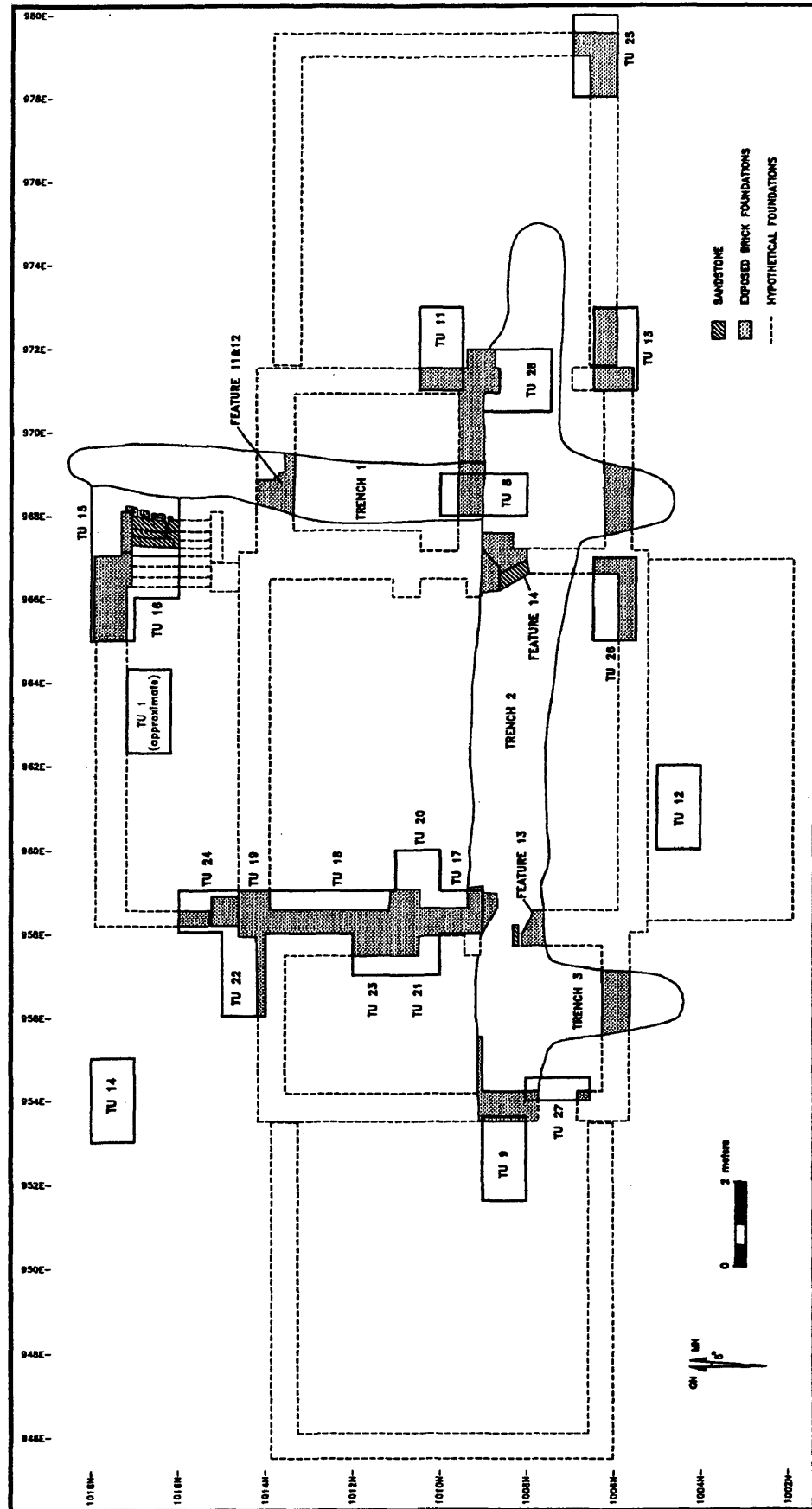
2001 and continued nearly every weekend into May. The work focused on answering a particular set of questions based on previous work and on documentary sources, and was conducted strictly for the purpose of furnishing raw data for this thesis. The basic questions, as suggested above were:

1. What was the basic footprint of the house?
2. How was the interior space partitioned?
3. Is there any evidence for alterations, major or minor, to the original plan?

Specific chronological information from intact builder's trenches was also desirable. However, limited time and resources³, coupled with the considerable depth of unconsolidated brick and mortar rubble above intact deposits, forced me to limit my priorities to the questions enumerated above. Previous examinations of builder's trenches at other Virginia sites (e.g. Thomas and Muraca 1986, Graham et al. 1991) have demonstrated the unreliability of these deposits as a result of later intrusions, and I decided to focus on the questions that could provide the greatest return for the least amount of effort. These previous studies did, however, successfully produce a relative sequence of separate construction episodes from examination of disturbed builder's trenches. Nevertheless, I hoped that for the current study adequate information regarding the structure's chronology could be obtained from the intact brickwork. A notable exception is the work at Shirley Plantation (Reinhart 1984:76-83), which was able to produce a date range of 34 years (1735-1769) for the construction of the main house, recently demonstrated by dendrochronology to bracket the true date of construction (1738). The potential value of absolute dating methods at Turkey Island is undeniable, and now that the outline of the structure is more clearly defined it should be easier for

³ This work was carried out with volunteer labour and borrowed equipment on a non-existent budget.

FIGURE 4
 TURKEY ISLAND, PLAN OF EXCAVATIONS 1999-2001



future investigators to target high-probability areas for excavation, and to confirm or refute the conclusions derived herein.

The fieldwork conducted for this thesis consisted of the excavation of 18 test units, ranging in size from 1x1 metres to 1x3 metres at strategic locations to intersect exterior walls and interior partitions, and to uncover features such as entrances and fireplaces. I excavated each unit deep enough to reveal intact brickwork (i.e. to answer the pertinent question), preserving underlying strata for possible work in the future. What I discovered was a structure whose dimensions resemble the insurance documents of 1796 and 1806, leaving little doubt that this is the house represented in those drawings. It appears to consist of a central block 18m (59 ft.) long by 9.4m (30.8 ft.) wide, with a wing either side measuring 8m (26.2 ft.) long by approximately 7.8m (25.6 ft.) wide, and front and rear porches each measuring 8.92m (29.3 ft.) long by 2.69m (8.8 ft.) wide. The total length of the structure is 34m (111.5 ft.). The brickwork of the wings and porches are not bonded to the core, suggesting that they may have been later additions. This core seems to be divided into a central portion 9.2m (30.2 ft.) long with the width quoted above, flanked on each side by a 4.4m (14.4 ft.) long portion that is 0.8m (2.6 ft.) narrower, at 8.6m (28.2 ft.). The brickwork indicates that this entire section was constructed in a single episode.

The walls were laid in Flemish bond above and below a two-course molded water table (cove over torus), although the interior walls and foundations below grade are in English bond. Wall thickness is four courses at the base of the foundations, narrowing to three courses within the basement level above. These dimensions are compatible with an elevation of at least two stories, which agree with the insurance documents and with

Pickett's claim that the basement walls were 2½ ft. thick. The house appears to have had interior chimneys located at either end of the central portion of the core. The 1796 insurance plan also shows features on the end walls of each wing that are possibly additional chimneys, although time was not available to test this hypothesis archaeologically. Entrances were almost certainly located centrally along both the north and south façades, as suggested by the presence of porches and the apparent symmetry displayed by the foundations. Seemingly original openings in the southwest and southeast corners of the central block may be exterior cellar entrances that were removed when the wings were added, but with the openings left in place to provide access to the basement rooms of these wings from the core. A later cellar entrance located beneath the north porch, part of which was exposed during excavations, provided subsequent access to the basement from the outside.

The results of my work at Turkey Island raised some intriguing questions that begged further study, including the social implications of the presence of such a large and apparently unusual structure at what documentary records suggested was a relatively early date. Research into the architectural history of Virginia revealed that, while there exists a tremendous volume of literature and considerable expertise on the subject, very little of this knowledge has yet been compiled together in printed form. Chapter IV is my attempt to present a quantified summary of these heretofore-impressionistic trends in brick architecture and to compare them with those of similar scope that do exist. It is my hope that this explicit context for brick architecture, besides serving the goals of the current study, will aid in the interpretation of other structures from the time period under consideration.

CHAPTER III

TRENDS IN VIRGINIA'S BRICK DOMESTIC ARCHITECTURE

The principal goal of this thesis is to use the results from Turkey Island in combination with the architectural database to provide an interpretive context for and to clarify the significance of brick architecture in colonial Virginia society. As Chapter I makes abundantly clear, a considerable amount of attention has been focused on the domestic architecture of colonial Virginia. However, with the exception of Reiff's (1986) analysis, little explicit attention has been paid to the study of brick architecture as a discreet entity unto itself, particularly in light of the growing body of archaeological data. Moreover, it has been tacitly assumed that building in brick was coterminous with a uniquely elite expression of status and power, an assumption thought to be so obvious that no further attention need be paid to the matter. As the work of Levy (1998) and Muraca et al. (2000) suggests, however, simple status explanations ignore the role of other forces in the development of brick architecture (especially its presence among the sub-elite) and the architecture of the elite, which might better be understood in terms of variables other than construction material.

In attempting to create an interpretive context for Turkey Island and other structures like it, I began searching for other known brick houses from the first few decades of the eighteenth century in Virginia with which to draw comparisons and made

some significant discoveries. First, unlike the recent work by Pickett (1996) and D. Brown (1998) for the seventeenth century, there were no systematic studies of brick dwellings constructed during the early eighteenth century. Reiff's (1986) work, while particularly detailed, focused on tracing the origins of a narrowly defined brick house form, and included virtually no examination of archaeological findings. Second, there appeared to be few, if any, known eighteenth century brick houses built prior to 1720, the period during which it is believed that Turkey Island was constructed. Third, the archaeological remains of the Turkey Island mansion seemed strikingly dissimilar to the architectural forms traditionally attributed to the early eighteenth century. Limitations placed on the renewed fieldwork conducted for the present study made it impractical to seek intact builder's trenches to aid in confirming or refuting the construction and remodelling dates suggested by documentary sources. Consequently I refocused my attention on the potential of comparative data from other standing and archaeological structures to suggest the accuracy of the historically derived dates, in addition to providing a more complete understanding of the social, economic and other implications of Turkey Island's physical form at the time it was constructed. Such a unique body of data, besides facilitating the interpretation of a single structure, could be applied towards a better understanding of colonial brick architecture in general, and towards an evaluation of this group of structures in comparison with those constructed of other materials.

Pickett (1996) and D. Brown (1998) provide a complete survey of all known examples of seventeenth century brick domestic architecture for which structural data is available. It was decided for the present study to follow their lead and develop a database of all known brick houses from the first half of the eighteenth century. The beginning of

this period takes up where the seventeenth century work left off, while the end is somewhat arbitrarily set at 1750. This latter date was chosen to limit the number of structures under consideration for reasons of practicality, and from a perceived qualitative difference in house form and decorative elaboration following mid century, perhaps as a result of increasing availability of pattern books from England. Further limiting the number of houses under consideration is the exclusion not only of frame houses with brick foundations but also houses with brick gable ends. The completion of this database would result in a chronicle of brick domestic architecture from the early seventeenth century up to (but not including) 1750, making it possible to chart the chronological and geographical development of all-brick houses in Virginia, including a number of stylistic elements. This period encompasses the dramatic changes in material behaviour argued by Pogue (1997) and others to have occurred by the second quarter of the eighteenth century in Virginia, and the dramatic architectural changes demonstrated and interpreted by Upton (1980), Neiman (1990) and others in the final quarter of the seventeenth century. In fact, this data set focusing specifically on brick houses can be compared with quantitative data assembled by Upton and Neiman, from probate inventories and archaeological data respectively, to determine whether trends in brick architecture differ in any way from the general architectural trends identified by these investigators. The results of these comparisons would perhaps go a long way towards answering the challenges posed in recent years to the monolithic interpretations of brick architecture as elite symbolism.

The principal source for my effort to identify standing structures from the first half of the eighteenth century was the *Virginia Landmarks Register* (1999), which

provides a brief biography of all sites registered as official Virginia landmarks because of their significance to the state's history. I obtained structural details from a variety of sources, some of the most important of which are Waterman (1945), Reiff (1986), Upton (1980), Carson (1969) and the Historic American Buildings Survey (HABS). Some of these same sources (especially the HABS) were invaluable in identifying structures no longer standing, and a variety of archaeological site reports were consulted for those that have been excavated. For those demolished houses not known archaeologically, the recent book *Lost Virginia: Vanished Architecture of the Old Dominion* (Green et al. 2001) proved particularly valuable.

I compiled structural details for each of these houses into a database under a consistent series of categories describing their exterior form, interior layout, known alterations and original owners, as well as the sources consulted (see Appendix). These categories are by no means exhaustive, focusing specifically on those functional and stylistic features available for many or all of the houses, and which hopefully were sensitive to relevant behavioural changes. The structural features examined in detail in the following discussion were selected for their potential to interpret the chronology of Turkey Island and other early eighteenth century houses, and for comparison with structural (and their associated behavioural) trends identified by researchers such as Upton and Neiman. These latter features include measures of house size, as well as entry type, chimney location, and number of ground floor rooms. In particular, as I will discuss further below, these authors and others interpret changes in such features over time as reflecting shifting patterns in planter-servant social relations, cost-minimizing strategies, and status display. Comparison of these structural attributes for brick

structures with those for data sets comprising structures primarily of frame or post-built technology, will demonstrate the degree of universality of these behavioural trends.

Because I conducted no architectural fieldwork, relying solely on printed sources for these details, some data were unavailable, even for structures still standing. An additional limitation is provided by an inconsistency in the reliability of dates for the houses examined herein. Since the publication of Reiff's book, which is notorious for the attribution of questionable dates to many of the structures the author discusses (even for the time in which it was written), dendrochronology has allowed for the precise dating of several extant early eighteenth century brick houses, and the revelation that others such as Westover belong to the post-1749 period. Many others, however, remain imprecisely dated, often relying on stylistic indicators to place them in time. This imprecision makes it difficult to use these houses as indicators of stylistic change over time. Until better chronological control is obtained any conclusions drawn from a temporally oriented study of these houses must remain tentative.

The Seventeenth Century

For the seventeenth century Pickett (1996) identified a number of trends in the development of brick architecture. Since then D. Brown (1998) has provided a revised list of seventeenth century brick houses, including a biography of each, which has been used here to create a data set comparable to that for the eighteenth century (Table 1). Jamestown was excluded from Brown's study and is also excluded here because of a lack of systematic studies of its brick architecture, particularly in respect to dating. Of a total

TABLE 1
17TH CENTURY BRICK HOUSES

Name	Location	Date (Quarter)	Material	Table 2 Data
Abraham Peirse's Stone House	Prince George County	1626 (2nd)	nogged	P I 3
Matthews Manor I	Warwick County	1630s (2nd)	nogged	L I 2
Thomas Harris' House	Henrico County	1630s (2nd)	nogged	L I 2
Green Spring I	James City County	c. 1644 (2nd)	frame	U E 7
Matthews Manor II	Warwick County	1640s (2nd)	nogged	P I 4
Rich Neck I	James City County	1640s (2nd)	brick	L I 2
Green Spring II	James City County	c. 1659 (3rd)	brick	D E I 3
John Page House	James City County	1662 (3rd)	brick	P E 4
Bacon's Castle	Surry County	1665 (3rd)	brick	P E 4
Rich Neck II	James City County	1660s (3rd)	brick	D E 5
Bellfield	York County	3rd 1/4	brick	D I 8
Richneck	Warwick County	1670s (3rd)	brick	P E 4
Francis Page House	James City County	1670s (3rd)	brick	D E 2
Nathaniel Bacon, Jr.'s House	Henrico County	1674 (3rd)	brick	D E 1
Hornsby Property	James City County	3rd 1/4	brick-end	D E 2
Thomas Swann's House	Surry County	3rd 1/4	frame	U U U
Arlington	Northampton County	1676 (4th)	brick	D E 5
Edmund Swaney's House	Elizabeth City County	c. 1680 (4th)	brick	D E 1
John Carter's House	Lancaster County	1680s (4th)	frame	D E 2
Robert Carter's House	Lancaster County	1680s (4th)	brick	L I 3
Foster's Castle	New Kent County	4th 1/4	brick	P E 4
Criss Cross	New Kent County	1690s (4th)	brick	P E 3
Fairfield	Gloucester County	1694 (4th)	brick	U E U
Thomas Jones' House	James City County	<1699 (4th)	frame	D E 2
2-2G	James City County	<1699 (4th)	frame	P E 3

All data adapted from Brown (1998), except the dates for Green Spring (Billings 1994) and Fairfield (David Brown, personal communication 2001).

TABLE 2.
ENTRY, CHIMNEYS, GROUND FLOOR ROOMS (17TH CENTURY)

	P	P	P	P	D	D	D	D	D	D	D	L	L	L	L	U	U	U	U	TOTAL	
Entry																					
Chimneys	E	E	I	I	E	E	E	I	EI	I	I	I	I	E	E	E	E	E	E	U	
Ground Floor Rooms	3	4	3	4	1	2	5	8	3	2	3	7	3	7	7	7	7	7	7	U	
1st ¼																					0
2nd ¼			1	1						3(1)	1										6(1)
3rd ¼		3(3)			1(1)	2(1)	1(1)	1(1)	1(1)												10(8)
4th ¼	2(1)	1(1)			1(1)	2	1(1)				1(1)		1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	9(6)
TOTAL	2(1)	4(4)	1	1	2(2)	4(1)	2(2)	1(1)	1(1)	3(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1(1)	1	25(15)

P=porch tower, D=direct entry, L=lobby, E=end, I=interior, U=unknown
Numbers in parentheses indicate the proportion of all-brick houses of the total given outside the parentheses.

of twenty-five houses¹ discussed by Brown as being relatively securely dated to before 1700, only three are still standing and only fifteen are believed to have had walls built entirely of brick. Because the current focus is on all-brick houses, those believed to have had frame or brick-and-timber (nogged) superstructures have been isolated, although they are not eliminated from consideration. Although this sample is small, it represents every known pre-1700 dwelling with brick foundations, and interrogating its range of variation can at least indicate some basic trends within the available data for comparison with other data sets. Neiman's (1993) classification scheme for identifying variation in the partitioning and use of space has been adopted here, albeit with slight modifications (Table 2). The three variables of size, entry and chimney location have been retained, however the types have been altered to suit the unique data set. Entry types include porch tower (P), direct entry (D), lobby (L) and unknown (U); chimneys are either end (E) or interior (I), the latter including all chimneys detached from the exterior walls of the house. For measure of size I used the number of ground floor rooms rather than 'unit spaces', because for houses with brick foundations (unlike earthfast structures) major axial divisions are relatively unambiguous. The number of rooms includes porch and stair towers.

Of fourteen all-brick structures for which the type of entry is known direct entries are most common (seven or 50%), with just over two thirds as many porch towers (five or 35.7%) and somewhat less than a third as many lobbies (two or 14.3%).² If all

¹ This number includes two houses, Matthews Manor and Rich Neck, which were counted twice because they were subjected to a major secondary construction episode that significantly altered the structure. For analytical purposes each phase is considered as a separate entity. Green Spring I and II are two separate houses altogether, constructed adjacent to one another as part of the same plantation complex.

² Totals employed for calculating percentages do not include houses for which a given feature is unknown.

seventeenth century houses are included (twenty-two with known entry type) the order is the same, but the ratios are slightly different: ten (45.5%) direct entry, four fifths as many porch towers (eight or 36.4%) and just over one third as many lobbies (four or 18.2%). These numbers differ from those presented by Pickett (1996:32), who found over twice as many porch towers as direct entries, although lobbies retain the same relative position, being half as common as direct entries.³ End chimneys for all-brick houses (n=15) are three times as common (twelve or 80%) as interior (four or 26.7%), but if the partial brick structures (n=25) are added they are only twice as common (seventeen or 70.8% vs. eight or 33.3%). Green Spring II, included in these tabulations, has both interior and end chimneys. In terms of size, Pickett's (1996:33) numbers are similar to the ones presented here except that, if all houses are included, two-room houses in Pickett's count are half as common as in the current study. The majority of houses examined in this study have between two and four ground floor rooms; the only noticeable difference when all-brick houses are singled out is the significant reduction in the number of two-room plans, more in harmony with Pickett's numbers.

When the three variables are cross-tabulated additional patterns emerge. Of the fourteen all-brick houses for which all three variables are known five (35.7%) have porch towers and end chimneys, four (28.6%) of which also have four ground floor rooms. Another five (35.7%) of these brick houses have direct entries and end chimneys, although there is no corresponding size correlate.⁴ Not surprisingly, two (14.3%) additional houses have lobbies and interior chimneys. Of eleven all-brick houses with

³ Pickett's numbers include all-brick, frame and nogged structures together.

⁴ Green Spring II is not included in these calculations because it has both end and interior chimneys.

end chimneys, four (36.4%) belong to structures with four-room plans, while seven (63.6%) have between three and five ground floor rooms; Fairfield has an unknown number of rooms. Of all combinations of variables represented in this data set only houses with porch towers and interior chimneys are completely unrepresented by all-brick examples. If all houses with known variables (n=22) are considered similar patterns are evident: six (27.3%) have porch towers and end chimneys (including four with four ground floor rooms), eight (36.4%) have direct entries and end chimneys (four of which have two ground floor rooms), and four (18.2%) have Lobbies and interior chimneys (three of which have two-room plans).

None of the trends identified above is particularly valuable in more than a general way without the incorporation of chronological information (Figures 5-7). Dates for many of the seventeenth century structures examined here are accurate enough to place them within the span of a decade, but in several cases this is not possible. Instead the century is divided into four quarters, the first of which is not represented by any brick dwellings and cannot be discussed at this time. When all sites are taken together porch towers appear relatively consistently across the latter three quarters of the century, although their relative frequency fluctuates slightly between the second and third quarters. In the second quarter porch towers and lobbies appear with similar frequency. Direct entries make a sudden appearance in the third quarter, occurring twice as often (six or 66.7%) as porch towers (three or 33.3%), and continue as the dominant entry type through the fourth quarter, with porch towers as the second most common type. Lobbies disappear in the third quarter but are represented by a single example in the last quarter of

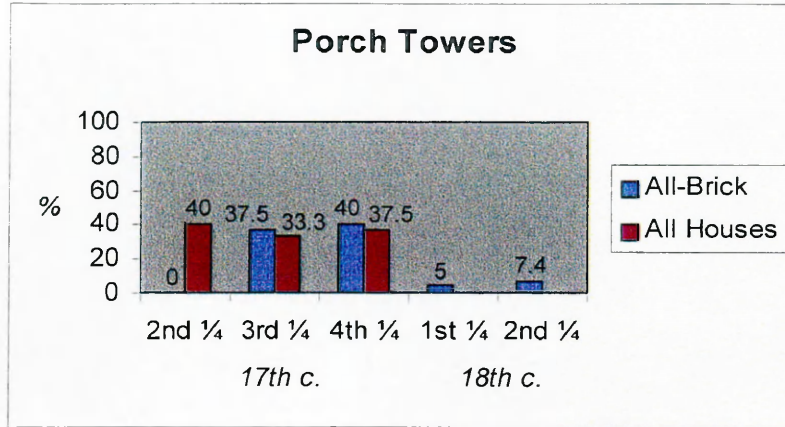


Figure 5. 17th and 18th century porch towers.

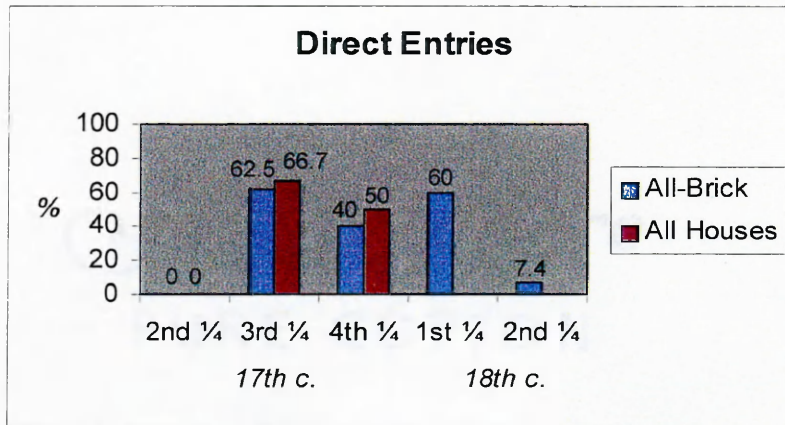


Figure 6. 17th and 18th century direct entries.

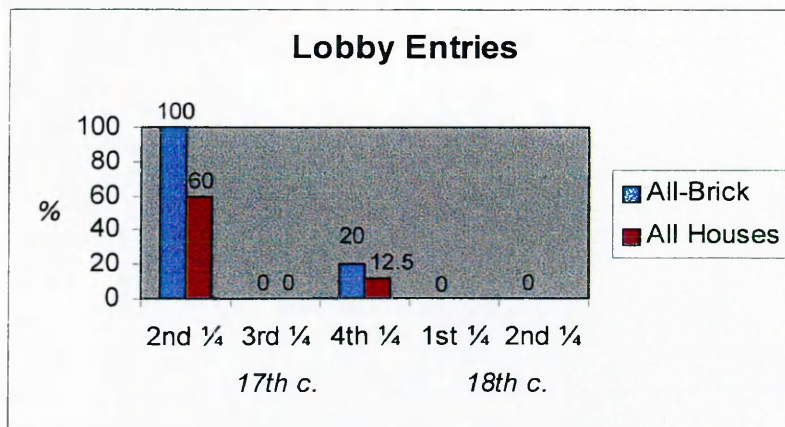


Figure 7. 17th and 18th century lobby entries.

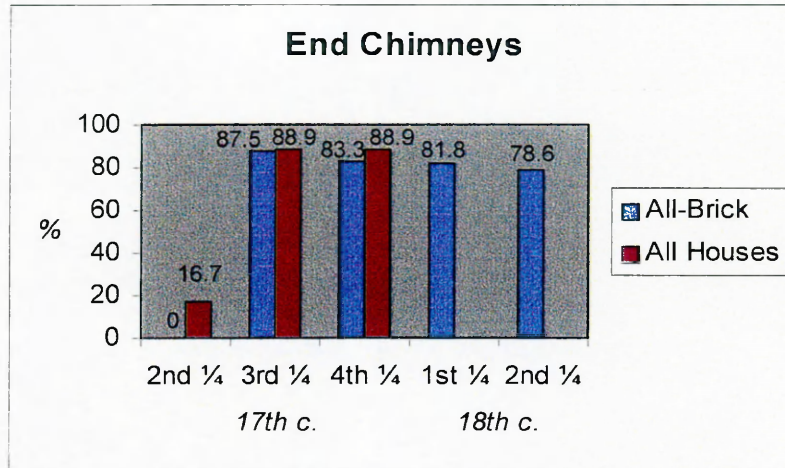


Figure 8. 17th and 18th century end chimneys.

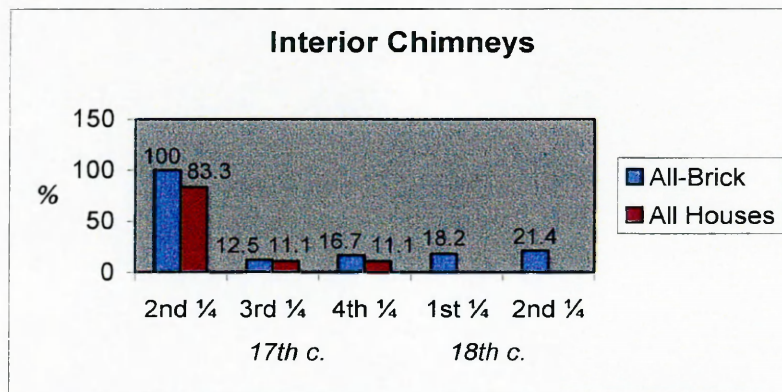


Figure 9. 17th and 18th century interior chimneys.

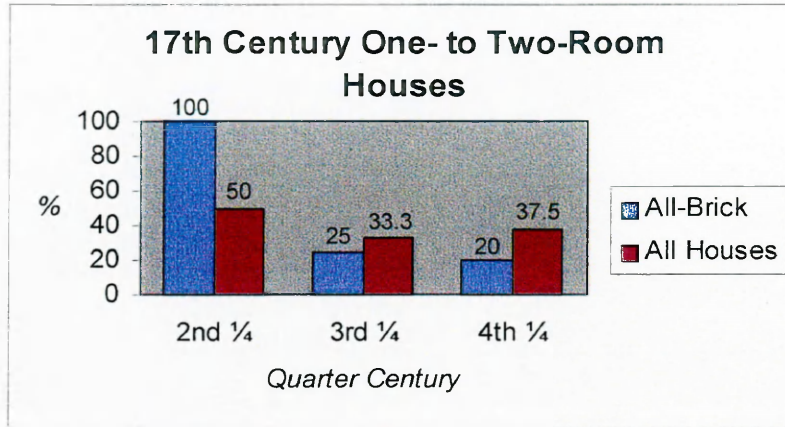


Figure 10. 17th century one- to two-room houses.

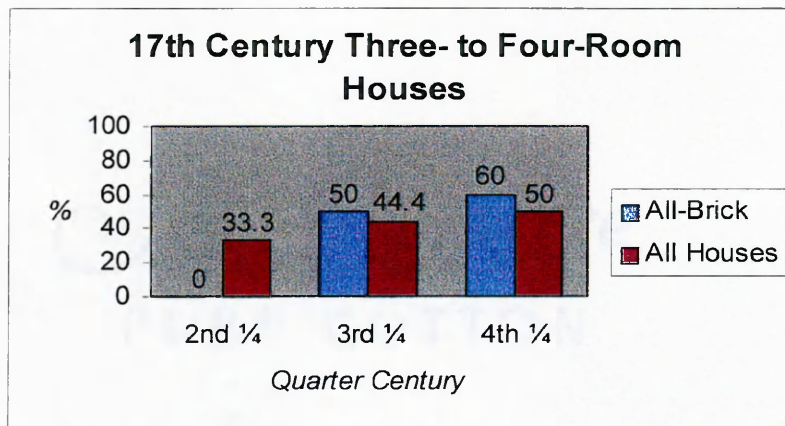


Figure 11. 17th century three- to four-room houses.

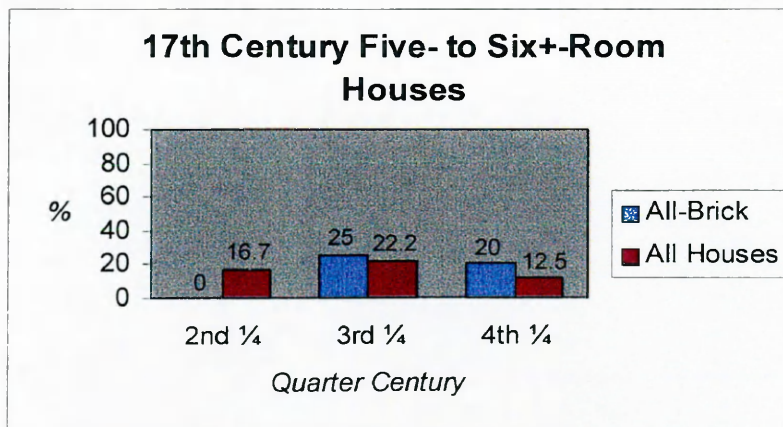


Figure 12. 17th century five- to six+-room houses.

the century. Interior chimneys are by far the most common type in the second quarter, but drop to almost negligible numbers in the remainder of the century to be replaced by a sudden upward leap in the frequency of end chimneys in the last half of the century (Figures 8-9). In terms of size, houses with two ground floor rooms are most common for the second quarter, but those of three and four rooms increase to become the most frequent in succeeding periods, although two-room plans do not diminish significantly (Figures 10-12). The third quarter of the seventeenth century presents the greatest range of house sizes, with at least one example from each class between one and six+; the fourth quarter demonstrates a nearly equal range of variation, but is more concentrated around plans with two and three rooms on the ground floor.

All-brick houses show similar relative trends in entry type, chimney location and size across the last three quarters of the century, although their absolute numbers fluctuate considerably. In the second quarter only one of six houses (16.7%) is of all-brick construction, but in the following quarter the percentage skyrockets to eight of ten (80%) (beginning c. 1660), and in the last quarter settles to six of nine (66.7%). One interesting observation is that in the final quarter most all-brick houses vary between three and five rooms, there being no dwellings with only two rooms.

Cross-tabulation of variables with respect to time yields the following results. The second quarter exhibits the least variation, although it is also represented by the smallest number of houses. There are three examples of lobby entrance houses with interior chimneys and two rooms on the ground floor; two more have porch towers and interior chimneys and between three and four rooms. The only real anomaly is Green Spring I with end chimneys and at least seven rooms. In the third quarter there is greater

variation in house size and changes in chimney placement and entry type, although definite patterning is present. Of ten houses three are all-brick with porch towers, end chimneys and four rooms; four more have direct entries and end chimneys, although size varies from one to five rooms. In this period only one house possesses an interior chimney. The final quarter is shared between houses with porch towers and end chimneys (three) and those with direct entries and end chimneys (four), with a single example of a lobby entry and interior chimney. House size varies between one and five rooms, although homes with three ground floor rooms are most common, whereas four was most common in the preceding period.

The Eighteenth Century

A total of fifty all-brick houses from twenty-three counties and two cities were identified as having probably been constructed between 1700 and 1749 in Virginia (Table 3). I collected technical data on each structure and compiled them in a database, which can be found in the Appendix. Because of the limitations of the chronological information available for many of the houses under investigation and the importance of this information to the reliability of the patterns identified, I decided to avoid attempting to arrange the houses by decade. Rather, as with the seventeenth century, each structure is categorized as belonging to the first or second quarter of the century. Of course, those houses with dendrochronological or secure historically derived dates will be granted particular attention as benchmarks for chronological trends identified in this study.

TABLE 3. 18TH CENTURY BRICK HOUSES

Name	City/County	Date (Quarter)	Table 4 Data	Table 5 Data
Winona	Northampton Co.	after 1681 (1st)	DE 2	G 1½ D
Malvern Hill	Henrico Co.	late 17th/early 18th (1st)	PE 4	G 1½ S
Kiskiack	York Co.	1696-1728 (1st)	DE 2	G 1½ S
Ringfield	York Co.	c. 1698 (1st)	CE 3	G 2½ S
Weblin	Princess Anne Co.	c. 1700 (1st)	DE 2	G 1½ S
Westerhouse	Northampton Co.	c. 1700 (1st)	DE 2	G 1½ S
Pinewoods (Warburton)	James City Co.	c. 1700-1710 (1st)	DE 2	G 1½ S
Mattissippi (Sturgis)	Northampton Co.	c. 1700-15 (1st)	DE 2	G 1½ S
Sweet Hall	King William Co.	c. 1700-20 (1st)	DE 3	G 1½ S
<i>Governor's Palace</i>	Williamsburg	1706 (1st)	CHI 6	H 2½ D
Tabb	York Co.	c. 1710-40 (1st)	CE 3	G 1½ S
Barn Elms	Middlesex Co.	c. 1718 (1st)	CE 9	U 1½ S
<i>Adam Thoroughgood</i>	Princess Anne Co.	c. 1720 (1st)	DE 2	G 1½ S
<i>Corotoman</i>	Lancaster Co.	1720 (1st)	CI 5	U U S
<i>Germannna</i>	Orange Co.	c. 1720 (1st)	UI U	U U D
Thomas Pate House	Yorktown	c. 1720s (1st)	DE 4	G 1½ S
Morattico Hall	Richmond Co.	c. 1720-30 (1st)	HE 3	G 1½ D
<i>Brafferton</i>	Williamsburg	1723 (1st)	CI 4	H 2½ D
Melville	Surry Co.	after 1723 (1st)	DE 2	J 1½ S
<i>Lynnhaven</i>	Princess Anne Co.	1724 (1st)	DE 2	G 1½ S
Abingdon Glebe	Gloucester Co.	c. 1724 (1st)	UE U	GH 1-1½ S
Eastwood	Princess Anne Co.	1st ¼	DE 2	G 1½ S
Eagle's Nest	Charles City Co.	c. 1720-40 (2nd)	CE 3	G 1½ S
Westover Glebe	Charles City Co.	c. 1720-57 (2nd)	UE U	G 1½ S
Keeling	Princess Anne Co.	c. 1725 (2nd)	CE 3	G 1½ S
<i>Berkeley</i>	Charles City Co.	1726 (2nd)	CE 5	G 2½ D
<i>Rosewell</i>	Gloucester Co.	c. 1726 (2nd)	CHE 9	H 3 D
Somers House	Northampton Co.	after 1727 (2nd)	DE 2	G 1½ D
Seven Springs	King William Co.	before 1729 (2nd)	HI 4	J 1½ D
<i>Matthew Jones House</i>	Warwick Co.	1729 (2nd)	PE 4	G 1½ S
<i>Mason House</i>	Accomack Co.	1729 (2nd)	CE 3	G 1½ S
<i>Nelson House</i>	Yorktown	1729 (2nd)	CI 5	G 2½ D
Skiff's Creek	James City Co.	c. 1730 (2nd)	DE 2	G 1½ S
<i>President's House</i>	Williamsburg	1732 (2nd)	CI 5	H 2½ D
<i>Lewis Burwell House</i>	James City Co.	c. 1735 (2nd)	CE 5	U U D
Belvoir	Fairfax Co.	1736-41 (2nd)	CHE 6	U U D
<i>Stratford Hall</i>	Westmoreland Co.	1737 (2nd)	CHI 11	H 2 D
<i>Indian Banks</i>	Richmond Co.	1738 (2nd)	CE 4	H 2 S
<i>Sabine Hall</i>	Richmond Co.	1738 (2nd)	CE 6	H 2 D
<i>Shirley</i>	Charles City Co.	1738 (2nd)	HI 4	M 2½ D
Bel Air	Prince William Co.	c. 1740 (2nd)	CHE 6	G 1½ D
Chelsea	King William Co.	c. 1742 (2nd)	CE 3	H 2 S
Salubria	Culpeper Co.	c. 1742 (2nd)	CE 5	H 2 D
Verville	Lancaster Co.	c. 1742-49 (2nd)	CE 3	L 1½ S
Drysdale Glebe	King and Queen Co.	1745 (2nd)	CE 3	G 1½ S
Cleve	King George Co.	c. 1746 (2nd)	CHI 6	H 2½ D
Tar Bay	Prince George Co.	c. 1746 (2nd)	CPE 4	H 2 S
Hungars Glebe	Northampton Co.	2nd ¼	CE 5	G 1½ D
Southwark Glebe	Surry Co.	2nd ¼	CE 3	G 1½ S
St. Anne's Glebe	Essex Co.	2nd ¼	CE 3	G 2½ S

TABLE 4. ENTRY, CHIMNEYS, GROUND FLOOR ROOMS (18TH CENTURY)

Entry	C	C	C	C	C	C	C	C	C	D	D	D	D	P	CP	H	H	H	CH	CH	U	U	Total
Chimneys	E	E	E	I	I	I	E	E	E	E	E	E	E	E	E	E	I	I	E	I	E	I	U
Ground Floor Rooms	3	4	5	6+	4	5	2	3	4	4	4	4	4	4	4	3	4	4	6+	6+	U	U	U
1st ¼	2	0	0	1	1	1	10	1	1	1	1	1	1	0	1	1	0	0	1	1	1	1	22
2nd ¼	8	1	4	1	0	2	2	0	0	1	1	1	1	0	1	0	2	3	2	1	1	0	28
Total	10	1	4	2	1	3	12	1	1	2	1	1	2	1	1	2	2	3	3	2	2	1	50

C=central passage, D=direct entry, P=porch tower, H=entry hall, E=end, I=interior

TABLE 5. ROOF, ELEVATION, DEPTH (18TH CENTURY)

Roof Type	G	G	G	H	H	H	H	H	J	J	J	J	J	J	J	L	L	L	U	U	U	U	Total
Elevation	1½	1½	2½	2	2½	3	2½	3	1½	1½	1½	1½	1½	1½	2½	1½	1½	1½	1½	U	U	U	U
Depth	S	D	S	D	D	D	D	D	S	D	S	D	S	D	D	S	S	S	S	S	S	S	D
1st ¼	2	1	0	0	0	1+1*	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	1	21
2nd ¼	8	3	1	2	3	2	1*	0	1	1	1	1	1	1	1	1	1	0	0	0	0	2	28
Total	20	5	2	2	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	49**

G=gable, H=hipped, J=jerkinhead, M=mansard, L=gambrel, S=single pile, D=double pile

*denotes deck-hipped roof

**Abingdon Glebe was omitted because of its unusual characteristics (GH, 1 - 1 1/2, S?)

Four of the structures included herein, Adam Thoroughgood, Winona, Malvern Hill and Ringfield, have been traditionally attributed to the late seventeenth century but were excluded from D. Brown's (1998) study because of ambiguous evidence. They have been tentatively placed in the first quarter of the eighteenth century because of their structural affinity to brick houses from that period and, in some cases, their similar appearance to known eighteenth century examples in close geographic proximity. As well as closely resembling nearby houses such as Lynnhaven and Weblin, Adam Thoroughgood has a dendrochronology date of c. 1720 for its second floor interior woodwork (Brownell et al 1992:31). In any case, the attribution of these houses to the early eighteenth century rather than the very late seventeenth century should not dramatically skew the data if they are later found to date from the earlier period. Three additional structures, the Brafferton, the President's House and the Governor's Palace, are more properly categorized as public buildings, but are included because of the accuracy of their dating and because of their perceived influence on the domestic architecture of the region. Six glebe houses, although not precisely private dwellings in the same sense as the others, have also been included. Notice will be taken of the contribution of urban versus rural and public versus private dwellings to patterning in the architectural record.

For data comparable to that calculated for the seventeenth century I again invoked Neiman's (1993) three variables, although new types had to be introduced to cope with the data set (Table 4). In addition to direct entries (D) and porch towers (P), central passages (C) and entry halls (H) are present amongst the houses, although lobbies are not; the categories for chimneys and ground floor rooms remain the same. Of the forty-seven

structures with known entries twenty-eight (59.6%) have central passages, one of which also has a porch tower and six more also have entry halls. In the absence of passages there are two additional porch towers (three or 6.4% total) and three additional entry halls (nine or 19.1% total). After central passages direct entries are the most common, with fourteen (29.8%) examples distributed across the first half of the century. In terms of heating end chimneys are associated with forty (80%) of the structures and interior chimneys with the remaining ten (20%). Of these ten only Germanna, Seven Springs and possibly Stratford can be said to have truly central chimney stacks, the remainder are for the most part located to either side of a central passage or between the front and rear rooms flanking the passage. There are no brick houses from the early eighteenth century with a single ground floor room, although there are twelve (25.5%) with two-room plans and twelve (25.5%) with three; the remainder of the data set is almost equally divided amongst houses with between four and six+ rooms.

When the forty-seven houses with known variables are cross-tabulated the relationship between interior chimneys and central passages (seven or 14.9%) becomes apparent, although two are associated solely with entrance halls and three have entrance halls and passages. All three of Williamsburg's public dwellings included here have interior chimneys, two of which have passages and the other an entrance hall. Perhaps the most obvious relationship is that between direct entries, end chimneys and two-room plans (twelve or 25.5%), and between central passages, end chimneys and three-room plans (ten or 21.3%). Together these two groups comprise almost half the total. In addition there are seven (14.9%) houses that combine central passages with five-room plans.

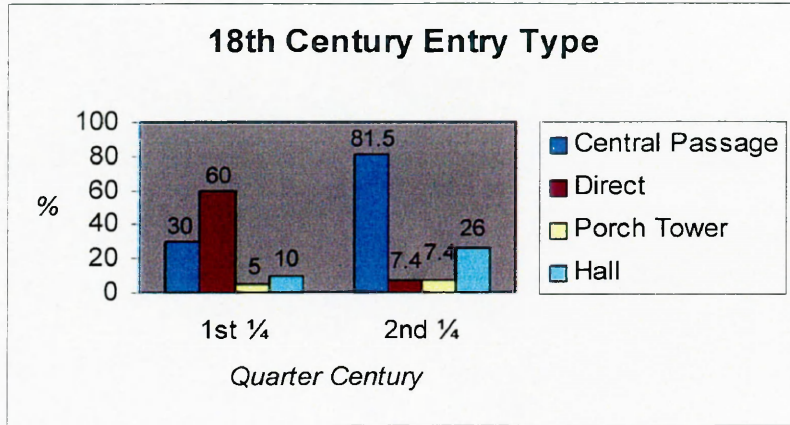


Figure 13. 18th century entry type.

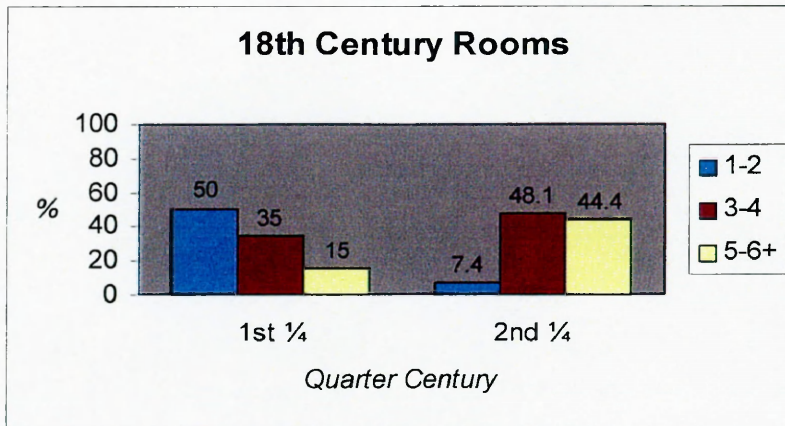


Figure 14. 18th century ground floor rooms.

Introduction of the time element reveals the association between direct entries, end chimneys and two rooms to be almost completely a product of the first quarter of the century. Equally as significant, the remaining two such examples from the second quarter do not seem to date later than c. 1730. Houses with central passages, end chimneys and three rooms, on the other hand, are primarily a product of the second quarter. Three of the six glebe houses are of this type, although this number might be higher if more data was available for two of the remaining three. Examined in isolation central passages are more than twice as common in the second quarter (81.5%) as in the first (30%) (Figure 13). Likewise, entrance halls are almost completely a product of the second quarter, whereas the opposite is true of direct entries. End and interior chimneys appear not to be chronologically sensitive (Figures 8-9), although size in terms of ground floor rooms does (Figure 14). Two-room plans are more than six times as common in the first quarter as in the second (50% vs. 7.4%), and plans with five or more rooms are almost three times as common in the second quarter (44.4% vs. 15%). Houses with three and four ground floor rooms are less chronologically distinct, although three-room plans are more common by a third in the second quarter (29.6% vs. 20%). The few dwellings with five or more ground floor rooms built in the first quarter century are the Governor's Palace, the President's House and Barn Elms, the latter only because it consisted of two separate structures. The Brafferton should also be included here: it is divided into only four rooms on the ground floor despite its similar dimensions as the President's House because of its function as an educational building. I will address the problem of

associating relative size with the number of rooms a given space is divided into (regardless of its dimensions) with an additional measure of size discussed below.

Besides the three variables recorded for seventeenth century dwellings, additional data were collected for the eighteenth century, some of which have also been cross-tabulated; these data include roof type, elevation (in stories) and depth (single or double pile) (Table 5). I selected these attributes because of their potential chronological sensitivity and their potential to contribute to the interpretation of stylistic behaviour over time. Of the forty-five houses with known roof forms twenty-nine (64.4%) are gable, eleven (24.4%) hipped (including two deck-hipped), one (2.2%) with both gable and hipped, two (4.4%) jerkinhead, one (2.2%) mansard and one (2.2%) gambrel. Story-and-a-half elevations are by far the most common within the data set (thirty or 65.2%), with 2½ story houses ranking second (ten or 21.7%). Two and three story houses are also present, although counted together (seven or 15.2%) they do not quite equal the number of 2½ story houses. Single and double pile depths were both common for early eighteenth century brick dwellings, although single pile (thirty or 60%) outnumbers double pile (twenty or 40%) by approximately one third.

Taken together the variables reveal that 1½-story elevations are most commonly associated with gable roofs and a single room in depth, although two-room depth is by no means absent from this combination, being the second most common permutation of the three structural features. Two-story elevations are understandably limited to houses with low-pitched hipped roofs. Eight of the eleven (72.7%) hipped roof houses are double pile compared to seven of the twenty-nine (24.1%) gable roof specimens; houses with hipped roofs are also exclusively associated with elevations of two stories or more.

Segregating these variables chronologically brings the trends into greater relief. The more prevalent gable roof appears with greater frequency in the first quarter century than in the second (84.2% vs. 53.8%), as does the 1½-story elevation (85% vs. 50%) and the single pile depth (77.2% vs. 46.4%) to a similar degree. By the same token, hipped roofs and 2- and 2 ½-story elevations are predominantly associated with the second quarter, as are double pile dwellings. Three of the four examples of roof types other than gable or hipped occur in the second quarter. In combination single pile houses of 1½ stories with gable roofs are a third more common in the first quarter, and three of the eight second-quarter example probably occur prior to c. 1730. The two gable roof 2½-story single pile dwellings are divided between the quarters, whereas the two double pile variations on this combination occur in the second. In general, there appears to be greater variation in the combination of variables in the second quarter of the eighteenth century.

A brief comparison of the two sets of variables indicates further correlations of note. In particular, there is a close relationship in the first quarter of the eighteenth century between direct entries, end chimneys and two-room plans, and gable roofs, story-and-a-half elevations and single pile depth (eight examples, with another in the second quarter); two more houses combine these characteristics with a second file of rooms. A similar combination occurs between central passages, end chimneys and three-room plans, and gable roofs, story-and-a-half elevations and single pile depth, with one example in the first quarter and six in the second.

I also examined brickwork both above and below the water table for variation. Above the water table Flemish bond was by far the most common bonding pattern in both the first and second quarters, in fact it was nearly universal after 1725. Below the water

TABLE 6. 18TH CENTURY BRICKWORK

Above Water Table	F	F	E	F	F	F	F	F	F	F	FE	FE	U	F	U	Total
Below Water Table	E	F	E	S	FE	F	FS	ES	F	FE	E	FE	E	U	U	
1st ¼	9	3	1	0	2	0	0	1	1	2	2	1	0	2	1	22
2nd ¼	13	10	1	1	1	1	1	0	0	0	0	0	1	0	0	28
Total	22	13	2	1	3	1	1	1	1	2	2	1	1	2	1	50

F=Flemish bond, E=English bond, S=Stone, U=Unknown

TABLE 7. 18TH CENTURY GLAZED HEADERS

	Regular	Random	None	Both	Indeterminate	Total
1st ¼	13	3	0	3	3	22
2nd ¼	16	2	3	1	6	28
Total	29	5	3	4	9	50

TABLE 8. 18TH CENTURY FAÇADES

Bays	7+7	5+5	5+5	3+3	3+3	2+2	Total
Symmetry	Both	One	Both	One	Both	Neither	Neither
1st ¼	0	1	4	1	2	2	11
2nd ¼	1	0	10	0	6	2	19
Total	1	1	14	1	8	4	30

Of the remaining 20 houses - 1st 1/4: One=3, Both=1, Neither=3, Unknown=3; 2nd 1/4: One=3, Both=2, Neither=2, Unknown=3

table English bond (alone) was most popular throughout the study period, although slightly more so in the first quarter (63.2% vs. 53.6%). Flemish bond was rare below the water table in the first quarter but rose thereafter to become nearly as popular as English bond. In three cases in the first quarter and a single case in the second both English and Flemish bonding was employed in laying the foundations. Stone formed the entire foundation of a single dwelling in the second quarter, and was used in combination with English bond for one foundation in the first quarter and with Flemish bond for another house in the second. The convention of employing Flemish bond for the walls and English bond for the foundations was the most frequent combination in the first quarter, although it was no more frequent than Flemish walls *and* foundations in the second.

Glazed headers were almost exclusively employed above the water table in association with Flemish bond. The use of glazing as a decorative device could be identified on thirty-eight of the fifty houses, although in nine cases its use was uncertain because of poor photographs or the presence of whitewash obscuring the brickwork. Regularly spaced glazed headers occurred with nearly equal frequency in both quarters, as did the use of random glazing, which was far less common. Only three houses from the second quarter could be identified as having few or no glazed headers, and in only four cases were the two styles combined in the same structure. Stratford Hall is the only early eighteenth century home with regular glazed headers below the water table but none above.

The symmetrical placement of doors and windows on facades was a final variable I examined for eighteenth century structures. Thirty of the forty-four (68.2%) houses with known bays had an equal number on both façades, and in twenty-three (76.7% of the

thirty) of these cases both façades were symmetrical. Two of these houses had only one symmetrical façade and five had two asymmetrical fronts. Considerably more second as first quarter houses had two symmetrical façades, and no second quarter houses had only one, although two had double asymmetry. Of the remaining fourteen houses with unequal numbers of bays on the two facades, in only three (21.4%) cases were both symmetrical; in six (42.9%) cases one was symmetrical and in five (35.7%) instances neither was.

Internal Comparisons

There is some degree of artificiality in separating the data at an arbitrary date of 1700, although Virginia's architecture has traditionally been discussed in terms of the contrasts between the seventeenth and eighteenth centuries. Also, the data sets collected by David Brown and myself are divided at the turn of the eighteenth century, and so it seems convenient to maintain this division for comparative purposes. Besides, deriving truly natural breaks in the data is only achievable in the presence of accurate single-year construction dates for each of the houses under study, an ideal circumstance that will probably never be realized. In any event, the comparison of data sets will suggest the viability of such punctuation in the construction of brick houses, to the degree that the relatively broad date ranges and the few securely dated structures will allow.

Across the last three quarters of the seventeenth and first half of the eighteenth centuries some distinct and other not so distinct trends are observable amongst individual and combined variables. In terms of entry type porch towers remained fairly constant in absolute and relative numbers throughout the seventeenth century, representing about one

third of the total, but dropped to almost insignificant numbers by the first quarter of the next century; those that did occur are found prior to c. 1730. Direct entries made a sudden appearance in the third quarter of the seventeenth century, and were associated with approximately half of the total number of houses through the first quarter of the eighteenth century. In the second quarter of that century, however, they dropped to less than one in five, to be replaced almost completely by central passages. Lobbies, only really common in the second quarter of the seventeenth century, were completely absent in the eighteenth.

Central chimneys, universal in the second quarter of the seventeenth century, dropped to a tiny fraction of the total for the remainder of the century. For the eighteenth century interior chimneys were found in approximately 20% of the houses, although hardly any of these are actually central chimneys in the seventeenth century sense. Needless to say, with the exception of the earliest period, end chimneys were always dominant. Number of ground floor rooms is more variable through time. Two-room plans comprised half of the total in the early seventeenth century, but by the third quarter decreased to approximately one quarter, with three- and four-room plans more common thereafter. That is, until the early eighteenth century when two-room plans made a sudden resurgence, to be found in half of the known brick houses from the first quarter, with three-room plans reduced to one fifth (down from half in the previous quarter). However, by the second quarter two-room plans were least popular among builders in brick, who preferred houses of between three and six+ ground floor rooms in approximately equal numbers. Single-room plans appeared only in the second half of the seventeenth century and consisted of but two examples.

Combining the three variables of entry, chimneys and ground floor rooms reveals the presence of certain modal 'types' in each period. In the period prior to 1650 two-room lobby entry houses with interior chimneys form one such group, although the sample size is small and only one of the three structures of this type was built entirely of brick. Porch entries combined with interior chimneys and three or four rooms also characterized two additional structures. Possible brick nogged walls also characterized at least half the dwellings in the second quarter. During the next fifty years homes with porch entries, end chimneys and three or four rooms appeared with more frequency than did other combinations of variables, as did those with direct entries and end chimneys, although with greater variation in ground floor rooms. The next quarter century witnessed a dramatic increase in the number of two-room houses with direct entries and end chimneys, the rise of the central passage as a means of regulating access, and the appearance of entrance halls. Central passages predominated in the final period, with entrance halls the second most popular entry type. It was not until this final quarter century that the number of ground floor rooms was so evenly divided across several categories, although central passages combined with three- and five- room plans, and passages, entrance halls and six or more rooms formed identifiable modes.

I suggested previously that ground floor rooms, although valuable for indicating the number of functional spaces a dwelling was divided into, is a poor measure of its actual physical size. For example, Bel Air and the Brafferton have similar horizontal dimensions, but the former is 1½ stories tall and is divided into six ground floor rooms, while the latter has only four rooms on the ground floor and is 2½ stories in elevation. An additional measure of size is essential to account for the elements of variation not

covered by the number of rooms on the ground floor. In fact two such measures are presented here for both the seventeenth and eighteenth centuries: Area (Length x Width) and Volume (Length x Width x Height).⁵ Area, of course, measures the amount of horizontal space taken up by a structure and volume accounts for its size in both the horizontal and vertical dimensions. Both of these values were calculated to demonstrate the degree to which a house's dimensions are correlated with its absolute size, by comparing the shape and dispersion of the resulting data sets when plotted graphically. Such a correlation seems likely because of the existence of few single pile houses greater than 1½ stories and few double pile structures less than 2 stories. While floor space might be more easily associated with variation in domestic behaviour, I selected volume as the second size value because the third dimension incorporated in the measure of volume would allow for a better impression of the visual impact of the study houses to contemporary observers. Previous investigators have drawn attention to the importance of visual display in the ideological or social messages they attribute to these homes.

The measure of area was a simple value to calculate because horizontal dimensions are available in printed sources for most of the houses examined in this study. Volume was more difficult because vertical dimensions were only available for structures recorded by the HABS, and not even all of those. As a result, I estimated unknown values by calculating average heights of walls and roofs for structures with different elevations. The average wall height for 1½-story houses is approximately 10 ft., whereas their roofs averaged c. 14 ft. For 2½-story structures the walls averaged c. 23 ft. and the

⁵ Another useful measure that has been employed is the total floor area, which multiplies L x W by the number of stories in the house.

roofs c. 16 ft.⁶ Similar values were calculated for porch and stair towers from known examples. For roof volume the product of the three dimensions was divided by two, resulting in a fairly accurate value for houses with gable roofs and a decent approximation for those with other roof types.⁷ All height measurements are those above the first-story floor (or water table when this measurement was unavailable) and therefore the values for volume represent only that portion of the houses extending above this level. Basement levels were omitted because of a paucity of measurement data and incomplete information on the presence or absence of full or partial cellars beneath many of the study houses. The results (Table 9), therefore, are not precise values of the absolute sizes of these structures, but are sufficient for a comparison of relative size among and between the two centuries under consideration.

For the seventeenth century areas ranged between c. 400 and 4000 sq. ft., whereas those for the eighteenth century ranged between c. 600 and 5000 sq. ft. (Table 10). In terms of volume the seventeenth century range was c. 8000 to 115 000 cu. ft., and the eighteenth century range was c. 12 000 to 160 000 cu. ft. (Tables 11-12). Plotting the individual values on back-to-back stem and leaf diagrams reveals some interesting contrasts between the two centuries (Figures 15-16). Stem and leaf diagrams are a graphic means of displaying the shape of a data set (including extreme values) that incorporates the individual values into an ordered summary. Placed back-to-back, these

⁶ In the case of the President's House in Williamsburg I employed measurements derived from the Brafferton, on which its construction was based, and I used Rosewell as the basis for the three stories of Shirley. *Salubria* was more difficult because its hipped roof is obviously lower than other houses of its shape and size, but comparing the relative heights of its walls and roof in available photographs (with consideration for the perspective from which the shots were taken) produced an estimated height of 10 ft.

⁷ The exceptions were Shirley, whose mansard roof was treated as a full third story, and Verville, whose gambrel roof was treated as three quarters of a full story.

TABLE 9

17TH AND 18TH CENTURY HOUSE AREA AND VOLUME

House	Area	Volume	House	Area	Volume
Abraham Peirse	1113	34495	Adam Thoroughgood	928	16859
Matthews Manor I	960	29760	Corotoman	3600	104400
Thomas Harris' House	1128	19168	Germann	3240	100440
Green Spring I	3689	114359	Thomas Pate House	1267	21539
Matthews Manor II	1392	43152	Brafferton	1767	58753
Rich Neck I	700	21700	Melville	722	12274
Green Spring II	2184	67704	Lynnhaven	690	12923
John Page House	908	15759	Eastwood	861	14637
Bacon's Castle	1356	34942	Keeling	975	15854
Rich Neck II	1230	38130	Berkeley	2681	88446
Bellfield	1598	49538	Rosewell	3722	158185
Richneck	920	14240	Somers House	916	16469
Francis Page House	880	14960	Seven Springs	1024	17408
Nathaniel Bacon, Jr.	492	8364	Matthew Jones House	959	14273
Hornsby Property	1066	18122	Mason House	980	17599
Thomas Swann's House	1331	41261	Nelson House	2286	77724
Arlington	2349	101007	Skiff's Creek	711	12087
Edmund Swaney's House	588	9996	President's House	2128	70756
John Carter's House	672	11424	Lewis Burwell House	2440	75640
Robert Carter's House	1248	21216	Belvoir	2084	64604
Foster's Castle	1499	25845	Stratford Hall	4993	145211
Criss Cross	1029	18894	Indian Banks	1302	40362
Fairfield	2148	36516	Sabine Hall	2383	79831
Thomas Jones' House	870	14782	Shirley	2352	82320
2-2G	748	12708	Bel Air	1887	37190
Winona	879	16866	Chelsea	1107	18819
Malvern Hill	1368	22780	Salubria	2000	56000
Kiskiack	806	12888	Verville	940	19270
Weblin	783	13311	Drysdale Glebe	1000	17000
Westerhouse	839	12585	Cleve	2499	77469
Mattissippi (Sturgis)	726	11677	Hungars Glebe	1520	25840
Sweet Hall	1320	22440	Southwark Glebe	940	15980
Governor's Palace	3199	99169	St. Anne's Glebe	1007	23413
Tabb	850	14450			

TABLE 10. 17TH AND 18TH CENTURY HOUSE AREA (SQ. FT.)

	000-499	500-999	1000-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500-4999	Total
17th c: 2nd 1/4		2(1)	3					1			6
3rd 1/4	1(1)	3(3)	4(2)	1(1)	1(1)						10
4th 1/4		4(1)	3(3)	2(2)							9
18th c: 1st 1/4		10	3	1		2		1			17
2nd 1/4		7	5	2	8	1		1		1	25
Total	1	26	18	4	11	1	2	3	1	1	67

TABLE 11. 17TH CENTURY HOUSE VOLUME (CU. FT.)

	5000-9999	10000-14999	15000-19999	20000-24999	25000-29999	30000-34999	35000-39999	40000-44999	45000-49999	50000-59999	60000-69999	70000-79999	80000-89999	90000-99999	100000-109999	110000-114999	Total
2nd 1/4			1	1(1)	1	1		1							1		6(1)
3rd 1/4	1(1)	2(2)	2(1)	1(1)	1(1)	1(1)		1(1)									10(8)
4th 1/4	1(1)	3	1(1)	1(1)	1(1)	1(1)			1(1)								9(6)
Total	2	5	4	2	2	3	1	2	1	1	1	1	1	1	1	1	25(15)

Vertical dashed lines indicate gaps in continuity.

TABLE 12. 18TH CENTURY HOUSE VOLUME (CU. FT.)

	10000-14999	15000-19999	20000-24999	25000-29999	30000-34999	35000-39999	40000-44999	45000-49999	50000-54999	55000-59999	60000-64999	65000-69999	70000-74999	75000-79999	80000-84999	85000-89999	90000-94999	95000-99999	100000-104999	105000-109999	110000-114999	115000-119999	120000-124999	125000-129999	130000-134999	135000-139999	140000-144999	145000-149999	150000-154999	Total	
1st 1/4	8	2	3						1																						17
2nd 1/4	2	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
Total	10	10	4	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	42

Vertical dashed lines indicate gaps in continuity.

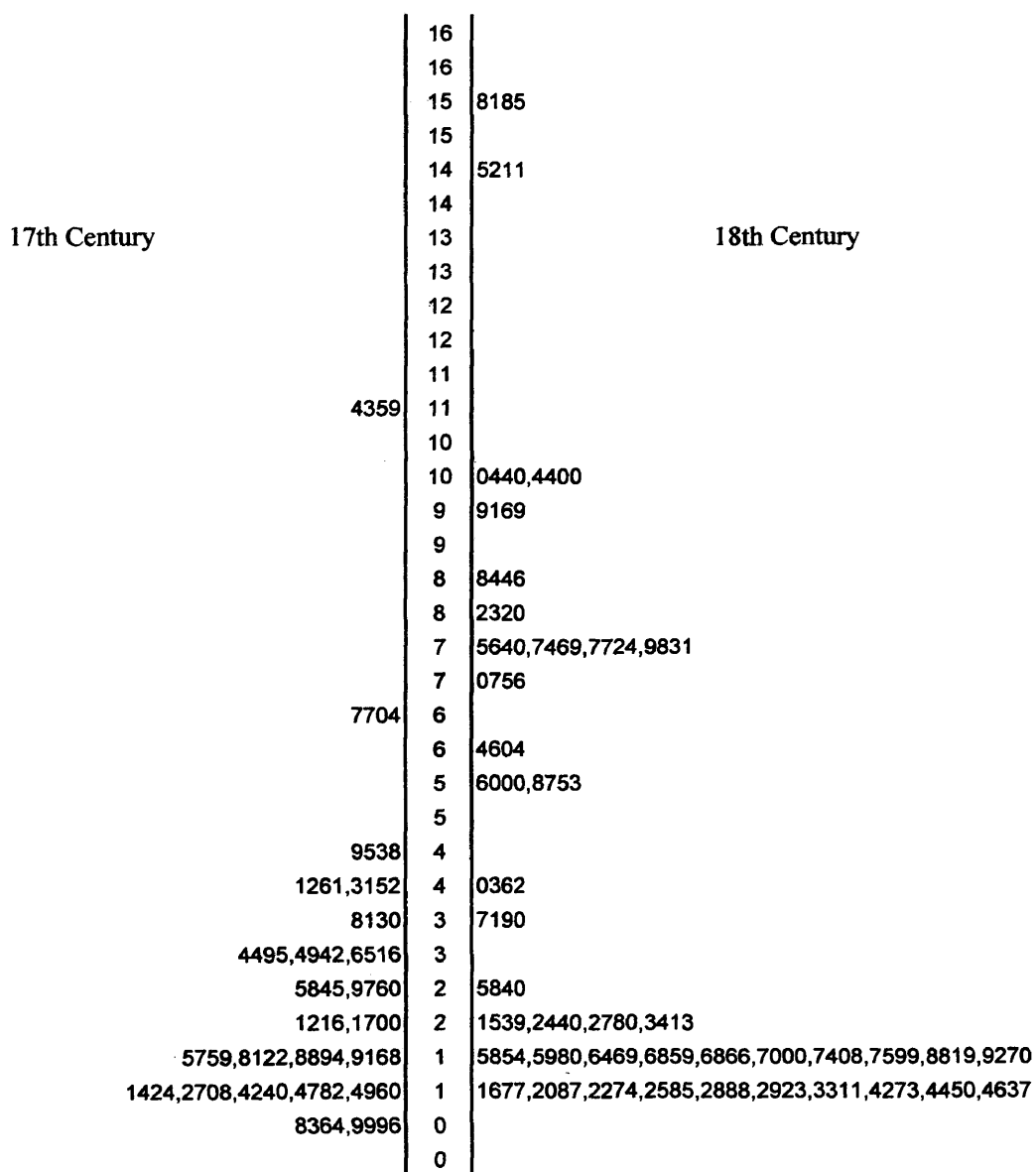
FIGURE 15

17TH AND 18TH CENTURY HOUSE AREA (SQ. FT.)

17th Century		18th Century
	5	
	5	
	5	
	5	
	4	993
	4	
	4	
	4	
	3	
689	3	600,722
	3	
	3	199,240
	2	
	2	681
349	2	286,352,383,440,499
148,184	2	000,084,128
	1	767,887
598	1	520
331,356,392,499	1	267,302,320,368
029,066,113,128,230,248	1	000,007,024,107
870,880,908,920,960	0	783,806,839,850,861,879,916,928,940,940,959,975,980
588,672,700,748	0	690,711,722,726
492	0	
	0	

FIGURE 16

17TH AND 18TH CENTURY HOUSE VOLUME (CU. FT.)



summaries are ideal for comparing two groups of similar phenomena from different sites, or in this case, different time periods. For the brick data nearly all the seventeenth century values for area cluster between c. 500 and 2500 sq. ft. with a slight positive skew and a single outlier. It is a unimodal distribution with a mean of 1283.92 and a median value of 1113. Eighteenth century area values cluster between c. 700 and 4000 sq. ft. with a positive skew and again a single outlier, but with a bimodal distribution. From these observations it is clear that there is a considerable amount of overlap between the two centuries in terms of size at the lower end of the scale. Similar trends are manifest in the distribution of volume data. The seventeenth century data are clustered between c. 8000 and 50 000 cu. ft., demonstrating a positive skew and three outliers, and with a mean of 32 721.68 and a median of 21 700. The shape of the eighteenth century volume data is similar to the area data, with a considerable portion of the values occurring between c. 11 000 and 40 000 cu. ft. with a positive skew, and another cluster of values between 55 000 and 100 500 cu. ft., but with less coherence. In addition to these two groups of values are two extreme outliers.

In all four cases a large number of values occur at the lower end of the range, especially for the eighteenth century data where there exist dense concentrations between 700 and 1000 sq. ft. for area and between 11 000 and 20 000 cu. ft. for volume. Both eighteenth century data sets have principal peaks within this range and secondary peaks further up the scale, suggesting that two distinct phenomena are represented in each batch of numbers. There is no hint of this bimodality in the seventeenth century data, however. The similarities in the diagrams for area and volume suggest a correlation between horizontal dimensions and absolute size in all three dimensions. It should be noted that

the data for houses built entirely of brick in the seventeenth century produce a similar pattern as when all houses are combined for that century. Interestingly, Green Spring II, although an outlier within its own data set, would fit well within the secondary peak of the eighteenth century volume data. This structure in addition to Fairfield and Arlington are also well within the range of the eighteenth century area data's secondary peak.

When the data are divided up chronologically a number of temporal distinctions are apparent. For area the values for the second quarter of the seventeenth century are almost completely confined between 500 and 1500 sq. ft., while in the third quarter, although the majority of values fall within this range, the total range is broader yet still circumscribed. For the fourth quarter most of the values fall within the limits of the first period although there are also two houses (Arlington and Fairfield) that fall between 2000 and 2500 sq. ft., the upper limit of the previous period. The first quarter of the eighteenth century follows the pattern established in the previous seventy-five years, although there is a dense concentration of values at the lower end of the scale. The exception to this trend consists of three houses with considerably larger areas: the Governor's Palace, Corotoman and Germanna. It is interesting that the same man, Gov. Alexander Spotswood, inhabited two of the three houses. By the second quarter significant changes are marked by a considerable broadening of the range of area values towards the higher end of the scale, with a noticeable concentration between 2000 and 2500 sq. ft., precisely where Arlington and Fairfield are situated near the end of the previous century. There is also a continuation of the seventeenth century pattern of house sizes at the lower end of the scale where an additional concentration of values can be found, in addition to two extreme outliers at the upper end.

The volume data exhibit similar basic patterns in its distribution but with some significant differences. The early seventeenth century values do cluster near the lower end of the scale with a broadening in the range by the third quarter. In this period, however, there appear to be two distinct groups, one between 5000 and 20 000 cu. ft. and the other between 30 000 and 50 000 cu. ft. The final quarter century sees a return to a concentration of the data toward the scale's lower end, which is continued in the first quarter of the eighteenth century with a few outliers. Again, as with the area data, in the second quarter a significant number of values remain in the lower size ranges, but a secondary less cohesive grouping is also present between 55 000 and 105 000, but concentrated between 70 000 and 90 000 cu. ft. The distinction between the upper and lower groupings is more distinct in three dimensions than with the area data.

External Comparisons

I created and manipulated the seventeenth and eighteenth century data for brick houses to be compatible with one another but also with data from other sources, particularly the work of Fraser Neiman (1993) and Dell Upton (1980). I based the cross-tabulation of entry type, chimney location and size on Neiman's work on the changing organization of domestic space in the seventeenth and very early eighteenth centuries, employing primarily archaeological data from excavated earthfast structures. I then calculated a number of additional values for the brick data to compare with Upton's summaries of his probate inventory and survey data for both centuries. The intent was to compare structures built entirely of brick with the more inclusive trends identified for a broader range of construction types, including brick but also frame and earthfast houses.

Upton (1980:98-100) provided some general tallies of roof types observed amongst the houses he physically surveyed, which included brick as well as frame structures. From a total of 107 roofs he identified for the eighteenth century he counted ninety-three (86.9%) gable, nine (8.4%) hipped and five (4.7%) gambrel. This compares with twenty-nine (65.9%) gable, eleven (25%) hipped, one (2.3%) gambrel, two (4.5%) jerkinhead and one (2.3%) mansard in the present study of the first half of the century, including ten houses that overlap with Upton's list. The relative ranking is the same, although hipped roofs appear to be somewhat more common among the brick houses of this study than the brick and frame houses of Upton's. However, a second table separates brick and frame houses in respect to roof type, revealing a ratio for brick closer to the number I calculated for my data: twenty-one (84%) gable and four (16%) hipped. This value combined with the ratio for frame (fifty-two gable vs. three hipped), makes it clear that gable roof frame houses made the greatest contribution to the unbalanced distributions from the previous table.

A third table from the same study compares roof types and plan depth in the eighteenth and nineteenth centuries. It was observed for the eighteenth century that hipped roofs were evenly divided between single and double pile houses (four vs. four), but that gable roofs were almost twice as common on single as double pile homes (forty-eight vs. twenty-five). Gambrel roofs were more common on double pile houses (four vs. two). Comparing these numbers to the brick data reveals the same relative relationship for gable roofs, although in this case double pile houses comprise only about a quarter of the total (seven vs. twenty-two). For hipped roofs the ratio is weighted very much in favour of double pile structures (eight vs. three).

In addition to these simple counts Upton also produced more chronologically sensitive tables of house size and select architectural features across the first two centuries of settlement in Virginia, drawn from probate inventories. House size is a measure of all domestic and service spaces listed in each inventory that are not obviously an outbuilding, although a clear distinction could not always be made. It is, therefore, a measure of utilized domestic space rather than actual house size or structural divisions within the main building (Upton 1980:154). Because of this ambiguity Neiman (1993:270-272) argues that trends identified by Upton from this data are useless for charting changes in the size of the main house over time. Likewise the data presented here for brick structures are only a tally of the number of ground floor rooms, not the total for the entire house. The values are, however, limited to the main house and are therefore an accurate measure of changes in the partition of this space over time. In addition the measures of area and volume do relate to the entire structure above the basement. Despite the fact that none of these values represent precisely the same phenomenon, their patterns of increase and decrease over time may usefully be compared to evaluate the validity of Upton's findings for house size and Neiman's criticisms of it. Upton's measure of 'average house size' (Table 13) indicates an increase from 1640 up to 1680, followed by a gradual decrease to 1720 and then a more dramatic increase between 1720 and 1750. Average number of ground floor rooms calculated for the brick data indicates a similar increase between the second and third quarters of the seventeenth century (all the more dramatic for all-brick structures because of the low frequency in the first period), followed by a decrease through the first quarter of the eighteenth century and a considerable rise in the second quarter.

Table 13. Average House Size, 1646-1720 (Upton 1980).

	1640-1660	1661-1670	1671-1680	1681-1690	1691-1700	1701-1710	1711-1720	Total
Rooms	4.6	5.5	6.1	6.0	5.6	5.3	4.7	5.3

Table 14. Average House Size (Brick Data).

	1625-1649	1650-1674	1675-1699	1700-1724	1725-1749
Rooms	3.3 (2)	3.7 (3.9)	2.9 (3.2)	3.2	4.5

Numbers in parentheses are averages for all-brick houses.

Volume and area data are more complicated, however. With the extreme value of Green Spring I removed both values indicate relative stability across the seventeenth century (actually a very slight increase between quarters), followed by a small increase in the first quarter of the eighteenth century and a more significant increase in the second. The all-brick data produce a similar pattern for the seventeenth century, although the increase is more marked (Table 14). It is followed by a decrease in the first quarter of the next century and the same dramatic increase in the second quarter exhibited by the combined data. The slight decrease evident at the beginning of the eighteenth century is likely a result of the large numbers of structures with two-room plans constructed during that period, the significance of which is discussed in the next chapter.

There seems, then, to be confirmation in the brick data of Upton's pattern of increase in size in terms of interior partitioning up to c. 1680, followed by decrease and then increase after c. 1720. In terms of absolute size, however, the patterns indicate a constant increase to the end of the seventeenth century, followed by a minor decrease and then a significant increase in the second quarter eighteenth century. Despite their differences, all three sources of data confirm the disjunction (i.e. dramatic increase)

occurring c. 1725. Also, in spite of Upton's misgivings regarding his numbers and Neiman's condemnation of them, there is support for the application of the trends he identified to single structures, not just groups of them, at least for brick houses. Mention should also be made of the urban dwellings included in this study, because they would not have been subject to the same pressures as those on rural plantations (e.g. economic pressures as discussed by Neiman). The Governor's Palace, the Brafferton, the President's House and the Nelson house all fall above the average for their respective periods, although Pate falls just below. With these (mostly) large structures removed from consideration the decrease for all-brick structures between the late seventeenth and early eighteenth centuries is provided further emphasis. The slight increase registered when all houses are considered is largely eliminated for the area data and transformed into a significant decrease in volume. When glebe houses are also removed, because of their affiliation with church rather than plantation economics, this distinction changes little but the gap between the first and second quarters of the eighteenth century is widened. None of the relative relationships are affected however.

As part of an attempt to better understand changing strategies used to organize plantation labour and social organization Neiman (1993) examined sixty-five primarily archaeological (with a handful of extant) structures to determine how the arrangement and use of space changed over time. Most of these structures are earthfast, although a few are also of brick. Neiman focused on using archaeological data to counterbalance the severe limitations he attributed to the documentary record in providing an understanding of what seventeenth century plantation architecture and life was really like. He identified three characteristics, size, entry type and fireplace location, as important architectural

variables indicating how domestic space was organized and which were identifiable for a reasonable sample of archaeological structures.

The results of Neiman's study, which spanned the entire seventeenth century to 1720 in twenty-year intervals, indicate a decline in the number of unit spaces (his measure of size, roughly equivalent to my measure of ground floor rooms) throughout the century, and a predominance of two-unit houses by 1680. This decline is linked to the rise of single-household farms and the separation of general and special activity areas, the latter being ejected from the main house to nearby outbuildings. Entries were of two main types: lobby and direct entries, direct being separated into those providing access to middle units, end units, or both. Combinations of lobbies and direct entries were also possible. Although common in the early decades of the seventeenth century, direct entries decreased in frequency up to 1680 at the same time that indirect lobby entries increased in popularity. This decrease in efficiency of access to the main dwelling suggests that special activity areas, requiring ease and frequency of access, were being moved to other quarters. However, after 1680 direct entries became nearly universal to the nearly complete exclusion of lobbies. Central and end fireplaces were equally common up to 1680, after which end fireplaces predominated, paralleling the disappearance of lobby entries.

Cross-tabulating the variables revealed that early in the century a variety of house types existed providing direct access to bulk processing or secondary general activity area that suggested easy access by labourers to the house and a close relationship with the owners. After 1640 an equal variety of house types were built, but they tended towards features such as lobbies (and therefore central chimneys) restricting labourer access to the

house and three-unit plans with a central room separating the public service end from the private family quarters. These plans are seen as attempts to lower costs of maintaining servants by providing them with cheaper living quarters and sustenance away from the house, but also to increase productivity by removing bulk processing and storage from the house, thereby decreasing interference from daily living activity. The trends apparent after 1680 indicate a return to direct access to the house uninhibited by lobbies, characterized by the predominance of the two-room direct entry house with end fireplaces. As discussed in Chapter I, Neiman believes this sudden change to also be related to maximization efforts associated with newly defined servant/slave-owner relationships, involving increasing surveillance of both ends of the house, which lobbies obstructed.

I tabulated the seventeenth century brick data for this study using Neiman's system to make the two data sets comparable, and the results are somewhat at odds with his findings. Brick house size in terms of number of ground floor rooms actually increases throughout the seventeenth century up to the end of the third quarter, decreasing slightly in the fourth quarter. Two-room plans do not become dominant until the first quarter of the eighteenth century, and even then the numbers of three- and four-room plans are by no means insignificant. In the second quarter two-room plans become subordinate to those with greater numbers of room divisions. Indirect access via porch towers, which do not occur in Neiman's data set at all, and lobbies are universal from the earliest part of the seventeenth century for which data are available. But, by the third quarter porches share the stage with direct entries, which are the most common entry type, a situation continuing to the end of the century. So for brick houses there is no

early period of direct entry supplanted by indirect access, and direct entries become common earlier than in Neiman's data, never becoming universal before being swamped by the appearance of central passages. Interior (central) chimneys dominate the second quarter of the seventeenth century but thereafter decrease to almost negligible numbers in favour of end chimneys. Most interior chimneys recorded after the first period are not centrally located in the sense of creating a lobby entrance. Again, the change occurs earlier than recorded by Neiman. The combination of variables for brick houses, then, does not demonstrate the same chronological pattern as a sample comprised mainly of earthfast structures, although the sequence of restricted entries giving way to the dominance of direct entries by the early decades of the eighteenth century is similar. This transition occurs slightly earlier for brick structures, however: in the 1660s and 1670s rather than the 1680s and 1690s.

In summary, the brick data do not support a pattern whereby direct access to the house by owners and labourers alike gives way to a period of restricted access and the removal of service spaces, followed by a return to direct access and a premium on surveillance. Rather, the earliest brick houses are marked by restricted access (lobbies and porch towers), followed by a period during mid-century in which these indirect entries decrease in favour of direct entry, and a final quarter century during which both types are equally common. The presence of restricted entries in the earliest brick houses and the apparent lack of service spaces, suggest that for those building in brick special activity areas were always relegated to outbuildings and that there was no economically motivated transition. The earlier rise to prominence of direct entries also requires a different explanation than the need for surveillance following an economic betrayal by

owners during the transition to a slave labour force. As will be discussed further in the next chapter, the combined evidence suggests that the design of brick architecture may have been motivated more by trends in England than the local conditions influencing the development of a more vernacular earthfast tradition.

The Influence of Geography

In their article on impermanent architecture in the Chesapeake Carson et al. (1981) proposed an association between localized parts of Virginia and Maryland that moved away from tobacco towards a more diversified economy, and the earliest appearance of more substantial architecture among smaller planters. The logic behind this assertion is that grains such as wheat require less care during the growing season than tobacco and so are not dependent on a large capital outlay for slave labour, and therefore within the means of less affluent farmers. This accessibility coupled with increased demand for grains both locally and abroad provided the necessary conditions for the accumulation of a modest fortune amongst the sub-elite. Such conditions were especially significant in areas such as the Lower James River east of Williamsburg and the Lower Eastern Shore, where soil depletion and the absence of frontier territory for expansion made tobacco cultivation an increasingly less viable economic pursuit by the end of the seventeenth century (Bergstrom 1980:140). It is in fact in these two areas where some of the earliest substantial frame and brick structures appear in the very early eighteenth century. To the authors the correspondence seems so complete that they were willing to announce boldly: “There seems no denying that cash crops are a historian’s best clue to predicting the time and place of widespread rebuilding” (Carson et al 1981:173). On the other hand, areas such as Southside and the peninsulas between the Potomac and James

Rivers that continued to grow tobacco in large quantities through the first half of the eighteenth century lack evidence of these early substantial structures other than the large mansions of the slave-owning elite.

Mouer (1987) also developed a predictive model applicable to the understanding of the geographic distribution of Virginia's seventeenth and eighteenth century architecture. He borrowed existing models of stratification and settlement in mercantile economies to examine the spatial, social, temporal, and material dimensions of social stratification in colonial and early federal Virginia. Specifically, he employed these models to predict the nature of social stratification in Virginia and where on the landscape elites would be located as the regional economic system developed over time. The focus of this study was to demonstrate that it was inappropriate to treat the entire colonial elite as a monolithic group with similar access to wealth and privilege; that there were at times several different levels of elite status, often with geographic correlates.

Mouer argued that following the establishment of a stable tobacco economy in the mid to late seventeenth century Virginia's economic system was characterized by a direct flow of raw material from and manufactured goods to the hinterland from England via a single central place (or entrepot) – Jamestown. This system was monopolized by elites living in England where market competition was based, who had such a stranglehold on the means of exchange that there was no need for them to reside in proximity to the sources of production. The colony, then, comprised a class of *peasant farmers/producers* in the hinterland and *regional elites* at Jamestown, who acted as administrators for the merchant elite in England, but who were not true elites themselves. Among the peasant farmers were a small number of *local elites*, part-time merchants and administrators

licensed to serve the elite, who gained some degree of locally privileged status and wealth. These individuals, unlike regional elites, were still associated with the peasantry, and there was a degree of mobility amongst this mostly undifferentiated group. It was also sometimes possible (though difficult) for local elites to become regional elites by relocating to the regional centre, and so status was very much location-oriented and a clear core-periphery distinction was maintained.

Mouer concluded that there should be qualitative material distinctions between local elites and regional elites reflected archaeologically, and that a household's status could be predicted by its proximity to the central place. In noting, contrary to expectation, that the home of Thomas Pettus (a member of the regional elite) near Jamestown was of earthfast construction, whereas Francis Eppes of Henrico County (a peripheral area in the seventeenth century) lived in a house with masonry foundations, Mouer suggested that construction material was not as much a gauge of wealth and status as house size. A sufficient sample of seventeenth century houses was not available, however, to adequately test this hypothesis. He suggested that the selection of building material probably had more to do with intentions (or lack thereof) to remain permanently in Virginia or plans to construct a better house in the future than with class membership. Qualitative examinations of ceramic assemblages from sites in the core and periphery were more successful in confirming the predicted pattern.

After the capital moved to Williamsburg in 1699 the economic system changed as administrators developed secondary centres in the hinterland to control growing commerce that had begun without their consent. The rise of these secondary communities as commercial centres in their own right meant that elites now moved

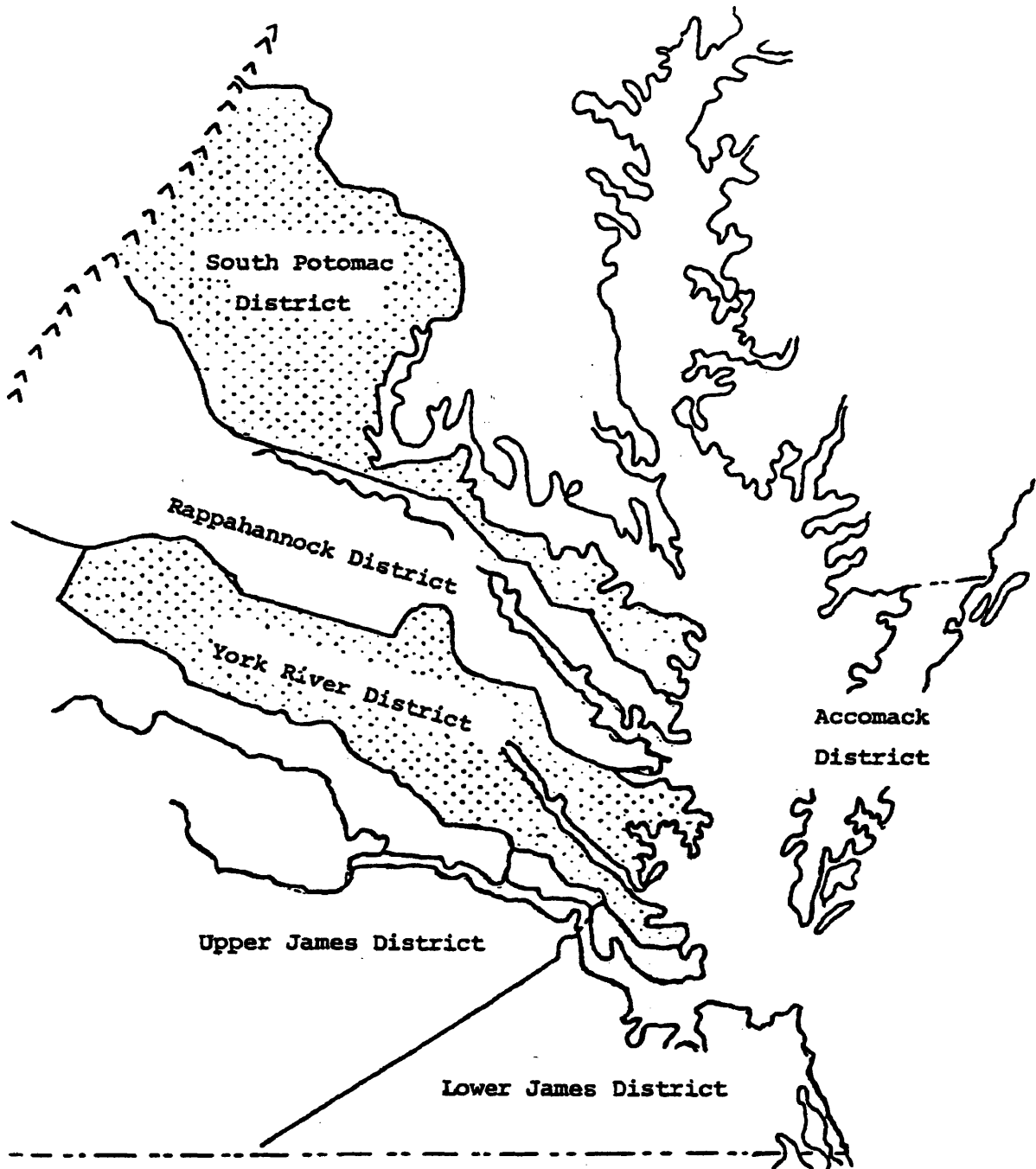
between them and the pre-existing class distinctions among elites based on geography were now eliminated, to be replaced by a newly wealthy planter gentry. This gentry's wealth derived partially from the consignment system, whereby English merchants began extending credit to certain planters to retain their loyal business. As a result material culture among elites from the Williamsburg area and further west was now indistinguishable. Quantitative rather than qualitative differences were now the defining characteristics of class membership. This is so for classes of artifacts such as ceramics, but ironically, it is at this time that construction material and style become just as important as size in defining an elite house.

These two models of Carson and Mouer provide a useful means of attempting to understand the distribution of brick architecture across the landscape in the first century and a half of settlement. For this purpose I arranged the houses in the database by county and divided the counties amongst the economic sub-regions defined by Bergstrom (1980), which corresponds closely with Carson's area divisions. The Commissioners of the Customs designated these sub-regions by 1700 as individual Naval Districts for which trade statistics were recorded, and form a valuable source of geographic variations in the agricultural economy over time. These six districts followed the river valleys and consist of the Upper James River, the Lower James River, the York River, the Rappahannock River, the South Potomac and the Accomack Districts (Figure 17).

From the records of these Naval Districts it has been determined that at the beginning of the eighteenth century there was still a fairly high land-labour ratio in all sub-regions, but by the end of the first quarter places such as the lower Eastern Shore and the Lower James River had much lower ratios with no neighbouring territory for farmers

FIGURE 17. NAVAL DISTRICTS

(Bergstrom 1980)



to expand into (Bergstrom 1980:44, 46). As was discussed in Carson's article, these were the first areas to significantly diversify their economies. The Upper James River, the York, and the Rappahannock continued to be the key tobacco producing centres until c.1740, when expansion into the virgin soils of the Piedmont drew much of this focus westward. The Potomac region also produced tobacco, although considerably less because of its low population density (Bergstrom 1980:140-147).

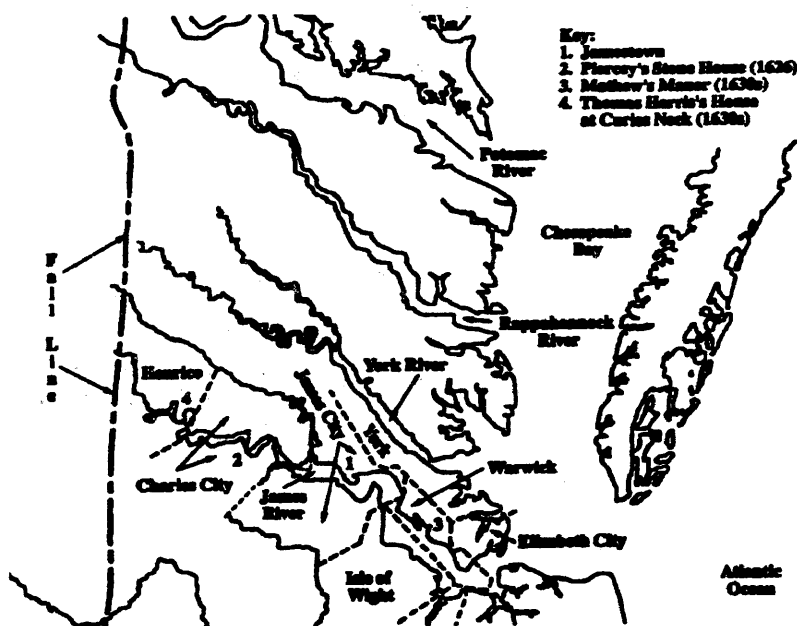


Figure 18. Brick houses in the early 17th century (D. Brown 1998).

While Bergstrom's data do not cover the period prior to 1700 it is apparent by placing the seventeenth century houses into his framework that their appearance from one quarter to the next co-varies with distance from the centre of the colony at Jamestown (D. Brown 1998:106 noted this general trend in his study; Figures 18-19, Table 15). In the second and third quarters brick structures are limited to the James and York River

FIGURE 19. BRICK HOUSES IN THE LATE 17TH CENTURY

(D. Brown 1998)

Key:

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Jamestown 2. Governor Berkeley's Greenspring I (16406) + II (1670-76) 3. Richneck (Kemp/Ladwell) (1640s/1660s) 4. Middle Plantation <ul style="list-style-type: none"> John Page House (1662) Francis Page House (1670s) House 2-2G (pre-1677) Thomas Jones House (1680s) Hornby Property House (1650-1700) 5. Arthur Allen House (1665) 6. John Custis House (1670-1676) | <ul style="list-style-type: none"> 7. Miles Cary II House (1670s) 8. Nathaniel Bacon Jr. House (1674) 9. Edward Digges House (1650-1675) 10. Lewis Burwell House (1692) 11. George Peabody House (1690s) 12. Joseph Foster House (1690s) 13. Thomas Swann House ((1650-1675) 14. John and Robert Carter Houses (1680s/1690s) 15. Edmund Swaney House (1675-1700) 16. The Stone House 17. Namsay Plantation House |
|---|---|

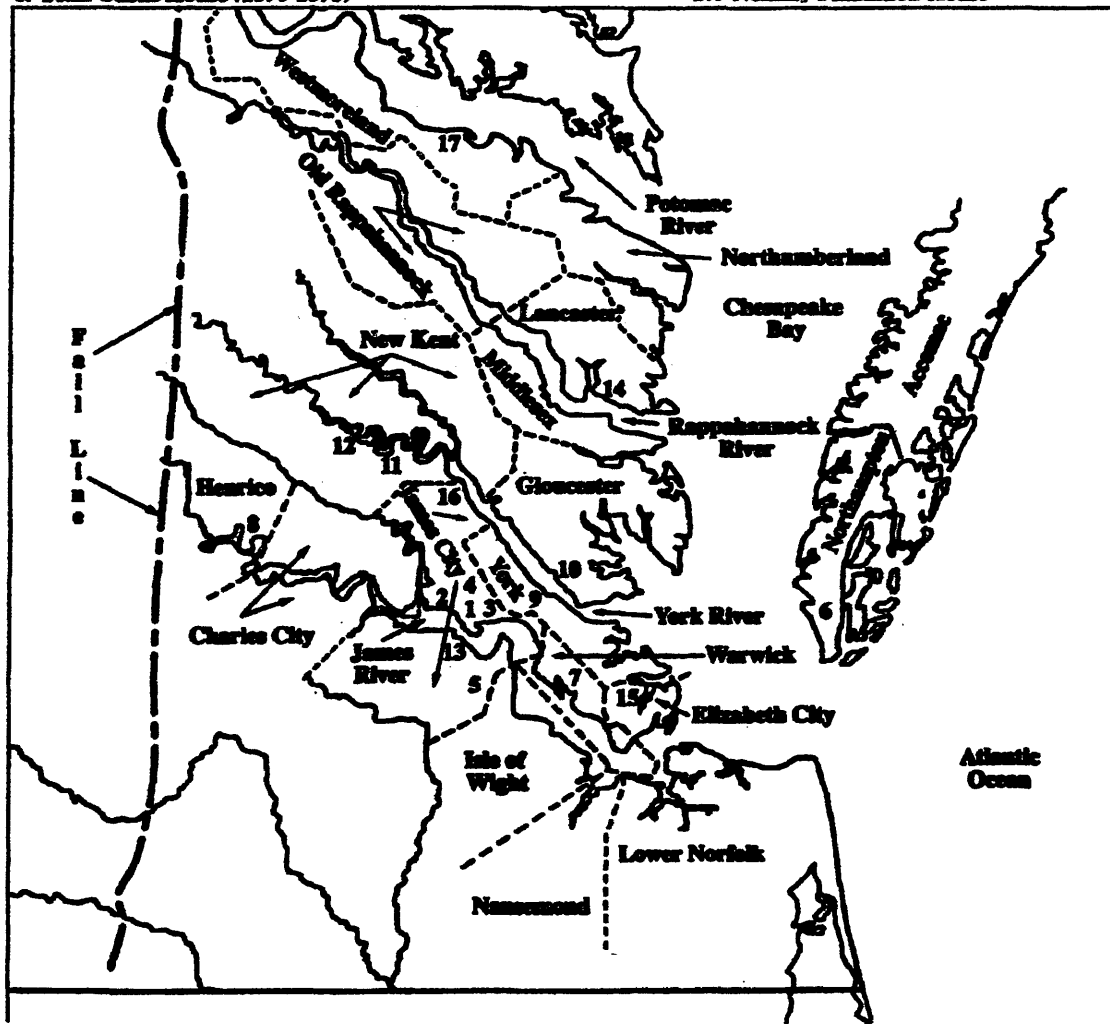


TABLE 15

DISTRIBUTION OF 17TH CENTURY BRICK HOUSES
ACROSS NAVAL DISTRICTS

	UJR	LJR	YR	RR	SP	A	Total
2nd ¼	4	2	0	0	0	0	6
3rd ¼	8	1	1	0	0	0	10
4th ¼	2	1	3	2	0	1	9
Total	14	4	4	2	0	1	25

UJR=Upper James River District, LJR=Lower James River District, YR=York River District,
RR=Rappahannock River District, SP=South Potomoc District, A=Accomack District

TABLE 16

DISTRIBUTION OF 18TH CENTURY BRICK HOUSES
ACROSS NAVAL DISTRICTS

	UJR	LJR	YR	RR	SP	A	Total
1st ¼	4	4	6	4	0	3	21
2nd ¼	7	2	5	6	3	3	26
Total	11	6	11	10	3	6	47

UJR=Upper James River District, LJR=Lower James River District, YR=York River District,
RR=Rappahannock River District, SP=South Potomoc District, A=Accomack District
Omitted: Brafferton, President's House, Governor's Palace

Districts, the oldest settled parts of the colony. By the fourth quarter they appear also along the Rappahannock River, which had begun to be divided into counties at the end of the second quarter, and in the Accomack District of the Eastern Shore, a county since 1634 but still part of the frontier.⁸ The South Potomac District did not see a brick house until the second quarter of the eighteenth century. In each area brick houses do not begin to appear until at least a couple of decades after initial settlement. It may not be that building in brick was a necessary condition for membership among the regional elite of the seventeenth century as Mouer and Pickett (1996:66-76) suggest. However, an examination of the distribution of seventeenth century brick and partially brick dwellings and those who inhabited them *suggests* that it was almost exclusively the regional elite in close proximity to Jamestown who were building them prior to 1700 (see D. Brown 1998). In terms of size, although a number of houses had areas significantly greater than the range of 400-800 square feet Mouer (1987:28) cites for typical Virginia smallholder yeoman, several of them did not. These include Matthews Manor I, John Page's House, Francis Page's House, John Carter's House and Rich Neck I, the latter two actually falling within this range. Therefore, although it may have been so of earthfast structures, for those of brick great size was not necessarily a characteristic of the homes of the regional elite. It could be that these individuals either constructed substantial post houses or houses of brick, with a considerable range of sizes.

An exception to the limitation of brick architecture to members of the regional elite might be made in the case of local elites such as Thomas Harris and Francis Eppes, who engaged in mercantile activity, and who built homes with brick foundations in

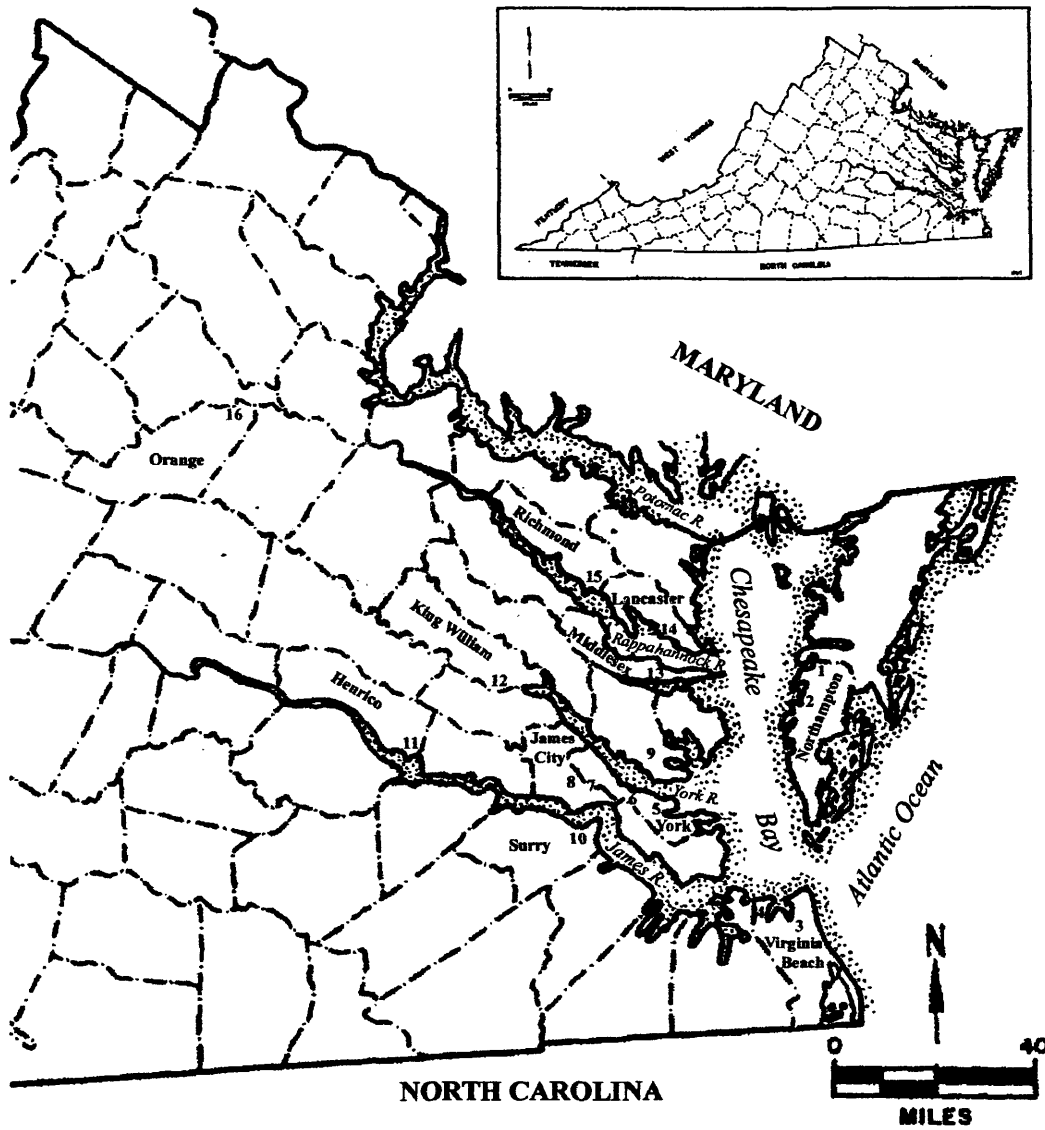
⁸ Information on the appearance and evolution of Virginia's counties is drawn from Doran (1987).

Henrico County. Mouer (1987:24) notes that local elites who conducted trade on the side maintained elevated wealth and status within local society, although this did not guarantee them access to the ranks of the regional elite. He also cites a second exception: Nathaniel Bacon, Jr., a member of the regional elite who made his home at Curles in Henrico County, and who owned a brick house. However, “Bacon, who held a seat on the governor’s council, was such an exceptional individual who found himself in such exceptional circumstances throughout his two-year stay in Virginia, that he may be the “exception that proves the rule” (Mouer 1987:480). More recently the discovery of Arlington, a c.1676 brick house in Northampton County belonging to John Custis II, who, among other political duties was a member of the governor’s council. This discovery may be the second exception that disproves the rule, especially since it was the second largest house built during the entire seventeenth century, based on our current understanding. These examples of regional elite housing outside of the core area of James City County, substantial brick housing belonging to members of the local elite, in addition to ownership of brick houses by non-elites such as Edmund Swaney in Elizabeth City County c. 1680 (D. Brown 1998:100-101), suggest that size or construction material of one’s dwelling may only be suggestive of social status in the seventeenth century.

For the early eighteenth century it is clear that brick houses are to be found in all six districts, albeit in small numbers (Figures 20-21, Table 16). For Mouer it would make perfect sense for those houses belonging to the elite to be so distributed at this time, although as the preceding discussion implies it is not certain that all brick houses belonged to the elite (local or regional) nor that regional elite housing was ever more

FIGURE 20

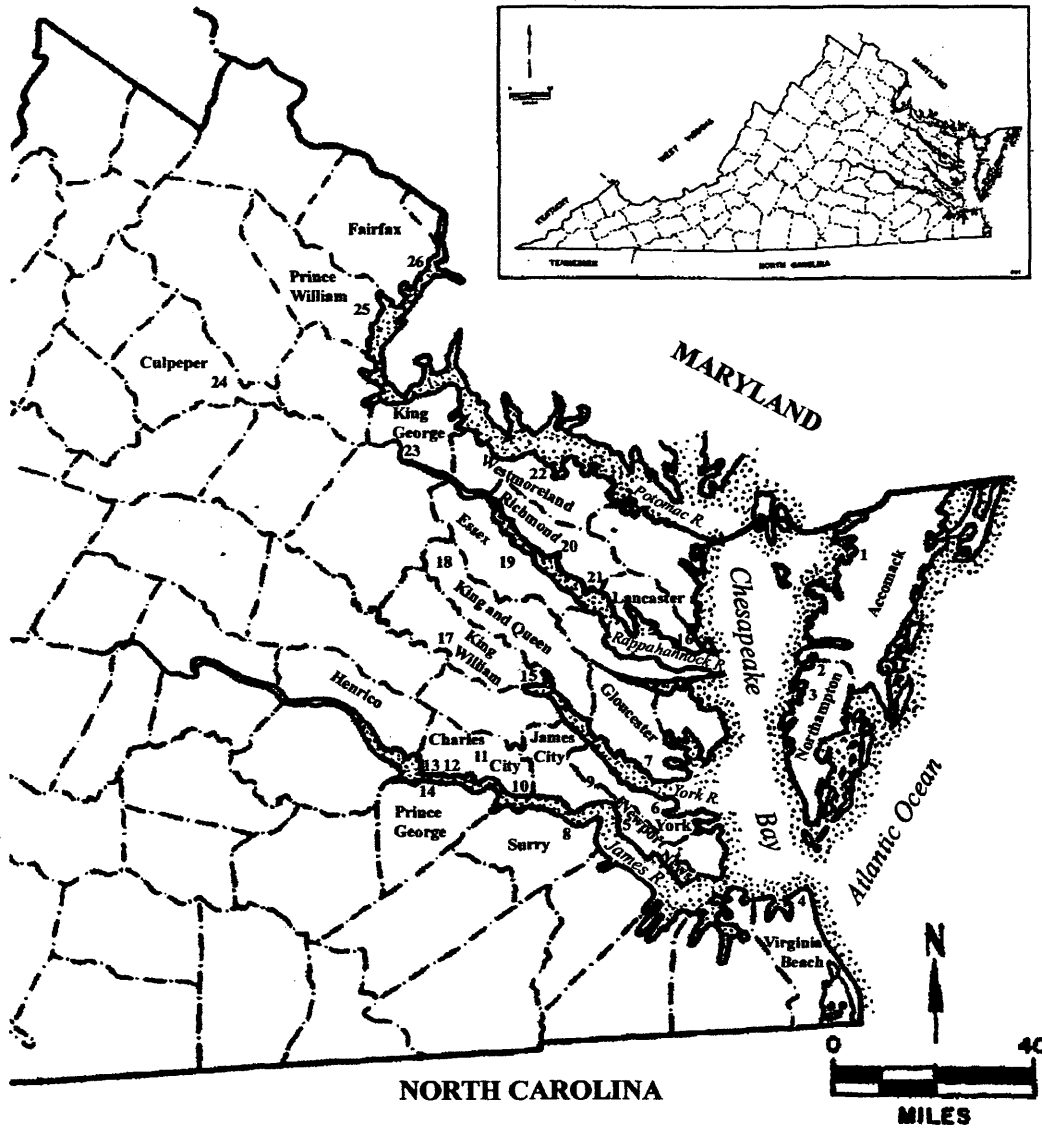
DISTRIBUTION OF BRICK HOUSES IN THE 1ST QUARTER
OF THE 18TH CENTURY



- | | | |
|--|-------------------|--------------|
| 1. Mattissippi & Somers | 8. Pinewoods | 16. Germanna |
| 2. Westerhouse & Winona | 9. Abingdon Glebe | |
| 3. Eastwood | 10. Melville | |
| 4. Adam Thoroughgood, Lynnhaven & Weblin | 11. Malvern Hill | |
| 5. Pate & Ringfield | 12. Sweet Hall | |
| 6. Kiskiack | 13. Barn Elms | |
| 7. Governor's Palace, Brafferton & Tabb | 14. Corotoman | |
| | 15. Morattico | |

FIGURE 21

DISTRIBUTION OF BRICK HOUSES IN THE 2ND QUARTER OF THE 18TH CENTURY



- | | | |
|--|----------------------|--------------------|
| 1. Mason | 10. Eagle's Nest | 20. Sabine Hall |
| 2. Somers | 11. Westover Glebe | 21. Indian Banks |
| 3. Hungar's Glebe | 12. Berkeley | 22. Stratford Hall |
| 4. Keeling | 13. Shirley | 23. Cleve |
| 5. Matthew Jones | 14. Tar Bay | 24. Salubria |
| 6. Nelson | 15. Chelsea | 25. Bel Air |
| 7. Rosewell | 16. Verville | 26. Belvoir |
| 8. Southwark Glebe | 17. Seven Springs | |
| 9. President's House, Burwell
& Skiff's Creek | 18. Drysdale Glebe | |
| | 19. St. Anne's Glebe | |

limited in distribution. It is true, however, that the larger houses previously concentrated in the core area now appear at greater distance to the new capital of Williamsburg, houses such as Germanna and Corotoman. Carson et al. (1981) argue that more substantial housing belonging to middling planters initially appeared in areas where agricultural diversification was first adopted, particularly the Lower James River and Accomack Districts. As the authors noted, several small brick houses appeared in both of these areas in the first quarter of the century, most notably those in Princess Anne and Northampton Counties. It is also the case that brick houses appeared in equal or greater numbers in the other districts that continued to grow tobacco in large quantities within the first three decades of the century. Carson et al. indicate that richer planters would have been able to make the transition to more substantial architecture more easily than those with smaller farms, and the brick houses within the tobacco-growing areas could belong to them. It is true that the average volume of the houses in the Upper James River (17 527 cu. ft.) and York River (16592.7) Districts for the first quarter is larger than in the Lower James River (14432.5) and Accomack (13709.3), although only by a slim margin. The average in the Rappahannock is extremely large because the only two values available for that district at that time are for Corotoman and Germanna. Small two- and three-room houses, however, are also represented in the tobacco districts. Unfortunately size alone does not confirm the status of the original owners, which remains unknown for many of the structures under consideration, making it difficult to test Carson's assertion. This is particularly true in light of Upton's (1982a:96) discovery from probate inventories that between 1721 and 1730 twenty-seven of thirty-four of Virginia's wealthiest inhabitants lived in houses with two ground floor rooms, and two more in houses with

only one room. Also missing here are data from frame structures with brick foundations, which also fit into Carson's category of permanency. Although a diversified economy may have had an impact on the fortunes of middling planters, enough to allow them to build in brick, the presence of similar brick structures elsewhere indicate that cash crops are not necessarily the historians best clue to a rebuilding. What is also interesting to note is that brick structures do not increase in frequency as crop diversification becomes more profitable and stable in the second quarter; in fact in the Lower James River they actually decrease.

In this chapter I have examined the quantitative summaries of my brick data in comparison to similar data available from existing data sets, and have provided some brief interpretations of the results. Chapter IV presents a more detailed interpretation of the results described in the preceding paragraphs and discusses the implications of these results for the interpretation of Turkey Island.

CHAPTER IV

INTERPRETATIONS AND CONCLUSIONS

Discussion: Brick Architecture in Virginia

Upon comparing my brick data with data compiled by other investigators I discovered that fluctuations in the number of ground floor rooms corresponded closely to the pattern identified by Upton from probate inventories, but differed from the findings of Neiman for a group of primarily archaeological earthfast structures. Upton's data indicate an increasing number of rooms in the seventeenth century to 1680, followed by a decrease to 1720, whereas Neiman's numbers suggest just the opposite before 1680 and a predominance of 2-room houses thereafter. Both authors are in agreement that lobbies rise in frequency after mid century, although for the archaeological structures direct entries are universal after 1680, and for the inventories lobbies maintain their prominence until the early part of the eighteenth century. Upton's increase in the number of larger houses is explained as a response to an influx of immigrants to Virginia, whereas Neiman's decrease is claimed to be part of a cost-reduction strategy involving the removal of service spaces from the main house.

The brick data presented here register the same increase in the number of larger houses in the third quarter of the seventeenth century as suggested by the inventories, but lobbies exhibited their maximum popularity in the previous period and were vanishing by

1650. There is an inverse relationship between the disappearance of lobbies and the sudden prominence of direct entries in the third quarter, although they share the stage with porch towers until the end of the century. This continuing popularity of porches contrasts with the dominance of direct entries among the post structures discussed by Neiman. The numbers suggest that the popularity of lobbies and their replacement by direct entries occurred a couple of decades earlier for brick houses than for those of other materials, although the increase in size occurred at the same time. The explanation for this difference may be as simple as a technological difference between brick and post-built structures, whereby it was determined to be more practical to have end rather than central chimneys on brick houses so that they could be built into the walls. For post structures a single central chimney would be cheaper and easier to construct until additional forces such as those discussed by Neiman made it more valuable to remove the central chimney. Technology provides one possible explanation, although, as will be discussed below, the differences associated with brick architecture seem to have a more significant social origin.

The increase in number of ground floor rooms for brick structures between the second and third quarters of the seventeenth century would seem to corroborate Upton's pattern and quell Neiman's criticisms, although it by no means guarantees that the same forces are at work. It may very well be that Upton's increase does not measure changes in the number of domestic spaces in a single structure and that the patterning in the brick data is unrelated. If Neiman is correct in claiming that no influx of immigrants occurred in the late seventeenth century then another explanation or set of explanations needs to be invoked to account for the trends observed in all three data sets. A look at the houses in

question reveals that the factors involved in the increased size of brick dwellings is related to the appearance of stair towers in three examples, the remodelling of Rich Neck, and the construction of Bellfield, which is hypothesized to have had eight rooms on the ground floor. A problem with the reliability of the data is the extremely small sample, in which a single large house such as Bellfield can drastically alter the average value. If this value is removed from consideration the result is slightly smaller than for the previous period, although not if the extreme outlier (Green Spring I) from that group is also removed. A single decade in Upton's sample includes more values than the total number of brick houses for the first half of the seventeenth century. Unfortunately, despite the increasing number of brick houses coming to light in recent years their total number was probably always relatively small for the early seventeenth century and so a sample comparable to Upton's will probably never be available.

Reiff (1986:196-197) points out that, although Bacon's Castle is unique in Virginia, its plan was common in contemporary England, and Metz et al. (1998:53) add that it was also popular in the British colonies of Bermuda and Ireland. The builders of all three houses with porch and stair towers in the third quarter of the seventeenth century were members of the political elite living in close proximity to the capital at Jamestown. It is possible that this general tendency towards increased numbers of rooms at this time is related to the emulation of urban trends in England argued by Levy (1998) to be the impetus for the remodelling of Rich Neck. Levy claims that it was not so much brickness or a desire to create an elite language that interested the seventeenth century Virginia gentry, but rather an attempt to emulate the behaviour of wealthy English citizens. This emulation involved more than just stylistic matters but also a change in the organization

of domestic space brought about by changing views on the nature of the family unit. In his examination of English probate inventories from the 1680s, Matthew Johnson (1993:96-97) notes an increase in the average number of rooms mentioned per house over those from the 1570s, a pattern similar to Upton's for a nearly contemporary time period. Although Johnson does not provide this information it is possible that the increase began earlier than the decade he chose to peruse.

A closer look at the men who actually built the larger houses in question reveals that four of the five were actually English immigrants: John Page, Arthur Allen (Bacon's Castle), Thomas Ludwell (Rich Neck II) and Edward Digges (Bellfield). Therefore, the increase is not due so much to imitation of English architecture and sense of space, but rather the result of English citizens building houses in Virginia like the ones they were familiar with back home. Pickett (1996) argues that the increase in the number of brick houses constructed in Virginia was the result of an influx of immigrants escaping the Civil War in England, who were attempting to recreate English social hierarchy by separating their houses from those of poor and middling planters. Aside from notions of legitimization, however, the architectural changes evident at this time seem to be the result of an infusion of English fashion into the evolving Virginia vernacular, brought by individuals for whom it was the proper way to build a house. Many of the earthfast houses included in Neiman's study probably did not belong to elites with direct access to England, or perhaps belonged to elites born in the colonies and without recent connections to the home country. This may explain why Neiman records no porch or stair towers and why there is no evidence of an increase in the number of ground floor rooms; influences on the layout of these houses were primarily internal (i.e. to the

colony) in origin. This explanation, however, does not account for the increase noted by Upton, which certainly included non-elite housing. It is possible that his reservations are justified and that his numbers are being inflated by the inclusion of outbuildings, and that as Neiman argues he is measuring fluctuations on a larger scale than a single structure. Miles Cary II's house, Richneck, built by the son of an immigrant also requires an explanation. Because it was constructed after John Page's house and Bacon's Castle, it might be viewed as a direct influence from them, or biographical research on the life of Cary might reveal a close connection to contemporary England.

Between 1680 and 1720 Upton's data reveal a decrease in the number of rooms, which is again mirrored by the brick data and in harmony with Neiman's values. Yet, unlike Neiman's archaeological houses that are uniformly two-room plans, the brick houses exhibit a significantly greater range of variation, with two-room plans only dominating (but by no means exclusive) in the first quarter of the eighteenth century. Interestingly, the final quarter of the seventeenth century sees the disappearance of brick houses with stair towers, and there is a return to houses of two and three rooms on the ground floor. This trend continues to the end of the first quarter of the eighteenth century. The houses comprise a combination of direct entries and porch towers, with the traditional hall and parlour/chamber room arrangement. Between the construction of Arlington in the 1670s and the appearance of Germanna c. 1720, no large two-story brick houses were erected in Virginia besides the public dwellings in Williamsburg, with the possible exception of Ringfield (whose dating is ambiguous). Investigators have often noted in the past that large mansions did not begin to appear until the second quarter of the eighteenth century, but they usually fail to note that a number of large brick houses

were built in the mid seventeenth century. Why the lull? Neiman argues that the small size of houses after 1680 is the result of the gradual removal of service activities such as cooking, storage and the processing of raw materials to separate outbuildings in the middle decades of the century. These service activities usually took place in small rooms at the lower end of cross-passages. However, the brick houses examined here never had these unique service areas and the extra rooms inflating the average values in the third quarter are often porch and stair towers or rooms, such as those at Bellfield and Arlington that are not obviously service-related. The decision to abandon the extra rooms, including stair towers, may have been strongly influenced by economic recession, as discussed below. The increase noted by Johnson in England continued into the 1680s because service functions were retained within the main house.

The fact that brick houses never possessed floor plans with cross passages and service spaces at the lower end seems particularly significant. Bragdon et al. (1993:234) note the absence of this house type at Jamestown, which they argue is related to the town's urban pretensions. Horning (1995:244) points out that the appearance of brick at Jamestown corresponded with its use in British towns of the same period and concludes like Bragdon et al. that it is related to attempts to reproduce an urban setting in the colony. Could there be a relationship between the use of brick, the absence of 'farmhouse' plans and the adoption of urban trends both within and beyond Jamestown? Could it be that some rural planters in the seventeenth century were also mimicking English urban fashion by building in brick and avoiding houses with direct access to interior service spaces? With such a small sample of brick houses it could be that a

cross-passage example is still awaiting discovery, but until then the absence of this layout is particularly potent.

In summary, although economic and environmental factors may have exerted an influence on the form of seventeenth century brick houses, the primary distinctions between brick and earthfast houses seem to be related to the degree to which they reflect current English fashion. At least by the second quarter of the seventeenth century some brick dwellings were exhibiting features such as porch towers not present on contemporary post-built structures. Carr (2000:40-41) has argued convincingly that one such example, the home of Abraham Peirse, was clearly an attempt on the part of its owner to create a material expression of his success and power in the colony. Such a symbol of power, in order to be recognizable by his peers, would undoubtedly have been drawn from hallmarks of success found in contemporary England. Peirse could no doubt afford separate outbuildings for service related activities and so did not need to incorporate them into his house, whereas poorer men built their houses in response to considerations of practicality and economy. This trend continued through the period of the English Civil War and the subsequent flight of royalist elite to North America, producing an increase in English-style brick homes in Virginia beginning c. 1660. The end of the seventeenth century and the early eighteenth century, however, saw the convergence of styles of homes constructed of brick and of other materials, suggesting that the factors influencing their construction were likewise similar. This convergence will be discussed further below.

As suggested above, a significant reason why houses remained small across the turn of the eighteenth century might be economic, as argued by Neiman and others. This

period was marked in Virginia by plummeting tobacco prices that did not begin to recover until c. 1715 (Kulikoff 1986:79). If average volume is looked at for the same period by removing all pre-1679 structures from the third quarter of the seventeenth century and all post-1719 structures from the first quarter of the eighteenth century, a similar decrease is noted as for number of ground floor rooms. This decrease is followed by a tremendous increase in size in the second quarter. Some researchers argue that for really large landowners with political connections the depression would not have had as great an effect on their construction activities because of the consignment system and their ability to afford more slaves to increase productivity. However, unless there was another reason why increasing house size in the seventeenth century suddenly began to decrease at the onset of the depression, the near absence of large brick houses during this period would generally prove them wrong. Corroboration for Upton's assertion that large planters were building small houses during this period is the presence of the brick 'kitchen' at Curles (see Mouer 1997 and the interpretation of Turkey Island in this chapter). If it was an early Randolph home, then it would be clear evidence that even the wealthiest families were feeling the effects of depression and that some or all of the small two-room houses proliferating at this time belonged to them.

Taking a closer look at the details of the economic depression, Kulikoff (1986:79) has found that between 1714 and 1720 tobacco prices rose slightly, apparently enough for two planters, Spotswood (Germana) and Carter (Corotoman), to begin erecting relatively palatial accommodations. Their initiative perhaps encouraged Harrison (Berkeley) and Page (Rosewell) to follow suit, even though prices were diving again and most planters still preferred smaller homes. It wasn't until tobacco prices rose again in

the mid 1730s (Kulikoff 1986:79) that the real rash of mansion building began: Stratford, Sabine, Shirley, Burwell, Belvoir, etc. This close correlation between architectural trends and tobacco economics seems too exact to be of no more than a secondary influence.

The apparent bimodal distribution in size during the first half of the eighteenth century is completely a product of the second quarter, the first quarter values concentrating at the lower end of the scale. I argued above that it is difficult with available information (or lack thereof) to determine the degree to which size correlates with wealth, although I suggested that two decades either side of 1700 the correlation was minimal. D. Brown (1998) has proposed that in the earlier part of the seventeenth century economics was a prime determinant of who could build in brick, because of the limited number of craftsmen making brick an expensive material to work in. Later in the century as Muraca et al. (2000) argue, brick became much more affordable and we begin to see individuals not affiliated with the political and economic elite employing it in their homes, although not on a grand scale. The depression following 1680 made it difficult for most colonists to build more than modest houses, and the proliferation of small brick houses at this time may be attributed to members of the elite. However, as tobacco prices began to rise again in the second decade of the eighteenth century some of the wealthiest citizens felt more comfortable extending themselves further to built larger homes, while perhaps middling planters began erecting the smaller brick houses that they could now afford. It is at this time that house size again becomes more directly related to wealth. Unfortunately the data is not available to trace this relationship across time.

Mooney (1991) has attempted to identify the common characteristics of individuals who built what she calls 'pretentious' houses in Virginia, including a number

of the homes examined here. She notes a definite relationship between the largest houses and political office, a generous patrimony, and economic diversification (including mercantile activities), although records were not necessarily adequate to differentiate between individuals rather than the group as a whole. Unfortunately, she focused only on large houses, and so her work does not contribute to a better understanding of who constructed the smaller brick houses. What she does argue that possibly sheds some light on the significance of the larger houses is that they were meant not to intimidate social inferiors but rather to impress peers. This argument runs parallel to that of Pogue (1997) who believes that the best explanation for the emergence of these larger structures is related to the emergence of a consumer revolution at the end of the second decade of the eighteenth century. Pogue (2001:51), relying heavily on the work of Cary Carson (1994), sees this revolution as representing the “breakdown of traditional means of marking status”, as property (one traditional marker of status) in England became scarce and people moved increasingly away from local spheres of influence to operate on a more urban and international scale. As a result, more universal means of status display were essential, including particular house forms based on classically derived design principles. House form, then, was more for demonstrating one’s legitimacy to peers, one’s willingness and ability to compete on an interregional if not international market. Reiff (1986) argued that the two house sizes – the smaller two-room and the larger double-pile plans - represented different social levels. I think that initially this was not the case, but increasingly as wealthier colonists began to involve themselves in international means of status display in the second quarter of the century, this distinction began to assert itself with increasing clarity. Individuals less wealthy also began to be influenced by the same

sources, building smaller houses with similar decorative elaboration, but with some sign of meeting local needs (i.e. Upton's three-room plan with original ell).

One of the limitations of the data presented in this study is the lack of secure dating for many of the structures, particularly the survivals from the eighteenth century. Solid dates derived from dendrochronological, archaeological and documentary sources to within a few years are available for seventeen of the eighteenth century houses, however, and may act as a basic guide to what *was* being built at a given time, if not to what was *not*. The names of these houses are rendered in italics in Table 3. According to this list the earliest well-dated example of a central passage belongs to Corotoman (c. 1720), although if the passage at Foster's Castle is original, and if the house dates to the 1690s, then Carter was preceded by at least two decades in installing a passage into a brick house. Corotoman is also the first example of a single pile plan with one room either side of a central passage, a plan in combination with classical details that Hudgins argues is transitional in form. If Ringfield is ever provided with a better date it may be even earlier than this. The next earliest securely dated example of this 'type' is the Mason House in Accomack County (dated by dendrochronology to 1729). Reiff (1986) claimed that both the two-room plan and the classic double pile plan with a central passage emerged almost simultaneously at the turn of the eighteenth century. Now that the Ambler House at Jamestown (which Reiff held up as the prototype) has been returned to its proper place in mid-century, the earliest example of this plan can be found in the Brafferton at the College of William and Mary (1723). Its first use for a plantation house came three years later with the erection of Berkeley in 1726, although it is interesting to note that it and its successor – the Nelson House at Yorktown (1729) – both possessed

gable roofs, whereas the Brafferton was hipped. Most houses of this variety that followed in the 1730s and beyond had hipped roofs. These early examples may have retained the gable roof common on the smaller houses that preceded them. While the Brafferton was the first example of the 'classic' form, the earliest double pile dwelling from the eighteenth century after the Governor's Palace is Germanna (c. 1720). It has an unusual central chimney with four fireplaces that preempts a central passage. The first entrance hall was created at the Governor's Palace in Williamsburg (c. 1706), although it would not be seen again until Rosewell (c. 1726), which is claimed to have been a successful attempt to exceed it in magnitude (Chappell 1994:12). There may be a direct influence here or, as Reiff argues, Rosewell may have been modelled after contemporary urban homes in London. The three-room vernacular argued by Upton to be a modification of traditional plans to meet local needs is first represented by Matthew Jones, with its small rear shed contemporary with the brick walls of the core. Sweet Hall possesses a full-blown rear ell and may be earlier, but dating is approximate. Such arrangements are identified by Upton (1982a) to have been common by the third quarter of the century. The three houses known by dendrochronology to have been erected in 1729 exhibit a considerable range of variation, from a two-room plan with original rear addition, to a three-room plan with central passage and a double pile example of two stories. Equal variety is apparent in the four houses dated to the end of the 1730s, indicating that by the second quarter of the century people were employing diverse means of organizing their domestic space, unlike the relative uniformity between 1680 and 1720 argued by Neiman to have been the result of a process of gradual selection. Something obviously occurred leading to an apparent increase in diversity.

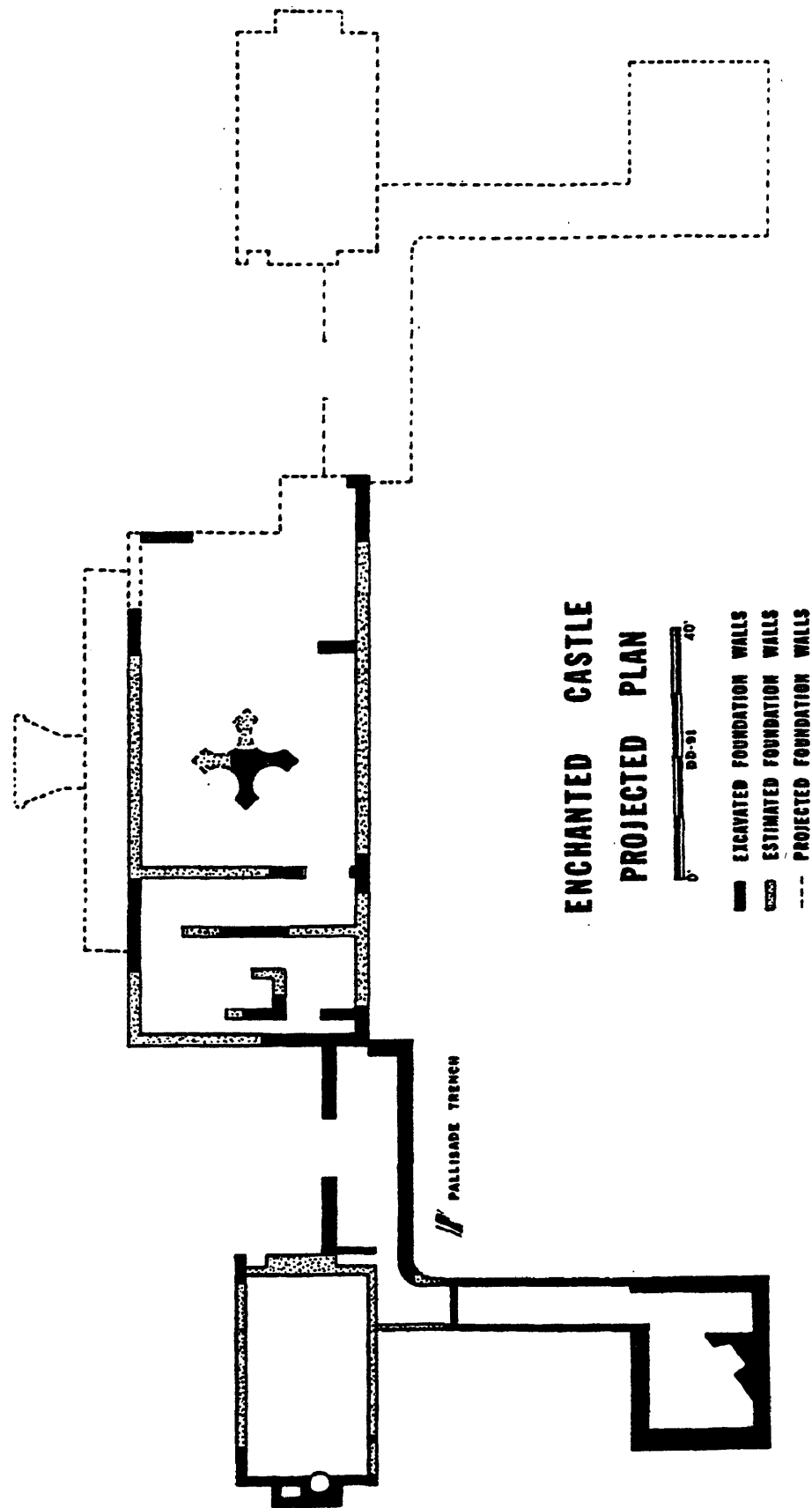
The question of diversity and unusual forms leads to the issue of transitions, transitional forms and natural breaks in the data. Over the years a number of houses have been proposed as transitional from asymmetrical vernacular forms to symmetrical forms based on classical influences from Europe because of their apparent combination of features. Among this data set at least five houses have been proposed as transitional in form: Fairfield, Winona, Corotoman, Germanna and Matthew Jones. For many years Fairfield (c. 1694) was believed to mark the transition between the seventeenth and eighteenth century with its combination of pre-Georgian triple diamond chimneys (also seen at Bacon's Castle) and its classically inspired hipped roof and cornice (D. Brown 1998:99-100). The L-shaped plan seen in nineteenth century photographs is also unusual, although it was compared to Governor Berkeley's second house at Green Spring with a similar outline, probably begun in the 1650s. Some investigators believed that the gable-roofed western portion was erected first, with the classical details of the northern wing belonging to an eighteenth century addition. Recent archaeology, however, has suggested that this eastern portion was possibly built first and was originally T-shaped, with a matching northern wing with triple chimneys that was demolished prior to the photos. This original portion appears to have been entered along the broad eastern facade with the two-story shaft of the 'T' protruding from the rear to the west like a stair tower, although the chimney along the western wall would suggest that it was actually a living space similar to the rear wing at Malvern Hill (although the wing at MH may have been an addition). What is unusual is that there is no corresponding porch tower on the east, and it is not certain at this time whether the house had a direct entry or some sort of control space such as a passage. Although the house is wide enough to have been double

pile, the placement of the chimney cheeks suggests that may have been only a single room deep, with perhaps two or three rooms in the main block and an addition room in the rear wing. This combination of features truly does seem derived from mid seventeenth century houses such as Bacon's castle, but with a broad unadorned (i.e. without a porch) and symmetrical classical façade.

Like Fairfield, Winona's triple diamond chimneys yet classical detail are also held up as signs of an architectural transition. Hudgins (1981, 1984) views Corotoman as the result of Robert Carter's struggle between his reverence for the past and his realization of the ideological value of the formal style represented by the Governor's Palace. The house retained the traditional 2-room plan, but with a second story and a central passage to control access. Germanna is perhaps the most unusual of all with its tremendous double pile area and central chimney, suggesting four small rooms in the centre (or two larger ones with two chimneys apiece) flanked by large spaces to either side that were probably subdivided themselves, perhaps heated by end chimneys that were not identified archaeologically. This arrangement does not suggest an obvious means of entry, or the identity of the various possible permutations of rooms, which are definitely more numerous than the essential two or three. Scotchtown (c. 1719), a frame house in Hanover County has two similar chimneys each surrounded by four rooms, but with a central passage separating each grouping. Therefore, although the elements of Germanna are not unique there arrangement appears to be. Lastly there is Matthew Jones, which, when rebuilt in brick in 1729 was furnished with a porch tower and incipient third room to the rear. Graham et al. (1991) note that the porch was very much out of fashion by the

FIGURE 22. GERMANNA, PLAN OF EXCAVATED FOUNDATIONS

(courtesy of Douglas Sanford, Mary Washington College)



time it appeared here, and the rear shed prefigured more developed wings in houses such as Sweet Hall and Indian Banks to provide a third ground floor living space.

All of these examples possess features that were popular in a previous period, features that would attain popularity in the future or features arranged in unusual ways that would clearly suggest some sort of a shift. In discussing a period of transition in English architecture between the fifteenth and seventeenth centuries, Johnson (1993:64) observes:

The transitional period saw a great range of building forms produced. House forms range from extreme conservatism in their similarity to open-hall plans to early examples of the dominant form in the closed period. The technical system and decorative details employed show corresponding diversity. This is therefore a period of unusual forms, diverse techniques and often lavish decoration.

The houses discussed by Johnson fall into two groups he defines as open and closed, between which is a transitional group of the character described in the quote above. Open houses tended to possess cross-passages, whereas closed houses are accessed via lobbies. While Virginia's brick houses, like Johnson's group of primarily frame homes in England, share a common internal competence they cannot be categorized in a similar manner. The range of house forms in the mid seventeenth century was diverse, and archaeology has suggested that they could be decoratively elaborated (e.g. Arlington, Bacon's House, John Page). Additionally, there was a significant rise in the number of small two-room houses near the end of that century and the beginning of the next, suggestive of decreased variation. However, these diverse forms do not really prefigure what was to come, and appear to have derived more from an influx of imported forms, followed by a return to more vernacular styles than as part of a developmental sequence.

The five houses mentioned above as having been labelled 'transitional' are primarily situated within a decade or two either side of 1700, the year traditionally employed for differentiating between early and classic colonial architecture. The appearance of certain classical features such as broad symmetrical façades, decorative cornices and two-room depth, not to mention the appearance of a third ground floor domestic space, are all indicative of things to come. However, they are not followed by a period of relative uniformity. If anything the second quarter of the eighteenth century is more diverse than the first, in some cases involving the retention of the two-room plan or the innovative inclusion of a third room, in others the adoption of a fully double pile plan. Even the mid-century profusion of houses such as the three W's – Wilton, Wythe and Westover – is short-lived before a new series of trends begins to manifest itself. For brick architecture, then, the colonial period was one of constant balancing between indigenous and imported house forms with no real period of stability, in the seventeenth century perhaps due to the influence of the English Civil War, and in the early eighteenth changing means of status display in an increasingly global world.

This latter period between 1720 and 1730 is the most significant in terms of the number of changes occurring at once, including increasing size (area/volume, number of rooms, elevation, depth), and increasing numbers of central passages and hipped roofs and use of Flemish bond.

Variation and the Concept of Style

The nature of the variation and diversity observed in brick architecture over time can be addressed employing the concept of style. In its archaeological applications style

has been imbued with varying degrees of significance within society, from a passive mirror of cultural norms (Sackett 1982), to a mechanism of information exchange (Wobst 1977), to an active participant in the definition of individual identity and social groups (Wiessner 1983, Macdonald 1990). Much of the recent literature on brick architecture in Virginia highlights the important role it played in defining and maintaining group identity. In particular, Hudgins (1984) stresses the need for such material indicators of elite status and association in the uncertain social environment of early colonial Virginia, as discussed in Chapter I.

Of relevance to the current discussion, Wiessner (1983:256-257) defines style as formal variation in material culture that transmits information about personal and social identity via social comparison and differentiation, and identifies two principal varieties of style: emblematic and assertive. Emblematic style is formal variation that transmits a clear message regarding the existence of groups and boundaries from a distinct referent to a defined target population. Assertive style, on the other hand, carries information supporting individual identity (Wiessner 1983:258). The changes identified in domestic architecture in Virginia can be related to changes in the use of style between the seventeenth and eighteenth centuries. As I have argued, in the seventeenth century men who built in brick were generally imitating house forms and features common in contemporary England, and through this process were affiliating themselves with existing social groups in their home country. However, by the end of the second decade of the eighteenth century, in response to the international scope of the consumer revolution discussed by Carson and Pogue, the referent of this emblematic style had changed from a focus on membership in a group based in England to one more globally inclusive. This

shift, which had its origins in the final quarter of the seventeenth century, resulted in the increased employment of more widely recognizable classical architectural elements.

Additionally, there is evidence of a significant increase in assertive style, as suggested by the increased appearance of unique variants employing the basic generative grammar. A convergence in the styles of brick and non-brick houses at this time indicate that these changes were influencing the lives of individuals outside of the colonial elite, and that construction material alone was no longer a principal indicator of social and economic distinctions.

Potential support for these changes in stylistic behaviour is suggested by an examination of the brick data in respect to certain characteristics of the two varieties of style, both of which may occur on a single item of material culture (Wiessner 1983:259). According to Wiessner (1983:257), significant change in emblematic style only occurs when its referent changes or when detached from it, and will develop rapidly if social differentiation is of a competitive nature. Likewise, Macdonald (1990:53) argues that the self-expression resulting in assertive style should lead to an increase in the degree of stylistic variability. Therefore, evidence of significant changes in the style of Virginia houses in the early eighteenth century, including an increase in stylistic variability, should be indicative of changes in the function of architecture as a means of expressing individual and group identity. Unfortunately, as Wiessner (1983:273) demonstrates with her projectile point data from the Kalahari, style may be contained in a wide range of attributes that are not necessarily predictable. However, following Burke (1999:30), I define style here not in the traditional architectural sense, but rather as functionally

equivalent alternatives of “particular features or groups of features that may be communicative”.

I conducted a preliminary examination of the stylistic diversity of house types defined by the three variables of entry, chimney type and number of ground floor rooms, employing the measures of richness and evenness for each quarter century (see Kintigh 1989). Richness is a measure of the number of types present in each sample (indicated by the number of unique combinations of the three variables), whereas evenness measures the degree to which types are uniformly represented in the sample. The results (both demonstrating a correlation with sample size) indicate that the increase in variability exhibited through time is to a certain degree a product of sample size, which also increases for each succeeding quarter century (Figures 23 and 24). However, as I noted above, the fluctuating totals in these samples reflect the relative popularity of brick homes in the colony at large; there were simply fewer of them in the early seventeenth century as opposed to the eighteenth century. The increasing number of brick houses in the later periods is perhaps itself evidence of a change in the stylistic use of architecture.

A quantitative examination of the volume data, which is a good measure of the display value of each house (i.e. its absolute size), produced support for stylistic change in the early eighteenth century, but also in the mid seventeenth century. The coefficient of variation, a standardized measure of variability for comparing samples with different mean values, was calculated for each quarter century (see Thomas 1986:82-84).¹ This

¹ The values for the 2nd and 4th quarters of the seventeenth century were calculated using 5% trimmed means and standard deviations a la Drennan (1996:21-22,33-35) to remove the influence of extreme outliers (Green Spring I and Arlington respectively; Table 17).

FIGURE 23

RICHNESS FOR DATA ON ENTRY, CHIMNEYS,
GROUND FLOOR ROOMS

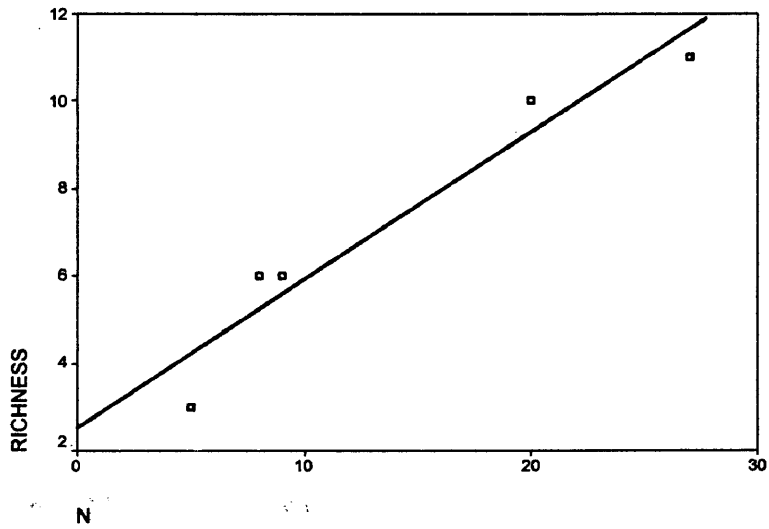
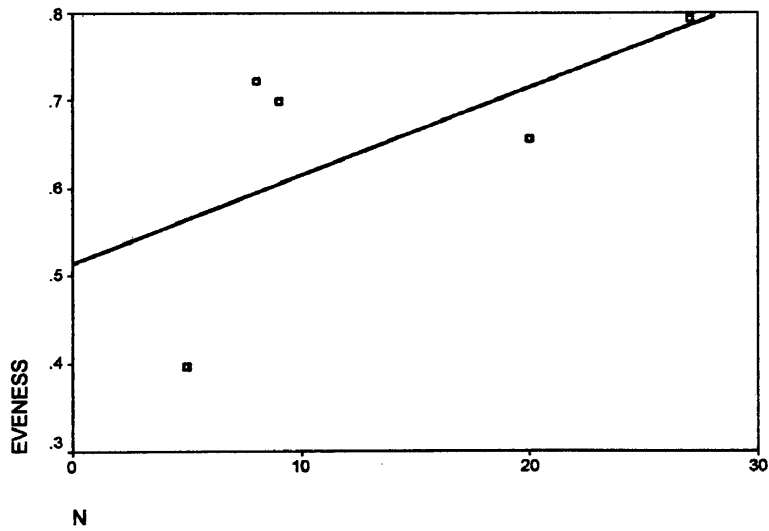


FIGURE 24

EVENNESS FOR DATA ON ENTRY, CHIMNEYS,
GROUND FLOOR ROOMS



17th c.			18th c.	
2nd ¼	3rd ¼	4th ¼	1st ¼	2nd ¼
30.09	63.25	49.52	102.41	80.36

Table 17. Coefficients of variation for 17th and 18th century volume data.

value is calculated by dividing the standard deviation of the sample by its mean and multiplying the result by one hundred. The values indicate a considerable increase in variability between the second and third quarters of the seventeenth century and between the fourth quarter of the seventeenth and first quarter of the eighteenth centuries. The first increase appears to reflect the influence of the influx of loyalist elite from England following the English Civil War, whereas the second increase corresponds to the beginnings of a global consumer culture. Of course variation in volume is in part indicative of functional differences in the use of domestic space. More directly stylistic than measures of size, this latter period also corresponds with a shift in the use of certain functionally equivalent structural features, in particular the complete disappearance of lobby entries (and associated central chimneys) and their replacement by central passages and entrance halls. Also, an increased diversity of roof types begins to appear in the first half of the eighteenth century. The large coefficient of variation in the first quarter of the eighteenth century reflects the contrast between the considerable number of small brick houses built during that time and early examples of the larger houses that began to appear c. 1720, such as Germanna and Corotoman.

Such quantitative and qualitative changes in house construction techniques suggest a shift in style, as suggested by Wiessner and Macdonald. The qualitative differences are indicative of a change in the referent or audience towards which the

material symbols are directed, whereas the increase in diversity implies a greater degree of individual expression. As material symbols of status became an increasingly important means of demonstrating one's legitimacy within a certain social and economic category (see Pogue 2001), the level of intra-group competition increased. Mooney (1991:122, 318) argues that the construction of large houses was associated with the demonstration of personal authority and worth and that the intended audience included peers and superiors rather than the general public. Hudgins (1984), however, stresses the significance of challenges from social superiors and inferiors (see Chapter I of this thesis) to the construction of brick mansions, as a means of defining and legitimizing an elite social group. These arguments are not contradictory and help to explain the combination of uniqueness and similarity observable in the study houses.

The two dimensions of regularity and diversity in the style of brick architecture reflect a combination of group identity and individual expression (Hegmon 1992:525). The similarities in plan and decorative detail are related to social interaction and shared learning contexts (competence), whereas the distinctions can be viewed as resulting largely from a desire for individual distinction from one's peers on the performance level. This is not to say that seventeenth century homeowners did not feel a desire to compete and express themselves individually (see Carr 2000 for an example of this), but the coefficient of variation indicates that variability reached its peak in the early eighteenth century, a time also marked by the important qualitative changes mentioned above.

Application of the concept of style to the changing appearance of brick houses across the seventeenth and early eighteenth centuries helps to explain the fluctuating diversity and the social circumstances and motivations behind it. The predictions

associated with differing uses of style are also a valuable means of developing and evaluating these explanations. In particular, it becomes apparent that while brick was employed across the seventeenth and early eighteenth centuries as a means of defining and expressing one's affiliation with a fashionable and/or elite status, important changes did occur in the audience towards which these messages were directed and the group to which the message-bearers belonged. An apparent increase in internal competition within the colony also suggests the development of a locally defined elite sub-group, indicating that although the styles were drawn from an international pool of influence, competition was more locally driven. Evidence for this local competition is suggested by the sequential appearance of the eighteenth century's earliest private brick mansions: Spotswood's Germanna, Carter's Corotoman, Harrison's Berkeley and Page's Rosewell. All of these houses were likely influenced at least in part by the public buildings of Williamsburg, particularly the Governor's Palace, and by each other. Spotswood, of course, was involved in designing the Palace, Carter paid a considerable amount of attention to its construction (Hudgins 1984), and its similarities to Rosewell have led more than one architectural historian to argue that the latter was constructed to excel it (Chappell 1994:12). Carter was father-in-law to both Page and Berkeley. These, and many other personal connections between the families who constructed the earliest and grandest of Virginia's early eighteenth century mansions, and the fact that they begin to appear so close in time, make it very likely that individual competition was the impetus for their construction.

Turkey Island

As was noted in the introduction and at the beginning of the previous chapter, I selected the data examined in this thesis to provide a systematically derived context in which to interpret the architecture of Turkey Island and other early eighteenth century brick domestic architecture in Virginia. Interpretation of documentary sources suggests that the foundations uncovered at Turkey Island are the remains of a house constructed by William Randolph II around 1709 and later remodelled by his nephew Ryland between the late 1760s and 1770s. Corroboration from intact archaeological contexts is not yet available, and it may be many years before additional excavation is conducted at this site. The current study provides a means of interpreting the findings on stylistic grounds with comparative data from all known standing and archaeological brick houses built prior to 1750. With the amount of variation present among brick houses in the first half of the eighteenth century it is impossible to create a template to hold up as the quintessential suite of structural elements for each period. However, by comparing Turkey Island with the general trends identified for the decades surrounding the turn of the eighteenth century its degree of similarity or uniqueness can be identified, as can the period with which it appears most congruent.

In terms of size, the central core of the house covers an area of 1742 sq. ft. and had an estimated volume of 54 012 cu. ft. These numbers do not match the largest values for any of the periods delineated for the seventeenth and eighteenth centuries, although they are larger than the average values for all periods except the second quarter of the eighteenth century with which they are comparable. The only seventeenth century houses larger than Turkey Island are Green Spring I and II, Arlington, and Fairfield (only

in area), although in the first quarter of the eighteenth century this group expands to include Corotoman, Germanna, the Brafferton and the Governor's Palace. Thereafter this number rises dramatically. The core of Turkey Island, then, is exceptional in size for the seventeenth and first quarter of the eighteenth century, but only average for the next twenty-five-year period. If the wings are added to the values for volume and area, Turkey Island is overshadowed in the seventeenth century only by Green Spring I and Arlington (the latter in volume only), and in the next period by the houses cited above minus the Brafferton. If plotted on the stem-and-leaf graph with the other eighteenth century data the core alone falls between the two peaks, but with the wings it falls within the upper concentration of values.

If Turkey Island were constructed in the first quarter of the eighteenth century, even just the central portion without the wings, it certainly would have been an outstanding structure, even among wealthy elites. In fact, it would have been among the top half dozen or so largest homes ever constructed in Virginia up to that time; with the wings added, even more so. Constructed after 1725, Turkey Island would still have been a magnificent structure, but would have found company in a growing number of similarly grand plantation seats that were differentiating themselves from the smaller brick and frame homes of the time. Unfortunately, size alone cannot really suggest the likelihood that the house was built pre- or post-1725 and its presumed owner, William Randolph II, was among the wealthiest and most influential planters in the colony and could probably have afforded such a house during either time period. Therefore it would not be unreasonable to argue that he owned such a unique structure at so early a date, although why no others of equal or greater wealth did not own similar structures at this time is of

crucial importance. That no known eighteenth century plantation homes of great size were built prior to 1720 would make Turkey Island appear somewhat out of place if built c. 1709.

In terms of brickwork, Turkey Island exhibits a pattern of Flemish bond over Flemish bond that is noticeably more popular in the second quarter of the eighteenth century than the first, although examples are not absent from the earlier time period. The three strict examples of this pattern from the first quarter, however, are limited to a small area of the Eastern Shore and none has an absolute date associated with it. There are also a few additional examples on the Western Shore of partial Flemish bond below the water table at this time (also with soft dating), and so Turkey Island cannot be categorically ejected from the first quarter on its bonding pattern alone. Regular glazed headers are a feature particularly prevalent on brick houses of the first half of the century, but intact sections of brickwork uncovered at Turkey Island suggest that it lacked this decorative elaboration. It may, however, have incorporated random glazing in its exterior walls, a feature identifiable on three pre-1725 houses (although one of these is English bond and another is the archaeological Governor's Palace) and two post-1725. There is little indication in the archaeological record for the number of bays in the front and rear facades, although the length of the core (59 ft.) suggests at least five, and the exposed foundation walls imply symmetry. This coupling is more common in the second quarter than the first, although there is precedent for such a combination in the Governor's Palace dated to 1706.

Archaeology is not equipped to determine the shape of the roof, although its width (approx. 30 ft.) suggests two-room depth and historical documentation indicates that it

was originally two stories in elevation with single story wings (although this may have excluded additional space in the attic). The precise manner of entry is likewise ambiguous, but the presence of centrally placed porches and a large central space suggests access midway along each facade into a broad hall. Chimneys appear to be interior, forming part of the partitions either side of this hall, although the total number of ground floor rooms into which the space beyond the chimneys is divided is unclear. In fact, the central space interpreted as a large hall has been subject to minimal archaeological testing and may be subdivided. The partitioning of the wings, if any, is completely unknown. Based on this imperfect data the structure appears to have possessed entry into a central hall, interior chimneys, and perhaps a minimum four ground floor rooms in the core (H I 4+), in addition to an unknown roof type, at least two stories, and two-room depth (U 2 D).

The only examples of double pile houses with two full stories and interior chimneys in the first quarter of the eighteenth century are the Governor's Palace and the Brafferton, and only the former has an entrance hall. The only double pile seventeenth century dwelling with at least two stories and a possible entrance hall is Arlington, although the presence of such a hall is not favoured in the published interpretation (Lucketti et al. 1999). Several houses from the second quarter of the eighteenth century combine two-room depth, interior chimneys, and elevations of two stories or more, but none has a central hall that is equally as broad, with the exception of Stratford Hall. Stratford is unique for the early eighteenth century in its combination of two double pile wings with central passages joined by a hyphen (the hall) as part of the original plan. Tuckahoe, a contemporary frame house built by William Randolph II's nephew William,

was originally constructed in 1733 as a single pile two-story house with a central passage, but enlarged in 1740 with the addition of a matching wing joined by a hyphen, perhaps in emulation of Stratford begun several years before (Figure 25). Thus, there is precedent for a broad central space separating the principal entrances from the living quarters to either side in the Randolph family, but not until c.1740 and even then not as a compact mass.

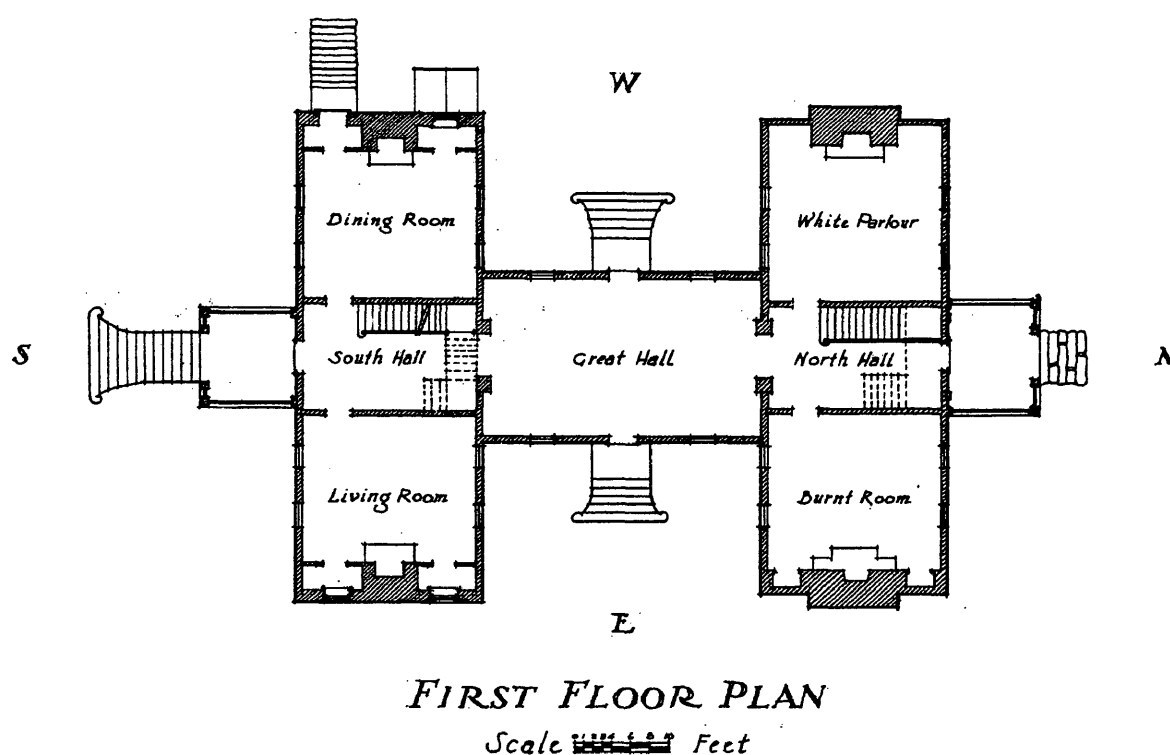


Figure 25. Tuckahoe, ground floor plan (HABS).

Examined individually, common early eighteenth century structural features compared with those of Turkey Island suggest (but do not guarantee) that the house was not constructed as early as interpretations of existing records imply. Taken together, however, the contrasts make a strong case for placing Turkey Island later in time, or else

casting William Randolph as a precocious innovator whose sense of space and design was not emulated for several decades. A number of the features possessed by the house, including brickwork, elevation, depth, chimney placement and entry, were more common in the second quarter than in the first and the house seems more at home in this context. It is true that the Governor's Palace shared a number of these traits and was entered through a broad centrally placed hall, but this feature seemed to have been all but ignored by other builders for many years in favour of a narrower passage. It appears again in houses such as Cleve closer to mid century, but again only Stratford boasts a hall of similar dimensions as that found at Turkey Island. Based on the structural and stylistic data collected for the first half of the eighteenth century Turkey Island compares more closely with houses built in the second quarter, particularly those built no earlier than about 1740, when Beverley had just recently acquired the property from his father. However, even Stratford does not compare in more than a general way with the structure and layout of Turkey Island, and it would seem valuable to cast a wider net to ensure that there are not closer matches even later in time.

Wenger (1986) notes that the central passage began to increase in size and importance following its appearance in the first quarter of the eighteenth century, becoming a living space in its own right by mid century rather than simply a means of controlling access to other spaces. Shortly thereafter it overtook the other rooms in the house as the most important formal space, which was often expressed on the exterior by decorative elaboration such as the three bay stone portico at Mt. Airy in Richmond County (completed before 1760). Such a room was often referred to as a saloon. Tazewell Hall, constructed in Williamsburg by William Randolph II's nephew John

FIGURE 26. TAZEWELL HALL, GROUND FLOOR PLAN

(Samford et al. 1986)

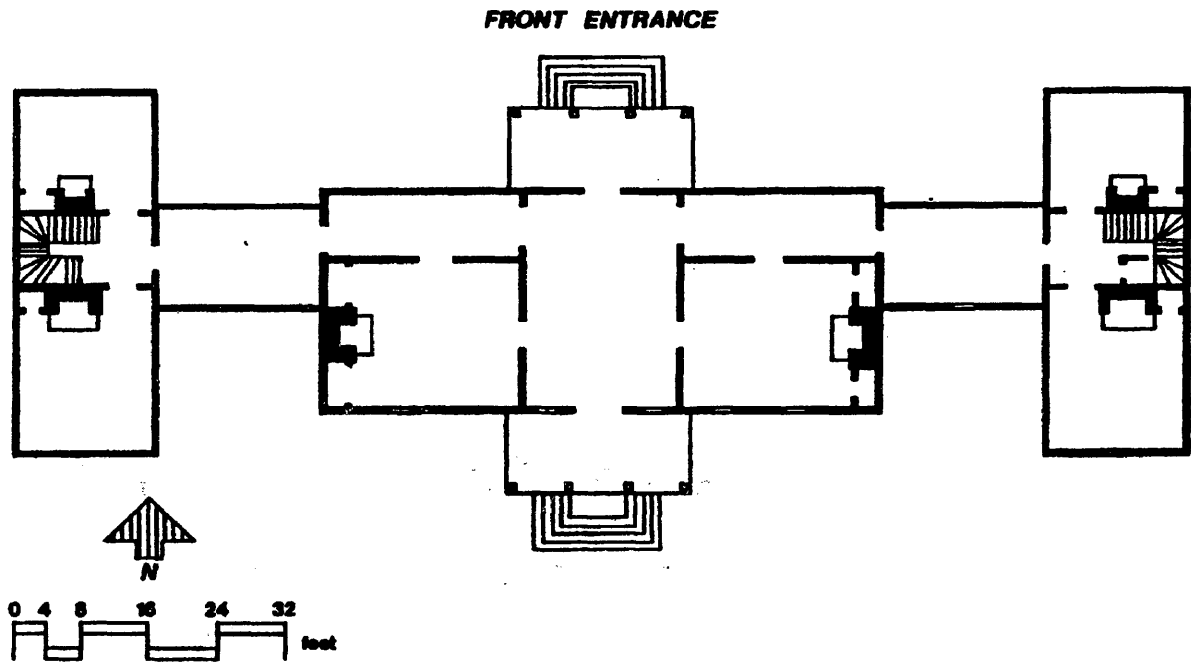
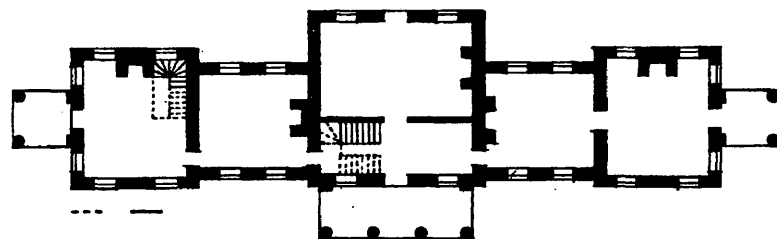
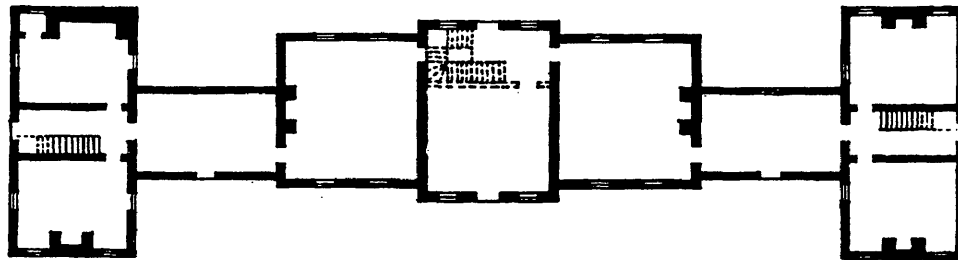


FIGURE 27. BATTERSEA, GROUND FLOOR PLAN

(Waterman 1945)



BATTERSEA, Petersburg.



BRANDON, Prince George County.

Figure 28. Brandon, ground floor plan (Waterman 1945).

between 1758 and 1762, possessed a broad entrance hall extending the entire width of the building, although it was frame rather than brick (Samford et al 1986; Figure 26). It also had narrow passages along one façade leading from the hall or saloon to hyphens that connected the house to a wing on either side, similar to the small rooms either side of the hall at Turkey Island opening into the wings. It may be that the southern end of the hall was partitioned as at Battersea (a brick structure with a similar layout, built in Petersburg in the mid 1760s) to create a passage extending the entire length of the structure (Figure 27).

The structural details of Turkey Island suggest that it belongs to the period after 1725, but the exaggerated central hall has no equal (besides Stratford) until at least three decades later. Wenger (1989:156) discusses an important change at this time as part of an increasing tendency to emulate English forms:

Whereas the ceremonial aspect of gentry life had once centered on the old hall, this function was now divided between two roughly equivalent spaces [the dining room and parlor]. It was precisely this kind of parity that led to the creation of insistently symmetrical houses like Brandon, in Prince George County, where the planter's public living spaces were effectively detached from the rest of the

house and placed at the core of an extended complex.

The result of this shift in emphasis was a breaking up of the traditional blocky rectangular mass into a more elongated plan with a core of public ceremonial rooms flanked by more private family quarters. Turkey Island could perhaps be seen as a move in this direction with a saloon flanked by a parlor and a dining room with less formal rooms in the wings, yet retaining the traditional compact form, although it would seem more likely for these larger spaces to be the formal rooms. It is possible that Beverley Randolph constructed all or part of this house during his ownership of the plantation between 1738 and 1750. It is more likely the work of Ryland Randolph, who is clearly documented as having engaged in significant building campaigns and who resided at Turkey Island during the time when this trend was manifesting itself in other homes. It may be that he constructed the central core shortly after acquiring the property in the late 1750s as a complete unit with saloon, dining room and parlor (albeit small ones) on the ground floor and additional public and private quarters upstairs. In this scenario the wings could have been added during the remodelling following the lightning strike to create more spacious formal rooms. Because the entire core was two full stories, unlike Tazewell, Brandon and Battersea, there was no need for additional wings to provide private quarters. It is important to note that even without the wings and porches, Turkey Island's plan is still more closely reminiscent of structures from c. 1760 than those built earlier. The slightly offset central portion of the north and south walls indicate that the large central saloon was part of the original plan.

If the mansion at Turkey Island traditionally believed to have been built by William Randolph II in the first decade of the eighteenth century was actually constructed (not remodelled) half a century later by his nephew, the obvious question that arises is: where did the Randolphs of Turkey Island live between 1680 and 1760? The exposed foundation walls are clearly not those of an adapted two-room plan with or without a central passage. From what is visible in the excavation units the broad central space is clearly a part of the original conception of the house, and cannot be reconciled with any known plan from the first half of the century. While there are other houses from this time period such as Germanna that are also ambiguous, unlike Spotswood's mansion Turkey Island is not securely dated and demonstrates close affinities to later designs.

Mouer, who conducted large-scale excavations at neighbouring Curles Plantation over the past two decades, provides one possible solution to the ultimate question posed above. Curles was inhabited by three successive owners between the early seventeenth and early eighteenth centuries, Thomas Harris, Nathaniel Bacon, Jr. and Richard Randolph, who built their homes in precisely the same location, one on top of the other. In his discussion of this architectural legacy Mouer (1997) includes a brick structure that functioned as the kitchen for Richard Randolph's frame mansion begun in the 1720s (Figure 29). This single pile 54' x 22' 3-room kitchen was probably originally about 40' x 22' and was constructed on fill overlying deposits dating to c. 1680 (Dan Mouer 2001, personal communication). It seems to have been expanded to its final size from two rooms in the late second quarter of the century after the frame mansion was erected, with an addition on the west end and a rebuilt central chimney. Artifacts from the builder's trench suggest a date in the first decade or two of the eighteenth century, and a wine

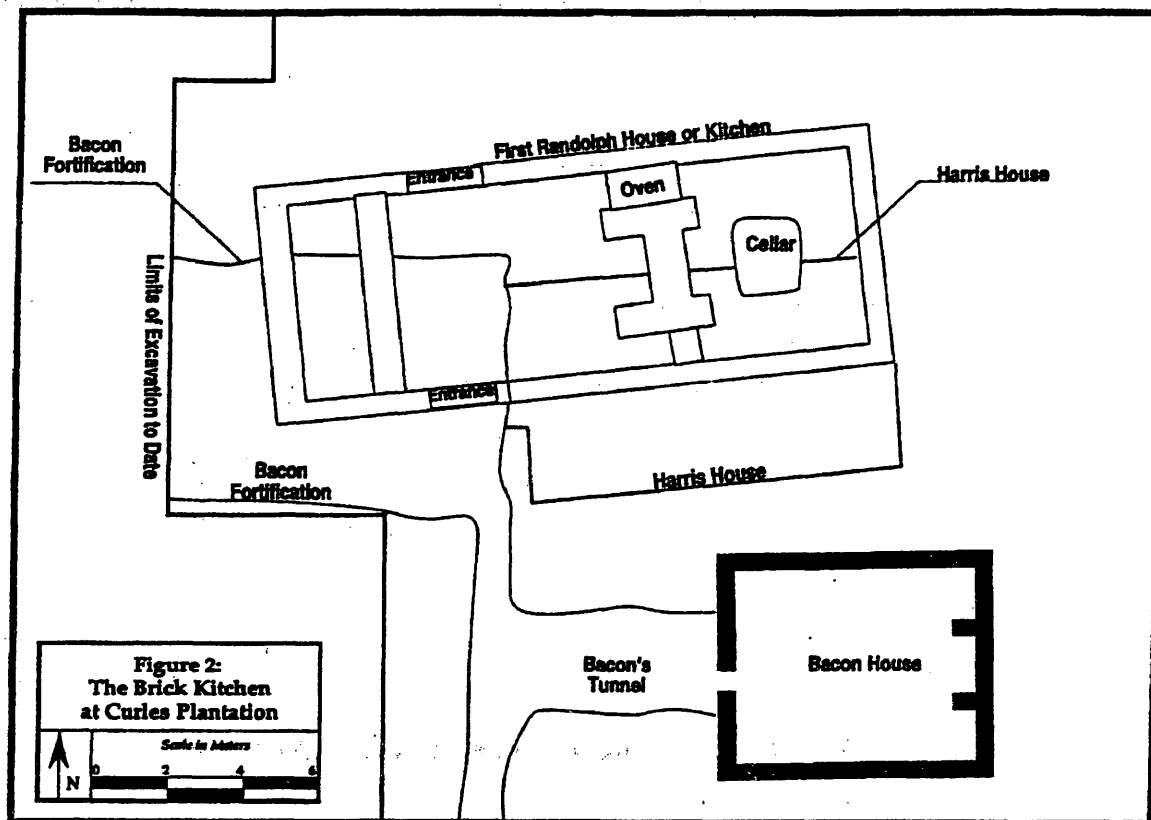


Figure 29. Brick kitchen at Curles Plantation (Mouer 1997).

bottle seal with the name “William Randolph” was extracted from the deepest midden deposits adjacent to the foundations above those attributed to the Bacon period.

These clues in combination with the robust and deeply set nature of the foundation (seemingly too substantial for a kitchen) led Mouer to conclude that this was the original Randolph house on the property. Not only was this kitchen probably an early Randolph dwelling, it may also have been the house constructed by William II in the first decade of the eighteenth century. It is certainly close enough for William Byrd to have walked there from Turkey Island, and the dating is right, but this scenario is not without

complications. Why would William II build his home on property that his brother Henry had owned since 1706? Assuming that he did, where did he reside after Richard acquired Curles c. 1716? It may be that upon Richard's arrival William II moved back to his father's house at Turkey Island, William I having died in 1711. No records, however, indicate that William II ever resided at Curles; he is always associated with Turkey Island. It may also be that Henry built this house prior to granting it to his brother, although records regarding his activities and place of residence are slim. These hypotheses still leave unclear the identity of the second house described in 1853 by Robert Pickett as once a two-story mansion, but presently a slave quarter. Where is this house? Is this William II's early eighteenth century home or is it the long lost home of his father? Further excavation of the partially exposed foundations at Turkey Island may lead to surprising discoveries like the superimposed houses uncovered at Curles. At the very least it should confirm or deny the structural history suggested herein, and determine which of the two or three Randolph homes are still out there somewhere.

Regardless of who owned the brick house at Curles, it stands as a significant landmark of early eighteenth century architecture. If it did begin its life as a dwelling and if it was constructed as early as Mouer claims, it may be the earliest known brick house besides the Governor's Palace unquestionably built in the eighteenth century. If it belongs to the Randolph family, as the wine bottle seal suggests, then it could not predate 1700 because William I did not acquire the property until that year. An early date is interesting because the house appears to have had an original central chimney and was laid in Flemish bond with regular glazed headers above the water table and English bond below. The entrances, however, were located at the western end of each façade, just east

of the later addition. Central chimneys are almost non-existent after the second quarter of the seventeenth century, especially in a house with direct entry. The only such house without a lobby is Piersey's stone house at Flowerdew (1626), which sported a porch tower. If the western room were not an addition the house would be very similar to a seventeenth century cross-passage plan of which there are no brick examples.

Regardless, the brickwork and the size of the house, as well as its two-room plan, match well with other houses from the early eighteenth century, much more so than the ruins at Turkey Island.

Examining Turkey Island in light of the changing styles of homes in colonial Virginia as revealed by the architectural data presented in Chapter III and discussed above in this chapter, it is likely that the c. 1680 home of William Randolph was of the small two-room variety, with or without porch and stair towers. Because no early foundations have been uncovered it is possible that Randolph's house was of earthfast construction, although his association with the colonial elite and recent arrival from England suggests that it could very well have been brick. Likewise, although the data for the first decade of the eighteenth century is slim, the dwelling of Randolph's son William II most likely possessed two rooms on the ground floor. Both of these structures were constructed in a time of extreme economic recession, when even many of the wealthiest planters were constructing diminutive houses, and prior to the period of competitive mansion building that would follow. Regardless of who owned the small brick house excavated by Mouer, its size and masonry construction are in agreement with other homes built by wealthy planters at the turn of the century.

Unfortunately, besides this small brick structure, the homes built by the second generation of Randolphs in Virginia are for the most part unknown. One exception is the second Randolph house built at Curles in the 1720s and attributed to Richard Randolph. It was a small frame structure with brick foundations of approximately the same dimensions as its predecessor, before being enlarged later in the century. Curiously, although Randolph owned considerable amounts of land and was very active in the highest levels of colonial politics, he did not engage in the competitive mansion-building taking place at this time among other wealthy men such as Spotswood, Carter, Page, and Harrison. By compiling comparative biographical data Mooney (1991) has identified patterns in the demographics of men who constructed large plantation houses in Virginia. Her results reveal that these men tended to be third or fourth generation Virginians who began construction at a relatively young age, often in their thirties (Mooney 1991:73); this profile matches Mann Page I and Benjamin Harrison IV reasonably well, although Harrison was somewhat precocious in beginning construction of Berkeley in his mid twenties. Former governor Alexander Spotswood and Robert 'King' Carter, however, were first and second generation Virginians (respectively), who began erecting their mansions in their mid fifties. It seems, then, that earlier generations tended to wait until later in life to begin serious construction activities because they lacked the considerable inheritance available to families of longer standing in the colony, and were therefore forced to rely on their own accumulated wealth. Richard Randolph, being second generation, was one of these individuals who built a relatively small dwelling in his thirties and waited until his fifties before more than doubling its size in the 1740s.

The third generation of Randolphs, on the other hand, was very much involved in the competitive construction of large colonial mansions, not always entirely of brick, but responding to strong influences from the increasing availability of architectural pattern books from England, in combination with an evolving local vernacular. Among these are the homes of William III at Wilton, Peter at Chatsworth and Richard II at Curles. After mid century this English influence involved the reorientation of domestic spaces away from the local vernacular with central passages and a focus on the hall, towards an equal emphasis on the parlour and newly introduced dining room. It is this tradition that Ryland Randolph's Turkey Island seems to belong to, along with his cousin John's Tazewell Hall.

Conclusions

The ultimate question posed by this thesis is: are brick houses in Virginia unique from those of other materials? In terms of competence the answer is no; the same basic two-room core recurs throughout the early colonial period, as do common horizontal dimensions and relatively spartan decoration in comparison to what is seen overseas. However, variations from the trends identified by Neiman suggest that forces other than those affecting post-built houses shaped the historical trajectory of many of these brick forms in the seventeenth century. The results of comparisons with Upton's data are limited primarily to numbers of functional spaces, and even these trends are complicated by limitations in the inventory data. Compilation of a comparable database of frame structures with brick foundations from the same time periods, beginning with Upton's

fieldwork, would go a long way towards suggesting whether all-brick structures have more in common with them than those of earthfast construction.

What is suggested by this comparative study is that single explanations of the significance of brick construction are not adequate for a constantly changing colonial world. This change is what grants the assertion of brick as an elite language of power and authority only limited interpretive powers. Like Pogue (1997, 2001) I conclude that architecture meant different things either side of 1720. In the seventeenth century brick was clearly concentrated (although not exclusively) in proximity to Jamestown and largely in the hands of the political elite. In contrast to Pogue's dichotomy, however, brick architecture at this time was not simply adapting to local conditions, and a significant degree of stylistic elaboration was evident. Also, strong evidence suggests that the use of brick, although very much in the hands of the elite, was not solely about class-consciousness and dominant ideology, but also about emulating the trends current in England. The use of earthfast technology by many elites attests to Levy's assertion that the organization of space was more important than construction material, although Pickett (1996) notes that the use of brick gained in significance to men of status as the century came to a close and a new one began. It seems that although not all elites built in brick prior to 1700, the material distinction was primarily economic, especially early on when brick was more costly. The late seventeenth century decrease in the number and size of brick houses is closely linked to economic conditions. As the early eighteenth century progressed brick became increasingly less the domain of the exceedingly wealthy, and size became more and more the discriminating element. Location in the seventeenth century was centralized, but expanded with the colony. Brick, being a sign

of urban aspirations, was concentrated at Jamestown, but also at Middle Plantation, perhaps as M. Brown (1999) surmises to draw the capital away, seemingly by demonstrating the urbanity of what was to become Williamsburg. Interestingly, after the founding of Williamsburg and the construction of its major public buildings, no houses built entirely of brick were erected there until c. 1750. The very largest brick houses were being built often at a great distance from the capital, in places where material distinction was perhaps more dramatic, such as Spotswood's frontier Germanna. But however common brick homes became, as Wells (1994) reminds us, brick was still very much in the minority during the early colonial period, and so was always indicative of some degree of social and economic distinction.

APPENDIX

DATABASE OF EARLY EIGHTEENTH CENTURY BRICK HOUSES¹

ABINGDON GLEBE

Location: Gloucester County

Date: c. 1724

Elevation: 1½ stories (main block and rear wing), with 1-story original wings either side of main block, above basement

Material: brick, Flemish bond with glazed headers above and English bond below the water table

Roof: gable, with hipped single-story wings

Chimneys: 2 exterior each end of main block, 1 t-shaped interior end on rear wing

Water Table: 1-course beveled?

Belt Course: none

Dimensions: ?

Bays: symmetrical 5-bay façade with central door on front

Plan: T-shaped, with 3-bay central block, flanked by 1-bay wings (half the width of main block) either side and a centred rear wing

Alterations: - single story shed addition

- walls whitewashed, probably 19th century

Original Owners: Abingdon Parish, private owners after early 19th century

Sources: HABS, Loth (1999)

BARN ELMS

Location: Middlesex County

Date: c. 1718, burned 1932

Elevation: 1½ stories

Material: brick, Flemish bond with random glazed headers above the water table

Roof: ?

Chimneys: end?

Water Table: ?

Belt Course: ?

Dimensions: ?

Bays: symmetrical 5-bay façade with central doors on each front

¹ Dendrochronological sampling and provisional dating of Indian Banks, Sabine Hall, Shirley, and Tuckahoe was completed between November 2000 and March 2001 by William J. Callahan, Jr. and Edward R. Cook as part of a project, under the direction of Camille Wells, to dendrochronologically date a set of eighteenth-century Virginia houses. This project has been sheltered by the University of Virginia School of Architecture and supported by a grant from the Jessie Ball duPont Religious, Charitable, and Educational Fund.

Plan: - 2 separate structures connected by a covered way
 - both structures were double pile with a central passage
 - the smaller of the two had 2 rooms either side of the passage, the larger had only a single large room on one side

Alterations: - covered way removed in the 19th century
 - both buildings raised to 2 stories after the Civil War using materials from outbuildings

Original Owner: Col. Edmund Berkeley
Sources: Green et al (2001)

BEL AIR (aka EWELL)

Location: Prince William County
Date: c. 1740
Elevation: 1½ stories above high full basement
Material: brick, Flemish bond on all but north side (rebuilt in Common bond), fieldstone foundation
Roof: gable
Chimneys: 1 interior end (north), 1 exterior end (south)
Water Table: projecting stone foundation
Belt Course: none
Dimensions: 52'5" x 36' (excluding exterior chimney)
Bays: asymmetrical 5-bay façade with central door on west front, asymmetrical 4-bay façade with central door in east front
Plan: - double pile with broad entrance hall in the west, narrowing to a central passage in the eastern 2/3 of the house
 - 2 rooms either side of the hall/passage, with the largest room in the southeast adjacent to the passage and the smallest room in the southwest adjacent to the entrance hall; the northern rooms are of equal size
 - the stair is located in the southern half of the entrance hall, and a secondary stair to the basement is located between the northern rooms adjacent to the passage
 - the northwest room is unheated
 - 2nd floor includes a stair hall centrally located in the western half, with a bedroom to the north and south and three bedrooms in the eastern half

Alterations: - north wall rebuilt in Common bond, as well as part of west wall
 - cement finish on stone foundation

Original Owners: Ewell family
Sources: HABS, Loth (1999)

BELVOIR

Location: Fairfax County
Date: 1736-41, burned 1783
Elevation: probably 2 or 2½ stories above a full basement
Material: brick, Flemish bond above water table, English bond below
Roof: ?
Chimneys: 2 interior end
Water Table: probably, but of unverified form
Belt Course: ?
Dimensions: 56'8½" x 36'9"
Bays: probably symmetrical 5-bay façade with central door in each front
Plan: - double pile, with a central passage offset to the east in the southern half of the house, which opened onto a broad entrance hall in the northern half
 - the passage incorporated one window east of the door, the lobby one window

- either side
 - there were two equal-sized rooms east of the passage/lobby and two unequal rooms to the west, the largest room adjacent to the passage and the smallest adjacent to the lobby (these rooms all had corner fireplaces)
 - stair was probably in the passage, leading to a second floor where the space occupied by the lobby below likely became an additional unheated chamber
 - all interpretations based on excavated basement foundations
- Alterations: - Waterman claimed that the plan was altered to the form described above c. 1757, and that an original asymmetrical facade was regularized
- Original Owners: Thomas Fairfax, Col. William Fairfax
- Sources: Green et al (2001), HABS, Loth (1999), Reiff (1986), Shott (1976), Waterman (1945)

BERKELEY

- Location: Charles City County
- Date: 1726
- Elevation: 2½ stories above a full basement
- Material: brick; Flemish bond with glazed headers above water table, English bond below
- Roof: gable
- Chimneys: 2 interior along gable ridge
- Water Table: 1 course beveled in Flemish bond
- Belt Course: flat, 3 courses, Flemish bond
- Dimensions: 64'6½" x 41'6½"
- Bays: symmetrical 5-bay façade with central door in each front
- Plan: - double pile, with 12' wide central passage and 2 rooms either side (all 3 floors above basement)
- passage is centred on front and rear entrances at first floor level and does not enclose any windows
 - fireplaces centred along partition between front and rear rooms
 - stair hall carved out of northeast room along west side of passage
- Alterations: - all first and second story bays enlarged and Federal-style trim added in early 19th century
- restored in 1937-8, including the removal of wrap-around porch and 2-story portico with classical columns; alterations to dormers, doorways and surrounds; addition of bulkhead
- Original Owners: Benjamin Harrison IV, Anne Carter Harrison (daughter of Robert 'King' Carter)
- Sources: Claiborne (1957), HABS, Loth (1999), Reiff (1986), Waterman (1945)

LEWIS BURWELL HOUSE, KINGSMILL

- Location: James City County
- Date: c. 1735 (Camille Wells, personal communication 2001), burned 1844
- Elevation: probably 2 or 2½ stories above a full basement
- Material: brick, English bond basement
- Roof: ?
- Chimneys: 2 interior end
- Water Table: ?
- Belt Course: ?
- Dimensions: approximately 61' x 40' (Kelso 1984)
- Bays: probably 5- or 7-bay symmetrical façades with central door
- Plan: - double pile, with 18' wide central passage offset to east, and 2 rooms either side

(based on basement foundation ruins)

- stair probably in passage
- rooms either side of passage share a chimney and have corner fireplaces

Alterations: ?

Original Owner: Lewis Burwell

Sources: Kelso (1984), Loth (1999), Wells (1976)

CHELSEA

Location: King William County

Date: c. 1742 (traditional 1709)

Elevation: 2 stories, with 1½-story rear wing

Material: brick, Flemish bond with glazed headers above and English bond below water table (front), Flemish bond with scattered glazed headers (rear wing)

Roof: hipped (front), gambrel (rear wing)

Chimneys: 2 interior end (front), 1 interior end and 1 interior (rear wing)

Water Table: ?

Belt Course: flat, 3 courses (front)

Dimensions: front approx. 54' x 20'6"; rear wing approx. 46' x 18' (Henley 1979)

Bays: symmetrical 5-bay façade with central door in east front, 6 bays along rear addition

Plan: - single pile, with central passage offset to the south, and one room either side (both floors front)

- the stair is located in the passage
- the rear wing is single pile, located off-centre to the south along the west façade of the main block, and contains 3 rooms
- the room adjoining the main block is accessed from outside by 2 doors opposite each other, and is separated from the next room by back-to-back fireplaces
- the rear room of the wing is served by an end chimney and its own exterior entrance along the north side

Alterations: - the rear wing is an addition, probably constructed prior to 1766

- a kitchen along one side of the middle and rear rooms of the wing has altered the original configuration
- scored cement currently covers the foundation to the level of the water table
- a door replaces the original central window in the upper story of the façade, and a one-story (and later two-story) porch framed the entrance; this has since been removed

Original Owner: Augustine Moore, with addition probably by son Bernard Moore

Sources: HABS, Henley (1979), Loth (1999), Reiff (1986)

CLEVE

Location: King George County

Date: c. 1746, burned 1800 and 1917 (Green et al 2001)

Elevation: 2½ stories above a full basement

Material: brick, Flemish bond above water table and English bond below, with stone trim including rusticated corners, doors and windows, and molded water table

Roof: originally hipped, later gable

Chimneys: 2 interior along original break in roof ridge

Water Table: beveled stone

Belt Course: none

Dimensions: 67'3" x 37'2" (Reiff 1986)

Bays: symmetrical 7-bay (river) and 5-bay (land) façades with central door
Plan: - double pile with a broad entrance hall taking in one window either side of the door on the river side, beyond which is a narrower stair hall on the land side
 - both stair and entrance hall were flanked by 2 rooms, one room adjacent to the stair hall pierced by an exterior entrance
 - front and rear rooms separated by chimney stacks
Alterations: - 1800 fire destroyed the interior, the rebuilding of which probably included the replacement of the original hipped roof with a gable roof
 - house connected to kitchen by a 1-story frame hyphen
Original Owner: Charles Carter, son of Robert "King" Carter
Sources: Baldwin (1915), Green et al (2001), HABS, Reiff (1986), Smith (n.d.), Waterman (1945)

COROTOMAN

Location: Lancaster County
Date: 1720, burned 1729
Elevation: probably 2 or 2½ stories above a full basement
Material: brick, English bond below water table and Flemish bond above
Roof: ?
Chimneys: 2 interior, separated from end walls by a narrow passage/closet
Water Table: beveled ?
Belt Course: probably, but of unknown form
Dimensions: 90' x 40' (including 10' wide gallery) (Hudgins 1981)
Bays: probably symmetrical 7-bay façade with central doors in each front, and an exterior cellar entrance midway along the north façade and at each end of the gallery
Plan: - single pile, with 1 room each side of a 16' wide central passage offset to the west (all floors presumably the same)
 - wrapped around the sides of each chimney base and separating it from the end walls of the house were closet spaces
 - an original 10' (7' interior) wide gallery or piazza extended along the entire southern front, with a projecting pavilion at the centre and at each end
 - main stair located in the central passage with possible secondary stair in each closet
Alterations: ?
Original Owner: Robert 'King' Carter
Sources: Green et al (2001), Hudgins (1981, 1984), Loth (1999)

DRYSDALE GLEBE

Location: King and Queen County
Date: 1745, burned 1954
Elevation: 1½ stories above basement
Material: brick, Flemish bond with glazed headers above water table, Flemish bond below, raking course of glazed headers on gable ends
Roof: gable
Chimneys: 2 interior end
Water Table: 1 course beveled
Belt Course: none
Dimensions: 50' x 20'
Bays: asymmetrical 3-bay façade with central door, plus basement entry just to the left of the door; rear ?
Plan: single pile with 10' central passage and 1 room either side

Alterations: 1 story frame addition
 Original Owners: Drysdale Parish, private ownership after 1762
 Sources: Green et al (2001), HABS

EAGLE'S NEST (aka Margots, Claybancke)

Location: Charles City County
 Date: c. 1720-40 (Upton 1980)
 Elevation: 1½ stories
 Material: brick, English bond with glazed headers above and below water table, raking course of glazed headers
 Roof: gable
 Chimneys: 2 t-shaped end (1 interior, 1 exterior)
 Water Table: beveled
 Belt Course: none
 Dimensions: ?
 Bays: symmetrical 3-bay façade with central door in each front
 Plan: - single pile, with central passage and one room either side
 Alterations: - raised to 2 stories in mid 19th or early 20th century with frame construction and a frame porch
 - restored c. 1981, including hyphen and addition
 Original Owners: ?
 Sources: Loth (1999), Packer (1989), Upton (1980)

EASTWOOD

Location: Virginia Beach (orig. Princess Anne County)
 Date: 1st ¼ 18th century, demolished shortly after 1940 (Green et al 2001)
 Elevation: 1½ stories with no identifiable basement
 Material: brick, Flemish bond with glazed headers above and English bond below the water table
 Roof: gable
 Chimneys: 2 interior end
 Water Table: beveled in English bond
 Belt Course: none
 Dimensions: approx. 41' x 21' (Carson 1969)
 Bays: symmetrical 3-bay façade with central door both fronts
 Plan: - single pile 2-room plan with doors opening into larger south room
 - stair located against south gable
 - attic comprises 2 rooms accessed via a north-south passage running along the east façade, from the stair landing to its approximate midpoint
 Alterations: ?
 Original Owner: William Achison
 Sources: Carson (1969), Green et al (2001), HABS, Kellam and Kellam (1958)

GERMANNA

Location: Orange County
 Date: c. 1720, burned c. 1750 (Sanford 1989)
 Elevation: probably 1½ or 2 stories above a full basement
 Material: stone foundation with brick veneer, west wall of brick; walls English bond below water table and Flemish bond above; evidence of molded stone columns and other decorative work

Roof: ?
 Chimneys: 1 central interior cross-shaped stone base with 4 fireplaces
 Water Table: ?
 Belt Course: ?
 Dimensions: approx. 90' x 36' (Sanford 1989)
 Bays: ?
 Plan: - double pile
 Alterations: - unknown, but variety of basement floor levels and building materials
 perhaps suggest additional construction phases
 Original Owner: Lt. Gov. Alexander Spotswood
 Sources: Green et al (2001), Sanford (1989, personal communication 2001)

HUNGAR'S GLEBE

Location: Northampton County
 Date: 2nd ¼ 18th century (Upton 1980)
 Elevation: 1½ stories
 Material: brick, Flemish bond with glazed headers above water table, English bond below
 Roof: gable
 Chimneys: 2 interior end
 Water Table: 1 course beveled
 Belt Course: none
 Dimensions: approx. 47'6" x 32' (Upton 1980)
 Bays: asymmetrical 4-bay west façade, nearly symmetrical 5-bay east façade with central door
 Plan: - double-pile, with central passage slightly offset to the north that does not take in any windows, and 2 rooms either side
 - smaller rooms to the north are approximately equal in size, those to the south are unequal with the southwest being about half the size of the southeast
 - stair was located in southwest room, and each room is serviced by a corner fireplace
 Alterations: - stair moved to north side of passage 1768
 - 1-story frame addition
 Original Owners: Hungar's Parish, private ownership 1870
 Sources: Loth (1999), Upton (1980)

INDIAN BANKS

Location: Richmond County
 Date: 1738 (dendrochronology)
 Elevation: 2 stories above basement
 Material: brick, Flemish with random glazed headers above and below water table
 Roof: hipped
 Chimneys: 2 interior end, east stack offset to the north
 Water Table: 1 course beveled
 Belt Course: 3 courses flat
 Dimensions: approx. 50' x 20' (main block) (Upton 1980)
 Bays: symmetrical 5-bay façade with central door in north and south fronts
 Plan: - single pile main block with central passage slightly offset to the east, flanked by one room either side
 - an original ell projects northward from the northeast end of the main block approx. 20'

- the western room is the largest, because the passage is offset to the east, and the room east of the passage is the smallest because the ell room extends slightly into the main block so as to be accessible via the passage
- the stair rises along the eastern side of the passage
- the two eastern rooms are serviced by corner fireplaces

Alterations: - English bond patch on west end
 - interior decoration altered in early 19th century, except for stair, some chair rails and window reveals in south room
 - single-story wing added to the east end in 1975

Original Owners: Capt. William and Esther Glascock

Sources: HABS, Loth (1999), Reiff (1986), Upton (1980, 1982a)

MATTHEW JONES HOUSE

Location: Newport News (orig. Warwick County)

Date: 1729 (dendrochronology)

Elevation: 1½ stories, with 2-story porch tower and 1-story shed; basement under shed and west room

Material: brick, chimneys Flemish bond with random glazed headers above and below water table, walls Flemish bond with glazed headers above and English bond below, 2nd story addition Common (American) bond with 7 courses of stretchers for every course of headers, row of glazed headers along original roof rake

Roof: gable

Chimneys: 2 exterior end, 1 in northeast corner of shed

Water Table: walls, porch and shed beveled in English bond; chimneys stepped back 1¾" (Flemish bond)

Belt Course: porch tower has 2 flat courses

Dimensions: 30'9" x 21'4" (main block)

Bays: symmetrical 3-bay façade with central door in south front, 1 window near western end of rear façade, 1 window either side of each chimney stack, 1 window in east and west sides of shed and porch tower

Plan: - single pile 2-room plan, with entrance via porch tower into larger western room
 - access to the shed, which is flush with the eastern end of the main block and extends 2/3 of the way across its rear, is through the smaller eastern room
 - stair located in the northeast corner of the western room, along the partition

Alterations: - the house began as a frame earthfast structure with brick chimneys about 1725, with 2 rooms and exposed decorative framing
 - in 1730 the walls and foundations were replaced with brick, and a porch tower and lean-to shed added; at this time the window north of the west chimney was bricked up and the large western fireplace was reduced
 - in 1893 the house was raised to a full 2 stories, the chimneys were raised, the interior trim was remodelled, and a small lobby was created beyond the porch
 - between 1893 and the 1910s a frame addition was erected against the eastern gable end and the southern window transformed into a door to provide interior access

Original Owner: Matthew Jones

Sources: Forman (1948), Graham et al (1991), HABS, Loth (1999), Reiff (1986), Upton (1980)

KEELING

Location: Virginia Beach (orig. Princess Anne County)

Date: c. 1725 (Graham et al. 1991)
Elevation: 1½ stories with no cellar
Material: brick, Flemish bond with glazed headers and gable-end chevrons above the water table and English bond below
Roof: gable
Chimneys: 2 interior end
Water Table: beveled in stretchers
Belt Course: 2 course flat on gable ends
Dimensions: 48'3" x 20'2½"
Bays: symmetrical 5-bay façade with central door on east front, balanced 3-bay façade with central door on west front
Plan: - single pile with 1 room either side of an 8' wide central passage slightly offset to the south (although it takes in no windows)
 - stair located in passage
 - upper story duplicates ground floor
Alterations: - window added north of west entrance, destroying symmetry
 - bricking-up of original transom over east entrance
 - doorway in south end is probably opened to access 1-story frame addition
Original Owners: Thomas Keeling
Sources: Carson (1969), Forman (1948), Graham et al (1991), HABS, Loth (1999), Upton (1980)

KISKIACK

Location: York County
Date: between 1696-1728 (probably closer to latter)
Elevation: 1½ stories with no basement
Material: brick, Flemish bond with glazed headers on gable ends and on front and rear above the water table, English bond below water table front and rear
Roof: gable
Chimneys: 2 t-shaped interior end
Water Table: beveled (front and rear only)
Belt Course: none
Dimensions: 41'5 7/8" x 19'5 1/8"
Bays: symmetrical 3-bay façade with central door on east and west
Plan: - single pile, 2-room plan; 2nd floor same, perhaps with passage
Alterations: - central passage created (now gone)
 - plastering and whitewashing of brick (probably late 18th or early 19th century)
 - burned in 1915 and rebuilt within the walls in 1927
 - frame addition to north gable end, including transformation of eastern window to a door (gone by 1957)
 - single-story enclosed brick porch at west entrance built in 1937
 - bricking-up of other 3 ground floor gable-end windows
 - rear porch (removed in 1953)
 - dormers
Original Owner: William Lee
Sources: HABS, Forman (1948), Loth (1999), Reiff (1986), Thomas and Muraca (1986)

LYNNHAVEN (aka WISHART)

Location: Virginia Beach (orig. Princess Anne County)
Date: 1724 (dendrochronology)

Elevation: 1½ stories with no basement

Material: brick, English bond with random glazed headers above and below the water table, raking course of glazed headers on each gable

Roof: gable

Chimneys: 2 t-shaped exterior end

Water Table: 1 course ovolo in stretchers

Belt Course: 2 courses flat on gable ends in English bond

Dimensions: 32'9¼" x 21'½" (excluding chimneys)

Bays: asymmetrical 3-bay façade with central door on west front, 2 bays in east façade including a door near the northeast corner

Plan: - single pile; slightly off-centre western door opens onto larger south room with stair directly opposite on rear wall

- smaller room to north accessible from exterior via the door in the eastern façade

- attic plan consists of 2 rooms separated by a central passage with the stair

Alterations: - frame addition on north end and possibly the door in the north gable

- porch on west façade

- shed dormers on east and west slopes

- restoration removed these alterations following donation to the APVA in 1971

Original Owner: Francis Thelabell

Sources: Carson (1969), Forman (1948), HABS, Kellam and Kellam (1958), Loth (1999), Reiff (1986)

MALVERN HILL

Location: Henrico County

Date: c. late 17th/early 18th century, burned 1905 (Green et al 2001)

Elevation: 1½ stories above full basement (except porch)

Material: brick, Flemish bond with glazed headers above and below water table, except chimneys (diapering) and west gable end below water table (English bond)

Roof: gable with gabled porch chamber

Chimneys: 2 interior end with diamond patterns in glazed headers (diapering), not bonded to surrounding end walls; 1 exterior on north side of rear ell in Common (American) bond

Water Table: 1 course beveled in Flemish bond, except west gable in English bond

Belt Course: 2 courses over east gable entrance

Dimensions: 50'10½" x 20'7" (excluding porch and rear room)

Bays: symmetrical 5-bay façade with central door in south (river) front, symmetrical 2-bay façade (windows either side of central ell) on north (land) front; rear room accessible from exterior by door in east wall

Plan: - single pile 2-room plan with 1½-story porch tower (south) and 1½ story rear ell (north)

- entrance opened onto larger western room with smaller room to east

- entrance to rear projecting room was off-centre to the west

- stair probably located opposite entrance against room partition and rear wall

- attic had 4 chambers opening off a hallway

Alterations: - probably began as a frame house, with chimneys incorporated into later brick structure

- rear room possibly an 18th century addition, with chimney definitely later than the room (different brick bonding)

- classical pediment and cornice possible remodelling or evidence of early 18th century date

- frame wing with brick chimney added to west gable end at unknown time

Original Owner: Thomas Cocke

Sources: Carson (1969), Forman (1948), HABS, Green et al (2001), Loth (1999), Reiff (1986), Waterman (1945)

MASON HOUSE

Location: Accomack County

Date: 1729 (Graham et al. 1991)

Elevation: 1½ stories above basement

Material: brick, Flemish bond above and below water table with recessed panels on both façades between the bays, separated by brick pilasters and window enframements; panels are decorated with diamond figure-eight diapering in glazed headers; jambs and pilaster caps surrounding doors are of molded brick; lintels have alternating glazed headers

Roof: gable with slight flare

Chimneys: 2 interior end in irregular Common bond?

Water Table: 1 course ovolo in Flemish bond

Belt Course: none

Dimensions: 42'8" x 23'0" (Forman 1975)

Bays: symmetrical 3-bay façade with central door front and rear

Plan: - single pile with 1 room either side of a central passage slightly offset to the north, taking in no windows

- stair located in passage

- upper floor same, except passage is wider and includes a closet adjacent to the stair

Alterations: - the fact that the chimneys are not bonded to the end walls suggests the house may have originated as a frame structure, later rebuilt in brick

- exterior walls covered in stucco

Original Owners: William Andrews?

Sources: Forman (1975), HABS, Loth (1999)

MATTEISSIPPI (aka STURGIS)

Location: Northampton County

Date: c. 1700-15, now in ruins (Green et al 2001)

Elevation: 1½ stories with no basement

Material: brick, Flemish bond with regular glazed headers above and below the water table

Roof: gable

Chimneys: 2 interior end

Water Table: 1 course beveled

Belt Course: none

Dimensions: 35'7" x 20'5"

Bays: asymmetrical 4-bay façade with 2 central doors on south front, asymmetrical 3-bay façade with central door on north front

Plan: - single pile 2-room plan with larger western room accessible from both the north south sides, and smaller eastern room only from the second door to the south

- stair located in western room along the north wall

- façade windows as well as the doors opening into the western room are directly opposite one another

- 2nd floor has 2 equal sized rooms

Alterations: ?

Original Owner: Obedience Johnson

Sources: Forman (1975), Green et al (2001), HABS, Herman and Orr (1975)

MELVILLE

Location: Surry County

Date: after 1723

Elevation: 1½ stories

Material: brick, Flemish bond with glazed headers and gable-end chevrons above the water table, English bond with alternating glazed headers below

Roof: jerkinhead (clipped gable)

Chimneys: 2 interior end

Water Table: beveled

Belt Course: none

Dimensions: approx. 38' x 19' (Upton 1980)

Bays: symmetrical 3-bay façade with central door front and rear

Plan: - single pile 2-room plan, with entry into larger west room; attic probably same
- stair in northwest corner of eastern room

Alterations: - a rear frame addition was added c. 1780 and the stair was straightened to rise into this extension
- present lean-to replaced addition before 1802
- east frame wing added and door cut for interior access

Original Owners: Faulcon family

Sources: Loth (1999), Upton (1980)

MORATTICO HALL

Location: Richmond County

Date: c. 1720-30, demolished c. 1927 (Green et al 2001)

Elevation: 1½ stories, with 1-story wing

Material: brick, details obscured by whitewash

Roof: gable

Chimneys: 1 t-shaped interior end

Water Table: ?

Belt Course: ?

Dimensions: ?

Bays: 3-bay façade with door at end opposite to chimney, 1 bay in wing

Plan: - double pile with a side passage and stair rising in the passage?
- Waterman suggested that it only possessed a single room per floor

Alterations: - single-story wing perhaps an addition
- original entry replaced in mid-19th century, with new door, transom and sidelights
- interior woodwork salvaged and re-erected elsewhere

Original Owner: Charles Grymes II

Sources: HABS, Green et al (2001), Waterman (1945)

NELSON HOUSE (aka YORK HALL)

Location: Yorktown

Date: 1729 (dendrochronology)

Elevation: 2½ stories above a full basement

Material: brick, Flemish bond with no glazed headers; stone quoins, keystones and sills;
lower part of foundation (8 courses below water table) constructed of stone

Roof: gable with end pediments

Chimneys: 2 interior

Water Table: 3 courses in Flemish bond (top to bottom): cyma recta, torus, inverted cove

Belt Course: 3 flat courses in Flemish bond, stopping short of quoins

Dimensions: 56'4" x 40'7" (Hatch 1969)

Bays: symmetrical 5-bay façade with central door on front (north); asymmetrical 4-bay façade with door second bay from (and offset to) the west on rear (south)

Plan: - double pile with central passage off-centre to the west to take in a window on the north façade, and 2 rooms either side (2nd floor same)

- narrower western rooms are of equal size; to the east the partition between rooms is shifted south of centre, creating a smaller room in the southeast
- stair is located in the central passage facing the north entrance, with a secondary stair along the partition between the northeast and southeast rooms, adjacent to the passage
- back-to-back fireplaces located along the partition between northern and southern rooms
- the southwestern room is accessible from the exterior via a doorway centred along the west gable end

Alterations: - enclosed brick porch at rear (south) entrance after 1860

- c. 1914 renovations by Capt. George Preston Blow, including restoration of stairway, reproduction of 18th century paint scheme, addition of dormers, application of classical decoration to west entrance, replacement of mantels, introduction of modern utilities, etc.
- 1969 restoration to 18th century appearance, including removal of dormers

Original Owner: Thomas Nelson

Sources: Claiborne (1957), HABS, Hatch (1969b), Loth (1999), Reiff (1986), Waterman (1945), Wenger (1989)

THOMAS PATE HOUSE

Location: Yorktown

Date: c. 1720s (Chappell 1999)

Elevation: 1½ stories above a full basement

Material: brick, Flemish bond with glazed headers above and English bond below water table; raking course of glazed headers

Roof: gable

Chimneys: 1 exterior end (west), 1 interior end t-shaped (rear ell)

Water Table: beveled

Belt Course: none

Bays: probably symmetrical 3-bay façade with central door

Plan: - single pile with door opening into larger western room

- original rear ell accessible from smaller unheated eastern room via stair passage
- probably 4 bedrooms on upper floor (2 in main block, 2 in ell)

Alterations: - 2nd ¼ 18thc: grade raised, covering most of the exposed basement

- 3rd ¼ 18thc: sash windows replace casement
- late 18th/early 19thc: window to the right of the main entrance converted to a door
- 2nd ¼ 19thc: brick leanto rear, frame porch front; single window left of door converted to 2 windows; west chimney reduced in size to corbel to the rear and new windows added in its place; central passage created; interior ell chimney replaced with exterior
- 2nd ½ 19thc: door right of main entrance returned to window, replaced by door on east gable; porch removed, window wells created, coal chute added to west side of ell; cellar entrance

created on east gable end along with an exterior chimney

- 1925: house heavily remodelled, including expansion of stair passage into east room, removal of central passage, removal of rear leanto and closure of rear cellar entrance, construction of brick vestibule linking western room with stair passage (archaeology indicates that an 18th century counterpart once existed in the same location), the addition of a frame shed to the rear of the ell, and the construction of an interior chimney on the east gable end (the 19th century one was gone by this time)

Original Owners: Cole Digges?

Sources: Chappell (1999), Hatch (1969a)

PINEWOODS (aka WARBURTON)

Location: James City County

Date: c. 1st decade 18th century

Elevation: 1½ stories above basement

Material: brick, Flemish bond with glazed headers above water table, English bond below

Roof: gable

Chimneys: 2 t-shaped interior end

Water Table: 1 course beveled ?

Belt Course: none

Dimensions: ?

Bays: symmetrical 3-bay façade with central door front, unbalanced 3-bay façade with 2 doors rear

Plan: single pile, probably 2-room structure

- Alterations: - gutted by fire in early 20th century
- rebuilt within its walls as hunting lodge, with dormers and a single-story porch

Original Owners: Warburton family

Sources: HABS, Loth (1999)

RINGFIELD

Location: York County

Date: c. 1698, burned 1920 (Green et al 2001)

Elevation: 2½ stories with 1½-story eastern wing

Material: brick, Flemish bond with glazed headers above the water table, English bond below; gable ends have a few glazed headers

Roof: gable

Chimneys: 2 t-shaped interior end, 1 interior end on wing

Water Table: 1 course ovolo

Belt Course: 3 or 4 courses of molded brick over and between first story windows only

Dimensions: ?

Bays: symmetrical 5-bay façade with central door on north and south front and 2 additional bays in the wing

Plan: - single pile, with 1 room either side of a wide central passage (both floors)

- attic divided into 2 large rooms, as was the wing

- Alterations: - c. 1918 earlier narrow dormers replaced with Colonial Revival dormers, accompanied by a Colonial Revival door surround to the north
- the wing does not appear to be original
- windows were probably casement and have been replaced with sash
- second-story door on south façade probably added when 2-story frame porch constructed (which itself was probably not original)

- rooms may have been subdivided

Original Owner: Joseph Ring

Sources: HABS, Green et al (2001), Hatch (1970), Waterman (1945)

ROSEWELL

Location: Gloucester County

Date: c. 1726, burned 1916

Elevation: 3 stories above full basement

Material: brick, Flemish bond with random glazed headers above and below water table, English bond behind façades and for interior partitions; stone chimney caps, steps, keystones, sills, balusters

Roof: deck hipped with eaves parapet and 2 cupolas

Chimneys: 4 interior t-shaped end (one either side of each end pavilion)

Water Table: 3 courses (top to bottom): cyma recta in headers, torus in Flemish bond, fascia with projecting lip at top

Belt Course: 2nd floor – 4 flat courses in Flemish bond with cyma reversa below
3rd floor – same as second, but with three flats

Dimensions: 59' x 56'10" (71'6" x 56'10" including end pavilions) (Reiff 1986)

Bays: symmetrical 5-bay façade with central door in each front, end pavilions 3 bays

Plan: - double pile, with pavilions projecting from the east and west ends, and 4 large rooms per floor separated by narrow passages

1st and 2nd floors – the north entrance opened onto a large hall encompassing the doorway and the eastern 2 windows of the façade

- the stair was against the southern wall of the hall, extending into the eastern pavilion

- opposite the main stair to the west was a narrow passage separating the northwest and southwest rooms and containing a secondary stair

- the south entrance led to a narrow passage separating the southeast and southwest rooms and opening onto the hall to the north

3rd floor – narrow passages extended north-south and east-west in a cross pattern through the centre of the house separating and opening onto equal-sized rooms in each of the four corners

- the only access to this floor was via the secondary stair in the eastern passage

Basement – a narrow passage extended east-west through the centre of the basement, accessible from the inside via the secondary stair and the outside via a bulkhead entrance at its eastern end

- two rooms flanked the passage on either side, including a vaulted chamber in the northeast corner

Alterations: - major repairs c. 1771, perhaps to fireplaces, hall floor, doors, windows, etc

- c. 1838 cupolas and parapets removed, and roof changed from deck-on-hip to low hip; pediments added to pavilions; interior woodwork (except stairs) removed

- extensive renovations c. 1848-51, possibly including a new roof

- foundation below water table and entrance pilasters and architraves whitewashed in 19th century

Original Owners: Mann Page I and Judith Carter Page, daughter of Robert 'King' Carter

Sources: Brown (1973), Claiborne (1957), HABS, Lanciano (1978), Leviner (1987, 1993), Loth (1999), Most (1994), Noël Hume (1962), Reiff (1986), Waterman (1945)

SABINE HALL

Location: Richmond County

Date: 1738 (dendrochronology)

Elevation: probably originally 2½ stories above a full basement

Material: brick, Flemish bond with glazed headers above and English bond below the water table; lintels, sills, keystones, and central pavilions of stone

Roof: hipped

Chimneys: 4 interior (2 each) end

Water Table: 2 course Flemish bond cover over torus (rear), stone (front)

Belt Course: 3 courses flat in Flemish bond, discontinuous at corners

Dimensions: 59'10" x 39'10" (Rasmussen 1980)

Bays: symmetrical 7-bay façade with central door each front

Plan: - double pile, with 16'10" wide central passage incorporating a window each side of the entrance, and flanked by 2 rooms either side (1st and 2nd floors same)

- the eastern rooms are of equal size, serviced by corner fireplaces, and are separated by a narrow passage containing the stair; a secondary stair once existed south of the fireplace in the northwest room

- the western rooms are unequal in size, the southwest incorporating the space occupied by the stair passage to the east

- the only difference in the cellar is the presence of 3 rooms east of the passage

Alterations: - in the 1760s the detached kitchen to the east was connected to the main house and a piazza added to the south (river) façade

- in the 19th century the piazza was rebuilt as a verandah

- the hipped roof and tall chimneys were lowered in the 1820s, a classical revival portico was constructed around the north (land) entrance, matching broad classical pediments added to the south side, and the brickwork was painted white

- a west wing was added in 1929

- secondary stair removed and exterior access bricked up

Original Owner: Landon Carter, son of Robert 'King' Carter

Sources: Claiborne (1957), HABS, Loth (1999), Rasmussen (1980), Reiff (1986), Wells (1994), Wenger (1989)

ST. ANNE'S GLEBE

Location: Essex County

Date: 2nd ¼ 18th century (Upton 1980)

Elevation: 2½ stories above basement

Material: brick, Flemish bond with glazed headers above water table, English bond below; double glazed raking course on gable ends

Roof: gable

Chimneys: 2 interior end

Water Table: 1 course beveled

Belt Course: none

Dimensions: approx. 50'½" x 20' 1½"

Bays: symmetrical 3-bay façades with central door

Plan: - single-pile, with 1 room either side of a central passage on both floors

Alterations: heavy alterations in late 18th century: stacks rebuilt, brick partitions replaced by frame, elaborate woodwork installed

Original Owners: St. Anne's Parish, private after early 19th century

Sources: HABS, Loth (1999), Upton (1980)

SALUBRIA

Location: Culpeper County

Date: c. 1742

Elevation: 2 stories above a full basement

Material: brick, Flemish bond above and below water table

Roof: hipped

Chimneys: 2 interior end

Water Table: 1 course beveled

Belt Course: none

Dimensions: approx. 50' x 40' (Reiff 1986)

Bays: symmetrical 5-bay façade with central door in each front

Plan: - double pile, with central passage slightly off-centre and 2 rooms either side (all floors)

- the rooms either side of the passage share a chimney stack and have corner fireplaces

- the stair was located in the passage

Alterations: - stair moved to NE room in late 18th century

- the structure has not been inhabited since 1938 and lacks electricity and plumbing

- stuccoed on all but east side

- staircase to basement removed

- partition between passage and eastern rooms removed on second floor

- repaired 1950s, including removal of covered porches (not original)

Original Owners: Reverend John Thompson and widow of Governor Spotswood

Sources: Loth (1999), Mooney (1991), Reiff (1986), www.drop-of-ink.com, www.germanna.org

SEVEN SPRINGS

Location: King William County

Date: before 1729

Elevation: 1½ stories above a full basement

Material: brick, Flemish bond with glazed headers above and English bond below water table; string of glazed headers along roof rake

Roof: jerkinhead (clipped gable)

Chimneys: 1 t-shaped central

Water Table: beveled

Belt Course: none

Dimensions: 32' x 32' (Henley 1979)

Bays: asymmetrical 3-bay east and west façades, with door at south bay of each and another as the west bay in the north end (which has 2 bays, as does the south)

Plan: - asymmetrical double pile, with an entry hall and 3 rooms with corner fireplaces surrounding a central chimney

- east entrance opens onto a narrow entry hall with the stair along the north wall

- to the north is the largest room, and beyond the entry to the west and northwest are two additional rooms with exterior access

Alterations: - remodelled in early 19th century

- 3 front (east) dormers date to late 19th century, 3 rear dormers to the mid-20th century, as does a bulkhead entrance on the north end

- later 20th century renovations to interior

Original Owner: Capt. George Dabney

Sources: HABS, Henley (1979), Loth (1999), Upton (1980, 1982a)

SHIRLEY

Location: Charles City County

Date: 1738 (dendrochronology)

Elevation: 2½ stories above a full basement

Material: brick, Flemish bond with glazed headers above and Flemish bond below the water table

Roof: mansard

Chimneys: 2 interior, at break of east and west roof slope

Water Table: 1-course ovolo, Flemish bond

Belt Course: 5 courses (top to bottom): ovolo in headers, inverted cove in stretchers, 2 flat courses in Flemish bond, cyma reversa in headers

Dimensions: 48'6" square (Waterman 1945)

Bays: symmetrical 5-bay façade with central door in each front, 4 bays each end

Plan: - double pile, with 4 rooms on first floor

- broad entrance lobby across north (land) front from doorway to west end, with a smaller square room to the east

- south (river front) rooms are reversed, with larger room diagonal to entrance lobby

- stair is located in entrance lobby, which connects with all other rooms

- fireplaces along partition between north and south rooms

Alterations: - remodelled in 1770s by Charles Carter, who added 2-story porticoes

- porticoes modified in 1831

Original Owners: Elizabeth Hill Carter (heiress) and John Carter III, son of Robert 'King' Carter

Sources: Claiborne (1957), HABS, Loth (1999), Reinhart (1984), Waterman (1945)

SKIFF'S CREEK

Location: James City County

Date: c. 1730, burned after 1941 (Carson 1969)

Elevation: 1½ stories above a high full basement

Material: brick, Flemish bond with glazed headers above the water table, English bond below (original east end gone but probably same); raking course of glazed headers on west gable end (east probably same)

Roof: gable

Chimneys: probably 2 interior end

Water Table: 1 course beveled in English bond

Belt Course: none

Dimensions: approx. 34' x 20'11" (Carson 1969)

Bays: probably symmetrical 3-bay façade with central door on front (south) and rear (north)

Plan: - single pile with 2 rooms, the entrances opening into the larger western room

Alterations: - the east gable was taken apart and a 1-bay extension added, and both chimneys were reconstructed as exterior in Common bond with 7 courses of stretchers for every row of headers (mid 19th century)

- the position of doors and windows slightly altered, perhaps at the same time as the other alterations, including the south entrance which was shifted approximately 1' east (north probably same)

- a 3rd door was cut in the north wall to access a 2-story frame addition with a brick foundation in 7-stretcher Common bond (mid 19th century)

- after the rebuilding, the single partition was converted to a passage

Original Owners: ?

Sources: Carson (1969), HABS

SOMERS HOUSE

Location: Northampton County

Date: after 1727

Elevation: 1½ stories above a full basement

Material: brick, Flemish bond with glazed headers above and below the water table and diapering on the east and west gables

Roof: gable

Chimneys: 2 interior end along the northwest gable

Water Table: 1 course beveled

Belt Course: none

Dimensions: 30'1½" x 30'5"

Bays: 3-bay façades with the door at the western bay of each, 2 bays in each gable end

Plan: - originally a longitudinal 2-room plan, with the larger room to the north and smaller room to the south

- the stair is located opposite the entrances along the west gable end

- 2nd floor has 4 unequal sized rooms (original divisions ?)

Alterations: - the floorplan was altered later in the 18th century to create a narrow passage between the front and rear entrances, isolating the stair and decreasing the size of each room

- there is also evidence indicating that the front and rear entrances were originally centrally located, and later shifted to the west when the passage was installed

- an addition was once attached to the west gable end, and the present door in this location may have been cut to access it

Original Owner: Leaven Smith

Sources: Forman (1975), HABS, Herman and Orr (1975), Loth (1999), Whitelaw (1968)

SOUTHWARK GLEBE

Location: Surry County

Date: mid 18th century (traditional 1725) (Upton 1980)

Elevation: 1½ stories over basement

Material: brick, Flemish bond with rodded joints above and below water table (possible glazed headers), raking course of glazed headers

Roof: gable

Chimneys: 2 interior end

Water Table: 1 course beveled

Belt Course: none?

Dimensions: approx. 47' x 20' (Upton 1980)

Bays: symmetrical 3-bay south façade with central door, asymmetrical 4/5 bay north façade

Plan: - single-pile, with 1 room either side of a central passage slightly offset to the east

- stair located in northeast corner of passage

- upper floor is the same, except that the southern half of the passage is partitioned off to create a small space accessible from the western room

Alterations: - remodelled in 1830s: gable roof replaced with gambrel, chimneys rebuilt in Common bond as exterior end

Original Owners: Southwark Parish, private owners 1802

Sources: Loth (1999), Upton (1980)

STRATFORD HALL

Location: Westmoreland County

Date: 1737 (dendrochronology)

Elevation: 1 story above a high full basement

Material: brick, Flemish bond above the water table and Flemish bond with glazed headers below; English bond below ground level

Roof: hipped

Chimneys: 2 clusters of 4 square chimneys linked by arches at their caps, located at the centre of each wing

Water Table: 3 courses in Flemish bond (top to bottom): flat, ovolo, cove

Belt Course: none

Dimensions: 62'8" x 32'7" (wings), 32'1" x 28'4" (hyphen), 93'6" x 63'8" (overall)

Bays: symmetrical 5-bay façade with central door each front and symmetrical 3-bay ends (wings); 3 regularly spaced bays each side of hyphen

Plan: - h-shaped, with 2 double pile wings joined by a central hyphen

- each wing consists of a central passage flanked by fireplaces and 2 unequal-sized rooms either side
- the hyphen forms a central hall, with direct access to each adjacent room of both wings and their respective central passages
- at the end of each passage is an exterior entrance, although the principal entrances are located at the north and south sides of the hyphen
- small stair to lower level in east wing between passage and southwest room
- there is also direct access to the lower level via exterior entrances on the north, east and west sides; the layout of this floor is essentially the same as the one above

Alterations: - during Philip Lee's tenure (1750-74) stone steps replaced wooden ones on the south, east and west sides, the doors between the hall and adjacent rooms were closed off, and a porch with wooden steps was added to the north entrance

- Henry Lee (1796-1800) added projecting semi-circular porches on the north and west, connected chimney clusters with a roof walk, placed a stair to the lower floor in the northwest bedroom, altered some interior partitions, and relocated the schoolroom to the lower floor where he also created additional bedrooms
- the interior was redecorated c. 1800 with Federal style trim
- in 1929 the property was acquired by the Robert E. Lee Memorial Association, which restored the roof, chimneys and platform, as well as the interiors, and reconstructed the exterior stairs

Original Owners: Thomas and Hannah Lee

Sources: Robert E. Lee Memorial Association (1998), Claiborne (1957), HABS, Loth (1999), Reiff (1986), Waterman (1945), www.stratfordhall.org

SWEET HALL

Location: King William County

Date: c. 1700-20

Elevation: 1½ stories with 1½-story original ell above a full basement

Material: brick, Flemish bond with glazed headers above water table on south façade, English bond elsewhere

Roof: gable

Chimneys: 2 t-shaped interior end, 1 on north side of ell

Water Table: 1 course beveled, Flemish bond

Belt Course: none

Dimensions: approx. 44' x 22' with 16' x 22' ell (Henley 1979)

Bays: 5-bay façade with central door in south front; 5 bays in rear (north), including a door and window in the ell and a door to the east; 2 windows each end of main block; and a door in the west and a window in the east side of the ell

Plan: - single pile 2-room plan, with principal (south) entrance opening onto larger western room and a door opposite leading to the rear ell, which is offset to the east, and which contains the stair and a third room

- smaller eastern room accessed via the western room or an exterior door in the northeast corner
- the ell has access from the main block to the south and via two exterior doors on the north and east sides
- the upper floor also contains 3 rooms, in addition to a central passage separating the rooms in the main block, and also separating the stair from the chamber in the ell

Alterations: - late 18th century porches along the south front and on the eastern side of the ell

- enlargement of windows in 18th and 19th centuries
- modillion cornice on front of main block from late 18th/early 19th century
- early 19th century scored stucco on principal façade and east wall of ell
- original stairs replaced in 1920s
- dormers added

Original Owner: Thomas Claiborne

Sources: HABS, Henley (1979), Loth (1999), Upton (1980, 1982a)

TABB HOUSE

Location: York County

Date: c. 1710-40, now destroyed (Carson 1969)

Elevation: 1½ stories above a full basement

Material: brick, Flemish bond with glazed headers

Roof: gable

Chimneys: 1 interior, 1 exterior end

Water Table: 1 course beveled in Flemish bond

Belt Course: none

Dimensions: 42'2" x 20'2" (Carson 1969)

Bays: symmetrical 3-bay façade with central door front (south), asymmetrical 4-bay façade with central door rear (north)

Plan: - single pile with 1 room either side of a 6'3" wide central passage that housed the stair

- attic plan matches 1st floor
- exposed decorative framing on ceilings in both rooms

Alterations: - west chimney replaced

- dilapidated structure was dismantled by the Colonial Williamsburg Foundation and used for raw materials in the restoration

Original Owner: ?

Sources: Carson (1969)

TAR BAY

Location: Prince George County

Date: c. 1746, burned c. 1965 (Green et al 2001)

Elevation: 2 stories above a full basement

Material: brick, Flemish bond above and below the water table
Roof: hipped
Chimneys: 2 exterior end, with exterior fireplace openings (bricked up) for additions that were never constructed
Water Table: 1 course beveled
Belt Course: none
Dimensions: ?
Bays: symmetrical 5-bay façade with central door front and rear
Plan: - single pile, t-shaped plan with enclosed 2-story porch tower, opening into a central passage flanked by 1 room either side; same upstairs, with porch providing an additional room
Alterations: ?
Original Owner: Daniel Colley ?
Sources: Bradbury (1996, 1997), Green et al (2001), Wyatt (1955)

ADAM THOROUGHGOOD HOUSE

Location: Virginia Beach (orig. Princess Anne County)
Date: 1720 (dendrochronology), traditional c. 1680
Elevation: 1½ stories with no basement
Material: brick; English bond with random glazed headers on east facade and north and south ends above, and all four walls below the water table; Flemish bond with glazed headers on west facade above the water table; raking course of glazed headers each gable
Roof: gable
Chimneys: 2 end (north interior, south exterior t-shaped)
Water Table: 1 course ovolo in stretchers
Belt Course: 2 flat courses in Flemish bond across each end
Dimensions: 45'7" x 20'7" (excluding chimney)
Bays: asymmetrical 3-bay façade with central door on east and west fronts; windows on each side are directly opposite, doors are not
Plan: - single pile 2-room plan with doors opening onto larger south room and stair along the partition facing west (probable original layout)
 - attic plan matches 1st floor
Alterations: - apparently remodelled c. 1742-5, including a stair instead of a ladder to the 2nd story, interior woodwork and trim, fireplace reduction, sash windows, modillion cornice, and a central passage
 - 1922-8 Georgian style dormers, sashes and doors added by the Metropolitan Museum of Art
 - 1957-9 restoration by the Adam Thoroughgood Foundation, which removed all later alterations to the exterior, but left interior changes; these included the bricking-up of a door in the south gable
Original Owner: Adam Thoroughgood ?
Sources: Rasmussen (1992), Carson (1969), Forman (1948), HABS, Loth (1999), Reiff (1986)

VERVILLE

Location: Lancaster County
Date: c. 1742-1749 (Wells 1994)
Elevation: 1½ stories above basement
Material: brick, Flemish bond with glazed headers above and English bond below water table
Roof: gambrel
Chimneys: 2 interior end

Water Table: 1 course beveled
Belt Course: none
Dimensions: approx. 47' x 20' (Wells 1994)
Bays: symmetrical 3-bay façade with central door in each front, and a cellar entrance west of the north entrance; east and west entrances may be later additions
Plan: - single pile, with 1 room either side of a central passage, only slightly offset to the west (2nd floor same)
 - stair located along eastern wall of passage
Alterations: - early 19th century single-story wings with gable roof and end chimney either side
Original Owner: James Gordon
Sources: HABS, Loth (1999), Wells (1994)

WEBLIN

Location: Virginia Beach (orig. Princess Anne County)
Date: c. 1700
Elevation: 1½ stories with no basement
Material: brick; west façade and west half of south gable below string course Flemish bond with glazed headers; east facade and east half of south gable and pediment English bond with random glazed headers; north gable now Common bond; raking course of glazed headers on south gable
Roof: gable (later gambrel)
Chimneys: 1 exterior t-shaped end, 1 interior end
Water Table: 1 course beveled in English bond (except rebuilt north end and chimney)
Belt Course: 2 flat courses in Flemish bond across south gable
Dimensions: 35'7" (west façade), 36'10" (east façade), 21'3" (south gable) (Carson 1969)
Bays: asymmetrical 3-bay façade with central door each front
Plan: - single pile 2-room plan, with west entrance opening onto larger southern room and stair located opposite the door along the partition and east wall
 - east entrance leads to smaller north room with a considerably smaller fireplace
 - attic probably same
Alterations: - gambrel roof replaced gable roof in mid-18th century
 - present rear (east) door shifted south to service a frame addition, which has since been removed
 - stair rebuilt in same location as was frame partition
 - north gable rebuilt in Common bond, but probably originally resembled south
Original Owner: John Weblin, Jr.
Sources: Carson (1969), Loth (1999), Reiff (1986)

WESTERHOUSE

Location: Northampton County
Date: c. 1700
Elevation: 1½ stories above half-cellar
Material: brick, Flemish bond with glazed headers above and below the water table
Roof: gable
Chimneys: 2 exterior end, the east stack considerably larger than the west
Water Table: 1 course beveled
Belt Course: none
Dimensions: 32'5" x 25'10¾"

Bays: asymmetrical 3-bay façade with door at centre and east bay in north front, asymmetrical 4-bay façade with 2 central doors flanked by a window each side in south front, 1 window on each gable end
 Plan: - single pile with 2 approximately equal-sized rooms, each with separate entrances from both the north and south
 - stair in eastern room along partition
 Alterations: - renovated in 1982, including addition of dormers and rear wing
 Original Owner: Adrian or William Weterhouse II
 Sources: Forman (1975), HABS, Herman and Orr (1975), Loth (1999)

WESTOVER GLEBE

Location: Charles City County
 Date: c. 1720-57
 Elevation: 1½ stories over basement
 Material: brick, Flemish bond with glazed headers on façades above, Flemish bond with random glazed headers on gable ends above, English bond below water table
 Roof: gable
 Chimneys: 2 exterior end
 Water Table: 1 course beveled
 Belt Course: none
 Dimensions: ?
 Bays: symmetrical 5-bay façades with central door
 Plan: single pile ?
 Alterations: Federal trim (windows, doors, interior)
 Original Owners: Westover Parish
 Sources: HABS, Loth (1999)

WINONA

Location: Northampton County
 Date: after 1681, perhaps 1st decade of 18th century (Loth 1999, Herman and Orr 1975)
 Elevation: 1½ stories above cellar
 Material: brick, Flemish bond with glazed headers above and Flemish bond below, except for west wall which is frame
 Roof: gable
 Chimneys: 1 exterior on east end with triple diamond stacks
 Water Table: 1 course beveled
 Belt Course: none
 Dimensions: 31'10½" x 27'7" (excluding chimney)
 Bays: 2 bays in north and south façades with the door to the west in each
 Plan: - originally a longitudinal 2-room plan with larger north and smaller south room
 - stair along west wall of south room
 Alterations: - later in the 18th century a narrow passage was constructed along the western end between the 2 entrances, decreasing the size of each room
 - in the late 19th century a frame wing was added to the east gable and in the mid 20th century a western wing was added
 - part of the north wall has been repaired
 - dormers added
 Original Owner: Matthew Patrick ?
 Sources: HABS, Herman and Orr (1975), Loth (1999), Reiff (1986), Whitelaw (1968)

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