To the Graduate Council:

I am submitting herewith a thesis written by Madison Scott Shumate entitled "Georgian Worldview: Its Definition, History, and Influence on the Material World of Thomas Jefferson." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Anthropology.

Dr. Charles H. Faulkner, Major Professor

We have read this thesis
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor
and Dean of The Graduate School

Georgian Worldview: Its Definition, History, and Influence on the Material World of Thomas Jefferson

A Thesis

Presented for the

Master of Arts

Degree

The University of Tennessee, Knoxville

Madison Scott Shumate

December 1992

Copyright 1992 by Madison Scott Shumate
All rights reserved

DEDICATION

Though she would likely rather have nothing more whatsoever to do with this manuscript that has for so long now kept us apart, nevertheless, this thesis is dedicated to my wife Patti Evans-Shumate who for two years has sacrificed much more than her paychecks to support this endeavor, and for more years than either of us would care to remember has put up with my pernicious prattle about Monticello and its outbuildings.

ACKNOWLEDGEMENTS

Though no degree has yet been conferred, nevertheless, I feel compelled to play the role of some Oscar-bearing actor thanking everyone from the "Key Grip" to President Bush for his part in making the world safe for democracy long enough for me to finish this thing. This, of course, would be no proper thesis acknowledgment page if I did not at this point recognize the efforts of that noble triumvirate of academic advisors: Dr. Charles H. Faulkner, Dr. Gerald F. Schroedl, and Dr. Walter E. Klippel. By this reading, each is to be commended for not only having survived the task of digesting this most unpalatable of manuscripts, but collectively they may also be distinguished as the only persons ever to attempt it, now or in the future. While suggesting that these gentlemen are in no way to blame for this cumbersome thesis, it should however be acknowledged that each in his own way made estimable contributions to my graduate career, such as it is. In their teaching, advice, and encouragement these three have given of themselves without hesitation and I have benefited greatly from their generosity and wisdom. As my major advisor, Dr. Faulkner found himself perhaps too often plagued by my presence, questions, and grammatical ineptitude and therefore to him I owe a considerable debt of gratitude. As a post script, Dr Jan F. Simek should also be recognized as one rumored to be on the point of making the bold attempt to read this manuscript in its entirety. His efforts are commendable for the same reasons as described above.

Moreover, his late entry into this academic dance is all the more appreciated given the short notice with which he agreed to enter into it.

To Brett Riggs, one of the few fellow students who like myself inhabited that all but abandoned fifth floor, I owe a debt of thanks. From computers to "how do you get the heat on in this place" I have found his advice infallible. More than once he allowed me to stand against his door jamb and feigned interest while I rambled on (much like now) about things I knew nothing about or listened to doubts that would not go away.

Douglas Sanford, who would also likely find it to his advantage to feign ignorance of any former association with the author of this tome, should nevertheless be held accountable for having long ago instilled some of his own enthusiasm, if not his expertise, for Monticello as a subject and for archaeology in general. I have found his knowledge in these matters immeasurable, while his friendship and patient training have been welcome constants.

William Beiswanger, Cinder Stanton, and Jack Koester have, each in their own way, proven to be veritable warehouses of information concerning Monticello or anything remotely Jeffersonian in nature. Though no one of these individuals may be considered in any way responsible for the errors and misinterpretations that I may have made with the information they have provided, each, however, is to be recognized as an invaluable source, without which this thesis would not have been fully possible.

At a considerable geographic distance from my family, they have been spared much of the burden of my graduate school years and were no doubt thankful to have been at a safe remove from this thesis and all its associated tribulations. The interest and support of my mother Louise Shumate and of my several brothers and sisters has always been there, however, and I am forever grateful for it.

Finally, I must acknowledge that without the constant interest and sacrifice of my wife Patti Evans-Shumate neither this thesis nor graduate school itself would have been possible. Though I could not in a lifetime begin to repay her for her efforts on my behalf, perhaps she will accept the completion of this thesis as an important starting point.

ABSTRACT

The research of this thesis has been that of two directions. The first of these attempted to both define and expand that ideological concept known as the Georgian Worldview. By referencing the opinions of current authority and by examining the very origins of this concepts' many attributes this thesis would suggest that the term "Georgian" encompasses far more than symmetry in architecture alone. With this said, however, it must yet be acknowledged that architecture, and particularly the balanced and refined Palladian examples of the eighteenth century, often represented the most clearly recognizable material manifestation of this particular pervasive mind set.

The second direction of this thesis has involved the confrontation of this mental concept with data provided from the material world. In this instance, however, the late eighteenth century Jeffersonian architecture employed as an example of the influence of the former over the latter has involved not so much the architectural details and layout of his Monticello mansion, but those of the ordinary domestic and farm outbuildings that supported his Albemarle County home and plantation in central Virginia. Archival and archaeological evidence combine to suggest that even within these simple and often crude structures the shaping hand of this powerful worldview may yet be distinguished.

TABLE OF CONTENTS

CHAPTER Page

I. INTRODUCTION 1

II. GEORGIAN WORLDVIEW AS A MODEL FOR HISTORICAL ARCHAEOLOGY . 11

III. CONTEXT 37
A. The Georgian Concept: History and Philosophy 37
1. Early Middle Ages 39
2. Renaissance 41
3. Reformation 44
4. Scientific Revolution 46
5. Enlightenment 53
6. Jeffersonian Philosophy and Georgian Worldview . 60
B. Basic Tenets of Georgian Worldview 71
1. Science 72
a. The Science of Agriculture 78
b. Jefferson's Agriculture 91
2. Secularism 95
3. Progress 98
4. Individualism 100
5. Capitalism 105
a. American Capitalism 113
b. Jefferson as Capitalist 117

IV. ARCHITECTURE IN THE AGE OF ENLIGHTENMENT 128
A. Georgian Architecture: The Big House 128
B. Outbuildings 152
1. Significance 154
2. Type 158
3. Number 171
4. Material 176
5. Cost, Time, Labor 184
6. Design 188
7. Layout 197

V. JEFFERSON'S MULBERRY ROW: A CASE IN POINT 225
A. Mulberry Row of the 1770s 227
B. Mulberry Row of the 1790s 246
C. Mulberry Row of the Early 1800s 271

VI. CONCLUSION 291

REFERENCES CITED 297

VITA 311

LIST OF FIGURES

Figure — Page

1. Photostat of 1796 insurance plat 8
2. Plots for grasses between the Roundabouts 93
3. Palladian villa architecture 137
4. Early plan for Monticello mansion and dependency wings . . 139
5. Proportion in the houses of colonial Williamsburg 143
6. Jefferson's classical design for a dovecote 164
7. Classical detail of stables at Bremo 166
8. Garden pavilion at Monticello 170
9. Geometric arrangement of outbuildings 219
10. Plan for the layout of farm and domestic outbuildings . . 220
11. K16 early plan for outbuildings on Mulberry Row 229
12. Interpretation of K16 plan 230
13. K55a early plan for outbuildings on Mulberry Row 231
14. Interpretation of K55a plan 232
15. K56 early plan for outbuildings on Mulberry Row 233
16. Interpretation of K56 plan 234
17. K57 early plan for outbuildings on Mulberry Row 235
18. Interpretation of K57 plan 236
19. Excavation plan of buildings "r," "s," and "t" 243
20. Betts' interpretation of the 1796 insurance plat 248
21. Alternative copy of the 1796 insurance plat 252
22. Photo of south dependency wing at Monticello 274

Figure Page

23. An 1806 sketch of Monticello grounds and buildings 282

24. A ca. 1806 general property survey of Monticello 283

25. A ca. 1809 general property survey of Monticello 288

LIST OF PLATES

Plate Page

1. An alternative interpretation of the 1796 insurance plat based on documentary and archaeological evidence (including those buildings of the Mulberry Row level only) . . . . . In Pocket

CHAPTER I

INTRODUCTION

If not intimate with the many contributions of Thomas Jefferson that ultimately influenced American political, economic, and social institutions, the average citizen is at least vaguely aware that many of the liberties and "inalienable rights" that each of us currently enjoys may be attributed to the efforts of Jefferson and his colonial contemporaries. Their struggles and debates and eventual resolutions made during those important formative years of the republic continue to structure our lives in the present. Those fundamental decisions made in the late eighteenth and early nineteenth centuries form a very elemental part of our own twentieth century context. Similarly, we may expect that it was the economic, political, and social context of those earlier time periods that provided the structure in the lives of these founding fathers and their contemporaries. It is not so much the nationally significant decisions made within this framework that constitute the focus of this paper, rather it is the influence that the so called "Georgian worldview" played in the everyday decisions, the domestic choices confronted by each American then living, and by Jefferson, in particular. To what extent did this Georgian context prescribe the order and details of Jefferson's agricultural and architectural pursuits at his Monticello home in central Virginia?

In order to evaluate the degree to which Jefferson did or did not consciously subscribe to this particular world order it becomes

necessary to define the "Georgian" concept. The notion of a distinct Georgian architecture with its emphasis upon symmetry, precision, and classical details has been widely recognized and discussed by many writers (e.g., Andrews 1955; Whiffen 1960; Cantacuzino 1969; Summerson 1978; Rifkind 1980; Glassie 1986; Upton 1986). Fortunately, there is considerable agreement within these sources as to the origin, diffusion, basic form, fenestration, and various permutations of this particular architectural florescence. However, the volume of literature that addresses the Georgian concept as a much more extensive, international ideology is perhaps somewhat more abbreviated than that which attempts to define only its architectural implications. Yet, James Deetz (1977, 1978, 1988) has done much to alleviate this deficiency. In addition, a number of other writers have since taken up the challenge to further explicate this particular cognitive and cultural system (e.g., Isaac 1982; Robinson 1983; Leone 1988; Harrington 1989). In each instance, the Georgian concept has been extended far beyond its architectural boundaries and is considered active on a much more systemic level, affecting or structuring a great variety of eighteenth and early nineteenth century cultural processes. As a pervasive mental construct born of the Enlightenment but with deeper roots stretching far beyond the European Renaissance back into the Classical period, Georgian ideology established an order the strength of which reverberated throughout the arts and sciences, the political and economic spheres, as well as the social and material colonial world. The southern aristocracy, who, perhaps more than any other group in America learned to manipulate

these rules and requirements to their advantage, employed these ideas in the construction of their homes, farms or plantations, their educational systems, and in their personal philosophies and strategies for adjusting to life in the eighteenth and nineteenth centuries. Jefferson, as one of the major icons of this Georgian era, effortlessly adopted the language of the order and much that he created, expressed, and possessed bore its accent.

However, in spite of its many conquests and converts it may be somewhat misleading to suggest that the Georgian worldview was as omnipresent as its name implies. It did not establish any sort of universally applied mandate or code of ideas to live by, nor was it in any sense universally accepted. Neither is this thesis a search for universal laws, immutable for their time or invariant in their expression; rather it is an attempt to expose and define former patterns of considerable regularity and significance within the late eighteenth century. To be sure, there were plenty of exceptions to this particular "world" ideology. Clearly, it was never intended for everyone. The stakes were too high, the membership price too prohibitive and exclusive. Yet, while this particular constellation of traits coming together to form a temporary but powerful Georgian order faded with time, its likeness can be observed in many another "worldview" both before and since. Many of the eighteenth century defining characteristics such as the names, the faces, and the minor details were peculiar and specific for a brief period only, but the rules remain much the same as ever, and the object continues to be a bid for and a legitimization and maintenance of power.

While such claims may be accepted with greater ease when the subject is the use of high-styled or academic architecture of the manor house to achieve these ends, the manipulation of dependencies and lesser service buildings of the farmstead or plantation with the same intent is perhaps less certain. Yet, outbuildings of this kind have been employed as similar currency in the Georgian landscape, and where they mimicked the style of the more formal architectural orders they provided their most convincing evidence. Just as important, but often much more subtle was the arrangement or layout of these buildings. In this trait too, they were capable of demonstrating a particular allegiance - proclaiming an oath to the Georgian scheme of things.

That a majority of those outbuildings that Jefferson would eventually construct along that Monticello service avenue known as Mulberry Row were of the vernacular tradition, does not necessarily exclude them as indicators of Georgian influence. A number of writers have taken up the challenge of identifying and distinguishing between the vernacular and the academic (e.g., Lewis 1975; Upton 1980; Glassie 1986; Hubka 1986) and with their assistance, a case may be made for the Georgian legitimacy of Monticello's Mulberry Row. Moreover, there exists considerable literary discussion concerning the arrangement of such simple farm buildings, their relationships to each other, to the manor house, and to the surrounding landscape which provides the powerful suggestion that building layout is equally a product of its overarching context - in this instance, one of Georgian character. Lewis (1977, 1985), Jones (1985), Orser and Nekola (1985), and Vlach

(1991) submit examples of farm or plantation arrangements largely within the antebellum South. Long (1972), Hubka (1984), Glassie (1986), and St. George (1986, 1987) offer similar illustrations of Mid-Atlantic to New England farmstead layouts, while Peters (1969), Brunskill (1974, 1987a, 1987b), and Robinson (1983) outline a variety of English examples, many of which were undoubtedly the prototypes of American arrangements.

While descriptions and detailed architectural analyses of Jefferson's Monticello mansion have been the stuff of countless articles and texts almost since his death, comparatively little has been published concerning those now almost entirely vanished outbuildings that served his dwelling and the larger Virginia plantation. Kelso (1986a, 1986b) has produced several articles describing the more recent archaeological excavations of a number of these structures. In addition, there exists several more weighty and unpublished progress reports of those same excavations which began in earnest in 1979 and that were largely discontinued along Mulberry Row by 1986 (Kelso 1982; Kelso, Sanford, et al. 1984 and 1985). A more recent compendium of articles (Gruber 1991; Sanford 1991; Shumate 1991) has attempted to offer further discussion of these outbuildings, while Heath (1991) has provided an important comparison of Mulberry Row housing with that of certain craftsmen whose dwelling was further removed from that mountaintop area. The present thesis attempts a more diachronic perspective in its discussion of the several building phases carried out along Mulberry Row during the period of Jefferson's occupation. Moreover, the effort is made to suggest the degree to

which these common outbuildings served as further reflections of their Georgian context. An interplay of historic documents with and against the archaeological record has the potential to reveal patterns which, while not immediately obvious, offer considerable evidence of the structuring hand of the Georgian worldview.

Like the manor house, its dependencies, and its outbuildings the land itself, within which each was carefully arranged, also provides a statement of purpose and records the particular ideology of its architect. At Monticello, both the built environment and the crafted landscape speak of Jefferson's understanding and acceptance of the Georgian order. Conversely, both are equally capable of measuring his eventual shift away from this particular orientation. With more than a focus upon simply architecture, the ruling Georgian perspective may have all but required those aspirants to aristocracy to immerse themselves in gardening, if not in farming, as well. Like many of his contemporaries, Jefferson required little coercion. His rural childhood, his classical education, and his economic circumstance united to insure an interest in these matters. This preoccupation with landscape became one of the early defining characteristics of the Georgian order, and as in the architecture that accompanied it, landscape was required to achieve a formal symmetry and balance of geometric shapes. The Baroque garden and general landscape became features in which nature had been subdued by artifice. Interestingly, the same winds of fashion that required a taste in architecture, agriculture, horticulture, and landscape architecture, those that, in effect, helped to establish the hegemony of the Georgian order, were

the same which ultimately ushered it out of vogue. True Georgians steeped themselves in studies of architecture and landscape and through these exercises, eventually acquired knowledge of alternate forms. In this instance at least, the Georgian context had sown the seeds of its own destruction. As early as the second half of the eighteenth century, what came to be known as the Picturesque landscape gained increasing favor in England and America. Like its Baroque predecessor, its form and its effect were carefully orchestrated, and yet its message was very different indeed. World order had begun to shift and this new landscape was a physical expression of that change. Architecture, even that of farm buildings, was not unaffected.

The archaeological excavations of those outbuildings along Jefferson's Mulberry Row, that long east-west service road adjacent to his Georgian-styled Monticello residence in Albemarle County, Virginia, and upon which several series of craft and domestic buildings were located, was very much guided and strongly influenced by a single historic document (see Figure 1). This 1796 insurance plat offered a seemingly accurate and comprehensive plan and description of the twenty-three maximum number of buildings then standing or soon to be constructed. While certainly a boon to all stages of the excavation carried out along Mulberry Row, this document has perhaps been too much depended upon. The result has been the formation of a rather synchronic perspective that has forced too many archaeological strata, their associated features and artifacts into this rigid 1796 mold. An examination of the wealth of other pertinent

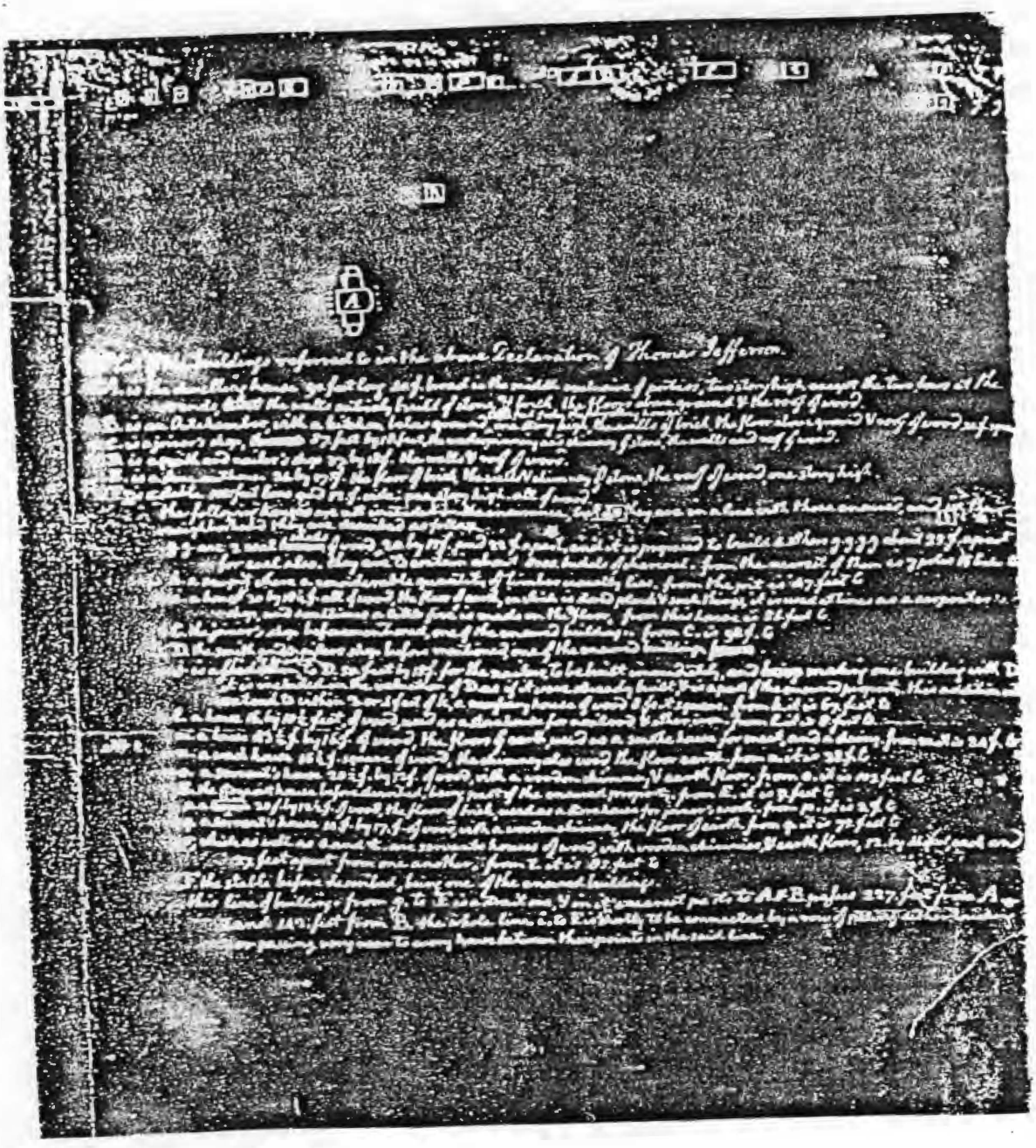


Figure 1. Photostat of 1796 insurance plat.
Source: Photostat on file with the Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

documents relating to this area and its complex history of occupation, provides a necessary diachronic perspective, and moreover, suggests several alternate interpretations of the archaeological evidence that may have greater explanatory power.

The explication of these alternative views of documentary and archaeological data represents a very central portion of this thesis. However, successful *explanation* of the patterns in building arrangement and landscape forms thus perceived, requires an understanding of the broader social, political, philosophical, and economic context within which they were formerly constructed. By way of explanation, Deetz (1973, 1988), Glassie (1975), and others under the similarly colored banners of symbolic, structural, and cognitive anthropology have attempted to link these patterns observed in the material world with those considered then operable on the mental plane. The various physical changes that Jefferson enacted upon the architecture and landscape of his Monticello home may be considered to reflect those changes taking place in his own personal ideology. And yet, the latter was very much the product of the Georgian and, perhaps in his very last years, the Romantic movements that formed the cultural ideals of his time. With this said, the degree to which his material culture, principally in the form of Mulberry Row outbuildings in the Monticello landscape, mirrored this broader context represents the second major emphasis of this research effort. In particular, building form and layout and the changes affecting both have been measured against those traits generally considered to be representative of the Georgian order. Finally, extensive historical

documentation and not a little archaeological investigation into Jefferson's architectural and landscape plans and actual productions offer their own account of physical forms and shifting ideas. This thesis attempts a synthesis of each of these various avenues of information in order to report upon Monticello's changing landscape, the various buildings that were constructed within it, and the wider context that structured them both.

CHAPTER II

GEORGIAN WORLDVIEW AS A MODEL FOR HISTORICAL ARCHAEOLOGY

The dramatic changes that swept through American prehistoric archaeology largely during the third quarter of this century did not leave historical archaeology in this country unaffected. Within each of these subfields, the former emphasis upon the construction of culture history, description, chronology, and typology made way for a new focus upon culture process. Certain technological and sociological innovations and improvements within the discipline were unavoidably bound up in those structural changes affecting its underlying metaphysic (Dunnell 1986). An increase or alteration in any one of these subareas seems to have triggered a similar reaction in the other. Reflection on these important paradigmatic shifts led some of its earliest architects to suggests that nothing short of a theoretical and methodological revolution had occurred within the discipline. Clarke (1973) spoke of a loss of innocence, followed by a state of self-consciousness, itself ultimately replaced by the more current stage of critical self-consciousness. Others (e.g., Watson 1986) have more recently echoed and amended this same model of development and have done so with greater certainty as present-day hindsight suggests just such an unfolding of events.

If the old or traditional archaeological approach attempted the perfection of culture history and eventually the reconstruction of past lifeways within a single-site perspective, emphasis upon broader

behavioral or processual concerns would wait for the rise of the "New Archaeology" crafted largely by the hand of Binford (e.g., 1962, 1968). Explicit use of the hypothetico-deductive method of hypothesis confirmation represents a very fundamental distinction between this "new" orientation and the more inductive efforts of the former. Moreover, a concentration upon analogous or functional cultural traits over that of the homologous traits formerly entertained in the work of cultural historians distinguishes the processual archaeologist from his or her predecessors. While the former would hardly deny the importance of the latter's efforts as necessary building blocks of wider interpretation, investigations since the late 1960s have nonetheless been increasingly oriented towards matters of cultural process. However, even more recently and characteristic of that stage that Clarke (1973) would describe as critical self-consciousness, archaeologists have begun to question the efficacy of the processualist's approach. Hodder (1982, 1985, 1991), Leone (1986), Shanks and Tilley (1987), Trigger (1991), and others have come to suggest the need for a post-processual perspective in which cognition and context are given positions of greater prominence than processual archaeologists would typically allow. Additional concentration lies in areas of power, negotiation, structure, ideology, recursivity, and text. At its most damning, post-processual research challenges the very basic tenets of objective observation and rational empiricism that processualists would consider their strongest suite. While these conflicting, seemingly antithetical viewpoints are among the most intensely debated in recent archaeological venues, on another level

they are simply symptomatic of anthropology's continued search within itself for identity.

Within historical archaeology in particular, Deagan (1982) has ably charted the parallel course of changes in this subfield as they have mirrored those occurring within the larger discipline of anthropology. In sum, she has noted a "...rapid theoretical progression from descriptive and chronological concerns, through cultural historical studies, to problems of culture process, cognition, and archaeological principles" (1982:153). Beyond a recounting of historical archaeology's earliest developments and emergence as a distinct archaeological entity, Deagan (1982:158-170) has provided detail on the various paradigms still current and often competing within this subfield. The culture historical approach of Noel Hume (1964), for example, whose suggested use of the archaeological record as the necessary complement to documentary evidence has been largely employed in projects of historical restoration and reconstruction (Deagan 1982:158). At a step removed from this intensely associative, particularistic focus, historical archaeology often attempts the reconstruction of past lifeways. Here, attention is no longer directed towards a single individual or architectural monument of historical significance, but rather encompasses entire ethnic groups, societies or cultures, usually of a certain time period and within a particular region. Investigations into the culture of African-Americans - conditions of their former slavery and subsequent freedom, represent a popular example of historical archaeology performed in this guise of "past lifeways"

(e.g., Fairbanks 1972; Otto 1979; Singleton 1980; Orser 1989). Deagan (1982:162-167) further distinguishes between the processual orientation and what she refers to as "archaeological science" within historical archaeology. The former parallels those processual concerns voiced within the larger discipline of anthropology where acculturation studies are suggested as common fare among research thus inclined. In contrast, Deagan's category of archaeological science refers specifically to those attempts which examine some of the more fundamental principles that guide the research of the historical archaeologist and color his or her interpretations. In this, tests of both method and theory are thought to benefit from the availability and relevancy of associated historical documents. Certainly, the work of South (1977) stands as an appropriate example of archaeological quantification and pattern delineation comfortable under the heading of "archaeological science." Finally, Deagan (1982:168-170) recognizes the cognitive approach as one of the more current paradigms within historical archaeology. Such an orientation employs the archaeological and documentary records of material culture as both evidence for and manifestation of the emic mental structure in place within the culture that produced it. Glassie (1975) and Deetz (1977) are notable proponents of this point of view and both have offered convincing explanations of similar cultural patterns.

By way of achieving a better understanding of this cognitive, contextual anthropology, it is perhaps instructive to return for a moment to a discussion of the far more processual, functionalist approach of South (1977, 1978, 1979). Through such a comparison it is

hoped that the theoretical constructs which guide much of this present research effort will be that much more clear. To continue, South's search for pattern within the archaeological assemblages of former plantations relies heavily upon a functionalist/adaptationist point of view. His work and that of the many historical archaeologists who have since imitated or extended his research (e.g., Singleton 1980; Moore 1985; Wheaton and Garrow 1985), while appropriately labeled as "archaeological science," are first and foremost reflections of a processual archaeological paradigm of which each study is recognizable issue. The positivist's belief that given enough data, the scientific method will prevail, that the careful sorting and counting of artifacts will reveal higher categories of artifact classes, their associated disposal patterns, and in this, behavioral uniformities is evident in each. Though dangerously close to a kind of archaeological bean counting, South's pattern calculus, nevertheless, remains a popular and fairly effective means of extracting cultural meaning from an otherwise undifferentiated archaeological record.

Still, there are those who would find deeper fault with South's pattern concept. Orser (1989:28) for example, suggests that such an approach provides neither an "effective scale of analysis," nor any means of examining historical change - and is therefore synchronic at best. For Orser (1989:37) data gathering of this kind and South's "whole culture" perspective amount to little more than a Boasian historical particularism. Through his own research into plantation archaeology, Orser has come to recommend a much broader point of view - one that incorporates more than individual cultures or ethnic groups

within the plantation system, but relies instead on the "social fields" or complex inter-relationships existing within and between these several distinct cultural identities. His own research agenda is explicitly tied to the historical materialism of Marx (1967) and the dependent cultural materialism of Harris (1968). Plantations become "economic institutions first and foremost" and the "mode of production" concept is considered the fundamental determinant of both behavioral and ideological process (Orser 1989:35).

Others currently involved in historical archaeology share similar Marxian perspectives. Lewis (1986) for example, considers plantation building arrangements and functions as reflections of world economy, where the plantation production of staple crops is tethered to international markets in a process of distribution and exchange. Similarly, Leone (1988) investigates merchant capitalism in colonial Annapolis, Maryland as part of a much more extensive exchange network, where capitalism becomes more than an economic strategy but may be considered a distinct cultural form.

Interestingly, few of these theoretical orientations favored by contemporary historical archaeologists divorce themselves entirely from an emic perspective in their explanations of etic behavior. Orser (1989:35) for example, acknowledges that "...production exists on at least three levels, economic, political, and ideological. Things, power, and thoughts and ideas are produced in each respectively, but none can exist independently." To demonstrate this point, he provides the example of surplus slave labor, produced and maintained as a commodity to further the plantation owner's pursuit of

luxury. In this, material goods and their profligate consumption become symbols of power and wealth (Orser 1989:36). Even South (1977:39-43) hints at a similar dependence upon "social-psychological need and function" in any cultural transaction. The British Colonial Tea Ceremony is suggested as one such manifestation, and one in this instance serving as an "upper class status symbol" for American colonials during the eighteenth century. Here again, objects, material goods, and artifacts have been credited with the ability to possess and convey meaning beyond that suggested by their function alone.

Whether this meaning is treated as symbolic, structural, cognitive or some unnamed variation dwelling in the wide grey areas that exist between these several categories is often less important than its simple recognition as a mental phenomenon, and one capable of being addressed in some fashion other than through the clinical approach of archaeological science. Leone (1986:415) admits that while each of these orientations confronts archaeological data in a different way none has been adequately defined as yet. Their common bond remains a rejection of the strictly materialistic treatment of such data. Each has borrowed sometimes sparingly, sometimes with both hands from a variety of current anthropological theories - Marxism, structuralism, symbolic anthropology, cognitive anthropology, etc. Within historical archaeology we may safely point to the efforts of Henry Glassie (1975) and James Deetz (1977) as examples of similar attempts. Though Leone (1986:415) has suggested that Glassie's orientation is that of structure and Deetz's one of cognition,

Palkovitch (1988:293) observes little difference between these two and suggests rather that together they represent "one variety of cognitive archaeology." Moreover, she would consider cognitive archaeology as but a derivation of structuralism where the object of data analysis is the exposition and explanation of certain underlying cultural patterns (1988:293). Certainly Deetz's explicit and frequent admission of intellectual indebtedness to Glassie would suggest that he is in fact comfortable with such a proposal. In short, perhaps we may say that while Glassie the structuralist has focussed his attention on the rules that apply to any given culture, Deetz has more often directed his efforts towards the study of a particular set of rules - those required of the Georgian order.

The wide adoption of many of Glassie's ideas by Deetz and other historical archaeologists is perhaps all the more remarkable if we consider that he is himself no archaeologist. Rather his training has been that of a folklorist with interests in geography, vernacular architecture, and that particular brand of structural anthropology espoused by Levi-Strauss. Yet, almost at a single stroke with the production of Folk Housing in Middle Virginia: A Structural Analysis of Historic Artifacts Glassie (1975) has delivered one of the more cogent examples of structural anthropology to date, as well as serving to provide a very powerful model for archaeological explanation. In this work, the analysis of form of nearly one hundred late eighteenth and nineteenth century farmhouses of central Virginia and the study of their formal change over time has allowed Glassie to construct a kind of architectural grammar for these buildings. This grammar in turn

represents the particular cognitive system or set of rules, often obligatory, that each local builder employed in the construction of each house. Doors, chimneys, windows, room sizes, and shapes are considered as physical expressions of these rules - elements of the grammar. For Glassie (1975:19) these forms suggest a set of design ideals or architectural concepts that helped to comprise a builder's repertoire of useful and acceptable shapes. This somewhat limited collection of geometric ideas Glassie (1975:19) considers a measure of the builder's local "competence," and from this pool of architectural variability the builder selected those elements and those arrangements which, converted from ideas to concrete expressions of vernacular architecture, ultimately took the form of an inhabitable dwelling.

In almost no instance, however, are we to believe that the local builder was allowed unbridled artistic or architectural freedom. As Glassie (1975:114) explains it:

> the builder did not plan in a vacuum; the process of design was constricted and driven by the context that held him. In the concrete artifact is written the tense conflict of what the designer could do and what he had to do. No matter how powerful and efficient his competence was, the designer could not do what his context would not allow.

Of course, this restrictive and structural context was hardly universal in range, nor was it immutable over time. Its components of economic, political, social, religious, and environmental factors were equally susceptible to change. For Glassie, Deetz, and others defining and explaining how and particularly why these changes occurred as they did represents the primary focus of any architectural

or archaeological analysis. Context therefore becomes essential to answering these "how" and "why" questions. Without it, we may adequately address the first concern but not the last (Glassie 1975:114). Moreover, change in any of these contextual variables is considered to occur first in the realm of thought and ideas and only then can it be transferred to the material world. "People adapted to those changes, developing new modes of thought, and the things they did, the artifacts they made, manifested the changes that had taken place in their minds" (Glassie 1975:190). *Explanation* of these cultural and material shifts should therefore begin at the level of the idea before we proceed headlong into discourse over more corporeal concerns.

In spite of the highly persuasive argument presented by Glassie within his major treatise, criticism of his structuralist method and theory has not been altogether lacking. Those of a more functionalist orientation have not hesitated to release more than a few arrows in his direction, particularly in regard to the task of operationalizing these emic variables. They would claim that the methods of structural analysis do not open themselves to the scientific method or empirical inquiry. They are, of course, largely correct in this statement. The study of material culture at the level of thought and meaning does not include in its ready arsenal of field methods the same hypothetico-deductive weaponry so much used by the functionalist. The structuralist and the cognitive archaeologist do not share the same giddy optimism about the strength of their data or their abilities to accurately interpret them as those of a more functional orientation

seem to enjoy. Neither would he or she consider such research to be entirely objective. The limitations of both the material record and the inescapable subjectivity of the observer are accepted as givens. Glassie, for example, would admit that his analysis is "...at its most controlled, an essay in probabilities, and at its least controlled, an act of pure courage" (1975:117). If the claims of structuralists are somehow outside of scientific verification they may at least be considered to possess measurable value as heuristic models, and in this, provide a means of theory building (Deetz 1988:222).

With these caveats in place, it remains to determine just how such an approach is in fact carried out. As suggested above, structuralism typically adopts as its particular subject matter much of the mental process, thoughts, and ideas that lie behind or structure the material world. In this, its adherents have embraced those same fields of inquiry often neglected or intentionally ignored by the functionalist. In distinguishing between the humanistic, the scientific, and the particularistic orientations of historical archaeology, Deetz (1988:221-221) has stated that structuralism offers an important middle course, ". . . a mediation between the quantitative but over generalized approach of the scientific historical archaeologist and the richly descriptive but theoretically timid work of those of a more particularistic bent." The mental constructs that provide the essence of this median path are themselves approached through analysis of certain binary oppositions inherent in all cultures. As Deetz outlines its theory, ". . . structuralism holds that human thought is organized and functions according to a

universally shaped complex of oppositional structures that are mediated differently by different cultures, or by the same culture at different times" (1988:222). Many of these oppositions take the form of rules that, consciously or unconsciously, structure thoughts and actions in everyday life. More often than not, these rules are explicit, exact, and shared by a majority of the members of any particular culture.

In his study of folk housing in Middle Virginia, Glassie (1975) has identified at least fifteen oppositional structures inherent within these buildings, and thus operative as rules by which the late eighteenth and the nineteenth century builder put together his design. Changes in building form through time are explained through the explanation of changes in these fundamental oppositions over time. Key to this study is the basic differentiation between culture and nature. Many of the other binary structures examined are but lesser derivations of this one. Of particular importance to Glassie's analysis and to the later work of Deetz (1977) as well, have been the oppositions of: private/public (or individual/communal), complex/simple, artificial/natural, intellect/emotion, control/chaos, symmetry/nonsymmetry, and so on. For example, the increasing tendency during this period for both urban and rural Americans to paint their dwellings white as opposed to some other, perhaps more vibrant color suggests to Glassie a conflict between intellect and emotion, and one in which the intellect was clearly winning out with each building that was painted white. Moreover, a single opposition need not stand alone, but often was accompanied by and related to a number of others.

In the matter of palette choice, white buildings are thought to further represent the contrast between intensive simplicity and extensive complexity; the difference between artificial tones and those more natural; as well as provide an element of democracy and class affiliation (Glassie 1975:156). Taken as a whole, the direction favored by many of these changes suggests an increasing emphasis during post-revolutionary times upon order and control, over that of chaos and disestablishment.

Though Glassie's study of farm houses and their broader cultural contexts incorporates a variety of changes over a fairly lengthy time interval, an emphasis upon the so called "Georgian" period is not without significance to this present effort. In Middle Virginia (1975:88), as well as in the wider Mid-Atlantic region, Glassie (1986:400) suggests that by the year 1760 the colonial house builder was suddenly exposed to a new form. Originating in the east and ultimately derived from England, this novel Georgian house form not only added to the local builder's competence but also eventually came to dominate the region. The former traditional heterogeneity of Old World architectural forms was quickly subsumed by an increasing regional homogeneity (Glassie 1986:400). Even where it may have been impractical to adopt, this new style became fashionable; and yet, earlier traditional forms did not suddenly vanish from the landscape nor were they no longer built. The rise of Georgian architecture was perhaps more of a negotiation of the old and the new. The designer employed many of the same shapes and rules as previously, but now ordered them differently (Glassie 1975:89). Still other elements were

in fact replaced or lost in this exchange. The building process required a mental selection of various components which in itself demanded an equal rejection of others. Both selection and rejection were a function of local context.

Ultimately, Glassie would consider that the rapid acceptance and incorporation of this Georgian house form can not be truly explained as simply measures of fashion and pragmatism. These offer only suggestions of influence but not reason. More important, it becomes necessary to determine the particular psychological needs that this new form attempted to address. What did it offer that other styles did not? Glassie suggests that the need for greater control and for greater privacy constitute primary explanations for the general acceptance of Georgian form in the eighteenth and nineteenth centuries. That such form also represented a fashion statement of upward mobility and provided a more practical adaptation to a hot climate must be considered as influences of only secondary importance. Finally, at a considerable step removed from the Middle Virginia landscape, Glassie would suggest that the acceptance of these Georgian forms and associated ideals was geographically extensive. Parallel changes can be identified throughout western civilization. In sum, analysis of the house types that represent the physical manifestations of this change ". . . help us locate an important point in the evolution of the Western mind. It is the point at which the face-to-face community dies" (1975:188-190).

Whereas the work of Henry Glassie holds a certain implicit value within American historical archaeology, James Deetz's adoption and

adaptation of many of the same methods and theories to this field is much more explicitly so. In a number of publications but primarily within the text of In Small Things Forgotten (1977), Deetz has presented an important model of American material culture and its changes over time. Although based upon his New England research, particularly in the area of Plymouth Colony, this tripartite scheme nonetheless has a much broader application, especially in regard to the third and last phase of the overall model. In short, Deetz (1978:284-285) would identify these phases as a series of cultural types or cognitive configurations with the following temporal divisions: Stuart yeoman of 1620-1660; native Anglo-American of 1660-1760; and Georgian of 1760-1835. Note however, that in the more comprehensive text, Deetz (1977:40) would allow that far from terminating in 1835 the Georgian period continues into the present "and accounts for much in the way in which we ourselves look upon reality."

Of these three temporal and cultural stages Deetz has suggested a further distinction. That is, while the division between the first and the second is recognizable and significant it pales in comparison to the deep and fundamental rift that lies between the second and the third periods. Together the first and second represent a kind of folk culture in colonial America but of the third it may be said that America's first popular culture had thus been established. Whereas the first and second periods have been likened to an archaeological tradition of great temporal depth but less extensive spatial range, the third period is held as analogous of the spatially broad and

temporally shallow archaeological horizon (Deetz 1977:40-41). Beginning with the 1620 landfall at Plymouth and ending with the restoration of Charles II to the British throne, this initial period of early colonization in New England has been characterized as one for which medieval tradition had been largely preserved. Architecture remained organic, economy was very much rural/agrarian, and domestic affairs were ruled by a corporate or communal strategy. The social and political isolation typical of this first period was somewhat lessened by a renewed interest in the colonies following the Restoration of 1660. However, this earlier estrangement, combined with the increasing numbers of native born Americans in the second period, eventually resulted in a considerable distancing of the colonies from the mother country. New England settlement remained largely a matter of insular agrarian communities while a small number of new urban centers began to record the appearance of an emerging social elite. Isolation of the rural yeoman and husbandryman brought great regional variation in cultural practice, but for the most part served only to further entrench the general conservatism of the traditional folk culture. Yet, by mid-eighteenth century what had begun primarily within the more cosmopolitan urban centers as a slow and gradual re-orientation towards English culture had by this time approached a full "re-entry" into that cultural domain. Deetz (1977:38) concludes that, "This 're-Anglicization' of American culture meant that on the eve of the American Revolution, Americans were more English than they had been in the past since the first years of the colonies."

If the first quarter of the eighteenth century had witnessed the beginnings of this important transformation, by the third quarter its florescence was at hand so that by the end of the century we may safely suggest that Georgian culture had indeed flowered in the former colonies. Slow to reach England, the dramatic influence of the Renaissance had been even more hesitant to cross the Atlantic. However, once on American soil this Renaissance way of thinking and acting, this Georgian cognitive system spread with amazing speed. Very little of the former medieval paradigm was left unchanged.

Deetz and others have chosen to refer to this profound transformation from medieval to modern in terms of a shift to a new Georgian worldview. Both terms require further definition. Georgian, for example, may refer to the consecutive reigns of the Hanoverian kings of George I through George IV between 1714 and 1830. It is also commonly associated with that particular style of architecture that became increasingly popular during this period. Both Deetz (1977) and Glassie (1975), however, have come to suggest that Georgian may refer to far more than either of these particulars. Rather it should imply an entire worldview or a peculiar mind set - "a set of basic units which comprise a cognitive orientation. Such an orientation is shared by members of a group, and determines the way in which the material world is organized and shaped" (Deagan 1982:168). Though balanced and symmetrical architecture became one of the important hallmarks of this particular "mindscape" of ideas (after Boorstin 1981), the Georgian concept was in no way limited to this single architectural

classification. In New England and elsewhere within the American colonies this Georgian model embodied:

> a distinctive Anglo-American mind set, characterized by symmetrical cognitive structures, homogeneity in the material culture, a progressive and innovative world view, and an insistence on order and balance that permeates all aspects of life from the decorative arts to the organization of space by society (Deetz 1978:285).

This "new scientific natural philosophy" (Deetz 1978:285) or the notion of an ordered and comprehensible universe was a fundamental element of the Georgian order in America as elsewhere. Here, however, this new cognitive system was not so much grown on native soils, as it was acquired wholesale from England. Its seeds were sown, particularly in the more metropolitan centers, during the first quarter of the eighteenth century so that by the late eighteenth century of Jefferson's day, they were not only well rooted but bearing fruit. In spite of the recent military conflict with and subsequent independence from the mother country, Americans such as Jefferson and others of similar station apparently possessed no qualms about availing themselves of these model offerings. Moreover, these same Founding Fathers are thought to have used the Georgian worldview as an instrument to organize the social, economic, and political domains of post-revolutionary America (Leone and Potter 1988:212). In their own vigorous acceptance of Georgian doctrine, these highly public figures became exemplars of the order. Whether consciously or unconsciously, they became the fashion and taste-mongers of the period - Georgian cultural brokers who set the pace for thousands of average Americans in both urban and rural environments.

As demonstrated above, both Glassie (1975) and Deetz (1977) have sought to define this Georgian worldview and its American form, especially as it differs from the medieval perspective that it replaced. More importantly, both attempt to determine why such a fundamental change took place, as well as distinguish ways in which it can be measured. If Glassie can be commended for introducing much of this powerful model, Deetz should be acknowledged as having extended it, especially within the field of historical archaeology. Indeed, Leone and Potter (1988:213) suggest that in his analysis, Deetz:

> pushes the idea of the Georgian worldview and structural shifts toward that mode of thinking deeper into the material world of 18th-century Anglo-America . . . . By focusing on such ideas, Deetz brings the human mind into material culture studies.

While Glassie (1975) has focused primarily upon folk housing, farm layout, and to a lesser extent furniture and gravestones, Deetz (1977, 1988) has studied both a wider range and a greater time depth of material culture. For example, in a discussion of the "whitening of America" Deetz (1988:222-224) extends earlier analysis of house paint color to include parallel changes within ceramics and tombstones. Research into similar changes during the same time period of such functionally unrelated categories as trash disposal; smoothing the backs of gravestones; changes in materials for both gravestones and houses; sawing of animal carcasses; increases in the numbers of place settings, chairs, and ceramic sets in dining arrangements; introduction of individual burial plots; and the privatization of internal household space all suggest to Deetz that the "old communal

order was in disarray" (1988:227-228). Perhaps more important, such changes have suggested to both Deetz and Glassie that these shifts in the material world were indications of deeper changes on the cognitive level. Many of the binary oppositions outlined above can be seen as structuring these changes, the most significant of which can be identified as the movement from corporate to private; from complex to simple; and from natural to artificial. In short, the "distancing between person and person and between people and nature reflects the replacement of one order, one worldview, with another. . . ." (Deetz 1988:231).

Explanation of this Georgian worldview as a model for contemporary historical archaeology has so far focused only upon its principal architects - Glassie and Deetz. However, a considerable number of other investigations into this provocative concept have been carried out and several of these deserve mention here. For example, the research of Leone (1988) provides an extension of Deetz's work, often addressing some of the same material categories, but at other times suggesting new areas of emphasis and interpreting them through a very different perspective. Leone clearly accepts many of the former precepts of the Georgian order suggested by Glassie and Deetz, but applies them at the local level in his study of Annapolis, Maryland. Moreover, his interpretations are of an economic scale where Marxian ideology is employed in the explanation of these Georgian traits. For Leone (1988), Georgian is most strongly equated with colonial, merchant capitalism - a linkage which, in his opinion, provides an important recursive element to such studies. He asks what is the rate

at which these Georgian ideas spread in colonial America (and in Annapolis, in particular), to what degree were they accepted by all members of the population given differences in class, occupation, location, etc., and how may these events, relationships, and the material culture of the past inform our understanding of the present.

For colonial Annapolis, Leone (1988) has used probate inventories to chart the sudden rise after 1700 of an elite social status and the consequent rapid reorganization of wealth. In addition, he has used these data as a springboard for additional questions concerning the maintenance of these obvious inequalities and the hierarchical system necessary to support them. In his opinion, the development of this highly ranked class society, where the majority of wealth was eventually concentrated in but a few hands and the numbers of poor increasingly expanded as a result, can be seen as the very essence of the new Georgian order. The emerging individualism that Glassie and Deetz record for the eighteenth and nineteenth centuries was dependent upon this same class system. The growing perception among Americans that each person deserved the right to rise or fall based on their own abilities eventually came to be considered as the natural order of society. In this instance, this order was consistent with the Georgian scheme of things. Individualism became synonymous with personal liberty which the American Revolution galvanized as the natural right of every citizen. For Leone (1988:256-257), however, this concept of personal freedom is considered as a kind of ideological mask behind which the ruling elite hid the otherwise blatant inequality of their substantial wealth.

Emerging individualism was therefore a consequence of rising capitalism in western society.

To demonstrate this important linkage and its several supporting arguments, Leone has chosen a number of material culture correlates many of which have not been previously considered. However, the same eighteenth century appearance of rationalized eating habits - individual place settings, introduction of cutlery sets, increase of matched sets of ceramics (plates, cups, saucers, etc.) that Glassie and Deetz refer to also receive similar treatment under Leone. Yet, in Leone's opinion, their ultimate meaning possesses certain ulterior qualities beyond that of a celebration of individualism. He invokes the work of Thompson (1967) and Braudel (1979a) to suggest that this new material culture and the equally new eating rituals or dining etiquette that rose in popularity as part of this cultural package were in fact an eighteenth century means of establishing a suitable work-discipline among the lower classes (1988:245-247). Individual autonomy was only the packaging that these new rules were dressed in so as to appear that much more palatable for the working class. The work discipline that they ineluctably bought into was a necessary condition of the rising market economy and the means by which the ruling class maintained their control and their inordinate wealth without violent opposition (1988:247).

In addition to elaborate table settings and dining etiquette, Leone has considered the sudden introduction and acceptance of musical and scientific instruments, clocks, etc. among the eighteenth century elite as another means of masking the inequitable condition of the

present hierarchy. Through ownership and mastery of these exotic devices, the ruling class might demonstrate that their hegemony was both legitimate and justified - simply the natural consequence of the current Georgian order (1988:240-242).

Finally, Leone extends this order to further include the construction of formal gardens as yet another means by which this dominant group might display to the less fortunate populace its ability to not only control but to reproduce nature. These grand presentations of art, taste, and illusion were effected at great expense in order to convince others that power and wealth was indeed invested in the proper hands (1988:240-241). Whereas formal gardens and scientific instruments (among other items) were employed to suggest that "an unequal social order was derived from nature," and was therefore somehow justified, it was the privatization of everyday life and the clarion call for personal freedom as manifest in changes in daily habits or routines, etiquette, crystallization of the work discipline, etc. that formed a later and much more powerful argument capable of masking the inequalities so prevalent within the Georgian order (1988:256-257).

Just as Leone has extended important aspects of the Deetzian concept of Georgian worldview, Palkovitch (1988) has added to the critical and recursive approach of Leone. In her analysis of the perceived discrepancy between documentary and archaeological records of the eighteenth century Morris Pound house, Palkovitch explores the possibility of differential acceptance of these Georgian ideals. In particular, she has suggested that the small size and asymmetrical

form of the Pound house, contrary to the stated goals of the Colcester town charter, represent a "subtle, symbolic rejection of the local hierarchy" and of the specific cultural forms which they supported (1988:304). Conformity to the cultural prescriptions of this new Georgian order was perhaps more than a method by which the social and political elite identified themselves, it also constituted that set of rules for which these patriarches expected compliance from their subordinates. Palkovitch (1988:303) therefore would claim to observe in the "cockeyed" foundation remains of the Pound house an expression of eighteenth century tension between the authority and power wielded by Virginia's landed gentry and the socially and economically circumscribed role of the planter class. What might have otherwise been interpreted as a discrepancy between document and artifact becomes a powerful statement of social "negotiation" between gentleman and planter.

Finally, Harrington (1989) has offered an important contribution to the discussion of Georgian worldview in American historical archaeology. She has done so with her own test of Deetz's tripartite plan of Anglo-American material and cultural history, as well as by presenting a summary of other efforts along these lines. Her analysis is that of archaeological data from excavations of the late seventeenth and early eighteenth century residence of Joseph Sherburne in Portsmouth, New England, and it is particularly well suited to examine changes between the medieval and the modern. As a rising star of Portsmouth's merchant class, Sherburne's meteoric fortune and consequent political ascendency easily placed him among the emergent

elite of his community. Harrington has suggested that the subsequent "Georgianization" of Sherburne the individual can be seen in the changes recognizable in his material culture. Specifically, the extensive remodelling of his home in the 1730s to the current Georgian style; changes in dress, diet, household furnishings, and exterior landscape; the addition of a warehouse, a wharf, and a shop; and the ownership of slaves all suggest to Harrington evidence of Sherburne's acceptance of a new cognitive system.

While Harrington's Portsmouth example may be considered largely commensurate with Deetz's model, she notes that others have had occasion to be somewhat more critical of it. Handsman (1983) for example, would argue not against the increasing individualism that Deetz and others have observed but would, however, beg to differ over the timing of that event. Instead, he has recommended that this process has been on-going ever since the earliest years of Christianity (1983:71). Carson, et al. (1981:177) attack from a different quarter when they challenge the ability of Deetz's model to fully explain rather than simply describe these important transformations. More to the point, they choose to contest the medieval label that Deetz hangs collectively about the eaves of all early colonial structures. In what is perhaps more a dispute over regional variation within the same Georgian worldview than true criticism of this model, Harrington (1989:15) also outlines the interpretations of Isaac (1982) whose analysis of a changing Virginia society at times calls for a different explanation. In particular, the pervasive tobacco culture of this southern colony and its

dependence upon slave labor demanded a somewhat different relationship between the various actors of this social drama, and in this, often called for differences in material culture as well.

Though a number of scholars find fault with the concept of Georgian worldview, Harrington (1988:14-15) notes that still others have found much to agree with. For example, Stone (1977:226) has noted the parallel between England and America of 1500-1800 and the slow rate at which the Renaissance became infused in both cultures. Once rooted however, its influence in the transformation of each culture into a more autonomous and individual-oriented society was quickly and deeply felt. Similarly, Harrington (1989:14-15) suggests considerable agreement between the developmental model of Greene and Pole (1984:14-15) and that presented by Deetz. Though the former is recommended as having a general application over all of British colonial America and the latter is intended primarily for New England, the progression from social simplification to social elaboration and ultimately to a state of social replication as described by Greene and Pole, provides a strong likeness to the yeoman, localized Anglo-American, and Georgian development proposed by Deetz. Clearly, this concept of colonial transformation in the direction of a pervasive Georgian worldview is well supported in the historical archaeological discipline. Yet, there is perhaps still further need to both define and extend this important model.

CHAPTER III

CONTEXT

A. The Georgian Concept: History and Philosophy

Regardless of the exact date of the event, there is little disagreement over the claim that by approximately mid-century the mental climate of much of the eighteenth century western world had experienced a dramatic shift from its former philosophical temperament. Still, to describe this important process of transformation as an event implies a precise location and a specific moment in time. Such a claim, however, invites argument. That particular global perspective which Deetz (1977) and others have labelled as the Georgian worldview, prevalent within at least the second half of the eighteenth century, was more a gradual and ultimately powerful confluence of a great many events and ideas occurring over several centuries rather than a single linear change of immediate occurrence. Only when our view is of the big picture, that is, several steps removed from the individual beliefs, actions, and episodes of history, does such an homogenizing worldview become obvious. Yet, somewhat paradoxically, to better define this extensive view and to understand the process which led to the shift from one to the other it becomes necessary to increase the magnification under which each is examined. At its greatest remove such an approach reveals only the metamorphosis of the medieval into the modern. But at a much finer degree of observation we see Georgian culture and

ideology as but one of many important aspects and influences of that important transformation. The ordering of such contemporary and at times competing movements as Classical, Baroque, Gothic, Romantic, and Industrial is hardly straightforward nor are they entirely separate one from another. To distill what is essentially Georgian from the range of other contemporary elements of the eighteenth century is beyond the scope of this thesis. As often used by Deetz, the Georgian worldview is simply equated with the modern and any discussion of mental and cultural transformation has rested upon a distinction between the modern and the medieval. However, as suggested above, the very importance of this major change, especially if it is to form the basis of an archaeological model, requires that we at least make the attempt to further distinguish the Georgian element from its contemporaries. To understand Georgian as a particular philosophy, for example, it becomes necessary to outline the various innovations in thought that preceded and contributed to this increasingly modern perspective.

Even though the Georgian ideology that Jefferson and other Virginians of the late eighteenth century used to structure their lives had its own peculiar American quality, it must be recognized that it remained essentially a European import. It is therefore the much richer history of that region to which we must turn for clues of Georgian origin and detail. To say only that Georgian culture represented the high water mark of the Enlightenment simply invites further explanation of that larger inclusive movement. Moreover, discussion of the Enlightenment leads one inexorably backwards down a

path to the Scientific Revolution, the Reformation, and the Renaissance. By tracing the most important changes introduced in each of these movements we are provided with a diagram of those steps taken which collectively brought about a profound shift in worldview in Europe and eventually in America. This important process of change is presently a matter of economic, political, social, cultural, and philosophical history and as such, has been documented in countless essays, articles, and texts. In the construction of the following passages, the work of a great many authors has been consulted to create an account and to develop an understanding of the arduous path that led from primitive medieval Europe to a more enlightened eighteenth century Europe and America. Specifically, the list of those writing of this period and/or this important shift in European history and philosophy should minimally include: Bronowski and Mazlish (1960), Durant (1967), Nef (1969), Piggot (1976), Garbarino (1977), Braudel (1979a, 1979b), Hugo (1980), McKay, et al. (1987), Porter (1990), and Watson (1991). Similarly, the list of those authors chronicling the American experience should include at least: Jackson (1966), Meinig (1979), Boorstin (1981), Isaac (1982), Stilgoe (1982), Breen (1985), Bushman (1991), and Henretta (1991).

1. Early Middle Ages

To fully understand the significance and the nature of these changes in attitude, value, and lifestyle, it is important to briefly contrast each with the much more static backdrop of the medieval

worldview. Society during the Middle Ages was by no means dead in the water but a contrast or comparison with later Europe reveals its much slower pace of change. Particularly during the first half of this nearly thousand year period, from approximately the fifth to the tenth century, medieval culture has been characterized as confused, disordered, and decentralized. Religion, in this instance Christianity, served as the single most powerful binding agent within society and continued to be the common denominator during the second half of this period as well. The Church was almost single-handedly responsible for the preservation of the cultural and intellectual heritage bequeathed by the Greco-Roman empires of the past, and yet little of this influence was recognizable outside the walls of this institution. Economy was almost universally agricultural and supported a feudal system of extremely localized government. Though Charlemagne (768-814) provided an early example of a strong centralized political and cultural system in the coalition of Christian, Classical, and Germanic traditions, with his death the fragmentation of his achievement meant a return to feudal society (McKay, et al. 1987:xxvii). Class structure during this first half of the so called Dark Ages was decidedly hierarchical and relatively straightforward. The clergy served God and the Church; the nobility served themselves and sought the support of the latter; and the peasantry served them both with little left over for their own comfort. Likewise, art sought the benediction of the Church, and architecture was usually of the Gothic form with tall spires reaching towards the same ambition.

2. Renaissance

During the High or Late Middle Ages of approximately the eleventh through the sixteenth centuries a significant degree of the darkness of the age was dispelled. The very earliest foundation stones of many of those same elements that in later centuries heralded the arrival of the much more luminous Enlightenment were effectively laid at this time. A greater degree of peace from the warring factions of feudal and foreign lords ensued over much of the region which allowed for a certain degree of recovery and progress. Improvements in farming technology led to a population increase which in turn spurred the growth of towns and the emergence of powerful cities. With these commercial centers and their attendant wealth came increasing trade of both a local and an international nature. Society diversified and an emerging middle class of artisans and merchants occupied the towns and rounded out the social order. Powerful monarches drew around themselves the beginnings of nation-states and vied with the Church for the allegiance of nobleman, merchant, and commoner; representative assemblies (of the nobility, at least) were allowed to wield a small measure of governing power. During the thirteenth century universities were established and began to dispense some of that same knowledge formerly cloistered within the Church alone. Finally, art and architecture were, in the latter years of the age, allowed a greater freedom of expression with the result that a return to classical form became increasingly popular.

In spite of these significant changes, religion continued to be the primary defining characteristic of the Late Middle Ages. The

synthesis of an Aristotelian philosophy of nature and Christian theology achieved by Thomas Aquinas (1225-1274), provided an ideology that guided the thoughts and actions of subsequent Europeans for centuries. The crusades to free the Holy Land during the thirteenth century were poignant examples of the religious fervor to which these people could be stirred. In the political arena even the powerful kings ruled by so called divine right. Much of the medieval landscape continued to spawn one Gothic spire after another in tribute to the Christian God.

Though the repeated misfortunes of the fourteenth century did little to strengthen the shallow grasp that Europeans had begun to purchase in their efforts to pull themselves up out of their medieval lifestyles (if indeed we may attribute to them the near universal desire of bettering one's lot), these incidents of disaster, plague, famine, drought, feudal resurgence, etc. likewise did little to fortify their faith. In fact, the social, cultural, and intellectual developments following this century revealed an increasingly secular orientation and a consequential lessening of attention to religious authority. If at first this decline in the power of the Church and its regulation of medieval society through the enforcement of religious and theological doctrine was mitigated by the re-introduction of classical philosophy and order, it was later challenged by an increasing self awareness and orientation towards personal interest and overall human (as opposed to spiritual) welfare. The earlier rebirth or Renaissance of these classical ideas sounded a clear warning against the hegemony of the Church while the later

emphasis on the individual and his or her earthly pursuits put a period to this medieval logic. The latter stroke, however, would require several hundred years of history to complete, and some may yet see in the modern Church some of its former logic.

While the greatest achievements of the Renaissance may be said to have occurred between 1400 and 1600, many of its notable developments were dependent upon antecedents of the near past and of antiquity. Credit should be extended to those medieval scholars responsible for the recovery of Greek mathematics and for the very framework of study that they established. Earlier changes in economic practice - the insurgence of long distance trade and shipping; the rise of the wool industry and its textile manufactures; along with new banking schemes all created new wealth and an elite culture. Italy provided Europe with its first example of this Renaissance culture in full bloom. Here, this rising prosperity allowed Italian princes and merchants to become patrons of art, literature, and other intellectual pursuits, thus demonstrating their own acceptance of and admission to the ranks of this high culture. Art and architecture revealed the same allegiance by abandoning the Gothic in favor of the classical form. Wealthy cities increased their size and their development towards nation states and the heightened awareness, if not acceptance of individualism, humanism, and secularism was increasingly general. Each of these alterations represented the first halting steps in the direction of a new worldview.

3. Reformation

Aware of its loss of power and prestige, the Church of the sixteenth century attempted its own reform, while in other areas it was forced upon its door. This period of Reformation, especially as it affected Italy, ushered in a regressive movement and hence a rejection of Renaissance ideas. However, its influence was by no means unidirectional. More than a self-examination and restructuring of the Roman church, the Reformation was a substantial fragmentation of this ecclesiastical entity. Most jarring were the radical actions of Martin Luther (1483-1546) who early in the sixteenth century attacked the papal authority of the church and its theocratic presuppositions. For Luther, reform took the shape of a new Christian sect - what would become the Protestant denomination. The rift thus created widened as the number of sects multiplied throughout the century. Calvinist, Anglican, and a host of others joined Lutheran to complete the destruction of the former religious unity of Europe. What had been one Church at the beginning of the fourteenth century was by the end of the seventeenth shattered into several hundred sects. This dissolution speaks volumes on the doubt and disillusionment that had found its way within the hallowed walls of the Church and within the minds of average citizens. What Luther began in Germany spread rapidly across Western Europe so that within a very short time nearly a fourth of its population had adopted some form of Protestantism (McKay, et al. 1987:xxxi).

More important than defining the degree to which any one sect dominated the other is the recognition that during this time an

effective break had been made not only with papal authority but with tradition as well. The idea that religious, cultural, and intellectual alternatives existed and could be somewhat safely entertained was still novel for much of late medieval Europe. For example, the Protestant belief that salvation could be achieved by faith alone not only illustrates the break with Roman Catholic doctrine, but suggests the further empowerment of the individual with new responsibility for his or her own salvation. The significance of this initial questioning of authority and tradition combined with the increasing focus on the individual cannot be overestimated as early indications of a worldview teetering on the edge of wholesale change. Individual effort, personal enterprise, and perhaps even material gain were for the first time allowed a new respectability. And yet, these gains continued to be clothed in the intense religiosity of the times. They may have been novel ideas but they were first and foremost Protestant or Calvinist or Anglican ideas.

The Reformation in conjunction with a number of economic factors may have brought to a close the Renaissance in Italy and in the Mediterranean - the center of the world, but the unique combination of classical and modern ideas of the latter movement did not die out entirely. Bronowski and Mazlish (1960:127) suggest that the intellectual as well as the commercial and the naval supremacy of the Italian states passed northward and towards the Atlantic at the end of the sixteenth century. Indeed, they have suggested that as much as a century earlier in that red letter year of 1492 the world's center of gravity was significantly altered in that direction. Yet, Renaissance

philosophy would gel in England only during the later Elizabethan Age (1558-1603) and with her death the Reformation equivalency in the form of King James I and Puritanism would all too quickly react against it. The new wealth, increasing social mobility, developing industrialism (even at this date), and the progressive philosophy and general optimism of the former Tudor reign was not, however, to be so easily abrogated.

4. Scientific Revolution

The successes and excesses of the newly born Age of Exploration had much to do with this general temperament, and yet other events chiefly of an intellectual nature would secure the gains of the Renaissance and set in motion even more potent and sweeping change. Collectively referred to as the Scientific Revolution (1500-1700), this philosophical innovation and reorientation in Italy, England, and all Europe would make former achievements along these lines seem like child's play. As one earlier historian has phrased it, the Scientific Revolution "outshines everything since the rise of Christianity and reduces the Renaissance and Reformation to the rank of mere episodes" (Butterfield 1952:viii). Still, it should be admitted that a considerable degree of overlap exists between these several movements and often one owes an intellectual debt to the other. The distinction between the Renaissance and the Scientific Revolution, for example, is not always clear. If there is a significant difference then it would

seem to lie in the degree to which the latter focused upon a specific kind of knowledge (i.e., scientific).

For the most part astronomy and physics represented those areas of both initial and sustained interest for the architects of this important revolution. As late as the sixteenth century the ideas of the ancients from well over a thousand years before continued to hold sway over these disciplines. The persuasive arguments of Greek philosophers like Ptolemy of the second century A.D. and Aristotle of the fourth century A.D. were combined throughout the Middle Ages to define not only the medieval worldview but to describe the order of the universe as well. With the Earth at the center of the universe and humankind as the critical link in a "great chain of being" these concepts dovetailed nicely with Christian ideology and thus it was no accident that their longevity was so pronounced. Science prior to the mid-sixteenth century continued to be the handmaiden of theology.

Though fiercely debated for over a century afterwards, the release of those revolutionary ideas found in Copernicus' (1473-1543) De Revolutionibus sounded the first warning knell of the impending demise of traditional ideology. His heliocentric theory - that the Earth and other planets revolve in orbits about the sun and not vice versa represented a challenge not only to the formerly accepted Ptolemaic system but was also an early scientific snap of the fingers in the face of established religious authority and doctrine. Not surprisingly, however, Copernicus made his life's work public only while on his death bed, so strong was the opposing philosophy of the times.

In spite of the Church's rejection of the work of Copernicus, other important thinkers soon embraced it and through their own efforts extended it further. For example, Kepler (1571-1630) used his mathematical prowess to suggest that the planets not only revolve about the sun but they do so in elliptical orbits and at varying rates of speed. If Kepler offered proof of contrary celestial trajectories it was Galileo (1564-1642) who would describe the mechanics of this motion. His practical studies represented the most significant and the last of those offered by the great Italian thinkers before this philosophical hegemony passed to England and other more northern climes. Galileo's success was in part due to technological advancements and his innovative use of them. His observation that the pendulum keeps nearly perfect time allowed for clockwork of greater precision and thus experiments of equal accuracy. The strength of his argument on the velocity of falling objects depended largely upon his ability to record ever smaller intervals of time. When a lens grinder in Holland discovered the magnifying properties of his juxtaposition of one lens above another Galileo quickly returned to his own work with optics to produce a telescope capable of extending both navigational and astronomical interests (Bronowski and Mazlish 1960:119-122). His use of and contributions to technological advancements combined with a use of solid mathematics. Moreover, a highly practical approach to observation and experimention provided the work of Galileo with a convincing logic difficult to deny. Many of his conclusions, however, were perceived by the Church as threats to its established authority, as indeed they were. In a passage

written in 1615 Galileo recorded the very sentiment that would in his mind establish the authority of science as at least equal to that of religion, and in this provided the very logic that later minds would use in the further advancement of science:

> Methinks that in the discussion of natural problems, we ought not to begin at the authority of places of scripture, but at sensible experiments and necessary demonstrations. For, from the Divine Word, the sacred scripture and nature did both alike proceed. . . . Nature, being inexorable and immutable, and never passing the laws assigned her,. . . I conceive that concerning natural effects, that which either sensible experience sets before our eyes, or necessary demonstrations do prove unto us, ought not, upon any account, to be called into question, much less condemned upon the testimony of texts of scripture, which may, under their words, couch senses seemingly contrary thereto. . . . Nor does God less admirably discover himself to us in Nature's actions, than in the Scripture's sacred dictions (in Bronowski and Mazlish 1960:125).

This was extremely bold talk for the first quarter of the seventeenth century. Such thoughts challenged not only the traditional supremacy of the Church but also threw down the gauntlet in front of established scientific methodology. That "sensible experience" and "necessary demonstrations" might provide sufficient proof of natural laws evidently as yet constituted a novel means of inquiry, but one which would soon be rapidly adopted and strengthened.

It would fall to the Englishman Francis Bacon (1561-1626) to formalize this new approach to the natural world. This former lord chancellor was also one of the keenest philosophical minds of his time and one of its most persuasive writers. Outlined largely within his Novum Organum (1620), the inductive approach to scientific inquiry has

since become a fundamental element of nearly all scientific and philosophical methodology; certainly ranking as one of the most important developments of the entire Scientific Revolution. Bacon's strategy consisted of a rejection of the traditional, Aristotelian approach of speculative theory where knowledge of the natural world was most often derived from an application to the supernatural. Rather, he proposed that new knowledge is to be obtained through the careful observation of and experimentation with those objects, events, and phenomena available in the realm of our everyday experience. Through such empirical observation, experimentation, and classification we may hope to arrive at increasingly general conclusions which are then either rejected or strengthened by further tests of the same or related material data. By this form of inductive reasoning the researcher moves gradually from the specific or particular observation towards the increasingly abstract level of theory. This entirely secular and rational approach to the real world, though possible prior to Bacon's time, was certainly not then acceptable in a universe still ordered by non-secular views.

The Cartesian System promulgated by the Frenchman Rene Descartes (1596-1650) offered an important alternative to Bacon's inductive logic. Though remembered as a philosopher of equal stature to that of his Elizabethan predecessor, Descartes was perhaps first and foremost a mathematician of exceptional talent. His greatest contributions to the scientific revolution consisted of applying his own peculiar mathematical methodology to science in general. By this strategy he attempted to reach certain axiomatic conclusions or general laws

through an analytical or deductive approach. These deductions were considered to take the form of self-evident intuitions so obvious as to be beyond doubt - a point only arrived at after considerable initial doubt and reduction of each statement of probability into its various components for still further analysis. This deductive methodology has been regarded as all the more appealing when coupled with Descartes' insistance upon simplicity and clarity in his proofs. Even today parsimony remains one of the accepted limitations of a persuasive hypothesis or general law. Like Bacon's inductive reasoning, Descartes' rational skeptism offered another way of examining the seventeenth century world; and contrary to Church doctrine suggested that analysis of secular entities provided the least doubtful conclusions.

Though dependent upon the work of his predecessors, Isaac Newton (1642-1727) nevertheless occupied a highly distinctive position in the history of science and philosophy. His achievements have been claimed by both the Scientific Revolution and the ensuing Enlightenment. Perhaps his work can be seen as the climax of the former and the opening fireworks of the latter. In the first instance he provided several vital syntheses that brought the individual efforts of Copernicus, Galileo, Bacon, and Descartes to levels of explanation even more powerful than they would have imagined possible. In the second, these same syntheses provided the final blow necessary to completely sever the exclusive grasp that the medieval mind set had for so long entertained. Whereas these former luminaries had each in his own way challenged this worldview it was Newton who laid out the

design for a new one. At his most brilliant he integrated the several laws of Copernicus on astronomy and as improved by Kepler with the physics of Galileo to produce a single law of universal gravitation. In this, he offered a so far irrefutable explanation of the motion and mechanics of the universe. His new system largely described within the publication Principia (1687) has so far proven consonant with the observable machinations of the material world. Verification has relied upon that second synthesis hinted at above, in this case between the inductive experimentalism of Bacon and the deductive rationalism of Descartes. The resulting modern scientific method has since proven a powerful hybrid (Bronowski and Mazlish 1960:186-190). The strict logic and unspeculative nature of Newton's methodology represented a final break with the more intuitive notions of Aristotle. To the degree that Newton's method called for certain a priori steps in any analysis - that it should be decided in advance what exactly an experiment hopes to test and what specifically in the results will support the initial argument and what will detract from it - his system may be considered to follow the deductive approach of Descartes. To this, however, and that which Newton more often acknowledged as his method must be added the inductive process of Baconian experimentation, where these initial deductively drawn arguments are confronted with the so called facts of empirical observation.

If we consider these a priori arguments of Newton's methodology as synonymous with hypotheses, then we may recognize in his work the more modern method. In fact, these same empirically vulnerable

hypotheses represent the core of the hypothetico-deductive method currently employed in the New Archaeology. Watson (1991:277), however, has recently suggested that this method of hypothesis and deduction was not so new in Newton's day. Rather he would attribute its reintroduction into modern science to the New Scientists Gassendi (1592-1655) and Mersenne (1588-1648) who themselves would recognize the same approach in the much earlier work of Epicurus (341-270 B.C.). Regardless of its ultimate origin, however, it was indeed Newton whose brilliant explanations of the motion and mechanics that rule the universe effectively popularized this method, and in this offered its best recommendation for future scientific endeavors.

5. Enlightenment

For all its sound and fury the Scientific Revolution did not by itself produce a drastic change in the seventeenth and eighteenth century worldview. Nor did it result in the development of many new technological advances; such practical or applied science would wait for the impending agricultural and industrial revolutions. The work of Newton and his predecessors was after all somewhat esoteric. The revolution that they fostered was for all intents and purposes an intellectual one; and like their own weighty mathematical formulae remained abstract and somehow distant from everyday reality. The vital task of translating and applying these new ideas to the realm of mundane, daily existence fell most often to the social philosophers of the time, whose writings, beliefs, and actions were substantially

influenced by the revelations of their more scientific colleagues. The latter group provided the all important mechanism of change, while the former gave it a voice and saw to it that the message was widely distributed. Over this group of social philosophers, over their contributions and encompassing the respective societies in which they operated, history has given the name of the Enlightenment.

McKay, et al. (1987:582) have described what they consider to have been the two most elementary concepts of the Enlightenment. The first and most important was the notion that the same scientific methods that had proven so effective in studies of the natural world and wider universe might be trained with equal advantage upon almost any of life's variables. Through the rational and critical lens of *reason,* and not faith, each person might see the world differently and as if for the first time. The second concept of this Age of Reason and one clearly related to the first is that where this same scientific method was capable of revealing the laws which govern the universe it might just as successfully establish those which regulate the affairs of men. Understanding the complexities of human behavior in all its beauty and squalor became the peculiar focus of these social thinkers. With the mysteries of the universe somewhat vanquished, these *philosophes* turned their attentions inward and sought to define much more anthropological subjects of inquiry. Social institutions such as government, education, and religion occupied their thoughts, and when their attention finally turned to what they would increasingly consider the natural rights of man the

outcome was every bit as revolutionary as any of the earlier scientific transformations.

Some of the earliest and most significant Enlightenment philosophers were Englishmen whose ideas were very influential during the politically volatile seventeenth century. The writings of Thomas Hobbes (1588-1679) and later those of John Locke (1632-1704) may be cited as two such examples. Hobbes' application of the axiomatic method of arriving at new knowledge as borrowed from the New Scientists, to the subjects of man and nature suggested to him that man is by nature selfish and brutish; that his life is commonly poor, solitary, and short and therefore requires the guiding hand of a strong monarch to control his destiny and to make life less miserable. Alternatively, Locke attempted a much more empirical approach to knowledge and his conclusions about his human kin were far less pessimistic. His interests in epistemology and his aversion to the Platonic idea of innate knowledge led him to suggest that while some knowledge may be intuitive, the majority is gathered by experience. Far from entering the world with a collection of ideas imprinted by some divine force, each individual enters at birth with a blank slate (tabla rosa) and constructs for himself a particular worldview based on ensuing experience. Locke's faith was therefore placed in the educability of the common man. Like Hobbes he spoke of the necessity of forming a "social contract" between those governed and those providing government. Whereas Hobbes saw this contract as a mandate for absolutism, Locke considered it a matter of public trust where the supreme power lay in the hands of the people and no king or sovereign

was above the law (Bronowski and Mazlish 1960:198-202; Garbarino 1977:12-13). These ideas, especially those of Locke, were still quite radical in Europe in spite of the upheavals of the English civil war, its first regicide in the execution of King Charles I, and the further separation of powers under the restored Charles II. From its feudal shell came the first strong indications that a modern state was preparing to hatch. On a less political level, the rationalist approach to defining the human experience and the individual's place in the universe continued to hammer at the supports of Christian and Classical doctrine and brought about what has been described as a "crisis in European thought" (Hugo 1980:3).

Nowhere was this revolutionary atmosphere more palpable than within the boundaries of France and within the minds of its eighteenth century *philosophes*. The French Enlightenment represented a peak in the general movement and its proponents were doubly committed to the task of rendering the light of knowledge accessible to society at large. Whether consciously or unconsciously so, they were engaged in the process of social reform. Just as with their English predecessors these French thinkers were also strongly influenced by notions of scientific empiricism and rational thought. Voltaire (1694-1778), easily the most celebrated of these philosophes, combined the ideas of Descartes, Newton, and Locke to produce a rather vitriolic but effective social satire. Through this medium he challenged the cultural, social, and political conventions of his day. Ironically, Voltaire was no democrat and could not conceive of power in the hands of the masses. However, Bronowski and Mazlish (1960:262-263) have

suggested that his ideas developed a force all their own and when later adopted by the democratic movement they achieved an explosive character.

Several of Voltaire's intellectual contemporaries and immediate countrymen offered similar contributions. Montesquieu (1689-1755) employed an inductive approach to the study of social institutions and their historical development. His comparative research suggested to him certain explanations for the differences he perceived in various societies and provided one of the earliest examples of cultural relativism (Garbarino 1977:14). Condorcet (1743-1794) similarly adopted a scientific approach and through reason attempted to demonstrate the great potential of humankind and the progressive orientation of the species. Finally, Diderot (1713-1784) distinguished himself among this collection of notable French Enlightenment thinkers as the senior editor of the Encyclopedie - a twenty year task of assembling the cumulative knowledge of the age. With this, he erected a fitting monument to the intellectual achievements of the eighteenth century Enlightenment and to those important intellectual and scientific antecedents upon which so much had since been built.

The eighteenth century had not quite run its full course, however, when the achievements of both the Scientific Revolution and the Enlightenment were seriously challenged from adversaries within the very ranks of these social philosophers. The result, by century's end, was a Georgian optimism tempered by a Romantic melancholy. The independent writings of the Scotsman David Hume (1711-1776) and more

influential still, the ideas of the Frenchman Jean Jacques Rousseau (1712-1778) combined to undermine Enlightenment thinking on both sides of the Channel. Literary examples include Hume's early publication of A Treatise of Human Nature (1739) and Rousseau's later publications of A Discourse on the Arts and Sciences (1750) and The Social Contract (1762). Paradoxically, both thinkers used logical, well-reasoned arguments and means of inquiry to develop a case for the primacy of emotion over reason. Rousseau was easily the most vocal and the most effective of the two. In addition to his claim that sentiment and emotion were more often the birthright of men over that of intellect and reason, he advocated a complete withdrawal from society as a means of healing the moral and mental injuries offered by a corrupt civilization. The notion of a "noble savage" became a favorite ideal (Bronowski and Mazlish 1960:285-291; Garbarino 1977:15-17). Rousseau's condemnation of Newtonian materialism and what had by then become standard science extended to religion, philosophy, literature, and politics, as well. He placed morality before knowledge and virtue before luxury; and far from sponsoring the notion of human progress, Rousseau called for a "radical political and ethical renewal" (Bronowski and Mazlish 1960:286).

In the field of politics Rousseau's ideas were indeed radical and fresh. Though he began with the same concept of the social contract that Hobbes, Locke, and others had first popularized, Rousseau was the first to recommend the necessity of a popular sovereignty, where laws become the mandate of all people within any nation's boundaries, and where this consent or "general will" is

arrived at by counting votes. This democratic ideal was quite a different kind of contract than his predecessors were willing to conceive of, let alone permit. Ironically, Rousseau's ideas might be employed by both rising democracies such as in America and France, and by governments more totalitarian in design. In his work, both found the justification they needed to push forward their dissimilar regimes (Bronowski and Mazlish 1960:302).

As an intellectual reaction against Enlightenment philosophy the Romantic Movement that Rousseau helped to initiate extended to much more than politics alone. The intense emotionalism that it promoted was accepted as a dominant theme in literature, art, landscape, and architecture of the late eighteenth and early nineteenth centuries. The poems and prose of Goethe, Coleridge, and Blake were early examples of such influence, to be followed in the next generation by Keats, Byron, and Shelley, among others. In architecture, the romantic spirit often called for a rejection of the classical aesthetic and a return to the Gothic form, where crenelated but crumbling stonework has been suggested as symbolic of the decline of autocratic power (Piggot 1976:120). In landscape, the Romantic influence has been tied to the Picturesque, the Sublime, and the Beautiful. The strict and carefully measured landscape of the Georgian order was to be replaced by one infinitely more organic and wild. Nature became less an object to be controlled as it was to be imitated.

6. Jeffersonian Philosophy and Georgian Worldview

The subject of nature and of man's relation to it was of no small importance to eighteenth century European and American thought. For example, Jefferson (1743-1826) allowed it a position of considerable prominence in his own philosophy. In his time it became a defining characteristic of both the individual and American society. Discerning Jefferson's particular philosophical bent, however, is a task of considerable complexity. His views were seldom made explicit in the kind of philosophical treatise that earlier minds of the Enlightenment chose as their medium. Rather, we must search for his perspective in his political and personal writings, in his recorded actions, and even in his material culture.

Such an effort reveals that Jefferson was indeed a product of his Age, and yet, his approach was neither a complete rejection of the past nor an uninhibited embrace of the present. At his most even keel, his thoughts and actions suggested an effective mediation of these two extremes. In other instances, he may be seen to have leaned rather strongly in one direction or the other, depending upon the subject at hand. Perhaps, as in his taste for architecture, he may be described as "Neoclassical." Hugo (1980:4-5) explains the term as it also applied to the literature of the period:

> The "Moderns" were those who insisted that modern culture could equal or surpass that of the classical period; the "Ancients," those who joined literary modesty to something very like a Christian sense of imperfection. Yet while one side felt itself to be an inglorious heir and the other a superior son, all were convinced that they were neoclassic, a happy synthesis of the ancient and modern.

The degree to which Jefferson was himself neoclassical may be demonstrated by an examination of his much touted agrarian philosophy - a point which brings us back again to the importance of man's relationship to nature. Jefferson's brand of agrarianism [or what Breen (1985) has referred to as "Country Ideology"] essentially held to the view that both the individual and the larger society grow and prosper best when planted in a rural environment; that in cities lies only the temptation of centralized power, tyranny, and individual corruption. Implicit in this perspective is the belief that power should be decentralized and locally based; that the occupation of the individual and that of the community should be agricultural; that man is true to his own nature only when surrounded by nature. It is easy to see in these ideas the influence of Rousseau who was among the first to emphasize the importance of these relationships. In this, we may say that Jefferson's acceptance and imitation of these beliefs allowed him membership among the most modern of social thinkers. However, there remain aspects of his particular agrarianism that also tied him to the ancients. For example, his belief that the rural alternative was capable of producing a more virtuous citizen may also be seen as an echo of the classics. Jefferson's classical education would have brought him into contact with the writings of Virgil, Homer, Theocritus, and others whose idealization of country life undoubtedly influenced his own views on rural and urban existence, as it did for his entire generation. "Those who labor in the earth," Jefferson wrote, "are the chosen people of God, if ever He had a

chosen people; whose breasts He has made His peculiar deposit for substantial and genuine virtue" (in Jackson 1966:25).

Jackson (1966:25-26) has suggested that Jefferson's agrarian philosophy favored only rural society and the rural citizen and not the more Romantic inclinations of Rousseau and the later Thoreau who called for increasing communion with nature eventually amounting to a near "total commitment to a natural, solitary way of life." He sees in Jefferson's viewpoint a relationship of man to man, where the rural citizen remains a highly social and political animal. In contrast, the Romantic ruralist would effect a relationship between himself and his environment at the expense of public and social contact. In this evaluation, Jackson is largely correct. Moreover, the "rural citizen" is a model recognizable in antiquity. However, Jefferson was not without Romantic leanings, nor was he unaware of their social costs. On the contrary, they were a price that he would have gladly paid had he not been bound by that alternate sense of duty and service. By his actions he fulfilled the role of agriculturalist and reluctant statesman; by his own admission he would have much rather been a solitary laborer of the earth. In a letter to Edmund Randolph dated September 16, 1781, Jefferson swore the premature oath, "I have taken my final leave [from public office], . . . I have returned to my farm, my family and books, from which I think nothing will ever more separate me" (in Nock 1926:29). In August of 1811 Jefferson had been two years in retirement from the presidency and from nearly forty years of public service of one kind or another. In a letter of that date, he expressed his own personal favor of rural life once more:

> I have often thought that if heaven had given me choice of my position and calling, it should have been on a rich spot of earth, well watered, and near a good market for the productions of the garden. No occupation is so delightful to me as the culture of the earth, and no culture comparable to that of the garden (in Betts 1976a:461).

Jefferson's agrarianism and his naturalism, in addition to their highly emotive quality, were also simply practical. From very early on he was fully aware of the great promise that America offered. The North American continent remained but sparsely populated in his day and the huge tracts of land especially to the west suggested to Jefferson the logical practicality of agriculture as the primary means of American production. Not that in the colonial period America had much choice beyond that of a subsistence strategy, but in the last quarter of the eighteenth century the budding national government was confronted with important decisions on the relative significance of agriculture and manufacturing. Federalists such as Hamilton saw the future of the country as one based on manufacturing and hence a nation tied to ever expanding urban centers. The Republicans [later Democrats] under Jefferson feared the concentration of power that these cities represented and therefore considered manufacturing as but a precursor on the road to eventual tyranny. For them, the Federal plan represented a surrender to the same yoke that Americans had just freed themselves of, namely, the aristocratic institutions and traditions of the Old World.

In this debate concerning the dominance of one mode of production over another, Jefferson followed the doctrine outlined by

the economic philosopher Adam Smith (1723-1790). In his Wealth of Nations (1776) Smith published a reaction against the prevalent mercantilist strategy of the British empire and enshrined agriculture as the proper path to wealth and prosperity. Moreover, it was the labor of those who worked the soil to make the benefits of agriculture possible that represented a nation's chief asset. Bronowski and Mazlish (1960:386-387) have suggested that Smith's ideas on free trade or laissez faire made him the favorite son of many of England's rising manufacturers, when in fact, his advice was largely to the contrary. Europe "had put the cart before the horse: it had favored towns and manufacturing over land and agriculture, it had followed the mercantile instead of the natural system of economics" (1960:387). Again, the correct path to economic success lay in the pursuit of agriculture and Smith chose America as his example of that country where such an approach was not only infinitely possible but currently operating as such.

Jefferson's early conviction of the accuracy of these ideas, by his own admission, rested upon a single consideration that:

> to the labor of the husbandman a vast addition is made by the spontaneous energies of the earth on which it is employed: for one grain of wheat committed to the earth, she renders twenty, thirty, and even fifty fold, whereas to the labor of the manufacturer nothing is added (in Padover 1956:255).

Others agreed. In fact, to most Americans, that the nation was destined as the natural province of husbandry and ultimately of a more expansive agriculture, seemed a matter of common sense. Still others

took an even firmer stance on the issue, such as is evident in the evangelical tone of Reverend Nicholas Collin in 1789:

> They [Americans] will therefore, if truly wise, make agriculture the principal source of prosperity and wealth: to prefer other objects, however useful in a secondary view, would be perverting the order of nature, nay, opposing the will of nature's God (in Boorstin 1981:227).

Moreover, the art of husbandry was indeed an ancient practice, and one that, given its obvious benefits and utlility, was from earliest times revered and exalted. Those who practiced it shared its glory. They were the masters of the earth, able to turn "sterility and barrenness into fruitfulness and increase" (Markham in Stilgoe 1982:137). Meinig (1979) insists that they shared a common ideology and one that yet has currency within modern environmentalism. Its proponents and its participants viewed the process as a matter of the "harmony of man and nature, of the earth as the garden of mankind, of man as the steward, the caretaker, the cultivator" (Meinig 1979:36). Beyond its rustic charms, its divine sanction and royal patronage, husbandry remained throughout the eighteenth century a matter of utmost practical necessity. In Stilgoe's estimation, it was "necessary to the health of any nation. Without food there is no commerce, no building, no life" (1982:137).

Yet experience and changing circumstances taught Jefferson that America could not survive on its agricultural economy alone. Perhaps more than any other event, the War of 1812 and its twinned embargo of imported goods brought this message home. Added to this was the virtual exclusion of American trading vessels from the seas - a

condition that provided both the initial spark of war and was a persistent consequence of it. As a result, Jefferson and others who agreed to his agrarian principles were forced to accept the necessity of manufacturing, though he would not have recommended its supremacy over agriculture.

In the final analysis, Jefferson's agrarian philosophy would ever take a back seat to his belief in the natural rights of man. The two were not unrelated, however. As suggested above, Jefferson believed that the best way to preserve these rights was through an agrarian state where each individual was entitled to the purchase of cheap land, and in this way allowed a greater measure of autonomy - the opportunity to become master's of their own fate. In reference to their mutual goals during the American Revolution, Jefferson once reminded Adams of those earlier days when they were "fellow-laborers in the same cause, struggling for what is most valuable to man, his right of self-government" (in Padover 1956:200-201). Such a humanist philosophy was typical of the Enlightenment and of Rousseau, in particular. For late eighteenth century Virginia, however, it might even be described as surprising given that Jefferson and other ruling elite had done quite well under the British regime, and as leaders of armed rebellion they risked all in the name of freedom for all people [all Anglo-Americans, that is]. Still, like the Romantics of later years, Jefferson was capable of great emotion on this subject and one senses from his writings that these sentiments were genuine; if, however, combined with other ulterior motives.

Jefferson's ideas on the importance of science are worthy of some scrutiny as the final measure of his personal philosophy and of his conformity to the intellectual undercurrents of his late Georgian context. Once again, his comments and actions suggest that he adopted a neoclassical approach to the subject. At times his acceptance of modern scientific theory and its fruits seems complete, but at other moments he suggested more the Romantic aversion to it. In the declaration of: "We hold these truths to be self-evident" Jefferson expressed not only his belief in certain "inalienable" rights but also revealed a kind of scientific orientation. That these truths should be self-evident or intuitive is a form of deduction. Such a methodology was in fact the popular approach during the eighteenth century and, it will be remembered, was the choice of Rousseau as well.

Jefferson's advocacy of a highly uniform township system for the western territories provides an interesting example of a point where several of his strong beliefs coalesced. Within its square boundaries we may glimpse signs of his application to science, democracy, and classical form. Codified in the Land Ordinance of 1785 (or the National Land Survey, elsewhere), these noticeably Georgian ideals were broadcast over a vast area of the American landscape. With the enactment of this ordinance approximately two-thirds of the country, that area largely west of the Appalachians, gradually fell under the skein of a massive network of grid lines. A series of north-south survey lines placed at six mile intervals moved inexorably across these western lands. These lines in turn were intersected by parallel

east-west grid lines also at six mile intervals allowing for a square or "township" of some 640 acres.

Far from initially promoting the establishment of new and sizable towns, this new way of arranging the landscape rather placed an emphasis upon the individual and facilitated an isolated settlement pattern. Shades of Rousseau were patent in this design, so too was Jefferson's intent to provide cheap and abundant land so that an agriculturally based populace might provide for its own sustenance, maintain a decentralized authority, and thus create a more democratic society (Jackson 1966:25-26). Jackson (1966:26) has described the resultant "society of small landowners" as Utopian in design. In his opinion, such a layout has "unmistakable Utopian traits: it is in fact the blueprint for an agrarian equalitarian society, and it is based on the assumption that the landowner will be active in the democratic process. The grid system, as originally conceived, was thus a device for the promotion of 'virtuous citizens'" (1966:26). Such active and virtuous citizens, if indeed they were Jefferson's intent, recall once again the civil doctrine of Roman times. But then, so too does the geometry of the overall grid system. Arnold (1973:15) has suggested that even where employed in the design of more eastern cities, this square grid pattern may be traced to earlier Renaissance and Baroque European models. The latter, however, would in turn have to admit an intellectual debt to Greek and Roman builders, in particular, one Vitruvius - a Roman architect and engineer of ca. 30 B.C. Finally, the straightness and artificiality of the grid design suggests conscious attention to a kind of

mathematical and scientific exactitude on a grand scale. In a later article, Jackson even describes such "undifferentiated space" as "Newtonian" in character - following the "orderly, movement of independent bodies from one space to another in response to predictable laws. . ." (1979:160). In this instance, he considers economic laws as the motivating factors. The uniformity and predictable qualities of this grid and township system may be viewed then as an important and lasting way in which Jefferson preserved his own ideals within the American landscape. Inasmuch as these particular ideals were shared by a great many of his contemporaries (Hamilton and the Federalists excluded) on both sides of the Atlantic, perhaps we may also claim that they were characteristic of Enlightenment and Georgian sentiments, as well.

In conclusion, it may prove worthwhile to further demonstrate Jefferson's peculiar opinion on the subject of science by quoting from several of his letters of correspondence. In these examples his attitudes towards democracy and the natural rights of man are also apparent. For instance, in 1812 alluding to the imminent conflict with England and France, Jefferson wrote:

> As for France and England, with all their preeminence in science, the one is a den of robbers, and the other of pirates. And if science produces no better fruits than tyranny, murder, rapine and destitution of national morality, I would rather wish our country to be ignorant, honest and estimable, as our neighboring savages are (in Padover 1956:201).

And yet, scarcely three lines further within the same letter, Jefferson confessed that he had given up reading newspapers for

Newton, Euclid, and others which gave him greater satisfaction. The above quote is of even further significance for its Romantic sentiments. Change, for example, "neighboring" to "noble" and we would have those same "noble savages" that Rousseau frequently waxed poetic about.

Well over a year later, in October of 1813, Jefferson would again write to Adams and in this, express his feelings about science, agrarianism, and democracy. His sentiments at this time are such an appropriate summary of these points that they deserve to be quoted at length:

> But even in Europe a change has sensibly taken place in the mind of man. Science had liberated the ideas of those who read and reflect, and the American example had kindled feelings of right in the people. An insurrection has consequently begun, of science, talents, and courage, against rank and birth, which have fallen into contempt. It has failed in its first effort, because the mobs of the cities, the instrument used for its accomplishment, debased by ignorance, poverty, and vice, could not be restrained to rational action. But the world will recover from the panic of this first catastrophe. Science is progressive, and talents and enterprise on the alert. Resort may be had to the people of the country, a more governable power from their principles and subordination; and rank, and birth, and tinsel-aristocracy will finally shrink into insignificance, even there (in Padover 1956:221-222).

From this account it would seem that Jefferson was very much aware that a profound change in world order had occurred, and that science was to be esteemed as having had a considerable degree of complicity in this change. Even where the French Revolution had so far failed to free its own citizens, there stood the American example that such freedom was indeed possible. It would serve as both beacon and

broadcast, drawing in those of like mind and disseminating these revolutionary ideas across the globe. Natural talent, virtue (as opposed to rank and birth), science, and enterprise (i.e., capitalism at its best) were to serve as the means by which this progressive ideology would be carried to the world.

B. Basic Tenets of the Georgian Worldview

In eighteenth century America and England this new perspective is known as the Georgian mind set, but as canvassed under the much broader title of the Enlightenment its effects were more widely felt. Today, these terms, Georgian worldview/mind set and Enlightenment, are often used interchangeably. Either title is likely to refer to that complex linkage of cultural traits and confluence of social and scientific ideas that were more or less in place by the first quarter of the eighteenth century. In following the chain of events and the important changes in thought occurring over the two hundred year period prior to its inception, this Georgian worldview is allowed greater clarity of meaning. In short, this exercise helps to increase our understanding of the Georgian model as outlined by Deetz, Glassie, and Leone, and perhaps extends it further in small but important ways. This critical shift from medieval to modern may be summarized as resulting in at least five significant and interrelated concepts or rules that were then and have since been employed as the basic structural supports of western society. Beginning as changes in philosophy these new concepts were quickly translated into the

language, action, and material culture of everyday life. Though others undoubtedly exist, the five that spring from the above review should include: 1) science as a means of perception; 2) secularism as a new point of departure; 3) progress as a new goal; 4) individualism as an economic strategy; and 5) capitalism as the engine of this new world order.

1. Science

The growing acceptance of science as a method for gathering new knowledge, but more importantly as a means of viewing and ordering one's physical environment, represents one of the foremost changes of this period, and one that directly and indirectly triggered change in nearly every other arena. The contributions of Copernicus, Kepler, Galileo, Bacon, Mersenne, Descartes, and many others were given greater voice and legitimacy with the formation of the Royal Society (1662) in England and the Academie Royal des Sciences (1666) in France, but it was Newton and the powerful integrations in his research that formally sanctioned science as the method by which at least the eighteenth century would begin to perceive the world. Critical, rational, inductively, and deductively reasoned analyses of nature resulted in a rejection of the ideal forms suggested by Aristotle and canonized by Acquinas; and thus represented in their application a rejection of tradition, established authority, and medieval logic. Empirical observation, intuitive reasoning, and the systematic search for cause and effect became the tools by which

nature, man, and mind were increasingly dissected, poked, and prodded under intense scrutiny. Defining the laws of nature led to the further investigation of those so called "natural" laws which bind men together under social contract. Reason and rationality mixed within the crucible of science achieved exalted status, and their very brilliance meant that the supernatural, religion, and the old order fell increasingly under their shadow.

Just as Deetz (1977:38) has spoken of a "re-Anglicization" of mid-eighteenth century American culture and thought, Bronowski and Mazlish (1960:248) have suggested that France of the same time period experienced an Anglicizing of its own. Newton's system of nature and method of analysis were apparently successfully propagated on French soil in the persuasive writings of Voltaire, who was himself convinced of the superiority of these English views. Once rooted, their ultimate fruit was much the same in any of these three otherwise disparate localities. Initially, this Newtonian system produced aspirations and appreciations of greater control, definition, understanding, precision, and order.

At the level of the individual citizen these categories might translate into certain cultural prescriptions. For example, order was often considered synonymous with function and beauty, each the requisite of a new aesthetic which also called for simplicity and good taste (Hubka 1984:198-199). In the architecture of the period we might consider a particular structure to have achieved these qualities if it could be described as "chaste." Upon this point Jefferson was often quite firm. Within his Notes on the State of Virginia he

described the condition of architecture in the state's capitol - then at Williamsburg of ca. 1780 (Peden, ed. 1955). His accounting of residential buildings as suffering from a "burthen of barbarous ornaments" was followed by the lament, "But the first principles of the art [architecture] are unknown, and there exists scarcely a model among us sufficiently chaste to give an idea of them" (Peden, ed. 1955:153). Many years later he would speak of his own designs at the University of Virginia as possibly providing such a model. In 1825 he wrote, "The form and distributions of its structure are original and unique, the architecture chaste and classical, and the whole well worthy of attracting the curiosity of a visit" (in Betts 1976a:611).

In addition to the influence of scientific thought in forming a new aesthetic, and in architecture we must admit that this ordered appearance was most often achieved by a resort to classical form, this new enthusiasm for science was often registered on the far more material level of personal goods and in the form of personal interests. A spirit of investigation and experimentation seems to have been fairly pervasive among at least the upper class during this period and was popularized as early as the mid-seventeenth century. As for the material correlate of these activities the Georgian gentleman often possessed extensive collections of objects drawn from cultural and natural history. Such collections, initially referred to as "cabinets of material and artificial curiosities," were recognized as "the proper ornament of a gentlemen's library" and the very "hallmark of cultivation" (Pearce 1990:20-22). Were they also intended as a display of the owner's ability to appreciate if not

control the laws of man and the laws of nature? Were they also but another form of empiricism? Perhaps they were, at times, early attempts at classification.

It is significant to note that Jefferson was not without such a collection of his own. McLaughlin (1988:356) has suggested of Jefferson that, "Not only did he collect, he also indexed, classified, and systematized. He would be expected, therefore, to own what every gentleman of the Enlightenment possessed - a natural history cabinet." Compared to those collections of the more famous European antiquarians of his day, Jefferson's cabinet was undoubtedly a small affair. Nevertheless, for eighteenth century America, it may have been a rather impressive gathering of material. One easily impressed visitor suggested, "It is supposed there is no private gentleman in the world, in possession of so perfect and complete a scientific, useful and ornamental collection" (in McLaughlin 1988:357). Jefferson's tribute to and study of natural history included a wide range of Native American objects, a number of fossils, more recent examples of American fauna appropriately mounted on his walls, a variety of geological specimens, shells, and various and sundry other curios.

It is perhaps additionally significant to note the location of Jefferson's collection in the entrance hall of his Monticello residence. This room, increasingly the hallmark of proper Georgian architecture, quickly became the traditional resting place for such collections as his. As the first room of the interior that would greet the visitor, its value as a means of presentation was not lost on Jefferson or his contemporaries. At least a considerable portion

of the message intended for every visitor was that the owner of such a collection was not only a man of means but also one intimate with and in control of the reigning paradigm of the day - science.

Cabinets of curiosities represented one kind of collection designed to deliver this message to Georgian America. Leone (1988), as discussed above, has suggested the inclusion of scientific and musical instruments as another form of collectibles intended to demonstrate the same command of knowledge. Piggot (1976) would add that both interests were already quite strong among the upper class Englishmen of the seventeenth century. These gentlemen pursued fascinations with both natural and mechanical objects. In the latter category we might expect that clocks held a position of prominence since even before Galileo. Jefferson's timepiece - an expensive apparatus from Philadelphia and endowed with an extravagant system of weights designed to mark the days of the week - occupied a position of honor and high visibility in the hall centered above the entrance doorway. That Jefferson was said to have designed this and other clocks in his household, as well as to have used them for innumerable experiments in efficiency, is simply a measure of his own acceptance of scientific doctrine. McLaughlin adds that such experiments:

> on the efficient management of time and resources were characteristic of Jefferson's compulsive personality, but they were also a guiding principle of his age. The Newtonian universe of the eighteenth century was a mechanistic model based on a clockwork metaphor (1988:370).

In a further inventory of the mechanical gadgetry owned and operated by Jefferson, McLaughlin includes ". . . his surveying equipment,

pocket sextant, theodolite, thermometer, barometer, pedometer, odometer, and a clever wind vane for recording wind directions at Monticello" (1988:371). His telescope and polygraph (or copying press) are further examples of Jefferson's easy admission into this Newtonian age. Perhaps this inventory may be extended further to include items that in the present seem trivial but which in Jefferson's day were still high technology. Locks, for example, while not new in the eighteenth century, may have been equally symbolic of the owner's control of the mechanical world. That Jefferson was also considered to have been adept in their construction, only further enhances his image as an initiate of modern knowledge and ability.

The son of a surveyor, Jefferson was himself no less adept in this important skill. But then many of the gentlemen farmers of his time seem to have been able to recognize the business end of a theodolite. Piggot (1976:111) has suggested that as early as the seventeenth century surveying formed part of the curriculum in the education of a gentleman, and he quotes Robert Burton to have written in 1621, "What more pleasing studies can there be than the Mathematicks, Theorick or Practick? As to survey land, make mapps, models, dials &c., with which I have ever much delighted myself." That Jefferson was educated under the same school of thought is evident in many of his carefully drawn and detailed property surveys and perhaps more often in his architectural plans and elevations (see for example, Kimball's Thomas Jefferson, Architect). It is tempting to suggest that this particular skill and the paper proof of it both represent attempts to order and thus control the natural and the

artificial landscape. In this, Jefferson's drawings and endless notes represent a kind of scientific documentation. Even though his survey markers were often trees or other changeable landforms, the detail and rigor of his note taking suggest that he intended it to be replicable. As in most things, he approached his surveying with a scientific frame of mind.

a. The Science of Agriculture

Agriculture, for example, was no less of a science for Jefferson, though he would have admitted that it was a field for which he had little talent and even less time. Still, his Garden Book and his Farm Book (see Betts, ed. 1976a and 1976b, respectively), wherein he recorded copious notes on botanical and agricultural observations and experiments, are certain testimony of his empirical approach. While Jefferson's compulsive note taking seems to have been somewhat the extreme it does not, however, represent an exception among eighteenth century gentlemen farmers. Again, it is tempting to conclude that this penchant for record keeping, whether notes, essays, diaries or drawings, was but an extension of the scientific method, and as such, yet another example of the powerful influence of Georgian context.

Just as Jefferson's extensive record keeping of his agricultural pursuits was not entirely novel in his time, neither were the experiments themselves. In fact, beginning as early as the mid-seventeenth century but well underway only a century later, an

agricultural revolution parallel and connected to the scientific revolution was strongly influencing the method and scope of European and colonial agriculture. The similarities between these two movements were much too striking to have been coincidental and their advance was nearly simultaneous. Both were the product of that same fundamental shift in worldview - from the medieval to the modern. Fussell (1972:156) acknowledges that the agricultural revolution was, ". . . part of the movement of thought in the Century of Enlightenment, which implied a rationalization of practice coupled with a contempt for tradition." The rationalization of agriculture was, of course, tied to the increasing empiricism and practical experimentation that had become the new language and function of science in this Age of Reason. Perhaps it was equally a result of the Enlightenment effort to define and ultimately control the laws of nature.

The application of this scientific methodology and manner of thinking to the former art of husbandry began almost as early as the introduction of these ideas into western philosophy. The conscious break with tradition, however contemptuous that association had become, was not to occur quite so rapidly as Fussell's (1972) comment would imply. As with many of the principles of the New Science, this New Husbandry likewise represented a reaction against both classical and medieval forms of tradition. It was, however, the appeal of the Greek and especially the Roman husbandmen/philosophers that still lingered in the minds of many eighteenth century agriculturists. As was the case with Jefferson, most of the upper class European and

American landowners had based their educations strongly upon the classics, and a considerable number of these early writings concerned the topics of agrarian and practical agricultural pursuits. Virgil's Georgics was a particular favorite, and Aristotle, Pliny, Varro, and Cato were other authorities of equal stature. Even the collected wisdom of these sage and ancient philosophers would eventually bow to the advanced thinking of the more modern scientific farmer, but perhaps not before they had been exhausted as sources of agricultural information. Fussell (1972) has noted that nearly every late seventeenth to mid-eighteenth century treatment of the broader subject began with a thorough review of what the classics had to offer. Much of what they did suggest was practical, and in several instances may have informed a kind of Agricultural Renaissance, preparatory to the advances of the Agricultural Revolution proper.

Since before Roman times agricultural theory and practice had been a matter of primary concern as it constituted the foremost economic preoccupation of most citizens. Its hegemony was not seriously challenged until well into the nineteenth century with advancements in industry and commerce. It is therefore not surprising to find that agriculture was the topic of many early, widely read publications. One of the earliest and most influential in England was the work of Sir Robert Weston whose 1640s study of the agriculturally advanced Flanders region resulted in the English adoption of many of these ideas. Other important contributions were offered by such articulate farmers as John Worlidge in his Systema Agriculturae (1669) and John Mortimer in The Whole Art of Husbandry (1707). Still others

made practical contributions, such as Yarrington's introduction and popularization of clover during the mid-seventeenth century, and Jethro Tull's innovations on the seed drill (Fussell 1984:3-6). As was also the case with many of his contemporaries, Tull demonstrated an increasing criticism of the ancients while at the same time he adopted a much more experimental philosophy towards agriculture. His theories may have been controversial when first published in the 1730s, but they contributed then and afterwards to a movement that would ultimately make agriculture more empirical, productive, and even fashionable. Sir Humphrey Davy summarized the mood of the day by suggesting that, "It was part of a wide effort to convert farming from a mere art of blind processes into a rational system of science" (Fussell 1972:148).

The ensuing revolution owed much of its force to a relatively small number of new farming practices and the introduction of equally few plant types. Formerly, a rigid agricultural system that prevailed over much of Europe as well as most of early colonial New England had dictated the common three field system, itself inextricably tied to a strict menu of staple crop production. Each farmer was allotted a strip of land within each of the three large fields which typically were located beyond the cluster of dwellings and support buildings of the village proper. Meadows and woodlands became common property. Although each farmer held possession of and was responsible for the tillage of his three plots, the kinds of crops grown there was usually not a matter of general discussion. Each raised grain for bread; oats, millet or barley for gruel; and fodder for livestock. This

plain but stable economy was apparently established as compulsory during the reign of Charlemagne in the eighth century. Over much of western Europe it continued to structure the lives and the farms of villagers for more than a thousand years (Kallbrunner 1957:15).

Important changes in this medieval agricultural system came during the seventeenth and eighteenth centuries and represent what Bushman (1991:242) has considered as the first of three distinct phases in the European agricultural revolution. In this stage, the introduction and diffusion of root crops, the improvement of livestock breeds, and the practice of crop rotation each made significant contributions to the overall change in farming method and production. The nineteenth century brought intense mechanization and the twentieth century introduced a biochemical phase of agricultural change. To return, however, to the first of these three advancements, we may credit the English and before them the Flemish and the Dutch for their achievements. That these countries early on experienced shortages of land available for cropping, meant that they would that much sooner feel the necessity of developing some means of mitigating their geographical circumscription. Towards this end, the classics were of some help, but largely a spirit of inventiveness and experimentation combined to afford a rational solution to this problem. In short, what was required was the shift from former extensive agricultural practices to those more intensive in nature. This new system was made possible with the rediscovery and the introduction of specific plant varieties that were capable of maintaining or enhancing soil fertility. Certain leguminous, nitrogen-fixing species were

discovered to be capable of replacing those important nutrients and minerals otherwise diminished from the soil during the repeated cropping of more demanding varieties. In addition, what became known as the "English" or "artificial" grasses, such as clover, sainfoin, lucern, rye grass, timothy, etc. were used to great advantage. They enriched the soil and furthermore, provided important fodder crops for farm animals. These "plants of progress" (Fussell 1972:170), many of which had been known to the Romans, provided for increased yield per acre, as well as supplied the resources by which larger herds of cattle, sheep, horses, etc. might be maintained and improved. Moreover, these grasses - combined with new root crops such as turnips - once processed as cattle feed in particular, became a highly enriched manure which was then returned to the fields to further increase their fertility and ultimate yield. Though seemingly minor in significance, this improved manure and its greater abundance had far-ranging consequences. The Norfolk proverb of later years, that "Muck is the mother of money" is perhaps indicative of the exalted status that manure soon came to enjoy in this system of improved agriculture (Addison 1986:157).

Finally, the combination of these advances provided for a system of more continuous cropping. The method of crop rotation first introduced to England in the 1640s by Weston typically called for a three year plan of crop alterations with fields allowed to lie fallow during this interval (Fussell 1984:2-3). However, with the use of these artificial grasses and/or a measured application of manure, the same fields might be used on a more constant basis. Increased yields

might therefore be had without an additional increase in the number of acres cultivated. Under this new system, if the farmer then chose to keep all fields under cultivation, his production would have increased by the amount of acreage normally allowed to lie fallow. Furthermore, these new methods of increasing soil fertility permitted for the first time use of land formerly held to be unsuited for agriculture, and other areas seemingly beyond repair might be reclaimed from their state of exhaustion.

Just as the effects of the Scientific Revolution were both generated and experienced first among the upper class aristocracy, so too were most of the innovations and the benefits of the Agricultural Revolution. These wealthy landowners were those most likely to possess the capital and the leisure required to experiment successfully with non-traditional plants, methods, technologies, and ideas. As literate members of a mutually supportive social class, they were also those more likely to have first access to the latest advancements in agriculture. Surprisingly, many of the most successful were not of the nobility. Fussell (1984:8) suggests, however, that ". . . they were most certainly gentry, or what may be called the subordinate or subaltern branch of the ruling class." Attention to matters of agricultural process and production was more than simply idle curiosity or passing fancy for these gentlemen. By the mid-eighteenth century farming had acquired a number of significant social, political, and even recreational attributes beyond its more functional economic considerations. Already ingrained within their classical educations, these "modern" agrarians needed little

other incentive to adopt such a lifestyle and strategy. Yet, circumstances conspired to provide considerable incentive just the same. Robinson (1983:5) points to the fundamental alliance then existing between land, money, and power. The English landowner depended upon his agricultural holdings as much for political power as he did for income. His estate was commonly translated into a seat of political influence and it remained the asking price of entrance into the British political system. Moreover, farming was considered to be "patriotic" in that its labor provided for the foundation of a prosperous state economy; "morally uplifting" in its ability to provide constant and honest work for hands that might otherwise remain idle; "respectable" and even "fashionable" in its association with the sportsman who might ride and hunt while keeping an eye to his fields and standing crops (Robinson 1983:6).

These "improving landlords" participated enthusiastically in the maintenance and the progress of their farms. In this, they were encouraged by the descriptive surveys of Arthur Young in the 1770s and by the later recordings of William Marshall produced between the years of 1787-1798. Perhaps their greatest exemplar existed in the Holkham estate of Norfolk presided over by Thomas Coke who owned and successfully managed several tens of thousands of acres. His prosperity became such that when he first took possession of his inheritance in 1776 there were some two hundred men employed there, and yet by 1818 he is said to have increased that population to eleven thousand (Addison 1986:156-157). Obviously, Coke was somewhat the exception, but his model provided an ideal that others attempted to

achieve, if only on a smaller scale. Where they were successful often lay in their ability to adopt similar farming methods and principles.

At a step removed from these "agricultural avant garde" (Bushman 1991:241), the agricultural revolution often meant an increase in the standard of living for those small landholders willing to embrace the latest method and theory. Their successes eventually contributed to the rise of an agricultural bourgeoisie, or farmers of the middle class. Some years later, the redoubtable Cobbett found the words to express his distaste over this new money and the ruin that it had brought to the old social system [see, for example, Morris' (1984) edition of Cobbett's Rural Rides 1821-1832]. The new farmer with wealth acquired from an agricultural system that offered increasing yields, now emulated the lifestyle formerly reserved for the squire. In Cobbett, this change seems to have aroused both a bitter invective against social mobility and a kind of nostalgia for the former working relationships of the farm. He described the accomplishments of the rising farmer none too favorably, as one now in possession of:

> a fox-hunting horse; polished boots; a spanking trot to market; a "get out of the way or by G-d I'll ride over you" to every poor devil upon the road; wine at dinner; a servant (and sometimes in livery) to wait at his table; a painted lady for a wife; sons aping the young squires and lords; a house crammed up with sofas, pianos and all sorts of fooleries (in Addison 1986:156).

Even though many prospered under this new system of farming there were perhaps a greater number of persons whose fortunes declined as a result of it. To become profitable, farms seemed ever to require larger tracts of land. To achieve this end, a process of enclosure

became necessary and was carried out over much of England between 1760 and 1820. Lands that had formerly been held in common by any number of villagers each with an equal share and privilege to provide for themselves were increasingly absorbed as acreage within large privately owned tracts. Fields that had been open since the middle ages were suddenly closed to access with the appearance of private fences and hedge rows. Those who had formerly been able to support themselves with small acreage in the common fields were now forced to seek employment often with the same landlord that had deprived them of their original tract. The very small farmer lost his former independence and frequently became little more than a hired hand for those of more fortunate means.

As will soon be demonstrated true for the Scientific Revolution, this process of privatization of land formerly held in common and this general rush for its improvement were both important characteristics of the Agricultural Revolution. Just as science sparked fundamental changes on both sides of the Atlantic, so too were these additional factors felt in both Europe and America. There were, however, marked differences between these two geographic realms which strongly affected the degree and timing of this change. America during its colonial phase has generally been considered to have lagged behind Europe in much of its culture, science, and philosophy. If population increase, shortage of arable land, and the poverty of those soils under the plow had contributed to the agricultural revolution in Europe, these same factors had little influence on agricultural change in land-rich America. The incentive to develop intensive farming

practices carried little promise in a land where new and fertile soils were still so extensive. The long fallow method of shifting/slash and burn agriculture so prevalent in colonial America was in the European estimation often considered highly wasteful, and yet until the so called "improved" farming methods were better understood, it still offered the most practical means of increasing one's yield.

With such a vast difference in available farm lands between these two spheres, it might indeed be expected that America would lag considerably behind the agricultural reforms sweeping through Europe and especially England during the eighteenth century. That by mid-century, America did in fact participate in its own version of the agricultural revolution perhaps requires some explanation other than that which applies to Europe. As in the Old World, many of the first American agricultural reformers and innovators registered among the nation's upper class - those of a more leisured aristocracy. Others, however, were self-made individuals whose fortunes had first been won under the old system of vast acreage, monocrop (usually tobacco) agriculture, and inexpensive labor (typically slaves and indentured servants). In the first half of the eighteenth century, both groups sought to mimic as closely as possible the model provided by their successful English cousins. With grand houses in the Georgian style, carefully landscaped grounds, and all the other cultural and social trappings of the times, the English gentrification of these American landowners was nearly complete. Adoption of the latest farming methods and theories became yet another means of emulating the English estate owner. Fodder crops became more important as draught animals

were increasingly used in plowing fields that were becoming increasingly permanent. "English grasses" came to figure prominently in a new scheme of crop rotation. In Virginia and elsewhere, the former dependence upon tobacco alone, once so strong that it formed what Breen (1985:31) has described as a distinctive "tobacco mentality" or a tobacco culture, was finally broken and augmented with wheat and other grains and cereals.

Eventually this movement of agricultural improvement spread more generally among the less affluent as well. Bushman (1991) has argued convincingly that between 1750 and 1850 much of agricultural America underwent revolutionary change, but that here the causal factors were more a matter of commerce and culture. Unlike England, where land shortages called for new farming methods, the average American adopted a more intensive agriculture in response to the increasing demand for its agricultural goods. A bull market in American foodstuffs provided the necessary incentive for American farmers to increase their productivity wherever and however possible. Henretta (1991:220-221) has seen these important changes both on the farm and in the city - new technologies, new crops, new labor relationships, for example - as evidence of an early American transition from colonial mercantilism to a more indigenous capitalism. Increased productivity meant increased profits and ". . . many American merchants, landowners, and artisans became aggressive entrepreneurs, reorganizing production to exploit the new market opportunities and labor supply" (Henretta 1991:220-221).

As noted above, however, commercial aspirations may have been only one of two horses in the splendid new team that drove the American farmer increasingly to market. Cultural/social ambitions may have figured more and more prominently in the farmer's logic. Especially during the first half of the nineteenth century, interest in agricultural improvement was transformed into a kind of cultural imperative. Bushman has suggested that the movement was sponsored by a number of agricultural reformers who ". . . so badgered the rural population that no one who aspired to any degree of respectability could disregard their instructions with impunity" (1991:245). In rural New England, Hubka has considered this improving spirit as a legacy of both the Puritan work ethic and Enlightenment philosophy, coalescing in the form of a ". . . quasi-religious belief that permeated all levels of private life" (1984:194). Whatever the cause, both authors would agree upon the ultimate effect. Bushman has recognized the same intensity and penetration of this progressive mentality over much of early America. Perhaps here too, we also catch another glimpse of the same attention to material gain that Cobbett railed against in the upwardly mobile English farmer, whose houses became increasingly "crammed up with sofas," etc.:

> In the parlors, bedrooms, and kitchens we will find the fruits of intensified commercial agriculture as much as in the orchards. Wallpaper, carpets, matched sets of dishes, and upholstered furniture marked the improving farmer as surely as permanent fences and clover cover crops (Bushman 1991:255).

Enlightenment philosophy in the form of science and as applied to agriculture was apparently both the tool that farmers used to achieve higher productivity and increased profits, and the club (Cobbett excepted) used to suggest, however forcefully, the proper path to private commercialism/capitalism. As Porter has noted as true for eighteenth century England, civilization (i.e., material culture and modern thinking) ". . . could be held as both carrot and stick before the lower orders" (1990:4).

b. Jefferson's Agriculture

In central Virginia, Jefferson's agricultural practices and his agricultural holdings - most contiguous to the Monticello tract - epitomized this new system of farming. His Farm Book provides ample documentation of the degree to which he treated his agricultural pursuits as a matter of careful experiment. In addition to his own field experimentation, however, he also recorded here numerous snippets of advice from friends, neighbors, and contemporary published authorities. Subjects vary widely but generally relate to some component of his working farms. "Aphorisms, Observations, Facts in husbandry;" "Implements of husbandry;" "Preparation of ground" are a few of the titles to his pages of notes. Other subjects include acreage inventories, a diary of farm activities, roads, fences, timber, animals, dung, breeding genealogy, farm buildings and rates for estimating a builder's work, roll lists of slaves and lists of their provisioning, overseer's contract agreements, and so on.

These pages clearly reveal Jefferson's experiments with, and acceptance of crop rotation, dung as a valuable fertilizer (he seems to reserve the word manure to be used most often as a verb), clover, succory, vetch, and "other grasses" (see Figure 2), continuous cropping, etc. For example, in the matter of dung and the fold of animals, he noted:

> an Experiment to be tried. lay off a square acre & put 25 loads (yds) of dung on it. lay off 8. acres separately around it. fold 4 of them with a given number of cattle, & the other 4. with 5. or 6 times as many sheep, giving 1. week to one acre, 1 1/2 to the 2d. 2 weeks to the 3d. & 2 1/2 to the 4th. sow the whole with wheat, and see which of the folded areas is equal to the dunged one, in order to ascertain the equivalence between folding & spreading dung (in Betts 1976b:82).

Another example seems to be one based on both authority and observation. In referring to vetch, or one of several fodder crops grown on his farms, Jefferson recorded:

> if for fodder it is sown about the autumnal equinox. A. Dickson 212. Young' average crop of hay is 43 fwt. to the acre. the seed 12. bush. 3. Exp. agr. pa. 21. 27. he thinks it best that the manure designed for wheat should be laid on the spring vetch, and the wheat sowed on the stubble in autumn. pa. 32. it would seem best to let clover precede wheat in the strong fields and vetches in the weak ones (in Betts 1977b:90).

In this statement, Jefferson has had recourse to the advice of Adam Dickson and perhaps indirectly to that of the ancients as well, in that the former's book was titled Husbandry of the Ancients (1788). Arthur Young's A Course of Experimental Agriculture (1771) is also referenced here.

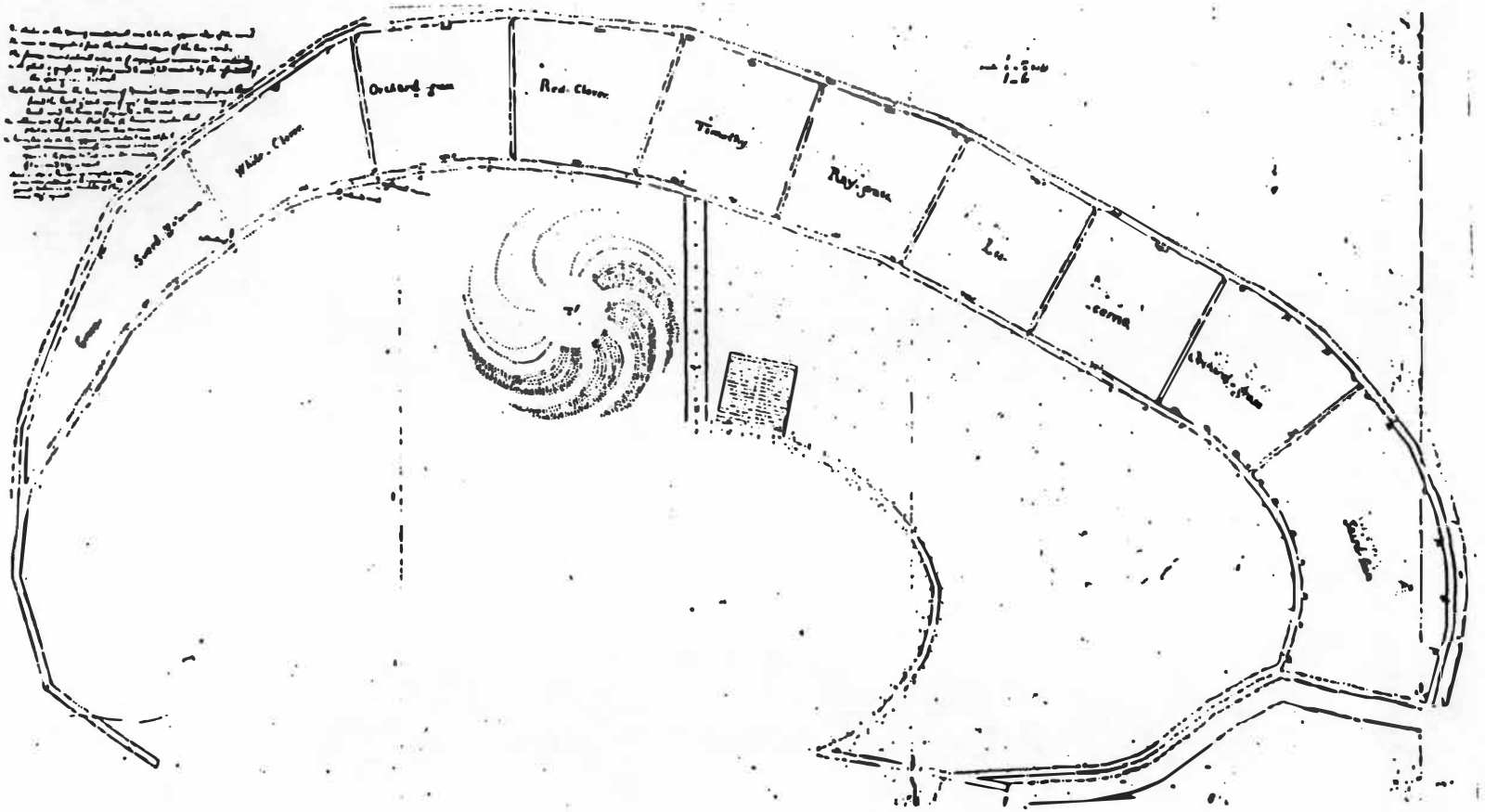


Figure 2. Plots for grasses between the Roundabouts. Note that Mulberry Row formed part of the innermost or 1st Roundabout encircling the mansion.
Source: Nichols, FD and RE Griswold (1978) *Thomas Jefferson Landscape Architect*, p.86. University Press of Virginia, Charlottesville.

These are but a few examples of Jefferson's acceptance and employment of those scientific and agricultural precepts of his day. His method of examination of contemporary authority combined with personal observation and experimentation often resulted in a solution adapted to his particular circumstances and interests. Such was the case with his gardening as evidenced by the twin document of the Garden Book; his architecture as evidenced by those standing monuments to his art - his Monticello and Poplar Forest residences and the University of Virginia; and even within his politics as evidenced by his espousal of agrarian ideals and the "self-evident" philosophy of such documents as the Declaration of Independence. Still, it must be admitted that as exceptional as Jefferson's achievements in these realms are sometimes considered to be, he nevertheless acted within the limits of his own late eighteenth century worldview. This same Georgian perception structured and delimited the alternatives available to him, and he both thought and acted according to what was then acceptable in his own corner of the globe. If Georgian happened to be the reigning paradigm of the western world, then so much the better. Certainly it can be said of Jefferson that he was very much in step with his times. Pity that his farming was not a bit more intuitive and slightly less empirical. Perhaps he might have spared himself the financial insolvency that blighted his final years.

2. Secularism

If science, with its broad acceptance and application in western society during the eighteenth century represents the first and foremost characteristic of the Enlightenment/Georgian movement, then secularism may be recognized as a second basic tenet of this change in worldview. Science, of course, had contributed much to this shift away from the supernatural to an emphasis upon that which was natural and sensory - those worldly constructs, phenomena both ordinary and extraordinary, vulnerable to human perception at least, if not susceptible to human touch and manipulation. In this, science achieved a kind of general exaltation of the natural world. Equipped with empirical methodology, explanation need no longer rely upon religious and theocratic presumptions. This rising secularity was proportionate to what Hugo has acknowledged as a "declining sense of the miraculous" (1980:242). Newton and Galileo, for example, had used physics and mathematics to explain the former mysteries of a mechanical universe. Bacon and Descartes reversed the powerful lens of the astronomer and trained it upon subjects increasingly terrestrial and corporeal. As man himself came under sharper focus, his activities and functions were thought to be ever more consonant with the mechanics of the natural world.

Interestingly, this decisive reorientation from an ecclesiastical perspective to one much more profane did not, for the most part, result in an adulation of nature. The emphasis seems to have been more a matter of the careful analysis of it, so that it might be brought under further control. Deetz's (1988:231) comment

that the Georgian worldview may be characterized as a "distancing . . . between people and nature" may be misinterpreted to mean that eighteenth century Americans, for example, exhibited through their material culture an aversion to the natural world. Nothing could be further from the truth. Their embrace of it was, if anything, more emphatic than ever before. If civil and secular forces triumphed over cleric and ecclesiastic, then it was because science permitted novel means of accessing the former, and ultimately offered explanations that were infinitely more plausible. Moreover, science provided the means by which rural and urban dwellers alike might take greater responsibility for the circumstances of their everyday lives. A scientific and secular approach to the natural world empowered them for the first time with control over their own destinies. No longer did their lives rest solely in the hands of divine providence or caprice.

The distancing between people and nature perceived by Deetz is best explained by application to the related opposition of artifice and nature. The whitening of ceramics, the careful portioning of meat cuts, the smoothing of the backs of gravestones, etc. are indeed appropriate examples of the increasing desire to produce objects not crafted by nature but by the hand of man. This artifice, however, was not a rejection of nature so much as it was a demonstration of man's ability to understand and control it. These examples are proof of a peoples' infatuation with science and its promise to provide the means by which they might shape for themselves both the important and trivial characteristics of their quotidian lives. In this, artifice

and nature are not so much opposed as they are dependent upon one another for expression in a Georgian world. Artifice, nature, and science formed what in the eighteenth century was a strange new alliance in opposition to the non-secular, supernatural, and religious hegemony of the Middles Ages.

It would be a mistake, however, to suggest that this medieval logic was everywhere in rout. Nor has western society, which has travelled the farthest in distancing itself from such an ideology, managed to disengage entirely. As Braudel has noted, one of the chief obligations of the state remains its participation in ". . . that spiritual life without which no society would remain standing" and it must therefore seek "to derive, if possible, extra strength from powerful religious values, either by choosing among them or by yielding to them" (1979b:516). Still, for the west at least, the relationship between secular powers and the church had changed dramatically. As the discoveries of the New Science made the natural world one increasingly difficult to reconcile with religious perceptions, secular authority gained the advantage. It may be concluded that secularism is therefore a primary feature of science. The latter promotes the ". . . secularization of thought, and its emancipation from absolute edicts which are not open to inquiry" (Bronowski and Mazlish 1960:495).

As in the opposition above, it would be equally dangerous to suggest that the new relationship between man and nature was in any sense universal. Even among the enlightened *philosophes* Rousseau demonstrated the power of an alternative point of view. For him,

nature was to be idolized and not simply controlled with the art of science. It was, in fact, science which suggested to him one of society's greatest evils. But more important, for Rousseau it was society itself that represented the chief source of evil. Significantly, Bronowski and Mazlish (1960:285) have recognized in this belief the very secularization of evil. By suggesting that the common man is capable of creating and, ultimately, of maintaining or destroying evil implies that for Rousseau and his followers the burden of original sin had been lifted and responsibility lay in their own hands. A growing sense of the significance of humankind and the individual's role in the larger scheme of things captivated and enthused these social thinkers. Even in those dissenting view points it is perhaps possible to identify the increasing worldliness that permeated western society.

3. Progress

In addition to science and secularism, a third contributing factor to the Enlightenment and the Georgian cognitive system was the related notion of progress. Deetz has described this phase of his three part model as one possessed of a "progressive and innovative world view" (1978:285). Progress became much more than a characteristic of the Georgian period; rather it quickly developed into one of humanity's foremost ideals, cutting across all levels of thought and behavior. Yet surprisingly, progress even in the late seventeenth century remained a relatively novel concept. That same

burden of original sin that had weighed upon the conscience of the medieval farmer and his contemporaries kept humanity in a state of atonement for virtually a thousand years. Even the Renaissance thinker maintained the belief that man's golden age had already come and gone, that the most one might hope for was to achieve an accurate imitation of the Greek and Roman cultures that had enjoyed history's highest honors. Since that time humanity, it was felt, had slid inexorably backwards into ignorance and darkness.

By the turn of the eighteenth century, however, it became no longer possible to deny that the scientific achievements of the preceding century had not only equalled but often surpassed the collective wisdom of the ancients. The Scientific Revolution had suggested for the first time that progress was possible. The subsequent Enlightenment adopted as its own clarion call the progress of the human spirit. Eventually, many of the most influential minds of this intellectual movement came to believe that progress could be measured by improvement and that ultimately improvement could be further outdone by perfection. Giddy optimism was often translated into a sense of destiny, and in this, the early seeds of nineteenth century nationalism and Social Darwinism were first sown. As Bushman (1991) and Hubka (1984) have suggested was later true for America, progress and improvement were not only considered possible, but they also eventually came to represent a kind of cultural imperative. This improving spirit rapidly acquired an almost religious intensity and it affected nearly every facet of everyday life - from the changes in agriculture discussed above, to architecture, to social institutions

such as government and religion, to economics, and even personal manners and attitudes.

Once it had been generally agreed that the laws governing nature and the wider universe were in fact capable of being discovered, put to advantage, and perhaps even changed, Enlightenment philosophers began to consider that similar natural laws must exist in the affairs of men. Certain natural, inalienable, and self-evident human rights must also await discovery and greater understanding. To recover them, one need only rely upon a Cartesian system of deduction, intuition, and common sense. Such beliefs opened the path to social and political innovation, progress, reform, and attempts at perfection. The outcome of these ideas put into action was often quite revolutionary.

4. Individualism

A fourth and no less revolutionary concept of the Georgian/New Worldview was the rise of individualism and the opposite and equal decline of communalism or corporate life. Neither event was unrelated to the secure foothold that science, secularism, and the notion of progress had established in the eighteenth century. In a sense, these practical and ideological systems provided the necessary knowledge and the incentive that enabled the individual to stand alone. Without them his worldview would have collapsed in on itself and reverted back to the corporate dependency that typified his medieval predecessors.

Ultimately, individualism may have had its origin in the Reformation of the sixteenth century. The splintering of orthodox religion and the autonomy achieved by its many newly formed sects may have set the stage for a more general condemnation of authority and the incorporation of this philosophy within the secular realm of each individual. For example, Hugo (1980) has recognized that the Reformation ". . . underscored the dignity and necessity of individual labor, and . . . indicated a connection between spiritual and material prudence and enterprise" (1980:240). For Isaac (1982), the influence of such movements upon the individual may be considered to have emphasized the spiritual over the practical. He sees the moral constraints of an evangelical code imposed upon the average citizenry manifest in the form of "individual guilt" and as a "heightened responsibility for one's own conduct" (1982:310). This important concept of personal responsibility, however, might be seen equally as man's peculiar burden and as his means of freedom. In its acceptance, the individual distanced himself from authority and outside control. Moreover, this same acceptance implied the novel concept that his fate was not preordained, but would be determined by the strengths and weaknesses of his own personal behavior. In this belief it is possible to see the twin image of progress. One sanctions personal initiative in the quest for postmortem security, and the other encourages individual efforts in the task of securing ideals of a more secular nature.

The search for universal natural laws introduced into western culture by science also recommended the possibility of the application

of these laws to the rights of man. This early form of social science increasingly suggested the utility and the necessity of individual rights. Each person was credited with at least having been born with the potential for progress and personal achievement. Responsibility for the development of specific talents rested with the individual, but the freedom to develop this potential was a matter of political circumstance. The eighteenth century produced a citizenry born with its eyes open, and this awareness of natural rights meant only that the clamor for them would be that much more intense if the people felt they were being denied access to them. The opportunity for self-advancement, self-expression, and personal progress was/is dependent upon the freedom for individual initiative. This is the central argument behind Breen's (1985) "Country Ideology" and Jefferson's agrarianism. Personal autonomy was the founding principle of republicanism. Where such autonomy did not already exist it became the specific goal of the individual and the nation. Where formerly philosophers had sought the control and mastery of nature through science, now the common man fought to gain greater control and power over his personal life and ambitions by invoking those human rights which even a casual analysis suggested were self-evident and perfectly natural.

This struggle for individualism had many obvious and long-lasting consequences, not the least of which was the continuing trend towards personal space or privacy. Perhaps one of the most significant legacies of this particular consequence has been the establishment of private property which, of course, provides the basis

of American real estate law to the present day. And within this property, the process of privatization changed much of eighteenth century material culture. An increasingly private domestic strategy, best represented by the self-sustaining individual, resulted in architectural changes both inside and out; differences in household furnishings - their number, style, and arrangements; and changes in the relationship existing between object and owner. Deetz (1977:59) has described this process as having resulted in a ". . . new accommodation between the individual and his material culture." The end result, he informs, was a new symmetry - a reflection of the balance, order, and control that structured the Georgian worldview - where a one-to-one ratio between person and plate, a single individual and his personal cutlery, toiletry, etc. suggested a close of the former non-symmetrical corporate strategy (1977:60).

Isaac (1982) has indicated that an identical shift was well underway for late eighteenth century Virginia. The former hierarchical community presided over by the landowning patriarch was increasingly threatened by this rising sense of personal freedom and material independence. "The principle of individual autonomy, only just establishing an ascendency destined to last until the present, was reorganizing late eighteenth century Anglo-Virginian's perceptions of their world and the expectations they had of it" (Isaac 1982:311). By 1800, the open door hospitality that Virginians were formerly credited with had been supplanted by a growing need for privacy, and within the house proper a new form of spatial organization had subdivided great rooms into smaller and more personal spaces. These

conspicuous changes were additionally capable of being measured in both an "elaboration and a specialization" of the material culture of everyday life (Isaac 1982:303-305).

Perhaps the single most important arena for this surge of individualism and privatization was in the field of economics. While cause or effect is not always certain, we can be quite sure that economy and autonomy were to become inseparable forces in eighteenth century society. If Smith's advocation of economic individualism or laissez faire economics guided national policy, at the more local scale the small landholder sought to gain and then to preserve as much economic independence as possible through the use of a similar strategy. For a time, the "middling farmer" neither sought nor brooked the intervention of creditors, merchant middle-men, or government officials. Autonomy was achieved and maintained by a reliance upon family and as few others as possible (Henretta 1991:222-223).

Somewhat paradoxically, the shift from this household mode of production to one based more on individual effort often meant a loss of this former independence. As merchants and other entrepreneurs succeeded in making business increasingly private, this family unit of production gave way to the wage earning individual, but this same person was now indebted to his employer for a means of earning his daily bread. The growing economic strength of these middle-class merchants and early industrialists eventually affected a complete reorganization of production in western society. The former "agricultural regime" that depended upon the family as its basis for

labor and social order was inevitably replaced by a growing industrialism which ". . . made the individual and the company the units of production" (Durant 1967:682). These same expanding entrepreneurs used the ideal of individualism both as an appeal to the less financially fortunate to cement their service in labor transactions and also as a means of legitimizing their own often sudden rise to wealth and power. The growing privacy of their businesses and their personal lives required at least public acceptance if not approbation.

5. Capitalism

Of those characteristics which most clearly and unequivocally represent the principles of the Georgian worldview - science, secularism, progress, and individualism - there yet remains another tenet or ideal of even greater significance. Capitalism more than any other feature of this period in history separated the modern from the feudal, and provided the engine which ushered in all other attributes. It is towards capitalism that these other principal movements coalesced to create more than an economic ideal. Their eventual confluence spawned a system of pandemic proportions, and for better or worse, its axioms soon came to animate much of western thought and behavior.

While still Minister to France in 1785, Jefferson recommended to a friend:

> Cast your eye over America: who are the men of most learning, of most eloquence, most beloved by their countrymen and most trusted and promoted by them? They are those whose manners, morals and habits, are perfectly homogeneous with those of the country (in Padover 1956:35).

Though in the same correspondence Jefferson defines the differences between an English and an American education, it must be argued that those traits which allowed a greater English, European, and American homogeneity of culture and belief were those same qualities that structured the Georgian worldview. With these Georgian virtues well-entrenched, each of these separate nations were far more alike than they were dissimilar. Each eventually came to reward with power and prestige those individuals who best demonstrated the ability to fully adopt these Georgian ideals. The progressive farmer whose scientific approach to agriculture carried him into new markets and thus new prosperity, whose individual efforts - the sweat of his own brow and not the circumstances of his birth - brought capital gains, whose new wealth allowed for the trappings of success and a new refinement of behavior and attitude, this was the new Georgian who was most often promoted, whose wealth was not only sanctioned but idolized by the masses. Emerging capitalism rapidly shaped the new world order of post-medieval Europe and America.

This idea that the wealthy and the powerful increasingly required a kind of general permission to prosper - a public mandate of a sort - is central to the development of the Georgian mind set, as well as important to the establishment of one of the key ingredients

of both capitalism and democracy. Proof that these three political, economic, and ideological constructs are, in fact, articulated in this way requires a closer look at social hierarchy and at the power of money. Bronowski and Mazlish (1960:140-141) have noted that for a brief period during the Tudor dynasty of England, and especially during the reign of Elizabeth (1558-1603), the issue of social hierarchy was the subject of intense debate. The qualities that made up the Elizabethan gentleman were nearly as diverse as those required of the Georgian. For example, the "virtuosi" of Elizabeth's court were expected to be extremely versatile - able to write poetry as well as wage war. An education in art, literature, science, philosophy, and civil rule typically rounded out their curriculum. Was the matter of nobility a further requirement - ". . . was gentle birth necessary to a gentleman? Or was it sufficient to have the virtues and talents of a Raleigh without his good ancestry" (Bronowski and Mazlish 1960:141)? This was a question of both social hierarchy and social mobility and one that would be posed in various guises throughout the next several wars and centuries to come.

As Puritan ideology made successive territorial gains, the small flicker of illumination that had been sparked by the Elizabethan court waned so that its influence may be remembered only as a brief interlude (an English Renaissance) before the greater brilliance of the Enlightenment. As backwards as the Puritan ethic must have seemed to the Elizabethan, it nonetheless clung to the distinction between the noble born and the naturally talented. Puritan opposition to the current social hierarchy was further fueled by the desire for greater

tolerance in the affairs of church, state, and economy. In these beliefs, it is possible to see regional struggle for "religious, political and economic individualism" (Bronowski and Mazlish 1960:179), but also the premonition of future conflict on a much more global scale over democratic and capitalistic principles.

This early outcry for tolerance and individualism was later translated into or masked as a call to arms in the fight for freedom and personal liberty. But the freedom so dearly coveted and so loudly called for, though sounding as if within both moral and natural rights, was also a bit more practical than its proclaimers would have admitted. Somewhere between the words of "life, liberty, and the pursuit of happiness" lay another subtext of much finer print, and one that suggested that among these inalienable rights should also be included the right of personal gain, prosperity, and material progress. Isaac (1982) has observed that the American speculative transactions of the western territories in the last quarter of the eighteenth century were evidence of an alternative motive somewhat contrary to the notions expressed in the more formal declarations of the period. "The ideal of the free man engaged in 'the pursuit of happiness' was more and more closely linked with the acceptance of the self-seeking individual in pursuit of gain" (1982:312).

Others have suggested that this particular pursuit has had a much more involved history and one that may again be married to Puritan interests of the Elizabethan period. In his analysis of both English and French government and industry during the century between 1540 and 1640, Nef (1969) has discussed the details of what has been

considered elsewhere as the first industrial revolution. Especially active in Tudor England, this emerging industrialism was unquestionably dependent upon personal interests, or that same private enterprise that formed the basis of capitalism. The greater degree to which England both willingly and often surreptitiously accepted this principle may be seen in the measure of its industrial successes over those fewer instances in France where regal perogative still exerted far too much control over production. In England, those merchants and landlords with a financial interest in these various industrial enterprises soon discovered that governmental control in the form of industrial law often retarded the progress and the profit of their operations. In addition to this evidence, the philosophies of such men as Bacon, Hobbes, and Donne suggested to these proto-entrepreneurs that the benefits of natural science might and should be applied to trades such as theirs, and that to claim such benefits as their own lay within their rights. Nef further suggests that such thoughts helped these aggressive young capitalists ". . . to believe that material improvement might legitimately be made the chief objective of man;" and that this ". . . new philosophy fortified Englishmen in their disposition to forget their civil obligations and to remember their rights as individuals" (1969:57). This was mighty bold talk indeed for the last half of the sixteenth century and the first few decades of the seventeenth. The ideas that material gain might occupy the thought and action of every citizen, and that its acquisition might be substantially enhanced where the individual is afforded less intervention from either civil regulation or patrician privilege were

both quite new to world ideology. Yet these were ideas that would figure prominently in the lives of succeeding generations. Perhaps this last point is made somewhat more dramatic by the example of Newton. Straddling both the accomplishments of the Scientific Revolution and those of the Enlightenment, Newton is readily acknowledged as one of the chief architects of this new world philosophy. Does the fact that he spent nearly the last thirty years of his life directing the administration of the English mint suggest that his comprehension of the universe also extended to much more practical matters much closer at hand? Did the strength of his vision allow him to glimpse the future or was it more a case of reading the handwriting on the wall?

Nef concludes that this new "philosophy of material improvement," sheathed within the complexities of an industrial revolution still in its infancy:

> helped prepare the way for the triumph of democracy in nineteenth-century Europe. It weakened the doctrine that human affairs are best ordered when controlled from above. It strengthened another more novel doctrine, that progress depends upon allowing free scope for individual initiative (1969:157).

The emergence of capitalism was therefore dependent upon this growing need for individual freedom, but not that same moral freedom laden with democratic ideals which colonial declarations insisted were the natural right of all men. Rather, in this instance, freedom was equated with the right to make a profit without the intervention of

governments, agencies or other individuals; the right to uninhibited and unashamed individual fortune.

This late sixteenth and early seventeenth century realization that at least among middling merchants, manufacturers, and landlords personal prosperity was not only possible but was also within their natural rights under the rational logic of natural law, became a vital step in the establishment of capitalism. Moreover, it served as the binding agent that united science, secularism, progress, and individualism into a single coherent and unrelenting force in the western world. The rising middle class had tasted the luxury formerly reserved only for nobility and royalty, and it would not then settle for less. Much of modern philosophy would henceforth be based on economic principles, and the Puritan Revolt (1640-1660) with its first European regicide was the first sure sign that times had indeed changed. Braudel has suggested the occurrence of even earlier signs of change, but the result was much the same:

> 'Universal monarchy' was a crown that no longer fitted Christendom. . . . The age of economic conquests had arrived. . . . What the Emperor Charles V never achieved - the conquest of Europe - Antwerp managed easily. Where Louis XIV failed, tiny Holland triumphed, becoming the new center of the world. Europe had to choose between the old ways and the new - and was now choosing the latter, or more accurately, they were forcing themselves upon her (1979:515).

In Europe as well as in America, though monied interests easily won those territories that religious, military, and imperial powers had so far failed to secure, this transition was not made without a struggle, nor established without bloodshed. The American and later French revolutions are proof enough of this point. While both clearly

involved military conflict, each was also a matter of class struggle, with the French Revolution being much more violently so. Both represented a disallusionment with the traditional social hierarchy, and more importantly, each sought to firmly establish the right to social mobility.

Interestingly, what most provoked the citizenry of either country was the reality of a leisured, privileged aristocracy, and yet few were those who did not within their hearts or in their actions express the desire to achieve the same level of coveted leisure. However, the all-important distinction which they made then within their own minds, and which continues to animate both capitalism and the spirit of republicanism/democracy, was that between an individual who by his or her own efforts, talent, or virtue managed to secure this leisure, and those who through no effort of their own acquired these privileges through birth alone. While the affluence of the emerging bourgeoisie was nowhere questioned, the wealth and leisure of the nobility found itself under repeated assault. If this "new" wealth had earlier begun to raise some suspicion, its initiates had by the late eighteenth century skillfully settled this burden squarely on the shoulders of the noble born. Through rhetoric, armed rebellion, and not a little slight of hand these emerging Georgian elite transferred the guilt and the embarrassment of their own riches upon the increasingly less defensible positions of the blooded aristocracy. Braudel concludes that:

> Consequently the hierarchy of money - as opposed to the hierarchy of birth - was no longer singled out as an autonomous and unjust order. The idleness and uselessness

> of the high and mighty was compared to the industry and social usefulness of the active class. This was undoubtedly the source from which nineteenth-century capitalism, when it finally came into its own, drew its imperturbable self-satisfaction (1979:504).

a. American Capitalism

This same argument over the principal differences between the new and the old leisure is recognizable in the writings of Jefferson. In his 1813 flurry of correspondence with John Adams, Jefferson plainly outlines these differences as he perceives them and then goes on to discuss the ability of the common man to make the same distinction:

> For I agree with you that there is a natural aristocracy among men. The grounds of this are virtue and talents. . . . There is also an artificial aristocracy, founded on wealth and birth, without either virtue or talents; for with these it would belong to the first class. The natural aristocracy I consider as the most precious gift of nature, for the instruction, the trusts, and government of society. . . . I think the best remedy [how to deal with the artificial ones] is exactly that provided by all our constitutions, to leave to the citizens the free election and separation of the aristoi from the pseudo-aristoi, of the wheat from the chaff (in Padover 1956:217-218).

That Jefferson was willing to accept wealth so long as it was combined with virtue and talent is not so surprising given his own personal interests in it. That he was also willing to admit those of noble birth if they too happened to possess these merits is either an indication of his practical and/or gracious nature, or it reveals a deeper allegiance to the philosophy that each individual, regardless

of their circumstances, deserves the opportunity of ever further self-advancement. Such is the American dream, and the peculiar stamp of western capitalism and western democracy - equal opportunity under the law, no matter how unlikely the reality. It is this same sense of opportunity, however slim its probability, that is intended to keep the dream alive. The Georgian elite used Enlightenment ideology - the principles of science, secularism, progress, individualism, and capitalism to insure their rise to wealth and power. By suggesting that the same path was/is open to all comers they effectively secured their positions from the wrath of the less fortunate and thus, cemented their control over them.

For eighteenth century England, Porter would add that, "Acquisitiveness and opportunism found a new respectability; this in turn had certain socially accommodating and integrative consequences, helping to mould consensus among the affluent and the aspirant" (1990:3). In America, this same consensus is embedded within the text of the Declaration of Independence and within the wording of the later United States Constitution. In short, each codifies the sentiment that social hierarchy is permissible just as long as social mobility is possible.

The capitalist system that informs much of this legislation operates on the lottery principle. With the full knowledge that someone somewhere is becoming uncomfortably rich from such investments, each individual is nevertheless willing to risk his own capital against nearly impossible odds - against the long shot chance that he too may one day enjoy the leisure and privilege of such

wealth. His own greed checks the outrage that he otherwise feels against a system that allows such immense inequalities to persist, and it is the knowledge that this quality is inherent in nearly all men that allows the rich man to sleep peacefully in his mansion on the hill. If upon occasion, by virtue, by talent, or by shere luck an individual rises from abject poverty to a position of more enviable circumstance, then so much the better. His example will feed the dreams of the greater populace when their cupboards are bare and there is no other means of quieting their hunger.

In colonial America, and especially in the America that developed following the Revolution, the shift to this capitalist system became increasingly apparent. Georgian successes had produced Georgian mansions as early as the 1720s and 1730s in the Mid-Atlantic colonies, and the combination of a ready European market for the cultivation of American tobacco and a ready supply of inexpensive labor - increasingly in the form of slaves - meant great wealth for a small number of large landholders. This plantation system that Jefferson and his contemporaries had adopted (or, in many cases, inherited) as the surest road to material gain was first and foremost a capitalist regime. Jefferson's love for the "labour of the earth" seems genuine enough, if somewhat conditioned by his Georgian context, and yet profit was undoubtedly his primary consideration. Braudel has considered such plantations as "capitalist creations *par excellence* " where "money, credit, trade and exchange tied them to the east side of the Atlantic" (1979:272-273).

Certainly there must have been a great many related factors that eventually culminated in the American struggle for independence (some of which have already been discussed), but economic concerns cannot be counted as anything other than primary. Breen (1985) has commented that a combination of qualitative shifts in staple crop production and a major financial crisis stemming from England to the Americas proved to be the dangerous mixture that exploded into armed rebellion. In his opinion, the shift from tobacco agriculture to that of wheat, which occurred in greater frequency after mid-century, provided an example of fundamental change that ultimately made the American planter more "receptive" to other ideas of radical change. When the financial difficulties of England suggested to these creditors the necessity of calling in old debts, American landowners found themselves with little ready cash and therefore little able to comply. According to Breen, their personal "autonomy" had thus been effectively challenged (1985:31).

To protect their interests, particularly their land and the material wealth that had been accumulated in imitation of the English gentlemen farmer, American plantation owners had little recourse to any path other than the one which led to violence, unless it was that one which led to personal ruin. It is therefore hardly surprising to learn that these middle to upper class farmers were often the most vocal of dissenters if not in the first ranks of the armed resistance. It was they who owned the most property and consequently they who stood to suffer most from any change to their former economic equilibrium. As Porter has noted as true for their English comrades

in capital, these gentlemen had "more to preserve - more to lose - and a greater stake in order, in finding ways to make the world safe for capital and self-advancement" (1990:310). In spite of the military conflict between these two nations, both apparently shared much the same interests. As these interests, however, largely revolved around money, they found the latter increasingly difficult to share. Just as the British colonization of America represented a capitalist enterprise of massive proportions, so too was the American bid for autonomy the ultimate capitalist venture. Its leaders risked all in a calculated military enterprise whose initial investment was modest compared to the benefits of success in the long term.

b. Jefferson as Capitalist

Somewhat contradictory, Jefferson's personal fortunes failed to entirely measure up to these early expectations/speculations of economic sovereignty and financial reward. Interestingly, when at the very end of his life Jefferson was faced with what must have been at least his second financial crisis (if not already a chronic problem), he opted to resolve his insolvency by recourse to the lottery. Though earlier outlawed by the Virginia legislature, he hoped through special petition to revive it for his case alone, so that he might offer up Monticello as the prize, and through the sale of tickets amass enough of a fortune to save his family from debt. So much for talent and virtue, we must assume. Fortunately, capitalism also occasionally

provides for success through blind chance, but in this instance, the Virginia legislature was not so munificent.

In all fairness, Jefferson's financial difficulties may have been simply unavoidable given his many absences from the management of his farms. However, even he would admit that his chief talents lay elsewhere. Like his neighbors he attempted to improve upon his agricultural methods and materials and like them he also was motivated in this by that primary goal of capitalism - the maximization of profit. If plantations such as their's were indeed machines of capitalism, then the machine might be tinkered with and improved like any other. Henretta (1991) agrees with Breen (1985) that staple crop production, especially wheat and corn, after 1750 remained the primary means of income for these farmers, but also provided the basis of their political power. To enhance the profits of the former would necessarily increase the strength of the latter. Fine-tuning the plantation system often involved the adoption of new maximizing strategies. The hiring out of slaves, the leasing of farm lands to tenants of lesser means, and expansion of the task system wherein certain capitalist incentives were employed in the hopes of creating a more efficient and profitable work discipline were all measures that plantation owners embraced with greater frequency (Henretta 1991:230-231).

In these practices, Jefferson made no exception. Records in his Farm Book suggest that the idea of leasing his lands had been put to use even before his ministry to France - requiring his absence between 1784 and 1789 - and it was a strategy that he returned to often in

later years. He seems to have preferred to rent small parcels to a number of tenants rather than large tracts to but a few farmers. In 1787 he could claim that, "experience proves that it is only small concerns that are gainful, & it would be my interest that the tenants should make a reasonable gain" (in Betts 1979b:161). Jefferson also adopted the practice of hiring out considerable numbers of slaves often as part of the land lease agreement. From Philadelphia in 1793 he wrote to his son-in-law Thomas Mann Randolph:

> I am in hopes of procuring tenants in Maryland for all my lands on the Shadwell side of the river at a quarter of a dollar the acre, to be rented for 7. years, and to hire the negroes on the same lands for 25. dollars averaged . . I propose to parcel the lands in tenements of from 200 to 400. acres each. If I succeed in this, I should expect to be able to extend the same system to Bedford (in Betts 1979b:165).

Most of the contracts that Jefferson drew up for the hire of his slaves and the lease of his lands called for payment in hard currency because his "engagements for annual paiments [his own debt] must be in money;" and yet, he was also willing to accept tobacco if it assured that such payments would be "punctual" (in Betts 1979b:163). Again, in 1818 we see that he was even willing to lease his property to his own grandson Thomas Jefferson Randolph. This five year lease was to include the considerable acreage of the Tufton and Lego plantations adjoining the Monticello tract, as well as "all the negroes, stock and utensils upon them" (in Betts 1979b:183). The roll of slaves to be included in this transaction totalled as many as sixty individuals.

Payment, in this instance, was to be made in flour, corn, pork, oats, potatoes, lambs, beefs, and butter, etc.

Capitalist incentives were, likewise, not foreign to Jefferson's particular brand of slave labor management. Nor, apparently, were they among many of his contemporaries, though similar tactics were perhaps general only after 1800. Henretta suggests that in such a "coerced-labor system" as slavery, these incentives "underscored the changing character of the slave regime" (1991:232). Moreover, they drew further attention to the wider transformation of American economics, politics, and social exchange to that of a capitalist system. Jefferson was an early participant in this transformation. Slaves at Monticello were allowed to raise their own vegetables, poultry, and eggs, and these were often sold to the Jefferson family for small profits. He was also known to have animated certain slaves with other kinds of reward. As McLaughlin has noted, "Jefferson stimulated their character through the use of . . . positive . . . reinforcement. He gave bonuses of cash, food, and clothing to workers who performed well" (1988:112). As an example, the slave Issac recorded in his memoir, "Give them that wukked the best a suit of red or blue; encouraged them mightily" (in McLaughlin 1988:112). Whether wages, additional food, or fine clothing, Jefferson demonstrated in these practices his willingness to adopt the precepts of a capitalist-oriented means of production, and to use these principles to increase work output and thereby increase his own profits and personal gain.

Nor were Jefferson's capitalist leanings limited to the field of slave labor relations. The very nature of his several profit-oriented

pursuits speaks to the aggressive entrepreneur in his character. In addition to his agricultural endeavors he also engaged in certain household manufactures, and even a kind of light industry which served both to supply his own plantation needs and a wider market as well. Looking at a list of the various tasks performed at Monticello, one is impressed with the degree of self-sufficiency (individualism?) that Jefferson was able to maintain; but there is also the sense that not all of this effort was carried out entirely for personal (plantation) use. His willingness to try his hand at any number of small enterprises points to the calculating, risk-taking attitude that was very much a part of his personal character.

Jefferson's Mulberry Row nail-making operation was perhaps one of the most visible of examples, if not the most profitable to him. Nock has referred to it as "a remarkable exhibit in industrial inefficiency" (1926:41), and yet in a good year it did manage to both supply his own needs and produce a surplus that might be sold in local shops and out-of-hand to neighbors. Early in his career as a light-industrialist, Jefferson evaluated his future prospects with perhaps a bit too much optimism. "I am myself a nail-maker" he wrote to an acquaintance, "my new trade . . . is to me in this country what an additional title of nobility or the ensigns of a new order are in Europe" (in Betts 1979b:426). Experience taught him other lessons in capitalism that were slightly more bitter. However, it is interesting to note Jefferson's enthusiasm over this new enterprise, and that he equates it with social ranking is very significant. Whether conscious

of it or not, he had placed his trust in that emerging power (i.e., capital) that would soon topple and replace the hegemony of birth.

Other personal ventures included a related blacksmithing operation, for which he hired over time a number of different smiths and with most of whom he reached an agreement to "go halves in the profits of the business" (in Betts 1979b:422). As in this instance, additional benefits for Jefferson were the frequent apprenticeships which he arranged between these skilled craftsmen and his own slaves. In later years, several of these apprentices served competently the larger plantation with their mastered trades. Also located along the Mulberry Row was that office converted into a weaver's shop, where negro women and girls were busy with at least three spinning machines and the production of domestic cloth. Though most of Jefferson's own descriptions of this particular manufacture relate only its value in clothing his family and his slaves, Edmund Bacon - an overseer of long-standing at Monticello - suggested that production was also at times market-oriented: "He [Jefferson] made cloth for all his servants and a great deal besides. I have sold wagon loads of it to the merchants" (Bacon in Bear 1967:69).

What must have been the most frustrating of Jefferson's capital ventures given its great expense and its chronic difficulties was that complex of mills located on his property at Shadwell (his boyhood home located just down river from Monticello). Betts (1979b:341) has described the operation as comprised of three mills ". . . a toll or grist mill, a manufacturing or merchant mill, and a saw mill." The first was apparently for Jefferson's personal use while the merchant

mill was intended for lease, usually at around 1250 dollars per year. While not a paltry revenue by any means, it was nonetheless inadequate for Jefferson to recover his initial expenses, which he estimated to be the astounding sums of 10,000 dollars for the mill, its stones and all its "modern labor saving machinery," and 20,000 dollars for the mill canal alone (in Betts 1979b:403). This manufacturing mill in particular seemed to have been cursed from its inception. Forever in the making, it took nature considerably less time to habitually wreak havoc there. Jefferson had further difficulty in collecting his rents, and in later years a number of competitors sprang up too close by to provide steady business for his own operations. Add to this the legal battle over navigation difficulties that his mill dams created and it is clear that this venture was hardly the success that Jefferson had dreamed it would be. Bacon admitted to having sold upon occasion "a good deal of flour in Richmond," but in his usual candor he also declared of the mill that, "It cost a great deal of money and was a bad investment" (in Bear 1967:64-68).

Still other schemes to improve upon his annual income beyond that provided through his farming included barrel-making, the brewing of liquor, and the making of potash. Jefferson's attempts at cooperage were largely related to the needs of his manufacturing mill. In 1817, at least two of his slaves - Barnaby and Nace - were to be employed for the major portion of the year in the production of some 4000 barrels to be delivered to a Mr. Colclaster then leasing the mill. Parenthetically, he offered each of them the incentive of one barrel for every thirty that he produced (Betts 1979b:462). Whether

these barrels were to be purchased by Colclaster or were simply delivered free as part of his rental agreement is, however, unknown.

As for the art of brewing, on September 17, 1813 Jefferson recorded, " we are this day beginning under the directions of Capt. Miller, the business of brewing malt liquors" (in Betts 1979b:413). This business, however, may have remained one of personal/plantation use only, for he never seems to have produced more than a few hundred gallons per year. Similarly, the scheme to utilize the wood from huge tracts of land unfit for agriculture - to be reduced to ash and from this into potash was never more than another money-making scheme for Jefferson. As potash served well as fertilizer his intention was to make use of it within his own fields but also to produce it in such quantities that the surplus could be sold to others for profit. Apparently, the idea of nail-making occurred to him soon after this initial contemplation of becoming a regional distributor of potash, because he never followed through with this earlier scheme (Betts 1979b:495-496). The wood would instead be used to make charcoal for the several forges of the nailery and for those of the smithy when separate.

Perhaps Jefferson had also learned that plaster might be used to equal advantage as fertilizer, and indeed, his accounts of the mill indicate that he was grinding it there in later years. In fact, these records suggest that he had once manufactured it for others, but at what price and at what profit, if any, is unknown. There was another cost however; the toll that it took upon his milling machinery and perhaps upon his reputation as well. In 1818, he wrote, "The injury

which the grinding of plaister does to the mill, and the offence it gives to our bread customers have obliged me to make it a rule to grind plaister for nobody but myself;" and yet, within the same letter Jefferson expressed his intentions of devoting another of his mills once finished "to the grinding of plaister for toll" (in Betts 1976b:200).

In conclusion, we may say that Jefferson's adventures in capitalism, though fledgling efforts at best, were additional proof that he both understood and personally accepted the major tenets of the new Georgian worldview that had flowered during his lifetime. Minimally, these included those Enlightenment components of science (both theoretical and technological), secularism, progress, and individualism, each of which was both supported by and contributed to the western transformation to a capitalist system. Free and private enterprise was the new order of the day, and Jefferson, like his contemporaries embraced it warmly and with vigor. In his thoughts, behavior, and his material culture - those things afforded by this new world strategy - he constantly reaffirmed his loyalties to this doctrine. In this, he was both a microcosm of the Georgian Age and one of its most visible American models.

Achieving these goals or Georgian ideals represented only one half on the struggle for enlightenment, the other consisted of its eternal maintenance and preservation. Wealth, power, luxury, and leisure are finite quantities. For someone to possess them invariably means that a larger number must do without. Slaves and slave owners probably understood this relationship better than all others. But

then, these represented only the extremes of the social hierarchy and there were countless others of variable means existing somewhere in between. As the polarization of wealth and poverty grew ever more pronounced in the later half of the eighteenth century, it became increasingly incumbent upon those of Jefferson's social and material status to devise means by which their prosperity might appear that much more justified, legitimate, and even rational.

Leone (1988) is correct to suggest that elaborate gardens, scientific and musical instruments, architecture, the refinement and privatization of habits and attitudes were all measures of the owner's mastery of nature (that powerful demi-god of the period). Their presentation was designed so as not to be lost on the less fortunate. In the further suggestion that these same patriarches eventually came to depend more on the laws of man rather than those of nature, Leone is also correct. But then, the former were commonly held to be but a natural extension of the latter. It was the law of nature, increasingly laid bare by the New Science, which informed the natural rights of man. As was the case for Jefferson, it is likely that most of the ruling elite made regular use of both arguments to maintain their social and political positions. Still the argument of personal freedom was and is the stronger by far. It has been crafted to ring of popular mandate, and more importantly it continuously seems to offer the tantalizing possibility of personal success. In this way, the status quo, no matter how inegalitarian it may be, was then and continues to be preserved.

In Jefferson's attempts to make a success of agriculture, manufacture, and light industry he demonstrated his desire to master and control both nature and artifice. His nail-making industry, weaving manufacture, and his merchant mills represented an important combination of both, as raw materials were crafted into products of greater utility. Mastering the machinery of these trades became a metaphor for the mastery of the infinitely more powerful machinery of capitalism. Through his agriculture, Jefferson demonstrated his control over nature. Through his various industries he sought the appearance at least, that he was also the master of capital. If talent and virtue were the measure of the true or natural aristocracy, then the Georgian world increasingly demanded that the ability to master this capitalist machine rank foremost among these qualifying characteristics. Wealth and power might be won in any number of ways, but as Jefferson was very much aware, to maintain it required these other qualities. In his opinion, an individual with any less ability, was only so much chaff whom nature would soon enough remove from the field.

CHAPTER IV

ARCHITECTURE IN THE AGE OF ENLIGHTENMENT

A. Georgian Architecture: The Big House

Architecture, especially that of the eighteenth century, represents one of the most visible if not lasting evidences of Georgian influence on material culture. Whether stone, brick, or wood, whether classical pediment or hipped roof, these elements were brought together in such a way as to evoke a specific meaning, and more often that not the owner's/builder's intent was to demonstrate both an appreciation and an acceptance of those basic principles of the new world order just then coming to full maturity. The highly "organic" house form that Deetz (1977) has described as commonplace during the seventeenth century increasingly gave way to the rigid and calculated form of the High Georgian. If only at the regional level, architecture nevertheless achieved a greater degree of homogeneity than ever before. A considerable number of architectural pattern books communicated a uniform message and insured that patrons adopted those styles and basic house forms then considered appropriate for those of more discerning taste. More often than not, this taste was informed by examples of classical architecture which suggested what was correct in both internal and external decoration and form. Neoclassicists like Jefferson adapted ancient architectural doctrine to their own personal needs and circumstances. But where a certain degree of invention and innovation was permitted, for the most part

there still obtained a score of rules that could not be safely ignored. Though Georgian architecture typically evokes images of symmetry, and indeed, the Georgian mind set is usually referenced by examples of Georgian architecture, both were comprised of much more than this single defining characteristic. Proportion, balance, refinement, and mathematical precision were joined with, and perhaps even sponsored by, that same eighteenth century acceptance of science, secularism, progress, individualism, and capitalism. While these elements of the Enlightenment were most obvious in the physical and symbolic structure of the manor house, they may also be found within those often less academic dependencies and outbuildings further removed, as well as within the landscape that housed them all.

If Georgian architecture and the rules upon which it was founded are to be clearly understood, it may be advantageous to further define those qualities which distinguished its colonial antecedents. Moreover, the shift from the one to the other serves to further highlight the change from medieval to modern worldview. The seventeenth century house was much more likely to have been constructed according to a vernacular logic, that is, by applying to traditional patterns and practices rather than to academic authority. Though it is tempting to describe such structures as ill-conceived and perhaps even ramshackle in plan, elevation, and fenestration, such was rarely the case. As Glassie (1975) has convincingly shown, vernacular architecture was and is imbued with its own internal logic and grammar. The result, however, was often strikingly different from the more academic Georgian house. From the outside, the early colonial

house offered an irregular, asymmetrical impression where additions and enlargements, windows and doors were usually arranged according to necessity rather than for aesthetic value. Ornamentation was modest, if present at all, and here again, the overall exterior impression was one of pragmatism rather than pretension (Rifkind 1980:3).

Interior plans also called for a simple if not primitive arrangement, often with no more than a single room at the ground level. This lack of internal division and the communal lifestyle that it strongly suggested is one of the most significant differences between the colonial vernacular and the later Georgian model. Deetz (1977, 1978), among others, has been quick to point out that this important shift in material form may be taken as an indication of the mental shift required in the abandonment of the former communal strategy and the adoption of the private or individual lifestyle. At the level of domestic architecture, these differences would have been stark. Deetz quotes Glassie to suggest a clear contrast:

> when one walks into a pre-Georgian medieval-derived house, one walks right into the middle of the whole seething range of activities from childbearing to cooking, homecraft, and sleeping, all happening in one hall. When one walks into the door of a Georgian house, one sees doors (1978:286).

It is at least misleading, however, if not grossly incorrect to suggest that these important changes were either unidirectional or universal. The colonial house form persisted well into the Georgian period, and conversely, the suggested privatization movement attributed to the Georgian gentry may also be seen as an alternative equally available to, and utilized by the earlier seventeenth century

yeoman. The related notion of progress, though functioning within and important to both periods, must be examined with great care. As Glassie (1986:395) has warned, such a linear perspective on the past, where ideas, actions, and events are held as having occurred in evolutionary sequence, often results in the subordination or obscuration of less prominent objects, facts, persons, etc. In this instance, the high-styled Georgian manor house has most often been held up as the evolutionary embodiment of Enlightenment values. However, in a comprehensive study of seventeenth century yeoman architecture (particularly room arrangement), farm layout, and material wealth, St. George (1986:361) has argued persuasively that these lower class farmers were not so culturally and socially disenfranchised as lack of effective research would suggest, but in fact, shared many of the same "cultural options" that their wealthier cousins were to enjoy in years to come. Their differences were more a matter of scale.

Even with these caveats in place, it may yet be possible to suggest the occurrence of broad changes in architectural style and form during the eighteenth century. Glassie's (1986:400) discussion of three major phases in American architecture is roughly in agreement with the timing and consequences suggested in Deetz's (1977) three stage model of Georgian transition. In broad strokes, Glassie suggests that the Old World heterogeneity of early settlement gave way after 1760 to a "New World repertoire" of greater regional homogeneity. The distinctive Georgian house form was inaugurated as

the pride of choice though it suffered (or withstood) several transformations within both rural and urban context.

Georgian architecture was in many ways the natural expression and culmination of Enlightenment philosophy. Like many of the basic tenets of this philosophy, it too had its inception in the earlier Renaissance. England once again provided the most visible and accessible model for the American colonies, though Georgian form was international by the mid-eighteenth century. Each country borrowed heavily from classical forms of the Italian peninsula and added to their respective repertoires lessons gleaned from Greek and Roman architectural survivals. Perhaps even more influential were the later literary interpretations of this work and its principles. Most important were the writings and the buildings produced by the late medieval architect Andrea Palladio (1508-80). His command of ancient systems of architecture was apparent in the many country houses and villas that he designed and constructed within his native Italy, but his ideas, and consequently those of the ancients, reached a much wider audience through his publication of Quattro libri dell' architettura (1570). Inigo Jones (1573-1652) has been credited with introducing these ideas to England where they were vastly admired and often copied. Palladianism, as it was soon called, reached its most fevered pitch in England between the years of approximately 1720 and 1770. Though its influence was nearly concurrent in the American colonies, it may have exerted itself there for a lengthier time, as Jefferson's architecture of the late eighteenth and early nineteenth century is proof.

By approximately 1760, a variety of architectural handbooks or pattern books were available in England and America, though seldom in great quantities. In England, for example, Harris (1986:101) has estimated that nearly 750 titles had been published over the century preceding this date - a sum that he suggests likely exceeded the combined totals of similar publications in all of Europe during its former three centuries. A study of these treatises and folios of design reveals a nearly unanimous perpetuation of a classical grammar suggesting the propriety of particular forms, principles, and ornaments. In addition to Palladio's four books of classical architecture, other favorites on both sides of the Atlantic were Colin Cambell's Vitruvius Britannicus (1715-1725), Willam Halfpenny's Practical Architecture (1724), James Gibbs' Book of Architecture (1728), Issac Ware's Palladio (1738), Robert Morris' Harmonick Architecture (1741) and later his Select Architecture (1755), William Salmon's Palladio Londinensis (six editions: 1734-1762), and William Chambers' A Treatise on Civil Architecture (1759). There were of course many other texts besides these popular volumes, yet each was united by a common acceptance of those classical orders of architecture handed down to posterity by the Roman architect Vitruvius in his De architectura. This seminal work of architectural literature was the only one of its kind to survive into the modern era. It therefore single-handedly represented the Doric, Ionic, Corinthian, and Tuscan orders of architecture, to which Renaissance architects added the Composite (a synthesis of Corinthian and Ionic) as the fifth and final order of correct architecture. These later imitations and

occasional innovations combined to make the rules of architecture those of classical origin, and they established a kind of architectural law that aspiring Georgians dare not consider trifling.

What were these architectural and cultural conventions or mandates that structured the Georgian house? How did they differ from the more organic colonial house form? Rifkind (1980:18) has classified these differences in America as a shift in focus from the "essentials of living" to those of the "arts of living," where "Principles began to govern pragmatism." These principles called for specifics in art. In basic plan, the Georgian house most often approximated a square form in its central block. The double pile house with four rooms over four rooms was usual, where on each floor two rooms lay in symmetrical fashion on either side of a central hall that extended through the house. This hall formed the central unifying element and often rose to the full height of the house, thus effectively partitioning those rooms on the left from those on the right.

In elevation, the typical Georgian house was dominated by the introduction of one or more temple fronts to the central cube. The Villa Rotunda, for example, that famous Palladian model of proper form, was distinguished by four projecting porticos - one on each side of the cubed central structure. In the columned pediments of both the east and west entrances of Jefferson's Monticello we may also recognize this order of classical enframement. In the less pronounced north and south piazzas of this same building, where brick arcades support triangular pediments it is perhaps possible to see two others.

That the first floor level was elevated above a full basement, as announced to the exterior in the line of the water table, was yet another means of underscoring the importance of the entrance. This arrangement forced the necessity of steps leading up to the portico or pavilion-like temple that already drew attention to the entrance way.

Other elements common to this particular style of architecture were the five bay division of exterior walls; symmetrically arranged chimneys; emphatic cornice constructions - usually incorporating elaborate carvings of dentils and modillions; the hipped roof, often with an accompanying balustrade was practically required; large windows often tripartite as at Monticello; and the addition of a transom light, usually arched, above the door (Rifkind 1980:19-20). As Georgian architecture reached its maturity in the last decades of the eighteenth century, exterior embellishment became a matter of increasing refinement if not reticence. Decoration and adornment were to be used only conservatively and where employed should agree with the dictums of the classical orders. For Georgian London, this often meant that brick dominated the exterior of such houses or public buildings and ornate wood carvings used as mouldings and other trim became only so much "frippery." Summerson (1978:126) suggests that these improvements led to decreasing variation in London housing, and though it introduced greater order and dignity it was also a touch monotonous. Prior to the late eighteenth century innovations in decoration by the Adams brothers, London and England continued to be clothed in grim detail - "the cold mask of a grammarian's Rome" (Summerson 1976:136). In Virginia, though Jefferson would

occasionally indulge to a degree in architectural exuberance, his taste was largely Palladian and he seems to have much more readily accepted those orders and ornaments which were above all "chaste" rather than otherwise.

The Georgian house plan very often did not end with the central block, but may have also included a symmetrically arranged pair of flankers or dependencies which typically imitated the main house in form and detail. Moreover, architectural hyphens often served to connect these small pavilions with the body of the big house to form an overall U- or H-shaped plan. Hyphens may have assumed the form of colonnades or arcades, and very often these screened a number of service rooms, farm offices, and stables all compactly arranged under the same roof (see Figure 3).

Such was the design for Jefferson's Monticello, but here, its completion required nearly a lifetime to mature. The so-called South Pavilion was the very first part of this design to be completed, and it was to this twenty foot square structure that Jefferson removed after his Shadwell home burned in 1770. The following winter, he would write from this outchamber, "I have lately removed to the mountain from whence this is dated . . . . I have here but one room, which, like the cobbler's serves me for parlour for kitchen and hall. I may add, for bedchamber and study too" (in Nichols 1978:4). It was here that he brought his bride in 1772, and from here that he might continue to direct the construction of the central block of his Georgian home that lay some distance to the northeast. Martha Jefferson would never see its completion before her death in 1782, and

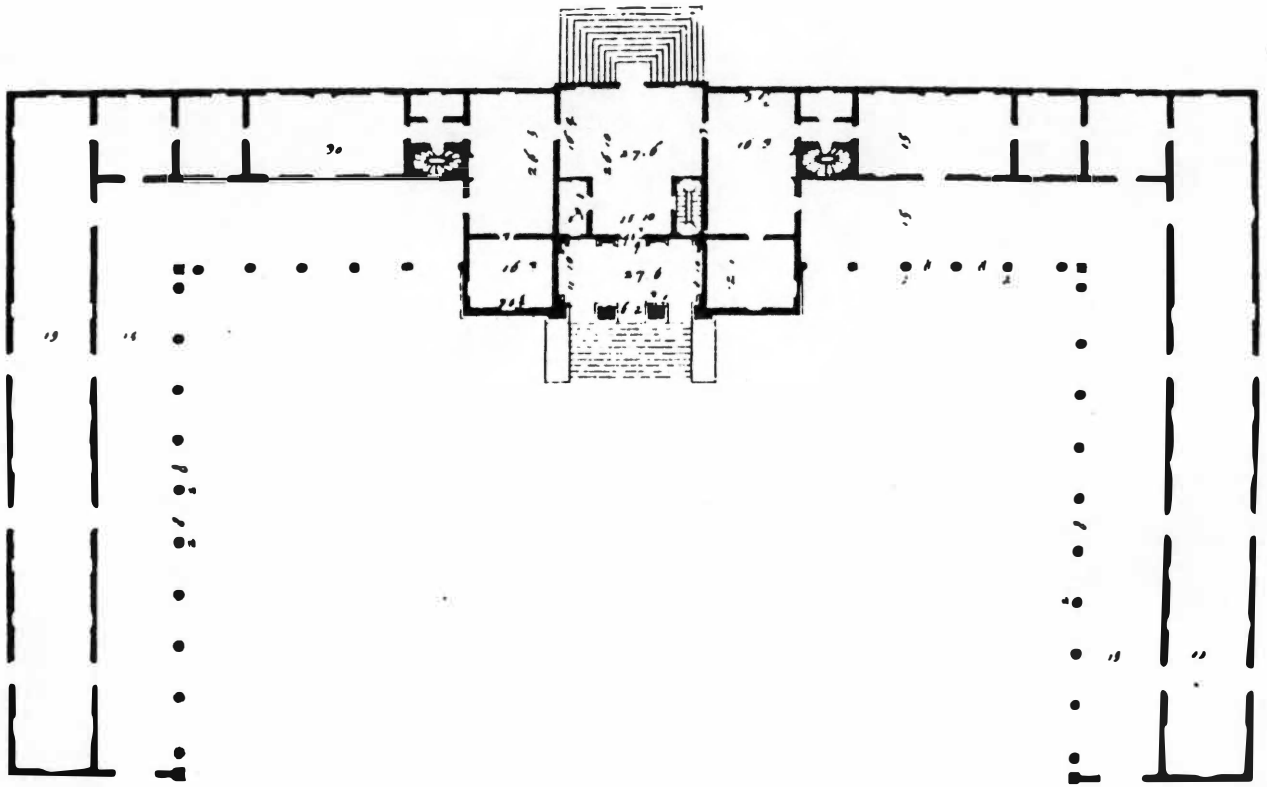


Figure 3. Palladian villa architecture. Note extended service wings. Source: Frary, IT (1931) *Thomas Jefferson Architect and Builder*, p.39. Garrett and Massie, Richmond.

indeed, Thomas would hardly have had it livable before he began its demolition in preparation for the construction of the Monticello home that we know today. Although Jefferson had early planned to connect the South Pavilion with the main body of his first house (see for example, Figure 4), this construction would wait until the later remodeling of the mid-1790s and early 1800s. However, this early ca. 1772 plan drawing and these later constructions suggest that from the very beginning, while living in the cramped quarters of the South Pavilion, his intentions were to create a country seat in imitation of the Palladian villa form. While architectural historian William Beiswanger (1984:179) has recognized the Palladian influence in Jefferson's design, he would further suggest that as constructed, the dependency wings connecting the North and South Pavilions with the main house were somewhat unique in their outward facing room arrangement. Typically, these rooms faced inwards towards the courtyard area formed by the arms of the overall plan, but at Monticello, we see that Jefferson made space for them by excavating into the opposing sides of the mountain top so that the view from the main house was preserved while the low and flat roofing of these offices formed pleasant terrace walks between the house and the pavilions.

Jefferson's design, though innovative in its application to the mountain topography, was nonetheless very much in keeping with the popular Palladian villa architecture, and thus with Roman tradition as well. Such structures were typically located at a distance from urban life, and may be categorized as either examples of the *villa rustica*

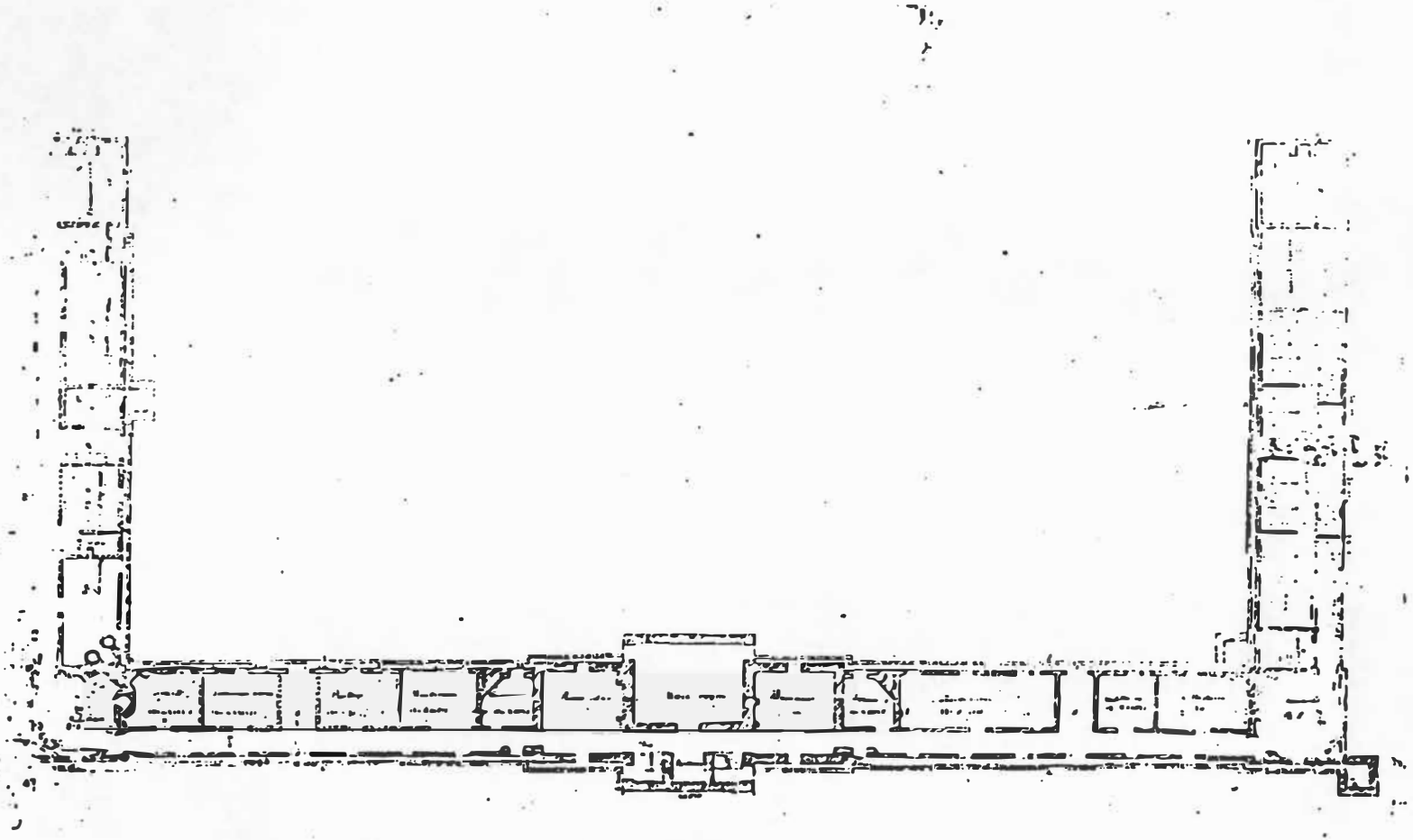


Figure 4. Early plan for Monticello mansion and dependency wings.
Source: Nichols, FD (1978) *Thomas Jefferson's Architectural Drawings*, p.12. The University Press of Virginia, Charlottesville.

or the *villa suburbia*. The former was designed with permanent residency in mind, while the latter more often served as a place of only seasonal occupation or temporary sanctuary from the city. Palladio's designs were most often of the *villa rustica* variety. Practical and compact, with wings of farm offices for quarters, tools, and animals extending as symmetrical arms to either side of the villa proper, the plan was convenient for the administration of the larger farm. In Italy of the eighteenth century and similarly in Georgian England, these practical villas became the choice of an emerging middle class who discovered in their form a design capable of answering both their functional and aesthetic needs (Cantacuzino 1969:126-138). Though Washington, Jefferson, Madison, etc. were among the social and political elite of Georgian America, economically and financially they were members of this same rising middle class, especially if their fortunes were compared with those of European nobility of this same period.

That Jefferson and many of his contemporaries played by the rules of Georgian architecture is evidenced most clearly by the form and style of the houses that they built. As many of these same reasoned principles were expressed most explicitly in architectural pattern books of the times, it is often possible to relate individual dwellings to specific treatises or plates presented by these Georgian architects, and thus reveal the owner's acceptance of these rules. For example, in Jefferson's first dwelling at Monticello, Nichols (1978:6) has recognized the influence of Palladio, Gibbs, and Morris, while in the later remodeling Morris was also used for the design of

the dome, but Jefferson's experiences in France also suggested to him the appropriateness of Desgoditz, Errand, and de Chambray for guides to interior detailing.

Whiffen (1960) has charted this same influence and its acceptance over much of colonial Virginia, where pattern books began to appear in probate inventories and within personal advertisements of a builder's competence during the second quarter of the eighteenth century. As Nichols (1978) has done for Monticello, Whiffen has systematically stated the influence of the architectural literature upon the design of such Virginia monuments as Carter's Grove, Mount Airy, Nomini Hall, Westover, and many of the contemporary structures of Williamsburg. Perhaps more important, just as Glassie would later accomplish for the more vernacular buildings of Middle Virginia, Whiffen (1960:56) has identified the hidden rules that structured these Georgian forms. Certain mathematical formulae or systems of proportion were apparently embedded within these classical orders, and thus within the dwellings and public buildings which aspired to them. In his opinion, such formulae may be classified as either modular or geometrical. In the former system, buildings and their integral components are expressed in terms of a particular unit or module. For example, the Roman and Renaissance module was often taken from the diameter or radius of a column base, and this measurement then served through its multiplication or its division to provide for all other dimensions. For geometrical systems of proportion, which Whiffen (1960:56) suggests were more often the measure of Georgian buildings in Virginia, geometric shapes were constructed upon a single line of a

given length, and this base line and those figures drawn from it regulated the length, width, height, etc. of the entire structure (see Figure 5).

The result in either case, was a building of exact proportions, internal ratios, and overall precision and balance. In Rifkind's estimation, the mature Georgian style could be summed up as one emphasizing certain "harmonious relationships" (1980:20). If these relationships are not immediately obvious to the modern observer, then it is because we have not been educated as were our Georgian predecessors in the importance and propriety of these orders. However hidden they may presently seem, Whiffen (1960) has made it quite clear that they existed nonetheless. These principles provided the vocabulary and the grammar by which the eighteenth century builder performed. That Jefferson was fully aware of these seemingly hidden rules, and that he knew equally well how to apply them is demonstrated in his buildings, his drawings, and his observations. For example, consider his critique of an early Williamsburg, perhaps somewhat less mature in its architecture than his own taste would demand:

> The only public buildings worthy mention are the Capitol, the Palace, the College, and the Hospital for Lunatics, all of them in Williamsburg, heretofore the seat of our government. The Capitol is a light and airy structure, with a portico in front of two orders, the lower of which, being Doric, is tolerably just in its proportions and ornaments, save only that the intercolonnations are too large. The upper is Ionic, much too small for that on which it is mounted, its ornaments not proper to the order, nor proportioned within themselves. It is crowned with a pediment, which is too high for its span. Yet, on the whole, it is the most pleasing piece of architecture we have (in Peden 1955:152).

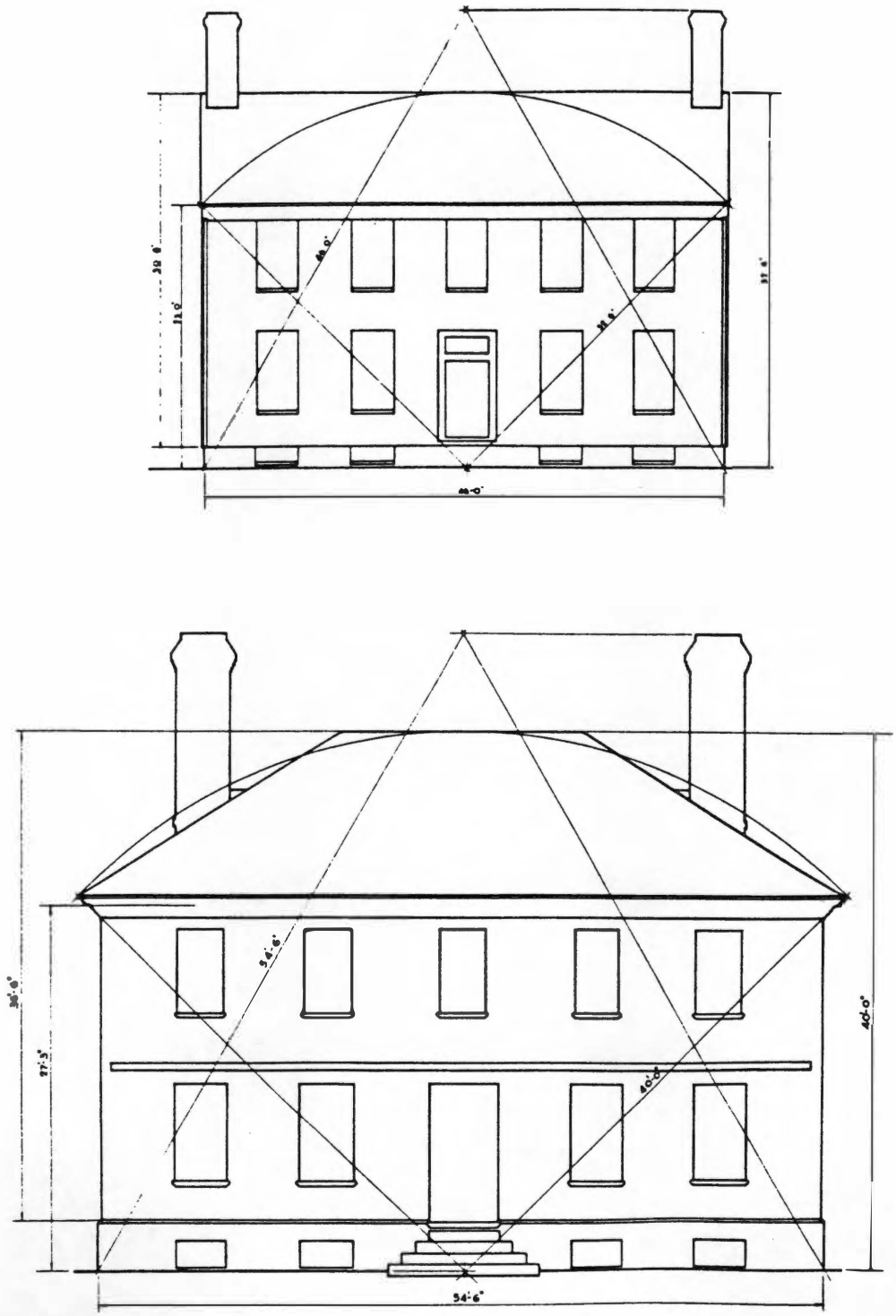


Figure 5. Proportion in the houses of colonial Williamsburg. Archibald Blair House (top) and the George Wythe House, Williamsburg, Virginia. Source: Whiffen, Marcus (1960) *The Eighteenth Century Houses of Williamsburg*, p.87. Colonial Williamsburg Incorporated, Williamsburg, Virginia.

Though Jefferson found the Palace at Williamsburg "not handsome without," he admitted that given its internal arrangements and its supporting grounds, that it at least had the potential of becoming "an elegant seat." For the College and the Hospital, however, he reserved even less praise, describing them as "rude, misshapen piles, which, but that they have roofs. would be taken for brick-kilns" (in Peden 1955:152-153). Though it would seem from these passages that for Jefferson, architecture was capable of raising little more than spleen, when done correctly he was equally capable of expressing the greatest admiration. More than this, and on more than one occassion, he admitted to being carried to the point of rapture by examples of Roman architecture. Of the Maison Carree in Nimes he confessed to "gazing whole hours . . . like a lover at his mistress" and similarly with the Hotel de Salm in Paris, he claimed to be "violently smitten" (in Andrews 1955:63).

Jefferson's passion for architecture may not have been entirely exceptional in late eighteenth century Virginia; however, the depth of his feelings may have been somewhat rare. That others shared at least his interest in Georgian architecture is a notion testified to in the popularity of pattern books and more dramatically in the scores of similar buildings constructed during his lifetime. To appreciate that such architecture may be defined as a distinctive style, and that it was readily adopted by at least the landed gentry - the emerging elite of an agrarian based society in Virginia - does little, however, to answer the question of "why" they were accepted with so little reservation. What was it that led to this increasing homogeneity of

building form across the rural and urban landscape? Did Georgian form and decoration serve any master other than function or aesthetics?

Answering these questions requires more than simply defining the elements of that style which came to be known as Georgian, or establishing that it was popular for a certain group of individuals during a specific period in history. Understanding the principles which governed the construction of Georgian architecture tells us how to build such a structure but not why we should make it just so. Finally, establishing only the limits of a Georgian pattern of architecture, while an important additive step in defining the wider Georgian worldview, offers little in the way of explanation of either the pattern or the perspective.

That information which seems to be required in order to answer these questions is a better understanding of the decision-making process and the choices available to farmer/politicians like Jefferson and his contemporaries. Understanding his immediate context helps to reveal the very particular features of his environment which influenced his decisions. Ultimately this is an analysis of mind arrived at through study of those material items that happen to be the product of this emic behavior. Such an approach "leads away from a concern with the fabric itself toward the ideas that were the cause of the fabric's existence" (Glassie 1986:396). Georgian architectural style represented only one of many possible variations in building form and ornament available to the eighteenth century home-builder. That it was so frequently chosen from this pool of variability suggests that it possessed some quality or qualities capable of

answering one or more basic human needs. If this need was little more than the deep-seated desire to conform to what eighteenth century context suggested was acceptable, then the simplicity of this message should not in any way detract from its importance.

Hill (1985) has offered a persuasive analysis of style, its definition and its application, as well as the theory behind its means of acceptance or rejection. He defines style as a "customary manner of doing or producing things (in terms of technique, form and structure); it is the material manifestation of a body of rules (written or not) that are shared among a group of people in a given time and place" (1985:374). He further distinguishes between at least two distinctive schools of thought which use this notion of style in decidedly different ways. Accordingly, in social interaction theory, style is considered a nonadaptive phenomenon, that is, it serves no recognizable function in the maintenance of human life or identity. Style is simply diffused from one area to another via social interaction. Proponents of the information exchange theory, however, suggest that style is adaptive, necessary to maintain group identity and integration, as well as important in defining certain social boundaries (1985:363-367).

Fortunately, Hill further offers his own plausible solution to this conflict of opinions. His answer borrows components from both arguments and appeals to a logic that neither had previously entertained. He would agree with the social interaction theorists that style is an entity spread by diffusion, but adds that it may be as firmly established through innovation as well. Neither diffusion

nor innovation, however, can ever be seen as causal factors that determine the adoption of anything, they simply add to the number of choices available. Rather it is through the process of selection that any degree of acceptance or rejection occurs. Selection then, determines the fitness of stylistic variations, and selection is more often than not based upon those qualities regarded as normative (Hill 1985:377). In this highly adaptive, evolutionary approach to the meaning and mechanics of style, buildings become far more than simply utilitarian structures. That a particular form persists in use over time and over certain spatial dimensions, however limited, suggests that it has demonstrated a sufficient degree of fitness, and is therefore being selected for by the builder with these traits in mind.

In an earlier study, and one dealing much more explicitly with the movement of building form and style across distances, Lewis (1975) has offered a statement that seems to anticipate the premises of information exchange theory. He notes that people in general:

> avoid building eccentric houses for the same reason they avoid eccentricity in haircuts, clothing styles, speech patterns and religion; each is such a basic expression of unspoken cultural values that deviations from accepted standards are taken as evidence of unstable personality and dubious character, and invite unfavorable comment from one's neighbors (1975:1).

For Lewis, form would seem to take precedent over function in the matter of house styles for dwellings both great and small. Perhaps there exists for both, deeply shared values that insist upon adherence to the norm. This is accomplished through the employment of a particular style then held as current. In this way, the owner/builder

adapts to his local environment. The process of selection informs as to how these decisions are made. In choosing a style of architecture, whether Gothic, Georgian, Federal, etc., the act is both non-random and cognitive. Understanding *why* Georgian, for example, is selected for over the others becomes a matter of recognizing what was held as architecturally normative for that specific individual, place, and time.

Glassie's (1986) analysis of folk building in eighteenth century Delaware essentially agrees with the sentiments of Lewis (1975), but perhaps aligns even more so with the synthesis provided by Hill (1985):

> Culture is an inventory [i.e., pool of variability] of learned concepts. The cultural process consists of selecting from among the concepts, some of them new, some of them old, when a problem such as walking, courting, or building a barn has to be solved (Glassie 1986:411).

In this process of selection, Glassie concludes that the Delawarean, indeed the American, was a wary soul, full of caution and conservatism. Though an "individualist" he was yet a "conformist." In support of his own statement that "the land of the free is paradoxically not a land of endless variety," Glassie (1986:420) evokes Lawrence who claimed: "masterless, the American is mastered; free, the American has conservatively chosen to restrict freedom." These statements and ideas are given in support of the claim that for the emerging Georgian elite, that which was normative among building styles of the period was Georgian in style. Moreover, as Glassie (1986) has pointed out, even among the less affluent, vernacular

architecture took its cue from Georgian form. The social milieu of the late eighteenth century recommended to the would-be builder, that in this particular style lay the better part of wisdom, and his selection was therefore guided and constrained by these thoughts.

In the late eighteenth century, Enlightenment philosophy continued to influence much of Virginia society. Science, and especially scientific farming, suggested observations for what might be considered the natural order of things. On the farm or plantation, science affected not only the composition of fields and methods of production but it also contributed to the arrangement and the design of farm buildings. Certain geometric shapes housing both the big house and the farm offices were at least experimental if not more often time proven, calculated designs known to enhance efficiency and productivity. These house and outbuilding arrangements of the scientific farmer were not by coincidence similar to the layout typical of most examples of Roman or Palladian villa architecture. Their form and layout served both function and aesthetics.

Perhaps more importantly, the Georgian big house and its flanking dependencies in their form and their spatial relationships were symbolic of other attributes considered desirable if not necessary in late eighteenth century society. Hubka (1984:16) agrees that both the Palladian villa architecture (also popular in New England, but especially prominent in Virginia country estates) and even the more vernacular joined architecture of the north where outbuildings were regularly connected to the main house in uniform, ordered rows were examples of the best that contemporary scientific

farming theory had to offer and imitations of the tremendously popular classical aesthetic. Moreover, he would suggest that in these qualities these buildings provided symbols of both progress and virtue. The architecture of Greece and Rome was increasingly favored over that of northern Europe where the despotism of ruinous oligarchies and the spread of urban industrialism had sponsored an aversion to anything associated with this region. These ancient forms and orders were linked to the same Jeffersonian agrarianism and democratic ideals that made agriculture so very respectable. Such architecture was the mark of the improving farmer whose patriotism was beyond question (1984:196-197).

With similar results, Gowans (1986) has analyzed the architecture of New Jersey and the Mid-Atlantic as products of the social dynamics of eighteenth century agrarian society. In this, the Georgian architectural vocabulary that these farmers shared became "visual metaphors of some established social convictions" (1986:380). These house types, even where they were of a significantly different style, nonetheless shared a common meaning. Their owners sought to create in their magnificence expressions of family and personal success and prosperity. Moreover, these Georgian monuments in their imitation of the architecture of English, Greek, and Roman aristocracy were intended as evidence of the owner's legitimate right to both social and political eminence. Gowans refers to these builders and landholders as examples of a pristine or Homeric aristocracy whose use of Georgian architecture was designed to announce their own individual ability, talent, or intelligence, and in this way proclaim their

acceptance of an unequal social order, as well as represent attempts at the justification of it (1986:382-385).

Finally, the Georgian big house with at least two outlying and symmetrically placed dependencies has earlier suggested to Andrews (1955) the attempts of eighteenth century Virginia masters to order their private domains in accordance with the more public and worldly order. For Andrews, the two flanking dependencies common to the Georgian model represented religious and political spheres and he notes that the master of the main dwelling typically served on local vestry and in the House of Burgesses (1955:16). More recently, Isaac (1982:35) has suggested similar meanings for this "invariable" three-part design, where "elaborately contrived formal relationships, calculated proportion and rigidly controlled symmetry became mandatory." In his opinion, the dominant/subordinant relationship consciously established between the manor house and the lateral dependencies was the architectural expression of the same heirarchical relationship that the master of the house attempted to maintain between himself and his subordinants. Buildings became symbols for their owner's aspirations of social and political rank and authority. Building relationships and the relative isolation of individual landholdings has suggested to Isaac that patriarchy was the "great organizing principle" of Georgian Virginia. Moreover, the identification of the Virginia gentry lifestyle with that of their antecedent Roman patriarch's is as obvious to Isaac as the similarity between the architecture of these temporally distant individuals (1982:38-42).

With a review of these examples, perhaps it may be agreed that far more than simply function was involved in the construction of the Georgian manor house and that of its dependencies as well. Decisions involving materials, form, and layout of and between house and dependency were made according to accepted social values and with specific social and political ambitions in mind. The Palladian villa version of Jefferson's final Monticello very much represented a conscious acceptance of both the rules of Roman architecture and those necessary to the ruling patriarch, the scientific farmer, and the budding capitalist.

B. Outbuildings

No less than the big house and its twin dependencies, that often clustered, sometimes joined, sometimes scattered range of support buildings collectively known as outbuildings were also very much a product of their specific cultural context. In this instance, the Georgian worldview in its many cognitive and physical manifestations settled with equal persuasion about the eaves and foundations of these domestic and agricultural buildings. Its influence may be measured in nearly every facet of their detail - from the types of buildings constructed, their numbers, materials employed, costs involved, building designs, and the specific arrangement or layout of these structures. Particularly in this last instance, and especially within large scale antebellum plantations such as Jefferson's, the Georgian worldview of the late eighteenth and early nineteenth centuries helped

to structure rigid spatial relationships between outbuildings, dependencies, and the larger manor houses.

Admittedly, the distinction between outbuildings, dependencies, service buildings, outchambers, and even outhouses offers room for plenty of semantic confusion. Hubka (1984:61) has attributed initial use of the term "outbuilding" to the old English vocabulary, and as commonly employed by farmers of the New England region it may refer to ". . . any building not part of the major building core, including small attached buildings or sheds." For present purposes the term outbuilding will be used interchangeably with service or farm buildings or offices, and the distinction that Lewis (1977;1985) makes between these and the so called "dependencies" or flankers that typically filled out the invariable three-part design which Isaac (1982) refers to, will be maintained here also. The term "outchamber" is one that Jefferson commonly used to refer to these same dependencies at Monticello, and they are also currently referred to as pavilions, both north and south. To further complicate matters, that range of both north and south rooms which at Monticello were eventually constructed as the linkage between the North and South Pavilions and the main body of the house are also generally referred to as dependencies. Given their independent functions and that many served to replace earlier outbuildings of the nearby Mulberry Row, these offices technically remain outbuildings. However, current convention will be followed in this present study and they will here retain their distinction as dependencies of the main house. Finally, the term "outhouse" refers to but one of the many outbuildings

commonly found upon plantations and farms of all sizes. As one of the few outbuildings to achieve an enduring longevity, the term "outhouse" requires little other explanation except perhaps to suggest that it too has enjoyed many synonyms and whispered euphemisms. The term "privy" represents one of the more common of these, especially during the eighteenth century.

1. Significance

The study of these often simple, at times complex structures has typically proceeded at a sluggish pace, if indeed advancing at all - so much do they lie in the shadow cast by dependencies and the big house. As St. George (1987:7) has phrased it, the house, as a "self-sustained icon of familial stability" has all too often "diverted interpretive energies away from agricultural buildings." Even in England where modern progress has often been less malevolent towards aging architectural edifices, and the sense of national heritage is deeply ingrained, Brunskill (1974:5) has characterized the need to provide careful study of these particularly vulnerable structures as "urgent." Yet, some thirteen years later he could note that such research had received "little attention" and that no "comprehensive national study" had by that date been accomplished (1987b:142). In this country too, the academic grandeur of the big house has frequently served to exclude the typically vernacular outbuildings that supported it from serious research consideration.

Moreover, there exists a number of other reasons for this general lack of attention in regard to the study of outbuildings. Though many farm buildings are of substantial construction, still others are of a much more ephemeral nature and as such have fallen rapidly into disuse or have been dismantled altogether. Where they do survive they may have been significantly altered from their original form, removed from their original context, or simply reused for any number of functions. Most farmsteads were accretional in that new buildings were added and old ones were amended as the need arose or as finances and time allowed. Alteration to adapt a structure to changing needs was apparently more often preferred to entirely new constructions (Peters 1969:212). Furthermore, many surviving farm buildings are very similar in plan and decoration and defining their original function becomes that much more difficult. Given these possibilities, plotting the history of a particular building often becomes a bit more problematic than if the structure were a domestic one (Hubka 1984:61). Even arriving at a date of some certainty for these buildings can be of greater difficulty. As St. George has observed, outbuildings "Rarely gesture to the clockwork progression of stylistic details that so often locates houses in the grand sweep of periods thought up by art historians" (1987:7). With these problems identified, there yet remains little justification in abandoning these structures and the cultural heritage that they offer. In fact, because these difficulties often exist for outbuildings they are at times imminently more qualified as subjects for archaeological investigation.

In spite of these caveats, the study of outbuildings holds the potential of increasing our knowledge of eighteenth and nineteenth century material culture and behavior both emic and etic. With the big house and its dependencies, outbuildings form important relationships and offer a different perspective on the management and economy of these buildings or households (Herman 1987:61; Langhorne et al. 1987:30). In a very practical sense, these service buildings represent the business end of the farmstead or plantation. The daily and seasonal rounds of the average citizen revolved around these structures equally as much, if not more so, than within the more domestic units of the holding. Long (1972:18) has calculated that at least one-third of each working day, whether the tasks involved crop production or livestock management, or both, was spent either within or in close proximity to these buildings. In addition, he has suggested that the collective value of these offices ranked as high as one-third to one-half of the total property value of each farmstead.

Of more than simply economic or monetary value, these outbuildings were equally laden with certain social virtues. Though more often constructed of crude materials and of a vernacular architecture, these buildings were nevertheless as important as the architecture of the main house, its hall of natural and scientific curiosities, its libraries, the gardens and landscaping of its site, in the production of that patriarchal image that each landowner wished to create. Lugar (1971), whose first printing at the turn of the nineteenth century offered both architectural and agricultural advice, suggested plans for "such outbuildings as distinguish the residence of

a principal landholder, living in a way suitable to an extensive domain" (1971:iv). For St. George (1987:11-12) these service buildings were often endowed with a certain "presentational power" as important players in what he has termed the "strategic access ritual," where visitors were habitually funnelled along those paths culminating in the main house, but which first presented for their inspection displays of livestock and agricultural produce. Finally, Robinson (1983:6-7) has seen such buildings as particularly well suited for experimentation in design and materials. Their smaller scale and less emphatic presence made of them perfect subjects for essays in architecture - a rural architecture which he has seen as lying somewhere "between art and science." Moreover, Robinson has suggested that a landowner's estate typically represented much more than his basis of economic and social livelihood; it also frequently provided the means of his political power. Acreage, agriculture, livestock, and architecture undoubtedly combined to either recommend or discredit an individual's bid for public office.

For storage, shelter, processing, production, and presentation the farmer depended greatly upon these various support buildings. In their rough-hewn exteriors and use-worn interiors is written the daily occupations and concerns, even the aspirations of a distinctive class of people that continued to dominate American and European society throughout most of the nineteenth century. The study of such structures adds to our understanding of not only those of elite social, economic, and political status like Jefferson, but also informs the student of the behavior and the ideas that animated the

average and the ordinary citizen. Perhaps more importantly, outbuildings such as slave quarters and craftsman housing and shops offer information on the lives of those groups of people that have typically been excluded from the pages of our history books, and thus from our full understanding of eighteenth and nineteenth century life.

2. Type

Farmsteads and larger plantations during the eighteenth and nineteenth centuries came in a great variety of shapes, sizes, and functions, and the farm buildings that supported these holdings were no more identical or uniform in nature. In his study of the early German farms of Pennsylvania, Long (1972:16) discovered that no two were the same, no set package of the same buildings occurred, nor did any one farm possess all of the outbuildings common to the area. Rather, he suggests that their number, size, and type were factors of the individual farmstead's size or acreage and the kind of farming attempted there. According to Peters (1969:212), farmstead development was additionally influenced by local economy (its prosperity or lack thereof), the kinds of raw materials available for construction, the pattern of the fields in use, and the agricultural methods employed. Furthermore, types of outbuildings produced might be related to the ethnic origins of their creators, the geology and topography of the area, and the farmer's willingness to adopt the latest improved farming techniques, machinery, and livestock (Hutslar 1986:246-247).

Just as there are many forms of agriculture, the types of outbuildings that supported these different modes of farming were perhaps even more numerous. Most simply they may be categorized as falling within one of two groups: those intended to serve the needs of the household, and those which served the mechanics of the farm itself (Herman 1987:62). Noble (1984:89-90) has offered the further distinction between the "crop-oriented" and the "livestock-oriented" within the larger farm-oriented category suggested by Herman. Finally, Hubka (1984:61) has suggested the greatest number of divisions by proposing six distinct types of outbuildings: "animal shelter, produce storage, vehicle storage, home industry, domestic, and miscellaneous activities." To further complicate matters, however, authorities are unanimous that any one building might have served any number of functions simultaneously, or suffered a change or number of changes in its function over time. Moreover, certain buildings, even where restricted to a single activity, can not easily be categorized as entirely domestic or fully agricultural. Brunskill (1987a:163) has offered dairies, slaughterhouses, and buildings for cider presses as examples of such ambiguous structures. Even dependencies of the main house were of variable function, hosting a range of activities from kitchen work, to providing library space or room for servant's quarters (Lewis 1985:38). Jefferson's two-story South Pavilion, for example, served variously as his first residence on the mountain, his library, his kitchen, servant's quarters, and wash house. Still, at least for those of English origin, the predilection towards creating independent structures, each providing a

particular service, usually resulted in the development of an impressive array of buildings (Hubka 1984:61).

Period examples in the form of traveler's accounts, diary entries, tax records or in the case of Monticello - declarations of insurance - have provided lengthy inventories of outbuildings common to the eighteenth and nineteenth century farm. A tidewater Maryland example from recent research offers the following description:

> the old house had faced what was once known as the 'long green,' which led to the waterfront. Along this moved all the bustle and confusion of a vast agricultural undertaking. . . . Many buildings stood along its [the green's] perimeter, overseer's houses, slave quarters, storage houses, corn cribs, barns. . . . Here were also . . . blacksmith and cooper's shops and loom houses (Tilghman in Weeks 1984:61-62).

Further north in central Delaware, a 1775 estate inventory of a certain Isaac Billerby provides the following account:

> one log dwelling house with a shed on the back part and likewise at the end with a sellar under said house, one old log kitchen, one brick oven, one meat house, one corn crib, one garden, one cart house, one granary, one log stable, one chair house, one log barn, three barracks, one old granary, one small orchard with fifty trees, one small tenement with an old log house (Herman 1987:62).

To the south, Drayton Hall, an early Georgian example located north of Charleston, South Carolina, was apparently a plantation of considerable occupation history and agricultural endeavor. The 1789 to 1817 diary entries of Charles Drayton emphasize the extensive numbers and varieties of outbuildings that such operations required. Lewis (1978:12-13) suggests that these dated entries reflect not only

the construction of buildings, but may also refer to damages or repairs to the buildings listed:

> "Dovecot," 21 July 1789; "potatoe" cellar, 22 October 1789; two offices, 14 September 1791; magazine, 13 August 1795; poultry yard fence, 18 March 1796; garden barn, 7 February 1797; "reverbatory furnace for burning shells to lime," 5 November 1798; brick kiln, 16 November 1797; cotton barn and cotton stove, 18 November 1797; barracks, 21 July 1802; "Carpenters began to prepare the timbers for constructing the new range of negroe houses at D.H.," 18 June 1804; barn, 18-21 August 1804; rice mill and lodge, 10 January 1806; stables, 20 June 1808; wash house, 30 January 1809; mill, 18 March 1812; tabby corn barn, 7 October 1812; and a pigeon house, 8 January 1817.

Interestingly, the list both begins and ends with a pigeon house or "Dovecot," perhaps suggesting a replacement after some eighteen years. Indeed, Lewis (1978:8) has interpreted the "constant reference to new barns and 'negroe barracks,'" as indication of their temporal vulnerability.

These lists in no way exhaust the variety of huts, sheds, cellars, and cisterns, or carefully designed and constructed farm buildings that sat in clusters along roadways, ranged at the edge of lawns, or were scattered over distant fields. Their types were as numerous and varied as the needs of each individual farmer. Interestingly, not all of these buildings were created equal. Instead there often existed a kind of hierarchy even among these farm buildings. For example, Brunskill (1987b:144) has stated that those structures serving the needs of the farm ranked second to those of a more domestic function, and within this lower ranking buildings might be further expected to differ in degree of quality.

The barn, for example, was for obvious reasons afforded a much higher status than the lowly pig sty or chicken coop. Cowhouses shared, if not competed for some of the higher rank that the barn typically enjoyed. A creation of the eighteenth century, cowhouses were largely a result of the increased dependence upon root or fodder crops which allowed for the over-wintering of cattle (Robinson 1983:90). Perhaps it may be suggested that the science of the Enlightenment - in this instance, developed during the Agricultural Revolution - played a major part in the development of outbuildings. The related dairy was a structure of very high status, often receiving architectural detailing lavished on few other outbuildings. Blacksmith shops were very important but rare. Peters (1969:206-207) suggests that most farmers made use of public facilities, and where found on private farms these landholdings generally averaged at least 120 acres, while most were over 200 acres.

For a time, dovecotes came to enjoy a special status and provided their owner's with a visible, architectural symbol of their own elite status (Peters 1969:204-205; Brunskill 1987b:161). However, if dovecotes were considered useful and even fashionable in the seventeenth century, by the latter part of the eighteenth century they were recognized for what they truly were - breeding dens for a particularly pernicious species that was capable of consuming tremendous amounts of grain annually. "It was not part of the theorists' scheme of things that improved crops should be gobbled up by hungry pigeons. None of the leading agricultural improvers . . . would have dreamed of building a dovecot anywhere near their estates"

(Robinson 1983:102). Against all reason, Jefferson apparently entertained during the late 1770s at least the idea of constructing his own dovecote. In a decidedly Palladian temple form, this outbuilding was to provide access to its winged guests through holes cut into the frieze of its entablature (see Figure 6). The structure, however, is thought not to have advanced beyond the planning stages (Beiswanger 1984:177).

The stable was yet another outbuilding of considerable distinction. Its residents were more often treated with spacious accommodations than the cow and the ox experienced in the barn or cowhouse. Especially if the horses stalled within were for the carriage, the track or the hunt, stables might approach very high standards of cleanliness, comfort, and architectural detail (Robinson 1983:91). Robinson further notes the "maximum attention paid to proper draining, ventilation and insulating of stables," and that they were often "provided with opening windows, walls were plastered and whitewashed and the floors were neatly paved, often with bricks or tiles which were easiest to keep clean" (1983:91). It was also not uncommon to find that the upper loft (also referred to as the garret or the bothy) of the stables served as comfortable lodgings for slaves or hired hands. The horses below typically acted as their source of heat (Brunskill 1987b:147). The surviving brick and stone stables at Bremo - a plantation of Jefferson's neighbor General John Hartwell Cocke - in Fluvanna County, provides an excellent example of these details, at least in regard to the exceptional architectural treatment of its exterior. Here, local materials were used to construct a very

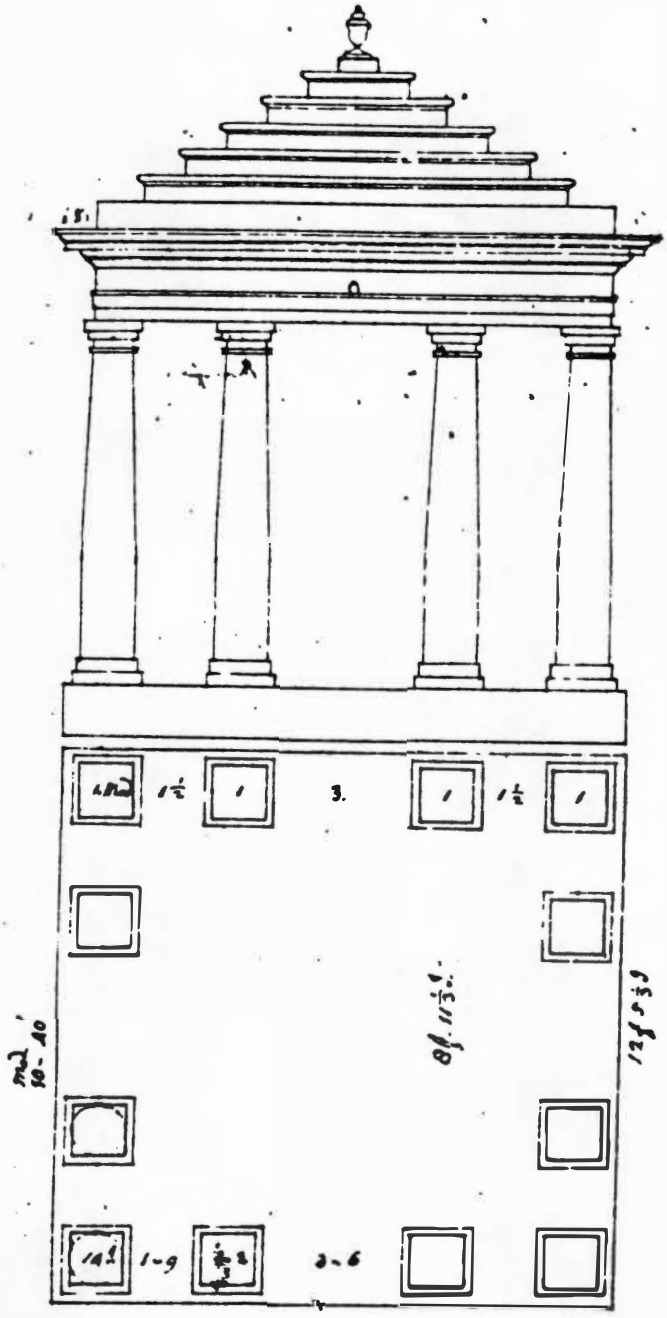


Figure 6. Jefferson's classical design for a dovecote.
Source: Beiswanger, William (1984) "The Temple in the Garden: Thomas Jefferson's Vision of the Monticello Landscape." In: *British and American Gardens in the Eighteenth Century*, p.226 The Colonial Williamsburg Foundation, Williamsburg, Virginia.

classical facade replete with columned and heavily pedimented portico and a weather-vaned cupola at the center of the roof line (see Figure 7).

Jefferson's own stable arrangements were perhaps not so very academic as were his neighbor's, in spite of the convention that he likely authored or at least advised in the design of Cocke's stables. At Monticello, the earliest stables for which there is documentary evidence came rather late to Mulberry Row in the first years of the 1790s. At first three, then by 1796, five log pens stretched an east - west distance of approximately 105 feet. Given the slope of the hillside at that eastern end of Mulberry Row, it is unlikely that the entire complex was sheltered under a single unbroken roof line. By 1809 Jefferson had replaced these log pens with a building material more durable in nature. By this date, his workmen had begun to construct at least two if not three stone pens in the location of the former wooden stable. Today, two of these stone structures survive connected by a wooden hyphen and all are covered by the same roof line. Fan shaped windows identical to those of the cellar passageway of the main house light the interior, and if they were not the later addition of a subsequent owner or the work of restorationists during the mid-twentieth century, then we may conclude that Jefferson's Mulberry Row stables included at least this single classical element.

This same process of restoration has interpreted a series of rooms beneath the north terrace of the main house hyphen as also having served as stables. Completed some time shortly after 1802, at least some if not all of the rooms of this northern dependency wing

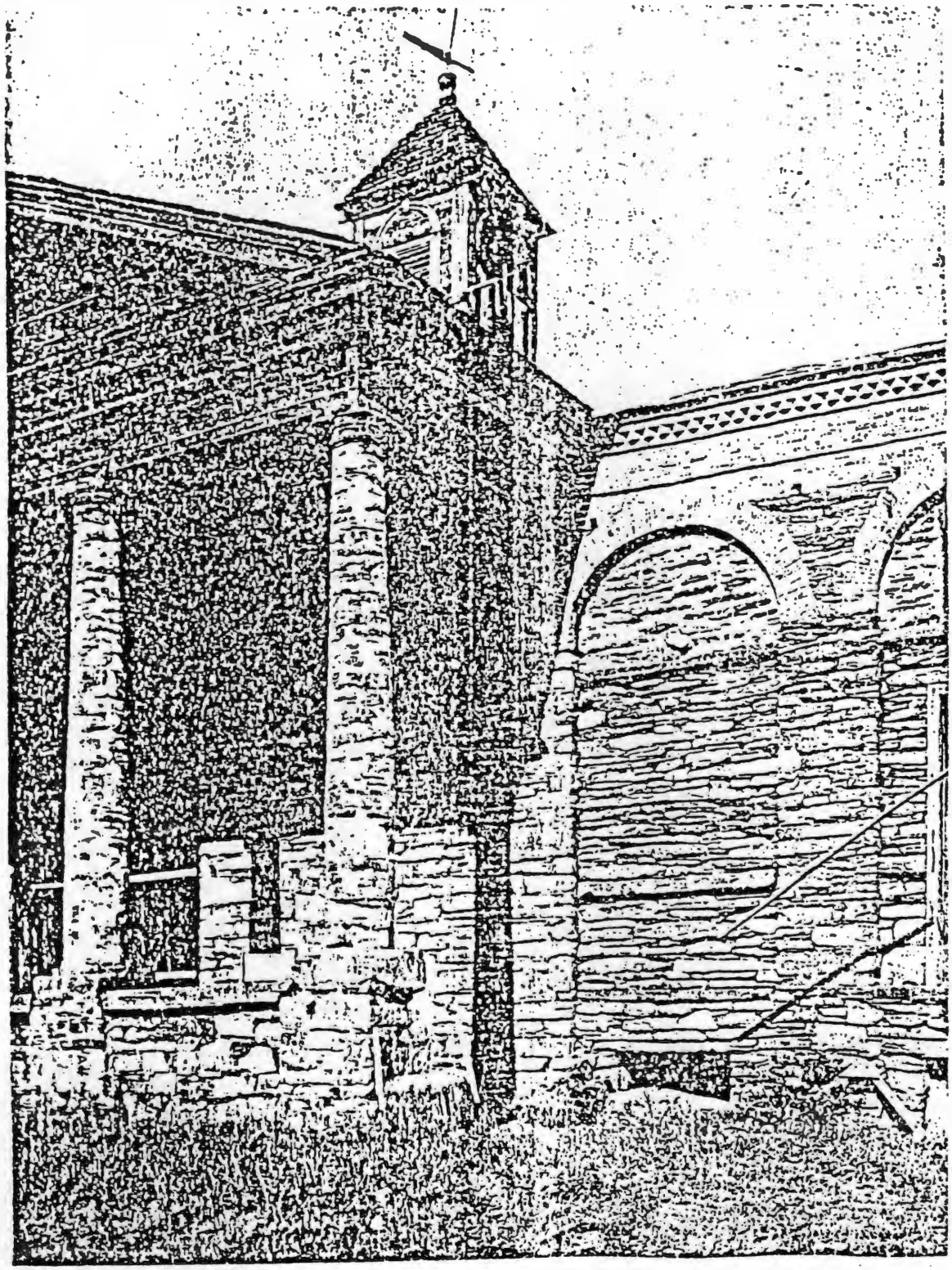


Figure 7. Classical detail of stables at Bremo.
Source: Frary, IT (1931) *Thomas Jefferson Architect and Builder*, p.105. Garrett and Massie, Richmond.

were described by Jefferson as serving for the storage of carriages. Whether a number of them were also established as stables is ultimately a matter of speculation. If in fact several of the rooms did serve this function, then the brick paving leading along the outside (if also not entirely a fabrication of the restoration), the square brick supports that form a colonnade of sorts, and the stone retaining wall that served as the interior wall of these offices contributed to a stables of greater refinement than had been known on the Mulberry Row.

Slave housing, though rarely of exceptional architecture, was at least a prominent feature of southern and Mid-Atlantic farmsteads and plantations. Vlach (1991:31) has observed that of the several "ensembles" of buildings that typically supported the plantation, one group was devoted to the personal needs of the master and family, another was designed for farm production, and the third group served as housing and facilities for the slave population. Anthony (1976:14) has described the 18 ft. x 34 ft. brick rooms of Washington's "favored house servants" at Mt. Vernon as considerably more comfortable than those in which the common field hand resided in, and yet he suggests that they paled in comparison to the greenhouse structure which they flanked. If his estimate that approximately twenty slaves shared each of these rooms is correct, then, favored or not, this was also a space considerably overcrowded. In fact, most accounts suggest that this was more often the rule than the exception and that most slave housing was, in fact, far less accommodating:

> the quality of the quarters varied greatly, but it was never very good. The "commonrun," . . . was "cramped, crudely built, scantily furnished, unpainted and dirty" Designed basically as sleeping rooms rather than centers of family life, bivouacs rather than homes, they provided shelter and little more (Wade 1964:56).

A detailed description from one of this nation's most renowned former slaves and advocates for emancipation, the following remembrances from the childhood of Frederick Douglass offer a first hand verification at what later historians could only surmise from second hand sources and remnant structures. In but a few lines, Douglass offers a wealth of architectural detail on the small cabin that he occupied as a child on the Lloyd plantation of Wye in Maryland during the first quarter of the nineteenth century:

> The old cabin, with its rail floor and rail bedsteads upstairs, and its clay floor downstairs, and its dirt chimney, and windowless sides, and that most curious piece of workmanship of all the rest, the ladder stairway, and the hole curiously dug in front of the fireplace, beneath which grandmammy placed the sweetpotatoes to keep them from the frost, was my home (in Weeks 1984:73).

Such were the slave cabins common to most field hands and not uncommon for those which served the main house either.

Interestingly, at Monticello several early plan drawings or detailed lists (see below) of buildings at least proposed for construction along Mulberry Row suggest a "negro quarter" of 17 ft. x 34 ft. - almost identical to the room size employed for the housing of Washington's "favored" slaves. In this instance, however, archaeological evidence suggests that Jefferson's ca. mid-1770s quarter was far from comfortable. A series of regularly spaced

features indicate a post-in-the-ground structure, and if the four early root cellars discovered within its limits are any indication, the building was quite crowded. A later reference to three small independent cabins constructed almost at the same location on Mulberry Row identifies slave housing more in keeping with the Douglass description. Within the 1796 insurance declaration (see Figure 1) which describes some eighteen standing outbuildings (including one covered saw pit) and another five soon to be constructed, these cabins are referred to as "r, which as well as s. and t. are servants houses of wood, with wooden chimnies, & earth floors, 12. by 14. feet, each and 27. feet apart from one another."

Finally, returning to outbuildings of a more academic design, there existed for Jefferson and his contemporaries yet another class of farm building. Like the Palladian dovecote, but perhaps even less utilitarian, the construction of purely ornamental structures, or "temples" usually of classical or Gothic design, became an architectural aspiration, and for those who could afford it, an esoteric reality of the leading agriculturalists. At Monticello, the one such structure that documents and archaeology suggests was actually constructed provides an appropriate example (see Figure 8). The so called "garden pavilion" was likely raised in 1812 atop the 1000 ft. long garden retaining wall and towards its center. Approximately 12 ft. 6 in. square, of brick with an arch and sashed window in each wall, this small temple of Tuscan order was one chosen from at least twenty different designs that Jefferson had alternately

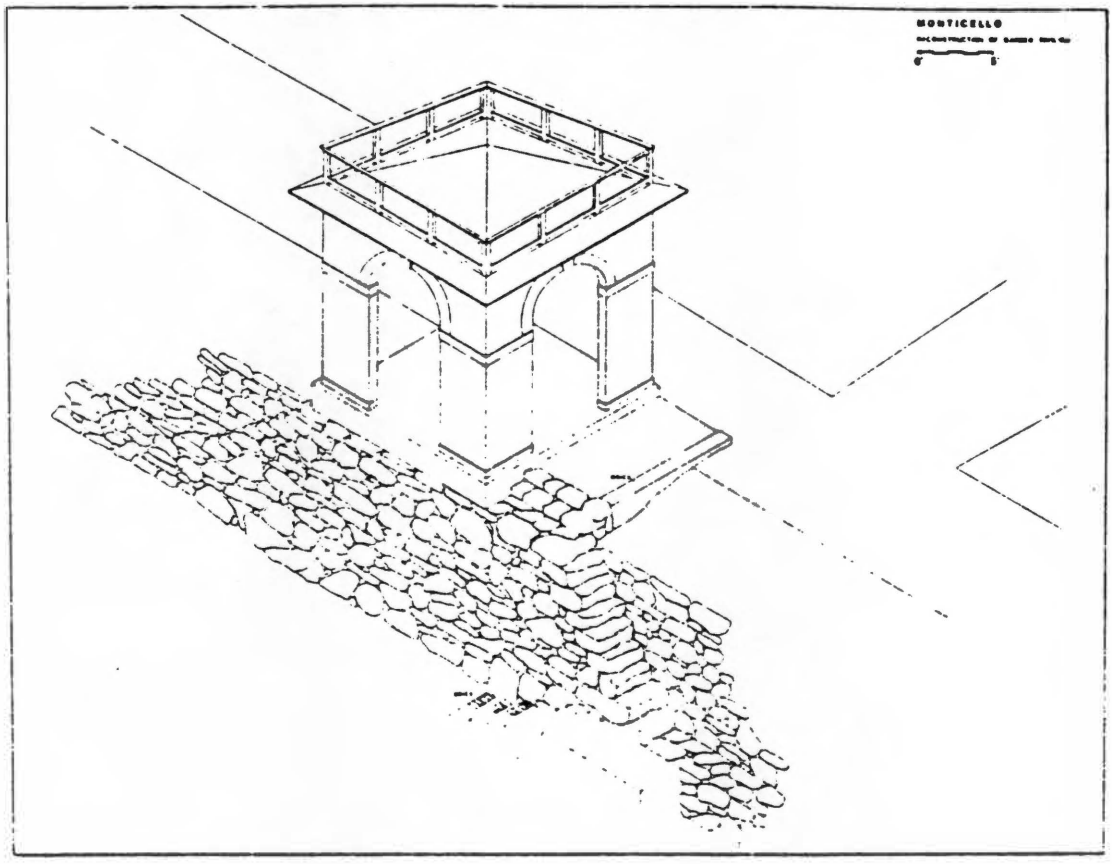


Figure 8. Garden pavilion at Monticello. As reconstructed from archaeological and archival evidence.
Source: Kelso, WM (1984) "Landscape Archaeology: A Key to Virginia's Cultivated Past." In: *British and American Gardens in the Eighteenth Century*, p.220. The Colonial Williamsburg Foundation, Williamsburg, Virginia.

entertained (Beiswanger 1984:184). As one of the nineteen other designs that did not reach fruition, Jefferson at one time apparently considered constructing a monstrous tower 100 ft. tall and of Gothic design on the nearby "Montalto" (now referred to as Brown's Mountain). That its architectural detailing was to appear only on that face of the building oriented towards Monticello, and that much of this was to be formed simply from planking has suggested to architectural historian William Beiswanger that this colossal structure would have served only for the sake of appearance. "The tower therefore would have functioned as a "sham" or eye-catcher such as had been common in English landscape gardens for most of the century" (1984:175). For Brunskill (1974:82), such buildings became "incidents in the design of the landscape" and as such were "no longer part of vernacular architecture."

3. Number

If such buildings had become fashionable for a certain period of time, then this development and others like it suggest that numbers of outbuildings were hardly a static phenomenon. Indeed, a variety of factors contributed to their gradual increase over time, leading perhaps to their ultimate peak during the second and third quarters of the nineteenth century. Changes in farming practices and in the agricultural labor force more than any other agents were responsible for these fluctuations and increases in outbuilding numbers. However, it can not be forgotten that certain social factors, either as

traditional practices or as new developments, were also very much involved in these noticeable shifts in the quantity of farm buildings.

Upton (1986:316) has commented that the important shift in late seventeenth century England from a society of simple agrarianism to that of an aggressive capitalism sponsored significant changes in building practices. The English colonies soon felt the effects of this important shift in production mode. Moreover, the face of labor began to shift increasingly away from indentured servitude to that of out-right slavery. As masters of the capitalist machine, landholders, and especially plantation owners, increasingly sought to distance themselves from their dependents. This spatial division was symptomatic of the process of privatization that capitalism as an economic strategy demanded of its adherents. For Upton, this process manifested itself in architectural form - specifically in a desire among planters for separation and order in their houses and between themselves and their laborers. The third and fourth quarters of the seventeenth century increasingly witnessed the expulsion of both servants and slaves from the domestic arena of the planter. In addition, those domestic activities that these workers had formerly performed within the house itself, now had to be carried out elsewhere as the planter's house evolved into a thoroughly private residence (Upton 1986:317-320).

These important social and economic changes assumed tangible form in the increasing number of outbuildings necessary to shelter the diverse domestic and agricultural activities now divorced from the house, as well as in the many cabins and quarters necessary for

housing the servant and slave populations. By 1705, Robert Beverly could claim of Virginians that, "All their Drudgeries of Cookery, Washing, Daries, &c. are perform'd in Offices detacht from their Dwelling-Houses, which by this means are kept more cool and Sweet" (in Upton 1980:293-294). At an even earlier date, the 1687 travel account of Durand de Dauphine suggests that the "new order" in Virginia was already in progress:

> They build also [in addition to the planter's dwelling] a separate kitchen, a separate house for Christian slaves, one for the negro slaves, & several to dry the tobacco, so that when you come to the home of a person of some means, you think you are entering a fairly large village" (in Upton 1980:173).

The house of the Virginia planter was obviously marked by these changes. At first, with the removal of servants, slaves, and domestic functions, houses were often reduced in size, but in later years, as the need for privacy grew stronger, the planter's dwelling often acquired new rooms, both to provide for this needed privacy and to house the artifacts of an increasingly consumer-oriented lifestyle (Upton 1980, 1986; St. George 1986). Upton further regards the increasing appearance at this time of porches and other elaborate entry details as additional evidence of this significant social and cultural change. These new appendages to the farmer's dwelling might serve beyond their practical functions as buffers of defense - shielding the interior and its occupants from the outside world and thus securing greater privacy (1980:173).

As an example of this important social and economic development and the repercussions that it had in the built environment, Neiman

(1980:31-33) has interpreted much of the archaeological remains of the Clifts plantation site in Westmoreland County, Virginia as suggesting much the same physical and social arrangements. Differences in artifact quantities and qualities, especially pipe stem data, as well as probate inventories have suggested to him that former doorways of the planter's residence had been blocked off by 1690 and that concurrent activity registered at the nearby servant's quarters combined to paint a picture of sudden expulsion from the mannor house. Significantly, Neiman attributes this shift in living arrangements to a change in the quality of the white labor force (from middle to lower class) during this period. By the time that the first slaves arrived in 1705, the main house was already off limits as a dwelling space for anyone but family members (1980:35).

Other authorities have noticed the rising number of outbuildings in colonial America and elsewhere at this time, and have offered additional explanations for this occurrence. Peters (1969) has charted their increase in England after 1700 and suggests that many were employed as a means of enclosing the foldyard and thus effectively sheltered that important area. This enclosure was often an incremental process where one wall line of buildings was added after the other over time. As also suggested above, the cowhouse represented one of the newest structures in this enclosure after mid-century (Peters 1969). The sheltering of cattle, especially over the winter months, was but one of the improvements of this era, yet in spite of its advantages it remained somewhat experimental in the minds of many husbandrymen. Lugar (1971) has explained the advantages of

Young's "soiling system" wherein the animal is kept within stalls, stables or enclosed farmyard areas and provided with "greens" or fodder crops rather than allowed access to open grazing. The collection of valuable manure is made that much easier in the former method. Yet in spite of its "decisive superiority" Lugar notes that "Enlightened farmers have in many districts adopted this system for horses, but still reject it for cattle" (1971:5).

As with the types of farm buildings produced, the numbers of these structures also varied with the type of farming attempted. For example, Brunskill (1987b:143) has stated that the greatest number of outbuildings were required for farms of mixed agriculture, followed by those of arable farming, while both were made to look somewhat metropolitan by the nearly complete absence of such structures on those lands occupied by the pastoralist. Hutslar (1986:246-247) and Long (1972:16) are in general agreement, with the former contributing ethnicity and topography/geology as factors determining the number of buildings necessary, and the latter recommending the size of the farm and its available acreage as additional considerations. In the New England region, Hubka's (1984:16) argument that building types were a product of English folk tradition wherein individual functions were commonly allowed separate buildings of their own, has obvious currency when considering the number of buildings per farmstead.

Finally, Herman's (1987:61-62) impressive research into the rural life of central Delaware has produced some valuable information in regard to the question of outbuilding numbers in the eighteenth and nineteenth centuries. For example, in his search through various

documents of New Castle County, Herman revealed that outbuildings there outnumbered farmhouses by an average of six to one. In a survey of some forty-eight properties of St. Georges Hundred and over a period from 1760 to 1820 it was discovered that each farmstead averaged six to seven buildings other than the house. As for their order of significance, that is, if relative percentages are any indication, he obtained the following statistics for this same set of farmsteads: "kitchens (83%), corn cribs (79%), stables (69%), meat or smoke houses (66%), barns (56%) and tenant houses (52%)" (Herman 1987:62). Certainly, these figures for a single county in the Mid-Atlantic can not be considered representative for the entire state, let alone the region or colonial America as a whole, but they do represent an important and detailed glimpse into a subject given little attention elsewhere, and in the least offer certain ball park parameters within which the buildings of these small farms may be evaluated and compared to others.

4. Material

If we are to compare and contrast the materials from which outbuildings of this period were commonly constructed it is perhaps appropriate to begin with English examples. Many Anglo-Americans were naturally influenced by designs, methods, and materials employed in structures and observed in the mother country. Colonial America, however, possessed in great quantities the one material that England was rapidly running short of. In fact wood had been scarce in many

parts of England since at least the beginning of the seventeenth century. In Staffordshire, Peters (1969:213) has documented the shift from timber framing to that of brick construction as having occurred as early as the late sixteenth century and continuing through the eighteenth. He estimates that by approximately 1760, brick had completely replaced wood as the building material for the exterior of farm buildings, while interior framing required another twenty years to be displaced. In the very least, this shortage of wood available as building material called for its conservative use in England.

As a consequence, the poor availability of wood in England sponsored experimentation with other materials suitable for both house and outbuilding construction. Note, however, that Brunskill (1987b:145) has suggested that farm buildings suffered from a noticeable time lag in their use of new building materials, and yet Robinson (1983:5) has argued that such structures were particularly well-suited for the use of "novel" materials and architectural experimentation. Like Jefferson's garden pavilion or his planned dovecote, outbuildings often served as the subject of essays in architecture for the more advanced and solvent landowner. However, at the opposite extreme, the practicalities of everyday farm work often called for the least permanent of structures. In England, therefore, Robinson could safely claim that building materials exhibited "a mixture of fanciful nonsense and sound practical sense" (1983:52).

Experimental building materials might have included earthen substitutes other than brick, such as cobb, pise, and wattle and daub. The first of these was a mixture of mud and straw carefully kneaded

together and raised in layers until a wall had reached its desired height. Cobb buildings were apparently common in Devon and mud-walled cabins were once popular in Ireland (Robinson 1983:52). Pise, employed in the practice of "earth-walling," was perhaps even more frequently used, particularly in France where it enjoyed a long history. It was also used somewhat experimentally for farm buildings in England. Pise construction was similar to cobb. It combined fine loam with slaked lime which was then rammed firmly into pre-formed molds that might later be removed (Robinson 1983:52). In his 1807 treatise on rural architecture, Lugar has acknowledged that pise is "considered as very proper for Cottages . . . For common farm sheds & walls it is used in many countries with the best effect . . ."(1971:2-3). Jones (1985:199-200) has suggested that pise and wattle and daub, as well as palmetto thatching and tabby (a mixture similar to a cross between cobb and pise, containing mud, burnt lime and shell) were materials commonly used in West African building practices. Moreover, Jones (1985:199) proposes that African-American slaves may have been exploited for their knowledge of these materials. This was likely in many instances, especially in the American Southeast, but whether all such buildings are derived from African prototypes is somewhat questionable. Pise construction, for example, was already centuries old in northern Europe by the late eighteenth century (Robinson 1983:52), and experimentation with such materials was part and parcel of those advanced farming techniques sponsored by the Agricultural Revolution, if not the Enlightenment. In this particular instance, what is perhaps more likely, is that different cultures of different

regions arrived at the same or similar architectural answers to the same needs, independently of one another.

In any event, surviving American examples of wattle and daub are practically non-existent in spite of the fact that it is considered to have been a prominent means of construction for the earliest colonists, especially of the New England area. Cobb structures fair no better in this country, and even in England the material was eventually deemed "impracticable" (Robinson 1983:51). Tabby, however, can be documented much more frequently, particularly in coastal South Carolina and Georgia. As for pise, it is known that Jefferson's neighbor General Cocke experimented in ca. 1816 with this material in the construction of at least two small cottages at his Bremo plantation; cottages which Robinson (1983:56) suggests were still standing in 1950. In addition to these Bremo examples, Jones (1985:200) mentions slave quarters on the Four Mile Tree Plantation in the James River Valley of Virginia as also constructed of this particular building material.

In colonial America, where for centuries forested areas were still considered forbidding and impenetrable wilderness, wood was, nevertheless, the obvious choice as the primary fabric of both dwellings and outbuildings. In the east at least, this wilderness was ever standing at the edge of the frontier and colonists made ready use of its products for both frame and log structures. Perhaps the simplest and crudest of structures were of post-in-the-ground construction, or "earthfast" buildings as they have been called (Carson, et al. 1981). Here, supporting structural members of the

building were 'planted' in the ground in much the same fashion as fence posts might be seated. The temporary nature of such structures was particularly well suited to the colonists of seventeenth century Virginia who sought only a quick shelter in their first season. However, these buildings also found repeated use among agriculturalists, especially tobacco farmers, whose slash and burn, take the profits and run for better soil strategies meant relatively short term occupation on any one piece of property.

The practice continued well into the eighteenth century and wood continued to dominate as the foremost building material in both rural and urban contexts. In his Notes on the State of Virginia, Jefferson could write of the 1780s:

> The private buildings are very rarely constructed of stone or brick; much the greatest proportion being of scantling and boards, plastered with lime. It is impossible to devise things more ugly, uncomfortable and happily more perishable. There are two or three plans, on one of which, according to its size, most of the houses in the state are built. The poorest people build huts of logs, laid horizontally in pens, stopping the interstices with mud. These are warmer in winter, and cooler in summer, than the more expensive constructions of scantling and plank (in Peden 1955:152).

Interestingly, study of extant eighteenth century structures in Williamsburg, Virginia suggests what types of wood were used in the construction of such buildings. Whiffen (1960:5) has documented that framing members were commonly of yellow pine, poplar, oak, and less frequently of gum, in that order. Flooring material was invariably of yellow pine, and cypress was the chosen wood for shingles.

Weatherboard and exterior trim was most often found to be of yellow pine or poplar.

Upton's extensive research (1980, 1986, 1990) into the early architecture of colonial Virginia is largely in agreement with the first hand accounts of Jefferson. In this instance, both refer to the vernacular architecture that housed the majority of Virginians both slave and free. Jefferson's own dwelling, whether the first incarnation of the 1770s and 1780s or the remodeled version of the 1790s and beyond, belonged much more to a rare, but extremely influential "international popular culture" and as such, distanced itself from the simpler traditional structures of most Virginians. Upton (1990:71-72) concludes that these "houses of slaves and small planters were ordinary wooden buildings, as often as not post-built or, in the case of slaves, constructed of logs."

Slave quarters, however, were not the only outbuildings of either small planters or large plantation owners that were constructed entirely of wood. In fact, distinguishing those of the latter from those of the former would often have proven difficult. In her investigations at the Drayton Hall plantation in South Carolina, Lewis (1978:8) discovered that of the "multitude of outbuildings" present there during the eighteenth and nineteenth centuries most were constructed of wood supported by brick piers. Similarly, Hudgins (1990:67) reports that of the ancillary structures that supported Robert Carter's early eighteenth century Corotoman Plantation and its brick dwelling all eleven were constructed of wood. For the Delaware Valley at a similar date, Herman (1987:62-65) has suggested that

kitchens and tenant houses were "almost exclusively of log construction," whereas stables were generally so, smoke or meat houses were occasionally brick, but most were of log or frame construction, and barns were typically timber framed. Hutslar (1986:253) suggests that logs were used to construct almost every kind of building slightly later on the Ohio Valley frontier. Log barns were particularly popular during the first few decades of the nineteenth century and were only gradually replaced by the timber frame barn later in the same century. Of smaller log outbuildings the corn crib, tobacco house, and smoke house were especially common. In fact, the so called "Virginia smokehouse" persisted well into the later part of that century. Hutslar explains that log construction allowed for better ventilation and less retention of moisture than in a similar building constructed of brick or stone (1986:304).

As an almost exclusive American building material wood found other uses in these outbuildings beyond that of the walls alone. For example, in the Chesapeake region of Virginia, Chappell (1986) has recorded a small one room structure considered to have served as slave housing. This weakly framed building was additionally remarkable (beyond its considerable longevity) for its wooden floor, an element which Chappell suggests was most often lacking in slave dwellings (1986:32). Wood used in the framing of chimneys, usually of a mud and stick combination was apparently quite common for such structures, and perhaps graced the gable ends of the dwellings of many white farmers as well. Whiffen (1960:56) informs us that early legislation in the Virginia colony frequently prohibited the construction of such

hazardous appendages. To the extent that his comments imply repeated legal actions, it would seem that these wooden chimneys were, nevertheless, generally quite common.

As for the outbuildings of Mulberry Row, these structures seem to have offered little exception to these general trends in construction, in spite of the close proximity of the brick, Palladian-styled mansion above them, or regardless of their owner's affluence and reputation. Of the several construction and destruction phases that occurred along Mulberry Row, very little survives of that first building phase of the 1770s and 1780s. A series of variously detailed lists, measurements, and plan drawings indicate fairly clearly what Jefferson's intentions for that area had been (see below). Yet, of the ten to fifteen structures and contiguous yard areas identified in these earliest plans, only a single building survives above ground. The 34 ft. x 17 ft. stone dwelling (variously known as the "Workmen's hall"; building "E;" and the "weaver's cottage") that today serves as room for the business offices of the Thomas Jefferson Memorial Foundation was formerly the center piece of Jefferson's first designs for Mulberry Row. That it was/is of stone likely made it quite exceptional among its wooden neighbors of this first building phase.

Mulberry Row in the 1790s took on a much more expansive appearance as the functions of these initially joined structures were now separated from each other and in new form spread further east, but mostly west along the roadside. Of this second phase, the Mulberry Row outbuildings included possibly nine independent log pen structures, at least three and perhaps four post-in-the-ground

buildings, four wooden structures (whether log or frame is unknown) with an additional four such buildings planned, one stone office (building "E"), and one structure with a stone "underpinning."

Of the third and final version of Mulberry Row outbuildings, documents and surviving architecture suggest that Jefferson intended to replace these largely wooden, impermanent structures with others more comparable to the sturdy building "E." Stone walls took the place of those former log pens in a reduced version of the Mulberry Row stables. Where a log pen wash house had once stood, Jefferson constructed in 1809 a small stone dwelling, and the half stone joiner's shop (building "C") was perhaps the only other structure beyond that of building "E" to have been maintained for any appreciable length of time beyond this date. The completion, largely by 1802 or soon thereafter, of rooms and offices of wood and stone within the north and south dependency wings of the main house made many of the Mulberry Row outbuildings redundant as they served many of the same functions that had formerly been carried out below.

5. Cost, Time, Labor

Material was but one facet of raising these outbuildings and early American dwellings. Construction involves time, money, and labor, and in rural America of the eighteenth and nineteenth centuries it was often labor that proved the most dear. Slaves often answered this need. If not already possessed of the skills necessary to erect these buildings, others were apprenticed to white tradesmen, and as

was the case with several of Jefferson's Monticello slaves they soon became master craftsmen in their own right. Log construction was perhaps the easiest to manage. Moreover, it cost significantly less in both time and money. Though scantling, slabs, and plank might be purchased from a nearby mill, or in the very least cost an enormous amount of time in hand sawing, logs cost only the effort of felling the tree, trimming to size and carting to the site of construction. Jefferson's comment about the virtues of huts of logs and the "more expensive constructions of scantling and plank" is indicative of the savings of the former (in Peden 1955:15). In referring to an earlier, yet in many ways identical architecture of seventeenth century Virginia, Neiman (1980:18) has concluded that to construct a house in the colonies on the English plan could only be done at a cost three times greater in both money and time, than were it built in England. Economy therefore strongly recommended the construction of crude, wooden structures of log pens or earthfast posts.

The simple form and lack of decoration that typified many of the farm buildings of this and later periods may have only required a modicum of experience in their construction. Lounsbury (1987:120) has described the process as one involving only a limited number of ". . . semi-skilled or unskilled laborers. By using a few hand tools, these workers could roughly transform local supplies of stone and timber into simple, unadorned buildings." Ohioans of the early nineteenth century would have agreed. Then on the frontier where materials were, if anything, over abundant, a "one-day raising" was quite common:

> It was not considered a hardship at all, when several of the neighbors came with their axes, a yoke of oxen and a log chain, cross-cut saw, froe, maul, etc., and often in one day put up a log cabin and covered [roofed] it with clap boards before night. Another day or two, and the owner had put up a fireplace at one end and a door in the side" (Lang in Hutslar 1986:309).

In nearby Illinois, cost estimates in 1818 for both dwellings and outbuildings of log construction were quite low. A "two-room log 'cabin'" was rated as costing between 50 and 70 dollars; however, a smaller house of frame construction was appraised at approximately 577 to 666 dollars. Other log farm buildings such as kitchens and stables averaged only 30 to 40 dollars, and the barn, perhaps the largest of all outbuildings could be built for only 80 to 100 dollars (Hutslar 1986:313).

For Jefferson in turn of the nineteenth century Virginia, building and labor costs were significantly cheaper, but then his large slave population was undoubtedly a savings for him in this respect. In comparison, white craftsmen of 1796, whether carpenters, masons, smiths, etc., commanded a wage of approximately one and a half to two dollars per day (Rochefoucauld-Liancourt in Betts 1976a:245). That Jefferson was a large slaveholder did not, however, free him from the expense of depending upon these same white tradesmen for any number of tasks at his Monticello plantation. The harsh criticism of Jefferson's son-in-law/erstwhile overseer Thomas Mann Randolph suggests perhaps not so much the inability of Jefferson's slaves to construct a proper building than it illustrates their willingness and their ability to resist the forced labor that was their lot. In 1793,

during one of Jefferson's innumerable absences, Randolph wrote of one of his own absences from the management of the farm:

> From the dullness with which the operations you directed to be performed by your carpenters were carried on during my absence altho' I placed them immediately under the command of Clarkson, I think it would be better to employ some industrious white person to labor with them and lay off their work for them. It will be of the greatest advantage to them to be superintended by one who is a tolerable carpenter as they are more awkward and clumsy than you can conceive and are really incapable of raising the coarsest building without some one to direct them in every part of the work (TMR to TJ, MHi).

The comments of a later overseer were far less critical in regard to the talent and skills of two of Jefferson's slaves. In his remembrances of his own Monticello employment, Edmund Bacon could recall that the carpenter slave John Hemmings was a "first-rate workman - a very extra workman." Similarly, he remembered that the blacksmith slave Joe Fosset was a "very fine workman; could do anything it was necessary to do with steel or iron" (Bacon in Bear 1967:101-102).

Though only a minority of Jefferson's slaves were afforded the apprenticeship opportunities that Hemmings and Fosset had profited from, still other accounts suggest that, at least in the construction of farm buildings, other slaves were perhaps just as capable. In a Farm Book entry of a date prior to August 1810, Jefferson noted that, "Davy & Lewis & Abram have done the carpenter's work of Bagwell's house in 6. days getting the stuff & putting it together. the Outfield granary took 24. days work to get the logs, rafters, & slabs & put them up completely. it may be valued then @ 48/ exclusive of

floors and doors" (in Betts 1976b). Finally, Jefferson's savings in the expense of both labor and materials is obvious within the 1796 observations of Rochefoucauld-Liancourt. In his survey of Monticello and its surrounding tracts, he noted that the rolling topography of the area had induced Jefferson to construct a separate barn within each of his large grain fields. These farm buildings, any one of which might have been that granary produced by Davy, Lewis, and Abram, were said to have been "constructed of trunks of trees, and the floors are boarded. The forests and slaves reduce the expense of these buildings to a mere trifle" (Rochefoucauld-Liancourt in Betts 1976a:242).

6. Design

Any discussion of vernacular as compared to academic architecture need not be limited to the domestic residence, but applies equally to dependencies and outbuildings as well. As suggested above, classical or Gothic designs for service buildings were only as rare as the large residences of similar design which they supported. However, even where these farm buildings were of an obvious traditional or vernacular form their design was never a matter of random or unconscious choice, rather they represented shapes, sizes, and volumes that had been selected for out of full awareness of alternative possibilities. In the very least, they were compromises between what the owner/builder perceived as the ideal structure and that which he was constrained by other influences to accept.

The common perception of outbuilding design is nevertheless of a structure fabricated from crude materials, poorly constructed, and more often than not, confused as that single, ubiquitous phone booth-like structure with a crescent moon cut into its door. In reality, of course, there existed, at least in the eighteenth and nineteenth centuries a wide spectrum of types, forms, and differences in architectural style among these buildings. Ridout (1982:137), however, has commented upon the "purely utilitarian" nature of farm buildings and has claimed that, "Little effort is made to embellish the buildings or use them as cultural statements of wealth or status." Similarly, McAlester and McAlester (1984:5) have stated that vernacular houses can be defined by their lack of adherence to any particular style or current fashion. Yet, both folk houses and vernacular farm buildings were structured by at least local or regional patterns in architectural style, and where possible at least a few of these farmstead outbuildings exhibited academic pretensions, if not complete form. By mid-eighteenth century, rural architecture, whether of the farm house or the outbuildings, had become a respectable venue for many professional architects.

In what may be characterized as an evolution in architectural design among farm buildings, Brunskill (1974:5) has described their initial form as far too tenuous to survive, followed by their eventual specialization, and ultimately, as achieving designs of considerable ingenuity and expense during the period of enlightened farming practices that were a part of as well as a consequence of the Agricultural Revolution. Perhaps it is possible to recognize in these

important changes a shift from the vernacular to the academic. Indeed, Robinson (1983:7) has hailed this movement in agriculture and its "emergence of sophisticated rural architecture" as a "triumph over the vernacular."

The timing of these events remains somewhat a matter of debate, or perhaps it is only a matter of regional differences where change occurred at a more rapid pace in one area over another. In any case, Peters (1969:209) has suggested that the development of professional designs for farm buildings was a rather late event of the mid-nineteenth century. However, in the same article he noted that after 1800, such structures exhibited an increased concern with applied decoration. Aesthetics, especially the architectural detailing of Greek Revival might take precedence over function, as demonstrated by the rising popularity of semi-circular windows and circular pitch holes (1969:214). Other sources, however, suggest that important design changes were well under way during the eighteenth century, and in this, were much more in keeping with those shifts recorded for the Agricultural Revolution and the broader Georgian order. Much like the pattern books that were instrumental in dispersing ideas about proper architectural form for the big house, a number of similar treatises began to appear that were much more oriented towards the architecture of farm buildings. Like the later 1807 edition of Lugar's (1971) suggestions for the "country gentleman," many also offered advice on the management of livestock and crops. Perhaps the very first publication specifically dedicated to the design of farms was Daniel Garrett's 1747 edition of Designs and Estimates of Farm-Houses etc.

for the County of York, Northumberland, Cumberland, Westmoreland and the Bishopric of Durham (Addison 1986:152). For present purposes emphasis should rest on the "etc." in this exhausting title. Later in the 1770s, Arthur Young produced a number of widely read and influential agricultural surveys. Followed by the work of William Marshall, much of their findings contributed to the General Survey of the Rural Economy of England which had reached twelve volumes by 1798. Agricultural improvement was apparently a matter of the very first concern from kings to laborers. Under the pseudonym of Ralph Robinson, George III published in the Annals of Agriculture articles concerning, among other subjects, his experiments in cattle breeding (Addison 1986:160-161). In addition, it is also said that he experimented with the architectural design of farm buildings, in one instance, producing a plan of a cottage for his swineherd. In Robinson's (1983:112) opinion, that he should have done so ". . . is an eminently characteristic episode in the history of English eighteenth century architecture. It helps to put the aspirations of the period more vividly into focus."

The highly rationalized and original rural architecture of this period - the "preoccupation with pure geometry" that spawned plenty of "unconventional geometric compositions" among farm buildings (Robinson 1983:40-48) - was hardly limited to English soil, but it may have flourished there a bit more vigorously than elsewhere. If Jefferson and his Virginia neighbors were any indication, farmers and plantation owners in America more often demonstrated a willingness to experiment in a farm building design that was as yet tempered by an allegiance to

earlier traditional forms. As at Monticello, the resulting architecture was often an unsettled mixture of both forms. A classically influenced cottage for laborers or a stable with columned pediment often stood in stark contrast to unadorned log huts for slaves or earthfast carpenter or blacksmith shops.

The mansion house and those dependencies and outbuildings which best mimicked its design were meant as indications of their owner/builder's international and refined taste. Other farm buildings were no less a part of this display, yet they were even more a testament to the local competence of the carpenter. The former were exemplars of the academic, whereas the latter were models of vernacular style. Upton (1980) has noted an interesting example of this mixing of styles even at the level of the dependency. At William Bryd II's celebrated Westover plantation, the dependency buildings which bracketed the main dwelling were seen as outmoded and uncharacteristic of the style associated with this central element, and yet they were maintained at least through the early nineteenth century. Upton explains their presence and continued maintenance in the following way:

> Bryd was, however deeply he regretted it, a Virginia planter, and the English fantasy world that he clung to was no match for the Virginia reality around him. When it came to the buildings that sustained him, the necessary identification was clear. The main point is that he knew and used both academically derived and traditional forms in the appropriate situations. Wishing to present himself to his peers as a knowledgeable Englishman, he could not deny that his sustenance came from being a Virginia planter (1980:357).

In this instance, Upton seems to suggest that such stylistic variations between the big house and the support buildings were not only appropriate, but necessary. Regardless of the social implications involved, the juxtaposition of vernacular forms within the shadow of decidedly academic structures appears to have been somewhat normative, at least among wealthy plantation owners of the eighteenth and nineteenth centuries.

Still, it may be argued that even these plain and rustic farm buildings were hardly deprived of all attention to design. They did not simply sprout of their own accord in the moist shade of their more academically planned neighbors. Glassie (1975, 1986), Hubka (1986), Upton (1986), and others have argued persuasively that vernacular architecture of this kind is equally endowed with its own rigorous, systematic, and highly structured design methods. However, unlike the precise drawings and intellectual treatises common to professional design, folk architecture is written only in a silent mental language. Its rules are passed on through example, apprenticeship, word of mouth, and simple observation (Hubka 1986:429). If its product is somehow more conservative or less experimental than its professional counterpart, then perhaps it is because the builder's competence is measured by his ability to construct forms that are within keeping of his own local context. The geometric repertoire from which these designs are ultimately derived is for the vernacular architect much more of an indigenous affair, whereas the academic designer draws his ideas from an international pool. The big house and the slave quarter may adopt very different forms, yet each has been selected for through

a non-random, cognitive process - each consists of a design that is normative, even traditional for its own class of architecture. Neither building takes its form as the result of some unconscious action or undisciplined whim of the builder/architect.

Upton (1986:316) has suggested that the vernacular architect of eighteenth century Virginia was subjected to both local and extralocal cultural "impulses," but that the form he then chose to construct was already predetermined by the particular history of his area. If he borrowed from these extralocal and academic impulses at all, then it showed in his "taste for regularity." Certainly if the Georgian mind set promoted any one doctrine then it was a call for regularity, order, balance, and uniformity. These were qualities of a Newtonian universe that could be and perhaps should be expressed in all things. The design of outbuildings was no exception. This order was imposed upon vernacular and academic architecture by means of simple mathematical and geometrical systems of measurement.

Just as Whiffen (1960) has convincingly demonstrated for the Georgian houses of colonial Williamsburg, certain units of measurement or geometric shapes were typically embedded within the designs of vernacular buildings. A number of systems of proportion served as the mental grammar or the vocabulary internalized in the mind of the builder which provided him with the basic rules for building any structure. In his analysis of folk housing in central Virginia, Glassie (1975) has perhaps done more than any other current writer to promulgate these forgotten principles. In his opinion, the traditional competence at work in this region historically relied

heavily upon a rather limited repertoire of geometric shapes. As Whiffen had suggested of earlier years, the pride of choice remained the square - that "unsplittable atom" of which all houses of this area were ultimately derived (Glassie 1975:118). Like those ratios suggested by Whiffen, Glassie has considered that all other dimensions of the house may be taken from the width of this square. In addition, he notes that these fractions and subunits were measured in yards, and halves or quarters of yards (cubits and span, respectively). Moreover, he has made the significant observation that most houses fail to measure up to some fraction or whole yard increment if the measurement is taken along the side of the house. Most often it is the diagonal across the square that provides a measurement in yards (1975:22-23). A seventeen foot square, for example, would have a diagonal of eight yards. This diagonal then, commits the other dimensions of the square to a particular series of measurements that the builder is then obligated to use in order to create an acceptable shape.

Hutslar (1986:414-416) has noted the use of similar systems of measurement for the eighteenth and nineteenth century frontier of Ohio. With nothing more than a stick, a light cord, and the desired width of the structure to be built, the entire house could be laid out to correct proportion. Length, height, diagonal, and roof pitch could be ascertained from this single measurement. The geometry required in these calculations could be derived from the introduction of nearly any "builder's book" which Hutslar suggests were common to the seventeenth, eighteenth, and nineteenth centuries, or learned through

traditional methods of apprenticeship, first-hand experience, etc. (1986:415). Ohio and Virginia may have shared the same common denominator for many of their measurements of domestic architecture. Just as Glassie (1975:22) has suggested that the yard provided the basic unit of construction in the east, Hutslar has recognized that common wall lengths and scantling sizes were frequently produced in units that were divisible by three (1986:417-418).

A search for similar patterns along Monticello's Mulberry Row would at first glance seem to indicate only a mix of measurements. The earliest building phase of the 1770s, and that one which documents suggest Jefferson took more of a design interest in, includes a 17 ft. square as a basic unit found in many of these structures. Those buildings typically referred to as dwellings of one kind or another appear much more rigid in their adherence to this unit than those other outbuildings and yard areas located between them. This 17 ft. square, when doubled in one direction, provided the 34 ft. x 17 ft. structure that found such constant use in all four of these early building designs. Interestingly, Glassie (1975:24) has described this unit as an "important traditional [English] measure" known as the "pace," and as a 17 ft. square it formed a common "system of measurement." Note also that it is hardly a length that is divisible by three, yet the diagonal of such a square measures eight yards.

The later or second building phase along Mulberry Row of the 1790s represented an expansion (east and west) and a separation of buildings that had formerly been joined in one long shed-like structure. Whereas these earlier constructions may have been

developed over a rather brief period, documents indicate that this second building phase required several years to carry out. Unlike those units of the 1770s, the buildings of the 1790s exhibited far less uniformity of base measurements, except as small clusters within the overall range of buildings. Those in the west, for example, typically measured 18 ft. to 18 ft. 6 in. in width, while those in the center were for the most part 16 ft. to 16 ft. 6 in., and those in the east averaged 12 ft. to 14 ft. in width. Though at least one wall of each of the three 12 ft. x 14 ft. slave cabins ("r," "s," and "t") located at this end of Mulberry Row was divisible by three, it is of further interest to note that the diagonals at just over 18 ft. are equally so. Perhaps this mixture of unit sizes during this period, represented not only different building functions (as was indeed the case), but may have also pointed to different subphases of construction within this ca. 1790-1796 building phase. Moreover, these clusters of similar units may suggest a number of different builders, as Jefferson in his frequent absences often relied upon the native competence of various individuals - from overseers, to son-in-laws, to slaves.

7. Layout

Equally as important as the design, the type, and the materials of these farm buildings is their physical arrangement or layout within the overall farm landscape. Understanding the details of farm design and appreciating its significance requires a look at the involved

relationships existing between one building and another, between these and the entire range of outbuildings, and between both of these sets and the main house. While no two farmstead layouts may appear completely identical in their arrangements, there nonetheless exists recognizable patterns that range from regional popularity to international acceptance. To understand why a particular arrangement was repeatedly selected for from a wide range of possibilities requires a consideration of the various factors involved in the construction of that layout. These minimally included physical, functional, and environmental parameters, economic orientation, certain social directives, and even political aspirations. Given that these variables were instrumental in shaping the farm or plantation layout, it follows that building arrangements and their interrelationships may offer important clues as to the mental process of the individual farmer, and help to define the particulars of his own specific context. As Lewis (1985) has pointed out, the pattern or arrangement of agrarian and domestic structures, their associated activities, and their varied usage over time are important factors in establishing patterns of settlement. In turn, these settlement patterns may act as "sensitive indicators of economic, social and political organization, and are capable of revealing continuity as well as change in adapting societies" (1985:35).

Indeed, one of the most important shifts in early eighteenth century agricultural practices may have been the noticeable change from a very loosely organized group of support buildings to an arrangement that was much more orderly and disciplined. In England,

as late as the 1770s, Young could note "the many buildings scattered about," and Lord Kaimes would mention, "our farm offices are set down straggling and confused as if by accident" (in Peters 1969:50-51). Nevertheless, efforts at a more uniform farm organization were underway and these particular gentlemen were important contributors towards this cause. In short, the disposition of farm buildings was readily adopted as but yet another subject towards which the agricultural improvers of the eighteenth and nineteenth century were willing to bend their expertise and philosophies of experiment.

After all, there were any number of practical advantages to a more orderly layout. Lugar (1971), for example, who sought the "perfection of offices," considered their construction and their distribution a matter of "utmost importance." If improperly executed, the farmer would at least suffer inconvenience, at worst experience losses. As with many others familiar with the intricacies of daily farm labors, he advocated that the farmyard, and thus also its buildings, should be arranged with consideration given to adequate shelter, ease of access from the various parts of the farm, a satisfactory supply of good water, an elevation sufficient to prevent those maladies associated with lowlands, and a position that allowed for the supervision of buildings and yard areas from the house. In his opinion, the advantages gained by such an elevation might also be counted as facilitating "the labours of the farmer," and by affording "the best opportunity of arranging every building properly, agreeably to its particular use" (Lugar 1971:6).

Probably the most important and widely recognized advantage of a proper arrangement of farm buildings was its ability to facilitate the production, collection, and storage of manure. Among both the enlightened agriculturalists who used the knowledge generated during the Agricultural Revolution, and the small landholder of mixed agriculture who had little other choice, the use of manure as a source of inorganic energy became exceedingly important. As a rich fertilizer it freed the farmer from the inefficiency of the long fallow method of field management. Where formerly an extensive and consuming agriculture had ruled, intensive farming of smaller areas of land, and more important, the repetitive use of the same parcel of land might now produce the same or greater yields. As the advantages of this new "scientific" system of farming became increasingly patent, farm architecture and arrangement scrambled to accommodate it. In Lewis' (1977) opinion, the use of manure became especially critical for those farms that could not afford the somewhat extravagant use of land common to the larger plantations. Adoption of these new methods ultimately "forced the rearrangement of farm buildings" into much more compact groupings than had formerly been the rule (1977:57).

Other advantages of this process of farm building centralization, if not out-right unification, were those universally recognized virtues of convenience and economy. Especially where architectural layout was completely contiguous, this form of organization meant a savings not only in time and effort, but also in the materials necessary to construct the individual offices. If convenient and economical, then such an arrangement was also likely

efficient. If efficient, then it was also as profitable as the present arrangement could be. The improving farmer of the eighteenth century was increasingly interested in both attributes, for obvious reasons. Jefferson's myriad experiments in efficiency were certainly indicative of this point.

Not surprisingly, many of these same values and arrangements continue to have currency in twentieth century agricultural practices. Hunnicutt (1910), for example, attempts to define a systematic means of farm organization. In his opinion, efficiency ranks higher than any other consideration. If individual buildings and the overall farm layout should be constructed with efficiency in mind, all other virtues will then fall into place. Hunnicutt's focus upon the acreage that supports each structure and agricultural product, and his intense itemization of every aspect of the small farm leaves the placement of no element to chance (1910:154). Similarly, Scoates' (1937) ideas for arrangement follow much the same format. He has declared that, "Since every farmstead will have its own peculiar topography, orientation, ground covering, soil, etc., we have a different and individual design for each. However, the fundamental principles are the same in all cases" (1937:6). In his opinion, every farmstead design regardless of size should include consideration of: 1) health, 2) economy, and 3) beauty. Omission of any one of these jeopardizes the entire arrangement. What is perhaps most interesting about his extremely detailed list of suggestions for farm layout is the sense of complete structure which they impart. As with Hunnicutt's recommendations, no element of the farmstead is to be located by chance. Distances,

volumes, angles, exposures all contribute to the placement of each outbuilding, garden, orchard, pasture, and dwelling (1937:4-8). While variations are possible and not all suggestions can be met in all circumstances, Scoates' recommendations nevertheless illustrate the calculated and scientific approach necessary for an efficient and effective farmstead organization.

Of further note in these modern plans for farm building arrangement and within any earlier model is the observation that while some of these building locations are of obvious advantage for very practical reasons, other arrangements would seem equally so only to the farmer. For example, those uninitiated in the daily tasks of the farm might not recognize the many subtle advantages of Scoates' plan, or even that there was careful reason and method behind it at all. Discerning patterns in the organization of eighteenth and nineteenth century farmsteads may prove an even greater difficulty since the analyst is that much further removed from the subtleties of these earlier contexts. However, in referring to early farmsteads of New England, Hubka (1984) assures us that patterns do exist, nonetheless:

> Despite first impressions the placement of these outbuildings is not random or haphazard. Just as the location of major buildings in the connected farmstead was highly structured, so the placement of outbuildings followed a set of commonly accepted conventions that made good sense to most farmers. Many farmers deviated, but most located their outbuildings in similar positions because trial-and-error decisions and local traditions reinforced the selection of particular locations (1984:68).

In addition to those strictly functional details that helped to determine the layout of the farmstead there also existed a number of

environmental factors that had to be taken into consideration if an acceptable arrangement were to be achieved. Aspect and solar incidence were of chief importance, and farmyard and building entrances were often oriented with these in mind. Similarly, the direction of prevailing winds and rains were important considerations as both could bring discomfort that might otherwise be avoided with careful planning. The contour and slope of the land affected access to fields and roadways as well as provided proper drainage away from buildings. Particularly important to the farmsteads of southeastern Pennsylvania, for example, was the typically southeasterly sloping topography of that area which "helped establish a recurring pattern in farmstead arrangement" (Long 1972:11). The somewhat relaxed topography of the Midwest (still known as the Western Territories in the eighteenth century) undoubtedly contributed to the decision to impose a six mile square grid system over this area, resulting in the endless procession of uniform townships and farmsteads. As Hutslar has noted for Ohio, this method and earlier means of dividing up these lands, ". . . were a major factor in determining both the configuration and size of farms in the nineteenth century and the pattern of today's rural landscapes" (1986:248). Though Glassie would acknowledge that all of these factors combined to make adherence to a particular pattern or mental template for a town or a farmstead rather difficult - that "different settings obviously require quite different relationships between the house and other structures" - this admission did not, however, keep him from suggesting at least two distinct farmstead arrangements for the Delaware Valley. Few geographic areas

presented identical settings to any two farmers, and the solutions in farm layout that each arrived at may have upon occasion been noticeably dissimilar. More often than not, however, these and other factors determined agricultural and architectural solutions that were similar in kind.

Even less obvious than these functional and environmental agents at work in the establishment of farmstead arrangements were those social forces that helped structure their final form. Perhaps more than any other variable involved, such influences were themselves unadulterated products of context - in this case an eighteenth century Georgian context - and for this reason, these social imperatives are more often invisible to the modern analyst. That they did in fact exist has been well documented in recorded thoughts and ideals, individual and group behaviors, and even within the architecture of the period. Within the connected farm buildings of New England, for example, Hubka (1984) has identified an impressive number of social elements, movements, and ideals that he interprets as causal factors in the construction of this kind of farmstead arrangement. Among these he has included: balance and unity, agrarian context, the improving spirit, the inventive tradition, the classical image, convenience and beauty, genteel sensibilities/vernacular tradition, and evangelical reform. Though his study area is that of nineteenth century New England, most of these same social influences were also at work earlier in eighteenth century Virginia.

As suggested above, among the various types of outbuildings and dependencies common to these farms and plantations a precise order or

ranking may have obtained. In this hierarchy of structures, dependencies ranked above domestic service buildings, and these in turn usually enjoyed a higher status than slave quarters and farm service buildings. Even within a specific category there were further rankings. The stable, for example, was often more pretentious and commodious than the quarters of either white or black servants. Often, the higher the ranking the closer that particular building was located to the owner's mansion. In this scheme, then, the status of the building's occupants also rose with their relative proximity to the house (Anthony 1976; Lewis 1985; Upton 1986). Field slaves that occupied the cabins of a distant quarter could be expected to assume a much lower status than those favored with the role of house servants whose cabins, identical though they may have been to the others, nevertheless were also of a higher status for being located closer to the big house. This hierarchy of space was undoubtedly a major factor in structuring the overall layout of the plantation.

Anthony's (1976) focus upon the relationship and the distance between master and slave is a study of the social structure of the antebellum plantation as registered in architectural relationships. The close proximity of the housing for domestic servants to the main house was a statement of its occupant's higher social status relative to that of the field hands, but at the same time the subordination and concealment of the former's quarters acted as a strong reminder that the house servant's lot was still a miserable one (1976:13-14). Moreover, this concealment or masking process was said to have occurred both outside and inside the big house. Jefferson, in

particular, was supposed to have been a master at these tricks of concealment. In referring to the south dependency wing of the Monticello mansion, Anthony has suggested:

> Jefferson's remarkable achievement consisted in his skillful handling of the servant and the served spaces of the building. He effectively rendered the slaves invisible while integrating their activities into a single structure at one end with the surrounding landscape (1976:14).

Though persuasive, Anthony's argument, in this instance, is only half true. It will be remembered that this dependency wing was a rather late achievement, and that for nearly thirty years prior to its construction the log cabins of any number of slaves were very much an obvious part of the nearby Mulberry Row complex.

Anthony (1976) makes another important point concerning the relationship between the mansion and the slave quarters and their respective residents. He notes that:

> Planters like Washington and Jefferson had scores of slaves, perhaps ten or twenty times the number of relatives and guests residing at any one time on the land. Yet upon arriving, one was only aware of the mansion house and the comfort it suggested (1976:17).

However, for the same reason that his former argument was not entirely correct, this one too must be found lacking. Not only were slaves and slave houses an unmistakeable part of the everyday Monticello landscape, but their presence and their dwellings were also intended as objects, artifacts, possessions to be displayed in the overall presentation of the plantation. The obvious juxtaposition between the

one room log cabin and the Georgian brick mansion towering nearby was a conscious and deliberate design feature of the typical plantation layout. Each represented opposite poles in the extremes of eighteenth century architecture, and faced each other across what St. George (1986:345) has, for different circumstances, referred to as a "spatial dialectic." This opposition was no less apparent in the social structure of the plantation. In fact, this particular arrangement of buildings served only to reinforce it, and such was its intention.

Elsewhere, St. George (1987) has applied this notion to a seveteenth century yeoman's farmstead in New England. In this instance, he elaborates upon what he has referred to as a "strategic access ritual" - a form of "social motion" where visitors to the domestic quarters of the farm owner were forced to pass initially through the working part of the farm and there evaluate the worth of the owner by accessing the state of his livestock and agricultural pursuits (1987:11). Likewise, Upton (1990) has recognized the importance of social procession. Even among the holdings of the small gentry farmers of eighteenth century Virginia he notes that:

> the domestic outbuildings were usually set beside or behind the main house, but they sometimes were used to define a ceremonial route for the visitor, and the main house was raised up on its storage cellar above all the other buildings. The visitor thus passed through the outbuildings, up to the front door, and entered directly into the hall, or main room, the most decorated space in the house (1990:79).

Finally, Vlach (1991:47) is of a similar opinion. He agrees with the importance of this peculiar access ritual and suggests, as have the others, that its object was to impress and awe visitors who made their

way through the ranks of lesser buildings to arrive at the very heart of the plantation. This highly contrived arrangement made it impossible to misjudge the residence of the owner or his position of dominion over all others present.

That outbuildings and dependencies were often used as objects of display and ostentation is of little doubt. Like the number of slaves he owned, the number of acres in cultivation, the horses that he kept, etc., they represented yet another highly visible form of property that the master of the plantation was only too happy to add to his inventory of personal assets. If others appreciated their value and the wealth that they symbolized, then so much the better. Brunskill (1987a:163) has spoken of such buildings in terms of social aspirations, noting that for those farmhouses not particularly grand by themselves, outbuildings were often attached in order to make them appear that much more pretentious. Other building arrangements may have even been orchestrated so that they presented an illusion of greater length, breadth, height, etc. For example, Lewis (1978:11) has observed that the two dependencies flanking the mansion house at Drayton Hall were both oriented approximately two degrees off axis so as to avoid the appearance that they angled in towards the house - a consequence that would have been obvious from a distance had they remained perfectly perpendicular.

This type of architectural slight of hand was apparently even more commonplace as applied to eighteenth century landscape design, and was particularly so in garden layout. Moreover, certain measurements (lengths, widths, distances, etc.) may have been common

denominators in house, outbuilding, and garden, and thus strongly affected the specific layout and/or design of each. Leone (1990) has offered the example of mid-eighteenth century gardens and their proportioned linkages with the mansion. In his opinion, it was a matter of convention to find that these two separate volumes "related harmoniously to each other by being multiples or fractions of the same dimensions" (1990:163). Like the dependencies of Drayton Hall, these tricks of design and arrangement suggested to the knowing eye that the owner's command of architecture and horticulture were complete. Moreover, as Leone (1988) has been quick to point out, these structures and spaces demonstrated the planter's mastery of natural law, that his powers extended to the control of nature itself.

These concepts of order and control were of paramount importance in shaping both the physical and social organization of the plantation. The owner imposed his control, asserted his will by establishing an order that was at once practically immutable and obvious to all players. Social order was both replicated in and enhanced by the physical arrangement of buildings on the plantation. With the mansion at center, the planter succumbed to certain "centripetal impulses" by positioning himself at the heart of a "network" of buildings, roads, cultivated fields, etc. (Upton 1990:84). Perhaps in this system of orbiting support buildings and circling roadways, the planter envisioned himself as a sun at the center of a Copernican or Newtonian universe. These delusions of grandeur were fueled by the hierarchical system of patriarchy, where the main house served as the central seat of power and as one moved

further down hill or away from this pinnacle the degree of influence and power of other occupants rapidly diminished. As Vlach has phrased it, " . . . to move away from the center of this plantation was to move down a scale of power and significance" (1991:26).

Jones (1985) has provided something of an echo with the statement that this hierarchical arrangement of buildings was a matter of control, dominance, and subjugation. More specifically, he has suggested that the physical subordination of slave housing in relation to the big house was a method of control that had certain parallels in African architecture and arrangement. American slave owners may not have been aware of this fact, but they might have observed what was for them the satisfactory results of such a plan and were thus encouraged in its further maintenance and replication (1985:196-197).

Even for what St. George (1986) has referred to as the Pre-Newtonian universe of the seventeenth century yeoman the arrangement of outbuildings and their relationship to other features of the farmstead could be seen as a matter of more than simply functional logic:

> Space is indeed substantive, and for the yeoman in seventeenth-century New England, the physical layout of the farmyard - the arrangement of barn, outbuildings, and house - was crucial both to his economic livelihood and to his psychological stability (St. George 1986:337).

The rigid ordering of buildings, the expansion of private space within the house with its increasingly function-specific rooms, and the rapid accumulation of material goods or "artifacts" with which to distinguish these spaces, all were seen as the varying methods by

which the yeoman structured and defined his own personal landscape in a world without the benefit of Newton's mechanical system of order. This "predisposition to order" was part of his "cultural baggage" and as such, was part of that larger bundle of cultural directives that led to greater personal control, less dependence upon religious doctrine, and increasing individualism.

Under this secular system of organization, the barn and other outbuildings represented the domain of unreasoning and irrational animals whose shelter must of necessity remain separated from the highly artificial and disciplined residence of their owners (St. George 1986:337). By arranging his farmstead in this fashion the seventeenth century yeoman asserted his will over these spaces and declared his willingness to manage for himself the natural caprice of his own destiny. In St. George's opinion, ". . . the rigorous disjunction between the artificial, rational, and clean world of man and the irrational, dirty world of his livestock" was readily apparent in the layout of the farm (1987:11). In this sense, the seventeenth century yeoman anticipated, if not set the precedent for, the same spatial separation that was characteristic of eighteenth century plantations. In the latter instance, however, this disjunction became as much enforced between master and slave as it had been and continued to be between master and beast. Anthony's (1976) earlier argument that Jefferson and Washington provided accommodations for slaves that were equivalent to those reserved for livestock, is correct only to the extent that both were intentionally distanced from the innermost recesses of the mansion. These and other plantation owner's sought to

exert their power and control over their animals, their slaves and servants, and their natural surroundings through the use of relatively simple architectural solutions. Moreover, they intended that this ability be immediately apparent to any of their visiting peers as registered in the firmly marshalled ranks of farm and domestic buildings.

In addition to those practical, environmental, and social factors that contributed to the layout of these structures and their interrelationships with each other and the big house, one must also consider plantation arrangements as the product of a peculiar economic strategy. This plantation mode of production may be defined as ". . . a settlement type designed to efficiently and cheaply produce staples on a large scale for a substantially non-domestic market" (Lewis 1985:37). Born of fifteenth century European capitalism, this type of settlement and production was especially well suited to an expanding world economy. However, scholars disagree as to the popularity of this system. Vlach (1991:47) has suggested that though a common aspiration of most planters, the plantation was in fact quite rare. Conversely, Lewis (1985:35) has hailed it as "one of the most prominent settlement types in British North America" persisting even into the present, though in much altered form.

While most agree that the arrangement of buildings on the antebellum plantation was typically centralized, there yet remains a difference of opinion as to the finer details of its form, or perhaps it is only that different scholars have focused upon dissimilar aspects of layout. Anthony (1976) has suggested that the shared

environment of master and slave produced a settlement pattern designed to accommodate both. The big house and the slave quarter were, in his opinion, strongly influenced in their architectural design and their spatial distributions by the relationships that existed between these two occupant types. Orser and Nekola (1985) have admitted that, at least at first glance, race does very much appear to be a factor in the distinctive spatial organization of the plantation. A closer look, however, has suggested that living arrangements and building locations were actually a matter of the division of labor common to these extensive agricultural enterprises. These authors (Orser and Nekola 1985:69-70) consider that an individual's specific role in plantation production determined where his quarters were. Slaves that performed domestic service may have lived within the mansion itself, while those who labored in the fields were most likely to have been located in dwellings at a significant distance from the house. Moreover, white overseers who performed the same tasks were just as likely to have also lived at a considerable distance out from the core.

Finally, still others have described plantation layout as a product of the farm production process, and thus have focused less on the various occupants involved and their particular assignments. Lewis (1985) has acknowledged plantation form as the natural consequence of extensive, labor-intensive production of staple crops. Vlach (1991) has added to this claim by suggesting that plantation arrangements were often the result of the specific crop or commodity being produced. For example, rice plantations were typically

characterized by linear arrangements of buildings - a pattern which Vlach (1991:40-41) has further identified as being of French origin. Cotton plantations appeared as the most varied and were often defined by a scattering of farm buildings. Sugar plantations were also frequently of a linear design, though as an example of one such farm, Vlach has described a block or modal-block form of organization, that is, creating a square or clusters of buildings forming a square. Such an arrangement, he concludes, was typical of Anglo-American design (1991:40-41).

However, defining what exactly was typical in Anglo-American farm organization may be more difficult than Vlach has suggested. Building arrangements varied for all those reasons outlined above. Functional, environmental, social, and economic factors of both a local and an international context helped to determine the specifics of spatial relationships between farm and domestic service buildings and between these and the big house. The latter may have been "inextricably buried within a mass of domestic and non-domestic buildings" (Brunskill 1987a:163) or at the other extreme been an isolated incident in a widely scattered arrangement. Moreover, farm organization was not immune to temporal considerations, with certain plans achieving popularity for a given period only to be replaced at some later date by another form. For the plantation of the antebellum South, however, outbuildings were more often arranged in compact and clustered form, and more often than not were further organized in either a linear or geometric plan. This "nucleation" of structures has been described as "the distinctive element of antebellum

plantation settlement" and was replaced by a more dispersed organization only after the wholesale emancipation of slaves in 1865 (Orser and Nekola 1985:69-70). Prior to this date, the rather formal layout of buildings had the appearance to eighteenth century travellers of "a fairly large village" (in Upton 1986:320), or looking "like a busy village" (in Upton 1980:343), or "a little empire" (in Anthony 1976:13).

If we were to look to England for early examples or architectural precedents of later Anglo-American farm layout, we would find that authorities there were unanimous that the earliest arrangements were of linear form. Robinson (1983:62), for example, has considered that buildings arranged in linear fashion and under a single roof represented the "traditional form" of that country. Of the eight common layouts identified by Brunskill (1974:80), this linear form has been considered the oldest and the simplest, while Peters (1969:51) has added that the straight line 'I' plan was particularly appropriate for small farms of few buildings and was present on at least half the farms of his study area prior to 1750.

Just as Brunskill (1974:80) has recognized this English pattern as owing a typological debt to the earlier 'long-house' tradition, Glassie (1986) has suggested the same for those linear arrangements occurring in the New England and Mid-Atlantic regions of colonial America. This gable to gable arrangement of barn and farm house was typically joined and separated by a number of other farm and domestic offices situated in the interval between these two structures. This arrangement apparently formed an early ideal in southern Pennsylvania,

New Jersey, central Maryland, and northern Virginia. Moreover, he has concluded that the origins of this particular plan were not limited to England but also minimally included Ireland, Wales, Scotland, Switzerland, and the Rhine Valley (1986:415-418).

While this connected linear arrangement of farm and domestic buildings may have been the norm for most of the Mid-Atlantic for the first half or more of the eighteenth century, their separation and dispersion was an event of the last half of that century. Glassie (1986:420) has noted that these "clustered, cooperative modes" of organization were eventually replaced by the dominant American style of "loose, worried, acquisitive individualism," where buildings were separate and farms were isolated. Lewis (1985:38) has commented that throughout the eighteenth century plantation buildings typically displayed a "Georgian symmetry in their arrangement." By the fourth quarter, however, dependencies and/or connecting passages (hyphens) lost their former forecourt plan and were thereafter arranged as more in line with the main house. At this point, agrarian and domestic buildings were usually located a short distance from the mansion and were laid out in linear or geometric form (1985:38). More or less in support of these statements, Weeks (1984:66) has suggested that for Virginia and Maryland, house and dependencies were typically connected as one unit by the 1770s. The formerly separate dependency buildings of the forecourt arrangement - without the benefit of connecting hyphens - would have been a plan more common to earlier generations. Weeks (1984:66) further suggests that by this later date, the axial planning that had formerly been so much the rage in England and

America, where straight, unbending roads, walks, garden layouts, etc. had converged on the "ceremonial spine" of the house, had given way to a form of circular planning. The form and arrangement of buildings was not unaffected by this shift in perspective. In short, Glassie (1986) and Lewis (1985) seem to be in agreement that the final quarter of the eighteenth century witnessed the separation of farm and domestic outbuildings from one another and from the main house, while Lewis (1985) and Weeks (1984) agree that dependencies of the main house had shifted from their former flanking positions by this date. However, Weeks (1984:63) earlier suggests that they were also joined by hyphens more often than they were separate without them. If a measure of both claims are correct, then perhaps it may be suggested that outbuildings were growing further apart, while dependencies were increasingly incorporated by means of physical attachment to the manor house.

Outbuildings following that format suggested by Glassie (1986) and Lewis (1985) most frequently retained their linear arrangement. These separate buildings may have been laid out in long rows either singly or in double lines, one parallel to the next (Upton 1986:320). In referring to one of the late eighteenth century houses and plantations that were the focus of their research, Langhorne, et al. (1987:30) have noted:

> As with all Virginia plantations, the working part of Enniscorthy was not under one roof; it was the plantation street. Here was the smokehouse, the kitchen, icehouse, dairy, perhaps the weaver's house, and most certainly the house servant's quarters. Typically this "street" consisted of a double file of outbuildings . . . (1987:30).

To suggest that "all Virginia plantations" of this period necessarily followed this arrangement may be somewhat of an exaggeration; however, it can not be denied that it was a design of considerable popularity.

Equally as popular, though perhaps only becoming so at a slightly later date, was the geometric arrangement of outbuildings on the farmstead and plantation (for example, see Figures 9 and 10). As with the linear plan, there were any number of factors that helped to determine this particular layout as one of great preference. Though straight lines of buildings might, at least in the Euclidean sense, also fall under the rubric of "geometric" layout, here the term is used to designate those clusters of domestic and farm buildings that together formed some recognizable shape of greater dimensions. Whether an open U-shaped plan, a closed square, rectangle or octagon, they were never so important as the interior space that these various arrangements helped to create. This partially or fully enclosed farmyard area was typically referred to in more formal, Palladian designs as the "courtyard", and in those with a much greater agricultural emphasis as the "foldyard."

Though the precise origin of such arrangements remains a question of debate, it can be safely stated that by the third quarter of the eighteenth century geometric farm organization had achieved a status of considerable eminence among its alternatives. Moreover, it continued to attract advocates throughout the nineteenth and twentieth centuries. In England, the courtyard plan was the first choice among those eighteenth century "improving farmers" who sought to apply "all the latest theories of architectural and agricultural progress"

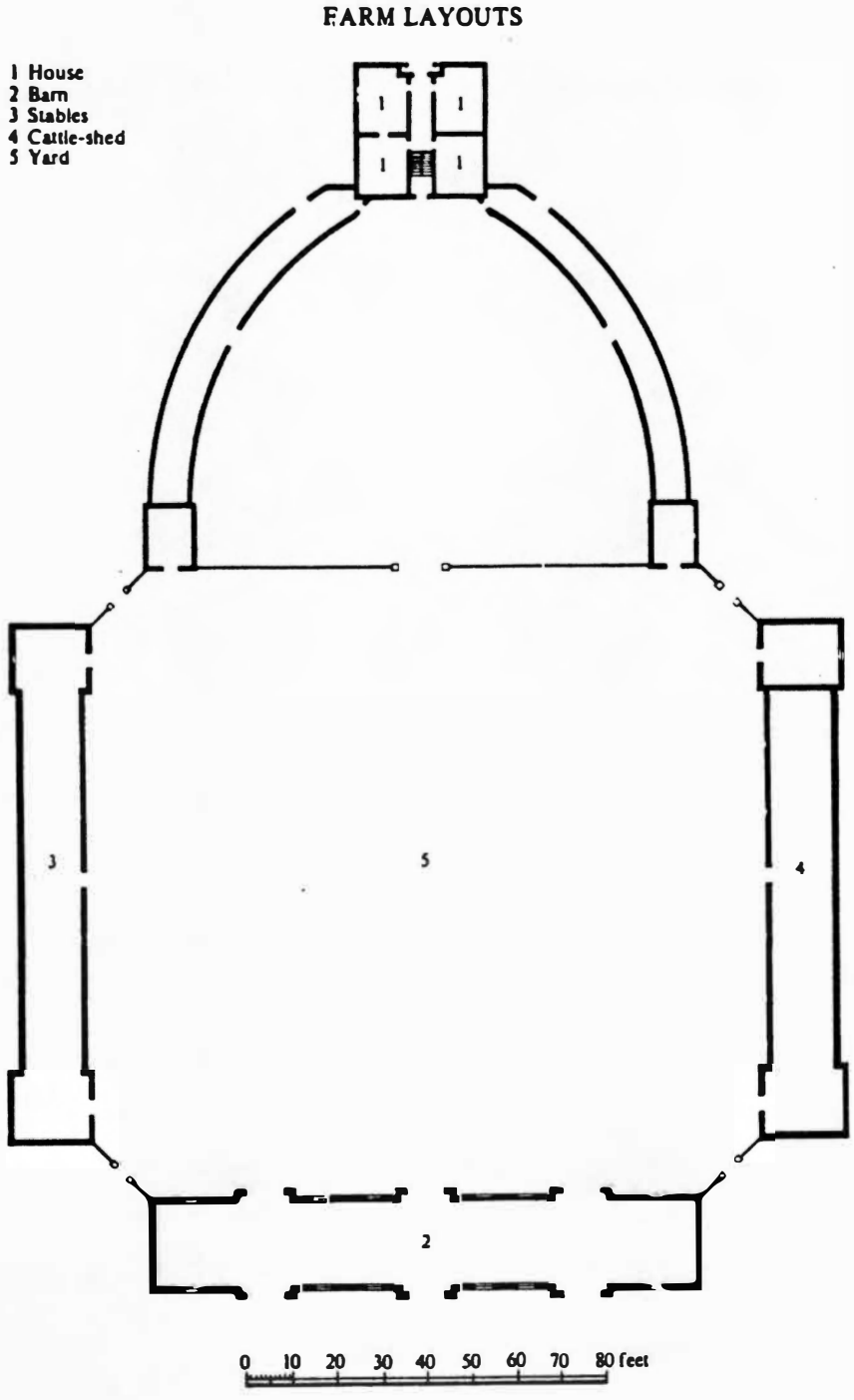


Figure 9. Geometric arrangement of outbuildings. Plan view of farm layout on Leicester Farm of Holkham, Norfolk.
Source: Robinson, GM (1983) *Georgian Model Farms: A Study of Decorative and Model Farm Buildings in the Age of Improvement, 1700-1846*, p.66. Claredon Press, Oxford.

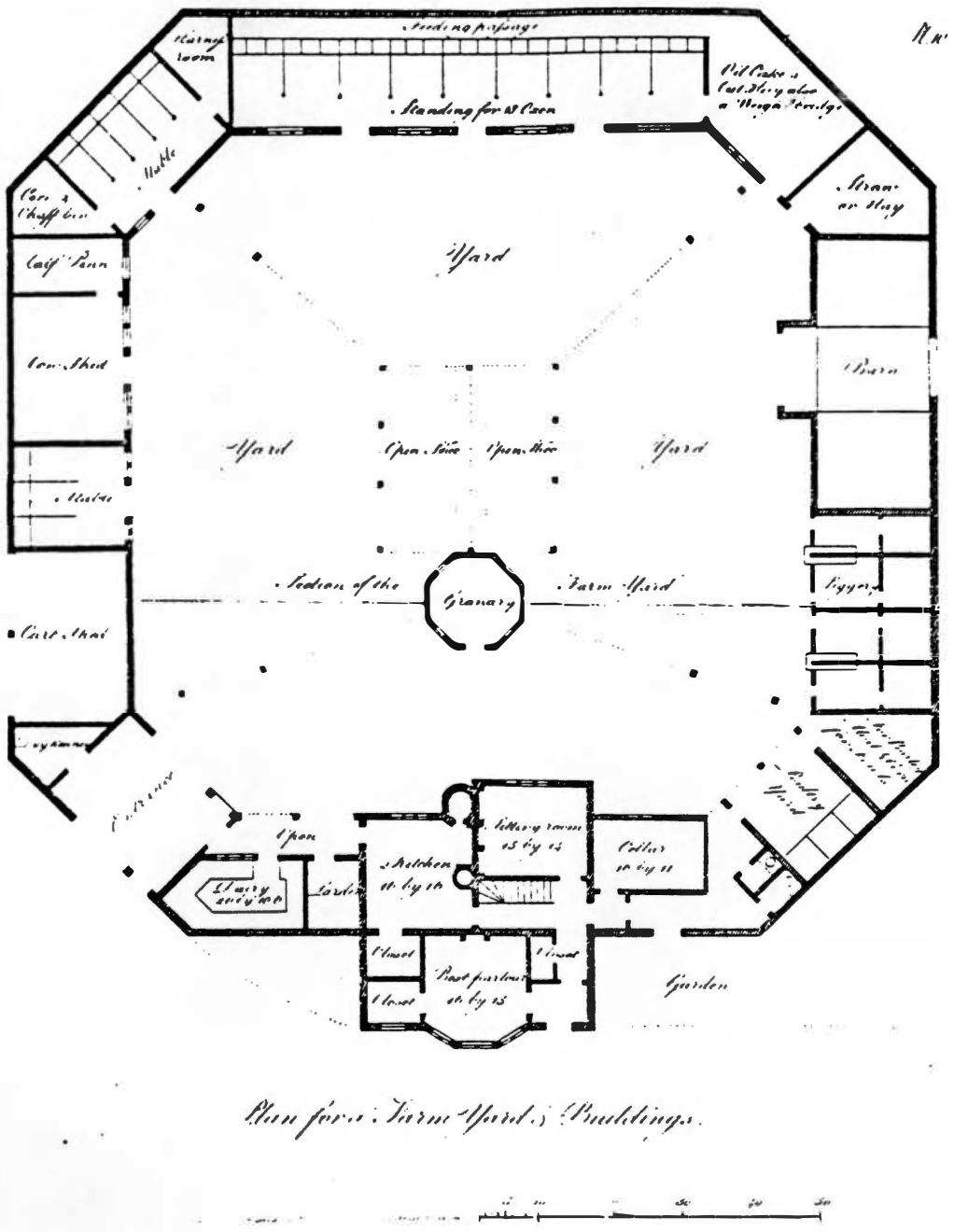


Figure 10. Plan for the layout of farm and domestic outbuildings. Source: Lugar,R (1971) *The Country Gentleman's Architect*, plate 10. Gregg International Publishers Limited, England. Original 1807.

(Robinson 1983:5). Both the U-shaped plan and the fully closed square were among those four principal layouts of Peters' (1969) study area. Though the earliest known example in that region was dated at 1762, he suggests that such plans were advocated by a majority of the agricultural writers of the late eighteenth century. He adds that earlier examples of these geometric formations were discouraged simply from a lack of building numbers. Only by this later date were they typically present in such quantities as to "justify so extensive a layout" (1969:51-52).

With the increasing importance of manure as a means of breaking the unprofitable cycle of the long fallow method of agriculture, the central farmyard enclosed by offices for livestock, as well as domestic structures, offered an effective and efficient means of collecting and stockpiling this valuable inorganic resource. Creating a sufficient reservoir for manure was thus one of the most significant ideas of the Agricultural Revolution, and one that contributed greatly to both the numbers of buildings required on the farm and their spatial reorganization. Scientific farming methods, therefore, suggested a set of fairly rigid specifications for architectural arrangement. Eventually the quadrangle achieved a kind of eminence above the rest, and reformers went so far as to fix the location of specific structures within the larger contiguous complex of offices (Robinson 1983:62-69). Although these ideas were not universally adopted, with the increase in the publication of agricultural and architectural pattern books and the demands for new forms of organization occasioned by new farming methods and machinery, these

theories were afforded a wide audience. While internal arrangements may have differed in shape and detail, the overall appearance was usually one of a very formal, Georgian symmetry. A certain elegance of form, as well as a increase in functional efficiency had been achieved in these geometric layouts perhaps in greater measure than since Roman times, or at least since the classical imitations of the Renaissance.

The strength of the courtyard plan in effecting a reorganization of the American farmyard may have been somewhat diluted after it crossed the Atlantic. It offered, nonetheless, an important alternative to earlier, often more vernacular arrangements. Lewis' (1977, 1985) understanding of these geometric designs as employed in the American Southeast requires further scrutiny. In his opinion, settlement types within this region ranged in the eighteenth and nineteenth centuries from any one of three primary occupance forms: 1) the plantation, 2) the farm, and 3) the town residence. The last of these three is of less significance for the present discussion; however, the first two invite further definition. Like Vlach (1991), Lewis has earlier suggested that these various settlement patterns may be distinguished by their building layouts, and that these arrangements were themselves the result of specific economic strategies. In his opinion, the extensive agricultural practices typically associated with the antebellum plantation would have produced a recognizable occupance form capable of distinguishing it from the more intensively-oriented production practices of the farm. It is upon the smaller farm, therefore, that we should be able to

establish the compact square and U-shaped arrangements of buildings as dominant. While smaller farms no doubt also took advantage of the rejuvenating powers of manure and arranged their buildings accordingly, the plantation owner was seldom ignorant of these benefits and often was the first to experiment with this and similar agricultural and architectural innovations. In England, Brunskill (1974:82) has noted that the courtyard plan was typically reserved for those farms having more than 250 acres under cultivation, and as such, were the largest farms of all. Similarly, Robinson's (1983) extensive research into the Georgian model farms of England has suggested that it was the wealthiest landowner's and the emerging middle class "gentleman farmer," each in possession of significant numbers of acres and buildings, who most often attempted the geometric arrangements required of the improving farmer and the model farm. Even within Lewis' (1977, 1985) own examples, there is a note of confusion. For instance, his detailed description of Mt. Vernon's "geometric layout of structures" and its "U-shaped plan" are reminiscent of the English courtyard model, both of which assumed the form which Lewis has reserved for the spatial distribution of the "farm" alone.

For the Delaware Valley and much of the Mid-Atlantic region, Glassie (1986) has acknowledged the courtyard layout as one of the two distinct farm plans of this region. Here, the "hollow rectangle" of the farmyard was most often produced by the construction of parallel sheds with the house at one end and the barn at the opposite end (1986:413-415). Further north in New England, Hubka (1984) has described the connected farm buildings of that region as a commingling

of the geometric compositions of the Georgian classical villa style, and therefore, of the "leading European architects of the late eighteenth century," with the more traditional "incremental, connected building growth" of folk architecture. The result was often the somewhat crude and truncated version of the former, where a linear arrangement best describes its organization. The New England builder's architectural aspirations clearly took in the more expansive courtyard scheme, but economic realities more often limited his buildings to that of a vernacular achievement.

Washington's Mt. Vernon and Jefferson's Monticello differed, at least in their final stages of construction, in that their owner's wealth acquired through a plantation mode of production allowed for a much closer approximation of these Georgian ideals. If their U-shaped, courtyard building arrangements differed from those models presented by the agricultural improvers of the late eighteenth century, then these differences were more of a functional nature than a matter of form. That Washington and Jefferson avoided using their lawns as reservoirs for manure, does not mean that they were unaware of the agricultural value of this material (documents suggest that Jefferson, in particular, was sensible to its many uses), nor does it suggest that they turned their backs upon the architectural arrangements that scientific farming endorsed. Rather, both eventually constructed house, dependency, and outbuilding compositions that articulated the best of the improving farmer and the neo-classical architect. The result was supremely appropriate for the Georgian farmer of late eighteenth century Virginia.

CHAPTER V

JEFFERSON'S MULBERRY ROW: A CASE IN POINT

It has been suggested that in many of the details of the ordinary and utilitarian outbuildings of the eighteenth and nineteenth centuries, there is an overarching context that served to structure them all. This context was the Georgian worldview that dominated western society and whose major tenets were often found within these simple structures. Science, secularism, progress, individualism, and capitalism may be reflected in such things as type, number, material, design, and especially layout of farm and domestic outbuildings. It follows, therefore, that the physical details of these buildings may be used to suggest in the very least an appreciation, if not mastery of these Georgian principles. In short, the Georgian mind set proposed certain ideals, and the construction of such things as Palladian mansions, elaborate gardens, and ordered outbuildings represented very real attempts to attain those goals set by eighteenth and nineteenth century society. These constructions were at once statements of Georgian aspirations as well as visible examples of that order's material form.

It is not difficult to appreciate the big house and the garden as expressions of this particular worldview, yet the acceptance of outbuilding details as equally the product of the Georgian order requires either a bit more faith, a very convincing example, or ideally both. It is believed that Jefferson's Mulberry Row

constructions as frequently referred to in Chapter IV provide such an example. However, to support this claim, it is necessary to provide details of construction history, design, and particularly spatial arrangement for those various outbuildings of Mulberry Row that once functioned as distinctive elements within the larger Georgian context.

A limited number of extant structures, fragmentary archaeological data, and substantial contributions from documentary sources combine to suggest that very little of Jefferson's horticultural or architectural landscape ever reached a state of completion, let alone any kind of permanence. However, these various resources may be used to suggest that Mulberry Row outbuildings, for the most part serving the mansion house to the north, may be considered within the framework of three distinct construction and destruction phases during which very different structural types and arrangements were permitted to stand for various lengths of time. Much of the past and recent archaeological excavations along Mulberry Row have focused their efforts largely upon the second of these three phases. In turn, much of this work was influenced and perhaps to a degree sponsored by the comprehensive nature of a single document. The 1796 declaration of insurance (see Figure 1) in which Jefferson was careful to list, describe, and include within a plan drawing, some eighteen of potentially twenty-three Mulberry Row outbuildings, has repeatedly provided structure and direction for these excavations and their subsequent interpretations (e.g., Pi-Sunyer 1957; Kelso 1982, 1986a and b). Occasionally, documents relating to the earlier and the later construction phases were consulted, but often only in response

to the appearance of some unexpected architectural fragment within the excavations. Archaeological testing, documentary research, and current field reconstructions relating to the outbuildings at Monticello have clearly centered upon this middle period in Jefferson's occupation history. While drawing in small measure upon the recent archaeological record, this present study draws to a much greater degree upon the volumes of historical documents that illuminate all three building phases as hidden within both record forms. An intensive look at these various sources may suggest alternative interpretations for both the archaeological record and the documentary resources.

A. Mulberry Row of the 1770s

Ironically, the first construction phase of the 1770s has received comparatively little archaeological attention, in spite of the fact that less comprehensive documentation suggests the need for greater archaeological input in order to define this important formative period at Monticello. However, neither the historical record nor the in-ground evidence should be considered as silent witness to these early service buildings. Both have offered important clues to the unravelling of Jefferson's earliest plans. Yet, neither source can quite compare to the quantity and quality of information provided by that single insurance document of 1796. In this knowledge lies much of the logic behind the archaeological focus upon Mulberry Row and its bias towards a single period of construction.

Nevertheless, for the earliest phase of Mulberry Row outbuildings Jefferson described in variable format, no less than four similar but internally different arrangements (see Figures 11-18). The dates attributed to these designs have been suggested as ranging from 1770 at the earliest to as late as 1778. Indeed, if we were to use Fiske Kimball's (1968) system of cataloging these records and his suggested date for each, then the K16 document - describing an ordered list for the arrangement of Mulberry Row buildings - may date to as early as September 1770; K55a - a numbered and labeled sketch of contiguous offices - may date to ca. 1776; K56 - a carefully measured and drawn plan of Mulberry Row, its buildings, and their locations respective to the lower vegetable garden indicated to the south - is considered to date in the ca. 1776-1778 range; and K57 - recorded on the opposite side of the K56 plan - is represented by an ordered list of structures for each of which there is an overall E-W length. This last arrangement has been considered of a similar if not slightly later date as K56.

A closer look at these four proposals reveals far more similarities than differences. It is no accident that a number of constants may be identified within these various plans. Chief among these was Jefferson's repeated use of a number of houses that served as unifying members between sheds, shops, and yard areas. There is variation in the quantity of these integrating units as recorded for the several plans involved, but the five houses employed within K55a and K56 suggest a modal choice. The earlier K56 plan seems to have added a sixth house at the east end almost as an afterthought. In

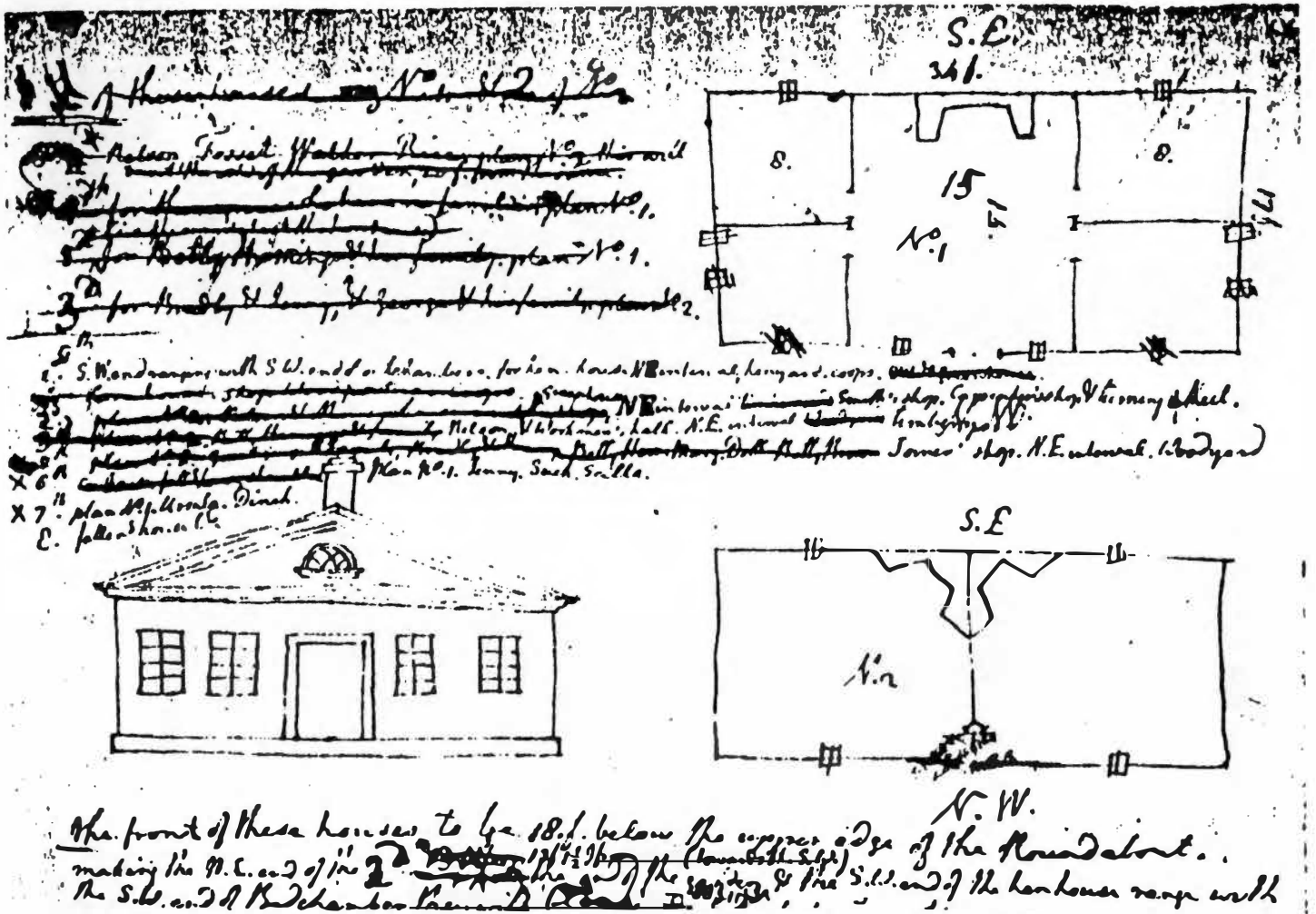
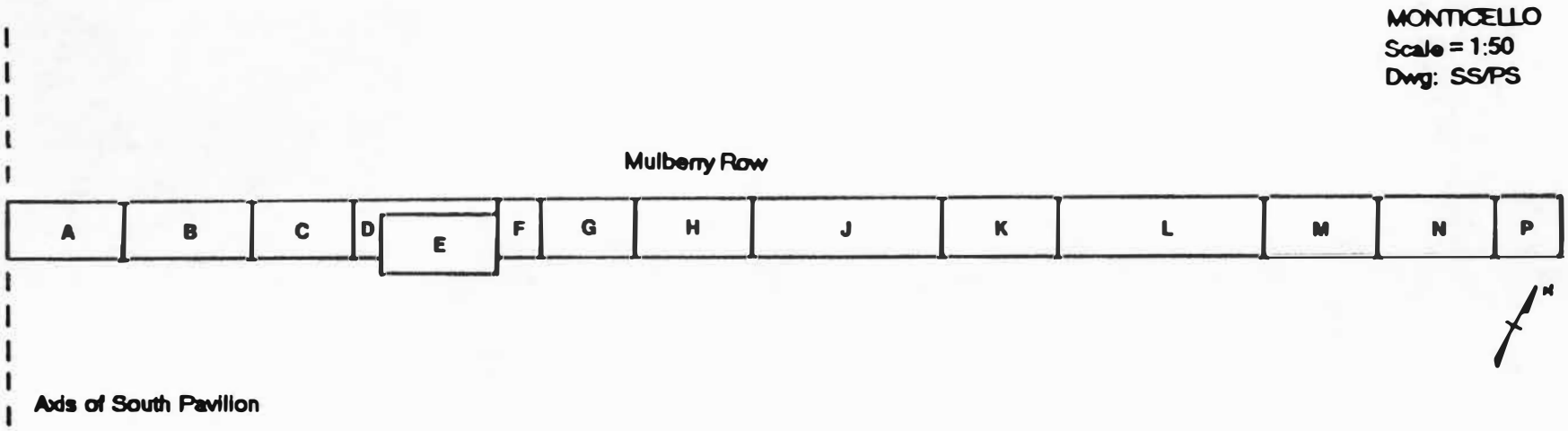


Figure 11. K16 early plan for outbuildings on Mulberry Row. A ca. 1770 ordered list, elevation and plans for the first building phase.
Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.214. Da Capo Press, New York. Original 1916.



K16 Outbuildings and Yard Areas

A - Hen House (34x17)
B - Hen Yard (37x17)
C - Coop (30x17)
D - Passage (7.5x17)
E - Greenhouse (34.5x17)
F - Smith's Shop (12x17)
G - Carpenter's Shop & Turning Wheel (28x17)
H - Nelson & Workmen's Hall (34x17)
J - Timber Yard (55x17)
K - Joiner's Shop's (34x17)
L - Wood Yard (60x17)
M - House (34x17)
N - House (34x17)
P - Fattening House (18?x17)

Figure 12. Interpretation of K16 plan. Arrangement based on K16 and later plans.

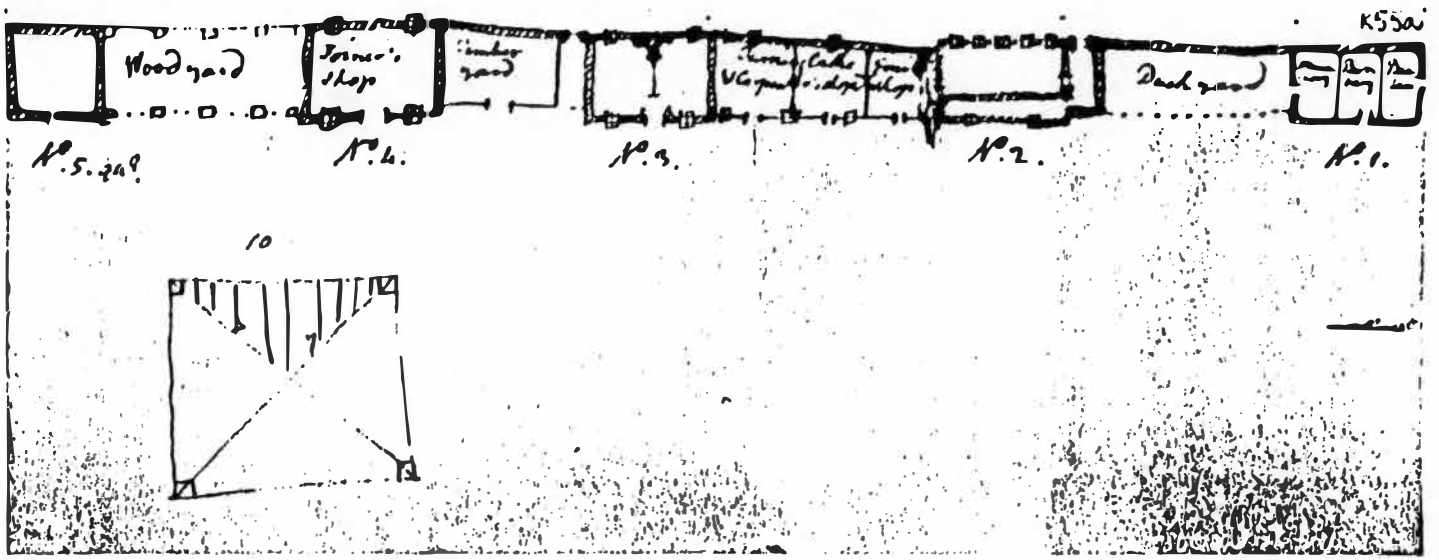
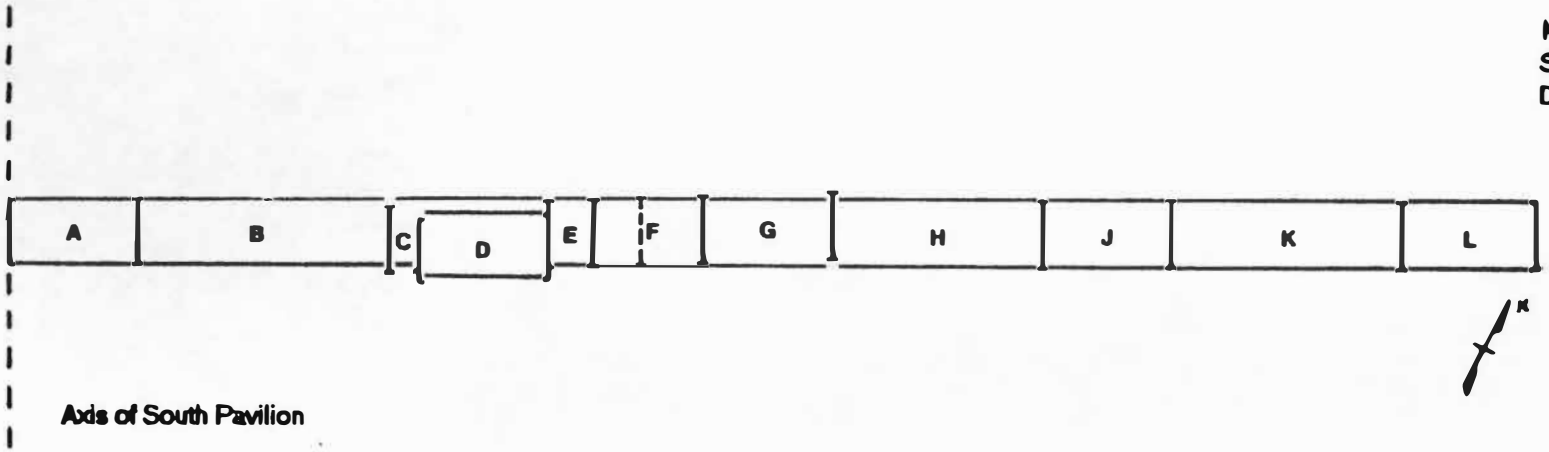


Figure 13. K55a early plan for outbuildings on Mulberry Row.
Source: Copy on file with the Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.



K55a Outbuildings and Yard Areas

A - Hen House (34x17)
B - Duck Yard (67x17)
C - Passage (7.5x17)
D - Greenhouse (34.5x17)
E - Smith's Shop (12x17)
F - Turner's Lathe & Carpenter's Shop (28x17)
G - Workmen's House (34x17)
H - Timber Yard (55x17)
J - Joiner's Shop (34x17)
K - Wood Yard (60x17)
L - House (34x17)

Figure 14. Interpretation of K55a plan. Arrangement based on K55a and later plans.

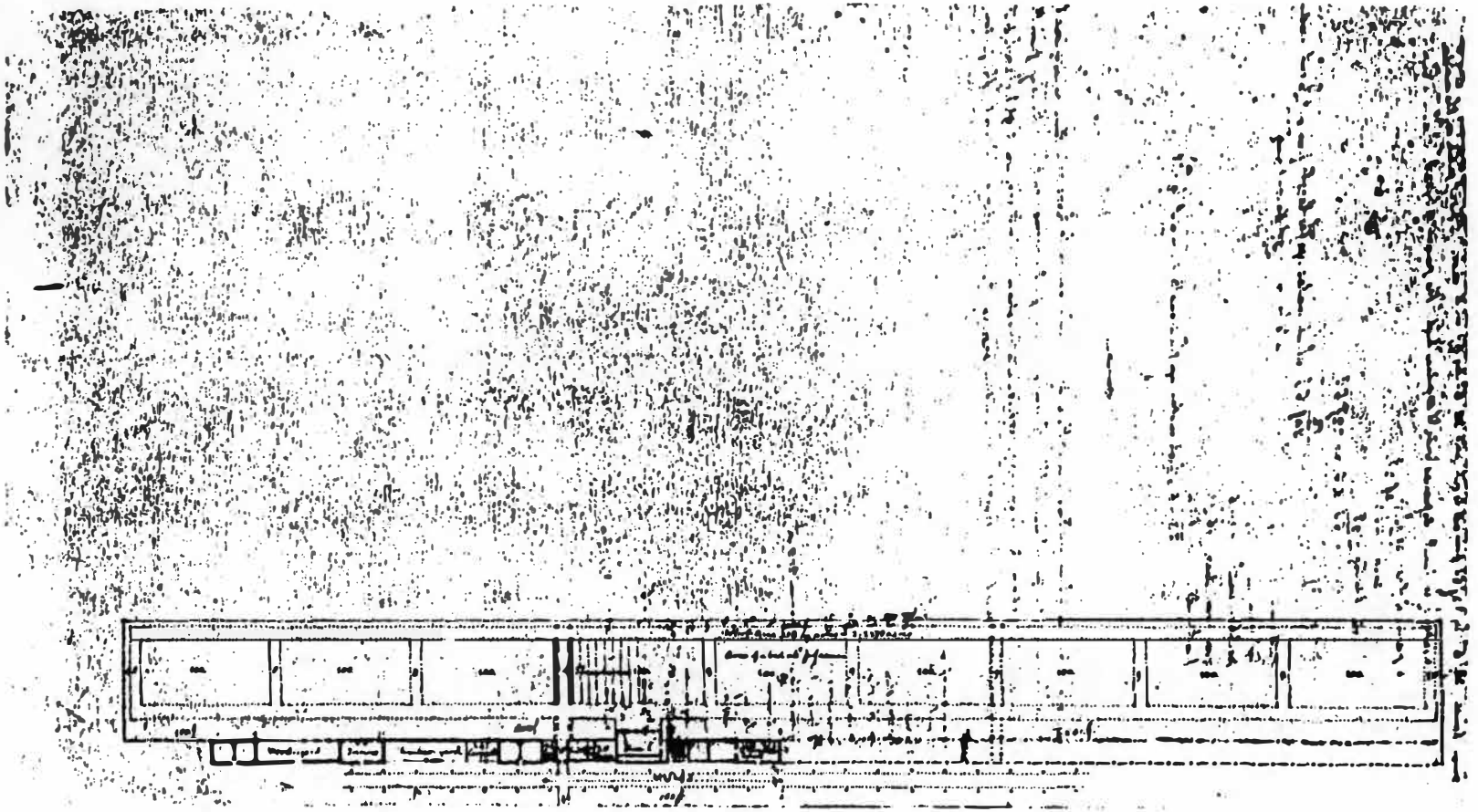
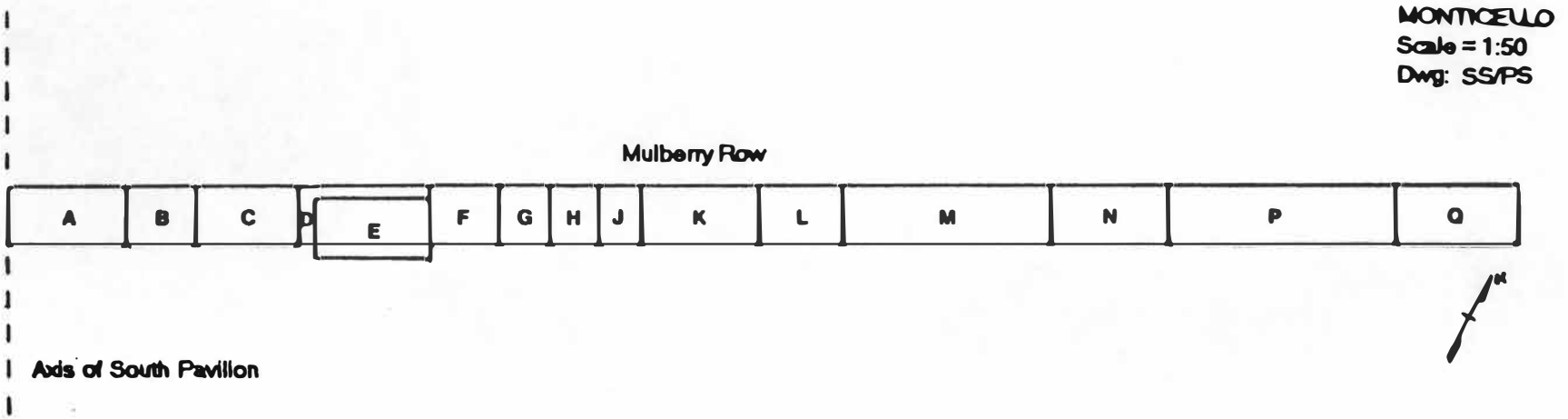


Figure 15. K56 early plan for outbuildings on Mulberry Row. A ca. 1776-1778 measured plan drawing of buildings and garden layout. Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.237. Da Capo Press, New York. Original 1916.



K56 Outbuildings and Yard Areas

A - Slaughter House (34x17)
B - Unknown (20x17)
C - Coop (30x17)
D - Passage (4x17)
E - Greenhouse (34x17)
F - Mason's (20x17)
G - Smith's (14x17)
H - Gate (14x17)
J - Coal (12' 2 1/2"x17)
K - Workmen's House (34x17)
L - Carpenter's (34x17)
M - Timber Yard (60x17)
N - Joiner's (34x17)
P - Wood Yard (65x17)
Q - House (34x17)

Figure 16. Interpretation of K56 plan.

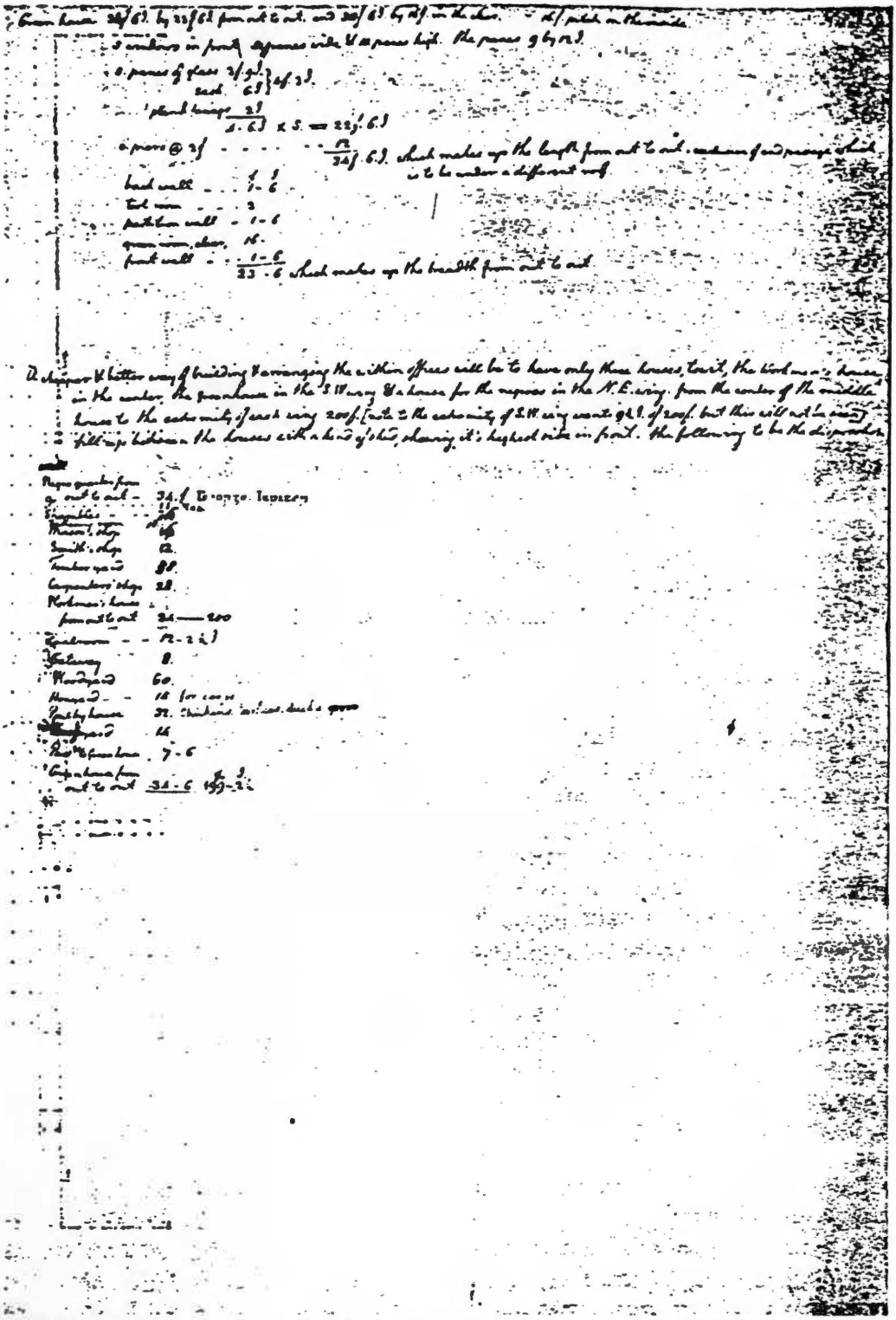
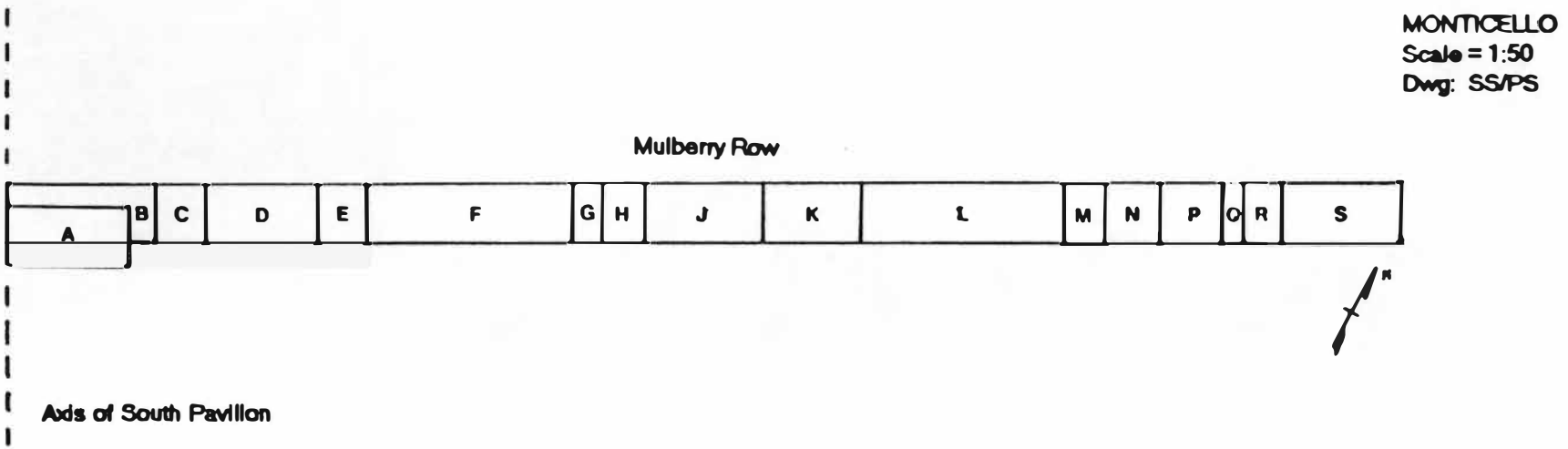


Figure 17. K57 early plan for outbuildings on Mulberry Row. A ca. 1776-1778 ordered list and recorded dimensions for the arrangement of buildings.
Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.237. Da Capo Press, New York. Original 1916.



K57 Outbuildings and Yard Areas

A - Greenhouse (34.5x17)
B - Passage (7.5x17)
C - ..... Yard (14x17)
D - Poultry Yard (32x17)
E - Hen Yard (14x17)
F - Wood Yard (60x17)
G - Gate (8x17)
H - Coal Room (12' 2 1/2"x17)
J - Workmen's House (34x17)
K - Carpenter's Shop (28x17)
L - Timber Yard (58x17)
M - Smith's Shop (12x17)
N - Mason's Shop (16x17)
P - Fattening Room (18x17)
Q - Shambles (6x17)
R - Joinery? (11x17)
S - Negro Quarter (34x17)

Figure 18. Interpretation of K57 plan.

contrast to each of these, the latest scheme of K57 suggests only three houses as means of establishing "a cheaper and better way of building & arranging the within offices" (see Figure 17). Within the same document, Jefferson further described those spaces intermediate between the houses as a series of shed-like structures, that is, his orders were to "fill up between the houses with a kind of shed, showing its highest side in front."

Although specified within the latest of the four building schemes, such was likely the strategy employed for those earlier three plans as well, so similar were they in layout. The 400 ft. (E-W) minimum to approximately 454 ft. maximum length of this unified building complex would have been prevented from resembling one long shed by the presence and facade of the several houses included within it. While elsewhere the shed roof presented its highest side to Mulberry Row, these houses offered massive gable ends to that north side. Interestingly, the overall arrangement if carried to completion, would not have been all that different in form when compared to the later constructions on the "Lawn" at the University of Virginia where Jefferson frequently presented gable-fronted pavilions connected by the lower roofed rooms for students.

Whereas the E-W lengths of individual rooms within those shed areas of Mulberry Row may have differed somewhat within the four early proposals, the widths of each of the houses appear to have been much more constant. As noted above, Jefferson consistently employed a 17 ft. unit for each of these buildings. A common English measurement that Glassie (1975:24) has described as a "pace," it became the N-S

width of all buildings within the K56 plan and was similarly suggested for those houses within K16. K55a and K57 designs almost certainly followed suit. The 17 ft. square single room when doubled in one direction, provided for the 34 ft. (E-W) x 17 ft. structure that found such constant use as the house plan recorded within all four schemes.

If nowhere else apparent within the documents or the archaeological record, the 34 ft. (E-W) x 17 ft. stone house that survives today within the Mulberry Row gift shop and office complex calls out to be recognized as evidence that Jefferson's earliest building plans were in some measure realized. This structure in itself represents the single-most unifying element of all four Mulberry Row proposals, and of those outbuildings and work spaces arranged to the east and west within each of these plans. In that it is described on the ca. 1770 listing (K16) as "Nelson & Workmen's Hall," perhaps the January 4, 1772 memorandum of "three days raising stone at Nelson's quarter" (MHi) offers the earliest construction date for this building. By 1776-1778, the same office was described as the "Workmen's House" in K57; within the later 1796 insurance declaration it survived as building "E . . . a stone out house;" and during the early 1800s it became the "Weaver's Cottage" as the location of yet another of Jefferson's self-sufficiency/money-making schemes.

If this building represented a keystone of sorts, a centerpiece common to all four of the early plans, then the very center of this building along its E-W axis provided a reference point of even greater significance. K56 and K57 make explicit the suggestion that Jefferson's early outbuilding arrangement was not a matter of chance

groupings and arbitrary building measurements. Rather, these structures were intentionally designed to adhere to a set of rigid measurements and axes that provided the framework for their layout along Mulberry Row. From the center point within the workmen's house, that is, along the interior partition at 17 ft., wings of nearly identical length would extend east and west. K57 explains the symmetry required:

> only three houses, to wit, the Workmen's house in the center, the greenhouse in the S.W. wing & a house for the negroes in the N.E. wing. from the center of the middle house to the extremity of each wing 200 f. (note to the extremity of S.W. wing wants 9 1/2 I. of 200 f. but this will not be seen).

Measurements and symbols recorded within the carefully drawn K56 plan suggest that the 200 ft. point to the east was also respected at this date, though houses of the usual plan here fall both to the east and west of it. In the west, the 9 1/2 inches found lacking within K57 here also denies this wing its full 200 ft. length. That such should be the case is a matter of great significance. With these measurements in mind, it may be argued that 199 ft. 2 1/2 in. west from the center of the Workmen's house would place one at a point exactly along an axis passing N-S along the west wall of the South Pavilion. This 20 ft. square structure was begun in 1769 and was very likely the first building to have been completed of all those on the mountaintop. Significantly, 200 ft. west from the center of the Workmen's house would therefore put one at a point 9 1/2 inches too far to the west of this axis line. It is tempting to consider that

the right angle that axes from the South Pavilion and the Workmen's house would make at their point of intersection, suggested to Jefferson an overall length for this western wing that he dare not alter, even if to accommodate a mere 9 1/2 inches. The earlier plan of K16 offers additional evidence of Jefferson's observance of these limits. Within that ca. 1770 document, he recorded, ". . . S.W. end of the henhouse range with the S.W. end of Bedchamber." The latter structure latter came to be known as the South Pavilion and the former was that building described as furthest west of the Workmen's house.

Unfortunately there is little other known documentary evidence to suggest which of the four early building arrangements became Jefferson's choice for the Mulberry Row area. Though it would indicate buildings of an extremely temporary nature, there is even the possibility that more than one of these plans reached fruition. For example, K16 of ca. 1770 may have been the very first arrangement for this area, while one of the later alternatives of K55a, K56, or K57 replaced the majority of these structures by ca. 1776-1778. In fact, it may even be argued that yet another or fifth design was eventually selected for construction. Some combination of two or more of these plans may have been used or, as others would seem to suggest, nothing at all was built along this service road until the 1790s.

From the documents we learn only that in March of 1770, Jefferson, though still uncertain as to what name to give his new home, had nevertheless begun to make decisions about his outbuildings. For this year within the Garden Book he noted, ". . . work to be done at the ~~Hermitage~~ Monticello. . . -- fill up trees -- sow grass --

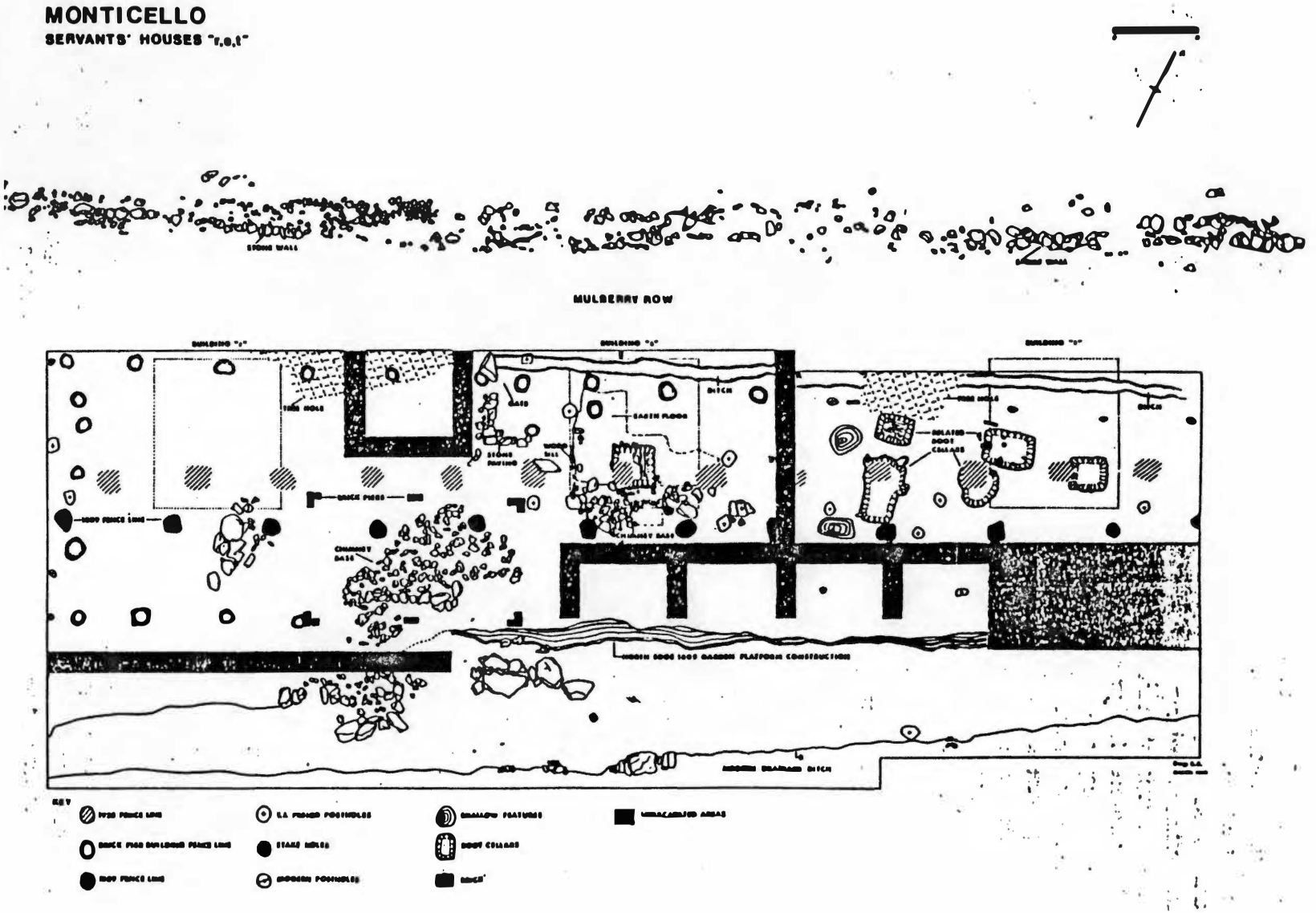
henhouse -- . . . " (in Betts 1976a:21). This abbreviated note may represent one of the earliest references to outbuildings of any kind at Monticello, and it is tempting to consider that Jefferson may have been referring to that same henhouse listed within K16 as ranging with the S.W. end of the Bedchamber. Within the documents, very little else survives to suggest the arrangement and extent of Mulberry Row constructions in the 1770s.

However, the combined archaeological excavations of Mulberry Row offer the scattered fragments of structural features which may well indicate one or more of the early building schemes of the 1770s. Apart from the extant Workmen's house, perhaps the most convincing evidence to date can be found in that area just east of the easternmost 200 ft. limit suggested in these several plans. In that area, excavations (see Kelso, et al. 1985) revealed a cluster of four "root cellars," each containing artifacts significantly earlier than those associated with cellars of the other buildings constructed along this east end of Mulberry Row (see Figure 19). All four of these "earlier" cellars fall within the limits of that structure which K16 suggests was to serve as a house for the slave families of "Ursula" and "Dinah." Similarly, the K56 arrangement also suggests a two room house or duplex at this location. In addition to this complex of cellars, a series of small diameter postmolds, variously interpreted as both modern and of the Jefferson period, measure a total of 34 ft. along an E-W axis and 17 ft. N-S. These measurements are clearly suggestive of that house plan which Jefferson intended to use repeatedly over the length of Mulberry Row. However, if these

Figure 19. Excavation plan of buildings "r," "s," and "t."
Source: Kelso, WM and DW Sanford (1985) "Monticello Black History/Craft Life Archaeological Project, 1984-1985 Progress Report," p.20. Submitted to the National Endowment for the Humanities.

MONTICELLO

SERVANTS' HOUSES "r,s,t"



postmold features are indicative of a former structure, then the building was a crude, earthfast, perhaps puncheon affair, and one whose location was approximately four to five feet further east than any of Jefferson's plans had indicated.

Additional archaeological evidence suggestive of an early Mulberry Row building complex may be found further west, as well. For example, photographs taken during an early 1970s restoration project that involved the construction of a brick walkway and stairs leading from Mulberry Row down to the vegetable garden, reveal that workmen uncovered what appears to have been an extensive brick floor. If indeed evidence of a living floor relating to one of the four early building schemes, then its location of at least 13 ft. - 21 ft. west of the Workmen's house would effectively exclude from consideration K56 and K57 both of which show primarily the garden gate in this area. However, this brick work is particularly appropriate where either of the two earliest plans is concerned. Both indicate the presence of a carpenter's shop and turning wheel or lathe within these limits.

A significant number of additional postholes, pit features/root cellars, and in one instance, alignments of stone and mortar survive within this 400 ft. plus length of Mulberry Row, and like those features described above, are difficult to define as part of the later building phases of this area. Occasionally, these seemingly aberrant features have been interpreted as suggestive of an early building scheme. Where recognized, they have typically been considered as associated with the K56 plan as that which has seemed the most complete and therefore attractive in its presentation. More often

their interpretation has been as evidence of the second construction period of the 1790s, even though not recorded as such upon the comprehensive 1796 insurance declaration.

Of the several archaeological indications of the existence of an early Mulberry Row arrangement of the 1770s, some of these features may be considered as stronger evidence than others. While some support the construction of one plan others seem to favor still another scheme. For example, the clustered root cellars and the surrounding small diameter postmolds are suggestive of a house or quarters located just east of the eastern 200 ft. mark. Such an arrangement was indicated only for the K16 and the K56 building plans. Of those other features unaccounted for by later constructions, far more can be related to the K56 layout than to the earlier K16 design. However, it should not be forgotten that the brick floor (?) area described above would have been appropriate for K16 but not for K56. There is even the remote possibility that both arrangements are correct for Mulberry Row. As suggested above, if K16 were constructed in 1770, perhaps it survived for only six to seven years before being replaced by the buildings of K56, which in turn was itself a plan largely replaced by those structures of the 1790s as recorded on the insurance declaration of 1796. Whatever the sequence, it should be remembered that replacement was never total. The Workmen's house weathered all later changes to Mulberry Row and there may have been other structures and yard areas of the very earliest plan to have survived at least through the 1780s.

Whatever the details, if one or more of these early building arrangements actually reached maturity, then the overall appearance and general spatial relationships of one building to the next would have appeared much the same regardless of which plan was decided upon. The joined architecture of this design would have provided both an economical and efficient means of ordering those offices necessary for the support of house and farm. Moreover, like those later New England farms that Hubka (1984) has carefully analyzed, the connected form of these Mulberry Row buildings and enclosed yard areas may have answered, at least temporarily, the aesthetic and social needs of an aspiring gentleman farmer.

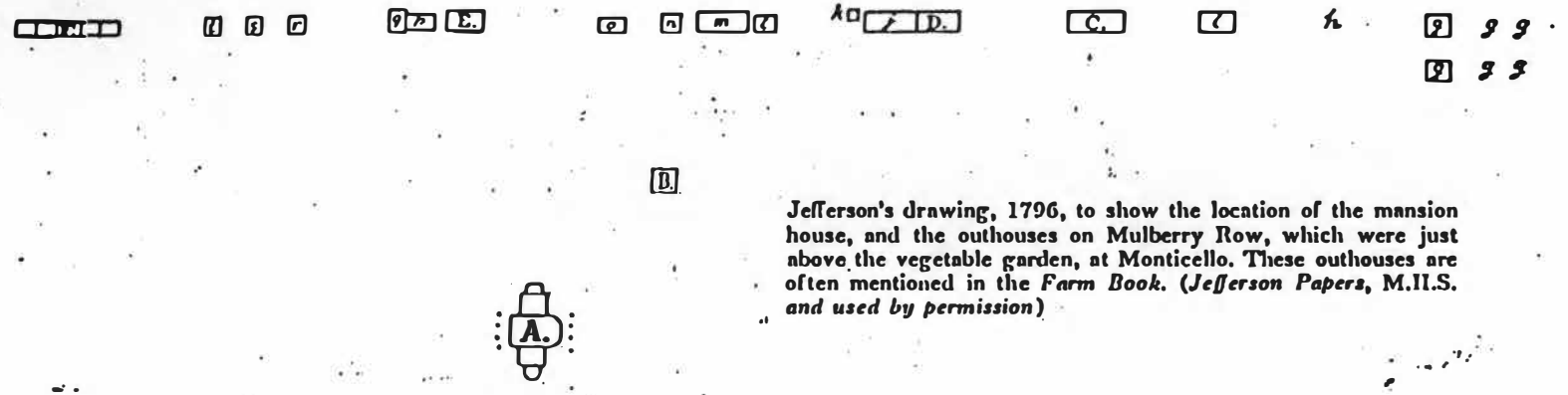
B. Mulberry Row of the 1790s

In what way did the second Mulberry Row building phase of the 1790s affect the earlier arrangement of the 1770s? If those first buildings averaged thirteen in number, by 1796 Jefferson had increased their total by another five structures, with one other to be constructed almost immediately, and still four others promised for the near future. If this phase represents an increase in the development of this area, then perhaps an even stronger indication of the florescence of Mulberry Row is provided by the great length to which these "offices" extended in the 1790s. Jefferson pushed well beyond those limits defined for the earlier building scheme, ranging further east than previously but particularly extending in the westward direction. Whereas the first plans suggested a 400-454 ft. maximum

length, the detached format of the 1790s achieved more than 1300 ft. (E-W). With few exceptions these later buildings were no longer contiguous. The nailery addition was eventually joined to the nailery and blacksmith shop, and in the case of the stables and probably the smokehouse/dairy as well, individual pens were separated by short distances and the whole was then covered under a single roof or series of adjoining roofs.

In spite of the detailed recording of this second Mulberry Row construction phase as outlined within the 1796 plat and a host of earlier correspondences between Jefferson and his workmen, there remain a number of uncertainties or discrepancies between the field measurements and those suggested by the documents. Within the Farm Book, Betts (1976b:6) has included his own interpretation of the text found in the 1796 insurance declaration (see Figure 20). Many of the now obvious discrepancies that exist between the documents and the field evidence could not have been known to him. These differences have arisen only as a result of the archaeological excavations of recent years. Those of the greatest significance to Mulberry Row, its building measurements and their arrangements, lie within the centermost section of outbuildings, that is, between the joinery or building "C" in the west and building "E," the now renamed Workmen's house. Betts' interpretation of the 1796 plat for this area totals a distance of 532.5 ft. - 533.5 ft., where the one foot variance is due to Jefferson's recording of the gap between buildings "j" and "k" as "within 3 or 4 feet." Current measurements in the field taken from the west wall of building "E" (the Workmen's house) and the east wall

The foregoing valuation sworn to in due form before me, a magistrate for the said county—of Albemarle—
Given under my hand this day of in the year 1796



Jefferson's drawing, 1796, to show the location of the mansion house, and the outhouses on Mulberry Row, which were just above the vegetable garden, at Monticello. These outhouses are often mentioned in the *Farm Book*. (*Jefferson Papers*, M.H.S. *and used by permission*)

Plat of the buildings referred to in the above Declaration of Thomas Jefferson.

A. is the dwelling house 90. feet long 40. f. broad in the middle exclusive of porticos, two story high except the two bows at the ends, the walls entirely built of stone and brick, the floors above ground & the roof of wood.

B. is an Outchamber, with a kitchen below ground 142 feet from the dwelling house one story high, the walls of brick, the floor above ground & roof of wood. 20. f. square.

c. is a joiner's shop, 57. feet by 18. feet, the underpinning and chimney of stone, the walls and roof of wood.

D. is a smith and nailer's shop 37. by 18. f. the walls & roof of wood.

E. is a stone outhouse 34. by 17. f. the floor of brick, the walls & chimney of stone, the roof of wood, one story high.

F. is a stable 105. feet long and 12. f. wide. one story high. all of wood.

the following houses are not included in the insurance, but as they are in a line with those enaured, and in their neighborhood they are described as follows.

g. g. are 2 coal sheds of wood 20. by 15 f. and 22 f. apart, and it is proposed to build 4. others g. g. g. g. about 25. f. apart for coal also. they are to contain about 8000. bushels of charcoal. from the nearest of them is 7 poles 15 links to

h. a saw pit where a considerable quantity of timber usually lies. from the pit is 47. feet to

I. a house 30 by 18½ f. all of wood, the floor of earth, in which is stored plank & such things, it is used at times as a carpenter's shop, and sometimes a little fire is made on the floor. from this house is 56. feet to

C. the joiner's shop before mentioned, one of the ensured buildings. from C. is 98 f. to

D. the smith and nailers shop before mentioned, one of the ensured buildings.

j. is to be added to D. 50. feet by 18. f. for the nailers. to be built immediately. and making one building with D. it is included in the valuation of D. as if it were already built, & is a part of the ensured property. this addition will extend to within 3. or 4. feet of k, a necessary house of wood 8. feet square. from k. it is 67. feet to

l. a house 16. by 10½ feet, of wood, used as a storehouse for nailrod & other iron. from l. it is 8. feet to

m. a house 43½ f. by 16. f. of wood. the floors of earth, used as a smoke house for meat, and a dairy. from m. it is 24. f. to

n. a wash house 16½ f. square of wood, the chimney also wood, the floor earth. from n. it is 38.f. to

o. a servant's house 20½ f. by 12 f. of wood, with a wooden chimney, & earth floor. from o. it is 103. feet to

E. the stone out house before described, being part of the ensured property. from E. it is 7. feet to

p. a shed 25 f. by 12½ f. of wood, the floor of brick, used as a stone house for joiner's work. from p. it is 3. f. to

q. a servant's house 14. f. by 17. f. of wood, with a wooden chimney, the floor of earth. from q. it is 75. feet to

r. which as well as s. and t. are servants houses of wood with wooden chimnies, & earth floors, 12. by 14. feet, each and 27. feet apart from one another. from t. it is 85. feet to

F. the stable before described, being one of the ensured buildings. this line of buildings from g. to F. is a strait one, & in it's nearest parts to A. & B. passes 227. feet from A. and 142. feet from B. the whole line I. to F. is shortly to be connected by a row of paling either touching or passing very near to every house between these points in the said line.

Figure 20. Betts' interpretation of the 1796 insurance plat.
Source: Betts, EM, editor (1976) *Thomas Jefferson's Farm Book*, p.6.
University Press of Virginia, Charlottesville. Original 1953.

foundation of the building "C" ruins reveal a difference on the order of 10 ft. As the archaeologist in charge of the 1957 test excavations along Mulberry Row, Oriol Pi-Sunyer may have been the first to appreciate these differences in measurement. His calculations suggest that the distance between buildings "E" and "C" measured 522 ft. (as recorded in text) or 523 ft. (as illustrated on his 1"=50' plan drawing of Mulberry Row). Unfortunately, Pi-Sunyer did not go on to determine exactly where this error could be found - within the field measurements or within the interpretation of the documents. He considered only that this discrepancy of 1-2% could be accepted as "well within the expected range of error" (1957:26). If this 1-2% error meant a 10 ft. difference in the field, then it seems unlikely that Jefferson, a man whose compulsive figuring often compelled him to carry measurements out to the third and fourth decimal points, would have allowed such a discrepancy to have gone unnoticed or uncorrected.

Pi-Sunyer's (1957) research and the conclusions which he formulated may be considered an important step in the right direction. It is unfortunate that he did not concentrate his attention upon the area of the smokehouse/dairy complex for it is here that many of the problems in interpretation have their origin. According to the generally accepted interpretation of the 1796 insurance plat, building "m," the smokehouse and dairy structure should have measured 43.5 ft. (E-W) and should have been located 24 ft. to the west of building "n," the wooden wash house of the same plan. Excavations (Kelso 1982) of the former complex revealed the stone foundation of a building that measured 43.5 ft. - 44 ft. (E-W). As such, the interpretation of

these remains as the documented smokehouse and dairy seems only natural; however, such a claim is not without its problems. The archaeologically discovered N-S position of this structure does not share the north limit or line of axis provided by nearly all the other buildings described and sketched on the plat, nor is its location to the west of "n" equal to that distance suggested by this document. If the placement of "n," the wash house, is plotted from Betts' (1976b) interpretation of the insurance plat, that is, as ranging from 161.5 ft. to 178 ft. west of building "E," then it becomes clear that the stone foundations considered to represent building "m," the smokehouse/dairy, do not fall the prescribed 24 ft. west of "n." Rather, they measure 13.5 ft. - 14 ft. to the west. Here we have a discrepancy between the generally accepted interpretation of the 1796 plat and the field measurements as recorded between building foundations that are both above and below ground. The difference is in the neighborhood of 10 ft. or equal to that discrepancy in the distance between buildings "E" and "C" noted previously.

Obviously, reconciling the archaeological and the extant building evidence with the documentary record requires a much closer look at building dimensions and spatial arrangements in both the documents and the field. A single error in any one of these many lengths and distances might account for this discrepancy. However, in this instance, the rule of parsimony seems not to apply to the solution. In this author's opinion, the answer lies not in a single measurement, but takes in the total distance between "E" and "m." Ultimately, this reconciliation involves a reexamination of: several

key insurance plat measurements, archaeological evidence relating to structural members of buildings "m," "n," and "o," and additional documentary evidence that suggests the details of pre-1796 and post-1796 plan buildings within this same Mulberry Row area.

An important starting point in this re-evaluation is to consider that the 24 ft. distance discussed above is, in fact, a correct measurement and recording. However, two other measurements within this extended area of concern are either incorrectly recorded or interpreted. These include: 1) the (E-W) length of building "m," and 2) the distance between building "o," a "servant's house," and building "E." Betts' reading of the 1796 plat suggests that the smokehouse/dairy complex may be interpreted as, ". . . m. a house 43 1/2 f. by 16 f. of wood, the floors of earth, used as a smoke house for meat, and a dairy. from m. it is 24 f. to . . . n." (1976b:6). The 16 ft. (N-S) width of building "m" is not an issue here. However, the 43 1/2 ft. length of the structure very much is. The 10 ft. discrepancy between the measurements of those buildings seen in the field and those described on the insurance plat has its source either in the "43 1/2 f." length of building "m," or in the "24 f." distance between this structure and building "n." There is little argument over the clarity of this latter distance as recorded on the plat. However, the 43 1/2 ft. recording is much less clear and seems to vary depending upon which copy or photostat of the plat one is viewing (for example, compare Figure 1 with Figure 21).

If we were to rely solely upon the word of this document for the analysis of this problem area within the Mulberry Row outbuildings, we

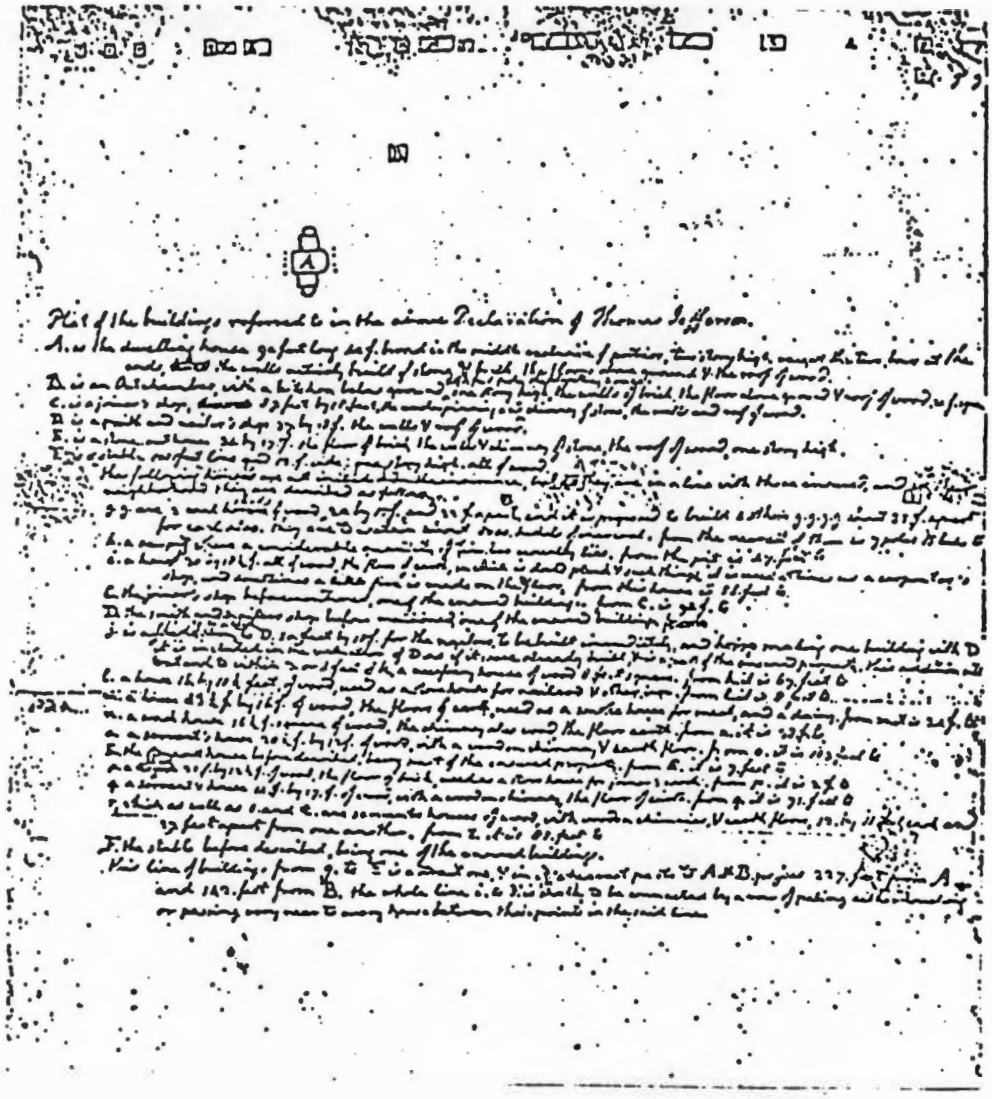


Figure 21. Alternative copy of the 1796 insurance plat. Compare with figure 1, especially as regards the length of "m" the smokehouse/dairy complex.
Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.266. Da Capo Press, New York. Original 1916.

might never arrive at a plausible solution to these difficulties, or worse yet, never perceive that there was a problem within this area. Fortunately, there survives an earlier description of what is likely the initial instructions for the construction of several of these buildings. In the form of a memorandum to Nicholas Lewis (friend, neighbor, and apparently occasional overseer at Monticello) and dated November 7, 1790, Jefferson offered the following directions:

> A wash house 16. feet square to be built and placed where I pointed out to George. Two meat-houses to be made, about the same size each, 12 feet apart and a cover over the whole: one of them for me, the other for Mr. Randolph and the passage between, for their dairy. All these to be of logs covered with clapboards. A stable to be built on the same plan with the meat-house, the rooms 14. by 16. The passage the same, of logs, below the gate where I have pointed out to George.

Of the buildings suggested within these instructions, the wash house may well be that same wooden wash house that survived to be recorded on the 1796 insurance plat. The stables as outlined above could only have been the first part of a structure that by 1796 would reach 105 ft. in length as building "F," and the two meat-houses separated by a dairy may have been the later building "m."

To fully appreciate the significance of this earlier document one must compare it to the evidence in the field, for only a combination of the documentary and archaeological evidence can, in this instance, reveal the probable dimensions of the smokehouse/dairy complex, its internal arrangements, and its relative distance from the wash house to the east. As suggested above, the stone foundation of building "m" uncovered in the 1979-1981 excavations of Kelso (1982),

and Betts' (1976b) interpretation of the 1796 plat for this particular structure are in agreement. Both suggest a floor plan at least, that measured approximately 43 1/2 ft. - 44 ft. (E-W). However, if the marriage of the 1790 memo to Lewis and the plan suggested by these sources is a proper union, then together they suggest a building of three sections where Kelso (1982) had interpreted this smokehouse/dairy complex as either a single structure or a building of two sections. If, as suggested in the 1790 reference, two meat-houses of roughly the same size were to be separated by a 12 ft. wide dairy, then for a building of 44 ft. in overall length, each meat-house would measure approximately 16 ft. in length. Consulting only the field evidence and the insurance plat, the N-S width of these rooms would also have been 16 ft. However, when combined with the memo of 1790, these sources suggest a structure of two 16 ft. square rooms each located at the opposite ends of the building, and both separated by a dairy room measuring 12 ft. (E-W) x 16 ft. Apparently without knowledge of, or resort to the 1790 building descriptions, Kelso (1982) and crew were able to determine the fragmented remains of one of these internal divisions. His report on the excavations of building "m" suggests the discovery of ". . . three aligned bricks, possibly the surviving remains of supports for an interior wall were found, 16' from the southwest wall" (1982:50). Had Kelso consulted the building description of 1790, perhaps he might have made this statement with greater conviction or altered his interpretation of a two room structure, given that the field evidence seems to match very closely the earlier documentary record. While a matching arrangement

of brick supports for the east end of the structure was not recovered archaeologically, the differences in size and quantity of foundation stones between what may have been the lightly built dairy area in the center and the heavier smoke or meat houses to either side appear significant.

If this internal arrangement of divided rooms proves acceptable, then it is perhaps no less significant to consider the effect that removing one of these end rooms would have on the Mulberry Row arrangement of buildings. The present-day restored foundation of a later stone house (also referred to as the "Levy Tomb") constructed during the third building phase has been generally considered to occupy the location of the former wooden wash house "n." The distance between the west wall of this structure and the east wall of the archaeologically recovered smokehouse/dairy remains measures approximately nine feet. Under the three-pen arrangement of the meat-house/dairy/meat-house complex, if the easternmost pen had been removed by 1796, then the distance from the wash house to the smokehouse/dairy would have been on the order of 25 ft. Certainly this represents a length much closer to the recorded 24 ft. distance between buildings than the previously considered nine foot gap. Kelso's (1982) interpretation of building "m" as a single smokehouse and a dairy may be correct by default. Even the 1796 insurance plat would seem to suggest not two but one smokehouse and a dairy. If indeed in this instance, "smokehouse" and "meat-house" were meant to be interchangeable terms, then the 1796 plat can be interpreted to suggest that only one of the two original meat-houses survived to that

year. Combined with the 12 ft. wide dairy, the altered structure would then have approximated a reduced 28 ft. (E-W) x 16 ft., thus allowing for the 24 ft. gap between the diary end and the wash house.

To suggest that this particular sequence of construction and destruction events is indeed valid, requires the examination and re-evaluation of another Mulberry Row structure. There is a noticeable contradiction between the generally accepted location of the wash house "n" and its position as suggested by the measurements and distances detailed within the 1796 plat. For the alternate interpretation of the smokehouse/dairy to be correct, the wash house must have shared that important N-S axis provided by the west wall of the South Pavilion, just as the later stone house/Levy Tomb respected that line. Since building "m" and its distance from "n" remains in question, the location of "n" can only be safely plotted by working from building "E," the earlier Workmen's hall. To reach the axis line provided by the South Pavilion, the total measurement from the west wall of building "E" must be approximately 183 ft., or exactly 182 ft. 2 1/2 in. if Jefferson's earlier measurements are consulted. The sum of those building lengths and interim distances suggested by Betts in his interpretation of the 1796 plat measures only 178 ft. Under his plan, the west wall of the wash house would have fallen 4 ft. 2 1/2 in. to 5 ft. short of this axis. Recent interpretation (Kelso 1982, 1983, 1985) of this area and its buildings seems blissfully unaware of the problems existing between the archaeological record, the extant structures and the documentary evidence that relate to this area. The discrepancy does exist, however, and it lies in any one or a

combination of measurements and interpretations. The E-W length of the wash house "n," the distance between the wash house and the servant's quarter "o," the E-W length of "o," and the distance between "o" and "E" should all be considered suspect. As recorded on the 1796 insurance plat (and as interpreted by Betts and others), each of these measurements seems to have been clearly written. Building "n" should have measured 16 1/2 ft. square, from "n" to "o" should have measured 38 ft., the length of "o" should have equalled 20 1/2 ft., and the distance from "o" to "E" should have been 103 ft. If, however, this last distance has been misinterpreted or incorrectly recorded, for example, if 103 ft. should be read as 108 ft., then such a change would allow the additional five feet necessary to place the wash house along the axis of the South Pavilion, and the above reinterpretation of the smokehouse/dairy and its 24 ft. distance from "n" would then be possible.

However, archaeological support for the positioning of building "o" at 103 ft from "E" rather than the proposed 108 ft. appears to be quite strong. Establishing support for the latter measurement may at this point seem rather forced, and yet it may be no more so than the interpretation of actual field evidence relating to this structure. Although Kelso (1983:4) has suggested that, "There can be no doubt that the architectural features found at the site are the remains of the servant's house described in 1796," present analysis suggests that there is indeed room for doubt. Consider, for example, the sequence of events leading up to the full scale excavation of the building "o" quarter. Prior to the removal of any soil from the area, a locational

survey incorporating nearly all of the ca. 1796 Mulberry Row outbuildings had been carried out. This initial work involved staking with rebar the suspected corner locations of each of these buildings. Moreover, these points seem to have been arrived at entirely from the use of the 1796 insurance document. Additional field notes of this survey indicate that building "o" was staked off at 103 ft. west of building "E," but that building "n" was considered to have been positioned as on line with the axis of the Levy Tomb, and thus of the South Pavilion as well. For reasons already outlined above, these two relative positions could not co-exist, given the commonly held interpretation of the insurance plat.

In any event, the comprehensive descriptions and measurements provided by this document seem to have offered information that was otherwise irresistible to those in search of the servant's house "o." Certainly the expected location of this structure was predetermined well before excavation ever began. With corner pins in place, archaeologists excavated within and beyond these limits to reveal several concentrations of stone and brick, each of which was naturally interpreted as architectural fragments of the expected building "o." Interestingly, an early site drawing made at a point approximately half-way through the excavations, offers a somewhat ambiguous view of these "structural" remains. The plan drawing suggests not only those stones and bricks that were at some later point considered "structural," but a great many others besides. Certainly, many of these were likely "floating" in a post-occupation fill layer, and as such their removal was entirely justified. However, later site photos

make it clear that many of those fragments left in place - those considered part of the structural fabric of the building's foundation - were also suspended in fill. Moreover, whether or not each of those stones and bricks that did qualify as "structural" did in fact once relate to building "o" remains somewhat questionable. In fact, if considered as evidence of a single structure, some sections of stone have to be coerced into the overall rectangular pattern of this foundation. Site photo records indicate a building foundation somewhat irregular in its final form. The best examples are those photos which also show the string lines used to plot the buildings corner locations and wall lines. Rather than a 20 1/2 ft. (E-W) x 12 ft. rectangle, this outlined foundation arrangement suggests a curious geometric shape, and one also off-angle to the Mulberry Row and other buildings.

Neither the archaeological methodology employed here at the building "o" slave quarter site nor the manner in which it was ultimately performed is being questioned in this alternative explanation. Under the immediate supervision of Assistant Archaeologist Douglas Sanford, this work could hardly have been improved upon. Neither is there any question that a structure of some sort once stood in this vicinity along Mulberry Row. However, from personal experience and from the evidence of these several Mulberry Row archaeological sites combined there is reason to believe that the all-too-comprehensive nature of the 1796 insurance plat offered an irresistible bias that too often found its way into the interpretation of these archaeological remains.

If it is difficult to accept that building "o" was actually located another five feet further west than formerly believed, then the suggestion that this structure was also positioned an additional five to six feet further to the south will hardly meet with any warmer a reception. The conviction to make such a statement again comes from the combined analysis of archaeological and documentary evidence. Archaeological support may be found in those same site photographs that capture the excavation of this building in its later stages. Consider the yellowish-green clay layer with crushed greenstone that stands out as the substrate in all of these later photos. Kelso (1983:4) has suggested that this clay deposit was laid down to help ". . . level the site during construction." However, if this fill layer were actually a deposit of the "earth floor" suggested within the 1796 plat, then notice that its limits are approximately five feet further south and five feet further west than the limits for building "o" previously suggested. Notice also that the majority of those stones and bricks previously considered as structural evidence have been pedestalled in a brown loam fill that lies above this possible clay floor, but otherwise seem unrelated to it. Finally consider that the greenish clay fill seen in the floor level of building "s" - another servant's quarter located further to the east - may be additional support suggesting that this type of fill was commonly used for the earthen floors of these slave cabins. From the western limits of this clay fill at "o," allowing the prescribed 38 ft.as the distance to building "n" and its width of 16 1/2ft. would place the west wall of this wash house on the axis of the South Pavilion.

Additional field evidence recommending that building "o" was indeed located approximately five to six feet further south may be found in the form of those excavated foundations of both the smokehouse/dairy complex and its neighbor to the west, the storehouse or building "l." These two structures were also apparently located the same distance south along Mulberry Row. The associative value of buildings "l" and "m" is, however, somewhat lessened if one adheres to the former interpretation of a more northerly-oriented wash house lying between these several buildings. Yet, evidence exists that would suggest that building "n," like its nearest neighbors may have also shared this arrangement. For example, the 1796 plat states that the Mulberry Row complex of outbuildings, ". . . in its nearest parts to A [the mansion] and B [the South Pavilion] passes 227. feet from A and 142. feet from B." Attempting to measure the 142 ft. distance from B to "n," the nearest building, suggests that Jefferson would have had to take this reading from the NW corner of the South Pavilion rather than the SW corner of the same. From this NW corner and 142 ft. to the south would have placed him well within the present-day Levy Tomb structure. In fact, field measurements indicate that the 142 ft. mark falls approximately five to six feet further south than the north wall of this structure.

Does this distance suggest the former location of the wooden wash house? Archaeological evidence may support this hypothesis. An ash-filled trench cut that abuts a row of E-W oriented brick bats may suggest evidence of this earlier structure. This important feature lies approximately 142 ft. south of the South Pavilion's NW corner, is

very much on the same E-W axis as the northern wall lines of both the smokehouse/dairy and the storehouse, and would also suggest, if accepted as structural evidence, that building "n" was aligned with the axis provided by the west wall of the South Pavilion. Additional documentary evidence which indicates that the wash house respected this axis may be found in the form of those early Mulberry Row office plans of the 1770s. At least three of the four schemes (e.g., K16, K56, and K57, if not K55a as well; see figures 11-18) reveal that Jefferson intentionally honored this N-S axis with considerable regularity. The westernmost office of each suggested range of buildings was to fall exactly along this line - that is, 182 ft. 2 1/2 in. west of the Workmen's hall. Was this axis important enough for Jefferson to have employed it once again for the construction and location of the wash house of the early 1790s? It would seem that at least for the stone house/Levy Tomb building that had replaced "n" by 1809, this axial relationship was still a vital concern. Moreover, the stone foundation of an unidentified structure that in many ways offered a reflection of this stone house immediately across Mulberry Row and to the north also respected this axis. Would it be logical to consider that the wash house of the 1790s ignored this line when nearly all other buildings in plan and as constructed incorporated this line as their western limits?

The physical layout of these many outbuildings, their interrelationships, and their arrangements with respect to the big house and its dependencies may seem an extremely trivial matter as we look back from the twentieth century upon such details. However, for

Jefferson and his contemporaries, they represented statistics of primary concern. Their Georgian context with all its economic, political, and social requirements demanded attention to such details even among the meanest of outbuildings. Our modern context makes it difficult, not only to accept and accommodate such exactitude and precision in our own lives, but also to consider it as important to the structure of eighteenth and nineteenth century existence. For Pi-Sunyer (1957), the discrepancies that he perceived between the archaeological and the documentary record of Mulberry Row were within an acceptable margin or error.

Even within the most recent reports of archaeological investigation along Mulberry Row, this same perception still obtains. In fact, these reports often exhibit either a lack of concern for such details, a lack of awareness, or worse, a practiced avoidance of them. For example, Kelso's (1982) interpretation of the smokehouse/dairy complex may be considered a bit off the mark. In support of his theory that this structure had served some function other than that suggested for the 1790s, he attempted to draw upon documentary evidence other than the well-worn 1796 insurance plat. With K57, Kelso was able to point to what he perceived as the similarity in location between the greenhouse of this earlier plan and the smokehouse/dairy of later years. He has suggested that within K57, Jefferson ". . . locates a "greenhouse" 199 1/2' from the "workman's house" almost the same distance now between the "stone dwelling" [Workmen's house or building "E"], and the stone foundation found by archaeology [smokehouse/dairy] (1982:58). Drawn by the observation

that both buildings shared a more southern orientation, Kelso was apparently willing to overlook other obvious differences; or it may have simply been the case that he was unaware of Jefferson's intentions, although their understanding required only a moment's addition of sums. Jefferson intended the *west* wall of the K57 greenhouse to be 199 ft. 2 1/2 in. (not 6 in.) out from the *center* of the Workmen's house, and not the east wall of the greenhouse as measured from the west wall of the Workmen's house as Kelso has suggested. Jefferson's plan would have placed the greenhouse exactly along the axis of the South Pavilion and not west of it as Kelso would have it. Within the same report, no mention was made of the discrepancy between the distance of the smokehouse/dairy to the wash house as seen in the field evidence and as compared to the 1796 insurance plat. Apparently 9 ft. and 24 ft. were close enough to one another to still be considered an acceptable margin of error.

Again, for Jefferson and those like him who accepted order, control, balance, symmetry, and precision as those cultural constructs that shaped their everyday existence, the notion of careless, cavalier arrangements for their buildings was unacceptable. The Mulberry Row outbuildings of this second Monticello building phase were no exception. If we can accept that buildings "l," "m," and "n" all shared a more southerly orientation, then perhaps it may be less difficult to consider the possibility that the servant's quarter "o" shared this same arrangement. In fact, centrally located along the Mulberry Row level, these four buildings may have represented only one of several distinct groups or clusters of buildings. The spatial

arrangement of these buildings and their individual functions may suggest at least seven of these architectural aggregates. The two to six coal sheds at the far western end may have formed the first; the saw pit, carpenter's shop, and joinery, the second; the blacksmith and nailer's shop and the "necessary" (or privy), a third; the storehouse, smokehouse/dairy, wash house, and servant's quarter "o," a fourth and central complex; the Workmen's house, storage shed, and servant's quarter "q," the fifth; servant's quarters "r," "s," and "t," the sixth, and furthest to the east, the five pens of the 105 ft. long stables may have formed the seventh and final group of buildings.

The arrangement of individual buildings within a specific grouping and the physical separation of distinct clusters of buildings were likely the result of several factors. As St. George (1987) has suggested of the seventeenth century New England barn, Jefferson's stable complex was probably not located at the eastern extreme of Mulberry Row by accident. Here was the vital intersection of several primary access roads. Visitors approaching from the south and from the east would have by necessity and by design passed by this 105 ft. long structure with its presentation of Monticello livestock before reaching the house itself.

Organization within a single cluster may have also had functional significance. For example, the proximity of saw pit, carpenter's shop, and joinery towards the west end of Mulberry Row offered a practical grouping suggesting both efficiency and division of labor. In the central outbuilding complex, those servants residing in building "o" were most likely employed in the nearby wash house,

smokehouse/dairy or within the mansion itself. Moreover, the layout of this particular group of buildings as the central and southernmost structures in a long line of outbuildings may have served to further distinguish these buildings as of greater significance than the others. These were the domestic outbuildings whose service to the mansion set them apart and above those other buildings oriented towards the farm or light industry. Their special status was encoded within their peculiar arrangement and their relationship to the other building groups. In fact, the overall form of all seven outbuilding groups was of particular significance. With this central domestic group of buildings further recessed to the south than those three groups to the west and those three located to the east, the symmetry of the arrangement would have been obvious. It may even be said that in this tripartite form, these Mulberry Row outbuildings mimicked the more formal architectural layout of the mansion and its dependencies.

If these seven building aggregates are not immediately obvious to the modern eye, then it may have taken an eighteenth century Georgian eye to appreciate the finer intricacies of the Mulberry Row layout of outbuildings. A close examination of their individual locations and distances from each other reveals that few if any of these buildings were randomly arranged. In many instances, their specific placement seems to have been predetermined down to within a matter of inches. Many of the spatial relationships that these Mulberry Row buildings shared were but echoes of measurements found within the house, its dependencies, and the surrounding landscape. In fact, this latter set of measurements may have suggested the

appropriate locations for many of these outbuildings. The total length of this linear arrangement of outbuildings during this second construction phase approximated over 1300 ft. E-W, but it was within that expanse of offices which occupied the level and gently sloping sections of Mulberry Row that the majority of this hidden symmetry could be found. From the mansion or the South Pavilion a sweep of the eye might take in the carpenter's shop in the far west located as it was at the brow of the slope leading sharply down to the graveyard and at that point where the Mulberry Row avenue fragmented into the approach road to the "1 in 10" (or that road which rose one foot in elevation for every ten feet of distance along the ground), the "1 in 20," and the remaining length of the 1st Roundabout. To the eastern end of Mulberry Row the observer could likely distinguish the expansive length of the stables as it terminated at the intersection of several access roads. The heightened visibility of this particular length of buildings may have contributed to Jefferson's need to carefully order these offices in rigid form. Their symmetry is best explained by use of building lengths and distances between structures; for example, from the west wall of the carpenter's shop to the west wall of the stables measured within six inches of 1000 ft. Elsewhere within, fractions of this length in the form of quarters, thirds, and halves may be shown to exist between one wall line and another (see Plate 1: In Pocket). From the carpenter's shop to the west wall of "k," the "necessary," would have measured 332 ft. or approximately one-third of this 1000 ft. length. From the same point on the shop to the east wall line of the wash house would have equalled exactly 500

ft. or one-half of the total; and again, from the west wall of the shop to the west wall of building "E" the Workmen's hall measured 666 1/2 ft. or within inches of two-thirds of the total. Finally, from the west end of the shop to the east wall of the servant's house "q" would have measured 749 1/2 ft. or very nearly three-quarters of the 1000 ft. length. The majority of these same distances could have also been obtained when measurements were taken from the west wall of the stables to points on the same or different buildings to the west.

Still other lengths or distances tied these outbuildings to the house and garden. Note, for example, that in the core arrangement of rooms within the house, that is, those rooms that formed the first version of the mansion, one-half the N-S length of this structure would have been within three inches of 34 ft. - a measurement that found frequent use among those early outbuilding plans of the 1770s. Without the later piazzas of the north and south ends, but including the earlier octagonal bow additions, the mansion of the early 1790s would have measured approximately 92 ft. N-S, which in turn was a measurement later repeated in the distance from either piazza to the outer limits of either north or south dependency wing. From either piazza to the inside limits of these same wings of offices the distance would have been 71 ft. which, if doubled gave the E-W length of both north and south wings ranging from the outside (west) wall of the pavilions to the outside (east) wall of the cellar passage. This 142 ft. length was then employed as the distance from the NW corner of the South Pavilion to the NW corner of the wash house on Mulberry Row. For the placement of a structure unidentified by the documents but

which has been given the name of building "A" in recent reports (Kelso 1982), the same N-S axis of the South Pavilion and the wash house was used. From the NW corner of the former to the NW corner of this building "A" structure would have measured just over 92 ft., or equal to those other distances defined above. Finally, the 250 ft. distance between the inner forecourt walls of each pavilion and thus between the dependency wings as well, was duplicated on Mulberry Row between the east wall of the wash house and the east wall of "q," a servant's house, and between this latter point and the west wall of the stables.

Although the vegetable garden located just south and below the Mulberry Row avenue and its outbuildings also went through many changes over the years, the documentation of these shifts in length and layout is sufficient to define some of its dimensions. In describing what is generally held to have been the first garden at Monticello (though certainly there may have been a less expansive and less formal one as an antecedent) Jefferson recorded in March of 1774:

> laid off ground to be levelled for a future garden. the upper side is 44 f. below the upper edge of the Roundabout [Mulberry Row] and parallel thereto. it is 668. ft wide, and at each end forms a triangle, rectangular isosceles, of which the legs are 80 f. & the hypothenuse 113. feet (in Betts 1976a:50).

For this early garden plan the E-W length of 668 ft. is significant in that it was later repeated within inches for distances between two different pairs of buildings on Mulberry Row. As a standard unit of measurement, it may also be of interest to note that 668 ft. would have been just over a furlong in length. The 113 ft. measurement of

the triangular garden beds in this early plan also had its place as nearly one-half the 227 ft. distance suggested in 1796 as the intervening space between the house and Mulberry Row outbuildings. By 1804, Jefferson had begun to take much more deliberate steps towards realizing his plan for a vegetable garden of 1000 ft. of E-W length. Initially his design called for three N-S terrace lines - effectively dividing the overall garden length into quarters of 250 ft. each. These terraces were to fall in elevation from the highest platform in the west to the lowest in the east. However, at some point early in the execution of this plan, Jefferson re-evaluated the cost in time and labor and afterwards settled for only two terraces, such that one was located at the center or 500 ft. point in the garden and the other was positioned at the 750 ft. mark. In both the ideal and the actual design of this garden, these distances had their parallels among those earlier structures along the Mulberry Row to the north, and thus, between the North and South pavilions as well.

As an important caveat, it should be noted that very few of these distance and layout relationships between outbuildings, dependencies, house, and garden would exist if Betts' interpretation of the 1796 insurance plat is consulted. These spatial parallels are obtained only if the plat is reinterpreted in two areas - these being the above mentioned discrepancies in the length of the smokehouse/dairy complex and the distance between the slave quarter "o" and building "E," the Workmen's hall. Betts' recording of the 1796 plat suggests a total length of 1008 1/2 ft. -1009 1/2 ft. between the carpenter's shop and the stables and very few of the

internal relationships within this span suggest the same degree of balance and symmetry or reveal any affinity with the house and garden.

C. Mulberry Row of the Early 1800s

Whether or not the alternate interpretation of the 1796 insurance plat as outlined above should ultimately prove valid, either interpretation may be considered to have illustrated a virtual peak in Mulberry Row building activity as recorded within the plat. Beyond this date, however, activity there was more often in the form of destruction, rather than the additional construction of buildings. Their recording on the declaration of insurance was by no means a guarantee of their continued survival. Some, in fact, may have already been in a state of disrepair. In the summer of 1796, a visiting Rochefoucould - Liancourt commented that, "The land, left to the care of stewards, has suffered as well as the buildings from the long absence of the master . . . " (in Randolph 1978:237). However, like a majority of those earlier Mulberry Row buildings of the 1770s, many were perhaps never intended to be anything more than a temporary means to an end. As such, that Jefferson should have allowed so much attention to their arrangement is perhaps a telling statement of the influence that his late eighteenth century context brought to bear even upon these impermanent examples of domestic and farm architecture. More than evidence of neglect or poor workmanship, the attrition of structures along Mulberry Row during the first quarter of the nineteenth century was perhaps also an indication of Jefferson's

changing ideas about landscape and architecture, and thus may also be considered as the earliest signs of a changing worldview.

A number of documents, and particularly general surveys of the mountaintop area, suggest that comparatively few of the Mulberry Row outbuildings survived beyond ca. 1806-1809. After all, materials used in their construction had not been particularly conducive to long life. Several of the structures had been examples of post-in-the-ground architecture, while most of the slave quarters had been single pen log buildings. However, there is at least one reference dated February 27, 1809 in which Jefferson suggests the presence of more than one "vacant" log house remaining on Mulberry Row, and that one of these should be refitted for Peter Hemmings soon to be ousted from his room by the kitchen. The survival of these buildings is somewhat surprising given earlier construction events and Jefferson's stated plans at that time to allow Mulberry Row to serve only in a much diminished capacity. Not as surprising was the survival of such buildings as the stone Workmen's house and towards the west end - the joinery with its "stone underpinning." In fact, the use of more durable building materials for some outbuildings but not for others may well indicate those structures for which Jefferson intended greater permanency. Stone became his choice of materials for much of the new construction occurring in association with the main dwelling, just as it was to be used later in the construction of a new stables complex and one, if not two small dwellings (?) further west along Mulberry Row.

The construction of those offices within the south and north dependency wings of the house also relied upon materials of greater durability. As rooms cut into the slope of the mountain, their stone walls served as retainers of the soil immediately behind. As extensive L-shaped hyphens they also served to connect in symmetrical fashion the main house with the South Pavilion and its nascent twin to the north. Moreover, the flat roofs that covered both offices and cellar passageways could be used as terrace walks providing both fine views and articulation above ground between the house and its flanking pavilions (see Figure 22).

The design and construction of these wings was by no means the fulfillment of a new idea for Jefferson. Rather, from his earliest occupation of Monticello he had conceived of various plans to accomplish the union of house and dependency in this formal courtyard plan. It was a design and layout that was at once in the tradition of the Palladian villa and an imitation of those geometric compositions popular among the most advanced scientific farmers. Acknowledging that Jefferson was only then at the turn of the nineteenth century realizing plans that had been reluctantly shelved since the early 1770s, lends an added ephemeral quality to both the early and the middle period constructions of Mulberry Row.

If Kimball's (1968:165) evaluation of the date for a certain plan drawing of these dependency wings is correct, then by 1796 Jefferson had already established the dimensions of and the arrangements for these rooms. However, tied to the construction schedule of the mansion's remodeling these wings were even further

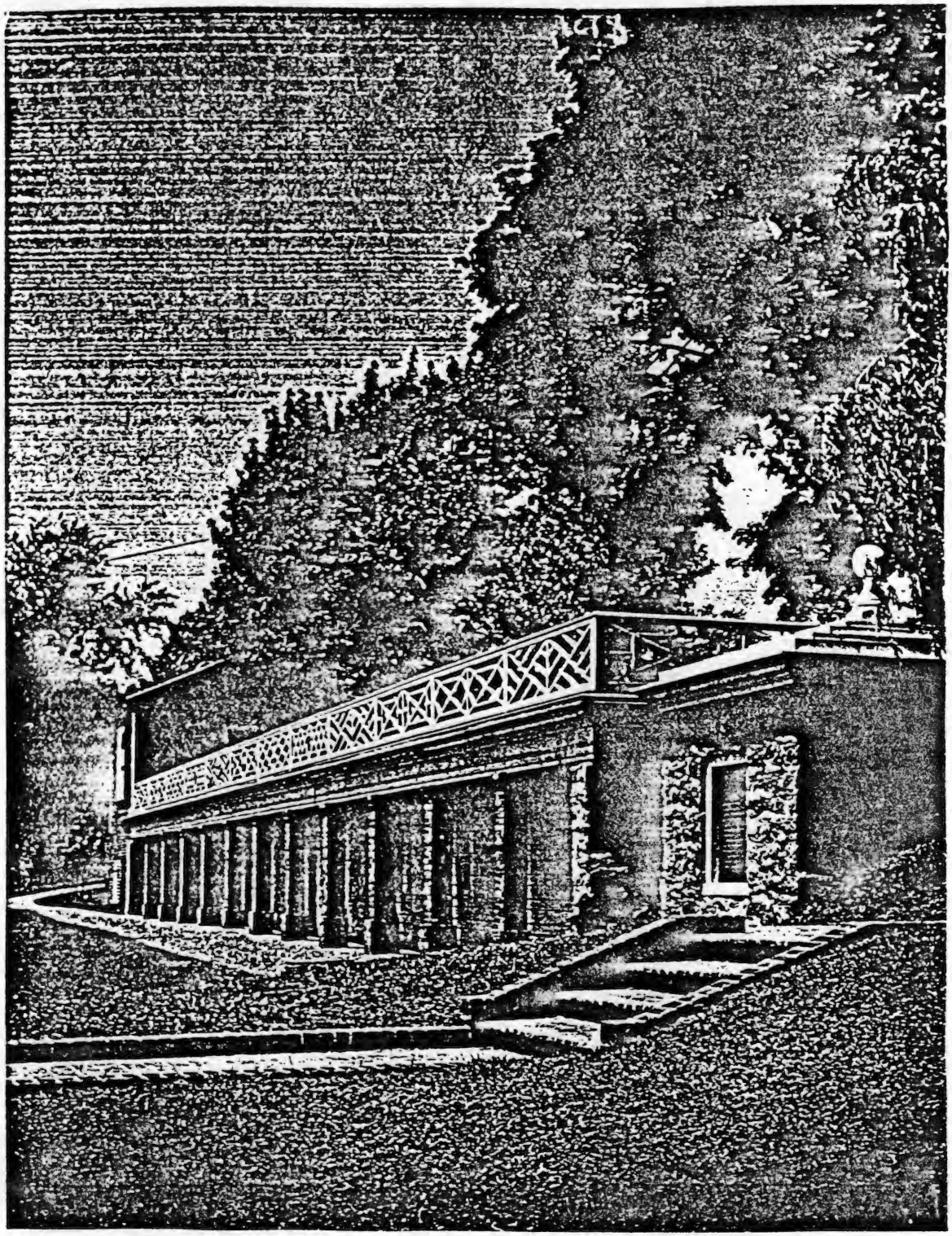


Figure 22. Photo of south dependency wing at Monticello. Includes reconstructed and restored South Pavilion (far left), south dependency rooms and attached privy.
Source: Iconography files under "South Terrace" at Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

delayed. By the year 1800, the main house would have been considered at least habitable, but not complete. The rooms of the dependencies remained largely in the planning stage by this date. Like many other of Jefferson's architectural and landscape schemes their construction ran habitually behind schedule. For example, in a letter of November 29, 1801 addressed to Thomas Jefferson, Thomas Mann Randolph observed that, ". . . the work on the south flank was so backward as not to promise completion this autumn, that on the North as you expected has not been thought of . . ." (MHi).

By the autumn of the following year, much of the work for both wings would have been near completion. As the letter from Randolph had implied, progression of these labors was apparently from south to north. June of 1802 found Mr. Fitch under the direction of James Dinsmore hard at work upon the wood framing of the SE offices, while the stone and brick masonry of the NW range was likely being raised by Joesph Morin and William Maddox. A wonderfully comprehensive letter of instructions dated from that month, offered suggestions as to the employment of Mr. Fitch. He was to frame and partition most of those rooms along the SE range. Mention was made of the kitchen, three servant's rooms, the dairy, and the SE necessary. Within the same document there is a suggestion of half-completed stone work on the north side, involving the NE necessary, the ice house, and the room or "office" beneath what would become the north 'outchamber' (MHi). An earlier reference of March, 1802 indicated Jefferson's intent to construct within the remaining space of this NW range, an area ". . . chiefly for coach houses . . . " (in Betts 1976a:278).

There is every indication that by late fall of 1802, the offices of the SE range were completed. Much of the work done towards the completion of the NW offices may have been finished soon thereafter, for in March of 1803, Jefferson was able to record that the capacity of his ice house, as recently filled, was as much as 62 wagon loads (in Betts 1976a:281). In spite of these construction advances there must have yet remained a considerable amount of finish carpentry and mason's work still to be done. Nearly three years later in April of 1806, Jefferson would write ". . . this summer will entirely finish the house at Monticello" (in Betts 1976a:311).

It would seem, however, that Jefferson seldom knew the satisfaction of thoroughly finishing a project. By the winter of 1808, he had begun the demolition of the upper story of the South Pavilion, with the intent to remodel it on the order of the recently completed North Pavilion. The upper room of the former dependency was to become a reservoir for the many trunks of books that he would bring home on his eventual return from Washington. The room beneath was to be redone and its fireplace enlarged so that it might serve as a wash house. The majority of those finishing touches required for the completion of both the dependencies and the main house would appear to have been accomplished by 1809. Yet there continued to be a number of small details that would not be attempted for several years to come. Some of these may have been more in the manner of changes in form rather than additions to complete an unfinished form. Nichols (1978:7) adds that, "While the house was essentially finished in 1809,

the railings on the terrace were not completed until 1824, and as late as 1825 six cases of chimney "pilas" arrived for it."

With the completion of these new offices within the north and south dependency wings of the main house, many of the Mulberry Row structures created during the 1790s must have then become obsolete. In fact, in a document of ca. 1804-1805 entitled "General ideas for the improvement of Monticello," Jefferson made explicit his plans for many of these buildings: "all the houses on the Mulberry walk to be taken away, except the stone house" (in Kimball 1968: Plate 161 and 162). This suggestion was but one of many ideas which Jefferson thought to record for his designs on extant and future landscape and architectural schemes at Monticello. Somewhat parenthetically, Jefferson's word choice in the title of this list is also significant. That he thought in terms of agricultural and architectural "improvement" was but another trait which placed him in the company of the eighteenth and nineteenth century "improving farmer."

A number of these new ideas were apparently never carried out at Monticello. However, detailed surveys of the 1806-1809 period suggest that only the Workmen's house, the joinery, the stables, and a new structure in the location of the former wash house survived to this point in time. Nevertheless, it should be remembered that at least one reference of 1809 suggested the presence of a number of vacant log houses yet standing on Mulberry Row. Perhaps for their lack of utility they had been consistently excluded from these surveys.

Neither were the Mulberry Row or indeed, the 1st Roundabout of which Mulberry Row was the straightest part, entirely without new

additions or remodeling during this final building phase. For example, the ca. 1801 construction of a new blacksmith and nailer's shop along that stretch of Roundabout which curved by the east front of the house, likely served as a replacement for the former buildings "D" and "j" of the 1790s. It is of significance to note that within an insurance document of 1800 in which Jefferson renewed his coverage for several of those Mulberry Row structures formerly insured in 1796, neither "D" nor "j" were at this time insured although they had been previously. In December of the same year, Jefferson offered perhaps the first suggestion that he intended a new shop to be built. In a letter to his son-in-law John Eppes, he wrote, ". . . I will pray you to attend to Mr. Powell and get him on as soon as possible. You may assure him that the first work in the Spring will be to build a good nailery" (Alderman Library, ViU).

Powell was scheduled to arrive in April, 1801, and yet apparently neither he nor the new shop materialized that spring. In May 1801, Jefferson wrote to Randolph that he had now ". . . engaged a capital white smith, who is a nailer also, to go on from Philadelphia in July" (in Betts 1976b:443). With this he referred to William Stewart, a man described alternately as a peerless craftsman or a complete madman. His taste for alcohol was also reputed to have been unrivaled. The shop that had been assured for Powell was not readily forthcoming for Stewart either.

Several references from this period suggest that this new building, when finally constructed, was to be at least partly of stone. The masons at this time were already behind schedule on the

stone work required of the dependency wings of the mansion, and so it would seem that the blacksmith/nailer's shop was a project to be postponed perhaps more than once. Finally, by the summer of 1802, work was under way and in September of that year Jefferson was able to record that he had ". . . settled with Joesph Morrin and Wm Mattox [Maddox elsewhere] for the stone work of the offices [dependency wings] and the Nail House" (in Betts 1976b:444).

Though it is uncertain as to whether or not this new shop spelled doom for those Mulberry Row outbuildings that had formerly served this purpose, Stewart's shop certainly constituted an improvement over that older form. Rather than post-in-the-ground construction its foundation and walls were at least partially if not entirely of stone. The combination of the former buildings "D" and "j" would have provided a work space of 87 ft x 18 ft. The new shop, as drawn to scale on several plans would have measured approximately 70 ft. x 30 ft. The former allowed 1,566 sq. ft. of floor space, while the latter may have offered as much as 2,100 sq. ft. Moreover, the location of this new shop at the intersection of several main arteries of the extensive Monticello road system may have been an advantage to Stewart for both the import of raw materials to his shop and the export of its produce away from it. Its location further away from the main house than buildings "D" and "j" had previously been located must have also produced distance-softened hammer blows that Jefferson no doubt appreciated.

Along the Mulberry Row of this period, Jefferson also replaced at least two structures of 1796 vintage with buildings of stone. With

the 1808-1809 remodeling of the South Pavilion, the wooden wash house or building "n" of Mulberry Row was no longer needed. At this date it may have already stood much longer than most of its former neighbors. In its place, and continuing to respect that same N-S axis line that proved so significant for both earlier building phases, Jefferson constructed by the latter half of 1809 a stone house of approximately 21 ft. (E-W) x 18 ft. If we combine the contents of two separate documents, Jefferson was no doubt referring to both buildings when in October of the previous year he mentioned ". . . the house laid off where the old loghouse stands" (Henry E. Huntington Library and Art Gallery, CSmH), and in December of 1808 he offered, "I hope the stone house opposite the Outchamber will be completed" (MHi). Jefferson often referred to the South Pavilion as the "Outchamber." If indeed both references point to the same structure, then the log house removed to allow for the construction of the new stone house must have been the wash house of old. For "n" to have survived until the remodeling of the South Pavilion had been completed is understandable. Surveys of the ca. 1809 period indicate that a stone house opposite the South Pavilion was completed by that date. In January, 1809, Edmund Bacon notified Jefferson that the masonry work for the new house was then in progress (ViU). Work was apparently still underway in late February, and so the building was likely not completed until the spring of 1809.

Like "n," the wash house, other structures of the second building phase persisted in their original wooden form along Mulberry Row into the first decade of the nineteenth century. The declaration

of insurance of 1800 informs that the stables, which during the 1790s had been constructed in at least two different stages, continued to enjoy a kind of most-favored status among outbuildings. At this date, the very earliest sections of the stable complex may have been standing for 10 years. However, between 1800 and 1806 there seems to have been a change in form. In a February, 1806 sketch of the mountaintop intended as instructions for the then current overseer Mr. Freeman (see Figure 23), and within several other surveys of that year, Jefferson's illustration of the Mulberry Row stables revealed an arrangement of three distinct pens, each of approximately the same size. Those surveys that appear to have been drawn to scale (for example, see Figure 24), indicate a total length of approximately 70 ft. - 80ft. (E-W). If we can accept the evidence of these several plans, then by 1806 the former stables of 105 ft. length was significantly reduced. Its former segmented but contiguous arrangement may also have been changed to favor the three closely ranking but separate units that would total as the stables of 1806.

If indeed these changes were carried out sometime between 1800 and 1806, then perhaps there is later evidence which would suggest that this change occurred closer to 1800 rather than later. As early as 1807, Jefferson began to plan for the construction of a stables built of stone. It would have been impractical of him to destroy so new a building if it had been constructed as recently as 1806. Beginning in June of 1808 the documents suggest a flurry of correspondence between Jefferson and his latest overseer Edmund Bacon. Most of these letters concerned the progress or lack thereof of Mr.

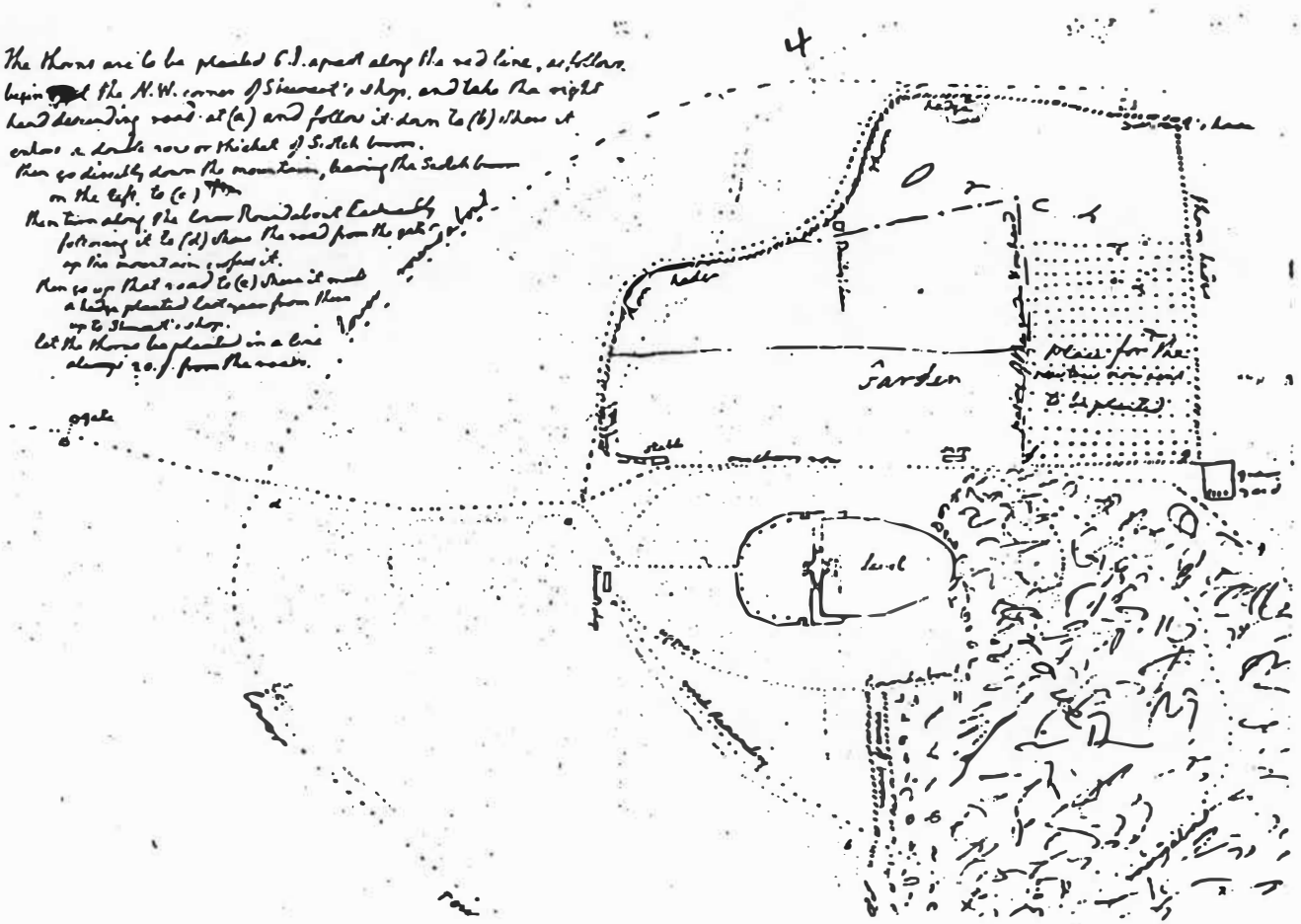


Figure 23. An 1806 sketch of Monticello grounds and buildings. Note the three-section stables located at the east end of Mulberry Row. Source: Nichols, FD and RE Griswold (1978) *Thomas Jefferson Landscape Architect*, p.91. University Press of Virginia, Charlottesville.

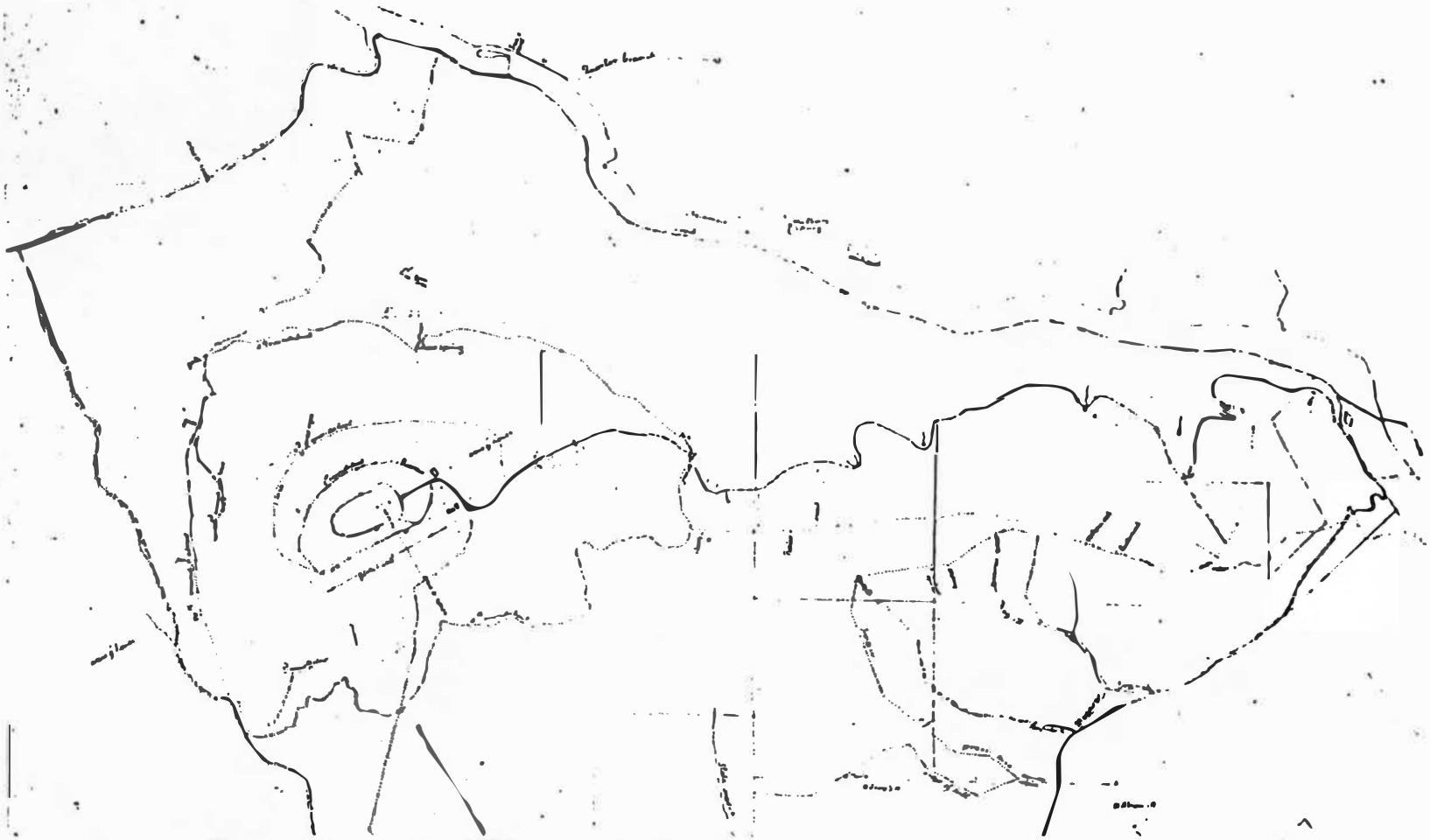


Figure 24. A ca. 1806 general property survey of Monticello. Note the three-pen detached stable complex at the east end of Mulberry Row and Stewart's blacksmith and nailer's shop located in the east front of the mansion.
Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.280. Da Capo Press, New York. Original 1916.

Maddox the stone mason. A note of June 30, 1808 informed Jefferson, "Mr. Maddox says we shall not have very little more than half rock in the old shop to do the stables. He is very nearly done one stable" (MHi). From this we learn that a former "shop" was being salvaged of its stone to provide construction material for the new stables. William Stewart was fired from his position as blacksmith and nailer in the latter part of 1807 and the stone or half-stone shop built for him along the 1st Roundabout disappeared from the documentary record at approximately the same time. Perhaps Maddox and his crew were responsible for its destruction during the summer of 1808. The reference above also suggests that by this date, he had nearly completed "one" stable, but in noting this, Bacon offered the hint that more than one stable (or perhaps individual pens within a stable complex) were to be constructed.

By December of 1808, a combination of a change for the worse in the weather and the pressure to complete other projects such as the stone house (now Levy Tomb) across from the South Pavilion, prevented Maddox from constructing the other stable/s. Early in that same month, Jefferson had written to Bacon , ". . . the other stable had better be for the next season" (MHi). As work seasons were apparently dictated by the weather (then as now), it was perhaps no later than the spring of 1809 that Maddox resumed his work on this building.

Surveys and plan drawings of that year indicate that this specific task was indeed completed. The stone work of the Mulberry Row stables that has survived to the present offers the additional suggestion that Maddox did, in fact, attempt at least two separate

pens, each constructed of stone. Today, these are joined under a single roof and separated by a 10 ft. wide hyphen. This format may have been a partial duplication of those stable buildings recorded on earlier plans of the 1806 date range. The distance between individual structures appears to have been the same, and yet in 1809 the two pens may have been connected much as they appear in today's restored stable complex. Another obvious difference between the 1806 and the 1809 stables would have been the three pens illustrated for the 1806 stables and the two that may be seen presently. Still, the stone construction of 1809 followed the same pattern if not frequency as the 1806 version, and like its contemporary the stone house located further west on Mulberry Row, this new stables complex represented a distinct improvement in outbuilding architecture.

This conversion from wood to stone may have marked an end of an era for the development of Mulberry Row, and yet it should be noted that the documents suggest that at least for the stables of 1809 expansion continued utilizing both materials. If Maddox had completed the construction of one stone section in the summer of 1808 and another in the early spring of 1809, then by May 21, 1809 he may have been at work on a third. Consider that certain measurements included within a property survey of that date suggest that the "new" stables were significantly larger than their present-day length suggests. Those individual stone pens as measured in the field today each equal 18 ft. 3 in (E-W) in length. Including the 10 ft. wooden hyphen that separates the two, the total length measures 46 ft. 6 in. The E-W length of the stables as indicated on May 21, 1809 can be approximated

through measurements recorded on the survey N215 (under Nichols' 1978 classification scheme). From these we learn that the distance from a point along the axis of the cellar passage of the house to a point in the "South Road" was equal to 528 ft. From this point in the road west to the NE corner of the stone stables measured 54.78 ft. To determine the length of the stables at this date we need only the distance from the NW corner of that building west to the axis of the cellar passage. Fortunately, this measurement can be closely approximated. Survey N215 and later surveys as well, reveal that the west wall axis of the 1809 stables, if extended north, would have intersected with a point in the 1st Roundabout where several roads came together. This same point was then aligned with an E-W axis drawn from the center of the main house. This latter distance is given and should have been equal to the distance from the axis of the cellar passage to the west wall of the stables. N215 states that from this central point in the 1st Roundabout west to the "brow of the level" would have equalled 271.26 ft. From this point to the foot of the steps of the NE portico (east entrance to mansion) would have measured 78.54 ft. From the steps west to a point in the center of the cellar passage equalled approximately 47 ft. (by present day reckoning). The total of these distances would have equalled 396.80 ft. Subtracting this measurement and the 54.78 ft. distance from the 528 ft. total should allow a very close approximation of the E-W length of the 1809 stone stables. The answer is equal to 76.42 ft.

It will be recalled that the present-day stable complex measures only 46 ft. 6 in. in length. It therefore lacks 29.92 ft. of reaching

that axis point suggested on survey N215. If, however, the stables of 1809 had been comprised of not two but three stone pens, and these were further divided by two wooden hyphens, then the addition of another pen measuring 18 ft. 3 in. (E-W) and another hyphen of 10 ft. (E-W) would bring the west wall of the entire stable complex another 28 ft. 3 in. to the west. The remaining difference would have been approximately 1 ft. 6 in.

Survey N225 (see Figure 25) outlines a stables that is even further enlarged. Approximating the scale of the drawing, the main body of the stables would appear to have measured to within the 70 ft. - 75 ft. range (E-W). However, a new extension to the south was also indicated and together the stables of this year took on an L-shaped arrangement. This southern extension appears to have measured approximately 12 ft.-13 ft. (E-W) x 80 ft.-85 ft. This new "wing" was likely constructed of wood and seems to have reached to within a few feet of the garden wall axis. At such a length the building itself would have formed an effective barrier as part of the overall garden and orchard enclosure.

Whether or not this extended length of the stables was maintained throughout the remainder of Jefferson's lifetime is uncertain. Later references mention only the number of horses kept there or the amount of corn needed to feed them, but say nothing of any changes in building form. Surveys that date later than 1809 are practically non-existant. At least part of the Mulberry Row stable has endured to the present and from this smaller portion we may imagine its former expanse.

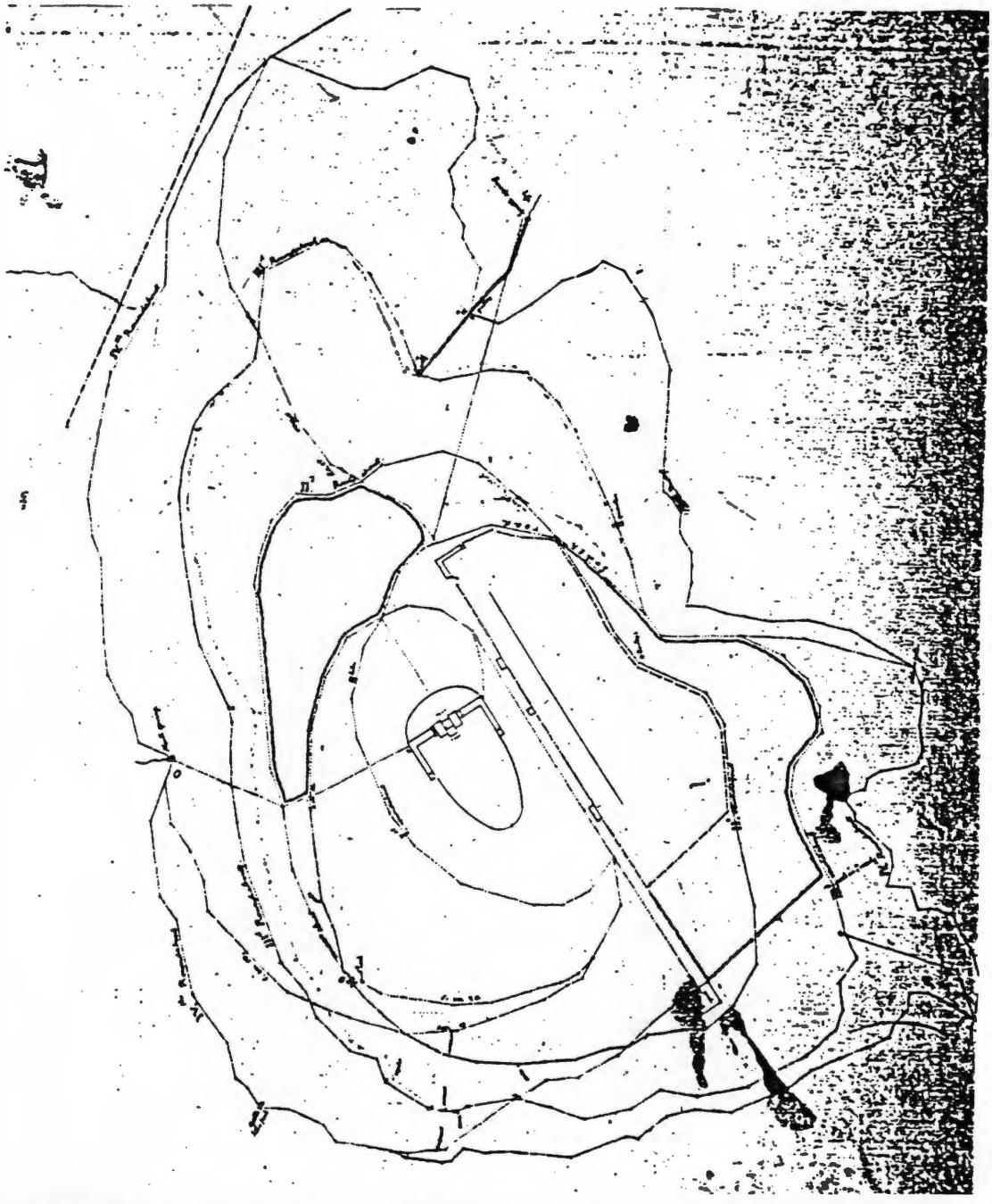


Figure 25. A ca. 1809 general property survey of Monticello. Note the remaining structures along Mulberry Row, including joinery, stone house, Workmen's Hall, and the new or altered stables complex (west to east). Source: Kimball, Fiske (1968) *Thomas Jefferson, Architect*, p.281. Da Capo Press, New York. Original 1916.

The replacement of the more crudely finished and less aesthetic log constructions along Mulberry Row was perhaps something that Jefferson had long sought to accomplish. These latest buildings would have been more substantial and more pleasing to the discerning eye, but significantly fewer in number. Perhaps this too was in keeping with Jefferson's earlier plans, as well as a reflection of his changing needs. His maturing ideas of a new landscape and one more open and accepting of all his natural surroundings were likely mirrored in his decision to remove from Mulberry Row a majority of its former outbuildings, and to replace those remaining with structures of greater durability and academic pretensions.

If Jefferson's Georgian context in all its subtle and its unmistakeable influence can be held accountable for shaping much of his economic, social, and political attitudes and actions, then it is not so very difficult to accept that those material constructs so important to him - his house, his gardens, and even his outbuildings - were each in their own way structured by this same pervasive worldview. Particularly within the rigid symmetry and the balanced relationships of Jefferson's first and second Mulberry Row arrangements it is possible to determine this influence at work. It was also present in the arrangement of his last construction phase, especially in that the completion of north and south dependency wings provided the final links necessary to formalize his dream of a Palladian villa. Consider, however, that within the very last of those architectural and landscape constructions of Jefferson's retirement there may well exist evidence of a critical shift in

ideology. The replacement of one immensely powerful paradigm with another may be seen in Jefferson's experiment with buildings and landscape features no longer arranged in linear fashion or tied to the mansion in axial relationships. For example, his ca. 1809 acceptance of a curvilinear ha-ha, or sunken fence; his ca. 1808-1809 layout of a serpentine path and lawn interspersed with elliptical planting beds as the arrangement of the flower garden and west lawn; and finally, his placement of the ca. 1812 garden pavilion as adjacent to and yet decidedly off-axis of the South pavilion's important N-S axis are all indications that as the nineteenth century began to mature, Jefferson, like many of his contemporaries, began to accept many of the cultural ideals of an increasingly Romantic worldview.

CHAPTER VI

CONCLUSION

Any study of material culture, whether of ceramics, glassware, tools, or as in this instance, of outbuildings should attempt more than simply physical description, chronology, and the cultural history of these artifacts. These efforts combined with the reconstruction of past lifeways through the analysis and interpretation of material culture offer important preliminary steps towards a more complete understanding of behavioral or processual concerns. While arriving at an approximation of patterned human behavior may be regarded as of greater anthropological value, this particular behavior requires further explanation. By studying culture change - the shift from one pattern to another over time - anthropologists hope to arrive at the source of this change, or the reason for it. More importantly, through such efforts they may eventually come to understand meaning and symbolism in the cultures they study.

Through use of a diachronic perspective, the study of historical change can document some of the most significant shifts in material culture. However, insomuch as material culture is inextricably tied to cognitive structures, changes in one may be taken as strong indication of changes in the other. In this way, shifts within the internal arrangement of houses, the specific type, number or layout of outbuildings, or changes in the popularity of certain ceramics, etc. all may indicate certain substantive changes within the mind of the

builder or owner. In this way, objects, artifacts, architecture, etc. are empowered with much more than functional significance; they are capable of conveying meaning on any one of several levels. Perhaps of even greater interest is the recognition that such shifts within the individual's perspective and decision-making process are suggestive of changes of considerable magnitude within a national or international context. Under the plantation system of the antebellum South, for example, this wide-angle view moves outward from the narrow focus of only the master or the slave to include the overall context within which both carried out their daily lives.

Certainly one of the most important changes in both historical and sociocultural context was the shift from the medieval to the modern. Although this was a change of several centuries duration and it may be argued that certain areas of the Third World have yet to embrace it, the Georgian era may have represented a crest in this wave that swept through Western Europe and America. If not the very climax of this change, then this Georgian worldview marked a confirmation that medieval ideology and culture was generally on the decline, that its replacement was indeed imminent, at least within these geographic regions of the globe.

Glassie (1975) and Deetz (1977) among others have used a number of binary oppositions in order to define this emerging Georgian worldview, and consequently, the cognitive orientation of those which bought into it. Together they seem to agree that the movement from a medieval worldview to that of a modern or Georgian perspective may be characterized as the change from public to private (communal or

corporate to individual), simple to complex, natural to artificial, from chaos to control or order, nonsymmetry to symmetry, and so on. These oppositional structures represent changes in both etic behavioral and emic mental perspective. For example, the increasingly common occurrence during the eighteenth century of the separation of the servant and the served suggests the conscious selection on the part of the master of the household for greater privacy, and as this need acquired material form it took the shape of an increasing number of outbuildings and the greater isolation of the main house.

While Deetz (1977) has suggested that the Georgianization of the New World resulted in a nearly complete "re-Anglicization" of American culture, Leone (1988) has described this same cultural process as the earliest emergence of colonial, merchant capitalism. Both are undoubtedly correct and neither is the product that each suggests unrelated to one another. However, in the attempt to trace this Georgian concept to its very roots, an examination of the history and philosophy of this Western tradition reveals not only the particular details and events of this change, but also suggests many of the reasons for it. By tracing the most important changes and introductions occurring in the Renaissance, Reformation, Scientific Revolution, and Enlightenment, it is possible to define a diagram of those steps taken which collectively brought about the much more profound shift in worldview that today we recognize as the Georgian mind set. From this review it is possible to identify a number of the basic tenets or principles of this new world order, and among these are: science, secularism, individualism, progress, and capitalism.

If these constructs seem just as current today as they were for early post-medieval Europe and America, then it is because these interrelated concepts or rules continue to form the basic structural supports of Western society. In the twentieth century, they represent the social, cultural, and philosophical legacy of the sixteenth, seventeenth, and especially the eighteenth centuries. What began as important changes in, or additions to Western philosophy was soon translated into the cultural and material correlates common to everyday life.

For Jefferson, the emerging preeminence of these same principles could be traced both to his agrarian philosophy and to his contradictory acceptance of a kind of rural mercantilism of light industry and scientific farming. As with most others within his class of emerging elite, Jefferson eagerly adopted these principles and wherever possible prominently displayed his mastery of them. In this way he hoped to demonstrate that he was a rightful member of the natural aristocracy of his times, a position grounded in talent and virtue as opposed to the rank and birth of the "tinsel aristocracy." Increasingly, justification of one's candidacy to elite status required the demonstrated ability to effectively manipulate both the principles of nature and the machinery of capitalism.

The creation of both the Georgian-styled mansion and its outbuildings often represented the most visible evidence of the owner's fealty to this new order. Proportion, balance, refinement, and harmony were those elements bequeathed of the Enlightenment that established the rules for proper architecture. That Jefferson and all

those aspiring to positions of power, wealth, and control obeyed these social convictions of the Georgian era is evident in the homogeneity of their architecture. Georgian form must have certainly been only one of many alternatives. That for a time it so often became the choice of those with grand social and political ambitions suggests that it possessed certain adaptive advantages beyond function and aesthetics only. Construction of such homes as the Monticello mansion suggest a non-random cognitive act of selection. While privacy was an important factor in this process, control was much more the primary motivation.

Outbuildings such as those constructed over the years along Jefferson's Mulberry Row were no less the product of Georgian context as was the big house above them. This influence can be measured in nearly every aspect of their detail - from type, numbers, materials, time-labor-cost, design, and especially within the rigid spatial relationships of their arrangement. Careful analysis of those archaeological excavations carried out along Mulberry Row and the use of related archival material, when properly married suggest that these farm and domestic buildings were far more Georgian in detail than previously thought. The alternative interpretation of outbuilding form and arrangement presented in this thesis insists that functional, economic, ethnic, social, and political concerns were very much a part of their construction detail. These outbuildings of Monticello, over their several construction and destruction phases, represented a mediation of the classical aesthetic and the ideals of the scientific or improving farmer. For most of Jefferson's occupation, the

vernacular and academic architecture of these service buildings provided material examples of the Georgian paradigm that governed most of the eighteenth century. That within his very last years during the first quarter of the nineteenth century Jefferson should alter (at least along Mulberry Row) the order of these buildings, is indicative of yet another major shift in worldview, and at this time, towards one that favored Picturesque and Romantic idealism in landscape and architecture.

REFERENCES CITED

REFERENCES CITED

Addison, Sir William
1986 Farmhouses in the English Landscape. Robert Hale, London.

Andrews, Wayne
1955 Architecture, Ambition, and Americans. Harper and Brothers, New York.

Anthony, Carl
1976 The Big House and the Slave Quarters: Part I. Landscape 20(3):8-19.

Arnold, Joseph L.
1973 City Planning in America. In: The Urban Experience: Themes in American History, edited by Raymond A. Mohl and James F. Richardson, pp. 14-41. Wadsworth Publishing Company, Belmont, California.

Bear, James A., editor
1967 Jefferson at Monticello. University Press of Virginia, Charlottesville.

Beiswanger, William L.
1984 The Temple in the Garden: Thomas Jefferson's Vision of the Monticello Landscape. In: British and American Gardens in the Eighteenth Century, edited by Robert P. Maccubbin and Peter Martin, pp. 170-188. The Colonial Williamsburg Foundation, Williamsburg, Virginia.

Betts, Edwin M., editor
1976a Thomas Jefferson's Garden Book, 1766-1824, With Relevant Extracts from His Other Writings. University Press of Virginia, Charlottesville. Original 1953.

1976b Thomas Jefferson's Farm Book. University Press of Virginia, Charlottesville. Original 1953.

Binford, Lewis R.
1962 Archaeology as Anthropology. American Antiquity 9:208-219.

1968 Archaeological Perspectives. In: New Perspectives in Archaeology, edited by Sally Binford and Lewis Binford, pp.5-32. Aldine Press, Chicago.

Bonner, James C.
1945 Plantation Architecture of the Lower South on the Eve of the Civil War. The Journal of Southern History 11:370-378.

1977 House and Landscape Design in the Antebellum South. Landscape 21(3):2-8.

Boorstin, Daniel J.
1981 The Lost World of Thomas Jefferson. The University of Chicago Press, Chicago.

Braudel, Fernand
1979a The Structures of Everyday Life: Civilization and Capitalism 15th-18th Century. Vol. I. Harper & Row, New York.

1979b The Wheels of Commerce: Civilization and Capitalism 15th-18th Century. Vol. II. Harper & Row, New York.

Breen, T.H.
1985 Tobacco Culture: The Mentality of the Great Tidewater Planters on the Eve of Revolution. Princeton University Press, Princeton.

Bronowski, J. and Bruce Mazlish
1960 The Western Intellectual Tradition: From Leonardo To Hegel. Harper and Brothers, Publishers, New York.

Brunskill, R.W.
1974 Vernacular Architecture of the Lake Counties. Faber and Faber, 3 Queen Square, London.

1987a Houses and Attached Farm Buildings in England and Wales. In: Perspectives in Vernacular Architecture,I, edited by Camille Wells, pp. 159-165. University of Missouri Press, Columbia.

1987b Illustrated Handbook of Vernacular Architecture. Faber and Faber, London.

Bushman, Richard L.
1991 Opening the American Countryside. In: The Transformation of Early American History, Society, Authority, and Ideology, edited by James A. Henretta, Michael Kammen, and Stanley N. Katz, pp. 239-256. Alfred A. Knoff, New York.

Butterfield, Herbert
1952 The Origins of Modern Science. The Macmillan Company, New York.

Cantacuzino, Sherban
1969 European Domestic Architecture: Development from Early Times. Studio Vista/Dutton Pictureback, London.

Carson, Cary, Norman F. Barka, William M. Kelso, Garry Wheeler Stone, and Dell Upton
1981 Impermanent Architecture in the Southern American Colonies. Winterthur Portfolio 16(2,3):135-96.

Chappell, Edward
1986 Architectural Recording and the Open Air Museum: A View From the Field. In: Perspectives in Vernacular Architecture, II, edited by Camille Wells, pp. 24-37. University of Missouri Press, Columbia.

Clarke, David L.
1973 Archaeology: The Loss of Innocence. Antiquity 67:6-18.

Deagan, Kathleen A.
1982 Avenues of Inquiry in Historical Archaeology. In: Advances in Archaeological Method and Theory, Vol. 5, edited by Michael B. Schiffer, pp. 151-177. Academic Press, New York.

Deetz, James
1977 In Small Things Forgotten. Anchor Press/Doubleday, New York.

1978 A Cognitive Historical Model for American Material Culture: 1620-1835. In: Historical Archaeology: A Guide to Substantive and Theoretical Contributions, edited by Robert L. Schuyler, pp. 284-286. Baywood Publishing Company, New York.

1988 Material Culture and Worldview in Colonial Anglo-America. In: The Recovery of Meaning: Historical Archaeology in the Eastern United States, edited by Mark P. Leone and Parker B. Potter, Jr., pp. 219-233. Smithsonian Institution Press, Washington, D.C.

Dunnell, Robert C.
1986 Five Decades of American Archaeology. In: American Archaeology Past and Future, edited by David J.Meltzer, Don D. Fowler and Jeremy Sabloff, pp. 23-49. Smithsonian Institution Press, Washington, D.C.

Durant, Will and Ariel
1967 The Story of Civilization: Part X: Rousseau and Revolution. Simon and Schuster, New York.

Fairbanks, C.
1972 The Kingsley Slave Cabins in Duval County, Florida, 1968. The Conference on Historic Sites Archaeology Papers 7:62-93.

Frary, I.T.
1931 Thomas Jefferson Architect and Builder. Garrett and Massie, Richmond.

Fussell, G.E.
1972 The Classical Tradition in West European Farming. Fairleigh Dickinson University Press, Rutherford, Great Britain.

1984 Landscape Painting and the Agricultural Revolution. The Pindar Press, London.

Garbarino, Merwyn S.
1977 Sociocultural Theory in Anthropology: A Short History. Waveland Press, Inc., Prospect Heights, Illinois.

Glassie, Henry
1975 Folk Housing in Middle Virginia. University of Tennessee Press, Knoxville.

1986 Eighteenth-Century Cultural Process in Delaware Valley Folk Building. In: Common Places: Readings in American Vernacular Architecture, edited by Dell Upton and John Michael Vlach, pp. 394-423. The University of Georgia Press, Athens.

Gowans, Alan
1986 The Mansions of Alloways Creek. In: Common Places: Readings in American Vernacular Architecture, edited by Dell Upton and John Michael Vlach, pp. 367-390. The University of Georgia Press, Athens.

Greene, Jack P., and J.R. Pole
1984 Colonial British America. Johns Hopkins University Press, Baltimore, Maryland.

Gruber, Anna
1991 The Archaeology of Slave Life at Thomas Jefferson's Monticello: Mulberry Row Slave Quarter's "r,s,t". Quarterly Bulletin of the Archeological Society of Virginia 46(1):2-9.

Handsman, Russell
1983 Historical Archaeology and Capitalism, Subscriptions and Separations: The Production of Individualism. North American Archaeologist 4(1):63-79.

Harrington, Faith
1989 The Emergent Elite in Early 18th Century Portsmouth Society: The Archaeology of the Joseph Sherburne Houselot. Historical Archaeology 23(1):2-18.

Harris, John
1986 The Pattern Book Phenomenon. In: Palladian Studies in America I: Building by the Book, 2, edited by Mario di Valmarana, pp. 101-116. The University Press of Virginia, Charlottesville.

Harris, Marvin
1968 The Rise of Anthropological Theory: A History of Theories of Culture. Thomas Y. Crowell, New York.

Heath, Barbara J.
1991 Artisan Housing At Monticello: The Stewart/Watkins Site. Quarterly Bulletin of the Archeological Society of Virginia 46(1):10-16.

Henretta, James A.
1991 The Transition to Capitalism in America. In: The Transformation of Early American History, Society, Authority, and Ideology, edited by James A. Henretta, Michael Kammen, and Stanley N. Katz, pp. 218-238. Alfred A. Knoff, New York.

Herman, Bernard L.
1987 Architectural and Rural Life in Central Delaware, 1700-1900. The University of Tennessee Press, Knoxville.

Hill, James N.
1985 Style: A Conceptual Evolutionary Framework. In: Decoding Prehistoric Ceramics, edited by Ben A. Nelson, pp. 362-385. Southern Illinois University Press, Carbondale.

Hodder, Ian, editor
1982 Symbolic and Structural Archaeology. Cambridge University Press, Cambridge.

1986 Postprocessual Archaeology. In: Advances in Archaeological Method and Theory, Vol.8, edited by Michael B. Schiffer, pp. 1-26. Academic Press, New York.

1991 Interpretive Archaeology And Its Role. American Antiquity 56(1):7-18.

Hubka, Thomas C.
1984 Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England. University Press of New England, Hanover.

1986 Just Folks Designing: Vernacular Designers and the Generation of Form. In: Common Places: Readings in American Vernacular Architecture, edited by Dell Upton and John Michael Vlach, pp. 426-432. The University of Georgia Press, Athens.

Hudgins, Carter L.
1990 Robert "King" Carter and the Landscape of Tidewater Virginia in the Eighteenth Century. In: Earth Patterns: Essays in Landscape Archaeology, edited by William M. Kelso and Rachel Most, pp. 59-70. The University Press of Virginia, Charlottesville.

Hugo, Howard E., editor
1980 Masterpieces of Neoclassicism. In: The Norton Anthology of World Masterpieces, Fourth Continental Edition, Vol. 2, pp. 1-18. WW Norton & Company, New York.

Hunnicutt, G.F.
1910 Types of Farm Organization in the South. In: Cyclopedia of American Agriculture, edited by L.H. Brieley, pp.151-157. The McMillan Company, London.

Hutslar, Donald A.
1986 The Architecture of Migration: Log Construction in the Ohio Country, 1750-1850. Ohio University Press, Athens, Ohio.

Isaac, Rhys
1982 The Transformation of Virginia, 1740-1790. The University of North Carolina Press, Chapel Hill.

Jackson, John Brinkerhoff
1966 The Life and Death of American Landscapes: Jefferson, Thoreau, and After. Landscape 15(2):25-27.

1979 The Order of a Landscape: Reason and Religion in Newtonian America. In : The Interpretation of Ordinary Landscapes: Geographical Essays, edited by D.W. Meinig, pp.153-163. Oxford University Press, New York.

1980 The Necessity of Ruins and Other Topics. The University of Massachusetts Press, Amherst.

Jones, Stephen L.
1985 The African-American Tradition in Vernacular Architecture. In: The Archaeology of Slavery and Plantation Life, edited by Teresa A. Singleton, pp. 195-213. Academic Press, New York.

Kallbrunner, Hermann
1957 Farms and Villages: The European Pattern. Landscape 6(3):13-17.

Kelso, William M.
1982 A Report on the Archaeological Excavations at Monticello (1979-1981). Mss. Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

1984 Landscape Archaeology: A Key to Virginia's Cultivated Past. In: British and American Gardens in the Eighteenth Century, edited by Robert P. Maccubbin and Peter Martin, pp. 157-169. The Colonial Williamsburg Foundation, Williamsburg, Virginia.

1986a The Archaeology of Slave Life at Thomas Jefferson's Monticello: 'A Wolf by the Ears.' Journal of New World Archaeology 6(4):5-20.

1986b Mulberry Row: Slave Life at Thomas Jefferson's Monticello. Archaeology 39(5):28-35.

1990 Landscape Archaeology at Thomas Jefferson's Monticello. In: Earth Patterns: Essays in Landscape Archaeology, edited by William M. Kelso and Rachel Most, pp. 7-22. University Press of Virginia, Charlottesville.

Kelso, William M., Douglas W. Sanford, et al.
1984 A Report on the Archaeological Excavations at Monticello, 1982-1983. Mss. Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

1985 Monticello Black History/Craft Life Archaeological Project, 1984-1985 Progress Report. Submitted to the National Endowment for the Humanities.

Kimball, Fiske
1968 Thomas Jefferson, Architect. Da Capo Press, New York. Original 1916, Boston.

Langhorne, Lay and Rieley
1987 A Virginia Family and Its Plantation Houses. University Press of Virginia, Charlottesville.

Leone, Mark P.
1986 Symbolic, Structural and Critical Archaeology. In: American Archaeology Past and Future, edited by David J. Meltzer, Don D. Fowler, and Jeremy Sabloff, pp. 415-438. Smithsonian Institution Press, Washington, D.C.

1988 The Georgian Order as the Order of Merchant Capitalism in Annapolis, Maryland. In: The Recovery of Meaning: Historical Archaeology in the Eastern United States, edited by Mark P. Leone and Parker B. Potter, jr., pp. 235-261. Smithsonian Institution Press, Washington, D.C.

1989 Issues in Historic Landscapes and Gardens. Historical Archaeology 23(1):45-47.

Leone, Mark P. and Paul A. Shackel
1990 Plane and Solid Geometry in Colonial Gardens in Annapolis, Maryland. In: Earth Patterns: Essays in Landscape Archaeology, edited by William M. Kelso and Rachel Most, pp. 151-167. University Press of Virginia, Charlottesville.

Lewis, Kenneth
1977 A Functional Study of the Kershaw House Site in Camden, South Carolina. Institute of Archaeology and anthropology, University of South Carolina, Research Manuscript Series No. 110. pp. 51-66.

1985 Plantation Layout and Function in the South Carolina Lowcountry. In: The Archaeology of Slavery and Plantation Life, edited by Teresa A. Singleton, pp. 35-65. Academic Press, New York.

Lewis, Lynne G.
1978 Drayton Hall: Preliminary Archaeological Investigation at a Low Country Plantation. University Press of Virginia, Charlottesville.

Lewis, Peirce F.
1975 Common Houses, Cultural Spoor. Landscape 19(2):1-22.

Long, Amos, Jr.
1972 The Pennsylvania German Family Farm. Publications of the Pennsylvania German Society, Vol. VI.

Lounsbury, Carl
1987 Architects and Builders in North Carolina: A Study of the Building Process. In: Perspectives in Vernacular Architecture, I, edited by Camille Wells, pp. 117-121. University of Missouri Press, Columbia.

Lugar, R.
1971 The Country Gentleman's Architect. Gregg International Publishers Limited, England. Original 1807.

McAlester, Virginia and Lee
1984 A Field Guide to American Houses. Alfred A. Knoff Publishers, New York.

McKay, John P., Bennett D. Hill and John Buckler
1987 A History of Western Society: From Absolutism to the Present, Vol.II, Third Edition. Houghton Mifflin Company, Boston.

McLaughlin, Jack
1988 Jefferson and Monticello: The Biography of a Builder. Henry Holt and Company, New York.

Marx, Karl
1967 Capital: A Critique of Political Economy, 3 Vols. International Publishers, New York.

Meinig, D.W.
1979 The Beholding Eye: Ten Versions of the Same Scene. In: The Interpretation of Ordinary Landscapes: Geographical Essays, edited by D.W. Meinig, pp. 33-49. Oxford University Press, New York.

Moore, Sue Mullins
1985 Social and Economic Status on the Coastal Plantation: An Archaeological Perspective. In: The Archaeology of Slavery and Plantation Life, edited by Teresa A. Singleton, pp. 141-161. Academic Press, New York.

Morris, Christopher, editor
1984 William Cobbett's Illustrated Rural Rides 1821-1832. Webb and Bower, Exeter, England.

Nef, John U.
1969 Industry and Government in France and England: 1540-1640. Cornell University Press, London.

Neiman, Frazer D.
1980 The "Manner House" Before Stratford: Discovering the Clifts Plantation. A Stratford Hall Handbook, Stratford, Virginia.

Nichols, Frederick Doveton
1978 Thomas Jefferson's Architectural Drawings. The University Press of Virginia, Charlottesville.

Nichols, Frederick D. and R.E. Griswold
1978 Thomas Jefferson Landscape Architect. The University Press of Virginia, Charlottesville.

Noble, Allen G.
1984 Wood, Brick and Stone: The North American Settlement Landscape, Vol. 2: Barns and Farm Structures. University of Massachusetts Press, Amherst.

Nock, Albert Jay
1926 Jefferson. University Press of America, New York.

Noel Hume, Ivor
1964 Archaeology: Handmaiden to History. The North Carolina Historical Review 41(2):215-225.

Orser, Charles E. and Annette M. Nekola
1985 Plantation Settlement from Slavery to Tenancy: An Example from a Piedmont Plantation in South Carolina. In: The Archaeology of Slavery and Plantation Life, edited by Teresa A. Singleton, pp. 67-94. Academic Press, New York.

Orser, Charles E.
1989 On Plantations and Patterns. Historical Archaeology 23(2):28-40.

Otto, J.S.
1979 A New Look at Slave Life. Natural History 88(1):8-30.

Padover, Saul K.
1956 A Jefferson Profile as Revealed in His Letters. The John Day Company, New York.

Palkovitch, Ann M.
1988 Asymmetry and Recursive Meanings in the 18th Century: The Morris Pound House. In: The Recovery of Meaning: Historical Archaeology in the Eastern United States, edited by Mark P. Leone and Parker B. Potter, Jr., pp. 293-306. Smithsonian Institution Press, Washington, D.C.

Pearce, Susan M.
1990 Archaeological Curatorship. Leicester University Press, London and New York.

Peden, William, editor
1955 Notes on the State of Virginia, by Thomas Jefferson. University of North Carolina Press, Chapel Hill. Original 1787.

Peters, J.E.C.
1969 The Development of Farm Buildings in Western Lowland Staffordshire up to 1880. Manchester University Press, England.

Piggot, Stuart
1976 Ruins in a Landscape: Essays in Antiquarianism. University Press of Edinburgh, Scotland.

Pi-Sunyer, Oriol
1957 Archaeological Excavations at Monticello, Charlottesville, Virginia. Mss. Thomas Jefferson Memorial Foundation, Charlottesville, Virginia.

Porter, Roy
1990 English Society in the Eighteenth Century. Penguin Books, London.

Randolph, Sarah N.
1978 The Domestic Life of Thomas Jefferson. The University Press of Virginia, Charlottesville. Original 1871.

Ridout, Orlando V
1982 The Chesapeake Farm Building Survey. In: Perspectives in Vernacular Architecture, edited by Camille Wells, pp.137-149. Vernacular Architecture Forum, University of Missouri Press, Columbia.

Rifkind, Carole
1980 A Field Guide to American Architecture. New American Library, New York.

Robinson, John Martin
1983 Georgian Model Farms: A Study of Decorative and Model Farm Buildings in the Age of Improvement, 1700-1846. Claredon Press, Oxford.

St. George, Robert B.
1986 "Set Thine House in Order": The Domestication of the Yeomanry of in Seventeenth-Century New England. In: Common Places: Readings in Vernacular Architecture, edited by Dell Upton and

John Michael Vlach, pp. 336-363. The University of Georgia Press, Athens.

1987 The Stanley-Lake Barn in Topsfield, Massachusetts: Some Comments on Agricultural Buildings in Early New England. In: Perspectives in Vernacular Architecture, Vol. I, edited by Camille Wells, pp. 7-20. University of Missouri Press, Columbia.

Sanford, Douglas W.
1991 Middle Range Theory and Plantation Archaeology: An Analysis of Domestic Slavery at Monticello, Albemarle County, Virginia, ca. 1770-1830. Quarterly Bulletin of the Archeological Society of Virginia 46(1):20-30.

Scoates, Daniel
1937 Farm Buildings. A & M College of Texas, College Station.

Shanks, Michael and Christopher Tilley
1987 Re-Constructing Archaeology. Cambridge University Press, Cambridge.

Shumate, M. Scott
1991 The Architecture of Jefferson's Mulberry Row: Changes in Form, 1770-1826. Quarterly Bulletin of the Archeological Society of Virginia 46(1):31-41.

Singleton, Teresa A.
1980 The Archaeology of Afro-American Slavery in Coastal Georgia: A Regional Perception of Slave Household and Community Patterns. Ph.D. dissertation, University of Florida. University Microfilms, Ann Arbor.

South, Stanley
1977 Method and Theory in Historical Archaeology. Academic Press, New York.

1978 Pattern Recognition in Historical Archaeology. American Antiquity 43:223-230.

1979 Historic Site Content, Structure, and Function. American Antiquity 44:213-237.

Stilgoe, John R.
1982 Common Landscape of America, 1580 to 1845. Yale University Press, New Haven.

Stone, Lawrence
1977 The Family, Sex and Marriage in England, 1500-1800. Harper and Row, New York.

Summerson, John
1978 Georgian London. The MIT Press, Cambridge, Massachusetts.

Thompson, E.P.
1967 Time, Work-Discipline, and Industrial Capitalism. Past and Present 38:56-97.

Trigger, Bruce G.
1991 Distinguished Lecture in Archeology: Constraint and Freedom--A New Synthesis for Archeological Explanation. American Anthropologist 93(3):551-569.

Upton, Dell
1980 Early Vernacular Architecture in Southeastern Virginia. University Microfilms International, Brown University, Providence.

1986 Vernacular Domestic Architecture in Eighteenth-Century Virginia. In: Common Places: Readings in American Vernacular Architecture, edited by Dell Upton and John Michael Vlach, pp. 315-333. The University of Georgia Press, Athens.

1990 Imagining the Early Virginia Landscape. In: Earth Patterns: Essays in Landscape Archaeology, edited by William M. Kelso and Rachel Most, pp. 71-86. The University Press of Virginia, Charlottesville.

Vlach, John Michael
1991 Plantation Landscapes of the Antebellum South. In: Before Freedom Came: African-American Life in the Antebellum South, edited by Edward C. Campbell, Jr. and Kym S. Rice, pp. 21-47. The Museum of the Confederacy, Richmond, and the University of Virginia, Charlottesville.

Wade, Richard C.
1964 Slavery in the Cities: The South, 1820-1860. Oxford University Press, New York.

Watson, Patty Jo
1986 Archaeological Interpretation, 1985. In: American Archaeology Past and Future, edited by David J. Meltzer, Don D. Fowler and Jeremy A. Sabloff, pp. 439-455. Smithsonian Institution Press, Washington, D.C.

Watson, Richard A.
1991 What the New Archaeology Has Accomplished. Current Anthropology 32(3):275-291.

Weeks, Christopher
1984 Where Land and Water Intertwine: An Architectural History of Talbot County, Maryland. The Johns Hopkins University Press and the Maryland Historical Trust.

Wheaton, Thomas R. and Patrick H. Garrow
1985 Acculturation and the Archaeological Record in Carolina Lowcountry. In: The Archaeology of Slavery and Plantation Life, edited by Teresa A. Singleton, pp. 239-259. Academic Press, New York.

Whiffen, Marcus
1960 The Eighteenth Century Houses of Williamsburg. Colonial Williamsburg Incorporated, Williamsburg, Virginia.

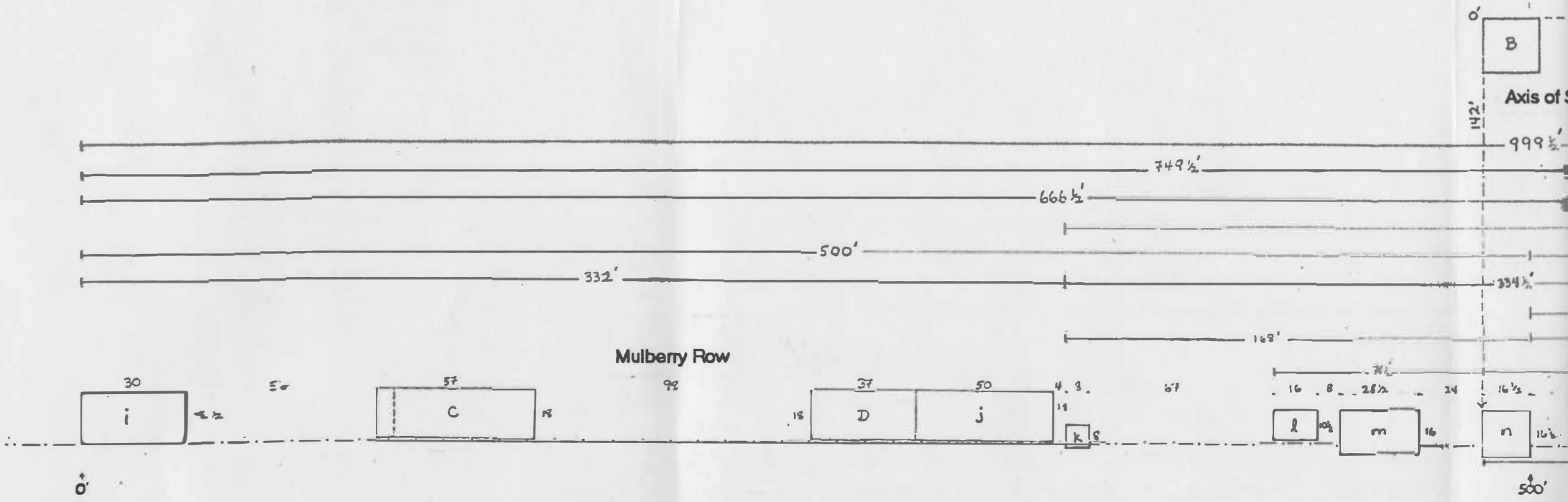
Documentary Sources

Alderman Library, University of Virginia (ViU)
Henry E, Huntington Library and Art Gallery (CSmH)
Massachusetts Historical Society (MHi)

VITA

Madison Scott Shumate was born in the once prosperous textile and tobacco town of Danville, Virginia on August 18, 1960. His first day of formal schooling at G.L.H. Johnson Elementary reduced him to tears - a not so certain portent of an illustrious academic career to come. However, faced with the sure alternative of stooped and sweaty labor among the ripened yellow leaves of the tobacco field or the rasping respiration of Brown Lung - a certain consequence of a life spent sucking down stray cotton fibers at the local mill, he therefore persevered in his scholastic endeavors. And yet, by graduation day of June 11, 1978 from a certain George Washington High School - located, incidentally, conspicuously close to the recruitment office of the textile mill - young Shumate had come to the conclusion that life's real lessons were taught somewhere outside of the tiled walls of academia, and probably plenty far from Danville too. So with a brace of similarly-minded compatriots he angled the long nose of his newly acquired but much used Chrysler '66 towards the Great American West. Within a week he'd landed gainful employ behind the business end of a Jackson Fastspray in Vail, Colorado, and after two weeks he'd mastered the procedure of turning the thing on and off again. After nearly a year of washing somebody else's dishes he limped the '66 back to Danville and promptly enrolled among the eager faces of Danville Community College. The summer of 1981 produced an Associate in Science degree followed in the summer of 1983 by a Bachelor of Science

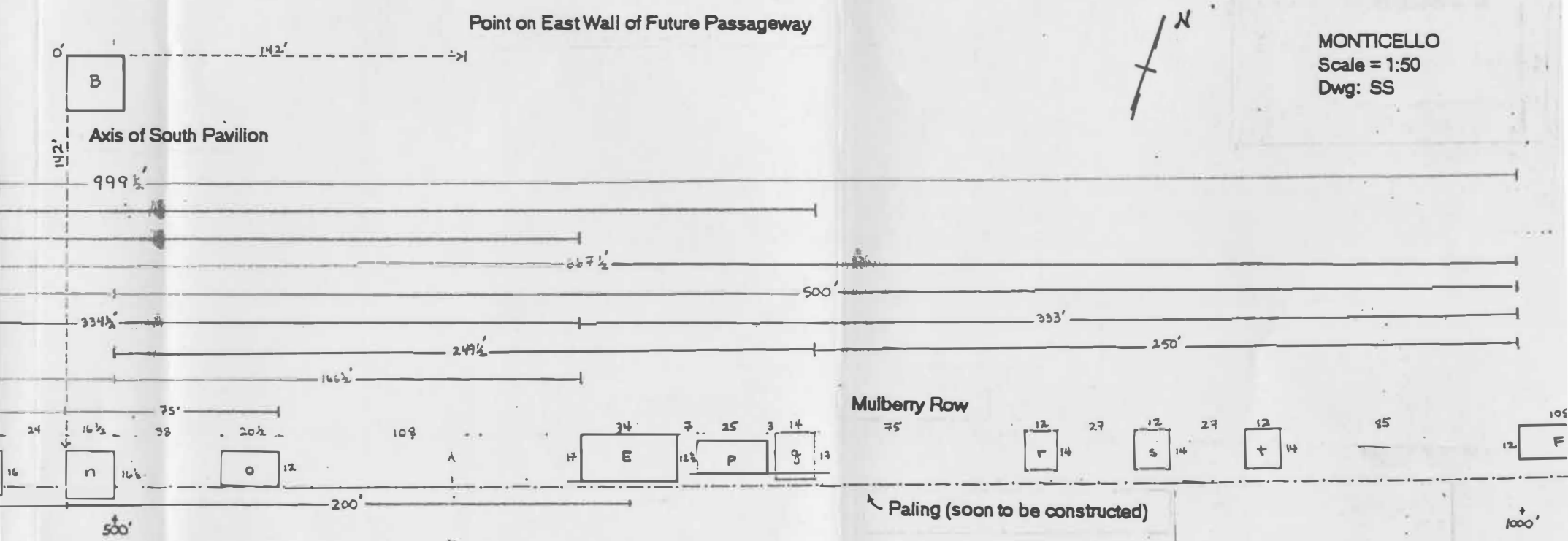
degree from Radford University of southwestern Virginia. But it was the summer of 1982, in which he participated in his first archaeological field school, that set the course for much of the ensuing ten years. At three-thirty-five an hour he welcomed the role of lowest of dig bums (he'd made more washing dishes), and when after a time he'd risen to the exalted status of site supervisor - better paid but secretly despised by all those around him - he gave it up again for the delicious anonymity of the underpaid excavator. His youth spent, his fortune not quite attempted, and his faithful '66 long since put out to pasture ("threw a rod" in Martinsville), in the Fall of 1990 he stumbled somewhat reluctantly backwards into academics at the University of Tennessee, Knoxville where it is his hope to receive a Master of Arts Degree in Anthropology at some point during 1992. Whenever.



Dependency and Outbuildings

B - South Pavilion (20x20)
C - Joinery (57x18)
D - Smith's and Nailer's Shop (37x18)
E - Workmen's Hall (34x17)
F - Stables (105x12)
i - Carpenter's Shop (30x18.5)
j - Nailery Addition (50x18)
k - Necessary (8x8)
l - Storehouse (16x10.5)
m - smokehouse/dairy (28.5x16)
n - wash house (16.5x16.5)
o - servant's quarters (20.5x12)
p - shed (25x12.5)
q - servant's quarters (14x17)
r - servant's qua
s - servant's qua
t - servant's qua

Plate 1. An alternate interpretation of the 1796 insurance plat based on documentary and archaeological evidence (including those buildings of the Mulberry Row level only).



r - servant's quarters (12x14)
s - servant's quarters (12x14)
t - servant's quarters (12x14)