

IV. RESEARCH DESIGN

A. INTRODUCTION

Based on the results of the Phase I and II investigations, the Locust Grove Site was considered eligible for the National Register of Historic Places under Criterion D. The previous investigations had indicated that the site would provide an opportunity to study the farm life of an elite St. Georges Hundred household in the mid- to late nineteenth century and to address several questions/issues of interest to historians and archaeologists. A data recovery plan was prepared to provide an overarching research framework for the Phase III investigations, the principal goal of which was to recover archaeological and historical data on the organization of space at Locust Grove, the foodways and consumer behavior of the site's occupants, and their economic and social standing in the rural community of St. Georges Hundred.

Also providing structure for the research was the program outlined in the *Management Plan for Delaware's Historical Archaeological Resources* (De Cunzo and Catts 1990), which consists of three intersecting components: time, space, and research theme. Of the five time periods defined in the plan, two are applicable to the occupation of Locust Grove—1830-1880 Industrialization and Early Urbanization, and 1880-1940 Urbanization and Early Suburbanization. Geographically, the site falls into the Upper Peninsula zone. Two of the four research themes outlined in the Management Plan were considered to be especially pertinent to the investigations at Locust Grove, i.e., Landscape, and Domestic Economy (or consumer behavior).

B. RESEARCH ISSUES

1. Landscape

Landscape studies, which have increasingly become a focus of research in historical archaeology (Adams 1990; Beaudry 1986; Kelso and Beaudry 1990; Leone 1989; Praetzellis and Praetzellis 1989; Rubertone 1986), examine issues related to the cultural modification of the environment and the use of space. The landscape, which includes buildings, activity areas, and the pattern of fields, woodlots, and roads (as well as natural features), is shaped by humans and is the stage upon which they conduct their lives. Landscapes are altered in response to changing economic conditions (shifts in the regional agricultural regime, for instance), or to conform to cultural perceptions of what the world should look like. Like other elements of material culture (clothing, furniture, or sets of ceramic dishes), the landscape is invested with meaning, and it is to the issues of meaning and symbolism, human perception and experience of landscape, that historical archaeologists are increasingly turning their attention (Yamin and Metheny 1996:xiii-xx). House forms, decorative trim, the placement of gardens, and so forth, are not simply reflective of social and economic status, but are also expressions of social or class identity, and "can be viewed as active components in the creation and recreation of social relations" (Gibb 1996:21). Material objects can be used to emphasize social or class differences or, conversely, can be employed to

mask the contradictions inherent in social and class relationships. The elements of landscape, and other forms of material culture, also express and reinforce the relationships of gender and generation (i.e., parents and children) within the household (McMurry 1988; Rotman and Nassaney 1997; Spain 1992; Weber 1996). As Glassie (1982) has emphasized, material culture is interactive as well as reflective and plays a role in mediating social interaction (see also Carrier 1995), a concept that Herman (1987, 1992) has employed in his studies of architecture and rural life in Delaware in the eighteenth and nineteenth centuries. For Herman, architecture is oriented in large measure toward the community. In other words, material culture is used to express identity to others outside the household and to mediate social interaction between the household and the outside world (Herman 1987). James Gibb, on the other hand, in his recent study *The Archaeology of Wealth: Consumer Behavior in English America* (1996), argues that the decisions regarding the acquisition and use of material culture were, in large part, directed inward, representing the household's dialogue with itself "about membership, identity, power relations, and mutual reliance and affection" (1996:4).

During the eighteenth century, new intellectual and social norms emphasizing order, cleanliness, and the separation of public and private spheres developed in Europe, and are referred to in the Anglo-American context as Georgian (Deetz 1977). By the middle of the century, the Georgian worldview, or mindset, had begun to influence nearly every aspect of the cultural environment of British North America (Deetz 1977, 1988), including the use of space. Georgianization was the gradual transition from a communal, medieval ideology to a rationalist system characterized by individualism, empiricism, and a symmetrical ordering of the cultural environment. This worldview had become generally accepted in England prior to its introduction into the colonies, where it spread inland from the eastern seaboard with the rise of merchant capitalism during the course of the eighteenth century (Leone 1989). Georgian material traits became increasingly relied upon for status advertisement and the creation and recreation of social identity by the colonists who, according to Bushman (1992), thus associated themselves with the English aristocracy as the century progressed. According to Deetz, the Georgian worldview is discernible through various interpretations of the archaeological record, including, although not limited to, the introduction of matching ceramic sets, forks, individualized cuts of meat, and the expansion in the variety of household furnishings. The landscape was also affected, with the construction of symmetrical, center-passage plan houses, and the use of trash pits instead of the disposal of refuse across the yard areas surrounding the house (Deetz 1977; Palkovich 1988).

In his study of architectural change in Delaware, Bernard Herman (1987) has observed trends broadly similar to those noted above. By the 1740s, for example, the Georgian-influenced center-passage plan began to be accepted by Delaware's rural elite, whose adoption of this new form expressed their identity as increasingly separate from that of the community at large (Herman 1987:27-28). As Herman points out, by the end of the eighteenth century, there was a distinct relationship between the emergence of well-defined social classes and architecture (Herman 1987:39-40).

Over the course of the nineteenth century, Georgian conceptions of order and refinement spread into the middle class, brought about by (and in some ways driving) the expansion of the capitalist

market (Bushman 1992; Sellers 1991), and ultimately developing into the ideology of proper home life that has come to be called Victorian. On rural middle-class properties, the external marks of refinement included the construction of vernacular forms of Greek and Gothic revival houses (followed, by mid-century, by Italianate and Second Empire styles), the planting of ornamental shrubs and trees, construction of new types of agricultural outbuildings, and the creation of formal front yard spaces.

The rise of a rural middle class in St. Georges Hundred during the nineteenth century mirrored, in many ways, developments elsewhere in the Middle Atlantic region, and corresponded to the transformation of traditional agriculture in Delaware. During the first decades of the century, many of the less productive farms in southern New Castle County were abandoned, following a protracted economic downturn, and were absorbed into the holdings of more successful farmers (De Cunzio and Garcia 1992). During this same period, the agricultural reform movement was aggressively advocating scientific farming and the concept of agriculture as industry (Herman 1987; McMurry 1988). Reform-minded and increasingly capitalistic farmers in southern New Castle County embarked on a rebuilding program in the second decade of the nineteenth century that transformed the rural landscape. During the 1820s, older houses were expanded, but by the following decade, building projects more frequently entailed new construction, a trend that continued into the 1870s (Herman 1987). These new houses (of which Locust Grove was one) incorporated the new ideas of segmented spaces and functional specificity. By mid-century, in Delaware and elsewhere in the Middle Atlantic region and the Northeast, the middle-class farmhouse had come to embody the separation of domestic work from farm work and was an expression of gentility, propriety, and economic success (Bushman 1992; McMurry 1988).

In addition to houses, the transformation of the rural landscape in the nineteenth century encompassed the farm buildings as well as the yard areas in the farmstead's domestic core. As Herman (1987) observes, new agricultural buildings were constructed that were, ideally, designed to house a number of specific functions beneath a single roof—the factory concept applied to the farm. Herman goes on to note that these buildings "became the primary vehicles that individual farmers used to communicate the new values of the agricultural reform movement and the character of each particular farm in southern New Castle County" (Herman 1987:199). These new values were not always wholly embraced, however; the space inside these new structures was often underutilized, and some farmers continued to build specialized outbuildings for specific functions (Herman 1987:215).

The refinement of yard space, particularly the area between house and road, went hand-in-hand with the construction of the genteel, stylish, and spatially segmented middle-class farmhouse. Yards were sometimes fenced, and were usually landscaped to present a formal and often extensive buffer zone between the public road and the family's private space (Bushman 1992). Like the house, the yard was, ideally, designed to present a refined outward expression of gentility. The disposal of household refuse was now usually conducted out of sight behind the house, often well away from the domestic center of the farmstead. However, the ideal did not always conform to the reality, and some farm households continued to use the yards immediately adjacent to the house for refuse disposal (Affleck 1996).

The Phase II data recovered from the Locust Grove Site suggested that much of the area surrounding the house, including the rear yard, had been disturbed by twentieth-century activities. Apparently intact refuse deposits, however, were uncovered in the front yard. A principal goal of the data recovery investigations was, therefore, the reconstruction of the front yard at the Locust Grove Site, in order to determine how changes in yard layout reflected changes in the lives of well-to-do St. Georges Hundred inhabitants and, if possible, to correlate these changes with broader social trends in nineteenth-century American society (Deetz 1977).

2. *Domestic Economy*

Simply put, the research domain of domestic economy, as defined by De Cunzo and Catts (1990), encompasses the range of means—including production, reproduction, and consumption—employed by a family or household to achieve its goals. As De Cunzo and Catts (1990:17) have noted, these goals might include simple survival; geographic, occupational, economic and/or social mobility; and/or may be inspired by religious beliefs and values or other ideologies. Production, reproduction, and consumption can therefore be seen as a strategy designed to achieve the family/household's domestic goals. This domestic strategy is composed of several elements amenable to historical and/or archaeological investigation. These elements include the composition and occupational structure of the household (a critical, and largely a historic, issue); home production (of shelter, food, clothing, and other necessities, together with surplus products for market); and consumer behavior, a topic that has become a major focus in historical archaeology (e.g., Cook et al. 1996; Cressey et al. 1984; Henry 1991; Klein and Garrow 1984; LBA 1986, 1990a, 1990b; Spencer-Wood 1987; Wise 1984). The latter can be broadly defined to include participation in a local barter economic system and/or a cash-based market economy (De Cunzo and Catts 1990:17). Of particular relevance in terms of consumer behavior are the family/household's investment in, utilization of, and improvements to, commodities such as land and/or architecture in order to meet its goals; it is here where the research domains of domestic economy and landscape intersect. Attention should be paid as well to the household's investment in equipment and tools, furnishings, and goods such as ceramics, clothing items, and bottled products (such as wine, spirits, or condiments).

Home production is also critical for gaining an understanding of the domestic strategies of rural populations. How self-supporting were nineteenth-century farm households? How tied to the market were they, and what was the effect of the commercialization of agriculture over the course of the nineteenth century? Evidence of foodways (faunal and flora remains, and artifacts associated with food preparation, storage, and consumption) can be particularly useful in enhancing understanding with regard to the self-sufficiency of nineteenth-century households, especially through the analysis of butchering patterns and the distribution of faunal elements. Through the examination of self-sufficiency and market participation, it should be possible to place the household in local, regional, and international economic contexts.

For middle-class farm households, a principal goal had always been to maintain a degree of economic independence. As the nineteenth century progressed, and farmers became more market-oriented (see Clark 1990), the desire for independence had to a greater or lesser extent been

translated into a "drive for income," as Michel (1984) terms it. Material objects, the most obvious of which were farmhouses and outbuildings, became, in Herman's words, "monuments to economic and social success. Aspirations to social class could be worked out in brick, lumber, plaster, and paint: the social revolution would become an architectural revolution" (Herman 1987:116). St. Georges Hundred farmers' aspirations to social class could also be worked out in the form of more portable items, such as transfer-printed teawares or parlor furnishings. Material goods, as noted earlier in the discussion of landscape, thus both expressed and reinforced social, gender, and class identities, and certain items—extensive matched dinner sets, for example—came to symbolize middle-class Victorian refinement and respectability (Wall 1991).

C. METHODOLOGY

1. Archival Research Methods

The Phase I and II archival research conducted by Bedell et al. (1997) provided the basic chronology for the Locust Grove Site, as well as the local and regional contexts within which the property was embedded. This work included both general research on the economic and social history of New Castle County and site-specific research on the history of Locust Grove. A chain of title was prepared for the property, using the current owner, tax information in the New Castle County Tax Assessment Office, and the will, probate, and Orphans' Court records kept on microfilm at the New Castle County Chancery Office. U.S. census records for the site were consulted on microfilm at the Morris Library of the University of Delaware. The marriage catalog, tax assessment records of St. Georges Hundred, and road returns were consulted at the Delaware State Archives. Genealogical and background material was consulted at the Historical Society of Delaware in Wilmington, the Dover Public Library, the Wilmington Public Library, and the Odessa Public Library. Additional work conducted for the Phase III investigations included the compilation of agricultural census data from St. Georges Hundred for comparative purposes, and the examination of local tax assessments from the nineteenth century.

2. Phase III Field Methods

The program devised for data recovery was based on a sampling plan that included two principal components: 1) excavation of block areas centered on productive loci identified during the Phase II fieldwork, and 2) exploratory excavations to provide a better spatial sample of the area in front of the house. Prior to the commencement of fieldwork, a grid oriented to the compass bearing N6°W was established across the front and side yards of Locust Grove. This grid alignment guided the orientation of each of the test units and the two block excavations. Grid coordinates were assigned to both test units and archaeological features.

Based on the Phase II testing, two areas were identified for the expansion of block excavations (Figure 6). The first of these, identified as the East Block, was located in the front yard immediately south of the house and centered around Test Unit 5, which encountered nineteenth-century refuse deposits sealed by several landscaping strata. The second area, designated the West Block, was located in the western side yard and centered on Test Unit 4, which had uncovered a midden or refuse deposit that appeared to date to the late nineteenth century.

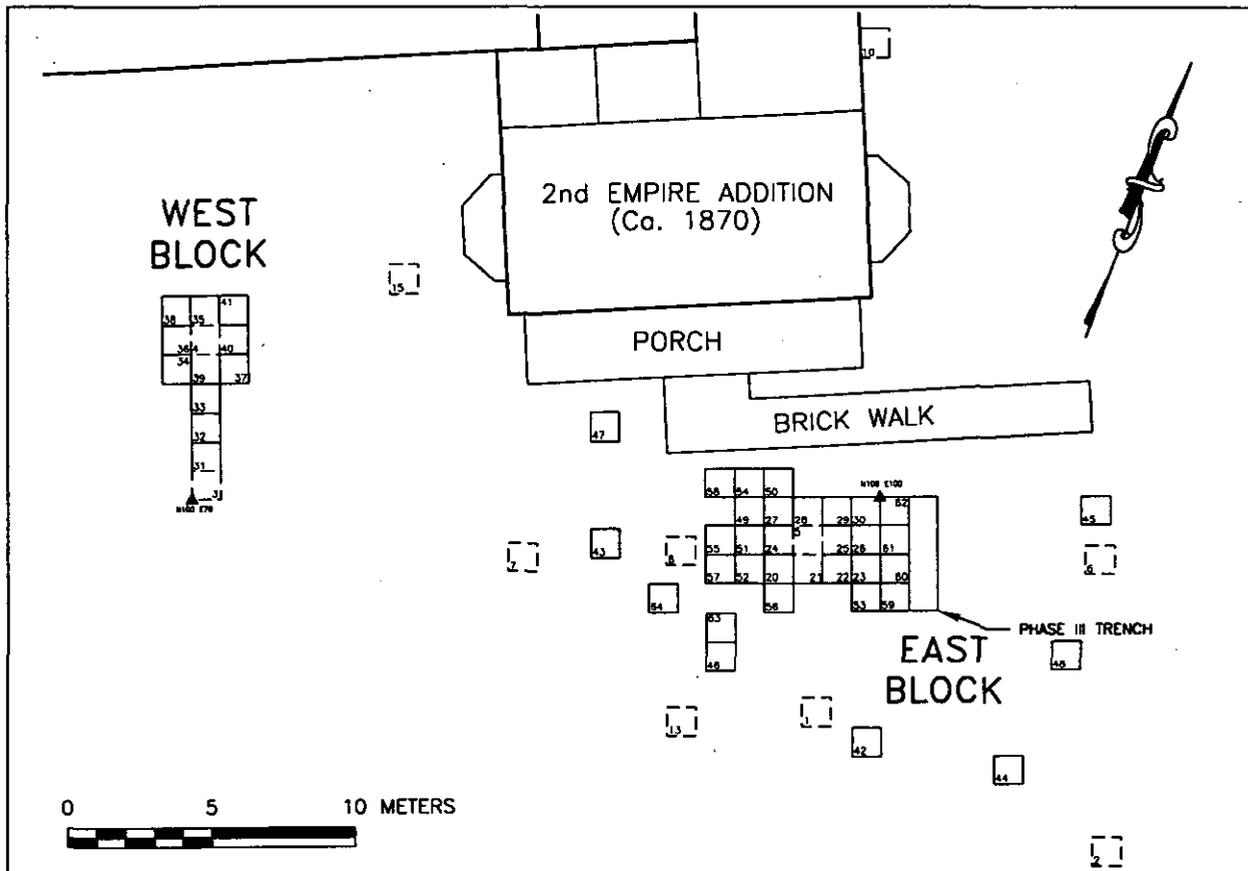


FIGURE 6: Phase II and Phase III Unit Locations in Front and West Yards

Several exploratory units were scattered across the front yard, between the house and road, to obtain a more representative sample of the stratigraphic deposits in this portion of the site. Reserve units were employed to expand the block excavations around significant deposits or features.

The Phase III field effort included 48 1x1-meter test units and a single 1x4-meter trench, totaling 52 square meters of excavation. Altogether (including the Phase II fieldwork discussed in Chapter III), 72 square meters were excavated at the Locust Grove Site. Excavation was conducted according to natural or cultural strata; all excavated soils were screened through 0.25-inch hardware mesh and were recorded using USDA textural classifications and Munsell soil color notations. Feature and soil profiles were drawn to scale, and photographed using black-and-white and color film. Soil samples were taken from features and selected stratigraphic contexts for flotation and soil chemical analysis. A number of soil samples were also taken for dating using the Oxidizable Carbon Ratio (OCR) procedure.

3. Data Analysis Methods

A substantial artifact collection from the site had already been processed and analyzed for the preceding Phase I and Phase II studies. In order to take full advantage of the existing analytical

information, the artifact processing and analysis for the data recovery program followed the same overall laboratory procedures. This allowed integration of new information into the database already established for the site.

The artifact collections were processed for eventual storage and curation by the Delaware State Museum. Artifacts were assigned accession number according to the system utilized by the Island Field Museum. The assigned accession numbers for Site 7NC-F-73 are as follows:

<i>Accession Number</i>	<i>Phase</i>
95/0017	I
96/0022	II
95/0079	III

In addition to the accession numbers, unique catalog numbers indicating field provenience within the site were also assigned. The overall laboratory treatment of the collection included (1) basic processing—cleaning and packaging in appropriate containers, (2) cataloging and analysis according to LBA's in-house analytical system, and (3) preparation of the collection for permanent curation, according to the standards of the Delaware State Museum.

Artifact cataloging and tabulation were accomplished by a computerized database system developed by LBA. The database was developed using the MicroRim, Inc., R:BASE System V relational database software package, which runs on IBM-compatible microcomputers. The overall database for the Locust Grove project contains four principal files: (i) provenience, (ii) historic artifacts, (iii) prehistoric artifacts, and (iv) faunal and floral material. An overview of the information in the principal files is presented below.

Complete field provenience information was included in the provenience file: *Catalog Number, Site, Unit, Stratum, Level, Feature, and Feature Level*. The majority of these fields were taken directly from the field excavation records and are therefore self-explanatory. During fieldwork, a sequence of catalog numbers was assigned to the provenience list, so that each unique provenience could be identified by a single number. Additional fields to identify excavation blocks and interpreted stratigraphic units were subsequently added to the provenience table to facilitate analysis of intrasite patterning.

Historic artifacts were cataloged according to standard typologies (e.g., Noël Hume 1970; South 1977), using the class, type, and variety approach (for example, class=glass, type=bottle, variety=case). The entire collection was first sorted according to major classes—ceramics, curved glass, pipes, and small finds. The small finds class is a residual or catch-all category that includes a broad variety of items, including artifacts assignable to South's (1977) Architectural, Furnishings, Arms, Personal, Clothing, and Activities groups. Cataloging of the ceramics and glass was, for the two block excavations, carried to the level of vessels, with crossmends and Minimum Number of Vessel determinations made. For the remainder of the assemblage, the cataloging of glass and ceramics was carried only to the level of individual sherds, rather than vessels, and no crossmends or Minimum Number of Vessel determinations were made. Some

of the attributes—date ranges, for example—were automatically entered by the computer for commonly encountered artifact types. Data processing speed and storage were enhanced by the use of alphabetic and numeric codes for the various attributes, but more lengthy "translations" can be generated as well, particularly for printing catalog sheets. For example, the code "CRP 50" translates to "Ceramic, pearlware, transfer-printed, blue, with stipple," with an automatically entered date range of 1815 to 1840.

Dating of deposits was accomplished primarily by the Terminus Post Quem (TPQ) technique, using the beginning date of manufacture for artifacts with a known temporal range. Mean Ceramic Dates (MCD) were also computed for deposits with a substantial number of datable ceramics. The MCD dating technique theoretically provides a date that corresponds to an assemblage's median date (South 1977), and is a useful tool for comparison of assemblages between sites or of different deposits within a site.

The cataloging of prehistoric lithic artifacts was also carried out according to a technomorphological analytical approach; that is, artifacts are grouped into classes and then further divided into types based upon key morphological attributes, which are linked to or indicative of particular stone-tool production or reduction strategies. However, a function(s) can be assigned to each artifact class and type. Data derived from experimental and ethnoarchaeological research are relied upon in the identification and interpretation of artifact classes and types. The works of Callahan (1979), Clark (1986), Crabtree (1972), Flenniken (1981), Gould (1980), and Parry (1987) are drawn upon most heavily.

Faunal remains were weighed, measured, and cataloged according to species, where identifiable, and element. Any modifications by butchering, burning, gnawing, or breakage were noted. In most instances, many of the bone fragments could not be identified at the species level. Mammal bone that could not be speciated was, therefore, categorized according to size range. The percentage distributions of faunal remains at Locust Grove are based on the enumeration of skeletal elements rather than on estimates of Minimum Numbers of Individuals or the percentage of available meat.

Cataloging and analysis of the floral material samples were completed by a consultant, and the catalog was subsequently integrated into the overall database. For each specimen, the recorded data include species identification, count, weight, and other modification. Cataloging procedures used for the floral material are described in Chapter VII.