THE ANALYSIS OF CHANGING PATTERNS OF REFUSE DISPOSAL AND SITE UTILIZATION ON A MID-19TH TO EARLY 20TH C. HOUSESITE IN MISSISSIPPI

By

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ABSTRACT

THE ANALYSIS OF CHANGING PATTERNS OF REFUSE DISPOSAL AND SITE UTILIZATION ON A MID-19TH TO EARLY 20TH C. HOUSESITE IN MISSISSIPPI

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The Cedar Oaks housesite, located in northeastern Mississippi on the Tombigbee River, contains the last standing dwelling from the extinct town of Barton (ca. 1848-1870).

This thesis is concerned with the determination of patterning in site utilization and disposal behavior as related to the change from an in-town residence (ca. 1848-70) to a rural farmstead (ca. 1870-1940s) after Barton's demise.

By analyzing archaeological, oral, archival, architectural, and artifactual data, a pattern was discerned wherein the Barton-period occupation saw deposition primarily in the backyard service area and along the yard perimeters, while the frontyard was swept clean.

The post-Barton period saw refuse concentrations closer to the house, in specific dumping areas, and along the perimeters. The backyard/frontyard dichotomy

continued, although the latter accumulated a shallow sheet midden.

Comparison with analogous Barton housesites showed the same shift in patterning after Barton's demise, related primarily to a change in the conception of spatial utilization.

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INTRODUCTION

Project Description

In 1979, Michigan State University contracted with Interagency Archaeological Services-Atlanta to investigate historic period sites within the proposed Barton Ferry Recreation Area of the Tennessee-Tombigbee Waterway. The project area is generally located on the west side of the Tombigbee River in Clay County, Mississippi (Figure 1).

Three nineteenth century townsites were studied as part of the Tombigbee Historic Townsites Project and, in order of chronology, these were as follows: Colbert (ca.1834-1847), Barton (ca.1848-1870), and Vinton (ca.1850-1920). It is known that Barton was founded, on higher ground, after Colbert was destroyed by a flood in 1847 (Minnerly 1983: 2, 111).

The Cedar Oaks (22C1809) housesite is situated in the northeast portion of the Barton townsite, on a high knoll approximately 175 m from a blufftop ridge on the south side of the Tombigbee River (Figure 2). This housesite functioned as a residence and farmstead and was occupied almost continuously from the 1840s up to the 1940s.

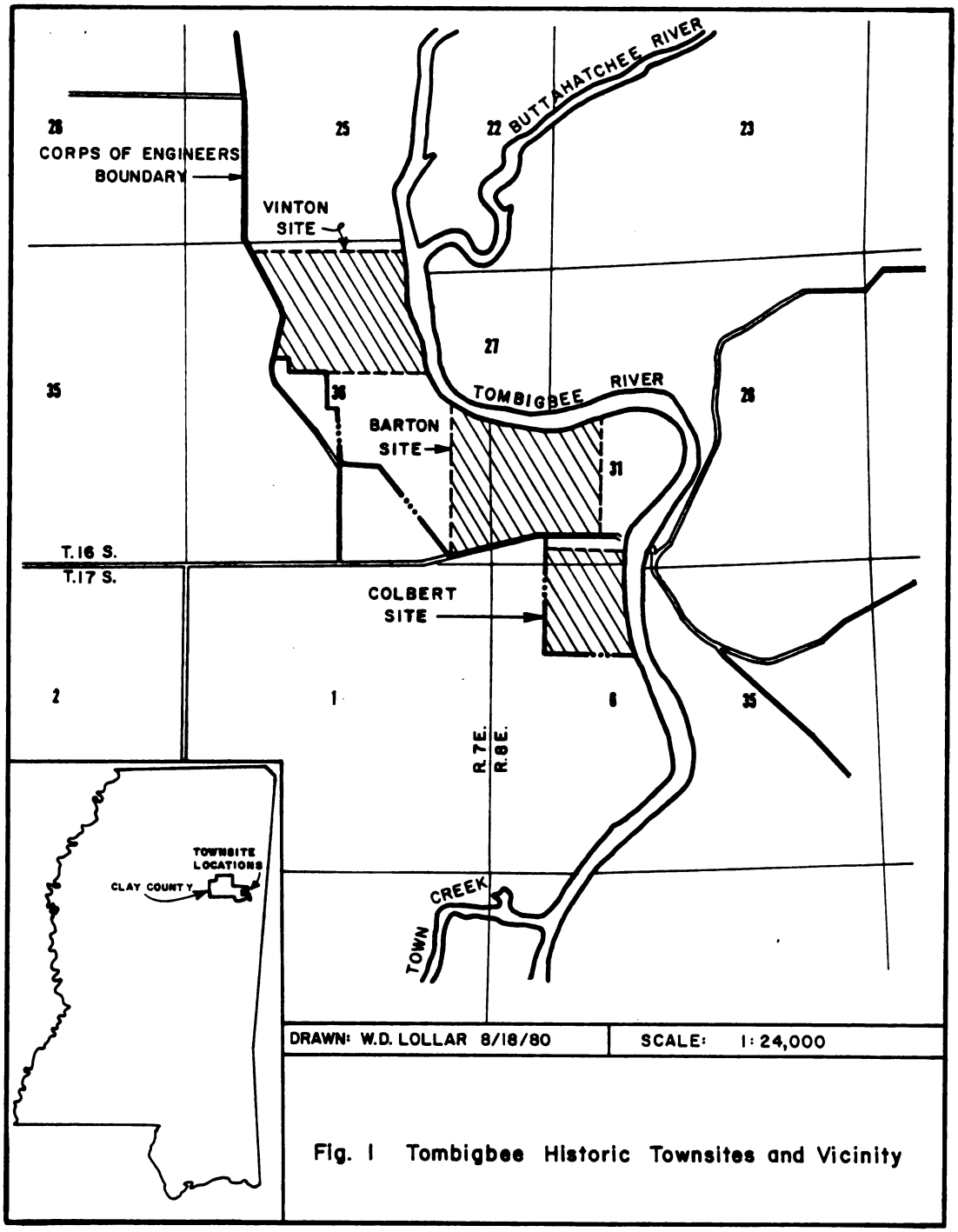


Figure 1. Tombigbee Historic Townsite and Vicinity

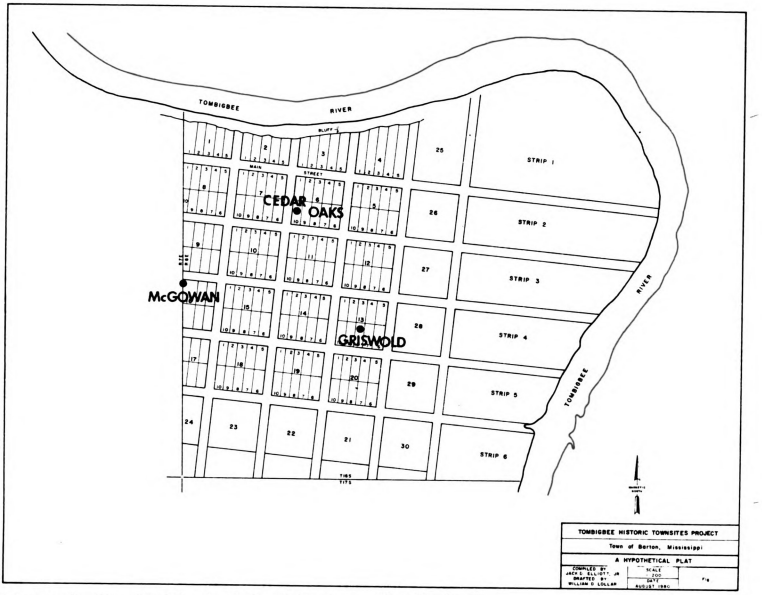


Figure 2. Hypothetical plat of Barton, Mississippi

Standing structures on this site at the time of investigation included a house, shed, privy, and two small barns (Cleland and McBride 1983: 318-20).

This housesite was investigated in detail through three phases of archaeological, oral, archival, and architectural study. Attention was focused on Cedar Oaks because the house represents the last remaining standing structure from the town of Barton. It is a 48 x 36 ft vernacular Greek Revival frame building with its long dimension on a north-south axis (Howard 1978) (Figure 3). It is one-story, with four rooms symmetrically placed on opposite sides of a central, closed-in hallway.

The two front rooms are larger than the back, and each room originally had separate fireplaces located on the south and north ends, respectively (Figure 4). Only one chimney remains standing and this was built in the 1940s to replace the southwest chimney.

The west facade serves as the front entranceway with an open gallery spanning its full length. It has a central doorway which is flanked by single windows in the north and south front rooms. The northern facade shows three windows with two in the front room and one in the back room while the southern side only shows two windows flanking the chimney in the front room. The back facade (east side) shows two doors, one opening in the northeast rear room and the other a folding door that opens from the

a. House looking east

b. Shed looking northeast

Figure 3. Cedar Oaks photographs

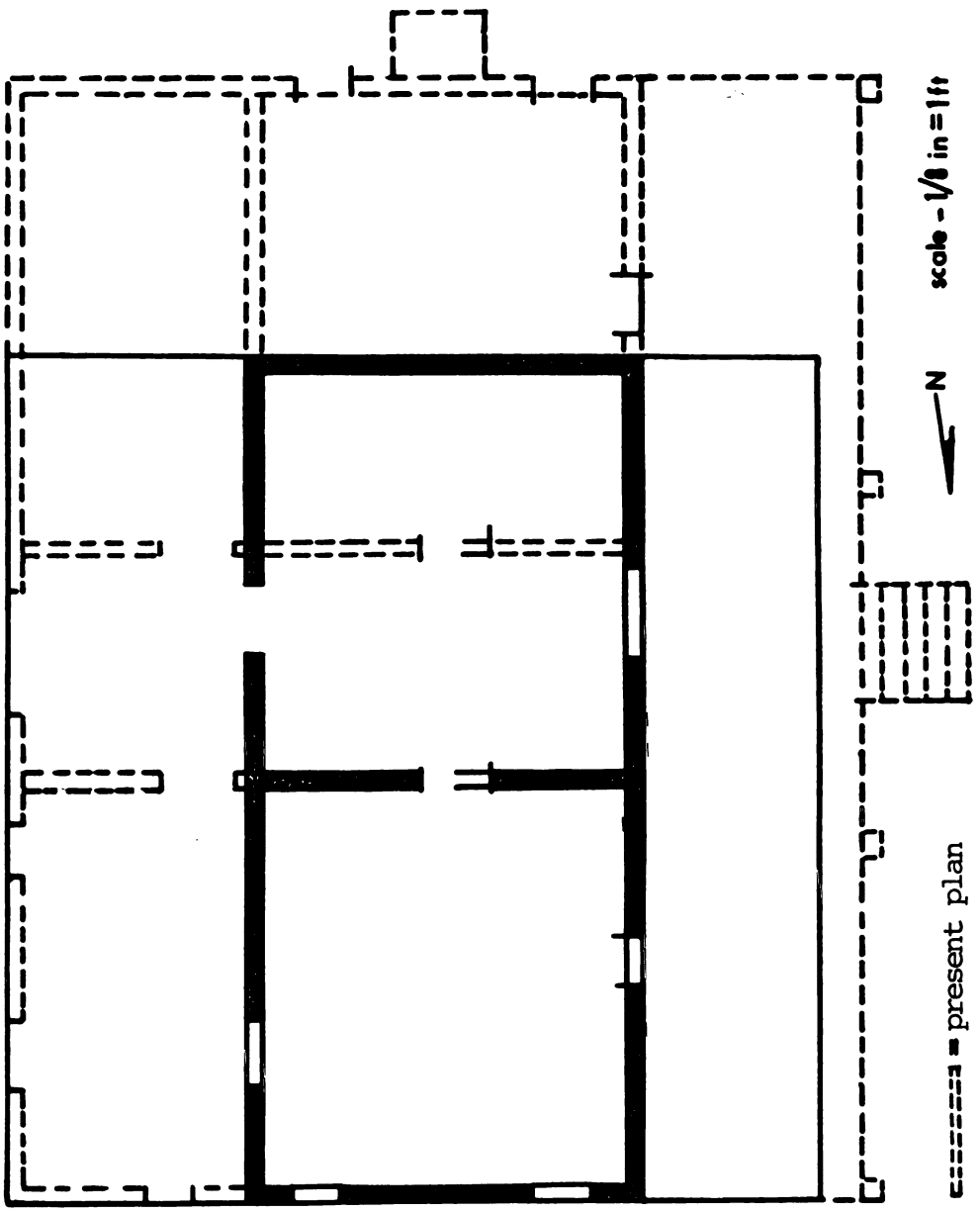


Figure 4. Cedar Oaks floorplan -- present and original, after Brito 1983

central hallway. No steps exist at present for either door; whereas, wooden risers now serve as the front (west side) porch steps. The house itself is raised approximately 30 inches on brick piers, and the roof is covered with sheet metal which replaced a storm-damaged roof in the 1970s (Howard 1978 and Brito 1983).

The existing shed is a 3 x 4 m frame structure with the long axis running north-south (Figure 3). It is situated 7 m east of the northeast corner of the house with its only doorway facing west. This shed is a twentieth century structure constructed of material salvaged from an earlier building (Ibid.). The only other standing outbuilding located in the immediate yard area of this housesite is a twentieth century privy located in the northeast corner of the backyard, 27 m off the northeast corner of the house (Figure 5). An open brick-lined well, approximately 16 m deep, is located between the shed and privy and near a large southern red oak (Figure 5).

The house, shed, privy, and well are situated on a relatively flat knoll in a cleared area approximately 70 x 40 m in dimension. The land slopes gently away from this flat area, with the steepest slopes on the southern and western sides. A dirt road extends down the western slope away from the front of the house and connects with a more-or-less north-south dirt road which runs from the present

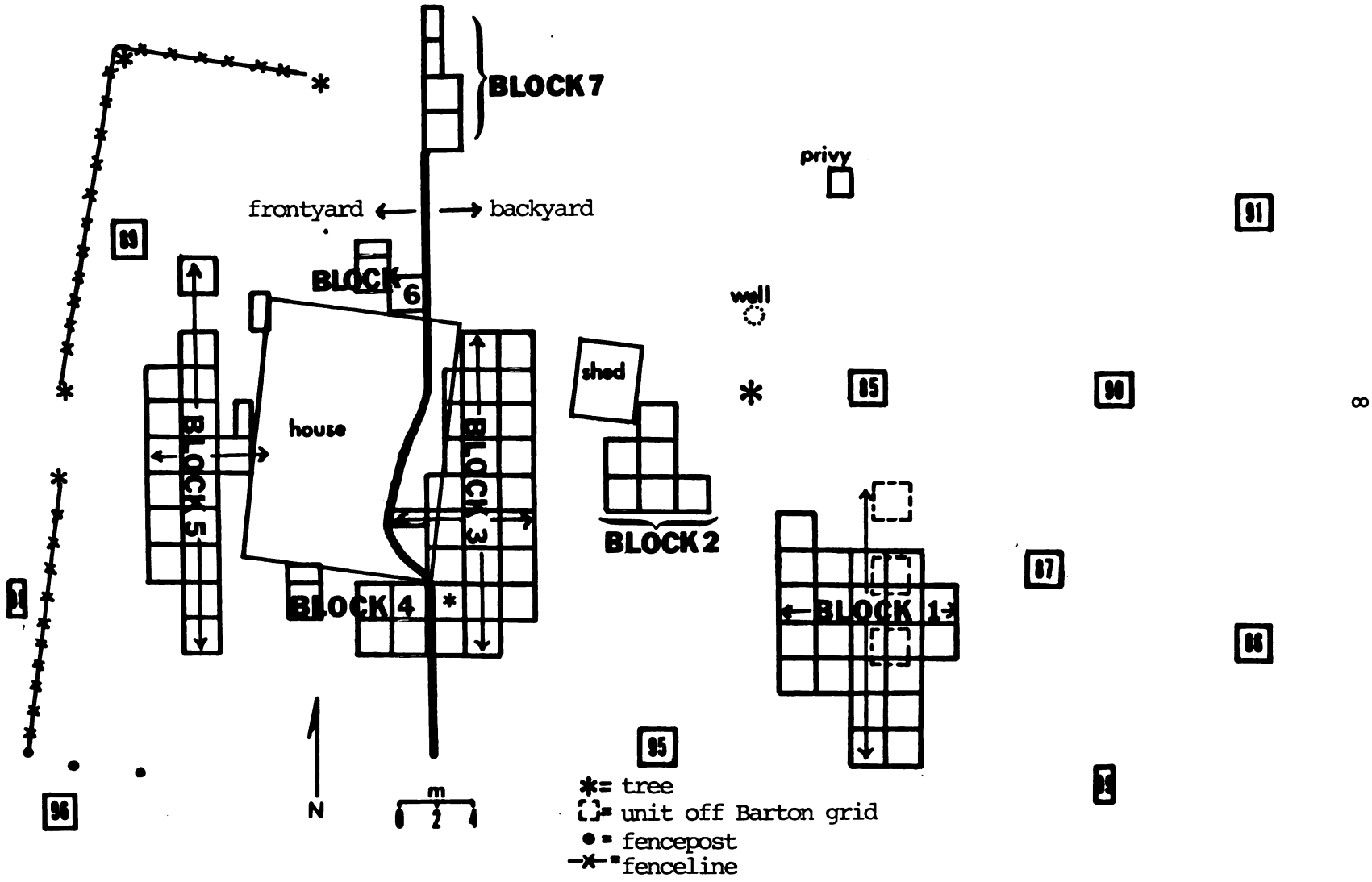


Figure 5. Cedar Oaks housesite map

day main entrance into the Barton site up to the bluff above the Tombigbee River (Cleland and McBride 1983: 308).

Presently, the vegetation of the site shows purposeful placement and cultivation. The front of the house is framed by two large cedar trees placed on either side of an opening in the front fenceline. Two more large cedar trees are located on the northwestern portion of the fenceline with one actually serving as the corner fencepost. As mentioned above, a large oak tree dominates the backyard area and is situated approximately 16 m east of the house. Fruit trees, predominantly peach, were planted along the southern edge of the site. A flower garden recently occupied the extreme northwest corner of the frontyard (Figure 5). The surrounding land now shows secondary hardwood forest dominating land once cleared for cultivation but generally abandoned in the 1940s.

A portion of the fenceline remains standing and this runs along the western edge of the frontyard and part of the northern and southern edges (Figure 5). It is a wire fence with an opening between two cedar trees that serves as an entranceway into the site. A photograph taken in front of Cedar Oaks ca.1909 shows a front fence in approximately the same location but of a wooden picket construction (Minnerly 1983: 30).

The remaining extant outbuildings are located 130 m northwest of the house. These are two small barns, one of

log construction and the other plank (Minnerly 1983: 32). They appear to be associated only with the twentieth-century occupation of Cedar Oaks (Cleland and McBride 1983: 320).

A 70 x 40 m arbitrary boundary was delineated on the Barton archaeological survey grid which encompassed the majority of the cleared area around the house. This 2800 m^2 area served as the focus for intensive archaeological excavations during Phase I and a portion of Phase II (i.e., November 1979 through July 1980) of the Tombigbee Historic Townsites Project. These excavations yielded 106,452 artifacts from 99 excavation units or 364 m^2. Oral history interviews, archival research, artifact analysis, architectural studies, and the archaeological results provided the data for the following research.

Scope of Research

Initially, the primary focus of the research strategy was to investigate the integrity of the house in its present location. Excavation was geared to collect data on the possible existence of earlier structures on this site, to determine if the house had been moved or structurally modified, and to elucidate the evolutionary architectural history of this structure.

A second research problem concerned defining the role of this site in relation to the town of Barton. In order to achieve this goal the entire site was investigated as

Scope of Research

to its utilization through time. This included the definition of activity areas, the placement and function of outbuildings, and ascertaining the changing nature of its occupational history.

The third research problem involved the determination of refuse disposal patterns and how they changed through time. It was felt that such information could help explain changing patterns in the material culture and human behavior in this area during the nineteenth and twentieth centuries.

The Cedar Oaks housesite is appropriate to this research for a number of reasons. These are as follow:

1. The standing structures served as focal points for the placement of excavation units facilitating investigation of all three problem areas, as well as serving as artifacts themselves.

2. The high density and wide variety of artifacts provided an assemblage well suited as a collection. Unfortunately due to budgetary limitations, the project's computer program never reached the stage where reliable data and statistical manipulations could be obtained. Therefore, analysis was limited to basic quantification in the form of relative frequencies, percentages, distributions, and basic statistical calculations. The large and diverse assemblage did, however, provide valuable chronological and functional information.

3. The horizontal and vertical extent of the artifact distributions and feature concentrations, coupled with data retrieved from the Barton (22Cl807) townsite surrounding Cedar Oaks, provided spatial and behavioral information whereby activity areas could be defined, as well as refuse disposal practices through time.

4. The recent nature of this site (i.e., mid-nineteenth to early twentieth century) provided not only a written record which could be examined for corroborating and unique information, but also an oral record whereby data unobtainable through other sources could be added to the history of this site. Both sources proved to be of great value in the interpretation of data from this investigation.

5. The association of this housesite with a specific town provided the opportunity to examine the site as part of a social and cultural system; that of a residence in a small nineteenth century Southern river town, and later, as a survivor of a failed system when it became a farmstead after Barton ceased to exist.

The Problem

The analysis of refuse disposal behavior and site utilization has increasingly become a focus for historic sites research. Studies centering on the determination of behavioral patterns as reflected in the archaeological

The Problem

record have provided insights into status, ethnic, and economic associations, to mention a few (see South 1977, Drucker 1981, Otto 1977, and Moir 1982). Some studies have approached such problems with indepth analyses of site layout and activity areas as reflected in structural and artifactual distributions (see Keeler 1978, and Lewis 1977). Others have focused on refuse disposal patterns as evidenced in the archaeological record and the configuration of its deposition (see South 1977, and Moir 1982).

The underlying theory supporting such research, postulates that human activity and behavior affect the formation of the archaeological record in definable, systematic ways. This is not to say that cultural processes are the only factors in site formation, as noncultural processes also play a role in the final configuration of the archaeological record. Erosion, animal burrowing and rooting, as well as post-depositional cultural processes such as plowing and salvaging, all have an influence on artifact distribution and stratigraphic integrity. It is the elucidation of these formation processes that must be undertaken if the researcher is to understand the archaeological record and the information contained therein (Schiffer 1976:11 and 1983: 675-6, South 1977: 31-43, Binford 1981: 199, 205, Hayden and Cannon 1983: 117, and Murray 1980: 490).

The attempt will be made in this study to define some of the formation processes which are manifested in the archaeological record found at Cedar Oaks. Noncultural and post-depositional cultural factors will be considered, however, the specific concern will be with the cultural processes involved in the utilization of this site and how this changed throughout its occupation as evidenced by structural locations and their functional associations.

Refuse disposal patterns will be explored in conjunction with this structural evidence as disposal is also an aspect of site utilization. As Priscilla Murray (1980: 490-1) has noted "material elements come to rest where they are found at an archaeological habitation site basically as the result of two purposeful human behaviors (besides burial behavior)--discard behavior and abandonment behavior."

Two general types of discard behavior were noted at Cedar Oaks, specific dumping and an overall refuse-laden sheet midden. The former consists of secondary refuse (i.e., discarded away from its location of use) dumped in specific definable locations, and the latter consists of an accumulation of primary (i.e., discarded at its location of use), secondary, and de-facto refuse (i.e., lost or abandoned items) located primarily in the backyard (Schiffer 1972: 161-163, South 1977: 296-299, and Smith et al. 1982: 224).

Often sheet deposits on historic sites are dismissed as being of little use in determining behavioral patterns. Randall Moir (1982: 139), however, in studying historic sites in the Richland Creek area of Texas, has found that "sheet refuse deposits... have considerable behavioral integrity," and can provide fairly accurate information concerning the chronology of a site's occupation, patterning of yard usage, and associated socioeconomic information.

By integrating archaeological, artifactual, archival, oral, and architectural data sets from the investigation of Cedar Oaks and the Barton townsite, this study will test the following general hypothesis: The changing refuse disposal patterns at Cedar Oaks were a result of the functional change from an in-town residence (ca. 1848-1870) to a rural farmstead (ca. 1870-1940s). Specifically, the change in site function and utilization affected a change in the disposal behavior of its occupants.

In order to examine this general hypothesis the following, more specific hypotheses will be tested.

1. A change in site function from a town residence to a farmstead involved changes in the spatial utilization of the houselot, including the function, location, and necessity of certain outbuildings; the location of activity areas; and the patterning of refuse disposal behavior.

One test implication of this hypothesis suggests that since a farmstead would have to be more self-sufficient than an in-town residence, there would be greater need for kitchen gardens, small animal pens, and food processing and storage buildings (e.g., a smokehouse). It is therefore implied that such features would be more prevalent during the farmstead occupation than during the town period.

A second test implication involves the idea that a house generally serves as the centralized point from which the majority of domestic activity originates and radiates. It is therefore implied that the distance certain activity areas, outbuildings, and disposal areas are located from the house has significant meaning relative to the changing function of this site.

Specifically, it is expected that during the town period there would be few associated service structures, and those that were present, would be in close proximity to the house for easy access. A detached kitchen is likely the only service structure needed during this period as produce and other goods were readily available in the local stores. Likewise, activity areas and their associated refuse deposition, would be less evident owing to the primary function of this housesite as a <u>residence</u> during the town period. What evidence there might be is expected to be within close proximity to the service

structure(s) and/or house where domestic activity would have taken place.

Furthermore, it is expected that refuse dumps containing decaying organic material and sharp, broken items such as glass, would be located away from well-traveled pathways and generally out-of-sight and smell. It is entirely possible that a community dump was available during the town period.

On the other hand, a farmstead would require more service structures including: a smokehouse to provide a meat supply; sheds to store tools and machinery; and barns to shelter animals and their food supply. It is expected that a smokehouse would be close to the kitchen facilities to allow easy access, yet far enough away to eliminate the undesirable pollution created by meat processing. Sheds and barns would be located at greater distances from the house, in closer proximity to the animals and farmland that required their presence.

Furthermore, refuse deposition might have become more prevalent closer to the house and its surrounding lot during this period, as domestic activity would have increased due to the need to be more self-sufficient in an increasingly isolated rural setting.

A final test implication of this hypothesis involves the conception of space and its utilization, and how this was affected by the change in site function.

Specifically, it is implied that there was a distinction made between the front and backyards as far as the location of service structures, refuse dumps, and activity areas is concerned.

During the town period it is proposed that the frontyard would have served as a maintained presentation area with only moderate use for domestic activities. Therefore, it is expected that there would be little, if any, sheet refuse accumulation, no outbuildings would be present, and activity areas would be related only to maintenance and ornamental activities (e.g., yard sweeping, flower gardens, walkways).

It is further expected that this presentation area would be more formalized during the town period, breaking down somewhat during the farmstead period. In particular during the later occupations, there might be less evidence for careful yard maintenance (i.e., a sheet midden might begin to accumulate in the frontyard) owing to the effect that the isolation of a rural environment would have as opposed to the day-to-day scrutiny of a town setting.

On the other hand, it is proposed that the backyard would have served as the focal point for the majority of domestic activities and outbuildings, and likely received more refuse deposition (intentional and otherwise). It is postulated that during the town period the backyard served as the locus for domestic activity related only to the

[illegible] it is so [illegible] to me [illegible]

[illegible] the [illegible] and [illegible] to [illegible]

[illegible] it to me [illegible] to [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible]

site's function as a town residence. Therefore, it is expected that a minimal number of outbuildings would be present and located close to the house. Similarly, activity areas would be in close proximity to these structures. A sheet midden would probably accumulate only in the localized service area unless yard sweeping was a strict practice in the backyard, as well as in the front.

Any intentional refuse dumps would be expected to be located away from the house, where possible out-of-sight and smell, for the benefit of visitors and occupants alike. It is doubtful that the change from a town setting to a rural farmstead would drastically change the general conception of spatial utilization and the pride one would take in an esthetic, sanitary environment. However, the different needs and activities of a farmstead likely served to lessen strict adherence to town standards.

It is proposed that the backyard, during the farmstead occupations, would continue to function as the service area; however, it is expected that more outbuildings would be present with a widening sphere in their distance from the house relative to their respective functions, with the emphasis now on self-sufficiency. It would follow that there would be an intensification of activity in the backyard with a sheet midden accumulating, as a result, in the area of heaviest utilization. Kitchen gardens and small animal pens could also be expected in

the backyard near the structures where their products would be used.

Finally, it is conceivable that refuse disposal practices would also change as more of the surrounding land was pressed into service as farmland, and less emphasis placed on esthetics. It might be expected that dumps would be located nearer to the house in the backyard, where the activities generating the refuse were focused.

Any patterning discerned at Cedar Oaks has little significance when viewed in isolation. Therefore, it must be determined whether this patterning is the result of universal factors as far as cultural behavior relating to changes in site function during this time period and region are concerned, or the result of site-specific, idiosyncratic behavior. Comparative analysis is the best approach to make such a determination; therefore, the following, final hypothesis will be examined:

2. Similar housesites in the Barton townsite exhibit a changing trend in their pattern of site utilization and refuse disposal, parallel to that discerned at Cedar Oaks, and coinciding with the change in site function.

A test implication of this hypothesis is that deviations from the Cedar Oaks pattern would indicate that other factors besides the change in site function affected

[illegible]

[illegible]

[illegible]

the cultural behavior which formed these sites. For example, a factor such as differing socioeconomic levels between the sites might be found to have had a greater effect.

Chapter 2

METHODS

Field Methods

The fieldwork on Cedar Oaks was geared specifically to answer questions concerning site utilization and refuse disposal; although the majority of the initial (i.e., Phase I) investigation was concentrated around the house in order to determine its integrity and significance (Minnerly 1983: 38).

As mentioned previously, the intensive excavations were confined to an arbitrary 70 x 40 m boundary. Of the 99 units which were excavated, 12 were 1 x 2 m and the remainder 2 x 2 m in dimension (Figure 5). A judgmental research strategy was implemented in the placement of units. Levels were excavated according to natural stratigraphy, and soil was both dry-screened and water-screened through 1/4 inch mesh (see Minnerly 1982: 178-196, Minnerly 1983: 36-109, and Cleland and McBride 1983: 318-366 for detailed descriptions of the Phase I-III investigations of Cedar Oaks).

Through the use of a systematic soil probe survey over the entire site grid, a distinguishable stratigraphic pattern was defined whereby feature locations and

midden depth could be plotted and areas of potential archaeological interest pinpointed (Figure 6).

Excavation units, and blocks of units, were judgmentally located in areas where architectural remains and refuse middens were indicated. Features were excavated primarily in block configurations (i.e., contiguous units) in order to fully expose their remains, as well as associated features and deposits. In all, seven blocks of units and ten separate units were excavated to sterile subsoil. A total of 65 features and seven subfeatures (i.e., small features such as postholes found within larger features) were discovered; 45 of these were postholes.

The stratigraphy present on this site can be generalized as follows:

Level 1: Very dark grayish brown (10YR3/2, Munsell soil color code) to brown (10YR5/3), depending upon its development. This is a midden resulting from the lengthy cultural occupation of this site and is not a natural undisturbed A1 or Ap soil horizon development (Murphee and Miller 1976: 20-22). It is loamy in texture and slightly sandy in some areas, and the break between this midden and lower levels is abrupt and very distinct. It was thickest in the backyard area, where it was 10 to 30 cm.

Level 2: In some areas this is the A2 soil horizon, which is yellowish brown (10YR5/6) to pale brown (10YR6/3)

Level 1

Level 2

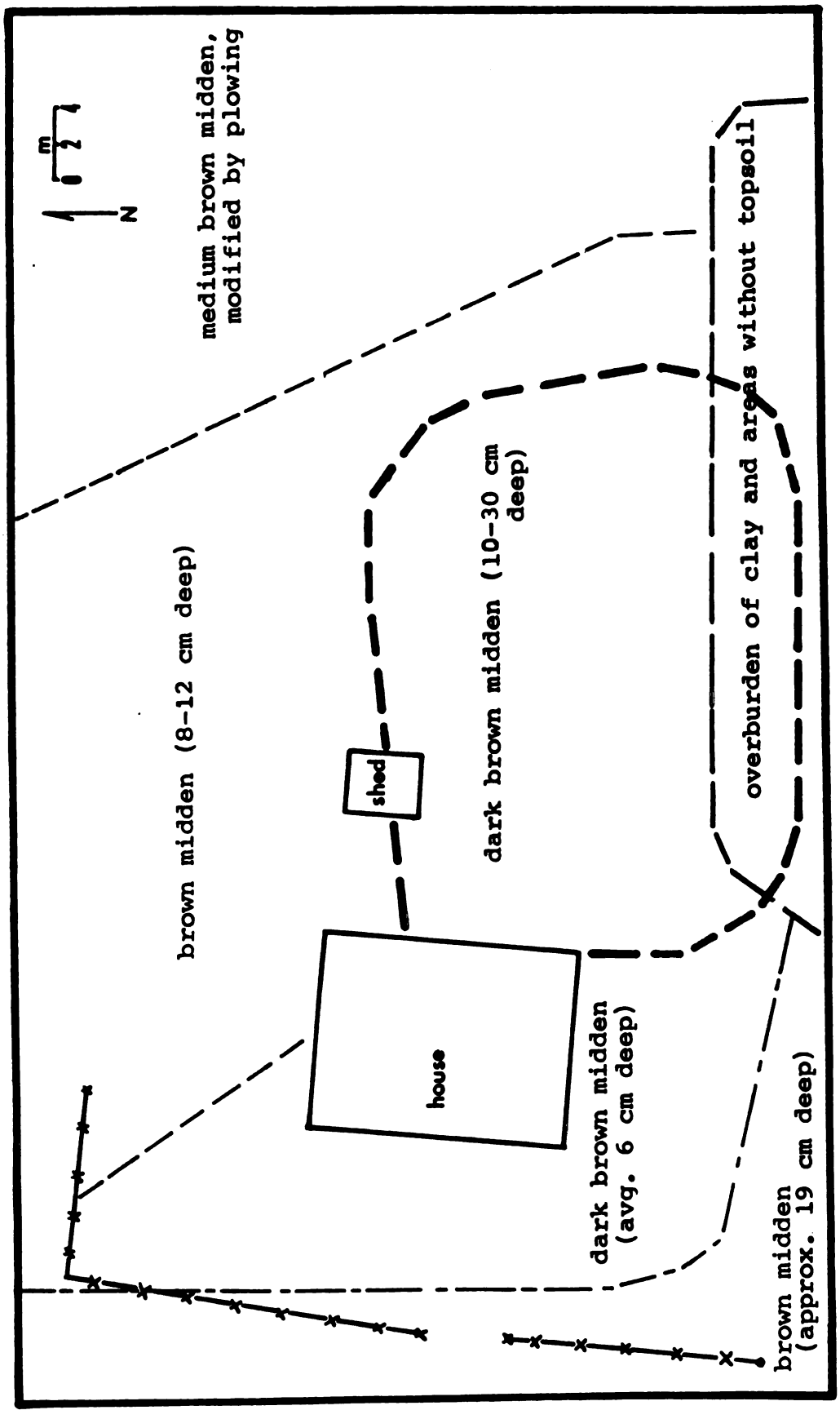


Figure 6. Cedar Oaks housesite -- soil map

sandy loam. This horizon shows a clear, smooth boundary with the B horizon (Murphee and Miller 1976: 20-22). Over much of the site, this level is either greatly disturbed, leaving shallow discontinuous remnants, or is entirely gone. The outer perimeters of the site do, however, generally show a continuous, well-developed A2 horizon.

Level 3: This is the natural B horizon, the upper part of which is strong brown (7.5YR5/8 to 7.5YR4/6) silty to sandy clay loam or clay (Murphee and Miller 1976: 20-22). A number of features were found to extend into this level.

Analytical Methods

The analysis of the artifactual data went beyond a mere cataloging of items and consisted of detailed physical descriptions, vessel reconstruction, and research into date ranges of manufacture and popularity. A chronological classification was devised based on specific dates and ranges assigned to the broader categories of 1800-1830 (early nineteenth century), 1830-1860 (mid-nineteenth century), 1860-1900 (late nineteenth century), and 1900-1940s (twentieth century) (Table 1).

These date ranges were selected because they appear to best reflect the changing episodes in Barton's history. Specifically, 1800-1830 is pre-Barton; 1830-1860 covers the heyday of Barton as a town; 1860-1900 encompasses Barton's decline and demise (i.e., 1860-1870) and the

Level 3

Analytical Methods

Table 1. Date ranges and references.

General Date Range	Artifact	Date	Reference
Early 19th century (1800-30)	Early machine cut nails	1815-30	Nelson 1968:6
	Handwrought nails	pre 1830	
Mid-19th century (1830-60)	Ceramics:		
	Transfer print whiteware	1830-70	Lofstrom 1976:34 Price 1979:31
	Flow blue whiteware	1840-70	Lofstrom 1976:9 Price 1979:31
	Annular whiteware	1830-70s	Lofstrom 1976:10 Price 1979:31
	Shell-edged whiteware:		
	"Arrow"	ca.1850-60s	Miller n.d.
	"Standard," scalloped	1st 1/2 19thc.	
	Sponged/spatter whiteware	1840s-60s	Price 1979:31 Lofstrom 1976:9
	Glass:		
	2 pc mold	post 1840s	Lorraine 1968:43
	Blowpipe pontil mark	pre 1857	Jones 1971:68-70
	Sand-tipped pontil mark	pre 1857	Jones 1971:68-70
	Applied lip (hand finished)	pre 1860	Lorraine 1968:43
	Press-molded ("Lacy" pattern)	1827-50	Lorraine 1968:43
	Pre-chilled iron mold	pre 1870	Lorraine 1968:43
	General:		
	Modern machine cut nails	post 1830s	Nelson 1968:6
Late 19th century (1860-1900)	Ceramics:		
	Plain whiteware	1840s-early 20thc.	South 1977:211 Lofstrom 1976:10 Price 1979:22
	Shell-edged whiteware:		
	Painted-not impressed	ca.1850-80s	Miller n.d.
	"Standard," unscalloped	2nd 1/2 19thc.	
	Sponge stamped whiteware	1850-70s	Price 1979:31

Table 1. (continued)

General Date Range	Artifact	Date	Reference
	Glass Bottles		
	Applied lip (lipping tool finished)	1850-1903	Lorraine 1968:43
	Snapcase	post 1857	Lorraine 1968:44
	Mason jar w/zinc cap	post 1858	Lorraine 1968:44
	"Mason" jar distributed by Ball Bros.	post 1880	Reher 1977:237
	Panel bottles w/embossed lettering	post 1867	Lorraine 1968:44
	Solarized (manganese) bottle glass	1880-1915	Munsey 1970:55
	Glass: other		
	Press-molded, fire polished	post 1850	Lorraine 1968:43
	Kerosene lamps appear	1860s	Lorraine 1968:44 Scoville 1948:47
	Jar lid liner for screw-on lids	post 1869	Munsey 1970:146
	Light bulb patented	1882	Lorraine 1968:44
	Lightning fastener patented	1882	Lief 1965:13
	General		
	Wire nails	post 1850	Nelson 1968:6
	Barbed wire patented	1867	McCallum and McCallum 1965:244
20th century (1900-40s)	Ceramics:		
	Decalcomania ("Decal Ware") whiteware	late 19th-20thc.	Wegars & Carley 1982:6-8
	Glass:		
	Machine-made bottles	post 1903	Lorraine 1968:44
	"Coca-Cola," hobble-skirt design	1915	Munsey 1970:105-6
	Applied color labeling	post 1930s	Munsey 1970:52
	"Federal Law Forbids sale or reuse of this bottle" embossing	1933-64	Munsey 1970:126
	Glass bus candy container embossed w/"Victory Lines/Special"	1940-45	Munsey 1970:189

Table 1. (continued)

General Date Range	Artifact	Date	Reference
	General:		
	Crown caps	post 1892	Lorraine 1968:44 Lief 1965:17
	Tin can w/locked double seam	post 1897	Busch 1981:103
	Beverage can pull tab	post 1962	Busch 1981:103
	Automobile parts	post 1908	Smith 1957:32
	Plastic	20th c.	Kaufman 1963:74

changeover to a farming community; and 1900-1940s represents primarily its ownership and occupation by the Uithoven family (Cleland and McBride 1983: 331).

It is noted that some of the artifacts used in Table 1, such as modern machine cut nails, wire nails, and plain whiteware, have date ranges which actually overlap other categories. For example, plain whiteware spans the 1840s through the early twentieth century (South 1977: 211, Lofstrom 1976: 10, Price 1979: 22). It was placed in the late nineteenth century category (Table 1) because its median date falls within this period (South 1977: 211), and most of the identified maker's marks recovered at Cedar Oaks date from the late nineteenth century. Similar criteria was utilized in the placement of the other long-range artifact types into specific date range categories.

Artifacts were further analyzed as to function, and to accomplish this, nine categories were used. These are as follows:

1. Ceramic and glass tableware--this included all whitewares, refined stonewares (i.e., Ironstone), and porcelain dishes (i.e., cups, plates, saucers, bowls, and pitchers), as well as glass table items such as tumblers, bowls, goblets, plates, etc. (many of these items were press-molded).

2. Utilitarian ceramics--consisted of coarse earthenwares and stonewares in the form of crocks, jugs, mixing bowls, and churns.

3. Bottle glass--all glass fragments and whole vessels that could be identified as bottle pieces of any function (i.e., alcoholic beverage, perfume, ink, medicinal, etc.).

4. Foodstuff related material--this consisted of all items, regardless of materials, that were positively related to food storage, preparation, and consumption (e.g., Mason jars, jar lid liners, milk bottles, identifiable tin cans, spoons, forks, knives, butcher-cut bones, seeds, and pits).

5. Clothing and personal items--includes all clothing attachments and personal artifacts such as buttons, snaps, rivets, eyelets, shoes, fabric, combs, watches, eyeglasses, jewelry, buckles, thimbles, smoking pipes, mirrors, and scissors.

6. Architectural--includes nails, window glass, brick and mortar samples, shingles, tarpaper, and concrete.

7. Metal hardware--consists of general non-architectural hardware, tools, machinery parts, and vehicle parts.

8. Faunal--includes all non-modified bone and shell.

9. Miscellaneous glass, ceramic, metal, and other material--consists primarily of those items that were unidentifiable as to function.

Any artifact could only be assigned to one functional category, although it is noted that ceramic and glass tableware, utilitarian ceramics, and some glass bottles also functioned in foodstuff related activities.

The date range tabulations were first used on a proportional scale for comparing levels within features, as well as levels within the general non-feature stratigraphy in the blocks of units (Tables 2 and 3). These percentages included only datable artifacts, and this data was used primarily to determine feature and spatial function aiding in the identification of activity areas and the changing pattern of site utilization through time.

As proportional data, by itself, results in a generalized impression of the actual data, further analysis utilizing ratio and interval scaled data was undertaken in order to test the proposed hypotheses (see Chapter 1). As an initial step, the actual artifact frequencies by function and date range were plotted on graphs; wherein, the y axis = frequency and the x axis = distance from the house in meters. In the latter case, the house was designated as the (0,0) coordinate, and excavation units were designated by their nearest distance

Table 2. General date range breakdowns for features by percentages.

Feature number /level no.	Early 19th century	Mid-19th century	Late 19th century	20th century	% of total feat. assemblage	% of previous column datable
Feature 1						
level 1	-	62%	35%	3%	73%	29%
level 2	-	76	21	3	24	21
level 3	-	100	-	-	3	14
Feature 3						
level 2	2	98	-	-	44	63
level 3	-	91	9	-	56	77
Feature 10						
level 2	21	27	45	7	83	8
level 3	13	83	4	-	17	49
Feature 4	-	9	82	9	100	21
Feature 6						
level 1	-	33	42	25	47	18
level 2	-	50	30	20	53	13
Feature 21						
level 3	1	85	14	-	3	69
level 4	1	68	26	5	40	40
level 5	<1	60	36	4	57	21

Table 2. (continued)

Feature number /level no.	Early 19th century	Mid-19th century	Late 19th century	20th century	% of total feat. assemblage	% of previous column datable
Feature 27-30 & 45						
level 1	-	35	48	17	23	25
level 2	-	24	70	8	77	39
Feature 48						
level 1	2	49	37	12	57	42
level 2	-	53	37	10	43	40
Feature 49	-	71	29	-	100	34
Feature 53						
level 1	<1	24	59	17	65	32
level 2	-	56	41	3	29	48
level 3	-	68	32	-	6	45
Feature 57						
level 1	<1	17	76	6	39	41
level 2	-	15	70	15	61	32

Table 3. General date range breakdowns for non-feature artifacts by percentages.

Block or unit number w/level no.	Early 19th century	Mid-19th century	Late 19th century	20th century	% of block or unit total	% of previous column datable
Block 1						
level 1	1%	64%	33%	2%	74%	37%
level 2	1	82	16	1	18	36
level 3	-	70	28	2	8	24
Block 2						
level 1	1	47	48	4	72	43
level 2	2	55	40	3	26	25
level 3	18	27	55	-	2	9
Block 3- northern units						
level 1	<1	16	73	11	37	47
level 2	-	21	76	3	51	41
level 3	-	14	86	<1	12	37
Block 3- southern units						
level 1	1	39	56	4	36	30
level 2	1	46	49	4	27	35
level 3	1	60	37	2	37	31
Block 4*						
level 1	-	51	45	4	67	18
level 2	-	14	84	2	33	22

* lower levels primarily feature material

Table 3. (continued)

Block or unit number w/level no.	Early 19th century	Mid-19th century	Late 19th century	20th century	% of block or unit total	% of previous column datable
Block 5						
level 1	-	23	63	14	37	31
level 2	<1	24	67	8	43	18
level 3	-	24	68	8	20	18
Block 6						
level 1	-	37	49	14	47	26
level 2	-	58	34	8	53	28
Block 7*						
level 1	-	14	66	20	37	28
level 2	-	57	42	1	63	41
Unit 85						
level 1	-	48	49	3	42	45
level 2	-	81	19	<1	58	62
Unit 86						
level 1	-	35	59	6	35	26
level 2	-	75	25	-	65	41
Unit 87						
level 1	-	74	-	26	13	32
level 2	-	69	29	2	87	41

*lower levels primarily feature material

Table 3. (continued)

Block or Unit Number w/level no.	Early 19th century	Mid-19th century	Late 19th century	20th century	% of block or unit total	% of previous column datable
Unit 89*						
level 1	<1	31	63	6	85	46
level 2	-	68	32	-	13	19
level 3	-	-	100	-	2	11
Unit 90						
level 1	-	67	33	-	5	16
level 2	-	77	22	<1	95	56
Unit 91						
level 1	-	27	65	8	12	29
level 2	-	60	27	13	88	24
Unit 95						
level 1	-	50	4	46	4	37
level 2	1	58	41	<1	87	46
level 3	-	78	22	-	9	65
Unit 96						
level 1	-	59	33	8	82	29
level 2	-	13	69	18	18	14
Unit 98						
level 1	-	14	77	9	59	37
level 2	-	40	60	-	41	26
Unit 99						
level 1	-	25	50	25	100	22

*lower levels primarily feature material

to the house. For example, a 2 x 2 m unit which began at 2 m from the house and extended up to 4 m away was designated by the 2 m interval instead of the 4 m.

When the functional data was plotted it was found that several categories appeared to be non-random in their distribution in relation to the house. Of these, ceramic tableware exhibited the most obvious positive relation to the house.

Furthermore, when the backyard units were compared to the frontyard units, a pattern emerged where a high frequency was found near the house in the backyard with frequency dropping off as distance increased; while in the frontyard there was a low frequency near the house with an increase in frequency as distance increased. This dichotomy between back and frontyard holds true for virtually all of the plotted data even though other functional categories, such as utilitarian ceramics and glass bottles, appeared to be more randomly distributed overall.

A possible explanation for the difference in distribution in ceramic tablewares and utilitarian wares lies in the fact that the former are "generally used and highly curated inside dwellings," while the latter are "used in a much larger sphere that included porches, yard areas, and outbuildings, and were curated to a much lesser degree" (Moir 1982: 147).

On the other hand, owing to technological improvements in the glass industry, bottles became more available and lower in cost resulting in less reuse and greater discard in the late nineteenth and twentieth centuries (Moir 1982: 148). Therefore, higher frequencies and perhaps a wider distribution would be expected during these time periods.

From a visual inspection of this data it was concluded that the artifact assemblage could be "cleaned" of certain variables that appeared to be randomly distributed and therefore of little value to this analysis. These variables included architectural items (i.e., nails, window glass, brick, etc.) which are better indicators of structural modifications than of refuse patterning, and bottle glass which was found in high frequencies over much of the site but in no definable distance-related pattern. Although in general, the latter did repeat the frontyard/backyard distinction described above.

The second step in this portion of the analysis involved the computation of artifact densities per m^2 for the functional and date range categories to be considered. To accomplish this the actual number of artifacts under consideration from a given excavated area was divided by the square meter areal extent of said area. Average densities were utilized in order to reduce variability,

sample size, and the bias imposed by the distribution of the excavation sample.

Tables 4 and 5 present the artifact densities for feature and non-feature assemblages by date ranges. The data set utilized for these tables did not include modern machine cut nails and wire nails as these items appeared to be skewing the date range information. It is felt that the resulting data is a better reflection of the actual date range of occupation. It is further noted that the early nineteenth century category, which is primarily early machine cut and handwrought nails, is best considered part of the mid-nineteenth century occupation.

In order to investigate the date range distribution on this site, for the purpose of testing the stated hypotheses (see Chapter 1), the datable assemblage (by artifact densities), minus nails and bottle glass, was applied to contingency tables; wherein, the date ranges of mid-nineteenth, late nineteenth, and twentieth centuries comprised the row of attributes, and distance intervals in meters from the house were the columnar attributes.

Initially, contingency tables were set up comparing date range to distance in the backyard as one table, with the frontyard as a separate table. Tables were then formulated with the backyard and frontyard comprising the row of attributes and comparable distance intervals as the columnar attributes. Separate tables were calculated by

Table 4. Feature date ranges* by average density per m²**

Feature #	Early 19thc.	Mid-19thc.	Late 19thc.	20th c.	Total dated	Feat. total	m²	Average density/m²
1		0.64 (14)	3.77 (83)	0.32 (7)	104	1,199	22m²	54.50
3 & 10	1.14 (8)	1 (7)	3.43 (24)	0.28 (2)	41	572	7m²	81.71
4			6 (6)	10 (10)	16	359	1m²	359.00
6			0.92 (12)	1.92 (25)	37	285	13m²	21.92
21	0.33 (4)	0.75 (9)	12.20 (146)	7.6 (91)	250	4,568	12m²	380.67
27-30,45			1.86 (13)	2.28 (16)	29	453	7m²	64.71
48	0.25 (1)	0.25 (1)	1.50 (6)	4.75 (19)	27	345	4m²	86.25
49			6.00 (6)		6	62	1m²	62.00
53	0.33 (4)	0.33 (4)	63.20 (759)	38.30 (460)	1,227	6,382	12m²	531.83
57	0.50 (1)	5.00 (10)	85.50 (171)	47.50 (95)	277	2,137	2m²	1,068.50

TOTAL = 16,362 artifacts

* Date ranges do not include modern machine cut nails and wire nails.
** Square meter measurements are approximations.
(n) Denote actual artifact counts.

Table 5. Date Ranges* for non-feature assemblage by average density per m²**

Block/ Unit No.	m²	Early 19thc.	Mid-19thc.	Late 19thc.	20th c.	Total dated	Total No. artifacts
Block 1	92m²	0.10 (9)	1.01 (93)	17.62 (1621)	1.63 (150)	1,855	19,001
Block 2	24m²	0.42 (10)	2.50 (60)	23.12 (555)	5.42 (130)	755	5,810
Block 3-northern units	38m²	0.03 (1)	0.34 (13)	18.76 (713)	19.03 (723)	1,450	13,883
Block 3 - southern units	54m²	0.57 (31)	1.50 (81)	26.67 (1440)	14.87 (803)	2,355	32,334
Block 4	10m²	-	0.10 (1)	1.20 (12)	1.30 (13)	26	634

* does not include modern machine cut and wire nails
** does not include units 24, 26, 27, 74, 75 and Block 7
(n) denotes actual artifact counts

Table 5. (continued)

Block/ Unit No.	m^2	Early 19thc.	Mid- 19thc.	Late 19thc.	20th c.	Total dated	Total No. artifacts
Block 5	$72m^2$	0.03 (2)	0.10 (7)	3.75 (270)	5.53 (398)	675	9,670
Block 6	$10m^2$	-	-	2.50 (25)	2.30 (23)	48	607
Unit 85	$4m^2$	-	0.25 (1)	10.75 (43)	1.50 (6)	50	1,091
Unit 86	$4m^2$	-	1.25 (5)	5.25 (21)	-	26	184
Unit 87	$4m^2$	-	1.00 (4)	12.25 (49)	2.50 (10)	63	548
Unit 89	$4m^2$	0.25 (1)	-	9.75 (39)	7.50 (30)	70	679

* does not include modern machine cut and wire nails
** does not include units 24, 26, 27, 74, 75 and Block 7
(n) denotes actual artifact counts

Table 5. (continued)

Block/ Unit No.	m²	Early 19thc.	Mid- 19thc.	Late 19thc.	20th c.	Total dated	Total No. artifacts
Unit 90	4m²	-	1.00 (4)	12.25 (49)	0.50 (2)	55	403
Unit 91	4m²	-	0.75 (3)	11.75 (47)	19.25 (77)	127	648
Unit 95	4m²	0.50 (2)	3.25 (13)	22.75 (91)	1.50 (6)	112	969
Unit 96	4m²	-	1.50 (6)	18.75 (75)	7.00 (28)	109	1,333
Unit 98	2m²	-	-	14.00 (28)	7.00 (14)	42	446
Unit 99	2m²	-	-	1.00 (2)	0.50 (1)	3	18
					TOTALS =	7,821	88,258

* does not include modern machine cut and wire nails
** does not include units 24, 26, 27, 74, 75 and Block 7
(n) denotes actual artifact counts

mid-nineteenth, late nineteenth, and twentieth centuries. Such variables were selected with the idea that the changing function of this housesite (i.e., town residence to farmstead) resulted in changing patterns of disposal specifically related to distance from the house.

In order to test the significance of these hypothesized relationships, a chi-square (x^2) test was calculated for each contingency table. This is a non-parametric, statistical significance test which is calculated by the following formula: $x^2 = \frac{(O-E)^2}{E}$, where O = observed frequencies (in this case, average densities per m^2), and E = expected frequencies (Doran and Hodson 1975: 54-55). It is noted that this statistic indicates only whether or not the proposed variables are independent in association (i.e., knowing the value of one is no indication of the value of the other). It does <u>not</u> indicate the strength of an association (Ibid.).

Therefore, Cramer's V^2, a measure of association, was applied to those tables which exhibited dependent variables according to the chi-square test. This formula is as follows: $V^2 = \frac{x^2}{N\min(r-1,c-1)}$, where the chi-square is divided by the number of units times the smaller value of (rows - 1) <u>or</u> (columns - 1) (Doran and Hodson 1975: 147). This formula is utilized here with a cautionary note in that "the value of this

measure is doubtful: it admits no clear interpretation for the values between 0 and 1" (Doran and Hodson 1975: 148). It is used in this analysis merely to show the possible strength or weakness of an association.

To supplement this analysis, distribution maps of actual artifact counts by date range were compiled in order to clarify, by visual presentation, the possible relationships and patterns discerned by other methods. These maps serve to illustrate the sample distribution, size, and limitations.

Chapter 3

THE DATA

Archival

Data from the archival research concerning Cedar Oaks revealed that this "residence was probably built for Dr. James H. Curtis, a physician in the earlier town of Colbert who moved to Barton shortly after the great flood of December 1847 inundated Colbert" (Minnerly 1983: 21). As Curtis only paid $61.00 for this property, it is extremely doubtful that a structure was present on this land at the time of purchase around 1848 or 1849 (Ibid.).

However by 1851, when Curtis sold this property to Miles Johnson, the price (i.e., $1,039) was "high enough to suggest that the house was already built by that date" (Minnerly 1983: 21). Furthermore, "the orientations of the house and yard axes,... generally correspond to the grid of Elliott's hypothetical plat [Figure 2], suggesting that Cedar Oaks was not built before the platting of Barton in 1848" (Ibid.).

The original owner, James Curtis, along with his brother John, entered into a mercantile business in Barton in 1848 or 1849 but the venture quickly failed. This prompted James to sell Cedar Oaks in 1851 and move to Columbus where he opened an inn (Minnerly 1983: 21).

Archival

Miles Johnson was also a merchant in Barton; however, he held title to Cedar Oaks for only one month before he sold it to James M. Collins, making only a $15.00 profit in the process. From all indications, Johnson never lived at Cedar Oaks; rather, he resided in the Barton Hotel (Ibid.).

James Collins was the main resident of Cedar Oaks during Barton's existence as a town. He and his family occupied the house from 1852 to 1859, during which time he operated the "principal mercantile operation in the Barton and Vinton area" (Minnerly 1983: 21).

When Collins opened his Barton store in 1852 he was acting as a "branch officer for the prominent Columbus firm of Cozart, Billups and Humphries" (Ibid.). His store carried a large stock of general merchandise and was "doing the best business in the area ($8,000-$10,000 per annum), excepting his principal competitor at Vinton, William E. Trotter" (Minnerly 1983: 21-22). In addition, he also owned an interest in a warehouse and cotton shed in Barton (Cleland and McBride 1983:27-8).

> James Collins was a man of considerable means. Before his arrival in Barton he presided over a large plantation on Town Creek, about four miles northwest of Barton. According to the 1850 census, he owned 20 slaves (Cleland and McBride 1983:37).

Due to the failure of navigation on the Tombigbee River in 1855-56, the per annum sales from Collins' store dropped to about $7,000 indicating that "the cotton trade

constituted a significant portion of his business" (Ibid.).

The Barton economy was based primarily on the cotton trade. Steamboat landings at Barton and Vinton served as focal points for the shipment of the region's cotton downriver to Mobile. However, the upper Tombigbee River was only reliably navigable during high water, approximately five months out of the year (Doster and Weaver 1981: 69). Warehouses near these landings, such as that owned by Collins and his partners, protected the cotton while it awaited shipment (Doster and Weaver 1981:78).

With the extension of the Mobile and Ohio Railroad into this area, the seasonality of the river trade gave way to the "all-season," "all-weather" transport provided by the railroad (Doster and Weaver 1981: 98, 102). In fact, it was the extension of this railroad to West Point in 1857, bypassing the Barton-Vinton area, that effectively destroyed the viability of both towns.

> By 1860, the overland feeder routes into the community [i.e., Barton-Vinton] had been diverted to the railhead at West Point. Of the five principal mercantile establishments operating in Barton throughout the mid-1850s, only one, possibly two, remained after 1860... By 1865, the drastic economic constriction of the Civil War finished the process begun in 1857 with the arrival of the railroad. Occupied by only a few scattered inhabitants, Barton was nearly abandoned with nothing but its ferry to justify its continued existence (Cleland and McBride 1983: 27).

In 1858, Collins moved his business to West Point where it prospered until the Civil War disrupted the economy (Cleland and McBride 1983: 37). He did not sell Cedar Oaks until 1867 when the title was transferred to R. J. Conner for $640.00 (Cleland and McBride 1983: 86). It is not clearly known whether the house was occupied between 1859 and 1867--it may have stood vacant or it could have been leased at times. Its history is obscure during this period due to the rapid decline of Barton after 1860 when, as a result, deed records changed from town blocks and lots to general land descriptions. The ensuing civil and economic confusion resulting from the Civil War did not help to clarify land transactions in this area (Minnerly 1983: 23).

Although R. J. Conner and his wife possibly resided at Cedar Oaks for a time, it appears that Sarah and Bardine Richardson owned this property in the early 1870s, along with much of the former Barton land. However, it is not known whether they actually occupied Cedar Oaks. Bardine Richardson had owned the Barton Ferry in the 1850s. According to the 1870 census, he was by that time engaged in farming, reflecting "Barton's shift from a commercial center to a rural agricultural community" (Cleland and McBride 1983: 74).

Between 1875 and 1879, Mary E. Coltrane bought most of the land surrounding, and including, Cedar Oaks

(Minnerly 1983: 23). By the 1880s, the Coltranes (i.e., Mary, husband William, and family) had acquired most of the property that had once been Colbert and Barton, as well as the southern portion of Vinton (Cleland and McBride 1983: 87).

> The problems the Coltranes faced in keeping their property during this period of economic stagnation and readjustment were typical for many residents... a large percentage of the land transactions during the last quarter of the nineteenth century were mortgages. The Coltranes remained well-established and respected residents... In 1886, [they] were taxed for seven cattle, three mules, two carriages, one piano, and one watch, holdings exceeding those of many residents in the area (Ibid.).

William Coltrane was listed as a farmer in the 1880 and 1900 censuses, and he taught school in Vinton between 1874 and 1896. It is known that the Coltranes resided at Cedar Oaks for many years, although the exact dates are uncertain (Minnerly 1983: 23). Oral informants recognize a Coltrane-Cedar Oaks association; however, the family is more strongly associated in later years with a residence on the bluff north of the Barton Ferry (Minnerly 1983: 28).

Oral sources further indicate that the William Sidney Foote family may have rented Cedar Oaks from the Coltranes during the 1890s and/or early 1900s (Ibid.). In fact, the 1909 photograph mentioned previously shows the Foote family posing in front of the house (Minnerly 1983: 30). Informants state that William Foote made his living farming the land to the west of the house (Minnerly 1983: 29).

Dr. Jan Uithoven purchased the property containing Cedar Oaks from the Coltranes in 1913 but he may not have lived in the house until 1919 or 1920 (Minnerly 1983: 23). Initially, the Uithovens lived closer to the Barton Ferry which Jan operated ca. 1917-1920 (Minnerly 1983: 29,31). While residing at Cedar Oaks, Jan Uithoven made his living by farming, raising sheep and goats, selling illicit whiskey, and practicing medicine (Minnerly 1983: 31). After his death in the late 1920s, his daughter Frances and her husband Charlie Rhea occupied the house and farmed the land surrounding Cedar Oaks until the late 1930s (Ibid.).

An oral informant recalled visiting the house in the 1940s and found it abandoned and in need of repair (Minnerly 1983: 31). The house remained in the Uithoven family's possession until its recent purchase by the Corps of Engineers for the construction of the Barton Ferry Recreation Area. It appears that the house has not been occupied since the Rhea's vacated in the 1940s (Ibid.).

Oral History

One application of the oral historical data obtained during this investigation was to fill in some of the gaps encountered in the archival record as noted above. Oral sources also provided valuable information concerning the location and function of former outbuildings, the material

culture and customs of the former occupants, and general insights into the lifeways of the late nineteenth and early twentieth centuries. As previously mentioned, oral informants held memories of Cedar Oaks that dated back to the Coltrane family.

Oral sources further provided important information concerning changes in the architecture of the house. Most remembered an ell on the northeast corner of the house which functioned as a kitchen, although none could recall when it was built. Earliest recollections state that there was no inside access to this ell, although a connecting door was added later on which still survives (Minnerly 1983: 31).

Informants recalled fireplaces in each of the four main rooms with the ell kitchen having a flue for a wood-stove. The chimneys were described as handmade brick with lime and sand mortar. The last original chimney fell off the house in the 1940s and is evidenced archaeologically by Feature 6 (Figure 7). This chimney fall was not salvaged unlike the chimneys on the northern side of the house (Minnerly 1983: 31, 68, 94, 95).

Two porches, one running the entire length of the house front and one along the southern side of the kitchen ell, were also recalled by informants. The latter porch was removed in the 1940s when the ell was remodeled (Minnerly 1983: 31). This porch is evidenced

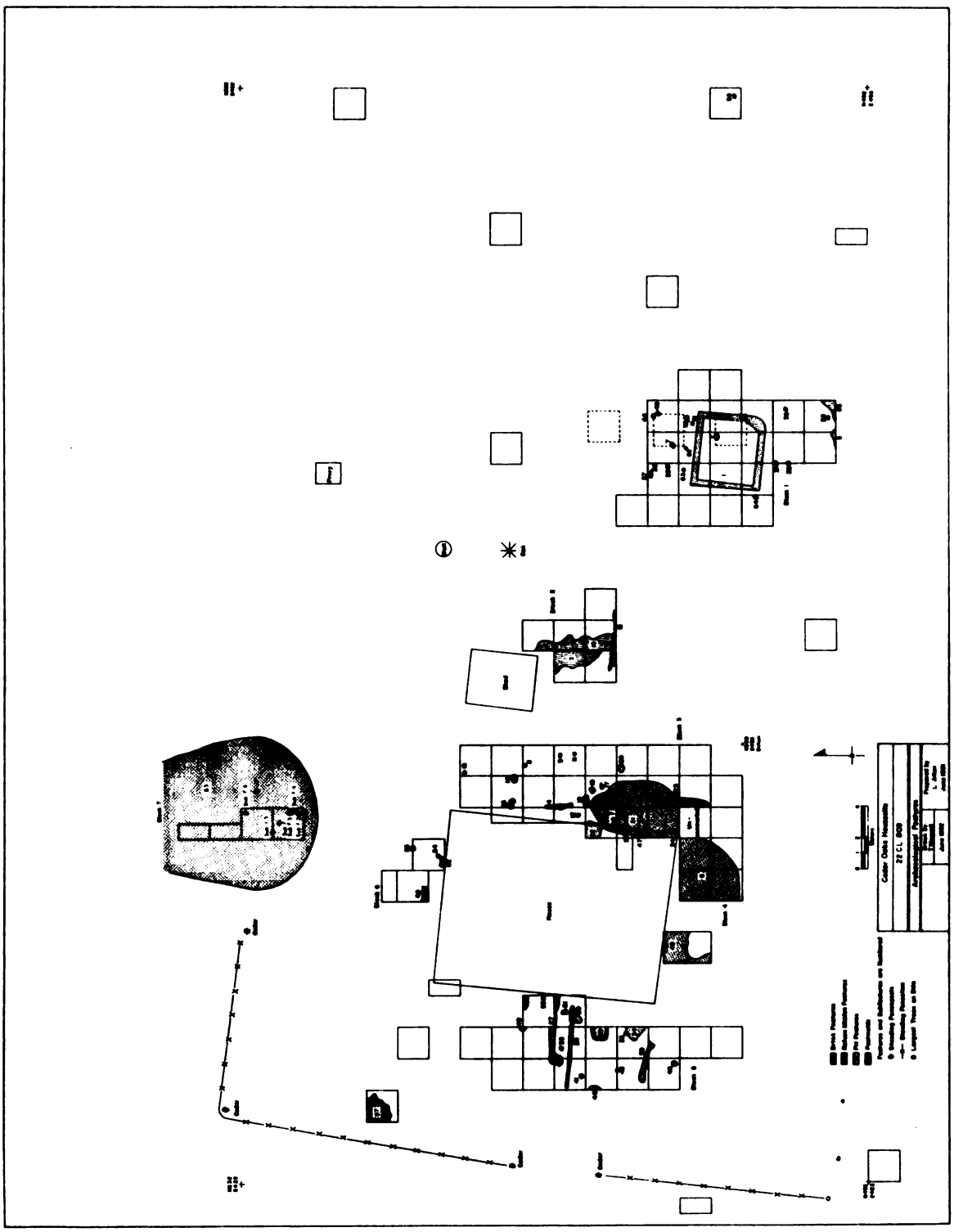


Figure 7. Cedar Oaks, map of features

archaeologically by Features 9, 11, and 12, which are postholes located in the central portion of Block 3 (Minnerly 1983: 71-73) (Figure 7).

A smokehouse, which was located archaeologically as Feature 1 (Figure 8), was also recalled by some informants (Minnerly 1983: 29-32 and 61-65). It was described as a log structure which functioned as a smokehouse and food storage shed. It was dismantled or fell down sometime in the early twentieth century and the majority of the construction material was removed or salvaged (Minnerly 1983: 63, McClurken and Anderson 1981: 561, 617, 619, 877, 882).

Other oral information includes the use of an artesian well, located to the west of the house, as the primary water source during the twentieth century occupations. According to informants the brick-lined well was not used during this time period (McClurken and Anderson 1981: 562, 619, 883-884). It was therefore concluded that this well represents a late nineteenth century water source. After it was no longer used it was merely abandoned and, like other late nineteenth century brick-lined wells on the Barton townsite, was not used as a trash receptacle (Cleland and McBride 1983: 373-374).

Further details were provided by oral sources and these will be discussed later on in conjunction with corroborating archaeological data. Some oral information

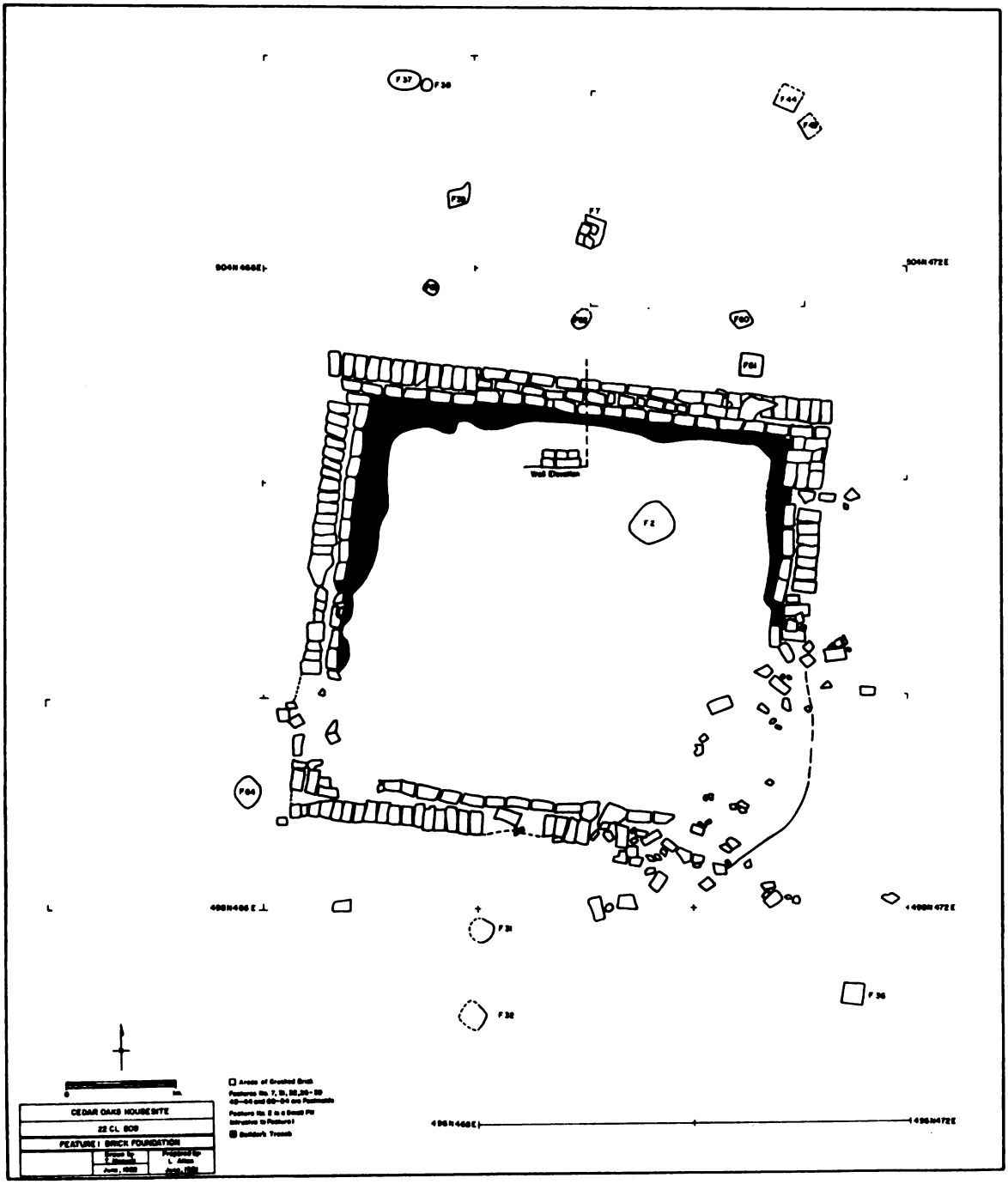


Figure 8. Feature 1 (brick foundation)

was very detailed as to the types of dishes used, the objects stored in the smokehouse, as well as refuse disposal practices. It should be noted that all informants remembered the house in its present four-room, central hallway configuration.

In summary, the archival and oral information for Cedar Oaks suggests a construction date in the late 1840s with the occupants involved in Barton mercantile operations through the 1850s. Occupancy became more sporadic in the 1860s as Barton declined, with the house possibly vacant for periods of time. After the 1870s, it was occupied off and on by families engaged primarily in farming with the house abandoned as a residence sometime during the 1940s.

Architectural

Three separate architectural studies were undertaken at Cedar Oaks, and although all agree on certain points there are also important differences. The first study was completed in 1978 for the Historic American Buildings Survey (Howard 1978). In this report a construction date was postulated as sometime during the 1840s to 1850s (Howard 1978: 1).

Howard's (1978) analysis of the structure of the house led to speculation that the original floor plan may have consisted of only the two northern rooms. It was

felt that the northwestern mantel piece, a board and batten door in the same room, and the fact that the front door is slightly off center gave credence to this original configuration, especially as the mantel piece and door are older in appearance than their counterparts in the southern portion of the house (Howard 1978: 3).

Noted alterations and additions included the fact that this house, in its present form, once had four end chimneys and an ell addition on the northeast corner, allegedly removed around 1920 and the material used to build the standing shed. It was further noted by Howard (1978: 4) that the roof, most of the siding on the east side, the flooring of the front porch, and two of the front porch pillars are all recent replacements.

The information concerning the ell came from an interview Howard (1978: 3) had with Felix Uithoven, son of Dr. Jan Uithoven, and conflicts somewhat with other informants which have the ell being remodeled in the 1940s (Minnerly 1983: 31). Unfortunately, the Tombigbee Historic Townsites Project was unable to interview Felix Uithoven as he was, at that time, engaged in litigation with the Corps of Engineers over the sale of Cedar Oaks and was unwilling to speak with our investigators.

The second architectural study was made by Dr. M. B. Newton, Jr. in 1980 while excavations at Cedar Oaks were underway. He concluded that this house was built sometime

between 1835 and 1850; however, because of the "earliness of the feel of some of the elements (mantel, joinery, chair rail)," and allowing for "the navigability of the Tombigbee, plus the dynamism of frontier regions," he emphasized the earlier date (Newton 1980: 7).

Furthermore, Newton (1980: 1) concluded that the house was built "where it now stands in the form that it now has." He felt that the house was built as a single, integral unit owing to the principal sill supports which he saw as "fashioned in such a way that [its] lap joints fall at points that do not match any of the room divisions" (Newton 1980: 2). Therefore, he claimed that any renovation would have "required disassembly of the entire house so as to enable reassembly of the mortise-and-tenon joints of the studs where they join the sill" (Newton 1980: 2-3).

Newton (1980: 6) also made suggestions which proved very helpful in the interpretation of the archaeological data. In particular, he suspected that the central back door would not have opened to the exterior, but instead onto a rear gallery or less-than-full length porch. Features 14, 16, 17, and 23 are all postholes that are in a north-south line parallel to the house, suggesting a rear full-length gallery. Feature 21, a refuse deposit on the southeast portion of the house (Figure 7), represents refuse swept and/or dumped underneath such a structure.

The most recent architectural study was undertaken by an historical architect, Heriberto J. Brito, in 1983. He takes exception to both of the previous studies' conclusions concerning the original configuration of the house and argues that the present floor plan of Cedar Oaks evolved from a simple two-room plan that consisted of two equal size rooms, one north and one south, that may have had porches on the eastern and western sides (Brito 1983: 4, Figure 4).

Brito (1983: 4) reached this conclusion because of a cutline he detected in the floor of the southwest room, 12 inches from the south wall. This, coupled with differences in the placement of the chair rail throughout the house, the fact that the floorbeams are spliced near the cutline, and the differences in placement of the brick piers on the southern versus northern part of the house, led him to argue strongly for such an evolution.

Unfortunately, no definite archaeological evidence was found to corroborate this theory. Those units which extended underneath the house on the east side revealed only recent disturbances and features related to the house in its present state. This includes: two driplines (one corresponding to the present metal roof and another 10 cm in corresponding to the previous shingle roof), the older brick pier bases (Features 22, 24, and 25) which have more recently constructed brick piers on top of them, and

Feature 47, a wooden pier found next to, and in line with, the second brick pier off the southeast corner of the house (Figure 7). It is highly probable that evidence of an earlier house form was destroyed in this area by later additions and improvements to the present house.

Not having had the benefit of Brito's (1983) study during the archaeological investigation, and being influenced by Newton's (1980) conclusions; the plausibility of Brito's version of the original floor plan was not tested archaeologically. The fact that two out of three studies concluded that the house evolved from a two-room plan, albeit not agreeing on its orientation, would indicate a higher probability of this house not being in its original form.

In summary, these three studies placed the construction of Cedar Oaks between 1835 and 1850, with Newton (1980) leaning towards the earlier date and the others to the later one (Howard 1978, Brito 1983). While two of the studies (Ibid.) concluded that the present house had evolved from a simpler two-room plan, the other study (Newton 1980) argued that the house was in its more-or-less original state. All agreed that the house dated from the Barton period and was historically significant as the last remaining standing structure from this town. Brito (1983) especially recommended that the building possessed architectural and historic significance and

should be preserved. At present, the house is still standing but its fate remains uncertain.

Archaeological--architectural integrity

The results from the archaeological investigation provided further details on the architectural evolution and integrity of this house. Since no evidence of the postulated original two-room floor plan was uncovered, the following discussion will pertain only to the present four-room configuration.

The front of the house (west side) has changed only superficially, with the gallery having been refurbished recently with new floorboards and two replacement pillars which flank the front door. Archaeological and oral information show that the present wooden steps are recent replacements (Howard 1978: 4, McClurken and Anderson 1981: 554-637). Postholes (Features 40, 50, and 59) for previous steps were uncovered underneath the present ones (Figure 7).

Excavations in the frontyard (Block 5) revealed a brick walkway (Feature 27) extending westward from the front steps towards the opening in the front fenceline (Figure 7). Parallel to this walkway is a formal garden enclosure (Features 28-30, and 45, Figure 7) which consisted of two parallel one-course high brick walls around two circular brick flower beds.

The manner and materials of construction, as well as associated artifacts, show that the walkway and garden enclosure were contemporaneous and in existence in the late nineteenth and early twentieth centuries. Proportional data from these features show that the majority of datable artifacts range from 1860 to 1900 (Table 2) (Cleland and McBride 1983: 331-332). Furthermore, one oral informant recalls this walkway in use during the early years of the twentieth century (McClurken and Anderson 1981: 882), and when modern machine cut and wire nails are removed from the datable assemblage (Table 4) this date range is reinforced.

The sides of the house revealed structural evidence of the original chimneys. Features 6, 48, and 49 were the southeast, southwest, and northwest chimneys, respectively (Figure 7). The southern chimneys were evidenced by large fall and rubble remains; however, the northwestern chimney was represented only by a rectangular stain where its base had been set. No clear indication of the northeastern chimney was uncovered, although its existence is attested to by architectural evidence within the house (Howard 1978: 3, Newton 1980: 9).

Since no evidence of previous chimneys or structures was discovered in these areas, Features 6, 48, and 49 are concluded to be the original chimneys. The bricks and mortar of Features 6 and 48 are identical, and brick

rubble recovered from a refuse dump (Feature 53) on the northern slope is also identical in composition. This rubble is believed to be the bricks from the northern chimneys (Cleland and McBride 1983: 334).

Excavations at the back of the house (Block 3) revealed numerous features indicating greater architectural changes in this area (Figure 7). All, however, appear to be evolutionary changes related to this particular structure and not indications of an earlier house.

Perhaps most significant to the integrity of this structure is Feature 47, the wooden pier discussed previously (Figure 7). This pier suggests that the house was once supported (in part, or wholly) by large wooden piers which, upon decay, were replaced by brick piers. The use of a variety of different pier materials on the same structure is not an unheard-of-practice. For example, a 1913 double pen house located in the Bay springs area of northeastern Mississippi "sat upon various types of piers including log stumps, brick and concrete" (Smith et al. 1982: 66).

This particular pier was replaced sometime in the mid-to-late nineteenth century but no later, as the refuse of Feature 21 entirely covered this pier remnant. Table 2 shows that the majority of datable material from this feature, on a proportional scale, comes from the

mid-nineteenth century with the next highest proportion from the late nineteenth century. It is noted that this is skewed by the inclusion of machine cut and wire nails in the datable assemblage. Removal of these items shows greater densities in the late nineteenth and twentieth century date ranges (Table 4). Moreover, the mixture of dates from early nineteenth to the twentieth century indicates a great deal of disturbance in this area (Tables 2 and 3) and, as the majority of artifacts are architectural in function (Table 6), there is a strong indication of remodeling having occurred.

Three structural additions to the back of this house were evidenced by Features 14, 16, 17, and 23 which were all in a north-south line parallel to, and approximately 2 m away from, the house and appear to indicate a rear full-length gallery (Minnerly 1983: 50).

Features 8, 15, and possibly 14 and 16 may have supported the ell that was known to have been attached to the northeast corner of the house during the very late nineteenth or early twentieth century (McClurken and Anderson 1981: 561-562, 877, 880). Features 9, 11, and 12 represent a porch running east-west that would have been attached to this ell extending out from the central folding door (McClurken and Anderson 1981: 562, 880). Archaeological and oral data indicate that the ell and east-west porch postdate the rear gallery.

Table 6. Functional breakdown of artifacts for selected features by percentages.

Feature Number	Area excavated in m^2 **	Ceramic & Glass tableware	Utilitarian ceramics	Bottle glass	Foodstuff related	Clothing & personal items	Architectural	Hardware	Faunal	Miscellaneous	Total number of artifacts	Possible feature function
1	22m^2	7%	2%	23%	-	-	43%	1%	10%	14%	1199	Smokehouse
3	7m^2	9	-	7	-	2	77	1	2	2	160	Kitchen/shed
10	"	4	1	8	3	1	73	2	4	4	412	" "
4	1m^2	5	1	11	-	1	67	2	1	12	359	Porch stoop
6	13m^2	2	4	25	4	1	49	2	1	12	285	Chimney
21	12m^2	4	1	13	4	1	59	3	2	13	4568	Refuse dump
27-30, 45	7m^2	3	1	7	1	1	64	3	6	14	453	Formal garden enclosure
48	4m^2	2	1	12	2	4	57	2	1	19	345	Chimney
49	1m^2	2	-	16	-	-	73	-	-	9	62	Chimney
53	12m^2	13	1	25	12	1	32	3	2	11	6382*	Refuse dump
57	2m^2	3	1	17	13	1	32	4	2	27	2137	Refuse pit
										TOTAL=	16,362	

* does not include subfeature artifacts
** square meter measurements are approximations

Feature 4 (Figure 7) is evidence of a brick stoop in front of the central back door. This was also confirmed by oral information (Howard 1978: 3) and was probably in existence at the turn of the century after the rear gallery had been removed and before the east-west porch was built.

The only driplines uncovered were related to the present house form. Various other postholes found in the vicinity of the house, front and back (i.e., Features 18, 33, 35, 41, 42, 46, 54, 55, and subfeature 1 of Feature 21) (Figure 7), were too small to have supported a structure of any great size. It is likely that they represent fence enclosures associated with the front garden, and porch or addition supports off the back and north sides of the house. However, no distinct patterning to their locations could be discerned (Cleland and McBride 1983: 331, Minnerly 1983: 53-54).

The integration of oral, archival, architectural, and archaeological information strongly suggests that this house is original to this site. Even though it may have undergone a transformation from a two-room to a four-room plan, it retains its historic significance and integrity as the last remaining standing structure from Barton.

The artifacts do range from the mid-nineteenth century (Tables 2 and 3) when Barton was first platted,

and a construction date around this same time period is strongly indicated. The low amount of early nineteenth century materials (i.e., primarily nails) would argue against an earlier construction date, as would archival data and some architectural opinions. The presence of handwrought and early machine-headed cut nails (1815-30, Nelson 1968) is, perhaps, more a result of a lag in the diffusion of new innovations into a rural area (especially one located on a river which was navigable only on a seasonal basis), than of an early nineteenth century construction date and occupation. It is also conceivable that their presence is indicative of the salvaging of construction materials from the earlier town of Colbert.

Archaeological--site utilization

The data collected concerning the utilization of this site through time was gathered primarily from oral and archaeological sources. Two former outbuildings were located during the archaeological excavations and these were a smokehouse (Feature 1) and a detached kitchen/shed (Features 3 and 10) (Figure 7). These buildings, along with the existing shed, privy, and well, constitute the major structural features associated with this housesite, and all are located in the backyard.

The standing shed (Figure 7) was constructed in the twentieth century out of materials salvaged from the rear ell (Howard 1978). The privy was also of twentieth

Archaeological site mitigation

century construction, and no previous privies were located during this investigation. It is possible that the nineteenth century occupants did not have specially dug facilities. Oral history in the study of the Bay Springs farmsteads suggests general use of the woods for toilet facilities, resulting in a paucity of privy features (Smith et al. 1982: 57, 222). This is further supported as a general practice in Barton, by the lack of privy features at the other housesites associated with this town (Cleland and McBride 1983:375).

The open brick-lined well, as mentioned previously, was nineteenth century in construction, with an artesian well west of the house serving as the twentieth century water source (McClurken and Anderson 1981: 619, 883-884). The brick-lined well was not used as a trash receptacle, although some unlined wells found on the Barton townsite were filled with refuse (Cleland and McBride 1983: 179-181, 235-237).

The smokehouse (Feature 1) was evidenced by a rectangular solid brick foundation oriented on the same axis as the house and located approximately 24 m east and slightly south of the house (Figure 7). Oral data indicates this structure functioned as a smokehouse and food storage shed, and further, that it was of log construction (McClurken and Anderson 1981: 877, 882, 560-562, 619).

Archaeological data indicates that the construction material was almost entirely salvaged when the structure was destroyed in the early twentieth century (Minnerly 1983: 61-65) (Figure 8). The artifactual data suggests a mid- to late nineteenth century date range with the lower levels exhibiting a predominance of mid-nineteenth century material (Tables 2 and 4). The mixture of materials in the upper levels can be related to disturbances from plowing in the southern half of Block 1 and animal rooting.

Functional analysis shows architectural items in the highest proportion (Table 6), which is expected since this structure was torn or fell down. When the architectural items are removed from the datable assemblage the emphasis shifts to the late nineteenth century date range (Table 4). The next highest functional percentage consists of bottle glass (23 percent) and this too is expected as the smokehouse also functioned as a storage shed.

Perhaps the most telling percentage is that of faunal remains, especially when compared to faunal remains found elsewhere on this site. If this feature were a smokehouse and food storage shed, then higher proportions of bone and shell remains could be expected. Terrance J. Martin (1983: 286-306) conducted a detailed faunal analysis of the Cedar Oaks assemblage. He noted that Block 1 (containing Feature 1) "yielded 40.1 percent of all animal

remains from the site," and "exhibited the third highest concentration of bone and shell at 39.2 g per m^2" (Martin 1983: 291-294). It also yielded "the greatest number of pig elements (45 percent), oyster shells (70 percent), and fish remains (38 percent), and the second highest number of freshwater mussel shells (22 percent)" (Martin 1983: 294).

The presence of a small proportion of tablewares and utilitarian wares (Table 6) can also be related to this feature having functioned as a smokehouse/storage shed. Utilitarian wares, such as crocks and jugs, were commonly used as food storage containers. The presence of tablewares may be related either to dishes being transported out to the smokehouse to bring in food items for consumption (some of which may have broken in the process), or items deposited after the structure no longer existed and which were mixed with the feature assemblage through plowing and animal disturbances.

The total absence of items in the foodstuff related category has more to do with the high proportion of unidentifiable items (14 percent) than with the total lack of this material in Feature 1. Furthermore, no clothing or personal items were recovered adding to the conclusion that this feature functioned as a smokehouse/food storage shed.

Even though no firebox or smudge pit was uncovered inside the foundation, this does not negate its function as a smokehouse. There were ash and charcoal concentrations within the feature level fill (Minnerly 1983: 65) indicating either that the fire was set upon the ground surface with no specially prepared hole or brick hearth, or that the firebox was subsequently removed when the structure ceased to function as a smokehouse. A smokehouse located on a similar housesite in Barton did have a brick-filled depression that appears to have served as the smudge pit (Cleland and McBride 1983: 234).

The area immediately surrounding the brick foundation showed patterns of postholes indicating an addition to the smokehouse and/or fenced areas on its north and south sides (Figure 8). Oral accounts do indicate that small animals were penned near this structure during the early years of this century (Minnerly 1983: 32).

The other outbuilding discovered during the archaeological investigation was evidenced by Features 3 and 10 (collapsed brick piers) and an associated midden (Figure 7). Table 2 shows that the majority of datable items is mid-nineteenth century with a notable proportion of earlier material (i.e., early machine-headed cut nails) in Feature 10. Few twentieth century items were found in the feature fill and these consisted of decalcomania-decorated ceramic tableware fragments in the upper level

of Feature 10. These were likely deposited after the structure no longer existed and were subsequently mixed in with the feature fill by cultural and animal disturbances. The removal of cut and wire nails from the datable assemblage (Table 4) places greater emphasis on the late nineteenth century date range.

This data suggests that this structure was in existence from the mid- to late nineteenth century and was probably built when the house was first constructed. It was destroyed in the late nineteenth century, and none of the oral informants have any recollection of a structure in this area other than the present shed (Minnerly 1983: 28-32).

The presence of early nineteenth century nails most likely indicates either that this structure was constructed from materials salvaged from an earlier building, or that there was access to early machine cut nails even though a more modern type was being produced by the time this structure was being built (Nelson 1968). Newton (1980: 5) does note that the cut nails used to construct the house are also of this earlier type further supporting the theory that both of these structures were built simultaneously.

Functionally, this structure may have been a detached kitchen. The presence of such structures is fairly common in warmer climes due in part to the lessened need for the

extra warmth a kitchen inside a house would provide. It would have been far more comfortable for a kitchen to be away from the house yet close enough for easy access.

Detached kitchens have been identified at higher status homes (see Lees 1980: 119, Lewis 1977: 64), as well as at lower status homes (see Deagan 1983: 111). Ken Lewis (1977: 64) noted that "comparative archaeological evidence indicates that separate kitchen structures were generally situated just to the rear of larger dwellings" and that many of them are located "nearest the left rear corner of the house." This holds true for the location of this structure at Cedar Oaks in accordance with the present configuration of the house (Cleland and McBride 1983: 343).

Table 6 shows that once again the largest proportion of artifacts is architectural in function. This too is in keeping with the fact that this structure was destroyed. The next highest proportions consist of ceramic and glass tablewares (9 percent and 4 percent, respectively for Features 3 and 10) and bottle glass (7 percent and 8 percent, respectively). The higher percentages of tablewares and bottles lends support to the theory that this structure functioned as a kitchen, as both would have been common items related to kitchen activities (i.e., food preparation, cooking, consumption, and storage).

Martin's (1983: 286-306) faunal analysis concerning this structure revealed that

> Although only 5.9 percent of the total faunal assemblage was obtained from (Block 2 and Features 3 and 10), the density of 42.4 g of shell and bone per square meter of excavated area was the second highest at the site. Oyster shell was the predominant animal remain in this area of the site and occurred along with pig teeth, mussel shells, a turtle element, one chicken bone, one cattle bone and several unidentified mammal bones.

Added to this is the presence of charcoal and ash concentrations in the feature fill. These deposits are likely the result of cooking activity and either dropped through the floor or were purposefully thrown out around and underneath the kitchen. As the artifacts and brick pier remnants showed little evidence of burning, it is concluded that the charcoal and ash deposits represent cooking activity by-products rather than evidence that the structure was destroyed by fire.

During the late nineteenth and early twentieth century the ell attached to the rear of the house functioned as the kitchen (McClurken and Anderson 1981: 561-562, 877, 880). This structure may be evidenced archaeologically by Features 8 and 14-16, although 14 and 16 appear to be more closely associated with 17 and 23 as evidence of a rear full-length gallery (Figure 7). The ell is best evidenced however, by the relatively shallow midden (average 10.7 cm deep) found in the northern half

of Block 3 as compared to the deeper midden (average 14.2 cm) found in the southern half of this block, as well as that found elsewhere in the backyard which is up to 30 cm deep in certain areas (Figure 6).

Table 3 shows that, for the northern half of Block 3, the majority of datable artifacts are from the late nineteenth century. This appears to indicate that the rear ell was not built until the very late nineteenth or, more likely, the early twentieth century. When modern machine cut and wire nails are removed from the datable assemblage (Table 5) the emphasis is only slightly greater for the twentieth century range, indicating that deposition after the ell had been removed was comparable to that which occurred in the late nineteenth century prior to its existence.

The smaller proportions and marked decrease in density of mid-nineteenth century artifacts (Tables 3 and 5) indicates that this area was kept relatively clean during this time period. The sweeping or hoeing of yards to keep them clear of refuse was a common practice in the nineteenth and early twentieth centuries. Oral accounts of this practice surrounding a dwelling have been noted by Adams (1980: 216, 225) and Smith et al. (1982: 53, 57, 217). Such clearing was done around a house as this area was often "the scene of many outdoor activities" (Adams 1980: 225).

Besides the evidence of outbuildings as loci for certain activities, other data obtained during this investigation can be related to other aspects of site utilization. An artifact density scale was devised for this analysis and it is as follows:

Sterile = 0 artifacts/per unit excavated
Sparse = 1-400 artifacts/per unit
Moderate = 400-1,500 artifacts/per unit
Dense = 1,500-4,600+ artifacts/per unit

This scale does not include feature assemblages.

In general, the backyard area appears to have been the main locus of activity for the entire occupation span of Cedar Oaks. The deepest sheet midden (10-30 cm in depth) is found in this area (Figure 6), as well as the major outbuildings (i.e., shed, kitchen, privy, and smokehouse).

In all of the excavated areas of this portion of the site (i.e., Blocks 1-3, and Units 85, 87, and 95) the functional breakdowns (Tables 7 and 8) show architectural items and bottle glass in the largest proportions. This is, however, true of the entire site, and is due to the number of destroyed outbuildings and structural changes to the house which encouraged the deposition of items such as nails and window glass, and the disposable nature of glass bottles over tablewares, which would have been more carefully curated. Certain functional differences can, however, be noted in this backyard area.

Table 7. Functional breakdown of non-feature artifacts by percentages.

Block number	Area excavated in m^2	Ceramic & Glass tableware	Utilitarian ceramics	Bottle glass	Foodstuff related	Clothing & personal items	Architectural	Hardware	Faunal	Miscellaneous	Total number of artifacts	Average density per m^2
Block												
1	92m²	7%	2%	24%	3%	1%	44%	3%	3%	13%	19,001	206.53
2	24m²	11	1	15	4	1	56	5	1	6	5,810	242.08
3 northern units	38m²	5	1	16	2	1	51	3	2	19	13,883	365.34
3 southern units	54m²	5	1	15	1	1	55	2	2	18	32,334	598.78
4	22m²	2	<1	21	6	2	39	2	3	25	634	28.82
5	72m²	3	<1	9	1	1	59	4	1	22	9,670	134.30
6	10m²	3	<1	13	1	1	65	4	<1	12	607	60.70
7	12m²	16	2	26	8	1	35	1	1	10	1,013	84.42
										TOTAL =	82,952	

Table 8. Functional breakdown of non-feature artifacts by percentages.

Unit number	Area excavated in m^2	Ceramic & Glass tableware	Utilitarian ceramics	Bottle glass	Foodstuff related	Clothing & personal items	Architectural	Hardware	Faunal	Miscellaneous	Total number of artifacts	Average density per m^2
Unit 85	4m²	4%	<1%	15%	<1%	1%	60%	5%	1%	13%	1,091	272.75
Unit 86	4m²	13	3	16	-	1	45	3	2	17	184	46.00
Unit 87	4m²	12	5	26	1	<1	39	2	<1	15	548	137.00
Unit 89	4m²	2	<1	28	4	1	43	5	1	16	679	169.75
Unit 90	4m²	11	3	23	<1	<1	50	2	1	9	403	100.75
Unit 91	4m²	8	<1	6	16	22	28	3	<1	17	648	162.00
Unit 95	4m²	9	3	18	1	<1	54	1	2	12	969	242.25
Unit 96	4m²	5	1	28	<1	1	47	3	1	14	1,333	333.25
Unit 98	2m²	4	4	18	11	1	40	6	2	14	446	223.00
Unit 99	2m²	11	-	16	22	6	27	6	6	6	18	9.00
										TOTAL =	6,319	

The units which comprise Block 1 (encompassing the smokehouse feature) exhibit, according to the above scale, a moderate artifact density. The average density per m^2 is 206.53 artifacts. The functional breakdown, in comparison with the other blocks of units (Table 7), shows that Block 1 has the second highest percentage of bottle glass (24 percent), the third highest percentage of ceramic and glass tableware (7 percent), and relatively high proportions of utilitarian ceramics and faunal remains (2 percent and 3 percent, respectively), all of which are in keeping with this area as a locus for food preparation and storage activities related to the smokehouse.

The sheet midden in this block is an average of 15.8 cm in depth and all stratigraphic levels show a higher proportion of mid-nineteenth century artifacts (Table 3). When modern machine cut and wire nails are removed from the datable assemblage (Table 5), the late nineteenth century category shows a much higher density. As the smokehouse is known by oral accounts to have existed into the late nineteenth or early twentieth century, a predominance of late nineteenth century artifacts would suggest that it was constructed and primarily in use during this time span. Unit 87, which is located 4 m east of Block 1 (Figure 5), exhibits similar date range and

functional proportions and average artifact densities (Tables 3, 5 and 8).

A garden area was noted running east-west across the southern portion of Block 1. This was evidenced by plow scars and concentrations of onion bulbs, and it postdates the destruction of the smokehouse indicating a twentieth century date.

The units of Block 2 (containing the detached kitchen feature) exhibit a moderate artifact density with an average density per m^2 of 242.08 artifacts. The functional proportions compared with the other blocks of units, show relatively high percentages of foodstuff related items and bottle glass (4 percent and 15 percent, respectively), as well as the second highest percentage of ceramic and glass tableware (11 percent). These can be related to this area having been utilized for kitchen activities.

The sheet midden in Block 2 is an average of 18.2 cm in depth and has high proportions of mid- to late nineteenth century material in all stratigraphic levels (Table 3). Level 3 has a notable proportion of early nineteenth century items (18 percent) indicating the presence of early-type nails. When modern machine cut and wire nails are removed from consideration, the highest density is found in the late nineteenth century range (Table 5), although Block 2 exhibits the highest

mid-nineteenth century density per m^2 (2.50/m^2) among all the blocks of units. This would be in keeping with the supposition that the detached kitchen was constructed in the mid-nineteenth century (ca. 1850).

A fenceline (Feature 13) along the southern wall of this block indicates the presence of an animal pen or separated garden area in the vicinity. As this fence was found lying just beneath the sod layer it is concluded to be twentieth century in date.

The northern units of Block 3, as discussed previously, show a moderate artifact density and an average density per m^2 of 365.34 artifacts. The functional breakdowns (Table 7) show a high proportion of bottle glass (16 percent) and the fourth highest percentage of tableware (5 percent). The sheet midden is an average of 10.7 cm deep and predominantly late nineteenth and twentieth century in date (Tables 3 and 5). This area was the locus for kitchen activities in the twentieth century and appears to have been swept clean before that.

The southern units of Block 3, on the other hand, show a dense amount of artifacts with an average density per m^2 of 598.78 artifacts, the highest of the entire site excluding features (Table 7). The sheet midden found here is an average of 14.2 cm in depth.

Functional breakdowns for the southern half of Block 3 are virtually identical to those found in the northern

half (Table 7) indicating the occurrence of the same general activities, with the southern half collecting greater numbers of artifacts. This can be related to the influence on deposition by Feature 21 (Figure 7) located in the southwest portion of this block.

Proportionally, a mid- to late nineteenth century date range is indicated (Table 3); however, the average density (minus nails) shifts the emphasis to the late nineteenth and twentieth centuries (Table 5). A garden area, running east-west, was evidenced in the extreme southern portion of Block 3 by plow scars present beneath the deep midden. This garden may, therefore, be mid- to late nineteenth century in date.

Units 85 and 95 (Figure 5), which are also located in the area of greatest backyard activity, exhibit relatively deep sheet middens (10 to 26 cm), moderate artifact densities, average densities per m^2 of 272.75 and 242.25 artifacts, respectively, and primarily a mid- to late nineteenth century date range emphasis (Tables 3 and 5). Functionally, no specific activities are of note (Table 8).

The perimeters of the backyard area revealed a less developed midden (8 to 12 cm deep and lighter in color) which has been modified by plowing along the eastern edge of the site area. Artifact densities range from moderate

to sparse with average artifact densities per m^2 ranging from 9 artifacts to 162 artifacts (Table 8).

Proportional date ranges in this area indicate a mid- to late nineteenth century range for Units 86 and 90 and a mid-nineteenth to twentieth century range for Unit 91 (Table 3). Date range average densities (minus nails) reinforce these ranges (Table 5). Unit 91 shows higher proportions and densities of twentieth century material as this area was the locus of a twentieth century refuse dump along the eastern slope.

Functional breakdowns show unexpectedly high proportions of tableware in Units 86 and 90 (Table 8). Their distance from the house and kitchen area would lead one to expect lower proportions in this category. Unit 91, on the other hand, exhibits high proportions of clothing and personal items and foodstuff related materials (22 percent and 16 percent, respectively) because of the large numbers of rubber boots, leather shoes, and canning jars discarded in the twentieth century dump.

The plow zone in the extreme northeast and eastern portions of this site indicate that the fields, at least in the twentieth century, reached up to the houselot's edges. A posthole (Feature 56, Figure 7) found in Unit 86 is likely evidence of a fenceline (direction unknown) separating the yard from the fields.

Along the southern edge of the backyard a layer of clay was found overlying the midden (Figure 6). This cap of clay appears to be a twentieth century attempt to level the slope in this area of the site to prevent or retard erosion.

The sides of the house, Blocks 4 and 6, exhibit shallow sheet middens (approximately 6 cm), sparse artifact densities, and average densities per m^2 of 28.82 and 60.70 artifacts, respectively (Table 7). Block 4 shows higher proportions of mid- to late nineteenth century items, while Block 6 has a notable percentage of twentieth century material (Table 7). Date range densities (minus nails) shift the emphasis for both blocks to the late nineteenth and twentieth centuries (Table 5). The construction and destruction of the four chimneys in these areas accounts for the mixing of date ranges throughout all levels (Table 3).

Block 5, located directly in front of the house, contains the front walkway and formal garden features (Features 27-30 and 45, Figure 7). The sheet midden here is extremely shallow (average 5.9 cm) and the units exhibit a sparse to moderate density. The entire block has an average density per m^2 of 134.30 artifacts Table 7).

The date range for all levels is primarily late nineteenth to twentieth century with a smaller proportion

of mid-nineteenth century material (Table 3). When nails are removed from consideration the emphasis remains on the late nineteenth to twentieth century range (Table 5).

Functional breakdowns for Block 5 show low proportions in all categories except architecture and miscellaneous items (Table 7). This appears to indicate an area consciously kept clean throughout the occupation of this site, perhaps as an esthetic presentation of the house to visitors.

The extreme northwest corner of the frontyard was used as a flower and shrubbery garden, as well as a refuse disposal area in the late nineteenth and twentieth centuries. The latter is a trash pit (Feature 57) found in Unit 89 (Figure 7).

Units 96 and 98 were situated along the southern and western fencelines, respectively, and both revealed refuse areas of moderate artifact densities. Average densities per m^2 are 333.25 artifacts for Unit 96 and 223 artifacts for Unit 98 (Table 8).

A midden layer was present in both units which was lighter in color than that found in the backyard but of comparable depth (approximately 19 cm). Date ranges show higher proportions of mid- to late nineteenth century material, with Unit 96 having notable percentages of twentieth century items (Table 3). Date range average

densities (minus nails) shift the emphasis in both units to the late nineteenth and twentieth centuries (Table 5).

Block 7 is the location of a refuse disposal area (Feature 53) over the northern slope which was used primarily during the late nineteenth and twentieth centuries (Tables 2 and 4). Postmolds found intruding into this refuse deposit (i.e., subfeatures 1-6, Figure 7) appear to be former fenceline posts of varying ages (Minnerly 1983: 98-99).

In summary, the utilization of space on this housesite through time consisted of outbuildings serving as the loci for various activities, designated areas for gardens and animal pens, and a conscious effort on the part of the occupants to keep certain areas cleaner than other areas.

Outbuildings in the backyard consisted of two kitchens, a shed, smokehouse, privy, and well, with the detached kitchen, smokehouse, and well dating generally from the mid- to late nineteenth century occupations. The kitchen may, in fact, date back to the construction of the house. The smokehouse survived into the early twentieth century when it was known to have had an animal pen next to it. The shed, privy, and ell kitchen, on the other hand, date from the twentieth century occupation.

Another fenced area dating from the twentieth century was located near the standing shed. Two gardens were

discovered, one to the southeast of the house dating possibly from the nineteenth century occupation and the other, in the southeast portion of the site, dating from the twentieth century.

Throughout the occupation of this site it appears that outdoor activities were focused on the area bounded by the shed and detached kitchen on the north, the house to the west, and the smokehouse to the east. The enclosed area exhibits the deepest sheet midden, as well as the highest non-feature artifact densities.

The area off the northeast corner of the house, as well as the surrounding sides and front area, show indications of having been kept clean throughout the site's history. Only shallow middens were found in these areas. The eastern perimeter shows evidence of twentieth century plowing and refuse disposal, while the southern edge exhibits a twentieth century leveling activity. Oral accounts indicate that the southern slope was planted with a fruit orchard during the twentieth century occupation (Minnerly 1983: 32).

The frontyard of the house was used in the late nineteenth and twentieth centuries as a formal presentation and ornamental area. The perimeters of the northern, western, and southern portions of the site, however, were used to varying degrees as disposal areas primarily during the later occupation of this site.

Archaeology--Refuse Disposal Patterns

Two types of disposal behavior were discerned at Cedar Oaks, specific dumping areas and an overall refuse-laden sheet midden. The former consists of Features 21, 53, and 57 and areas indicated by Units 91, 96, and 98. The midden is concentrated primarily in the backyard extending out from the house approximately 30 m to the east; although a shallower midden is present over much of the remainder of the site including the frontyard (Figure 6).

Feature 21 has been noted previously as a refuse dump underneath the former rear gallery. It is concentrated on the southeast corner of the house and extends eastward from it approximately 4 m (Figure 7). Proportional data (Table 2) indicates a mid- to late nineteenth century date range; however, when nails are removed from the datable assemblage, the emphasis shifts to the late nineteenth century with the second highest average density per m^2 in this feature dating from the twentieth century (i.e., 7.6) (Table 4). Overall, it contains the second highest frequency of artifacts (4,568) and the third highest average density per m^2 (380.67).

Functionally, the artifacts from Feature 21 cover the full range, with high percentages of architectural items, bottle glass, miscellaneous items, and tableware (Table 6). Its proximity to the house would make it a convenient

receptacle for all manner of domestic refuse. The obvious structural remodeling which took place in this area (see previous section) accounts for 59 percent of the assemblage being architectural in function. In general, however, its functional makeup is not unique, and other areas exhibit a similar composition (Table 7).

Feature 53 (Figure 7) is a refuse dump on the northern slope approximately 9 m off the northeast corner of the house. In addition to the material tabulated in Table 6, it also contained a large concentration of brick and mortar that may have come from the northern chimneys. Although only 12 square meters were excavated, the entire dump is actually 18 x 23 m in visible extent.

Proportionally, the artifacts from this feature date from the mid- to late nineteenth century with a sizable percentage from the twentieth century (Table 2). However, the average densities/m^2 (nails excluded) exhibit a primary emphasis on the late nineteenth and twentieth centuries (63.20 and 38.30 artifacts/m^2, respectively, Table 4). This feature contains the highest frequency of artifacts (6,382) but only the second highest average density per m^2 (531.83 artifacts/m^2).

The functional breakdown for Feature 53 (Table 6) shows the majority as architectural items (32 percent), with bottle glass (25 percent), tableware (13 percent), and foodstuff related items (12 percent) in notable

proportions. Despite the fact that less than 5 percent of the site's faunal remains were recovered from this feature, it was found that the concentration of bone and shell was the site's highest at 47.7 g per m^2 (Martin 1983: 295). The presence of such high proportions of kitchen-related and domestic refuse, when compared to other features and areas (Tables 6 and 7), can be explained by the proximity of this dump to the two kitchens and the house itself. It would have been a close, sanitary, and out-of-sight dumping area relative to these structures.

Feature 57 is a circular trash pit that was found in the northwest corner of the frontyard (Figure 7). This was an excavated pit that was used as a trash receptacle primarily during the late nineteenth and twentieth centuries (Tables 2 and 4). During the twentieth century it was used for burning refuse as the top layer was comprised of charcoal and burned artifacts (Minnerly 1983: 101). This pit was also used during the mid-nineteenth century occupation although to a lesser extent than in the later periods. In fact, it contains the highest average density per m^2 of mid-nineteenth century artifacts compared to other features (i.e., 5.00/m^2, Table 4). In addition, it contains the highest average density per m^2 (1,068.5/m^2, Table 4) when compared to other major features, but only the third highest frequency.

Functionally, the artifacts from Feature 57 cover the full range of categories with an emphasis on architectural (32 percent), miscellaneous items (27 percent), bottle glass (17 percent), and foodstuff related items (13 percent) (Table 6). This too appears to have been a handy receptacle for domestic refuse, although its placement in the frontyard in full view of all visitors is somewhat perplexing. Especially when great care was taken during the same time period to construct esthetic features such as a formal garden enclosure and brick walkway.

Unit 91 (Figure 5) was placed in the vicinity of a twentieth century refuse dumping area along the eastern slope of the site. This area is located over 40 m to the northeast of the house and was the receptacle for discarded boots, shoes, canning jars, paint cans, and other items. The footwear accounts for the high proportion of clothing and personal items (22 percent, Table 8), and the canning jars for the foodstuff related items (16 percent). This refuse area was utilized primarily during the late nineteenth and twentieth centuries (Table 3), with a higher average density per m^2 (excluding nails) during the twentieth century occupation period (i.e., 19.25 artifacts/m^2, Table 5).

Units 96 and 98 (Figure 5) were located along the southwestern and western fencelines, respectively. Both revealed that the areas to the "outside" of these fences

were also used as refuse disposal areas although to a lesser extent than the northern and eastern slopes. It is likely that much of the refuse found along these fencelines represents sweepings from the frontyard area.

Functionally, the areas investigated by Units 96 and 98 exhibit similar compositions, although more items found in Unit 98 could be related to a foodstuff function than those found in 96 (i.e., 11 percent and less than 1 percent, respectively, Table 8). Proportionally, these areas were utilized primarily during the mid- to late nineteenth century (Table 3); however, the emphasis shifts to the late nineteenth and twentieth centuries when nails are removed from the datable assemblage (Table 5).

Besides these specific refuse dumping areas there was a sheet midden which covered much of this site, to varying degrees. This represents both the by-products of activity areas (i.e., primary refuse) and those items lost or casually discarded anywhere they might fall on the site area.

This midden is deepest (10-30 cm) and contains the highest average non-feature artifact density per m^2 (334.71 artifacts/m^2 or, 73,636 artifacts divided by 220m^2) in the area directly behind the house and extending approximately 6 m beyond Block 1 (Figure 6). Therefore, the densest portion of the sheet midden is bounded by the house on the west side, the two kitchens (i.e., detached

and ell) to the north, the smokehouse to the east, and the slope edge to the south. It is logical to assume that this midden was formed by the heavy day-to-day traffic and concentration of activities which took place in this area.

The midden thins out in both depth and artifact density to the sides and front of the house, indicating areas little used and/or kept clear of refuse (Figure 6). The perimeters of the site exhibit a lighter midden which is 8-11 cm in depth, indicating areas little used for specific activities and receiving less refuse overall. It is likely that this perimeter midden, especially in the frontyard, represents the final deposition of yard sweepings.

The artifacts recovered from this sheet midden cover the full range of function (Tables 7 and 8) with architectural items and bottle glass predominating over the entire site. As for dates, the dense midden in the backyard is mid-nineteenth to twentieth century in range with emphasis upon the late nineteenth century (Tables 3 and 5). On the other hand, the front and side yards, as well as the site perimeters, date primarily from the late nineteenth and twentieth centuries. Very little early to mid-nineteenth century material was recovered from these areas (Table 3).

Maps showing the distribution of datable non-feature artifacts (excluding nails and bottle glass, see

Chapter 2) are presented in Figures 9, 10, and 11. The distribution of mid-nineteenth century material (Figure 9) shows concentrations directly off the east-central and southeast portion of the house (southern units of Block 3), the area of the detached kitchen (Block 2), and in the vicinity of the smokehouse (Block 1). The frontyard, side yards, and perimeter areas appear to have received only a sparse amount of material during this period of occupation. It should be noted that Feature 53 (Block 7) and Feature 57 (Unit 89) also received a comparatively small amount of mid-nineteenth century material (Table 4).

When the mid-nineteenth century distribution (Figure 9) is compared to that of the late nineteenth century material (Figure 10) it is apparent that density has increased over all areas of the site. As glass bottles and nails have been removed from the datable assemblage, this increase in density is not influenced as greatly by the mass production and greater availability and disposability of glass containers or by the structural remodeling and destruction which occurred on this site in the late nineteenth and early twentieth centuries. Rather, it appears that a change in disposal behavior has occurred.

Specifically, the area immediately surrounding the house (i.e., front, sides, and back within 0-6 m) received a greater artifact density during the late nineteenth

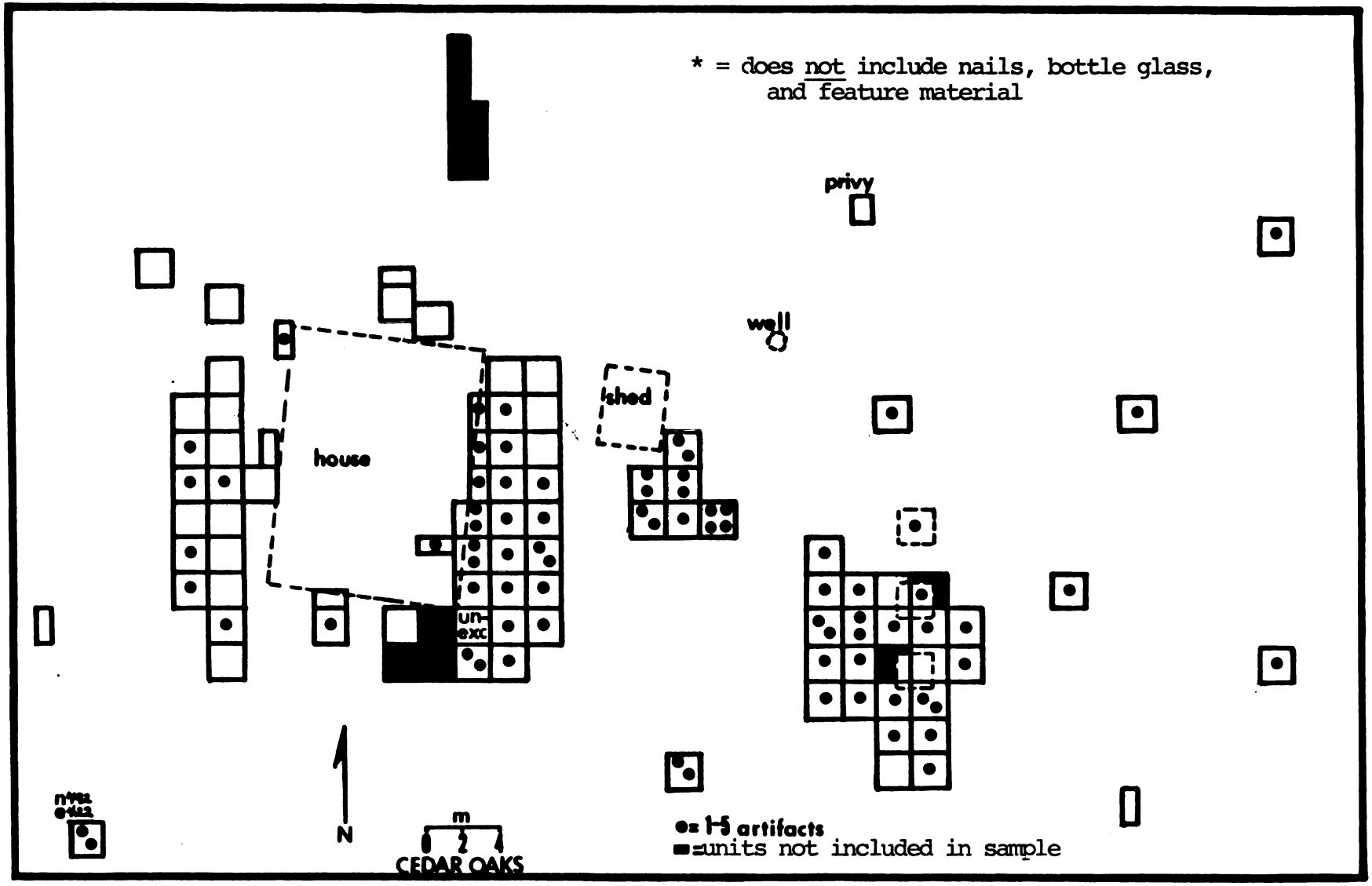


Figure 9. Mid-19th*century artifact distribution map

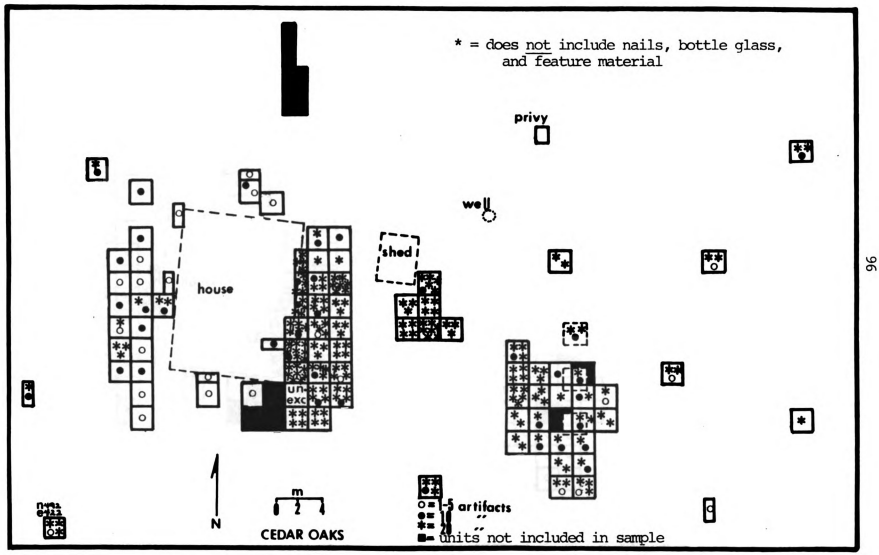


Figure 10. Late 19th* century artifact distribution map

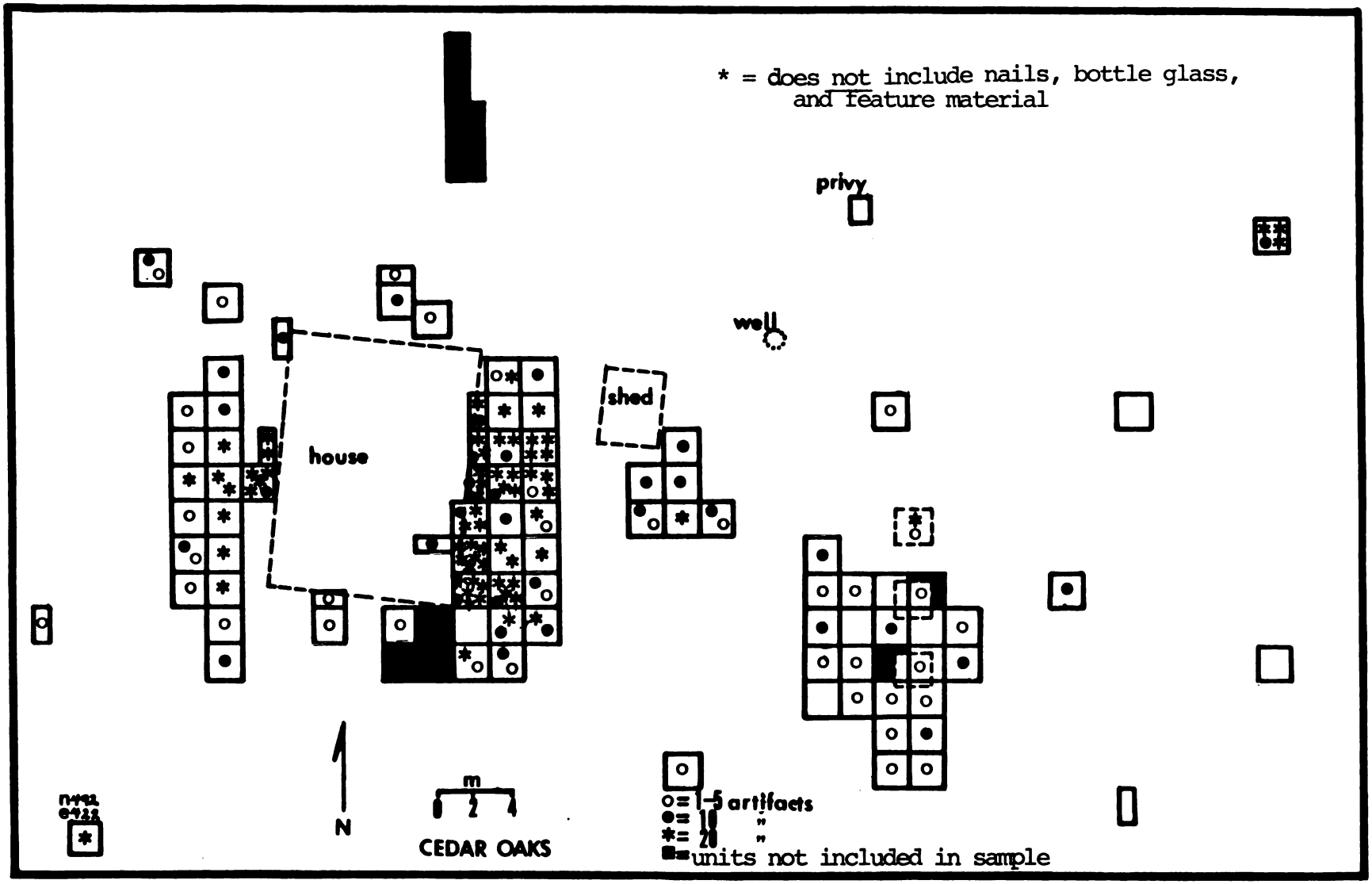


Figure 11. 20th* century artifact distribution map

century than this same area received during the previous time period. In fact, all areas of the site show relatively dense deposition during the late nineteenth century. This is reinforced when Features 53, 57, and 21 are considered, as they all have a predominance of late nineteenth century material (Table 4).

The twentieth century distribution map (Figure 11) shows yet another shift in deposition. During this period artifacts appear to concentrate primarily in the 0-6 m area surrounding the house on all sides. Blocks 1, 2, and the perimeter units show lesser amounts than was found during the late nineteenth century (Figure 10). Once again, it is noted that Features 53, 57, and 21 did receive a sizable amount of refuse during this time period (Table 4).

Unfortunately, the stratigraphic levels excavated on this site exhibited mixing of date ranges throughout (see Table 3), preventing the designation of certain levels as being from one definite time period. This served to reduce the sample assemblage to only those items which could be positively identified as to date range. However, care was taken to reduce the bias of this sample, for a portion of this analysis, by removing nails (which were deposited in later periods unrelated to their original context) and bottle glass (which artificially inflated

date range frequencies by the sheer volume of this increasingly disposable item).

In order to investigate the refuse patterning in greater degree, a series of contingency tables were formulated to test certain hypotheses. As the general thesis hypothesis proposed that the change in site function through time resulted in a changing pattern of refuse disposal, contingency tables were devised to test the relationship between distance from the house and date ranges. The first variable was chosen as the house served as the major focal point for division of space (i.e., frontyard vs. backyard), as well as the originating point for much of the refuse that was eventually deposited in the surrounding site area as already proposed in related hypotheses (see Chapter 1). It was felt that distance from the house might have been a factor associated with disposal behavior through time on this site. Such an association between distance from the dwelling and refuse patterning within a sheet midden has been noted by Randall Moir (1982: 147) for nineteenth and twentieth century housesites in Texas.

In order to reduce some of the bias inherent in the distribution of the excavated sample, intervals of distance, (i.e., 0-6 m, 6-18 m, 18-30 m, and 30-50 m) were chosen so units which otherwise were not connected could be combined into one interval. Therefore, in the backyard

area, the 0-6 m interval consisted of only Block 3 (92 m^2), 6-18 m included Block 2 and Unit 95 (28 m^2), 18-30 m included Block 1 and Unit 85 (96 m^2), and 30-50 m consisted of Units 86, 87, 90, 91, and 99 (18 m^2). Features were not included in this initial analysis, therefore, Block 7 and Units 74 and 75 were removed from the sample.

The frontyard area consisted of only two distance intervals: 0-6 m (Blocks 4, 5, and 6 or 92 m^2, excluding Feature 6--Units 24, 26, and 27) and 6-18 m (Units 89, 96, and 98 or 10 m^2). The excavated areas of the side yard were considered to be part of the "frontyard" division of space on this site.

Average densities per m^2 of datable material from the mid-nineteenth, late nineteenth, and twentieth centuries were utilized in order to further reduce the sample bias, as well as to produce a sample size applicable to chi-square analysis. The early nineteenth century category was entirely removed from consideration as it represented primarily architectural material better related to the mid-nineteenth century occupation.

Table 9a and b presents the initial contingency table calculations testing the possible association between distance intervals and date range. The hypotheses being tested are as follows:

H_0 (null hypothesis): there is no significant difference between distance from the house and distribution of material through time.

H_1 : There is a significant difference between distance from the house and distribution of material through time.

For both Table 9 a and b the null hypothesis would be retained, as the resulting chi-squares (i.e., $x^2 = 8.37$ with 6 degrees of freedom and $x^2 = 2.61$ with 2 degrees of freedom, respectively) do not exceed, or even come close to, a 0.05 level of confidence. In fact, values as large as both of these would be observed in more than 20 percent of similar tests.

Even when datable feature artifacts and bottle glass are added into this contingency table sample the resulting chi-squares still do not allow rejection of the null hypothesis. The contingencies, with bottle glass added in, resulted in a x^2 of 10.502 with degrees of freedom (df) = 6 for the backyard and a x^2 of 1.59 with df = 2 for the frontyard. When feature artifacts and bottle glass are added, the resulting chi-squares are $x^2 = 7.33$, df = 6 for the backyard and $x^2 = 1.82$, df = 2 for the frontyard.

These results indicate that the tested association is not a statistically significant one, and further, that one

Table 9. Contingency Tables--Average density per m²

a. BACKYARD

distance from house	MID-19th century*	LATE-19th century*	20th century*	
0-6 m	0.81 (1.95)	21.49 (24.58)	12.39 (8.16)	34.69
6-18m	2.39 (1.45)	20.78 (18.26)	2.61 (6.07)	25.78
18-30m	0.79 (0.70)	10.64 (8.82)	1.02 (2.93)	12.45
30-50m	0.89 (0.79)	8.67 (9.92)	4.44 (3.29)	14.00
	4.88	61.58	20.46	86.92

x^2 = 8.37, df = 6, α = 0.05, (n) = expected frequency

b. FRONTYARD

distance from house	MID-19th century*	LATE-19th century*	20th century*	
0-6 m	0.08 (0.20)	2.94 (4.44)	3.75 (2.12)	6.77
6-18m	0.60 (0.47)	11.80 (10.30)	3.30 (4.92)	15.70
	0.68	14.74	7.05	22.47

x^2 = 2.61, df = 2, α = 0.05, (n) = expected frequency

* = Date ranges minus nails, bottle glass, and features

variable is not dependent upon the other. It was then hypothesized that perhaps the only meaningful association found at Cedar Oaks concerning date range and distance has to do with the dichotomy between the backyard and the frontyard. Therefore, the following hypotheses were formulated:

H_0 = There is no significant difference between distance from the house and the backyard/frontyard division of space on this site through time.

H_1 = There is a significant difference between distance from the house and the backyard/frontyard division of space on this site through time.

It should be noted that only the 0-6 m and 6-18 m intervals could be tested as the frontyard area was not investigated further than the latter distance.

Table 10 a presents the results of the chi-square calculations testing these hypotheses for the mid-nineteenth century material (minus features, nails, and bottle glass). A x^2 of 0.06 was obtained with df = 1, which would be observed in over 80 percent of similar tests. Therefore, for the mid-nineteenth century, the null hypothesis would be retained.

Table 10 b shows the results from the testing of the late nineteenth century material (minus features, nails, and bottle glass). A x^2 = 4.27 with df = 1 was obtained and, at a 0.05 level of confidence, this allows for

rejection of the null hypothesis. A Cramer's V^2 (a measure of association) was calculated resulting in a value of 0.07 suggesting a weak association.

Table 10 c shows the results concerning the twentieth century material (minus features, nails, and bottle glass). A $x^2 = 2.10$ with df = 1 was obtained which does not allow for rejection of the null hypothesis. A value this size would be found in more than 10 percent of similar tests.

When datable feature artifacts and bottle glass are added to the above contingency table sample, a $x^2 = 0.52$, df = 1 was obtained for the mid-nineteenth century (Table 11a). According to the critical values of chi-square, the null hypothesis would be retained for this date range. For this test, and the above mid-nineteenth century test, it is indicated that there is no statistically significant association between distance and division of space through time. This, of course, only applies to the maximum distance of 18 m away from the house. One bias affecting this test could be the small sample size of the mid-nineteenth century material; however, when actual counts instead of average densities are used the null hypothesis is still retained.

Table 11 b shows, for the late nineteenth century, a $x^2 = 10.58$, df = 1 which allows for rejection of the null

Table 10. Contingency Tables--Average density per m²

a. MID-19th c.*

distance from house	backyard	frontyard	
0-6 m	0.81 (0.73)	0.08 (0.16)	0.89
6-18m	2.39 (2.47)	0.60 (0.52)	2.99
	3.20	0.68	3.88

$x^2 = 0.06$, df = 1, $\alpha = 0.05$, (n) = expected frequency

b. LATE 19th c.*

distance from house	backyard	frontyard	
0-6 m	21.49 (18.11)	2.94 (6.32)	24.43
6-18m	20.78 (24.16)	11.80 (8.42)	32.58
	42.27	14.74	57.01

$x^2 = 4.27$, df = 1, $\alpha = 0.05$, $V^2 = 0.07$,
(n) = expected frequency

c. 20th c.*

distance from house	backyard	frontyard	
0-6 m	12.39 (10.98)	3.75 (5.16)	16.14
6-18m	2.61 (4.02)	3.30 (1.89)	5.91
	15.00	7.05	22.05

$x^2 = 2.10$, df = 1, $\alpha = 0.05$, (n) = expected frequency

* = Date ranges minus nails, bottle glass, and features

hypothesis at a 0.01 level of confidence. A Cramer's V^2 = 0.11, however, suggests a weak association.

Table 11c for the twentieth century, shows a x^2 = 5.49, df = 1 which also allows for rejection of the null hypothesis at a 0.02 level of confidence. A Cramer's V^2 = 0.10 also suggests a weak association.

These results indicate that within 18 m of the house there is a statistically significant difference between distribution of material in the backyard versus the frontyard in the late nineteenth and twentieth centuries. Specifically, during the late nineteenth century the backyard was receiving higher densities overall from 0-18 m than the frontyard (Table 10b). When looking at the frontyard, it can be noted that the 0-6 range was receiving less refuse than the 6-18 m interval (Table 10b and Table 11b).

When features and bottle glass are added (Table 11b) the same general trend is evidenced; however, the 6-18 m interval in the backyard received a greater average density than the 0-6 m interval owing to the presence of Features 3, 10, and 53. The 6-18 m interval in the frontyard also shows a marked increase over the 0-6 m range as a result primarily of Feature 57.

During the twentieth century, the backyard in general received a greater average density between 0-18 m than the

Table 11. Contingency Tables--Average density per m²

a. MID-19th c.*

distance from house	backyard	frontyard	
0-6 m	1.12 (0.79)	0.09 (0.42)	1.21
6-18m	2.10 (2.43)	1.60 (1.27)	3.70
	3.22	1.69	4.91

$x^2 = 0.52$, df = 1, $\alpha = 0.05$, (n) = expected frequency

b. LATE 19th c.*

distance from house	backyard	frontyard	
0-6 m	25.17 (18.18)	3.31 (10.30)	28.48
6-18m	35.92 (42.91)	31.30 (24.31)	67.22
	61.09	34.61	95.70

$x^2 = 10.58$, df = 1, $\alpha = 0.05$, $V^2 = 0.11$,
(n) = expected frequency

c. 20th c.*

distance from house	backyard	frontyard	
0-6 m	17.73 (13.57)	4.75 (8.91)	22.48
6-18m	14.95 (19.11)	16.70 (12.54)	31.65
	32.68	21.45	54.13

$x^2 = 5.49$, df = 1, $\alpha = 0.05$, $V^2 = 0.10$, (n) = expected frequency
* = Date ranges minus nails, bottle glass, and features

frontyard; however, the 6-18 m interval in the frontyard shows a higher density than the 6-18 m distance in the backyard (Table 10c and Table 11c). This holds true for both cases where features are excluded and included.

Selected functional types were also explored in this manner in order to better understand possible associations in refuse patterning. Initially, the mean frequency (i.e., the number of artifacts under consideration divided by the number of units involved) of all non-feature artifacts minus architectural items was plotted on a graph where the y axis = mean frequency and the x axis = distance from the house in meters. Figure 12a and b present the results for the backyard and frontyard, respectively, for this category. In general, it appears that in the backyard the mean frequency decreases as distance from the house increases; while in the frontyard, frequency increases as distance increases. However, there is more variation from this trend in the backyard, especially in the 9 to 20 m range.

A chi-square test of this relationship between backyard and frontyard at 0-6 m and 6-18 m was attempted (Table 12a): however, the sample size (even when reduced by using average density per m^2) was too large to produce meaningful results (i.e., a $x^2 = 84.96$ with df = 1 was obtained which exceeds the critical value of chi-square,

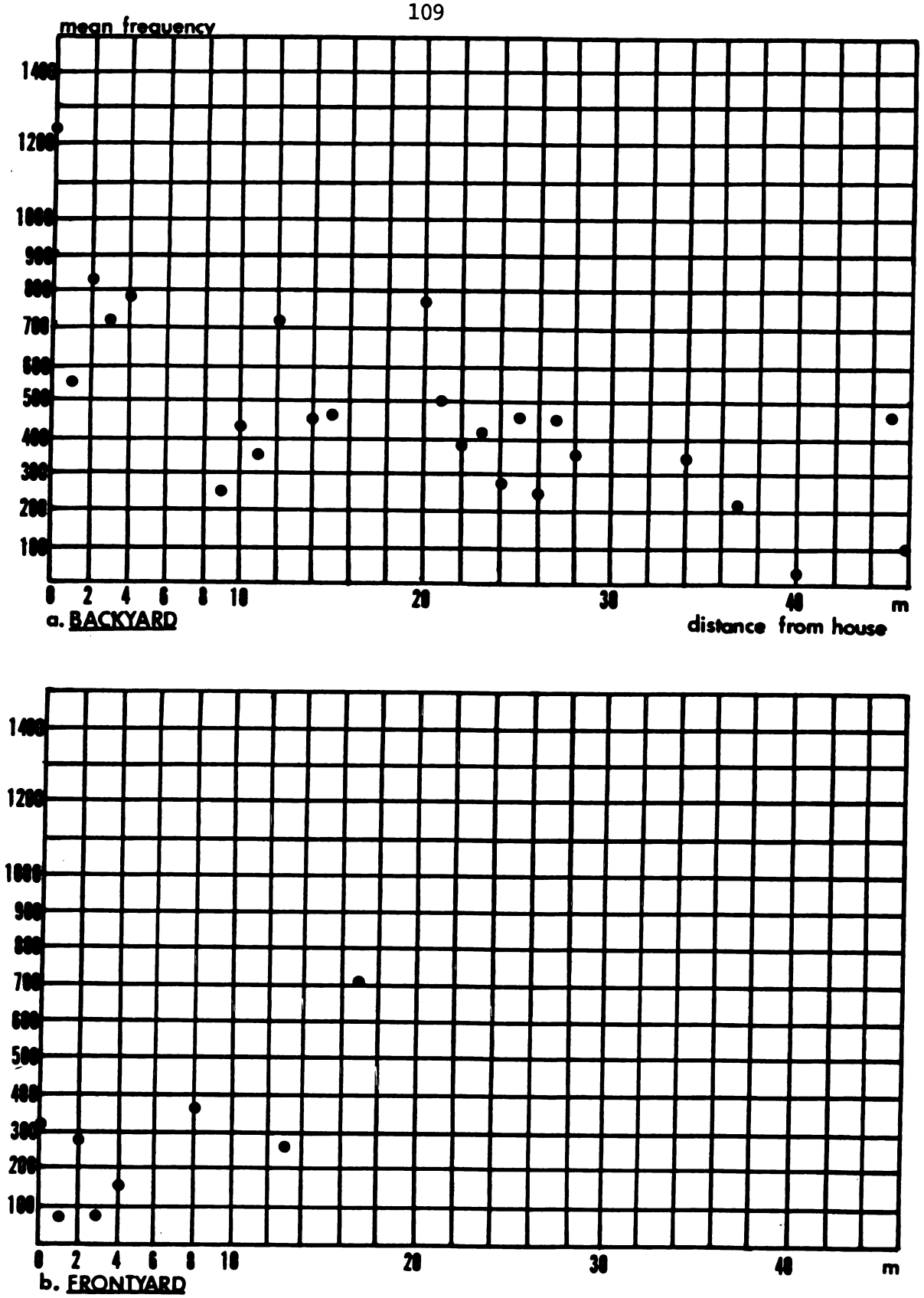


Figure 12. Non-feature artifacts minus architectural items

Table 12. Contingency Tables--Average density per m^2

a. Non-feature artifacts minus architectural items

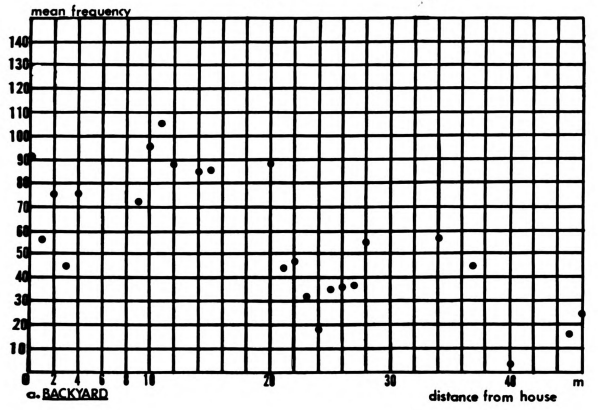
distance from house	backyard	frontyard	
0-6 m	232.30 (181.96)	49.59 (99.93)	281.89
6-18m	106.18 (156.52)	136.30 (85.96)	242.48
	338.48	185.89	524.37

x^2 = 84.96, df = 1, α = 0.01, (n) = expected frequency

b. Ceramic tableware--non-feature

distance from house	backyard	frontyard	
0-6 m	19.34 (17.25)	2.10 (4.19)	21.44
6-18m	22.68 (24.77)	8.10 (6.01)	30.78
	42.02	10.20	52.22

x^2 = 2.20, df = 1, α = 0.05, (n) = expected frequency



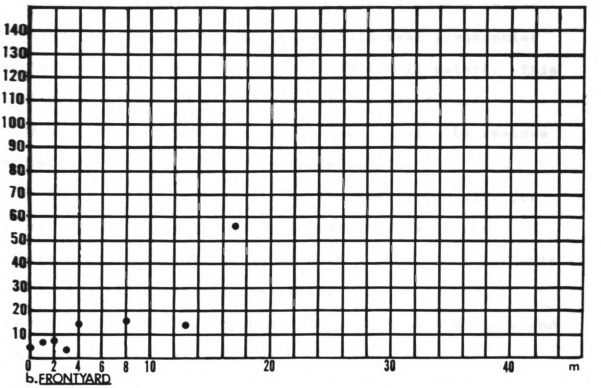


Figure 13. Non-feature ceramic tableware

at a 0.001 level of confidence, by approximately eight times). In general, the average density in the backyard within 0-18 m was almost twice as high as that found in the frontyard (i.e., 338.48/m^2 to 185.89/m^2, respectively).

Ceramic tableware was also examined since a scattergram of actual frequency and distance from the house appeared to show the same 'backyard decrease in frequency as distance increases versus a frontyard increase in frequency as distance increases' relationship, as described above. Figure 13a and b present graphs of the mean frequency of ceramic tableware by distance from the house for the back and front yards, respectively. In general, the trend appears to hold true, although in the backyard the 0-20 m interval shows high mean frequencies overall with the highest values at 10 and 11 meters. This is likely influenced by the presence of the former detached kitchen in this vicinity even though the feature assemblage was not included in this sample.

A chi-square test utilizing the average density per m^2 of ceramic tableware for 0-6 m and 6-18 m in the backyard and frontyard produced a $x^2 = 2.20$, df = 1 (Table 12b). A null hypothesis, asserting that there is no significant difference between distance from the house and the backyard/frontyard division of space, would be retained. In general, however, the average density per m^2

in the backyard is approximately four times greater than that found in the frontyard within 0-18 m (i.e., 42.02/m^2 compared to 10.20/m^2, respectively).

Chapter 4

INTERPRETATIONS

This study of the Cedar Oaks housesite has focused on three aspects--the architectural history of the house, utilization of space, and refuse disposal patterns. The first aspect has already been discussed in detail through the integration of archival, oral, architectural, and archaeological sources. Therefore, the emphasis of this chapter will be on the interpretations of the latter two aspects of this investigation as these were the primary factors used to examine the central hypothesis of this thesis (see Chapter 1).

The utilization of space, on this housesite, through time was studied in order to better understand the changing function of this site (i.e., from a town residence to a farmstead). Robert Keeler (1978: 10) has noted that "the homelot is important because it was a center of human domestic activity," and further that

> People create functional divisions of space. Areas are bounded conceptually and physically in an effort to specify spaces for particular activities (Keeler 1978: 14).

This aspect of human behavior can be manifested archaeologically by structural remains such as walls, fences, and outbuildings, which can serve as spatial

dividers, and by less tangible remains such as the presence of a midden in one area and not in another (Keeler 1978: 7). There were fenced areas at Cedar Oaks, with the major fenceline defining the open houselot boundaries on the northern, western, and southern sides (Figure 5). The present wire fence is twentieth century in origin, and there is photographic evidence of an earlier picket fence located in this same position ca. 1909 which was likely late nineteenth century in origin (Minnerly 1983: 30).

The opening in this fence serves as an entranceway to the site, funneling traffic towards the front door. This was reinforced during the late nineteenth and early twentieth centuries by a brick walkway which extended out from the front door towards the opening in this fence (Cleland and McBride 1983: 353).

Other known fenced areas on this housesite functioned as pens for animals and/or perhaps protected gardens from animals. These were primarily located in the backyard area during the late nineteenth and early twentieth centuries (Cleland and McBride 1983: 354). There is some evidence of a possible fenceline along the southeast portion of the site which may have served to divide the houselot from the adjacent fields (Cleland and McBride 1983: 348).

The sheet midden found on this site has also been shown to be an indicator of utilization of space. Specifically, the backyard contains the deepest and best developed midden concentrated primarily in an area bounded by the house, the two kitchens and the smokehouse (Figure 6). This appears to have served as the focal area for the majority of activities on this site. Furthermore, the sheet midden thins out in depth and artifact density in the front and side yards, indicating areas kept relatively clean throughout the occupation span of this house.

The major distinction in spatial utilization evidenced on this housesite is the dichotomy between the frontyard and backyard. This is paralleled in Robert Keeler's (1978: 45, 72, 135) study of the St. John's housesite in St. Mary's City, Maryland, and even though this particular site dates from the seventeenth century there are comparisons which can be drawn with later sites such as Cedar Oaks.

In particular, Keeler (1978: 45) notes that "the division of the yard into front and back is partly a matter of convenience, but also seems to have been a culturally meaningful distinction," and further that "this two yard division of space was part of English cultural tradition in the seventeenth century and is still apparent today" (Keeler 1978: 135). The frontyard would serve as a "forecourt" kept relatively clear of refuse and often

formalized in plan; whereas, the backyard functioned as a "service area" containing the majority of outbuildings, activity areas, and sheet middens (Keeler 1978: 49, 72, 135).

At St. John's the frontyard was found to be enclosed by fences and kept relatively clean. It was clearly distinct from the "cluttered" backyard which contained numerous outbuildings, fenced areas, trash pits, a privy and a sheet midden (Keeler 1978: 49). A comparable Tidewater region housesite exhibited a pattern wherein the outbuildings were grouped around the backside of the house creating a somewhat enclosed service area (Keeler 1978: 134-135).

At Cedar Oaks this frontyard/backyard distinction was defined by various types of evidence. The only outbuildings discovered within the confines of this housesite were located to the back of the house up to a maximum of 30 m away (Figure 7). Furthermore, a well-developed sheet midden was "enclosed" by these outbuildings grouped at the back of the house. This area appears to have been the primary locus for domestic activity.

The frontyard, on the other hand, exhibited a shallow sheet midden, low artifact density, and no evidence of outbuildings or specific domestic activity areas. It is indicated that this was an area of moderate usage which

was likely hoed or swept clean throughout much of the site's history. The perimeters of the frontyard show a midden, lighter in color than that in the backyard, which appears to represent the deposition of frontyard sweepings.

Furthermore, the major features found in the frontyard area are related to a garden enclosure and walkway which served to define and formalize space, as well as having functioned as an esthetic presentation to visitors. A trash pit in the northwest corner of the frontyard is the only detraction from this dichotomy; however, it was used primarily in the late nineteenth and twentieth century occupations and may have been masked by ornamental vegetation. The remains of a shrubbery and flower garden still exist in this corner of the yard (Cleland and McBride 1983: 318).

Chi-square analysis indicates that this dichotomy was statistically significant primarily in the late nineteenth century (Table 10a-c and Table 11a-c). However, distribution maps (Figures 9, 10, and 11) and the comparison of average artifact densities per m^2 (Table 5 and Table 9a-b) indicate the same general trend throughout the site's history (see Chapter 3).

As the function of this site changed from a town residence (ca. 1848-1870) to a farmstead (ca. 1870-1940), it can be hypothesized that this resulted in a change in

the utilization of space relative to the occupants' changing needs. In order to examine the changing layout of this site comparisons were made to Kenneth Lewis' (1977) three model classification which he used to determine the function of the Kershaw house in Camden, South Carolina. This was a late eighteenth to early nineteenth century housesite, and it was investigated according to criteria defined for plantation, farm, and town residence models. Lewis (1977: 40) proposed that the function of a site would be reflected in the nature and arrangement of structures and activity areas associated with the site.

Of these three models, only the farm and town residence models could be comparable to Cedar Oaks. The defining criteria for the farm model includes a compact, square arrangement of outbuildings to the rear of the house, with the outbuildings facing inward and the house facing away from this hollow square. The area within this square might be subdivided into smaller parts, and the house is likely to be adjacent to and facing a major road (Lewis 1977: 52).

The town residence, on the other hand, should exhibit a simpler layout with the house located in front of all outbuildings and facing away from them. The outbuildings will be to the rear or side of the dwelling and may be arranged in a contiguous row. The house should lie along a through road and the borders of the property demarcated

by fences or walls. Furthermore, evidence of a formal garden may be present behind the house (Lewis 1977: 52).

Cedar Oaks fits neither model for all defining criteria, although it most closely resembles the farm model. The layout of this housesite through time is as follows. During the mid-nineteenth century it consisted of the house, a detached kitchen to the rear of the house, and possibly a smokehouse to the southeast over 20 m away. No other structures are known to have been associated with this site during this time period.

The smokehouse is known to have existed in the late nineteenth and early twentieth centuries and it is only a possibility that it dates from the earlier occupation period. Lewis (1977: 67) has noted that agricultural processing structures (such as smokehouses) are not normally associated with a town residence. Furthermore, "oral testimony strongly indicates that [smokehouses] were constant features of southern hill country farmsteads, no doubt because salting and smoking were the only plausible means of preserving meat in the southern climate" (Cleland and McBride 1983: 375).

In the late nineteenth to early twentieth centuries the detached kitchen was destroyed and an ell, built on the northeast corner of the house, functioned as the kitchen during the twentieth century. After this ell was removed, a shed was constructed approximately 6 m east of

the northeast corner of the house. This small structure is still standing.

The smokehouse was in use during the late nineteenth century, but it was torn down sometime during the early years of the twentieth century. A bricklined well likely served as the primary water source during the late nineteenth century, while an artesian well, located to the west of the house and down the slope, was the twentieth century water source.

Two small barns located 130 m northwest of the house served as the only known farm-related outbuildings during the twentieth century. The existing privy is also twentieth century in origin and it is located in the northeast corner of the backyard.

In comparison with Lewis' (1977) farm model, Cedar Oaks never contained the complex of outbuildings that might be expected according to this model. It is likely however, that the smokehouse and detached kitchen did enclose a somewhat rectangular service area, and both may have faced in towards the house, with the latter facing away from them. Furthermore, the house did, and still does, face a through road.

As for the town residence model, the housesite, during the Barton period, did exhibit a simple layout wherein the outbuildings were to the rear of the house which, in turn, faced a through road. The borders of the

property may have been demarcated by a fence, however, this is only positively known for the later occupations. A formal garden was present but this also was a late nineteenth to early twentieth century feature and, further, was located in front of the house. Kitchen gardens were present in the backyard throughout the site's occupation.

Plausible reasons why Cedar Oaks is not well defined by either model may be suggested. It has been concluded through archival data that this house functioned as a town residence during the mid-nineteenth century. Specifically, the various owners were involved in mercantile operations in Barton (see Chapter 3). However, since this town never succeeded in establishing itself as a full-fledged town in a formal, permanent sense, it would follow that residences likewise never developed into "typical" town residence configurations.

As Barton declined in the 1860s-1870s, the function of Cedar Oaks began to change to that of a small farmstead. During much of this time it was possibly leased out and transient tenants may not have needed, or have had the resources, to construct permanent outbuildings. After the Civil War the local economy was severely disrupted and the ensuing crop-lien and tenant farm system served to restrict farm size, diversity, and profitability (Cleland and McBride 1983: 87, 97-110,

Doster and Weaver 1981: 117, 122-123). That Cedar Oaks functioned as a farmstead during the late nineteenth and twentieth centuries there is little doubt; however, its small size and scope would have lessened the need for a relatively complex layout such as that described by Lewis' model (1977: 41-42).

Perhaps a closer parallel can be drawn to the study of the late nineteenth and twentieth century farmsteads in the Bay Springs area of Mississippi. Investigators noted a general pattern of farm layout wherein the outbuildings formed both an inner and outer circle in relation to the house. The outbuildings were arranged according to function with the inner circle including a well, smokehouse, and chicken house, and the outer circle having barns, vehicle sheds, and animal pens (Smith et al. 1982: 240).

It was further noted that

> The outer circle of outbuildings... was oriented towards the production and storage of income related activities like cash crops and animal husbandry (barns, animal pens, cotton houses, corn cribs) with lesser amounts going to the household. The inner circle of outbuildings was mainly oriented toward the production and storage of subsistence products (smokehouse, chicken house, garden, storm cellars, orchards, well) for household consumption (Smith et al. 1982: 240-241).

The inner circle tended to range only 35-40 m out from the house, while the outer circle covered a much wider area (Smith et al. 1982: 241-242).

At Cedar Oaks the inner circle of outbuildings and

activity areas has been evidenced. It includes the two kitchens, smokehouse, well, gardens, and small animal pens, and all are within 30 m of the house. The mid- to late nineteenth century occupations' inner circle was comprised of the detached kitchen, smokehouse, well, and a garden off the southeast corner of the house. The outer circle during this time period is not known.

The late nineteenth and early twentieth centuries saw an inner circle comprised of a well, privy, shed, ell kitchen, smokehouse (for a time), a garden in the southeastern portion of the backyard, an orchard along the southern slope, and at least one small animal pen. The outer circle consisted of two small barns approximately 130 m to the northwest.

Further investigation of site utilization through time involved the examination of the formation processes which created the archaeological record. Cultural processes included discard, loss, and abandonment as evidenced by specific refuse dumps, a sheet midden, and architectural remains. Post-depositional modification of this record included limited plowing, architectural salvaging and remodeling, animal rooting and foot traffic (especially in the backyard), and yard sweeping.

In order to better understand the effect that the change in site function had on the formation of this record, attention was focused on the elucidation of

patterning in disposal behavior. By integrating all of the data presented in Chapter 3, the following general conclusions can be drawn concerning this patterning.

During the mid-nineteenth century, occupants disposed of refuse away from the house and primarily in the backyard area. Feature 21 is an exception, as this area did receive some refuse during this period (Table 4).

Higher frequencies were found in the area which served as the focal point for the majority of site activities bounded by the back of the house, the detached kitchen to the north, and the smokehouse to the east (Figure 6). The material found here most likely represents the by-products of activities rather than purposeful disposal.

The lack of a dense amount of mid-nineteenth century material, as well as the lack of specific dumping areas during this time period, may be the result of removal of refuse to a specific community dump while Barton was a functioning town. Such a practice has been noted in oral accounts from other nineteenth and twentieth century sites (Adams 1980: 187, Smith et al. 1982: 32), and it has been theorized that gullies away from housesites and wells were used as primary trash receptacles during Barton's existence (Cleland and McBride 1983: 380). Archaeological evidence at several Barton sites shows that unlined wells were used in this manner during the 1850s and 1860s (Ibid.).

Another plausible explanation is that the yard area was generally kept clear of refuse by sweeping the ground clean. The depositing of mid-nineteenth century material along the yard perimeters, as well as underneath structures such as the rear gallery, likely represents the sweeping of refuse out of major traffic pathways to less-used areas (Figure 9). The front and side yards, in particular, were kept clear of refuse during the mid-nineteenth century occupation.

Oral history from this area indicates that keeping a "clean" yard was a source of pride to occupants (McClurken and Anderson 1981: 128, 345, 507, 842, 1074, 1181). Similar testimony concerning Bay Springs farmsteads in northeastern Mississippi, indicate that yards were often scraped clean with a hoe or swept (Smith et al. 1982: 53, 57).

During the late nineteenth century occupations of Cedar Oaks, a shift began to occur in refuse disposal. In fact, it is during this time period that the difference between the frontyard and backyard division of space, and distribution of material, becomes statistically significant (Table 11a and b). In general, overall artifact density increases, and the spatial distribution intensifies and widens to include all investigated areas of the site. The area of greatest deposition remains the focal area in the backyard (Figure 10), and the sheet

midden here has its greatest development during this time period.

Refuse is now discarded in greater amounts up against the back of the house, in the vicinity of the detached kitchen and smokehouse, as well as in specific dumping areas (i.e., Features 53 and 57, Figure 7). The frontyard begins to accumulate more refuse than during the mid-nineteenth century, although it is still much "cleaner" than the backyard (Figure 10). This indicates that while effort was still put forth to maintain an esthetic appearance, it was not to the same degree that it had been during the previous occupation period.

This intensification of deposition is due, in part, to the changes in technology, production, and marketing of containers (glass in particular), which resulted in greater availability, less reuse, and increased disposability of items (Moir 1982: 148). It is noted, however, that the demise of Barton, coupled with the Civil War, served to disrupt and depress the local economy. It was not until the last quarter of the nineteenth century that mass produced items, such as bottles and canned foods, became widely available in this area (Cleland and McBride 1983: 379).

Despite these factors, it can be noted that there is less effort overall to keep the yard, especially in the

back and up against the house, clear of refuse accumulation than during the previous occupation period. Furthermore, specific dumping areas within 10 m of the house (i.e., Features 53 and 57) were now being heavily utilized. The bricklined well, which may have been late nineteenth century in origin, was not used as a receptacle for trash.

The twentieth century occupation saw greater emphasis placed on disposal in the perimeter areas (i.e., Units 91 and 96), specific dumps (Features 53, 57, and 21), and the area immediately surrounding the house (Figure 11). Once again, the backyard received a higher density than the frontyard, although the latter still received greater amounts than it did during the mid-nineteenth century occupation.

The greatest difference between the twentieth and late nineteenth centuries' depositional patterns is the marked decrease in density in the 6-30 m range during the twentieth century (Table 9a). This is likely a result of the disappearance of two major outbuildings (i.e., the detached kitchen and the smokehouse) in this area during the late nineteenth century or very early twentieth century. The kitchen activities shifted to the northeast corner of the house, and a garden was created where the smokehouse once stood. Therefore, the backyard service area appears to have been used primarily for gardens and

small animal pens during this time period, resulting in disturbance and mixing of the midden deposit and less activity-related discard.

As Cedar Oaks was not an isolated housesite it is expected that analogous housesites elsewhere in Barton would exhibit similar patterning. The Griswold housesite (22Cl807, Site 5448, see Cleland and McBride 1983: 224-241) was located approximately 300 m to the southeast of Cedar Oaks (Figure 2). It was constructed in the 1850s by James Griswold who, like the early owners of Cedar Oaks, was a Barton merchant. Other Barton period occupants included the hotel owner, a minister, and the Barton Ferry owner (Cleland and McBride 1983: 225).

After Barton's demise, this house was occupied by various ferry owners and operators on an erratic basis, as well as by tenant farmers (McBride 1984: 4). Oral history indicates that the house was in disrepair and used only during times of highwater by the 1920s. It survived into the 1930s-1940s when it burned down (Cleland and McBride 1983: 229, 234).

This site was also investigated by intensive archaeological excavation during Phases II and III of the Tombigbee Historic Townsites Project. A total of 180 m^2 was excavated, and over 38,000 artifacts were recovered (Cleland and McBride 1983: 232, 237). This site is comparable to Cedar Oaks for the following reasons:

1. It spans relatively the same occupation periods (i.e., 1850-1940s), although its later occupations were somewhat more erratic than at Cedar Oaks.

2. It was originally the residence of a Barton merchant and was later used as a small farmstead and a ferry operator's residence during highwater.

3. Excavations uncovered structural remains of the house, as well as an outbuilding which appears to have been a smokehouse (Cleland and McBride 1983: 234).

4. A sheet midden is present on this site although it has been modified by plowing to a greater extent than that at Cedar Oaks (Cleland and McBride 1983: 232).

This housesite has been analyzed by Stephen McBride (1984: 1) in terms of the hypothesis that the change from a town residence to a rural homestead resulted in a change in refuse disposal practices. By focusing on the deposition and date ranges of bottle glass and refined ceramics, it was found that the mid-nineteenth century artifacts, although sparse in density, were concentrated near the eastern slope (i.e., in the vicinity of the outbuilding) and on the far northern edge of the site (McBride 1984: 9).

The late nineteenth to twentieth century artifacts, on the other hand, were concentrated near the house with twentieth century items in the greatest density. It was noted that later items were also broadcast over most of the investigated area (McBride 1984: 9). An unlined well,

6 m north of the house, was used as a trash receptacle during this period (Figure 14, Cleland and McBride 1983: 240).

McBride (1984: 21) concluded that this data indicated a shift in refuse disposal patterns during the late nineteenth century shortly after Barton's demise. Specifically, during the town period,

> a definite effort was made to deposit kitchen refuse on the perimeters of the yard, particularly the backyard slope. Then, after the town's demise, a shift occurred, with less care taken to keep the central yard clear (McBride 1984: 21).

Analysis of the McGowan housesite (22C1807, Site 5442), another long-occupation site dating from the Barton period and located approximately 300 m southwest of Cedar Oaks (Figure 2), indicated a similar refuse pattern. Specifically, the mid-nineteenth century material was found primarily in the backyard area (Figure 15) while the late nineteenth to twentieth century items concentrated nearer to the house (McBride 1984: 19).

The only structural features found on the McGowan site were related to the dwelling. An unlined well, filled with refuse during the mid- to late nineteenth century occupations, was located 8 m west of the house (Figure 15, Cleland and McBride 1983: 153, 157). A small refuse pit was discovered approximately 22 m northwest and downslope from the house and was also utilized during the

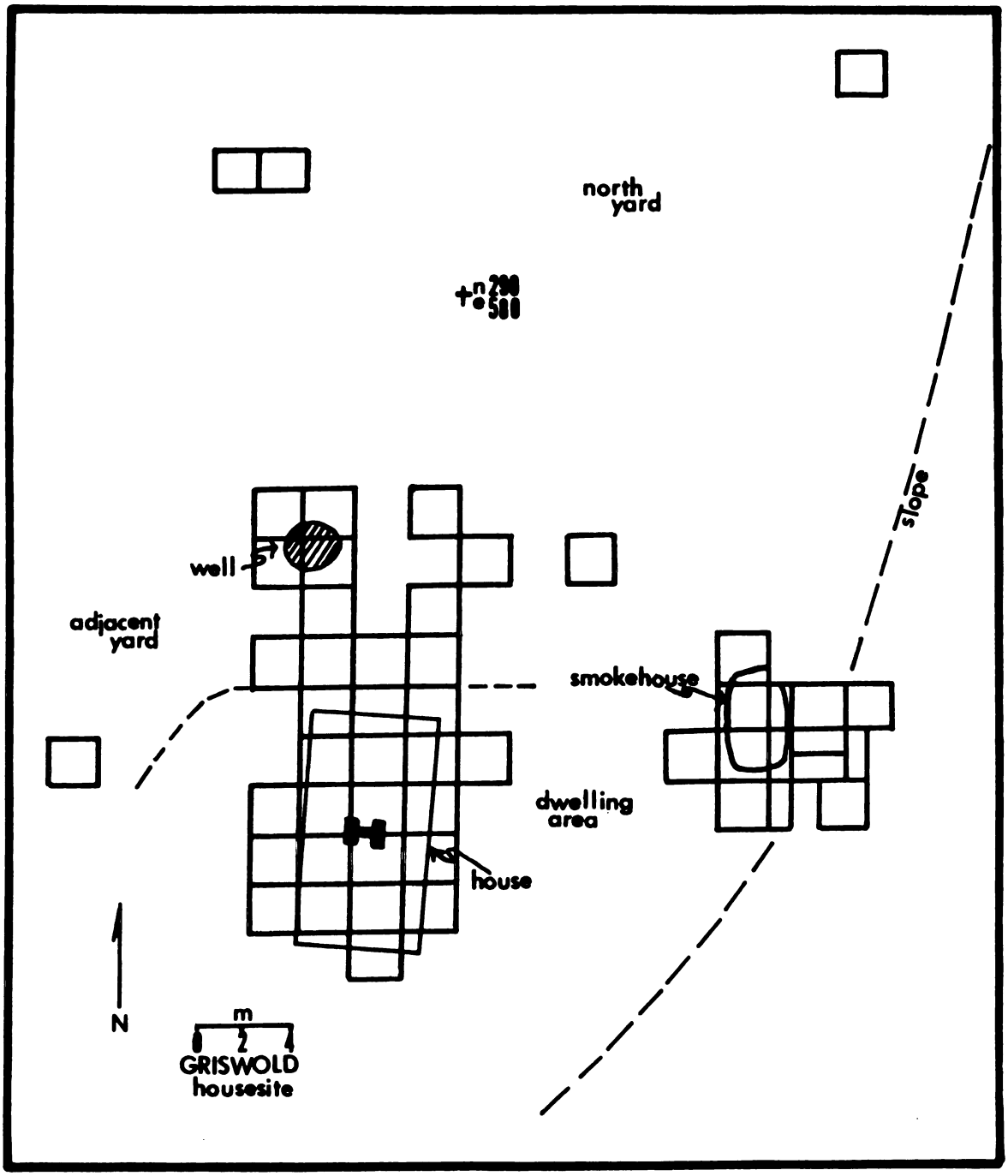


Figure 14. Griswold housesite map

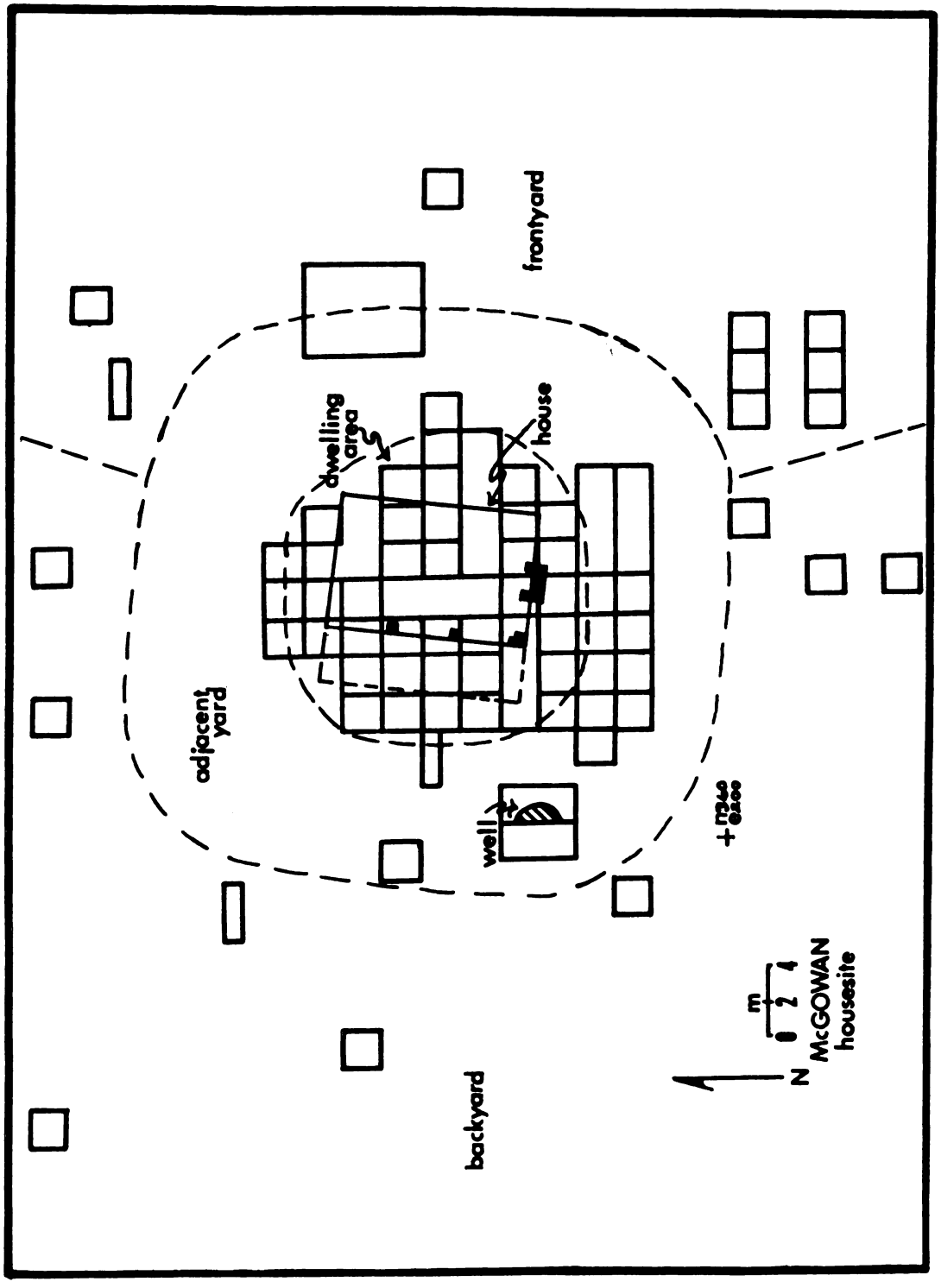


Figure 15. McGowan housesite map

mid- to late nineteenth century occupations (Cleland and McBride 1983: 154, 162).

This comparative data indicates that the changing refuse disposal pattern discerned at Cedar Oaks is not unique to this site. Furthermore, as the other housesites demonstrate the same general disposal trend and occupational history, there appears to be validity in the supposition that the shift from a town setting to a rural farm setting was a critical factor affecting this change in disposal behavior.

Specifically, McBride (1984: 21) has proposed that these changes are "related to a change in the conception and use of the yard" where during the town period there was a formalized division and use of space between frontyard and backyard, with the former kept clean and the latter allowed to accumulate refuse. However, in the post-Barton period this formalization broke down and refuse was allowed to accumulate in all areas of the yard (McBride 1984: 22).

Moreover, he notes that

> to the Upland Southerner a town meant order, while farmstead and dispersed settlement were "what many would term disorderly and uncouth" (McBride 1984: 22, after Newton 1974: 150-151).

However, McBride (1984: 22) points out that

> the general declining socioeconomic level at this site may also have been a factor. Divergent lifestyles and values along class lines should be reflected in yard maintenance and use.... However, it should be remembered that at the Barton sites none of

> the residents were above a moderate socioeconomic level, and the change from the town to rural setting was likely more significant (emphasis mine).

This is to say that the general socioeconomic levels of the Barton housesites did not differ greatly even while Barton was a functioning town.

This area was relatively depressed economically throughout its entire history and general economic levels and social classes were never greatly divergent. For example, it can be noted at Cedar Oaks that while the principal resident during the Barton period (i.e., James Collins) was one of the wealthier residents, the principal residents of the post-Barton period (i.e., the Coltranes and Uithovens) also enjoyed relative prosperity (see Chapter 3). There was not a great divergence in socioeconomic level from one period to the next.

Therefore, what socioeconomic differences there were in the Barton area, were not as significant as factors affecting behavior, as they would have been in an area where a full range of economic stratification was present (i.e., upper to lower classes). The obvious change in patterning evidenced on the three Barton housesites compared in this analysis, coinciding as it does with the failure of the town and the changeover to a farming community, strongly suggests the importance of this change in function as the major factor affecting the shift in site utilization and refuse disposal.

Comparison with other housesites in this region further demonstrates the universality of certain aspects of this disposal pattern, as well as aspects which are divergent. The Bay springs farmsteads are late nineteenth to twentieth century in date range (Smith et al. 1982: 201) and are therefore only applicable to the post-Barton pattern.

Sheet middens were evidenced on Bay Springs sites but did not, in general, extend beyond 5 m out from the house. It was also noted that "these middens did not contiguously surround the house but tended to concentrate in backyard areas near the kitchen" and, further, that "these areas were still evident despite the sweeping that was done by the occupants" (Smith et al. 1982: 217). Frontyards received fewer artifacts and little midden accumulation (Ibid.).

Other aspects of disposal on these farmsteads included dumps and abandoned items. The majority of the dumping areas ranged from 15 to 59 m from the house, and refuse burning often occurred in these areas (Smith et al. 1982: 225). On one housesite a slope, 15 to 20 m from the house, was used as the primary refuse dumping area (Ibid.).

In contrast to Cedar Oaks, the sheet middens on the Bay Springs sites were not very thick (i.e., less than 5 cm) although one housesite did exhibit a fairly

well-developed and preserved midden which was 10 to 20 cm thick. These shallower, and less extensive sheet middens are a result, in part, of shorter occupation spans, as well as possibly lower economic levels which limited access to material goods and promoted recycling and curation over discard, more so than at Cedar Oaks.

One interesting phenomenon was noticed during the Bay Springs investigation concerning abandoned items. Many of the sites had areas which contained large amounts of scrap metal, abandoned vehicles, and glass containers. Oral history indicated that such items were not discarded but rather being stored (Smith et al. 1982: 226). It was concluded that

> some of the accumulations of cans, jars, and scrap metal which [the investigators] called trash dumps might in fact have been convenient storage areas instead.... When the sites were abandoned, these storage areas became de-facto refuse deposits occurring on the surface, with or without an underlying sheet midden (Smith et al. 1982: 226).

Such an area was present at Cedar Oaks consisting of four 1940s-vintage cars which were stored in the backyard along the eastern site edge. Felix Uithoven (personal communication, January 2, 1980) indicated that his brother put them there with the intention of restoring them, however, they were allowed to deteriorate beyond repair and were "abandoned." It was noted that the area underneath and around these vehicles had accumulated

numerous metal fragments and auto parts (Cleland and McBride 1983: 363).

It is conceivable that the scattering of paint cans and canning jars along this slope may also represent items intended for recycling but which were subsequently abandoned rather than purposely discarded.

Comparisons can also be made with late nineteenth to twentieth century tenant farming sites in the Richland Creek area of eastern Texas. Sheet middens on these sites were investigated indepth and found to possess "considerable behavioral integrity" (Moir 1982: 139) providing information about site chronology, spatial variability, and socioeconomic trends. In general, middens concerntrated primarily in the back or side yards of a house covering an area that was frequently greater than 1,500 m^2 containing a range of 20,000 to over 150,000 artifacts (Moir 1982: 147).

Spatial analysis indicated a general trend where

> Artifact densities were often moderate in magnitude from immediately adjacent to a dwelling to distances between 6 and 8 meters away. After that point, densities frequently increased by three to five-fold and then dropped back down reaching zero about 15 m away from the house. This pattern was most often observed in the back or side yards of a dwelling (Moir 1982: 147).

For certain artifact types and date range material at Cedar Oaks there is a peak in average density per m^2 in the 6 to 18 m range (Table 12b and Table 9a), however, this is biased by the distribution of excavation units

towards structural remains, and the presence of the primary service area within this range. The major divergence from the Texas pattern occurs in the backyard up against the house which received the greatest average density of artifacts overall (Block 3, Table 7), excluding the dump features (i.e., Features 53 and 57), primarily during the late nineteenth and twentieth century occupations.

Therefore, it can be seen that the later refuse patterning at the Barton housesites contains aspects which are found on other comparable farmsteads for the late nineteenth and twentieth centuries. This appears to be affected to an extent by socioeconomic level. Moir (1982: 151) has noted that in the Richland Creek area it appears that "the absence of intense sheet refuse deposits indicates higher relative socioeconomic status" and, further, "that landowners may be better understood from discrete features (i.e., trash pits) rather than from their sheet refuse records." As the Barton housesites discussed in this chapter, were, in general, all at the same moderate economic level, there should be greater contrasts with higher economic level rural sites than with each other.

While Barton was a functioning town, Cedar Oaks was one of the larger family dwellings in this town and was owned by the "wealthier" segment of that society.

The latter can also be said of the Griswold and McGowan sites. It is possible that more conscious effort and money, in the form of slaves and hired help, might have been expended on the upkeep of these houselots. Barton, as a community, may have had designated dumping areas, such as gullies and/or the river, and refuse would have been carried farther from the houselot before being deposited.

Furthermore, it has already been noted that living in a town setting carried a different conception of spatial utilization, in terms of activities and discard, than a rural farm setting. The former placed an emphasis on "order" and a more formalized division of space (McBride 1984: 21-22, Newton 1974: 150-151), while for the latter this formalization broke down becoming more "disorderly" (Ibid.). Moreover, with the change to a farmstead, the emphasis shifted to self-sufficiency resulting in an increase in the activities conducted on the houselot.

After the demise of Barton, and the economic and social disruption of the Civil War, the occupations of these housesites became more sporadic and their function changed from town residences to rural homesteads and farmsteads. The declining economy devalued property status and the later occupants were, in general, from lower economic levels although there was not a great divergence from the previous period. It is likely that

they had less money and time to spend on upkeep of the houselot, and the need to put more land to economic use (i.e., farming and herding) may also have decreased the areas available for non-organic refuse, necessitating dumping closer to the house.

Another factor may lie in the fact that some of the post-Barton occupations at these sites were of a short-term, tenant nature. Such occupance may have entailed less attachment to the property and less care for where refuse was deposited (Cleland and McBride 1983: 365).

Finally, it must be considered that in the late nineteenth and twentieth centuries there was greater availability of mass produced items which lessened the need for recycling and curation of containers, in particular, than in previous times (Moir 1982: 148). This resulted in greater discard of bottles and cans, and such an increase has been noted at the Barton sites (see Chapter 3, and McBride 1984). However, for a portion of the Cedar Oaks analysis, bottle glass was removed from consideration, and the patterning discerned was not remarkably different from that found when this category was included (see Chapter 3). Rather, this patterning was simply intensified.

Therefore, it appears that the important factor in the changing refuse patterns at the Barton housesites is not, in actuality, <u>how much</u> was being discarded, rather it

is where it was being deposited. It has been shown in this study that a shift in disposal patterns did occur at Cedar Oaks, and similar Barton housesites, relative to the utilization and conception of space within these houselots, with the major shift occurring after the demise of Barton.

Chapter 5

CONCLUSIONS

The house at Cedar Oaks is the last remaining standing structure from the extinct town of Barton. From all known data it appears to have been constructed ca. 1848, when Barton was platted as a town, and was occupied, off and on, up until the 1940s.

Initially, it functioned as a town residence (ca. 1848-1870) occupied by Barton merchants. After the town's demise (1860s-1870s), it functioned primarily as a farmstead. This study focused on the possible effects this change in function may have had on site utilization and, in particular, refuse disposal behavior.

It was found that throughout the occupation span of Cedar Oaks, there was a distinction made between the front and backyards wherein the frontyard exhibited little use and served as an ornamental presentation area, while the backyard functioned as the main service area of the site. The latter contained the deepest midden, the majority of artifacts, the main refuse disposal areas, and most of the outbuildings.

There was a slight shift noted in this dichotomy after Barton ceased to be a town, where the frontyard began to accumulate a sheet midden (albeit a shallow one)

and had a trash pit in its northwest corner. However, it did continue to function as a presentation area, with a brick walkway and garden enclosure accenting the frontyard in the late nineteenth and early twentieth centuries.

Two former outbuildings, a smokehouse and a detached kitchen, were uncovered in the backyard. The area "enclosed" by these structures and the house, functioned as the focal point for domestic activities on this site. It exhibited the deepest sheet midden and the greatest density of artifacts.

Changing refuse disposal patterns were brought to light where the earlier deposits were concentrated in the backyard service area while the frontyard was kept clean. A shift occurred after Barton's demise, where refuse began to accumulate over the entire site with concentrations nearer to the house and in specific dumping areas. The latter were located up against the back of the house, over the northern and eastern slopes (10 to 50 m away from the house), and in a pit in the northwest corner of the frontyard.

Relating this changing pattern in disposal behavior to the change in site function, is reinforced when comparisons are made with similar housesites in the Barton townsite. This same general trend in patterning was evidenced at the Griswold and McGowan housesites which, like Cedar Oaks, were characterized by long occupation

spans, and a change from in-town dwellings to rural homesteads and farmsteads (McBride 1984).

Comparisons with late nineteenth and twentieth century farmsteads within this geographic region, demonstrate general similarities with the later-period refuse patterning and site utilization at Cedar Oaks, primarily concerning sheet midden deposits. This indicates some universality to the cultural factors affecting disposal behavior and site formation during these time periods in the rural South. These factors include: socioeconomic differentiation, where higher economic level sites appear to exhibit different disposal patterning than lower level sites (Moir 1982); rural conceptions of spatial utilization appear to differ from town conceptions (McBride 1984) resulting in discernable patterning; and mass production of goods in the late nineteenth and twentieth centuries which created greater availability and disposability of items over earlier periods.

When these factors were considered in terms of Cedar Oaks and the other Barton housesites, it was concluded that the shift from a town setting to a rural farm setting was more significant to the shift in disposal behavior than socioeconomic and mass production factors. However, it was noted that the latter two did play a role in the formation of these sites.

Further analysis of the Barton housesites, using these factors as test controls, should provide a clearer understanding of the behavioral patterns which created these sites. It is hoped that this thesis will serve as the impetus for future studies, thereby contributing to a better overall understanding of past lifeways in the South.

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