Historical and Archeological Investigations at the Chalmette Battlefield, Jean Lafitte National Historical Park and Preserve

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A Report Prepared for
The U.S. Army Corps of Engineers
New Orleans District

To
The Military Engineers
of the
United States
Both Past and Present

In this wet, sucking place it is easy enough to imagine that everything that ever was here still is—that it is all down there somewhere in the dark, pressed layers, that New Orleans is a giant slowly settling palimpsest.

—Frederick Turner, *Remembering Song: Encounters with the New Orleans Jazz Tradition*

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CHAPTER 19

ANALYSIS OF THE CERAMICS

Jill-Karen Yakubik

A small collection of ceramics (213 sherds) was recovered during test excavations at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve (Figures III-7, III-72). These ceramics were classified using formal archeological classification, and the results of this work are presented in Tables III-1 through III-4. More detailed descriptions of these ceramic types and their dating are given in "Analysis of Historic Remains from Archaeological Testing at the Site of the Rodriguez House" (Yakubik 1983), and a full discussion of New Orleans ceramic typology and chronology can be found in "Ceramic Use in Late Eighteenth-Century and Early-Nineteenth Century Southeastern Louisiana" (Yakubik 1990).

Following classification, a modified version of Stanley South's (1977:201-206) Mean Ceramic Dating formula (see Yakubik 1983) was used to date the ceramic subassemblages from Test Areas 1 and 3. It should be noted that not all ceramic types can be utilized for Mean Ceramic Dating; types lacking known manufacturing ranges have purposely not been included in the dating calculations. For this reason, the number of ceramics used in Mean Ceramic Dating will not necessarily correspond to the total number of ceramics recovered in the various excavation levels and reported in the tables.

In Test Area 1, a lens of black earth under recent sand fill was uncovered (Stratum 6 in Figures III-8, III-10). It was originally hypothesized that this trash deposit originated from the occupation of the Rodriguez Estate (Ted Birkedal, personal communication 1984). Nine ceramic sherds were recovered from this lens (Table III-1 [Trashy Dark Gray Clay]). Only five of these could be utilized for the purpose of Mean Ceramic Dating; therefore, the process was not attempted. However, with the exception of a single sherd of transfer-printed pearlware, the ceramics appear to date post-1850. Three sherds were ironstone, which dates from ca. 1850 into the twentieth century, and four sherds were undecorated porcelain. These latter ceramics actually could date prior to 1850, but are much more typical of the porcelain imported in large quantities from

France, particularly Limoges, after 1850 and on into the twentieth century (Ray 1974:118). Such porcelain is usually recovered in later nineteenth-century contexts in the New Orleans area (see Goodwin, Yakubik, and Goodwin 1984). Thus, it is possible that this trash level may derive from the occupations of either the monument caretaker's cottage or the Villavaso House since both of these nearby residences were in use during the late nineteenth and early twentieth centuries.

Ceramics also were recovered from a brown silty clay loam along the lower west bank of the Rodriguez Canal in Test Area 1 (A44, N67 [Stratum 5 in Figure III-10]; A46, N73 [Stratum 3 in Figure III-9]). It was hypothesized that ceramics from this layer would be comparable in age to the ceramics from the black earth trash level (Ted Birkedal, personal communication 1984). Mean Ceramic Dating of the sherds from this level yielded a date of 1857.87 (n=15). The ceramics range from early nineteenth-century pearlware to late nineteenth-century ironstone (Table III-1). Minimally, these ceramics range in date from 1800-1860; thus, while it is possible this material derives from the Rodriguez Estate, mixing with other occupational debris may also have occurred. The sample size is too small to make any definitive statement; however, the mix of ceramic artifacts is not unlike the mixed collection obtained from test excavations conducted by the National Park Service in March 1983 to the rear of the Rodriguez residential complex, on the north side of the National Park Service restroom and south of the Chalmette Monument (Goodwin and Yakubik 1983; Map III-3).

Nine ceramic sherds were recovered from the dark gray and grayish brown clays in Test Area 1 (Strata 2 and 6 in A40, N67 and A44, N67; Stratum 4 in A46, N73; Figures III-9, III-10). It was hypothesized that these clays dated to the period of the Battle of New Orleans (Ted Birkedal, personal communication 1986). The Mean Ceramic Date of these sherds was 1813.44 (n=9). This date tends to support the hypothesis on the age of the clays; however, the Mean Ceramic Dating may not be reliable because of the small sample size.

Excavation in Test Area 2 produced little material (Table III-2; Figures III-11, III-12, III-13). Material from Test Trench A27, N26 included both early and later nineteenth-century types. One sherd each of pearlware and porcelain came from Test Trench A31, N24. Similarly, only four ceramic sherds were recovered from Test Area 4 (Table III-4).

Ceramic samples from Test Area 3 were the largest from any of the test areas; consequently, those Mean Ceramic Dates (MCDs) are the most reliable (Table III-3; Figures III-15, III-17, III-18, III-19, III-20). As in Test Area 1, a black trash lens was uncovered in Test Area 3 (Trashy Dark Gray Silty Clay [Stratum 3 in Figures III-17, III-18, III-19; Stratum 2 in Figure III-20]). Ceramic artifacts from this lens (Field Specimens 28, 36, 45, 50, and 55) were combined to calculate the MCD. The resulting date was 1835.23 (n=40). Because four sherds of whiteware/ironstone from this lens were clearly transitional types between pearlware and whiteware, the median date of manufacture for these sherds was adjusted downward (to 1825), and the mean date was recalculated. The resulting date was 1831.73 (n=40). Finally, three sherds of ironstone which appeared to be intrusive were left out, and the formula was recalculated, yielding a date of 1826.59 (n=37). Clearly, these sherds of ironstone substantially affected the dating.

The ceramics from the dark trashy lens in Test Area 3 (Stratum 3 in Figures III-17, III-18, III-19; Stratum 2 in Figure III-20) provide an interesting comparison to the artifacts recovered in a similar deposit in Test Area 1 (Stratum 6 in Figure III-10). Like the latter, the ceramics from Field Specimens 28, 36, 45, 50, and 55 appear somewhat mixed; they do include ironstone, although porcelain was not found. If we accept ca. 1800 as the beginning date of occupation and 1831 as the midpoint date, the end date of occupation would be ca. 1862, or approximately the same time the Rodriguez Estate was purchased by the State of Louisiana as the site for erection of the Chalmette Monument. Thus, it is likely that the black trash lens in Test Area 3 derives from the occupation of the Rodriguez Estate, while the black trash lens in Test Area 1 either has a different, later origin or the presence of predominantly post-1850 ceramics is the result of sampling error.

It was hypothesized that the ceramics from the gray silty clay loam below the trash lens should date to around the time of the Battle of New Orleans (Strata 5 and 6 in Figure III-17, Stratum 5 in Figure III-18, Stratum 4 in Figure III-19). The MCD calculated for materials from Field Specimens 37, 44, 48, 49, 54, 56, 57, and 58 was 1821.55 (n=90). Since the material from Field Specimen 37 was clearly mixed, the ceramics from this field specimen group were left out and the MCD was recalculated, yielding a date of 1817.5 (n=86). Next, the MCD was recalculated without material from Field Specimen 58, which included some material from the black earth lens above it. The resulting date was 1816.31

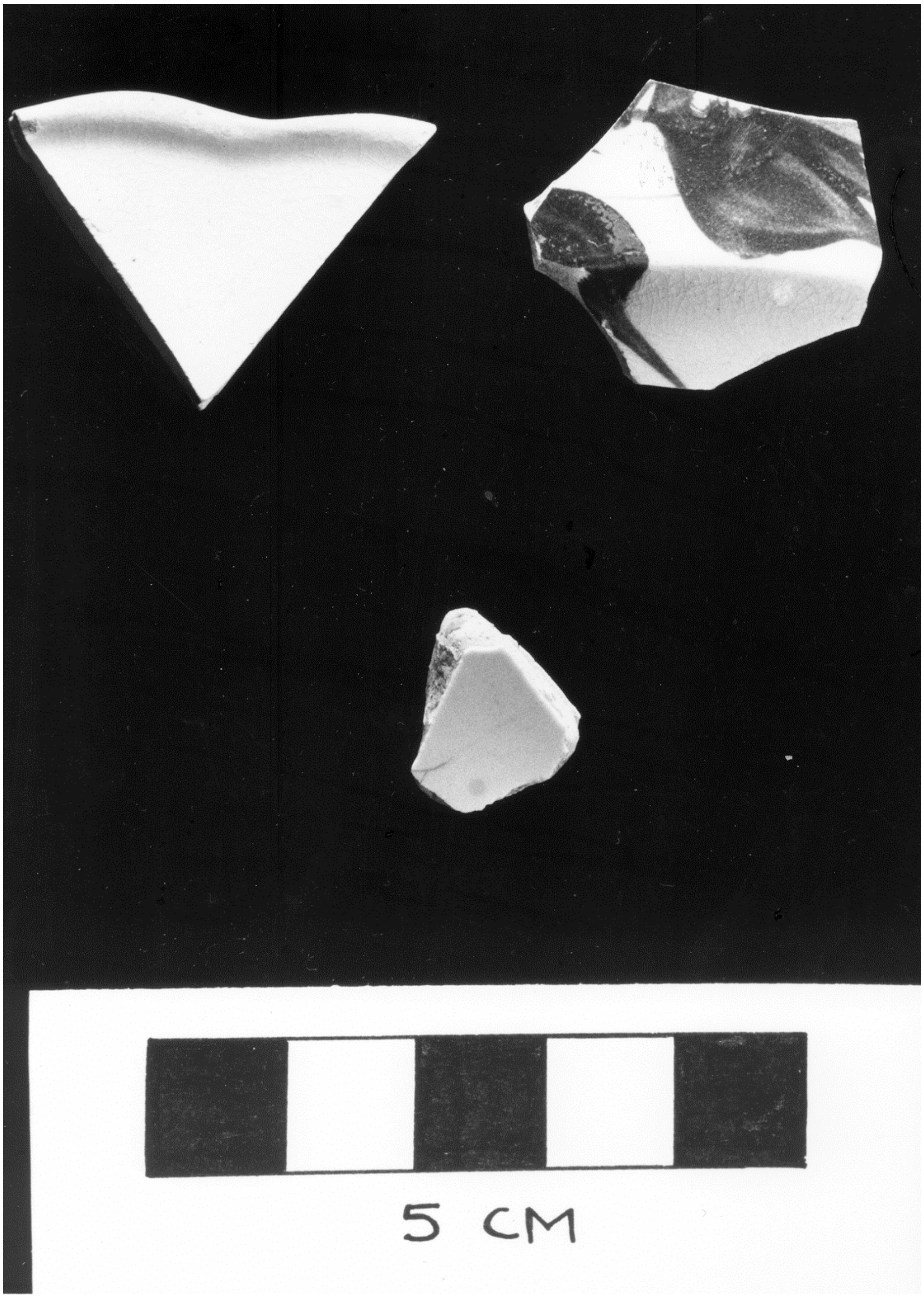
Figure III-71. Examples of Blue Shell-Edged Pearlware: The two sherds at the top of the photograph come from the upper silty clay loam in Test Area 1; the specimen on the lower left comes from the silty clay loam in Test Area 2; and the sherd on the lower right was found in the topsoil in Test Area 1.

Photograph by Betsy Swanson for the National Park Service.


5 CM

Figure III-72. Examples of other ceramics: The Creamware sherd on the upper left is from the gray silty clay loam in Test Area 3; the Purple Hand-Painted Pearlware on the upper right is from the silty clay loam just forward of the rampart palings; and the lower sherd of Tin-Glazed Earthenware is from the silty clay loam in Test Area 1.

Photograph by Betsy Swanson for the National Park Service.


5 CM

(n=65). Finally, because a few sherds appeared to be transitional whiteware/pearlware types, the median dates for these sherds were adjusted downward and the MCD recalculated. The resulting date was 1815.69 (n=65). But, even without this last recalculation, the penultimate date, which only excludes mixed proveniences, is remarkably close to the date of the battle. The date range of this material is ca. 1790-1835; however, about 75 percent of the sherds date to 1820 or earlier. These data, then, strongly support the hypothesis that the ceramics from the gray silty clay loam were deposited soon after Battery 3 was dismantled subsequent to the battle (Ted Birkedal, personal communication 1984).

It also was hypothesized (Ted Birkedal, personal communication 1984) that there might be a slight difference in the age of the ceramics found in front of and behind the rampart palings. The thought was that if the forward remnant palings could have served as a barrier to the downslope movement of later trash, the ceramics located on the front side of the palings might have tended to produce a slightly earlier MCD than those to the rear of the paling line. As it turned out, the MCDs were calculated as 1816.47 (n=17) and 1815.77 (n=48), respectively. Clearly, age of the material does not vary substantially with respect to location.

Finally, the material from Test Area 3 provides an interesting comparison to material recovered from archeological testing at the Rodriguez master house in 1983 (Yakubik 1983). First, the material from the lowest levels of Trench 25 of the latter excavations (MCD=1798.16 [n=58]) predates the material from the Battery 3 "hole" (MCD=1815.69 [n=65]), although some, if not most, of the material from the Battery 3 area is derived from the former occupation. But more significantly, the material from the black trash lens (MCD=1831.73 [n=40]) dates to the same time period as the material from the upper levels of Trench 25 (MCD=1830.65 [n=60]) and from the remainder of the excavated areas of the Rodriguez House site (MCD=1832.18 [n=82]). It has been hypothesized that this latter material from the Rodriguez Estate derived from the occupation of the house after the Battle of New Orleans, ca. 1817-1850 (Ted Birkedal, personal communication 1983). It is thus further hypothesized that the material from the black trash lens in Test Area 3 (Stratum 3 in Figures III-17, III-18, III-19; Stratum 2 in Figure III-20) derives from the same component. It is uncertain at present, however, whether the ceramics from the black trash lens in Test Area 1 originate from this pre-Civil War occupation of the Rodriguez Estate.

In summary, the dating of ceramic artifacts from Test Area 1 was inconclusive as a result of small sample sizes, although the MCD for ceramics from the clays in this area tend to support the hypothesis that these clays date to the period of the Battle of New Orleans. However, more ceramic material was recovered from Test Area 3. Mean Ceramic Dating of these artifacts confirmed the hypothesis that ceramics from the gray silty clay loam were washed into the depression left by the removal of Battery 3 shortly after the battle. The date range reflected by these ceramics also supports this hypothesis. Finally, ceramics from the black trash lens in Test Area 3 appear to date from the occupation of the Rodriguez Estate after the Battle of New Orleans.

TABLE III-1

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 1

Ceramic Types	Topsoil	Brown Silty Clay Loam	Trashy Dark Gray Clay	Dark Gray Clay	Grayish Brown Clay	Totals
Tin Glazed Pink Earthenware				1 (14%)		1 (2%)[b]
Pearlware	2 (13%)[a]	1 (6%)		2 (29%)		5 (10%)
Blue Shell-Edged Pearlware	3 (19%)			2 (29%)		5 (10%)
Annular Pearlware	2 (13%)					2 (4%)
Mocha Pearlware					1 (50%)	1 (2%)
Blue Transfer-Printed Pearlware		1 (6%)		1 (14%)		2 (4%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-1 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 1

Ceramic Types	Topsoil	Brown Silty Clay Loam	Trashy Dark Gray Clay	Dark Gray Clay	Grayish Brown Clay	Totals
Purple Transfer-Printed Pearlware			1 (11%)			1 (2%)[b]
Whiteware/Ironstone	3 (19%)[a]	4 (24%)	2 (22%)	1 (14%)		10 (20%)
Banded Whiteware/ Ironstone	1 (6%)					1 (2%)
Blue Transfer-Printed Whiteware/Ironstone	2 (13%)	1 (6%)				3 (6%)
Ironstone	1 (6%)	1 (6%)				2 (4%)
Blue Transfer-Printed Ironstone			2 (22%)			2 (4%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-1 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 1

Ceramic Types	Topsoil	Brown Silty Clay Loam	Trashy Dark Gray Clay	Dark Gray Clay	Grayish Brown Clay	Totals
Brownware, Buff Opaque Glaze		6 (35%) [a]				6 (12%) [b]
Salt-Glazed Brownware, Brown Exterior and Interior Engobes					1 (50%)	1 (2%)
Rockingham Ware		1 (6%)				1 (2%)
Porcelain	2 (13%)	2 (12%)	4 (44%)			8 (16%)
Totals	16 (31%) [b]	17 (33%)	9 (18%)	7 (14%)	2 (4%)	51

[a] Percentage of level total

[b] Percentage of test area total

TABLE III-2

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 2

Ceramic Types	Topsoil	Grayish Brown Silty Clay Loam	Totals
Pearlware	1 (11%)[a]		1 (10%)[b]
Green Shell-Edged Pearlware	1 (11%)		1 (10%)
Blue Shell-Edged Pearlware	1 (11%)		1 (10%)
Whiteware/Ironstone	4 (44%)		4 (40%)
Porcelain	2 (22%)	1 (100%)	3 (30%)
Totals	9 (90%)[b]	1 (10%)	10

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3

CERAMIC FREQUENCIES BY STATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Tin Glazed Pink Earthenware			1 (1%)	1 (.7%)[b]
Tin Glazed Buff Earthenware			1 (1%)	1 (.7%)
Unglazed Redware			1 (1%)	1 (.7%)
Unglazed Brown Earthenware			1 (1%)	1 (.7%)
Creamware	1 (7%)[a]	7 (17%)	13 (14%)	21 (14%)
Pearlware		4 (10%)	19 (20%)	23 (16%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Green Shell-Edged Pearlware			2 (2%)	2 (1%)[b]
Blue Shell-Edged Pearlware	2 (14%)[a]	1 (2%)	7 (8%)	10 (8%)
Annular Pearlware			4 (4%)	4 (3%)
Trailed Slip Annular Pearlware			3 (3%)	3 (2%)
Finger-Painted Pearlware			1 (1%)	1 (.7%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Blue Hand-Painted Pearlware		1 (2%)		1 (.7%)[b]
Purple Hand-Printed Pearlware			1 (1%)	1 (.7%)
Blue Transfer-Printed Pearlware	1 (7%)[a]	4 (10%)	8 (9%)	13 (9%)
Purple Transfer-Printed Pearlware			1 (1%)	1 (.7%)
Pearlware Glazed White Colored Earthenware		1 (1%)	2 (2%)	3 (2%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Purple Transfer-Printed Glazed White Colored Earthenware		1 (2%)		1 (.7%)[b]
Whiteware/Ironstone	6 (43%)[a]	15 (37%)	18 (19%)	39 (26%)
Banded Whiteware/ Ironstone			1 (1%)	1 (.7%)
Blue Transfer-Printed Whiteware/Ironstone	1 (7%)	1 (2%)	3 (3%)	5 (3%)
Flow Blue Whiteware/Ironstone	1 (7%)	1 (2%)		2 (1%)
Purple Transfer-Printed Whiteware/Ironstone			1 (1%)	1 (.7%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Ironstone		3 (7%)	3 (3%)	6 (4%)[b]
Yellowware		1 (2%)		1 (.7%)
Annular Yellowware			1 (1%)	1 (.7%)
Salt Glazed Brownware, Brown Exterior and Interior Engobes			1 (1%)	1 (.7%)
Porcelain	1 (7%)[a]			1 (.7%)
Porcelain-Overglaze Hand-Painted		1 (2%)		1 (.7%)

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-3 (Continued)

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

Ceramic Types	Topsoil	Trashy Dark Gray Silty Clay	Gray Silty Clay Loam	Totals
Canton Porcelain	1 (7%)[a]			1 (.7%)[b]
Totals	14 (9%)[b]	41 (28%)	93 (63%)	148

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-4

CERAMIC FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 4

Ceramic Types	(Auger Test 9) Grayish Brown Silty Clay Loam	(Auger Test 10) Grayish Brown Clay	Totals
Brown Transfer-Printed Whiteware/Ironstone	3 (100%)[a]		3 (75%)[b]
Ironstone		1 (100%)	1 (25%)
Totals	3 (75%)[b]	1 (25%)	4

[a]Percentage of auger total

[b]Percentage of test area total

CHAPTER 20

OTHER ARTIFACTS

Ted Birkedal
John R. Stein
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Introduction

Artifacts other than ceramics total 659 items. This is certainly not a large number, but a more sizable collection would not be expectable in view of the limited extent of the testing and the nature of the deposits. The narratives and tables that follow present detailed information on the variety and distribution of the artifacts that make up the collection.

Glass Artifacts

The glass assemblage consists of 226 separate items. Of these, 215, or 95 percent, derive from Test Areas 1 and 3. Overall, the collection exhibits a high incidence of abrasion and battering; also, individual piece size tends to be small, and whole containers and diagnostic portions of containers are extremely rare. Much of the collection, therefore, appears to come from secondary rather than primary depositional contexts. Tables III-5 through III-7 detail the characteristics of the collection.

Test Area 1 produced 51 percent of the glass artifacts, but there is little to merit excitement contained in this assemblage. Sixty-nine percent of the pieces derive from a brown silty clay loam horizon which represents a late fill deposit along the interior west bank of the original Rodriguez Canal (Figure III-9 [Stratum 2], Figure III-10 [Stratum 5]). Clear glass items predominate and these make up 56 percent of the glass found in the horizon. This high percentage of clear glass, together with a high incidence of fragments from pharmaceutical and bitters bottles (37 percent), suggests much of the glass from the brown silty clay loam layer originated in the second half of the nineteenth century. High frequencies of clear glass and containers for “medicine” are hallmarks of trash deposits from the post-Civil War Era (Goodwin, Yakubik, and Goodwin 1984:43). Interestingly, none of the clear glass found in this layer, or any other for that matter, shows the typical amethyst tint that usually marks the use of manganese oxide in the manufacturing process. The addition of manganese oxide to clear glass became widespread after 1880 (Goodwin Yakubik, and Gendel 1984:177). However, this absence of amethyst coloration may simply be explained by rapid burial, which prevented long exposure to the “turning” effects of the sun. Another distinctive trait of the glass artifacts from the brown silty clay loam is variety. No other subassemblage from the tests displays a similarly wide array of container types. Among the items represented are cylindrical bottles, oval bottles, paneled bottles, faceted bottles, and shouldered bottles, as well as dishes, drinking glasses, bowls, and window glass. Again, a late date is suggested, particularly by the range of bottle types.

The trashy dark gray clay layer in Test Area 1 produced only thirteen specimens. This thin sheet trash deposit is thought to date from the second and third quarters of the nineteenth century (Figure III-10 [Stratum 6]). The few recovered specimens do not contradict this view. Pieces of olive, aqua, light green, and clear glass are all represented. The older, underlying dark gray clay layer in Test Area 1 (Figure III-10 [Stratum 2]) yielded only a single piece of glass. This is a fragment of olive glass, possibly from a wine bottle.

Consisting of only eight pieces, the collection from Test Area 2 may be described as minute. Only two of the total came from beneath the topsoil. Both were found near the bottom of the grayish brown silty clay loam; thus, they could date from the general period of the Battle of New Orleans (Figures III-12, III-13 [Stratum 2]). One piece is a dark olive bottle base with a deep kick-up. The other is a shoulder fragment, also from a dark olive bottle. The two fragments are perhaps from the same bottle, or at least the same type of wine or champagne bottle. Each of the pieces exhibits a slight patina, a surface characteristic usually associated with age.

Test Area 3 yielded the second largest glass assemblage, exactly 100 items, or 44 percent of the total. Ninety percent of these came from below the topsoil horizon. A sheet trash deposit of dark gray silty clay that resembled the sheet trash in Test Area 1 produced thirty-five glass fragments (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]). Of the pieces in this subassemblage, 63 percent are light to dark olive in color, and a minimum of 49 percent derive from either wine or champagne bottles. One of the most interesting specimens is an appliqué seal that was once attached to the shoulder of a wine bottle. The inscription on this glass seal reads “St. Julien Medoc” (Figure III-73).

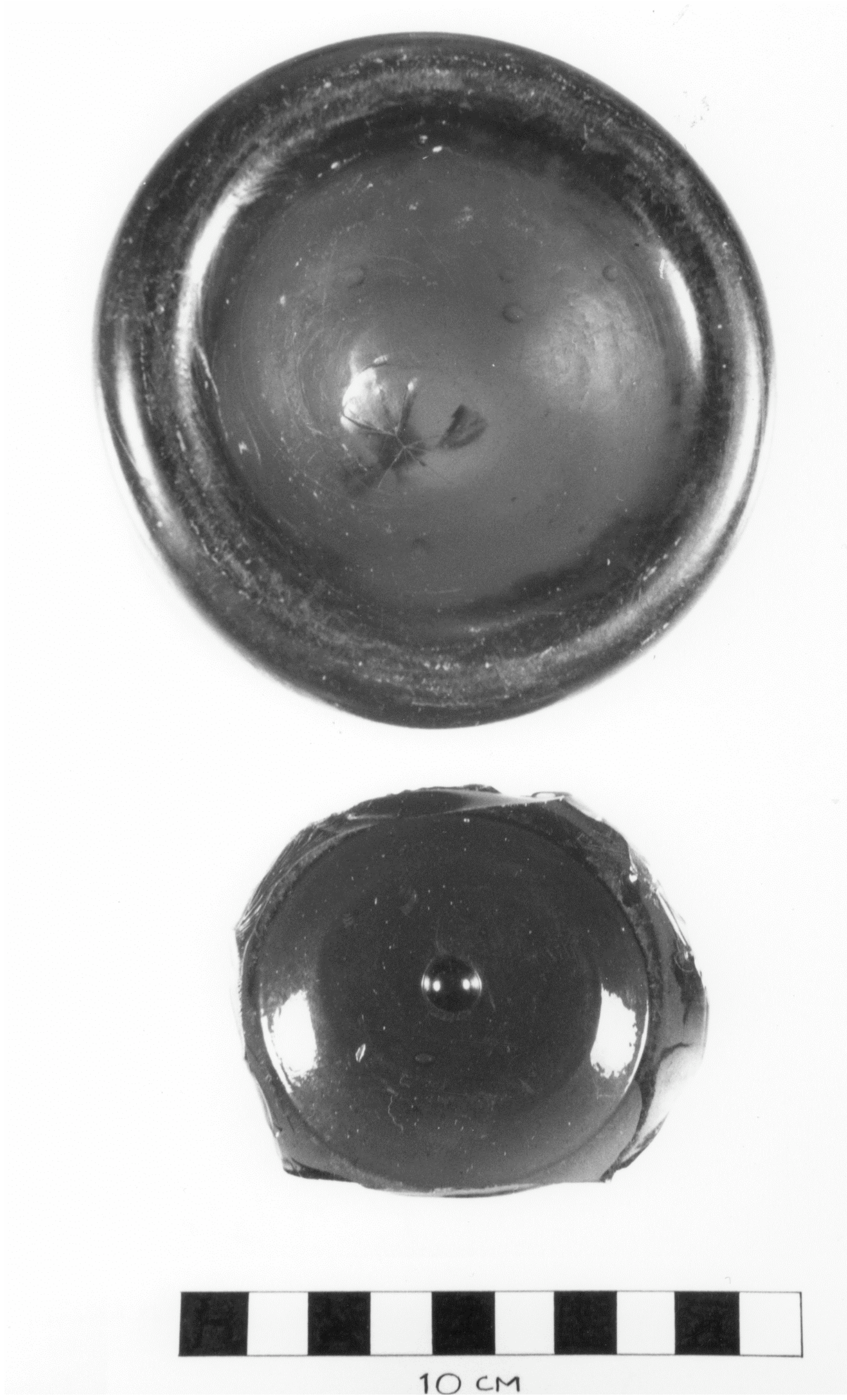
Figure III-73. A wine bottle medallion, "St. Julian Medoc," from the dark gray silty clay in Test Area 3.

Photograph by Betsy Swanson for the National Park Service.


St JULIEN
MEDOC
5 CM

Figure III-74. The glass specimen at the top is a wine pontil base from the gray silty clay loam in Test Area 3. The lower specimen is a stout bottle base from the same provenience.

Photograph by Betsy Swanson for the National Park Service.


10 CM

Clear glass makes up 23 percent of the collection from the sheet trash level, and its presence, together with a fragment of cobalt blue glass, suggests that at least a portion of the glass was deposited after the Civil War. A fragment of a paneled bottle reaffirms this interpretation. Nonetheless, the majority of the glass fragments point to an origin in the first half of the nineteenth century. The above-mentioned percentages for olive glass and wine/champagne bottles indicate an earlier era, as does the slight to heavy patination found on 63 percent of the specimens. On some pieces, the patination appears as a gold-colored, iridescent scale that hides the original color of the glass fragment. This impression of age for the greater number of glass fragments from the sheet trash is consistent with the Mean Ceramic Date of 1826 calculated for the deposit. The Prevost occupation of the Rodriguez Estate would be a likely source for these older pieces.

The gray silty clay loam that underlies the sheet trash has been tied to the immediate period of the Battle of New Orleans by a cluster of ceramic dates centering on 1815 (Figures III-17, III-18 [Stratum 5]; Figure III-19 [Stratum 4]). Most of the fifty-five glass fragments from this stratum appear to be typical of this early era (Figure III-74). Eighty-two percent exhibit a light to dark olive color, whereas only 11 percent fall into the clear glass category. In addition, 44 percent of the specimens represent fragments from slightly more globular bottles (basically cylindrical bottles with broad, rounded shoulders and somewhat squat bodies), a bottle type more closely associated with the eighteenth and early nineteenth centuries than any later periods (Cotter 1968:34). Further, no identifiable fragments of paneled, faceted, or oval bottles occur in the subassemblage, and only 5 percent appear to be from bottles that once contained bitters or pharmaceutical products. The greater number, 64 percent, have their most probable derivation from wine or champagne bottles. Finally, 84 percent of the fifty-five glass specimens exhibit some degree of patination, and 51 percent possess a moderate to heavy crust of iridescent patina. Even the window glass from this level displays evidence of this surface chemical alteration.

It is also worth noting that pitted surfaces associated with the use of the dip mold or hinged mold are less common in the collection from the silty clay loam (Figures III-17, III-18 [Stratum 5]; Figure III-19 [Stratum 4]) than in the collection from the stratigraphically earlier sheet trash (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]). Forty-three percent of the specimens from the sheet trash exhibit pitted or pocked surfaces, whereas only 16 percent of the glass pieces from the underlying silty clay loam display this trait. What may be indicated here is the early nineteenth-century shift away from free-blown glass to mold-blown glass (Switzer 1974:6). The same general time period also saw a rise in the popularity of hinged molds over single-piece dip molds, but specimens with diagnostic seams are too few to permit observations on whether or not this trend is represented in the two main subassemblages from Test Area 3.

None of the deeper soil layers within Test Area 3 yielded glass (Figures III-17, III-18 [Stratum 4, Stratum 6, and Stratum 7]; Figure III-19 [Stratum 5 and Stratum 6]; Figure 20 [Stratum 3]), but these produced few artifacts of any kind. In general, the collection from Test Area 3 is characterized by the overwhelming predominance of bottle glass over glass from other container types and the relatively high incidence of olive-colored glass. In these respects, it closely resembles the collection obtained from tests at the adjacent Rodriguez residence (Yakubik 1983:36-37).

A single glass sherd represents the entire glass collection from Test Area 4. It was found in Auger Test 11 between 90 and 100 cm below ground surface in a blue gray muck (Figure III-48 [Stratum 5]). The specimen is a pitted, olive-colored, basal fragment of a cylindrical wine bottle. It bears a close resemblance to many of the wine-bottle fragments found in the lower levels of Test Area 3.

The glass collection from Test Area 5 (Map III-4) is limited to two specimens, both of clear glass dating to the middle of the twentieth century. One is a fragment of a wine jug neck and shoulder from the topsoil in Test Pit C83.5, N13. The other, from the topsoil of Test Pit C116, N10.75, is a complete petroleum jelly jar. These recent pieces require no further comment.

TABLE III-5

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Color										
Light Olive	2	9[a]	6	8					8	7[b]
Medium Olive	2	9	2	3	1	8	1	100	6	5
Dark Olive	2	9							2	2
Light Aqua	2	9	6	8	1	8			9	8
Dark Aqua										
Light Green	3	14	12	15	7	54			22	19
Light Amber										
Dark Amber			1	1					1	1
Colbalt Blue			8	10					8	7
Clear	11	50	44	56	4	31			59	51
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Fragment Size										
1 cm^2	4	18[a]	2	3					6	5[b]
2	3	14	7	9					10	9
3	5	23	1	1	2	15	1	100	9	8
4	5	23	4	5					9	8
5	1	5			1	8			2	2
6	2	9	26	33	2	15			30	26
7-10			11	14	5	38			16	14
10+	2	9	28	35	3	23			33	29
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Thickness										
Less than 1mm										
1 mm	1	5[a]			1	8			2	2[b]
2	3	14	13	16	1	8			17	15
3	5	23	19	24			1	1	25	22
4	7	32	10	13	7	54			24	21
5+	6	27	22	28	4	3			32	28
1-4			5	6					5	4
2-4			8	10					8	7
2-5			1	1					1	1
3-5										
Unknown			1	1					1	1
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Part										
Whole			1	1					1	1[b]
Body	15	68[a]	40	51	8	62	1	100	64	56
Base	2	9	10	13	3	23			15	13
Shoulder			7	9					7	6
Neck	1	5	6	8	1	8			8	7
Pane	3	14	6	8	1	8			10	9
Applique										
Handle			1	1					1	1
Other	1	5	8	10					9	8
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Container Type										
Cylindrical	7	32[a]	14	18	2	15	1	100	24	21[b]
Oval			2	3					2	2
Paneled	4	18	19	24	1	8			24	21
Faceted			2	3					2	2
Shouldered			9	11					9	8
Dish/Drinking Glass			5	6					5	4
Bowl			1	1					1	1
Jar	2	9	9	11					11	10
Window/Portrait Glass	3	14	3	4	2	15			8	7
Unknown	6	27	15	19	8	62			29	25
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Contents										
Wine/Champagne	6	27[a]	9	11	1	8	1	100	17	15[b]
Beer			1	1					1	1
Medicine/Bitters	2	9	29	37	1	8			32	28
Toilet Water										
Foodstuffs	2	9	14	18					16	14
Unknown	8	36	17	22	9	69			34	30
N/A	4	18	9	11	2	15			15	13
Totals	22	19[b]	79	69	13	11	1	100	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Bubbles										
None	8	36[a]	18	23	6	46			32	28[b]
Trace	1	5	50	63					51	44
Fully Present	13	59	11	14	7	54	1	100	32	28
Totals	22	19	79	69	13	11	1	1	115	
Patina										
None	20	91	73	92	11	85	1	100	105	91
Trace	2	9	6	8	2	15			10	9
Fully Present										
Totals	22	19[b]	79	69	13	11	1	1	115	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-5 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Other Attributes										
(Nonexclusive)										
Pitted	2	9[a]	12	15					14	12[b]
Striated	13	59	39	49	4	31	1	100	57	50
Fire-Polished	2	9	1	1					3	3
Melted	1	5							1	1
Fire-Crazed	2	9							2	2
Abraded/Scratched	5	23	7	9	3	23	1	100	16	14
None	7	32	33	42	8	62			48	42
Total Numbers	22	--	79	--	13	--	1	---	115	--

[a]Percentage of level

[b]Percentage of test area total

TABLE III-6

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Color						
Light Olive						
Medium Olive	1	17[a]			1	13[b]
Dark Olive	1	17	2	100	3	38
Light Aqua	1	17			1	13
Dark Aqua						
Light Green						
Light Amber						
Cobalt Blue					3	38
Clear	3	50				
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Fragment Size						
1 cm^2	2	33[a]			2	25[b]
2	2	33			2	25
3						
4	1	17			1	13
5						
6						
7-10	1	17	1	50	2	25
10+			1	50	1	13
Totals	6	75[b]	2	25	8	

[a]Percentage of 1evel total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Thickness						
Less than 1mm						
1mm	1	17[a]			1	13[b]
2	1	17			1	13
3			1	50	1	13
4	2	33	1	50	3	38
5+	2	33			2	25
1-4						
2-4						
2-5						
3-5						
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentageof test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Part						
Whole						
Body	6	100[a]			6	75[b]
Base			1	50	1	13
Shoulder			1	50	1	13
Neck						
Pane						
Applique						
Handle						
Other						
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Container Type						
Cylindrical	6	100[a]	2	100	8	100[b]
Globular						
Oval						
Paneled						
Faceted						
Shouldered						
Dish/Drinking Glass						
Bowl						
Jar						
Window/Portrait Glass						
Unknown						
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Contents						
Wine/Champagne	2	33[a]	2	100	4	50
Beer						
Medicine/Bitters						
Toilet Water						
Foodstuffs						
Unknown	4	67			4	50
N/A						
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Bubbles						
None	2	33[a]			2	25[b]
Trace	1	17			1	13
Fully Present	2	33	2	100	4	50
Unknown	1	17			1	13
Totals	6	75[b]	2	25	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-6 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 2

	Topsoil		Grayish Brown Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%
Other Attributes						
(Nonexclusive)						
Pitted			1	50	1	13[b]
Striated	3	50[a]	2	100	5	63
Fire-Polished	1	17	1	50	2	25
Melted	1	17			1	13
Fire-Crazed	1	17			1	13
Abraded/Scratched	6	100	2	25	8	100
Total Specimens	6	--	2	--	8	--

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Color								
Light Olive	1	10[a]	11	31	6	11	18	18[b]
Medium Olive	3	30	4	11	35	64	42	42
Dark Olive	1	10	7	20	4	7	12	12
Light Aqua					2	4	2	2
Dark Aqua			1	3			1	1
Light Green	1	10	3	9	1	2	5	5
Light Amber	1	10					1	1
Cobalt Blue			1	3	1	2	2	
Clear	3	30	8	23	6	11	17	
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Fragment Size								
1 cm^2	3	30[a]	3	9	3	5	9	9[b]
2	2	20	2	6	20	36	24	24
3	2	20	3	9	4	7	9	9
4			6	17	8	15	14	14
5	2	20	4	11			6	6
6			1	3	3	5	4	4
7-10			4	11	13	24	17	17
10+	1	10	12	34	4	7	17	17
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Thickness								
Less than 1mm					1	2	1	1[b]
1mm			4	11	21	38	25	25
2			10	29	17	31	27	27
3	1	10[a]	4	11	5	9	10	10
4	5	50	4	11	7	13	16	16
5+	4	40	10	29	3	5	17	17
1-4								
2-4								
2-5			1	3			1	1
3-5			2	6	1	2	3	3
Totals	10	10[b]	35	35	55	55	100	

[a] Percentage of level total

[b] Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Part								
Whole								
Body	10	100[a]	25	71	43	78	78	78[b]
Base			3	9	2	4	5	5
Shoulder			4	11			4	4
Neck			1	3	3	5	4	4
Pane			1	3	6	11	7	7
Applique			1	3			1	1
Handle								
Other					1	2	1	1
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Container Type								
Cylindrical	5	50[a]	11	31	13	24		
Globular			3	9	24	44	29	29[b]
Oval							27	27
Paneled			1	3				
Faceted								
Shouldered					1	2	1	1
Dish/Drinking Glass								
Bowl								
Jar								
Window/Portrait Glass			1	3	6	11	7	7
Unknown	5	50	19	54	11	20	35	35
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Contents								
Wine/Champagne	3	30[a]	17	49	35	64	55	55[b]
Beer								
Medicine/Bitters	1	10	1	3	3	5	5	5
Toilet Water			1	3			1	1
Foodstuffs								
Unknown	6	60	15	43	10	18	31	31
N/A			1	3	7	13	8	8
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Bubbles								
None	4	40[a]	4	11	12	22	20	20[b]
Trace	1	10	16	46	5	9	22	22
Fully Present	5	50	15	43	38	69	58	58
Totals	10	10	35	35	55	55	100	100
Patina								
None	5	50	13	37	9	16	27	27
Trace	5	50	17	49	18	33	40	40
Fully Present			5	14	28	51	33	33
Totals	10	10[b]	35	35	55	55	100	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-7 (Continued)

GLASS ATTRIBUTES AND OCCURRENCES

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%
Other Attributes (Nonexclusive)								
Pitted	1	10[a]	15	43	9	16	25	25[b]
Striated	3	30	26	74	34	62	63	63
Fire-Polished			2	3	4	7	6	6
Melted					1	2	2	2
Fire-Crazed	1	10					1	1
Abraded/Scratched	4	40	22	63	42	76	68	68
None	5	50	4	11	11	20	20	20
Total Specimens	10	--	35	--	55	--	100	--

[a]Percentage of level total

[b]Percentage of test area total

Metal Artifacts

Buck and Ball

A set of buck and ball represents the only lead ammunition recovered in the tests. The set was discovered in Test Area 4 at a depth of 60 cm below ground surface (72 cm below datum) near the bottom of the grayish brown silty clay loam (Stratum 4 in Figure III-48). When found, the three smaller balls, the buck, were arranged contiguously on top of the larger shot, the ball (Figure III-75). Black gunpowder coated the balls and also stained the soil immediately surrounding the find. By their arrangement, there can be little doubt that this set of buck and ball had been lost while still contained in the original paper cartridge; further, it was evident that the soil deposit in which they were found had not been disturbed following the disintegration of the paper.

Buck and ball wrapped in paper cartridges with pre-measured amounts of gunpowder were standard and common issue to the American troops during the Battle of New Orleans (Meuse 1965:39-40). This form of ammunition was particularly favored against massed charges because four killing projectiles could be launched simultaneously each time the musket was fired, an important attribute in the days of slow-loading, short-range weaponry.

The size of the single ball and its companion shot closely match the size standards for buck and ball ammunition issued to United States regulars during the War of 1812: .30 and .64 caliber, respectively (Meuse 1965:40, Polhemus 1979:205). This ammunition was used in the .69-caliber Model 1795 Springfield Musket, the standard army musket of the time and the one employed by the 7th and 44th Infantry regiments at the Battle of New Orleans (Meuse 1965:9). It is no accident that the buck and ball described here was found in the sector of the line once occupied by the 7th Infantry.

TABLE III-8

BUCK AND BALL

Provenience	Diameter	Weight	Remarks
Test Area 4			
(Grayish Brown Silty Clay Loam)			
1 (Ball)	1.6 cm	25.7 gm	All of lead; portions of surface coated with black gunpowder
2 (Buck)	.8	2.7	
3 (Buck)	.8	2.8	
4 (Buck)	.8	2.8	

Shotgun Shells

Two shotgun-shell bases were found in topsoil horizons. Both are probably no older than the late nineteenth century or the early twentieth century.

TABLE III-9

SHOTGUN SHELLS

Provenience	Length	Diameter	Weight	Remarks
Test Area 1				
(Topsoil)				
1	2.1 cm	2.1 cm	1.1 gm	Fragment of shell base; brass; center of base flanked with letters “U” and “S”

Figure 75. Buck and ball ammunition found in the grayish brown silty loam (60 cm below ground surface) in Test Area 4.

Photograph by Betsy Swanson for the National Park Service.

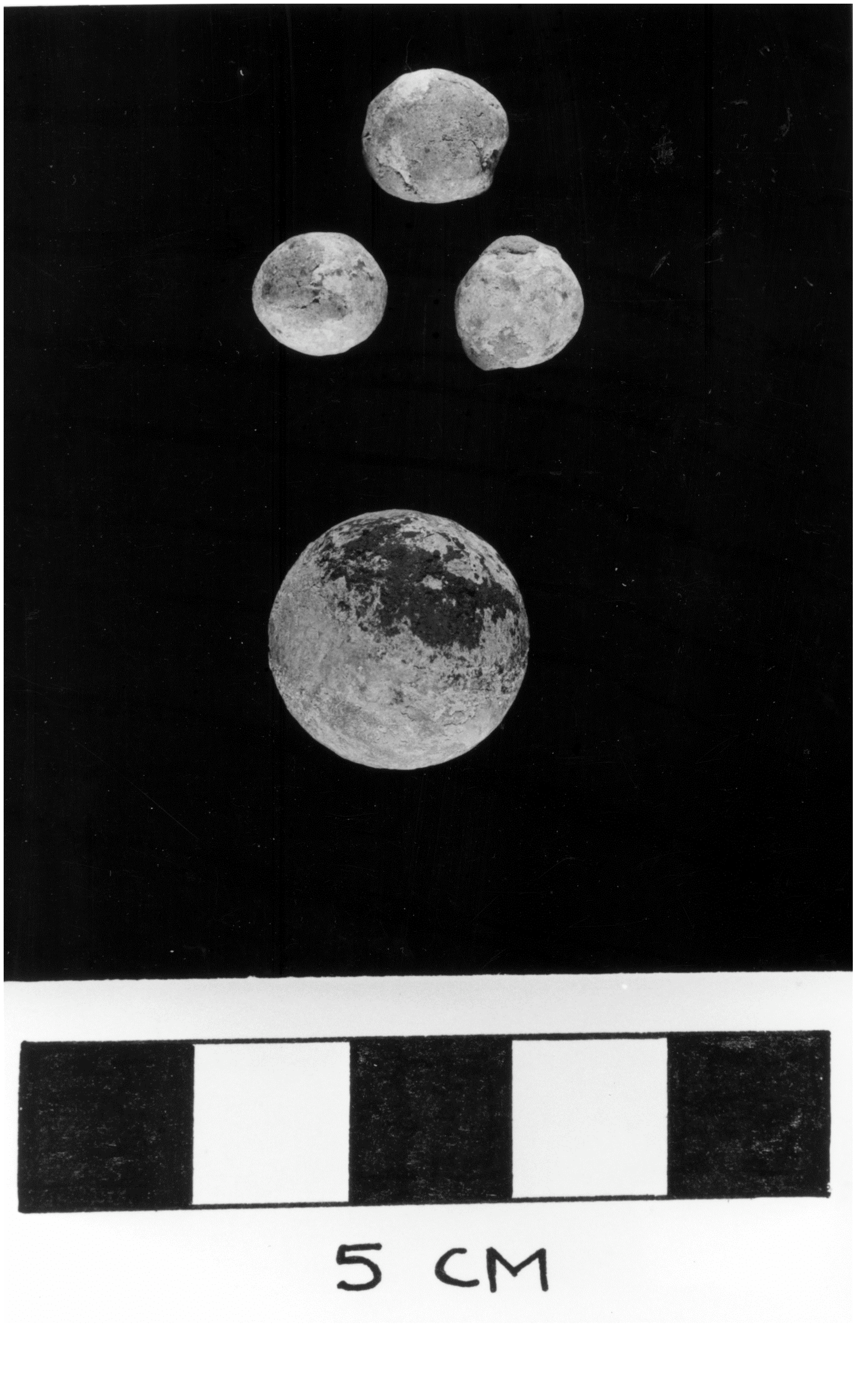

5 CM

TABLE III-9 (Continued)

SHOTGUN SHELLS

Provenience	Length	Diameter	Weight	Remarks
Test Area 2				
(Topsoil)				
1	2.2 cm	1.0 cm	3.6 gm	Remington-UMC New Club; complete brass base

Brass Button

There is a single metal button in the collection. This item came from the gray silty clay loam in the northwest portion of Test Area 3 (Stratum 5 in Figure III-18). The button is of brass, has a relatively broad rim, three holes, and a slight central dome on its back side (Figure III-76). The words "Colvis & Duma," in raised letters, encircle three-quarters of the rim. Three simple, small, flower-like motifs fill the intervening space on the rim.

With the exception that it possesses only three holes, it resembles South's Type 39, a general button type that dates from 1800 into the twentieth century (South 1974:Fig. 61). This is not believed to be a military button, and despite its occurrence in the early silty clay loam horizon, it may well be intrusive. It comes from an area where the various levels represented in Test Area 3 pinch together. The two inscribed names on the button indicate that it was once attached to clothing sold in the elegant shop of Julien Colvis and Joseph Duma(s), two of New Orleans's most successful Free Men of Color (Walker 1986:350-351). These two wealthy merchant tailors were located on Chartres Street in the first half of the nineteenth century.

TABLE III-10

BRASS BUTTON

Provenience	Diameter	Thickness	Weight	Remarks
Test Area 3				
(Gray Silty Clay Loam)				
1	1.4 cm	.75 cm	1.3 gm	Resembles South's (1974) Type 39

Thimble

Thimbles are notoriously hard to date (Honerkamp, Council, and Fairbanks 1983:145). This single, nondescript brass example from the silty clay loam in Test Area 3 is no exception (Stratum 5 in Figures III-17, III-18). It might be mentioned that similar brass thimbles were found in early nineteenth-century deposits at Tellico Blockhouse (Polhemus 1979:209). Thimbles were not exclusively used by women, even in the nineteenth century. Wellington's Peninsula troops, for example, are famous for the number of sewn repair patches that they wore on their uniforms and for their ability to make pants out of such items as blankets and oilskin baggage wrappers (Brett-James 1972:79-81).

Figure III-76. Bone button on left from topsoil of Test Area 1; brass button on right from gray silty clay loam of Test Area 3. The raised letters on the brass button spell “Colvis & Duma.”

Photograph by Betsy Swanson for the National Park Service.


5 CM

TABLE III-11

THIMBLE

Provenience	Length	Diameter	Weight	Remarks
Test Area 3				
(Gray Silty Clay Loam)				
1	2.2 cm	Unknown	2.2 gm	Brass; partly flattened and distorted

Spoons

Two spoons were found. One, a silver-plated specimen, is undoubtedly fairly recent. The other, a crushed bowl from a pewter spoon, could be quite early in origin (Figure III-77).

TABLE III-12

SPOONS

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Brown Silty Clay Loam)				
1	15.5 cm	3.0 cm	19.4 gm	Complete iron table Spoon; originally silver-plated; marked "Niagra Silver Plate"

TABLE III-12 (Continued)

SPOONS

Provenience	Length	Width	Weight	Remarks
Test Area 2				
(Topsoil)				
1	6.0 cm	3.5 cm	12.8 gm	Bowl of a pewter spoon, crushed flat

Table Knives

The topsoil in Test Area 3 yielded two fragments from iron table knives. One is the fragment of a hilt and flat tang; the other is a part of a broad-billed blade.

TABLE III-13

TABLE KNIVES

Provenience	Length	Width	Weight	Remarks
Test Area 3				
(Topsoil)				
1	6.0 cm	2.5 cm	23.0 gm	Fragment of a flat tang and hilt from an iron table knife, 25 percent complete

Figure III-77. Miscellaneous metal objects. Top left, pewter spoon bowl from topsoil in Test Area 2; top right, large common nail (wire spike) from auger hole in vicinity of Test Area 1; and bottom, two hinged metal straps from brown silty clay loam of Test Area 1.

Photograph by Betsy Swanson for the National Park Service.


10 CM

TABLE III-13 (Continued)

TABLE KNIVES

Provenience	Length	Width	Weight	Remarks
Test Area 3				
(Topsoil)				
2	5.0 cm	2.5 cm	10.9 gm	Fragment from the blade of an iron table knife, probably associated with hilt described above, about 25 percent complete

Straight Razor

Test Area 1 produced the broken and corroded remains of a straight razor. The age of this single specimen is unknown.

TABLE III-14

RAZOR BLADE

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Topsoil)				
1	Unknown	Unknown	22.8 gm	Four fragments from the same straight razor blade, about 25 percent complete; corroded

Coins

Two coins were found in the topsoil of Test Area 3. Both are United States pennies from the twentieth century. One dates from 1929; the other dates from 1965.

Iron Hook

A wrought-iron hook formed in the shape of an elongated "S" was discovered near the buck and ball in the lower part of the grayish brown silty clay loam of Test Area 4 (Figure III-48 [Stratum 4]; Figure III-78). Both its size and form suggest that it may have served as a kettle hook, a common artifact from early American military sites (Hanson and Hsu 1975:135; Polhemus 1979:175). The hook's stratigraphic context and its location immediately behind the reconstructed position of the American rampart lend support to this interpretation (Map III-3, Figure III-48).

It is exactly the kind of artifact one would expect to find in the protective shadow of a defensive line that was manned by soldiers for several weeks. Iron hooks of this kind were employed to hang the ubiquitous camp kettle over the fire. Such kettles usually served the needs of a number of men (Brett-James 1972:116-117). It is entirely possible that this hook was used by members of the 7th Infantry who occupied the area of the line penetrated by Test Area 4.

TABLE III-15

IRON HOOK

Provenience	Length	Width	Weight	Remarks
Test Area 4				
(Grayish Brown Silty Clay Loam)				
1	3.0 cm	.7 cm	72.0 gm	In the shape of an elongated, shallow "S"; central shank

Figure III-78. Iron kettle hook found in grayish brown silty clay loam in Test Area 4 (Scale in centimeters).

Drawn by Lyndi Hubbell for the National Park Service.

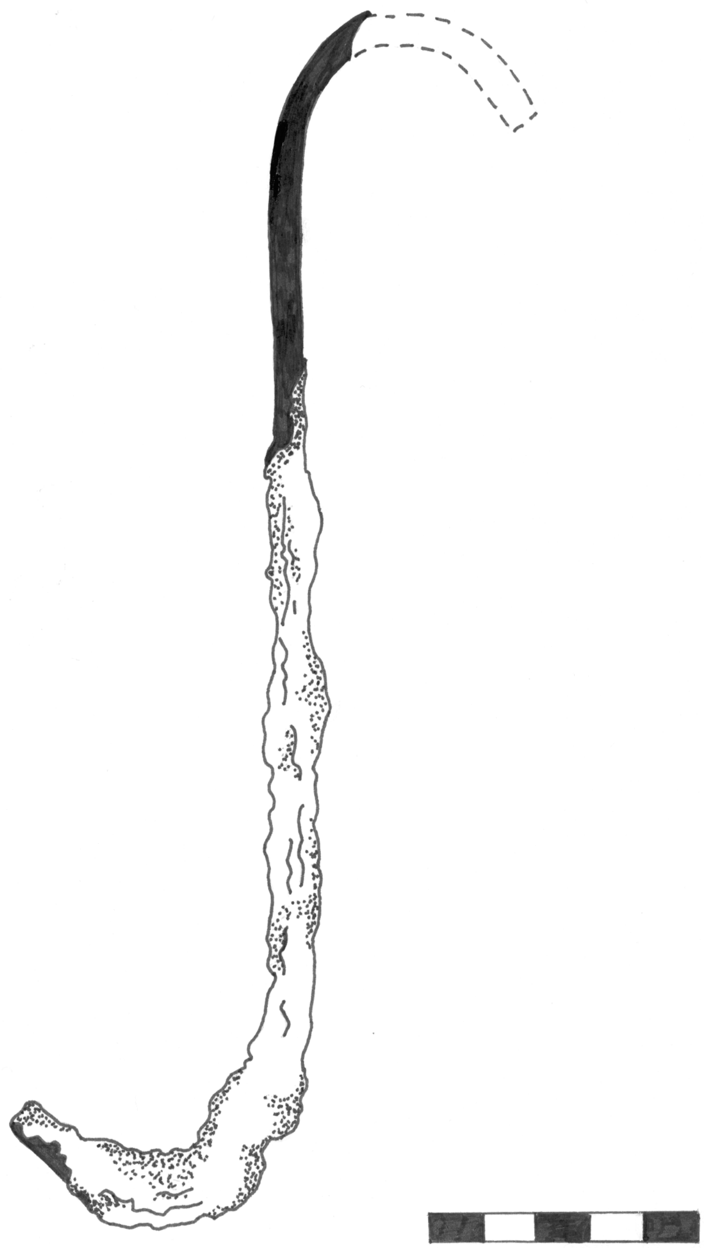


TABLE III-15 (Continued)

IRON HOOK

Provenience	Length	Width	Weight	Remarks
				nearly straight; one end complete with hook 5 cm across; at the opposite end the hook has been broken off at the neck of the curve; the item is heavily corroded

Bell-Shaped Object

The function of this thin iron hemisphere from the brown silty clay loam in Test Area 1 is unknown. It resembles the upper half of a bicycle bell.

TABLE III-16

BELL-SHAPED OBJECT

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Brown Silty Clay Loam)				
1	5.0 cm	2.5 cm	30.0 gm	Thin iron hemisphere; central vertical pin set in center of hollow side; broken into 6 fragments

Iron Stove Parts

Three fragments from a cast-iron stove were found in Test Area 1 and in a shovel test made adjacent to Test Area 1. No maker's marks occur on these fragments. None are from the lower early nineteenth-century deposits.

TABLE III-17

IRON STOVE PARTS

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Brown Silty Clay Loam)				
1	17.0 cm	8.0 cm	617 gm	Fragment from the body of a cast-iron stove
2	11.0	11.0	584	Fragment from the body of a cast-iron stove
Random Shovel Test, West Side of Rodriguez Canal, Between Test Area 1 and Test Area 2				
(Topsoil)				
1	9.0	9.0	495.7	Fragment of ornate Cast-iron stove leg, 50 percent complete

Iron Cap

The identification of this item is problematical. It was discovered with the aid of a metal detector just beneath the surface in a shovel test on the east bank of the Rodriguez Canal opposite Test Area 2. Superficially, it resembles a "peaked" cap from an iron fence post, but the presence of four small adjustable bolts set opposite each other around the perimeter and a small hole in the center top suggests a more complex function (an axle cap?). Thus, it probably derives from a piece of fairly large machinery: for example, a car or tractor.

TABLE III-18

IRON CAP

Provenience	Length	Width	Weight	Remarks
Random Shovel Test, East Bank of Rodriguez Canal, opposite Test Area 2				
(Topsoil)				
1	8.0 cm	5.0 cm	242.0 gm	Cylindrical, "peaked" iron cap with four adjustable bolts set around perimeter; small hole in top center

Lipstick Tube

A crushed lipstick tube of recent origin was found in the topsoil of Test Area 5.

TABLE III-19

LIPSTICK TUBE

Provenience	Length	Width	Weight	Remarks
Test Area 5 Grid (83.5, N13)				
(Topsoil)				
1	3.5 cm	1.5 cm	2.2 gm	Crushed; brass

Tin Cans

Consistent with the other modern finds from the topsoil in Test Area 5 are two tin cans.

TABLE III-20

TIN CANS

Provenience	Length	Width	Weight	Remarks
Test Area 5 Grid (C116, N10.75)				
(Topsoil)				
1	Unknown	7.0 cm	21.0 gm	Fragment of iron can with sanitary seam; four fragments
2	Unknown	7.0	64.1	“Barq’s Orange Soda” can, aluminum top with steel body

Aluminum Pull Tab

This aluminum pull tab is from the topsoil of Test Area 3. It is typical of the small bits of debris that have been dropped by visitors to the park unit over the decades. It measures 2 by 1 cm and is .6 cm thick.

Nails

Nails represent the most common artifact type in the metal category. One hundred fifty-eight nails were recovered in the course of the test excavations (see Tables III-21 through III-30). Heavy corrosion and reduction of the original metal hampered identification, measurement, and attribute analysis. A combination of electrolysis, mechanical cleaning, and deliberate breakage to expose cross sections was used to allow for at least gross measurement of the specimens and to permit limited observations on the occurrence of morphological attributes. Identification of head form proved to be particularly difficult and unreliable; hence, this diagnostic attribute is not treated in the analysis. Measurements of width are included, but these measurements should be viewed with caution; the high degree of corrosion and encrustation often made accurate measurement of the original metal object impossible.

A majority of the nails could be assigned with reasonable confidence to one of the three basic nail types—wrought, cut, or wire. The hand-wrought iron nail is the earliest of the three. It dominated the nail industry until the 1790s, when the first cut nails began to make an appearance in the United States, partly in response to import scarcities brought on by the Revolutionary War (Fontana and Greenleaf 1962:44; Nelson 1968:4). With the widespread mechanization of cut nail production in the first two decades of the nineteenth century, demand for the wrought-iron nail suffered a dramatic decline and it largely disappeared from all but specialty use after about 1830 (Fontana and Greenleaf 1962:50; Nelson 1968:3).

Wire nails were invented in France in the first part of the nineteenth century, but their production was restricted because the early manufacture of wire nails required the use of costly Norway iron. The development of the Bessemer process changed this situation, and in the 1880s the reduced cost of steel production allowed for the manufacture of inexpensive wire nails in quantity. By

1895 wire nails made up approximately 75 percent of the total nail production in the United States; within a few years, they largely replaced the cut nail in the general market (Fontana and Greenleaf 1962:48). These basic nail types are not especially time sensitive, but in most cases they are not without value as chronological indicators. Because each nail type has a clear period of predominance, relative frequencies in their archeological occurrence can be suggestive of general time frames (Nelson 1968:11).

A portion of the more heavily corroded nails defied placement in even the gross nail types discussed above. These were assigned to one of two catch-all categories. Those that could not be specifically identified as cut or wrought, but were definitely not wire nails, were classed as "Indeterminate: Cut/Wrought." The remainder, lacking any observable clues as to their mode of manufacture, simply received an unqualified "Indeterminate" label.

In a few cases, specific nail types and sizes could be determined, and it is evident that the collection potentially includes a wide range of such types and sizes, from small brads to large spikes. However, the available data is far too limited to allow reliable observations on their relative distribution and frequency of occurrence.

The nail assemblage from Test Area 1 totals thirty seven specimens, or 23 percent, of the nails recovered from all the tests. Over half of these, twenty, are from the topsoil. As might be expected, the group from the topsoil contains the largest percentage of wire nails and the smallest percentage of wrought specimens. Cut nails represent the single most common type from this upper horizon. The collection from the brown silty clay loam (Stratum 3 in Figure III-9; Stratum 5 in Figure III-10) is much smaller, but the frequencies of nail types essentially repeat those found in the topsoil (Figures III-9, III-10). The trashy dark clay, or sheet trash, produced only a single wrought nail (Stratum 6 in Figure III-10). This nail is noteworthy in that it represents the only identifiable clenched nail recovered from the tests. The lowest exposed strata, the grayish brown clay (Stratum 4 in Figure III-9) and the related dark gray clay (Stratum 2 in Figure III-10), yielded six nails. Half are wrought, one is cut, and the rest indeterminate.

If any one thing characterizes the nail collection from Test Area 1, it is the degree of completeness of the specimens. The average completeness, exclusive of the more modern wire nails, is 72 percent. Even the more typically brittle, cut nails exhibit a high degree of completeness. For example, the mean degree of completeness for the cut nails from the silty clay loam reaches 78 percent. Only in the specimens from the lowest layers does the fragment size decrease. The presence of so many large nail fragments suggests that many of these nails had been contained in original structural lumber when deposited. The nails were freed when the lumber either decomposed or was burned. The clenched nail from the sheet trash also supports this view.

The collection from Test Area 2 contains only nineteen nails. The topsoil group consists of five nails: three wrought and two of indeterminate manufacture. Eleven nails make up the subassemblage from the lower grayish brown silty loam (Stratum 2 in Figures III-12, III-13). Six of these are wrought, four are indeterminate, and one is wire. The small collection from the lowermost level of grayish brown clay (Stratum 3) consists of three indeterminate specimens. In the total collection from this test area, average completeness of the specimens (exclusive of wire nails) falls to 44 percent, with a number of the nail fragments in the 10 percent range. The small size of these fragments does not appear to be related to time in the ground because two of the complete specimens come from the lowest layers.

Test Area 3 produced ninety-two nails, or 58 percent of the total. The overall collection includes 69 percent of all the wrought nails found in the tests and 61 percent of the cut nails. The topsoil collection represents only 15 percent of the total specimens from the test area and merits no discussion. The sheet trash layer of dark gray silty clay produced thirty-two specimens, or 35 percent of the test total (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]). Fifty percent of these are wrought nails and 31 percent are cut nails; the remainder are indeterminate (3 percent) or wire (13 percent).

The largest number of nails, 45 (50 percent), derive from the lower gray silty clay loam (Figures III-17, III-18, [Stratum 5]; Figure III-19 [Stratum 4]). Of these, 40 percent are wrought, 29 percent cut, 22 percent cut or wrought, 7 percent indeterminate, and 2 percent wire. Interestingly, the single wire nail comes from the northwest portion of the test where the various culture layers pinch together and the chances for mixture are highest. Only one nail fragment, a cut nail, came from the underlying streaked silty clay loam (Stratum 6 in Figure III-17).

Viewed from the angle of completeness, the Test Area 3 nails present a clear contrast with Test Area 1. In the Test Area 3 collection, completeness (exclusive of wire nails) averages only 43 percent, whereas the Test Area 1 collection averages 72 percent. Moreover, 38 percent of the collection from Test Area 3 (exclusive of wire nails) consists of fragments of 20 percent or less of the original nail size. The number of these small fragments is greatest from the subassemblage derived from the sheet trash. Here they constitute 50 percent of the specimens. In the underlying gray silty clay loam, this percentage drops to 36 percent. Although the frequencies of the represented nail parts in Test Area 3 were examined, no apparent patterns or trends emerged; a similar result was also obtained for the other test collections. Tips, midsections, head fragments, upper lengths, and nails without heads are all represented, but the variations in their occurrence do not tell an identifiable story.

The nail collections from Test Areas 4 and 5 (Figure III-48; Map III-4) represent only 6 percent of the nail total, and a majority of these nails are identified as wire. The five wire nails from the lower horizon in Test Area 4 suggest intrusion or a mixing of the deposits. The two wire nails from Test Area 5, however, are consistent with the other recent artifacts from that test.

Despite the small size of the nail collection and its poor condition, it is still possible to extract some meaning from the distribution and frequency of the nails discovered in the various tests. Most of the wire nails found along the Rodriguez Canal probably either came from the razed residence of the Chalmette Monument caretaker or are associated with the late occupation of the Villavaso House. Similarly, the two wire nails from Test Area 5 could derive from any one of the late nineteenth to early twentieth-century structures that once stood in this eastern sector of the park unit (Maps III-4, III-7).

The numerous cut nails and wrought nails from Test Area 1 point to an origin in the first half of the nineteenth century. The logical source for most of these is the Rodriguez Estate. However, the fact that the greatest number occur in fairly late stratigraphic contexts suggests that the majority were not deposited during their era of use. Rather, the view favored here is that they represent the nails contained in wood debris produced by the purposeful razing of the Rodriguez main house in the 1890s. The relatively large average size of the nail fragments from Test Area 1 supports this interpretation. This high proportion of nearly whole specimens suggests that the nails were, for the most part, left in the unsalvageable lumber from the razing effort. The nails would have been freed by clean-up fires or the eventual decomposition of the discarded wood. Since the final destruction of the main house is thought to be connected with a beautification project of the monument initiated by a concerned citizen group, clean-up fires followed by raking and dumping of the burned debris make the most sense as an explanation for the observed patterns.

Prior to the 1950s, the now-buried sheet trash level formed the topsoil horizon in the immediate vicinity of Test Area 3 (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]). It yielded a Mean Ceramic Date of 1826 (p. 619, Chapter 19), a date which is consistent with the character of the nail collection from the layer. Wrought nails represent 50 percent of the total and cut nails another 31 percent. This mix is typical of the period between 1800 and 1830, which brackets the technological transition from wrought nails to cut nails (Nelson 1968:4). The pattern varies significantly from Test Area 1 in the number of small fragments that occur in the collection. The average completeness (exclusive of wire nails) is only 35 percent, a percentage that suggests a different depositional history for these nails. Clearly, more nails had been broken before coming to rest in the ground. A likely source is the destruction and salvage of the Creole cottage which once stood just east of Rodriguez's master house immediately northwest of Test Area 3 (Figure III-4). This building was apparently destroyed or purposely razed before the Civil War, for there is no record of it after that period (Swanson 1984:II). The high degree of nail breakage evidenced among the wrought and cut nails argues for a *salvage operation*—one in which the boards holding the nails were forcibly wrestled apart and many of the nails extracted. Wrought nails, and especially cut nails, tend to snap when they are subjected to sharp lateral stresses and improper extraction techniques. Cut nails are the most vulnerable, for they must be carefully pounded out of the lumber rather than pulled. In light of this hypothesis, it is interesting to note that 29 percent of the specimens from the sheet trash are simple head fragments, the largest single percentage for such fragments in any of the subassemblages.

The remnant hole of Battery 3 would have provided a convenient dumping area for the debris from the salvage. Also, this broad hole would have served as a natural collection basin for any of the scattered architectural refuse that was not purposely thrown in, but eventually made its way into the depression through the gradual action of surface erosion and sheet wash. The small percentage of wire nails (13 percent) found in the upper sheet trash probably derives from the destruction of the caretaker's residence in the 1950s (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]).

The gray silty clay loam at the bottom of the Battery 3 hole (Figures III-17, III-18 [Stratum 5]; Figure III-19 [Stratum 4]) also produced a high incidence of wrought (40 percent) and cut nails (29 percent) as well as an assortment of indeterminate, cut/wrought nails (10 percent). Again, the Rodriguez Estate is the probable source for most of these nails. However, the tightly clustered ceramic dates 1815, 1816, and 1817 for the horizon (pp. 743-748, Chapter 19)—argue against a deposition entirely tied to the demise of the Creole cottage. It is more likely that the majority had their source in multiple depositional episodes associated with the heyday of the estate's occupation. The first of these may have been the actual construction of the Rodriguez Estate buildings in the opening decade of the nineteenth century. The second episode may have occurred during the Battle of New Orleans. The third may have been a time of repair immediately following the battle. The fourth phase may have been a by-product of any structural alterations performed by the Prevost family between 1817 and 1849 while they owned the Rodriguez Estate. If the destruction of the Creole cottage made a contribution, it is perhaps reasonable to assume that it was the last of a series of separate contributions. Small nail fragments, possibly indicative of salvage breakage, are common; the average degree of completeness, calculated at 43 percent, is only slightly higher than the percentage associated with the sheet trash collection. The cut nail fragments tend to be smaller and these exhibit an average completeness of 35 percent. This difference may merely reflect the differential resiliency of the two nail types. There is, however, a notable variance in their spatial distribution that cannot be attributed to metal technology. Ninety-two percent of the cut nails were found around the upslope edges of the Battery 3 hole, whereas 72 percent of the wrought nails were recovered from the base of the hole in close proximity to the parapet and banquette palings (Figures III-15, III-21).

This spatial difference in the occurrence of the cut and wrought nails could very well be an artifact of the battle. We know that the Americans tore down local fences, and to judge from Rodriguez's war claims, they probably also robbed wood from minor outbuildings on the Rodriguez property (Swanson 1984:I.11).

This confiscated lumber would have dated prior to 1815; therefore, the percentage of wrought nails contained in it should have been high relative to cut nails. The same high incidence of wrought nails would also have been expectable among any new or salvaged nails that were employed in the battle-related construction effort.

With this interpretation in mind, it is also worth noting that five (38 percent) of the thirteen wrought nails found beside the parapet alignment are complete specimens. Three of these came from a very small triangular zone excavated behind the parapet palings in Grid A42.5, N87 (Figures III-15, III-21). This represents an atypical concentration of whole nails in comparison to other areas excavated in the tests. What it suggests is not the random effect of sheet wash, but the influence of a single, adjacent depositional source, the closest and most probable being the wooden rear sections of the American defensive rampart.

As regards Test Area 2 (Map III-3), there is little to say. The few nails discovered in this area are not associated with any known feature; they are believed to be part of a general and widespread peripheral refuse deposit that is ubiquitous on the Rodriguez property. If the high percentage of wrought nails is any guide, the main period of source is the first quarter of the nineteenth century.

The nail samples from Test Areas 4 and 5 are so small as to preclude any meaningful statistical interpretation.

TABLE III-21

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 1

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil								
(Wrought)								
	1	6.5cm	0.5cm	5.0gm	90%		3"	Head missing, 10d
	2	4.5	0.5	3.3	80%		2½"	Head missing, 8d
(Cut)								
	1	8.0cm	0.6cm	8.5gm	100%	Box	3"	Head present, 10d
	2	9.5	0.8	22.3	100%	Common	4"	20d
	3	5.5	0.6	8.6	75%	Common	3"	10d
	4	3.0	2.0	4.2	20%	Masonry	3"	10d
	5	7.0	0.7	13.6	90%		3"	Head missing, 10d
	6	9.0	0.5	13.3	100%	Common	3½"	Straight, 16d
	7	5.5	1.5	29.0	50%		4"	Tip missing, 20d
	8	5.0	0.7	7.4	75%		3"	Tip missing, twisted, 10d
	9	2.5	0.4	1.6	25%			Tip to Number 8 above
	10	4.5	0.7	5.5	90%		2"	Tip may be missing, 6d

TABLE III-21 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 1

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil (Continued)								
(Wire)								
	1	6.5cm	0.3cm	4.9gm	100%	Common	2¾"	Head present, 9d
	2	7.0	0.6	6.1	100%	Common	2¾"	9d
	3	8.0	0.5	4.5	100%	Finishing	3¼"	12d
	4	6.5	0.5	5.5	100%	Common	2½"	Twisted, 8d
	5	5.0	0.3	2.0	100%	Common	2"	Straight, 6d
	6	5.0	0.3	1.8	90%	Common	2"	Head missing, 6d
(Indeterminate/Cut or Wrought)								
	1	3.5cm	0.4cm	2.7gm	75%		2"	Tip missing, corroded, 6d
(Indeterminate)								
	1	5.0cm	0.7cm	7.4gm	50%		4"	Heavily corroded, 20d

TABLE III-21 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 1

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Brown Silty Clay Loam								
(Wrought)								
	1	4.0cm	0.4cm	1.6gm	75%			Head missing
	2	3.5	0.3	0.8	?			
(Cut)								
	1	8.0cm	0.8cm	5.5gm	75%		3"	Badly corroded, heavy cut nail, 10d
	2	5.0	0.5	6.5	90%	Common	2¼"	Twisted, broken, tip missing, 7d
	3	3.5	0.6	3.2	100%	Brad	1½"	Straight
	4	3.0	0.4	1.2	25%			Tip only
	5	3.5	0.7	3.5	100%		1½"	Straight
(Wire)								
	1	14.5cm	0.8cm	36.3gm	100%	Common	6"	Wire spike, 60d
	2	9.5	0.3	3.3	100%	Common	4"	Flat common, 20d

TABLE III-21 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 1

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Brown Silty Clay Loam (Continued)								
(Indeterminate)								
	1	10.0cm	0.6cm	16.9gm	75%			Heavily corroded
Trashy Dark Gray Clay								
(Wrought)								
	1	7.0cm	0.6cm	8.5gm	100%		3"	Clenched nail, 10d
Grayish Brown Clay								
(Wrought)								
	1	2.0cm	0.3cm	1.6gm	50%			Tip missing

TABLE III-21 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 1

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Dark Gray Clay								
(Wrought)								
	1	4.0cm	0.4cm	2.4gm	90%		1¾"	Head missing
	2	2.5	0.5	1.9	50%		2¼"	Tip missing, 7d
(Cut)								
	1	3.0cm	0.5cm	2.0gm	20%			Midsection, heavily corroded, square in cross-section
(Indeterminate/Cut or Wrought)								
	1	3.0cm	0.6cm	1.6gm	50%			Tip missing, corroded
(Indeterminate)								
	1	7.0cm	0.5cm	5.0gm	90%		3"	Head missing, 10d

TABLE III-22

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 2

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil								
(Wrought)								
	1	4.5cm	0.7cm	7.1gm	50%		3"	Head and midsection, 10d
	2	4.0	1.0	8.7	50%		3"	Head and midsection, 10d
	3	1.0	0.5	1.0	<10%			Midsection only
(Indeterminate)								
	1	1.5cm	0.3cm	1.2gm	40%			Probably midsection
	2	11.5	1.5	3.8	100%		4½"	Heavily corroded, probably cut or wrought, 30d
Grayish Brown Silty Clay Loam								
(Wrought)								
	1	3.0cm	0.3cm	1.7gm	25%			Midsection only
	2	5.0	0.4	4.4	75%			Midsection only
	3	6.0	0.7	3.9	100%		2½"	8d
	4	4.0	0.4	1.6	50%			Tip only
	5	11.0	0.9	22.6	90%	Spike		Head missing
	6	3.0	0.9	8.0	100%	Spike		Head only

TABLE III-22 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 2

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Grayish Brown Silty Clay Loam (Continued)								
(Wire)								
	1	3.0cm	0.2cm	0.6gm	?			Wire nail or wire segment
(Indeterminate)								
	1	2.0cm	1.0cm	2.9gm	10%			Midsection with heavy encrustation
	2	2.5	0.8	2.7	10%			Midsection with heavy encrustation
	3	3.0	0.8	3.9	10%			Midsection with heavy encrustation
	4	3.0	1.0	3.3	10%			Midsection with heavy encrustation
Grayish Brown Clay								
(Indeterminate)								
	1	4.0cm	1.0cm	7.0gm	30%			Heavily corroded
	2	5.0	1.0	11.5	30%			Heavily corroded
	3	6.0	1.0	15.0	100%		2½"	Heavily corroded, 8d

TABLE III-23

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil								
(Wrought)								
	1	1.0cm	0.5cm	1.6gm	10%			Head only
	2	3.0	1.0	3.3	20%			Heavily eroded
	3	4.5	0.6	3.9	75%		2½"	Head missing
	4	3.0	0.7	3.7	50%			Tip missing, heavily corroded
(Cut)								
	1	5.0cm	0.5cm	3.8gm	90%	Common	3"	Tip missing, 10d
	2	4.0	0.8	6.9	50%	Common	3½"	Tip missing, 16d
	3	4.0	0.5	2.8	50%		2½"	Midsection only
	4	3.0	0.4	1.0	25%			Tip only
(Indeterminate/Cut or Wrought)								
	1	2.5cm	0.5cm	1.5gm	10%			Midsection only

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil (Continued)								
(Indeterminate)								
	1	10.0cm	0.6cm	16.9gm	75%			Badly corroded, 20d
	2	4.7	0.5	5.0	50%			Fragmentary and heavily corroded
	3	1.5	0.5	1.4	10%			Midsection only
	4	2.0	0.8	1.9	10%			Head only, heavily corroded
	5	1.5	1.5	2.4	40%			Head only
Trashy Dark Gray Silty Clay								
(Wrought)								
	1	2.0cm	0.5cm	1.5gm	<10%			Midsection only
	2	2.5	0.3	1.4	<10%			Midsection only
	3	3.5	0.4	1.8	20%			Midsection only
	4	2.5	0.5	2.3	20%			Head only
	5	2.0	0.5	1.1	10%			Head only

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Trashy Dark Gray Silty Clay (Continued)								
(Wrought) (Continued)								
	6	1.0cm	1.0cm	0.9gm	<10%			Head only
	7	5.5	0.6	6.7	90%			Midsection and tip, twisted
	8	5.0	0.5	4.2	90%			Midsection and tip, straight
	9	3.0	0.4	1.6	10%			Midsection only
	10	2.0	0.2	1.0	<10%			Head only
	11	3.5	0.5	3.0	50%			Head with midsection
	12	2.5	1.5	2.2	10%			Head only
	13	2.5	0.4	1.1	20%			Tip only
	14	2.5	1.0	3.0	10%			Head only, very heavily corroded
	15	2.0	1.0	2.1	>10%			Midsection, heavily corroded
	16	8.0	1.3	18.0	75%	Spike	3"	10d

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Trashy Dark Gray Silty Clay (Continued)								
(Cut)								
	1	13.0cm	1.5cm	5.1gm	100%	Spike	5"	40d
	2	4.2	0.4	4.0	25%			Fragmentary, corroded
	3	5.5	0.6	9.0	75%			Head present
	4	2.5	0.3	0.5	10%			Tip only
	5	6.5	0.6	5.5	75%	Box	2¾"	Head present, 9d
	6	5.0	0.6	5.0	75%	Box	2¾"	Head present, 9d
	7	4.0	0.8	5.0	20%		5½"	Midsection, 50d
	8	3.5	0.7	5.5	50%	Common	2½"	Head only, 8d
	9	1.5	0.3	0.3	10%			Tip only
	10	2.0	1.0	1.5	25%			Head only
(Indeterminate/Cut or Wrought)								
	1	2.0cm	1.0cm	3.0gm	25%			Head only

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Trashy Dark Gray Silty Clay (Continued)								
(Wire)								
	1	14.0cm	0.8cm	26.2gm	1.0	Common	6"	Heavily twisted, spike, 60d
	2	14.0	0.8	28.4	1.0	Common	6"	Heavily twisted, spike, two fragments, 60d
	3	13.0	1.0	26.0	1.0	Common	5"	40d
	4	6.5	0.4	5.0	0.9	Common	3¼"	Probably 12d
Gray Silty Clay Loam								
(Wrought)								
	1	3.5cm	0.4cm	1.9gm	100%		1½"	4D
	2	6.5	0.5	9.0	75%		3½"	16D, Head missing, square cross-section w/chisel
	3	8.5	0.7	9.7	100%		3¼"	Complete, 5d
	4	6.0	0.6	8.8	75%		3½"	Tip missing, 16d
	5	4.0	0.7	4.6	50%		3"	Tip missing, 10d
	6	3.0	0.5	2.5	10%			Tip only, heavily corroded

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Gray Silty Clay Loam (Continued)								
(Wrought) (Continued)								
	7	5.0cm	0.5cm	4.9gm	75%			Head missing
	8	5.5	0.5	7.8	100%			Heavily corroded, complete, 7d
	9	3.0	0.4	2.0	50%			Midsection only
	10	3.0	0.5	3.6	20%			
	11	2.5	0.5	2.0	20%			Tip only
	12	2.5	0.7	2.7	20%			
	13	2.0	2.0	3.3	20%		3½"	Head only, forms one nail with 10, 11, 12
	14	5.5	1.0	35.2	50%	Spike		Head and upper section
	15	4.5	0.7	8.8	100%		1¾"	Complete, 5d
	16	4.5	0.7	8.8	100%		1¾"	Complete, 5d
	17	3.5	0.4	3.2	100%		1½"	Straight, complete, 4d
	18	2.0	0.7	2.2	20%			Head only

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Gray Silty Clay Loam (Continued)								
(Cut)								
	1	4.0cm	0.7cm	6.0gm	25%			Fragmentary, heavily eroded, head present
	2	4.0	0.4	2.0	25%			Fragmentary, heavily eroded, head not present
	3	4.0	0.8	7.0	20%			Tip only
	4	1.5	0.7	1.0	5%			Midsection only
	5	5.5	0.4	4.2	90%	Box	2¾"	9d
	6	2.0	0.6	2.5	40%			Heavily corroded, probably a midsection
	7	3.0	0.7	3.6	20%	Box/Common		Head only, 20d
	8	4.0	0.6	5.2	50%	Box/Common		Head only, 10d
	9	3.5	1.0	5.0	20%	Box/Common		Head only, 20d
	10	2.5	1.0	5.0	10%	Box/Common		Head only, 20d
	11	4.0	0.5	2.6	90%	Standard	1¾"	5d
	12	1.5	0.6	2.5	10%	Box/Common	3"	Head only, 10d
	13	4.5	0.7	7.5	50%	Common	3½"	Tip missing, 16d

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Gray Silty Clay Loam (Continued)								
(Indeterminate/Cut or Wrought)								
	1	4.5cm	0.8cm	6.3gm	50%	Spike		Tip only
	2	3.0	0.7	3.1	10%	Spike		Midsection only
	3	3.5	0.7	5.3	20%	Spike		Midsection only
	4	3.5	0.6	3.3	25%	Spike		Tip only
	5	3.0	0.5	2.2	20%			Midsection only
	6	4.5	0.6	3.6	90%		2"	Head missing, 6d
	7	5.0	0.7	3.9	100%		2"	Twisted, 6d
	8	3.0	0.4	2.4	30%			Midsection only
	9	4.5	0.5	2.8	90%		2"	Head missing, 6d
	10	3.0	0.4	1.9	30%			Midsection only
(Wire)								
	1	11.0cm	0.5cm	18.0gm	100%	Common	5"	40d

TABLE III-23 (Continued)

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 3

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Gray Silty Clay Loam (Continued)								
(Indeterminate)								
	1	1.5cm	0.3cm	0.7gm	?			Heavily corroded, probably midsection
	2	3.0	0.5	1.6	10%			Midsection, heavily corroded
	3	3.0	0.3	1.2	10%			Midsection
Streaked Gray Silty Clay Loam								
(Cut)								
	1	3.5cm	0.7cm	6.7gm	50%	Common	3"	Head and midsection, 10d

TABLE III-24

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 4

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil								
(Cut)								
	1	3.5 cm	0.8cm	5.0gm	50%	Common		Tip missing, 10d
Grayish-Brown Silty Clay Loam								
(Cut)								
	1	3.5cm	0.7cm	4.0gm	50%	Common	22"	Tip missing, 8d
(Indeterminate/Cut or Wrought)								
	1	4.5cm	1.5cm	7.0gm	90%			Heavily corroded, Auger Hole #9
(Wire)								
	1	6.5cm	0.4cm	6.2gm	100%	Common	2½"	Straight, 8d
	2	5.5	0.3	3.2	100%	Common	2"	Straight, 6d
	3	6.5	0.3	5.5	100%	Common	2½"	Straight, 8d
	4	6.0	0.3	3.8	100%	Common	2½"	Bent, 8d
	5	6.0	0.3	3.5	100%	Common	2½"	Bent, 8d

TABLE III-25

NAIL DESCRIPTIONS AND LISTINGS

TEST AREA 5

	No.	Length	Width	Weight	Completeness	Nail Type	Nail Size	Remarks
Topsoil								
(Wire)								
	1	10.5cm	0.5 cm	6.9gm	100%	Spike	6"	Twisted, eroded, 60d, Grid C83.5, N13
	2	10.4	0.6	23.7	90%	Spike?	6"	60d, Grid C116, N10.75

TABLE III-26

NAIL FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 1

	Wrought		Cut		Cut/Wrought		Indeterminate		Wire		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level												
Topsoil	2	10[a]	10	50	1	5	1	5	6	30	20	54[b]
Brown Silty Clay Loam	2	20	5	50			1	10	2	20	10	27
Trashy Dark Gray Clay	1	100									1	3
Grayish-Brown Clay	1	100									1	3
Dark Gray Clay	2	40	1	20	1	20	1	20			5	14
Totals	8	22[b]	16	43	2	5	3	8	8	22	37	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-27

NAIL FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 2

	Wrought		Cut		Cut/Wrought		Indeterminate		Wire		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level												
Topsoil	3	60[a]					2	40			5	26[b]
Grayish Brown Silty Clay Loam	6	55					4	36	1	9	11	58
Grayish Brown Clay							3	100			3	16
Totals	9	47[b]					9	47	1	5	19	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-28

NAIL FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 3

	Wrought		Cut		Cut/Wrought		Indeterminate		Wire		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level												
Topsoil	4	29[a]	4	29	1	7	5	36			14	15[b]
Trashy Dark Gray Silty Clay	16	50	10	31	1	3	1	3	4	13	32	35
Gray Silty Clay Loam	18	40	13	29	10	22	3	7	1	2	45	50
Streaked Gray Silty Clay Loam			1	100							1	1
Totals	38	41[b]	28	30	12	13	9	10	5	5	92	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-29

NAIL FREQUENCIES BY STRATIGRAPHIC LEVEL

TEST AREA 4

	Wrought		Cut		Cut/Wrought		Indeterminate		Wire		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Level												
Topsoil			1	100[a]							1	13[b]
Grayish Brown Silty Clay Loam			1	14	1	14			5	71	7	88
Totals			2	25[b]	1	13			5	63	8	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-30

NAIL SUMMARY

	Test Area 1			Test Area 2			Test Area 3			Test Area 4			Test Area 5			Totals	
	No.	%[a]	%[b]	No.	%	%	No.	%	%	No.	%	%	No.	%	%	No.	%[c]
Nail Type																	
Wrought	8	22[a]	(15)[b]	9	47	(16)	38	41	(69)							55	35[c]
Cut	16	43	(35)				28	30	(61)	2	25	(4)				46	29
Indeterminate Cut/Wrought	2	5	(13)				12	13	(80)	1	13	(7)				15	9
Wire	8	22	(38)	1	8	(5)	5	5	(24)	5	63	(24)	2	100	(10)	21	13
Indeterminate	3	8	(14)	9	47	(43)	9	10	(43)							21	13
Totals	37	23[c]		19	12		92	58		8	5		2	1		158	

[a]Percentage of test area total

[b]Percentage of nail type total for all test areas

[c]Percentage of total number of nails in collection

Railroad/Bridge Spike

This is a large railroad or bridge spike from the topsoil between Test Area 1 and Test Area 3. Its presence was indicated by a metal detector.

TABLE III-31

RAILROAD/BRIDGE SPIKE

Provenience	Length	Width	Weight	Remarks
Random Shovel Test Between Test Area 1 and Test Area 3				
(Topsoil)				
1	5.0 cm	3.0 cm	44.0 gm	Fragment of a railroad or bridge spike, 25 percent complete

Rivet

This small T-shaped rivet from the grayish brown silty clay loam of Test Area 2 resembles similar rivets embedded in iron strapping from Test Areas 1, 3, and 4. Its stratigraphic position in Stratum 2 suggests an early date.

TABLE III-32

RIVET

Provenience	Length	Width	Weight	Remarks
Test Area 2				
(Grayish Brown Silty Clay Loam)				
1	3.5 cm	.7 cm	4.8 gm	Resembles rivets found in iron strapping from Test Areas 1, 3, and 4; is complete

Iron Staples

Two iron staples from recent stratigraphic contexts were found in the tests.

TABLE III-33

IRON STAPLES

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Topsoil)				
1	4.0 cm	1.7 cm	5.0 gm	Probably a fence staple

TABLE III-33 (Continued)

IRON STAPLES

Provenience	Length	Width	Weight	Remarks
Test Area 5 Grid (83.5, N13)				
(Topsoil)				
1	5.0 cm	2.0 cm	1.8 gm	Twisted and eroded; does not appear to be a fence staple

Iron Bolt

When this large iron bolt came to light during the initial phase of the testing in Test Area 1, the crew became excited, for it closely resembled the kind of bolts often used to hold together the carriages of naval cannons, and it was known that one of Dominique Youx's 24-pounders had been damaged by a British artillery hit. It does display the coarse thread and square head typical of bolts that are used to fasten large timbers, but its origin is doubtful. The stratum in which it was found contains a wide mixture of early to late nineteenth-century trash (Stratum 3 in Figure III-9).

TABLE III-34

IRON BOLT

Provenience	Length	Width	Weight	Remarks
Test Area 1				
(Brown Silty Clay Loam)				
1	30.0 cm	2.3 cm	616.0 gm	Large bolt, square head, with coarse thread (for timbers); complete

Iron Nuts

Two square iron nuts of medium size were found: one in a topsoil horizon, the other in a lower deposit from Test Area 3. Their derivation is unknown.

TABLE III-35

IRON NUTS

Provenience	Length	Width	Weight	Remarks
Test Area 2				
(Topsoil)				
1	1.5 cm	1.5 cm	6.3 gm	Square iron nut thread (for timbers); complete

TABLE III-35 (Continued)

IRON NUTS

Provenience	Length	Width	Weight	Remarks
Test Area 3				
(Trashy Dark Gray Silty Clay Loam)				
1	2.0 cm	2.0 cm	16.5 gm	Square iron nut

Hinged Iron Strap

Test Area 1 yielded a hinged object of strap iron. It consists of two narrow lengths of strap iron attached at one end by a single rivet. Its exact purpose is unknown, but it resembles a segment of the collapsible iron frames that once held the tops of nineteenth-century carriages (Figure III-77).

TABLE III-36

HINGED STRAP IRON

Provenience	Length	Width	Thickness	Weight	Remarks
Test Area 1					
(Brown Silty Clay Loam)					
1	21.0 cm	3.0 cm	.3 cm	92.2 gm	Two fragmentary sections of narrow strap metal joined together at one end to form a hinge; heavily corroded

Iron Strapping

One of the more numerous items in the metal collection is fragments of thin iron strapping. Most of the thirty-two fragments are quite short, heavily corroded, and exfoliated. They range in width between 1.2 and 4 cm, but over 60 percent of the specimens hover around 3 cm in width. Forty-one percent of the total are penetrated by small rivets.

For the most part, their proveniences are highly localized. Seventy-five percent were found in lower deposits which are ceramically dated to the early nineteenth century. The dark gray clay of Test Area 1 (Stratum 2 in Figure III-10) produced 25 percent of the strap fragments, and 89 percent of this number came from Grid A38, N67 (Figure III-8). The largest group, 41 percent, was found in the gray silty clay loam of Test Area 3 (Figures III-17, III-18 [Stratum 5]; Figure III-19 [Stratum 4]). In turn, 85 percent of these were discovered in a small area centered around Grid A41, N90 (Figure III-15). The grayish brown silty clay loam in Test Area 4 yielded 9 percent of the total (Stratum 4 in Figure III-48).

Most of the specimens are believed to represent fragments from barrel hoops. Late eighteenth-century iron barrel hoops from Fort Stanwix also tend toward 3 cm in width and possess rivets (Hanson and Hsu 1975:135). In the Fort Stanwix specimens, the rivets mark the ends of the bands.

The cluster of eight fragments from Test Area 1 and the similar cluster of eleven specimens from Test Area 3 probably represent single barrel hoops that decomposed in place. Though it cannot be demonstrated, it is possible that these fragments and perhaps many of the other specimens from deeper horizons derive from barrels used during the Battle of New Orleans. These barrels may have contained gunpowder or other battle-related material, or they may simply have been filled with earth in order to reinforce the earthworks. It is of interest to note that in 1985 a complete iron barrel hoop was discovered by National Park Service and Tennessee Valley Authority archeologists in the course of a magnetometer survey of the northern sector of the battlefield (John Coverdale, personal communication 1985). This highly eroded hoop was an isolated find located several meters to the east of the Rodriguez Canal. It measured 4 cm in width and roughly 50 cm in diameter, a diameter very close to that reported for the iron barrel hoops of Fort Stanwix (Hanson and Hsu 1975:135).

TABLE III-37*

IRON STRAPPING DESCRIPTIONS AND LISTINGS

Provenience	Length	Width	Thickness	Weight	Remarks
Test Area 1					
(Brown Silty Clay Loam)					
1	6.0cm	3.0cm	.5cm	43.8gm	Fragment of thick strapping
Subtotal 1 (Percentage of strapping in test area = 11%)					
(Dark Gray Clay)					
1	13.0cm	2.8cm	.5cm	73.0gm	Fragment of heavy strapping, penetrated by two rivets
2	3.0	2.8	.5	7.1	Fragment of heavy strapping
3	3.0	2.8	.5	8.0	Fragment of heavy strapping
4	3.0	2.8	.5	5.5	Fragment of heavy strapping
5	4.5	2.8	.5	10.5	Fragment of heavy strapping
6	11.0	3.0	.5	44.0	Fragment of heavy strapping
7	3.0	1.5	.5	4.5	Fragment of heavy strapping
8	3.0	2.5	.5	12.5	Fragment of heavy strapping
Subtotal 8 (Percentage of strapping in test area = 89%)					
Total 9 (Percentage of strapping in all test areas = 28%)					
Test Area 3					
(Topsoil)					
1	2.5cm	4.0cm	.4cm	8.8gm	Fragment of strapping
2	2.5	2.0	.4	2.0	Fragment of the above
Subtotal 2 (Percentage of strapping in test area = 10%)					

*Table III-37 continued on following page.

TABLE III-37 (Continued)

IRON STRAPPING DESCRIPTIONS AND LISTINGS

Provenience	Length	Width	Thickness	Weight	Remarks
Test Area 3 (Continued)					
(Trashy Dark Gray Silty Clay)					
1	1.5cm	1.5cm	.16cm	1.0gm	Fragment of thin strapping
2	2.5	2.0	.16	4.0	Fragment of thin strapping
3	1.5	1.5	.3	3.0	Fragment of strapping
4	7.0	1.2	.3	27.0	Fragment of strapping (actually two segments attached by a folded joint)
5	3.5	3.5	.5	35.0	Fragment of heavy strapping
Subtotal 5 (Percentage of strapping in test area = 25%)					
(Gray Silty Clay Loam)					
1	20.0cm	3.0cm	.5cm	140.0gm	Fragment of riveted strapping
2	4.0	3.0	.5	9.5	Fragment of the above
*3-13	40.1	3.0	.3	177.0	*Eleven fragments of riveted strapping
Subtotal 13 (Percentage of strapping in test area = 65%)					
Total 20 (Percentage of strapping in all test areas = 63%)					
Test Area 4					
(Grayish Brown Silty Clay Loam)					
1	9.0cm	1.8cm	.5cm	26.2gm	Fragment of heavily corroded strapping, resembles handle
2	1.5	1.5	.5	1.5	Fragment of the above
3	2.0	2.0	.5	5.9	Fragment of the above
Subtotal 3 (Percentage of strapping in test area = 100%)					
Total 3 (Percentage of strapping in all test areas = 9%)					
Grand Total 32					

Barbed Wire

A few fragments of barbed wire were encountered, primarily in the upper soil horizons of the tests. These probably derive from the fence that ran down the center of the Rodriguez Canal in the first half of the twentieth century. This fence served to separate the once smaller monument from adjacent private property located to the east of the canal.

TABLE III-38

BARBED WIRE

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	12	Heavily corroded; one fragment 6 cm in length, others much smaller; total weight 51.2 gm
(Brown Silty Clay Loam)	1	Heavily corroded; length 9 cm, weight 6.9 gm
(Trashy Dark Gray Clay)	2	Heavily corroded; two small fragments; total weight 7 gm
Subtotal	15 (94% of Total)	

TABLE III-38 (Continued)

BARBED WIRE

Provenience	Number	Remarks
Test Area 3		
(Trashy Dark Gray Silty Clay)	1	Heavily corroded fragment; weight 3 gm
Subtotal	1 (6% of Total)	
Total	16	

Smooth Wire

Some fragments of smooth wire were also discovered in the tests. Most of these fragments, like the barbed wire, probably come from the property fence that once ran down the Rodriguez Canal. However, the eleven heavily corroded fragments from the grayish brown silty clay loam of Test Area 2 (Stratum 4 in Figure III-48) may have an earlier origin.

TABLE III-39

SMOOTH WIRE

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	7	Bailing gauge wire; weight 10.5 gm

TABLE III-39 (Continued)

SMOOTH WIRE

Provenience	Number	Remarks
(Brown Silty Clay Loam)	11	Bailing gauge wire; weight 22.6 gm
Subtotal	18 (62% of Total)	
Test Area 2		
(Grayish Brown Silty Clay Loam)	11	Heavily corroded; weight 26.4 gm
Subtotal	11 (38% of Total)	
Total	29	

Unidentifiable Iron Fragments

Twenty-six amorphous scraps of iron could not be placed in any particular functional category. As a consequence, these are merely classed as unidentifiable fragments.

TABLE III-40

UNIDENTIFIABLE IRON FRAGMENTS

Provenience	Number	Remarks
Test Area 1		
(Brown Silty Clay Loam)	5	Very small fragments; total weight 20.7 gm
(Grayish Brown Clay)	1	Possible wire fragment; weight 4.3 gm
Subtotal	6 (23% of Total)	
Test Area 2		
(Silty Clay Loam)	5	Amorphous lumps of corroded iron; weight 30 gm
Subtotal	5 (19% of Total)	

TABLE III-40 (Continued)

UNIDENTIFIABLE IRON FRAGMENTS

Provenience	Number	Remarks
Test Area 3		
(Trashy Dark Gray Silty Clay)	10	Includes possible fragments of pipe, flat iron stock, and nails; total weight 38.2 gm
(Gray Silty Clay Loam)	3	Heavily corroded fragments of iron scrap; total weight 2.4 gm
Subtotal	13 (50% of Total)	
Test Area 4		
(Grayish Brown Silty Clay Loam)	1	Amorphous fragment of iron; weight 2.7 gm
Subtotal	1 (4% of Total)	
Test Area 5 Grid C116, N10.75		
(Topsoil)	1	Amorphous fragment of iron; weight 20.1 gm
Subtotal	1 (4% of Total)	
Total	26	

Lithic Artifacts

Gunflints

Test Area 3 yielded two gunflints, both from the west side of the parapet alignment at the southern end of grid A42.5, N87 (Figures III-15, III-21). These were found near the base of the gray silty clay loam stratum in the formerly liquefied gray clay that surrounded the palings of the parapet (Figures III-17, III-18 [Stratum 5]).

Both are fragments (Figure III-79). One specimen is the product of a straight, lengthwise split down the center of the original flint. A bipolar impact fracture on the heel of the fragment indicates that the flint had split in half when it slipped back during firing and hit the screw of the flint vise. The second specimen may also have been broken in action, but in this case the break had occurred across the width of the flint and produced a highly irregular fracture immediately behind the edge bevel, at about the point where a flint typically protrudes from the vise of the cock arm.

Flints were not expected to survive many firings. A good musket flint could last up to fifty snaps of the cock arm, but most were not so dependable, especially if they were improperly clamped in the vise. In recognition of the usual short life spans of flints, the U.S. Army of the early nineteenth century normally issued one flint for every twenty rounds (Russell 1980:237). Some flints became blunted and useless through repeated firings, others simply shattered suddenly while in action. Carelessly bedded flints and those with flaws were the ones most vulnerable to fracture.

The two fragments under discussion here are most likely from flints of French manufacture, for both exhibit the translucent honey color and rounded heels that are characteristic of this flint type (Goodwin, Yakubik, and Goodwin 1984:44). English flints are typically more prismatic in form and darker in color (Woodard 1951:32). French flints were the most common type in use in the United States in the first decades following the Revolutionary War (Hanson and Hsu 1975:75-76; Goodwin, Yakubik, and Goodwin 1984:44).

TABLE III-41

GUNFLINTS

Provenience	Length	Width	Thickness	Weight	Remarks
Test Area 3					
(Gray Silty Clay Loam)					
1	2.5 cm	1.0 cm	.7 cm	2.5 gm	Fragment of one side of a honey-colored translucent flint; split longitudinally, bipolar fracture on heel; heel rounded
2	1.5	2.2	.9	2.65	Heel fragment of honey-colored flint; fracture irregular, just behind bevel across width of flint; heel rounded

Marble Tile

Two small fragments of white marble tile occur in the collection from the trashy dark gray silty clay layer of Test Area 3. Marble tile was frequently used in the finer homes of the New Orleans area in the early nineteenth century, particularly for flooring ground-floor rooms (Swanson 1984:II.30). However, one of the fragments exhibits two opposite polished surfaces, a treatment that implies a more decorative usage, perhaps in a marble fireplace mantle or table top. The most likely origin for these two fragments is the Rodriguez Estate.

TABLE III-42

MARBLE TILES

Provenience	Length	Width	Thickness	Remarks
Test Area 3				
(Trashy Dark Gray Silty Clay)				
1	5.0 cm	5.0 cm	2.0 cm	Fragment of a rectangular or square marble floor tile
2	5.5	3.5	2.2	Fragment of a rectangular or square piece of marble; possibly a tile, but the specimen exhibits two opposite, polished sides

Slate

Nine small spalls of gray slate were found in the course of the excavations. In early nineteenth century New Orleans, slate was used as both roofing and flooring material (Swanson 1984:II.30-II.34). Slate flagstone was often favored for ground-floor rooms and the ground level under the gallery.

All the spalls are small; they range between 3.5 and 2.6 cm in length, 2.2 and 1.7 cm in width, and .25 and .17 cm in thickness. According to Betsy Swanson (personal communication 1985), slate flagstone is frequently missing in abandoned historic dwellings because it was usually a high-demand salvage item.

Figure III-79. Two honey-colored gunflint fragments found on the west side of the parapet line at the southern end of Grid A42.5, N87 in Test Area 3. Both were discovered at the base of the gray silty clay loam that surrounded the paling remnants associated with the parapet. The fragment on the left is the product of a longitudinal split down the center of the original flint. The fragment on the right is a heel fragment. It is the product of an irregular fracture across the width of the flint adjacent to the bevel.

Photograph by Betsy Swanson for the National Park Service.

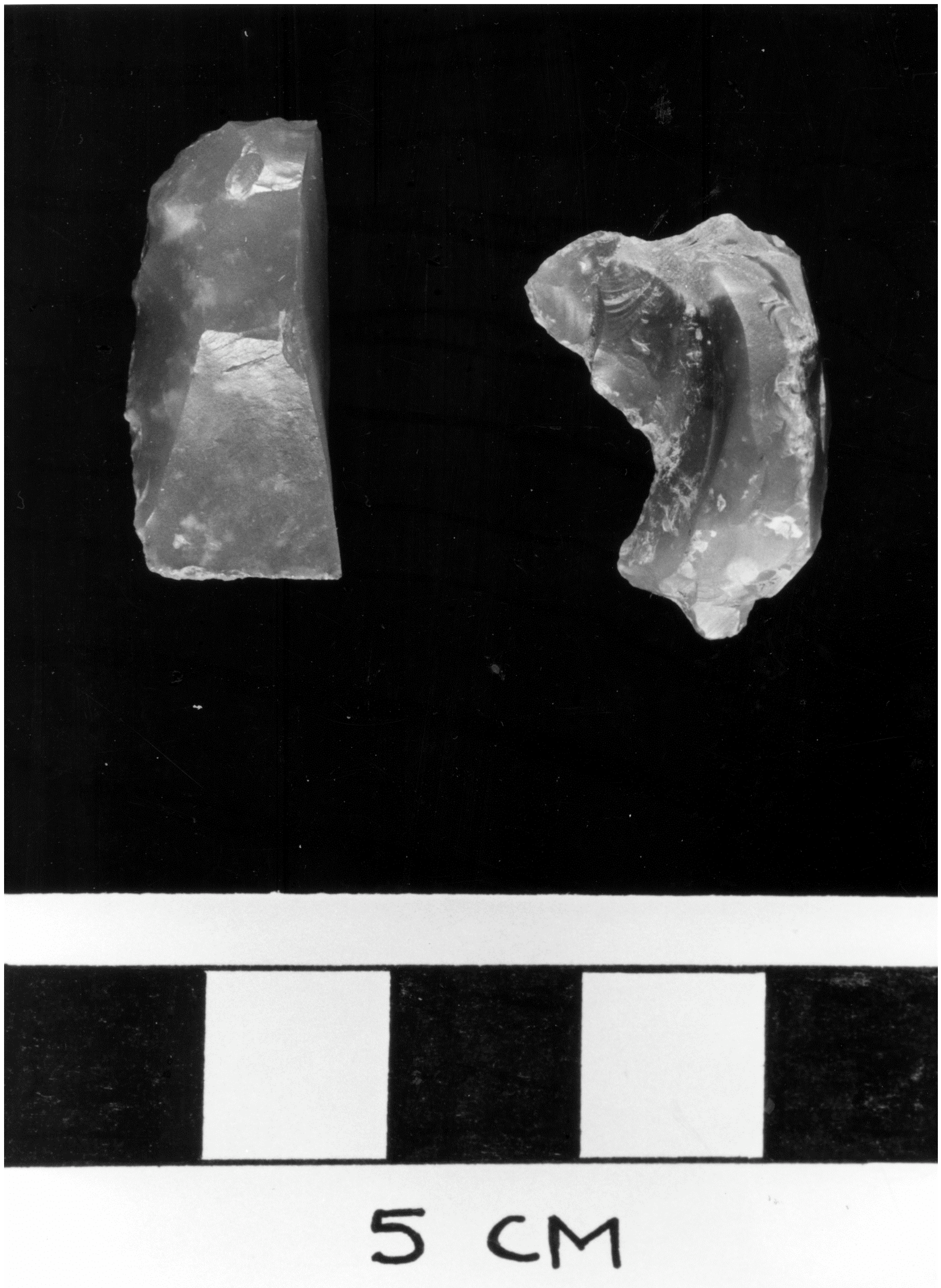

5 CM

TABLE III-43

SLATE

Provenience	Number
Test Area 1	
(Topsoil)	2
(Brown Silty Clay Loam)	2
Subtotal	4
Test Area 2	
(Topsoil)	1
(Grayish Brown Silty Clay Loam)	1
Subtotal	2
Test Area 3	
(Topsoil)	2
(Trashy Dark Gray Silty Clay)	1
Subtotal	3
Total	9

Anthracite Coal

Scattered fragments of anthracite (hard) coal were found throughout the tests. Such fragments are typical in nineteenth- and early twentieth-century refuse deposits.

TABLE III-44

ANTHRACITE COAL FRAGMENTS

Provenience	Number
Test Area 1	
(Topsoil)	2
(Trashy Dark Gray Clay)	1
Subtotal	3
Test Area 2	
(Topsoil)	2
Subtotal	2

TABLE III-44 (Continued)

ANTHRACITE COAL FRAGMENTS

Provenience	Number
Test Area 3	
(Topsoil)	3
(Trashy Dark Gray Silty Clay)	2
(Gray Silty Clay Loam)	3
Subtotal	8
Random Shovel Test, West Bank of Rodriguez Canal, Between Test Area 1 and Test Area 2	11 (all very small fragments, ca. 2 cm diameters)
Subtotal	11
Total	24

Coal Clinkers

Several coal clinkers were found in addition to the actual fragments of anthracite coal. Clinkers are small, hard, irregular nodules that form when impurities in the coal fuse during combustion. They are a common by-product of coal use for heating and cooking.

TABLE III-45

COAL CLINKERS

Provenience	Number
Test Area 1	
(Topsoil)	2
(Brown Silty Clay Loam)	3
Subtotal	5
Test Area 2	
(Topsoil)	3
Subtotal	3
Test Area 3	
(Gray Silty Clay Loam)	1
Subtotal	1
Total	9

Bone Artifacts

Bone Button

A single bone button was found in the topsoil of Test Area 1. It is a four-hole type with a raised rim (Figure III-76). This type of bone button was commonly used in the first half of the nineteenth century (South 1974: Figure 61).

TABLE III-46

BONE BUTTON

Provenience	Diameter	Thickness	Weight	Remarks
Test Area 1				
(Topsoil)				
1	1.35 cm	.15 cm	.45 gm	Complete four-hole bone button with raised rim

Clay Artifacts

Kaolin Pipestems

Two Kaolin pipestems were recovered from Test Area 3 (Figure III-80). One is from the trashy dark gray silty clay layer (Stratum 3 in Figures III-17, III-18); the other was found in the lower gray silty clay loam level (Stratum 4 in Figures III-17, III-18). Because borehole date sequences for pipestems lose statistical reliability after 1760, these stems cannot be used as accurate chronological indicators (Goodwin, Yakubik, and Goodwin 1984:44). The most that can be said is that their occurrence is expected, because the deposits from which they came are thought to date from the first part of the nineteenth century. Kaolin pipes remained very popular well into the nineteenth century.

TABLE III-47

KAOLIN PIPESTEMS

Provenience	Diameter	Thickness	Weight	Remarks
Test Area 3				
(Trashy Dark Gray Silty Clay)				
1	2.2 cm	.6 cm	1.35 gm	Fragment; borehole diameter 2 mm
(Gray Silty Clay Loam)				
1	3.5	.8	3.7	Fragment; borehole diameter 2 mm

Doll's Leg

A single porcelain doll's leg was found in the topsoil of Test Area 2. The brown painted-on shoe with a small rounded heel suggests an origin sometime around the middle to late nineteenth century (Figure III-80).

TABLE III-48

DOLL'S LEG

Provenience	Diameter	Thickness	Weight	Remarks
Test Area 2				
(Topsoil)				
1	4.5 cm	1.0 cm	7.45 gm	Porcelain doll's leg; groove around knee for attachment to cloth upper leg of doll; shoe painted brown with small rounded heel; foot 1.5 cm long, 0.6 cm wide

Toy Marble

An unglazed white marble of baked clay was found in the topsoil of Test Area 2 only a few meters away from the doll's leg. As with the doll's leg, this item was probably lost by a nineteenth-century visitor to the Chalmette Monument. The open expanse in the vicinity of Test Area 2 is still a favorite "instant" playground for children. The marble measures 2 cm in diameter (Figure III-80).

Ceramic Roofing Tile

Eight fragments of curved ceramic roofing tile were recovered. These pan tiles vary in color from reddish yellow to reddish brown. Tiles of this sort were commonly used to line the ridges of early hipped roofs in the New Orleans vicinity (Swanson 1984: Part II, roof illustrations). These tiles most likely came from one or both of the residences on the Rodriguez Estate (master house or Creole cottage). The largest number came from Test Area 3, which is closest to the Creole cottage. It is also worth noting that the majority are associated with lower soil horizons.

TABLE III-49

CERAMIC ROOFING TILE

Provenience	Number	Remarks
Test Area 1		
(Brown Silty Clay Loam)	1	Reddish yellow; curved tile fragment; 2 cm thick
(Dark Gray Clay)	1	Reddish brown; ridge tile fragment; 1 cm thick
Subtotal	2	
Test Area 2		
(Topsoil)	1	Reddish brown; ridge tile fragment; 1 cm thick
Subtotal	1	
Test Area 3		
(Trashy Dark Gray Silty Clay Loam)	1	Reddish brown; ridge tile fragment; 1 cm thick
(Gray Silty Clay Loam)	4	Reddish yellow; ridge tile fragments; 1.3 to 1.6 cm in thickness
Subtotal	5	
Total	8	

Figure III-80. Top left, fragment of a Kaolin pipestem from the trashy dark silty clay in Test Area 3; top right, a second fragment of Kaolin pipestem from the silty clay loam in Test Area 3; lower left, ceramic marble from the topsoil of Test Area 2; and lower right, a porcelain doll's leg, also from the topsoil of Test Area 2.

Photograph by Betsy Swanson for the National Park Service.


5 CM

Mud and Moss Mortar

After a careful study of the archival sources, Betsy Swanson (1984:II.31) concluded that the walls of the upper floor of the Rodriguez master house were constructed in the local *bousillage-entre-poteaux* (mud and moss-between-posts) tradition. The discovery of several lumps of *bousillage* mortar in the course of the excavations supports her hypothesis.

All of the fragments are small, between 2 and 4 cm in diameter, but they all contain the minute black strands of Spanish moss that identify them as *bousillage*. The fragments are a light tan in color, and a few exhibit dark burn shadows. It appears possible that these lumps of mortar survived precisely because they had been partially baked in a fire.

TABLE III-50

MUD AND MOSS MORTAR

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	1	Exhibits burn shadow
(Dark Gray Clay)	1	
Subtotal	2	

TABLE III-50 (Continued)

MUD AND MOSS MORTAR

Provenience	Number	Remarks
Test Area 2		
(Grayish Brown Silty Clay Loam)	5	Three exhibit dark burn shadows
(Grayish Brown Clay)	2	Exhibit dark burn
shadows		
Subtotal	7	
Test Area 3		
(Gray Silty Clay Loam)	1	Reddish brown; ridge
Subtotal	1	
Total	10	

Lime Mortar

Five small lumps of fine, white lime mortar came from the gray silty clay loam of Test Area 3 (Stratum 5 in Figures III-17, III-18). Their provenience suggests a fairly early date, perhaps associated with the repair of the Creole cottage after the Battle of New Orleans. The fragments average about 2 cm in diameter.

Soft Red Brick

Fragments of broken, soft red brick were fairly common finds. These closely resemble the bricks found in the 1983 tests that led to the eventual discovery of the Rodriguez Estate (Goodwin and Yakubik 1983:30). A majority of the specimens are extremely small and provide little information as to the sizes of the parent bricks.

A sample of approximately twenty larger fragments, representing partial to nearly whole bricks, was misplaced and lost while in temporary storage. Field measurements taken on a few of these specimens before they were lost suggest that the average brick measured 22 cm in length, 10 cm in width, and 7 cm in thickness. Most of the larger fragments came from the gray silty clay loam of Test Area 3 (Stratum 5 in Figures III-17, III-18).

The two dwellings on the Rodriguez Estate, the master house and the Creole cottage, represent the most probable source for these soft red brick fragments. In the New Orleans area, soft red bricks most commonly date to the first half of the nineteenth century and earlier (Goodwin and Yakubik 1983:30).

TABLE III-51

SOFT RED BRICK

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	10	
(Brown Silty Clay Loam)	1	
(Trashy Dark Gray Clay)	1	
Subtotal	12	
Test Area 2		
(Topsoil)	7	
(Grayish Brown Silty Clay Loam)	4	
Subtotal	11	

TABLE III-51 (Continued)

SOFT RED BRICK

Provenience	Number	Remarks
Test Area 3		
(Topsoil)	4	
(Trashy Dark Gray Silty Clay)	1	
(Gray Silty Clay Loam)	4	
(Streaked Gray Silty Clay Loam)	2	
Subtotal	11	
Total	34	(Plus 20+ partial to nearly whole bricks lost in storage)

Hard Brick

Ten brick fragments recovered in the course of the tests exhibit a more orange coloration and appear to be slightly harder than the “soft red bricks” described above. Unfortunately, these fragments are too small to permit accurate estimates of the original parent bricks from which they derive. In general, they make up part of the pavement exposed in Test Area 5 (Map III-4; Figures III-49, III-50, III-51).

Because the hard orange brick was mixed with soft red brick in both early and late soil horizons, there is no reason to suggest that the harder brick is of more recent manufacture. Its presence may simply reflect contemporaneous variation within a single brick type.

One small fragment of gray brown brick was also found. It may represent an example of the harder “Lake Brick” that rose in local popularity just before the Civil War (Charles E. Pearson, personal communication 1985). This brick fragment shows evidence of glaze as well; thus, it may be an example of a “self glaze” brick, namely, a brick that accidentally became glazed through over-firing.

Taken as a whole, the brick fragments from these tests form a poor study collection. A meaningful understanding of the bricks of the Chalmette Monument vicinity must await a thorough and quantitative analysis of the more complete collections acquired in the excavations centered on the Rodriguez Estate buildings and grounds.

TABLE III-52

HARD BRICK

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	1	Small orange fragment
(Brown Silty Clay Loam)	1	Small orange fragment
Subtotal	2	

TABLE III-52 (Continued)

HARD BRICK

Provenience	Number	Remarks
Test Area 2		
(Topsoil)	1	Small orange fragment
Subtotal	1	
Test Area 3		
(Gray Silty Clay Loam)	6	Small orange fragments
(Streaked Gray Silty Clay Loam)	1	Small orange fragment
Subtotal	7	
Random Shovel Test, West Bank of Rodriguez Canal, Between Test Area 1 and Test Area 3	1	Small gray brown Fragment; glazed
Subtotal	1	
Total	11	

Miscellaneous Artifactual Materials

Asbestos Tile

Seven fragments of recent asbestos tile were discovered in the tests. All are thought to date from the razing of the former caretaker's residence in the 1950s.

TABLE III-53

ASBESTOS TILE

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	6	One flat fragment; six curved tiles (roofing?)
Test Area 2		
(Topsoil)	1	Fragment of rectangular Tile; 7.5 cm in length
Total	7	

Tar Felt Paper

Like the asbestos tile, these fragments of tar felt paper probably date to the destruction of the caretaker's residence.

TABLE III-54

TAR FELT PAPER

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	2	Small fragments, 5-10 cm in length
(Brown Silty Clay Loam)	2	Small fragments, 5-10 cm in length
Total	4	

Concrete Fragments

Nine fragments of concrete also derive from twentieth-century construction.

TABLE III-55

CONCRETE FRAGMENTS

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	8	Small lumps of concrete 2 to 5 cm in diameter
Test Area 2		
(Topsoil)	1	Tile 7.5 cm in length
Total	9	

Conclusions

The nonceramic artifact collection includes 659 items. All of these, with the exception of a relatively recent iron "cap," were recovered from the five formal test units. The iron cap is an isolated find from a random shovel test on the east side of the Rodriguez Canal and it requires no further mention. The remaining 658 items are the subject of this concluding analysis. Ceramics (n=213) are incorporated in the discussion in order to present a well-rounded picture of the overall pattern of artifact occurrence and distribution (Tables III-57 through III-62).

In order to attach greater cultural meaning to the artifacts, the items have been regrouped in accordance with South's classification scheme (South 1977:95-102). This system, which focuses attention on artifact function, is particularly useful in revealing the past behavioral events and cultural processes that lie behind the historical archeological record. The main categories of the system are as follow:

1. Kitchen Group: This group includes artifacts associated with the preparation, storage, and serving of food and drink (South 1977:99). Examples of this category include ceramics, wine bottles, kitchenware, and glassware. Though not strictly kitchen related, South (1977:95) also places pharmaceutical bottles within the group.

2. Architecture Group: This category includes items "directly related to architecture on a site" (p. 100). Examples include bricks, nails, window glass, and architectural hardware.

3. Furniture Group: This category includes items associated with the manufacture, repair, and use of furnishings (p. 95). Examples are draw pulls, upholstery tacks, and furniture brackets. It should be mentioned here that no items of this type have been identified in the collection.

4. Arms Group: This group relates to items associated with the use, maintenance, and repair of arms (p. 100). Examples include musket balls, gunflints, gun parts, and bullet molds.

5. Clothing Group: This category is related to the manufacture, repair, and use of clothing (p. 101). The category includes such items as buttons, sewing needles, thimbles, and belt buckles.

6. Personal Group: This group includes items of personal use (p. 95). Examples include coins, wig curlers, mirrors, rings, hair brushes, and straight razors.

7. Tobacco Pipe Group: This category is self-evident.

8. Activities Group: This is a broad category associated with specialized activities such as construction, farming, storage, fishing, playing, and military

operations (p. 96). Objects falling into this group include toys, barrel hoops, harness rings, bayonets, sickles, and buggy parts. South (p. 96) does not classify gunflints and musket balls in this group because they were not restricted to military use, whereas artillery shot as a consequence of its specialized military use is included. The buck and ball found in Test Area 4 might be viewed as specialized military ammunition. However, for purposes of convenience, it is placed in the Arms Group.

Because a number of artifacts could not be identified as to function or did not fit easily in any of South's broad groups, two additional catch-all categories were created. One, Miscellaneous Metal, includes unidentifiable lumps of metal and pop cans. The latter are not considered to be strictly kitchen related in view of modern American pop-drinking habits. The second catch-all group is termed "other." The most common items in this category are coal and coal clinkers.

TABLE III-56

CAROLINA ARTIFACT PATTERN
(From South 1977:107)

Artifact Group	Mean %	Range %
Kitchen	63.1	51.8 - 69.2
Architecture	25.5	19.7 - 31.4
Furniture	0.2	0.1 - 0.6
Arms	0.5	0.1 - 1.2
Clothing	3.0	0.6 - 5.4
Personal	0.2	0.1 - 0.5
Tobacco Pipes	5.8	1.8 - 13.9
Activities	1.7	0.9 - 2.7

The earliest artifact-bearing levels, the dark gray clay of Test Areas 1 and 3 and the grayish brown clays of Test Areas 2 and 4, probably represent the surface soils that were present about the time of the Battle of New Orleans (Figures III-9, III-10, III-12, III-13, III-17, III-18, III-19, III-20, III-48). These soils produced only a few artifacts, mainly bits of glass and ceramics together with a small number of architecturally related items (Tables III-57 through III-60). The ceramic types hint at a mean date around the beginning of the second decade of the nineteenth century (pp. 742, 743-748, Chapter 19).

This light scatter of material appears to be best classed as peripheral, secondary refuse (South 1977:47). To judge from what is known about the history of the immediate area, these artifacts were most likely deposited during the initial phase of house construction on the Rodriguez Estate and in the first few years of the estate's occupation by the Rodriguez household. The relative scarcity of artifacts can be reasonably attributed to the brevity of the pre-battle occupation span (about six or seven years) and to the fact that the tests were placed on the levee side of the Rodriguez residential complex, the side least likely to have been used for the deposition of concentrated refuse.

The high percentage of artifacts in the Activities Group from the dark gray clay (Stratum 2 in Figure III-10) of Test Area 1 represents a deviation from the general pattern observed in the early soils (Table III-57). This percentage is the product of eight fragments of riveted, iron strapping from Grid A41, N90. The fragments appear to be the remnants of one or more barrel hoops. As storage-related items, they are properly classed in the Activities Group in accordance with South's system. These, as well as other bits of strapping found in slightly later layers, may be from barrels that once held powder, ammunition, or other military supplies during the Battle of New Orleans.

The streaked gray silty clay loam at the bottom of the Battery 3 hole was largely sterile (Stratum 6 in Figure III-17). As argued in Chapter 16 (pp. 451-453), this soil was the first layer to be deposited after the battery had been dismantled and abandoned. It had two sources—one, the earth of the rampart; two, the native clay floor of the battery hole. These two soils had been mixed together during the last phase of the dismantling process, perhaps in the course of the struggle to salvage the lower layer of sodden cotton bags that had once formed the interior of the battery epaulement.

Because this stratum was created in a very brief span of time, very few artifacts found their way into it. The collection, limited to a nail fragment and three pieces of brick, may have originated from scattered architectural refuse that dated from the construction of the nearby Rodriguez dwellings (Table III-59).

TABLE III-57

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

TEST AREA 1

	Topsoil		Brown Silty Clay Loam		Trashy Dark Gray Clay		Dark Gray Clay		Brown Clay		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Artifact Group												
Kitchen	36	27.7[a]	96	68.6	20	74.1	8	34.8	2	50	162	50[b]
Architecture	56	43.1	20	14.3	4	14.8	7	30.4	1	25	88	27.2
Furniture												
Arms	1	.8									1	.3
Clothing	1	.8									1	.3
Personal	1	.8									1	.3
Tobacco Pipes												
Activities			3	2.1			8	34.8			11	3.4
Miscellaneous Metal	19	14.6	18	12.9	2	7.4			1	25	40	2.3
Other	16	12.3	3	2.1	1	3.7					20	6.2
Totals	130	40.2[b]	140	43.2	27	8.3	23	7.1	4	1.2	324	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-58

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

TEST AREA 2

	Topsoil		Grayish Brown Clay Loam		Grayish Brown Clay		Totals	
	No.	%	No.	%	No.	%	No.	%
Artifact Group								
Kitchen	16	38.1[a]	3	8.3			19	22.9[b]
Architecture	17	40.5	21	58.3	5	100	43	51.8
Furniture								
Arms	1	2.4					1	1.2
Clothing								
Personal								
Tobacco Pipes								
Activities	3	7.1	1	2.8			4	4.8
Miscellaneous Metal			11	30.6			11	13.3
Other	5	11.9					5	6.0
Totals	42	50.6[b]	36	43.4	5	6	83	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-59

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

TEST AREA 3

	Topsoil		Trashy Dark Gray Silty Clay		Gray Silty Clay Loam		Silty Clay Loam		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Artifact Group										
Kitchen	26	44.8[a]	75	56.4	142	59.7			243	56.1[b]
Architecture	20	34.5	38	28.6	71	29.8	4	100	133	30.7
Furniture										
Arms					2	.8			2	.5
Clothing					2	.8			2	.5
Personal	2	3.4							2	.5
Tobacco Pipes			1	.8	1	.4			2	.5
Activities	2	3.4	6	5.0	13	5.5			21	4.8
Miscellaneous Metal	5	8.6	11	8.3	3	12.6			19	4.4
Other	3	5.1	2	1.5	4	1.7			9	2.1
Totals	58	13.4[b]	133	30.7	238	55.0	4	9	433	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-60

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

TEST AREA 4

	Topsoil		Grayish Brown Silty Clay Loam		Grayish Brown Clay		Totals	
	No.	%	No.	%	No.	%	No.	%
Artifact Group								
Kitchen			4	21	2	100	6	27.3[b]
Architecture	1	100[a]	7	36.8			8	36.4
Furniture								
Arms			4	21			4	18.2
Clothing								
Personal								
Tobacco Pipes								
Activities			3	15.8			3	13.6
Miscellaneous Metal			1	5.3			1	4.5
Other								
Totals	1	4.5[b]	19	86.4	2	9.1	22	

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-61

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

TEST AREA 5

	Grid C83.5, N13		Grid C116, N10.75		
	(Topsoil)		(Topsoil)		Totals
	No.	%	No.	%	No. %
Artifact Group					
Kitchen	1	20[a]	1	25	22.2[b]
Architecture	2	40	1	25	3 33.3
Furniture					
Arms					
Clothing					
Personal	1	20			1 11.1
Tobacco Pipes					
Activities					
Miscellaneous Metal	1	20	2	50	33.3
Other					
Totals	5	55.6[b]	4	44.4	9

[a]Percentage of level total

[b]Percentage of test area total

TABLE III-62

ARTIFACT DISTRIBUTION BY FUNCTIONAL GROUPS

SUMMARY

	Test Area 1		Test Area 2		Test Area 3		Test Area 4		Test Area 5		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Artifact Group												
Kitchen	162	50[a]	19	22.9	243	56.1	6	27.3	2	22.2	432	49.5[b]
Architecture	88	27.2	43	51.8	133	30.7	8	36.4	3	33.3	275	31.6
Furniture												
Arms	1	.3	1	1.2	2	.5 2	4	18.2			8	.9
Clothing	1	.3			2	.5					3	.3
Personal	1	.3			2	.5			1	11.1	4	.5
Tobacco Pipes					2	.5					2	.2
Activities	11	3.4	4	4.8	21	4.8	3	13.6			39	4.5
Miscellaneous Metal	40	12.3	11	13.3	19	4.4			3	33.3	73	8.4
Other	20	6.2	5	6	9	2.1	1	4.5			35	4
Totals	324	37.2[b]	83	9.5	433	49.7	22	2.5	9	1	871	

[a]Percentage of artifact total in test area

[b]Percentage of total for all test areas

The next layer up in the Battery 3 sequence was the single most productive stratum encountered during the tests (Stratum 5 in Figures III-17, III-18; Stratum 4 in Figure III-19). Fifty-five percent of all the artifacts from Test Area 3 and 27 percent of the total complement of artifacts from the five test areas were recovered from this deposit of gray silty clay loam (Table III-59). The percentage breakdown of these artifacts into South's functional classes roughly matches the Carolina Artifact Pattern defined by South (1977:107) for late eighteenth-century and early nineteenth-century sites in the southeastern United States. A similar approximate match with the Carolina Artifact Pattern was obtained by Goodwin, Yakubik, and Goodwin (1984:60) from deposits dating from the 1800-1810 period at the Elmwood Estate in New Orleans.

Noticeable deviations from the expected range of the Carolina Artifact Pattern occur in the Furniture, Tobacco Pipe, and Activities Groups. The absence of furniture-related artifacts and personal artifacts may simply be a result of sampling error, since the expected mean for both of these groups is only .2 percent (South 1977:107). The same factor may explain the low representation in the Tobacco Pipe Group. On the other hand, this low percentage may simply reflect the local Spanish-Caribbean predilection for cigars.

The deviation in the Activities Group is the most striking. This percentage is nearly twice the upper range limit for the Carolina Artifact Pattern. Moreover, there is only one specific activity indicated—storage—as suggested by thirteen fragments of riveted strapping that are believed to derive from barrel hoops (Table III-37). These strapping fragments are very similar to those found in the dark gray clay of Test Area 1, and as suggested for Test Area 1, their presence may be linked to battle-related storage activities.

Other artifacts that probably have a battle association include the two "honey-colored" flints discovered at the base of the rear parapet footings and perhaps the set of more complete wrought and cut nails from the same immediate area. These nails exhibit the clear tendency toward completeness which might be anticipated if they had remained intact in the lower part of the parapet revetment until the slow process of decay freed them from the surrounding wood.

Additional objects recovered from the gray silty clay loam may also have an association with the Battle of New Orleans, but, if so, their connection is not readily identifiable. For example, the clay pipestem from this level could have been discarded by one of Jackson's soldiers. Yet there is no obvious method to determine whether or not this is the case. It is perhaps more prudent to assume that the bulk of the artifacts (82 percent) are linked to the early civilian occupation of the Rodriguez Estate.

To judge from the ceramic evidence (Chapter III-19), most of these civilian artifacts derive from the second decade of the nineteenth century. Some of these materials may have been purposely thrown in the convenient hole provided by the dismantled battery in the years immediately following the Battle of New Orleans. Other items may simply represent displaced secondary refuse from the adjacent Rodriguez dwellings that gradually found its way into the open hole through the action of sheet erosion. The gray silty clay loam in which this refuse became buried is the "melted" fabric of the defensive earthwork that also accumulated in the cavity left behind after Battery 3 was taken apart and abandoned.

Kitchen-related items, primarily ceramics and wine/champagne bottle fragments, dominate the civilian assemblage. Architectural artifacts are relatively common and mainly include nails, brick, and mortar. These architectural items probably date both from the construction and the post-battle repair of the two Rodriguez dwellings.

The grayish brown silty clay loam of Test Area 2 appears to have been laid down after the battle, and most of it was probably deposited in the first half of the nineteenth century (Stratum 2 in Figures III-12, III-13). Eroded soils from the nearby rampart may have contributed to its loamy character. No obviously battle-related artifacts were recovered from this deposit. Only a few items were found, primarily architectural materials such as nails, brick fragments, and lumps of mud mortar (Table III-58). Kitchen-related items were extremely rare and made up less than 9 percent of the total finds from the level. The recovered remains are probably best described as peripheral secondary refuse (South 1977:47). This type of refuse is expectable in an area located well away from the core residential area of the Rodriguez Estate.

The grayish brown silty clay loam of Test Area 4, situated even farther away from the main cluster of Rodriguez buildings, produced very few objects (Stratum 4 in Figure III-48; Table III-60). This deposit most likely represents "melted" rampart soils, and this view is supported by the buck and ball ammunition discovered near its base. As pointed out earlier, buck and ball cartridges were standard issue to the American troops manning the defensive line. An iron kettle hook and three fragments of what appears to be barrel hooping were also found. These items are also thought to be related to military activities associated with the Battle of New Orleans. The remainder of the objects, a few miscellaneous architectural and kitchen-related items, indicate general refuse that is peripheral in nature and probably derivative from the various occupations of the Rodriguez property (Table III-60). Several of the nails are of relatively recent origin and are apparently intrusive.

The thin layer of trashy dark gray silty clay that caps the gray silty clay loam in Test Area 3 yielded a sizeable artifact assemblage of 133 specimens (Stratum 3 in Figures III-17, III-18, III-19; Stratum 2 in Figure III-20). When grouped into South's functional groups, the resultant percentage patterns closely match those associated with the gray silty clay loam (Table III-59). Again, the kitchen-related and architecture-related percentages fall within the expected range for the Carolina Artifact Pattern, and the Activities Group is higher than expected (South 1977:107). Similarities in artifact content also occur. Ceramics and wine/champagne bottle fragments dominate the Kitchen Group; nails, brick fragments, and mortar make up the greater part of the Architecture Group.

The ceramics from the layer suggest a midpoint date around 1831 and a range between 1800 and 1862 (p. 619, Chapter 19). This central date combined with the maximum indicated time span points to primary deposition in the post-battle era of the Rodriguez Estate's occupation. The largest single contribution probably comes from the period of the Prevost ownership between 1817 and 1849 (Swanson 1984:I.20). The deposit itself represents a thin secondary sheet trash that floated into the Battery 3 cavity once the American earthwork had been reduced by erosion or human landscaping activities to the point that it was no longer a major source of fill.

The inflated percentage for the Activities Group is a product of the occurrence of five fragments of thin iron strapping; and once more, this material is interpreted as barrel hooping. All of the specimens come from Grid A42.5, N87, toward the center of the Battery 3 hole (Figures III-15, III-21). Despite its association with a slightly later stratigraphic horizon, this strapping may still date from the period of the battle. The fragments closely resemble the other specimens of narrow strapping, and they could easily have become incorporated in the general scatter of post-battle sheet trash that eventually found its way into the Battery 3 hole. The artifact yield from the comparable sheet trash in Test Area 1 (trashy dark gray clay [Stratum 6 in Figure III-10], Table III-57) was much smaller, but this smaller number is expectable in view of the greater distance from the residential core of the Rodriguez Estate. Over 74 percent of these items fall in the Kitchen Group—mostly glass. This refuse is perhaps best described as peripheral secondary trash (South 1977:47).

The brown silty clay loam of Test Area 1 appears to represent a bank-edge deposit along the Rodriguez Canal (Stratum 3 in Figure III-9; Stratum 6 in Figure III-10). It produced the largest number of artifacts in Test Area 1, and these span a broad period of time, from roughly 1800 to 1900. Items in the Architecture Group are relatively few, but kitchen-related artifacts, particularly glass, are common and make up the greater majority of the collection. In contrast to other strata, pharmaceutical and bitters bottles constitute a high percentage of the glass total and, thus, point to a strong contribution from the late nineteenth century. Two likely sources for these more recent artifacts would be the old caretaker's residence to the north and the latter-day occupation of the adjacent Villavaso House to the east. Another possible source would be nineteenth-century visitors' trash that was collected from the grounds and then dumped in the canal, perhaps during the cleanup of the Chalmette Monument vicinity in the 1890s by the Louisiana Society of the United States Daughters of 1776 and 1812 (Bres 1964:4).

In regard to the latter scenario, it is worth noting that the silty brown clay loam stratum bears a close resemblance to other soils identified as rampart melt. It would seem entirely plausible that this bank-line deposit represents displaced material that was bladed into the canal together with any surface artifacts during the 1890s cleanup. Definitive evidence of displacement is visible in the profile of Grid A44, N67 (Figure III-10), but this disturbance can be attributed to the National Park Service's pathway construction in the 1950s. Here, a thin lens of the older brown silty clay loam (Stratum 5) partially overlaps the more recent sand base of the pathway. If this disturbance had been widespread, it may have resulted in a general, and perhaps secondary, displacement of the brown silty clay loam and a thorough mixing of old and recent artifacts.

The topsoil horizons from the various test areas produced a wide assortment of items, from nineteenth-century toys to aluminum pull tabs. Many of the items had apparently been lost by visitors to the battlefield; others were from the occupation of the Rodriguez Estate. Some—for example, the asbestos tile and the tar felt paper—were probably derivative from the razed caretaker's cottage.

The only artifacts found in Test Area 5 (Table III-61) came from the topsoil. These are few in number and have little meaning from a historical perspective. Yet three of the artifacts—a lipstick tube, a fragment of a cheap jug of wine, and a jar of petroleum jelly—appear to confirm the Old Levee Road's local reputation as a popular, although somewhat tawdry, "lovers' lane." This finding is admittedly trivial, but it merits mention because it supports the notion that the archeological record is capable of capturing even the most ephemeral aspects of human behavior.

CHAPTER 21

FAUNAL REMAINS

Ted Birkedal and [1]Gary B. DeMarcay

The faunal collection from the tests is most accurately described as sparse. It consists of 46 invertebrate specimens and 102 vertebrate specimens (Tables III-63 through III-73). The invertebrate remains are limited to the shells of clam (*Rangia cuneata*) and oyster (*Crassotrea virginica*). Seventy-six percent of these invertebrate specimens are from topsoil horizons, and the majority are represented by small fragments of broken shell.

Few, if any, of the shells are believed to be food remains. Most probably derive from the construction of the recent National Park Service asphalt pathway where shell was used as a base or from the earlier turn-of-the-century shell pathway which once ran down the center of the Rodriguez property to the Chalmette Monument. A small number of the specimens, particularly those from the lower levels, may be linked to the occupation of the Rodriguez Estate. Broken shells were frequently used to pave the floors of utilitarian rooms or structures in early nineteenth-century New Orleans (Swanson 1984:II.30). A very small percentage of the oyster shells could represent food-related discard, but it is unlikely that the *Rangia cuneata* was eaten. Though popular in the diets of prehistoric Louisianians, the historic use of this brackish-water clam as food is almost unknown.

As emphasized at the beginning of this chapter, the vertebrate faunal collection is very small. Test Area 5, along the Old Levee Road (Map III-4), produced no specimens. The other four test areas yielded a meager total of 102 bones. This small number from the four tests on the Rodriguez property is

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1 *Note*: Gary B. DeMarcay of Texas A&M University identified the specimens in the vertebrate faunal collection and also made basic analytical observations on this material. However, Ted Birkedal wrote the interpretive text, and he, not DeMarcay, should be held responsible for any failings or errors in the chapter.

perhaps expectable because the test areas were largely confined to the "public" side of the Rodriguez residential complex (Map III-3). By way of contrast, an earlier testing effort in the "back yard" or kitchen side of the same complex resulted in the recovery of 119 bone specimens from a single pair of 2 x 2 m test pits (Reitz 1983:5).

As might be predicted, Test Area 3 yielded the largest number of specimens—68 percent of the total (Table III-69). This test area, of course, was located closely adjacent to the Rodriguez dwellings, and it also cut into the natural dump site provided by the former hole of Battery 3. Test Area 1, somewhat more to the south and away from the houses, produced 25 percent of the faunal bone remains. Far removed from the immediate vicinity of the houses, Test Areas 2 and 4 resulted in the recovery of only eight bones.

The layer most closely affiliated with the Rodriguez occupancy, the gray silty clay loam of Test Area 3, produced the single largest subassemblage of bone (Figures III-17, III-18 [Stratum 5]; Figure III-19 [Stratum 4]). The collection from this stratum includes forty-two pieces of bone, or over 40 percent of the total. The second largest subassemblage, consisting of twenty specimens, comes from the dark sheet trash layer immediately above the silty clay loam (Figures III-17, III-18, III-19 [Stratum 3]; Figure III-20 [Stratum 2]). This layer probably has its closest links to the Prevost occupancy of the Rodriguez Estate; this is the period dating from 1817 to 1849. Unfortunately, none of the recovered bone can be attributed to the Battle of New Orleans.

The majority of the specimens are highly fragmentary and remain unidentified. Of the identifiable specimens, the bones of cattle (*Bos taurus*) are by far the most common. Next in frequency of occurrence in the large mammal category are the bones of pig (*Sus scrofa*). The use of sheep (*Ovis aries*) is indicated by a single bone from a foreleg. Six bird (Aves) or rabbit (Lagomorpha) bones also occur in the collection, but these are all from the topsoil of Test Area 1, and the hunch is that these specimens simply represent chicken bones discarded by twentieth-century visitors to the Chalmette Battlefield. Wild mammal species and fish are conspicuous in their absence among the identifiable specimens, but given the small size of the overall collection and the large percentage of fragmentary remains, this absence may very well be a product of sampling error.

The most abundant bone elements are those from the forequarters and hindquarters of the animal, particularly long bones of the legs. Ribs are also common. Other body parts that are represented, but in small amounts, include the head, vertebral column, and feet (Tables III-70 through III-73).

Nine of the cattle, pig, and unidentified Artiodactyl bones have been modified by sawing. Interestingly, two-thirds of the sawed bones represent round steak cuts. Cuts of this type usually indicate the specific preparation of meat for individual consumption (Ruff and Reitz 1984:219). Other than leg bones, sawing is also evidenced on a mandibular condyle and on a scapula. In both of these cases, the bones are from cattle.

The various sawed bones showed no particular chronological distribution; bones with this modification occurred in the lowest layers as well as in the topsoil. Up to the start of the 1800s, sawed bone was relatively rare in the United States and limited to high-status contexts; however, as the nineteenth century progressed, it became increasingly associated with other status groups (Ruff and Reitz 1984:219). The presence of sawed bone from the earlier levels is consistent with the known high status of the Rodriguez and Prevost families.

Only three bones, all cattle long bones, permitted age determinations. One is a humerus from a subadult; the other two, both femurs, are from young adults between 3.5 and 4 years of age.

By way of conclusion, the striking aspect of the faunal collection is its lack of diversity. The remains of fish are absent as are the bones of identifiable wild mammals or birds. The shells of clams and oysters are present, but most appear to be linked to pathway construction activities dating to the last hundred years. A few of the oyster shells from the earlier deposits could represent food-related discard; however, it is doubtful whether the same could be said for the clam shells. The consumption of *Rangia cuneata* is associated with prehistoric, not historic, Louisiana diets. Six small bones from the topsoil may represent chicken, but these are more than likely of recent origin. The bones that dominate the collection are those of cattle. Pig bones form only a distant second in frequency of occurrence, and the presence of sheep is indicated by a single bone. No other identifiable species are represented in the collection.

This lack of diversity may be a product of the small size and fragmentary character of the collection. However, recovery factors do not appear to fully account for the results, because the bone recovered from previous tests located toward the rear of the Rodriguez Estate produced a similar narrow range of species—cattle bones again dominated the collection; pig bones were present but rare; no bones of sheep were observed; and evidence of wild animal usage was limited to a single bone that was possibly from a deer (Reitz 1983:1-5).

These findings contrast with those from nineteenth-century deposits at nearby Algiers Point and the Elmwood Plantation. At the latter locations, faunal diversity was high and the evidence indicated at least a partial reliance on wild species (Ruff and Reitz 1984:223-224; Goodwin, Yakubik, and Goodwin 1984:50-55). Yet there is an important similarity shared with the Chalmette tests in that cattle appear to have been the primary contributors to the meat diet. This emphasis on beef over pork is characteristic of early nineteenth-century sites of the Gulf Coast and the Atlantic Coastal Plain, and it is one of the faunal traits that distinguishes these sites from contemporary ones located in the Upland South (Ruff and Reitz 1984:224-225).

TABLE III-63

OYSTER SHELL

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	13	2 whole, 11 fragments
(Brown Silty Clay Loam)	2	Fragments
(Trashy Dark Gray Clay)	1	Fragment
(Dark Gray Clay)	2	Fragments
Subtotal	18	
Test Area 2		
(Topsoil)	4	1 whole, 3 fragments
Subtotal	4	
Test Area 3		
(Topsoil)	4	Fragments
(Trashy Dark Gray Silty Clay)	3	Fragments
(Gray Silty Clay Loam)	1	Fragment
Subtotal	8	
Total	30	

TABLE III-64

CLAM SHELL

Provenience	Number	Remarks
Test Area 1		
(Topsoil)	12	Fragments
(Dark Gray Clay)	1	Fragment
Subtotal	13	
Test Area 3		
(Topsoil)	2	Fragments
(Gray Silty Clay Loam)	1	Fragment
Subtotal	3	
Total	16	

TABLE III-65

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 1

Provenience	Amount	Taxon	Element	Observations
Topsoil	1	*Sus scrofa*	Scapula	Distal end, heavily eroded
	1	*Bos taurus*	Femur	Round steak cut
	1	*Bos taurus*	Left third molar	Third cusp missing
	1	Unidentified		Round steak cut, either small *Bos* or large *Sus*; fragment too small to be certain
	6	Unidentified		Either Aves or Lagomorpha
	2	Unidentified		
Subtotal	12			

TABLE III-65 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 1

Provenience	Amount	Taxon	Element	Observations
Brown Silty Clay Loam	1	*Bos taurus*	Right Femur	Shaft fragment; sawed proximally and distally
	1	*Bos taurus*	Left tibia	Unfused proximal epiphysis; 3.5- to 4-year-old animal
Subtotal	2			
Trashy Dark Gray Clay	1	*Sus scrofa*	Right femur	Shaft fragment
	1	*Bos taurus*	Right ulna	Shaft fragment
	1	*Bos taurus*	Right radius	Large round steak cut
	1	*Bos taurus*	Right calcaneus	Distal end, heavily eroded

TABLE III-65 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 1

Provenience	Amount	Taxon	Element	Observations
Trashy Dark Gray Clay (Cont.)	3	Unidentified		
Subtotal	7			
Dark Gray Clay	4	Unidentified		3.0 gm of heavily eroded bone splinters
Subtotal	4			
Total	25			

TABLE III-66

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 2

Provenience	Amount	Taxon	Element	Observations
Topsoil	1	*Bos taurus*	Left radius	Heavily eroded shaft fragment, identified on the basis of size
	1	*Bos taurus*	Left third molar	Heavily worn
	3	Unidentified		
Subtotal	5			

TABLE III-66 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 2

Provenience	Amount	Taxon	Element	Observations
Grayish Brown Silty Clay Loam	1	*Bos taurus*	Right tibia	Unfused proximal epiphysis, 3.5-4-year-old animal
	1	Unidentified		
Subtotal	2			
Total	7			

TABLE III-67

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 3

Provenience	Amount	Taxon	Element	Observations
Topsoil	1	*Sus scrofa*	Right radius	Shaft fragment
	1	*Sus scrofa*	Femur	Round steak cut fragment, identified on basis of size
	1	*Bos taurus*	Left mandibular condyle	Longitudinal sawing
	1	*Bos taurus*	Left radius	Shaft fragment
	1	Artiodactyla	Rib	Heavily eroded; small fragment
	1	Unidentified		
Subtotal	6			

TABLE III-67 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 3

Provenience	Amount	Taxon	Element	Observations
Trashy Dark Gray Silty Clay	1	*Sus scrofa*	Femur	Small round steak cut fragment, identification based on size
	2	*Bos taurus*	Rib	Fragments, identified on the basis of size
	1	*Bos taurus*	Right humerus	Shaft fragments of a subadult
	1	*Bos taurus*	Humerus	Shaft fragment, too eroded to be sided
	1	*Ovis aries*	Right radius	Shaft fragment, possibly goat but compares better with sheep
	5	Unidentified		Possibly *Bos* rib fragments
	9	Unidentified		
Subtotal	20			

TABLE III-67 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 3

Provenience	Amount	Taxon	Element	Observations
Gray Silty Clay Loam	1	*Sus scrofa*	Right humerus	Shaft fragment
	1	*Bos taurus*	Femur	Round steak cut, too thin to be sided
	2	*Bos taurus*	Right scapula	Distal end fragment, cut longitudinally
	2	*Bos taurus*	Rib	Fragments
	1	*Bos taurus*	Rib	Fragment, identified on the basis of size
	1	*Bos taurus*	Lumbar vertebra	Fragment
	1	Artiodactyla	Rib	Small fragment
	33	Unidentified		
Subtotal	42			

TABLE III-67 (Continued)

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 3

Provenience	Amount	Taxon	Element	Observations
Streaked Gray Silty Clay Loam	1	*Bos taurus*	Right Astragalus	
Subtotal	1			
Total	69			

TABLE III-68

BONE IDENTIFICATIONS AND OBSERVATIONS

TEST AREA 4

Provenience	Amount	Taxon	Element	Observations
Grayish Brown Silty Clay Loam	1	*Bos taurus*	Femur	Shaft fragment with spiral fracture, identified on the basis of size
Subtotal	1			
Total	1			

TABLE III-69

BONE FREQUENCIES BY STATIGRAPHIC LEVELS

Provenience	*Sus scrofa*	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves or Lagomorpha	Unidentified	Totals
	No. %	No. %	No. %	No. %	No. %	No. %	No. %
Test Area 1							
(Topsoil)	1 (8)[a]	2 (17)			6 (50)	3 (25)	12 (48)[b]
(Brown Silty Clay Loam)		2 (100)					2 (8)
(Trashy Dark Gray Clay)	1 (14)	3 (43)				3 (43)	7 (28)
(Dark Gray Clay)						4 (100)	4 (16)

[a] Percentage of level total

[b] Percentage of test area total

[c] Percentage of total for all test areas

TABLE III-69 (Continued)

BONE FREQUENCIES BY STRATIGRAPHIC LEVELS

Provenience	*Sus scrofa*	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves or Lagomorpha	Unidentified	Totals
Subtotal	2 (8)[b]	7 (28)			6 (24)	10 (40)	25 (25)[c]
	No. %	No. %	No. %	No. %	No. %	No. %	No. %
Test Area 2							
(Topsoil)		2 (40)[a]				3 (60)	5 (71)[b]
(Grayish Brown Silty Loam)		1 (50)				1 (50)	2 (29)
Subtotal		3 (43)[b]				4 (57)	7 (7)[c]

[a] Percentage of level total

[b] Percentage of test area total

[c] Percentage of total for all test areas

TABLE III-69 (Continued)

BONE FREQUENCIES BY STRATIGRAPHIC LEVELS

Provenience	*Sus scrofa*	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves or Lagomorpha	Unidentified	Totals
	No. %	No. %	No. %	No. %	No. %	No. %	No. %
Test Area 3							
(Topsoil)	2 (33)[a]	2 (33)		1 (17)		1 (17)	6 (9)[b]
(Trashy Dark Gray Silty Clay)	1 (5)	4 (20)	1 (5)			14 (70)	20 (29)
(Gray Silty Clay Loam)	1 (2)	7 (17)		1 (2)		33 (79)	42 (61)
(Streaked Gray Silty Clay Loam)		1 (100)					1 (1)

[a] Percentage of level total

[b] Percentage of test area total

[c] Percentage of total for all test areas

TABLE III-69 (Continued)

BONE FREQUENCIES BY STRATIGRAPHIC LEVELS

Subtotal	4 (6)[b]	14 (20)	1 (1)	2 (3)		48 (70)	69 (68)[c]
Provenience	*Sus scrofa*	*Bos taurus*	*Ovis Aries*	Artiodactyla	Aves or Lagomorpha	Unidentified	Totals
	No. %	No. %	No. %	No. %	No. %	No. %	No. %
Test Area 4							
(Gray Brown Silty Clay Loam)		1 (100)[a]					1 (100)[b]
Subtotal		1 (100)[b]					1 (1)[c]
Grand Total	6 (6)[c]	25 (25)	1 (1)	2 (2)	6 (6)	62 (61)	102

[a] Percentage of level total

[b] Percentage of test area total

[c] Percentage of total for all test areas

TABLE III-70

TEST AREA 1

BONE ELEMENTS

	Sus scrofa	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves/Lagomorpha	Unidentified
Teeth-Cranium		1				
Vertebrae						
Ribs						
Forequarters	1	2				
Hindquarters	1	3				
Feet		1				1
Fragments					6	9
Total	2	7			6	10
(MNI)	(1)	(1)			(N/A)	(N/A)

TABLE III-71

TEST AREA 2

BONE ELEMENTS

	Sus scrofa	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves/Lagomorpha	Unidentified
Teeth-Cranium		1				
Vertebrae						
Ribs						
Forequarters		1				
Hindquarters		1				
Feet						
Fragments						4
Total		3				4
(MNI)		(1)				(N/A)

TABLE III-72

TEST AREA 3

BONE ELEMENTS

	Sus scrofa	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves/Lagomorpha	Unidentified
Teeth-Cranium		1				
Vertebrae		1				
Ribs		5		2		
Forequarters	2	5	1			
Hindquarters	2	1				
Feet		1				
Fragments						48
Total	4	14	1	2		48
(MNI)	(1)	(2)	(1)	(1)		(N/A)

TABLE III-73

TEST AREA 4

BONE ELEMENTS

	Sus scrofa	*Bos taurus*	*Ovis aries*	Artiodactyla	Aves/Lagomorpha	Unidentified
Teeth-Cranium						
Vertebrae						
Ribs						
Forequarters						
Hindquarters		1				
Feet						
Fragments						
Total		1				
(MNI)		(1)				

CHAPTER 22

SUMMARY AND CONCLUSIONS

Ted Birkedal

As it turned out, the Corps of Engineers' planned levee setback of 1985 did not make its own unique contribution to the long history of cultural resource destruction in the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. The Corps' sensitive levee design, minimal construction zones, and strict adherence to the historic preservation compliance process resulted in no additional adverse impact to the many significant historic properties located in the area of the Chalmette Unit's riverfront. Moreover, on the credit side of the ledger, there was a palpable and positive benefit from the proposed levee setback construction that cannot be denied. The archival and archeological research funded by the Corps of Engineers as an essential part of the compliance process confirmed and fleshed out a new and completely revised historical geography of the Chalmette Unit that had only been hinted at by the earlier National Park Service discovery of the Rodriguez House in 1983.

Contrary to both scholarly and popular myth, much of the historic riverfront area of the Chalmette Battlefield survives intact to this day; the ruins of the Rodriguez Estate do not lie in the bottom muck off the foot of the levee, nor is Battery 3 lost to the strong current of the Mississippi River. The remnants of these important landmarks from the Battle of New Orleans and the War of 1812 fall far to the landward, well inside the current boundaries of the Chalmette Unit of Jean Lafitte National Historical Park and Preserve (Figure III-81).

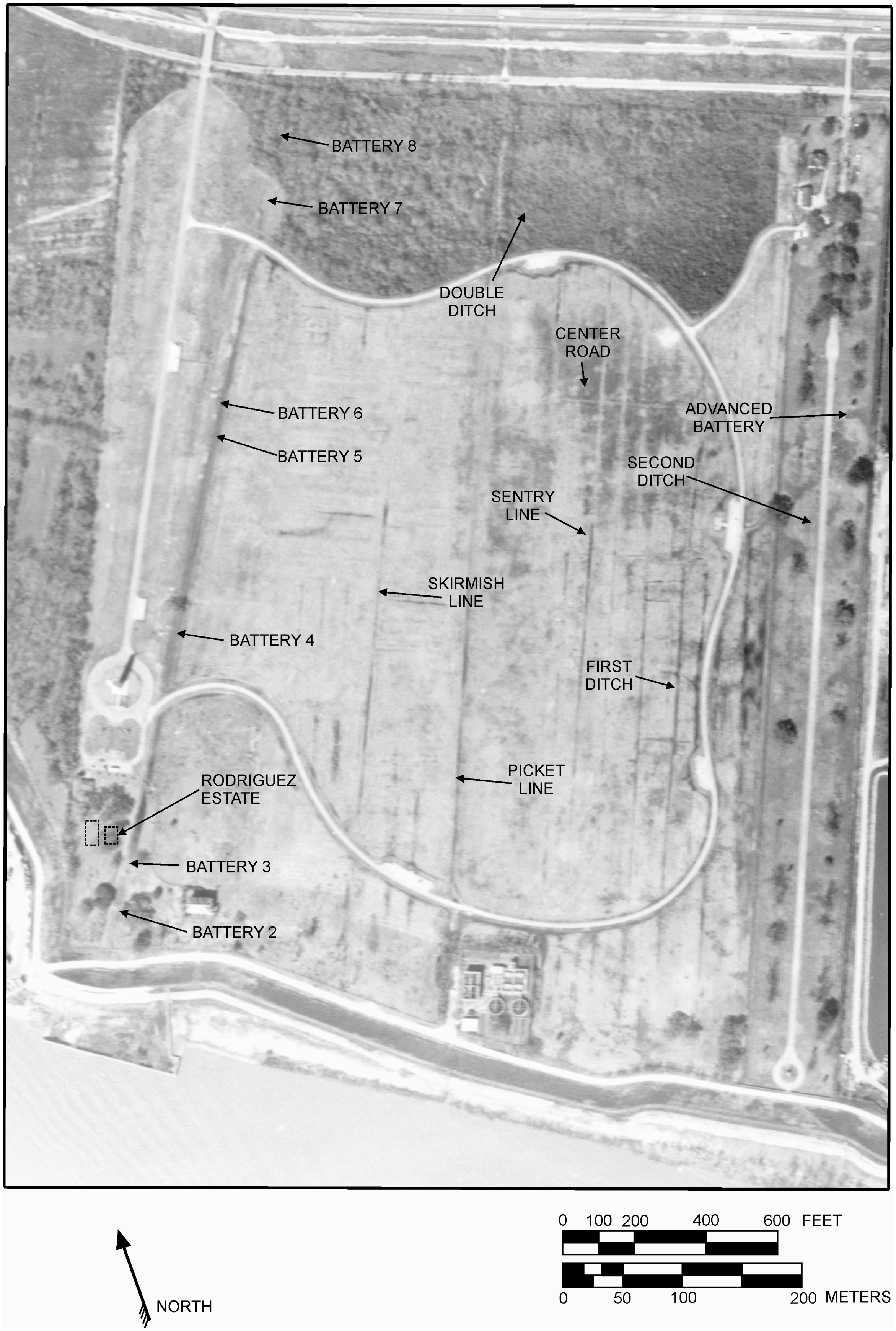
The ante bellum era is also well represented in the Chalmette Unit. Though the Beauregard House stands as the last visible reminder of this period, it shares the riverfront with the buried archeological remains of a number of razed companion estates from the first half of the nineteenth century. Other archeological remnants document the end of the genteel country life of the late nineteenth century and the transformation of St. Bernard Parish into the modern industrial hinterland of New Orleans. In fact, the small acreage encompassed by the Chalmette Unit riverfront appears to contain one of the most complete and better preserved archeological records of St. Bernard Parish history. Bank erosion, repeated levee setbacks, industrial encroachment, and misguided park planning have all taken their toll, but despite the losses, the historical importance and archeological potential of this narrow strip of land continue to rank very high.

The riverfront, together with the rest of the 142.9 acres (57.8 ha) that make up the Chalmette Unit, formed the central scene of fighting during the Battle of New Orleans. Often underrated and misunderstood, this battle reaffirmed the outcome of the War of 1812 and ensured that there would be no serious foreign challenge to the westward expansion of the United States in the decades that followed the war (Coles 1965:270-271; Rimini 1969:91; Owsley 1981:194-195). Moreover, the battle demonstrated that the varied make-up of the young nation's population did not necessarily constitute a weakness (Jerome Greene, personal communication 1985). Perhaps no other single event in American history so completely embodies the guiding social and democratic ideology of the United States. One would be hard pressed to imagine a more disparate and ethnically diverse army on the American side—Yankee sailors and businessmen, Tennessee and Kentucky frontiersmen, Spaniards, Irishmen, Free Blacks, French planters, Canary Islanders, Choctaw Indians, and Baratarian pirates—to name but a few of the groups represented. Yet this eclectic military force, under the charismatic and expert leadership of General Andrew Jackson—a symbol of the new America in his own right—soundly defeated one of Europe's most disciplined and unified armies.

According to contemporary archival accounts, the quality of the American defensive earthworks made a major contribution to this defeat. However, late nineteenth-century historians, enamored by the same romantic image of America that inspired Walt Whitman, created a vision of the battle that left little room for properly engineered earthworks (for example, Walker 1856:231). In their romanticized histories, the battle emerged as an archetypal drama where true-hearted American rustics prevailed over the sophisticated and evil British Empire by dint of sheer patriotic pluck and courage (Ward 1977:16-27). Within the framework of this mythic vision of history, the American defense line was assigned an equally rustic status—it was interpreted as a low, shapeless mud rampart of little tactical value. Because historians sometimes pass on the errors of earlier historians, this image has persisted to the present day, even though it does a disservice to Jackson's very knowledgeable and capable staff of military engineers (Roush 1958:50; Brown 1969:133, 141; Huber 1983:4).

Figure III-81. Key features of the battlefield geography, Chalmette Unit, Jean Lafitte National Historical Park and Preserve. These features are placed on a vertical aerial photograph dated March 5, 1981. Note the prominent ditch lines visible in this scene along with the bell-shaped indentation that marks the passage of the Center Road through the remnant mound of the British Advanced Battery. Soil moisture conditions at the time this photograph was taken were almost ideal for revealing elements of the historic geography of the Chalmette Unit.

Chalmette Unit, Jean Lafitte National Historical Park and Preserve. Layout and labeling by Judy Kesler, National Park Service.


BATTERY 8
BATTERY 7
DOUBLE DITCH
CENTER ROAD
BATTERY 6
BATTERY 5
ADVANCED BATTERY
SECOND DITCH
SENTRY LINE
SKIRMISH LINE
BATTERY 4
FIRST DITCH
RODRIGUEZ ESTATE
PICKET LINE
BATTERY 3
BATTERY 2
NORTH
0 100 200 400 600 FEET
0 50 100 200 METERS

A section of the actual rampart was uncovered in the course of the archeological excavations at Test Area 3, and the findings support the less romantic, but more reliable, archival evidence. Not only was the rear of the parapet carefully revetted with fence palings, it was also backed by a revetted banquette 4½ ft (1.37 m) in width, a finding consistent with Major Howell Tatum's (1922:112) eyewitness observation that a "proper banquette" was erected along the base of the American rampart. Judging from military engineering principles of the day, a 4½ ft (1.37 m) banquette would suggest that the crest of the rampart, at minimum, reached a height of 6½ ft (2 m), and very likely rose to a full height of 8 ft (2.4 m) (Mahan 1836:32). This height range would in turn point to a basal parapet thickness of 18 to 20 ft (5.5 to 6.1 m). And not surprisingly—in light of the number of military engineers available to General Jackson—a majority of British and American contemporary sources report frontline observations that are in close accord with these inferentially derived rampart width and height estimates. The most credible of the eyewitness accounts all describe a well-built, sturdy American rampart near or at 8 ft (2.4 m) in elevation. In addition, analysis of the excavated soil from the "melted" rampart indicates that the earth used in this field fortification was not mud from the Rodriguez Canal, but silty clay loam topsoil. Again, this soils evidence is in line with the observations of battle participants who noted that the rampart was constructed from the better-drained and firmer surface soils located in the vicinity of the American defensive position. The picture that emerges is that of a fairly sophisticated earthwork, one that would have provided a strong and effective defense against British firepower and massed assault.

The single most important discovery was the identification of the broad hole, or "Gap," that marked the position of Battery 3, the double artillery battery which had been ably manned during the Battle of New Orleans by Jean Lafitte's famous band of Baratarian pirates (Figures III-4, III-14, III-39). The discovery of the archeological remnant of this feature provided a critical geographical reference point from which to reconstruct the historic battlefield in terms of today's altered landscape. Based on the archeological position of Battery 3, the total amount of loss to the original American defense line from the combined effects of bank erosion, levee construction, and road building calculates to no more than about 180 ft (54.9 m). Thus, the 1815 river bank and the end of the battle line would fall approximately 220 ft (67 m) beyond the south "boundary fence" of the Chalmette Unit, at a position roughly 50 ft (15.2 m) out from the front toe of the 1984 levee. This 50 ft (15.2 m) distance hardly compares with the 800 ft (244 m) riverside loss erroneously proposed by Ricketts and Bres in 1935.

A re-examination of the archival evidence indicates a similarly moderate bank loss since the time of the battle at the east end of the Chalmette Unit riverfront. Here, the estimated loss to bank erosion totals only 180 to 200 ft (54.9 to 61 m), rather than the 725 ft (221 m) suggested by Ricketts and Bres (Ricketts 1935, 1936).

The general result of the investigation is a revised historical geography of the Chalmette Battlefield (Map III-5, Figures III-66 ,III-81). This reconstruction indicates that all the American battery positions, with the single exception of Battery 1, occur within the present confines of the Chalmette Unit. It also predicts that the location of the British Advanced Battery would fall inside the unit's boundaries near the north end of the National Cemetery. And in uncanny accordance with this anticipation, a low, bifurcated mound that closely corresponds to archeological expectations for the Advanced Battery is located at the predicted spot. Further, a straight, linear alignment of raised earth runs from the area of the mound, across the open fields, and on toward the American line defense, exactly as would be expected if it represented the surviving remnant of the Center Road that was used by the British during the initial part of their main attack on January 8, 1815. Finally, there is almost an exact match-up between several of the old drainage ditches that are still visible and the ditches that figured prominently in the battle topography. These include Tatum's First Ditch, Tatum's Second Ditch, the Double Ditch, the American Picket Line, the American Sentry Line, and the British Skirmish Line (Map III-5, Figure III-81). It was in and around these ditches that much of the fighting and maneuvering took place over the three-week length of the battle. One of the ditches, Tatum's First Ditch, also served as the "line of demarcation," or truce line, at the conclusion of the Battle of New Orleans.

It must be emphasized that the progress made in the context of this study represents only a beginning. Contrary to earlier opinion, archeology has a potential to answer a great many questions about the Battle of New Orleans. The view that the battlefield would yield few of its secrets to archeological investigation originated not only from an erroneous historical reconstruction of the battle geography, but also from a general ignorance of the nature and conduct of early nineteenth-century warfare and its parsimonious reflection in the archeological record. This type of combat did not involve the tremendous investments of military hardware, equipment, and manpower that have typically characterized warfare from the start of the American Civil War to the present day. In the earlier era, engagements were relatively few, were often of short duration, and involved smaller forces than found in later decades. With industrialization only in its incipient stages, nation states did not have the productive capacity to provide or deliver an endless supply of war material and technology to their troops. Napoleonic warfare, which was in vogue at the time of the Battle of New Orleans, had broken free of the rigidities and conventions of classical eighteenth-century warfare, but its innovations were in strategy and tactics, not in the application of new technologies and massive firepower (Ross 1979:190). The musket, bayonet, and smooth-bore cannon were still the weapons of the day. Napoleonic warfare simply put these old weapons to new and more effective uses on the battlefield. Skirmishers became an essential component of any attack force; artillery pieces, especially light, horse-drawn cannons, achieved prominence as antipersonnel weapons; and columnar tactics were integrated with linear tactics in a more flexible doctrine of close-order combat (Ross 1979:190).

Although flints and ammunition were often expended in large quantities, most items were carefully conserved because they were only available in limited numbers and were difficult to replace. For example, Colonel Dickson (1961:44-45), Commander of the Royal Artillery at the Battle of New Orleans, maintained a detailed field inventory that kept strict account of even such minor items as priming wires and powder horns. Common troops of the line were equally frugal and typically stripped even their own dead of every usable object and scrap of clothing. And “scrap” is no exaggeration, for scraps were coveted as patches for frequently worn and tattered uniforms (Brett-James 1972:79). The colorful and smartly dressed soldiers portrayed in early nineteenth-century battle paintings were a rarity on the Napoleonic battlefield. The realities of hard campaigning usually gave armies the appearance of peasant hordes (Rothenberg 1978:85). The French populace was shocked by the faded, dirty, and generally miserable uniforms worn by the victorious British when they marched into Paris after the Battle of Waterloo—and this was after only a relatively short period of battle (Brett-James 1972:86).

The field equipment of the typical soldier was no better. Few had mess kits, or even bowls, and most ate out of a common camp kettle shared by six to eight men. After 1800, tents were largely abandoned in the interest of mobility by the contending armies of the Napoleonic era, and both soldiers and officers became accustomed to sleeping in the open, rain or shine (Rothenberg 1978:82-84). Even the great Napoleon spent the night before the Battle of Eylau in the open, squatting on a bundle of straw, eating potatoes donated by nearby soldiers.

The archeological implications of the above are obvious. The battlefields of this early period of warfare rarely contain large amounts of debris. Rather, the material remains of battle tend to be sparse and widely scattered. Concentrations occur, but they are usually marked by only small gradational increases and decreases in artifact distributions. As might be expected, the archeological approaches that have the best potential for success are the same that apply to the geographically extensive "lithic scatters" of prehistory—widespread testing and exhaustive stripping coupled with careful comparison of spatial variations that occur in the distribution of artifacts and artifact types. The utility of these techniques of investigation when applied to early battle sites is demonstrated by Norman Barka's (1976) work at the Yorktown Battlefield and Ferguson's (1977) excavations at Fort Watson.

At Chalmette and other battle sites where preservation is a strong consideration, this strategy can be modified so as to be only minimally destructive of the battlefield fabric. Widespread, systematic subsurface sampling aided by magnetic survey, controlled metal detection, and other remote-sensing techniques may be productively employed as an alternative to extensive stripping. The critical factor is not the amount of earth that is moved, but the amount of representative areal coverage provided by the investigation as well as the quality and accuracy of guiding assumptions behind the work. For instance, a spatially restrictive sampling program could easily fail to capture the geographically widespread variations in artifact occurrence and patterning that are usually characteristic of early battle sites. Further, false expectations concerning the type of density of artifactual debris that might be associated with a particular battle event could lead to a failure to recognize or correctly interpret meaningful patterns and occurrences when they do arise in the data.

A common mistake, and one made in connection with the search for Battery 3, is to expect to find large accumulations of spent ammunition in association with areas of heavy fighting or key artillery targets. However, this is rarely the case, for solid shot, canister, and even musket balls may travel for hundreds of meters unless these projectiles are stopped by obstructions. Those musket balls and light artillery rounds that hit their intended human targets—on the average, about 6 to 15 percent of the expended rounds—usually left the field in the bodies of the dead and wounded (Rothenberg 1978:65). The bulk of the remainder would continue beyond the target zones until they reached maximum range or hit an obstacle in their path. An old photograph of a fortified line from the Crimean War provides a good illustration of what happened to solid artillery shot (James 1981: Plate 57). Almost no rounds are evident in the level field immediately behind the earthworks, but numerous spent rounds are scattered along the base of a hill that lies far to the rearward of the defense line.

In the instance of Battery 3, the research team assumed that this favorite target of the British artillery would be marked by an obvious concentration of solid shot that could be easily detected with a magnetometer or in the subsurface tests. Although the noted artillery historian William Meuse (personal communication 1983), warned early on that this situation would be unlikely, we persisted in the hope during much of the initial exploratory effort. We did not know then that a significant proportion of the British incoming rounds would have been overflights or ricochets off the angled superior slope of the epaulement. Also, there was no anticipation that many of the balls that did penetrate the earthwork would have probably been salvaged after the battle, together with the cotton bags that had formed the core of the epaulement. Further, we failed to realize that those that had been missed during the salvor's dismantling process would have tended to slump into the deeper parts of the Rodriguez Canal, for these rounds would have been most commonly lodged in the forward half of the battery earthwork, not behind the revetment. In fact, most of the test excavations at Battery 3 were in the protective "shadow" of the epaulement, one of the least likely areas to contain spent British shot. Finally, we did not give sufficient weight to the cumulative effect of the numerous souvenir hunters who frequented the battlefield in the early years following the end of the conflict (Ingraham 1835:204-206).

In order to not be misunderstood, it is necessary to add that there probably is a measurable increase in the occurrence of British rounds in the vicinity of Battery 3, but this concentration is most likely weak in definition and modest in numbers. It will take more work than was expended in the course of this initial assessment to verify the presence and pattern of this remnant shot, and more importantly, to adequately document the military architecture of the battery and the exact positioning of its guns. In fact, the entire American rampart demands more archeological investigation if there is to be any future growth in knowledge about the American defense line and the artifactual patterns that are associated with it. The projected positions of the other batteries require verification, and the intervening sections of the rampart between the batteries need stratigraphic examination to determine details of construction. Again, this recommended program of research would not have to disturb a great deal of historic fabric to be effective. Most of the stratigraphic work could be performed with a small diameter auger. Further, only a few representative battery and rampart locations would have to be trenched to reveal full stratigraphic cross sections. Ideally, these cross-sectional trenches would cut across both the Rodriguez Canal and the earthwork. Where potentially productive, a small number of subsidiary trenches or grids could be added to gather more evidence on artifact occurrences and problematical aspects of military construction. A similar program of archeological testing would also yield high returns if it were properly applied to the study of other military features associated with the Battle of New Orleans (for example, the Advanced Battery, the Center Road, and the various drainage ditches).

But archeology is not the only research need at Chalmette. Most of the historical works on the battle have been general studies in which the Battle of New Orleans simply figures as a chapter in a more inclusive study of the War of 1812 or of Andrew Jackson's career (James 1933, Rimini 1966, Reilly 1974, Owsley 1981). Although some substantive attention has been given to the naval warfare associated with the battle (Roosevelt 1910, Brown 1969), little in the way of pure military history has been written about the land campaign. Jerome Greene's overview at the beginning of this report makes a major contribution to this specialized domain of history, as does Betsy Swanson's (1985) recent treatise on the wider framework of the battle geography. Earlier works that are worthy of note include Ritchie's (1961) broad narrative account, William Meuse's (1965) brief treatment of weaponry and ammunition, and Casey's (1963) amateurish, but informative, book which presents much welcome detail on the American order of battle.

These are but a start. What is desperately needed are in-depth technical studies that seek to discover and explicate the military facts of the battle in fine detail, for even apparently trifling errors and oversights may have a cumulative effect that can undermine the accuracy of the total picture of the fighting. These studies should be analytical in perspective and be conducted by military historians with strong backgrounds in the nuances and peculiarities of warfare in the Napoleonic era. To the nonspecialist, the mechanics and practicalities of Napoleonic warfare are extremely difficult to visualize or understand; it is often as alien to the modern European or American as is ancient Aztec ritual combat. Thus, the conventional narrative history, with its reliance on eyewitness accounts to tell the story, is rarely as informative as might be supposed, for the reader usually lacks the necessary expertise to correctly interpret the sources on his own. For instance, if a contemporary chronicler or participant stated that a particular British attack was made in "column of companies," the nonspecialist would probably have little idea of what was meant. Would he have enough knowledge of columnar tactics to infer that British "attack column" normally presented a wide front, whereas a "marching column" typically presented a narrow front? Similarly, would the nonspecialist be able to estimate the column's speed of attack, the techniques by which it changed direction, or how the troops of the column might deploy to deliver their volleys once they had closed with the enemy? Without benefit of expert commentary and explanation, one could reasonably expect that few scholars, much less lay readers, would have any true comprehension of how a British attack by "column of companies" might have been carried out nearly two hundred years ago.

Analyses by experts could also apply the principle of "Inherent Military Probabilities" to flesh out and reconstruct battle behavior and dynamics that are not specifically mentioned in the period accounts (Keegan 1976:34, 88). The ability to arrive at such reasonable probabilities is dependent upon a solid comparative background in the strategy, tactics, weapons, and military organization of the forces under study. It also requires a thorough intimacy with aspects of terrain and other physical conditions that might shape the course of battle. This approach would be especially pertinent to understanding the American military actions during the Battle of New Orleans, which, unlike the British activities, are known only sketchily from eyewitness accounts.

Ultimately, the Battle of New Orleans deserves the level of scholarship and varying points of view that Weller (1967), Howarth (1968), and Keegan (1976) have given the Battle of Waterloo. The Battle of New Orleans may not be the equal of Waterloo, but it does represent a signal event in American history, and on this basis alone, it merits both serious and continued study. A greater knowledge of the battle may also hold relevance for military history in general, for at Chalmette, an odd assortment of American troops managed to gain a rare and unexpected victory over a contingent of the same British army that, ironically, went on to defeat Napoleon at Waterloo only six months later. The how and why of this American victory over the "aristocrats" of early nineteenth-century European soldiery has never been satisfactorily addressed, and the answers would probably be best sought in a combined program of future research, one that involves archeology as well as history. Another potential beneficiary is the historic battlefield itself, for better knowledge of the resource generally results in better resource management. And not to be forgotten among the eventual beneficiaries of this research is the National Park Service visitor, who could look forward to an increasingly richer and more meaningful interpretive experience at the Chalmette Battlefield.

APPENDIX A

SOIL TESTS AT CHALMETTE UNIT

Larry Trahan

Introduction

On June 4, 1984, the Soil Conservation Service performed four auger tests in the extreme southwest corner of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. The tests were dug by hand with a 3 in diameter core auger. Rex Williams, Park Technician, National Park Service, assisted both in the location of the proposed test sites and in the actual digging of the holes.

The test locations were selected by Ted Birkedal, Archeologist with the National Park Service. The purpose of the work was to determine the soil sequence and the physical properties of the soils found in this sector of the park unit. Information gained from these tests was intended to serve two ends. First, the National Park Service wanted basic soil data that would contribute directly to their understanding of important historical events and features in the area. Second, the Soil Conservation Service was interested in the information as a supplement to soils data collected elsewhere in Chalmette as a part of the overall soil survey of St. Bernard Parish.

Each auger test was selected with a specific information objective in mind. Auger Test 1 was dug to the southwest of the old foundations of the historic Rodriguez House (see Map III-3 for auger locations). Its location was purposely chosen to provide information on the nonarcheological soil sequence in the area to the south of the Rodriguez House and to the west of Battery 3. The site for Auger Test 2, 75 m south of Auger Test 1, was also selected to avoid primary archeological remains. This auger hole was specifically dug to record the nature of the soils situated closer to the levee and the bank of the Mississippi River.

Auger Test 3 was placed in the general area of the projected location of Battery 2. The National Park Service was interested in the degree of recent soil disturbance evidenced in this area as well as any clues in the soil sequence that would betray the presence of Battery 2. Auger Test 4 was picked to reveal the sequence of soil deposition on the east bank of the Rodriguez Canal at a location directly opposite Battery 2. Here, the east bank of the canal is noticeably higher than the west bank, and consequently the origin of this additional height was of interest.

A fifth auger test was dug by Ted Birkedal on August 11, 1984. Birkedal used a 1 in diameter core auger in this test, and he positioned the hole between Auger Tests 3 and 4, immediately west of the present midline of the Rodriguez Canal channel. It was hoped that Auger Test 5 would shed light on the depositional history of the canal.

The first four tests were dug to a depth of 200 cm below ground surface. The last test, Auger Test 5, was taken to a depth of 260 cm below ground surface. Observations on the soils were largely confined to the definition of strata and the examination of the physical characteristics associated with the various strata. The results of the tests are detailed below.

Results

Auger Test 1

1. Level 1 - 0-20 cm below ground surface, A1 Horizon, silty clay loam topsoil, 10YR 3/2 (very dark grayish brown), natural topsoil developed in place (Figure III-82).

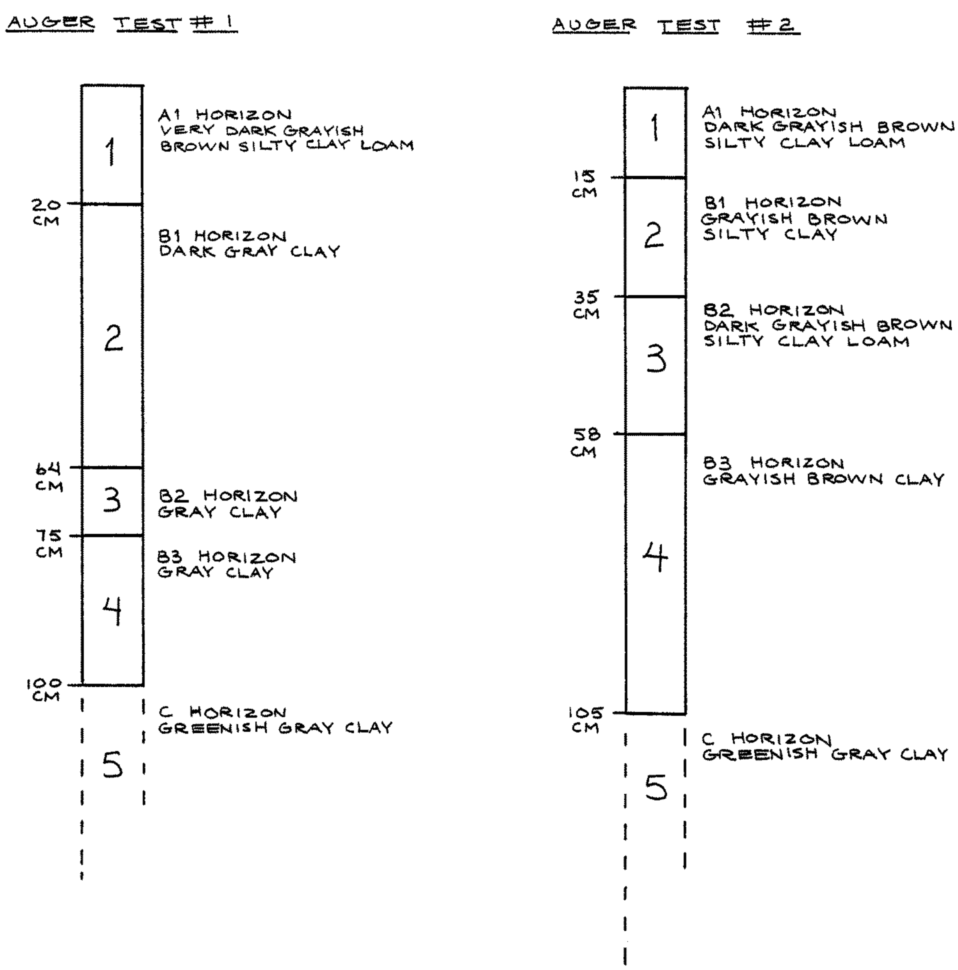
2. Level 2 - 20-64 cm below ground surface, B1 Horizon, clay, 5Y 4/1 (dark gray with fine brown mottling), brick fragments noted in soil.

3. Level 3 - 64-75 cm below ground surface, B2 Horizon, clay, 5Y 5/1 (gray with fine brown mottling), no artifact contamination observed.

Figure III-82. Soil Tests, Chalmette Unit, Auger Tests 1 and 2.

Drawn by Lyndi Hubbell for the National Park Service.

SOIL TESTS
CHALMETTE UNIT
AUGER TESTS 1 + 2



4. Level 4 - 75-100 cm below ground surface, B3 or Ab Horizon, clay, 5Y 5/1 (gray with brown mottling), charcoal fragments and small pockets of silty clay loam observed.

5. Level 5 - 100-200 cm below ground surface (to bottom of auger hole), C Horizon, Clay 5GY 5/1 (greenish gray), no artifactual material observed.

Remarks

The silty clay loam pockets, together with the charcoal fragments found in the horizon between 75 and 100 cm, suggest this soil may be a buried topsoil. However, the light color of the soil argues against this designation. It is more likely that this stratum is simply a B3 horizon with intrusions of surface soil and charcoal that have filtered down in the deep cracks that characteristically form in the solum of this soil series.

Auger Test 2

1. Level 1 - 0-15 cm below ground surface, A1 Horizon, silty clay loam topsoil, 10YR 4/2 (dark grayish brown), natural topsoil developed in place (Figure III-82).

2. Level 2 - 15-35 cm below ground surface, B1 Horizon, silty clay, 10YR 5/1 (gray) to 10YR 5/2 (grayish brown), scattered fine pieces of brick noted.

3. Level 3 - 35-58 cm below ground surface, B2 Horizon, silty clay loam with brown mottling, 10YR 4/2 (dark grayish brown), contains small pockets and bedding planes of silty clay.

4. Level 4 - 58-105 cm below ground surface, B3 Horizon, clay, 10YR 5/2 (grayish brown).

5. Level 5 - 105-200 cm below ground surface, C Horizon, clay, 5GY 5/1 (greenish gray).

Remarks

The light cast displayed by the A and B horizons indicates greater aeration than expected in a low area. Also, the B1 and B2 horizons contain less clay and have a coarser texture than found in comparable strata in Auger Test 1. Moreover, because of its lesser clay content, the upper solum appears to be subject to less cracking from alternating soil shrinkage and swelling. The lighter cast and coarser texture of the upper solum found in this auger test could result from the proximity of the levee. Soils washed in from the present levee and earlier levee structures may have permeated the solum at this location. The bedding planes of silty clay noted in the B2 horizon support this interpretation.

Auger Test 3

1. Level 1 - 0-36 cm below ground surface, A1 Horizon, silty clay loam topsoil, 10YR 4/3 (brown/dark brown), contains numerous small fragments of brick and charcoal (Figure III-83).

2. Level 2 - 36-50 cm below ground surface, A2 Horizon, silty clay topsoil, 10YR 4/2 (dark grayish brown), contaminated by small charcoal fragments.

3. Level 3 - 50-73 cm below ground surface, B1 Horizon, clay, 10YR 5/2 (grayish brown).

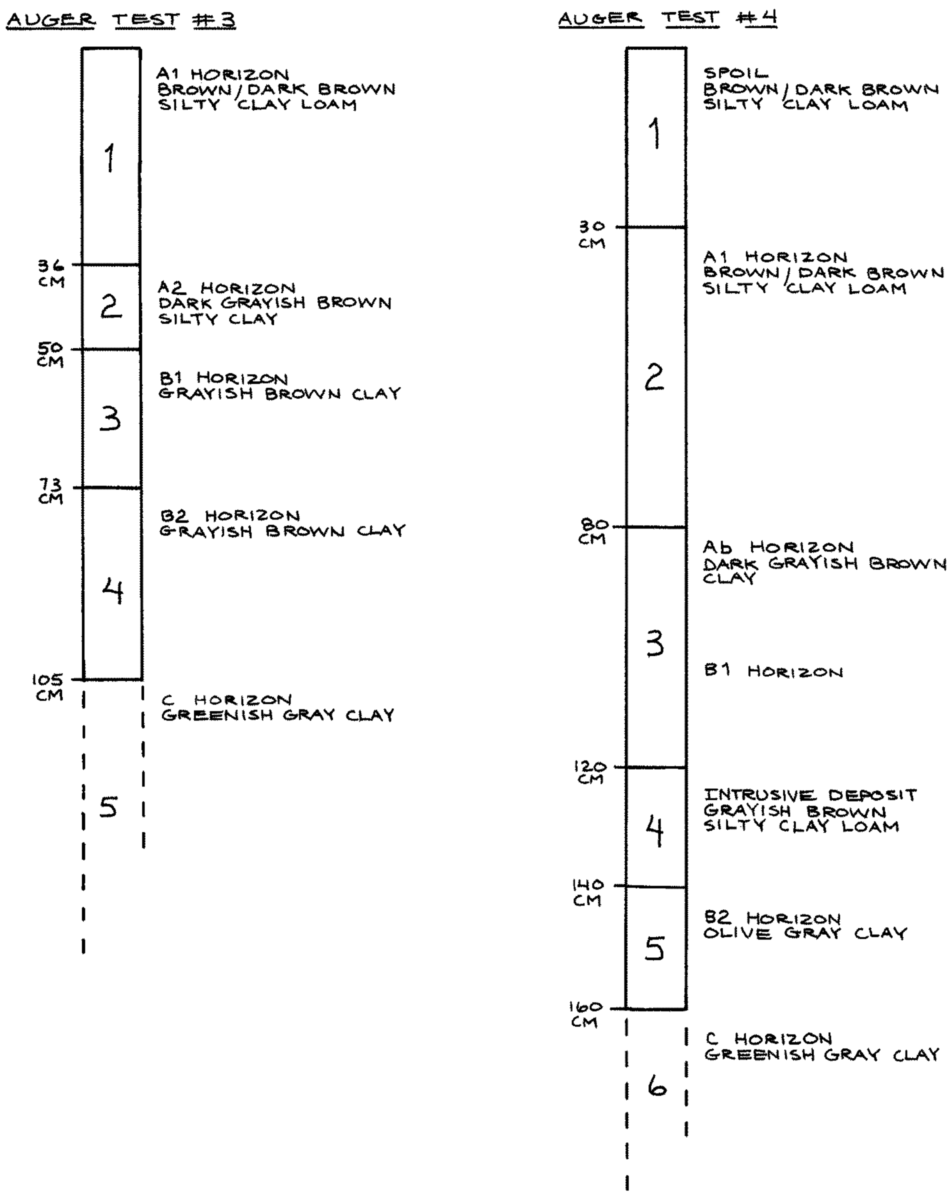
4. Level 4 - 73-105 cm below ground surface, B2 Horizon, clay, 10YR 5/2 (grayish brown), brown mottling in soil increases with depth. Pockets of silty clay are particularly common below 80 cm.

5. Level 5 - 105-200 cm below ground surface, C Horizon, clay, 5GY 5/1 (greenish gray).

Figure III-83. Soil Tests, Chalmette Unit, Auger Tests 3 and 4.

Drawn by Lyndi Hubbell for the National Park Service.

SOIL TESTS - CHALMETTE UNIT - AUGER TESTS 3+4



Remarks

The A horizon in this auger test is deeper and exhibits a slightly lighter color than the same topsoil horizons found in Auger Tests 1 and 2. It is the product of considerable disturbance and may derive, at least in part, from spoil from adjacent construction (i.e., pathway construction, sewer-line or sewer-tank construction, or similar subsurface disturbance).

Auger Test 4

1. Level 1 - 0-30 cm below ground surface, spoil or fill (not the product of *in-situ* development), silty clay loam, 10YR 4/3 (brown/dark brown), highly disturbed soil containing charcoal, coal fragments, coal cinders, and brick fragments (Figure III-83).

2. Level 2 - 30-80 cm below ground surface, A1 Horizon, silty clay loam, 10YR 4/3 (brown/dark brown), spoil mixed with topsoil, some contamination (coal and brick fragments).

3. Level 3 - 80-120 cm below ground surface, B1 Horizon (upper portion may represent a buried topsoil or Ab Horizon), clay, 10YR 4/2 (dark grayish brown), a few small coal fragments observed.

4. Level 4 - 120-140 cm below ground surface, silty clay loam horizon, 10YR 5/2 (grayish brown).

5. Level 5 - 140-160 cm below ground surface, B2 Horizon, clay, 5Y 5/2 (olive gray).

6. Level 6 - 160-200 cm below ground surface, C Horizon, clay, 5GY 5/1 (greenish gray).

Remarks

The upper 80 cm of this soil sequence evidences considerable disturbance, and it appears to largely consist of spoil or spoil mixed with natural topsoil. In both its brownish chroma and its level of disturbance, this upper soil resembles the A horizon in Auger Test 3. The upper portion of the B1 horizon conforms closely in both color and character to a buried topsoil horizon.

The majority of the spoil evidenced in the upper part of this sequence probably represents material that was thrown up during the excavation and subsequent cleaning of the once active Rodriguez Canal. The buried topsoil under this spoil most likely marks the surface of the ground at the time the canal was dug.

The silty clay loam that characterizes Level 4 may simply be the product of localized natural deposition or heavy pocketing as found in Level 4 of Auger Test 1. The greater depth of the "blue clay" horizon in Auger Test 4 is expectable for ground surface at this location, largely as a consequence of spoil accumulation, lies 56 cm above the height of ground surface on the opposite bank of the canal where Auger Tests 1, 2, and 3 were dug.

Auger Test 5

1. Level 1 - 0-14 cm below ground surface, Ap Horizon, disturbed silty clay loam topsoil, 5Y 4/1 (dark gray), contains small brick fragments and roots (Figure III-84).

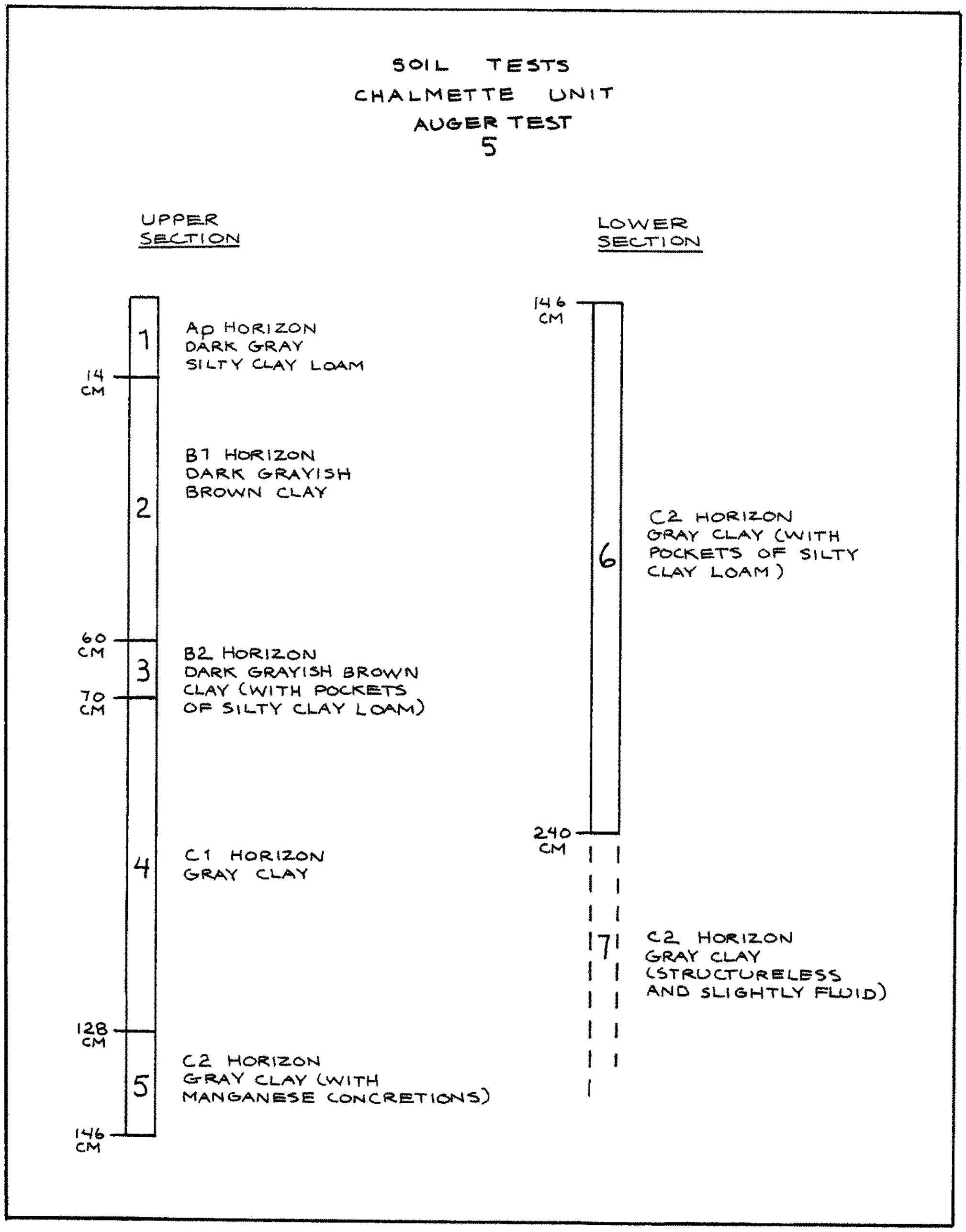
2. Level 2 - 14-60 cm below ground surface, B1 Horizon, clay, 10YR 4/2 (dark grayish brown), exhibits brown mottles.

3. Level 3 - 60-70 cm below ground surface, B2 Horizon clay, 10YR 4/2 (dark grayish brown), displays brown mottles. Identical to Level 2 except that it contains occasional pockets of gray silty clay loam.

4. Level 4 - 70-128 cm below ground surface, C1 Horizon, clay, 5Y 5/1 (gray with scattered brown mottles).

Figure III-84. Soil Tests, Chalmette Unit, Auger Test 5.

Drawn by Lyndi Hubbell for the National Park Service.


SOIL TESTS
CHALMETTE UNIT
AUGER TEST
5
UPPER SECTION
1
Ap HORIZON DARK GRAY SILTY CLAY LOAM
14 CM
2
B1 HORIZON DARK GRAYISH BROWN CLAY
60 CM
3
B2 HORIZON DARK GRAYISH BROWN CLAY (WITH POCKETS OF SILTY CLAY LOAM)
70 CM
4
C1 HORIZON GRAY CLAY
128 CM
5
C2 HORIZON GRAY CLAY (WITH MANGANESE CONCRETIONS)
146 CM
LOWER SECTION
146 CM
6
C2 HORIZON GRAY CLAY (WITH POCKETS OF SILTY CLAY LOAM)
240 CM
7
C2 HORIZON GRAY CLAY (STRUCTURELESS AND SLIGHTLY FLUID)

5. Level 5 - 128-146 cm below ground surface, C2 Horizon, clay, 5Y 5/1 (gray with scattered brown mottles). The only difference between this soil and the overlying horizon is the presence of scattered, fine manganese concretions.

6. Level 6 - 146-240 cm below ground surface, C2 Horizon, clay, 5Y 5/1 (gray with occasional brown mottles). Contains a few small pockets of gray silty clay loam, otherwise identical to Levels 4 and 5.

7. Level 7 - 240-260 cm below ground surface, C2 Horizon, clay, 5Y 5/1 (gray with occasional brown mottles). Nearly identical to Levels 4, 5, and 6. However, it exhibits little structure and is slightly fluid. Further, it shows less mottling than the overlying layers.

Remarks

The soil sequence exposed in Auger Test 5 exhibits few dramatic changes from top to bottom. There are only three basic soil strata evidenced in the sequence: a dark gray topsoil, a dark grayish brown clay, and in the last 190 cm, a gray clay. Only subtle variations mark the internal subdivisions within these basic types.

The brown mottling observed in even the lowest level (Level 7) indicates that all the soils in the sequence had been exposed to air and drying at least once. The fine manganese concretions found in Level 5 are likewise a product of oxidation.

The water-saturated and structureless gray clay noted in Level 7 suggests that "blue clay" probably occurs just below the maximum depth of the auger test (260 cm). However, to judge from Auger Tests 1, 2, and 3, this relatively impermeable parent clay should have been encountered much earlier in the sequence—at about 100 cm below ground surface. Its absence in the recorded strata indicates that the upper portion of the "blue clay" horizon had been removed in the immediate area of Auger Test 5.

General Observations

The soils of the study area are characteristic of the Sharkey series, a poorly drained soil group that occupies low and intermediate elevations on the natural levees of St. Bernard Parish and, in general, the Mississippi Delta region.

Although the area evidences no overall loss or gain in soils, there has been considerable localized soil movement, particularly in the upper 60-70 cm of soil strata. Much of this movement can be attributed to frequent episodes of shrinking and swelling. The clayey soils swell during wet weather and shrink during dry weather. After prolonged drying, deep cracks, often 2 to 3 cm in width, form in the subsoil down to the top of the underlying greenish gray clay. Upon becoming saturated again, the subsoil swells and the cracks close. Over time, the churning effect of this alternating shrinking and swelling can result in significant amounts of exchange between upper and lower horizons in the solum.

The coarser texture and the lighter cast of the soils found in the southern sector of the study area suggest that they have been the long-term recipient of wash from the adjacent levee or a similar artificial source. However, no signs of recent or historical flood deposition were encountered in the auger tests. Soil build-up has been gradual and noncatastrophic, as is typical on the higher portions of natural levee back slopes.

Spoil (soil redeposited by human action) was clearly evident in Auger Tests 3 and 4 (Figure III-83). As in other riverfront areas that have been the scene of lengthy human occupation, it is likely that the entire study area has been subject to widespread upper soil disturbance through such activities as digging, planting, landscaping, and ploughing. The occurrence of spoil was most notable on the east bank of the Rodriguez Canal, where it reached a depth of 80 cm. The majority of this spoil probably originated from the construction of the canal.

The failure to find "blue clay" in the soil sequence from Auger Test 5 is striking and in keeping with historical accounts that mention the Rodriguez Canal as a major mill race. Apparently, more than 160 cm of this basal clayey horizon had been removed, most probably during the original excavation of the canal. After the canal fell into disuse, the abandoned channel gradually filled with redeposited gray clays.

APPENDIX B

SOIL SAMPLE ANALYSES

Larry Trahan

Introduction

At the request of the National Park Service, four soil samples were subjected to routine physical analysis. These soil samples were taken from stratigraphic profiles in the course of archeological tests at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve (Figures III-15, III-17, III-18, III-19, III-21). The National Park Service was interested in textural soil type and other physical attributes of the samples. The results of these analyses are as follows.

The Samples

1. Soil Sample 1

Location:	Test Area 3, A42.5, N89
Depth Below Surface:	45 cm
Soil Texture:	Silty clay loam
Color:	5Y 5/1 (gray with brown mottling)
Other Observations:	This subsoil appears to represent a grade between the A1 and B1 horizons found in Auger Test 1 (see Appendix A). Small brick fragments occur in the sample (Stratum 5 in Figure III-18, Stratum 5 in Figure III-19).

2. Soil Sample 2

Location: Test Area 3, A42.5, N84
Depth Below Surface: 65 cm
Soil Texture: Silty clay loam
Color: 5Y 5/1 (gray with brown mottling)

Other Observations: This soil is essentially identical to that found in Sample 1. However, it exhibited some light gray pockets and streaks. This suggests a higher water content than found in Soil Sample 1. Small scattered brick fragments occur in this soil (Stratum 6 in Figure III-17).

3. Soil Sample 3

Location: Test Area 3, A42.5, N89
Depth Below Surface: 35 cm
Soil Texture: Silty clay
Color: 5Y 4/1 to 10YR 4/2 (dark grayish brown to dark gray)

Other Observations: The soil in this sample is similar to Samples 1 and 2, but it has a higher clay content (Stratum 3 in both Figures III-18 and III-19).

4. Soil Sample 4

Location: Test Area 3, A42.5, N85
Depth Below Surface: 70 cm
Soil Texture: Clay (no structure)
Color: 5Y 6/1 (color between light gray and gray)

Other Observations:	This sample is from a disturbed clay soil that has lost its structure. This kind of clay originates from disturbed clayey soils that have been dissolved in water. Such blended, structureless clays are frequently found in post holes and similar features. The sample's association with a cypress paling stub is in keeping with this conclusion. The sample was taken behind and immediately adjacent to Paling 6 (Figures III-19, III-21).

APPENDIX C

AERIAL PHOTOGRAPHIC SOURCES

Ted Birkedal

Introduction

This appendix lists both vertical and oblique aerial imagery that was either consulted or referenced in the course of researching and writing "Archeological Investigations of the Chalmette Riverfront," Part III of *The Search for the Lost Riverfront: Historical and Archeological Investigations at the Chalmette Battlefield, Jean Lafitte National Historical Park and Preserve.*

Vertical Aerial Imagery

Corps of Engineers

1. Black and White Vertical Photograph of the Chalmette Unit Vicinity. September 5, 1933; 1:10,000 (A4A-68-48). Corps of Engineers, New Orleans District. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

2. Black and White Vertical Photograph of the Chalmette Unit Vicinity. April 20, 1943; 1:10,000 (Spot 5A-930, Exp. 55). Corps of Engineers, New Orleans District. National Archives, Record Group No. 373, Washington, D.C.

3. Black and White Vertical Photograph of the Chalmette Unit Vicinity. November 2, 1950; 1:20,000 (S11A-4-9). Corps of Engineers, New Orleans District. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

4. Black and White Vertical Photograph of the Chalmette Unit Vicinity. January 6, 1954; 1:22,000 (M-83, Spot C-8381, Exp. 23). Corps of Engineers, New Orleans District. National Archives, Record Group 373, Washington, D.C.

5. Black and White Vertical Photograph of the Chalmette Unit Vicinity. November 30, 1955; 1:20,000 (4-52, P-55). Corps of Engineers, New Orleans District. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

6. Black and White Vertical Photograph of the Chalmette Unit Vicinity. December 21, 1960; 1:20,000 (B-320). Corps of Engineers, New Orleans District. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

National Park Service

1. Black and White Vertical Overview of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. April 24, 1974; 1:3600. Coastal Aerial Mapping Co., Inc., Baton Rouge, Louisiana. On file at the National Park Service, Intermountain Support Office, Santa Fe, New Mexico.

2. Color Infrared Vertical Transparencies of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. December 11, 1977; 1:1800. Bohannan-Huston Inc., Albuquerque, New Mexico. On file at the National Park Service, Intermountain Support Office, Santa, Fe, New Mexico.

3. Black and White Vertical Overview of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. August 4, 1978; 1:6500. Coastal Aerial Mapping Co., Baton Rouge, Louisiana. On file at the National Park Service, Intermountain Support Office, Santa Fe, New Mexico.

4. Black and White Vertical Stereo Pairs of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. August 4, 1978; 1:1920. Bohannon-Huston Inc., Albuquerque, New Mexico. On file at the National Park Service, Intermountain Support Office, Santa Fe, New Mexico.

5. Multispectral Vertical Imagery (Four Bands) of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. August 4, 1978; 1:1800. Bohannan-Huston Inc., Albuquerque, New Mexico. On file at the National Park Service, Intermountain Support Office, Santa Fe, New Mexico.

6. Black and white vertical overview of the Chalmette Unit, Jean Lafitte National Historical Park and Preserve. March 5, 1981; 1:6500. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

Oblique Aerial Photographs

National Park Service

1. Oblique Aerial Photograph Toward the Mississippi River of the Entire Chalmette Unit (View to the SSW). National Park Service Photograph No. 10-10-001, ca. 1960. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

2. Oblique Aerial Photograph of the Fazendeville (Central) Sector of the Chalmette Unit (View to the NW), National Park Service Photograph No. 10-10-023, ca. 1960. On file at the Chalmette Unit, Jean Lafitte National Historical Park and Preserve, New Orleans.

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