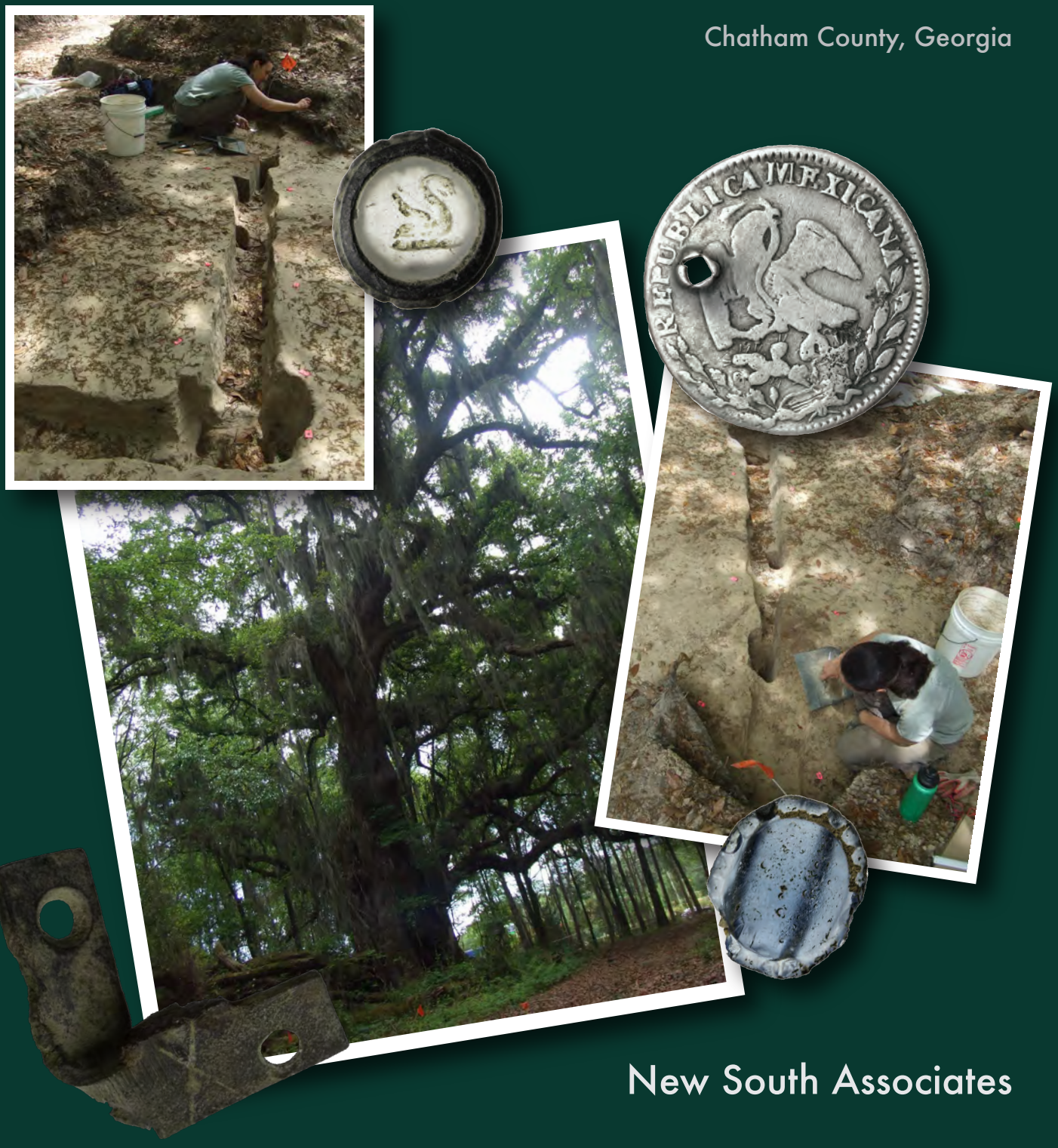
African American History in the Shadow of the Oak:

Archaeological Data Recovery of Site 9CH1205

Chatham County, Georgia



New South Associates

African American History in the Shadow of the Oak: Archaeological Data Recovery of Site 9CH1205

Chatham County, Georgia

Project NH000-0111-01(024)
PI 522870
Project Name: SR 204 from East of CR 68/Pine Grove to West of CR 975/Veterans Parkway

Report submitted to:

Atkins North America, Inc. • 1600 RiverEdge Parkway, Suite 600 • Atlanta, Georgia 30328

Report prepared by:

New South Associates • 6150 East Ponce de Leon Avenue • Stone Mountain, Georgia 30083

J.W. Joseph, Ph.D., RPA – Principal Investigator

Bradford Y. Botwick – Archaeologist and Co-Author
Hugh Matternes, Ph.D., RPA – Historian and Co-Author
Leslie Branch-Raymer, Paleobot – Archaeobotanist and Co-Author
R. Jeannine Windham – Zooarchaeologist and Co-Author
Rita F. Elliott – Public Archaeologist and Co-Author
John G. Jones, Archaeological Consulting Services – Palynologist and Co-Author
Sarah Lowry – Archaeologist and Co-Author
J.W. Joseph Ph.D., RPA – Principal Investigator and Co-Author

May 19, 2014 • Final Report
New South Associates Technical Report 2349

ABSTRACT

Georgia Department of Transportation (GDOT) intends to make improvements to State Route (SR) 204/Abercorn Extension in Chatham County (Project NH000-0111-01(024); PI 522870), which includes replacing the existing four-way intersection at King George Boulevard with a new trumpet interchange at the northwest side of the intersection. Archaeological Site 9CH1205, representing an African American slave and freedpeople settlement and portions of a Civil War Union Army camp, would be impacted by construction. Because the site was determined eligible for the National Register of Historic Places (NRHP), an archaeological data recovery was completed to mitigate the adverse effects of the planned construction. This report describes the research goals, methods, and results of the data recovery.

Work completed for the data recovery involved archival research, archaeological fieldwork, and analysis. The study was intended to address a variety of questions concerning the lifeways of Georgia plantation slaves and the people who remained at the site after Emancipation. No specific residents of the site could be identified, but known historic settlements existed at the site. Further, the site's association with larger plantations strongly implied that it functioned as a slave quarter that was isolated from the planter's residence. Archaeological analysis suggested the site's initial occupation was during the first decades of the nineteenth century. Fieldwork included metal detector survey, geophysical survey, machine-assisted clearing, and hand excavation. Analysis focused on topics about the site's residents and broader questions concerning slavery and the postbellum period in the site region.

An important component of this project was a public outreach program that enabled visitors to tour the site during excavation and learn about archaeological research and procedures in a historic preservation context. This program was highly successful. Over 1,000 people visited the site during three months of fieldwork, illustrating a genuine interest in archaeology and what it can teach about the past.

The data recovery resulted in a number of conclusions concerning the site's inhabitants that are intrinsically interesting and relevant to broader topics in African American archaeology in the Lowcountry. Among these results, the study indicated variation in architecture and site organization, which appears to have reflected the dictates of planters, as well as the choice of site residents. Settlement and architecture, therefore, might reflect both African and Gullah/Geechee-African American influences.

Additionally, the research provided information about formal and internal economies that African Americans participated in as producers and consumers. The study revealed a strong potential for analytical approaches that emphasize contextualization of material culture. For example, the development of contexts concerning the work of enslaved women combined with artifacts related to sewing indicated the possibility that site residents produced needlework (e.g., clothing, quilts) that could be sold or exchanged. Questions relating to ritual or similar behavior were also addressed through contextualization of artifacts more than through direct observation of cultural features or deposits. Although no direct evidence of religious or spiritual activities was detected, the presence of certain artifacts associated with these practices indicated the possibility that these behaviors took place at the site.

Artifact patterning revealed apparent changes in the economic circumstances between the antebellum and postbellum periods. The most notable finding of the artifact patterns was that depositional units with clear antebellum dates seemed to have a richer artifact content, manifested by high frequencies of kitchen group artifacts, while later deposits showed evidence of more impoverished material culture. This suggested changed circumstances that are worth studying further. Finally, the study revealed possible economic differences between one household and others at the site, which provided a reminder that diversity and vibrancy characterized African American life, even at an isolated rural settlement.

The Civil War component was related to elements of the Federal Army that camped at the site and its vicinity for two weeks in December 1864. Fieldwork did not identify any features from this component, but a number of artifacts, primarily ammunition and buttons, indicated the presence of Union soldiers. Given the limited duration of the encampment, the low visibility of this component is not surprising. However, the datasets associated with it did not lend themselves to addressing archaeological research questions.

ACKNOWLEDGMENTS

The success of this data recovery project reflects the work, input, and assistance of numerous individuals and organizations. New South appreciates the guidance and backing of GDOT's Cultural Resources Section, and in particular Pam Baughman. The project also benefitted from the cooperation of many area businesses, and we would particularly like to thank Parker's Convenience Stores, the Trellis Apartments, and Brasseler USA, who helped resolve space and access issues for site workers and visitors.

A number of individuals participated in this project and preparation of this report. Dr. J.W. Joseph served as Project Manager and Principal Investigator. Brad Botwick was the Project Archaeologist. Metal detector survey was the responsibility of Patrick Severts and Josh Blackmon. Sarah Lowry, assisted by Blackmon, conducted the geophysical survey. Archaeological Field Assistants were David Amrine, Gretchen Eggiman, Pam Enlow, Cory Green, Nicole Isenbarger, Heather McAllister, Scott Morris, and Matt Wood. Rita F. Elliott designed, coordinated, and implemented the public outreach program and site visits by the public. Artifact analysis proceeded under the direction of Laboratory Supervisor Amy Irons, with assistance provided by Justin Arrington, Scott Morris, and Patrick Severts.

Hugh Matternes performed the historical research for this project and prepared the site history. Leslie E. Branch-Raymer, Archeobot, conducted the archaeobotanical analysis. Dr. John G. Jones, Archaeological Consulting Services, provided the phytolith and pollen analyses, and R. Jeannine Windham prepared the zooarchaeological analysis. Carmen Beard and Matthew Tankersley provided GIS assistance. David Diener prepared the graphics for this report. Jennifer Wilson edited this report, while Rebecca Brown provided editorial and production assistance.

TABLE OF CONTENTS

ABSTRACT i
ACKNOWLEDGMENTS iii
TABLE OF CONTENTS v
LIST OF FIGURES xi
LIST OF TABLES xvii

I. INTRODUCTION 1

II. ENVIRONMENTAL AND HISTORICAL OVERVIEW 7
ENVIRONMENTAL OVERVIEW 7
CHATHAM COUNTY HISTORICAL OVERVIEW 9

III. SITE 9CH1205 IDENTIFICATION AND PREVIOUS RESEARCH 13
PHASE I SURVEY 13
HISTORICAL RESEARCH 14
PHASE II ARCHAEOLOGICAL EVALUATION 15
SUMMARY 18

IV. RESEARCH DESIGN 21
PLANTATION RESEARCH TOPICS 21
ASSUMPTIONS 27

V. METHODS 31
ARCHIVAL RESEARCH 31
FIELD RESEARCH 33
Clearing 33
Metal-Detector Sample Survey 33
Magnetic Gradiometry 34
Ground Penetrating Radar (GPR) 39
GIS Data Integration and Landscape Interpretation 44
Hand Excavation of Units 44
Machine-Assisted Exposure of Targeted Loci 44
Hand Excavation of Features 45
Block Excavation 46
DATA ANALYSIS AND CURATION 46
Registration of the Live Oak Trees 48

VI. SITE HISTORY 49
HISTORICAL OVERVIEW 49
THE WILSONS IN THE LITTLE OGEECHEE DISTRICT (1755-1840) 54
THE SPENCER-SCOTT TRACT (1745-1851) 61

THE MILLER TRACT (1840-1879) 62
The Civil War (1861-1865) 71
Miller After the War (1865-1879) 80
THE DEMERE-SKEFFINGTON TRACT (1882-1917) 86
EARLY-MID TWENTIETH-CENTURY LAND TRANSACTIONS (1918-1969) 91
DEVELOPMENT OF THE GEORGETOWN BUSINESS PARK (1971-2013) 95

VII. LOWCOUNTRY AFRICAN AMERICAN CULTURE CONTEXT 101
LOWCOUNTRY AFRICAN AMERICAN LIFE AND MATERIAL CULTURE 109
Religion and Beliefs 110
Subsistence and Foodways 113
Economic Activities, Property, and Internal Economy 115
Gender 121
PLANTATION LANDSCAPES AND THE BUILT ENVIRONMENT 127
House and Garden 127
Plantation Landscapes 133

VIII. ARCHAEOLOGICAL FIELDWORK RESULTS 137
METAL DETECTOR SURVEY 137
GEOPHYSICAL SURVEY 142
Magnetic Gradiometer 142
GPR 146
Archaeological Testing of Geophysics Results 151
EXCAVATION RESULTS 160
Unit Excavation 160
Feature Excavation 170

IX. FEATURE DESCRIPTIONS 179
ARCHITECTURE-RELATED FEATURES 180
Brick Structural Remains 180
Foundation Trenches: Features 89 and 90 (Structure 3) 196
Clay Borrow Pit: Feature 29 205
Posts 208
Hearths 226
Storage Pits 227
Feature 38 245
Feature 120 250
Feature 124 258
Feature 147 264
Feature 170 271
INDETERMINATE PITS 274
Feature 1 274
Feature 26 274
Feature 30 277
Feature 31 277
Feature 32 280

Feature 47 285
Feature 53 289
Feature 137 294
Feature 169 297
Feature 172 300
Feature 177 300
MIDDEN RESIDUE 304
Feature 5/121 305
Feature 46 308
Feature 48 312
Feature 49 314
Feature 85 318
Feature 98 320
Feature 101 324
Feature 106 326
Feature 131A 326
Feature 183 329
Feature 192 333
Midden Residue, Summary 339
DITCHES/TRENCHES 340
Features 115 and 116 340
Feature 142 342
Feature 163 342
Feature 166 347
Feature 181 349
Feature 182 351
Feature 184 351
Ditches and Trenches Summary 351
DEPOSITIONAL UNITS/LOCI 352

X. ARTIFACTS 355
PRECONTACT ARTIFACTS 355
HISTORIC ASSEMBLAGE DESCRIPTION 357
KITCHEN 357
Ceramics 358
Glass 378
Metal 379
ARCHITECTURE 379
CLOTHING 384
Buttons 384
Other Clothing Fasteners 391
Beads 395
Sewing and Textile Related 397
FURNITURE 399
PERSONAL 399
ACTIVITIES 407

TOBACCO 411
ARMS 412
MISCELLANEOUS 419
ARTIFACT SUMMARY 421

XI. ARCHAEOBOTANICAL ANALYSIS 423
ARCHAEOBOTANICAL ANALYSIS METHODS 425
ARCHAEOBOTANICAL ANALYSIS 426
Summary and Discussion of Nineteenth-Century Macroplant Remains 428
Distribution and Potential Uses of the Identified Seed Taxa 439
MACROPLANT REMAINS ASSOCIATED WITH ANTEBELLUM, MIXED ANTEBELLUM/POSTBELLUM, AND POSTBELLUM LOCI 458
Antebellum Occupation 459
Antebellum/Postbellum Loci 461
Postbellum Occupation 462
SUMMARY AND CONCLUSIONS 464

XII. ANALYSIS OF POLLEN AND PHYTOLITHS 467
POLLEN ANALYSIS 468
Theoretical Background 468
Methodology 470
PHYTOLITH ANALYSIS 475
Theoretical Background 475
Methodology 477
CHARACTERIZATION OF POLLEN SAMPLES 480
Assemblage Composition 481
Taxa 481
CHARACTERIZATION OF PHYTOLITH SAMPLES 489
Assemblage Composition 489
Phytolith Types 489
DISCUSSION 492
Feature 7 492
Feature 7A 493
Feature 38 493
Feature 53 494
Feature 82 494
Feature 120 495
Feature 147 495
Feature 173 496
Feature 181 496
ENVIRONMENT AND THE SITE 497
A COMPARISON OF FEATURES BY AGE 497
CROPS 499
SUMMARY 500

XIII. ZOOARCHAEOLOGICAL ANALYSIS 500

INTRODUCTION 501
ZOOARCHAEOLOGICAL METHODS 502
Faunal Sample 502
TAXONOMIC ANALYSES 504
Zooarchaeological Quantification 505
Taphonomic Analysis 505
ZOOARCHAEOLOGICAL RESULTS 507
EXCAVATION BLOCKS AND LOCI 509
Mammalia 522
Aves 523
Other Taxa 523
Unidentifiable Vertebrate 524
ZOOARCHAEOLOGICAL DISCUSSION 524
Antebellum 525
Civil War 525
Postbellum 525
SUMMARY 526

XIV. ANALYSIS OF RESEARCH TOPICS AND SYNTHESIS 527
CHRONOLOGICAL COMPARISON 527
CHRONOLOGICAL-SPATIAL DEVELOPMENT 534
SIZE, FORM, AND CONSTRUCTION OF SLAVE CABINS 536
PLANTATION LANDSCAPE 542
VILLAGE ORGANIZATION 543
Site-wide 543
Household 546
LIVE OAKS AS LANDSCAPE FEATURES 551
SUBFLOOR PITS 552
SEA ISLAND RELIGION AND BELIEF 555
ARTIFACT COMPARISONS: SLAVE AND PLANTER PATTERNS 556
Loci Comparison 561
PLANTATION AND MARKET, MARKET ACCESS, AND MATERIAL CORRELATES OF TASK LABOR 566
CC Index Analysis 567
Small Finds 572
FOODWAYS 574

XV. PUBLIC OUTREACH DURING THE 9CH1205 DATA RECOVERY 577
METHODOLOGY 577
Pre-Planning 577
Promotion & Public Relations 577
Promoting Public Opportunities 578
Engaging the African American Community 580
Partnerships 581
SITE COMPONENTS 582
Interpretation 582

Site Tours 584
Round Robins 589
ArchaeoBus 591
Interpretive Signage 593
SOCIAL MEDIA 593
CURRICULUM DEVELOPMENT AND CREATION 595
CHILDREN'S BOOK DEVELOPMENT AND CREATION 596
PUBLIC OUTREACH SUMMARY 596

XVI. CONCLUSIONS 599
RESEARCH CONTRIBUTIONS 599
EVALUATION OF METHODS 602
FURTHER RESEARCH/NEW QUESTIONS RAISED 606

REFERENCES CITED 607

APPENDIX A. RESEARCH DESIGN DEVELOPED FOR DATA RECOVERY 659
APPENDIX B. SPECIMEN CATALOG 661
APPENDIX C. GEOPHYSICAL SURVEY DATA 663
APPENDIX D. CROSS-REFERENCED FEATURE TABLES 665
APPENDIX E. ARCHAEOBOTANICAL ANALYSIS 667
APPENDIX F. ARCHAEOBOTANICAL DATA 669
APPENDIX G. ZOOARCHAEOLOGICAL SPECIMEN INVENTORY 671
APPENDIX H. UPDATED GEORGIA ARCHAEOLOGICAL SITE FORM 673
APPENDIX I. CURRICULUM VITAE OF PRINCIPAL INVESTIGATOR 675

LIST OF FIGURES

Figure 1. Project Location 2
Figure 2. Map of Site 9CH1205 3
Figure 3. Map Showing Placement of Gradiometer Grids 38
Figure 4. Map Showing Placement of GPR Grids 42
Figure 5. Eighteenth- and Nineteenth-Century Plantations in the Vicinity of 9CH1205 50
Figure 6. 1780 Map of Hardwicke and Ogeechee District 55
Figure 7. Detail from McKinnon's 1816 Map of Chatham County Depicting Wilson and Spencer Properties 60
Figure 8. Detail from Poe's 1864 Map of Chatham County Depicting William Miller's Property and Emphasizing Miller's Station 65
Figure 9. Detail from Dennis's 1865 Map of Chatham County Depicting William Miller's Property 67
Figure 10. Circa 1869 Map of Atlantic and Gulf Railroad Line Emphasizing Miller's Station as the First Stop on the Line out of Savannah 69
Figure 11. Detail from Frobel's Map of Chatham County Depicting Location of Miller's Station 70
Figure 12. Detail from Seutter's 1864 Map of Chatham County Depicting the Ogeechee District 73
Figure 13. Detail from Sneden's 1864 Map of Union Positions in Chatham County Depicting William Miller's Property and Emphasizing Miller's Station 77
Figure 14. Detail from Platen's 1875 Map of Chatham County Depicting William Miller's Property 87
Figure 15. Detail from Chapman et al.'s 1906 Map of Chatham County Depicting the Demere Tracts 89
Figure 16. Atlantic Engineering Company's 1916 Map of Tracts Containing the Project Area 90
Figure 17. 1950 Aerial Photograph of Tracts Containing the Project Area 93
Figure 18. 1952 Aerial Photograph of Tracts Containing the Project Area 94
Figure 19. Gay and Hussey's 1969 Map of Tracts Containing the Project Area 96
Figure 20. 1970 Aerial Photograph of Tracts Containing the Project Area 97
Figure 21. Detail of 1981 Aerial Photograph of the Project Area 98
Figure 22. Thomas and Hutton Engineering Company's 2007 Map of Lot 1 Containing the Project Area 100
Figure 23. Slave Housing 130
Figure 24. African American House Yards 131
Figure 25. Metal Detector Survey Results 138
Figure 26. Metal Detector Survey Results Sorted by Material 139
Figure 27. Magnetic Anomalies Within the Project Area 143
Figure 28. GPR Anomalies Within Site 9CH1205 149
Figure 29. GPR and Magnetometer Anomalies with Test Units and Machine Stripping Blocks 152

Figure 30. Geophysics Results and Test Excavations for Blocks 1 and 4 153
Figure 31. Geophysics Results and Test Excavations for Block 8 154
Figure 32. Geophysics Results and Test Excavations for Blocks 7 and 7a 155
Figure 33. Geophysics Results and Test Excavations for Block 5 156
Figure 34. Geophysical Results and Test Excavations for Block 6 157
Figure 35. Data Recovery Excavation Plan 161
Figure 36. Data Recovery Excavation Plan Detail 1 of 3 162
Figure 37. Data Recovery Excavation Plan Detail 2 of 3 163
Figure 38. Data Recovery Excavation Plan Detail 3 of 3 164
Figure 39. Representative Profile, West Part of Site (Block 3) 166
Figure 40. Representative Profile, East Part of Site (Block 4) 167
Figure 41. Representative Profile, North Part of Site (Block 7) 168
Figure 42. Photographs of Machine-Assisted Block Excavation 169
Figure 43. Cultural Features Identified at 9CH1205 171
Figure 44. Detail of Blocks 1 and 4 Showing Features 172
Figure 45. Detail of Block 2 Showing Features 173
Figure 46. Detail of Block 5 Showing Features 174
Figure 47. Detail of Block 8 Showing Features 175
Figure 48. Detail of Blocks 9 and 10 Showing Features 176
Figure 49. Feature 82 Plan 181
Figure 50. Photographs of Feature 82 182
Figure 51. Selected Artifacts from Feature 82 186
Figure 52. Feature 173 Plan 189
Figure 53. Photographs of Feature 173 190
Figure 54. Selected Artifacts from Feature 173 192
Figure 55. Plan and Photograph of Feature 176 195
Figure 56. Plan and Profiles of Features 89 and 90 197
Figure 57. Photographs of Features 89 and 90 198
Figure 58. Photographs of Feature 89 Cross Sections 200
Figure 59. Photographs of Feature 90 Cross Sections 202
Figure 60. Plan and Profile of Feature 29 206
Figure 61. Photographs of Feature 29 207
Figure 62. Plan of Plan Cluster 1 and Associated Features 210
Figure 63. Photographs of Post Cluster 1 211
Figure 64. Post Cluster 1 Profiles 212
Figure 65. Profile Photographs of Post Cluster 1 213
Figure 66. Plan and Profile of Post Cluster 2 and Feature 38 218
Figure 67. Photographs of Post Cluster 2 219
Figure 68. Plan and Profiles of Post Cluster 3 and Associated Features 222
Figure 69. Photographs of Post Cluster 3 223
Figure 70. Plan and Profile of Feature 28 228
Figure 71. Plan and Profile of Feature 45 229
Figure 72. Photographs of Feature 45 230
Figure 73. Plan of Features 7, 7A, and 7B 232
Figure 74. Features 7, 7A, and 7B Exposed at Base of Plow Zone 233
Figure 75. North Profile of Feature 7, 7A, and 7B 235

Figure 76. Photographs of Feature 7A 236
Figure 77. Photographs of Feature 7 241
Figure 78. Plan and Profile of Feature 38 246
Figure 79. Photographs of Feature 38 247
Figure 80. Plan and Profile of Feature 120 251
Figure 81. Photographs of Feature 120 252
Figure 82. Selected Artifacts from Feature 120 254
Figure 83. Iron Animal Trap from Feature 120 257
Figure 84. Plan and Profile of Feature 124 259
Figure 85. Photographs of Feature 124 260
Figure 86. Selected Artifacts from Feature 124 263
Figure 87. Plan and Profile of Feature 147 265
Figure 88. Photographs of Feature 147 266
Figure 89. Coffee Pot Recovered from Feature 147 268
Figure 90. Plan and Profile of Feature 170 272
Figure 91. Photographs of Feature 170 273
Figure 92. Plan and Profile of Feature 30 278
Figure 93. Photographs of Feature 30 279
Figure 94. Plan and Profile of Feature 31 281
Figure 95. Photographs of Feature 31 282
Figure 96. Plan and Profile of Feature 32 283
Figure 97. Photographs of Feature 32 284
Figure 98. Plan and Profile of Feature 47 287
Figure 99. Photographs of Feature 47 288
Figure 100. Plan and Profile of Feature 53 291
Figure 101. Photographs of Feature 53 292
Figure 102. Plan and Profile of Feature 137 295
Figure 103. Photographs of Feature 137 296
Figure 104. Plan and Profile of Feature 169 298
Figure 105. Photographs of Feature 169 299
Figure 106. Plan, Profile, and Photographs of Feature 172 301
Figure 107. Plan and Profile of Feature 177 302
Figure 108. Photographs of Feature 177 303
Figure 109. Plan and Profile of Feature 121 306
Figure 110. Photographs of Feature 121 307
Figure 111. Embossed and Molded Bottle Fragments from Feature 5/121 309
Figure 112. Plans and Profiles of Features 46, 48, 49, and 131A 310
Figure 113. Photographs of Feature 46 311
Figure 114. Photographs of Feature 48 313
Figure 115. Photographs of Feature 49 316
Figure 116. Representative Glass Artifacts from Feature 49 317
Figure 117. Photographs of Feature 85 319
Figure 118. Bottle Recovered from Feature 85 321
Figure 119. Plans and Profiles of Features 98 and 101 322
Figure 120. Photographs of Feature 98 323
Figure 121. Photographs of Feature 101 325

Figure 122. Plan, Profile, and Photographs of Feature 106 327
Figure 123. Photographs of Feature 131A 328
Figure 124. Plan and Profile of Feature 183 330
Figure 125. Photographs of Feature 183 331
Figure 126. Lathed Bone Artifacts from Feature 183 334
Figure 127. Plan and Profile of Feature 192 335
Figure 128. Photographs of Feature 192 336
Figure 129. Ceramic Face Pipe from Feature 192 338
Figure 130. Photographs of Features 115 and 116 341
Figure 131. Plan and Profile of Feature 142 343
Figure 132. Photographs of Feature 142 344
Figure 133. Plans and Profiles of Features 16, 164, 165, and 166 345
Figure 134. Photographs of Feature 163 346
Figure 135. Photographs of Feature 166 348
Figure 136. Profiles and Photographs of Features 181 and 184 350
Figure 137. Map of Occupation Loci 353
Figure 138. Representative Precontact Artifacts 356
Figure 139. Representative Vessel Forms 359
Figure 140. Representative Ironstone 363
Figure 141. Ceramic Makers and Pattern Marks on Whiteware and Ironstone 364
Figure 142. Transfer Printed Ceramics 365
Figure 143. Dipped/Factory-Made Slipware 367
Figure 144. Blue Painted Ceramics 368
Figure 145. Polychrome Painted Ceramics 369
Figure 146. Examples of Shell Edge Ceramic Motifs 370
Figure 147. Molded/Embossed Ceramics 371
Figure 148. Porcelain 373
Figure 149. Representative Stoneware Types 374
Figure 150. Utilitarian Earthenware 376
Figure 151. Unusual Ceramic Artifacts 377
Figure 152. Representative Metal Kitchen Group Artifacts 380
Figure 153. Examples of Architectural Hardware 383
Figure 154. Prosser and Similar Buttons 385
Figure 155. Selected Cuprous Buttons 387
Figure 156. Button Maker's Marks 390
Figure 157. Shell, Bone, and Synthetic Buttons 392
Figure 158. Other Clothing Fasteners 393
Figure 159. Beads and Possible Shirt Stud/Cufflink 396
Figure 160. Sewing and Textile-Related Artifacts 398
Figure 161. Furniture Group Artifacts and Related Miscellaneous Artifacts 400
Figure 162. Personal Artifacts 401
Figure 163. Coins 404
Figure 164. Folding Knives 406
Figure 165. Selected Activity Group Artifacts 409
Figure 166. Tobacco Pipes 413
Figure 167. Ammunition and Projectiles 415

Figure 168. Miscellaneous X-Shaped Metal Object 420
Figure 169. Detailed Map of Locus 1 528
Figure 170. Detailed Map of Loci 2 and 7 with Post Cluster 3 529
Figure 171. Detailed Map of Loci 3 and 4 530
Figure 172. Detailed Map of Loci 5 and 8 531
Figure 173. Detailed Map of Loci 6 and 9 532
Figure 174. Detailed Map of Chronological Distribution of Loci 533
Figure 175. Antebellum Settlement at 9CH1205 (Circa 1820s-1850) 535
Figure 176. Late Antebellum Settlement at 9CH1205 (Circa 1840-1860s) 537
Figure 177. Postbellum Settlement at 9CH1205 (Circa 1860s-1880) 538
Figure 178. House and Yard Areas, Loci 1, 2, and 3 547
Figure 179. Feature 40 548
Figure 180. Locations of Live Oak Trees at Site 9CH1205 and Vicinity 553
Figure 181. Photographs of Tours of the Site 586
Figure 182. Visitor Statistics 587
Figure 183. Boy Scouts and Girl Scouts Participation at Site 590
Figure 184. Activities at the Site for Tour Participants 592
Figure 185. ArchaeoBus Site in Nearby Picnic Area 594

LIST OF TABLES

Table 1. Artifact Counts, TPQ and MCD Dates from 9CH1205 16
Table 2. Libraries and Historic Collections Used in the Preparation of This Report 32
Table 3. Gradiometer Grids 36
Table 4. GPR Grids 40
Table 5. Chain of Title for the 9CH1205 Project Area 51
Table 6. English Land Grants For and Around the 9CH1205 Project Area 56
Table 7. Union Forces Present at Miller's Station, December 10-21, 1864 76
Table 8. Families and Occupations of Households near William H. Miller from 1870 Federal Census 85
Table 9. Metal Detector Finds 141
Table 10. Metal Detector Finds Sorted By Material (Metal Only) 141
Table 11. Magnetic Anomalies 144
Table 12. GPR Anomalies 146
Table 13. Tested Anomalies and Excavation Results 158
Table 14. Number and Distribution of 2x1-Meter Sampling Units 160
Table 15. Summary of Machine Stripped Block Size 165
Table 16. Feature Summary, 9CH1205 Data Recovery 170
Table 17. Feature Distribution By Excavation Block 177
Table 18. Total Features, Including Phase I/II 179
Table 19. Architecture-Related Features 180
Table 20. Feature 82, Associated Units, and Block 5 Plow Zone Stripping Artifact Groups 183
Table 21. Feature 173 Artifact Groups 188
Table 22. Features Identified as Posts 208
Table 23. Artifact Groups, Feature 7A 237
Table 24. Feature 7A, Ceramics 238
Table 25. Artifact Groups, Feature 7 240
Table 26. Feature 7, Ceramics 242
Table 27. Feature 38 Artifact Groups 248
Table 28. Feature 120 Artifact Groups 253
Table 29. Feature 124 Artifact Groups 258
Table 30. Feature 147 Artifact Groups 264
Table 31. Feature 170 Artifact Groups 271
Table 32. Feature 26 Artifact Groups 275
Table 33. Feature 47 Artifact Groups 286
Table 34. Feature 53 Artifact Groups 290
Table 35. Feature 137 Artifact Groups 294
Table 36. Feature 46 Artifact Groups 312
Table 37. Feature 48 Artifact Groups 314
Table 38. Feature 49 Artifact Groups 315
Table 39. Feature 131A Artifact Groups 329

Table 40. Feature 183 Artifact Groups 332
Table 41. 9CH1205 Depositional Units 354
Table 42. Data Recovery Artifact Assemblage Overview 357
Table 43. Pearlware Recovered During the Data Recovery 360
Table 44. Whiteware Recovered During the Data Recovery 360
Table 45. Ceramic and Makers Marks on Whiteware and Ironstone 361
Table 46. Stoneware Types Found During the Data Recovery 372
Table 47. Nail Assemblage, 9CH1205 Data Recovery 381
Table 48. Architectural Hardware 382
Table 49. Buttons Recovered During Data Recovery 384
Table 50. Coins from Plow Zone Contexts 402
Table 51. Metal Artifacts, Activities Artifact Group 407
Table 52. Ammunition Recovered from Site 9CH1205 416
Table 53. 9CH1205 Analyzed Archaeobotanical Sample Proveniences 423
Table 54. Summary of Identified Carbonized Seeds, Total Count, Overall Ubiquity 427
Table 55. Summary of Carbonized Macroplant Remains 428
Table 56. Density of Carbonized Wood Charcoal, Resin, Nutshell, Maize, and Seeds (Per Liter of Floated Soil) 432
Table 57. Floated Volume (L) and Density of Carbonized Seeds from Locus 1-9 432
Table 58. Number of Identified Taxa, Proportions, and Seed Count from Loci 1-9 434
Table 59. Number and Proportion of Seeds Recovered from Locus 3-7 Features with High Seed Densities 435
Table 60. Summary of Carbonized Macrofloral Remains from Antebellum, Mixed Antebellum/Postbellum, and Postbellum Loci 459
Table 61. Pollen and Phytolith Proveniences from 9CH1205 467
Table 62. Pollen Taxa Identified in the 9CH1205 Pollen and Phytolith Samples 471
Table 63. Pollen Counts from the 9CH1205 Sediment Samples 472
Table 64. Pollen Percentages from the 9CH1205 Sediment Samples 474
Table 65. Phytolith Counts from 9CH1205 478
Table 66. Phytolith Percentages from 9CH1205 479
Table 67. Pollen Percentages Arranged by Presumed Age 498
Table 68. Faunal Remains by Recovery Context 502
Table 69. Taxonomic Distribution of Faunal Remains 507
Table 70. Distribution of Faunal Remains by Excavation Block and Loci 509
Table 71. Assemblage Overview Excluding Miscellaneous Artifacts 557
Table 72. Assemblage Overview Excluding Faunal Materials 557
Table 73. Comparison with Georgia and South Carolina Plantation Artifact Patterns 558
Table 74. Site 9CH1205 Compared to Colonel's Island Ex-Slave Pattern and Mitchelville Freedmen 560
Table 75. Artifact Patterns, Seabrooke Plantation, South Slave Row 560
Table 76. Comparison of Artifact Group Frequencies by Locus 561
Table 77. Adjusted Comparison of Artifact Group Frequecies by Locus* 562
Table 78. Artifact Frequencies Arranged in Chronological Order 563
Table 79. Vessel Forms Identified Among Depositional Units 568
Table 80. Decoration Types 569
Table 81. Vessel Forms by Locus 569

Table 82. Decoration Types Sorted By Vessel Form 570
Table 83. CC Index Analysis Results 571

I. INTRODUCTION

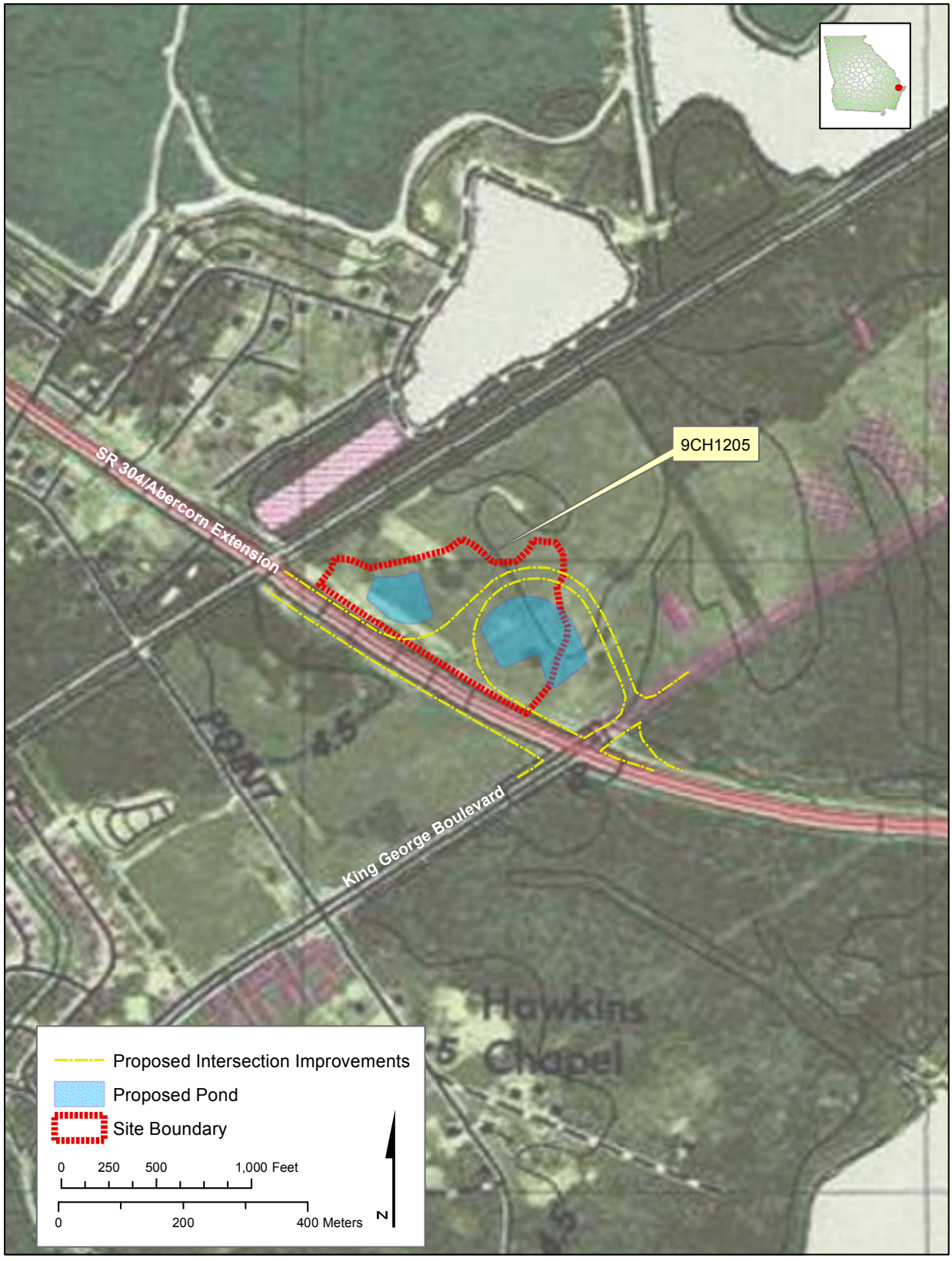
Brad Botwick

The Georgia Department of Transportation (GDOT) intends to make improvements to State Route (SR) 204/Abercorn Extension in Chatham County (Project NH000-0111-01(024); PI 522870). Part of this project would involve replacing the existing intersection at SR 204 and King George Boulevard. Archaeological Site 9CH1205, representing an African American slave and freedpeople settlement, lies northwest of the existing intersection and would be impacted by construction. Because the site was determined eligible for the National Register of Historic Places (NRHP), an archaeological data recovery was completed to mitigate the adverse effects of the planned construction. This report describes the research goals, methods, and results of the data recovery. New South Associates, Inc., under contract with Atkins North America, completed the work for this study. The work was pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), and Section 4(f) of the Department of Transportation Act of 1966. The study provided new insights into the life, culture, and experiences of a nineteenth-century Gullah/Geechee community in Georgia.

Site 9CH1205 lies near the Georgetown community in the south-central part of Chatham County and northwest of the intersection of SR 204 and King George Boulevard (CR 71) (Figure 1). The planned undertaking involves improvements to a 2.34-kilometer (1.46-mi.) section of SR 204 between Pine Grove Road (CR 68) and Veterans Parkway (CR 975). The objective of this undertaking is to replace the existing at-grade intersection of SR 204 and King George Boulevard (CR 71) with a new grade-separated trumpet interchange northwest of the existing junction. Grading and emplacement of fill for the new roadway, along with creation of retention ponds and related construction tasks, would impact portions of the site that have been determined eligible for the NRHP (Figure 2).

Site 9CH1205 was identified during a Phase I survey of the project area by Edwards-Pitman Environmental, Inc. (EPEI). Initial investigations and Phase II evaluation of the site included 15-meter (50-ft.) interval shovel testing, test unit excavation, metal detector survey, ground penetrating radar (GPR) survey, and archival research (Silliman and Quirk 2009). Supplemental geophysical investigations were conducted by GDOT to better determine the potential for intact cultural features. This additional work included visits by arborists to inspect several live oak trees on the site property and evaluate their age and health (Baughman 2010). One, located in

Figure 1.
Project Location Map



Source: USGS 7.5" Quadrangle, Burroughs, Georgia (1988)

Source: ESRI Resource Data

Figure 2.
Map of Site 9CH1205

the eastern portion of the site, was estimated to be between 300 and 400 years old, while four others at the northern edge of the site were between 100 and 200 years of age. These live oaks, which were determined to be historic, have been registered as historic trees with the Georgia Urban Forest Council. Project plans were developed to avoid the trees and leave them in place.

The identification and evaluation studies suggested the site represented portions of a plantation dating to the early through mid-nineteenth century. Archaeological and historical evidence pointed toward the site being an isolated slave settlement. The data further indicated that Federal troops established a temporary camp at or near the site as General Sherman's army approached Savannah in December 1864. Based on the evaluation, EPEI recommended the site eligible under Criteria A and D. The recommendation for Criterion A related to the site's association with the Union Army occupation. For Criterion D, the site was judged to have a significant potential for archaeological research into aspects of plantation life and culture in coastal Georgia (Silliman and Quirk 2009:145-147). Because the site's value was due to its significant archaeological data, it was subject to mitigation by excavation.

Work completed for the data recovery involved archival research, archaeological fieldwork, and analysis. The work was intended to address a variety of questions concerning the lifeways of Lowcountry plantation slaves as well as the Civil War encampment. As fieldwork and analysis proceeded, it became apparent that the remnants of the Civil War encampment were not as substantial as originally thought and research questions dealing with this component could not be addressed. The African American component, however, appeared to extend after the war and so the analysis was reoriented to take into account aspects of life after Emancipation.

The historical and background research for this study focused on better understanding the land ownership and land use history of the site. Particular attention was given to finding the occupants of the site. Although no specific residents could be identified, the absence of any known historic settlement in the site's location and its association with larger plantations strongly implied that the site began as a slave quarter located apart from the planter's residence.

Fieldwork and analysis for this project integrated several techniques and technologies, including metal detector survey, geophysical survey, machine-assisted clearing, and hand excavation. Analysis focused on a variety of topics concerning the site's residents and broader questions about slavery and the postbellum period in the site region. An important component of this project was a public outreach program that enabled visitors to tour the site during excavation and learn about archaeological research and procedures in a historic preservation context.

The remainder of this report is organized as follows: Chapter II provides environmental and general historic contexts for the site. Chapter III contains a detailed discussion of the previous historical and archaeological investigations at 9CH1205 from its discovery to evaluation.

Chapters IV and V present the research design developed for the data recovery project and the methods used to accomplish the work. Chapter VI provides a site-specific history and overviews of certain historical events that potentially had a bearing on the archaeological deposits. Chapter VII provides a context for African American life and culture in the Lowcountry that provided a basis for interpretations of the archaeological data. Chapter VIII describes the general results of fieldwork, while Chapter IX presents feature descriptions. Chapter X contains descriptions of the artifact assemblage and Chapters XI, XII, and XIII present the results of archaeobotanical, pollen and phytolith, and zooarchaeological studies. Chapter XIV presents the results of analysis and addresses the research issues. Chapter XV describes the public outreach program and, finally, Chapter XVI presents conclusions.

A companion volume provides appendices with information related to this report. Appendix A contains the research design developed for the data recovery. Appendix B provides the specimen catalog. Geophysical survey data is provided in Appendix C. Cross-referenced feature tables can be found in Appendix D. The archaeobotanical analysis and raw archaeobotanical data are in Appendices E and F. A zooarchaeological specimen inventory follows in Appendix G. The updated Georgia Archaeological Site Form is provided in Appendix H. Finally, Appendix I contains the curriculum vitae of the Principal Investigator.

II. ENVIRONMENTAL AND HISTORICAL OVERVIEW

Brad Botwick

ENVIRONMENTAL OVERVIEW

Site 9CH1205 is in the Lower Coastal Plain physiographic province of Georgia. The Coastal Plain consists of a flat, weakly dissected lowland composed of marine sediments (McNab and Avers 1994). The Lower Coastal Plain incorporates five Quaternary beach complexes created by fluctuating sea levels (Wilkes et al. 1974), each consisting of a sandy beach ridge with relatively high relief and former tidal marshes to its west. Site 9CH1205 is within the Pamlico Formation, which lies between 3.3 and 10 meters (10-30 ft.) above sea level (asl). The site vicinity is within the Sea Islands/Coastal Marsh subdivision of the Coastal Plain, which is characterized by low elevations and a dynamic environment influenced by ocean wave, wind, and river action (Griffith et al. 2001). Site 9CH1205 occupies a wide, generally level to slightly undulating plain that has been heavily eroded to form a peninsula at the confluence of the Little Canoochee and Little Ogeechee rivers. Elevations at the site are about 3.0 meters (10 ft.) asl.

The underlying geology of the project area consists of sedimentary rocks overlain by Quaternary age marine deposits. Specific bedrock units in the project area are associated with the Pleistocene Penholoway Shoreline Complex-marsh and lagoon facies and the barrier island facies (Lawton 1977). The latter of these represents a relict barrier island composed of windblown fine quartz sands, while the former reflects flooded zones that subsequently developed into saltmarsh (Johnson et al. 2005).

The project area lies in the Ogeechee River drainage basin. Watercourses in the vicinity meander through wide, shallow valleys with marshy floodplains. Tidal influence may be experienced as far as 30 miles from the coast under low flow conditions (Georgia Department of Natural Resources 2001:2.7). Site 9CH1205 and the associated historic plantations are most closely associated with Grove River, an anabranch of Little Ogeechee River (Forest River). Little Canoochee River, a mid-order tributary of Little Ogeechee River, is the closest perennial stream to 9CH1205, being located 0.64 kilometers (0.4 mi.) to the north. Historically, no known perennial water sources were located at the site.

Soils in the fresh, brackish, and salt marshes of the Sea Islands/Coastal Marsh region are organic and clayey (Griffith et al. 2001). The U.S. Department of Agriculture (USDA) mapped two soil units in the project area: Ocilla Complex and Pelham loamy sand. The Ocilla Complex covers the majority of the site and consists of mainly Ocilla soils, which are somewhat poorly drained and formed in sandy and loamy marine sediments. They are on low uplands and stream terraces with slopes of 0-2 percent. Soils mapped as Ocilla complex also contain Pelham and Ellebelle soils. Pelham soils are primarily in the eastern portion of the site and consist of poorly drained, nearly level soils in drainageways, on flats, and in depressions. They formed in sand and loamy materials and have slopes under two percent ((Soil Survey Staff 2014).

The regional climate has remained stable for the past 2,400 years (Quitmyer 1985). Summers are warm, humid, and long with high temperatures averaging over 80 degrees Fahrenheit. Winters are mild and short, with temperatures seldom dropping below freezing. Mean annual rainfall is between 115-127 centimeters (45-50 in.) with common thunderstorms during the summer. Snowfall is rare (Wilkes et al. 1974:67).

Natural vegetation in the Coastal Plain is mainly southern mixed forest and oak-hickory-pine forest with smaller areas of southern floodplain and pocosin. Forest cover type is mainly longleaf pine and loblolly. Oak-gum-cypress forest is common along floodplains and major rivers. These areas contain water oak, laurel oak, swamp tupelo, sweetbay, bald cypress, and pond cypress. Localized areas of mostly hardwoods occur and include laurel oak, water oak, sweetbay, sweetgum, live oak, red maple, and spruce pine (Griffith et al. 2001; McNab and Avers 1994). In the lower Ogeechee River basin, extensive coastal marshes and interior swamps dominate. Characteristic vegetation consists of gum and cypress, with subclimax pine forests in the uplands. Understory vegetation includes grasses and sedges (Soil Survey Staff 2014:2.14). Various species of cordgrass, saltgrass, and rushes dominate the marshes (Griffith et al. 2001).

Animal species that are, or were, present in the project region and that might have been important to precontact and historic human economies include white-tailed deer, black bear, bobcat, gray fox, raccoon, cottontail rabbit, gray squirrel, and swamp rabbit. Birds include turkey, bobwhite, mourning dove, the now-extinct passenger pigeon, heron, and egret, as well as resident and migratory waterfowl. Reptiles and amphibians include box turtle, American alligator, and varieties of snake. Fish include members of the sucker family, which comprise the largest biomass, along with the sunfish and bass family and catfish (McNab and Avers 1994; Soil Survey Staff 2014). Marine species are also readily available in the site vicinity and include seatrout, drum, and bass, as well as shellfish, crabs, and shrimp.

CHATHAM COUNTY HISTORICAL OVERVIEW

The project area lies west of the City of Savannah in southern Chatham County. This area is one of the earliest in Georgia to be settled by Europeans. Chatham County was formed from the colonial parishes of Christ Church and St. Phillip in 1777.

Although claimed and fought over by the Spanish, French, and English during the sixteenth and seventeenth centuries, coastal Georgia's European colonization began in earnest in 1733 with 120 English settlers landing at Yamacraw Bluff on the Savannah River. The settlement was placed here to create a buffer between Charles Town in Carolina and the Spanish in St. Augustine, and, the settlement provided a place to send the indigent of Great Britain. At the request of 21 "prominent" men, King George II granted a charter to the "Trustees for Establishing the Colony of Georgia" in 1732 to establish a colony (Coleman 1991). James Oglethorpe, a member of the Trust, volunteered to lead the first group of settlers.

The colony grew slowly during the 21-year trustee oversight period. The trustees intended to create a society of small landholders supporting themselves with intensive agriculture and related activities. Slavery, already a feature of the adjacent Carolina colony, was forbidden, as was the production and use of rum (Meinig 1986:181). Plans for silk and wine production, however, proved ill-suited to the Georgia coast, while the prohibition on slavery prevented the development of a plantation economy. The restrictive laws and regulations, combined with disappointing returns, caused considerable local discontent and when the Royal charter expired in 1752, the crown took over the colony and removed restrictions on slavery, land ownership, and other factors. The colony's economy expanded as rice planters poured south from Carolina to establish rice plantations in the coastal swamps and tidal marshes (Bagwell 2000:1; Coleman 1991; Meinig 1986:181–182; Rogers and Saunders 1984:152). This period of economic expansion caused Savannah's spread beyond its original limits and contributed to its emergence as an urban and cosmopolitan center (Bagwell 2000:1).

As a result of these developments, the landscape and society of coastal Georgia came to resemble that of the South Carolina Lowcountry. Large plantations worked by gangs of slaves were a feature of the landscape, and wealthy planters sat at the top of the social, economic, and political hierarchies. Settlement remained sparse, however, and although the land was claimed, it was not always occupied or cultivated and large tracts were set aside for forestry, pasture, and hunting (Meinig 1986:183).

Moreover, although the aristocratic planter class controlled the social and economic realms, large plantations did not dominate the landscape. Small farms were more characteristic (Coleman 1991:53; Rogers and Saunders 1984:151, 159–160). These small operators were mostly Anglo

farmers who established farmsteads on land not snatched up by wealthy planters and tried to emulate planters by buying what slaves they could afford and putting them to work raising marketable commercial products (Meinig 1986:183–184). By the closing decades of the eighteenth century, extensive plantations and small farms, peopled by Anglo- and African Americans, typified the region. Economic activities focused on agriculture with subsidiary interests in cattle and extractive industries, particularly those related to forest products. These patterns of society and landscape persisted in the region until after the Civil War.

Between 1778 and 1782, British forces occupied Savannah, but economic prosperity returned after the war and the city continued to grow. The decades prior to the Civil War were a period of sustained and dramatic growth for the city, fueled in part by construction of the Central of Georgia Railroad, built between 1836 and 1843 (Janes 1876:176). The railroad supported economic vitality by providing transportation ties between the city and its hinterland. Another important infrastructure development of the antebellum era was the Savannah-Ogeechee Canal, completed in 1831, which allowed Savannah to tap into a wider hinterland (Botwick and Finlay 2000).

Railroads, ports, and a strong industrial base made Savannah a strategic target of the Union forces during the Civil War and led to a blockade of the city beginning in 1863. The blockade continued until December 1864, when Savannah was captured and occupied by General Sherman's army.

The Civil War had significant impacts on the region beyond the destruction of property and infrastructure. In its aftermath, economic and social patterns existing since the colonial period were toppled. New farming patterns arose, with subsistence farming becoming more typical of the former rice planting areas. Large plantation owners stopped producing rice and cotton as staple crops until the 1870s, when cotton again became important (Coleman 1991:227; Rogers and Saunders 1984:160–161, 164)). Rice, conversely, never regained its prominence in the economy and was produced only on a small scale for subsistence. Instead of growing commercial crops, landowners rented out acreage for turpentine production, pasture, or timber (Rogers and Saunders 1984).

Historic maps indicated these patterns prevailed through the end of the nineteenth century. Platen (1875) illustrated sparse settlement that was typical of rural/agricultural communities, while Koch (1891) depicted the outskirts of the city as agricultural fields. These areas were mostly divided into small farms occupied by tenant farmers. Rural industries included grain and saw milling operations, tanneries, distilleries, brick manufacture, and fertilizer production. Timber industries and agriculture continued to dominate the economy through most of the

twentieth century. Areas with poor quality soils were mostly left uncultivated or planted in pine, while more fertile areas produced corn, peanuts, tobacco, soybeans, and small grains. While the economy of the project area remained agricultural, developments since the early twentieth century included the advent of electricity, paved roads, and mechanized farm equipment, which resulted in changes to the rural landscape, as well as shifts in labor and transportation.

Chatham County in the twentieth century is oriented around industry and transportation, with tourism also an important component of the economy (Clayton 2011). Land use in the project vicinity mostly reflects suburban growth associated with Savannah (Bailey et al. 1995:21).

III. SITE 9CH1205 IDENTIFICATION AND PREVIOUS RESEARCH

Brad Botwick

EPEI identified Site 9CH1205 during a Phase I survey of proposed SR 204 improvements in 2008 and completed a Phase II evaluation of the site in early 2009 (Silliman and Quirk 2009). This chapter summarizes the prior work conducted at the site and the preliminary interpretations, which provided the basis for the development of the data recovery research design.

PHASE I SURVEY

Phase I survey for the SR 204 project involved systematic excavation of shovel tests spaced 30 meters (100 ft.) apart. When sites were discovered, their boundaries within the project APE were delineated, and internal artifact distributions were ascertained, with shovel tests at 15-meter (50-ft.) intervals. EPEI excavated 203 shovel tests at Site 9CH1205, of which 74 (36%) were positive, yielding 488 historic artifacts, or a density of approximately 6.6 artifacts per test. This testing revealed the greatest concentration of positive tests along the southern and eastern edges of the site. Smaller clusters of positive tests were found in the northeast corner and in the north central site area, as well as isolated positives in the central area. Fewer shovel tests at 15 meters were dug in the north-central part of the site.

Based on the shovel testing, EPEI plotted distributions of selected artifact types by weight and displayed these results graphically in SURFER. Distributions of brick, historic ceramics, nails, and oyster shell each displayed concentrations in the south-southeastern part of the site, as well as isolated spikes in other locations. The oyster shell in this case was interpreted as evidence for tabby construction rather than subsistence because of its association with architectural materials. Brick was the only variation in this pattern, showing a relatively low-weight but widespread scatter in the south-southeast, but high-weight, small distributions in other locations. The spread of building materials was considered useful in projecting archaeological feature locations (Silliman and Quirk 2009:56-57).

HISTORICAL RESEARCH

Cartographic sources provided clues to the historic functions and associations of 9CH1205. The site is located in an upland flat between the confluence of the Little Ogeechee River (to the north and east) and the Grove River (to the south). The earliest map of the area discovered by Silliman and Quirk (2009:66) was an 1816 view showing roads, plantations, and settlements (see Figure 7 in Chapter VI. Site History). While the map showed that marshlands along the Little Ogeechee River tributaries north (upstream) of the site had been converted into tidal rice fields by this time, no indications of similar land use were shown for the marshes in the site vicinity. Although the map did not show an occupation in the location of 9CH1205, the site was projected to lie at the end of a road. If the road extended further southeast, it would have reached a settlement on the marsh bluff edge labeled "Wilson's." Another settlement, "Spencer's," was to the east. Access roads to both plantations/settlements probably intersected in the area of 9CH1205 (Silliman and Quirk 2009:66). Given the absence of tidal rice fields, both plantations may have been engaged in upland Sea Island cotton and/or subsistence agriculture at this time.

A map prepared by Federal cartographers during General Sherman's attack on Savannah showed roadways and settlement at that time (see Figure 8). The Atlantic and Gulf Railroad (built in 1850) had been built west of Site 9CH1205 with "Miller's Station" in the site vicinity. This station was the first stop south of Savannah. The map also showed Site 9CH1205 northwest of the intersection of two roads that roughly match up with present-day SR 204 and King George Boulevard.

Silliman and Quirk (2009) indicated that 9CH1205 belonged to either the Wilson family or the Spencers before 1840 and became part of William H. Miller's plantation after that date. The site was projected to lie near the boundary between the Spencer and Wilson properties, and it was unclear to which it belonged. The Wilsons obtained property in the area in 1755, after the end of the Trustee period. Various Wilson family members owned land on either side of the Little Ogeechee River in the late eighteenth century. By the 1780s, planter John Wilson owned the tract containing or adjacent to 9CH1205. His estate inventory of 1789 indicates that he owned 10 slaves as well as livestock, plantation tools, and furnishings. His son James, about whom less is known, inherited the property. However, federal census records indicate that James owned only two slaves in 1820, suggesting he was not involved in plantation agriculture then. James Wilson sold his property to William H. Miller in 1840 (Silliman and Quirk 2009:63–64).

Silliman and Quirk (2009:64) did not identify any property records associated with "Spencer" in their title search. At the time Miller bought Wilson's tract, it was bounded to the north by land of Henry Scott, which Miller bought at auction in 1851. Silliman and Quirk (2009:64) believed

that, "[b]ased on physical descriptions, it appears that prior to 1840, Site 9CH1205 is part of either the northern portion of the James Wilson tract or the southern portion of the Henry Scott tract." William Miller had substantial land holdings in the area. The 1850 census listed him as residing in the Little Ogeechee District and the owner of 60 enslaved African Americans, including 28 males and 32 females. The 1860 census recorded Miller as a resident of Cherokee Hill District north of Savannah, suggesting he may have abandoned his Little Ogeechee River plantation by then. The tract remained in his name until 1880, when Raymond Demere, the executor of Miller's estate, sold it. Demere listed the property at that time as containing "two comfortable residences" as well as 500 acres of cleared land, 100 acres of which were under cultivation (Silliman and Quirk 2009:64–65).

Federal forces occupied the area during Sherman's Savannah Campaign. Both diaries and After Action Report's (AAR) indicate that the 15th Army Corps (AC), with a force of up to 1,000 men, occupied Miller's Station and Miller's Plantation for a period of two weeks in December 1864. Silliman and Quirk (2009) suggested that these forces might have occupied buildings in the site area that were remnants of Miller's plantation but that had been abandoned when Miller moved north around 1860.

PHASE II ARCHAEOLOGICAL EVALUATION

Phase II archaeological fieldwork included the excavation of 10 test units (TUs) measuring 2x1-meters (6.6x3.3-ft.) plus two additional 1x1-meter TUs to further expose cultural features (Silliman and Quirk 2009). EPEI first conducted metal detector survey over a portion of the site to supplement the initial Phase II evaluation (Silliman 2009), while GDOT performed GPR surveys over two separate periods in 2009, one concurrently with EPEI's investigations in February and one during June (Baughman 2010). Metal detector survey was initially completed to identify nail concentrations, thought to indicate the presence of historic structures, and to locate and assess the site's Civil War component. Metal detector survey focused on the southeastern part of the site, and produced 75 metal and non-metal artifacts, only one of which, a Spencer rifle shell, could clearly relate to a Civil War component. Silliman and Quirk (2009:73) recommended additional survey with a metal detector capable of distinguishing iron from other metal to a depth of 60 centimeters.

Following the metal detector survey, GDOT archaeologists conducted GPR and magnetic gradiometer survey of three 20x20-meter (60x60-ft.) grids in the southeastern part of the site. This work identified several anomalies of interest, and guided the locations of TUs 10 and 11, both of which exposed cultural features.

Phase II test units identified 10 features in total, seven being interpreted as cultural. These included two (Features 1 and 2) in TU 1-3 (a combination 1x2 and 1x1 unit). Feature 1 was a basin shaped pit and Feature 2 was a round post. Feature 3 was found in TU 6 and was first identified as a post but proved to be a taproot. Feature 5 was also found in TU 6 and was interpreted as a post. Feature 4, another post, was found in TU 7. Feature 7 was identified by the magnetometer survey and was found in TU 10-12 (a combination 1x2 and 1x1 units). This feature proved to be a large pit whose boundaries extended beyond the test units. Partial excavation of Feature 7 yielded 2,867 historic artifacts and one plain precontact sherd. The historic artifacts were predominantly domestic artifacts from the first half of the nineteenth century. Feature 8 was a small pit found in TU 11, while Feature 10 was a post also found in this test unit. No information was provided for Features 6 and 9, suggesting they were natural disturbances. Artifacts recovered in the unit excavations were reported as domestic materials (ceramics and glass); architectural artifacts including nails, brick, and tabby; faunal remains; Civil War military artifacts; and a small quantity of precontact plain earthenware pottery. The latter was thought to be potentially African American colonoware. The domestic materials predominantly dated from the second half of the eighteenth century through the mid-nineteenth century. The presence of pits, a common feature type on African American rural domestic sites, further suggested the social makeup of the inhabitants.

Mean ceramic dates (MCD) and terminus post quem (TPQ) dates for the units and features are provided in the following table. This dating summary suggested that the features predominantly dated to the the late eighteenth through early nineteenth centuries, with the exception of Features 5 and 7, while the unit assemblages can be characterized as indicative of nineteenth-century occupations.

Table 1. Artifact Counts, TPQ and MCD Dates from 9CH1205

Features/Units	Total Artifacts	TPQ	MCD
Feature 1	27	1790	1805
Feature 2	4	1775	1803
Feature 3	46	1860	1829
Feature 4	1	1820	1828
Feature 5	5	1867	No Ceramics
Feature 7	2,868	1852	1808
Feature 8	263	1780	1813
Feature 10	60	1780	1810
Unit 1	335	1880	1807
Unit 2	151	1867	1815
Unit 3	118	1845	1806
Unit 4	431	1865	1809

(Continues)

(Table 1, Continued)

Features/Units	Total Artifacts	TPQ	MCD
Unit 5	500	1880	1812
Unit 6	1,095	1867	1814
Unit 7	259	1867	1808
Unit 8	88	1880	1801
Unit 9	64	1880	1818
Unit 10	957	1880	1809
Unit 11	781	1830	1807
Unit 12	905	1860	1812

Silliman and Quirk (2009:145–146) recommended 9CH1205 eligible for the NRHP under Criteria A and D. The site was recommended eligible under Criterion A for its association with the 1864 Savannah Campaign. Under Criterion D, the site was recommended eligible for the research information it could provide on both plantation agriculture and the Civil War in Savannah.

EPEI performed a supplemental metal detector survey in June 2009 specifically to fully evaluate the extent of the Civil War component. This work took place concurrently with a supplemental GDOT geophysical survey (Silliman 2009). Metal detector transects were placed in the north, east, and northwest portions of the previously established site boundaries. Transects were also extended parallel to SR 204 west of the known boundary. Because the objective of this work was only to determine the presence of a Civil War component, only those readings with the greatest potential to comprise Civil War remains were excavated. This effort resulted in the recovery of nine artifacts, two of which had clear military or munitions functions: one buckshot and a modified .58 3-ring minie ball. Additional artifacts recovered included an 1819 Liberty Head cent coin and a composite button. Based on this effort, the site boundaries were expanded to the northwest.

GDOT conducted additional geophysical survey on the site between June 15 and 17, 2009, applying both GPR and magnetometer survey within seven grids. On the basis of this work, Baughman (2010:27) concluded that grids 1/4 and 4/7 had the highest potential and density of cultural features; these grids were located in the southeastern site area where previous investigations had identified cultural features. Baughman also recommended future remote sensing grids in the areas of TUs 6, 8, and 9, all of which contained architectural elements suggesting the presence of historic structures. She further recommended additional remote sensing in the southeastern site area, nearer SR 204 in a location that had not received test units. Baughman indicated:

> "[i]t would be extremely useful to have the area cleared of much of the smaller vegetative material and debris so that investigations, GPR in particular, could be done with a more level survey. Additionally, it would be wise to preface investigations, especially with the gradiometer, with a metal detection survey and recovery scheme so that the metal artifacts present on the site don't interfere with the investigation of belowground features. Following investigation by remote sensing equipment, unit excavation and/or stripping should be undertaken to test the results of the surveys, and all features should be mapped and considered in relation to the originally recorded anomalies" (Baughman 2010:27).

Baughman also consulted with Dennis Goldbaugh of the Chatham County Department of Public Works and Daniel Westcot of the Georgia Forestry Commission regarding several live oaks on the property. One large live oak in the southeastern corner of the tract measured 88 inches in diameter. The arborists estimated its age was between 300-400 years old. A second cluster of four live oaks in the west-central site area appeared to be 100-200 years in age. The arborist believed that these younger oaks were intentional plantings (Baughman 2010:28–31). Additional individual or groups of live oaks were in the southwest and east site areas. While the oaks were not arranged in a cultural landscape such as an allee, their presence suggests they were planted as shade trees around 3-4 locations in the site area, all along its eastern edge.

Finally, during a July 2009 visit, GDOT conducted shovel tests in the areas of proposed soil borings within the site. These tests did not identify archaeological deposits in the proposed soil boring locations (Baughman 2010:32).

SUMMARY

The picture that emerged of 9CH1205's occupation, based on archaeological and historical evidence, is as follows: The site was probably first occupied during the later eighteenth century on land owned by either the Wilsons or Spencers. Archaeological data indicated the occupation was focused in the southeastern corner of the site and may have contained one or more structures. The large, circa 300-400-year-old live oak in this area probably relates to this occupation. It is unclear if this habitation was a family home or a component of a plantation settlement, and its duration is unknown. As the 1816 map depicts "Wilson's" along the marsh edge, this occupation could have been terminated by that date, or, alternatively, could reflect an outlying slave household associated with a small-scale plantation. By William Miller's tenure, beginning in 1840, the site likely contained a slave village, perhaps built around a remnant structure or structures in the southeastern corner of the site. The organization of the village, and

the number of structures it may have contained, is unknown, but the presence of large, possibly planted, 100-200-year-old live oaks in the west-central part of the site, as well as positive shovel tests in this direction, suggests that the settlement had spread out from the southeastern area. The site's center seemed to focus on a historic road, now mostly covered by SR 204, which forms the southern site boundary.

Based on its location on a developed road network as well as its central position in Miller's larger landholding along the peninsula, it is possible that this settlement had other functions. This settlement might have been abandoned prior to 1860 when Miller moved north, although he might have left a slave gang working this property. By this time, the area became associated with Miller's Station, a stop on the Atlantic and Gulf Railroad, which passed by the site area. During Civil War Savannah Campaign, the Federal 15th AC occupied the site vicinity.

Construction of SR 204 and King George Boulevard in the twentieth century, followed by commercial and residential development at the site's margins, altered the parcel containing 9CH1205. The historic landscape of the site can not be known in its entirety because these developments left only a smaller portion of it available for detailed study. Modern land use in the wider area around the site has also isolated it from associated plantation loci, such as the Spencer and Wilson/Miller houses.

IV. RESEARCH DESIGN

J.W. Joseph and Brad Botwick

Based on the Phase I and II studies, Site 9CH1205 appeared to contain a component reflecting late eighteenth- to early nineteenth-century plantation occupations, most likely a slave settlement, as well as remnants of a Civil War Union Army camp. The research design developed for the data recovery project addressed these two components (Joseph and Botwick 2012). The precontact components were considered non-contributing site deposits. Material related to these periods would be analyzed and discussed in the report, but separate research topics were not provided for them.

As fieldwork and analysis proceeded, it became apparent that the site's principal component most likely dated to the antebellum period rather than the early part of the nineteenth century, and that site use continued into the last quarter of the century. These occupations were probably by enslaved African Americans prior to the war and freedpeople afterward. On the other hand, only a small number of military artifacts represented the Civil War component, and no features could be attributed to this occupation. As a consequence, research topics pertaining to antebellum and postbellum plantation studies were emphasized in the analysis.

The following sections discuss research topics that the data recovery was expected to address along with assumptions that guided the approach to the data recovery investigations and analysis. The research design followed Silliman and Quirk's (2009:139–144) recommendations based on EPEI's evaluation study, with variations submitted in New South's technical proposal. The research topics, assumptions, and methods that New South proposed for the data recovery are reproduced in the following two chapters. Appendix A of this report contains the entire original research design.

PLANTATION RESEARCH TOPICS

Landscape Changes Over Time. Silliman and Quirk (2009) reported significant quantities of late eighteenth-century material culture (creamware, Jackfield ware, etc.) that suggested 9CH1205 may have served as a homestead/farmstead during either Wilson's or Spencer's ownership. This earlier occupation appeared to be focused in the southeast corner of the site, where the oldest live oak was also found. Archaeological data recovery sought to determine if there were other site loci with a greater concentration of late eighteenth-century materials and if such areas correlated with geophysical anomalies. Excavations covered areas with potential late eighteenth-century

deposits to determine if structures and related features could be found. Archival research was conducted to support the archaeological analysis and determine what type of occupation was indicated and whether it was associated with the Wilson or Spencer family.

Understanding the Plantation Landscape. Site 9CH1205 offered the opportunity to address Savannah area "suburban" plantation settlement patterns. Analysis of coastal plantation settlement indicates a reliance on rivers and streams as primary transportation routes (Joseph 2004a). Site 9CH1205's location on the outskirts of Savannah places this plantation in a setting with a relatively dense network of roadways that in turn may have influenced the plantation landscape. Coastal plantations were composed of multiple elements, including a main house complex, agricultural support buildings, rice fields along bottomlands and tidal marshes, cotton and subsistence agriculture in dry upland fields, slave villages, and road networks. Silliman and Quirk (2009:75–76) noted that the 1816 Chatham County map depicts both "Wilsons" and "Spencers" farms/plantations on high ground immediately overlooking Grove River, consistent with plantation settlement patterns for main house complexes. Site 9CH1205 is located inland and near a railroad station. Did William Miller use existing road networks in the construction of his plantation landscape and does 9CH1205 represent a slave village that Miller sited inland, along a road, to provide more direct access to upland cotton fields? Are slave cabins oriented in a linear row along the existing road – the southern site boundary? A land use pattern that used existing roads as plantation infrastructure resembles the plantation organization that developed in the postbellum era, the New South Plantation. The presence of plantation development on regional roads could indicate an emergent plantation structure that developed in semi-urban settings.

This research topic was addressed by defining the plantation components at 9CH1205 in combination with spatial analysis of existing roadways, rivers, and field locations. Historic plats showing the locations of all of Miller's property(s) were also geo-referenced to the extent possible to analyze the location of 9CH1205 within this larger landscape.

Additionally, the archaeological analysis was intended to determine the likely range of slave structures present on 9CH1205, which in turn would be used to reconstruct the larger plantation landscape and assess whether multiple village loci would have been found on the plantation or whether 9CH1205 is the primary village location.

Live Oaks as Landscape Features. Multiple live oaks old enough to have been present during the historic occupation of 9CH1205, are significant landscape features of this site. Live oaks were used as plantation landscape elements and typically lined plantation allees, the entry drives to plantation main house complexes. Mapping and analysis of the live oak distribution on

9CH1205 sought to determine if they exhibited organization and design (this was also a component of their registration on the Georgia Urban Forest Council's Landmark and Historic Tree Register). Analysis then considered how other archaeological components and structures related to this cultural landscape. Historic aerial photographs were researched and examined to determine if there were other live oaks in this landscape that no longer survive.

Plantation and Market. The presence of 9CH1205 near the crossroads that would later become Miller's Station raises the possibility that slave village occupants of Miller's Plantation were engaged in market activity. The task labor system practiced on coastal plantations in the Lowcountry provided slaves time that could be spent gardening, hunting and fishing, and producing craftwork, and many slaves used their time to develop materials for sale. In her analysis of colonoware and market activities in the South Carolina Lowcountry, Nicole Isenbarger (2006) indicated that crossroads were among the locations where Lowcountry slaves marketed produce and crafts to planters, yeomen, and others. It is thus interesting to speculate on whether the occupants of 9CH1205 might have engaged in activities that could have been employed in market settings. Archaeological evidence of such would include marketable colonoware (Joseph 2004b), artifact evidence of hunting and trapping that could indicate the gathering of food stuffs for sale, as well as evidence of garden locations larger than needed to supply food to individual households. Evidence of participation in the market economy may also be recognized through variations in slave household artifact profiles and the analysis of the task labor economy (see below).

Village Organization. Slave village structure changed over time along the coast, from informal village plans that were more African than English in appearance to rows of dwellings arranged along streets. This organization of villages reflected both the influence of Georgian concepts on symmetry and order on the plantation landscape as well as growing planter concern that enslaved African Americans be housed in locations that could be easily supervised and monitored. The archaeological excavation of 9CH1205 sought to determine the layout and organization of the structures and settlement in this location.

Village structure typically consisted of dwellings that housed families of 5-8 individuals with associated gardens and yards. Work yards contained various root crop storage features, enclosures if livestock were present, and other pit features. Areas in front of the dwelling were typically swept clean of grass and debris, leaving the ground surface exposed. The archaeological analysis at 9CH1205 attempted to clear and interpret individual household landscapes within the larger village landscape, as well as differences among these that might reflect individual preferences. Garden areas might be discerned as the relative absence of features and might lie in rear or side yards (Westmacott 1992). It was also thought that communal gardens and other shared features, such as wells, might exist and could support interpretations of the village landscape and structure.

Whitley (2008) discussed ways that enslaved African Americans used the plantation landscape to conceal ritual activities at Cherry Hill Plantation in Bryan County. Whitley recovered an un-butchered lamb burial behind a house that he interpreted as a ritual deposit. Analyzing viewsheds with GIS, Whitley determined that this burial was shielded from the perspective of the planter's and overseer's houses, suggesting that religious specialists (shamans) would have intentionally selected such hidden spots for such activities. The archaeological analysis of 9CH1205's landscape attempted to identify historic roadways and viewsheds within the community, as well as spaces with restricted views.

Overseers. Silliman and Quirk (2009:142–143) suggested that higher value transfer printed wares and other artifacts found at 9CH1205 could indicate an overseer was present within the slave village during Miller's ownership. Archaeological examination of multiple loci within the site sought to determine if there were variations in architecture and artifacts that could indicate an overseer's household. Ceramic cost index analysis (Miller 1980; 1991) of the pottery from various loci was also performed to measure socio-economic status differences between overseer and slaves, as well as within the slave community (see below).

The Material Correlates of Task Labor Within an African American Community. Coastal plantations operated under a task labor system where enslaved African Americans were assigned tasks to complete each day and received time off once they completed their assignments. Task labor, when coupled with the population density along the coast, allowed African Americans to participate in a market economy. Historian Philip Morgan (1982; 1983; 1998) has documented African Americans' participation in this economy, noting slaves' purchases of clothing, tobacco and pipes, and other goods with income they earned from their market activities. Joseph (1987) suggested that archaeologists may be able to assess both participation in task labor market activities and the preferences of African Americans engaged in them. He advocated comparing the assemblages from separate slave occupations or residences, which should reveal distinctions in possessions if slaves were engaged in market activities during time gained through task labor. Evidence of production and/or consumption might be visible. Any such differences may in turn illustrate social customs, individual preferences, and economic status variation within the enslaved community. Cost indexing (see above; Miller 1980; 1991) of ceramic assemblages from individual households may also indicate whether income was expressed through ceramic acquisition. Activities, Tobacco, Personal, and Clothing artifact categories may all contain evidence of differential acquisition strategies, as well as, potentially, of craft activities (e.g. the recovery of scissors, thimbles, needles, and buttons from a house site could indicate the occupant's work as a seamstress or tailor). To address this issue, archaeological excavations attempted to recover collections that could be associated with specific households.

Time-Lag in Artifact Assemblages. Silliman and Quirk (2009) recovered a number of late eighteenth-and early nineteenth-century ceramics, including materials in contexts with later artifacts. While their occurrence may indicate the presence of an earlier component on the site, it was possible that these artifacts represented heirlooms handed down to the enslaved community. Comparisons of dates recovered from all available material sources (including bottle glass, nail, window glass, and pipe stem dates in addition to ceramics) was undertaken to assess and evaluate the presence and significance of heirloom materials in the collection.

Size, Form, and Construction Methods of the Slave Cabins. In general, the type and quality of slave cabins on a given plantation reflected the planter's standpoint on the treatment of slaves. Throughout the Southeast, construction trends broadly followed a trajectory from earthfast houses in the eighteenth century, when many owners made only minimal efforts to provide housing, to more substantial structures later. Early house forms and construction often derived from African practices, as slaves built their own accommodations and planters took little direct interest in the matter. As the nineteenth century commenced, planters began thinking about better managing their labor resources and circulated ideas about providing higher-quality housing, which typically consisted of frame buildings raised above ground on piers. It has been argued that this change was prompted by the planters' expectation that slave imports might soon be outlawed, and by their subscription to scientific farm management and an emphasis on maximization of returns (i.e., better houses meant healthier slaves meant higher production). Tabby was used for slave housing on some coastal plantations and Silliman and Quirk (2009) suggested that oyster shell found during the Phase I/II might be remnants of tabby architecture. Determining the size, form, materials, and construction methods of slave cabins is a crucial research question for this project.

*Presence of Subfloor Pits/Hearths. S*ubfloor pit features have been identified from slave cabin sites from Virginia through Georgia. Archaeologists have interpreted these as root crop storage, as "vaults" for securing personal items, and as ritual spaces. Pits were often located near the hearth, a location that African Americans regarded as sensitive to the intrusion of malevolent spirits. Archaeological excavations at 9CH1205 sought to determine if subfloor pits were used, and if so, to analyze their contents. In addition, following Julie Schablitsky's study of a hearth base in Maryland, which contained broken glass and white ceramics, excavation at 9CH1205 also examined chimney bases to determine if they incorporated any ritual inclusions. Schablitsky (2012) interpreted the finds from Maryland as having been placed below the hearth entryway to protect it through the reflection/shimmer of these objects.

Analysis of Artifact Patterns. Stanley South (1977) developed the concept of artifact patterning to understand if artifact frequency variations could be correlated to differences in chronology, function, and/or other variables within and between sites. Joseph (1989) analyzed slave artifact patterns from South Carolina and Georgia and suggested that trends observed in these states reflected chronological dimensions and changes in village architecture. Silliman and Quirk (2009:41) indicated that the pattern produced from Feature 7 is consistent with the Georgia Slave Pattern (Singleton 1980). Data recovery of 9CH1205 offered a potential to recover and compare assemblages from multiple slave households and further refine our understanding of pattern formation and recognition on coastal plantations.

Slave Foodways. The archival record is clear that many slaves received very light rations, given the labor demanded from them. Slaves augmented their diets with gardening, wild plants, shellfish and fish, and wild game. There is limited archaeological data that suggests more remote slave communities such as 9CH1205, tended to rely more heavily on wild resources than did communities under direct observation of the planter or overseer. Enslaved African Americans trapped animals, fished, and hunted to supplement their protein intake (Baumann 2011; Espenshade 2011; Thompson 2011). Was there evidence of any of these wild food procurement methods in the archaeological assemblage at 9CH1205?

John Otto's (1977) research on ceramic vessel use among enslaved African Americans suggested they preferred hollowware forms (bowls, etc.), which best suited stews and soups. This observation has been borne out by work at other village sites. Cuts of meat found on slave-associated assemblages further hint at a preference for these types of meals ((Baumann 2011:208). Analysis of ceramic vessels and faunal remains was conducted to determine if similar trends existed at 9CH1205 as well as to determine if there were variations in vessel forms and/or diet between individual structures in the slave community.

Market Access to Goods. There were various means by which slaves obtained material things. The planters directly provided certain goods. Slaves also traded/bartered through informal economies to obtain other products. Lastly, slaves purchased certain items with cash. Artifacts can provide insights into slaves' access to markets and possibly which of these pathways they relied upon. In the archaeological assemblages from the site, the cost, lag times, and presence/absence of sets all may reflect the nature of slave involvement in markets. Additionally, the prevalence of non-essential, personal goods was assumed to reflect their ability to make trades or purchases beyond mere subsistence.

Reuse of the Slave Cabins. During Phase I/II, the *terminus ante quem* of the site was interpreted as the Civil War, because military items from the war were recovered. However, the report is also clear that the southeastern portion of the site also included several pieces of amethyst glass, which would suggest a much later (1880) *terminus ante quem*. This later date suggests that the former slave cabins may have been reoccupied after the war. It was common for existing housing stock to be re-used after Emancipation despite changes in labor relations. Before using the refuse deposits to characterize slave lifeways, it was important to document the reuse of the cabins.

Sea Island Religion and Belief. There is an ongoing discussion in historical archaeology over the degree to which Sea Island beliefs and practices observed in the late nineteenth and twentieth centuries reflect the continuity of Africanisms. One school sees the traits as minimally altered survivals from African traditions, while others see the practices as uniquely African American (Joyner 1984; Washington 2005). These practices include the scoring and possible ritualistic use of colonoware, the extensive use of charms, and the marking of graves with a deposit of ritually-charged artifacts (Singleton 2010; Wilkie 1995). The work at 9CH1205 provided an opportunity to address this topic. Cabin floor areas were examined for potential ritual deposits which have been found in central locations, the corners of cabins, and at entryways on other coastal plantations.

ASSUMPTIONS

Based on the research topics outlined above, New South recommended alterations to the data recovery approach that Silliman and Quirk (2009) proposed. Silliman and Quirk provided data on artifact distribution though their shovel tests results and identified intact features associated with some high-density areas. However, their Phase I/II work did not adequately define the spatial parameters of the site. Archaeologists working on coastal slave villages (as well as those working in West Africa and working in urban settings) have noted the prevalence of pit features in African American work yards and the use of such features for refuse disposal (Hamby and Joseph 2004a:240; Joseph 2007). Therefore, the greatest density of African American material culture is expected from these features, and their distribution and density may not be accurately reflected in shovel test data (shovel test results will record pit feature refuse only where the tops of these features have been impacted by plowing and only where the pit fill was so refuse-intense that artifacts filled the pit; in most refuse pits, artifact density is greatest at the pit base). Several other observations guided the proposed field approach:

- *There is no reason to expect that military camp refuse will correlate positively with domestic debris*. Although officers and pickets were known to have commandeered slave quarters for military use, slave housing for 60 slaves (which would be the case if 9CH1205 represents Miller's sole plantation village) would not suit a regimental camp. There would not be room in the cabins for 500 soldiers. Therefore, the Phase I/II approach of focusing the metal detecting (and GPR and unit excavation) where the shovel tests yielded the most domestic refuse likely missed significant areas of the camp. New South's approach was intended to determine the camp boundaries through metal detecting at a 10 percent coverage rate over the entire site.

- *If the archival information is correct, there was a slave force of 60 individuals, possibly housed on the site*. The Phase I/II effort approached the site with the apparent expectation that there would be one major residence, as might be expected at a planter's house. Accordingly, the Phase I/II effort focused the geophysical investigations, metal detecting, and unit excavations in one small area of the site, which had yielded the highest density of domestic materials. Such an approach misses the well-established fact that most coastal Georgia slave forces were housed in small cabins, typically with 5-8 persons per cabin. Rather than looking for one main domestic locus, New South attempted to find multiple cabin loci that should be present in order to understand the village structure and landscape.

- Because of limited sample sizes derived from shovel tests, the density mapping of shovel tests is not a strong tool for finding slave cabin loci in what was formerly a plowed field. At 15-meter intervals, shovel testing can easily miss the densest areas of refuse associated with a cabin. As noted above, studies of slave occupations have recorded disposal into pit features, while sheet midden deposits were often quite small and associated with house gardens. The 15-meter interval shovel testing is not sufficiently fine to yield reliable data. A geophysical indicator of slave cabin locations was recommended instead to identify areas for more intensive study.

  Slave communities tend to be arranged in single or double rows of cabins. Archival accounts, paintings/drawings, and archaeological research indicate that slave cabins most commonly were placed in single or double rows. As outlined in our research design above, significant data can be obtained through the recovery and comparison of artifact assemblages associated with different slave

households. The single or double-row model of slave cabin locations provided expectations against which the geophysical findings could be interpreted. Understanding the village landscape could then suggest locations where ritual or other shielded activities might have occurred.

- *In plowed slave sites, the former hearth locations provide the best signature for cabin locations*. Sub-plow zone soils were the most likely to contain remnants of the chimney base and a distinct magnetometer signal related to heating of the soils. Many slave cabins were constructed with earth-fast mud-and-stick chimneys and these chimney bases provide an area of well-heated soil that should be detectable with a magnetometer. For this reason, the magnetometer survey was the principal technique used to define likely cabin loci.

- Similarly, military camp hearths would also be most easily discovered through the use of the magnetometer. Company kitchens and heating fires for individual tents would have left magnetic signatures.

- GPR survey of the entire tract would be time and cost-prohibitive, but GPR is ideally suited to characterizing the suspected cabin loci identified through magnetometer survey. Multiple studies of slave cabins have defined an expected size range of 14-38 square meters (e.g., (Adams 1994; Kennedy et al. 1993; 1994; Trinkley 1989). Accordingly, the GPR survey of a 20x20-meter grid centered on a suspected hearth signal should be sufficient to locate and characterize the structural and near-yard features associated with a cabin.

- *Hand excavations should focus on the contexts that will provide the best data. C*ultural features are judged to contain the best classes of data. Features are sealed deposits that can yield data specific to individual slave households. Their contents have not been disturbed by plowing, and faunal and floral preservation is better than in plow zone contexts. Because features were judged to have the best data potential, it is not necessary to hand excavate each cabin location. Under New South's approach, a limited number of units were hand excavated in each potential block excavation location, and then the plow zone was mechanically stripped. Cultural features exposed this way were documented and excavated. Hand excavation was used more extensively only in areas near the 300-400-year-old live oak to protect its root plate from damage.

- *In the camp, hand excavations should focus on the refuse pits*. Department of the South regulations stipulated that each camp should be policed for refuse twice a day, and all refuse was to be disposed of in large pits. At Camp Baird, the September 1864 regimental camp of the 32nd U.S. Colored Troops, more than 95 percent of the artifacts and more than 99 percent of the faunal bone (by weight) was recovered from four large refuse pits (out of a total of 500 features excavated) (Espenshade 2001; Legg et al. 1991).

- *Not all features with military artifacts are camp features*. Freedmen often reused military items in the immediate post-war period. Accordingly, it cannot always be assumed that a feature yielding military material is a camp feature. For example, Feature 7 yielded much domestic material and 11 military items. Importantly, the refuse overlying the feature included postbellum artifacts (e.g., amethyst glass), showing that this location was re-occupied after the War. Feature 7 is either a camp feature that incorporated some domestic material, a wartime domestic feature that incorporated some military items, or a postbellum feature than incorporated some military and some antebellum domestic material.

V. METHODS

Brad Botwick, J.W. Joseph, and Sarah Lowry

For the data recovery, New South proposed additional archival research, archaeological fieldwork, laboratory processing, and analysis of the combined data. As proposed, archival research was intended to elaborate on the initial chain of title and cartographic research completed for the Phase I/II study. The objective of fieldwork was to identify areas containing cultural features and deposits associated with antebellum and Civil War components. The fieldwork was also designed to collect data necessary to address certain research topics. Laboratory analysis focused on stabilizing and inventorying the recovered artifacts. The following sections describe New South's approach to accomplishing these objectives.

ARCHIVAL RESEARCH

Archival and cartographic research was conducted to determine the site's overall history and land use, and to characterize the nature of the antebellum occupation. Property transactions and records were reviewed to confirm the chain-of-title presented by Silliman and Quirk (2009) and additional title research was conducted to determine the extent of William Miller's land holdings in the Little Ogeechee District.

New South consulted the records of the Georgia Historical Society on various property owners, searching vertical files and newspaper accounts, and also reviewed cartographic materials for the antebellum era. The cartographic search addressed plantations up and down the Ogeechee River to develop an understanding of plantation landscapes along this valley. Research on other Savannah-area plantations, notably Mary Granger's *Savannah River Plantations*, was also consulted. Federal census, will, and inventory research was conducted for William Miller, as well as the Wilson and/or Spencer occupations, to gather details on these households and their African American communities. Cartographic and bibliographic sources at the Georgia Department of Archives and History were also consulted. Table 2 provides a complete list of archival sources utilized for this study.

Table 2. Libraries and Historic Collections Used in the Preparation of This Report

Collection	Source	Location
Georgia Property Tax Digests. 1793-1892	Ancestry.com	Provo, UT
Georgia Returns of Qualified Voters and Reconstruction Oath Book (Electronic)	Ancestry.com	Provo, UT
U.S. Federal Census Collecton (Electronic)	Ancestry.com	Provo, UT
Chatham County Deed and Plat Books	Chatham County Clerk of Superior Court	Savannah, GA
Chatham County Maps	Chatham County Clerk of Superior Court	Savannah, GA
Victor Schreck Grant and Deed Index and Collection	Chatham County Clerk of Superior Court	Savannah, GA
Map Collection	Chatham County Engineering Department	Savannah, GA
Chatham County Wills	Chatham County Office of Probate Court	Savannah, GA
Making of America (Electronic Library)	Cornell University Library (http://ebooks.library.cornell.edu)	Ithaca, NY
Faris Cadle Historic Document Collection	Faris Cadle (Privately Owned)	Savannah, GA
Charles Ellis Waring Papers	Georgia Historical Society	Savannah, GA
Edith Duncan Johnson Papers	Georgia Historical Society	Savannah, GA
Georgia Historical Society Collection of Maps	Georgia Historical Society	Savannah, GA
Library Stacks	Georgia Historical Society	Savannah, GA
Savannah City Directory Collection	Georgia Historical Society	Savannah, GA
Historic Map File	Georgia State Archives	Morrow, GA
Land Grant Books	Georgia State Archives	Morrow, GA
Library Stacks	Georgia State Archives	Morrow, GA
Vanishing Georgia (Electronic Archive)	Georgia State Archives (http://cdm.georgiaarchives.org:2011)	Morrow, GA
Library Stacks	Georgia State University Library	Atlanta, GA
Library Stacks	Gwinnett County Public Library	Lilburn, GA
Harper's Weekly Original Civil War Newspapers (Electronic Archive)	http://www.sonofthesouth.net	Not Listed
Library Stacks	Kaye Kole Genealogy and Local History Room, Live Oak (Bull Street) Public Library	Savannah, GA
Thomas Gamble Collection	Kaye Kole Genealogy and Local History Room, Live Oak (Bull Street) Public Library	Savannah, GA
Vertical (Newspaper Clipping) File	Kaye Kole Genealogy and Local History Room, Live Oak (Bull Street) Public Library	Savannah, GA
Library Stacks	Lane Library, Armstrong State University	Savannah, GA

(Continues)

(Table 2, Continued)

Collection	Source	Location
Library Stacks	Robert W. Woodruff Library, Emory University	Atlanta, GA
American Memory Collection (Electronic Archive)	U.S. Library of Congress (http://memory.loc.gov/ammem)	Washington, D.C.
Library Stacks	University of Georgia Library	Athens, GA
Map and Government Information Library	University of Georgia Library	Athens, GA
Robert Knox Sneden Diary (Electronic Archive)	Virginia Historical Society (http://www.vahistorical.org)	Richmond, VA

The archival research included identifying military units that were in the project vicinity. The research began with an examination of wartime maps and the Official Records. Maps in the *Atlas of the Civil War* (Davis et al. 2003) and other sources were also reviewed. As potential regiments were identified, regimental histories, personal diaries, and similar regiment-specific records were examined. Published histories of the Civil War in Savannah were consulted, including Smith (1997) and Sheehy et al. (2011). A great deal of regiment-specific data are available on-line, but additional research took place in the vertical files and other collections of the Georgia Historical Society, which has comprehensive holdings on the Federal occupation of Savannah.

FIELD RESEARCH

CLEARING

The site was cleared (except for the live oaks) to allow for the application of various geophysical techniques. Successful geophysical data collection depends on survey conditions that are relatively free of surface obstructions, including vegetation. The site area was cleared using a forestry mower equipped with a mulching head to remove small trees and grind stumps and small vegetation. Clearing with such a machine minimized disturbance to the archaeological deposits while providing access for magnetometer and metal detector surveys. Clearing activities avoided damaging the live oaks that will remain on the site.

METAL-DETECTOR SAMPLE SURVEY

Metal detector sample survey was used to characterize the size and structure of the site. For the present project, 10 percent coverage (based on spacing) of the entire site was considered sufficient to determine the boundaries of camp-related items. Transects were established every

15 meters (50 ft.) across the site. Metal detectorists completely covered in two directions 1.5-meter (4.9-ft.) wide lanes along each transect. Prior experience has demonstrated that lane widths exceeding 1.5 meters tend to encourage the lifting of the device at the ends of the sweep, thereby reducing effectiveness of the survey. By covering each transect in two directions, the recovery rates increased (over coverage in one direction) without increasing the 10 percent coverage (based on area). This approach had the advantage that the first sweep removed many of the domestic artifacts and shallow camp artifacts, allowing the second sweep to more readily detect the more deeply buried artifacts.

The detectorists were professional archaeologists with extensive experience in metal detecting. All positive signals were flagged. All non-ferrous targets were excavated and a 10-percent sample of the ferrous artifacts was excavated. Targets were recovered only from the plow zone. Any artifacts below the plow zone were left in place but were noted as potential indicators of sub-plow zone features. All transects and target flags were mapped with a total station, along with the locations of the live oaks. Artifacts were recorded and bagged by Metal Detector Find (MDF) number. Apparent concentrations of nails were interpreted as possible structure locations and mapped as potential feature locations.

Careful consideration was applied in the selection of the metal detector used, to ensure that the machine worked well in sandy soils and could discriminate non-ferrous materials. Initial review suggested that the Minelab E-Trac would be the machine best suited to the site conditions. The results from the metal detector sample survey were analyzed and presented through the use of GIS.

MAGNETIC GRADIOMETRY

Magnetic gradiometer data are acquired through passively measuring the local variations in the earth's magnetic field. Cultural activities often magnetically enhance soils, and there are magnetic variations between the many features created during human occupation. These subtle variations caused by human activity are measured most easily using a gradiometer, which eliminates the earth's primary magnetic through the use of two vertical sensors. The difference between the measurements taken at the top and bottom sensors removes the constant variation allowing the examination of local changes. The unit of measurement is in nanoteslas (nT) and potential archaeological features usually vary within +/-10 nT (Kvamme 2006a).

Areas with magnetic anomalies can be indicative of past cultural activities. Ferrous metals produce magnetic anomalies, which usually have very strong magnetism (much higher nT readings). Concentrations of ferrous metals at the site could help provide the location for any large refuse features associated with the military camp. Materials that have been heated beyond

the Curie point (approximately 600 degrees Celsius) contain thermoremanent magnetism (Gaffney and Gater 2003; Kvamme 2006a; 2006b). This would include bricks, burned buildings, slave hearths/chimney bases as well as camp hearths. Soils modified by anthropogenic activity (e.g. trenches and middens) can be magnetically anomalous (Aspinall et al. 2009:21). This is caused by large concentrations of topsoil, which might be deposited in a ditch, on a house site or midden, and along the sides of a path. Magnetic anomaly strength is related to feature function, size, depth below the ground surface, orientation of the feature's magnetic poles, and materials that comprise that feature (Pacheco et al. 2005; 2009a; 2009b).

All magnetometer data are collected within a single plane. Depth penetration is generally limited to a maximum of one to two meters below the surface (Clark 1996). One of the primary benefits of magnetic surveys is the rate at which data can be acquired. Large areas can usually be covered in a small amount of time, particularly when surface obstacles are limited. Magnetometry offers high-resolution data that can effectively characterize a range of feature types in a given area. Regular, patterned, geometric features can generally be detected and identified quite well. For these reasons, magnetometry has become the workhorse of archaeological geophysics (Kvamme 2006a).

The greatest disadvantage of magnetometry is the potential for modern metal debris to cause large magnetic anomalies in the data (Ernenwein and Hargrave 2009). These anomalies have the potential to obscure other, more subtle anomalies. Small pieces of metal debris, utilities, and even aboveground metal structures (including close-by vehicles) have the ability to prevent the recording of non-metal features, which will have much lower nT values. This obstruction can also be caused by certain igneous rocks or iron rich minerals in the soils. Occasionally, this naturally occurring magnetism is imported and part of the cultural remains of the site, but often it can obscure the features of interest. At 9CH1205, there was a great deal of metal and non-historic debris at the surface along SR 204, particularly the corner of the project area adjacent to the convenience store. This debris appears to be largely modern and may have affected the gradiometer results minimally in the areas where trash is dense.

Magnetometer Field Methods

The magnetic survey was conducted with a Bartington Instruments Grad 601 fluxgate gradiometer. The Grad 601 is a dual sensor instrument with one meter spacing between each of the sensors. The attached data logger records differences in the magnetic field and compensates for diurnal variations (Aspinall et al. 2009; Bevan 1998:19; Kvamme 2006b). The bottom sensor is more sensitive to magnetic changes at the surface. Sampling density was 16 readings per square meter and resolution was approximately 0.1 nT.

Prior to data collection, the Grad601 was turned on and allowed to warm up for at least 20 minutes. Then, with the instrument in Scan mode, it was necessary to find a "quiet" (i.e., metal-free) area off of the site or grid for proper calibration. Over the course of each day, the instrument was periodically recalibrated as temperatures changed to account for "drift".

Non-metallic survey tapes with marks spaced every meter were used to guide data collection. These were spaced two meters apart along baselines set between grid points. All gradiometer data were collected in the Y direction beginning in the southwest corner with zig-zag transects. For magnetometer data collection, 30x30-meter grids served as the basic survey block with alterations as necessary for smaller sizes (Figure 3 and Table 3). The magnetometer survey was conducted over the entire site, an area that measured approximately 48,376 square meters (12 acres) in size. The magnetometer survey included recollection of the five previously examined grids to provide consistent data collection.

Table 3. Gradiometer Grids

Grid	Dimensions	Acres	Square Meters
A1	26x15 m	0.097	391
A2	30x30 m	0.223	902
A3	26x30 m	0.193	780
A4	15x30	0.111	450
A5	6x30 m	0.044	180
B1	30x15 m	0.112	451
B2	30x30 m	0.222	897
B3	30x30 m	0.222	897
B4	30x30 m	0.222	899
B5	30x30 m	0.222	900
B6	8x30 m	0.059	240
C1	30x15 m	0.111	450
C2	30x30 m	0.222	900
C3	30x30 m	0.222	900
C4	30x30 m	0.223	902
C5	30x30 m	0.222	900
C6	30x30 m	0.222	898
C7	15x30 m	0.111	450
D1	30x15 m	0.111	449
D2	30x30 m	0.222	900
D3	30x30 m	0.223	901
D4	30x30 m	0.222	898
D5	30x30 m	0.222	899

(Continues)

(Table 3, Continued)

Grid	Dimensions	Acres	Square Meters
D6	30x30 m	0.222	899
D7	30x30 m	0.222	900
E1	30x15 m	0.111	450
E2	30x30 m	0.222	900
E3	30x30 m	0.223	901
E4	30x30 m	0.222	899
E5	30x30 m	0.223	901
E6	30x30 m	0.222	899
E7	30x30 m	0.222	900
F1	30x30 m	0.222	900
F2	30x30 m	0.222	900
F3	30x30 m	0.222	899
F4	30x30 m	0.222	898
F5	30x30 m	0.222	899
F6	30x30 m	0.222	898
G1	30x30 m	0.222	900
G2	30x30 m	0.222	900
G3	30x30 m	0.222	900
G4	30x30 m	0.222	900
G5	30x30 m	0.222	900
H1	30x30 m	0.222	900
H2	30x30 m	0.222	900
H3	30x30 m	0.222	900
H4	30x30 m	0.222	900
H5	30x30 m	0.222	900
I1	30x30 m	0.222	900
I2	30x30 m	0.222	900
I3	30x30 m	0.222	900
I4	30x30 m	0.222	900
J1	30x30 m	0.222	898
J2	30x30 m	0.222	899
J3	30x30 m	0.222	900
K1	30x30 m	0.223	901
K2	30x30 m	0.223	901
L1	30x30 m	0.222	900
M1	30x30 m	0.222	900
Total		11.954	48,376

Figure 3.
Map Showing Placement of Gradiometer Grids

Source: Microsoft Imagery 2010

Magnetometer Data Processing

All data were downloaded from the data logger onto a laptop computer using the program *TerraSurveyor version 3.0*. Processing steps were applied to the raw data in order to make visualization clearer (DW Consulting 2007; Kvamme 2006b). The first step was to de-stagger the data, which compensates for inevitable data collection errors caused by the operator starting or ending transects at a slightly incorrect position. The next step was to de-stripe the data, which equalized the underlying differences between grids and transects. These differences are caused by directional changes or drift of instrument and longer elapsed time between grids. Finally, the data were clipped to remove outlying data points. This removes extreme data points, particularly from large metal and/or ferrous objects, allowing for finer detail resolution of subtle features. The final visual images show data points between -10 and 10 nT, which is filtered to allow visualization of more subtle data from the original data range of -1000 and 1000 nT. The negative and positive values represent the north and south polarity of magnetic anomalies. A typical anomaly will range between a high and low value (ie. -6 to 8 nT). Magnetic data were then assembled into composite images (mosaics) of the survey area and georeferenced using ArcMap. Finally, a shapefile set was generated of individual anomalies using the imagery.

GROUND PENETRATING RADAR (GPR)

GPR data are acquired by transmitting pulses of high-frequency radar energy into the ground from a surface antenna, reflecting the energy off buried objects, features, or bedding contacts, and then detecting the reflected waves back at the ground surface with a receiving antenna (Conyers 2004a:1; 2012). When collecting radar reflection data, surface radar antennas are moved along the ground in transects, typically within a surveyed grid, and a large number of subsurface reflections are collected along each line. As radar energy moves through various materials, the velocity of the waves will change depending on the physical and chemical properties of the material through which they are traveling (Conyers and Lucius 1996). The greater the contrast in electrical and magnetic properties between two materials at an interface, the stronger the reflected signal, and, therefore, the greater the amplitude of reflected waves (Conyers 2004a).

When travel times of energy pulses are measured, and their velocity through the ground is known, distance (or depth in the ground) can be accurately measured (Conyers and Lucius 1996). Each time a radar pulse traverses a material with a different composition or water saturation, the velocity will change and a portion of the radar energy will reflect back to the surface and be recorded. The remaining energy will continue to pass into the ground to be further reflected, until it finally dissipates with depth.

The success of GPR surveys in archaeology is largely dependent on soil and sediment mineralogy, clay content, ground moisture, depth of buried features, and surface topography and vegetation. Electrically conductive or highly magnetic materials will quickly attenuate radar energy and prevent its transmission to depth. The depths to which radar energy can penetrate, and the amount of resolution that can be expected in the subsurface, are partially controlled by the frequency (and therefore the wavelength) of the radar energy transmitted (Conyers 2004b). Standard GPR antennas propagate radar energy that varies in frequency from about 10 megahertz (MHz) to 1,000 MHz. Low frequency antennas (10-120 MHz) generate long wavelength radar energy that can penetrate up to 50 meters in certain conditions but are capable of resolving only very large buried features. In contrast, the maximum depth of penetration of a 900 MHz antenna is about one meter or less in typical materials, but its generated reflections can resolve features with a maximum dimension of a few centimeters. A trade-off therefore exists between depth of penetration and subsurface resolution.

GPR Field Methods

The field survey was conducted using a GSSI SIR-3000 and 400 MHz antenna. Transect spacing was 50 centimeters and all grids started from the southwest corner. All GPR data were collected using the zigzag method of alternating survey lines within a grid (Figure 4, Table 4). GPR survey coverage included 11 unique grids covering approximately 6,050 square meters (1.5 acres).

GPR grids were placed to gain a better understanding of magnetic anomalies and possibly identify related anomalies/features. Assuming a size range of 30 square meters (325 sq. ft.) for individual slave cabins and 75 square meters (800 sq. ft.) for duplex houses (Adams et al. 1987:18–19), the GPR survey of a 20x20-meter (60x60-ft.) grid was centered on a suspected hearth signal. A data collection grid around a major camp feature would be sufficient to characterize the feature and any associated features.

Table 4. GPR Grids

Grid	Dimensions	Acres	Square Meters
GPR 1	40x20 m	0.198	800
GPR 2	40x30 m	0.297	1,200
GPR 3	20x20 m	0.099	400
GPR 4	20x20 m	0.099	400
GPR 5	30x15 m	0.111	450
GPR 6	20x20 m	0.099	400
GPR 7	15x50 m	0.198	800

(Continues)

(Table 4, Continued)

Grid	Dimensions	Acres	Square Meters
GPR 8	10x40 m	0.099	400
GPR 9	20x20 m	0.099	400
GPR 10	20x20 m	0.099	400
GPR 11	20x20 m	0.099	400
Total		1.495	6,050

The first data collection step was to calibrate the antenna to local conditions by walking the survey area and adjusting the instrument's gain settings. This method allows the user to get an average set of readings based on subtle changes in the relative dielectric permittivity (RDP) (Conyers 2004a). Field calibration was repeated as necessary to account for changes in soil and/or moisture conditions (Conyers 2004b).

The "time window" within which data were gathered was 40 nanoseconds (ns). This is the time during which the system is "listening" for returning reflections from within the ground. The greater the time window, the deeper the system can potentially record reflections. To convert time in nanoseconds to depth, it is necessary to determine the elapsed time it takes the radar energy to be transmitted, reflected, and recorded back at the surface by doing a velocity test. Hyperbolas were found on reflection profiles and measured to yield a RDP, which is a way to calculate velocity. The shape of hyperbolas generated in programs is a function of the speed at which energy moves in the ground, and can therefore be used to calculate velocity (Conyers and Lucius 1996). The RDP for soils in the survey area was approximately nine, which, when converted to one-way travel time, (the time it takes the energy to reach a reflection source), is approximately 10 centimeters/nanosecond. All profiles and processed maps were converted from time in nanoseconds to depth in centimeters using this average velocity. Overall depth penetration, data quality, and resolution were excellent.

GPR Data Processing

All data were downloaded from the control unit to a laptop computer for post-processing. Radar returns are initially recorded by their strength and the elapsed time between their transmission and receipt by the antenna. Therefore, the first task in the data processing was to set "time zero", which tells the software where in the profile the true ground surface was. This is critical to getting accurate results when elapsed time is converted to target depth. A background filter was applied to the data, which removes the horizontal banding that can result from antenna energy "ringing" and outside frequencies such as cell phones and radio towers. Background noise can

Figure 4.
Map Showing Placement of GPR Grids

Source: Microsoft Imagery 2010

make it difficult to visually interpret reflections. Hyperbolic reflections are generated from the way the radar energy reflects off point targets. In cemeteries, graves are often visible as hyperbolic reflections.

The next data processing step involved the generation of amplitude slice-maps (Conyers 2004a). Amplitude slice-maps are a three-dimensional tool for viewing differences in reflected amplitudes across a given surface at various depths. Reflected radar amplitudes are of interest because they measure the degree of physical and chemical differences in the buried materials. Strong, or high amplitude reflections often indicate denser (or different) buried materials. These reflections can be generated at pockets of air, such as within collapsed graves, or from slumping sediments. Amplitude slice-maps are generated through comparison of reflected amplitudes between the reflections recorded in vertical profiles. In this method, amplitude variations, recorded as digital values, are analyzed at each location in a grid of many profiles where there is a reflection recorded. The amplitudes of all reflection traces are compared to the amplitudes of all nearby traces along each profile. This database can then be "sliced" horizontally and displayed to show the variation in reflection amplitudes at a sequence of depths in the ground. The result is a map that shows amplitudes in plan view but also with depth.

Slicing of the data was done using the mapping program *Surfer 8*. Slice maps are a series of x, y, z values, with x (east) and y (north) representing the horizontal location on the surface within each grid and z representing the amplitude of the reflected waves. All data were interpolated using the Inverse Distance Weighted method and then image maps were generated from the resulting files.

From the original .dzt files (raw reflection data), a series of image files was created for cross-referencing to the amplitude slice maps that were produced. Two-dimensional reflection profiles were also analyzed to determine the nature of the features identified on the amplitude slice maps. The reflection profiles show the geometry of the reflections, which can lend insight into whether the radar energy is reflecting from a flat layer (seen as a distinct band on profile) or a single object (seen as a hyperbola in profile).

The final step in the data processing was to integrate the depth slices with other spatial data. Each slice map was geo-referenced in ArcMap and individual anomalies were digitized into a shapefile.

GIS DATA INTEGRATION AND LANDSCAPE INTERPRETATION

All geophysical data and metal detector finds were incorporated into GIS for comprehensive analysis and interpretation. All geophysical anomalies received x, y, and z coordinates to identify them on the ground. New South provided these data in an appropriate coordinate system/projection in consultation with GDOT. This method allowed for comparison of multiple instrument datasets in conjunction with all other spatial data (e.g., geo-referenced historic maps, metal detector finds, total station points). Individual shapefiles were created for each geophysical dataset with specific attributes such as depth (GPR) and preliminary interpretation (e.g., hearth, foundation, pit, etc.). Based on these results and Silliman and Quirk (2009) research, the archaeological team interpreted the signature of the cultural landscape at 9CH1205 and provided GDOT with recommendations on the areas to receive more intensive study and excavation. New South anticipated the recommendation of 5-6 loci for investigation.

HAND EXCAVATION OF UNITS

Two 2x1-meter (6.6x3.3-ft.) units were hand excavated in each of the targeted loci. Initially, it was anticipated that all six loci would receive test units, with five of these loci being subjected to machine-assisted stripping based on the site landscape analysis outlined above, and the sixth locus, located under the live oak tree, would receive a 10x10-meter (33x33-ft.) block excavation. New South anticipated a village landscape consisting of a street, house locations, work yards, and suspected garden locations. At least one unit at each projected house site was placed in suspected garden areas that could contain sheet refuse, if such locations could be identified.

Units received coordinates within the grid established at the site. Excavation removed plow zone as a single natural stratum. Sub-plow zone excavation proceeded in 10-centimeter (0.3-ft.) levels within strata until two culturally sterile levels were complete. Typically, no more than three levels were excavated below the plow zone. Soil was screened through 0.25-inch mesh hardware cloth. Excavation records were maintained on standardized unit-level forms, unit summaries, feature forms, photograph logs, bag lists, and narrative field notes. At least one profile of each completed unit was drawn to scale and photographed. Soils were described using standard terms for texture and color (e.g., USDA-NRCS texture descriptions and Munsell colors).

MACHINE-ASSISTED EXPOSURE OF TARGETED LOCI

Following the hand excavations of two units in each excavation locus, a backhoe with a smooth bucket was utilized to carefully expose the structural and near-house features as suggested by the geophysical survey. It was anticipated that an area of up to 20x20 meters (400 sq. m [66x66 ft., 4,306 sq. ft.]) would be mechanically exposed in each loci for a total exposure of up to 2,000 square meters (21,529 sq. ft.). Block configurations were adjusted to accommodate large trees and while achieving the minimum cleared area.

Unit photographs in the Phase I/II report showed a clear distinction between the plow zone and the lighter soil beneath it. The test units confirmed soil stratigraphy and removing the plow zone while leaving the surface below intact was straightforward. Two archaeologists monitored the stripping at all times. Stumps and root balls were left in place to reduce damage to archaeological deposits. As features were identified during stripping they were marked with pin flags. After stripping, loci were cleaned by hand, and features were provenienced and mapped with a total station. Feature excavation strategies are outlined below. Stripped areas were re-graded at the end of the fieldwork.

Machine-assisted plow zone removal has the ability to quickly remove overburden over large areas. At this site, the objective was not to expose the entire remains of either the slave community or the military camp, which was estimated to cover 1.2-2.0 hectares (3-5 ac.). The machine-assisted clearing was designed to expose enough of these components to address the research design, but not to uncover the whole of either. Instead, geophysical methods were meant to supplement the excavated areas and depict the broader picture of how different parts of the site related to one another.

HAND EXCAVATION OF FEATURES

The initial plan for the fieldwork was to excavate a sample of exposed features. However, because the number of features identified was less than expected, nearly all features thought to have cultural origins were excavated. The only features left unexcavated were indeterminate linear trenches or ditches identified at the end of fieldwork that could not be examined because of time limitations. A few features were omitted from excavation because they clearly represented natural phenomena (e.g., trees, soil variations) or modern intrusions (e.g., utlity installation). Because time was available, nearly every post or suspected post was excavated.

Priority was placed on those features most likely to yield artifacts and faunal/floral material useful for addressing the research issues outlined above. All pit and shaft features were excavated, and wall trenches were excavated in their entirety. Pit features are a typical occurrence at slave village sites and their excavation was expected to provide artifact samples associated with separate households.

In addition to the slave cabin loci, features would be excavated in the military camp loci. As mentioned above, the artifact data at late Civil War regimental camps is often concentrated in a few large features. These refuse features were to be targeted for hand excavation.

Features were photographed and mapped to scale in plan view before excavation. Half of the feature was then removed, and the resultant cross-section profile was photographed and drawn to scale. The remaining feature soils were then removed. Large, deep features were excavated in arbitrary 10-centimeter (0.3-ft.) levels. Once one half of the feature was complete, 10 liters (2.6 gal.) of fill was saved from the second half for flotation processing for the recovery of archaeobotanical materials, fauna, and micro-artifacts. Any additional soil was screened through 0.25-inch mesh.

Silliman and Quirk (2009) identified 10 features in 11 2x1-meter (6.6x3.3-ft.) units excavated during the Phase II, a density of one feature per 2.2 square meters (23.7 sq. ft.). The machine-stripping approach was expected to encounter a lower density of features, since Silliman and Quirk's efforts targeted geophysical anomalies, and New South anticipated a density of one feature per 8.0 square meters (86 sq. ft.) and, hence, a projected total of 250 features in the machine stripped areas. New South projected that of these features, 165 would be posts, 75 would be pits, five would be subfloor pits, and the remaining five would be hearths.

BLOCK EXCAVATION

A 10x10-meter (33x33-ft.) block was proposed for excavation in the area of Feature 7, which is located below the large live oak tree in a location where machine stripping was not viable. This block was excavated in 1x1-meter (3.3x3.3-ft.) units following the procedures outlined above for unit excavation. This area had a high density of features during the Phase II excavations and New South estimated 1 per 2.5 square meters (27 sq. ft.) or a total of 40 features, including the remainder of Feature 7, a large pit feature. Of these 40 features, New South anticipated 20 would be pits and the remaining 20 would be posts.

DATA ANALYSIS AND CURATION

All artifacts from the project were transported to New South's Stone Mountain, Georgia laboratory for cleaning, inventorying, and preparation for curation. All materials were analyzed with a computer database system New South developed from the *4th Dimension* software package. This system employs South's (1977) artifact patterning scheme and divides historic artifacts into functional groups (such as Kitchen, Architecture, etc.) and then classifies these by raw material. Artifacts are next coded by type (such as pearlware) and subtype (such as transfer printed pearlware). This database program allows artifacts to be presented in tabular form, to be calculated for artifact patterning, and has a number of dating formulas built in, including the mean ceramic date formula, pipestem dating, window glass dating, and Terminus Post Quem (TPQ; date after which) dating based on the beginning date of manufacture for numerous artifacts. Precontact artifacts that were recovered were identified by type and material and with

reference to regional chronologies if diagnostic artifacts are found (Justice 1995; Whatley 2002; Williams and Thompson 1999; Sutton and Arkush 1996). Appendix B contains a complete inventory of recovered artifacts. To address questions dependent on intrasite comparisons, nine depositional units or occupation loci were defined that consist of discrete cultural deposits that were assumed to be roughly contemporaneous and/or spatially associated. Artifacts from individual loci were grouped together for analysis. Some of these reflect structures indicated by architectural remains with associated features, while others were projected as separate occupations (presumably representing houses) based on single features. Detailed descriptions of the loci and associated features or deposits are provided in Chapter IX.

Minimum vessel counts (MVC) were calculated for all occupation loci and vessels were cross-mended where possible. Miller's (1980; 1991) CC index was performed on ceramic assemblages to determine the socio-economic profiles of individual features and depositional units judged to reflect household units.

Samples recovered for archaeobotanical and zooarchaeological analysis were processed using a flotation barrel at New South's laboratory. Archaeobotanical and zooarchaeological materials were analyzed for information they contain on plant and animal resources utilized by the site's occupants. Additionally, samples were obtained for pollen and phytolith analysis to provide data on the site's historic environment and landscape, as well as potential dietary sources. Detailed information on the methods used for these analyses are provided in Chapters XI, XII, and XIII.

Artifacts, drawings, notes, photographs, and inventory records will be organized and curated according to the *Standards for Archaeological Collections* (August 2010) provided by the Antonio J. Waring Archaeological Laboratory, University of West Georgia, collections management updates provided on the laboratory's website (http://waring.westga.edu/), and through consultation with the laboratory staff. In general, cleaned and stabilized artifacts are sorted by provenience, material, and analytical category. The resulting lots are each assigned a catalog number and placed in individual 4-mil polyethylene bags with an accompanying acid-free identification tag. Provenience information and artifact identification are included both on the polyethylene bags and the acid-free tags. Artifact lots are then organized, bagged, and tagged by intra-site provenience, archaeological site, and project. Metal artifacts that require additional stabilization are packaged in a desiccated microclimate created using a perforated pouch of silica gel placed on the bottom of a food-quality airtight polypropylene container. The metal artifacts are placed within the container in a ventilated polyethylene bag with their identification tag. Additional protection, including wrapping in acid-free tissue, use of separate bags, or packing in custom-made containers is provided to artifacts deemed extremely fragile. The end result will be archaeological collections that are user-friendly and archivally stable.

REGISTRATION OF THE LIVE OAK TREES

New South registered the live oaks on the site with the Georgia Urban Forest Council. Registration materials were collected including setting and site plan (all of the significant live oaks were mapped with a total station), design (this entailed analysis of the live oak distribution in relation to the plantation-era archaeological features), and progeny. An Arborist was consulted as necessary in preparing the registration materials and New South responded to and revised the registration nominations based on comments provided by Georgia Urban Forest Council and the Chatham County Arborist.

VI. SITE HISTORY

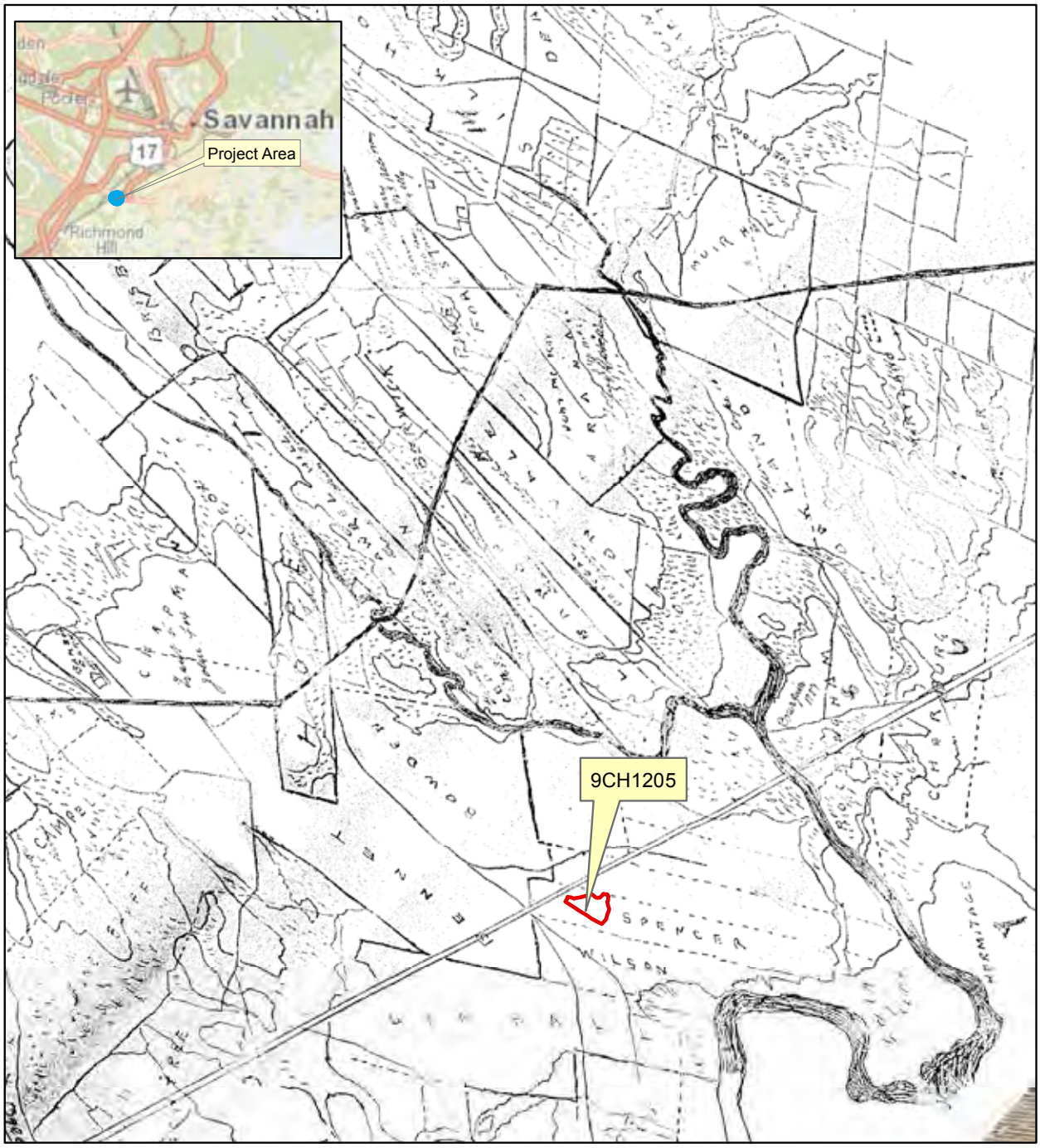
Hugh Matternes

HISTORICAL OVERVIEW

The 9CH1205 project area has been a part of Chatham County's history since Georgia's inception as an English territory. There were at least 40 eighteenth- and nineteenth-century plantations in its immediate surroundings that formed part of a vast agricultural complex (Figure 5). Site 9CH1205's high ground location near major waterways and within a few miles of Savannah were strategic features leading to its occupation for agricultural, military, transportation, timber, and commercial purposes. Many of these occupations have left their legacy as part of the archaeological record. In order to identify potential archaeological horizons present at 9CH1205, an investigation of the property's history focused on learning who owned the property, what communities were living or working there, and what activities and events took place. Archival resources including those at the Georgia State Archives, University of Georgia, the Georgia Historical Society, the City of Savannah Municipal Archives, and the Live Oak (Bull Street) Public Library were consulted. Public records on file at the Chatham County Clerk of Superior Court, Chatham County Engineering Department, and the Chatham County Office of Probate Court were examined. Census, slave schedules, voting, tax, and related records were also researched through *Ancestry.com*. Census records from the 1820 through 1940 surveys were consulted (U.S. Census Bureau 1820; 1830; 1840; 1850a; 1860a; 1870; 1880; 1900; 1890; 1910; 1920; 1930; 1940). All versions of the Federal Slave Schedules that included Chatham County, Georgia were also reviewed (U.S. Census Bureau 1850b; 1860b). Electronic records including those from the Chatham County Board of Assessors, *Harper's Weekly*, the Virginia Historical Society, Armstrong Atlantic State University, and Library of Congress were accessed to explore specific questions within the historical data.

The resulting data provided a narrative that outlined how the 9CH1205 project area was a contributing element of the region's historical and cultural landscapes. An unbroken chain of property ownership could be established back to the 1840s with most, if not all of the property, being traced to at least the 1750s (Table 5). The property has been owned by no less than 23 landowners, ranging from slave-holding planters to corporate and state agencies. The grounds have been planted, fought over, timbered, laid fallow, and developed for business in the last 250 years. This chapter details these events.

Figure 5.
Eighteenth- and Nineteenth-Century Plantations in the Vicinity of 9CH1205



Source: Georgia Historical Society (1931)

Table 5. Chain of Title for the 9CH1205 Project Area

Tract Identity	Date	Grantor (Seller)	Grantee (Buyer)	Reference	Notes
Spencer-Scott Tract	4 July 1752	English Crown	William (Henry) Spencer	Bryant 1975:106	Land Grant
Spencer-Scott Tract	18 May 1745	English Crown	William (Henry) Spencer	Bryant 1975:106	Land Grant
Spencer-Scott Tract		William (Henry) Spencer	Unknown Grantee(s)		
Spencer-Scott Tract		Unknown Grantor	Henry A. Scott		
Spencer-Scott Tract	April 21, 1849	Henry A. Scott	Elizabeth Scott	CCC Deed Book 3F:493	
Spencer-Scott Tract	May 12, 1851	Elizabeth Scott (Henry A. Scott Estate)	William H. Miller	CCC Deed Book 3K:465	May not contain 9CH1205
William Wilson Estate	May 11, 1755	English Crown	William Wilson	PCC Land Grant Book C:176*	Land Grant
William Wilson Estate	November 24 1756	William Wilson	John Wilson	PCC Land Grant Book D:217	Deed reissued (Below) as a Land Grant
William Wilson Estate	November 2 1762	English Crown	John Wilson	PCC Land Grant Book D:234	Above reissued as a Land Grant to John Wilson
John Wilson Land Grant	October 31, 1765	English Crown	John Wilson	PCC Land Grant Book E:307	Land Grant
John Wilson Land Grant	May 11, 1755 (Reissued November 2, 1762)	English Crown	John Wilson	PCC Land Grant Book D:234	Sold in 1772; Does not contain Project Area
John Wilson Land Grant	October 31, 1765	English Crown	John Wilson, Jr.	PCC Land Grant Book E:307	Land Grant
John Wilson Estate	1789	John Wilson (Estate)	James Wilson	CCP Record 17, Document 143**	
John Wilson Estate	February 12, 1840	James Wilson	William H. Miller	CCC Deed Book 2Y:180***	
Demere-Skeffington Tract	April 18, 1882	William H. Miller (Estate)	Raymond P. Demere	CCC Deed Book 5F:512	
Demere-Skeffington Tract	July 27, 1882	Raymond P. Demere	Raymond M. Demere	CCC Deed Book 5F:514	

(Continues)

(Table 5, Continued)

Tract Identity	Date	Grantor (Seller)	Grantee (Buyer)	Reference	Notes
Demere-Skeffington Tract	February 8, 1892	Raymond M. Demere	Lila Houston Demere	CCC Deed Book 7B:402	
Demere-Skeffington Tract	January 5, 1917	Lila Houston Demere (R.M. Demere Estate)	Frank J. Skeffington	CCC Deed Book 13B:416	2 Parcels from Original Demere Tract
Demere-Skeffington Tract	January 5, 1917	Frank J. Skeffington	Joseph Hilton	CCC Deed Book 13B:417	
Demere-Skeffington Tract	February 8, 1918	Joseph Hilton and Frank J. Skeffington	Herber Kent	CCC Deed Book 13N:458	
Grove Point Road Parcel	January 30, 1918	Herber Kent	Leila M. Hicks	CCC Deed Book 13N:461; CCC Plat Book 1M:86A****	
Grove Point Road Parcel	November 16, 1925	Leila M. Hicks	Robert L. Cooper	CCC Deed Book 20T:404; CCC Plat Book 1M:86A	
Grove Point Road Parcel	December 28, 1939	Robert L. Cooper	J.N. Moore, Jr.	CCC Deed Book 34T:185; CCC Plat Book 1M:86A	Purchase reunites Grove Point Parcel with tract to the west.
Parcel B	September 16, 1950	J.N. Moore, Jr.	Garda and James W. Gill	CCC Deed Book 52H:412	Grantor divides property into Parcels A and B
Parcel B	November 8, 1966	Garda and James W. Gill	Hendrix Machine Company, Inc.,	CCC Deed Book 91B:273; CCC Plat Book R:136	Grantor divides property into Parcels 1, 2, and 3
Parcel 2	December 15, 1966	Hendrix Machine Company, Inc.	Lola M. and Arthur C. Bass	CCC Deed Book 91K:186	Granter awards Grantee 10% interest in property
Parcel 2	December 15, 1966	Hendrix Machine Company, Inc.	L.J. Akin	CCC Deed Book 91K:183	Granter awards Grantee 25% interest in property
Parcel 2	March 25, 1969	Hendrix Machine Company, Inc., Lola M. Bass, Arthur C. Bass, and L.J. Akin	Friedman, Haslam, and Weiner, A Partnership	CCC Deed Book 96O:141; CCC Plat Book T:189	Grantor divides property into Parcels A through E

(Continues)

(Table 5. Continued)

Tract Identity	Date	Grantor (Seller)	Grantee (Buyer)	Reference	Notes
Parcel C	December 27, 1971	Friedman, Haslam, and Weiner, A Partnership	Georgetown Associates	CCC Deed Book 100A:871; CCC Plat Book T:189	Grantor divides property into Parcels 8 and 9
Parcels 8 and 9	June 25, 1982	Georgetown Associates	Hugh W. Tracey and Wayne E. Murphy	CCC Deed Book 118T:267; CCC Plat Book 4P:48; 39S:38	Grantee awards 56% Interest to Oak Tree Associates (Not Recorded)
Parcels 8 and 9	February 21, 1986	Hugh W. Tracey and Wayne E. Murphy	Hugh H. Armstrong	CCC Deed Book 129N:494	Granter awards Grantee 4% interest in property
Parcels 8 and 9	February 21, 1986	Oak Tree Associates	King George Boulevard Associates	CCC Deed Book 129N:485	Granter awards Grantee 56% interest in property
Parcels 8 and 9	February 21, 1986	Hugh W. Tracey, Wayne E. Murphy and Hugh H. Armstrong	King George Boulevard Associates	CCC Deed Book 129N:490, 492	Grantor reconfigures property into Lots 1, 2, and 3.
Lot 1	October 7, 2005	King George Boulevard Associates	The Trellis L.P. (Trellis Charter Partners, LLC)	CCC Deed Book 296J:203; CCC Plat Book 11P:193B	Georgetown Business Park
Lot 1	September 18, 2007	The Trellis L.P. (Trellis Charter Partners, LLC)	Georgia Department of Transportation	CCC Deed Book 332F:490; CCC Plat Book 11P:193B; 39S:38	GDOT currently defines the property as Parcel No. 2, Georgetown Business Park
Lot 2 Georgetown Business Park	November 23, 1990	King George Boulevard Associates	George M. Parker, Inc.	CCC Deed Book 147U:188; CCC Plat Book 39S:38	Current Owner

* Parish of Christ Church (PCC) Land Grant Book

** Chatham County Clerk of Probate Court (CCP) Record

*** Chatham County Clerk of Superior Court (CCC) Deed Book

**** Chatham County Clerk of Superior Court (CCC) Plat Book

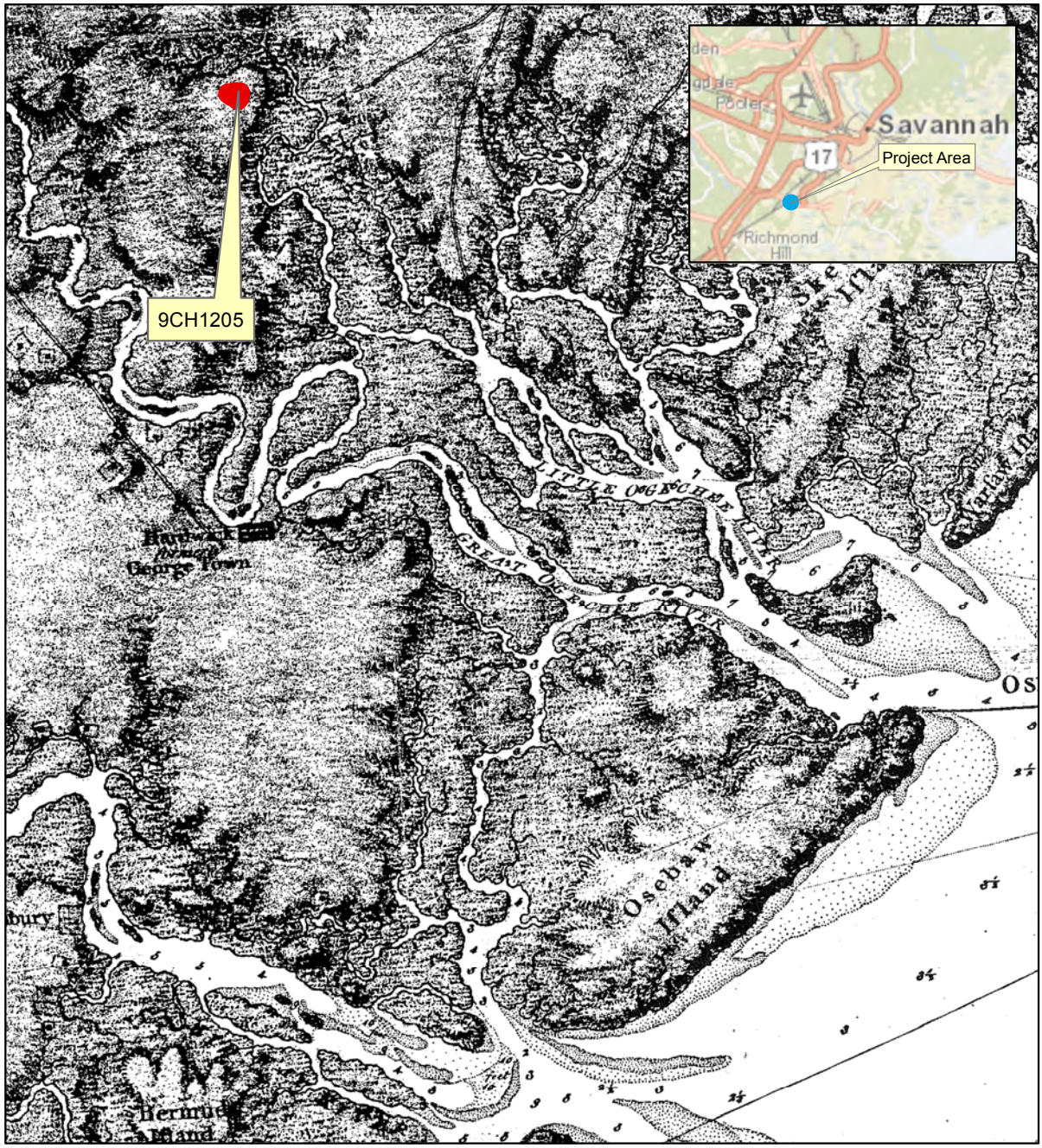
THE WILSONS IN THE LITTLE OGEECHEE DISTRICT (1755-1840)

Unlike other colonies, Georgia was originally governed as a trusteeship, a corporation that governed and retained obligations to the Crown rather than passing these duties to private citizenry. Under a charter issued in June 1732, the Georgia colony was designed to provide opportunity during a period of high unemployment in England. Colonists were expected to provide raw materials for refinement in England and perhaps most importantly, to establish and support a military buffer between English interests in the north and mainly Spanish and Portuguese ventures to the south. Twenty-one trustees were named in the charter and a council of 15 members oversaw the administration of the colony.

On February 6, 1742 a petition was presented to Governor-in-Chief John Reynolds and the Council by residents of the lands surrounding the (Great) Ogeechee and Lower Ogeechee rivers requesting that a town be established "upon the elbow of the Great Ogeechee River" (Rutland 2004:26). Governor Reynolds approved incorporation along with the provision that a total of 21,000 acres be awarded to those who would support developing the town as a seaport. A garrison supported by 150 men and 25 cannons were suggested to protect the community (Jones 1878:225). The town was initially named Georgetown, but was changed to Hardwicke (also spelled Hardwick) by Governor Reynolds in honor of Philip Yorke, the Earl of Hardwicke (Krakow 1999:103). Plans of the town were drawn with up to 600 town lots identified for potential development (Collier 1795; Younge 1754).

A federal map produced in 1780 provides an early glimpse of the region during the eighteenth century (Avery 1780). While details of individual roads and structures are lacking, the approximate location of the Wilson's land holdings emphasize that both high and low ground were present, providing ample opportunities for agricultural production (Figure 6). Site 9CH1205 would have been located northeast of the town of Hardwicke. Funds for constructing the necessary public facilities to make Hardwicke a municipal center never materialized and the town, once deemed the best location for a provincial capital, languished into obscurity (Krakow 1999:103). By 1814 the last of the public lands in Hardwicke were sold and the town's standing reduced to little more than a cluster of private residences (Jones 1878:228–229). Among those signing the original Hardwicke petition were William, Thomas, John, and Benjamin Wilson (Table 6).

Figure 6.
1780 Map of Hardwicke and Ogeechee Districts



Source: Avery 1780

Table 6. English Land Grants For and Around the 9CH1205 Project Area

Awardee	Size	Original Issue Date	Grant Re-Issue Date	Parish	Source
Wilson, Benjamin	300 Acres	11 May 1755		Christ Church	Bryant 1975:188
Wilson, John	260 Acres		October 31, 1765	Christ Church	PCC Land Grant Book E:307
Wilson, John	200 Acres	11 May 1755	November 2, 1762	Christ Church	PCC Land Grant Book D:234
Wilson, John	300 Acres	(Originally purchased from William Wilson)	November 2, 1762	Christ Church	PCC Land Grant Book D:217
Wilson, Thomas	240 Acres		November 7, 1758	Christ Church	PCC Land Grant Book C:246
Wilson, William	300 Acres	11 May 1755	Sold 24 November 1756	Christ Church	PCC Land Grant Book C:176
Spencer, William (Henry)	500 Acres	4 July 1752		Christ Church	Bryant 1975:106
Spencer, William (Henry)	50 Acres	18 May 1745		Christ Church	Bryant 1975:106
Spencer, William (Henry)	City Lot (Hardwicke)	5 June 1754		Christ Church	Bryant 1975:106

Records of land conveyances were not formally kept, although lists were maintained by the Accountant of Plantations in London (Bryant 1975:x). This poorly executed land management system, coupled with unpopular policies set down by the council, proved to be untenable and during the 1750s, property ownership was restructured as part of Georgia's transformation into a Royal Province. In 1755, Governor-in-Chief John Reynolds relinquished all former grant obligations and issued new grants to land holders (Bryant 1975:xii). Most of the grants issued with a 1755 date were originally awarded at earlier, unrecorded dates. Re-issue of grants and deeds did not frequently occur until the 1760s.

Land grant records indicate that the English Crown awarded land grants to James, John, Thomas, and Benjamin Wilson in the mid-eighteenth century (Bryant 1975:110, 188, 196, 206; Hemperly 1973:201; R.J. Taylor Foundation 1989:162). The relationship between the Wilsons has not been fully established; however, it seems mostly likely that they were kin to one another. William Wilson's will listed John and Thomas Wilson as his brothers, but Benjamin was not mentioned (LaFar and Wilson 1963:No. 166). Unfortunately, any maps made of the land grant areas did not survive to the present day. Descriptions of land locations in these grants emphasize that the Wilson land grant parcels were generally situated along the Little Ogeechee and north of the Great Ogeechee River. Many of the Wilson grants are for adjoining properties, further

emphasizing that the Wilsons were likely related to one another. The Wilsons' land was located in Christ Church Parish and in the Sixth Georgia Militia District (GMD). Militia districts not only provided a means of further defining property location, property owners were expected to join ranks with their neighbors to protect and defend their district. Newspaper records indicated that John Wilson was able-bodied enough to have been mustered into the Sixth Militia's Little Ogeechee Company (Kilbourne 1999b:386).

The extent of relationships between the Wilsons has not been determined, but it appears that they kept their business and land interests reasonably independent of one another. With the recognition that Hardwicke was not going to get the support needed to turn into a flourishing town, land grantees would have recognized that the supporting land grants were no longer under the conditions of the town's incorporation. Thomas Wilson sold his land to Joseph Sommers and the property passed out of Wilson control (Parish of Christ Church 1756). Descriptions of where Thomas Wilson's land was located placed it south of the 9CH1205 project area. Thomas Wilson may have been employed in the maritime industry; hence, his interest in Hardwicke would have been that of a port and not as a agricultural market. Notices in the Savannah newspaper, *Columbian Museum,* noted that a Thomas Wilson commanded the British ship *Lancaster*, which transported cotton to markets in England (Kilbourne 2009a:141, 239).

The exact location of Benjamin Wilson's land grant could not be pinpointed, but its location relative to other grant lands, suggested that it was also south of 9CH1205. Legal notices and an advertised sale of his lands in 1763 indicated that Benjamin Wilson died and this property passed out of the Wilsons' hands (Kilbourne 1999c:86, 91). Likewise, the whereabouts of William Wilson's land grant are at best sketchy. Shortly after receiving his land grant, William Wilson deeded his holding to John Wilson. A tax digest for 1796 listed him as residing in either the Oglethorpe or Darby Wards of Savannah (Stanley and Johnson 1968:2050). William Wilson died in 1807 (Kilbourne 2009a:347). His will indicated that he had made a living as a merchant (LaFar and Wilson 1963:No. 166).

In terms of real estate, John Wilson, whose land holding exceeded 700 acres, was clearly the most successful of the original Wilson petitioners. Wilson's estate was located "on the east by marshes of the Little Ogeechee River" (Parish of Christ Church 1755). Its location relative to those around it placed the estate northeast of Hardwicke. Of the available land grant properties, John Wilson's estate was the most likely to contain 9CH1205.

A few glimpses of how the Wilsons may have capitalized on their landholdings can be gleaned from the public record. No surviving evidence of rice agriculture, such as field plots or artifacts, have been found in the areas likely owned by John Wilson along the Little Ogeechee River. The

sale of one of his adjoining neighbor's property in 1799, "near the Great Ogeechee" emphasized that it was "…cleared and noted as excellent rice land" (Kilbourne 2009a:40). Rice agriculture was in use around the Wilson lands but perhaps not along the Little Ogeechee River. The river margins along the Little Ogeechee around the former Wilson estates were generally described in period deeds as salt marshes. Since rice cannot grow in saline waters, these marshes were likely unsuitable for rice agriculture. Other lands that were part Wilson's property may have been used to grow rice. John Wilson's death generated an inventory of possessions, which included 11 slaves, one pair of rice sieves and "one Grinding Stone and pair of Querl [quern?] Stones" (Chatham County Clerk of Probate Court 1789:Document 143). This document emphasized that the tools and manpower needed to grow and process rice for market were present in Wilson's holdings. John Wilson's death also prompted the sale of portions of his property and sheds light on other activities associated with his estate. A description of parcels to be sold was printed in a March 12, 1799 legal notice in the *Columbian Museum,*

> …two tracts of land on Little Ogeechee Neck, containing 230 acres each…open to the salts on the south side, and having a good landing with water carriage to this market; both tracts are well adapted to the culture of cotton and provision, on one of them is a good country house, barn, negro houses, etc. (Kilbourne 2009b:47).

From this it was evident that Wilson developed an agricultural venture emphasizing sea island cotton as the primary crop; rice was also grown, but likely in limited quantities and probably not along the Little Ogeechee River due to its proximity to the Atlantic and higher salt content. Enslaved African Americans provided the necessary labor, and the harvested crops could be transferred to the Savannah markets by watercraft. Confederate records from 1862 indicated that vessels drawing up to 15 feet could proceed as far as the railroad bridge crossing the Little Ogeechee River (U.S. War Department 1882:14:648).

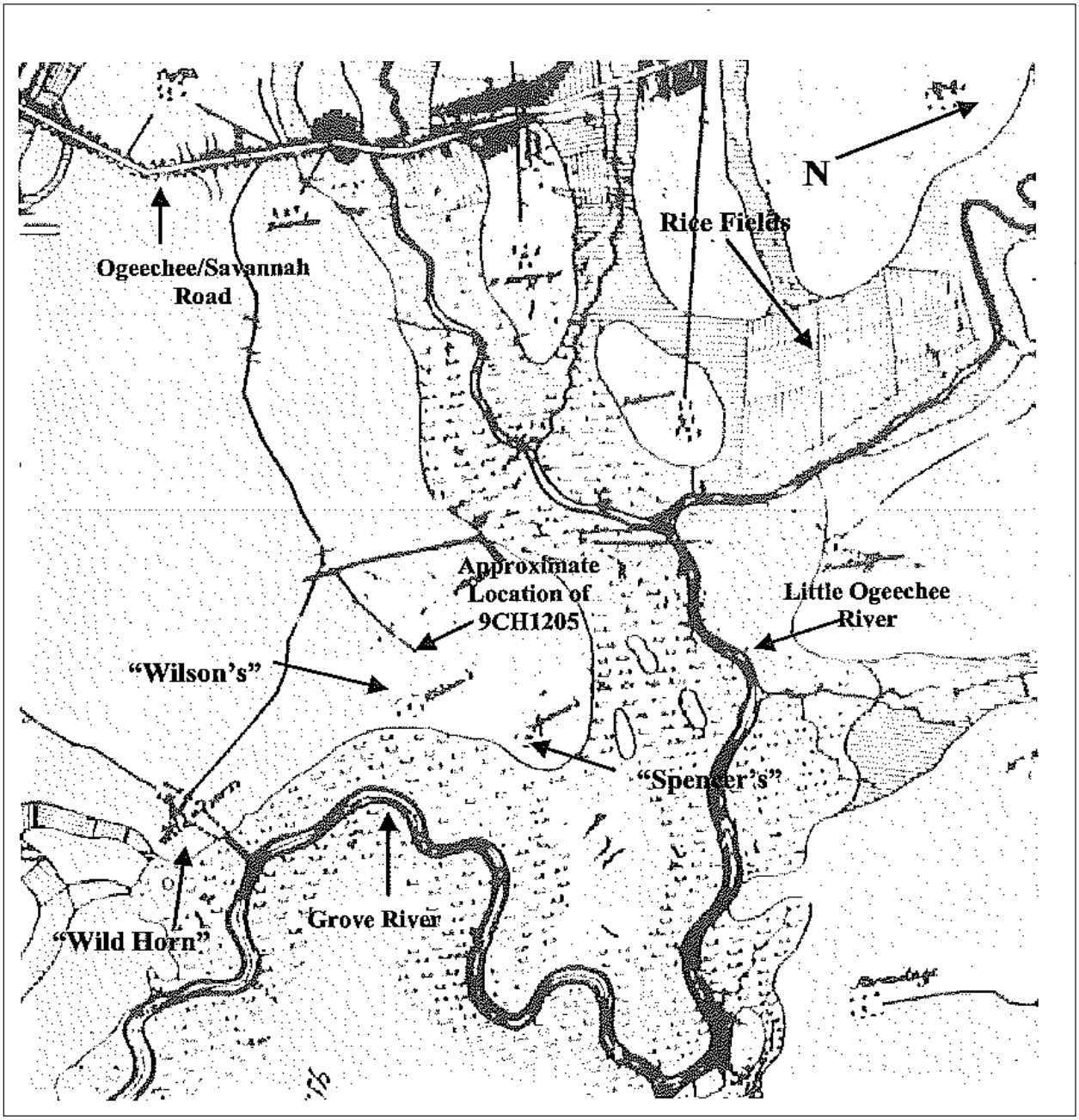
John Wilson's death in 1788 prompted dissolution of his estate (Kilbourne 1999b:318). The administrators of John Wilson's estate were James and Benjamin Wilson. Given that John's likely kinsmen, Benjamin, had died a number of years earlier, it is probable that this Benjamin Wilson was either Benjamin's (Senior) or John's son. James, likewise, would have been Benjamin's brother or cousin. Benjamin Wilson was listed as the son of Susannah McFarlane, a widowed landowner on the Chatham County side of the Great Ogeechee River and one of the Wilson's neighbors (LaFar and Wilson 1963:No. 89). James Wilson is not listed; this is likely evidence that the Wilsons had different mothers.

While the Wilson brothers took ownership of at least a portion of John Wilson's property, their focus may not have initially been on their father's agricultural ventures. James is listed in the 1820 Federal Census as being engaged in commerce (Silliman and Quirk 2009:63). Benjamin was listed as a merchant in Savannah in McFarlane's will. Benjamin Wilson did not appear in the 1820 Chatham County federal census, indicating that he had either died or moved away. The fate of Benjamin's lands could not be accurately determined, although they likely were sold or inherited by James or passed into the McFarlane family's hands. Soon after John Wilson's death, the *Georgia Gazette* noted that the estate had defaulted on its tax obligations (Kilbourne 2000:160). A sheriff's sale in 1806 noted that properties on the neck of Little Ogeechee River and occupied by James and Benjamin Wilson were placed on the auction block (Kilbourne 2003:309). James Wilson also failed to pay taxes on the property in 1809 and 1810, prompting the county sheriff to seize and sell portions of it in 1814 (Kilbourne 2009c:397). This may not have been the first adverse tax encounter for James Wilson. While details are lacking, this James Wilson may have been the same person who forfeited a 350-acre tract in Glynn County for tax purposes in 1796 (Kilbourne 2009a:70).

James Wilson, his wife, and daughter were recorded in the 1820 Federal census as residents of Chatham County. They owned a single adult (26-45 years old) female slave with a young (less than 10 years old) female child. This slave is probably 'Cate,' a female child listed in James' father's estate. In 1826, Wilson sold Cate leaving him with no adult slaves (the fate of Cate's child is not recorded) (Chatham County Clerk of Superior Court 1920:51). It is unclear whether John Wilson's other slaves were inherited by James's brother or sold off, but it is evident that by the 1820s, he no longer had the human resources needed to maintain the land as a business venture. Wilson appeared in the 1830 Federal Census as living in the Ogeechee District. He has had a second daughter and increased his slave population to nine bound individuals, seven of whom are of working age and too young to have been the slaves he inherited from his father. Wilson would have had to purchase these individuals. Presumably, Wilson was attempting to return his father's land into a profitable agricultural venture. By the time the 1840 federal census was taken, however, Wilson's plans have changed and he is no longer living in Chatham County.

In 1816, John McKinnon generated a map of Chatham County which provides important details about lands in the neck of the Little Ogeechee River (Figure 7). A road leading from the Savannah-Ogeechee Road south to the Wild Horn Plantation (southwest of 9CH1205) approximated the location of Grove Point Road, a prominent overland route visible in later maps. From this north-south road, another road veered southeast and through the approximate location of the 9CH1205 project area. Details in this part of the map are difficult to discern but there are either prominent trees or small structures depicted in the 9CH1205 area. Silliman and Quirk (2009:66) have suggested that residences or plantation buildings (commissaries, blacksmith's

Figure 7.
Detail from McKinnon's 1816 Map of Chatham County
Depicting Wilson and Spencer Properties



Source: Silliman and Quirk 2009: Figure 25

shops, or granaries) may be present. This unnamed road would have provided overland access to the eastern peninsula. While not depicted as extending directly to it, the road would have easily enabled traffic to the probable residential complex labeled "Wilson's" (immediately south of this road). It is important to note that while considerable marshland was illustrated on the 1816 map and rice fields are noted to the north along the Little Ogeechee River, these agricultural fields are not present around the eastern peninsula. If rice had been cultivated around the neck of the Little Ogeechee River in the past, it appears to have been abandoned by the time this map was generated. John Wilson's rice agriculture tools were likely used elsewhere on his holdings.

Evidence indicated that by the late 1830s, James Wilson was looking to sell. In December of 1839, an agreement was reached between Wilson and Paul and Elizabeth Keller to purchase the last of his father's holdings, "a certain undivided tract of land" (Chatham County Clerk of Superior Court 1840:179). No plat map of this 370-acre parcel was made; however, the deed recorded that it was bounded on the north by properties owned by William H. Miller and Scott and on the east by the Little Ogeechee marshlands and tracts also owned by Scott. Paul Keller is listed in the 1850 Federal Census as a planter living in Chatham County. Yet, the sale probably did not occur as in the spring of 1840, James Wilson sold the exact same 370-acre tract to William H. Miller (Chatham County Clerk of Superior Court 1840:180). The tract was noted to be part of the property originally granted to John Wilson. Miller's purchase of the Wilson tract was part of a strategy whereby Miller eventually gained control of nearly all of the property along the eastern bend in the neck of the Little Ogeechee River.

THE SPENCER-SCOTT TRACT (1745-1851)

If 9CH1205 was not on the property formerly owned by James Wilson, it was undoubtedly on the tract adjacent to it and owned by William Spencer and/or Henry A. Scott. Scott's property was identified as near the Savannah-Ogeechee Road and abutting the Little Ogeechee marshlands on the east and south. This would place the parcel on lands forming the river's eastern bend at the neck of the Little Ogeechee River. Details of how Scott obtained the property were not on record, but since his property is listed as a reference point, he likely was occupying the tract prior to the above-referenced 1839 Wilson-Keller transaction.

William H. Spencer was initially awarded a 50-acre garden and farm lot in Savannah's Anson Ward in 1745. Spencer eventually constructed a spacious three-story town house on this property in 1809 (Sheehy et al. 2011:174). It currently stands at 322 East Oglethorpe Street. During the early 1750s, he was subsequently awarded two additional land grants for property east of the Little Ogeechee River. Spencer's land grants pre-date those of the Wilsons and without the Wilsons as references, it is unclear exactly where Spencer's property boundaries were located. Reconstruction based on later maps provides some concepts. In McKinnon's 1816

map, Spencer's name appears at the end of the peninsula formed by the eastern bend in the Little Ogeechee River; Wilson's name appears immediately due west of the Spencer annotation (see Figure 7). In the 1875 Platen map, Spencer's name also appears in the same relative relationship in the landscape. These annotations probably identify where the 500-acre tract was located. Spencer was also awarded Lot 50 in the town of Hardwicke. These grants imply that Hardwicke's land development was designed to follow a similar strategy envisioned by Oglethorpe's layout of Savannah, where original land grant holders were provided with an urban lot and supporting farmland in the town's hinterlands.

It seems likely that the Wilsons and Spencers were neighbors on good terms with one another. William Spencer was specifically named along with the Wilson brothers in a legal obligation backing payment of $1,000 as part of clearing John Wilson's estate (Chatham County Clerk of Probate Court 1789:Document 144). The name Spencer was thoroughly searched through records at the Chatham County Clerk of Superior Court records but could not be attached to any deeds on file. William Spencer appeared in the 1798 tax digest (Stanley and Johnson 1968:2048). A will for a William H. Spencer, who was listed as owning land on the Little Ogeechee River, indicated that he died in 1817 (LaFar and Wilson 1963:No. 144). The most parsimonious fit among the existing documents is that Henry A. Scott purchased the Spencer property directly from the original land grantee, from his estate, or other grantors who owned the property between Spencer and Scott. The nature of these transactions does not appear to have been made part of the public record.

Very little is known about Henry A. Scott. He was not listed in either the 1830 or 1840 federal censes, nor does he appear to have ever been a slave holder. By the late 1840s, Henry A. Scott's fortunes had fallen into difficult times. In April of 1849, Scott transferred ownership of his property to his 13-year-old daughter, Eliza Scott, under the guardianship of John Murchison (Chatham County Clerk of Superior Court 1850:493). Eliza Scott appeared the following year in the 1850 census living in Murchison's home. This may be an indication that Henry A. Scott died. The move to help provide his daughter with some security was not entirely successful. By 1851 their finances had collapsed; the Scotts' property was foreclosed and seized for sale by the local sheriff (Chatham County Clerk of Superior Court 1851:365). The highest bid was offered by William H. Miller.

THE MILLER TRACT (1840-1879)

William H. Miller was probably born between 1805 and 1815. While a search of the 1820 and 1830 Federal Censuses found no listing appropriate to William Miller, he would have been too young to be listed as a head of house in these surveys. There are a number of male children among the various Millers living in Chatham County who were of the correct age to potentially represent him. No documents have been found indicating that he ever married. It is likely that

through Miller's professional connections in the legal community that he became aware of opportunities emerging in the Little Ogeechee area. Between the 1830s and the 1850s, Miller systematically purchased properties, forming a more or less contiguous tract of farmland. Along with the Wilson tracts, he acquired large tracts from James Bandy, Anne Habersham, Francis McLeod (owner of the Wild Horn Plantation), and other tracts from Henry A. Scott (Chatham County Clerk of Superior Court 1920:151; 1839a:359; 1850:318; 1852:151; 1853:265). Combined, these tracts provided around a thousand acres of land, much of which had been previously developed for rice and Sea Island cotton agriculture. An examination by Silliman and Quirk (2009) emphasized that the 9CH1205 site was generally situated to the south and east of these properties. Once again, the properties most likely to be associated with 9CH1205 were those formerly owned by James Wilson and William Spencer.

Miller's land interests in Chatham County were not limited to the Little Ogeechee River area. Beginning in the 1830s and more concentrated after the Civil War, Miller purchased a variety of urban properties, most within Savannah city limits (Chatham County Clerk of Superior Court 1849:218; Chatham County Clerk of Superior Court 1850:56). While Miller may have maintained a residence in the city, these other properties were likely purchased for rental purposes.

The Federal Census of 1840 listed William Miller as a learned professional living inside the city of Savannah. He was among the original charter members of the Georgia Historical Society, chartered on December 19, 1839 (Knight 1917:2:657). In an 1839 deed with Anne Habersham, Miller, the grantee was listed as an Attorney at Law in the City of Savannah (Chatham County Clerk of Superior Court 1839a). His household consisted only of two slaves, who were probably employed as house servants. He was probably unmarried at that time. Miller's holding are also listed separately for District 7 (Ogeechee District), Chatham County. These included 36 slaves, 17 males and 19 females. Of these, 23 or about 60 percent were employed in agriculture. The remaining slaves were likely too young or too old to provide farm labor. Given the lack of surviving rice dikes in any of the marshes around the eastern peninsula or depicted on any nineteenth-century maps, it seems likely that Miller followed the Wilson's lead and focused his agricultural venture on sea island cotton.

The slave census from 1850 indicated that Miller's human holdings had grown to 60 individuals. Miller and all his charges were listed as residing in District 13, which addressed the entirety of Chatham County, Georgia. Miller's slaves were about equally divided between males (n=28) and females (n=32). Over a third of these (n=23) were under the age of 10 and an additional four individuals were 60 years or older, emphasizing that almost of half of his charges could at best provide only diminished labor. Miller does not appear in the 1850 census. Property sales in the

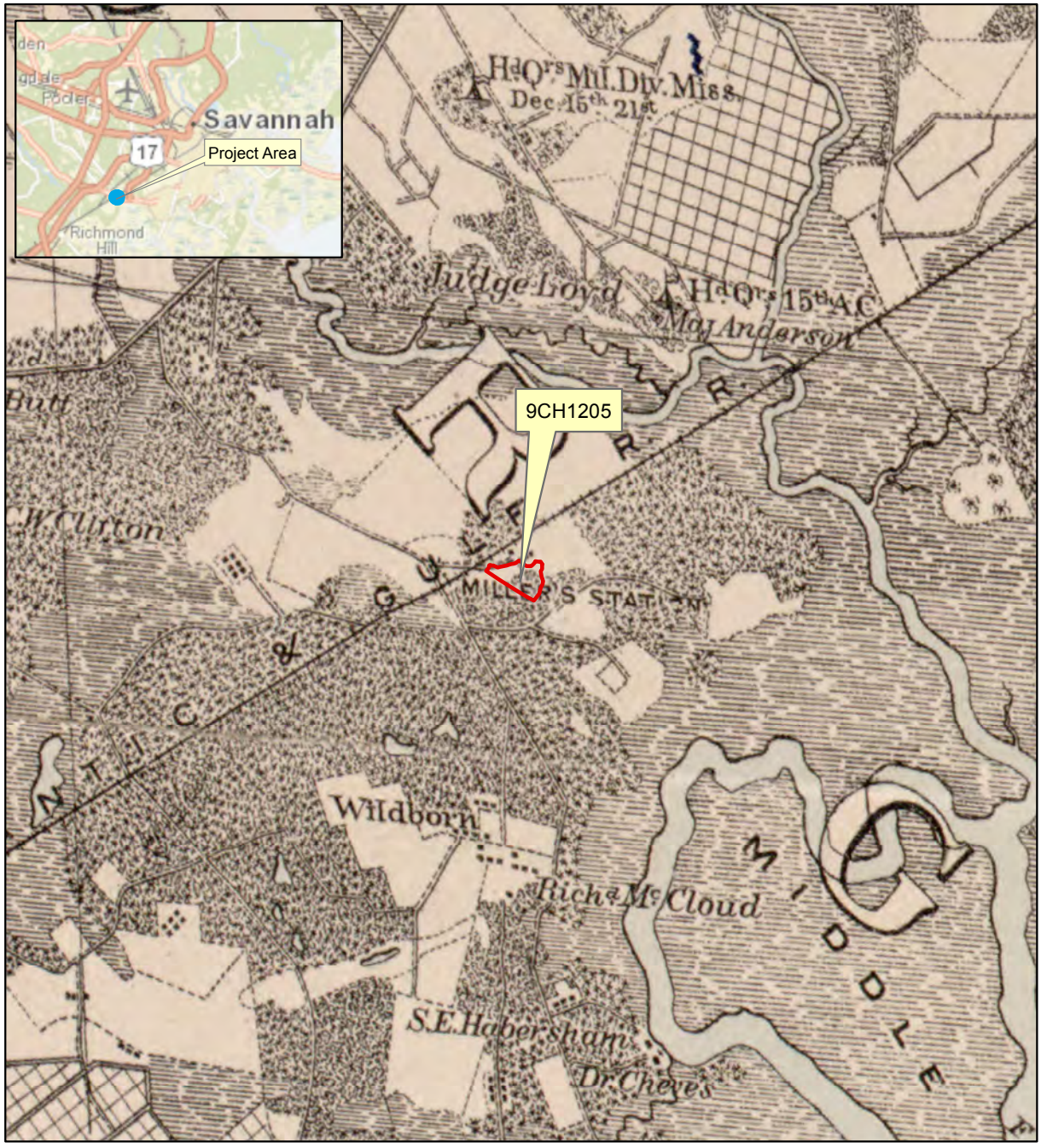
Chatham County area with his name on them implied that he was still living in the area. Silliman and Quirk (Silliman and Quirk 2009:67) have suggested that he was living on the Miller tract, potentially in the old Wilson estate home.

By 1860, William Miller owned 87 slaves in Chatham County (U.S. Census Bureau 1860b). A review of the Ogeechee District Schedule indicated that Miller's slaves were not present there, rather that they were recorded in the Cherokee Hills District on the northwest side of Savannah. Slave ownership was listed under "James L. Holmes, Agent for W. H. Miller", indicating that Miller had entrusted someone else to manage his labor force. A review of census data for the Ogeechee District, Chatham County, and State of Georgia failed to find any entry that matched William H. Miller's profile. These data implied that Miller was not living in the Savannah area and likely not in the State of Georgia at the time the census was taken. Miller's slave data may support this. A review of Miller's real estate transactions failed to reveal that he owned any property in the Cherokee Hills District, the place where his slaves were inventoried. The inventory also revealed that Miller's slaves were residing in 16 slave houses, which presumably were located in Cherokee Hills. Miller's agent, James Holmes, was listed on the 1860 Federal Census as living in the Ogeechee District and working as an overseer. It seems most likely that Holmes was managing Miller's slaves and they were either on Miller-owned property not documented in the public record or they had been rented out to another venture.

Very little is known about Miller's work force. The sex division of Miller's slaves slightly favored females (n=47) over males (n=40). Four adults were over the age of 60 years and 23 represented children under the age of 10. The non-working component of Miller's slaves appeared to remain constant while increases were made among his adults. These were more than could be accounted for by maturation of the children in the 1850 schedule, indicating that Miller undoubtedly had purchased more working-age slaves between 1850 and 1860. In 1856, Miller purchased an individual described as "a negro man slave named Charles aged about 24 years and a Blacksmith by trade" from Savannah native Joseph Bryan (Chatham County Clerk of Superior Court 1839b:404). He was likely one of the three unnamed 28-year-old male slaves listed in Miller's 1860 slave holdings. Charles would have been a valuable asset to Miller's agricultural operations. He was a shrewd investment for Miller, who likely made Charles' services available for hire, independent of the rest of his labor force.

In 1864, Brigadier General O. M. Poe generated a highly detailed map detailing the more rural parts of Chatham County (Poe 1864). Poe's training as a military engineer was reflected in a map that emphasized what transportation routes were available during Miller's ownership (Figure 8). Sometimes referred to as Millers Public Road, Grove Point Road provided overland

Figure 8.
Detail from Poe's 1864 Map of Chatham County Depicting
William Miller's Property and Emphasizing Miller's Station



Source: Poe 1864

access, linking lands as far south as the Wild Horn (marked "Wildborn" on this map and also known as Wild Heron) Plantation with the Ogeechee-Savannah Road (north of the project area). The Ogeechee-Savannah Road provided the most direct route to the City of Savannah. Grove Point Road and a second unnamed road crossed southward across the northwestern aspect of the Wilson tract.

The northeasterly oriented road into the Wilson-Spencer tract observed in the 1816 map is more visibly marked. This forked road led to cleared areas corresponding with the Wilson and Spencer annotations on the 1816 map. The Wilson location included a polygon that probably indicated a home or residential compound. This was probably where Miller lived. More important to the history of 9CH1205, another small passage originating north of the rail line from Grove Point Road and proceeding east-southeast terminated in very close proximity to the project area. At the road's terminus, there are at least four structures illustrated in the cleared landform. These may represent the same structures noted in the 1816 map. The 1865 U.S. Coast Survey produced a map depicting all of the structures observed in the Poe map (Dennis 1865). In addition, Dennis's map included two structures at the juncture of roads leading to cleared areas on the Wilson and Spencer tracts (Figure 9). These structures were also in very close proximity to the 9CH1205 project area.

Very little is known about William Miller's residence. The structure has not survived to the present day and likely was demolished in the late nineteenth or twentieth centuries. A hint was provided by Ward McAllister in his book *Society as I have Found It*. McAllister possessed a less than favorable view of southern gentry and used a "Mr. Jones" to exemplify his disdain. Bragg (1999:491) identified that notes in McAllister's copy of the book, preserved in the New York Historical Society, demonstrated that "Mr. Jones" was actually William H. Miller. McAllister (1890:96) described the Miller residence:

> We reached the plantation on which we found a one-story log cabin, with a front piazza, one large center room, and two shed rooms. There was a small yard, enclosed with pine palings to keep out the pigs, who were ranging about and ineffectually trying to gain entrance.

Recognizing that McAllister's prejudices notoriously permeated his work and likely colored his view of Miller's home, it is still likely that Miller's residence was a relatively modest structure. John Ransom, who briefly visited the home during the Civil War, noted that it possessed a cupola tall enough to see gunboats on the Atlantic Ocean (Ransom 1881:204).

Figure 9.
Detail from Dennis's 1865 Map of Chatham County
Depicting William Miller's Property

Miller's property was divided into north and south sections by the Atlantic and Gulf Railroad. As early as 1820, horse-driven rail lines were present in isolated locations in Savannah (Colquit 1930). Development of the locomotive transformed the rail line from a local to an interregional means of transportation. While waterways provided a means of shipping cash crops, principally cotton and naval stores, to markets in Savannah, much of Georgia's southern interior lacked an efficient link between farm and market (Dozier 1920). In response to demands to further exploit these resources, the Savannah, Albany, and Gulf Railroad (formerly the Savannah and Albany Railroad) embarked in construction of an east-west rail line linking Savannah and Albany. The rail line soon became a major employer of immigrants, free African Americans, and slaves, many of whom settled in Savannah's Troup Ward (Sheehy et al. 2011:277). Work began in 1856 moving westward from Savannah and into Bryan County (Sullivan 2000:168). Deeds between Miller and any railroad companies could not be located. An 1857 deed between Francis McLeod, owner of the Wild Horn Plantation and the Savannah, Albany, and Gulf Railroad Company provided some insight into the terms arranged between landowner and rail lines (Chatham County Clerk of Superior Court 1857:238–239, 275–276). The Wild Horn Plantation was located immediately west of Miller's holdings, on the east side of the Great Ogeechee River; the property corresponds to the Kings Bridge crossing mentioned below. In exchange for right-of-way access across the plantation, the railroad agreed to forever provide McLeod and his heirs free transport to and from the nearest station to the plantation to the City of Savannah. A similar arrangement was likely offered to Miller and provided impetus for establishing a depot on Miller's property.

Depots were placed at strategic intervals, most taking the name of the town or original property owner. The first regular stop along the line happened to be on property owned by William H. Miller. The depot became known as Station 1, Miller's No. 1, or simply Miller's Station (Figure 10). An 1869 Map of Chatham County placed this station and a structure in very close proximity to the project area (Figure 11) (Frobel 1869). This location mirrors the station location on another period map generated by Amanda Barnett (1868). Overland access to this depot was likely from the road noted on the north side of Grove Point Road and the rail line. Combination passenger-freight depots similar to those used on the Savannah, Albany, and Gulf Railroad were typically about 30 feet deep and 60-120 feet long with securable freight sheds placed along one end (Taylor 2012:57). The stationmaster's office included a waiting room, ticket window, and living quarters.

Figure 10.
Circa 1869 Map of Atlantic and Gulf Rail Line Emphasizing Miller's Station
as the First Stop on the Line out of Savannah

Source: Lee and Agnew 1869

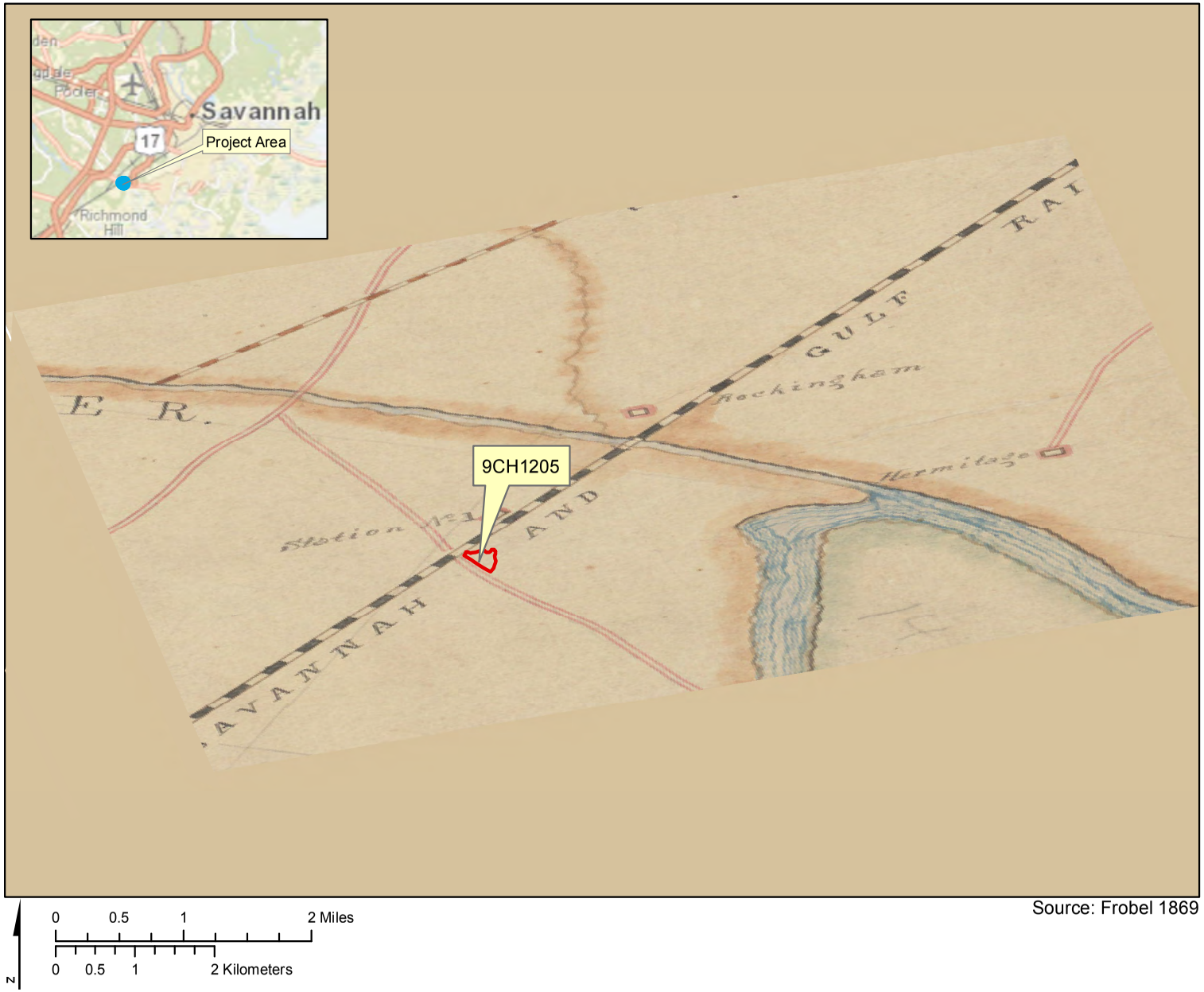


Figure 11.
Detail from Frobel's Map of Chatham County Depicting Location of Miller's Station

Miller's Station proved to be a blessing to the Little Ogeechee River region. Rather than float agricultural products to Savannah, a trip requiring up to 30 miles of river travel, or travel across roads ill suited for transporting freight, rail transport to the center of town entailed a cargo-friendly trip of less than 15 miles. Transport costs were dramatically cut, increasing profitability among the region's farms and plantations. During the Civil War, the Confederate federal government commandeered much of the track and portions of it were physically dismantled (Winn 1995:92). Sherman's troops also destroyed major portions of the rail line between the Ogeechee and Altamaha rivers (see below). The line and Miller's Station were important enough to be consistently illustrated in area maps made by Federal Engineers (Davis et al. 2003:Plates 69(4), 91(4), 101(21), 120(2), 144(F10), 145(A11)). Rebuilding the line during the Reconstruction led to the company's bankruptcy and after several mergers with other rail lines, the passage from Savannah to Albany was eventually absorbed by the Atlantic Coast Line Railway (Lee and Agnew 1869:145–146; Prince 2000:20–23). As a result, the line was known by a variety of names, including the 'Savannah, Albany, and Gulf', the 'Savannah and Gulf', the 'Savannah and Albany', the 'Gulf', the 'Atlantic and Gulf', the 'Savannah, Florida, and Western', 'Seaboard Coast Line', 'Seaboard Air Line", the 'Atlantic Coast Line' and more recently the 'CSX Transportation' line. Miller's Station was an important enough stop along the line that an 1870 timetable noted two northbound and two southbound trains made daily stops there (Storey n.d.). By the early twentieth century, regular service to Miller's Station had terminated and the depot was eventually abandoned.

The Poe and Dennis maps also provided some information on the way Miller used his land. On both maps, most of the 9CH1205 project area is wooded, implying that only portions of it were likely available for agriculture. While the potential for maximizing the property's agricultural output was present, these maps indicated that Miller did not actively seek to farm most of the property. The number of hands needed to maintain this property's output would be considerably less than if the entire property had been developed into agricultural land.

THE CIVIL WAR (1861-1865)

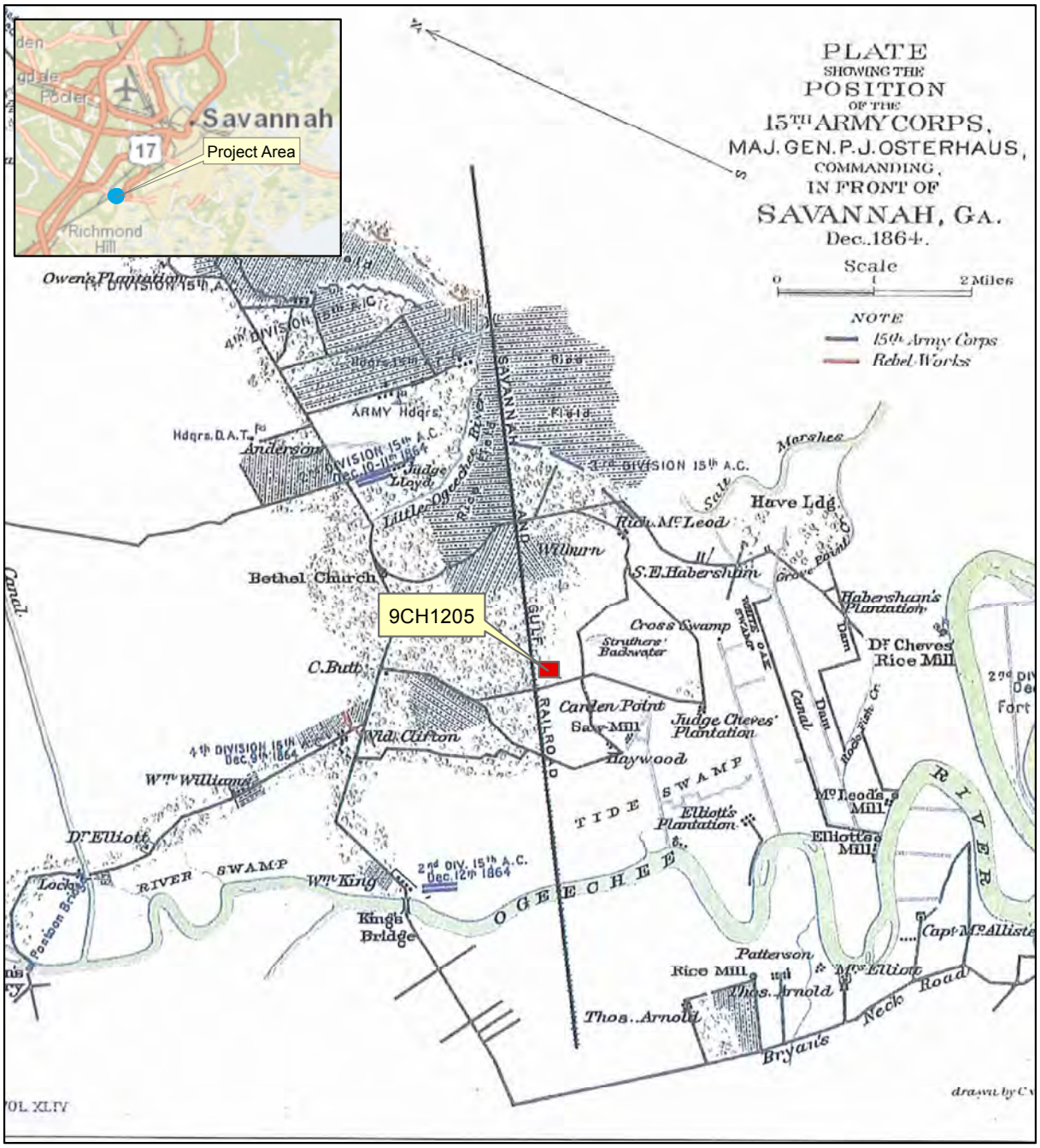
William H. Miller continued to own the 9CH1205 property during the Civil War years. Like most areas surrounding Savannah, the Civil War deeply impacted the eastern peninsula. The militarization of Savannah began well before Sherman's advance and the city saw a regular rotation of Confederate forces throughout the war. Confederate military presence intensified as Union troops invaded Georgia. Union blockades were able to effectively shut down Savannah's port and severely crippled the agricultural market. Confederate batteries at Fort Jackson and Fort McAllister helped stall the capture of Savannah until late in the war (Swanson 2004:38). Fort McAllister in particular was subjected to numerous naval bombardments but remained

impregnable until it was overrun by Union forces in a brief but bitterly contested land assault. The Poe 1864 map (see Figure 8) illustrated that much of the military action was to the north and east of the 9CH1205 project area or focused on Fort McAllister, almost due south. Yet, the Miller tract was not spared from the fight.

The Confederate commander in charge of Savannah's defense was Lieutenant General William J. Hardee. Hardee had only about 10,000 men at his disposal of which 3,000 were committed to the various forts and batteries surrounding the city (Sheehy et al. 2011:369). Facing over 60,000 Union troops, Hardee took full advantage of Savannah's natural defenses. One tactic he employed was the wholesale destruction of creek embankments, marshes, rice dikes, and canals in the Ogeechee River area (Hughes 1963:49). This flooded the front of the Confederate lines with several feet of water and restricted movements to high ground and the few available overland roads (U.S. War Department 1893:44:124). This flooding probably accounted for the erroneous annotation that most of the property west of Grove Point Road was a rice field in Seutter's 1864 map of the locality (Figure 12) (Davis et al. 2003:Plate 69). The Little Ogeechee's salt marshes and boggy swamps provided natural barriers and lands south of the Little Ogeechee's neck were impassable without aid of watercraft (U.S. War Department 1893:44:728, 742). A tactic infamously used by Hardee's forces was the landmine. While Confederates had used torpedoes or landmines as defensive weapons around military fortifications, the assault on Savannah saw the first use of them in non-military settings as a means of slowing Sherman's advance (Davis 1980:115). Landmines were buried along rail and land passages into Savannah, bottle necking Union forces into locations that had been cleared of landmines and were dry enough to allow passage.

Miller's property was at the extreme southwestern margin of the Confederate defense line and placed under the control of Major General Ambrose Wright. Wright, who had been promoted to Major General only a month earlier, had been brought in to replace Brigadier General Hugh Mercer, who had been relieved due to ill health (Smith 1997:168). Wright's compliment of Hardee's forces included only 2,700 men and 32 artillery pieces (Miles 1989:199). There were only a few trained veterans among Wright's men. Most of his command was composed of local volunteers, local militiamen, and civilians. While the Confederate defenses did not include any permanent protection to the Little Ogeechee waterway, Stave's Landing on the Grove River (south of the 9CH1205 Project Area) was fortified with six light artillery pieces and a single 18-pound cannon (U.S. War Department 1893:44:648). Entry into the Little Ogeechee River was hampered by a row of piles driven across the river at a point 1.5 miles below the Savannah, Albany, and Gulf Railroad Bridge. This location was well outside the Miller property area.

Figure 12.
Detail from Seutter's 1864 Map of Chatham County Depicting the Ogeechee District



Davis et al. 2003:Plate 69

Civilian evacuation emphasized how late in the assault these lines were left open. As Sherman's Fifteenth Corps approached Savannah from the west, a Savannah, Albany, and Gulf train leaving Savannah was intercepted (Sheehy et al. 2011:190). Accounts vary about the exact location, but generally agree that the train stopped west of Millers Station, probably on the grounds of the Wild Horn Plantation. Track in front of the train was dismantled, forcing retreat as the only option. A soldier from the Eighty-First Ohio Infantry recalled that the train's engineer would have succeeded in escaping:

> "…but for the thoughtfulness of a soldier who happened to find a citizen's mule team near a road crossing [likely Grove Point Road]. He drove the wagon on the track and shot the mules, forming a complete blockade. By the time the train reached this, re-enforcements came up and the train was a prize. Colonel [Robert N.] Adams made prisoners of the male passengers, gallantly released the ladies unconditionally and burned the cars" (Trudeau 2008:386).

Among the captured civilians was Richard R. Cuyler, president of the Central Georgia Railway and an important prize for the Union Army.

Prior to Union capture, the Georgia Cavalry's 29th Battalion was headquartered at the Savannah, Albany, and Gulf's Station No. 3, west of 9CH1205 at the Ogeechee River (U.S. War Department 1893:35:423, 442). Approximately 1.5 miles south of Millers Station, elements of the First Battalion Georgia sharpshooters set up Camp Anderson on the west side of Grove River and on the Wild Horn Plantation (Sheehy et al. 2011:425). During the final push into Savannah, Union forces encountered "…carefully constructed works some three miles and a half from Station No. 2 [Way's Station], but these were abandoned" (U.S. War Department 1893:44:70).

During the siege of Savannah, the Twelfth Georgia Battalion, under the command of Brigadier General H. W. Mercer was tasked with the protection and defense of the Savannah, Albany, and Gulf Railroad (U.S. War Department 1893:35:634). Some temporary encampments were erected. Camp Johnson was a picket camp established near the home of "Mr. Barclay" near the Savannah, Albany, and Gulf Railroad Bridge on the Little Ogeechee River (Sheehy et al. 2011:429). The name 'Barclay' did not appear in any of the records associated with the Miller property, implying that this encampment was on the east, not the west side of the river. Perhaps the closest Confederate encampment was at Camp Miller, located approximately one mile from Millers Station on the west side of Grove River and along the Savannah, Albany, and Gulf Railroad line (Sheehy et al. 2011:430). This location would place it near the west side of the railroad bridge, on Miller's property and east of the 9CH1205 project area. It was probably the defensive complement to Camp Johnson. These units were the likely forces firing on Union troops occupying the Miller tract.

As noted earlier, the Savannah, Albany, and Gulf Railroad line had been partially dismantled and many rail lines, bridges, and trestles were destroyed by the Confederates to discourage movement of Union forces into the Savannah area. Documentary evidence suggested that the line running through the Little Ogeechee area may have been left more or less intact until the last minute to provide a quick means of troop and supply movement. A sketch in the March 14, 1863 issue of *Harper's Weekly* illustrated that the Savannah, Albany, and Gulf Railroad line and bridge over the Ogeechee River, roughly 1.5 miles west of 9CH1205, remained open throughout most of the war (*Harper's Weekly* 1863:164). This general area, however, was a critical link in Sherman's planned assault on Savannah. On December 13, 1864, Sherman charged his old command, the Second Division, First Corps with taking Fort McAllister, a Confederate stronghold at the mouth of the Ogeechee River (Davis 1980:104). Immediately after the fall of Fort McAllister, the Ogeechee-Savannah Road Bridge, known locally as King's Bridge, became an important hub in the Union supply system. This bridge was about a mile north of the rail line; but the name Kings Bridge also seems to have been used to describe the railroad bridge's location. In a telegram dated December 16, 1864, Sherman informed Grant "Sea-going vessels can easily come to King's Bridge, a point on Ogeechee River fourteen and a half miles west of Savannah from which point we have roads leading to all our camps" (U.S. War Department 1893:44:726). Having been cut off from his own supply lines for nearly a month during the now infamous "March to the Sea", King's Bridge provided a much-needed connection between Sherman's ground forces and Union supply networks. The Savannah, Albany, and Gulf Railroad line bridge represented a physical barrier limiting the size of ocean-going vessels able to travel up the Ogeechee River to the Ogeechee-Savannah Road Bridge. Larger supply vessels would have docked at the rail bridge and their supplies unloaded for distribution at this point. Likewise, the bridge became a departing point for freed African Americans who were transported out of the area to Union holding camps on Hilton Head Island (Trudeau 2008:482). Encampments of freed African Americans on the heels of Sherman's armies were scattered across the country side.

Shortly after King's Bridge was secured, Sherman directed Captain O.N. Poe, his Chief Engineer, to oversee the destruction of all rail lines including the Savannah, Albany, and Gulf Railroad line west of the Ogeechee River (U.S. War Department 1893:44:729). Destruction of the Savannah, Albany, and Gulf Railroad line was accomplished by members of Brigadier General W.B. Hazen's Second Division. Instructions from Hazen's superiors were specific; "The destruction must be most thorough, every tie to be burned and every rail twisted" (U.S. War Department 1893:44:730). Destruction was to be accomplished west of Station No. 3, indicating that rail lines around Miller's Station (Station No. 1) had been spared.

Capturing Fort McAllister and establishing a supply depot at King's Bridge did not mean the end of hostilities in the area. Securing the southern and western fronts of Savannah fell on the

shoulders of the Fifteenth Army Corps, under the command of Major General Peter J. Osterhaus. A number of Union forces can be identified as occupying the Miller's Station Area (Table 7). As part of support for the assault on Fort McAllister, the Third Division of the Fifteenth Army Corps left their positions near the Anderson Plantation (north-northwest of Miller's Station) and marched to Miller's Station. A map drawn in a diary kept by Robert K. Sneden provides the approximate field relationship been Miller's Station and the Fifteenth Army Corps (Sneden 1864). Sneden's map, however, incorrectly placed Miller's Station on the west side of the Ogeechee River rather than on the west side of the Little Ogeechee River (Figure 13). Since Sneden was in a Confederate prison camp during the Savannah campaign, he never had an opportunity to survey the property. Sneden's map clearly states that it was copied from available engineer maps. Despite its errors relative to the project area, the map does emphasize that Miller's Station was an important military landmark during the taking of Savannah.

Table 7. Union Forces Present at Miller's Station, December 10-21, 1864

Command	Regiments	Commander
Third Division	Headquarters	Brigadier General John E. Smith
First Brigade	Headquarters	Colonel Joseph B. McCown
	63rd Illinois	Lieutenant Colonel James Isaminger
	93rd Illinois	Lieutenant Colonel Nicholas C. Buswell
	48th Indiana	Lieutenant Colonel Edward J. Wood
	59th Indiana	Lieutenant Colonel Jefferson K. Scott
	4th Minnesota	Colonel John E. Tourtellotte
Second Brigade (Third Division)	Headquarters	Brevet Brigadier General Green B. Raum
	56th Illinois	Captain James P. Files
	10th Iowa	Lieutenant Colonel Paris P. Henderson
	26th Missouri	Colonel Benjamin D. Dean
	80th Ohio	Lieutenant Colonel Pren Metham
Second Brigade (Fourth Division)	12th Illinois Infantry	Lieutenant Colonel Henry Van Sellar
	66th Illinois Infantry	Lieutenant Colonel Andrew K. Campbell

Figure 13.
Detail from Sneden's 1864 Map of Union Positions in Chatham County Depicting William Miller's Property and Emphasizing Miller's Station

Source: Sneden 1864

In a dispatch to Major M. Woodhull, Assistant Adjutant-General of the Fifteenth Army Corps, Third Division Commander John E. Smith reported:

> At 9 p.m. December 11 followed the First Division to the right and camped at Anderson's plantation, and on the 12th took up a position near Miller's Station (No. 1) on the Gulf railroad. Owing to the width of the marsh and the Little Ogeechee River, an advance was impracticable. An outpost was stationed at the abutment of the railroad bridge, the only available ground on my front. At this place one man was killed. On the 19th a work was commenced on the railroad for three guns. It was not completed, however, when the enemy evacuated Savannah. On the morning of the 21st the command was moved into Savannah… (U.S. War Department 1893:44:124).

Smith's movement was hampered by rain that turned the rail line into "a sea of mud and quagmire"; and on December 26, 1864, Osterhaus reported; "…General Smith moved to Station No. 1 [Miller's Station], on the Gulf Railroad, pushing his pickets forward on that road and to the right to cover the approaches from the south" (U.S. War Department 1893:44:88). Presumably, this maneuver was designed to secure Grove Point Road, but it also emphasized that the Third Division was undoubtedly positioned on or adjacent to 9CH1205.

Dispatches indicated that Third Division Commander, Brigadier General John E. Smith moved his headquarters to Station No. 1 (Miller's Station) (U.S. War Department 1893:44:730). The Division remained on Miller's property in a support capacity on Miller's property from December 12 until December 21 (U.S. War Department 1893:44:29).

To the north of the Third Division, units from the Fourth Division's Second Brigade were also present. Colonel Robert N. Adams, commander of the Second Brigade (Fourth Division, Fifteenth Army Corp) provided the following account of action along the Savannah, Albany, and Gulf Railroad:

> 10th [December 10, 1864], two regiments of the [Second] brigade, Twelfth Illinois and Sixty-sixth Illinois Infantry were ordered to move to the Gulf railroad bridge over the Little Ogeechee River, and, if possible, effect a crossing, the Eighty-first Ohio Infantry being left to guard division supply train. Arriving at Station No. 1 [Miller's Station] on the above named railroad one company of the Sixty-sixth Illinois Infantry were deployed as skirmishers, supported by one company of the Twelfth Illinois Infantry,

and ordered to move forward to the railroad bridge, and the two regiments moved down on the right of the railroad, under cover, to within a quarter of a mile of the bridge. Here the ground became so marshy on either side of the railroad that it was impossible for even the skirmish line to advance farther, except only the few men that were marching on the railroad. It now being ascertained that the bridge could only be reached by the railroad, and that it has been burning for some time, and no enemy having yet been discovered. Capt. James Compton was ordered to move down the railroad with 10 men and effect a crossing if possible. He accordingly advanced to the railroad bridge and was about to make some arrangement by which to cross himself and men, when the enemy suddenly opened upon him from behind the abutment on the opposite side of the river. Here the captain discovered he was confronted by a considerable force of the enemy behind works (both artillery and infantry), and that the only approach to the river was by the railroad. These facts having been reported, an effort was made to find a crossing at some point above the bridge, but without success. The picket-post then at the bridge was strengthened and ordered to open a brisk fire upon the enemy for the purpose of more fully developing his forces. The enemy returned fire from behind the abutment of the bridge on the opposite side of the river and from his works a few hundred yards from the river, and also used two pieces of artillery. A brisk fight was kept up until dark, when by direction of the general commanding division, the brigade was withdrawn and encamped on Miller's plantation, at Station No. 1.

On the 11th [December 11, 1864], an effort was made to find a crossing at some point below the bridge. The Twelfth Illinois Infantry was accordingly sent out for this purpose, under command of Lieutenant-Colonel Van Sellar. The Colonel spent most of the day in this search, but could not find even an approach to the river. After examining the north shore of the river to within range of the guns of Fort McAllister he returned to camp. The brigade remained in camp on Miller's plantation until the 14th, when it was ordered to joining the division then encamped on the Anderson plantation (U.S. War Department 1893:44:139–140).

From Adam's description, it is likely that the Fourth Division's Second Brigade was initially forward (east) of the Third Division, which filled in the gap when the brigade was ordered to the rear. The Second Brigade clearly engaged Confederate forces from the Miller property and Union forces surveyed the eastern peninsula looking for another crossing. The Second Brigade spent several nights bivouacked on what the line units referred to as "Doctor Miller's Plantation" (U.S. War Department 1893:44:142). The railway bridge was at least partially destroyed by retreating Confederate forces, preventing the advancing Union lines from crossing the Little Ogeechee around its neck. Headquarters of the Fifteenth Army Corp was subsequently placed along the bluff on the north side of the Little Ogeechee River north of Miller's Station.

Sherman's December 22, 1864 report to the Army Chief of Staff reported that having taken Station No. 1 (Miller's Station) the local countryside was treated as foraging ground, "…providing our men and animals a large amount of rice and rice straw" (U.S. War Department 1893:44:10). It can be safely assumed that the Union forces commandeered whatever goods were available on Miller's properties.

MILLER AFTER THE WAR (1865-1879)

Miller survived the Civil War and unlike many of his contemporaries managed to hold on to his properties. Sherman's Field Order No. 15 deemed plantation land not occupied by the owner as abandoned and subject to confiscation; following the Freedmen Act of March 1865, these lands eventually became available to be sold or rented to former slaves (Bell 2001:379). Unlike his neighbors at the Grove Point and Grove Hill Plantations, Miller's properties were not confiscated, implying that he may have been in the area during Sherman's occupation. Escaped Union Prisoners of War, John Ransom, Eli and David Buck, stumbled into the Miller Plantation immediately prior to its capture by Union forces. Greeted by jubilant African Americans, one resident noted that they were "Old Massa Millers niggers, all Union niggers", who were more than happy to help the fugitives given that, "no whites [were] at home on the plantation" (Ransom 1881:205). From Ransom's account, it can be determined that Miller was not present during the Union assault.

The details of Miller's Civil War and post-Civil War activities are at best sketchy but can be partially reconstructed. Being the owner and responsible for a large number of slaves, Miller would have easily avoided military conscription under the Confederate 20-Slaves Act. There were no records indicating that he served voluntarily. Miller may have been residing in a house on East Taylor Street in the Winfield Square area in Savannah (Sheehy et al. 2011:361). The Reconstruction Act of 1867 required men in the former Confederate states to sign an oath of loyalty to the United States before they were allowed to vote. On July 10, 1867, William Miller signed this act and registered himself as living in Savannah (State of Georgia 1867:No. 3187).

Miller's testimony during the trial of ring leaders in the 'Ogeechee Insurrection' emphasized that he had lived on his plantation for several months prior to the revolt (Bell 2001:392). The "Ogeechee Troubles" or "Ogeechee Insurrection" of 1868 consisted of a short-lived uprising by the African American occupants of the Ogeechee Neck. With respect to Site 9CH1205, some of the events of this action took place at or near Miller's Station, while William Miller himself was involved in the aftermath and occupants of 9CH1205 may have been involved in the Insurrection itself. Karen Bell (2001) provided a recent overview of the uprising and its historical context, which emerged from disputes over land ownership and tensions caused by the reversal of General Sherman's Field Order 15.

During and after the Civil War, Lowcountry African Americans dealt with new social, economic, and political circumstances. They were faced with the ramifications of their dramatically altered status and navigating through changed relationships with whites. The experience of the South Carolina and Georgia coasts differed from most of the other slave regions. After the Union Army occupied Savannah and took control of the region in late 1864, African American community leaders met with the army's commander, General William T. Sherman, along with Secretary of War Edwin Stanton, to discuss the future of the freed slaves. The meeting resulted in a plan to settle African Americans "made free by acts of war" on abandoned coastal rice plantations. Sherman's Special Field Order No. 15, applying to a zone from Charleston to Jacksonville, Florida, and extending 30 miles inland, set aside a region for exclusive settlement by segregated and self-governing communities, provided for claims to land and government protection, and granted each family 40 acres, along with loans of surplus mules (Foner 1988:70; (Foner 1988:70; National Park Service 2005:47–48; Singleton 1985:293). Northern activists soon arrived to try various experiments intended to help the freed slaves transition to their new status, with varying results (Foner 1988:52).

Unfortunately for the African American community, Sherman's order did not confer permanent title to the lands they occupied. The Freedmen's Bureau distributed possessory titles, which entitled them to the crops they produced. Unconcerned with the legal details, freed slaves took possession of varying sized plots in the region. Ownership of the land, however, depended on presidential confirmation of the possessory titles, which never came. Instead, President Johnson revoked Field Order 15 and in the summer of 1865, planters had mostly returned to the region, been pardoned, and returned to their plantations, either taking up residence or leasing them to white tenants. African Americans holding possessory titles or rental agreements with the Freedmen's Bureau already occupied many of these plantations and pushed back against the efforts to reclaim plantations or to force them into labor contracts. By 1866 incidents of violence began breaking out over evictions of African Americans from land they had obtained under Sherman's order (Bell 2001:379–380; Cimbala 1997:166; Dorsey 2010).

In July of 1866, the Freedmen's Bureau law gave anyone holding land warrants from Sherman's order the opportunity to lease or purchase 20-acre lots of government land. Between November 1866 and January 1867, over 100 people in the Ogeechee district obtained land warrants through this law, and consequently raised the hopes of others who were dispossessed and believed the government should provide them land. At the same time, new working arrangements escalated tensions. The contract labor system took away much of the autonomy that African Americans had worked under before the war, and imposed greater supervision by managers, overseers, and watchmen (Bell 2001:383–384).

The Ogeechee Neck was a center of African American settlement after the war. Without formal title, freedpeople occupied over 800 acres in various sized plots, hoping to obtain ownership and be able to establish their own communities (Bell 2001:379). Moreover, parts of the district were exclusively black, with freedpeople entirely in control of two or three plantations. As planters reclaimed their land, or as white leaseholders evicted African Americans who refused to sign labor contracts, tensions mounted further and finally erupted in the "Ogeechee Uprising" of 1868. The basis for this armed insurrection was land and the question of who could rightly claim it as their own (Cimbala 1997:190; Snay 2007:102–103). The revolt took place over five days, and was led by Solomon Farley, Paul Campbell, Jack Cuthbert, and Captain Green of the Ogeechee Home Guards, a district militia. The Home Guards and Union League, which was also based in the Ogeechee district, were among several self-defense and political groups organized under the supervision Freedmen's Bureau agents (Bell 2001:385; Cimbala 1997:169; Jones 2008:323).

Triggered by a confrontation between a plantation worker and overseer, the insurrection originated at Southfield Plantation. The freedpeople occupying the property had been left to themselves for several years and tensions heightened when the owner attempted to lease the plantation. Conditions of Freedmen's Bureau labor contracts, which awarded rice workers only one third of the year's crop, were another source of friction. As the year 1868 progressed, disputes broke out between workers and overseers over the terms of the labor contracts. Late in the year, workers employed by J. Motte Middleton and others began raiding barns at Southfield and Prairie plantations and attacking watchmen and overseers. Over a few days, they loaded about 6,000 bushels of rice onto flatboats and hid them along the river, and then ransacked Middleton's house. As a consequence, on December 23, Savannah magistrate Philip Russell issued warrants for the arrest of 17 workers (Jones 2008:323). On December 29, Savannah sheriff James Dooner and two deputies arrived in the district hoping to convince the men to surrender themselves. After managing to get four of the accused to surrender and agree to meet him at the railroad station, the sheriff and his men went for Solomon Farley at New Hope plantation. Appearing to cooperate, Farley had sent his wife off with a note before the sheriff

arrested him. When they arrived at Miller's Station on the Atlantic Gulf Railroad, the group was met with hundreds of angry, armed locals, who forced the sheriff to release his prisoners before sending him and his party back to Savannah on foot (Bell 2001:388; Jones 2008:323–324).

The main actions of the uprising involved armed groups roaming the district, forcing out white overseers and anyone else (including black residents) who did not support their objectives. Their intention was to force whites to abandon the Ogeechee Neck area through intimidation and obtain complete autonomy in the district. On December 31, Sheriff Dooner made another attempt at bringing order. Arriving by train with 20 enthusiastic but disorderly men, he soon realized the posse had no chance against an overwhelming number of insurrections, who had been busy sacking more plantations. The "rebels" established a headquarters at Middleton's house, and on New Year's Day issued a statement entreating for recognition of the economic rights of the former slaves. At the railroad station, someone (possibly Solomon Farley) posted a statement claiming the sheriff had no authority to arrest him, and promising to surrender when the rights of all classes and colors were ensured (Bell 2001:386–387; Jones 2008:324–325). During the five days of unrest, the insurgents appropriated thousands of bushels of rice from Grove Hill, Grove Point, Prairie, and Southfield plantations, an act that, according to Karen Bell (2001:389) "became a display of freedom to exist as independent 'rice planters,' a label that freedmen believed reflected the apotheosis of their life and labor."

The military commander in Savannah initially refused to put troops into action against the insurgents, preferring to leave the situation in the hands of local law enforcement. Meanwhile, the insurgents, hearing of military preparations in Savannah, began to consider their options. Some were in favor of surrender, although no widespread capitulation ever took place. Acts of vandalism and destruction continued as the bridge over the Ogeechee River was burned, and plantation houses were damaged. Within a few days of the insurrection's outbreak, however, its leaders announced their willingness to surrender to federal military officers but not the local civil authorities. On January 6, two companies of Federal troops arrived in the Ogeechee district and gained control of the plantations. They spent nine days assisting in the arrest of 143 individuals, while many of the insurgents and other residents fled south to Bryan County (Bell 2001:390–391).

Trials were held for 116 insurgents. Two local planters, William Miller (owner of Site 9CH1205 at this time) and William Burroughs of Wild Horn plantation testified for the defense. Miller, reportedly on good terms with the local African American community, had not lived at his plantation for three months prior to the uprising. Both he and Burroughs thought the insurrection was the result of labor contracts. Ultimately, only a few of the accused were convicted, and they received amnesty and were released after short sentences (Bell 2001:392).

The Ogeechee uprising had important consequences for the area's African American community. For one, it influenced Republican attitudes in the state. During the 1870s, the agenda turned away from helping Freedmen obtain economic stability and land. Second, African Americans sought another strategy for achieving economic independence. To this end, during the 1870s and 1880s, they focused on land ownership, and eventually were able to purchase lots of varying sizes. In the vicinity of Site 9CH1205, African Americans who returned to the Ogeechee district were able to purchase lots of 4-10 acres divided from William Burroughs' Wild Horn plantation, some near Miller's Station. By 1890, 25 former slaves had obtained just over 200 acres from Wild Horn and Miller's plantation, and this group formed the foundations of the Burroughs settlement, which became a self-governing town in 1897 (Bell 2001:393–395).

By the 1870 Federal Census, Miller was listed as a planter living the Ogeechee District. It is most likely that he reoccupied the Wilson home or some other structure on his estate. Miller's household included Nancy Gardner, a cook, and her four children, one of whom, Morris, was listed as working as a porter. Wilson's real estate was valued at $8,000.00 while his personal assets were listed as only $200.00. This 'land-rich, cash-poor' financial condition may reflect the general state of former prosperous southern planters during the Reconstruction period.

An examination of the census records tabulated for people living around Miller provided some insight into how land in the Ogeechee District was being managed. Recognizing that census workers collected data geographically by systematically travelling from one household to the next, information on households around a given subject can provide some insight into who the subject's neighbors were and what they were doing. Prior to recording Miller's estate, census taker, James C. Bland, recorded Richard F. Akin, a prosperous 45-year-old white planter with the Dunstons, a mulatto family, living on his property (Table 8). Three of the Dunstons are listed as farm laborers. After surveying Miller's estate, Bland recorded 14 households before encountering the next white landowner. The overwhelming majority (n=13) of these households contained unlanded African American families whose primary occupations centered on farm labor. These families were likely contracted to work the surrounding land either through rental agreements or some form of tenant arrangement. Unfortunately, these data did not indicate if these households were on Miller's property or on lands surrounding the Miller estate. It is therefore not possible to demonstrate that Miller continued to generate income from his lands through agriculture. But these data do suggest that after the Civil War, former plantation lands in the Ogeechee district were farmed using some form of tenant farm labor.

Table 8. Families and Occupations of Households near William H. Miller from 1870 Federal Census

Family No.*	Family Surname	No. of Individuals	Race	Occupation	Real Estate Value
1363	Akin	1	White	Planter	$25,000.00
1363	Dunstan	1	Mulatto	Seamstress	$0.00
		3	Mulatto	Farm Laborer	$0.00
		2	Mulatto	Children	
1364	Miller	1	White	Planter	$8,000.00
1364	Gardner	1	Black	Cook	$0.00
		1	Black	Porter	$0.00
		3	Black	Children	
1365	Hopkins	2	Black	Farm Laborer	$0.00
		1	Black	Children	
1366	Josephs	2	Black	Farm Laborer	$0.00
		1	Black	Children	
1367	Handy	2	Black	Farm Laborer	$0.00
		2	Black	Children	
1368	Wallace	3	Black	Farm Laborer	$0.00
		1	Black	Children	
1369	Maxwell	1	Black	Farm Laborer	$0.00
		3	Black	Children	
1370	James	4	Black	Farm Laborer	$0.00
		2	Black	Children	
1371	Wyley	3	Black	Farm Laborer	$0.00
1372	Wyley	1	Black	Farm Laborer	$0.00
		3	Black	Children	
1373	Anderson	5	Black	Farm Laborer	$0.00
1374	Winfield	4	Black	Farm Laborer	$0.00
1375	Ward	1	Black	Farmer	$1,400.00
		2	Black	Farm Laborer	$0.00
1376	Page	6	Black	Farm Laborer	$0.00
		10	Black	Children	
1377	Shelton	1	Black	Farmer	$0.00
		3	Black	Farm Laborer	$0.00
		1	Black	Children	
1378	Butler	2	Black	Farm Laborer	$0.00
		4	Black	Children	
1379	Highman	1	White	No Occupation	$500.00
		1	White	Keeping House	$0.00

*Numbered in order of visitation.

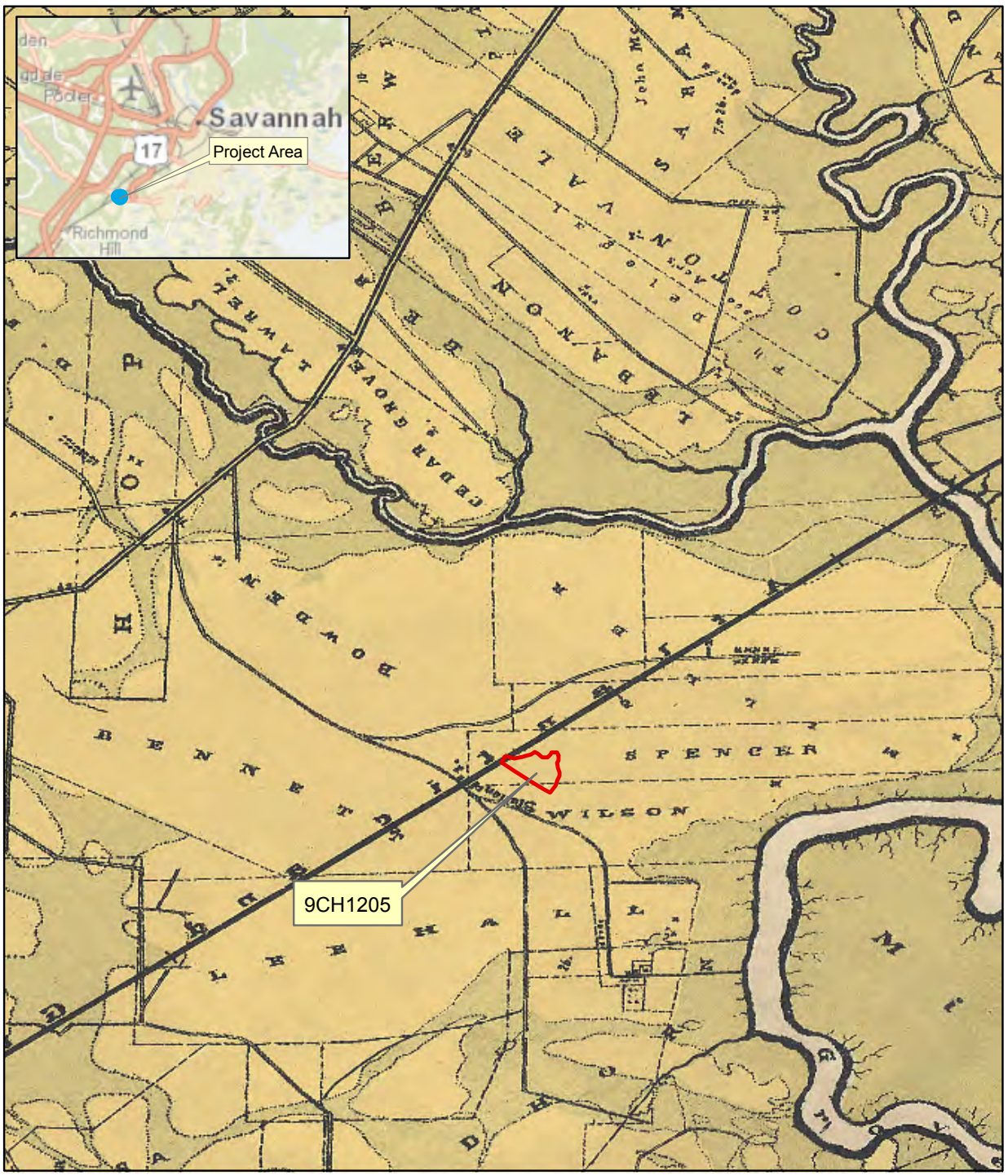
In 1875, Charles Platen produced a highly detailed map of Chatham County reflecting plot boundaries and land ownership (Platen 1875). His depiction of the Little Ogeechee River area included the 9CH1205 project area, which was likely located in properties formerly owned by Wilson and Spencer (Figure 14). These once separated properties were now consolidated under Miller's ownership. The names 'Spencer' and 'Wilson' likely indicated how the properties were referred to locally. 'Wilson' corresponded with the location of the former John-James Wilson tract and 'Spencer' approximated the location of the Spencer-Scott parcel. Miller's name was clearly overprinted, emphasizing who owned these and other tracts in 1875.

Platen's map clearly marked the bluffs overlooking marshes associated with the Forest and Grove rivers, which form branches immediately south of the Little Ogeechee River. Platen placed 'X's on the east central portion of the Wilson tract and the southeastern portion of the Spencer parcel. Both locations are along the bluff line and likely represented the probable structures noted in earlier maps. While relatively isolated from late nineteenth- and twentieth-century transportation systems into the Little Ogeechee River region, both of these structures were strategically placed for a time when waterways were the primary route in and out of the area. Both potential house locations were south and outside of the 9CH1205 project area.

THE DEMERE-SKEFFINGTON TRACT (1882-1917)

William H. Miller managed to hold his Little Ogeechee River property until his death on December 30, 1879. He was subsequently buried in Laurel Grove Cemetery. By this point, Miller owned around 1,900 acres in the Sixth Militia District. According to the application to sale filed in the Court of Probate's office, Miller's Little Ogeechee estate included two residences, 400 acres of cleared land and an additional 100 acres in cultivation (Silliman and Quirk 2009:65). Miller's executor, Raymond M. Demere, was a prominent partner with Blun and Demere, a highly successful banking, auction, and brokerage firm in Savannah (Butler 1993; Rogers 1877). Raymond Demere was considered part of Savannah's Old Elite. He was a direct descendant of George Washington's aide de camp and his family had ties linking them to land grants issued for the town of Hardwicke (Butler et al. 2003:18–20; Huddleston et al. 2003:38). During the Civil War, he served as a Confederate officer in the Hardwick Mounted rifles (Sheehy et al. 2011:344). Demere's real estate prowess soon made him a wealthy man, and he became an avid Savannah socialite and yachtsman (Butler 1993). Rather than divide Miller's estate, Demere sold the entire tract to his father, Raymond P. Demere, in April of 1882 (Chatham County Clerk of Superior Court 1882:512). In July, ownership then transferred from Raymond P. to Raymond M. Demere. Demere likely kept the same agricultural operations initiated by Miller in full swing during his ownership.

Figure 14.
Detail from Platen's 1875 Map of Chatham County
Depicting William Miller's Property



Source: Platen (1875)

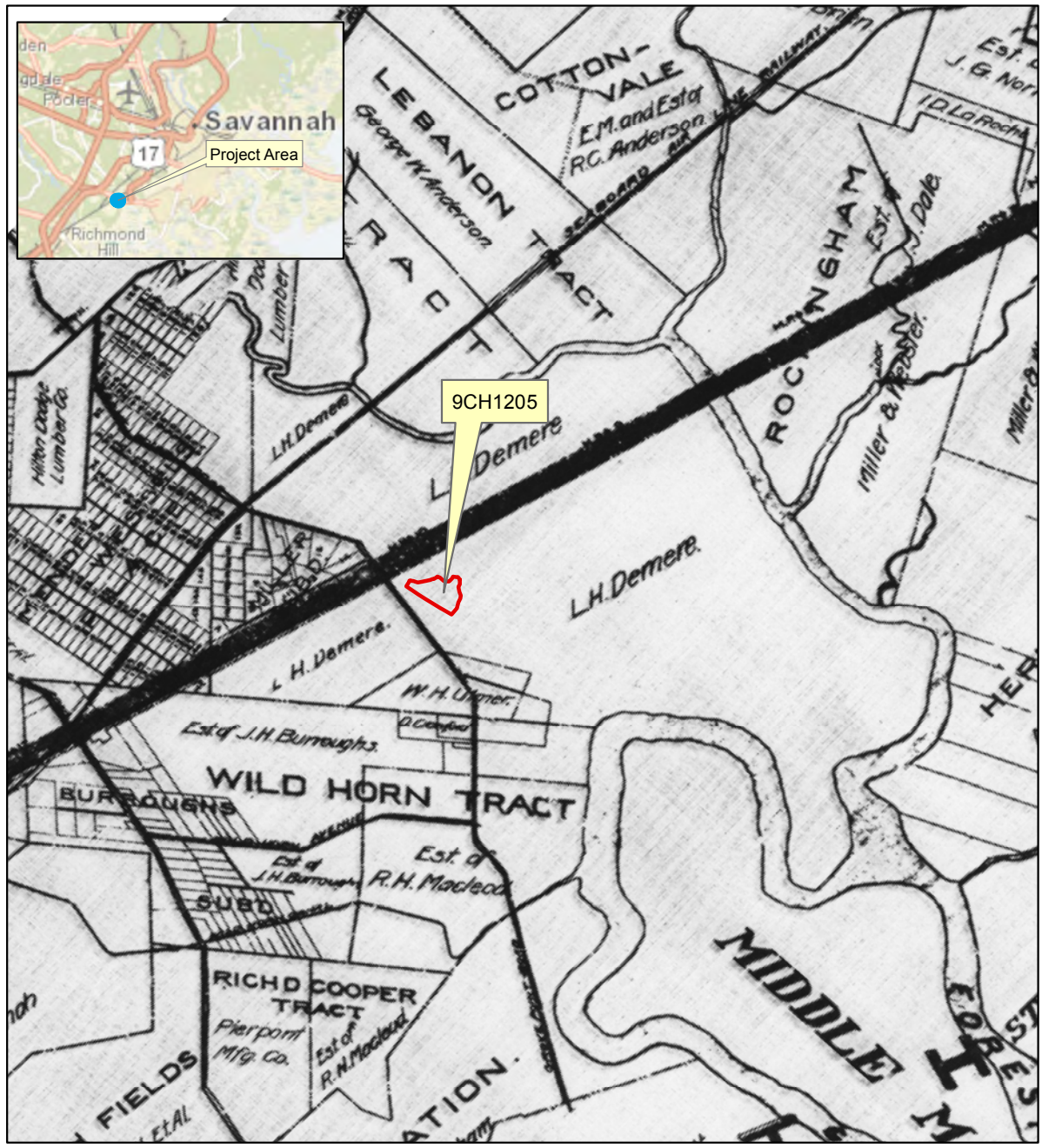
In 1888, the Chatham County Commissioners hired Richard A. Blandford to create a topographic and hydrologic map of Chatham County (Cadle 2008). An examination of the circa 1890s map emphasized that the neck of the Little Ogeechee area was only partially sketched, potentially from existing maps rather than from an intensive land survey (Blandford n.d.). Little to no detail was provided. The outlines of the high ground were noted, but ownership and land features within them are not presented.

In 1892, Raymond M. Demere transferred the Miller lands to his wife, Lila Houston Demere (CCC Deed Book 7B:402). Specifically mentioned in this transaction are properties "formerly known as the Wilson Tract purchased from James Wilson by William H. Miller on February 12, 1840" and the "Scott Tract, purchased by William H. Miller at a Sheriff's sale on December 2, 1851". The grounds containing 9CH1205 would have been included on these properties. In a separately listed record, Raymond also relinquished all rights to the property (CCC Deed Book: 7B:402).

In 1906, a map of Chatham County was produced for the Commissioners of Chatham County (Chapman et al. 1906). In the Little Ogeechee District, the names of landowners owning property in the Miller's Station-Grove Point Road area were included. Lila Demere was listed as being the owner of most of the property formerly under the control of William H. Miller (Figure 15).

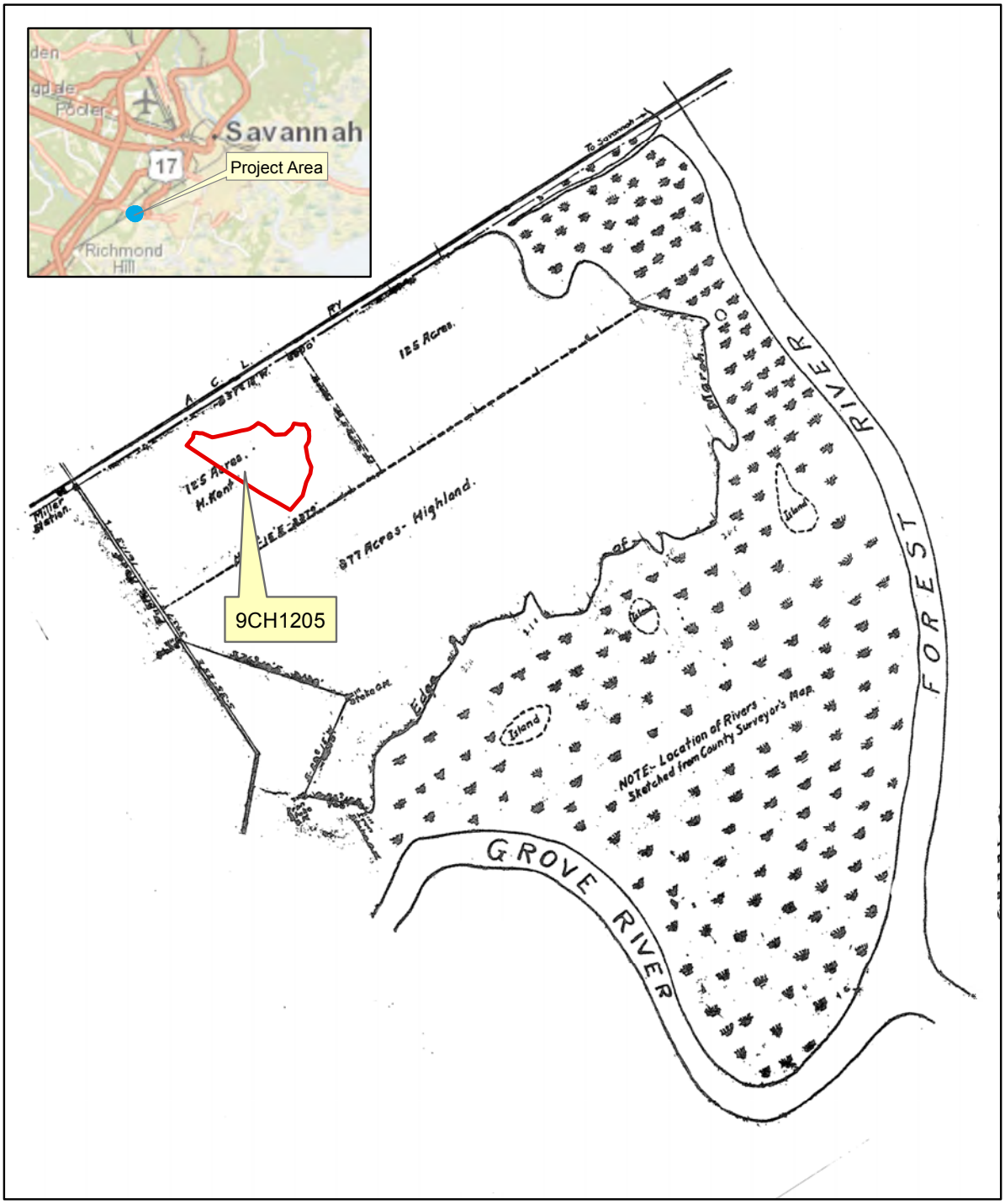
Raymond M. Demere's death in 1899 prompted a breakup of the former Miller tract and portions of the lands were distributed to a number of buyers. Of particular interest to this investigation, Lila Demere and the Raymond M. Demere Estate transferred much of the Little Ogeechee tract to Frank Skeffington in 1917, with exception made of two 125 acre parcels along the Atlantic Coast Line Railroad at Miller's Station (Chatham County Clerk of Superior Court 1917b:1058). Shortly before this deed was recorded, these parcels were sold separately to Mr. Skeffington (Chatham County Clerk of Superior Court 1966a:416). Skeffington's involvement with these lands appears to have extended earlier. A cancelled deed from 1913 transferred 1,200 acres of land south of the Atlantic Coast Line Railroad from the Demeres to W.A. Kennedy. Kennedy's ownership was emphasized in a 1916 map (originally drawn in 1914 and corrected in 1916) produced by the Atlantic Engineering Company that depicted portions of the former Demere estate (Figure 16) (Chatham County Clerk of Superior Court 1966a:416) . The map clearly stated that the property was owned by W.A. Kennedy and may indicate that Kennedy still maintained some interest in the tract. This map placed Miller's Station at the intersection of Grove Point Road (shown here as the "Public Road") and identified a 125-acre lot where 9CH1205 is most likely located as associated with H. Kent (see below). This plat map grounded the boundaries for this property until the 1960s. The deed, however, was voided and rather than

Figure 15.
Detail from Chapman et al.'s 1906 Map of Chatham County Depicting the Demere Tracts



Source: Chapman (1906)

Figure 16.
Atlantic Engineering Company's 1916 Map of Tracts Containing the Project Area



Chatham County Clerk of Superior Court 1917c

revert the property back to the Demeres, it is specifically returned to Frank Skeffington. The 1920 Federal Census listed Frank Skeffington's occupation as real estate agent, and it is likely this transfer was related to his business dealings. The details of this unusual transfer were not included as part of the public record. No internal details about these properties were included on this map.

EARLY-MID TWENTIETH-CENTURY LAND TRANSACTIONS (1918-1969)

Prior to this point, properties south of the rail line, east of Grove Point Road, and west of the Little Ogeechee River were largely sold as single units. The Demere-Skeffington transaction, however, was parceled into two lots of 125 acres each from the original Miller-Demere estates. Frank Skeffington transferred interest in these two properties to Joseph Hilton in 1917 (Chatham County Clerk of Superior Court 1917a:417). The 1910 Federal Census listed a Joseph Hilton living in Savannah who was president of a lumber company. Hilton's interest may have been limited to timber on the property, as later sales of the eastern portion do not include Hilton as grantor. A year later, Skeffington sold the westernmost plot to Herber Kent (Chatham County Clerk of Superior Court 1920:485). This western plot is where 9CH1205 would have been located. Kent, who is probably the William H. Kent listed as a real estate agent in the 1920 Federal Census, owned the property for less than a month before it was purchased by Mrs. Leila M. Hicks, a widow living in Savannah (Chatham County Clerk of Superior Court 1916:461). The eastern and western tracts were then reconsolidated in the fall of 1925 when real estate broker, Robert L. Cooper, purchased the 125 acre parcel from Leila Hicks (referred to as the Grove Point Road Parcel) and accompanying 125 acre lot from Frank Skeffington (referred to as land formerly known as Demere land at Miller's Station (Chatham County Clerk of Superior Court 1925a:464; 1925b:162). Cooper's ownership in this property was emphasized in the 1930 Map of Chatham County (Schreck et al. 1930). During the time of the map's production, deed records indicated that Cooper clearly owned both the eastern and western portion of the tracts. Contrary to listings provided on the Schreck et al. 1930 map, there were no records indicating that a McCandless owned the property. The 1930 Federal Census listed only one McCandless living in Chatham County. Sydney McCandless was identified as the manager for a log exporting firm, implying that McCandless may have acquired timber rights to the property. These interests may have caused the lands locally to become known as McCandless property.

Approximately 15 years later, Cooper sold the 250 acre tract to J. [James] N. Moore, Jr., proprietor of a local fertilizer plant, in December of 1939 (Chatham County Clerk of Superior Court 1939:185). The deed specifically identified that the sale is for the high ground only. On September 15, 1950, Moore sold the property to James W. and Garda Gill (Chatham County Clerk of Superior Court 1950:412). The Gills, formerly from Bryan County, purchased 250

acres along the south side of the Atlantic Coast Line rail line between Grove Point Road and the Little Ogeechee River. The Gills fenced the southern boundary, forming a marked boundary that later approximated the location of King George Boulevard. They raised cattle and farmed the land until 1966.

The Gills probably represent one of the last landowners to directly use the grounds for agricultural purposes. Affidavits produced by long-term residents of the Grove Point Road area, W.L. Smith, Forrester and I.H. Zipperer attest that the Gills fenced the property in 1951 and used it primarily raise cattle (Chatham County Clerk of Superior Court 1966b:267, 269, 271). An aerial map generated in 1950 and on file at the Chatham County Engineering Department demonstrated that much of the 9CH1205 property area was open field during the Gill's ownership (Figure 17). A segregated field on the eastern side of the tract exhibited parallel bands across it and another field in the tract's southwest quadrant may exhibit these same features; these likely represented where row crops had been planted. There were several prominent trees and a potential dirt road across the 9CH1205 project area, but no evidence of structures or improved roads were identified. A similar aerial from 1952 demonstrated that a farm road bisected the tract from Grove Point Road to the eastern side of the tract (Figure 18). There are a number of structures at the road's entrance with Grove Point Road. Near the western margin of the 9CH1205 project area, a section of the farm road branches towards a structure in the northwest corner of the project area. It is likely that this building was a farmstead or equipment barn. This latter structure does not appear on the 1957 USGS map, but the farm trail and complex by Grove Point Road were recorded (U.S. Geological Survey 1957).

The property's proximity to Grove Point Road and the rail line were probably factors contributing to the site being purchased by Hendrix Machine Company in 1966 (Chatham County Clerk of Superior Court 1966:267, 273, 276). Initially purchased solely by Hendrix Machine Company, warrantee deeds were subsequently issued to L.A. Akin for 25 percent and to Lola and Arthur C. Bass for an additional 10 percent of the outstanding debt (Chatham County Clerk of Superior Court 1966b:183, 185). The property, defined as former R.L. Cooper and G.C. McCandless, Jr. tract was again reconfigured, this time into three parcels. The 9CH1205 project area was most likely within the 114.73-acre Parcel 2. A plat map produced by Sewall and Associates, Inc. noted that the wire fence erected by the Gills along the southern margin of the property was still present (Chatham County Clerk of Superior Court 1960:136).

Hendrix, Bass, and Akins only held the property for about 18 months. In 1969, a warranty deed was issued to Erwin Friedman of Freidman, Haslam, and Weiner, A Partnership for Parcel C (Chatham County Clerk of Superior Court 1969:141). As reflected in a plat map created by Hussey and Gay, the property was divided into five parcels, labeled Parcels A through E

Figure 17.
1950 Aerial Photograph of Tracts Containing the Project Area

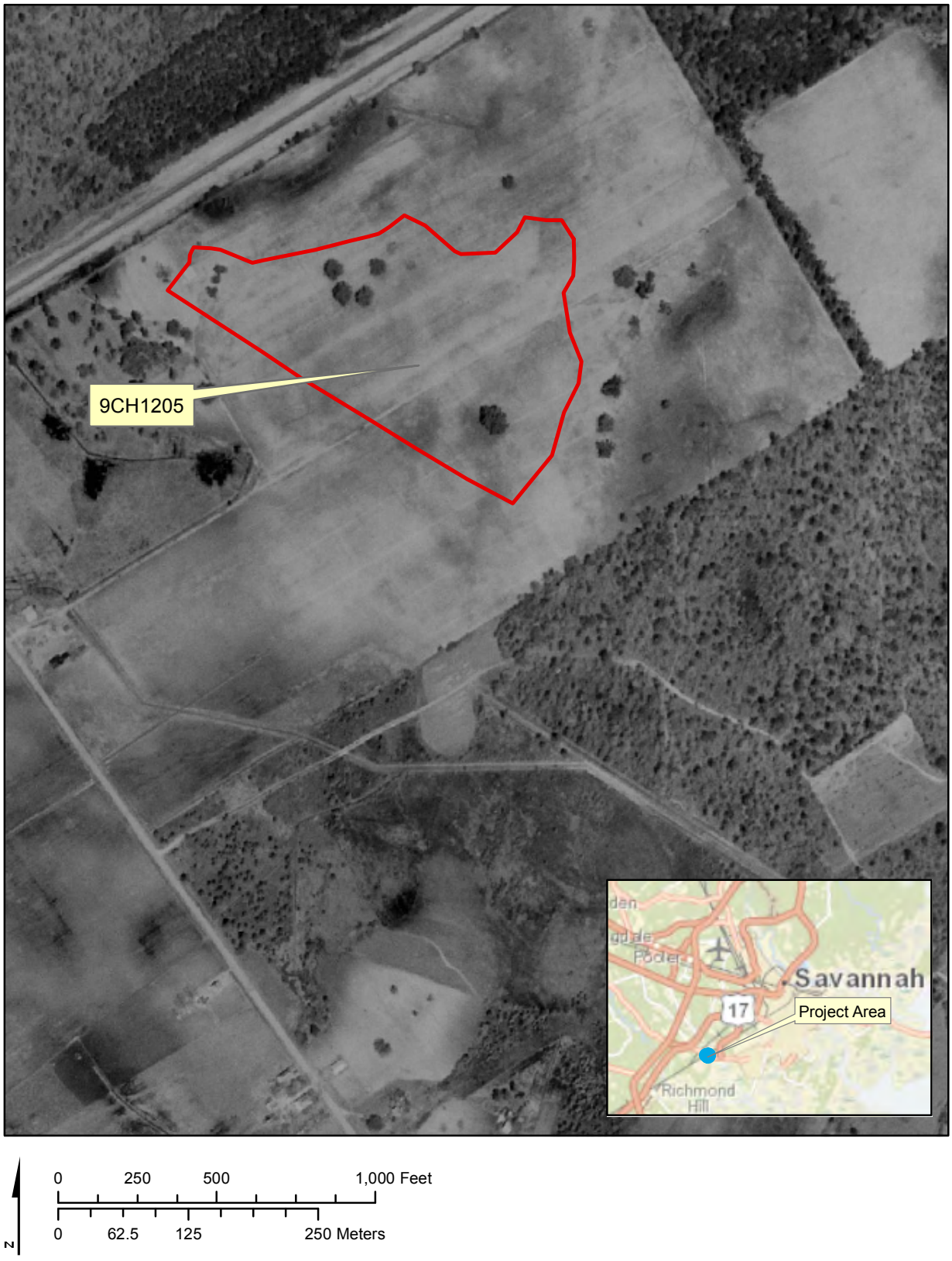
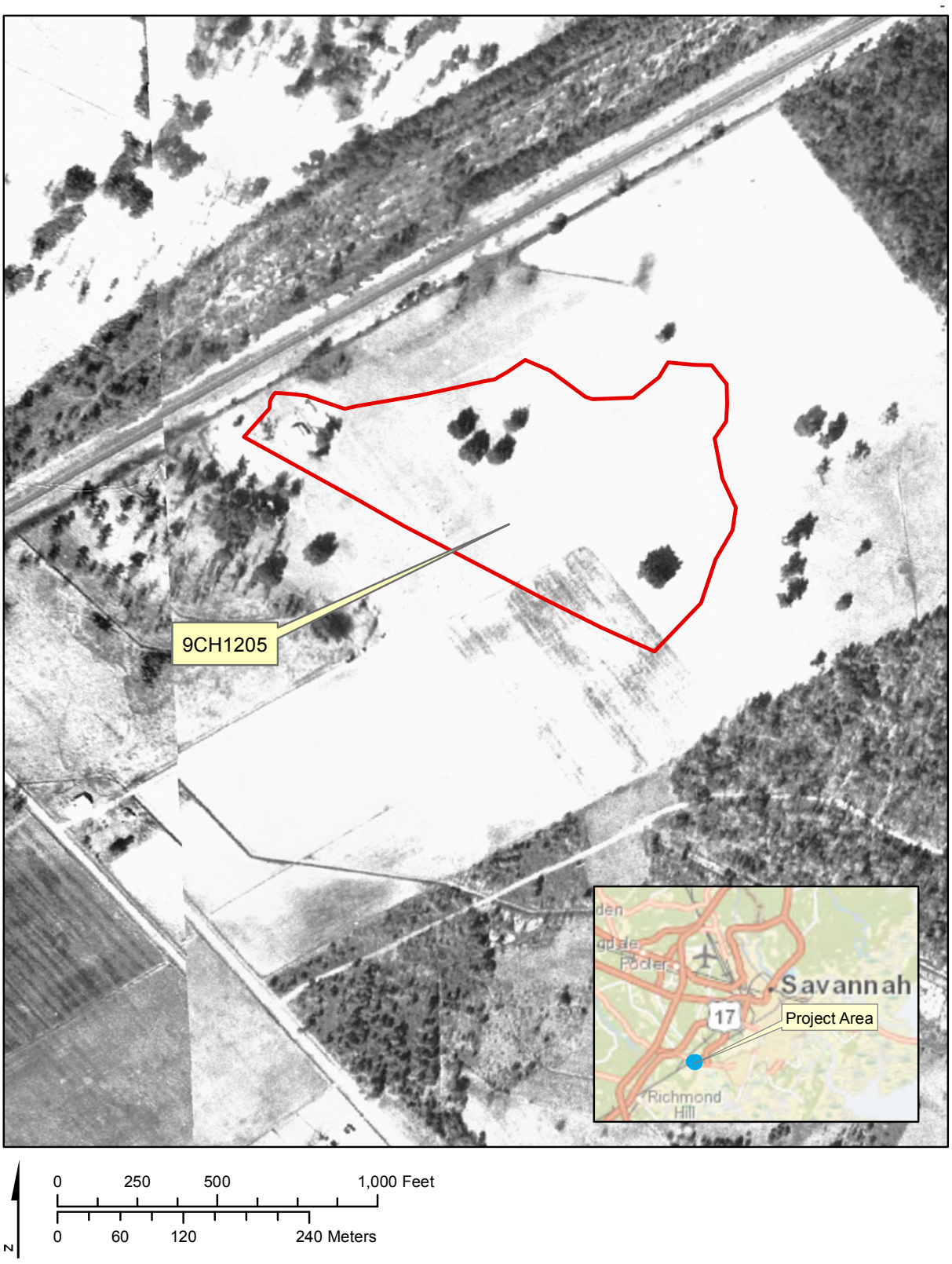


Figure 18.
1952 Aerial Photograph of Tracts Containing the Project Area



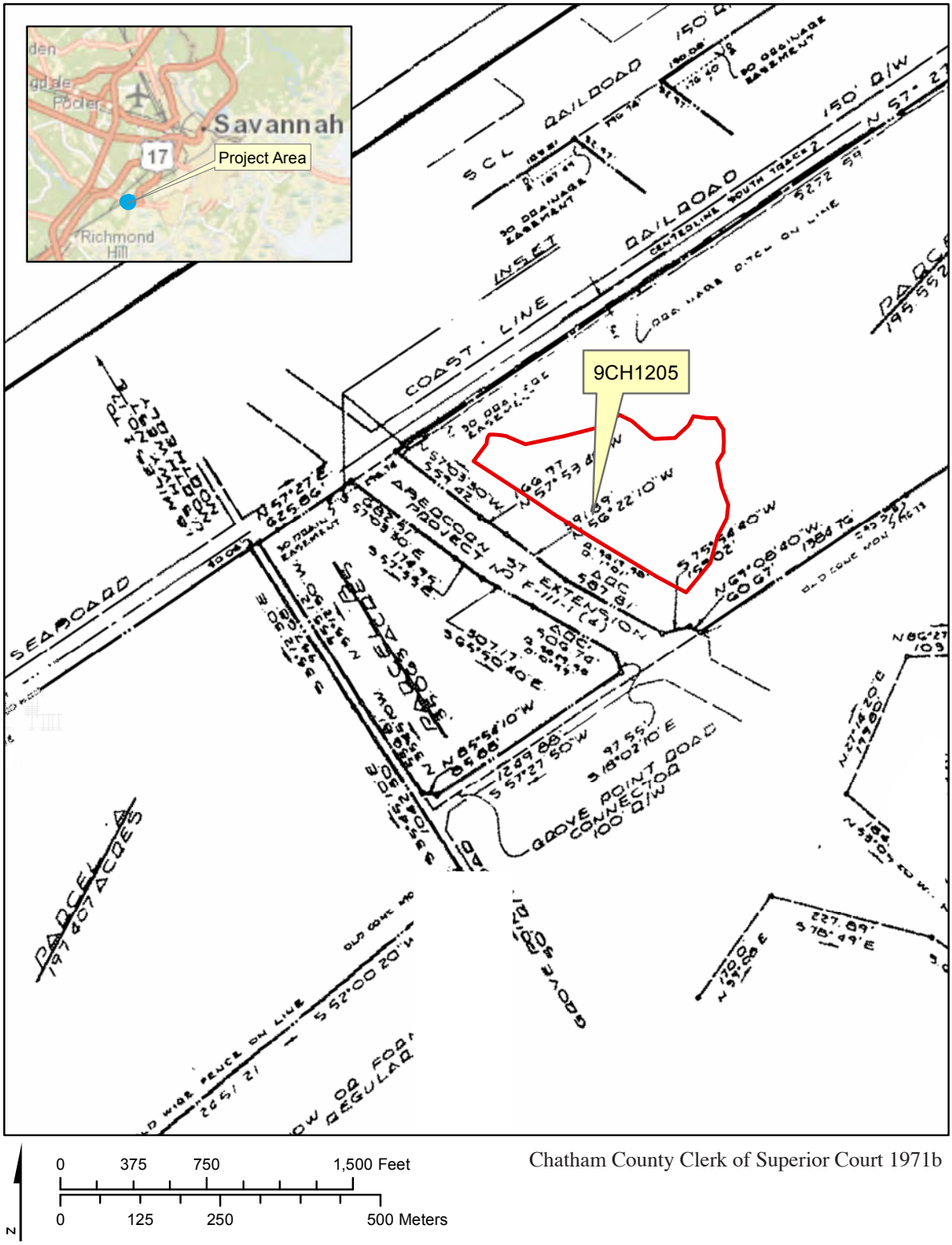
(Chatham County Clerk of Superior Court 1966:189). The 9CH1205 project area was part of Parcel C, a 195.552-acre tract, consisting of acreage from the former Parcel 2 and high ground from Parcel 1 (Figure 19). Unfortunately, the map showed no details of Parcel C's interior. An aerial photograph made in 1970 emphasized that the fields fenced earlier by the Gills were still clear (Figure 20). Many of the trees in the earlier image were visible and notably larger. Otherwise, the grounds reflect little difference. It is likely that the study parcel was still used (probably leased) for agricultural purposes.

DEVELOPMENT OF THE GEORGETOWN BUSINESS PARK (1971-2013)

In 1971, the grounds came under the ownership of Georgetown Associates, LP, of whom Friedman was also a partner (Chatham County Clerk of Superior Court 1971a:871). This investment group created a development plan which separated the Hendrix Machine Company tract into nine parcels. The 9CH1205 project area was located in Parcels 8 and 9. The property was heavily mortgaged, and there were numerous modifications to the deed to reflect shifts in Georgetown Associates, LP's use of the property as collateral (Chatham County Clerk of Superior Court 1971a:195; 105L:506). An aerial photograph from 1981 emphasized that the Abercorn Extension (SR 204) was under construction adjacent to the 9CH1205 project area and that King George Boulevard was still undeveloped (Figure 21). The tract had not been allowed to return to forest land, rather the northwest quadrant of the open field exhibited parallel stripes indicating that it likely was used to grow row crops. While no structures could be discerned, a farm road probably predating construction of SR 204 bisected the tract from Grove Point Road to the eastern side of the tract. Margin vegetation along the Grove Point Road sides of this farm road implied that this trail had been around for a number of years.

A quit claim was issued in June of 1982, enabling a 56.02-acre portion of the property to be sold without restrictions (Chatham County Clerk of Superior Court 1982:265). This tract, which included parts of both Parcels 8 and 9, was sold to Hugh W. Tracey and Wayne E. Murphy. Tracey and Murphy conceptualized the grounds as commercial property and the 9CH1205 project area as within Lot 2 of the Georgetown Business Park (Chatham County Clerk of Superior Court 1982b:48). As part of this development plan, Savannah Electric and Power Company produced a plat map that exhibited utility, drainage, ingress, and egress easements to the property (Chatham County Clerk of Superior Court 1983:269). Interest in the property was distributed among several individuals. While Tracey and Murphy maintained a 40-percent stake in the tract, four percent was awarded to Hugh Armstrong, Jr. (Chatham County Clerk of Superior Court 1986:494). An arrangement was made with Oak Tree Associates, where they assumed 56-percent interest in the property, but details of this transaction were not well documented in the Superior Court's records. On February 21, 1986, Tracey, Murphy, Armstrong, and Oak Tree Associates' interest in Lot 2 was transferred to King George Boulevard Associates (Chatham County Clerk of Superior Court 2005a:485, 490, 492).

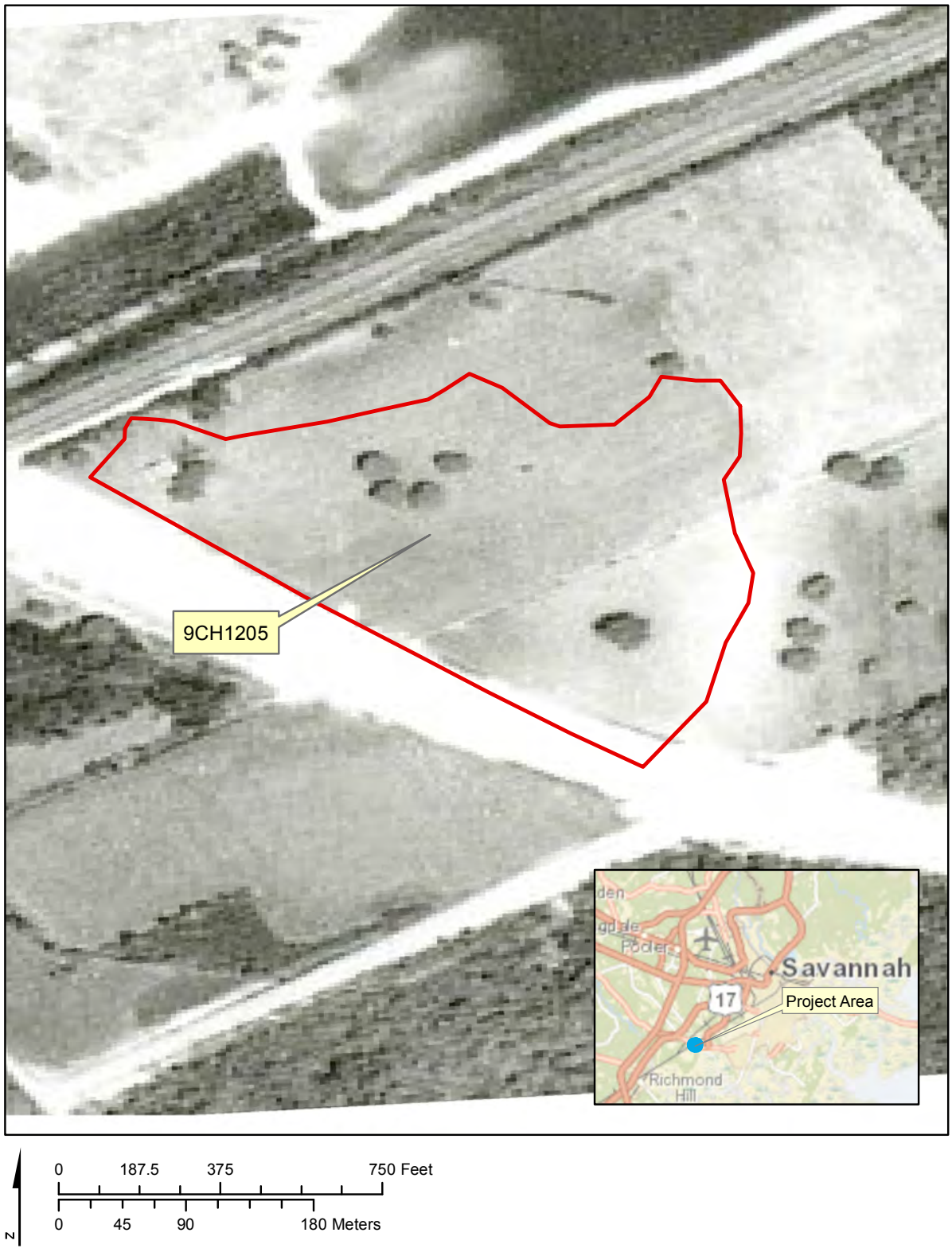
Figure 19.
Gay and Hussey's 1969 Map of Tracts Containing the Project Area



Chatham County Clerk of Superior Court 1971b

Figure 20.
1970 Aerial Photograph of Tracts Containing the Project Area

Figure 21.
Detail of 1981 Aerial Photograph of the Project Area



While under King George Boulevard Associate's ownership, Lot 2 was reconfigured. A plat generated by John S. Kern divided the tract into Lots 1 (51.072 ac.), 2 (1.693 ac.), and 3 (2.00 ac.) (Chatham County Clerk of Superior Court 1990a:64A). This re-division of the property also abandoned Phases 3 and 4 of the original Georgetown Business Park Plan. In 1991 (the following year), the Savannah Electric and Power Company produced a similar map of the property, with an emphasis placed on the location of easements (Chatham County Clerk of Superior Court 1991:193). These amenities tended to be distributed along the margins of these lots. Lot 2 was sold to Gregory M. Parker, Inc., and a Parkers gas and convenience store currently occupies the property (Chatham County Clerk of Superior Court 1990b:188). Lot 3 approximates the location of a wetland area and has remained undeveloped. Lot 1 was purchased by The Trellis, LP (Trellis Charter Partners, LLC) with the understanding that gas and diesel products would not be sold and restricting the use of heavy industrial machinery on the property (CCC Deed Book 296J:203). In September of 2007, 19.49 acres, mostly from the southwestern portion of Lot 1 were transferred to the GDOT (Figure 22) (Chatham County Clerk of Superior Court 1990b:490). While the 9CH1205 project area has traditionally been attached to grounds identified as part of the Sixth Georgia Militia District (GMD), this latter plat map placed it within the First GMD. The remaining portions of Lot 1 remain in The Trellis, LP's possession. Deeds to secure debt for Lot 1 have been cancelled, released, or quitclaimed to the portions currently owned by GDOT (Chatham County Clerk of Superior Court 2000:207; 2005b:195; 2006:401; 2007a:369; 2007b:840; 2008:495). GDOT-owned portions of Lot 1 have remained undeveloped.

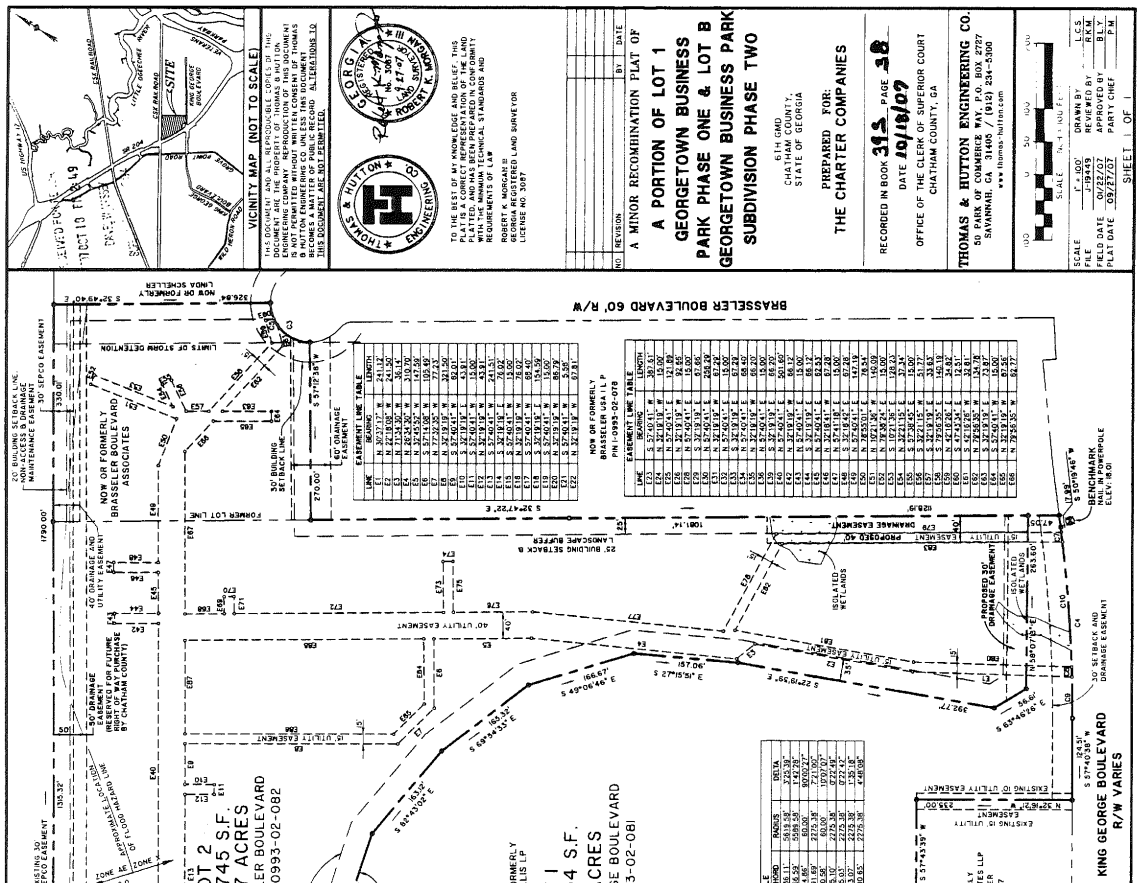


Figure 22.
Thomas and Hutton Engineering Company's 2007 Map of Lot 1 Containing the Project Area

VII. LOWCOUNTRY AFRICAN AMERICAN CULTURE CONTEXT

Brad Botwick

The archaeological resources covered by this data recovery project relate to antebellum enslaved African Americans and postbellum freedpeople. During the seventeenth and eighteenth centuries, enslaved African Americans became the agricultural labor force on plantations in the southern British colonies. Within the plantation system, slaves still managed to create cultures that combined and adapted African traditions along with European and American Indian influences. In the rice-producing Lowcountry of the southeast Atlantic coast, a culture emerged during the colonial era that was distinct in some respects from other regions, such as the Chesapeake and Mississippi Valley (Berlin 1998, 2003; Morgan 1998). This culture eventually came to be referred to as the Gullah/Geechee tradition, which is now recognized as surviving in the Sea Islands along the coasts of South Carolina, Georgia, and Florida. ("Gullah" is most often used to refer to African American cultures in South Carolina; "Geechee" is applied to those in Georgia and northern Florida. The origin of the two distinct labels is not known, although "Geechee" believed to derive from the Ogeechee River; "Gullah/Geechee" is commonly applied to the entire region, suggesting no significant cultural distinctions (National Park Service 2005:130). Historians and archaeologists have recently begun to explicitly associate colonial and antebellum slave communities with this Lowcountry culture, and although it was first documented explicitly during the later nineteenth and early twentieth centuries, there is no doubt that it began to take shape prior to Emancipation (Barnes and Steen 2012; Brown 2004; Crook 2001; 2008; Singleton 2010; National Park Service 2005; Opala n.d.). While too broad a subject for this report to cover in detail, the following sections sketch out aspects of Lowcountry African American culture and life to serve as a context for understanding and interpreting Site 9CH1205 with particular reference to the research questions discussed previously.

Gullah/Geechee culture formed in the unique circumstances of the region's plantation system, which was based on rice agriculture. Rice was introduced to North America in the 1690s in the Carolina colony. First grown as an upland crop using rain for irrigation, planters later converted inland freshwater swamps into rice fields. While an improvement, freshwater swamps ultimately gave way to a tidal floodplain system based on African precedents. Tidal rice production first appeared in the Winyah Bay region of South Carolina in the 1750s and, once it proved itself

feasible with the application of sufficient capital, rice agriculture came to dominate the region and became the basis of one of the world's most lucrative plantation economies (Carney 2001:84–86; Chaplin 1992:232; Edgar 1998:88–89, 90, 91; Wallace 1969).

Rice cultivation in the Lowcountry derived largely from African knowledge, expertise, and techniques. Their skill in cultivation of this crop apparently created a demand for Africans from rice-growing regions among Lowcountry planters, while the intensified need for labor triggered a resumption of slave imports in the 1740s. The timing of this revival in the slave trade could indicate that planters were amassing labor specifically for the rice fields (Carney 2001; Edgar 1998:140; Littlefield 1981; Wood 1975:56). Even before this expansion of the workforce, the Lowcountry population was dominated, in number if not power, by people of African descent (Berlin 1998:143; Wood 1975).

At the time rice plantations were incubating in South Carolina, the Georgia colony was established (in 1730) and operated under a royal charter granted to a board of 21 trustees. The Trustees envisioned a society that rejected the large landholdings that dominated South Carolina and prohibited slavery, among other policies (Spalding 1991). Although not officially allowed, slaves were present in the Georgia colony as early as the 1730s and were sold openly in Savannah in the 1740s (Bell 2002). The end of the Trustee period in 1752, however, led to the removal of restrictions on slavery and land ownership. The concurrence of this event with the rise of tidal rice agriculture led to the Carolina plantation system spreading into Georgia (Smith 1985:20–21). Rice became Georgia's first successful staple and remained among its most important commercial agricultural products until the early twentieth century. The rice-growing region was concentrated between about 10 and 25 miles from the mouths of the major rivers where conditions permitted the harnessing of tidal forces. Its cultivation gave rise to a number of extensive plantations owned by a wealthy landed aristocracy (in fact, start-up costs required a degree of wealth at the outset in order to engage in the enterprise [Chaplin 1992:46]) and worked by African- and American-born black slaves (Spalding 1991:54). In coastal environments not well suited for rice, planters succeeded with indigo and long staple cotton, although neither of these reached the prominence of rice.

Certain of the institutions and cultural manifestations of the Lowcountry that evolved from the rice plantation system solidified after the American Revolution and flourished until the Civil War. An important element of the Lowcountry plantation was the task labor system, a mode of organizing labor according to specific daily quotas rather than a fixed duration of time. The system appeared in South Carolina around the time rice cultivation shifted from upland to inland swamps, but changed and grew more firmly structured and codified after the American Revolution (Carney 2001:99; Chaplin 1992:56). Task labor was self-regulated and required

limited oversight. It entailed assigning individual field slaves a particular unit of work to complete—a quarter of an acre became institutionalized as a "task"—and once finished, the slave was not required to perform any additional work for the day. Rice plantations were particularly suited to task labor because the crop did not require the intensive levels of attention that others did, and the laborers did not need close supervision. Once it proved itself as a labor management tool, planters quickly applied the task system to other crops and activities that were not naturally or obviously suited to it (Morgan 1998:179-181).

From the perspective of the planter, the benefit of the task system was the cooperation of slaves who otherwise had no incentive to do the work without forced coercion (Carney 2001:98). Unable to force their slaves to remain in the fields from sunup to sunset, planters settled for a predetermined unit of output (Berlin 1998:153). This fact illuminates less-obvious aspects of the social relations on Lowcountry plantations. Planters' control had limits, and they were forced to negotiate the terms of labor with their slaves. From the standpoint of the slaves, this situation represented an assertion of self-determination, as well as a concession of authority by planters. Tasking also encouraged a sense of responsibility and proprietary attitudes on the part of slaves. They conscientiously guarded their rights to task labor and what they could be expected to accomplish within it (Armstrong 1980:434; Morgan 1998:183–184).

Additional benefits of the task system, as far as the slaves were concerned, was that it provided them opportunities to work outside the purview of their owners or white overseers and imparted a degree of control in terms of their time and methods. Further, it afforded them time of their own outside of work (Armstrong 1980:435; Chaplin 1992:56; Morgan 1998:185-186). Unsupervised "free time" was an important aspect of task workers' lifestyles, and they possessed considerable freedom in how they spent it (Armstrong 1980:435). During these free hours, as well as occasional days off, slaves could tend to various other activities, such as personal gardens, livestock, or craft industries, to supplement whatever rations the planter supplied, as well as to produce goods for sale or trade. Slaves' production of food also benefited the planter by reducing the cost of provisioning slaves while simultaneously tying them to the land and home by encouraging a sense of quasi-proprietorship (Crook 2001:25). Crook (2001) argued that the time slaves had for their own undertakings afforded them the opportunity to construct the Gullah/Geechee culture.

Compared to slaves in other regions, Lowcountry slaves appear to have achieved a relatively high degree of independence, separation, and influence with respect to planters, if not complete autonomy (Chaplin 1992). The working conditions and daily schedule of the task system was one example of this. The relationship between Lowcountry slaves and their masters was often distant and impersonal (Morgan 1998:260). Slaves also had limited engagement with whites in

general, commonly living in settlements that were separated from the planters and white communities, a situation that became more pronounced over time, especially as planter absenteeism grew (Berlin 1998:162; Morgan 1998:120, 298; Opala nd). Slaves evidently also had more freedom to move between plantations than generally believed. The image of slaves being imprisoned on individual properties with only fellow-residents to interact with might be over-stated. They, in fact, formed family, friendship, and community ties across widespread areas (Morgan and Terry 1982:131, 135; Wood 2010:54-55).

The American Revolution disrupted the Lowcountry plantation system, and among the outcomes was a strengthened sense of autonomy on the part of slaves whose masters had abandoned their land. The war had also opened slaves' eyes to new opportunities, including escape and military service. Additionally, looser control encouraged slaves' participation in local and regional market economies, as well as their own internal economy, a privilege that expanded even further in the post-war years (Berlin 2003; Chaplin 1992:54). Here again, the task system was an important factor in that it provided the time necessary for slaves to generate surplus foodstuffs, livestock, and craftwork for exchange and sale.

Following the war, planters sought to reestablish control as well as replenish labor supplies. As the domestic trade in slaves could not meet demand, planters turned to imports directly from Africa. In two short bursts, from 1783-1787 and again from 1803-1808, almost 90,000 Africans arrived in South Carolina for dispersal into the hinterland. At the same time, planters consolidated and added to their holdings, pushed out small farmers, and improved their techniques in the tidal rice fields. Slave populations swelled so much that by 1810, four-fifths of the Lowcountry population in South Carolina was slaves. The influx, from both northern states and Africa, added new cultural traditions to a Lowcountry African American society that had been developing for over 100 years by that point. Nevertheless, newcomers from Africa were integrated smoothly, indicating the capability of African American life for incorporating old-country traditions (Berlin 2003:131-134).

The planters' struggle to re-establish control in the immediate post-Revolution years played out mostly to the west of the Lowcountry, where short staple cotton emerged as the mainstay crop and new labor regimens had to be worked out. Along the coast, rice cultivation persisted, but global competition caused the beginning of an economic decline that had important repercussions on African American life. Principal among these was the sale of slaves to newly opened western lands. An effect of this was that eastern states developed into net exporters, leaving slave populations barely able to sustain themselves. A second impact was the imposition of greater workloads on the remaining slave force as planters tried expanding production. Driving slaves harder took a toll as mortality rates soared past all other North American regions

(Berlin 2003:210-211, 213). Native African American populations ultimately increased naturally, however, helping the Lowcountry population reach greater gender balance and stability (Berlin 1998:315). The end of slave imports directly from Africa after 1808 (except for illegal smuggling) had an additional impact in that the African American culture of the slaves could solidify without continual injections of old world traditions (Barnes and Steen 2012:182).

Through this period, slaves managed to stave off the imposition of gang labor and ensure that the task system remained in place. Other aspects of plantation labor began to change. Improved cultivation techniques on rice plantations resulted in alterations to the types of work slaves performed. Tidal production reduced the numbers of field hands required to weed and tend plants, but increased the need for operators and maintainers of the dikes and trunks that regulated the irrigation flows. Large plantations also needed specialists in various trades, such as blacksmithing and carpentry. This encouraged gender-based divisions of labor as most of the skilled occupations went to men (Berlin 1998:311). In contrast, women were preferred by rice planters for tasks such as winnowing and pounding rice, which benefited from a more delicate hand.

Another post-Revolution trend was the rise of black drivers as an institution on Lowcountry plantations. Whereas they existed during the colonial period, the numbers of drivers increased after the war. Many planters trusted these men more than they did white overseers and thought they obtained better production from the field hands. To the slaves, drivers represented leadership, an internal source of influence with their masters, and reinforced the sense of self-determination within the quarter (Chaplin 1992:55-56). Drivers' authority and stature was enhanced by the fact that they often knew the routines and business of the plantation intimately, and because they were permanent while white overseers tended to come and go (Berlin 2003:77). Drivers occupied an ambiguous social space, however, in that they were from the quarter and remained slaves, while at the same time the only way they could function and earn the trust of the master was to represent the interests of the plantation (Genovese 1972). The existence of drivers, as well as slave artisans, technicians, and specialists, also marked the growth of social hierarchies within the slave community. Higher status was often marked by "small but significant differences in clothing and housing—along with small privileges that accrued to the driver's wife" (Berlin 1998:167).

Berlin characterized the situation in the antebellum period as one in which the slaves had "dominion over the plantation environs" (Berlin 1998:316, 2003:135). Planters spent more time in their urban homes, leaving the countryside in the care of white overseers and black drivers. Slaves dominated the daily routines of the plantation, further ingraining a distinctive plantation-based culture. Slaves established plantations as places for themselves, complete with

settlements, designated burial grounds, and transportation routes between slave-oriented areas within and between plantations. The appearance of such features on plats and maps indicated tacit recognition on the part of the planter of the legitimacy of slaves' claims and rights to such spaces (Chaplin 1992:57-59). By this time, Gullah/Geechee language and culture formed and took hold within the Lowcountry African American population (National Park Service 2005:39).

Chaplin (1992:54) asserted that slaves made the quarter into a zone that whites visited only when necessary. The fact that slaves built their own houses presumably heightened their sense of ownership over their individual spaces, while the trend toward remoteness enhanced the autonomous and communal sense of slave settlements (Berlin 2003:75; Morgan 1998:117, 120). The overall effect, as noted by contemporary observers, was of a separate village or "Negro town" (Berlin 1998:162, 2003:75). These trends persisted until the Civil War.

During and after the Civil War, Lowcountry African Americans dealt with new social, economic, and political circumstances. They faced having to understand the ramifications of their dramatically altered status and how to navigate through changed relationships with whites. The experience of the South Carolina and Georgia Sea Islands differed from most of the other slave regions. As noted previously, General Sherman's Field Order 15 had created a reservation for them to establish segregated and self-governing communities. Within this region they could obtain promissory titles to land, pending presidential confirmation.

The freed slaves saw this as an opportunity to gain ownership of land, particularly the land they had worked as slaves. The ideal of the rural freedpeople was to live amidst their families on their own lots (Berlin 2003:270). However, the transition to freedom was difficult and African Americans faced numerous obstacles to achieving this goal. Returning planters and whites in general challenged their claims to land and independent labor. Freedpeople also confronted economic hardship, racial prejudice and violence, and increasing institutional segregation (Barnes and Steen 2012:178). Freedmen never held formal title to the abandoned land they occupied, and their precarious hold on it was demonstrated in September 1865, when President Johnson revoked the conditions of Field Order 15 and returned plantation property distributed to Freedmen back to its white owners. At the same time, some agents of the Freemen's Bureau tried pushing African Americans back into the rice fields under contracts that offered them little more than mere subsistence for a year's labor (Jones 2010:207).

Two important themes emerged from the post-war situation. One of these was the negotiation and reorientation of labor as freedpeople strove for economic independence, while plantation owners sought to restart rice cultivation. A second theme was the distribution of land and its implications for community formation and stability. Regarding the first issue, many returning

planters tried to resurrect rice agriculture, but found it difficult to obtain labor without a legal structure to force African Americans to work. Also, rice agriculture was not well suited to systems of individual small-plot agriculture such as those that emerged under tenancy. Rice cultivation required coordinated operations encompassing the entire plantation, and especially the tidal irrigation systems (Armstrong 1980:438; Bell 2001:381). Planters found themselves having to negotiate with African Americans to get them to work, and they were compelled to do so with inadequate leverage. Lowcountry African Americans were willing to withhold their labor until they received what they considered a fair price. Because they valued autonomy rather than personal improvement through wages, they could and did remain at the margins of the plantation economy. Ultimately, they pressed the planters to re-establish the task system (Armstrong 1980:439-440). Sometimes, free African American men and women provided labor on revived rice plantations in exchange for small plots of land. In other cases, such as at Wild Horn and Oriza plantations on the Ogeechee Neck, the owners leased the land to former slaves, who knew how to produce rice, and simultaneously passed along the expense of maintaining and operating the plantation to them (Bell 2001:382).

African Americans in the Lowcountry had developed an affinity for the land because of their work cultivating it, as well as from kin and ancestral ties. They believed they had rights to the land and with Sherman's order, they sought to acquire legal claim to it, both for sustenance and as a symbol of autonomy and their privileges as citizens. They were not interested in large, plantation-sized acreage or commercial agriculture, but sought smaller plots. Those who acquired them returned to antebellumwar patterns of raising small crops of corn, sweet potatoes, rice, and oats, along with barnyard animals that yielded subsistence and some cash (Armstrong 1980:441-442).

Sometimes, African Americans valued their connection to the land over ownership, and the attachment to place shaped the nature of post-war labor relationships. For instance, on Ossabaw Island, African Americans who had always lived there chose to stay without purchasing the land. They made arrangements with the returning whites to maintain the "connection to home place, to tradition, and to family" (Dorsey 2010:247). Ties linking kin, ancestors, and land existed before the Civil War, and caused many freed slaves throughout the region to remain on, or return to, the plantations they occupied during the antebellum period (Stewart 1996:179). Most African Americans in the Lowcountry, however, chose to live away from their former owners, taking up residence in pinewoods off the old plantations or moving frequently from plantation to plantation in order to avoid coming under long-term control by a particular white planter or overseer (Stewart 1996:194, 239).

The establishment of communities was another important topic in postbellum African American life (Barnes and Steen 2012:193). Many freed slaves managed to purchase land, either individually or by combining resources, or acquired it through government order or by claiming abandoned property. Small settlements sometimes emerged from family compounds. Close-knit kin ties bound these communities and allowed them to survive the post-Civil War era and into the twentieth century (National Park Service 2005:49).

An additional theme in Lowcountry African American life during the last third of the nineteenth century included the development of an economy that would permit self-sufficiency and free them from authority and oversight by whites. With Emancipation, African Americans possessed greater leverage in dealing with whites. They were knowledgeable about rice production, and now they had alternatives to forced agricultural labor (Stewart 1996:193). For the most part, freedpeople sought to avoid dependence on markets but did not rely entirely on products they raised themselves. In a typical economic strategy, they spent much of their time on subsistence through gardening and fishing, but also planted some crops for sale. Their success at balancing between home production and market allowed them to avoid the sharecropping and tenant systems that arose elsewhere, while their ability to live independently, as noted, gave them leverage in negotiating labor agreements with planters after the war (Foner 1988:103, 108-109; National Park Service 2005:49; Stewart 1996:196, 239).

During the late nineteenth and early twentieth centuries, however, broader market forces caused changes to the established pattern. Lumber, turpentine, and pulpwood industries, along with large-scale commercial fisheries, led to shifting labor practices as many local African Americans took jobs in these trades. Truck farming and the expansion of ports in Savannah and other coastal cities provided further opportunities for work and income. As these industries made headway into the region, African Americans adopted work patterns revolving around temporary employment in forestry, fishing, or other industries, and their own economic pursuits (Stewart 1996:239-241).

Also in the late nineteenth and early twentieth centuries, the advent of touring, bridge construction, and a trend of wealthy industrialists buying up land for hunting and vacation retreats, attracted outside interest to the region and introduced new influences. World War II increased activity on the Georgia and South Carolina coasts, while post-war economic growth led to further influxes of population and more real estate development. These processes tended to disrupt and overwhelm Gullah/Geechee communities both economically and culturally (National Park Service 2005:49-51; Stewart 1996).

The presence of a distinct culture and identity among Lowcountry African Americans became generally acknowledged during the twentieth century. After the Civil War, descriptions of the people living in the coastal region of the Carolinas and Georgia referred to them as Gullah, although pejoratively. Ultimately, historic and folkloric literature developed that focused on the language and customs of the Gullah people, and that helped shape their identity as a distinct group (Barnes and Steen 2012:196-197). This is not to say that the Gullah/Geechee represent a monolithic culture. Variations between communities and regions exist and are evident to the Gullah/Geechee themselves (Bailey 2000:5; Barnes and Steen 2012:199).

LOWCOUNTRY AFRICAN AMERICAN LIFE AND MATERIAL CULTURE

The relative isolation and autonomy, "village life," and other circumstances in the Lowcountry put African Americans here on a different cultural path compared to those in the Chesapeake or other regions. In spite of the pressures and conflicts of slavery, over the course of the eighteenth century, a distinctive African American culture emerged, created by the slaves. This creole culture derived from African roots with borrowings from European and American Indian traditions, and formed through encounters and interactions "among Africans, between Africans and creoles, among creoles, between blacks and Indians, and between enslaved and free blacks" (Morgan 1998:443). It was "a new culture, predominantly African in origin but different from any particular African culture" (Joyner 1999:36). African American culture was rich and diverse, and in the Lowcountry it is known as Gullah/Geechee (Barnes and Steen 2012; National Park Service 2005; Opala n.d.; Singleton 2010:152).

Gullah/Geechee is primarily a rural phenomenon. Although it probably once had a geographical extent through most of the Lowcountry, and may have once influenced more distant African American communities (Brown 2004), it increasingly came to be associated with the Sea Islands after the Civil War. This was due, in part, to their isolation and inaccessibility, which allowed traditions to remain relatively undisturbed. Advancing urbanization and resort development only began to significantly impact Gullah/Geechee communities during the twentieth century (National Park Service 2005). The following sections present a broad-brush approach to the topic with particular attention to subjects that are relevant to the present archaeological study. These include housing and home-life of slaves, plantation landscape, African American material culture, and internal economic activities of slaves and Freedmen.

Lowcountry slave populations were composed of mixed African and native-born African Americans, with varying percentages of each over the course of the colonial and antebellum eras. The gradually stabilizing creole society that materialized during the eighteenth century was impacted after the Revolution with imports of African Americans from the upper south and

directly from Africa, which introduced a fresh stream of old-country traditions (Berlin 1998:314). In general, the early eighteenth-century Lowcountry creole population was not well assimilated to English society and culture and observers commented on their "broken English." References to their "dialect" and inability to communicate clearly in English testify to the widespread use of a distinct language by the eighteenth century (Joyner 1984:196; Morgan 1998:465, 566-570). Language was ultimately one of the key elements that marked Gullah/Geechee culture (Brown 2004:81). Early efforts at educating African Americans in the Sea Islands typically focused on eradicating it (Barnes and Steen 2012; Campbell 2010:285).

In addition to language, cultural traits such as music and dance, religion, aspects of dress, craftwork, folklore, and foodways, among others, helped people of varying backgrounds coalesce and maintain communities. Many of these traits borrowed or derived from African customs or styles (Morgan 1998; Crook 2001:24; National Park Service 2005:13). Even where they borrowed from Euro-American practices, African Americans often gave them new and distinctive forms or an "African spirit." Gullah/Geechee styles of church worship, for example, differ from those of whites (Joyner 1999:37-38; Opala n.d.).

RELIGION AND BELIEFS

Religion was and remains an extremely important element in Gullah/Geechee culture, and has been cited as an instance of the Gullah/Geechee people combining and adapting African and European cultural traditions into something new (Joyner 1984:154; Washington 2005). Lowcountry planters generally paid little attention to slaves' religious practices until the second quarter of the nineteenth century. As a consequence, spiritual development among them was generally autonomous, and folk religions emerged. These were probably drawn largely from two regional African cultures: Upper Guinea and Kongo-Angola. Lowcountry slaves ultimately adopted Baptist beliefs, but modified these to a version that fit their circumstances and that still contained elements of African social and spiritual traditions. Among these was an emphasis on communal or collective spirit, in which individuals were component parts (Washington 2005:155).

Planters' efforts at introducing Christianity to the enslaved population began in the 1830s, partly out of concern for their slaves' welfare and partly to coerce obedience (Joyner 1991:74). The Gullah/Geechee worked Christianity into their worldview and used religion as a defense against "objective forces" and to perpetuate community and culture. The merged aspects of Christianity and African belief systems, according to Washington, provided the Gullah with an ideology of freedom and a "mystical explanation of their existence as a people" (Washington 2005:158, 161). Religion also instructed Gullah/Geechee in community standards, appropriate conduct,

and "helped slaves develop an internal logic that excluded planters, overseers, and white Christian ministers." The effect of these beliefs was a form of resistance, although one that instead of physically defying white cultural hegemony within slavery, refused to submit to it (Washington 2005:177-178).

Two manifestations of Gullah/Geechee religious beliefs that have been documented are the Praise House and the ring shout. The Praise House (or Pray's House) consisted of a discrete structure built within some slave quarters. By the 1840s, they functioned openly, although clandestine forms may have existed earlier. The white authority sanctioned, and sometimes paid for, their construction (Brown 2004:82). The Praise House served as place of religious worship and a social/community institution. Its existence may have derived from African secret societies that initiated adolescents into adulthood and put them through processes of socialization. In Gullah/Geechee communities, a person attained membership in the Praise House through rituals culminating in a re-birth into the religious community. Because the Gullah/Geechee considered religious piety intertwined with socialization, Praise House initiation served a similar function as the African precedents (Brown 2004:83; Washington 2005:177). These activities were overseen by African American elders rather than white ministers (Washington 2005:155). The Praise House, therefore, comprised both an important symbol of community sanction and autonomy or distance from white authority.

Archaeological examples of these structures have been documented at Richmond Hill in Bryan County, Georgia and Levi Jordan Plantation, Brazoria County, Texas, where Gullah/Geechee influences were detected. Another possible example was identified at Frogmore Plantation, Charleston County, South Carolina (Brown 2004; Joseph et al. 2004a). Archaeological evidence included their location relative to other structures in the quarter, being at one end of the row of houses. Also, their position afforded a degree of privacy or distance from the planter's house. Artifacts and features associated with a Praise House suggest it did not have a domestic or storage function, and there could be a higher than average incidence of "personal" items, such as beads, coins, and jewelry, which could have religious symbolism. Finally, evidence for placement of artifacts in symbolic positions has been documented at these structures (Brown 2004:86).

Associated with the Praise House, the ring shout reflected African-derived worship practices that were documented during the antebellum period. Originally, only members of the Praise House could watch or participate in the ring shout, and it served in part as an initiation rite (National Park Service 2005:69). Ring shouts involved call-and-response singing and body movements, with participants circling counter-clockwise. Drums probably accompanied the act at one time,

but planters banned their use for fear of slaves using them for long-distance communication. Gullah/Geechee substituted hand clapping, foot stamping, and pounding wooden floors with canes (Joyner 1984:160; National Park Service 2005:69).

Alongside these beliefs, both before and after Emancipation, Lowcountry African Americans believed in conjuration and sorcery, possibly as a response to enslavement and a desire for greater personal control over daily circumstances (Joyner 1984:142; Morgan 1998:612). Commonly referred to in North America as "Hoodoo," magic has thus been characterized as a form of resistance (Orser 1994:35-36). Its intended targets, however, were not limited to whites and its use was not always malevolent. It would therefore be more appropriate to consider conjuration a means of maintaining social control and standards of behavior. To the people using it, conjuring was a mechanism for asserting power over other people or natural conditions, particularly health and well-being (Wilkie 1995:137, 140). Specialists who cast spells at the request of others usually practiced conjuring. The use of personal charms for protection, health, or other purposes would also fall into the category of conjuring.

Apparent evidence of this practice has been found on archaeological sites with African American components. Individual artifacts associated with magic or sorcery generally include items that are known to have had such a use in some contexts, or items with no obvious function that because of modifications or context might have served these purposes. Examples in the first category include cast metal ornaments in the shape of clenched human hands. In the second category, archaeologists have documented objects such as precontact bifaces (found in contexts associated with African Americans), ground ceramic sherds, and pierced coins, some of which were probably intended as charms (Orser 1994; Singleton 1991; Wilkie 1995).

Additional signs of behavior related to magic include the identification of possible conjurer's cabins at plantation slave quarters. At Levi Jordan Plantation in Texas, the evidence consisted of a pit below the floor of a residence containing three entire chicken skeletons. A similar feature was identified at a cabin on Frogmore Plantation on St. Helena Island, South Carolina (Brown 2004:87). A pit containing the complete skeleton of a young sheep was found at Cherry Hill Plantation, just south of the Ogeechee River in Bryan County, Georgia. In this example, the burial was just outside of a structure interpreted as a conjurer's cabin. Analysis of historic view sheds suggested that the animal burial took place in a location that was hidden from the nearby overseers residence and public areas (Whitley 2008).

SUBSISTENCE AND FOODWAYS

Gullah/Geechee culinary practices differ from those in Africa, indicating adaptation to conditions under North American slavery and the creation of new traditions. Culinary ways and subsistence also contributed to the creation and maintenance of the distinct Gullah/Geechee social identity. For archaeology, the study of subsistence economy is important for understanding the development of Gullah/Geechee cultural behaviors, as well as aspects of plantation life during slavery. Additionally, in a plantation context, subsistence strategies reveal slave-planter power relationships. The study of subsistence among Lowcountry African American slaves has focused on what they ate, how it was procured, and the social contexts of food acquisition, preparation, and consumption. Studies have most often focused on the direct remains of foodstuffs and the culinary equipment used in its preparation and consumption, particularly ceramic vessels.

Planters supplied basic provisions, but slaves in this region produced or collected a considerable portion of their own food to supplement these rations, which were generally too small to survive and remain healthy upon (Morgan 1998; Singleton 2010). The assortment of foods procured by the slaves themselves can be a measure of both their need and ability (or freedom) to provide their own sustenance (Bowes 2011). While planter-distributed rations were limited, the Lowcountry slave diet was rather diverse and varied during the course of the year. Slaves received potatoes and unsalable rice during the fall through spring, and corn and beans in the summer. Corn eventually became the favorite of the available grains (Morgan 1998:135).

The adoption of corn as a staple led to other departures from African habits. Ferguson's (1992) study of West African culinary traditions revealed that meat formed only a minor portion of the diet. This pattern changed in North America as corn became prominent in the slaves' diet. Corn must be supplemented with other foods to make it nutritionally viable, and archaeological data indicate that African American slaves turned to animal protein for this (Ferguson 1992:95-96). Because planters often provided too little in the way of beef, pork, or other meat (one peck of provisions per week was the standard ration [Morgan 1998:97, 137]), slaves made up the difference by hunting, trapping, and fishing. Archaeology has shown extensive use of the coastal region's terrestrial, riverine, estuarine, and marine environments (Reitz et al. 1985:184).

Gardening also expanded the quantity and diversity of the slave diet, and introduced or maintained a number of African-derived plants, including millet, sesame, okra, peppers, and others (Stewart 1996:135; Morgan 1998:141). Slaves on Lowcountry plantations typically received land allotments for their own use (Joyner 1984:95). Garden plots, generally about half an acre apiece, yielded not just food, but also materials for various crafts or furnishings: corn husks for mattress filling; pumpkins or gourds for dippers, bowls, and bottles (Wood 1995:33).

Having a garden, as noted, imparted to slaves a sense of connection to the land and home by further developing a sense of quasi-proprietorship (Crook 2001:25). Moreover, the ability to produce their own food from their "own" land helped establish and support "the well-being, dignity, and integrity of the African and African American family" (Wood 1995:32).

Cooking and food consumption during the colonial era appeared to show continuity with African traditions. African meals typically consist of a starchy main dish prepared in a large ceramic or metal pot, which is served in a communal vessel alongside relishes of seasoned vegetables, sometimes containing meat or fish, presented in several small bowls. People eat by taking a portion of the starch and dipping it in a relish. The archaeological remains of such practices would include fragments of small ceramic bowls and larger cooking vessels (Ferguson 1992:97).

Archaeological excavations of slave occupations in coastal Georgia and northeast Florida have produced ceramic assemblages that might conform to this expectation. Initial archaeological analysis of ceramic vessels from slave habitations indicated high proportions of bowls or hollowware vessels. Notably, similar patterns were found in association with a plantation overseer's residence (Otto 1984; McIlvoy 2013). This finding was interpreted as evidence that slaves (and white plantation overseers) ate foods dominated by stews or rice-based pilaus. The proposed explanations for this were time constraints (such dishes could be set over a low flame to cook while the slaves were out working) as well as status differences that gave unequal access to certain foods (soups and stews are best for extracting the most nutritional value from poor ingredients) (Otto 1984, 1980:10). In light of Ferguson's research, however, a preponderance of hollowware vessels at slave occupations might be viewed as evidence of culture-specific culinary practices rather than economic circumstances or time constraints.

Subsequent investigations in Georgia have indicated a more complex situation, however. On some sites with slave occupations, ceramic flatwares equal or outnumber hollowwares (Adams et al. 1987). Instances of bowls comprising only small parts of a total assemblage have also been found (Whitley et al. 2003). In the case of two sites at Silk Hope Plantation, Whitley et al. (2003:149-151) believed that slaves living there during the mid-eighteenth and early nineteenth century might have used bowls made from perishable materials or Colonoware, which would not show up in comparisons of European-made ceramics. As Ferguson (1992) pointed out, the type of vessels used in food consumption is not strictly a matter of what foods are eaten, but also of the social and cultural contexts of consumption. These influence the way foods are served and thus the types of vessels used in their consumption. African American slaves and freedpeople living on Lowcountry plantations prepared and ate meals in circumstances influenced by their ethnicity, social status, and economic circumstances, and these would bear on the vessels they used.

ECONOMIC ACTIVITIES, PROPERTY, AND INTERNAL ECONOMY

Lowcountry slaves engaged in a variety of economic activities on their own behalf that provided more than just subsistence and various necessities. Within slavery, and owing to the task system, African Americans developed an extensive internal economy that furnished them with saleable commodities and work experience beyond the rice and cotton fields. Their involvement in a marketplace as both sellers and buyers demonstrated their ability to fare without a master and helped Freedmen quickly gain self-sufficiency after the Civil War. Indeed, their commercial and money-earning activities during the antebellum period show considerable expertise, entrepreneurial ability, and initiative. Moreover, slaves were able to accumulate property of their own, particularly livestock, which was accepted as such by white masters, even if slaves had no recognized legal title to it (Armstrong 1980:437; Jones 2010; Morgan 1983; Penningroth 1997). The subject of property acquisition and ownership among slaves raises questions about what meanings these materials might have within the context of southern plantations, particularly as expressions of status, authority, and resistance.

Accounts make it clear that planters provided only the barest household furnishings, clothing, and food rations (Genovese 1972:531). These might be supplemented with cast-offs from the planter's household, gifts, or rewards (Joyner 1984; Morgan 1998:131), which were probably never very plentiful or extravagant. Slave life has been characterized, therefore, as being one of material poverty (Singleton 1991:164), and in some regions this was undoubtedly the case. In the Lowcountry, however, the existence of the task system and internal economy enabled slaves to rise above this appraisal, at least within the constraints of their situation, and to acquire a range of personal belongings. From a modern standpoint, the material world of African American slaves and later freedpeople looks impoverished, but how they perceived their belongings and their material situation should be considered. It is possible that the belongings they acquired for personal or household use were viewed with pride or as indicative of status and accomplishment within their community rather than as marks of poverty compared to middle and upper class white households.

Many of the economic activities of African Americans in the region under slavery and after Emancipation had duel roles of providing subsistence and necessities as well as commodities that could be sold or traded. Gardening, as noted, was an important source of food and materials for production of craftwork, medicine, and other items. It also generated surpluses for sale, and the trade in provisions was extremely brisk in the Lowcountry, with much of it taking place between planters and their own slaves. Although the typical allotment of land to individual slave households was about a half an acre, reports suggest that some slaves were permitted to cultivate as much land as they could on their owner's plantation. In addition to crops, agricultural work

also involved livestock raising, which yielded subsistence, such as eggs, poultry, pork, and milk, but also commodities. Slaves also appear to have had extensive involvement in raising horses for sale. Additionally, wild fish and game were among the foodstuffs slaves sold (Morgan 1983:412-415, 1998; Penningroth 1997; Wood 1995:44).

Craftwork was a further means of supplying home needs and earning income. Certain products, such as basketry, are now strongly associated with Gullah/Geechee culture, and examples resemble forms derived from African precedents. Besides distinctive sweetgrass baskets, Lowcountry African Americans made pottery, containers from dried gourds, drums and other musical instruments, palm leaf brooms, and textiles (Morgan 1983:415; Opala nd; Richey and Young 2009:26-27). Pottery is especially noteworthy because of its survival in archaeological contexts. Archaeologists have identified low-fired earthenware, known as Colonoware, as a product of slave potters, although African-descended and American Indian potters probably both made it and likely influenced one another in its creation (Fennell 2011:19-20; Ferguson 1992; Singleton 1995:133, 2010:157). In the South Carolina and Georgia Lowcountry this material is almost always considered indicative of the presence of African Americans during the colonial period. Its manufacture and use did not persist long into the nineteenth century, presumably because mass-produced European ceramics became easier to obtain or were preferable (Joseph 1993a:65, 2007:105; Singleton 1995:133). Colonoware is fairly common on plantation and urban sites in South Carolina but not in Georgia. This difference was initially judged to reflect the cultural assimilation of African American slaves (Joseph 1989; Wheaton and Garrow 1985). Alternatively, it is possible that the relative paucity of Colonoware on Georgia plantations was due to the later dates of the sites that had been studied. Recent excavations of an eighteenth-century slave component at the Ford Plantation in Bryan County yielded considerable quantities of Colonoware, indicating that slaves in this region also manufactured it (Isenbarger 2008; Singleton 2010:160-161; Whitley et al. 2003). There is evidence that Colonoware was made specifically for sale in urban markets, and so this craft also contributed to the slaves' internal economy (Hamby and Joseph 2004; Isenbarger 2008; Joseph 2004a).

Many slaves arrived from Africa with training and skill in various crafts and industries, such as metal- and woodworking (Wood 1975). Some also received training in Euro-American crafts and produced wood and wrought iron objects, while women became skilled quilters, having adopted and merged Euro-American techniques with native African textile traditions. Many of the products these craftspeople turned out display styles, motifs, or other qualities that may have African antecedents and that sometimes exhibit separate African American sensibilities (Joyner 1984:122-124, 1991:88; Pollitzer 1999; Thompson 1983). Moreover, as with pottery, these various crafts, produced on slaves' own time, could generate income.

Joseph (1987:31-32) suggested that slaves spent income gained from task labor on either personal/individual items or on collective/familial goods. Examples of the former included clothing, buttons, jewelry, beads, tobacco, eyeglasses, and alcohol. Collective/familial items that might have been purchased with task labor income include poultry and livestock, wagons and buggies, decorative ceramics, mirrors, furniture, and window glass.

The products of slaves' enterprise circulated through economic networks of varying range. These slave economies emerged quite early in the colonial period and were well-established by the first decades of the eighteenth century (Berlin 1998:68-69). Planters sometimes encouraged the production of comestibles. Doing so relieved them of having to supply all the slaves' needs. Often planters bought surplus produce directly from their own slaves, allowing them to make a show of generosity and kindness. In return, slaves obtained cash and small luxury items. Occasionally, a planter might market produce on behalf of his slaves. These transactions were typically for cash, although sometimes planters exchanged merchandise for goods, and in some instances, slaves received cash advances for commodities to be delivered later.

Slaves also traded among themselves and traveled between plantations to do so. Additionally, they conducted a profitable business with lower-class whites in the neighborhood as well as local overseers and planters (Morgan 1998; Stewart 1996:134). Slaves could earn money providing certain services if circumstances permitted. Morgan (1998:368) cited examples of slaves selling food or horse feed to travelers. The proximity of Site 9CH1205 to a main road and later railroad station might have provided similar opportunities to site occupants. Slaves also traveled into cities, such as Savannah and Charleston, to sell produce, eggs, fowl, firewood, craftwork, and other goods (Crane 1993; Morgan 1998:371).

Planters only grudgingly tolerated these kinds of extra-plantation transactions, considering it a form of theft. Also, they regarded commercial contacts between their slaves and shopkeepers, itinerant traders, and others as potentially subversive or at least encouraging of crime, and they objected to slaves' freedom to pursue them. During the colonial era, authorities tried legal sanctions to prohibit trade with slaves and later attempted a licensing system for peddlers who dealt with plantation slaves. Persistent complaints about the situation indicated that the surreptitious commerce could not be satisfactorily controlled. Moreover, planters never managed to stop slaves from traveling to, and vending in, cities, and in Charleston, the slaves established a presence in the city marketplace (Berlin 1998:68, 165; Morgan 1998:366-368, 371). Slaves were so successful in Savannah markets that they were accused of price gouging, monopoly practices, and worse (Morgan 2010:38).

Before the ability of slaves to purchase their own things was generally known, McFarlane (1975), based on archaeological data from Cannons Point on St. Simons Island, hypothesized that they might have achieved a standard of living on par with rural free whites through their own acquisition efforts. Archaeological excavations of slave occupations on coastal Georgia plantations have since revealed a diverse material culture from the late eighteenth century to the Civil War (e.g., Adams et al. 1987; Butler et al. 2003; Whitley et al. 2003). This was true even on isolated slave settlements (Butler 2007). Further, recent scrutiny of documentary sources indicated even greater variety and relative opulence in slave belongings than early research suggested. Many of these items, such as fine textiles, leather goods, and foodstuffs, would rarely survive in archaeological contexts. Slaves also acquired guns, knives, furniture, tin ware, china, glass, tobacco pipes (the latter including types specifically marketed to African Americans), wagons, and buggies, among other materials (Joyner 1984:123; Morgan 1983:409, 1998:374). Slave owners were quite cognizant of their slaves' property, encouraged their ownership of it to help establish slaves' attachment to home, and sometimes took steps to protect it (Berlin 1998:165; Morgan 1998:374-375; Penningroth 1997).

Studies of slave property by Morgan (1983) and Penningroth (1997) illuminate the range of goods that slaves accumulated, what its meaning was in plantation society, and the manner by which they established ownership when there were no legal mechanisms to do so. The studies are important in part because they counter a widespread belief that slaves could not own property, either on a legal basis or through lack of means. Also, these studies provide important contexts for understanding the archaeological materials found at plantation slave occupations.

One issue that these studies suggest for archaeological consideration is status and how it was expressed within plantation society. These materials undoubtedly had significance and value in the "internal social life of [the slave] community" (Howson 1990:88). However, it is not clear what those values were, or what symbolic associations or social values field slaves placed on material goods.

Archaeologists have examined European-made refined ceramics as possible indicators of differing socioeconomic status and class on plantations. John Otto (1980, 1984) was the first to apply this analysis, and others have followed (e.g., Adams et al. 1987; Adams and Boling 1989). Additional studies have assessed whether material culture correlates of specific socioeconomic classes can be defined (Drucker 1981) and if differences exist within plantations between slaves of different classes (e.g., house and field), as well as between plantations of different size or wealth (Moore 1985). The results of these studies have not always matched expectations. Analysis of ceramic assemblages from planter, slave, and middle-class white components at

Kings Bay, for example, found instances of slaves owning more expensive ceramics than planters. In general, these studies indicate that the links between status and material culture are complex and the models initially employed to explore them might not be applicable (Orser 1988; Howson 1990:87). As for refined European ceramics, they might have been class and status markers in some American households during the nineteenth century but probably did not have the same meanings among plantation field slaves. Howson (1990:90) made the point that if ceramics (and presumably other objects and materials) had any meaning for slaves as prestige items, it probably lay in their context of acquisition rather than their association with white European-American culture. Moreover, there are indications that slaves' ideas of social hierarchy did not match those of the general white society (Brown and Cooper 1990:12; Orser 1988:740), meaning they did not ascribe the same values to artifacts that designated social status.

Orser (1988), moreover, questioned whether class and status is even a viable concept for study of plantations. A person's status relative to others could vary depending on context and point of view. Rather than socioeconomic standing, Orser advocated viewing material culture on plantations as a reflection of power relations. His interpretation, however, appears to greatly overestimate the amount of control that planters had on slaves' ability to acquire material goods, at least in the Lowcountry. Nevertheless, within the relationship between slaves and planters, by slaves' ownership of property might have reflected a form of resistance or an assertion of personal autonomy.

Another point is that while slaves, and possibly freedpeople, assigned higher social status to those "who could tend to the needs of the slave community": those who "preach, teach, entertain, and fool the master" (Orser 1988:740), it is not clear what the material expressions of their elevated social status would be. Nor is it known what emphasis slaves placed on assertions of material wealth, if any. So, for example, how would a community elder materially demonstrate his authority with respect to the slave community? Would a particularly successful slave livestock breeder live more extravagantly than other slaves? Addressing questions along these lines must also account for the nearly universal descriptions of slave living conditions as squalid, coarse, primitive, and impoverished. Further, how did things change after Emancipation, when material circumstances for African Americans appear to have declined from what they had been under slavery (Penningroth 1997:431; Singleton 1985)?

Answering questions such as these requires identifying status items in an archaeological assemblage associated with slaves or freedpeople. Doing so is complicated by the fact that many of the things they might own have a low potential to survive in archaeological contexts. Moreover, if they did survive, they might not be recognized as anything but basic subsistence, clothing, or shelter. Articles that might have indicated material wealth or social status among

slaves, but which would not necessarily be discernable as such from archaeological remains, could include livestock, certain foodstuffs (e.g., honey, coffee), surplus animal feed, saddles, and wagons.

A last consideration regarding the meaning of slaves', and later freedpeople's, property is that it probably reflected the combined efforts of families. Kinship networks were important elements of slave communities, while individual and extended households were principal productive units. Gardening was typically performed by all family members, particularly during times when intensive work was required (Wood 1995:41). The fact that property could be bequeathed to relatives, even those living on separate plantations (Morgan 1983:416-417), further symbolized the associations of material goods with family. Kin connections were, in fact, critical in establishing ownership of property (Penningroth 1997).

Returning to the issue of what meanings slaves assigned to material possessions, it is suggested here that they viewed property differently than planters did. Additionally, although archaeologists must deal with the materials that survive for study, certain of the analyses that have been applied to these materials may not be appropriate. Thus, attempting to gauge status differences on the basis of relative values of refined European ceramics is probably not worthwhile. There is no evidence that slaves viewed these materials as having any social meaning. The way that slaves viewed property might have been closer to the way some northern farmers did at the turn of the nineteenth century. Farmers in New Jersey studied by Friedlander (1991), for example, did not buy luxury consumer goods when they reached a certain degree of wealth and social prominence. Instead, having attained a comfortable standard of living, they invested in land, livestock, and possibly non-durable goods that were either consumed or that became devalued with use, such as clothing. Household furnishings were relatively spare, but improved in quality as one moved up in affluence (Friedlander 1991:27).

It is possible that Lowcountry slaves viewed property similarly. Although they could not invest in land, nor did they have to because they had rent-free access to its use, they might have applied their income to expanding their holdings of livestock and acquiring various items and foodstuffs that made their domestic lives more comfortable or that expressed a sense of dignity or family achievement. For example, Penningroth (1997:420) documented slaves keeping articles of fine clothing that were reserved for church services or other religious and social functions. If this assumption were correct, then, it could be expected that the households of antebellum slaves would be furnished rather sparsely with only beds, a table, perhaps some chairs, a storage chest, cooking equipment, and sufficient china for food service, which is typically how slaves were portrayed in contemporary accounts (Genovese 1972:530). Rather than a cabinet filled with expensive tea and dining sets, what might have made the family proud were the horses or pigs they raised, the cartload of surplus corn, or the quality shirts and dresses they wore on Sunday.

GENDER

There were many variations on how African Americans experienced slavery depending on region, type of labor, and other factors. An aspect of this issue is the different experiences of enslaved men and women. The excavation of Site 9CH1205 deals with the homes of enslaved and free African Americans, a domain that even under slavery and after Emancipation was associated with women and women's social roles (White 1999:122). Many aspects of African American women's lives, status, and self-perception are not well understood, especially during the slavery period, because of poor documentation, and the study of archaeological data can help investigate the more intimate and personal lives of slave women. Focusing on women's lives, moreover, can provide fuller contexts for understanding household objects found at 9CH1205. The overall subject of gender and African American women's roles under slavery and after Emancipation are too broad for this section, but selected topics are discussed for their relevance to archaeological analysis. The conditions of slavery had implications for male gender roles and concepts as well, which will be touched on below.

Gender-based divisions of labor and gender ideologies are useful concepts for organizing analysis of archaeological data from domestic contexts. Distinct ideals of "womanhood" existed in the broader society of the colonial and antebellum eras. These concepts of "traditional" gender roles, or seemingly "natural" differences between men and women, of course, applied to white women of certain social classes, but not African American women and certainly not field slaves (Fox-Genovese 1988:195).

Some of these differences are illustrated by the work that female slaves performed. One of the chief manifestations of the contrasting conceptions of white and black "womanhood" at this time was the lack of gender distinction in slave labor (White 1999). Female African American slaves received heavy workloads in the fields. They labored alongside men, taking on more of the heavy labor over time as men went into specialized trades in the eighteenth century (Morgan 1998:197; Berlin 2003:117, 179). The first African women to go to work on Lowcountry rice plantations might not have been as shocked at the work itself as they were by its scale and intensity, along with the presence of male laborers. In Africa, work in the rice fields was associated with women; men's responsibility was oriented around field preparation (Carney 2001). Hallam (2004) asserted that African men would view planting and tending the rice crop alongside women as emasculating. Similarly, the work of milling rice with mortar and pestle was something men were unaccustomed to in African societies but were forced into under slavery to meet market demands (Carney 2001:137).

The scale of rice production on plantations, and the work required in its production further altered gender dynamics. In Africa, women cultivated rice primarily for family subsistence. Forcing them to produce rice on an industrial scale for commercial markets removed them from their traditional social roles of providing family supplies (Hallam 2004). The impacts to traditional African gender roles continued as long as slave imports persisted and men were put to work at what were considered female tasks. By the end of the eighteenth century, rising reproductive rates and efforts to teach boys to mill rice produced a labor force that did not place a gender association on these tasks (Carney 2001:138-140). While attitudes about gender differences in fieldwork and related tasks became less meaningful over time, new opportunities for male slaves in specialized and skilled work created new divisions of labor based on sex (Morgan 1998:533).

Specialized work provided African American men a degree of status and authority within the slave community. Always men, drivers were the most important field slaves on the plantation. They were extremely common in the Lowcountry and quite often managed the labor force without the oversight of the planter or white manager. Their positions conferred a degree of status—or at least social separation from the other fieldworkers—and their wives sometimes had specialized roles on the plantation, such as cooks or seamstresses (Berlin 1998:167; Morgan 1998:220-222). Various other skilled or distinctive occupations provided men status, mobility, financial gain, and/or other opportunities (White 1999:75-76). Slaves were put to work in all manner of craft and industrial trades. Artisans could profit from their products. Boatmen were able to travel widely and became information and communication brokers (Wood 2010:53).

As for women's occupations, many of the specialized jobs taken by, or assigned to, women included cook, laundress, housemaid or house servant, nanny, wet nurse, and midwife (Fox-Genovese 1988; Wood 2010:53). Whereas male-oriented trades carried a degree of prestige, and enslaved men could compete openly against free white men in these fields (Morgan 1998:226), in southern society, the work that African American women performed was considered beneath white women, at least those of the middle and upper social classes (Fox-Genovese 1988:193). Thus, even though necessary, many of these jobs were viewed by the wider society as less dignified or respectable than the work performed by men. Emancipation altered race and gender-based labor categories, at least temporarily. The most obvious change was the withdrawal of African American women from the fields. This became difficult to sustain, however, as economic necessity forced them, along with children, back to work as agricultural laborers (Foner 1988:85-86).

Slavery also impacted the nature and social position of motherhood among African American women. In Africa, childbirth was considered a rite of passage and one that bolstered women's social standing. The value placed on motherhood was carried over to the plantations (Joyner 1991:61; White 1999:106-108). From the planter's perspective, however, enslaved women having children was an economic matter (Hallam 2004; King 1996:147; White 1999). In contrast to white women, whose idealized social roles heavily emphasized childrearing (Strasser 1982:225; Clinton 1982:7), a slave mother's role was to bear the next generation of slaves. Procreation was a function that slave women had to manage around seasonal work routines. Most became pregnant during the periods of less intensive work (November through January) and consequently most children were born during the late summer and early fall harvests, when work was hardest. The pressure of demanding labor during the last months of pregnancy caused higher infant mortality (Cody 1996). Moreover, child rearing was either added to women's regular work or removed from their responsibility and delegated to someone else (Hallam 2004; King 1996; White 1999). Thus, a black woman under slavery experienced motherhood in a profoundly different way than a white woman during the colonial and antebellum periods.

Nevertheless, motherhood was an important milestone among African American women and mothers were central figures in African American families. Women with children were less likely to be sold, making them more stable parents than men. Furthermore, although slave families were committed, the widespread practice of marriage between partners living on separate plantations meant that slave mothers often raised children without the daily presence of a father (White 1999:108-109). The wife's house in such instances was usually considered the husband's primary residence and home, even if he lived elsewhere full-time (Penningroth 1997:421-422). Thus, the wife and mother's home was the center of the family unit. Women past the age of bearing children took on different social roles. Older women performed duties within the community such as childcare, nurse, midwife, and folk doctor, which provided a degree of social standing and reinforced their nurturing or "mothering" roles. At the same time, as slave men grew older and less able to perform physical work, they occasionally had to take on "female" tasks like spinning and tending children (White 1999:114-115).

These circumstances further shaped slave women's self-perception, and pushed it in directions white women would not be encouraged to go. Southern white women at this time were supposed to subordinate themselves to men, even to act submissively and look to men for protection (Fox-Genovese 1988; Faust 1996:6). Morgan (1998:532-533) argued that working alongside men, often outnumbering them, while also frequently raising children alone, imparted a sense of self-reliance and strength to enslaved women. Also, Fox-Genovese (1988:49) thought that slave women could derive strength from a system that stripped slave men of all attributes of male power. White (1999:121-124), on the other hand, attributed the fortitude of slave women mainly

to the cooperation and interdependence that characterized their lives, noting that strength was learned though circumstances that commonly left women in each other's company for much of the work day and during non-plantation work and leisure time.

The domestic world of enslaved African American women is poorly understood. However, as was the case with most of their lives, it was shaped by work. After completing a task and performing household gardening, craftwork, or other economic activities, women still had to perform the many chores of wives and mothers. Preparing family meals (if there was no plantation kitchen), laundry, housecleaning, making and mending clothing, and other tasks took up enormous amounts of time (White 1999:122-123). Certainly enslaved women could not live up to the ideals of "true womanhood" put forward by white society, not that society expected them to (Clinton 1982:204; Fox-Genovese 1988:293). Still, as Fox-Genovese (1988:294) and White (1999) discussed, they formed individual and collective identities based on gender. It is unknown what the material correlates of this identity and its domestic aspects would be.

Addressing this issue might be a place where contextualizing artifacts and assemblages more fully can help explain the domestic-female sphere in Lowcountry slave communities. As an example, domestic work was an area that usually included only women. Enslaved women out of necessity, in particular, performed sewing, slave owners typically supplied little clothing, and for women they often provided only cloth and materials, requiring them to make their own clothes. A standard ration was six yards of woolen cloth with three yards of cotton shirting in the fall and six yards of cotton drill along with another three yards of shirting in the spring. Twice a year, a women received one needle and six buttons (White 1999:122-123). Sewing also yielded products such as quilts that provided physical comfort for the family, added individual and decorative elements to a house, and could be sold for profit. Quilting borrowed from African and Euro-American techniques, with some motifs and styles reflecting African traditions. Quilt making thus met certain practical needs, but also provided women with individual creative and expressive outlets. At the same time, sewing was often performed while women gathered, and so it represented a social context where skills were taught, traditions could be passed from one generation to another, and community ties could be developed and maintained (National Park Service 2005:61-62; White 1999:122). The recovery of pins, needles, thimbles, and scissors, therefore, would be indicative of more than simply economic activities, and would speak to the presence of a domestic sphere and gender identity of enslaved women.

After Emancipation, Freedwomen had opportunities to establish and maintain domestic settings. The identification of domestic spaces as the "women's sphere" became more pronounced in African American households as freed women and men viewed the home and associated duties as the primary responsibility of wives and mothers. In contrast to this perspective, slave owners

and former owners trying to secure labor saw women primarily as workers whose responsibility to family was a secondary concern (Jones 1985:63). Freedom enabled women, and gave them the right, to provide their families and domestic interests primacy over a white man's or white woman's demands on their labor. To this end, African Americans sought to make the entire family/household into a "single unit of economic and social welfare so that women could be wives and mothers first and laundresses and cotton pickers second" (Jones 1985:45). Women thus largely withdrew from the labor force. Their husbands accepted the domestic ideal of separate spheres for men and women, and viewed having their wives at home and their children in school as badges of honor. Economic necessity often forced women back into the labor force but as free women they could decide how to use their time to contribute to family income (Foner 1988:85-87; Jones 1985:59, 63; White 1999:172, 186). Thus, African American women sought to assert their new status and redefine gender ideologies after Emancipation.

It is apparent, as well, that many African Americans held their own conception of the proper domestic role of women. Carlson (1992), for example, has noted that in Midwestern cities, the ideal of African American womanhood was similar to that of white women—they should be virtuous, modest, and committed to the domestic sphere as a wife and mother—but should also exemplify qualities stressed by the black community such as intelligence and education. The sphere of African American women could also include the public domain, and they were encouraged to be activists in support of their community and even to work outside the home. In this latter case, however, work involved occupations like teaching that could be considered "professional." How these ideas were manifested in working class southern African American communities is unknown. Teague and Davidson's (2011) analysis of mortuary data from urban Dallas, Texas, suggested that working class African American women could not meet gender ideals of either the white or black communities, but they tried to create an appearance of having done so through mortuary practices. In rural Lowcountry Gullah/Geechee communities, many women asserted claims to property, made decisions regarding their marital situation, fought to establish parental rights, defended their bodies, and protected the integrity of their families (White 1999). These circumstances suggest a different conception of gender and "womanhood" than either the general white society or middle class African American community held.

The interplay between these concepts and material culture at the household level can be investigated at 9CH1205. Housewares, particularly elements of food service and home décor, have been highlighted as having gender associations in the nineteenth century, at least among middle and upper strata of white society (e.g., Wall 1994; Fitts 1999). Although all social and economic groups had access to and used a similar range of consumer goods, they might employ them in different ways or assign them altered meanings (Brighton 2001; Praetzellis and Praetzellis 2001). Former slaves eagerly engaged in consumerism and made diverse purchases

of luxury items, including certain foods and clothing (Foner 1988:107). Archaeological deposits associated with postbellum Gullah/Geechee households could include mass-produced consumer goods (Singleton 1985:302). What items are present presumably reflect distinct values, attitudes, and tastes, as well as pecuniary capabilities. As an example of how consumer products could reflect separate meanings for different cultures, Cohen (1984) showed how working class immigrant families in American cities late in the nineteenth century favored mass-produced goods after these had become less fashionable because these goods represented progress and technological superiority. Also, working class families utilized space within homes in different ways than proscribed by the middle class, or imbued these spaces with different social expectations (Cohen 1984:170).

It is unknown what implications domestic-related artifacts in postbellum Gullah/Geechee households have for understanding gender ideology of the period. Given the household- and family unit-orientation of this time, it might be less accurate to look for elements of "womanhood" in archaeological deposits. Households facing increased economic hardship in the post-war years, combined with other factors, such as the household-based unit of production (at least part time), the need and desire to educate children, increasing racial tension and institutionalized discrimination, and other factors might have led consumer behavior away from purchases that followed prescriptions of white (or black) middle class refinement and gender attributes. Barnes and Steen (2012:196) suggested that purchases might reflect assertions of dignity, efforts at education and enfranchisement, and civil rights. Artifacts could include writing implements, items of personal hygiene, and fancier clothing. These kinds of artifacts, however, simultaneously reflect some of the associations of idealized middle-class women: they were supposed to encourage education and be well groomed and presentable (Carlson 1992). The existence of fancier clothing, jewelry, and other elements of personal adornment could also symbolize femininity, which African American women expressed more overtly after becoming free. These acts tended to infuriate whites (White 1999:173), and so might also be viewed as a form of defiance. In the analysis of archaeological correlates of domesticity in Gullah/Geechee households, then, it is critical to reflect on the multivalent aspects of material culture.

To sum up, it is important to question what significance beyond basic functionality domestic material culture held for Gullah/Geechee communities. Singleton (1991:164) asserted that slaves often reworked mass-produced and other materials "to achieve a special African American meaning." Referring to more than just objects, Joyner (1984:xxi) called this process of transformation "creolization of culture." Africans and African Americans selectively adopted elements of both African and European culture to create something new. Thus, although slaves and later free men and women possessed the same kinds of mass-produced goods as whites, these objects could have a different importance or value (Ferguson 1992:xlii). Moreover, these items could possess multiple and fluctuating connotations and meanings (Lee 2011).

PLANTATION LANDSCAPES AND THE BUILT ENVIRONMENT

The Lowcountry landscape was largely a product of African American labor. Forests of longleaf pine dominated the scene when the first European explorers and settlers arrived, with floodplain vegetation consisting of gum-cypress forest. African American laborers cleared these wet swamps and created rice fields from them, in the process interfering with plant succession and ensuring that they remained grassy marshes (National Park Service 2005:41-42; Vlach 1991:26; Wharton 1978:59, 65). Some of characteristic qualities of the historic landscape, such as extensive tidal wetlands, rice fields, and upland cultivation areas, are strongly associated with Gullah/Geechee culture (Campbell 2010; Stewart 1996:178). This feeling of attachment to place derives from Gullah/Geechee cultural structures. As Brown (2004:83) summarized it, the Gullah/Geechee linked membership in a community to the location (or plantation) where an individual first "caught sense" or learned about life, generally between the ages of 2 and 12. Where these formative experiences took place determined the place you belonged.

Studying plantation landscapes can provide insights into how the ties of people and land developed and evolved in the Lowcountry. Landscapes may be planned formal spaces or reflect spatial patterns that emerged through customary and repetitive activities. They can include the built environment, which in this case is meant to include buildings, structures, transportation routes, modifications of the physical environment, and land use (Vlach 1991:23). In the context of southern plantations, landscapes might reflect practical considerations, such as the most efficient way of organizing labor, agricultural fields, and transportation access, or aspects of control and resistance. At the level of individual sites, landscape can also reveal cultural and social dimensions of space and how it was used. The following sections provide contexts for understanding specific landscape attributes of Site 9CH1205. These sections are concerned both with intrasite settlement and the spatial arrangement of the overall plantation.

HOUSE AND GARDEN

Slave housing on Lowcountry plantations varied over time and place, but general trends have been noted in archival and archaeological records. Slave dwellings chiefly consisted of small, separate cabins and duplexes, with individual units occupied singly or by families (Morgan 1998:104). Slaves built their own houses and settlements were frequently at a distance from the planter's residences, allowing a degree of latitude in construction. African-derived building traditions and materials have been documented. Eighteenth-century slave dwellings included cob, wattle, or wattle and daub construction, with thatched roofs (Ferguson 1992; Joseph 2007:104). All these techniques were known in Africa and have been documented at archaeological sites in coastal Georgia and South Carolina (Adams et al. 1987; Hacker et al. 1990; Trinkley and Hacker 1999, 2009; Wheaton et al. 1983; Wheaton and Garrow 1985; Whitley et al. 2003; Zierden et al. 1986). Other materials used for slave housing included tabby,

an aggregate of sand, lime, and shell that was poured into wooden forms and faced with shell and lime (Brooker et al. 2002:32-33). Log, frame, and brick houses were also known, as were combined types (e.g., frame on brick foundations). Shingle roofs became common over time. Chimneys could be tabby or brick, but were often catted (stick and mud plaster). Fireplaces were a late development. Early earth- or wattle and daub-walled houses often had no interior hearths or possibly interior open hearths (Ferguson 1992:67; Wheaton et al. 1983:103). Where the cabin walls rested on the ground, floors were beaten earth or possibly brick-lined. Later, houses were often raised on piers and had wood floors. Windows were common, although small and equipped with only wooden shutters instead of glass (Adams et al. 1987:19; Claggett et al. 1986; Genovese 1972:524; McFarlane 1975:30; Singleton 1985:295).

Although slaves built their houses themselves, their design, materials, and mode of construction probably reflected a series of directives and compromises with planters. Cob and wattle and daub construction generally went out of style between the end of the Revolution and about 1830 (Morgan 1998:110; Trinkley and Hacker 1999:173; Wheaton and Garrow 1985:257). Planters appear to have objected to the use of clearly African-derived forms (Genovese 1972:528; Joseph 2007:105). Around the same time, southern agricultural journals began promoting better quality housing for slaves to benefit their health and reproductive capacity, and thus to their value as property (Genovese 1972:524). Thomas Clay of Richmond Plantation on the south bank of the Ogeechee River and a neighbor of Site 9CH1205, was a proponent of improved housing and wrote an essay describing his ideas for it in 1833 (Butler et al. 2003:24). One of the thrusts of the literature on slave housing was a correlation between architecture and the behavior of slaves. Houses should "provide an orderly but lowly-appearing setting in which stable slave families were expected to flourish quietly without challenging the plantation system" (McKee 1992:200).

Tabby, brick, and wood construction remained in use through the antebellum period, although frame construction was most common with brick and tabby used mostly for chimneys. By the Civil War, slave cabins were substantial structures that generally met the standards reformers called for. Freedmen continued to use these materials and techniques. (As an aside, Thomas Higginson, who commanded a regiment of former slaves, the First South Carolina Volunteers, during the war, wrote that his men "had great ingenuity in building screens and shelters of light poles, filled in with the gray moss from the live oaks. The officers had vestibules built in this way, before all their tents; the cooking places were walled round in the same fashion; and some of the wide company-streets had sheltered sidwalks down the whole line of tents. The sergeant on duty at the entrance of the camp had a similar bower, and the architecture culminated in a 'Praise-House' for school and prayer-meetings, some thirty feet in diameter" [Higginson 1870:226]. Higginson described a shout held in "a little booth, made neatly of palm-leaves and covered in at top, a regular native African hut . . ." [p. 17]. These quotes imply that although planters banned this architectural form, slaves still used it for some structures.)

The houses were almost universally portrayed as crude, rough, or ramshackle. Genovese (1972:532) described their quality as ranging from "adequate" to "hovel," and Singleton (1991:165) called them "makeshift and flimsy." Meant to accommodate about five people, the cabins measured around 16x20 feet on average (duplexes averaged 22x42 ft.), and were often split into two spaces with a room divider. A loft provided sleeping and storage space (Adams et al. 1987:18; McFarlane 1975:30; Singleton 1985:295). Although cramped by modern standards, Ferguson (1992:73) and Joyner (1984:119-120) pointed out that houses in African regions where slaves originated were often smaller than the averages for plantation quarters. Slave houses, therefore, might actually have been considered satisfactory to their inhabitants.

Houses were configured in rows along one or both sides of a "street," although other layouts were known. The street could be a formal thoroughfare, such as the plantation's main entry road, informal footpaths, or wide greens. Decorative landscape elements, if any, consisted of rows of trees planted between or in front of houses. The quarters could be relatively close to the planter's house, forming a piece of the overall landscape design, or distant from the house but nearer to the agricultural fields (Brabec 2003; Brabec and Richardson 2007:160; Vlach 1991:31). Settlements were referred to as "villages" or "towns," which they sometimes resembled (Morgan 1998:121). Individual cabin spacing varied, 50 feet apparently being a common distance but larger intervals have been noted (McFarlane 1975:29; Vlach 1991:31).

By most accounts, the houses were dark, cramped, and sparsely equipped. They were mainly used for sleeping and eating, however, and African Americans before and after Emancipation performed most of their domestic activities outside (Adams and Swanson 2007; Ferguson 1992:68). The areas around the houses and settlement reflected this orientation to outdoor space, with house yards containing assorted structures, such as chicken coops, root cellars, and animal pens (Adams et al. 1987:18; Vlach 1991:33) (Figure 23). Family gardens surrounded with fences or palings were usually near the house as well, at least by the antebellum period. Besides keeping out livestock, enclosure, along with proximity to the house, publicly asserted a family's possession and proprietorship (Wood 1995:33-34) (Figure 23).

Yards were primarily utilitarian (Figure 24). Posnansky (1999) asserted that this practice carried over from Africa, where houses were used primarily for sleeping, storage, and occasionally as shrines. Cooking, eating, and crafts usually took place outside in the courtyard, against the wall of the house, between houses, in shelters, and under shade trees. Additionally, there were gender differences in the use of space, female-dominated activities being conducted near the house while male-oriented activities occurred further away (Posnansky 1999:28). Similar use of domestic yards has been documented at African American sites dating to the late nineteenth and twentieth centuries (Adams and Swanson 2007; Moir 1987). Slaves probably used domestic space the same way, although the applicability of later models has not been established (Heath and Bennett 2000:45).

Figure 23.
Slave Housing

A. Slave Houses Arranged in Row, Port Royal Island, South Carolina Vicinity, 1862. Note Shell Mounds in House Yard

Source: Library of Congress

B. Turn of the Century Gullah/Geechee Yards St. Helena Island Showing Fenced Enclosures

Source: Brabec 2014

Figure 24.
African American House Yards

A. Nineteenth-Century African American Family Conducting Household Tasks Outdoors, Chatham County

Source: Georgia Department of Archives and History

B. Various Work Zones Around House Yard, Green County, Georgia ca. 1900.

Source: Georgia Department of Archives and History

Activities tended to take place in distinct locations within the yards. For example, cooking was conducted in one place, trash disposal in another. Some functions presumably overlapped. Outdoor hearths could be used for multiple purposes, such as cooking, washing, and other tasks. Other common utilitarian features of African American house yards included food storage in root cellars, typically consisting of an excavated pit covered with earth or boards. Areas for processing slaughtered animals included tables, hoists, shallow pits, and hearths. Yards also encompassed storage areas for firewood and other bulk materials, such as salvaged or recycled building supplies (Adams and Swanson 2007:174-177; Messick et al. 2001:58-59; Westmacott 1992:34). Westmacott (1992:34) noted the way different areas were used, with the front (approach side) of the house being associated with leisure, social activities, and ornamentation. Shade trees tended to become focal points for activities, such as outdoor kitchens. Again, these patterns were based on observations of twentieth-century houses and yards, and their applicability to plantation slave quarters is unknown.

A generalized model of the arrangement of yards associated with slave houses and subsequent changes after Emancipation was prepared by LeMaistre (1988, reproduced in Westmacott 1992:4). The prototypical slave yard shows a house facing a swept area to the front with a smaller swept area in the rear. All household activities, support structures, storage areas, and outdoor functions are behind the house for the kitchen garden and animal pens, which are to one side. The house and yards are surrounded by rough, open ground. The principal difference of the postbellum arrangement is the presence of more activities and structures in the rear and side yards with fruit trees and ornamental plants added to the front. The greater number of structures and activities after Emancipation presumably reflected the need for individual households to support themselves compared with the earlier situation, where certain structures, such as barns, cow pens, and wells, might be communal elements of a slave quarter or plantation.

Life in slave quarters was communal, with many activities taking place out of doors and in view of all residents. Although individual families had their own houses, the use of outdoor space for an entire range of activities meant that slaves conducted much of their household activities in sight of other households. House yards in slave communities thus provided space where communal and social activities took place. As Euro-Americans began viewing the domestic and public spheres as increasingly separate, African American life remained more communal (Morgan 1998:122-124; Wheaton 2002:43). Penningroth (1997:418-420), in discussing how slaves established ownership of property, pointed out that the communal nature of slave quarters put each household's belongings on display. Slaves stored many items outside, which made them visible to others. The proximity of gardens, chicken coops, pig pens, and storage sheds to houses, also helped establish who owned what, and, importantly, to obtain acknowledgement of possession from the community.

PLANTATION LANDSCAPES

The topic of plantation landscapes, for the purposes of this study, encompasses two issues: the locations of plantations within the broader landscape and the internal spatial arrangement of plantations. Lowcountry plantations were oriented toward water transportation, owing to the lack of useable roads and extensive areas of marsh, swamp, and watercourses. The most efficient means of travel was by boat, and the distribution of plantations, at least before a working road system developed, reflected this situation. The main settlement, consisting of the planter's house and dependencies, was usually in a position overlooking a river or other navigable waterway (Adams et al. 1987:413; Joseph et al. 2004:69). Both long-staple cotton and rice plantations were restricted to the coastal zone, and sometimes were produced on the same property. Because they could have similar environmental requirements, their distributions should be similar (Joseph et al. 2004:60). A variable that could cause settlement to vary, however, was the extensive reclamation work associated with rice plantations. Construction of canals through low floodplains and swamps to feed the rice fields also provided boat access to areas that would not have been accessible from a main river channel. Thus, rice plantations might show greater flexibility in settlement than plantations focused strictly on long-staple cotton.

The physical requirements of tidal rice cultivation also influenced the location of Lowcountry plantations and the crops they produced. An ideal site lay on a river with enough freshwater discharge to force a layer of freshwater above a saltwater layer moving upstream with the tide. Tides had to reach sufficient elevations to flood and drain fields, without causing infiltrations of salt or brackish water. Larger watersheds with annual flows of freshwater and deep channels that allowed for the correct layering of fresh and saltwater provided the best locations for rice cultivation. Slow tidal rivers with limited headwaters and estuaries were poorly suited for tidal cultivation (Stewart 1996:98-99). The distribution of plantations throughout the Lowcountry thus reflected more than transportation access.

Sea Island or long-staple cotton, which appears to have been the crop that William Miller and prior owners of 9CH1205 focused on, involved a different sequence of plantation development and cultivation. This crop grew well in a variety of settings, but yields could vary depending on where it was placed. The sandy soils of Coastal Plain pine barrens provided suitable conditions, but the sea islands produced a better quality cotton due to the moist air carried by ocean breezes. Planters found that ridge husbandry was best suited for this crop, and made working the fields and tending plants easier. Location, then, was not as critical in producing a cotton crop but it did affect the final product, which was not just a source of profit, but of social standing in that consistently superior merchandise could transform a planter's name into a symbol of quality (Stewart 1996:118-121).

To evaluate the organization of the plantation associated with 9CH1205, it is worth describing another form of agricultural settlement: upland cotton plantations. These operations emerged in Georgia after the invention of the cotton gin made short-staple cotton profitable. The location of upland plantations showed affinity to the first fields put under cultivation as well as regional roads or trails. Over time, areas placed under cultivation shifted as soils became exhausted, and the main plantation complex might become detached from the fields (Joseph et al. 2004:79-80).

Landscapes within individual plantations have been described and interpreted in various ways. Lewis (1985) viewed plantations as staple-producing cogs in the world economy, with their internal arrangements reflecting their economic function. Plantation organization has more recently and most often been viewed in the context of power relationships and contestation between the social groups who inhabit them. Settlement, from this view, was arranged to assert wealth, power, and control (Upton 1984; Vlach 1991:47). Leone (1987, 1988), notably, has written about the way Chesapeake Bay planters manipulated landscapes and viewsheds to symbolize and rationalize economic and social authority (for other examples and summaries, see [King 1994; Kryder-Reid 1994; Joseph 1993b; Upton 1984]). Others have noted that planters conceptualized space on plantations in a hierarchical manner, with their residences at the top, usually literally placed in an elevated position, with domestic and agricultural dependencies, landscaped features, production areas, improved land, and unmodified natural zones arrayed further away and in order of decreasing importance (Wells 1993:28). The position of slave housing in this kind of arrangement reinforced the subordinate social status of African Americans (Brabec and Richardson 2007:160).

Slave houses, along with utilitarian buildings (kitchens, barns, storehouses, etc.) would often be incorporated into an overall formal landscape plan modeled on Georgian principles of architecture and landscape design (Brabec 2003) (Epperson 1990:32). At the least, the quarter was considered part of the plantation's working landscape (Upton 1984:63). Dependencies were most often arrayed on either side of the main house or its forecourt. Slave quarters were placed near agricultural buildings at one side of the house facing an open square or green, and could be prominent parts of the landscape (Lewis 1985:38; Vlach 1991:31). The juxtaposition between small, simply built, slave houses and a larger and probably more ornate planter's house signaled the relative status positions of the two principal classes of the plantation (McKee 1992:201).

In addition to symbolically asserting rights to power and authority, planters frequently arranged slave housing within plantations to provide direct surveillance and control (Adams et al. 1987:313). Slave quarters were therefore placed within sight of the planter's house or, if in a remote location, would often include a white overseer's residence. Brabec and Richardson (2007:160) questioned the effectiveness of landscape manipulation for monitoring purposes,

pointing out that on average, the smallest distance between slave quarters and main houses was 429 feet in the Lowcountry, and the intervening space often included stands of trees, gardens, fences, and topographical barriers that restricted direct observation.

Regardless, slaves actively resisted and disputed their masters' influence and ability to watch them. With respect to interpreting the landscape of the plantation, this issue considers the extent to which slaves could establish a degree of autonomy or at least concealment. Even close to the plantation house, slaves managed to eke out areas that were hidden from scrutiny and where unauthorized activities could take place, or that simply offered privacy from the planter or overseer (e.g., Epperson 1990:32; Heath and Bennett 2000:48; Whitley 2008:12-14).

Lowcountry plantations, as noted, often included isolated slave settlements, or cabins located at a comparative distance from the planters' houses. Moreover, isolated quarters commonly did not include accommodation for white overseers, giving the slave inhabitants a considerable degree of latitude in their personal activities and undercutting the planter's control (Vlach 1991:47). Crook (2008), studying slave housing on Sapelo Island, seems to imply that planters essentially ceded to slaves the freedom to set up their own settlements. His analysis suggested that planters gave the slaves a defined tract to use, but left them to arrange their houses as they wanted. Areas such as these comprised separate landscapes with significance to the slaves and about which they were more knowledgeable than the planters and overseers. The "slaves' private landscape" extended out from their residential quarter to include forests where secluded activities took place, certain work areas, and informal footpaths and creeks used to travel within and between plantations. As slaves adapted to the Lowcountry environment, gave it meanings of their own, and created their own landscapes, a culture emerged, along with the sense of place that gives Gullah/Geechee communities their ties to the land (Stewart 1996:170; Upton 1984:70).

Brabec and Richardson (2007) provided insight into landscape changes after Emancipation. Studying modern Gullah/Geechee communities, Brabec and Richardson note the phenomenon of family compounds containing houses and other builtings inhabited by extended families of near and distant relatives. These arrangements are an expression of cultural practices and the Gullah/Geechee understanding of land ownership as communal. They also strengthen family ties and enable larger groups of relatives to function as a single unit. The family compound is an organic arrangement of loosely and irregularly arranged buildings clustered on a single piece of land with little indication of distinct property boundaries, and which contrasts from the linear or grid-like organization of plantation slave quarters. Additional elements of the family compound include a garden maintained by one or more households; land held in common; and shared swept yards (Brabec and Richardson 2007:158-159, 162). Brabec and Richardson (2007:160-161) noted the existence of such communities by the 1930s, when the WPA Writers Project

documented examples in the Sea Islands, but its historical depth is not clear. Brabec and Richardson (2007:160-161) argued that this kind of arrangement probably did not emerge from African precedents, as some researchers have suggested, because it would not have survived the multi-generational imposition of linear settlement patterns. Brabec and Richardson contended that the Gullah/Geechee community pattern reflects "an evolving spatial design that supports the social and proxemics norms of the culture, once a dictating force had been removed" (Brabec and Richardson 2001:161).

The preceding overview serves as a context for certain of the research topics discussed in Chapter II. In particular, this discussion reviews the bigger picture of the research issues dealing with slave participation in markets (as both producers/vendors and consumers), the material correlates of task labor, time lag in artifact assemblages, and foodways, as well as architecture. Considering aspects of African American life in the Lowcountry provides a basis for interpreting aspects of material culture that slaves and Freedmen had and asking further questions that can shed more light on the functional and symbolic contexts of their possessions. For instance, given the work completed at other sites it would not be surprising to find the inhabitants of 9CH1205 owned a variety of European-made ceramics or utilized a diverse range of domestic and wild food sources. However, considering these materials with respect to use and behavioral contexts could yield a deeper understanding of African American culture.

VIII. ARCHAEOLOGICAL FIELDWORK RESULTS

Brad Botwick and Sarah Lowry

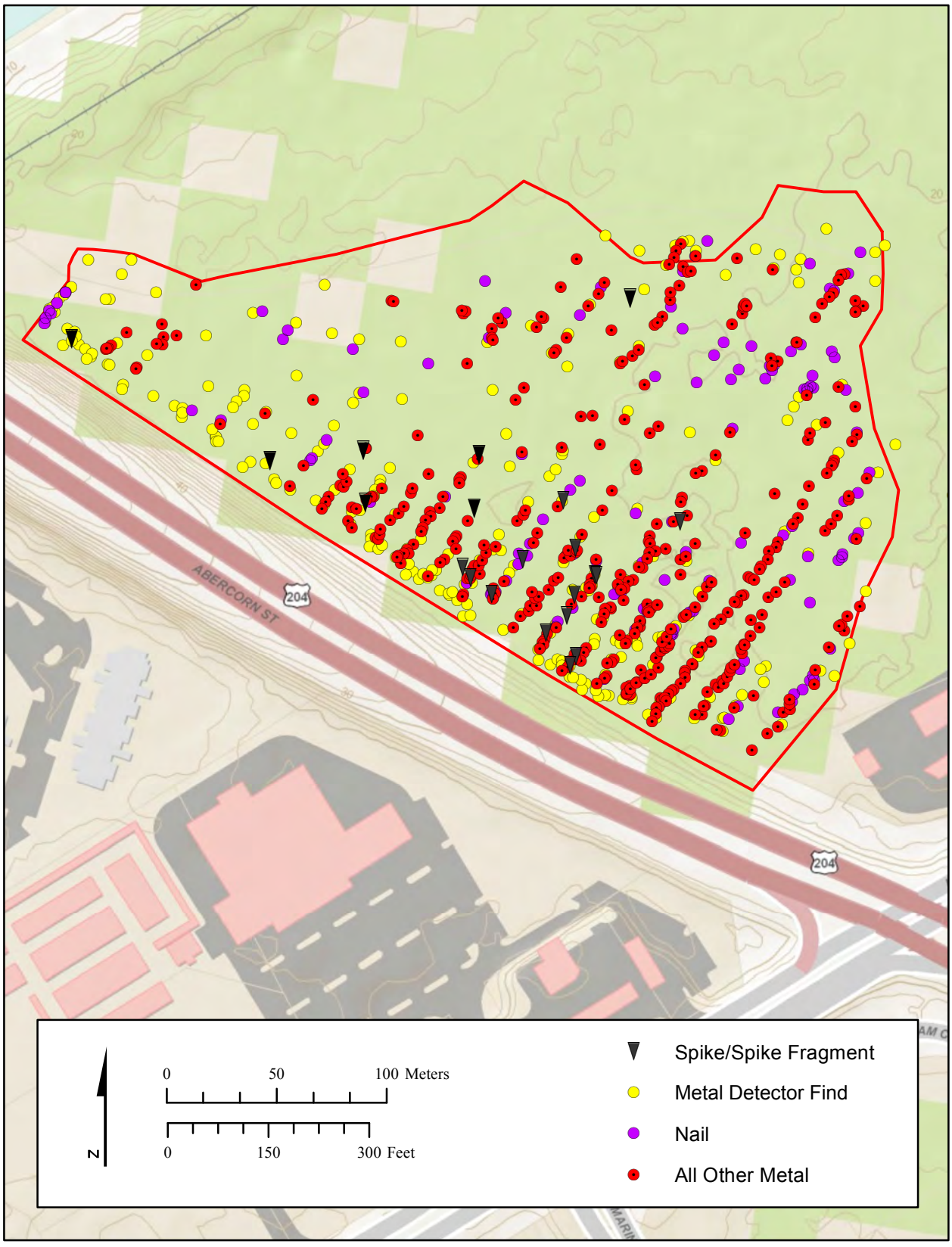
Fieldwork entailed metal detector survey, geophysical survey, hand and machine-removal of plow zone, and hand-excavation of cultural features. A public outreach program allowed community members and others to visit the site during the excavation. The results of the metal detector survey and geophysical investigations are described below, along with an overview of the excavations. Features and the public outreach program are discussed in subsequent chapters.

METAL DETECTOR SURVEY

Metal detector survey was designed to determine the horizontal extent of Civil War military deposits at the site and to suggest potential structure locations based on nail concentrations. Transects were oriented northeast-to-southwest at 15-meter intervals across the site and were surveyed in two directions to cover a 1.5-meter wide lane. Non-ferrous metal detector targets were excavated along with a 10-percent sample of ferrous targets. Developed before the current GDOT Environmental Procedures Manual (which calls for 100% recovery), this strategy emphasized non-ferrous items because these tend to be more diagnostic of military activities than ferrous objects. Ferrous finds were mapped, but not intensively excavated, and in several areas appeared in high densities that were interpreted as nail clouds from former structures. Artifact recovery was confined to the plow zone, while items in sub-plow zone contexts were noted as potential feature locations. Finds were mapped with a total station.

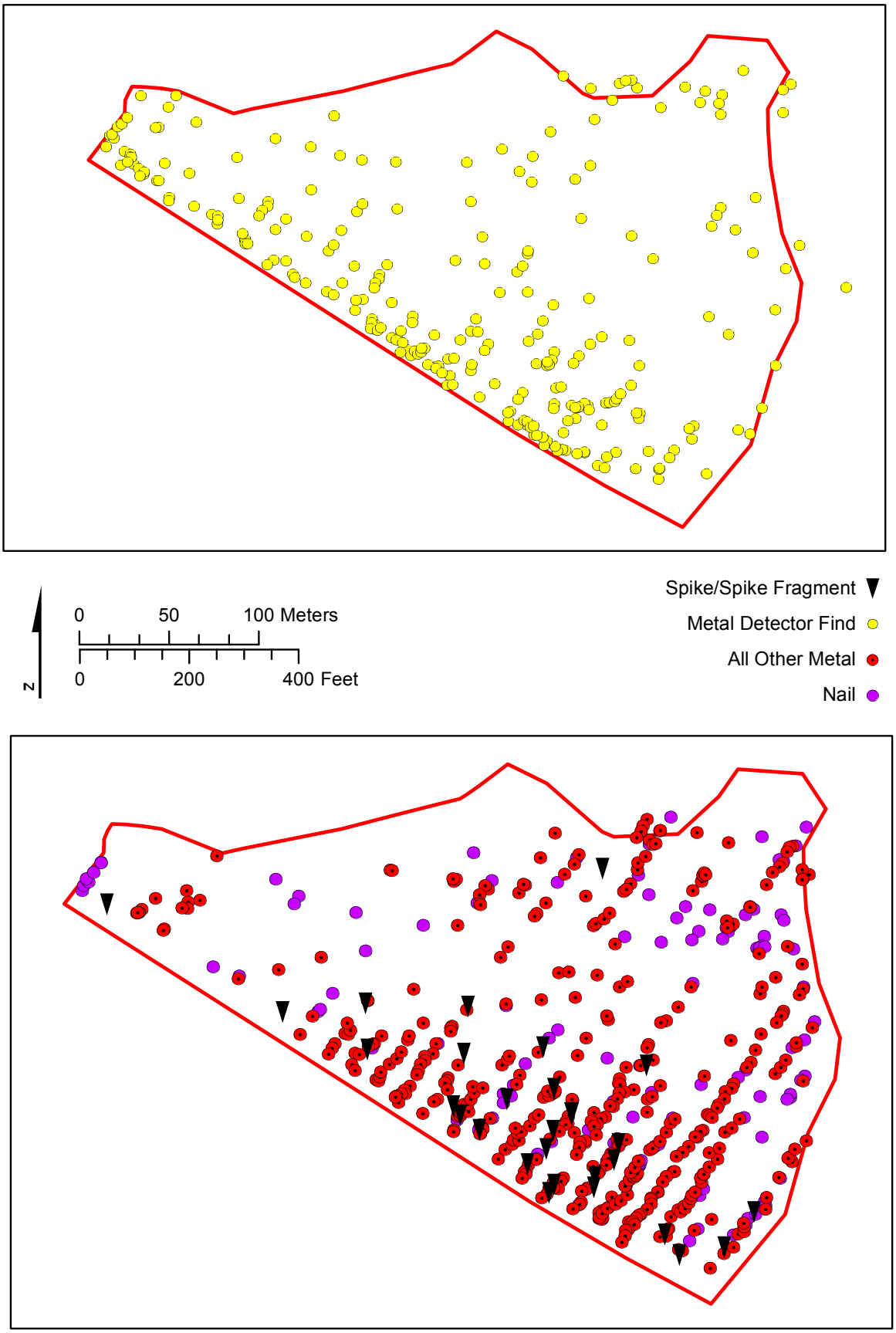
The metal detector survey indicated metal artifacts were distributed throughout the site boundaries. Densities were higher in the southeastern portions of the site, thus confirming the Phase I shovel test data, but moderate densities were found in the north and northeast areas as well (Figures 25 and 26). The site's western portion contained moderate to low densities and densities in the northwest were very low. A linear area of low artifact density extended east-to-west through the site as well. Subsequent excavation indicated this linear, low-density zone formed a rough boundary to the domestic occupations. Because the majority of metal detector signals were not collected, and are characterized as only ferrous metal, it is unclear what patterns might exist in the general distributions. The densest area in the southeast part of the site corresponded to the domestic occupation identified through hand and machine stripping as well as the prior evaluation study. The moderately dense areas in the north and northeast parts of the site did not, ultimately, reflect any occupations or activities with a high potential for intensive metal discard. The densities of metal artifacts in these areas are therefore difficult to interpret.

Figure 25.
Metal Detector Survey Results



Source: ESRI Topographic Map (2012)

Figure 26.
Metal Detector Survey Results Sorted by Material



Finally, the metal detector survey produced moderate numbers of Civil War military artifacts from the western portion of the site, hinting that this area was a focus of the 1864 Union Army camp. Subsequent excavation of test units and machine clearing, however, did not produce any substantial evidence of military occupation here, indicating that the archaeological residues of the camp were ephemeral and confined to the plow zone.

The metal detecting also yielded samples of nails and railroad spikes with distributions that led to additional investigation. Nails—including cut, wrought, and wire specimens—were found throughout the site, although three areas of particular concentration were noted. Two of these were in the southeastern portion of the site and the third was in the north-northeast. Only one of these concentrations, in the southeast, was subsequently found to have a spatial association with numerous sub-plow zone features indicative of an occupation. The other concentration in the southeast was found to co-occur with a single feature identified as a storage pit, and thus the nail concentration might reflect a structure location. Unit excavation and machine clearing in the vicinity of the north-northeast concentration produced few artifacts and did not expose any cultural features to suggest a structure or occupation of this area.

The discovery of railroad spikes acattered throughout the site led to speculation regarding adaptive reuse of these items. Although a rail line lies at the western margin of the site, the majority of spikes were located in its southeast and south-central margin in the vicinity of SR 204. Metal detectorists reported that several spikes were vertically oriented as if driven into the ground, suggesting their historic use as tent pegs during the Civil War occupation. Subsequent fieldwork failed to produce any corroborating evidence for this supposition. The spread of railroad spikes across the site most likely indicates incidental reuse and discard of materials during repair episodes and possibly secondary deposition. That the majority of the spikes were found in the vicinity of the SR 204 road berm implies that many might reflect grading and filling during road construction.

Metal detecting yielded 335 metal detector finds (MDFs), consisting of artifacts retrieved for analysis. The total includes glass, ceramics, bricks, and shell that were encountered while investigating metal detector signals. Identifiable artifacts include tools and agricultural hardware, architectural hardware, military or arms-related items, clothing remains, decorative objects, housewares, and coins. The assemblage reflects the domestic, military, and agricultural uses of the site (Tables 9 and 10). A detailed artifact discussion is presented in Chapter X.

Table 9. Metal Detector Finds

Artifact	Ct.	Artifact	Ct.	Artifact	Ct.	Artifact	Ct.
Bolt and/or Bracket	1	File	2	Nail, Unidentified	4	Sheet/Plate	4
Bolts	6	Fishing Weight	2	Nail, Wire	1	Shell, Oyster	1
Brick, Unidentified	27	Hammer	1	Nail, Wire Roofing	1	Shoe Parts	1
Buckle	1	Hinge	5	Nuts	4	Shot	23
Bullet	7	Hoe	8	Pearlware	8	Spike	8
Button	23	Hooks, Other	5	Percussion Cap	1	Spoon, Table	1
Cartridge, Center Fire	1	Kettle/ Pot	10	Plumbing Hardware	1	Stoneware	4
Cartridge, indeterminate	3	Knife, Folding	5	Porcelain	1	Tack	2
Cartridge, Rimfire	6	Knife, Table	1	Railroad Spike	4	Umbrella Part	1
Chain	1	Lamp Part, Oil	2	Redware	1	Unidentified	95
Coin	7	Lock part	2	Ring	2	Whiteware	5
Container Glass	10	Minie Ball	14	Ring, finger	1		
Drill Bit	1	Musket Ball	1	Rivet	2		
Eyelet/Rivet/Grommet, Clothing	3	Nail, Cut	2	Sheet metal	2		
Grand Total							335

Table 10. Metal Detector Finds Sorted By Material (Metal Only)

Ferrous	Count	Other Metals	Count
Bolt and/or Bracket	1	**Copper/Brass**	
Bolts	5	Buckle	1
Button	1	Button	21
Chain	1	Cartridge, center fire	1
Container Glass	1	Cartridge, indeterminate	3
Drill Bit	1	Cartridge, Rimfire	6
File	2	Coin	4
Hammer	1	Eyelet/Rivet/Grommet, clothing	3
Hinge	4	Hinge	1
Hoe	8	Lamp Part, Oil	2
Hooks, Other	4	Lock part	2
Kettle/ Pot	10	Nuts	1
Knife, Folding	5	Percussion Cap	1
Knife, Table	1	Plumbing Hardware	1

(Continues)

(Table 10, Continued)

Ferrous	Count	Other Metals	Count
Nail, Cut	2	Ring, finger	1
Nail, Unidentified	4	Rivet	2
Nail, Wire Common	1	Sheet metal	1
Nail, Wire Roofing	1	Shoe Parts	1
Nuts	3	Shot	1
Pearlware	3	Tack	2
Railroad Spike	4	Umbrella Part	1
Ring	2	Unidentified	40
Sheet Metal	1	**Lead**	
Sheet/Plate	4	Bolts	1
Spike	8	Bullet	7
Spoon, Table	1	Button	1
Unidentified	32	Fishing Weight	2
		Minie Ball	14
		Musket Ball	1
		Shot	22
		Unidentified	20
		Silver	
		Coins	3
		Steel	
		Unidentified	1
		White Metal	
		Unidentified	1
Total Ferrous	111	Total Non-Ferrous Metal	169

GEOPHYSICAL SURVEY

MAGNETIC GRADIOMETER

The entire project area was surveyed using the magnetic gradiometer (except areas directly adjacent to the metal site fencing and road). Within the surveyed area, a total of 30 magnetic anomalies were identified (Figure 27, Table 11). Of these 30 anomalies, five were readily identifiable as associated with modern and aboveground features. These included the security camera, metal fencing, and surface debris. The remaining 25 anomalies could not be associated with specific modern features and were divided into four categories based on their dimensions,

Figure 27.
Magnetic Anomalies Within the Project Area

Source: Microsoft Imagery 2010

geometry, and magnetic strength (nT). These categories included magnetic anomaly scatter, metal scatter, possible structural remains, and magnetic objects. Modern debris generally have a much higher nanotesla strength than probable historic features and metal scatters have higher values, but lower than modern features. Magnetic anomaly scatters tend to have much lower nanotesla ranges and magnetic objects tend to fall somewhere in the middle. The magnetometer anomalies were distributed throughout the site area and did not suggest any concentrations of activity or more intensive occupation.

Although the potential cultural features could not be identified as to likely age or function, Anomaly 4, located in the western part of the site, appeared to reflect three sides of a square or rectangular building. Another group of small anomalies in the northern portion of the site (Anomalies 10, 11, 12, 13, 14, 15, 16, 21, 24, and 26) were arranged in two sets of parallel rows, suggesting the footings of two large buildings or possibly the hearths of individual smaller structures. Another large anomaly (Anomaly 3) was noted in the eastern portion of the site where metal detecting had encountered a large iron object that could not be fully exposed or excavated.

Table 11. Magnetic Anomalies

ID	Interpretation	General Category	nT_range
1	Magnetic Anomaly Scatter	Unknown	-17 to 17
2	Metal Scatter	Unknown	-300 to 200
3	Magnetic Anomaly Scatter	Unknown	-10 to 10
4	Possible Structural Remains	Unknown	-7 to 19
5	Possible Structural Remains	Unknown	-28 to 38
6	Magnetic Anomaly Scatter	Unknown	-16 to 93
7	Magnetic Anomaly Scatter	Unknown	-3 to 22
8	Magnetic Anomaly Scatter	Unknown	-3 to 14
9	Magnetic Anomaly Scatter	Unknown	-13 to 72
10	Magnetic Object	Unknown	-124 to 6
11	Magnetic Object	Unknown	-387 to 13
12	Magnetic Object	Unknown	-257 to 11
13	Magnetic Object	Unknown	-310 to 17
14	Magnetic Object	Unknown	-614 to 128
15	Magnetic Object	Unknown	-14 to 358
16	Magnetic Object	Unknown	-15 to 142
17	Magnetic Anomaly Scatter	Unknown	-10 to 1
18	Metal Scatter	Unknown	-23 to 26
19	Magnetic Anomaly Scatter	Unknown	-23 to 23
20	Magnetic Anomaly Scatter	Unknown	-4 to 6

(Continues)

(Table 11, Continued)

ID	Interpretation	General Category	nT_range
21	Magnetic Object	Unknown	-28 to 69
22	Camera Pole	Surface/Modern	-1000 to 52
23	Barrel	Surface/Modern	-1000 to 1000
24	Magnetic Object	Unknown	0 to 5
25	Magnetic Object	Unknown	-11 to 158
26	Magnetic Object	Unknown	-144 to 122
27	Farm Equipment - Surface Metal	Surface/Modern	-1000 to 1000
28	Fence	Surface/Modern	-1000 to 1000
29	Fence	Surface/Modern	-1000 to 1000
30	Magnetic Object	Unknown	-37 to 25

Magnetic Anomaly Scatter (N=9)

Nine magnetic anomaly scatters were identified (Anomalies 1, 3, 6-9, 17, 19, 20). This category consisted of anomalies that formed no obvious cultural patterns. Nanotesla values ranged from -23 to 93. Possible interpretations of these anomalies included historic metal trash, modern trash, some sort of burned scatter, or concentrations of organic soils. Anomalies belonging to this class were spread throughout the site with the largest number of magnetic anomaly scatters on the eastern side and in the southwestern portions.

Metal Scatter (N= 2)

Two metal scatters were identified (Anomalies 2 and 18). These were very similar in shape and dimension to the magnetic anomaly scatters, but had higher nanotesla values, ranging from -300 to 200. The high values suggested denser clusters of debris and were located in the southern section of the site adjacent to the present road.

Possible Structural Remains (N=2)

Two possible structural remains were identified in the northwest section of the site (Anomalies 4 and 5). Structural remains were identified using their general shape and layout. These were collections of anomalies that formed straight lines and right angles. It was possible the magnetic anomalies were from the remnants of foundations, brick scatters, or burned/compacted soil. Their nanotesla ranges fell between -28 to 38 and they were approximately 25 meters apart.

Magnetic Object (N=12)

Twelve magnetic objects were identified (anomalies 10-16, 21, 24-26, 30). These were generally clustered in the northern region of the site and had nanotesla values ranging from -614 to 348. These were single anomalies, not clusters, which suggested they might be isolated burned areas or metal objects.

GPR

GPR survey was intended to better characterize anomalies identified through magnetometer detection and to refine potential targets for further investigation. This work was conducted on selected portions of the site in grids centered on potential hearths or metal-rich anomalies. A total of 11 grids were surveyed. Although 20x20-meter grids were proposed, conditions at the site often made this impractical and therefore the size of survey grids varied. In all cases, the total area included in a grid equaled or exceeded the 400 square meters expected for a 20x20-meter square.

The GPR survey covered 11 grid squares that encompassed several of the magnetometer anomalies, including Anomalies 3 and 4 and the vicinity of the group of parallel anomalies (Anomalies 10-16, 21, 24-26, and 30). Additional areas selected for GPR survey were south and southwest of the large oak tree, where the prior evaluation study suggested the slave occupation concentrated; areas in the south-central part of the site where railroad spikes were found to concentrate and where two large magnetometer anomalies were found; and in the western portion of the site where the magnetometer had identified additional anomalies.

In total 70 anomalies were identified. Of these, 16 were identified as possible tree roots and non-cultural features. The remaining 54 anomalies were classified as buried objects, buried object (possible structure), compacted surfaces, disturbed soils, fill, and possible wall trench (Figure 28, Table 12).

Table 12. GPR Anomalies

Anomaly Number	Interpretation	GPR Grid	Depth
3	Disturbed Soils	GPR 6	0-180 cm
3a	Buried Object	GPR 6	80-165 cm
3b	Buried Object	GPR 6	80-150 cm
3c	Buried Object	GPR 6	100-150 cm
3d	Buried Object	GPR 6	120-165 cm
3e	Buried Object	GPR 6	80-165 cm

(Continues)

(Table 12, Continued)

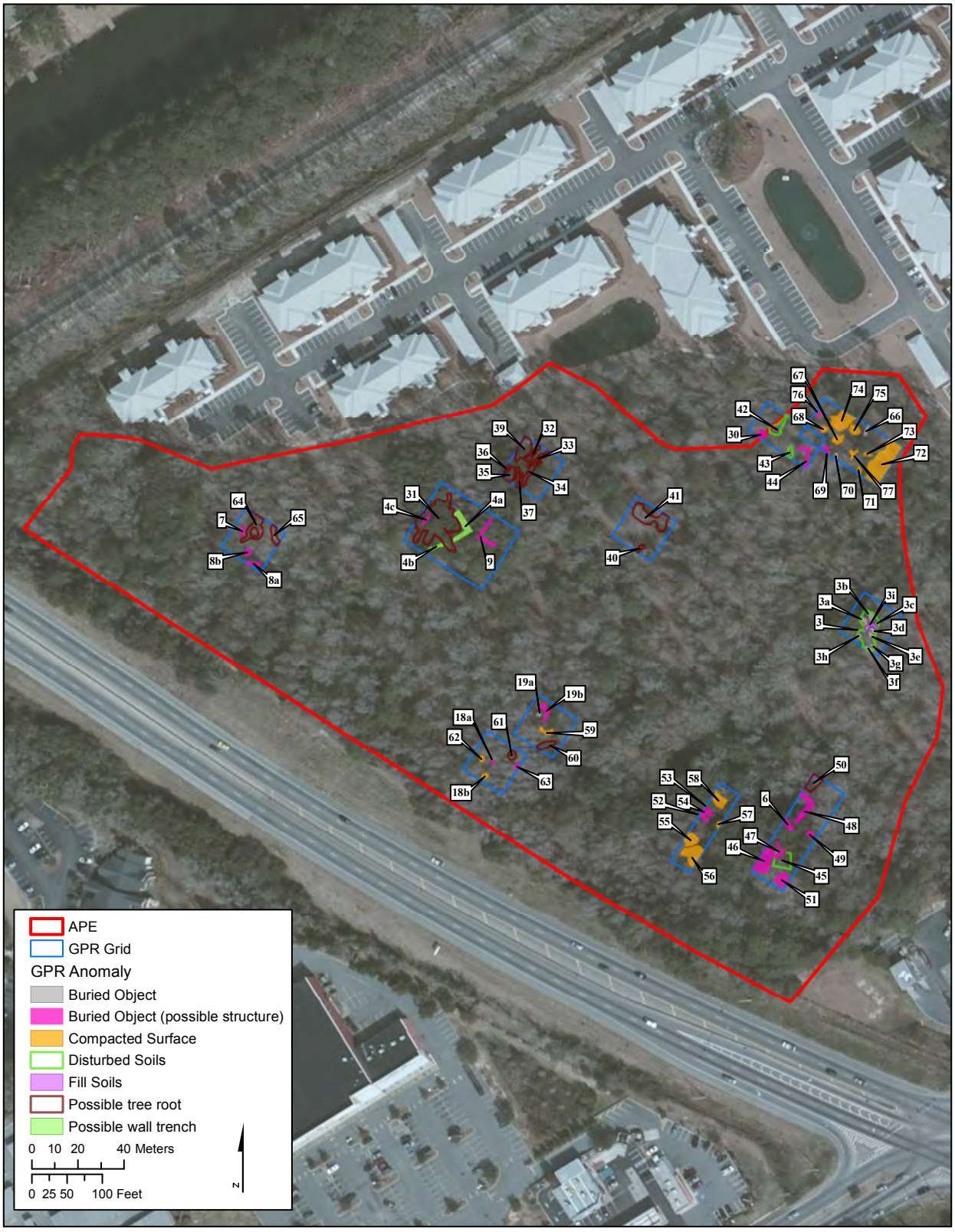
Anomaly Number	Interpretation	GPR Grid	Depth
3f	Buried Object	GPR 6	110-170 cm
3g	Buried Object	GPR 6	100-140 cm
3h	Buried Object	GPR 6	65-110 cm
3i	Fill Soils	GPR 6	0-180 cm
4a	Possible wall trench	GPR 2	0-125 cm
4b	Possible wall trench	GPR 2	0-125 cm
4c	Buried Object, possible structure	GPR 2	25-60 cm
6	Buried Object, possible structure	GPR 7	90-150 cm
7	Buried Object, possible structure	GPR 11	40-100 cm
8a	Buried Object, possible structure	GPR 11	80-110 cm
8b	Buried Object, possible structure	GPR 11	70-100 cm
9	Buried Object, possible structure	GPR 2	30-80 cm
18a	Buried Object, possible structure	GPR 10	105-150 cm
18b	Compacted Surface	GPR 10	60-120 cm
19a	Buried Object	GPR 9	75-100 cm
19b	Buried Object, possible structure	GPR 9	30-90 cm
30	Buried Object, possible structure	GPR 5	40-130 cm
31	Possible tree root	GPR 2	N/A
32	Possible tree root	GPR 3	N/A
33	Possible tree root	GPR 3	N/A
34	Possible tree root	GPR 3	N/A
35	Possible tree root	GPR 3	N/A
36	Possible tree root	GPR 3	N/A
37	Possible tree root	GPR 3	N/A
38	Possible tree root	GPR 3	N/A
39	Possible tree root	GPR 3	N/A
40	Possible tree root	GPR 4	20-50 cm
41	Possible tree root	GPR 4	15-100 cm
42	Disturbed Soils	GPR 5	40-110 cm
43	Disturbed Soils	GPR 5	50-110 cm
44	Buried Object, possible structure	GPR 5	60-120 cm
45	Disturbed Soils	GPR 7	10-30 cm

(Continues)

(Table 12, Continued)

Anomaly Number	Interpretation	GPR Grid	Depth
46	Buried Object, possible structure	GPR 7	80-150 cm
47	Buried Object, possible structure	GPR 7	60-100 cm
48	Buried Object, possible structure	GPR 7	90-160 cm
49	Buried Object, possible structure	GPR 7	90-130
50	Possible tree root	GPR 7	30-140 cm
51	Buried Object, possible structure	GPR 7	90-170 cm
52	Buried Object, possible structure	GPR 8	50-170 cm
53	Buried Object, possible structure	GPR 8	50-170 cm
54	Buried Object, possible structure	GPR 8	50-170 cm
55	Compacted Surface	GPR 8	90-150 cm
56	Compacted Surface	GPR 8	110-160 cm
57	Compacted Surface	GPR 8	50-110 cm
58	Compacted Surface	GPR 8	90-150 cm
59	Compacted Surface	GPR 9	50-100 cm
60	Possible tree root	GPR 9	80-120 cm
61	Possible tree root	GPR 10	N/A
62	Compacted Surface	GPR 10	60-90 cm
63	Buried Object, possible structure	GPR 10	85-115 cm
64	Possible tree root	GPR 11	15-130 cm
65	Possible tree root	GPR 11	10-50 cm
66	Buried Object	GPR 1	20-90 cm
67	Compacted Surface	GPR 1	30-120 cm
68	Compacted Surface	GPR 1	50-100 cm
69	Buried Object, possible structure	GPR 1	30-120 cm
70	Buried Object	GPR 1	40-90 cm
71	Compacted Surface	GPR 1	80-110 cm
72	Compacted Surface	GPR 1	50-100 cm
73	Compacted Surface	GPR 1	50-100 cm
74	Compacted Surface	GPR 1	50-110 cm
75	Compacted Surface	GPR 1	50-100 cm
76	Buried Object, possible structure	GPR 1	65-100 cm
77	Compacted Surface	GPR 1	30-70 cm

Figure 28.
GPR Anomalies Within Site 9CH1205



Source: Microsoft Imagery 2010

Buried Object (N= 11)

A total of 11 buried objects were identified (Anomalies 3a-h, 19a, 66, and 70). Buried objects are subsurface reflections off anomalies that are likely cultural but not structural. These could be trash deposits or features associated with structures such as pits or ditches. A concentration of these objects was located in GPR Grid 6, where they appeared to be some sort of trash deposit. Buried object anomalies seemed to be generally clustered in the north and northeastern sections of the site.

Buried Object (possible structure) (N=21)

A total of 21 buried objects that could be possible structural remains were identified using the GPR results (Anomalies 4c, 6, 7, 8a, 8b, 9, 18a, 19b, 30, 44, 46-49, 51-54, 63, 69, and 76). These anomalies were typically caused by linear reflections or reflections that formed patterns expected of a possible feature. These anomalies were distributed in nearly all of the GPR grids.

Compacted Surface (N=15)

Fifteen compacted surfaces were identified in the GPR grids (Anomaly 18b, 55-59, 62, 67, 68, 71-75, and 77). These were flat surfaces that might represent activity areas, pathways, yards, and natural soil changes. These surfaces vary in size and depth. Certain larger surfaces (such as Anomalies 55, 56, 58, 72, and 74) might be reflections from natural stratigraphy. Smaller surfaces (such as Anomalies 18b, 57, 59, 62, 67, 68, 71, 73, and 75-77) were more likely to be cultural. These anomalies were concentrated in the southernmost and northernmost GPR grids.

Disturbed Soils (N=4)

Four areas with disturbed soils were identified (Anomaly 3, 42, 43, 45). Disturbed soils were areas where discontinuities were present in existing soil stratigraphy. These likely represented areas where the soils were excavated. Anomaly 3 was associated with the buried objects in GPR Grid 6 and may represent the excavated area that resulted from their burial. The remaining disturbed soils are located in GPR Grids 5 and 7.

Fill (N=1)

The single example of fill is located in GPR Grid 6 (Anomaly 3i). In the GPR profile, this anomaly appeared different than the site soils. Its reflective properties suggested it was a layer of fill that was deposited in a previously excavated area. The fill material likely had different physical properties and compaction from the surrounding matrix.

Possible Wall Trench (N=2)

Two possible wall trenches were identified (Anomalies 4a and b) in GPR Grid 2. These linear anomalies were adjacent to each other and were possibly from the same feature. In plan and profile views these appeared as faint trenches, which suggested they might have resulted from areas where soils were excavated for walls or foundations.

ARCHAEOLOGICAL TESTING OF GEOPHYSICS RESULTS

Field validation, also called "ground-truthing," typically involves archaeological investigation of specific geophysical anomalies to verify their existence, location, depth, and interpretation. It is highly specialized and requires knowledge of methods and theories behind geophysics and remote sensing, effects of soils and environment on geophysical results, and the nature of the archaeological record with specific insights into cultural forms that might be anticipated at a particular archaeological site associated within a specific range of time (Kvamme et al. 2006:248). There are different reasons for field validation, including differentiating between natural and cultural sources, verifying whether interpretations are correct, checking depth estimates, and recovering archaeological data for research or compliance purposes.

Not all geophysical anomalies are easily identified by the human eye or through archaeological techniques. In fact, there may be certain aspects of the anomalies (e.g., electrical or chemical) that cannot be detected based on color or textural differences that often form the basis of archaeological identification. It is these instances where familiarity and expertise in both archaeology and geophysics is necessary.

Results of the geophysical survey were used to guide certain aspects of the unit excavations and machine stripping (Figures 29-34). These anomalies were identified with either ground-penetrating radar or magnetometer, or both instruments. For each test anomaly, notes were made concerning its presence/absence and accuracy of the interpretation. Lack of cultural features in the testing results of a geophysical anomaly typically means that the contrast interpreted in the geophysical results was the result of a natural soil or sediment change and may not even be visible to the human eye. A total of 35 unique anomalies were tested with either block excavations or test units (Table 13). Of these anomalies, 20 were associated with historic features. The remaining 15 anomalies were either the result of natural soil changes, tree roots, or some sort of other unknown subtle subsurface contrast.

Figure 29.
GPR and Magnetometer Anomalies with Test Units and Machine Stripping Blocks

Source: Microsoft Imagery 2010

Figure 30.
Geophysics Results and Test Excavations for Blocks 1 and 4

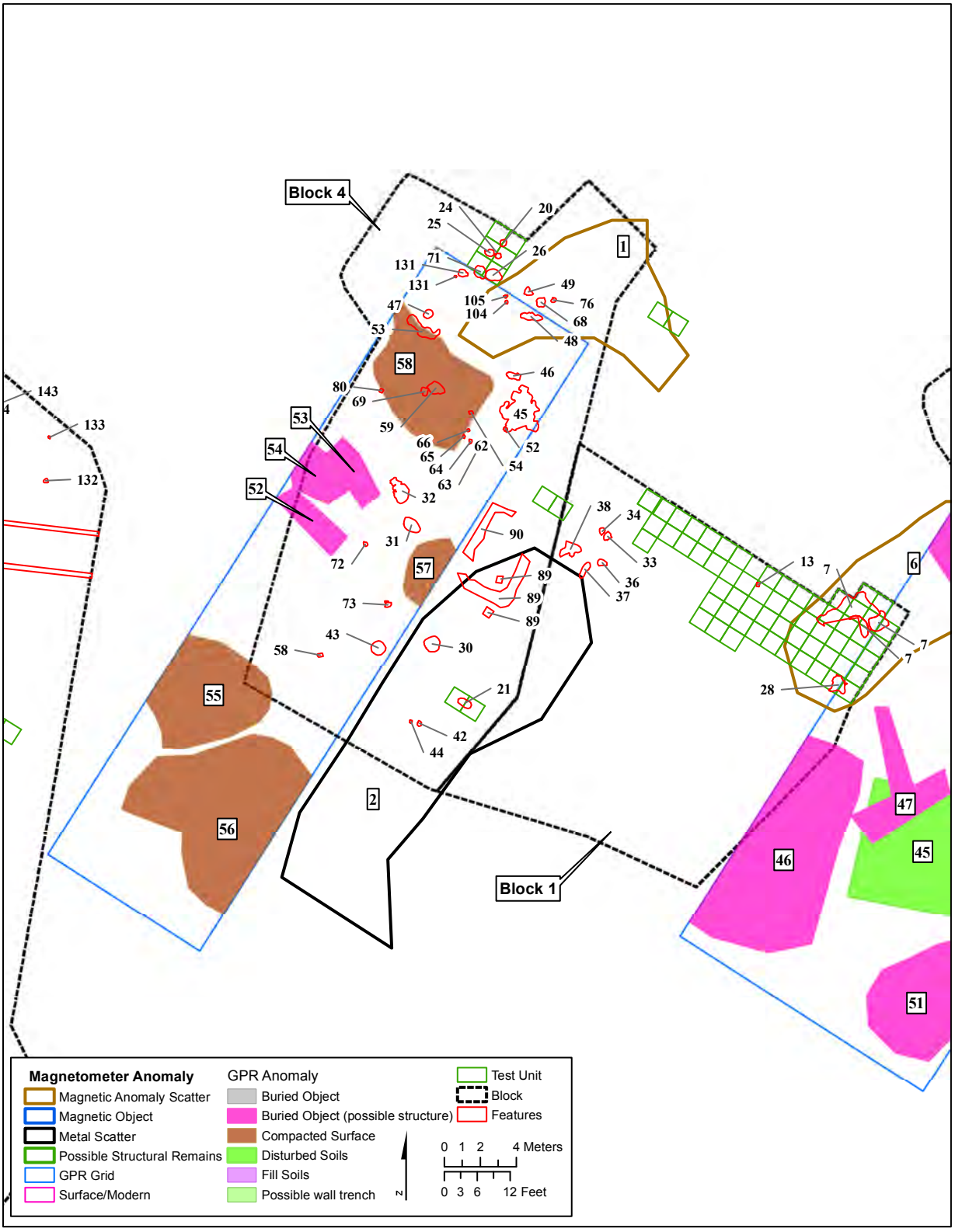


Figure 31.
Geophysics Results and Test Excavations for Block 8

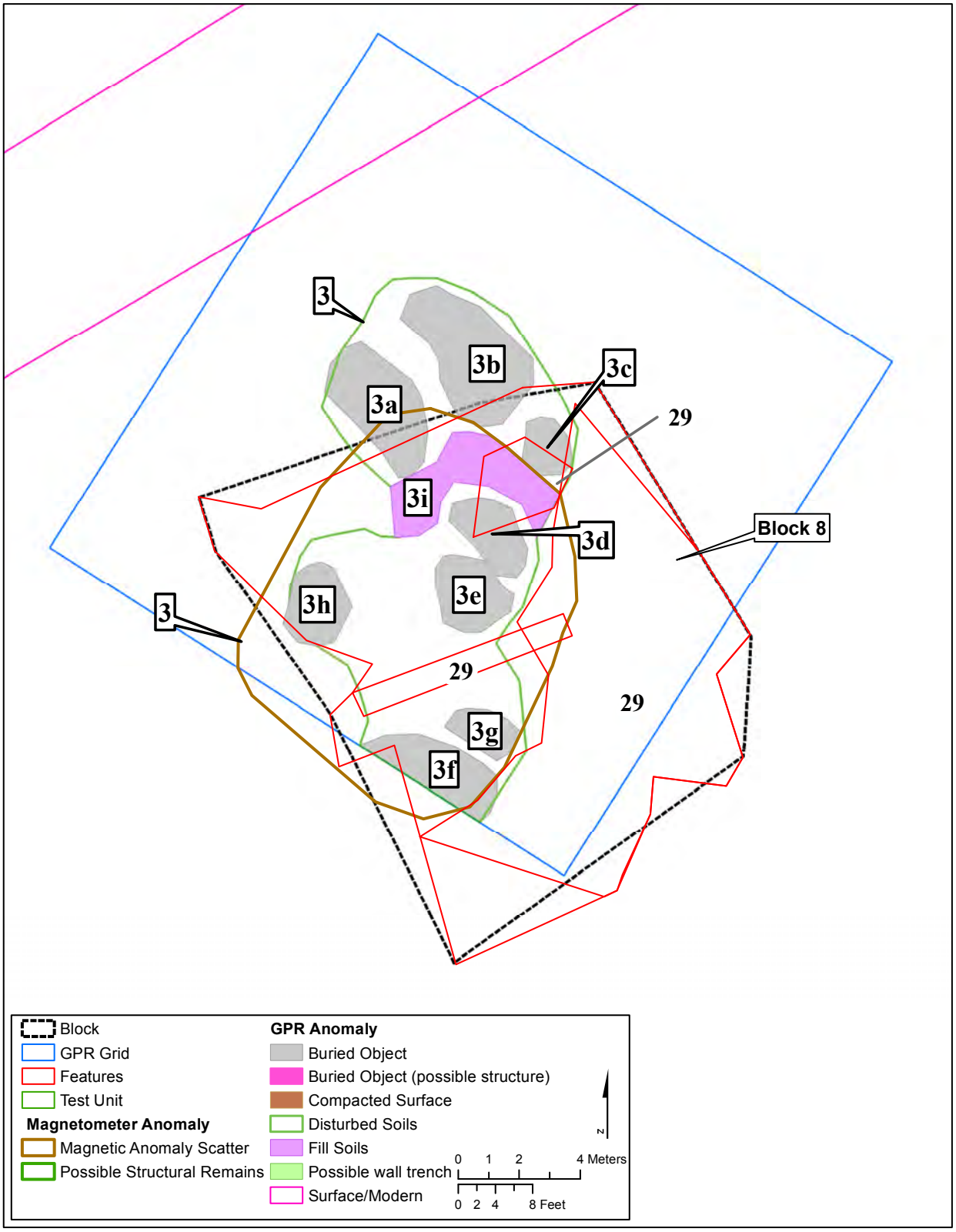


Figure 32.
Geophysics Results and Test Excavations for Blocks 7 and 7a

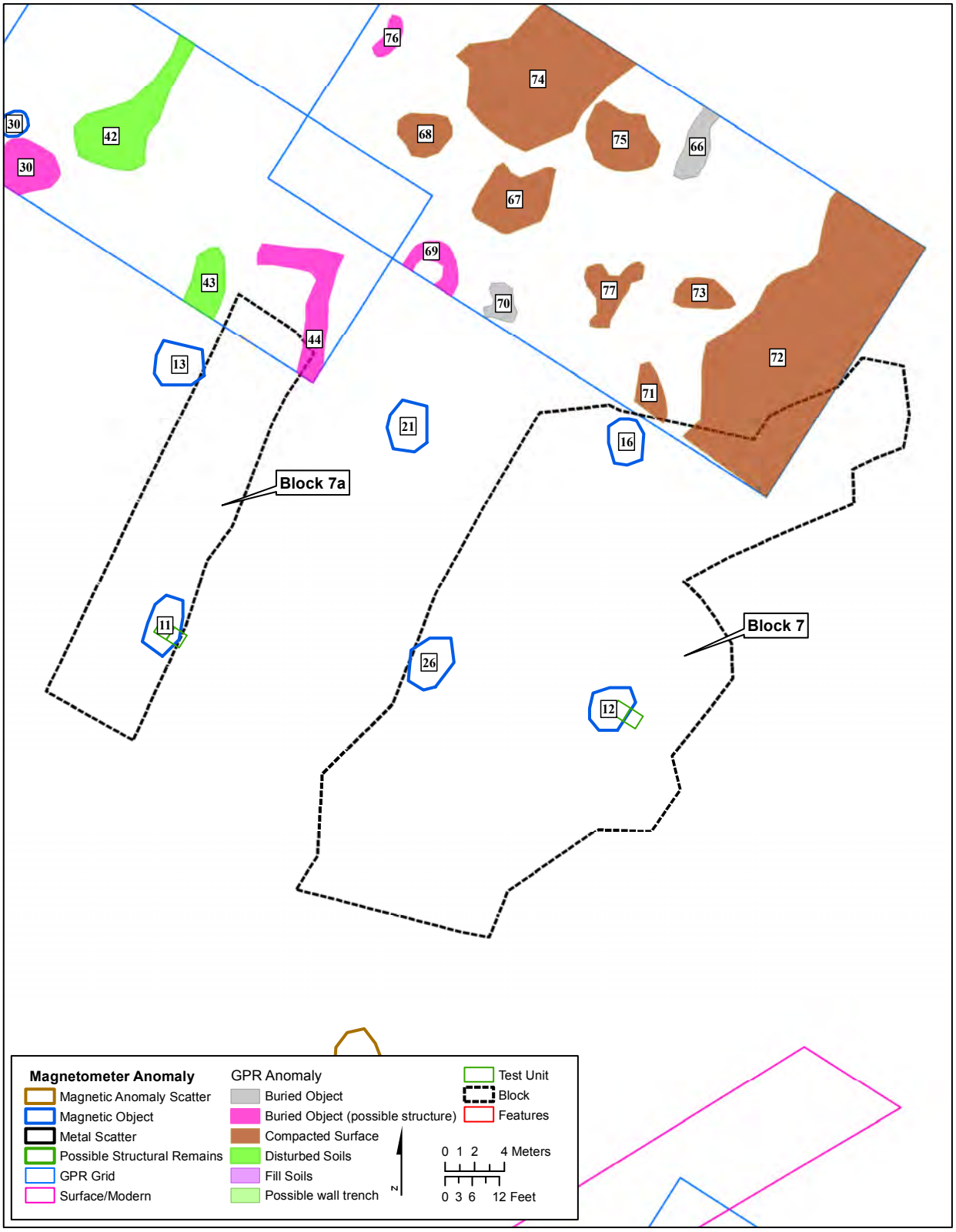


Figure 33.
Geophysics Results and Test Excavations for Block 5

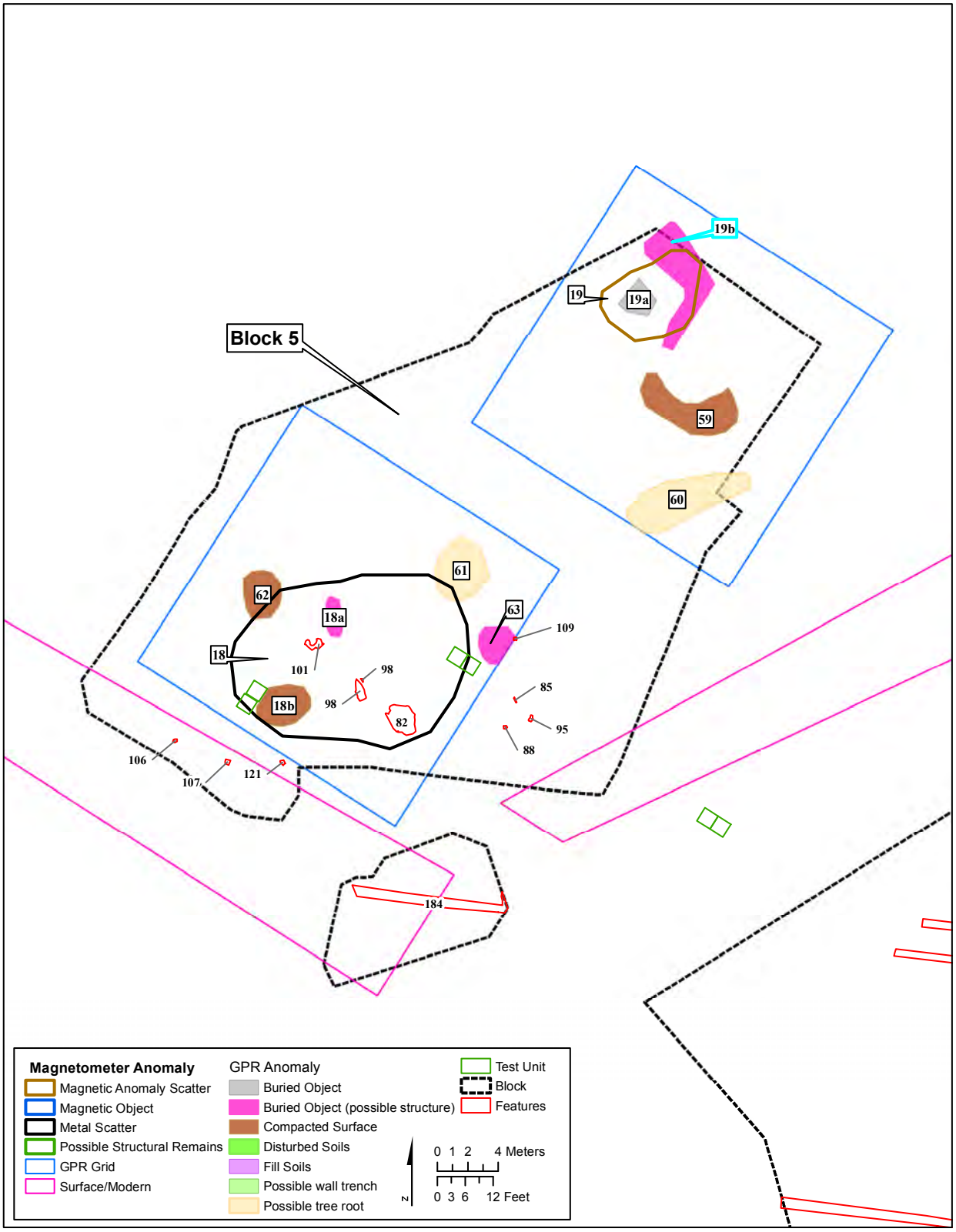


Figure 34.
Geophysics Results and Test Excavations for Block 6

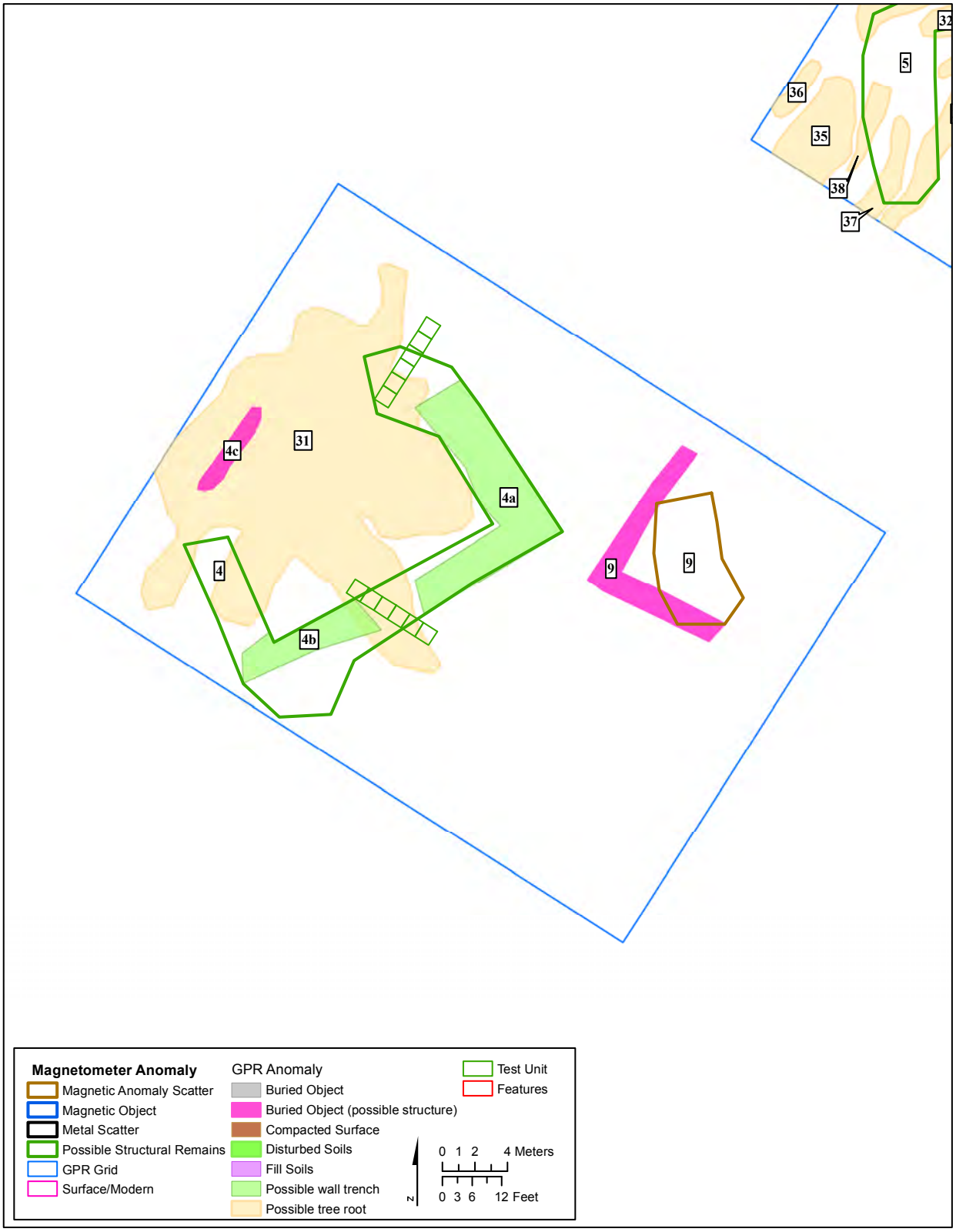


Table 13. Tested Anomalies and Excavation Results

Anomaly ID	Instrument	Type of Testing	Anomaly Interpretation	Block	Feature	Testing Result
Anomaly 3						
3a	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3b	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3c	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3d	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3e	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3f	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3g	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3	GPR	Block Excavation	Disturbed Soils	8	29	Clay Borrow Pit
3i	GPR	Block Excavation	Fill Soils	8	29	Clay Borrow Pit
3h	GPR	Block Excavation	Buried Object	8	29	Clay Borrow Pit
3	Magnetic Gradiometer	Block Excavation	Magnetic Anomaly Scatter	8	29	Clay Borrow Pit
Anomaly 19						
19a	GPR	Block Excavation	Buried Object	5	None	Unknown
19b	GPR	Block Excavation	Buried Object, possible structure	5	None	Unknown
19	Magnetic Gradiometer	Block Excavation	Magnetic Anomaly Scatter	5	None	Unknown
Anomaly 18						
18a	GPR	Block Excavation	Buried Object, possible structure	5	None	Historic house feature
18b	GPR	Block Excavation	Compacted Surface	5	None	Historic house feature
18	Magnetic Gradiometer	Test Unit	Metal Scatter	5	82, 98, 101	Chimney base
Miscellaneous						
52	GPR	Block Excavation	Buried Object, possible structure	4	None	Unknown
53	GPR	Block Excavation	Buried Object, possible structure	4	None	Unknown

(Continues)

(Table 13. Continued)

Anomaly ID	Instrument	Type of Testing	Anomaly Interpretation	Block	Feature	Testing Result
54	GPR	Block Excavation	Buried Object, possible structure	4	None	Unknown
57	GPR	Block Excavation	Compacted Surface	4	89, 90	Wall trenches
58	GPR	Block Excavation	Compacted Surface	4	53, 54, 59, 69, 80	Burned clay lens, postholes, artifacts, natural features
59	GPR	Block Excavation	Compacted Surface	5	None	Unknown
62	GPR	Block Excavation	Compacted Surface	5	None	Unknown
63	GPR	Block Excavation	Buried Object, possible structure	5	None	Unknown
72	GPR	Block Excavation	Compacted Surface	7	None	Unknown
1	Magnetic Gradiometer	Test Unit	Magnetic Anomaly Scatter	4	21, 30, 42, 44, 89	Structure and associated architecture
2	Magnetic Gradiometer	Test Unit	Metal Scatter	4	48, 49, 68, 76, 104, 105	Historic features
4	Magnetic Gradiometer	Test Unit	Possible Structural Remains	6	None	Natural clay deposits
6	Magnetic Gradiometer	Test Unit	Magnetic Anomaly Scatter	1	7, 13, 28	Post and pit, full of artifacts
8	Magnetic Gradiometer	Test Unit	Magnetic Anomaly Scatter	3	None	Natural clay deposits
11	Magnetic Gradiometer	Test Unit	Magnetic Object	7a	None	Unknown
12	Magnetic Gradiometer	Test Unit	Magnetic Object	7	None	Unknown
16	Magnetic Gradiometer	Block Excavation	Magnetic Object	7	None	Unknown
26	Magnetic Gradiometer	Block Excavation	Magnetic Object	7	None	Unknown

EXCAVATION RESULTS

Data recovery excavation included both hand-excavated units and machine-assisted stripping of plow zone (Figures 35-38). These tasks were followed by feature excavation.

UNIT EXCAVATION

Unit excavation served two purposes. The first was to sample potential occupation or activity areas identified through metal-detecting and geophysical survey. The second was to remove plow zone in areas near the large oak tree to protect its root system from the backhoe work.

The hand-excavated sampling consisted of 2x1-meter unit excavations. In some instances, known cultural deposits or projected features were targeted as well. Sampling took place in six locations: 1) Block 3: the west part of the site in the projected Civil War camp; 2) Block 4: west of the large oak; 3) Block 5: the south-central part of the site; 4) Block 6: the northwest part of the site to investigate magnetometer Anomaly 4; 5) Block 7: the northern part of the site to investigate the paired magnetometer anomalies; and 6) Block 9: southwest of the large oak. Twenty-one 2x1-meter units were completed for the sampling (Table 14).

Table 14. Number and Distribution of 2x1-Meter Sampling Units

Block	Number of Units
3	3
4	4 (one unit supplemental to examine potential feature)
5	2
6	6 (units targeted to locate magnetometer anomaly)
7	2
9	4 (two units supplemental to sample specific deposits)

Hand-excavation in the vicinity of the large oak tree was conducted in two blocks to its south and east in 1x1-meter units. These blocks were intended to relocate Feature 7, first exposed by EPEI, and associated cultural deposits and features while protecting the oak's root system. Except for three units needed to expose Feature 7, all of the 1x1-meter units were placed outside the tree's drip line. Seventy-one such units were excavated: 60 in Block 1 (south of the tree), seven in Block 2 (east of the tree), and four in Block 4 (west of the tree). These last four were excavated to fully uncover features exposed in a 2x1-meter sampling unit.

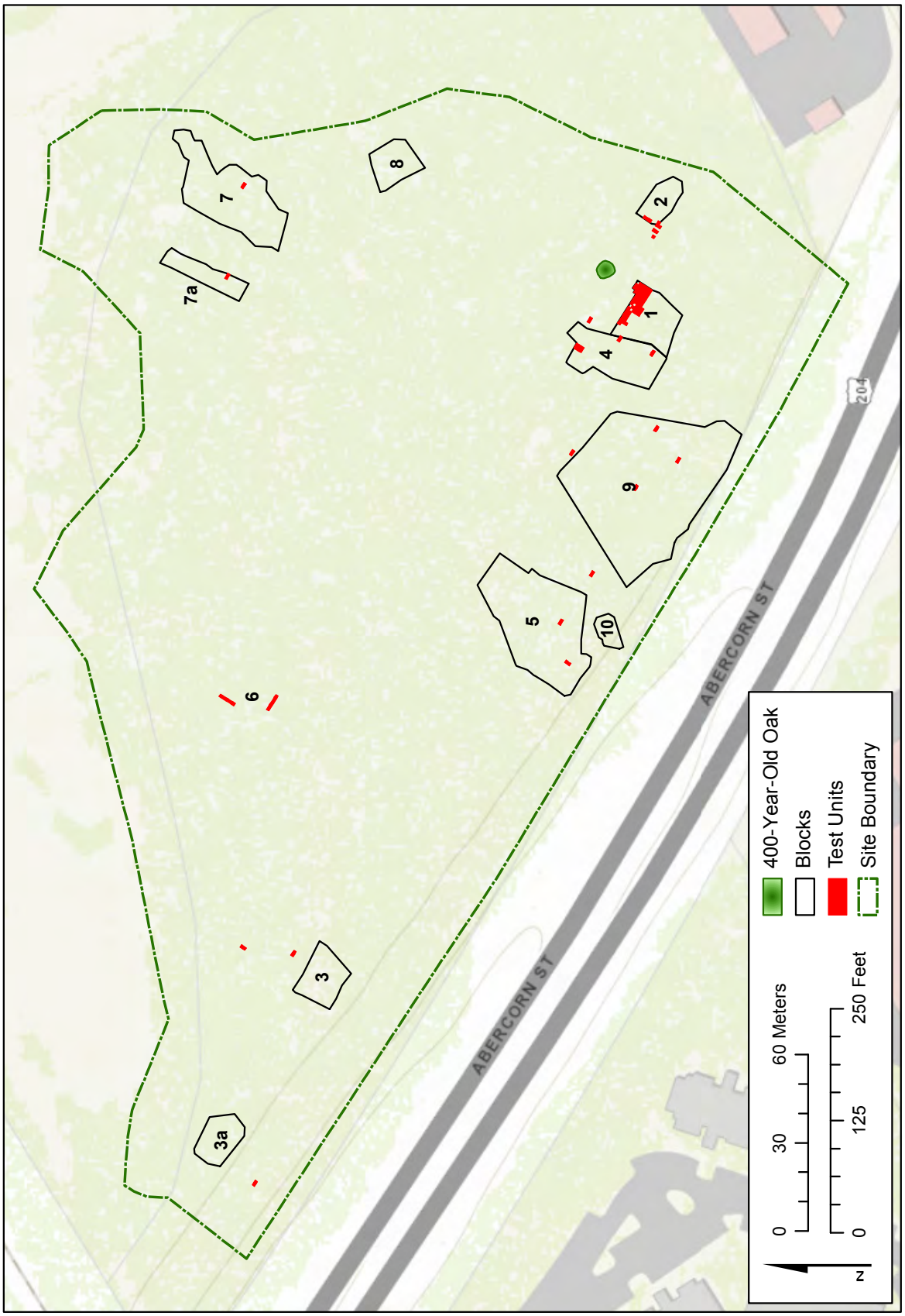


Figure 35.
Data Recovery Excavation Plan

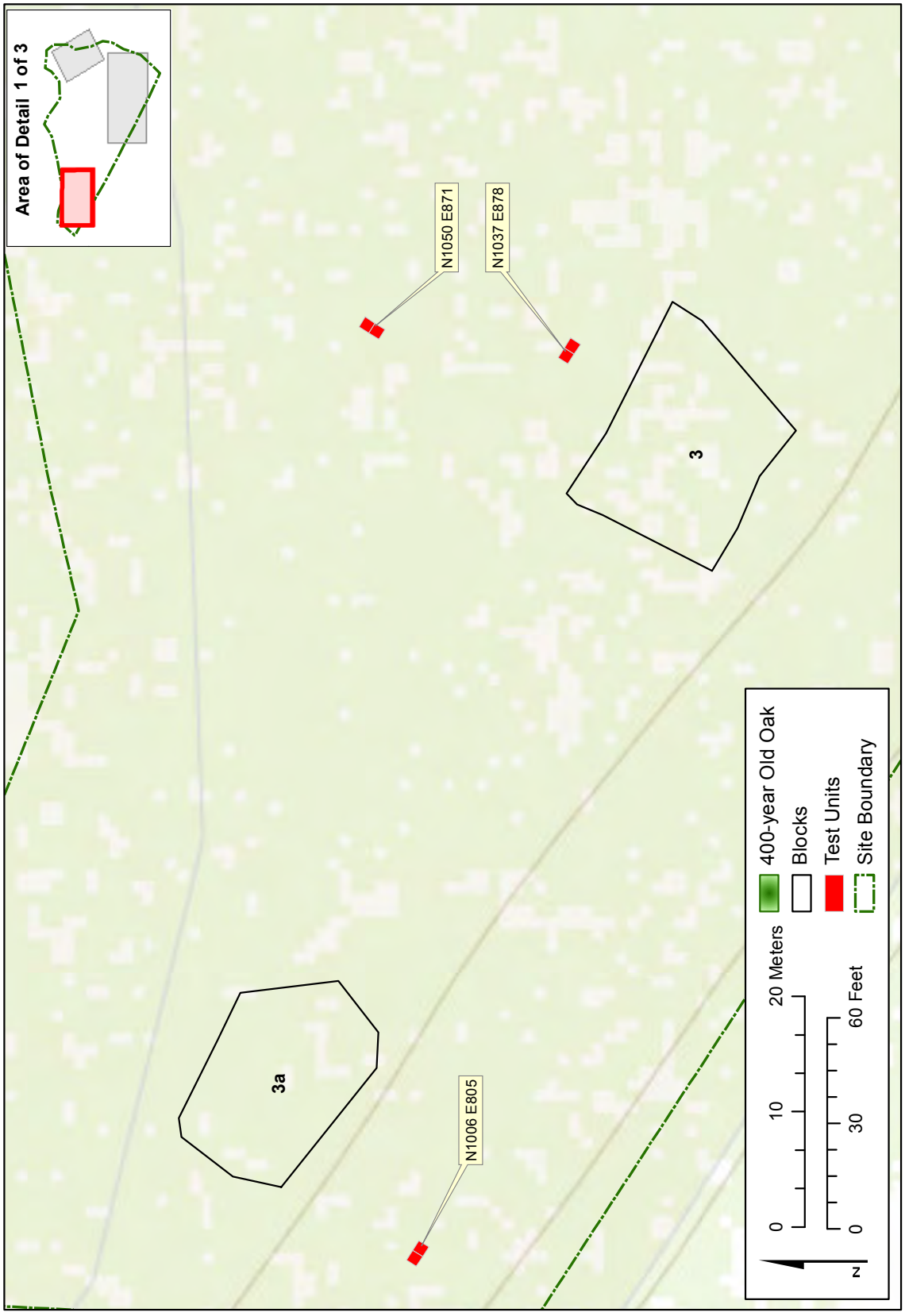


Figure 36.
Data Recovery Excavation Plan Detail, 1 of 3

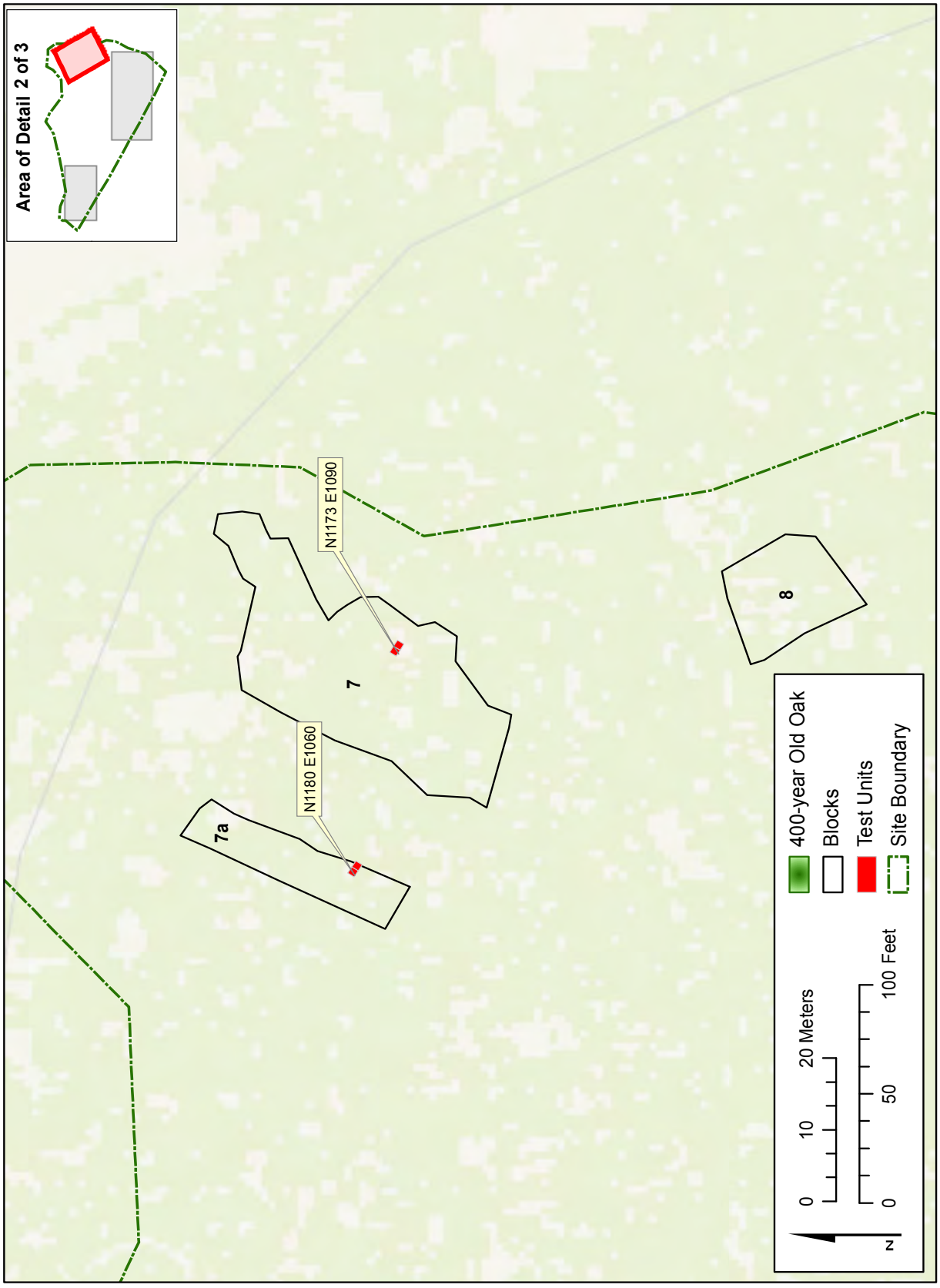


Figure 37.
Data Recovery Excavation Plan Detail, 2 of 3

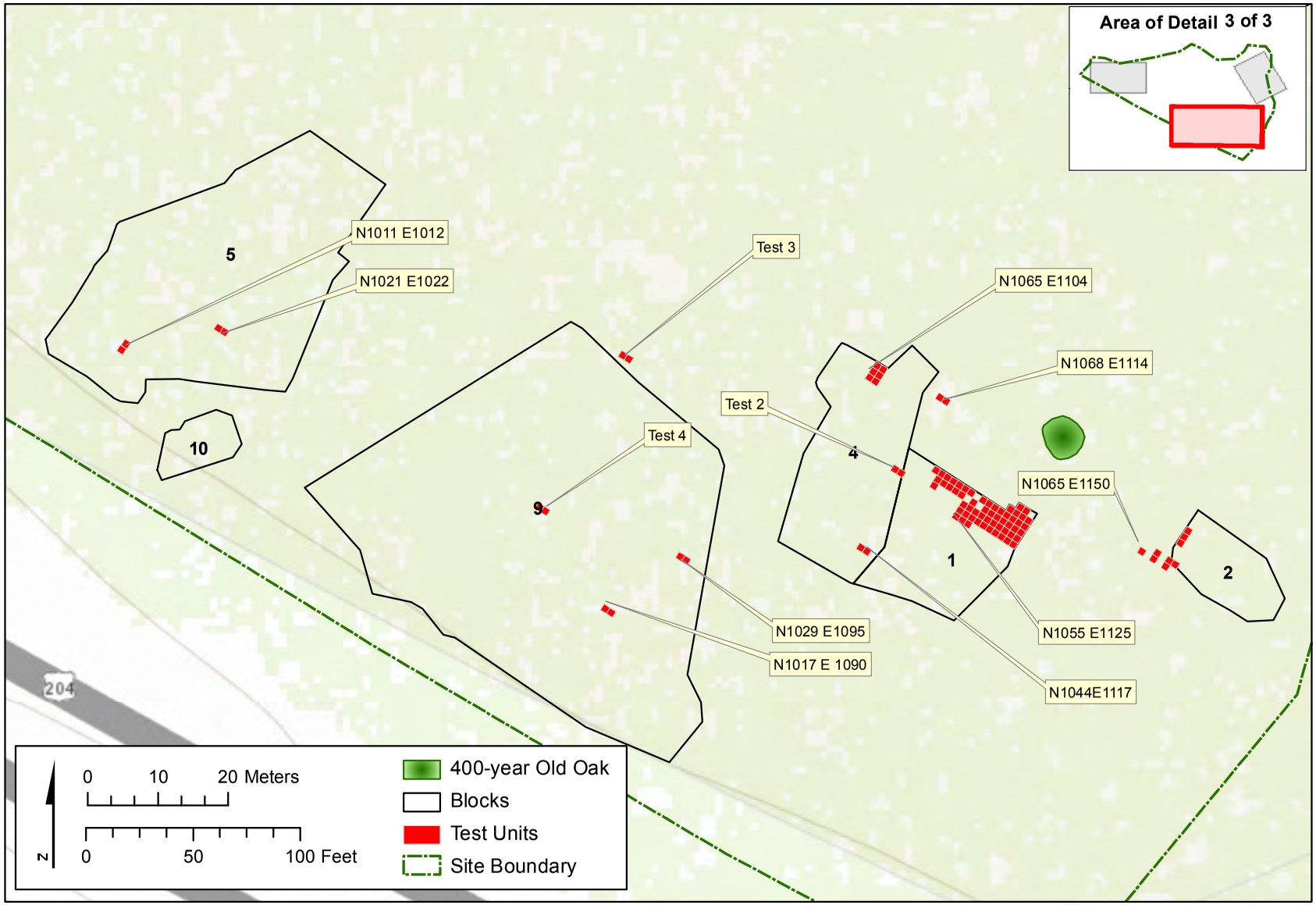


Figure 38.
Data Recovery Excavation Plan Detail, 3 of 3

The unit excavations revealed consistent stratigraphic profiles across the site. Stratigraphy included a 20-30 centimeter thick plow zone above an E horizon. A transition zone, averaging approximately 10 centimeters thick, sometimes separated these strata. Clayey B-horizon soils emerged intermittently within 50 centimeters of the ground surface (Figures 39-41). Artifacts were predominantly in the plow zone and transition layer, with the small number of artifacts in the E horizon being attributed to bioturbation.

Backhoe-assisted excavation involved plow zone stripping using a 24-inch bucket with a sand plate to expose large areas at the top of the E horizon (Figure 42a). Ten areas were opened, measuring a minimum of 400 square meters each except for three that supplemented previously stripped areas. Combined, over 5,700 square meters were exposed (Table 15). All areas were first roughly cleared of plow zone and then hand-cleaned with shovels and trowels to identify features. Locations selected for clearing focused on metal detector and geophysical survey results, with one area (Block 9) selected on the basis of shovel testing and surface inspection.

Table 15. Summary of Machine Stripped Block Size

Block	Square Meters
1	256.66*
2	143.66*
3	443.96
4	480.90
5	1,064.30
7	909.28
8	202.04*
9	2,140.85*
10	75.62*
Total Area Stripped	5,717.26

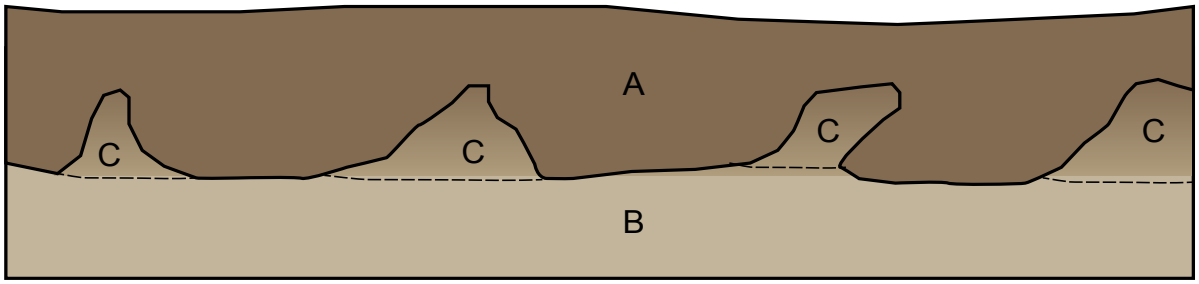
* Supplemental Block

Hand and machine clearing exposed cultural features in the southeast and south-central parts of the site that related to a nineteenth-century domestic occupation (Figure 42b). In the western portion of the site, no features were found that represented the Civil War camp. Additionally, no evidence of a projected domestic occupation in the north-northwest part of the site (suggested by metal detecting and geophysical survey) was found.

Figure 39.
Representative Profile, West Part of Site (Block 3)

Block 3 EastProfile

Block 3
East Profile
N1068 E1114



A = 10YR 4/3 Brown Sandy Loam; Plow Zone
B = 2.5Y 6/3 Light Yellowish Brown Loamy Sand
C = Mottled 10YR 4/3 and 2.5Y 6/3 Loamy Sand; Plow Scar

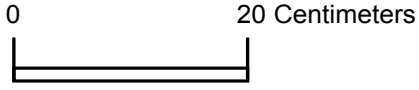
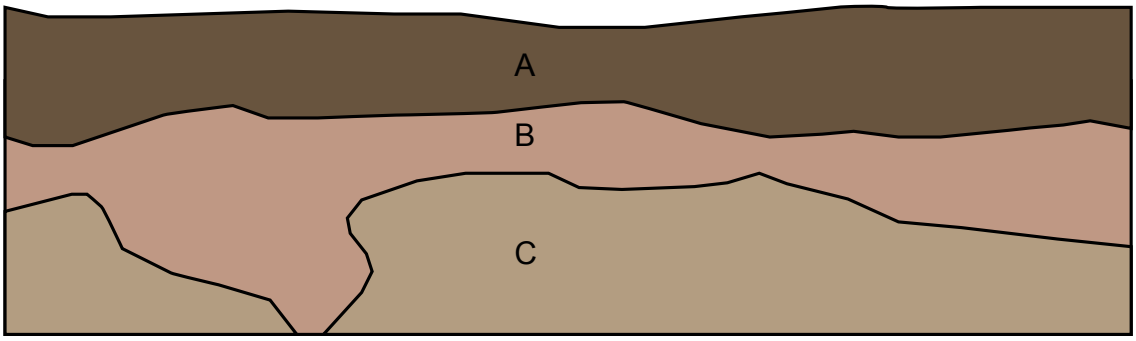


Figure 40.
Representative Profile, East Part of Site (Block 4)

Block 4 East Profile

Block 4
East Profile
N1068 E1114



A = 10YR 3/3 Light Reddish Brown Sandy Loam
B = 2.5Y 6/4 light Yellowish Brown Silty Sand
C = 10YR 6/6 Brownish Yellow Clayey Sand

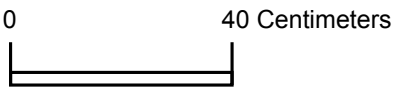
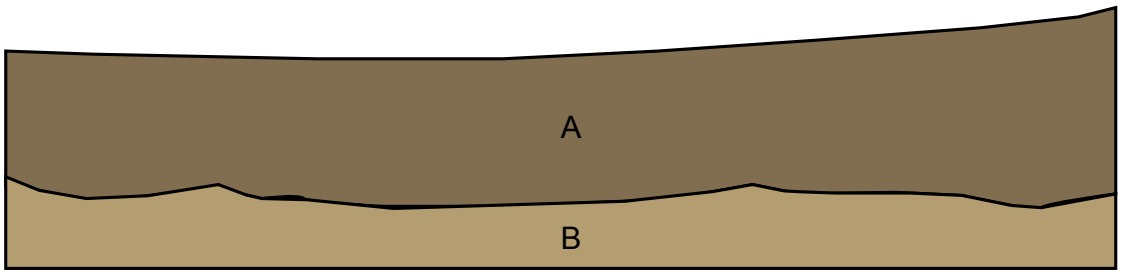


Figure 41.
Representative Profile, North Part of Site (Block 7)

Block 7 East Profile

Block 7
East Profile
N1180 E1060



A = 2.5Y 4/3 Olive Brown Sandy Loam; Plow Zone
B = 2.5Y 6/4 Light Yellowish Brown Silty Sand

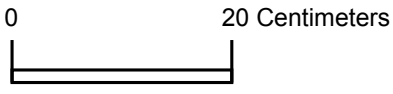


Figure 42.
Photographs of Machine-Assisted Block Excavation

A. Machine-Assisted Plow Zone Removal (Block 3)

B. Feature Excavation (Block 4)

FEATURE EXCAVATION

A total of 197 features were identified and examined during the data recovery, including features that were ultimately interpreted as non-cultural (Table 16). Features that were attributable to human activity included pits, structural remains (posts, building foundation trenches, chimneys), hearths, midden remains, and indeterminate ditches/trenches. Features that were indeterminate or clearly non-cultural were common.

Table 16. Feature Summary, 9CH1205 Data Recovery

Feature Type (Preliminary Identification)	Total
Borrow pit	1
Bottle deposit	4
Chimney base-brick	2
Ditch/Trench	8
Foundation trench (Structure)	2
Hearth	2
Midden residue	4
Pier-Building	1
Pit	11
Pit with post	1
Pit-storage	6
Post	61
Structure (modern)	2
Utility pole/hole (modern)	1
Plow scar (post occupation)	1
Non-cultural	15
Tree/root	60
Indeterminate	15
Total	197

Historic cultural features lay mainly in the southeast and south-central portion of the site (Excavation Blocks 1, 2, 4, 5, 9, and 10) (Figures 43-48 and Table 17). Features that could be interpreted as structures or occupation areas were distributed within a roughly linear area running northeast to southwest with the large oak tree at the northeast end. The one cultural feature identified in the east part of the site (Block 8) was a clay borrow pit (Feature 29) that might have provided a source for building material. Features in the north and western portions of the site (Blocks 3, 7) were either modern or non-cultural.

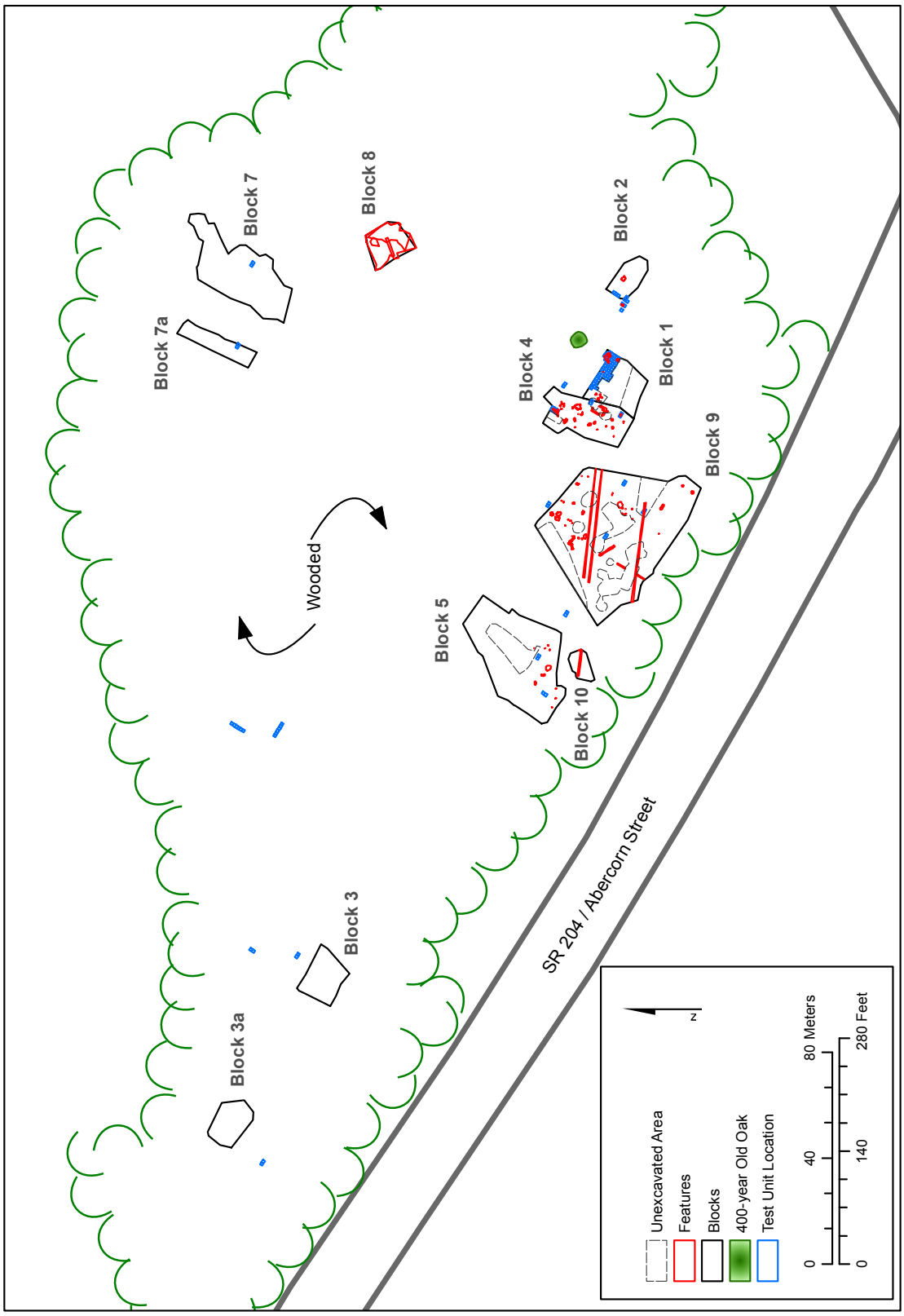


Figure 43.
Cultural Features Identified at 9CH1205

Figure 44.
Detail of Blocks 1 and 4 Showing Features

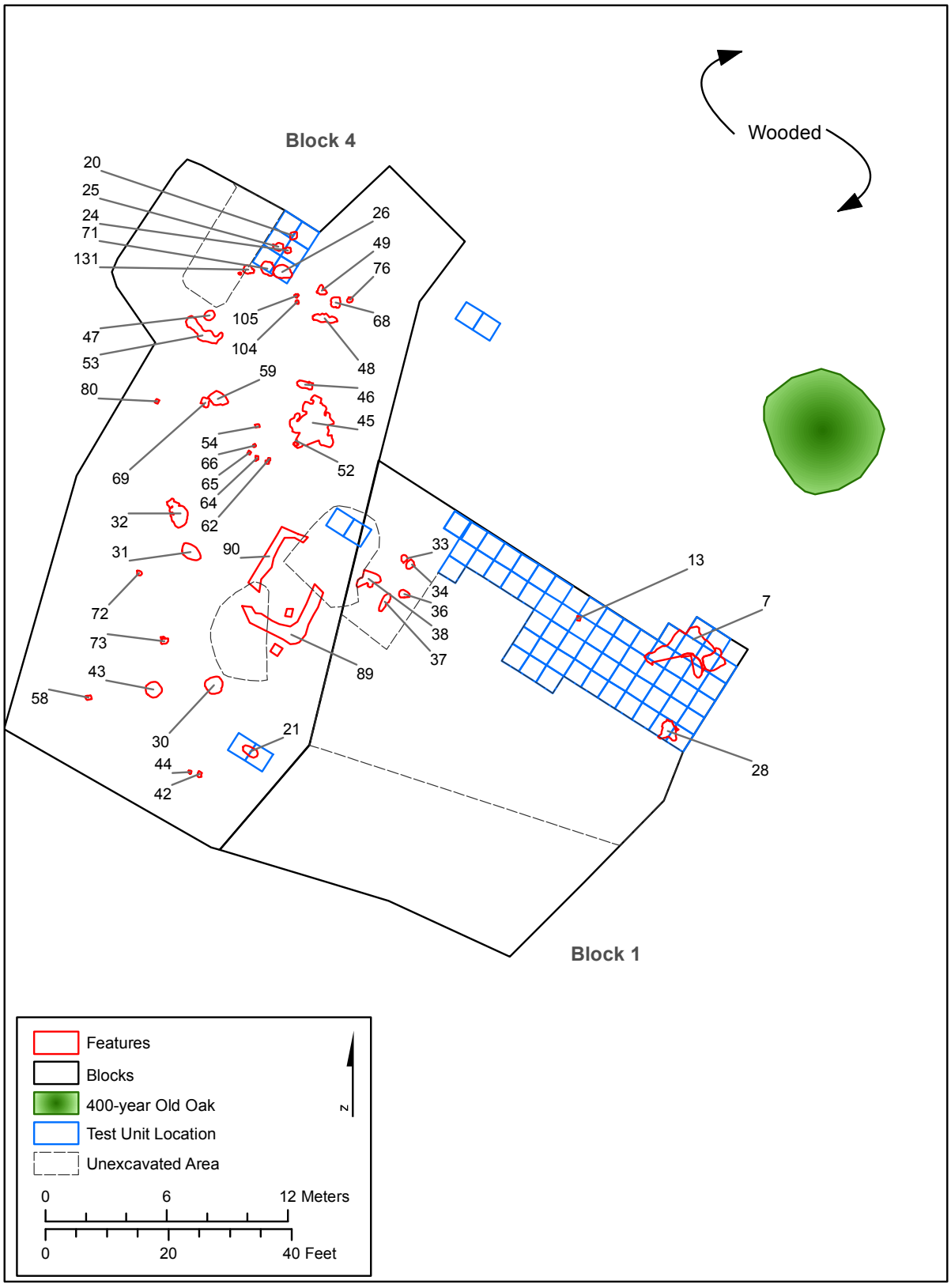


Figure 45.
Detail of Block 2 Showing Features

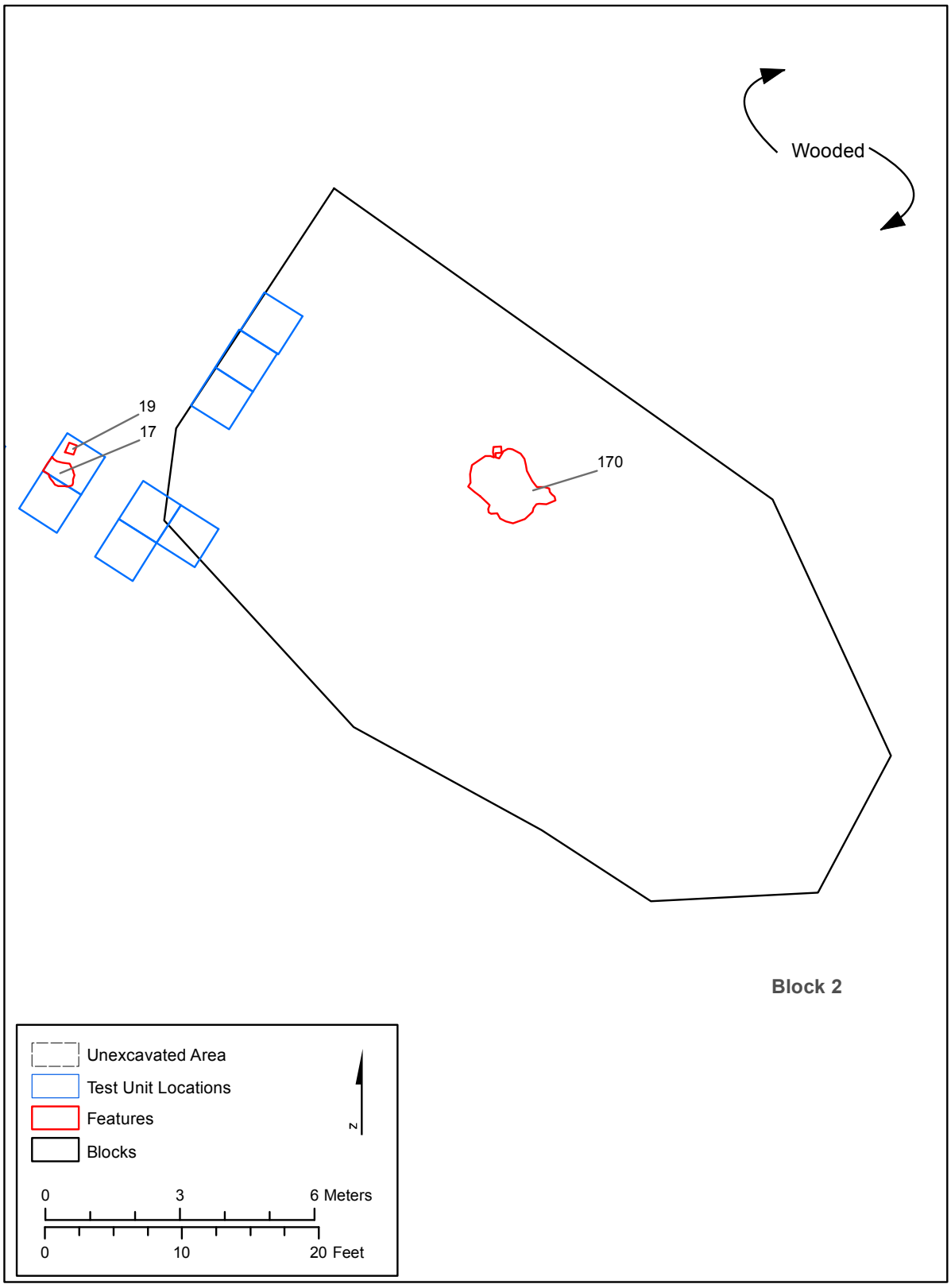


Figure 46.
Detail of Block 5 Showing Features

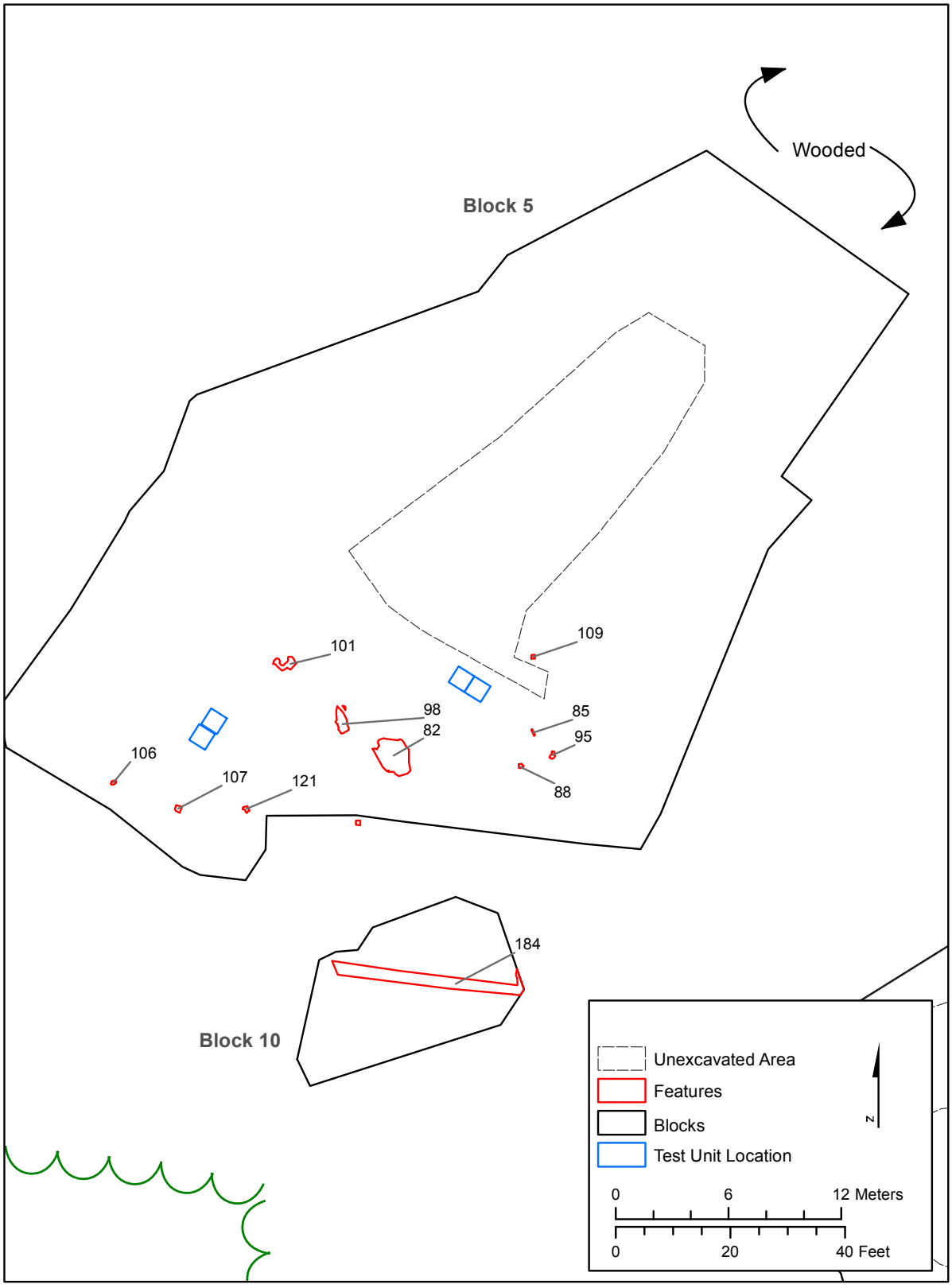


Figure 47.
Detail of Block 8 Showing Features

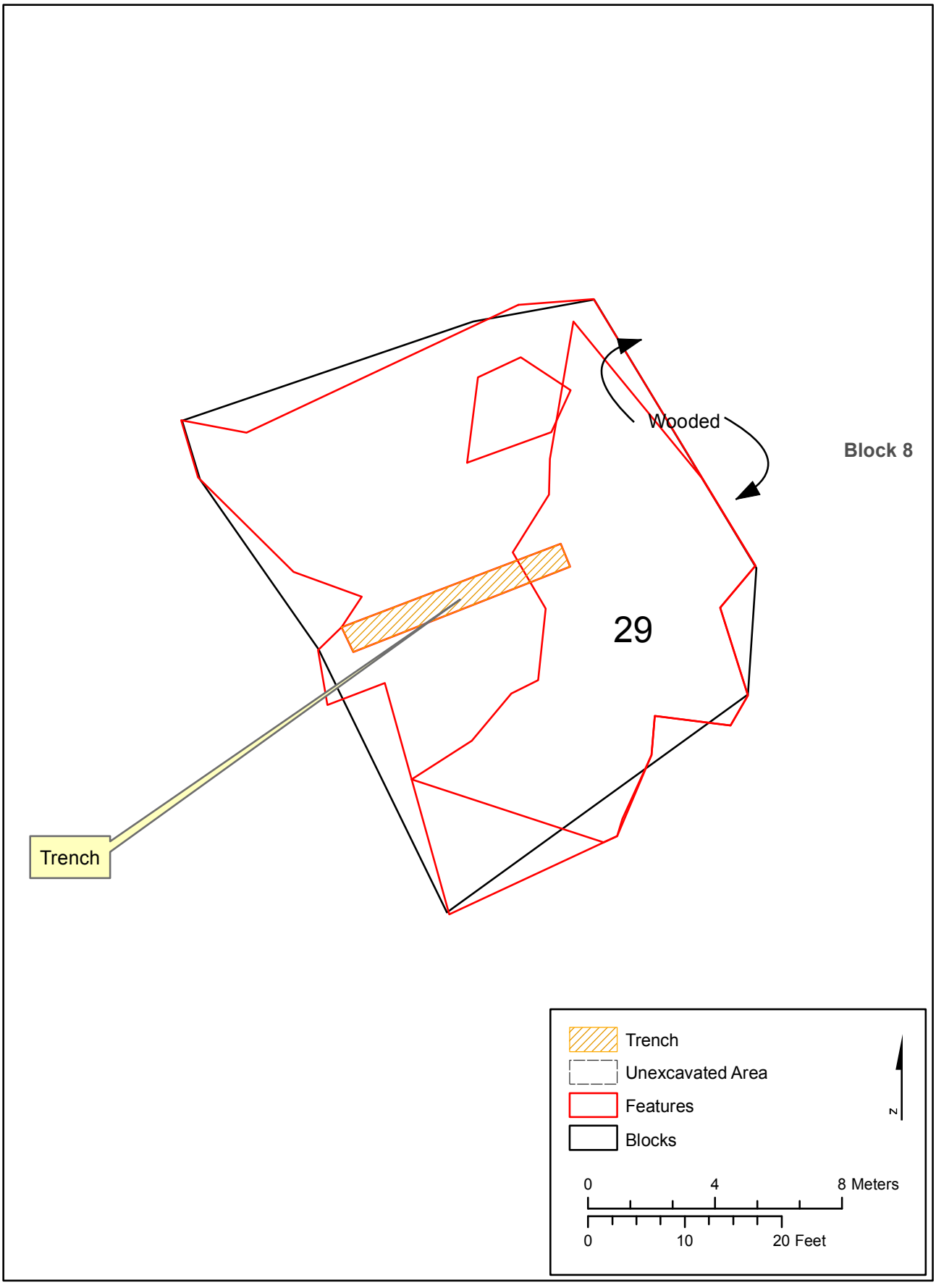


Figure 48.
Detail of Blocks 9 and 10 Showing Features

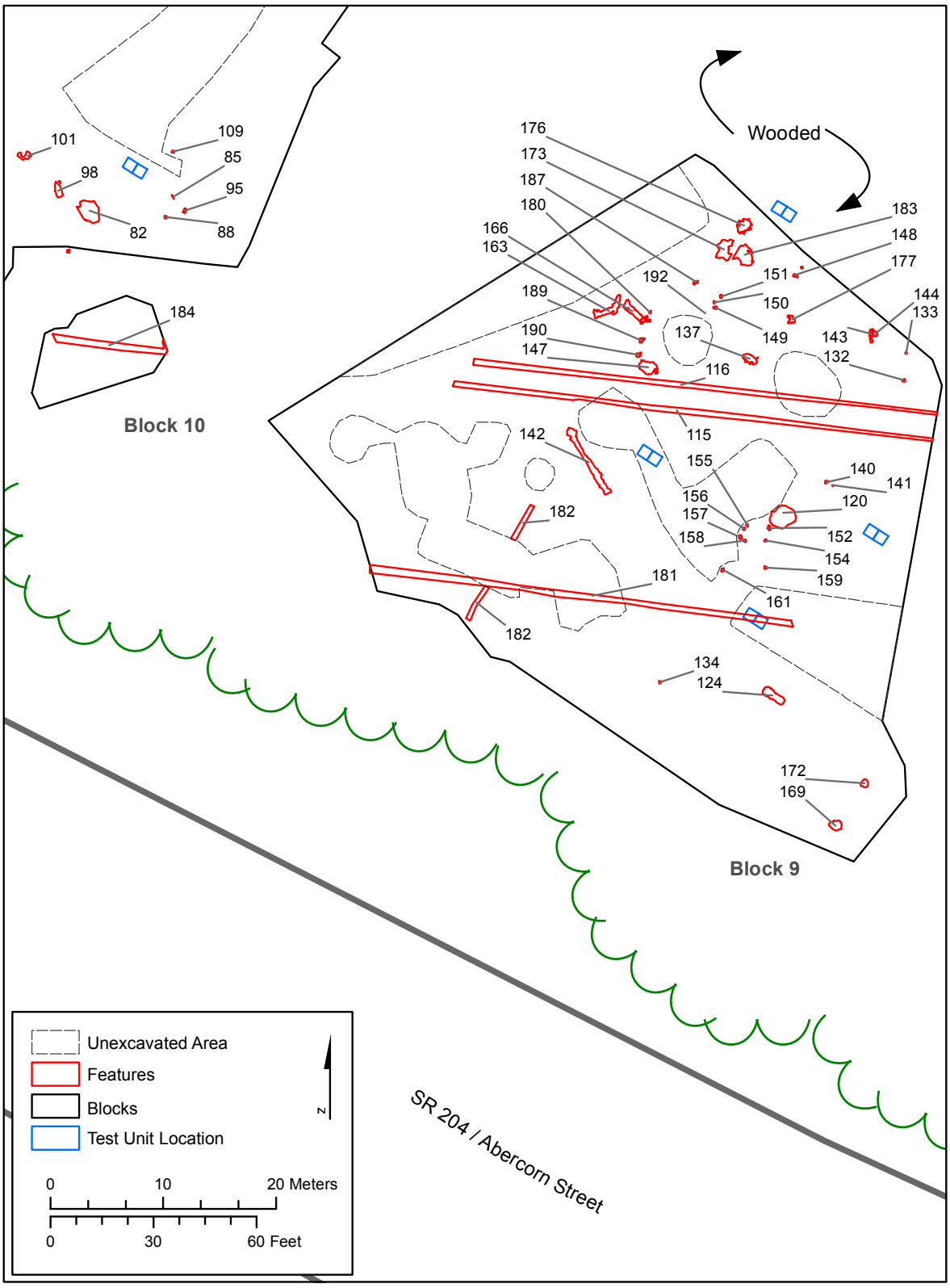


Table 17. Feature Distribution By Excavation Block

Excavation Block	Total Features
1 – Southeast part of site	14
2 – Southeast part of site	6
3 – West part of site	2
4 – Southeast part of site	80
5 – South-central part of Site	18
7 – North part of site	2
8 – East part of site	1
9 – Southeast-south central part of site	72
10 – South-central part of site	2
Total	197

The features reflected a general range of domestic activities that could be expected at an antebellum or postbellum African American settlement. Pit features, including both larger storage pits and smaller indeterminate pits scattered around structures, are characteristic of these types of occupations (Joseph 2007:103). Of the pits, six were interpreted as potential storage features, while 12 additional pits did not exhibit obvious functions.

Architectural remains included chimney bases, wall trenches, and posts. Two brick chimney bases (Features 82 and 173) were identified, one of which was associated with remnants of a possible brick pier (Feature 176). Both were double-sided, indicating probable two-room structures. Directly associated architectural features, such as posts or wall trenches, were not obvious in the field and therefore the overall size of these structures is not known. A third structure was defined on the basis of wall trenches (Features 89 and 90) with associated posts. This structure measured roughly 3.3x4.2 meters (10x13.7 ft.). No hearth was found with it. Excavation of the trenches produced few artifacts, suggesting the trenches were dug during the earliest occupation of the site.

Although no additional structures were identified from direct evidence, the storage pits might be interpreted as potential house locations, as these types of features were often placed below the floors or in house yards. Features 7A, 38, 120, 124, 147, and 170 were identified as possible storage pits, with only Feature 38 being directly associated with a structure (the building delineated by Features 89 and 90). Feature 170 had no associated structural features, although metal detector survey suggested a nail concentration in its vicinity. Thus, storage features potentially indicate five buildings in addition to those known from structural remains.

Posts were the most numerous feature type identified during the data recovery. Although no clear outlines of buildings or enclosures were delineated in the field, clusters of posts with associated pits and other features suggested the locations of structures or additions to structures.

Additional feature types included seven linear ditches or trenches (Features 112, 116, 142, 166, 181, 182, 184). These were generally less than 1.0 meter wide and extended for a minimum of 3.0 meters, with some being considerably longer. Sample excavations indicated rounded bases filled with matrix similar to the overlying plow zone. Maximum depths below the base of the plow zone were about 20 centimeters. These were arranged individually or in parallel pairs, and were very straight except for one with a right angle. Also, they lay at varying orientations and generally did not intersect. Finally, they were larger than the typical plow scars found at the site and were oriented at different angles than the predominant plowing directions. The function(s) of these features is not yet known.

Another feature type consisted of midden residue, consisting of amorphous deposits of dense oyster shell with lower amounts of other artifacts. The majority of the midden had been incorporated into the plow zone, leaving deposits preserved at the top of the E horizon. Two areas of midden were identified: one in Block 4 immediately west of the large oak tree in an area with numerous postholes, and another to the southwest in Block 9 in the vicinity of a storage pit (Feature 147). The midden deposits thus appear closely associated with potential structures.

In summary, numerous features were found that can be associated with a domestic settlement dating to the antebellum and postbellum periods. Evidence for structures, storage, disposal, and other activities provide data that can be used to interpret and understand aspects of plantation landscape, village organization, and slave/Freedmen housing.

No features were identified that could be directly related to a Civil War military occupation. The presence of Union Army troops at the site was indicated by a moderate number of military items, such as minie balls, shot, and uniform buttons recovered during the metal detector survey. Excavation did not produce any features directly reflecting a military camp, indicating that any archaeological evidence of the encampment was shallow and likely incorporated into the plow zone. Moreover, too few artifacts were recovered to make significant inferences about the material culture of the Union Army.

IX. FEATURE DESCRIPTIONS

Brad Botwick

Including those identified during the Phase I/II study, excavation at 9CH1205 recorded and investigated 206 features. For description and analysis, the features were grouped into nine categories based on function if identifiable (e.g., architecture) or by form/description (e.g., hearth, pit) (Table 18). Six of the nine categories (Architecture, Hearth, Pit, Storage, Midden Residue, and Ditch/Trench) reflected the historic occupation and activities at the site. Three categories (Indeterminate, Modern, and Non-cultural) either could not be assigned specific functions, post-dated the historic occupations, or represented natural processes.

Table 18. Total Features, Including Phase I/II

Feature Type/Category	Total
Architecture	71
Hearth	2
Pit - Indeterminate	12
Storage	6
Midden Residue	10
Ditch/Trench	8
Indeterminate	17
Modern	4
Non-cultural	76
Grand Total	206

Of the features that could be assigned specific functions, those representing the Architecture group were most common followed by indeterminate pits, residual midden deposits, ditches/trenches, storage features (mostly large pits), and hearths. Indeterminate features, which include cultural features whose function was not clear, were also common. The largest group of features was determined to reflect non-cultural processes such as tree roots and animal burrows.

The following sections organize individual feature descriptions by group. Appendix D contains a complete list of features by number with additional tables providing feature number by functional group and provenience. Descriptions include information on the feature's physical condition, location, and relationship to other features, if appropriate. Detailed artifact descriptions are also provided to support dating and functional interpretations. Information on

special material categories (pollen/phytolith, macrobonical, and zooarchaeological) is also provided where available (soil samples were submitted for special analysis if they were thought to be particularly relevant to the overall analysis; features that could not be associated to particular loci or assigned functions were omitted from such studies).

ARCHITECTURE-RELATED FEATURES

Architecture-related features include examples providing direct evidence of buildings or structures, as well as examples reflecting presumed raw material acquisition for construction materials. Thus, a clay borrow pit was placed in this group. Seventy-one features placed in this group include chimney bases, foundation trenches, posts, a possible brick pier, and the clay borrow pit (Table 19). Several structures were identified on the basis of architecture-related features, and these received number designations in sequence during the analysis (and therefore structure numbers do not follow the feature numbering).

Table 19. Architecture-Related Features

Feature Type	Feature Numbers	Total
Chimney Base-Brick (Two Structures)	82, 173	2
Pier (Possible)	176	1
Foundation Trench (One Structure)	89a, 90	2
Borrow Pit	29	1
Posts	See Table 14	65
Architecture Total		71

BRICK STRUCTURAL REMAINS

Feature 82, Brick Chimney (Structure 1)

Feature 82 represented the bottom course of an H-shaped brick chimney base. Located in Block 5, the feature was exposed by machine-assisted plow zone removal. Clearing the overburden produced a relatively dense deposit of domestic and architectural artifacts before the chimney base was reached. Exposure of the top of the subsoil revealed a concentration of brick fragments embedded in residual plow zone matrix of brown (10YR 4/3) silty sand. Hand-excavation exposed in-situ bricks representing the northwest half of the chimney; the southeast half was missing but was indicated by a grayish brown (10YR 5/2) ghost in the pale yellow (2.5Y 7/3) subsoil whose shape matched the extant half. The feature lay below approximately 20-25 centimeters (0.7 ft.) of plow zone and had been disturbed by a deep plowscar (Feature 100) (Figures 49 and 50).

Figure 49.
Feature 82 Plan

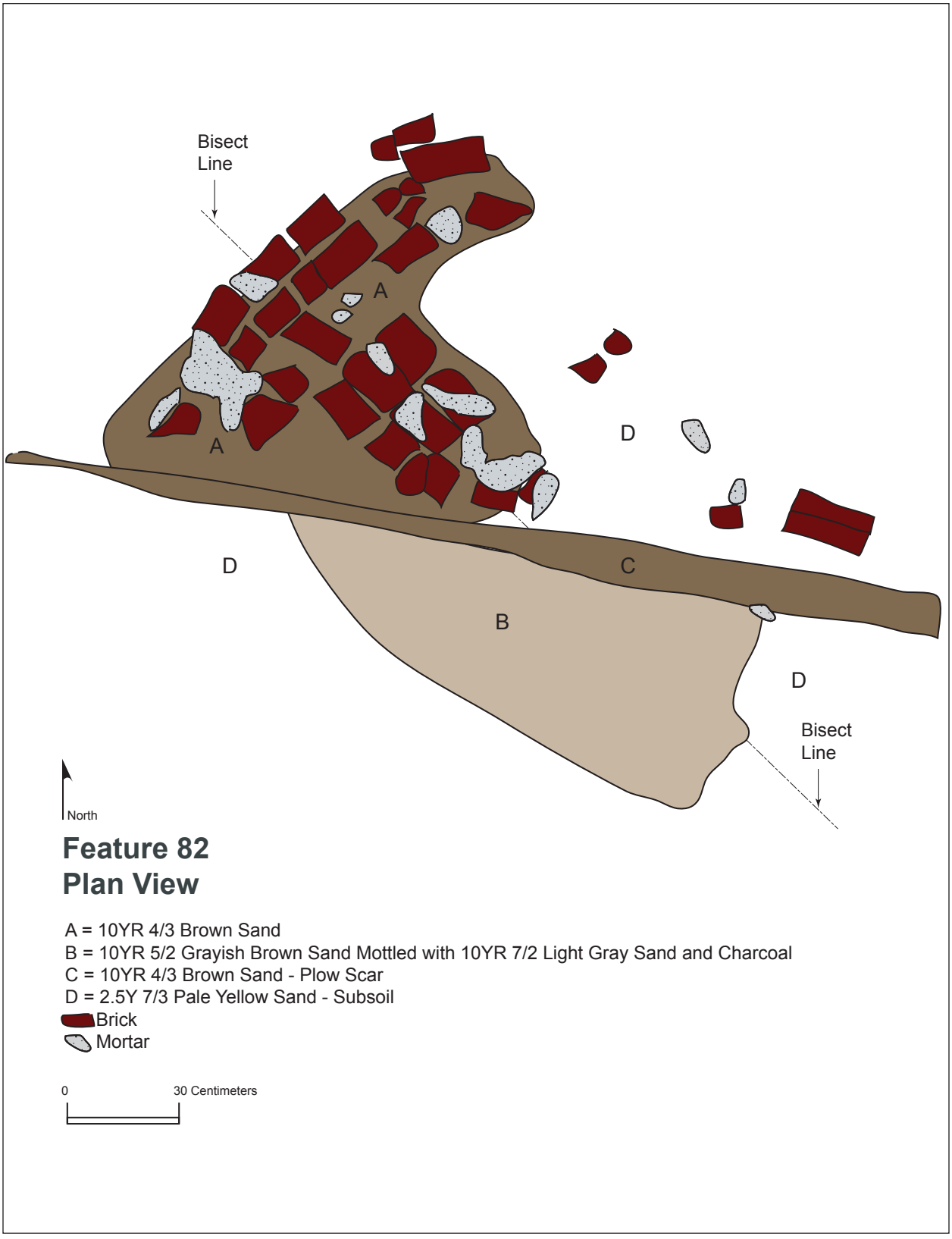


Figure 50.
Photographs of Feature 82

A. Feature Exposed at Base of Plow Zone

B. After Cleaning

The feature's H shape indicated it combined two fireplaces facing opposing rooms with a shared wall. It measured approximately 1.7 meters (5.6 ft.) long on the exterior and about 1.25 meters (4.1 ft.) wide, which included the combined sides of the fireboxes and the width of the shared back. The extant sides measured 40 centimeters (1.3 ft.) wide and the central back 35 centimeters (1.1 ft. wide). The fireplaces were projected to measure about 90 centimeters (3.0 ft.) wide and 40 centimeters (1.3 ft.) deep. Although a number of bricks remained articulated and mortared in place, the feature was missing numerous elements and its size can only be estimated. Only one extant course of brick remained and no builder's trench or foundation pit was noted. The only possible associated cultural matrix found was a deposit of grayish brown (10YR 5/2) sand mottled with gray (10YR 7/2) sand and charcoal on the southeast portion of the feature, which was interpreted as possible fireplace ash residue.

The long axis of Feature 82 was oriented at an angle of approximately 145 degrees east of true north, with the fireplaces facing northeast and southwest. The bricks were hand-made, with representative examples measuring about 21.6x11.4x7.6 centimeters (8.5x4.5x3 in.).

Artifacts found in association with this feature include items recovered during hand-cleaning of the feature and a grab sample of materials obtained during machine-stripping. Artifacts found directly in association with the feature provided a TPQ of 1842, based on one ironstone sherd. Only six dateable ceramic fragments were recovered from the feature, so no MCD was calculated. Because Block 5 essentially covered a single occupation represented by Feature 82 (Structure 1) and associated yard areas, artifacts recovered from two test units in Block 5 and the grab sample were grouped together to obtain a larger sample for dating and functional analysis.

The expanded assemblage totaled 1,410 historic artifacts, which were categorized into the kitchen, architectural, clothing, personal, arms, tobacco, and miscellaneous groups. The architecture group was the largest, having 74.96 percent of the total. The kitchen group, with 18.79 percent of all artifacts, was the next largest, followed by miscellaneous artifacts (4.89%). None of the remaining groups comprised more than 1.0 percent of the entire assemblage (Table 20).

Table 20. Feature 82, Associated Units, and Block 5 Plow Zone Stripping Artifact Groups

Artifact Group	Count	%
Kitchen	265	18.79
Architecture	1,057	74.96
Clothing	2	0.14
Miscellaneous	69	4.89

(Continues)

(Table 20, Continued)

Artifact Group	Count	%
Personal	1	0.07
Arms	2	0.14
Tobacco	5	0.35
Activities	9	0.64
Total	1,410	100.00

Chronologically diagnostic artifacts in this sample provided a TPQ of 1868, based on two pieces of celluloid. An MCD calculated from 82 datable sherds was 1871.4. Although these materials do not provide a date for the construction of Feature 82, they indicate the structure was occupied after the Civil War. The postbellum MCD likely reflects the prevalence of whiteware (n=66), which has a lengthy manufacturing date range (1830-1950[1]) and would tend to skew the date toward a more recent one. The assemblage contains five pearlware sherds (manufactured 1780-1840), which could reveal an occupation beginning during the early part of the nineteenth century. Nevertheless, the presence of several artifacts with beginning dates in the 1840s or later, including one ironstone sherd (beginning date of 1842), one bottle base with an iron pontil scar (1845), two Prosser buttons (1840), and one firing cartridge (1846) indicates that occupation in this locus might have begun during second quarter of the nineteenth century.

Having said that, if the area was occupied late into the nineteenth century, a greater number of artifacts common during this period would be expected. Ironstone, for example, should be more common. Its paucity here could indicate that this locus was not used for long after the 1868 TPQ.

The individual artifact groups provide additional data on occupation associated with Feature 82 (Structure 1). The largest group, architecture, is mostly brick fragments (n=857; 81% of all architecture). Identifiable examples (n=33) were handmade. The group also contained 95 nails, of which one was identified as cut with a hand-finished head and 54 were cut (beginning date 1805). The remainder was indeterminate. Other metal hardware included one tack, six spikes, and one iron butt hinge. The architecture group also contained 90 fragments of mortar, 22 containing crushed shell as an aggregate, and one piece of slate that was tentatively identified as roofing material.

[1] Whiteware remains in production to the present. For this study, however, the end date for whiteware and all artifacts that remain in production was set at 1950, by which time any historical use of Site 9CH1205 had stopped.

The kitchen group contained mostly glass (n=136; 51.3% of all kitchen). In addition to 11 pieces of bottle glass, the group was composed of 124 container glass fragments in various colors and one tableware fragment, which consisted of a large piece of a heavy-bodied, clear, press-molded hollowware vessel. The extant decorative motif suggest multiple rows of flutes or facets, while the overall form and pattern could not be determined.

Selected glass bottle fragments are also worth further description. Two bottle finishes could be described and provisionally dated. One reflecting a finish formed with a finishing tool was dark olive and conformed to Jones' (1986) Group 3C finish, which Jones dated to roughly between the 1820s and the 1920s (Jones and Sullivan 1985:43). The second example was light olive, and reflected Jones' Group 1 finish with a laid-on string rim. Lindsey (2013) stated this type generally pre-dates 1860.

Three bottles with embossed marks were in the assemblage. One nearly complete light aqua cylindrical example was made in a two-piece mold and was marked "JAMES RAY/SAVANNAH/ GA" (Figure 51). According to *The Industries of Savannah*, Ray operated a soda water business in Savannah between 1867 and 1885, before establishing the firm Ray & Quinan (J.M. Elstner & Co., Publishers 1886). Presumably, this bottle dates to the period when he operated solo. Another bottle fragment in the assemblage, a dark olive spirit base, was embossed inside the push-up with "I/B/L" or "B/L" with an indeterminate symbol. A specific identification for this mark could not be found. The ceramic assemblage, as noted, was composed mostly of whiteware (n=66). Additional datable types include pearlware (n= 6), ironstone (n=1), yellowware (n=3), and stoneware with alkaline glaze (n=2) and cobalt decorations (n=1). Other ceramic types include porcelain (n=10), including seven identified as oriental export, refined red stoneware with dark brown glaze (n=1), stoneware bottles (n=2), indeterminate redware and stoneware (n=3), and indeterminate refined earthenware (n=2). The remainder of the kitchen group consisted of faunal material, bone (n=26) being most common, while shell (oyster: n=2; indeterminate: n=4) was rare.

The clothing group contained only two porcelain Prosser buttons. The personal group consisted of one glass item tentatively classified as jewelry. This object was a fragment of a larger piece. It is solid purple in color, and flat with chamfered corners and beveled edges. The extant piece measures 21.4 millimeters (0.8 in.), but originally was longer. The width is 19.9 millimeters (7.8 in.) wide, and the thickness is 2.4 millimeters (0.1 in.). Although identified as jewelry, this item could also have been an inset from a furnishing or decorative houseware.

Figure 51.
Selected Artifacts from Feature 82

A. Soda Water Bottle Embossed "JAMES RAY/SAVANNAH/GA"; B. Press Molded Glass Tableware; C. Glass, Possible Jewelry or Furniture; D. Gunflint

The arms artifact group includes two items. One of these is a brass cartridge, which shows no indications of firing. The second arms artifact is a honey-colored gunflint, sub-rectangular and wedge-shaped, with maximum dimensions of 20x19x7 millimeters (0.8x0.7x0.03 in.). Its form indicates manufacturing through blade technology. The edges of the heel and sides appear to have been retouched. This attribute, along with the color, is indicative of French-made gunflints, which were the most common type in the United States until about 1800. Gunflints would have been an outmoded technology by the mid-nineteenth century, although they were not completely replaced until the 1880s (Kenmotsu 1990:93, 96, 99). Although found among materials that were somewhat later, the specimen here could relate to the site's earliest occupation, and would not be incompatible with the pearlware also found in this site area.

The activities group contained nine artifacts. Among these were one chimney glass fragment, five railroad spikes, four pieces of hardware, and the two plastic items noted above, which are small unidentifiable fragments. The hardware included two bolts, one nut, an iron loop, and a farm implement. This last item is notable, despite not being identified precisely. It measures 23 centimeters (9.1 in.) long and consists of a curving tooth or tine with a rounded socket at the opposite end.

The tobacco group consisted of five artifacts. Three of these were pipe bowl fragments, the other two were stem fragments.

Finally, three precontact artifacts were found. These include two flakes of Coastal Plain chert and one hammerstone, consisting of a quartzite cobble that has been battered at one end. It is not clear if this item reflects a precontact occupation or was collected or used by the site's nineteenth-century occupants.

Feature 82, in summary, reflects an occupation in the southeastern part of the site. No evidence of the associated structure was found, although it almost certainly represented a double house, which was a common type at regional slave quarters. The date of construction could not be determined, although artifacts associated with the feature and its general vicinity indicated it could have been built during the antebellum period, with occupation persisting to at least the 1860s. The artifacts reflect a general range of housewares and architectural materials.

Feature 173, Brick Chimney

Feature 173 comprised the second brick chimney base found at the site. This feature was exposed through machine-assisted stripping in Block 9 below approximately 30 centimeters (1.1 ft.) of plow zone. Like Feature 82, clearing Feature 173 encountered a local concentration of artifacts that were collected as a grab sample, while hand-cleaning the bricks provided an additional controlled sample.

The articulation and configuration of Feature 173 was less coherent than Feature 82, suggesting post-abandonment disturbance. Numerous plow scars crossed the feature and adjacent subsoil, indicating it had been exposed to more intensive disruption. It was evident, as well, that Feature 173 was built from extremely fragmentary bricks, suggesting they were salvaged. Only four or five complete bricks were found among the extant remains. Although most bricks were in pieces, they were arranged in a way that made it clear they represented an H-shaped chimney base.

The disturbed condition of this feature made precise measurements difficult. It stretched roughly 1.6 meters (5.2 ft.) long on the exterior and 1.3 meters (4.3 ft.) wide. The widths of the fireplace side and back walls are difficult to determine because of their poor condition, although one relatively coherent side wall measured 30-35 centimeters (about 1.0 ft.) wide and extended about 45 centimeters (1.5 ft.) from the back wall. The width of the fireplaces (between the two side walls) is estimated at about 70-75 centimeters (2.3-2.5 ft.). These measurements generally conform closely to those of Feature 82, implying the two features were built according to the same plan (Figures 52 and 53).

The long axis of Feature 173 is oriented at approximately 145 degrees east of north, which is also comparable to Feature 82 (145 degrees east) and further suggests the two structures followed a similar plan. The bricks were handmade, a complete example measuring 20.5x10.2x5.7 centimeters (8-1/16x4x2-1/4 in.).

Artifacts (n=286) associated with the feature included mostly architectural materials, which comprised 55.59 percent of the assemblage. Kitchen-related artifacts were also common, comprising 30.77 percent of the total. Miscellaneous artifacts comprised 7.69 percent but generally had little analytical value, while clothing-, tobacco-, and activities-group artifacts were minor parts of the assemblage (Table 21). Most of the non-architectural artifacts came from the residual plow zone overlying the feature rather than from contexts directly associated with the brick chimney or hearths.

Table 21. Feature 173 Artifact Groups

Artifact Group	Count	%
Kitchen	88	30.77
Architecture	159	55.59
Clothing	10	3.50
Miscellaneous	22	7.69
Tobacco	6	2.10
Activities	1	0.35
Total	286	100.00

Figure 52.
Feature 173 Plan

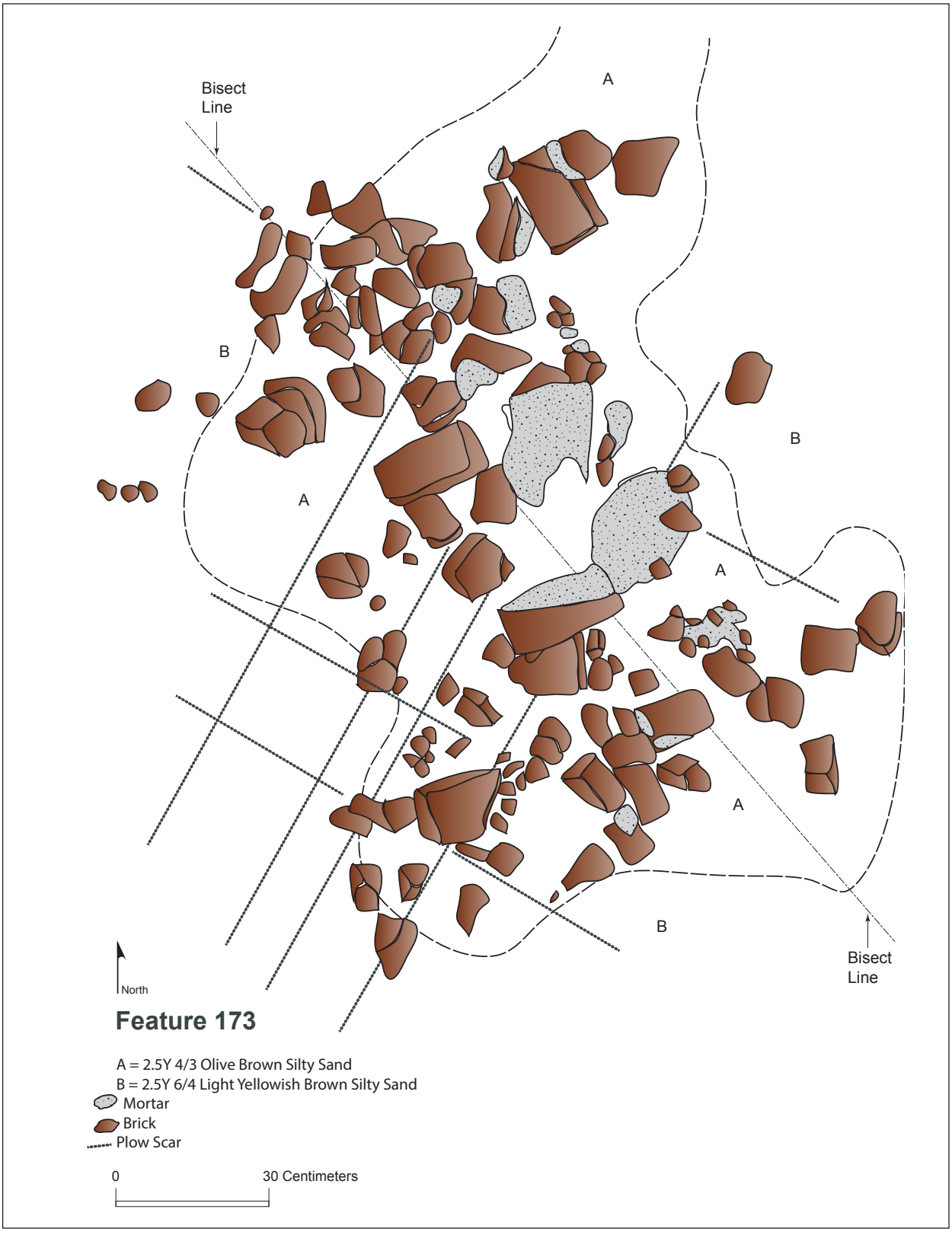


Figure 53.
Photographs of Feature 173

A. Feature After Residual Plow Zone Removed

B. Feature During Excavation with Features 176 (Foreground) and 183 (Left of Feature 173), Facing South

Only a small number of chronologically diagnostic artifacts were found associated with Feature 173. A sherd of unscalloped, impressed shell-edged whiteware provided a TPQ of 1841 (Miller 2000). Excavation also yielded a U.S. Army button, whose manufacturing date is unknown, but almost certainly arrived at the site with the Federal troops in 1864 or later. The MCD is 1880, but was derived from only 23 datable sherds, and this low count made the date uncertain. The MCD is probably skewed toward a later date by varieties of whiteware (n=19) compared to other ceramic types, although except for two pearlware sherds, early ceramics were not present. Nevertheless, whiteware has a long manufacturing date range beginning around 1830. In sum, there is not definitive evidence to suggest when Feature 173 was built, although given its location, its general resemblance to Feature 82, and what is known about the site's history, it is reasonable to conclude that the feature pre-dates the Civil War.

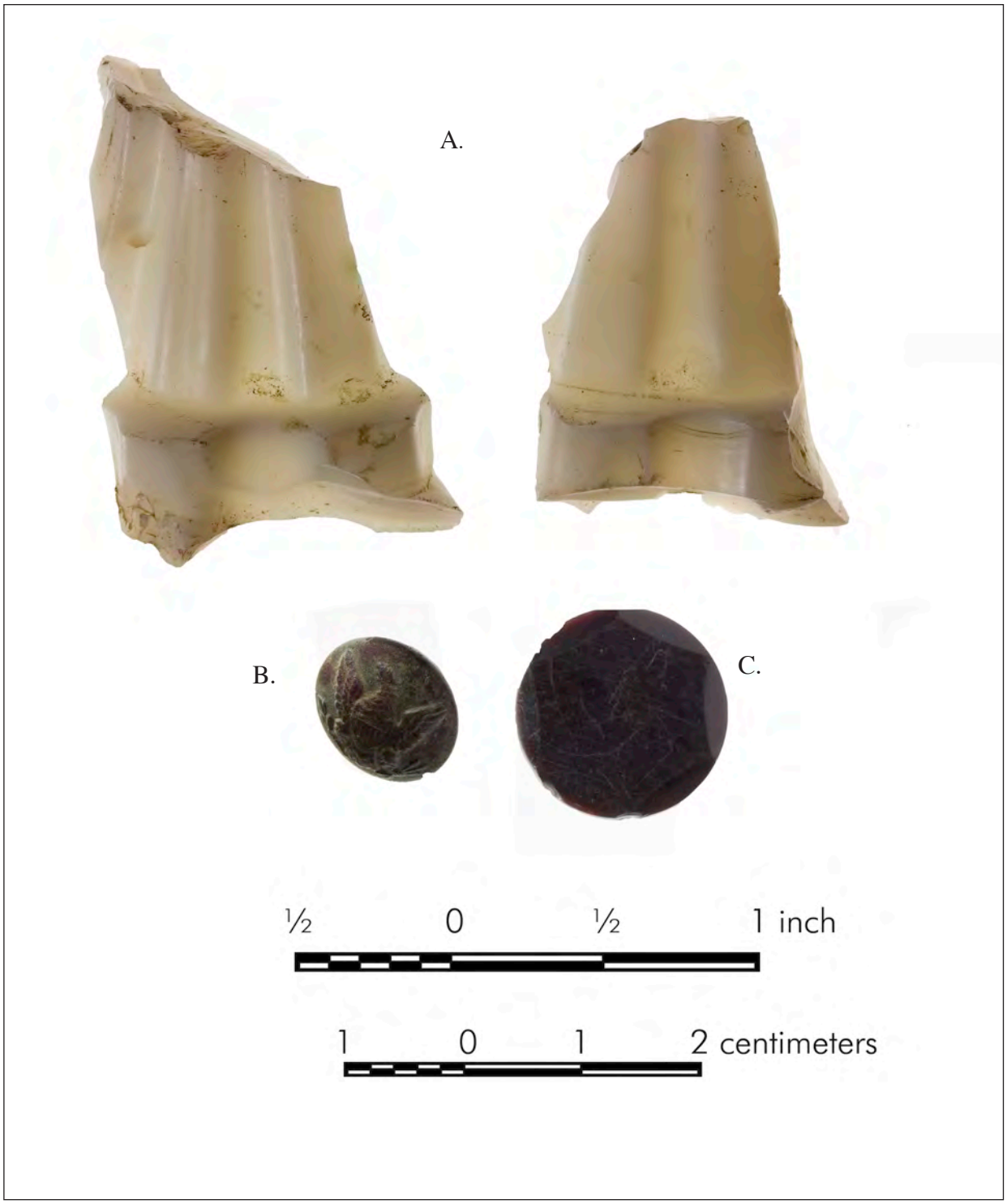
Other artifacts found in association with the feature mostly reflected the architecture and kitchen groups. In the architecture group (n=159), brick (n=88; 55.3% of all architecture) was most common. Only three specimens could be identified as handmade, while the balance was unidentifiable. Nails (n=40; 25.2% of architecture) were also prevalent. Two could be identified as cut, the rest were indeterminate. Architectural hardware also included one spike and one iron shutter dog. Finally, 27 fragments of mortar (17% of architecture), two containing crushed shell, were found along with a single fragment of slate, interpreted as roofing material.

Among kitchen group artifacts, ceramics (n=27; 30.7% of the kitchen group) and glass (n=26; 29.5%) comprised about equal proportions. In addition to whiteware (n=20) and pearlware (n=2), noted above, other ceramic types included alkaline glazed stoneware (n=1), stoneware bottle fragments (n=2), ironstone (n=1), and indeterminate earthenware (n=1). The glass consisted of container fragments of varying colors (n=23) and three fragments of opaque white glass tableware. Two of these fragments appear to be from the same vessel, and suggest a press-molded hollowware piece with ribbed/fluted sides.

The kitchen group also contained 30 bone fragments and four oyster shell fragments. Finally, the group included one ferrous utensil handle, most likely a fork or spoon.

The clothing group contained 10 items. Among these were nine buttons and one bead. Five of these were porcelain Prosser buttons of various sizes while another was a plain bone example with four holes drilled in a recessed center. Three buttons are notable for their material and/or form. The first of these is molded in an indeterminate material and colored opaque black. It has a flat surface and convex back that was molded around a now missing shank. The front has six beveled sections around the edges, which form a hexagon on the face. The diameter measures 18.1 millimeters (0.75 in.). The second specimen is a glass or porcelain gaiter, also in black. It has a ferrous shank molded into the back, and the diameter is 8.0 millimeters (0.03 in.) (Figure 54).

Figure 54.
Selected Artifacts from Feature 173



A. Pressed Glass Tableware
B. Federal Army General Service Uniform Button, Brass
C. Button, Synthetic Material

The third example is a two-piece cuprous Federal general service button, the front being domed and showing the American eagle and shield symbol. The reverse retains its shank and is stamped "SCOVILLS & CO./EXTRA." The button's diameter measures 13.6 millimeters (0.05 in.). The Scovill Company operated under several names as partnerships shifted. The button business was set up separately as Scovills & Co. in 1839 and operated until 1850 when all the holdings were re-incorporated into Scovill Manufacturing Company. The mark on this button thus dates to the period between about 1840 and 1850 (Emilio 1911:29, 31). However, antiquarian and collectors' websites point out that Scovill often used old backmark dies and so do not provide precise dates for manufacturing (e.g., Inkspot Antiques & Collectibles 2013). This button, therefore, related to Civil War military activity at the site or recycling of clothing after the war. The word "EXTRA" probably represented a term such as "Extra Fine" or "Extra Rich." Gilt buttons were supposed to contain 1/96th of an ounce of gold per 1-inch button. Buttons marked "Double Gilt" and "Treble Gilt" implied a quantity of gold added beyond the standard. Terms such as "Rich" and "Extra Rich" were promotional more than a true indication gold content (Luscomb 1967:79).

The last clothing group artifact was a round glass bead conforming to Kidd and Kidd's (1972) Category IIa, being a plain round, green-colored glass. The diameter measured 11.7 millimeters (0.046 in.), with slightly flattened sides at the bore.

The tobacco group from this feature included six pipe bowl fragments. Three of these were molded with miscellaneous motifs, and the other three were plain. The activities group contained one artifact, a cuprous metal strip, bent at approximately two-thirds of its length, measuring 7.24 centimeters (2.9 in.) long and 1.16 centimeters (0.5 in.) wide. The front was impressed with a floral design on a stippled background, while the back is plain. Rivets at either end indicated this piece was intended for mounting as a decorative element.

The miscellaneous group associated with Feature 173 contained 22 artifacts, all but one of which was indeterminate ferrous material. One non-ferrous item was a cuprous sheet metal fragment with a punched or perforated rounded end.

Another artifact of note was a precontact hafted biface recovered from the residual plow zone associated with Feature 173. Reflecting a Late Archaic stemmed variety of Coastal Plain chert, this specimen was nearly complete, with only the tip missing, and measured 67.4x20.3x8.9 millimeters (2.7x0.8x0.35 in.). Although presumably manufactured between 3,000 and 5,000 years ago, the presence of this artifact in a nineteenth-century context associated with African Americans suggests it might have taken on a different meaning. As noted previously, precontact lithic implements have been recovered from African American contexts at several sites in the eastern United States. Archaeologists have interpreted these finds as charms or other accouterments related to the spiritual realm of African Americans (Wilkie 1995:143).

In addition to the artifacts described above, a small assemblage of 39 artifacts was collected during machine stripping in the northwest area of Block 9 that were tentatively associated with Feature 173 because the feature appears to reflect the sole occupation in this location. Most of these artifacts reflected similar materials to those described above, although because they consisted of a grab sample, the relative proportions were different. Architecture artifacts were less common, and encompassed only three items, including a fragment of slate interpreted as roofing material. The kitchen group included 12 ceramic sherds and 10 glass fragments. Among the ceramics were pearlware (n=1), porcelain (n=1), whiteware varieties (n=6), yellowware (n=1), and stoneware (n=2), including a bottle fragment. The glass consisted of bottle and container fragments.

Clothing artifacts included 11 items, 10 of which were porcelain Prosser buttons in varying sizes. The last button was a two-piece cuprous metal type with a ball top and a flat back. The back is stamped "EXTRA/RICH." As discussed above, marks such as these were most often promotional. The button measured 13.3 millimeters (0.05 in.) in diameter.

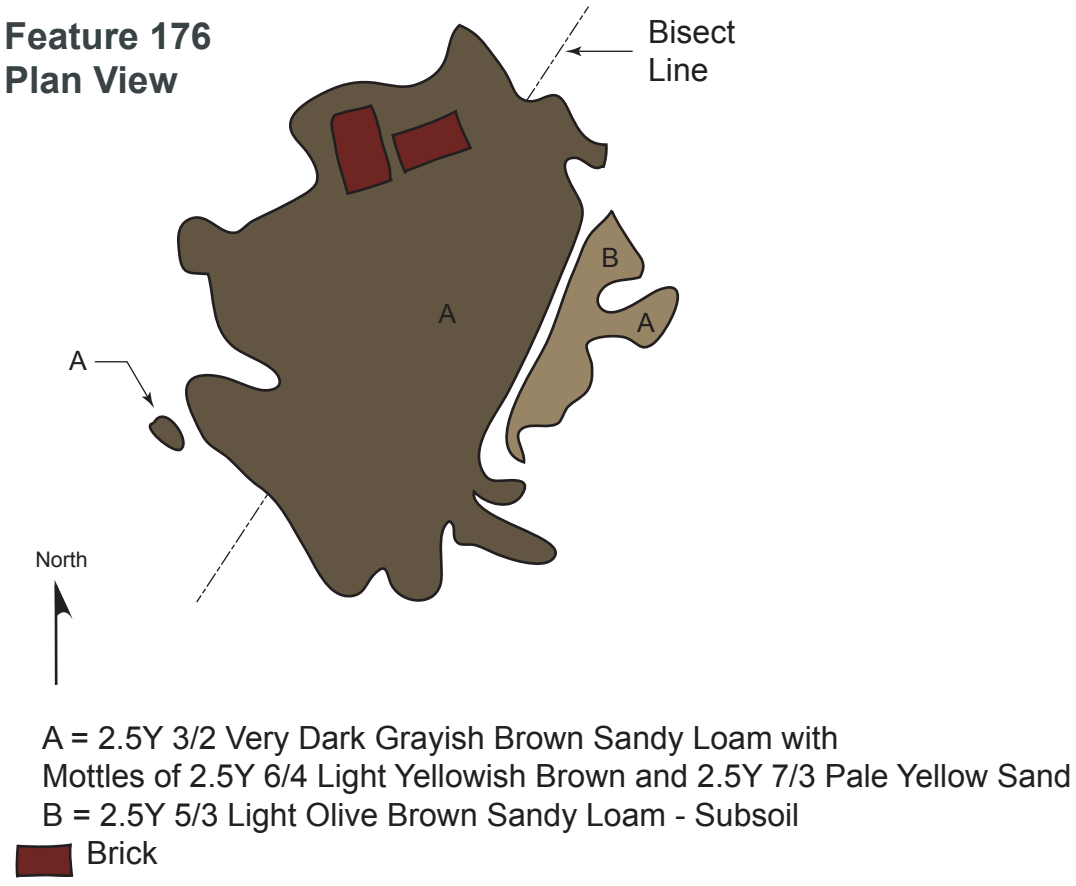
One final item to note is a small opaque white quartz pebble measuring 19x14x6.5 millimeters (0.7x0.6x0.03 in.). Although not modified or obviously utilized, such pebbles were not generally found through ¼ screening, raising the possibility that this item reflected a manuport. Like the projectile point described above, this item might relate to the spiritual world of the site's occupants, or could represent a game piece or counter. The single instance of such a find, however, makes any interpretation as cultural problematic.

Like Feature 82, Feature 173 represented the central chimney of a duplex house. Also as in the case of Feature 82, no clear evidence of the structure surrounding the chimney was located in the Feature 173 vicinity, indicating that both were possibly constructed of similar material (most likely frame or log). No conclusive dates for the construction of Feature 173 were determined, although it is probable that it was built and occupied initially before the Civil War, with occupation continuing through the postbellum period. Artifacts were generally sparse, but were consistent with a domestic occupation.

Feature 176, Brick Pier

This feature represented the apparent remnant of a brick pier located 1.25 meters (4.1 ft.) north of Feature 173 in Block 9. The feature consisted of two abutting bricks with an associated soil anomaly. The amorphous soil stain, measuring 1.4x1.1 meters (4.6x3.6 ft.), was very dark grayish brown (2.5YR 3/2) sandy loam with few mottles and spots of light yellowish brown (2.5Y 6/4) and pale yellow (2.5Y 7/3) sand (Figure 55).

Figure 55.
Plan and Photograph of Feature 176



Excavation revealed the soil anomaly was shallow and uneven at its base. It reached a maximum depth of 20 centimeters (8 in.) below the graded surface and consisted of a single stratum. The stain most likely reflected an irregular interface between the plow zone and subsoil. The two bricks were mostly complete, handmade, and measured 20x11 centimeters (8x4 in.). They lay flat and were attached with mortar, one abutting the other's long face with its head. Presumably others would have been present, and traces of mortar were noted on the face of one, but no other remains of the pier were found.

The location of this feature with respect to Feature 173 suggested it functioned as a pier to the building surrounding the chimney. The distance between the two features is short, but assuming a pier to the south (none was found, although postholes were in this area), the width of the structure would be about 2.5 meters (8.2 ft.), small for a slave house, which were generally wider during the nineteenth century (Wheaton et al. 1983:207). It is possible, too, that the pier was not at the outer edge of the building or that it actually reflected misplaced bricks rather than a structural element. The complete absence of brick piers associated with Features 173 and 82 makes this last interpretation a strong possibility.

Excavation of this feature yielded a moderately sized assemblage of 159 artifacts, most of which (n=86) were brick fragments and unidentified nails (n=36). A single ironstone sherd provided a TPQ of 1842. Only three ceramic sherds were datable, and therefore no MCD was calculated. The other sherds included two pearlware fragments and a salt-glazed stoneware sherd. The chronological information from this feature was not extensive but it was consistent with that of Feature 173, suggesting similar depositional histories.

FOUNDATION TRENCHES: FEATURES 89 AND 90 (STRUCTURE 3)

Machine-assisted excavation of Block 4 exposed Features 89 and 90, representing sections of wall foundation trenches with associated postholes/molds. These reflected a single structure (Structure 3), although mature trees prevented fully exposing it. The projected size of the structure measured approximately 4.5x3.2 meters (14.8x10.5 ft.), with its longer sides oriented roughly northwest to southeast (Figures 56 and 57).

Feature 89 included roughly 1.4 meters (4.6 ft.) of the south and east walls, including the southeast corner. The section of the structure that Feature 90 represented included a 3.3-meter (10.8-ft.) long segment of the west wall and 1.1 meters (3.6 ft.) of the north wall. Wall thickness was between 25 and 30 centimeters (10-12 in.). The soil matrix of the features consisted of brown (10YR 4/3-5/3) loamy sand that was heavily mottled with dark grayish brown (10YR 4/2), dark yellowish brown (10YR 4/4), yellowish brown (10YR 5/4), pale brown (10YR 6/3), very pale brown (10YR 7/3-7/4), and light gray (10YR 7/2) loamy sand.

Figure 56.
Plan and Profiles of Features 89 and 90

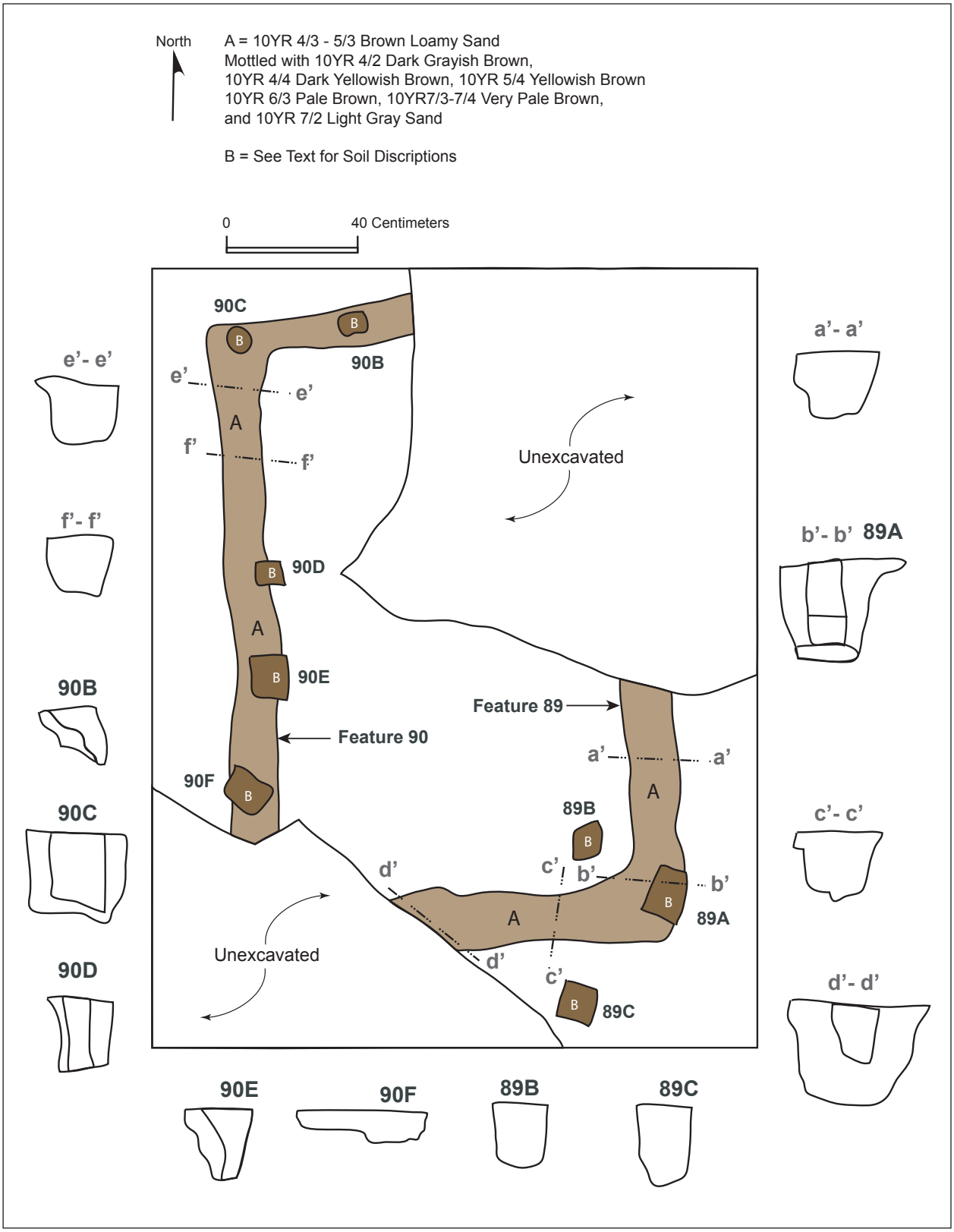


Figure 57.
Photographs of Features 89 and 90

A. Features 89 and 90 Exposed at Base of Plow Zone

B. After Excavation

Cross sections of Feature 89 revealed straight to slightly tapering sides with a flat to slightly rounded base (Figure 58). Depths ranged from 22-35 centimeters (9-14 in.) below the stripped surface (roughly 50-60 cm [1.6-2.0 ft.] below surface), revealing that along its linear axis, the base of the feature undulated slightly, with the deepest point being at the southeast corner. Depths for Feature 90 were within the same parameters, although in general the base of this wall section was more consistently at a depth of about 20-25 centimeters (8-10 in.), with the only point where it extended deeper being the northwest corner. Here the maximum depth below the graded surface was 32 centimeters (13 in.).

Feature 89, Sub-features

Several associated sub-features were identified that represented posts or post-molds. Two such sub-features were identified within Feature 89 and two additional posts (Features 89B and 89C) were outside, but adjacent to, the trench. Of the two features identified inside the trench, one was at the corner of the two walls and was indicated by a roughly 20x10-centimeter (8x4-in.) patch of dark yellowish brown (10YR 4/4) loamy silt mottled with yellowish red (5YR 4/6) clay at the exposed surface. Bisection revealed a possible post mold measuring 10-centimeters (4-in.) wide that reached a depth of 29 centimeters (11-in.) below the graded surface, at which point it gave way to a deposit at the base of the trench consisting of dark grayish brown (10YR 4/2) loamy silt with yellowish brown (10YR 4/4) mottles. The upper portion of the post mold matched the soil noted at the surface, but approximately half way to its base, the soil changed to dark yellowish brown (10YR 4/4) loamy silt. This change might indicate the post was removed and the hole filled with mottled dark yellowish brown loamy silt and yellowish red clay found at its surface. The soil matrix adjacent to the post mold matched the general trench fill.

A second posthole/post mold was excavated at the southwest terminus of Feature 89 where it met the unexcavated overburden. The trench here expanded to a width of 40 centimeters (1.3 ft.). Excavation revealed tapering sides and a slightly curved base at a depth of 36 centimeters (1.2 ft.) below the graded surface. The matrix matched the general trench fill. Although not visible at the surface, bisection exposed a possible post mold measuring 15 centimeters (6 in.) wide and 20 centimeters (8 in.) deep within the posthole. The matrix consisted of softer soils of yellowish brown (10YR 5/4), light yellowish brown (10YR 6/4), and very pale brown (10YR 7/3) loamy silt with a discrete band of red (2.5YR 4/8) clay through the middle. The softer texture and clay lens could suggest that this feature reflects a root or animal burrow rather than a post mold.

Features 89B and 89C were posts identified adjacent to, and on either side of, the south wall of the structure. Feature 89B was 20 centimeters (8 in.) north of the wall trench and Feature 89C was 30 centimeters (12 in.) to the south. The centers of the two features were 1.0 meter (3.3 ft.)

Figure 58.
Photographs of Feature 89 Cross Sections

A. Feature 89B, East Profile

B. Feature 89C, East Profile

apart. Feature 89B measured 20x19 centimeters (8x7 in.) and extended to 27 centimeters (11 in.) below the graded surface. Feature 89C was slightly larger at 24x22 centimeters (9x9 in.) and 29 centimeters (11 in.) deep. The differences in size were negligible and suggest the two posts reflect a single installation event. The fill of each consisted of grayish brown (10YR 5/2) loamy silt mottled with pale brown (10YR 6/3) and very pale brown (10YR 7/3-8/3) loamy silt.

Feature 90, Sub-Features

Four posts or possible posts were identified in association with Feature 90. All three were within or partly intersected the wall trench. A fifth sub-feature (90F) was shallow in profile and could not be definitively identified.

Feature 90B was inside the north wall trench 70 centimeters (2.3 ft.) from the corner. The sub-feature stood out from the exposed wall trench as a square-shaped area of red (2.5YR 4/3) clay with mottles of reddish brown (5YR 4/4) clayey silt and yellowish brown (10YR 5/4) loamy silt that measured 25x19 centimeters (10x7 in.). Bisection on an axis parallel to the wall revealed a tapered shape tilting off vertical to the west and extending 20 centimeters (8 in.) deep (Figure 59). This clayey matrix appeared to reflect a post mold, while the associated posthole was straight-sided on the east (the west being blurred by the tilt of the post), with a flat base that reached 23 centimeters (9 in.) below the graded surface. Although it did not resemble a more traditional square-shaped historic post, this feature could represent a rougher post, while the tilted orientation reflects its removal or other disturbance.

Feature 90C was located at the northwest corner of the structure. In plan it consisted of a 15-centimeter (6-in.) diameter soil anomaly of brown (7.5YR 4/4) loamy silt with few mottles of red (2.5YR 5/8) clay. Bisection revealed straight sides and a slightly sloping base at a depth of 25 centimeters (10 in.) below the graded surface. The east portion of the feature was slightly lighter in color and reached a depth of 28 centimeters (11 in.). This was interpreted as the remnant of the posthole, while the portion to the west was the post.

Feature 90D lay along the west foundation trench about 1.5 meters (4.9 ft.) from the northwest corner. The feature was a square-shaped soil anomaly that intruded on the wall trench from the interior side. Bisection revealed a post mold and posthole that together reached a depth of 25 centimeters (10 in.) below the graded surface. The posthole had straight to slightly tapering sides and a rounded base. The dominant fill matrix was light yellowish brown (10YR 6/4) loamy silt mottled with yellowish brown (10YR 5/4) and light gray (10YR 7/2) loamy silt. The post mold measured just under 10 centimeters (4 in.) in diameter and was brown (10YR 5/3) loamy sand with mottles of light yellowish brown (10YR 6/4) loamy silt and brownish yellow (10YR 6/8) clay.

Figure 59.
Photograph of Feature 90 Cross Sections

A.
Feature 90, Section e'—e'
Facing North

B.
Feature 90B (Post), Northwest Profile

C.
Feature 90C (Post)
Northwest Profile

Feature 90E was at about the mid-point of Feature 90 and 1.1 meters (3.6 ft) from its northwest corner. The feature measured 15x11 centimeters (6.0x4.3 in.) in plan and extended to a depth of 20 centimeters (8.0 in.) below the stripped surface (about 45 cm. [1.5 ft.] below ground surface). In profile, the feature was straight-walled on its north face but had an indistinct shape on the south and it did not penetrate the base of the wall trench. The fill was light yellowish brown (10YR 6/4) loamy silt on the south but yellowish brown (10YR 5/4) loamy silt to the north. The two fill matrices were separted by a vertical line, suggesting this feature could represent a post mold.

Feature 90F was a square-shaped anomaly at the south end of Feature 90 that measured 20x20 centimeters (8.0x8.0 in.). Excavation indicated it extended only 7.0 centimeters (2.8 in.) below the graded surface (approximately 32 centimeters 1.0 ft. below ground surface) and did not reach the base of the wall trench. The fill consisted of dark brown (10YR 3/3) loamy silt mottled with pale brown (10YR 6/3) and light gray (10YR 4/2) loamy silt. Although this feature had a square shape in plan, because of its shallow and indeterminate profile shape, it could not be clearly identified as to function or origin.

Artifacts

Combined, Features 89 and 90 contained few artifacts. Only the Feature 89 segment of the wall trench and sub-features 89B and 89C yielded any cultural materials, totaling only 13 items. This fact suggested the features dated to a period before sheet refuse had accumulated. The artifacts included mostly ceramics and architectural materials (residual brick fragments, two cut nails, and two unidentified nails). Chronologically diagnostic materials consisted of three pearlware sherds, two whiteware sherds, and two cut nails (beginning date of 1805). Although the assemblage is too small to conclusively date the structure, the artifacts are consistent with an occupation dating to the first third of the nineteenth century.

Wall Trench/Structure 3 Summary and Analysis

Features 89 and 90, along with the associated sub-features, comprised the remains of an earth-fast structure (Structure 3) built of posts placed into excavated trenches. Although the structure could not be fully exposed because of large trees, no interior hearth was found and no clear evidence of doors was observed. Excavation generated few artifacts, so clear dates for this structure could not be obtained. However, the paucity of artifacts could indicate the structure reflects early settlement of the site when there was less debris in the site area to become incorporated into the trenches. The few diagnostic artifacts are consistent with an occupation during the first third of the nineteenth century, around the time that planters and slaves began abandoning cob-walled and wattle-and-daub construction.

By way of comparison with other documented archaeological examples, several wall trench structures were recorded at Yaughan and Curriboo plantations in South Carolina, and dated to the eighteenth century. These were interpreted as reflecting mud wall construction (Wheaton et al. 1983; Wheaton and Garrow 1985). The example from 9CH1205 conformed reasonably well to these examples in terms of size and construction. The Yaughan and Curriboo examples involved foundations ranging from 0.25-0.5 meters (0.8-1.5 ft.) wide, with most being 0.30 meters (1.0 ft.) wide, and between 0.50 and 0.76 meters (1.5-2.5 ft.) deep below surface. Posts were placed down the center of each trench, which was then refilled. These structures fell into two distinct size groups: smaller at 13.5 square meters (145 sq. ft.) and larger at 23 square meters (256 sq. ft.) (Wheaton et al. 1983:98, 203). These figures correspond reasonably closely to those for Features 89/90, where the trenches measured 25-30 centimeters (0.8-1.0 ft.) wide and 50-60 centimeters (1.6-2.0 ft.) below ground surface. The total area of the structure represented at 9CH1205 measured 14.4 square meters (155.4 sq. ft.), closer to the small group at Yaughan and Curriboo. Like the examples from Yaughan and Curriboo, the Feature 89/90 structure did not contain an interior hearth, at least as far as could be determined.

There were important differences, however. The Yaughan and Curriboo structures most often contained fill composed of prepared material, typically clay, which was not present at the 9CH1205 structure, except in trace amounts. Given that the most likely source for clay at 9CH1205 was a nearby borrow pit (Feature 29), and that several other features in the vicinity contained dense clay deposits, if the structure Feature 89/90 represents was clay or mud-walled, more evidence of this material would be expected in the wall trenches.

Also, the Yaughan and Curriboo structures contained closely spaced posts (average distance was 70 centimeters [2.2 ft.]), whereas at 9CH1205, they were spaced more widely apart and inconsistently, insofar as can be determined. (It should be noted, though, that two posts, Features 90B and 90C, were 70 centimeters apart, while others in Features 89 and 90, whose spacing could be measured, were 1.4 meters [4.6 ft.] apart. This distance was larger than the average for frame structures at Yaughan and Curriboo, which was 1.1 meter [3.7 ft.]). Finally the Yaughan and Curriboo structures typically consisted of two parallel trenches, but rarely possessed cross trenches at the ends or interior (Wheaton et al. 1983:98). In contrast, the structure at 9CH1205 appeared to have been completely delineated with trench foundations.

Since the discovery of wall trench structures at Yaughan and Curriboo, several additional examples have been identified at former coastal plantation sites from Charleston, South Carolina to Hilton Head Island, Beaufort County, South Carolina (Adams et al. 1987; Hacker et al. 1990; Trinkley and Hacker 1999, 2009; Zierden et al. 1986). These have been interpreted as representing wattle, wattle and daub, and cob construction. Examples from Cotton Hope

Plantation (38BU96) on Hilton Head Island possibly reflected chinked log construction (Hacker et al. 1990). Like those at Curriboo Plantation, these examples frequently contained no evidence of interior hearths.

In Georgia, excavations of slave dwellings had mostly involved antebellum occupations, and architectural remains reflected the time period after planters and slaves had phased out these kinds of structures. Recently, however, excavations at Ford Plantation in Bryan County, Georgia also encountered remains of a wall trench structure. In this example, the structure measured 4x2.5 meters (13x8 ft.), and was divided into two bays measuring 2x1.5 meters (6.6x5 ft.) each. The trenches were 15-40 centimeters (0.5-1.3 ft.) deep and were filled with fine brown sand mottled with clayey sand. Few artifacts were found, but fragments of daub or residual clay were recovered from the trenches, suggesting the wall material (Whitley et al. 2003:91, 214). This closely resembles Structure 3 at 9CH1205, save for the traces of daub. The limited evidence from these two sites (Ford Plantation and 9CH1205) indicates that these building forms were present in colonial and early antebellum Georgia and that the influence of African or Gullah/Geechee building traditions was widespread in the Lowcountry.

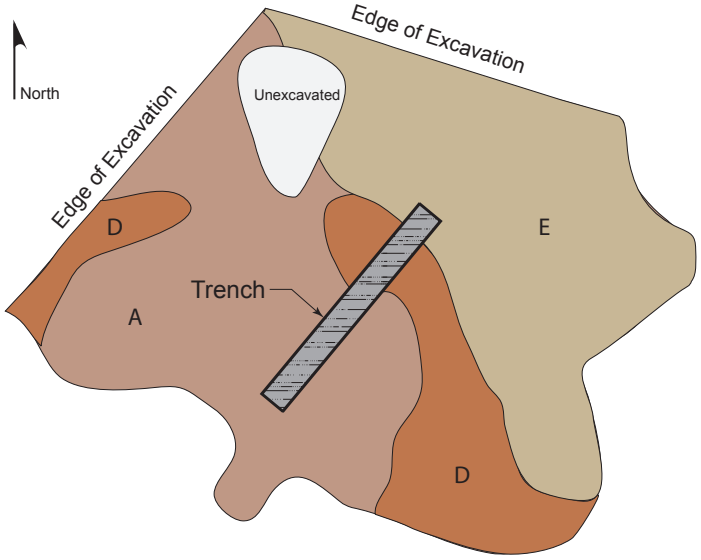
CLAY BORROW PIT: FEATURE 29

Included with the architecture-related features was a large clay borrow pit located in the northeast part of the site (Block 8). The presence of this feature was first indicated through a metal detector find and geophysical survey, which suggested a large area of disturbed subsoil. Machine-stripping exposed portions of the borrow pit, which appeared to take advantage of a rise in the clay subsoil.

Excavation uncovered part of the feature's northeast quadrant, the exposed portion measuring 10.5x7.0 meters (34.4x23.0 ft.). In plan view, the feature stood out against the pale yellow (2.5Y 7/3) sand E horizon as a soil anomaly of light yellowish brown (2.5Y 6/4) fine sandy loam mottled with brownish yellow (10YR 6/8) and pale yellow (2.5Y 7/4) loamy sand. This soil anomaly was partly encircled by a band of reddish yellow (7.5YR 6/8) sandy clay that resembled the clay subsoil found elsewhere at the site (Figures 60 and 61).

Excavation of a 7.0-meter (23-ft.) trench to inspect the feature's stratigraphy showed that the matrix described above was the fill material of a large clay pit. The material that was mined consisted of red (2.5YR 5/8) clay with many prominent mottles of light yellowish brown (2.5Y 6/3) clay. In the excavation trench profile, the clay pit was seen as a shallow bowl-shaped cut into this clay. The clay sloped away from the surface where the E horizon overlay it, suggesting it represented an accessible rise or outcrop of this material. The fill within the cut contained laminations indicative of natural filling rather than deliberate backfilling of the borrow pit.

Figure 60.
Plan and Profile of Feature 29



Block 8
Feature 29
Plan View

0 4 Meters

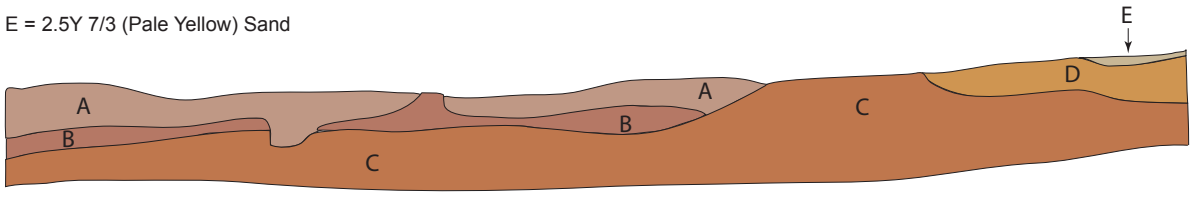
A = 2.5Y 6/4 (Light Yellowish Brown) Fine Sandy Loam Mottled with 10YR 6/8 (Brownish Yellow) and 2.5Y 7/4 (Pale Yellow)

B = 10YR 5/6 (Yellowish Brown) Clayey Sand Mottled with 2.5Y 5/4 (Light Olive Brown), 2.5Y 6/4 (Light Yellowish Brown), and 2.5Y 7/4 (Pale Yellow) Sandy Loam

C = 2.5YR 5/8 (Red) Clay Mottled with 2.5Y 6/3 (Light Yellowish Brown) Clay

D = 7.5YR 6/8 (Reddish Yellow) Sandy Clay

E = 2.5Y 7/3 (Pale Yellow) Sand

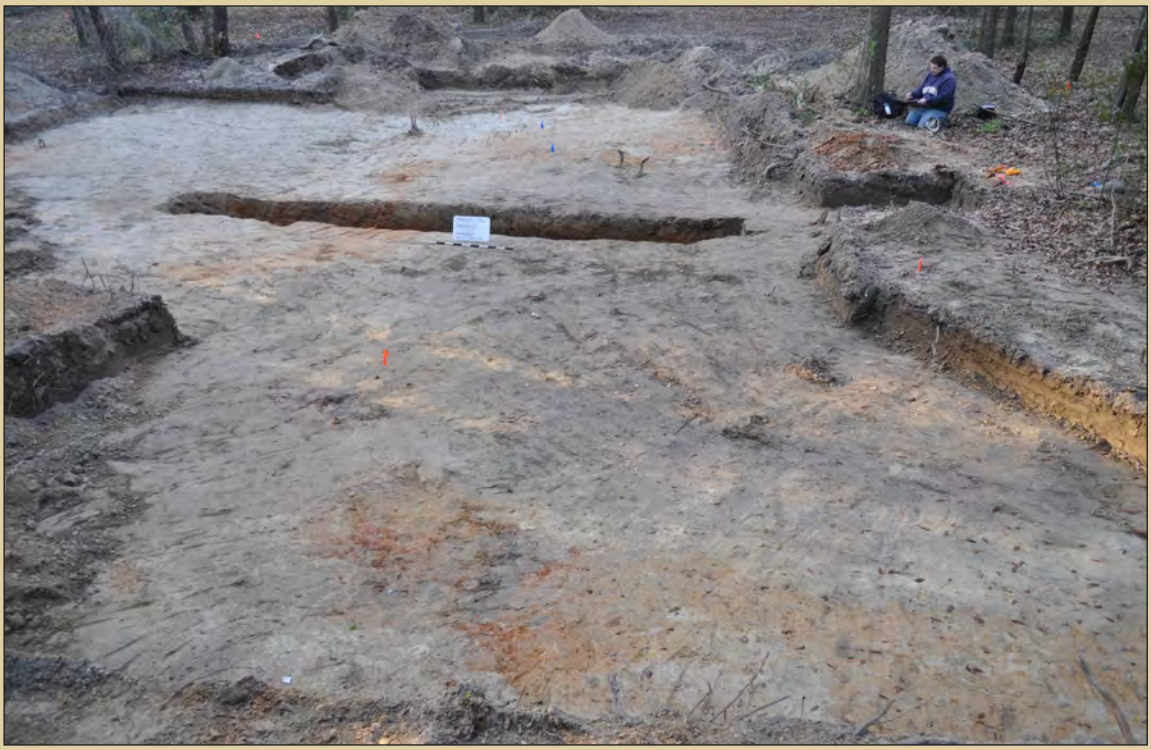


0 1 Meter

Block 8
Feature 29
West Profile

Figure 61.
Photographs of Feature 29

A. Trench Profile, Feature 29



B. View of Feature 29, Facing East

Two iron broad hoes were recovered from Block 8 during machine excavation, one of which lay at the base of the cut and below the feature fill. These could reflect hand-excavation equipment used for clay acquisition. Few artifacts were noted in this block, suggesting the area was peripheral to the settlement in the south and southeast of the site.

The ultimate use of the clay from this pit is not known. No evidence for brickmaking or other clay industries was found at the site. Residues of possible clay structures were noted among the occupation area to the south, and it is probable that Feature 29 contributed raw material for these.

POSTS

Sixty-five features were identified as postholes and/or post molds (Table 22). These represent buildings and other functions. In general, few of the posts could be clearly related to other posts or features in ways that indicated building footprints, enclosures, fence lines, or other structures. Also, most did not exhibit the qualities associated with historic posts, which is to say they were not straight-sided with flat bases. This indicates they were most likely made from rough materials collected from wood lots and forests rather than area lumberyards.

Table 22. Features Identified as Posts

Feature Numbers				
2	37	72	140	158
4	42A	73	141	159
8	42B	76	144	161
10	44	88	148D	164
13	52	89B	148E	165
17	54	89C	148G	178
19	58	95	149	179
20	59	104	150	180
24	63	107	152	186
25	64	109	154	187
33	65	131B	155	189
34	69	132	156	190
36	71	134	157	192A

Post Clusters

Although many of the post features could not be clearly interpreted as parts of buildings or other structures, a few stood out based on their size, fill, and associations. These fell into two concentrations in Block 4 and one in Block 9.

Post Cluster 1

One of the concentrations was in the northwest portion of Block 4 and included Features 8 and 10, which were recorded during the previous evaluation study, along with Features 20, 24, 25, and 71, which were interpreted as posts, as well as Feature 26 (described below), identified as a pit based on size, but which also possessed characteristics of a post. Several additional pits were located in this vicinity as well. No obvious pattern was noted in the arrangement of these features, either by themselves or in association with nearby features (Figures 62-65). However, the association of these features with one another, their size, their fill, and nearby deposits suggested that this post cluster represented a domestic occupation. The features in the post cluster were specifically interpreted as reflecting a stick-and-mud chimney, a common structure type in African American houses during the nineteenth century, and one that could be built on a frame of large posts with additional posts around the exterior providing support (see Figure 65b).

Feature 8

Feature 8 was encountered in Test Unit 11 during the Phase I/II investigations and was incorporated into the northwest portion of the data recovery's Block 4. Initially interpreted as a small pit, the feature was later identified as a large post measuring 52x47 centimeters (1.7x1.5 ft.). In profile, it had slightly tapered sides and a flat base, which lay at 43 centimeters (1.4 ft.) below the E horizon (approximately 68 cm [2.2 ft.] below surface). The feature fill consisted of two principal deposits: dark brown (10YR 3/3) sandy loam in the upper portions and light reddish brown (5YR6/4) sand below. Artifacts included 38 items, most of which were structural, including brick fragments and square nails. Historic ceramics and glass fragments were found that had manufacturing dates from the late eighteenth to nineteenth centuries. Pearlware fragments provided a TPQ of 1795 (Silliman and Quirk 2009:112-114).

Feature 10

Located immediately north of Feature 8, Feature 10 represented a second post identified in the north wall of Test Unit 11. This feature measured 20 centimeters (0.7 ft.) in diameter and reached a depth of 42 centimeters (1.4 ft.) below the surface. Straight sided with a rounded base, the feature was filled with a solid deposit of brown (10YR 5/3) sandy loam. Fifteen artifacts included mostly brick fragments, along with a single sherd of pearlware, olive bottle glass, one square nail, and indeterminate iron. The feature was interpreted as contemporaneous to Feature 8 (Silliman and Quirk 2009:114). It should be noted that although the feature appeared bisected by the unit's north wall, the north half of the feature could not be seen after subsequent machine stripping in this area.

Figure 62.
Plan of Post Cluster 1 and Associated Features

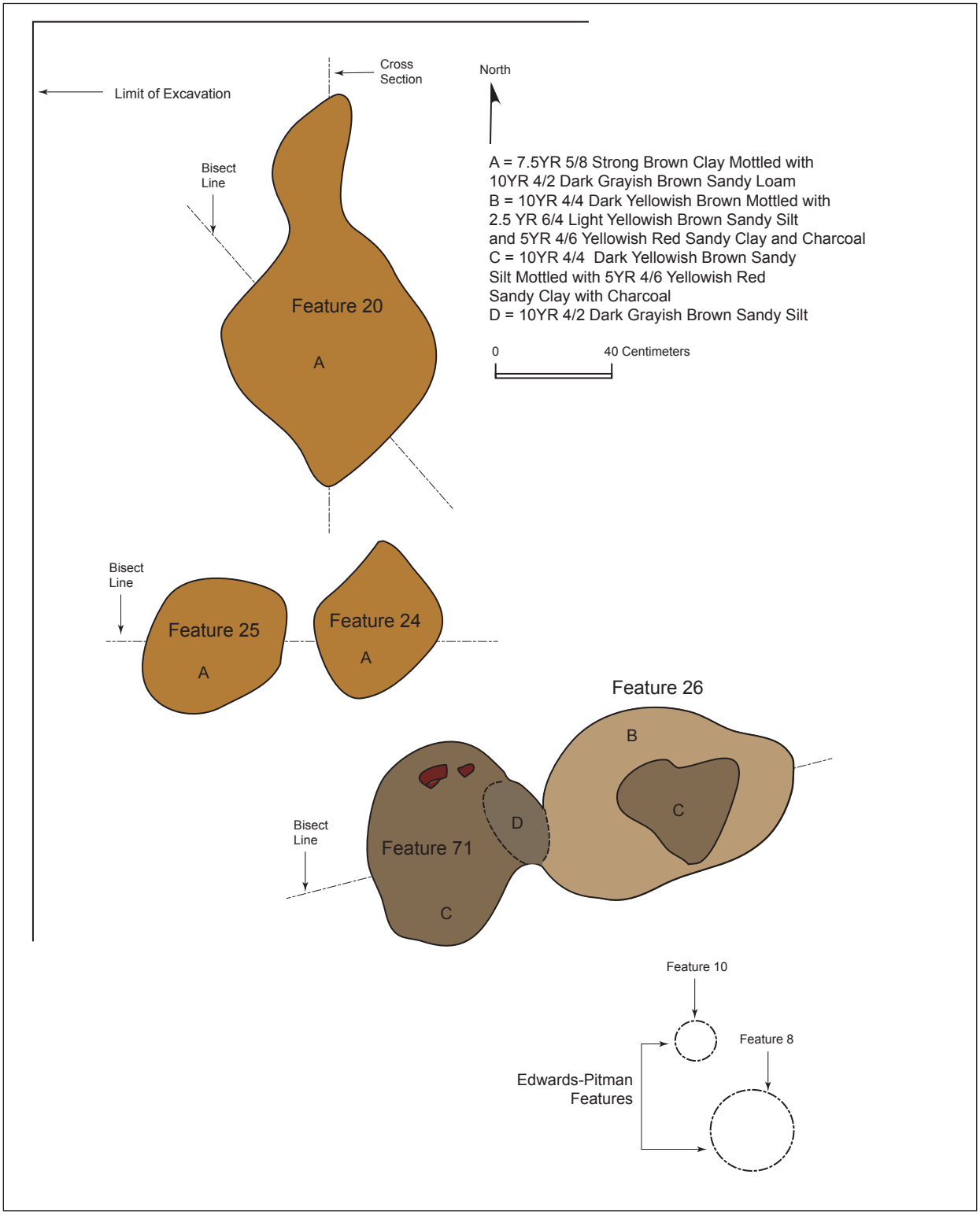


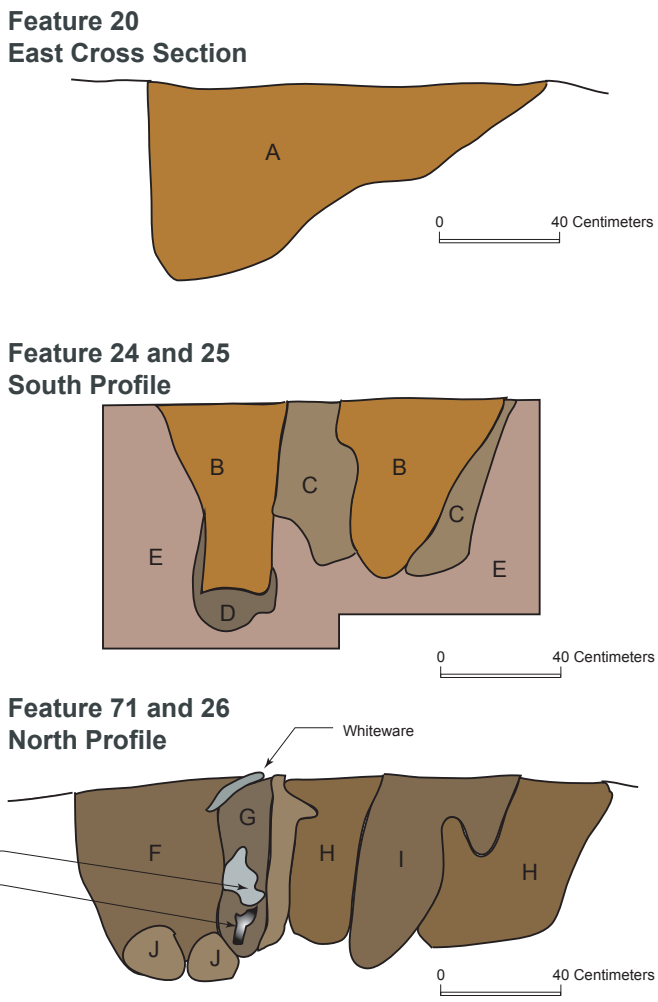
Figure 63.
Photographs of Post Cluster 1

A. Post Cluster 1 at Base of Plow Zone. Feature 20 at Top, Features 24 and 25 (Middle), and Features 26 and 71 (Lower Right). Facing North.

B. Proposed Interpretation for Post Cluster 1: Mud Chimney. Abandoned House, Beaufort, South Carolina, Vicinity, Circa 1939

Source: Library of Congress

Figure 64.
Post Cluster 1 Profiles



A = 7.5YR 5/8 Strong Brown Clay Mottled with
10YR 4/2 Dark Grayish Brown Sandy Loam with Charcoal Flecks

B = 7.5YR 5/8 Strong Brown Sandy Clay with Charcoal

C = 10YR 5/3 Brown and 2.5Y 6/4 Light Yellowish Brown Silty Sand Mottled with 7.5YR 5/6 Strong Brown with Charcoal

D = 10YR 4/2 Grayish Brown Loamy Sand (E Horizon)

E = 2.5Y 6/3 Light Yellowish Brown Silty Sand Grades to
10YR 6/8 Brownish Yellow Sandy Clay Loam (B Horizon)

F = 10YR 4/3 Brown Sandy Silt Mottled with 5YR 4/6 Yellowish Red Sandy Clay

G = 10YR 4/2 Dark Grayish Brown Sandy Silt

H = Mottled 10YR 4/4 Dark Yellowish Brown
2.5Y 6/4 Light Yellowish Brown Silty Sand and 5YR 4/6 Red Sandy Clay

I = 10YR 4/3 Brown Sandy Silt Mottled with 5YR 5/6 Yellowish Red Sandy Clay

J = 10YR 5/3 Brown Mottled with 2.5Y 6/4 Light Yellowish Brown Silty Sand and
10YR 3/3 Dark Brown Sandy Loam - Root Disturbance

Figure 65.
Profile Photographs of Post Cluster 1

A. Feature 20, After Excavation, Facing North

B. Features 24 and 25, South Profile

C. Feature 26, North Profile

D. Feature 71, North Profile

Feature 20

Feature 20 was a diamond-shaped soil anomaly that measured 95x70 centimeters (3.1x2.3 ft.) and contained fill of strong brown (7.5YR 5/8) clay with mottles of dark grayish brown (10YR 4/2) sandy loam and charcoal flecks. The clay fill was burned and distinct from the natural clayey subsoil. Similar material was recovered from other posts in this location as well as Post Cluster 2 (see below) and these were the only instances of this material being found at the site. Bisection revealed a triangular profile with a vertical side on the north and a sloping side on the south. Additionally, the shape of the feature varied, the north (deep) side being relatively narrow and measuring only about 40x30 centimeters (1.3x1.0 ft.), while the south side conformed to the feature's opening dimensions. The maximum depth in the north was 59 centimeters (1.9 ft.) below the graded surface (99 centimeters [3.2 ft.] below ground surface). The unusual shape of this profile suggests that the larger shallow area might have functioned to allow a large post to be slid into or out of the posthole. Notably, no evidence of a post mold was found and the feature fill was strong brown clay with dark grayish brown mottles throughout.

Excavation of Feature 20 produced 105 artifacts, most of which (n=62) were kitchen group-related, while roughly one-third (n=34) represent architecture group artifacts. The kitchen group artifacts were mostly oyster shell and bone, which were interpreted as midden either deliberately or incidentally deposited in the feature. Five pieces of indeterminate green container glass and 11 ceramic sherds were also found. The ceramics included creamware (n=1), pearlware (n=4), whiteware (n=5), and redware (n=1). Although too small to derive a useful MCD, the whiteware provided a TPQ of 1830, and this collection as a whole suggested a date range during the first third of the nineteenth century. The architecture group artifacts included 15 cut nails, which were also consistent with this suggested date.

Feature 24

Features 24 and 25 lay adjacent to one another roughly 30 centimeters (1.0 ft.) south of Feature 20. Feature 24 was a 55x45-centimeter (1.8x1.6-ft.) diamond-shaped soil anomaly of strong brown (7.5YR 5.8) clay with light yellowish brown (2.5Y 6/4) and light olive brown (2.5Y 5/3) silty sand plow scars. Excavation revealed straight- to tapering sides and a rounded base, which represented a posthole and post mold. The maximum depth was 68 centimeters (2.2 ft.) below the graded surface (about 98 centimeters [3.2 ft.] below ground surface).

The post mold consisted of a straight-sided and flat-based zone in the profile consisting of strong brown (10YR 5/6) sandy clay loam with charcoal flecking, while the posthole was indicated by dark grayish brown (10YR 4/2) loamy sand with charcoal flecks at the base of the feature and extending partway up the sides of the post mold.

Feature 24 produced 64 artifacts, 45 of which reflected the kitchen group. The majority of the artifacts were oyster shell (n=38), interpreted as midden residue. The ceramics included only three sherds, two pearlware and one whiteware, which indicate a probable early nineteenth-century date. Four cut nails in the assemblage were also within this date range. The whiteware provided a TPQ of 1830.

Feature 25

Located adjacent to the west side of Feature 24, Feature 25 was also interpreted as a post. In plan, this feature was a rounded-diamond shape measuring 75x45 centimeters (2.5x1.5 ft.) and exhibiting the same soil color and texture as Feature 24. The profile displayed a deposit of strong brown (7.5YR 5/8) sandy clay loam in the shape of a narrow cone. This portion of the feature, which measured 45 centimeters (1.5 ft.) wide at the top and 20 centimeters (0.7 ft.) at the base, appeared to reflect a post mold, probably one that had been removed and thus caused the wider size at the top. This portion of the feature was within a clear posthole or possible pit filled with mixed brown (10YR 5/3) and light yellowish brown (2.5 Y 6/4) silty sand mottled with strong brown (7.5YR 5/6) sandy clay loam and charcoal flecks. The posthole was 69 centimeters (2.3 ft.) wide at the top and tapered to 43 centimeters (1.4 ft.) at the base, which lay at 53 centimeters (1.7 ft.) below the graded surface (83 centimeters [2.7 ft.] below ground surface). The east side of the posthole was discolored from contacting the clayey fill of Feature 24, but whether or not one intruded on the other could not be determined.

A total of 91 artifacts came from this feature, roughly divided between the architecture (n=48) and kitchen (n=42) groups. The kitchen group, as with the other features in this concentration, consisted largely of shell and bone fragments, reflecting midden. A fragment of an iron kettle or pot was also found in this feature, along with creamware (n=3), pearlware (n=3), and whiteware (n=3). The pearlware includes one underglaze painted sherd, with a beginning date of 1795, while two of the whiteware sherds are edge-decorated varieties, one with an impressed rim and beginning date of 1841 and one unimpressed that began production in 1865 (Miller 2000). This provided a TPQ for the feature.

Feature 71

Less clearly a post, Feature 71 lay about 25 centimeters (0.8 ft.) southeast of Features 24 and 25 and adjacent to Feature 26, identified as a pit. Feature 71 was not identified as a separate feature until excavation of Feature 26 revealed it. Clearing exposed a 72x65-centimeter (2.4x2.1-ft.) oval shape of predominantly brown (10YR 4/3) sandy silt with mottles of yellowish red (5YR 4/6) sandy clay and charcoal flecks. A smaller oval at the east side of this area, designated Zone B, measured 30x22 centimeters (1.0x0.7 ft.) and consisted of brown (10YR 4/3) sandy silt. Charcoal and oyster shells were also noted at the feature's surface.

In profile, the west portion of the feature (Zone A) exhibited a wide, slightly tapering shape with a rounded base. Zone B to the east was straight-sided with an irregular base with shoots extending downward that were suggestive of a root. It should be noted that this area showed indications of substantial bioturbation, which made interpretations of the varying deposits difficult.

Zone B contained a relatively dense oyster shell deposit along with a large bottle fragment and other artifacts that were indicative of primary deposition, while Zone A contained fewer and smaller artifact fragments indicating different formation processes. The two zones were distinct in color and were separated by a clear interface.

The feature contained a considerable quantity of artifacts, probably as a result of being filled with midden residue. The total of 684 artifacts included 582 items placed in the kitchen artifact group along with 91 architectural artifacts. The kitchen group was composed primarily of oyster shell (n=517) and a number of bone fragments (n=33), which strengthened the interpretation of a midden. Among diagnostic artifacts, ceramics included creamware (n=1), pearlware (n=6), and whiteware (n=2), which provided a TPQ of 1830. A sample of 37 cut nails was also found, which were consistent with an early nineteenth-century date. Another artifact of note is an iron implement identified as a curry comb used for horse grooming.

The size and shape of this feature, along with the evidence for bioturbation, make its interpretation problematic. Zone B appears to reflect a decomposed root that subsequently filled with midden residue. Zone A was interpreted as a large posthole.

Post Cluster 1 Summary

The features described in the preceding section appeared to form a related group, although they were not arranged in a coherent pattern. Artifacts from each are generally similar in type and chronology, with dates indicating deposition during the first third of the nineteenth century. Feature 25 produced artifacts with later beginning dates (TPQ of 1865) that suggested occupation of this part of the site extended to the third quarter of the century. The artifacts from the features are mostly a mix of kitchen and architecture-related materials, with the kitchen group artifacts being mostly oyster shell.

Based on the content, location, and associations of Post Cluster 1, it is interpreted as remnants of a house, and specifically of a stick-and-mud chimney. The post cluster lay in a line connecting it with the two brick chimneys, which suggested they formed part of a coherent arrangement. Moreover, in addition to Feature 26, two other pit (or possible post) features (Features 47 and 53) were found in the immediate vicinity along with residual midden. Examination of other slave

occupations in the region suggest that refuse was disposed into middens immediately adjacent to the houses (Butler 2007:130). The posts in this location do not clearly delineate a building footprint. However, the combination of posts, pits, and midden, along with evidence for disposal of domestic artifacts, strongly imply an occupation here.

The posts are interpreted as possible evidence for a stick-and-mud chimney. These were common on slave houses in the antebellum south, and were used through the end of the nineteenth century and into the twentieth. Photographs show various styles, including examples built around large vertical posts that support lathing made from smaller sticks sealed with earth (see Figure 63b). In some instances, the structure might be propped with additional large posts inserted into the ground at an angle. The features making up Post Cluster 1 are noteworthy because of their large size and fill incorporating burned clay. They could not be clearly connected to form a clear shape, but their close spacing and content could reflect a demolished stick-and-mud chimney.

Post Cluster 2

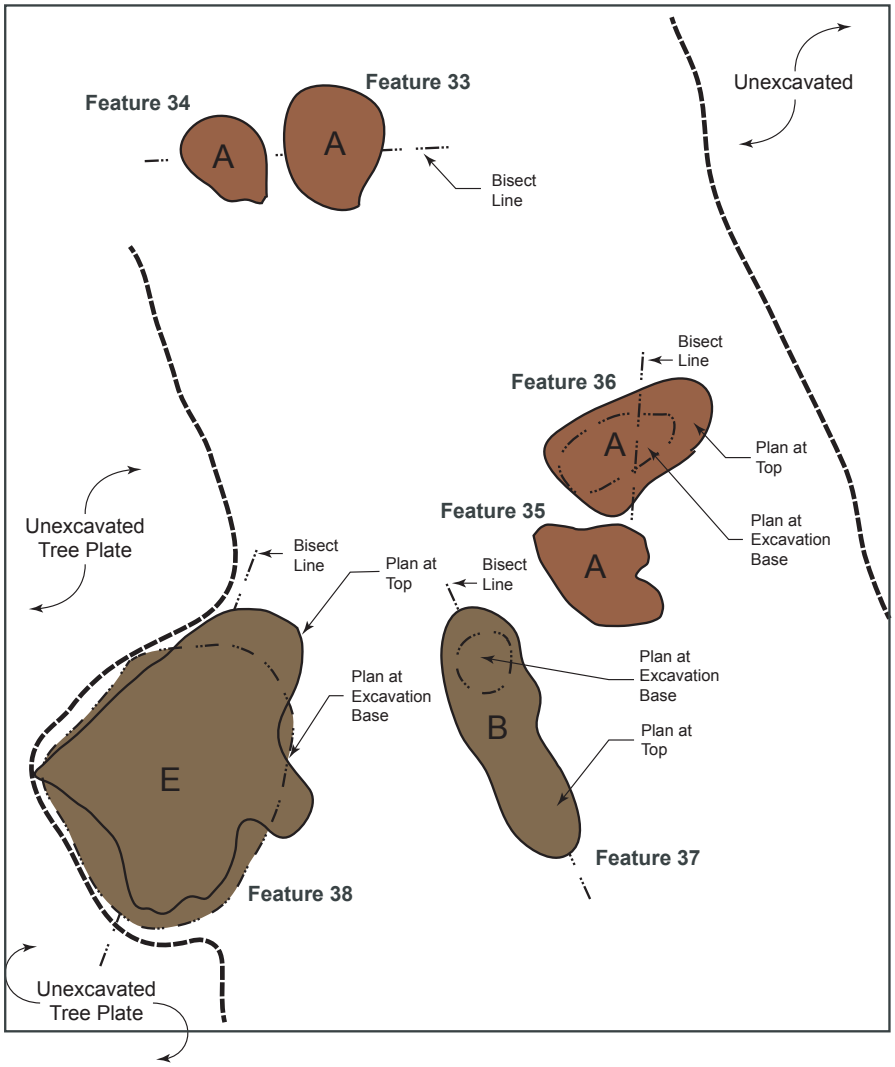
A second group of large, clay-filled posts was identified northeast of Structure 3, defined by Feature 89/90 in Block 4. These posts include Features 33, 34, 36, and 37 (Figures 66 and 67) (Feature 35, identified as a tree root, was also here).

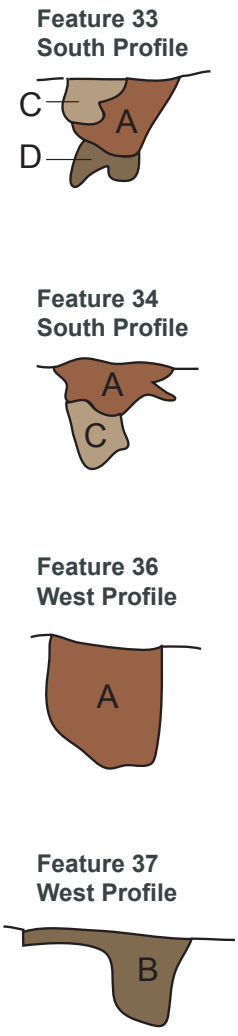
Features 33 and 34

Features 33 and 34 were 10 centimeters (0.4 ft.) apart and oriented on an east-to-west axis. Feature 33 was circular and measured 30 centimeters (1.0 ft.) in diameter while Feature 34 was an oval shape, measuring 40x35 centimeters (1.3x1.1 ft.). In profile, both features exhibited deep cone-shapes with fill dominated by red (2.5YR 4/6) clay mottled with reddish brown (5YR 4/4) sandy clay. In Feature 34, this matrix extended about halfway to the base and overlay brown (10YR 4/3) sand with pale brown sand (10YR 6/3) mottles. A similar matrix occurred in the upper portion of Feature 33. Feature 33 possessed a slightly ragged base, suggesting bioturbation, and reached a maximum depth of 30 centimeters (1.0 ft.) below the graded surface (about 60 cm [2.0 ft.] below surface). Feature 34 reached a depth of 40 centimeters (1.3 ft.) below the graded surface (70 cm [2.3 ft.] below ground surface).

Excavation of Feature 33 produced 133 artifacts, most of which belong in the architecture (n=77) and kitchen (n=43) groups. The architecture group contained 65 residual brick fragments along with 10 cut nails. The kitchen group was mostly bone (n=16) and unidentified shell (n=11), although ceramics (n=13) were also common. The ceramics included creamware (n=3), pearlware (n=1), varieties of whiteware (n=8), and refined red stoneware (n=1). The whiteware provided a TPQ of 1830 for the feature. Although there are too few ceramics for a reliable MCD, the types would be expected at an early nineteenth-century occupation.

Figure 66.
Plan and Profile of Post Cluster 2 and Feature 38





Post Cluster 2
Plan View

A = 2.5YR 4/6 Red Sandy Clay Mottled with 5YR 4/4 Reddish Brown
B = 10YR 4/3 Brown Sandy Loam with Charcoal
C = 10YR 4/3 Brown Sand with Mottles of 10YR 6/3 Pale Brown
D = 10YR 4/3 Brown Sandy Loam with Mottles of 10YR 6/3 and 10YR 6/2 Light Brownish Gray Sand
E = 10YR 3/3 Dark Brown Sandy Loam Mottled with 5YR 5/8 Yellowish Red Clay

0 50 Centimeters

Figure 67.
Photographs of Post Cluster 2

A. Post Cluster 2, Facing West. Features 33 and 34 at Right, Features 35 to 37 at Left.

B. Feature 33, South Profile

C. Feature 34, South Profile

D. Feature 37, West Profile

E. Features 35 and 36, West Profile

Feature 34 yielded only 26 artifacts, about half of which (n=14) were architecture related (10 brick fragments, 3 mortar, 1 cut nail). The 10 kitchen group artifacts included six shell and bone, two pearlware fragments, one whiteware sherd, and an unidentified earthenware sherd. The whiteware indicated a TPQ of 1830. While the small assemblage did not provide a clear date, it appears to be contemporary to Feature 33.

Feature 36

Located 1.5 meters (4.9 ft.) southeast of Features 33 and 34, Feature 36 represented another clay-filled posthole. Feature 36 was a rounded square shape in plan that measured 45x40 centimeters (1.5x1.3 ft.). In profile, Feature 36 was straight-sided with a rounded base that reached 42 centimeters (1.4 ft.) below the graded surface (72 cm [2.4 ft.]) below surface). The fill was mottled red (2.5YR 4/6) sandy clay and reddish brown (5YR 4/4) sandy clay.

This feature yielded 96 artifacts, consisting mostly of brick fragments (n=36) and nails (n=21). Two fragments of flat glass were also found, suggesting the presence of glazed windows. The kitchen group contained 30 artifacts, including 18 bone and shell. Ceramics included creamware (n=1), pearlware varieties (n=5) and whiteware (n=4). The whiteware, with a beginning date of 1830, indicated the TPQ for the feature. The chronologically diagnostic artifacts suggest a late eighteenth- to early nineteenth-century date, consistent with the dates for nearby features. This feature also yielded a single piece of thin clear glass identified as a lamp chimney fragment.

Feature 37

Located 20 centimeters (0.7 ft.) southwest of Feature 36, Feature 37 represented a large posthole. The uppermost portion of the feature was mixed with residual plow zone, making its shape and size difficult to determine. Bisection, however, revealed a rounded posthole measuring 25 centimeters (0.8 ft.) in diameter. The profile showed slightly tapering sides and a flat to sloping base. The maximum depth reached in the pit was 34 centimeters (1.1 ft.) below the graded surface (64 cm [2.1 ft.] below surface). Unlike Features 33, 34, and 36, this feature was filled with brown (10YR 4/3) sandy loam with few mottles of pale brown (10YR 6/3) and light brownish gray (10YR 6/2) sand.

Feature 37 produced 23 artifacts, most of which (n=20) were kitchen-related. These included a number of ceramics, including creamware (n=4), pearlware (n=4), and whiteware (n=6), as well as unidentified ceramics, container glass, and bone. Architecture group artifacts included one brick and one nail. The ceramics indicated a date for the feature during the early nineteenth century, with a TPQ of 1830 provided by whiteware.

Post Cluster 2 Summary

Features 33, 34, 36, and 37 should be viewed in combination with the wall trench structure represented by Features 89 and 90 (Structure 3). Additionally, a pit (see Feature 38 below) was located in association with this feature group. Dates for the posts are consistent with one another, and generally suggest they reflect an occupation during the first part of the nineteenth century. Feature 38, discussed below, yielded similar dates. Although in some of these posts, the artifact counts are high, these materials most likely represent backfill that contained accumulated midden material around Structure 3.

The postholes and pit lie at the northwest corner of the wall trench structure. Because of a large tree here, any connections between the structure, posts, and pit could not be exposed. Also, the three posts here do not align in an obvious pattern, although the lines between Features 33 and 36, and 34 and 37 extend roughly parallel to the orientation of the wall trench structure and could represent corners or points along the wall of a separate building. Alternatively, they could reflect separate fence posts. The close spacing of Features 33 and 34, and 36 and 37, might indicate replacements. Further, the clay fill of Features 33, 34, and 36 suggests the presence of a clay structure, possibly a stick-and-mud chimney, in this vicinity.

If these posts represent the corners of a separate structure, it would be very small. The distance between these two groups was no more than 2.5 meters (8.2 ft.) and it would be less than 2.0 meters (6.6 ft.) from the wall trench structure. This small size is more consistent with a shed than a living space. The pit (Feature 38) would lie roughly in the southwest corner of this structure and its presence further suggests a utility function for this projected building.

Finally, the projected structure would have been offset from the wall trench structure to create an irregular plan, assuming the two structures were attached. Because the entire plans of each structure could not be exposed, and no clear structure based on the postholes could be delineated, it is impossible to infer how these two structures related to one another.

Post Cluster 3

The third post concentration was identified in the west part of Block 9 and included six posts/postholes (Features 165, 178, 179, 180, 189, and 190) distributed in a line running roughly north-to-south for a distance of 4.5 meters (14.7 ft.). The south end of this line was just north of a large pit feature (Feature 147) and the line crossed the end of an indeterminate ditch (Feature 166) at about its midsection (Figures 68 and 69). The posts lay at varying intervals, the minimum distance apart being 10 centimeters (0.3 ft.) and the maximum 1.3 meters (4.3 ft.). No associated perpendicular or parallel alignments were identified with this post concentration, and

Figure 68.
Plan and Profile of Post Cluster 3 and Associated Features

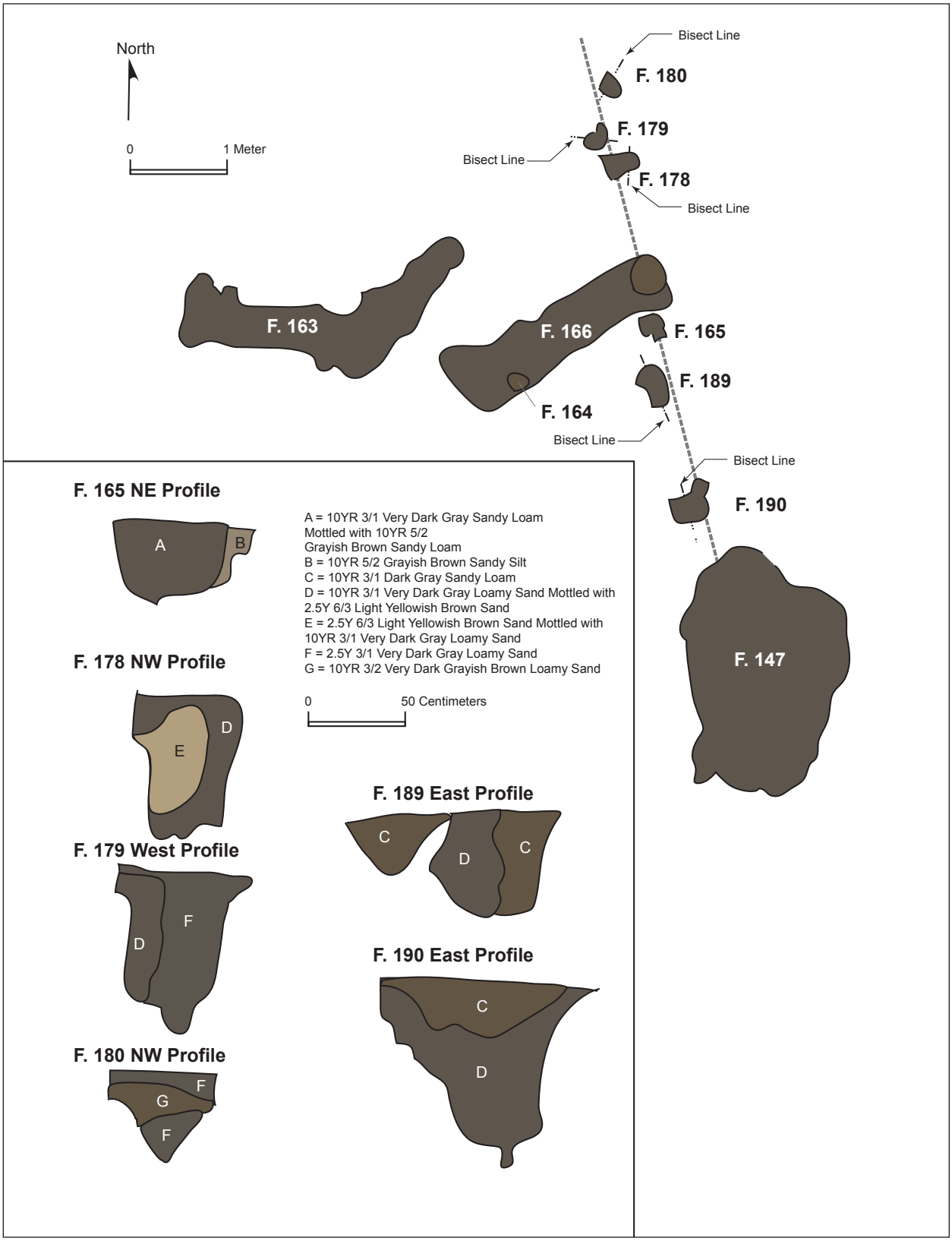


Figure 69.
Photographs of Post Cluster 3

A. Features 178, 179, and 180, Plan

B. Features 189 and 190, Plan

C. Feature 165, Northeast Profile

D. Feature 178, Northwest Profile

E. Feature 179, West Profile

F. Feature 180, North Profile

G. Feature 189, East Profile

H. Feature 190, East Profile

it could not be determined if the concentration reflected the side of a structure, a fence, or other type of construction. The designation of these posts as part of Structure 7 was due to their association with Feature 147, which was assumed to reflect a dwelling location, even though no direct remains of a dwelling were found here.

Feature 165

Feature 165 measured 23x20 centimeters (0.8x0.7 ft.) and was rectangular in plan. This feature lay just south of an indeterminate ditch (Feature 166) in the center of this post concentration. The profile showed slightly tapered walls and an irregular base that was disturbed by small root casts. The maximum depth of the feature was 15 centimeters (0.5 ft.) below the graded surface (40 cm [1.3 ft.] below ground surface) and the fill was very dark gray (10YR 3/1) sandy loam with mottles of grayish brown (10YR 5/2). The eastern side of the feature was slightly lighter in color, exhibiting grayish brown (10YR 5/2) sandy silt. This vertical patch of variation, combined with the irregular base, made it difficult to be certain if the feature was cultural or natural.

This feature yielded 23 artifacts, most of which were architecture-related (11 brick, 7 nails), along with five bone fragments. Three cut nails provided a TPQ of 1805. The feature could not be dated except generally to the nineteenth century.

Feature 178

Features 178, 179, and 180 lay northeast of Feature 166 and within 30 centimeters (1.0 ft.) of one another. Feature 178 was rectangular, measured 34x20 centimeters (1.1x0.7 ft.), and reached a depth of 29 centimeters (1.0 ft.) below the graded surface (54 cm [1.8 ft.] below ground). The feature was roughly square in profile and filled with mottled very dark gray (10YR 3/1) loamy sand, light yellowish brown (2.5Y 6/3) sand. The fill was divided into two zones, with these two matrices dominating in different proportions.

The feature contained 28 artifacts, 19 being architecture-related (17 indeterminate nails, two brick). Seven kitchen-group artifacts included five glass fragments and two bone fragments. One tobacco pipe bowl fragment and indeterminate metal comprised the balance. The feature did not produce any artifacts that could be dated.

Feature 179

Feature 179 lay adjacent to the west side of Feature 178. Roughly square-shaped and measuring about 15 centimeters (0.5 ft.) square, the feature also exhibited evidence of bioturbation, which blurred its shape slightly. In profile, the feature was straight-sided with a tapering base that reached 32 centimeters (1.0 ft.) below the graded surface (57 cm [1.9 ft.] below ground surface).

The central portion consisted of very dark gray (2.5Y 3/1) loamy sand with areas of mottled very dark gray and light yellowish brown (2.5Y 6/3) sand at the sides. The feature was clearly disturbed as a result of bioturbation and its interpretation as a post is tentative.

Excavation yielded only seven artifacts from this feature. This total includes indeterminate nails, bone fragments, a tobacco pipe bowl fragment, and indeterminate metal. No diagnostic artifacts were recovered.

Feature 180

Feature 180 lay 30 centimeters (1.0 ft.) southwest of the other two and was amorphous in plan with maximum dimensions of 25x20 centimeters (0.8x0.7 ft.). Bisection exposed a possibly tapered or pointed post mold in a squared posthole. The base of the feature was 17 centimeters (0.6 ft.) below the graded surface (42 cm. [1.4 ft.]) below ground surface). The possible post mold was roughly straight-sided with a pointed base and was represented by very dark gray (2.5Y 3/1) loamy sand. Traces of a possible posthole were at the base of the post mold and consisted of mottled light olive brown (2.5Y 5/6) sandy clay and very dark grayish brown (10YR 3/2) loamy sand.

Excavation resulted in the recovery of 12 artifacts, eight being indeterminate nails. One fragment of whiteware in the kitchen group provided a TPQ of 1830. A single glass fragment comprised the balance of this group. One tobacco pipe fragment and an indeterminate metal object were also recovered. The feature could be assigned a general nineteenth-century date.

Feature 189

Two additional posts lay to the south, between Features 165, 166, and the storage pit reflected by Feature 147. Feature 189 lay immediately south of Feature 165. This sub-rectangular soil stain measured 40x30 centimeters (1.3x1.0 ft.) in plan. Bisection suggested two individual posts, one reaching a depth of 11 centimeters (0.4 ft.) below the graded surface, and the other 21 centimeters (0.7 ft.) (36 and 56 cm [1.2 and 1.8 ft.] below surface, respectively). In profile, the shallower posthole was pointed at the base, while the other had straight to slightly expanding sides and a roughly flat base. The fill of each consisted of dark gray (10YR 3/1) sandy loam and dark gray loamy sand mottled with light yellowish brown (2.5Y 6/3) sand.

This feature produced 24 artifacts, mostly indeterminate metal (n=11). Six architectural artifacts included nail and brick fragments, while the kitchen group contained bone, ceramics, and glass. Diagnostic artifacts included one paneled glass bottle fragment, which post-dates 1867, two whiteware sherds, and cut nail fragment. These provided a general nineteenth-century date, with the glass bottle providing a TPQ.

Feature 190

Feature 190 was 50 centimeters (1.5 ft.) north of Feature 147. This feature measured 35x30 centimeters (1.1x1.0 ft.) in plan and extended to a depth of 34 centimeters (1.1 ft.) below the graded surface (39 cm [1.3 ft.] below the ground surface). The profile exhibited tapering sides with a roughly level base and a small root cast at the bottom. The overall regular shape of the feature and distinct boundaries indicated it was cultural. The fill consisted of a deposit of very dark gray (10YR 3/1) sandy loam that represented residual plow zone above mottled very dark gray and light yellowish brown (2.5Y 6/3) sand.

Artifacts from this feature included 83 items, most of which (n=43) were indeterminate metal. Twenty architecture group artifacts were unidentified nails (n=13), one cut nail, and six brick fragments. Kitchen group artifacts included nine bone fragments, one pearlware sherd, one porcelain fragment, one piece of a stoneware bottle, five fragments of whiteware, and one yellowware fragment. An edge-decorated whiteware sherd with a beginning date of 1841 provided a TPQ for the feature. The diagnostic artifacts as a group suggested a general nineteenth-century date.

Post Cluster 3 Summary

In short, this linear arrangement of posts/postholes did not have an obvious function. Although it was associated with a storage pit (Feature 147), which on its own suggested the presence of a structure, the posts do not clearly delineate a building. The features appeared to reflect a general nineteenth-century date, but could not be dated more precisely. Although pearlware was found in this group of posts, its quantity was too low to strongly suggest an early date, and the features probably post-dated 1830, suggested by higher numbers of whiteware. Given the relatively late date of the features, they probably did not represent a post-in-ground building. A more likely interpretation is that these features reflect a fence line or one side of an enclosed yard or pen.

HEARTHS

Two features were identified as hearths during the data recovery. These were characterized by irregular shapes, shallow depths, and quantities of charcoal. Hearths were foci of numerous tasks and activities at African American households, and were typically located outdoors (Joseph 2007:103).

Feature 28

Feature 28 lay south of Feature 7 in Block 1. This roughly oval-shaped soil anomaly measured 1.0x0.6 meters (3.3x2.0 ft.), although its size was exaggerated slightly by tree roots. The dominant soil matrix consisted of very dark brown (10YR 2/2) sandy silt and dense charcoal. A

curving area of yellowish red (5YR 4/6) sandy clay was at the western edge of the feature. Excavation revealed a shallow basin-shape with an irregular base. The maximum depth of the feature was 11 centimeters (4.3 in.) below the stripped surface (49 cm [1.6 ft.] below the surface) (Figure 70).

The feature yielded 19 artifacts, 11 being clear glass fragments. One whiteware sherd was also present. A railroad spike in the feature provided a TPQ of 1839. Other artifacts included four brick fragments, a tobacco pipe bowl, and indeterminate metal. The only chronologically diagnostic artifacts were the whiteware sherd and spike, which suggest a general nineteenth-century date.

Feature 45

Located in Block 4, Feature 45 encompassed a relatively large (2.8x2.4-m [9.2x7.9-ft.]), amorphous group of soil anomalies. These were sub-divided into three smaller features and bisected, which revealed a central, roughly circular feature (Feature 45A) that measured 75x70 centimeters (2.5x2.3 ft.) (Figures 71 and 72). The adjacent sub-features were judged to reflect bioturbation and other disturbance and they were not excavated to completion.

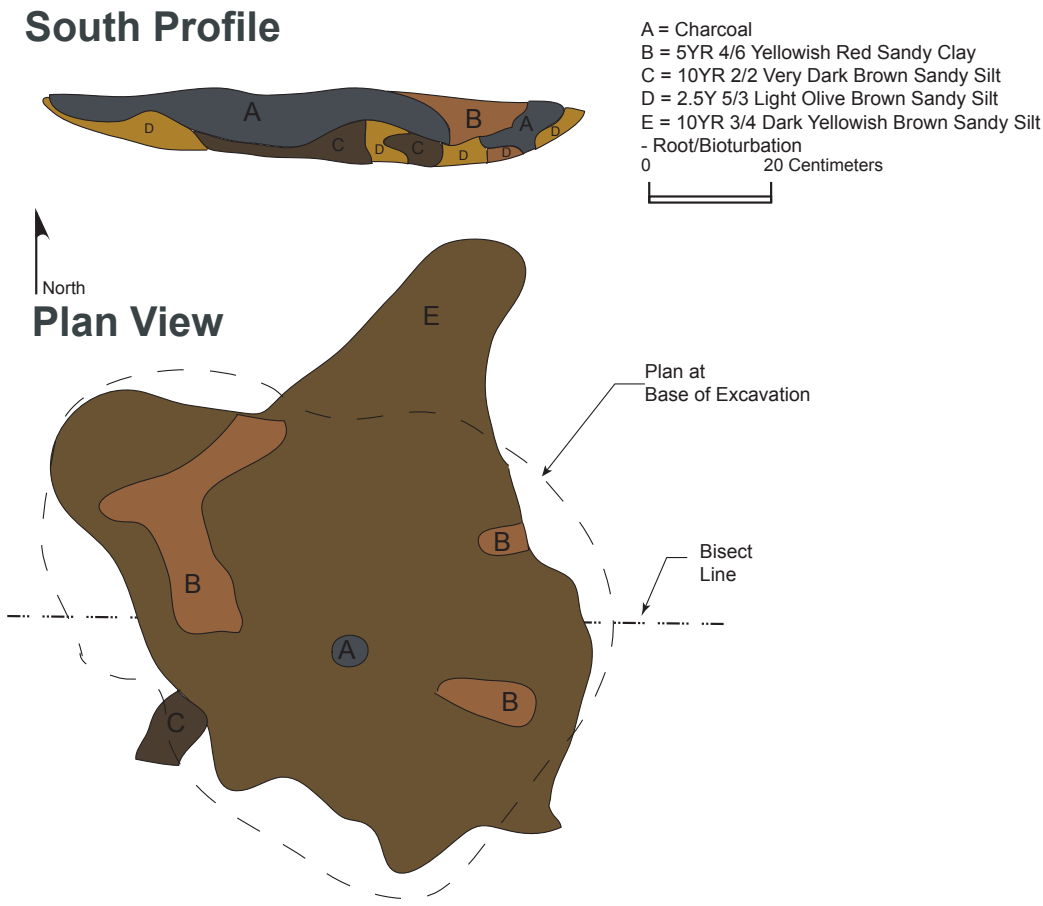
Bisection revealed that Feature 45A had a shallow bowl-shaped profile with an irregular base extending to a depth of 16 centimeters (6.3 in.) below the graded surface (approximately 0.46 cm [1.5 ft.] below grade). The matrix consisted of dark grayish brown (10YR 4/2) sandy loam mottled with light yellowish brown (2.5Y 6/4) sandy loam and containing charcoal flecks. A patch of yellowish red (5YR 4/6) clay was in the upper portion of the feature.

Twenty-two total artifacts included a single cut nail, representing the architecture group, and 21 artifacts in the kitchen group. These included 12 bone fragments, four oyster shells, two container glass fragments, and three whiteware fragments, which provided a TPQ of 1830. The feature cannot be dated precisely.

STORAGE PITS

Six features were identified as storage pits. Shapes included circular, oval, and rectangular with rounded corners; sizes, depths, and content varied. What distinguished these features was their large size, typically having one dimension of at least 1.0 meter (3.3 ft.). Such features frequently occur in African American plantation sites, and were located below the floors of dwellings. They have been interpreted as reflecting multiple purposes, such as general storage, secure personal storage, and ritual activities (Joseph et al. 2004:71; Joseph 2007:105; Samford 2007).

Figure 70.
Plan, Profile and Photograph of Feature 28



South Profile

Figure 71.
Plan and Profile of Feature 45

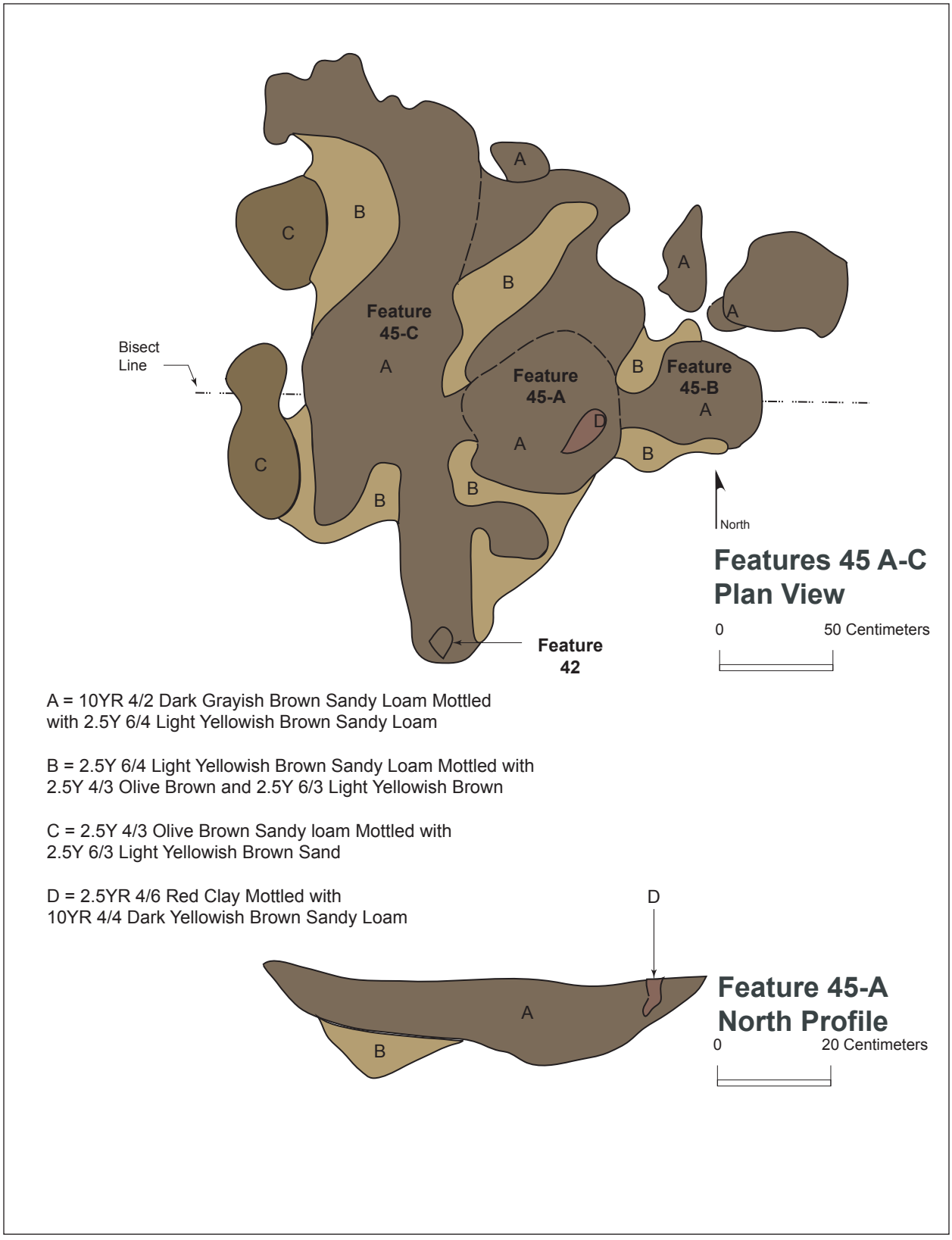


Figure 72.
Photographs of Feature 45

A. Feature 45, Exposed at Base of Plow Zone

B. Feature 45A, North Profile

Feature 7 (Structure 5)

Feature 7 was identified during Phase I/II study of 9CH1205, initially with geophysical investigations, and then with test excavations. The feature was partly exposed and excavated with Phase I/II Test Units 10 and 12, which uncovered its southwest portion and revealed it as a large, roughly basin-shaped pit measuring at least 1.5x1.0 meters (4.9x3.3 ft.) and reaching a minimum of 75 centimeters (2.5 ft.) below surface (Silliman and Quirk 2009:100-102).

The limited excavation of the feature produced over 1,400 historic artifacts dominated by architectural materials, which comprised 50.5 percent of the assemblage. Subsistence/kitchen related artifacts comprised 29.6 percent of the total. Chronologically diagnostic artifacts included quantities of creamware and pearlware ceramics, along with whiteware and yellowware, which, combined, suggested an early nineteenth-century occupation. Sun-colored amethyst glass, however, provided a later TPQ of 1880. Civil War-era artifacts were also recovered, indicating the feature reflects deposition from the second half of the nineteenth century. Quantities of brick and tabby mortar fragments suggested the feature had an architectural function, possibly as a hearth or chimney (Silliman and Quirk 2009:103-109).

The data recovery excavations established that Feature 7 reflected two separate entities, designated Features 7 and 7A, with Feature 7 reflecting the pit identified during the Phase I/II. Feature 7A lay to the east and was a discrete second pit. A second sub-feature, 7B, which was identified in the east profile of the Phase I/II test unit, was determined to comprise a fill lens within Feature 7 (Figures 73 and 74).

Because Feature 7 lay at the edge of the large oak tree's drip line, it was uncovered through hand-excavation in 1x1-meter (3.3x3.3-ft.) units. In plan, the complete feature was amorphous with indistinct edges, its dimensions measuring 4.0x2.4 meters (13.1x7.9 ft.), with the long axis on a roughly east-to-west orientation. These dimensions included Feature 7A, which emerged as a sub-rectangular soil anomaly at the eastern side of the larger feature measuring 1.1x0.9 meters (3.6x3.0 ft.). Feature 7 consisted of very dark grayish brown (10YR 3/2) loamy sand, while Feature 7A was reddish yellow (7.5YR 6/8) very fine clayey sand containing a discernable concentration of large and residual brick fragments. Feature 7B, which was exposed at the feature's surface, was an oval area of dark yellowish brown (10YR 3/4) loamy sand with charcoal and residual brick fragments measuring 1.4x0.7 meters (4.6x2.3 ft.). Clearing the entire feature indicated that the north wall of the EPEI test units roughly bisected Feature 7 on its long axis, while the partial excavation had removed the feature's southwest quadrant.

Figure 73.
Plan of Features 7, 7A, and 7B

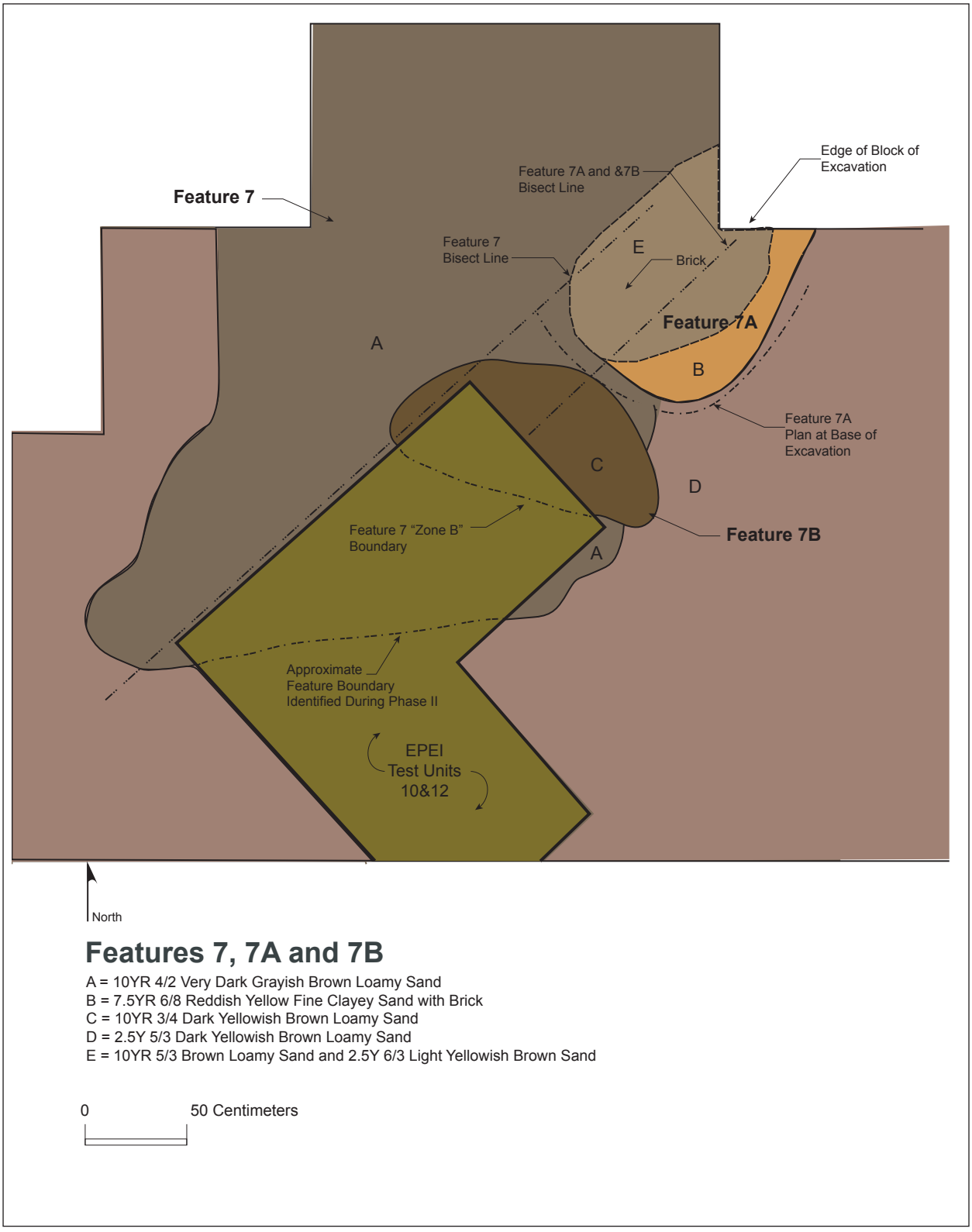


Figure 74.
Features 7, 7A, and 7B Exposed at Base of Plow Zone

The excavation procedure and preliminary excavation results affected how this feature was removed and recorded. Feature 7A appeared to reflect an intrusive feature into Feature 7, and so was bisected first. Excavation to a depth of 30 centimeters (1.0 ft.) below the top of the E horizon (45 centimeters 1.5 ft. below surface) revealed a deep basin shape in profile. At the base of the feature dark yellowish brown (10YR 4/6) loamy sand emerged that was interpreted as the principal matrix of Feature 7. Feature 7A was then terminated and the feature's north half was excavated.

Excavation of Feature 7 then began, with a bisection line following the original EPEI test unit wall. The line of this wall lay a few centimeters north of the bisection line of Feature 7A. As the excavation of Feature 7 proceeded, a distinct boundary of Feature 7A reappeared and indicated that the sub-feature extended deeper than it initially appeared. Excavation of Feature 7 was then temporarily stopped and work on Feature 7A restarted. The resumed excavation followed the bisection line of Feature 7, which did not align with the original Feature 7A bisection line, and the resulting profile was therefore not along the center line of the feature.

Feature 7A Description

Feature 7A was circular to slightly oval in plan and measured approximately 1.2x1.1 meters (3.9x3.6 ft.). In profile, the pit exhibited slightly flared sides and a flat to slightly rounded base at a maximum depth of 90 centimeters (3.0 ft.) below the plow zone, or 1.1 meter (3.6 ft.) below surface (Figures 75 and 76). The feature fill consisted of lenses of brown (10YR 5/3) loamy sand mottled with light yellowish brown (2.5Y 6/3) sand, light olive brown (2.5Y 5/3) sand with brown (10YR 4/3) sand, brown (10YR 4/3) loamy sand, and brown (10YR 4/3) sand mottled with light olive brown (2.5Y 5/3) sand. The fill appeared to reflect natural deposition and it had been disturbed in its upper portion by a root from the large oak tree. The volume of the feature's extant portion was roughly 1.02 cubic meters (34 cu. ft.).

This feature produced 2,048 artifacts, placed in the architecture, kitchen, clothing, arms, activities, tobacco, and miscellaneous artifact groups, the architecture group being the largest by far (Table 23). The feature yielded 64 datable ceramic sherds, which produced an MCD of 1855.2. A single fragment of bakelite, recovered from Level 5 of the feature, provided a TPQ of 1907. Given the root disturbance in the feature, it is possible that this item was intrusive. Excluding it would produce a TPQ of 1866 based on a rimfire cartridge (Miller 2000). Additional artifacts include a brass bullet cartridge with a beginning date of 1846, an edge-decorated whiteware sherd with a beginning date of 1841, and a sponge-decorated whiteware sherd with a beginning date of 1840 (Miller 1991; 2000:13-14). The feature yielded

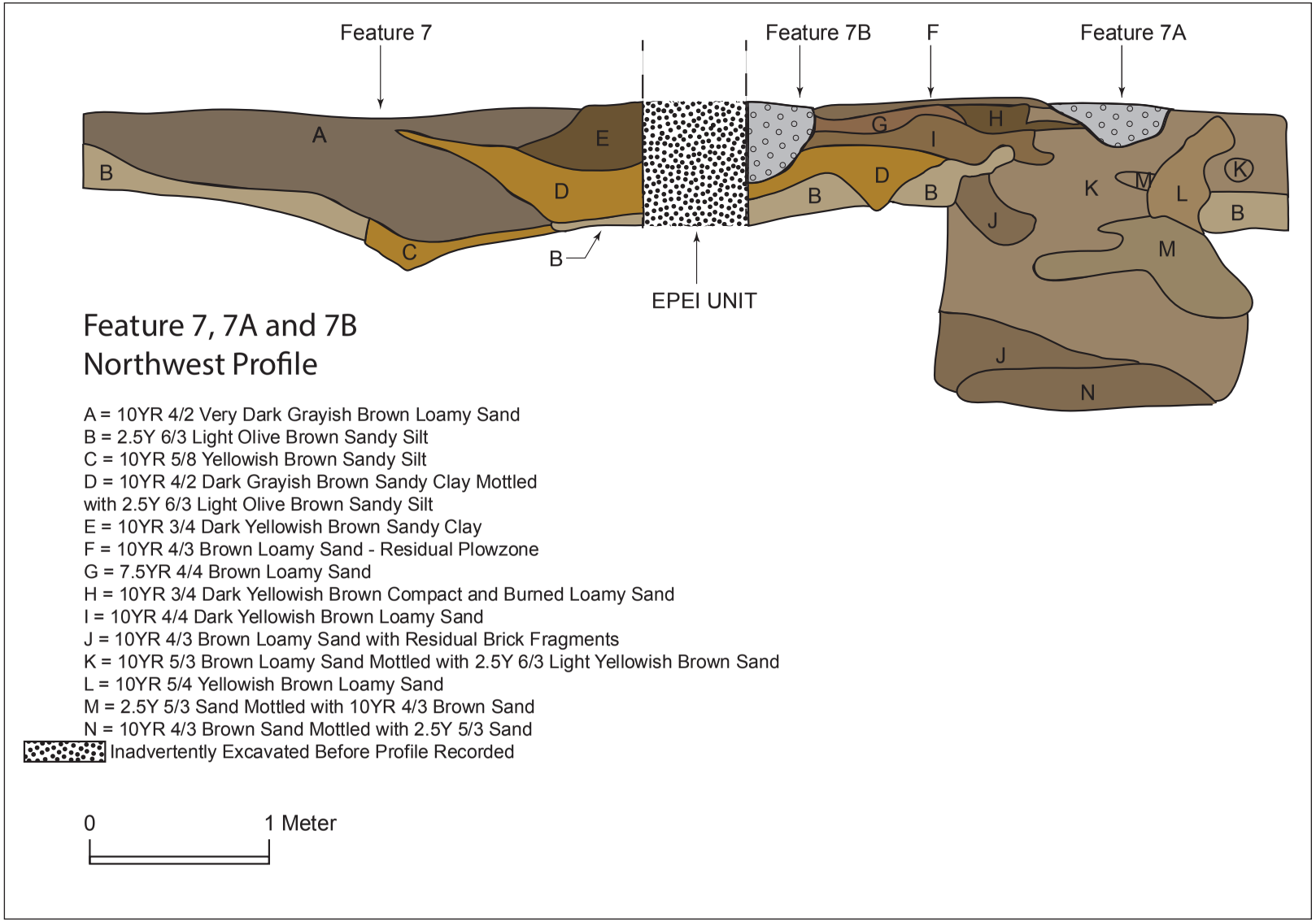


Figure 75.
North Profile of Feature 7, 7A, and 7B

Figure 76.
Photographs of Feature 7A

A. Feature 7A, North Profile

B. Feature 7A, View After Excavation of South Portion with North Profile at Left

moderate quantities of pearlware (n=17) along with 44 whiteware sherds. In combination, these are suggestive of an early through mid-nineteenth-century date. A lack of ironstone (beginning date of 1842) suggested the feature does not include quantities of materials from the second half of the nineteenth century, although it was clearly filled-in during the 1860s or later.

Table 23. Artifact Groups, Feature 7A

Artifact Group	Count	%
Architecture	1,474	71.97
Kitchen	438	21.39
Clothing	7	0.34
Miscellaneous	93	4.54
Arms	2	0.10
Tobacco	9	0.44
Activities	25	1.22
Total	2,048	100.00

The architecture group comprised the majority of the artifacts, indicating that the feature was filled primarily with building debris. The bulk of this group consisted of mortar (486 fragments containing crushed shell, 451 with no distinct inclusions) and brick (n=362) fragments. For both categories of mortar, the fragments were extremely small, averaging less than 5.0 grams (0.18 oz.) per fragment. Similarly, the brick was also very fragmentary, averaging just over 6.0 (0.21) grams apiece, excluding seven larger handmade specimens. Nails were present in only moderate quantities. Of 140 nails, 107 were cut, and one was a tack/brad. The remainder could not be identified. Additional artifacts in this class included 33 flat glass fragments, and two pieces of slate, identified as roof tile. Conceivably, however, these could represent writing slate.

The architecture group artifacts are notable because they suggest the presence of a masonry structure in the vicinity. This most likely consisted of a chimney or chimney base. The reason for the extremely fragmentary nature of the brick and mortar fragments is unclear, however, as this material appears to have been heavily weathered before deposition.

The kitchen group, containing 438 artifacts, was composed of mostly faunal material, principally small fragments of oyster shell. The 167 shell fragments average only 2.1 grams (0.07 oz.) each. The faunal material also included animal bone. The ceramic assemblage was mainly pearlware and whiteware, as discussed above, but small quantities of other types are also present that would be expected at an early to mid-nineteenth-century occupation (Table 24). Also in the kitchen group were 82 glass fragments of various colors that could only be identified generally as

container fragments. A single machine-made container fragment from feature Level 1 was probably intrusive. Finally, an iron kettle/pot fragment and knife blade were placed in this group.

Table 24. Feature 7A, Ceramics

Type	Begin Date	End Date	Count
Creamware, Plain	1762	1830	2
Pearlware, Blue Underglaze Transfer Print	1783	1830	4
Pearlware, Even Scalloped Curved Impressed, Blue or Green Underglaze	1802	1832	2
Pearlware, Plain	1780	1840	7
Pearlware, Underglaze Painted, Blue	1775	1830	2
Pearlware, Underglaze Painted, Polychrome Floral	1795	1830	2
Porcelain, Unidentified			2
Redware, Black Glazed			1
Stoneware, British Brown	1690	1775	1
Stoneware, Brown Salt Glazed, Unidentified			1
Stoneware, Grey Salt Glazed, Unidentified			1
Stoneware, Refined Red, Dark Brown Glaze			2
Stoneware, Unidentified			1
White Bodied Earthenware, Burned/ Unidentified			1
White Bodied Earthenware, Unidentified			3
Whiteware, Dipped	1820	1900	15
Whiteware, Plain	1830	1950	16
Whiteware, Plain, Molded	1830	1950	1
Whiteware, Polychrome Handpainted; Large Floral	1830	1880	1
Whiteware, Sponged	1840	1930	1
Whiteware, Transfer Print Red/Green/Purple/ Black or Brown	1828	1950	4
Whiteware, Transfer Print, Blue	1830	1950	3
Whiteware, Underglaze Handpainted	1830	1950	2
Whiteware, Unscalloped, Impressed Rim, Edgeware, Blue	1841	1895	1
Total			76

Seven artifacts in the clothing group included two metal buttons, one bone button fragment, one brass hook-and-eye fastener, and three straight pins. The arms group contained the two metal cartridges noted above. Nine items were placed in the tobacco group and included seven bowl fragments, two with decorative molding, and two stem fragments.

The activities group included 25 artifacts, most being sheet metal (n=10). Other artifacts included the previously noted bakelite fragment, a three-link section of iron chain, seven pieces of glass identified as lamp chimney fragments, and six fragments of wire. The miscellaneous artifacts (n=93) included metal and glass artifacts that could not be identified or that had no clear function.

A soil sample collected from the lowest level of the feature for microbotanical analysis produced limited data, but might bear on its function. Of particular note was a preponderance of grasses and evidence for squash. The grasses, reflecting straw or hay, could reflect material used to pack root crops for storage, a common practice for root pits (Messick et al. 2001:58). The squash phytoliths most likely indicates this crop was kept in the pit at one time or that remnants of food refuse were discarded in it.

A large (112-liter) soil sample yielded archaeobotanical remains dominated by food plants. Maize cupule and cob fragments were common as were hickory and walnut fragments. Overall densities were not very high for the size of the soil sample, however. This suggests that the feature was not utilized for disposal of food refuse except perhaps intermittently. The feature also contained a small assemblage of haw (arrowwood), which could be consumed or used for medicinal purposes, but was not a staple, and traces of edible weeds (bedstraw, knotweed, and plantain) as well as a condiment (mustard).

In summary, microbotanical analysis strongly suggests Feature 7A was used as a storage pit for roots and other vegetables. Artifacts appear to reflect materials unrelated to its use but rather became deposited in the feature after its abandonment. The artifacts were mostly architectural and suggest the presence of a masonry structure in the vicinity. Any such structure was likely a chimney or chimney base, rather than a complete building. The extremely weathered quality of the brick fragments is difficult to explain, although it is possible that they reflect clean-up of residual building debris. The other artifacts in the feature were also fragmentary and probably represented incidental inclusions rather than deliberate disposal of primary refuse. Another point about the architectural materials is the presence of window glass, which suggests that houses at the site had glazed windows, a possibility that contradicts most descriptions of slave housing. Artifacts from this feature indicate it was filled in the 1860s or later. The flat glass could date to the postbellum occupation of the site, and therefore suggests that once they had the freedom to do so, residents improved the quality of their housing by adding features such as glazed windows.

Feature 7

Feature 7, as noted, exhibited an irregular shape in plan (see Figures 73 and 74). Extending the Phase I/II bisection line to obtain a complete profile indicated Feature 7 was a distinct pit that did not intersect Feature 7A. Feature 7B was excavated before Feature 7 but found to be a fill lens rather than a separate feature.

In profile, Feature 7 was a wide, basin to conical shape (see Figures 75 and 77). The width of the feature at the top of the profile measured approximately 2.3 meters (7.5 ft.), while the maximum depth was 48 centimeters (1.6 ft.) below the plow zone (63 cm [2.1 ft.] below ground surface). A rough estimate of volume for this feature was 0.8 cubic meters (25 cu. ft.). The feature fill predominantly consisted of dark grayish brown (10YR 4/2) loamy sand. Lenses of dark yellowish brown (10YR 3/4) sandy clay and mottled light olive brown (2.5Y 6/3) sandy silt and yellowish brown (10YR 5/8) sandy silt were in the eastern portion of the feature, and reflected traces of Feature 7B.

For a complete analysis of the feature contents, New South combined the assemblage collected by EPEI with the data recovery collection, which yielded a total of 4,670 artifacts. Architecture group artifacts dominated the collection, comprising nearly two-thirds of the total, followed by the kitchen group, which comprised just under 25 percent. The miscellaneous group was also a relatively large portion of the assemblage, while the clothing, arms, tobacco, and activities groups comprised only small parts (Table 25).

Table 25. Artifact Groups, Feature 7

Artifact Group	Count	%
Architecture	3,035	64.99
Kitchen	1,097	23.49
Miscellaneous	473	10.13
Clothing	9	0.19
Arms	8	0.17
Personal	1	0.02
Tobacco	20	0.43
Activities	25	0.54
Total	4,670	100.00

Chronological information concerning Feature 7 was derived from historic ceramics along with other materials having known manufacturing dates. Based on 132 datable ceramics, the MCD was 1862.2, while the TPQ for the feature was 1866, based on a rimfire cartridge. The ceramics included a variety of types, including some, such as creamware (n=7) and pearlware (n=26), with early dates. Datable types were dominated by whiteware (n=87), which suggested that the feature fill reflected a more intensive occupation after the early decades of the nineteenth century. The earlier types could reflect older items still in use or incidental inclusions in the feature. In addition to the ceramics, four Prosser buttons (beginning date of 1840), two whiteware sherds with unscalloped impressed rims (beginning 1841), and one pointed wood

Figure 77.
Photographs of Feature 7

A. Feature 7, North Profile

B. Feature 7, View After Excavation

screw (beginning date of 1846) indicated deposition near the mid-nineteenth century. Notably, the feature did not contain ironstone ceramics (beginning 1842), which suggested deposition did not continue for long after the 1866 TPQ.

The overall assemblage, as noted, was composed mostly of architecture group artifacts. Mortar fragments (n=1,336; 44.02% of all architecture) were the largest portion of this group, followed by brick fragments (n=1,223; 40.30%). The mortar included 261 fragments with crushed shell inclusions. Nails (n=366; 12.06%) were a relatively small part of the group. The nails included 192 cut specimens and 152 with square shanks that could not be identified as cut or wrought. Additional metal fasteners included one tack and the wood screw noted above. One iron latch part and sheet metal constituted the remainder of the hardware. Flat glass (n=99; 3.26%) comprised a minor part of the group. Finally, one fragment of slate, interpreted as roofing material, was included with the architecture artifacts.

The kitchen group was sorted into ceramics, glass, and faunal, which was the most common (n=750; 68.37% of all kitchen). The faunal included 411 bone fragments and 346 shell (340 oyster, the other six being indeterminate). Glass (n=192; 17.50%) and ceramics (n=155; 14.13%) were small fractions of the kitchen group. The glass collection consisted primarily of indeterminate container glass in varying colors. Three fragments were identified as bottles. The ceramic assemblage was more diverse (Table 26). In addition to the types noted above, the ceramics included porcelain (n=7), redware with black glaze (n=3), stoneware with salt glaze (n=1) and Albany slip (n=2), as well as a refined red bodied type with dark brown glaze (n=6) that probably represents a tea service. Nine varieties of yellowware were also recovered.

Table 26. Feature 7, Ceramics

Type	Begin Date	End Date	Count
Creamware, Plain	1762	1830	7
Pearlware, Blue Underglaze Transfer Print	1783	1830	6
Pearlware, Brown Transfer Print	1809	1825	1
Pearlware, Dipped	1790	1840	2
Pearlware, Embossed Patterns Edgeware	1820	1835	1
Pearlware, Even Scalloped Straight Impressed, Blue or Green Underglaze	1809	1831	1
Pearlware, Plain	1780	1840	11
Pearlware, Underglaze Painted, Blue	1775	1830	4
Porcelain, Blue Painted			1
Porcelain, Underglaze Blue Chinese	1660	1800	1
Porcelain, Unidentified			5
Redware, Black Glazed			3

(Continues)

(Table 26, Continued)

Type	Begin Date	End Date	Count
Stoneware, Brown Salt Glazed, Unidentified			1
Stoneware, Buff Bodied, Albany Slipped	1805	1920	2
Stoneware, Refined Red, Dark Brown Glaze			6
Stoneware, Unidentified			2
White Bodied Earthenware, Burned/ Unidentified			4
White Bodied Earthenware, Unidentified			1
Whiteware, Dipped	1820	1900	10
Whiteware, Plain	1830	1950	51
Whiteware, Plain, Molded	1830	1950	2
Whiteware, Polychrome Handpainted; Large Floral	1830	1880	5
Whiteware, Scalloped, Impressed Edgeware	1830	1950	1
Whiteware, Transfer Print Red/Green/Purple/ Black or Brown	1828	1950	7
Whiteware, Transfer Print, Blue	1830	1950	6
Whiteware, Underglaze Handpainted	1830	1950	3
Whiteware, Unscalloped, Impressed Rim, Edgeware, Blue (Green or Red)	1841	1895	2
Yellowware, Dipped	1830	1900	4
Yellowware, Plain	1830	1940	1
Yellowware, Rockingham/ Bennington	1830	1910	4
Total			155

The clothing group, containing nine artifacts, included one brass hook and eye fastener and eight buttons. In addition to the four Prosser buttons noted already, these included two of bone, one of shell, and one of brass. The furniture group contained only two artifacts: a brass furniture handle and a brass upholstery tack, both recovered during the Phase II study. Also recovered during the Phase II, the personal group included a single item, identified as an iron buckle from a cartridge box suspension sling. Although possibly a Civil War military item, since the feature was filled after 1866, this item did not indicate Feature 7 was related to the war.

The tobacco group included 12 pipe bowl fragments and eight stem pieces. The activities artifacts, including 25 items, were sorted into glass and metal. The glass (n=9) was identified as chimney glass. The metal included one bucket part, wire fragments, one railroad spike, one iron strap, an indeterminate iron ring, and unidentified metal sheets.

The arms group was composed of only eight artifacts, including the rimfire cartridge noted above. Five percussion caps were recovered, as well as two bullets. All the artifacts in this group were recovered during the Phase II investigations. Silliman and Quirk (2009) described one of these as a .36 caliber bullet that was carved and intended for either a navy revolver or Maynard carbine. The other was identified as the zinc plunger of a Williams Cleaner bullet.

The miscellaneous category, containing 473 artifacts, was mostly indeterminate metal, including two unidentified lead fragments, 18 unidentified non-ferrous artifacts, 405 oxidized iron, and two pieces of slag. Other artifacts in this group included charcoal (n=38), coal (n=2), and indeterminate or non-cultural stone (n=3).

By way of comparison with Feature 7A, both have roughly similar dates. The TPQ for both is 1866 (excluding a single fragment of sun-colored amethyst glass from Feature 7A, which could reflect bioturbation), and they had very close MCD's (Feature 7 was 1862.2 and Feature 7A was 1855.2). The filling in of the two features was therefore roughly contemporaneous. The artifact patterns from both were dominated by architectural materials with Feature 7A having a slightly larger percentage of architecture group artifacts (71.97-64.99%) and a lower frequency of kitchen group materials (21.39-23.49%). The other groups represented very small parts of the assemblage, although the miscellaneous category showed some variation, with this group being 10.13 percent of the total in Feature 7 but only 4.54 percent in Feature 7A. The overall percentages, however, suggest the two features are essentially identical and they did not appear to reflect distinct functions or fill content.

Microbotanical analysis for this feature produced limited information regarding the feature's function and content. Maize and possible wheat were noted among the pollen and phytoliths, along with blackberry and cotton pollen grains. The cereal remnants could indicate foodstuff stored in the pit or incidental inclusions from nearby cultivated fields. Cotton almost certainly entered the feature from fields or possibly during crop processing. Blackberry might also have been cultivated in the feature vicinity. The cotton is of particular note because it strengthens the suggestion that this plantation was involved in Sea Island cotton rather than rice production.

Oak pollen was the most frequent pollen in the assemblage. This is not surprising, given that the feature lies below the large oak tree, which was standing during the site's occupation. What is more notable is that oak was present in insignificant amounts in Feature 7A. The reason for this difference is not known, but could indicate different deposition processes.

Archaeobotanical remains from Feature 7 were relatively sparse. The assemblage was dominated by 13 carbonized haw (arrowwood) seeds. Although potentially used for food or medicine, this species was probably not a dietary staple. Other plants that could serve for food, and that were found in midden deposits at the site, such as maize and nut, were sparse from this feature. These results indicate that Feature 7 was probably not used for disposal of kitchen refuse.

FEATURE 38

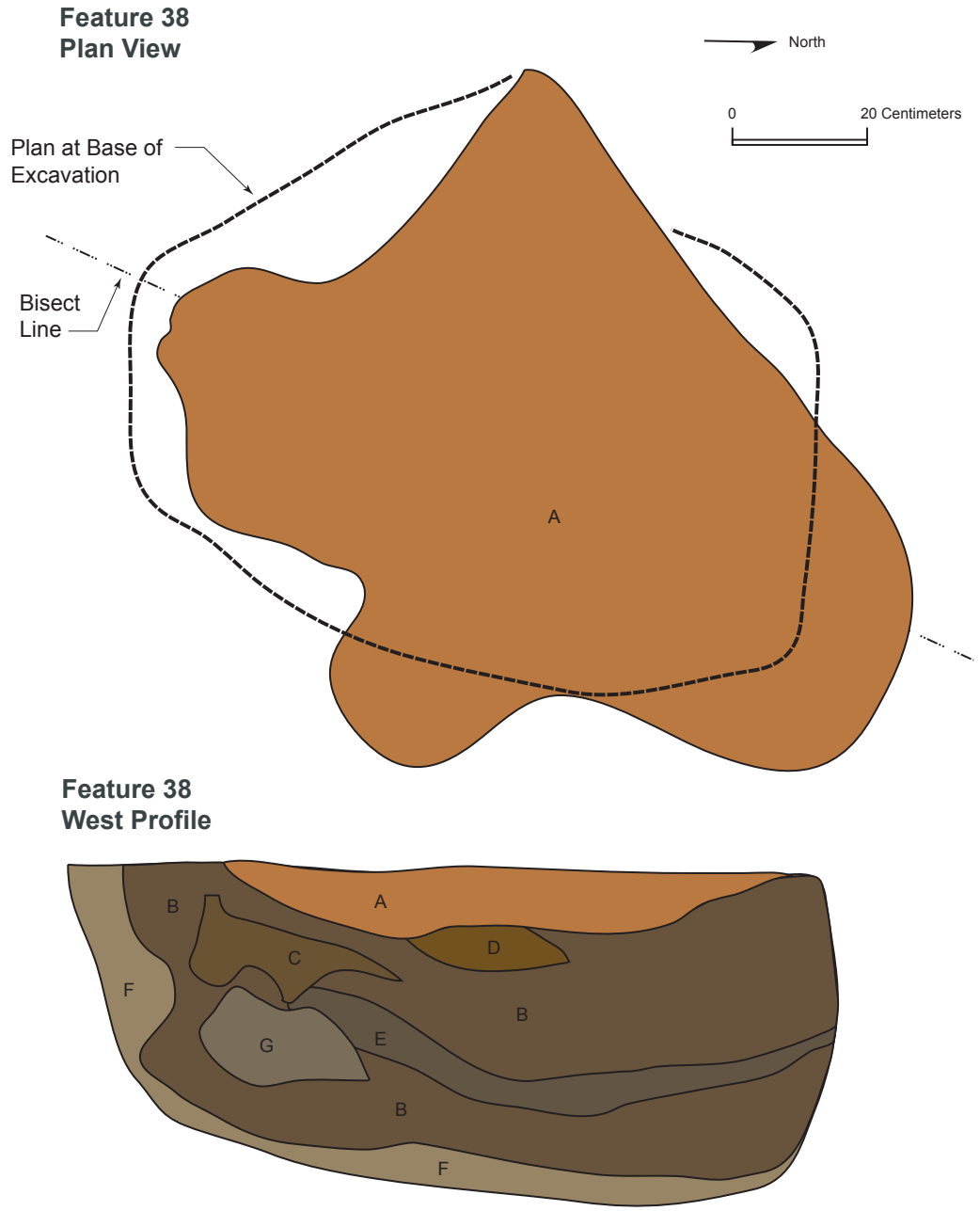
As noted above, Feature 38 was a pit located in association with the wall trench structure delineated by Features 89 and 90, and possible structure indicated by posts (Features 33, 34, 36, and 37) (see Figure 66). Feature 38 would have lain outside the wall trench structure but within the possible structure defined by posts.

Machine- and hand-clearing exposed most of Feature 38, although portions of the feature remained below the overburden associated with a large tree root plate. As first exposed, the feature was an amorphous soil anomaly with maximum observable dimensions of 1.4x1.1 meter (4.9x3.6 ft.). Subsequent excavation indicated a clearer edge that was straight to slightly curving. The overall size and shape of the feature could not be determined, however (Figures 78 and 79).

Bisection of the exposed portion revealed a deep basin shape with straight sides and a flat to sloping base. The maximum depth was 49 centimeters (1.6 ft.) below the graded surface (roughly 79 cm [2.6 ft.] below surface). The fill matrix consisted of lenses of dark brown (10YR 3/3) sandy loam; yellowish red (5YR 5/8) clay; dark yellowish brown (10YR 3/6) sandy loam; and very dark grayish brown (10YR 3/2) sandy loam. The yellowish red clay, which was at the very top of the feature, matched the deposits of this material noted in associated postholes and probably reflects the demolition or decomposition of the structure (presumably a chimney) made from this material. The majority of the fill, however, is relatively homogenous, with the darkest soils at the bottom of the feature, which suggests it was open for a period when organic material could accumulate in it, and then filled gradually. Artifact densities and size did not suggest primary disposal.

The excavated portions of Feature 38 produced 659 artifacts reflecting the architecture, kitchen, furnishings, personal, arms, tobacco, activities, and miscellaneous artifact groups. Kitchen group artifacts were most numerous, comprising over two-thirds of the assemblage. Architecture group artifacts comprised only a quarter of the total, while the other categories were present in minor frequencies (Table 27).

Figure 78.
Plan and Profile of Feature 38



A = 10YR 3/3 Dark Brown Sandy Loam Mottled with 5YR 5/8 Yellowish Red Clay
B = 10YR 3/3 Dark Brown Sandy Loam
C = 10YR 3/4 Dark Yellowish Brown Sandy Loam
D= 10YR 3/6 Dark Yellowish BrownSandy Loam
E = 10YR 3/2 Very Dark Grayish Brown Sandy Loam
F = 2.5Y 5/3 Light Olive Brown Sand (E Horizon)
G = 2.5Y 4/2 Dark Grayish Brown Sand Mottled with 10YR 3/3 Dark Brown Sandy Loam

Figure 79.
Photographs of Feature 38

A. Feature 38, West Profile

B. Feature 38, Base of Excavation

Table 27. Feature 38 Artifact Groups

Artifact Group	Count	%
Architecture	162	24.58
Kitchen	453	68.74
Furnishings	1	0.15
Miscellaneous	28	4.25
Personal	1	0.15
Arms	3	0.46
Tobacco	9	1.37
Activities	2	0.30
Total	659	100.00

Ceramics comprised the majority of the diagnostic artifacts. An MCD of 1843.8 was derived from 157 dateable sherds. The TPQ of 1830 was based on whiteware. The only other diagnostic artifacts from the feature were cut nails (n=45), with a beginning date of 1805. Feature 38 thus appears to reflect an antebellum occupation at the site. It is likely that the MCD is skewed toward the present by whiteware in the assemblage. The absence of ironstone (beginning date of 1842) indicates the feature was probably not filled later than the middle nineteenth century. Moreover, the ceramic assemblage contains relatively high frequencies of creamware (n=32) and pearlware (n=51) compared to whiteware (n=74), implying the feature reflects an occupation that could have begun during the first decades of the nineteenth century. This result supports the inference made previously that Structure 3 (Features 89/90) reflected the initial occupation of the site. Based on the chronological evidence, this structure, along with associated Feature 38, were abandoned prior to the Civil War, and probably by the 1840s, considering the lack of ironstone and other late artifacts.

The artifact assemblage was mainly kitchen-related materials, suggesting household refuse. Within the kitchen group (n=453), faunal materials were most prevalent (58%) and included 166 pieces of shell (primarily oyster) and 98 bone fragments. The remainder of the kitchen group included 12 container glass fragments and 177 ceramic sherds. As noted, the ceramics included creamware, pearlware, and whiteware. Also present are low numbers of porcelain (n=2), coarse redware (n=3), and red-bodied glazed stoneware (n=3), as well as unidentified types (n=12).

The architecture group, comprising around a quarter of the entire assemblage, consisted mostly of fasteners identified as cut, wrought nails, or unidentified nails. Cut nails (n=45) were most numerous. The balance of the assemblage was mortar, including varieties containing shell, brick fragments, and clay/ceramic tile fragments. The brick and mortar fragments were extremely

weathered, with average weights of 6.2 grams (0.2 oz.) for unidentified brick, and 3.0 grams (0.1 oz.) for indeterminate mortar. Handmade brick fragments (n=6) were larger, averaging 21.5 grams (0.8 oz.) per fragment, as were fragments containing mortar (n=16), which averaged 10.4 grams (0.4 oz.) per fragment. Overall, however, these materials were very small, suggesting they did not represent intentional disposal of architectural debris.

A glass gemstone was placed in the personal group. This blue-colored, oval item measured 14x12 millimeters (0.06x0.05 in.) and was 5.8 millimeters (0.02 in.) thick. It is molded to resemble a cabochon with a domed crown and flat base, with a wide girdle that was molded to resemble rouletting. Presumably, this item was meant for setting in a piece of jewelry or possibly a button. Given its association with a probable slave occupation, and the known occurrence of similar items for purposes other than only personal adornment, it is possible that that this artifact functioned as a charm or ritual object.

The furniture group also contained a single item: a brass upholstery tack. This item is interesting in that it seems to contradict assumptions regarding the coarseness of slave household furnishings. The single tack, however, does not strongly suggest any interpretations. Tobacco group artifacts included six stem fragments, two molded bowl fragments, and one unmolded bowl fragment. An iron bolt and unidentified metal object were placed in the activities group. The arms group consisted of three buckshot pellets. The small size of these (average: 0.27 g/0.01 oz. apiece) indicates birdshot. Finally, the miscellaneous group consisted of 28 items that could not be identified or that had multiple or indeterminate functions. The majority of this group (n=25) was oxidized or indeterminate metal.

Phytolith and pollen analysis found common wild species, such as grasses, ragweed, goosefoot, chestnut, and pine along with (probably) wheat and maize. The presence of these cultigens likely reflected their production in the vicinity rather than storage in the pit. Also among the phytoliths was a single bamboo, which was used for a variety of purposes, such as fishing poles, construction, and animal fodder. This finding is particularly interesting given the proximity of Structure 3, a structure that could have incorporated bamboo wattle for wall or roofing material.

A 40-liter soil sample from this feature (10 liters per level) yielded a relatively large archaeobotanical assemblage. Carbonized plant remains included quantities of maize (represented by kernels, cupule, and cob fragments) and traces of pumpkin, peach, and nut varieties. These all represent common foodstuff among African American slaves, and probably indicate disposal into this feature as it was abandoned.`

Although the full size of Feature 38 could not be determined, its relatively formal shape and projected location within a structure suggested a storage pit. The artifacts indicated this feature was most likely abandoned and filled during the 1830s or 1840s, and thus related to an early occupation of the site. Notably, the feature was related to Structure 3, delineated by wall trenches. The abandonment of Feature 38, and possibly the associated dwelling, dated to a time when wood frame, tabby, or other building materials were replacing earlier earth-walled houses in slave quarters.

FEATURE 120

Exposed by machine-assisted stripping in Block 9, Feature 120 was a large pit that had been used for disposal of household refuse and some architectural debris. In plan, the feature exhibited a sub-rectangular or oval shape that measured 2.4x1.9 meters (7.9x6.2 ft.). Bisection indicated it reached a depth of 58 centimeters (1.9 ft.) below the graded surface, or about 88 centimeters (2.9 ft.) below surface (Figures 80 and 81). A rough volume estimate for the feature was 0.6 cubic meters (24.4 cu. ft.). In profile, the feature showed a basin-shape, although the actual form was not precisely determined. The uppermost levels of the feature were probably slumped, which accentuated the slope of the sides, but the walls at the lower levels were more vertical, suggesting the feature's original shape was square or rectangular.

The fill was predominantly dark grayish brown (10YR 4/2) sandy loam with mottles of pale yellow (2.5Y 7/3) and light yellowish brown (2.5Y 6/4) fine sand. A lens of very dark grayish brown (2.5Y 3/2) silty loam with very dark grayish brown (10YR 4/2) mottles, charcoal, and burned bone lay near the base of the feature and probably reflected a single dumping event. The portion of the feature below this deposit was light olive brown (2.5Y 5/3) fine sand with pale yellow (2.5Y 7/3) mottles.

This feature produced numerous large artifact fragments, suggesting a secondary use for refuse disposal. Its original function, however, was probably for storage, perhaps as a cellar/root pit.

Feature 120 produced 1,791 total artifacts, which were placed in the kitchen, architecture, clothing, personal, arms, tobacco, activities, and miscellaneous artifact groups. Architecture related artifacts comprised the largest portion of the assemblage, with kitchen and miscellaneous groups also comprising large percentages. Other artifact groups were much less common (Table 28).

Figure 80.
Plan and Profile of Feature 120

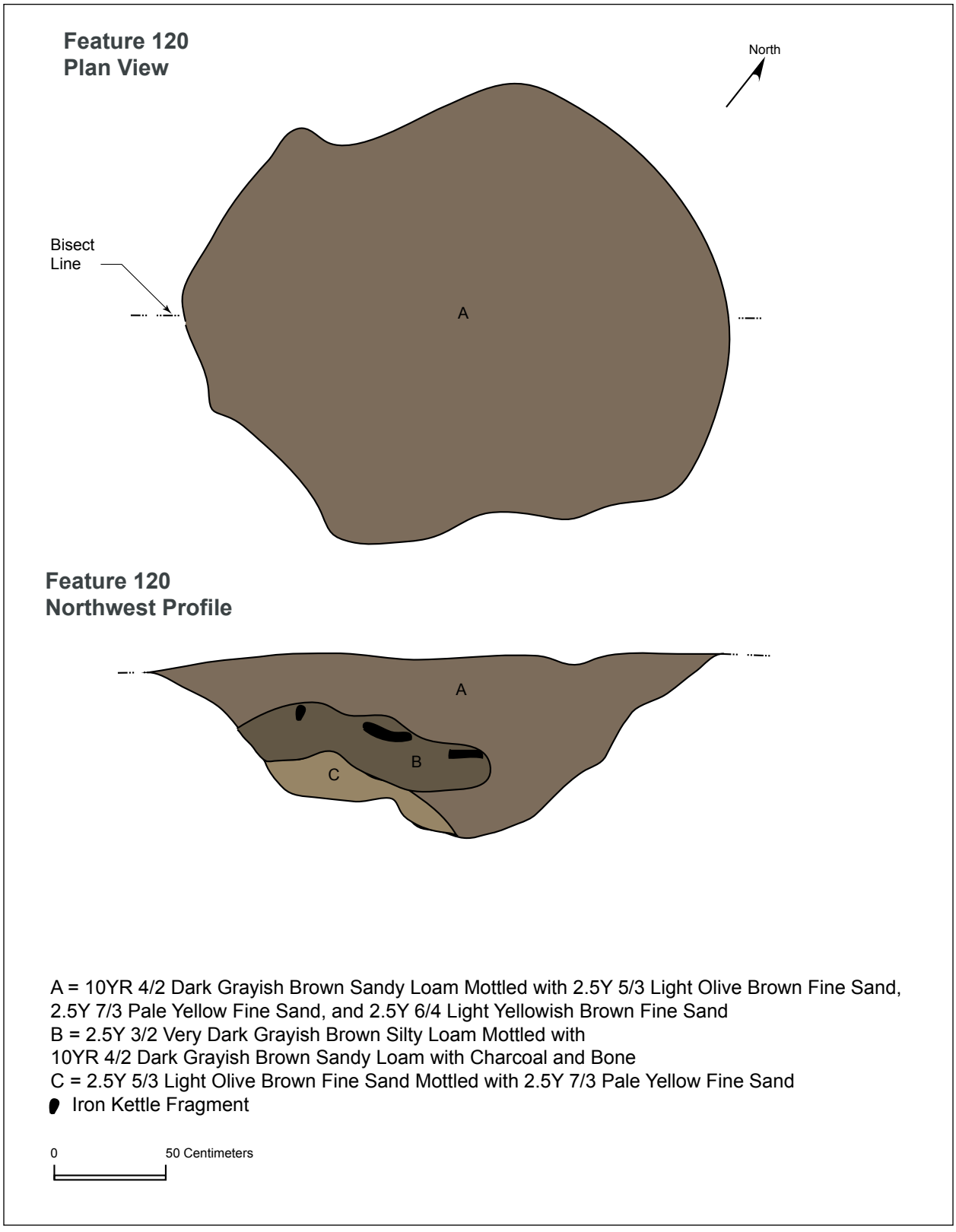


Figure 81.
Photographs of Feature 120

A. Feature 120 Exposed at Base of Plow Zone

B. Northwest Profile

C. Iron Kettle/Pan In Feature 120, Facing West

Table 28. Feature 120 Artifact Groups

Artifact Group	Count	%
Kitchen	523	29.20
Architecture	721	40.26
Clothing	8	0.45
Miscellaneous	517	28.87
Personal	1	0.06
Arms	2	0.11
Tobacco	15	0.84
Activities	4	0.22
Total	1,791	100.00

Dates for Feature 120 were derived from ceramics and other artifacts. An MCD of 1859 was calculated from 83 datable sherds. These included mostly whiteware (n=50) and pearlware (n=20). Other chronologically diagnostic types in the assemblage included creamware (n=4), yellowware (n=5), and ironstone (n=2). One ironstone sherd exhibited a maker's mark of J & G Meakin that indicated a date range from 1869-1891. A TPQ for the feature was obtained from a single fragment of sun-colored amethyst glass with a beginning date of 1880. An additional diagnostic artifact was a U.S. penny dated 1865. Although the single sun-colored glass fragment (recovered from feature Level 2) could be intrusive, the coin, along with later artifacts such as the ironstone, indicates the feature was probably filled during the post-Civil War period.

The kitchen artifact group comprised just under 30 percent of all artifacts from Feature 120. Of 523 artifacts in the group, 55.26 percent (n=289) were faunal or floral, and included bone (n=240), shell (n=47), and two burned nut fragments. The high incidence of animal bone indicated disposal of food refuse. However, the bone was extremely fragmentary and probably reflected incidental inclusions in the feature.

The ceramic assemblage totaled 94 sherds, and, as noted, contained creamware, pearlware, whiteware, yellowware, and ironstone. In addition, porcelain (n=3), redware (n=1), stoneware (n=7), and unidentified types (n=2) were found. Among the stoneware was a large fragment of a wide-mouthed storage jar with dark brown glaze (Figure 82).

The feature also yielded a collection of 125 glass fragments, most being container glass of various colors (n=116). Fragments of molded (n=5) and cut (n=1) glass tableware were also present, along with three shards identified as glass tumbler fragments. The kitchen group also contained 15 fragments of a single (apparently) iron pot.

Figure 82.
Selected Artifacts from Feature 120

A . Stoneware Jar
B. Pressed Glass Lamp Base
C. Iron Gun Butt

The architecture group comprised the largest portion of the Feature 120 artifact collection. The total of 721 artifacts consisted of brick fragments and nails, which were present in almost equal frequencies (47.4% and 49.5% of all architecture, respectively). Of 357 nails recovered, only 63 could be identified to type, and all were cut. The brick included 62 fragments identified as handmade; the other 280 fragments could not be identified. As with other features described thus far, the brick fragments were rather small, averaging only 16.5 grams (0.6 oz.) in weight. The remainder of the architecture group included six fragments of pane glass, and 16 mortar fragments.

Other artifact groups from this feature comprised only small parts of the total. The personal group included just the coin noted above. This example was an 1865 Indian head one-cent coin. The obverse was marked "UNITED STATES OF AMERICA/1865" around the perimeter, with an American Indian profile in the center. The reverse was labeled "ONE CENT" surrounded by an oak wreath and topped with a shield, a design introduced in 1860. This example appears to have an "L" on the obverse side at the end of the headdress ribbon on the bust, although it is worn slightly and difficult to make out clearly. In 1864, the U.S. Mint began producing these coins in bronze, discontinuing earlier issues of copper-nickel. The date punch on the front appears closer to the "Plain 5" style, which appeared that year along with another style known as "Fancy 5." These refer to the font style of the numbers used in the date on the lower portion of the obverse. All issues of this particular coin at this time were produced by the Philadelphia mint until 1908 (IndianHeads.org 2012).

Artifacts placed in the clothing group included five porcelain Prosser buttons, a brass hook-and-eye fastener, a brass thimble, and a bead. The bead, made of glass, was opaque, black in color, and multi-faceted, with a hexagonal cross-section. For comparison, it resembles Kidd and Kidd's (1972:53) category 'If". The example from Feature 120 is quite small, measuring 5.0 millimeters (0.2 in.) in exterior diameter and 3.5 millimeters (0.15 in.) long. The thimble, made of cuprous metal, was a plain design, having a flat top with concentric lines of dimples. The dimples extended down the sides just past halfway, leaving a plain band around the base. Other than a thin flange around the base, it is unadorned. The thimble measured 2.1 centimeters (0.8 in.) high, 1.85 centimeters (0.7 in.) in diameter at the base, and 1.3 centimeters (0.5 in.) at the top.

The tobacco group consisted of 10 fragments of undecorated bowls and five stem fragments. The activities group, represented by four items, included one railroad spike, a plow part, and an unidentified metal implement. The arms group contained one artifact, identified as the butt of a gunstock (see Figure 82). The form and associated screws are consistent with an 1842 musket butt plate (Crouch 1995). The U.S. Model 1842 musket represented a modified version of the

1840 model, with the flintlock ignition modified for percussion. Production of the 1842 design began in 1844 at the two national armories (Springfield and Harpers Ferry) and continued through 1855, when the armories began adapting for Minie ball rifling. The .69 caliber barrel was smoothbore and the models produced at the armories were furnished with iron butt plates. Over 55,000 of these were modified with rifled barrels to accommodate the new projectiles, and they remained in service through the Civil War (Madaus 1981:88, 94). Given the date of Feature 120, and the absence of any other identifiable gun hardware in the feature, it is probable that the gun butt reflects part of a discarded or damaged weapon rather than evidence of military activities directly related to the feature's fill.

The miscellaneous artifact group comprised a large part of the entire assemblage (n=517), but most of this group (n=494) consisted of indeterminate oxidized metal. The group also included charcoal and wood fragments (n=21), and a single piece of slag. The group also contained an iron animal leg-trap (Figure 83). Typically used for small animals, these types of traps are indiscriminate in what they catch, and therefore cannot be used to indicate a particular target. Butler (2007:129-130) reported a similar item from the St. Anne's slave settlement (9GN197) on St. Simons Island. Butler considered the trap evidence of subsistence, and it is probable that anything these traps caught could be eaten. However, many of the animals that these devices could snare also had fur for home use or sale.

Pollen and phytolith samples from Feature 120 yielded evidence of maize and wheat, most likely reflecting their cultivation in the area, as well as grasses that might have been used as insulating or packing material in the pit. These results did not provide any information about the content of the pit when in use but indicated the likely garden or agricultural products associated with the site's occupation.

A 50-liter soil sample from the feature produced a substantial archaeobotanical assemblage, however. As discussed in detail in Chapter XI, 19 taxa were recovered, representing both domesticated and wild plants. These included vegetable crops, fruits, edible herbs, nuts, herbaceous weeds, and possible ornamentals. Hickory and walnut were particularly common relative to other species, as were maize cupule and cob fragments. The feature also contained quantities of raspberry seeds, along with traces of bean and millet. Edible herbs, particularly burclover, and weed species with less obvious value were also relatively common. As a whole, these plants were not types likely to have been stored in a subterranean pit. The maize remnants and nutshells, moreover, suggest refuse disposal rather than storage. These materials, therefore, do not provide definitive information about what was stored in Feature 120, but support suggestions by other artifact types that it was used for refuse disposal at the end of its use-life.

Figure 83.
Iron Animal Trap from Feature 120

FEATURE 124

Located in the southeastern portion of Block 9, Feature 124 represented a large, shallow pit. Machine stripping of the plow zone revealed the feature as an oval-shaped with a smaller circular sub-feature on its south edge. The sub-feature (Feature 124A) was excavated separately and interpreted as bioturbation. The principal feature measured 2.3x1.2 meters (7.4x3.9 ft.) and in profile was a shallow basin shape with a wide, level base at a depth of 40 centimeters (1.3 ft.) below the graded surface, or 70 centimeters (2.3 ft.) below ground surface (Figures 84 and 85). The estimated volume was about 0.3 cubic meters (8.5 cu. ft.).

The feature fill consisted of two principal strata with lenses of other colors. The upper portion of the feature was filled with brown (10YR 4/3) sandy loam and dark grayish brown (2.5Y 4/2) sandy loam mottled with dark yellowish brown (10YR 4/4) loamy sand and light yellowish brown (2.5Y 6/4) sand. A lens of very dark grayish brown (2.5Y 3/2) sandy loam with charcoal flecks and oyster shell was at the interface of these principal strata. The lower portion of the feature contained light olive brown (2.5Y 5/3) and light yellowish brown (2.5Y 6/3) sand with charcoal flecks and residual brick fragments.

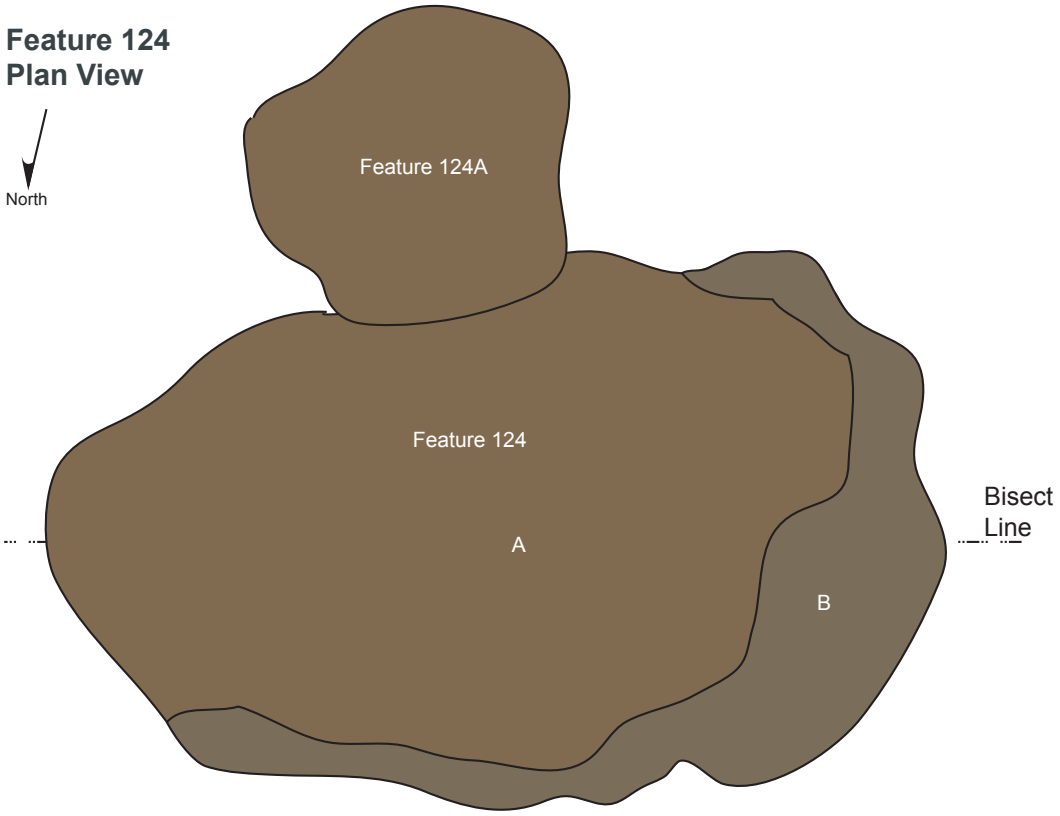
A total of 810 artifacts from this feature were placed into the kitchen, architecture, clothing, personal, tobacco, activities, and miscellaneous groups. The kitchen group accounted for over half the assemblage, with architecture-related artifacts comprising a just under one-third of the total. The other groups were only small fractions of the assemblage (Table 29).

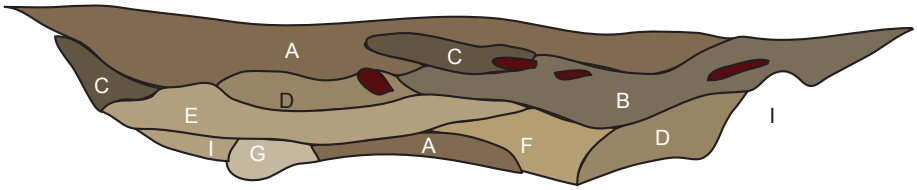
Table 29. Feature 124 Artifact Groups

Artifact Group	Count	%
Kitchen	482	59.51
Architecture	241	29.75
Clothing	15	1.85
Miscellaneous	63	7.78
Personal	1	0.12
Tobacco	6	0.74
Activities	2	0.25
Total	810	100.00

This feature produced few chronologically sensitive artifacts. A glass bottle with a blob top finish provided a TPQ of 1840. Only 15 datable ceramic sherds were recovered, all of which were either pearlware or whiteware, and these indicated an MCD of 1847.1. The low number of sherds makes this date uncertain. However, the absence of creamware, found elsewhere at the

Figure 84.
Plan and Profile of Feature 124





A = 10YR 4/3 Brown Sandy Loam
B = 2.5Y 4/2 Dark Grayish Brown Sandy Loam Mottled with 10YR 4/4 Dark Yellowish Brown Sandy Loam and 2.5Y 6/4 Light Yellowish Brown
C = 2.5Y 3/2 Very Dark Brown Sandy Loam
D = 2.5Y 5/3 Light Olive Brown Loamy Sand
E = 2.5Y 6/3 Light Yellowish Brown Sand
F = 2.5Y 5/3 Light Olive Brown Sand Mottled with 2.5Y 6/4 Light Yellowish Brown Sand and 10YR 5/6 Yellowish Brown Clayey Sand
G = 2.5Y 7/2 Light Gray Sand
H = 2.5Y 6/3 light Yellowish Brown Clayey Sand Mottled with 10YR 5/6 Yellowish Brown Clayey Sand
I = 2.5Y 6/3 Light Yellowish Brown Sand (E Horizon)
Brick

0 50 Centimeters

Figure 85.
Photographs of Feature 124

A. Features 124 and 124A Exposed at Base of Plow Zone

B. Feature 124, South Profile

site, suggests that the feature fill does not date to the early nineteenth century, while the lack of later ceramics, particularly ironstone (beginning date of 1842), suggests the feature was filled before the mid-1800s.

The kitchen artifact group was the largest of the assemblage, and consisted mostly of faunal material (n=455; 94.4% of the kitchen group). Among the faunal remains, oyster shell dominated (n=387), while bone (n=68) was less prominent. The relative quantity of shell to other faunal remains and the rest of the kitchen group suggested that the feature was used primarily to dispose of food refuse.

The balance of the kitchen group consisted of ceramics and glass. The ceramics included only 15 sherds. In addition to six pearlware and six whiteware fragments, the assemblage included two stoneware sherds and one unidentified type. The glass collection was comprised entirely of container fragments.

The architecture group, containing 241 artifacts, was composed of mainly brick or brick fragments and metal fasteners. Of 132 brick pieces, 39 could be identified as handmade, while the remainder were indeterminate. The identifiable fragments were much larger, averaging 201.8 grams (7.1 oz.). Complete specimens measured 23x10x6.4 centimeters (9x4x2.5 in.) and were distinctive because of their color. A representative example had a Munsell of 10YR 6/3 (pale brown) rather than the red or reddish brown range more typical of bricks. They also possessed a coarse grainy texture, indicating a high percentage of sand content. Feature 124 and plow zone in the immediate area were the only proveniences at the site to produce bricks like these. The bricks do not conform in color to "Savannah gray" types recovered at Fort Pulaski and Fort Jackson, which typically had hues of 7.5YR, values of 3-5, and chroma of 4-6 (Seramur and Owens 2010), although this could be a difference due to firing temperatures and oxygen levels in the kiln. Silliman and Quirk (2009:128) found brick fragments during the Phase II study that they believed resembled Savannah gray in color, but they did not describe these as having an unusual texture. In addition, Silliman and Quirk described brick specimens they thought might have been fired at a low temperature and could be evidence for locally made bricks. No evidence for brick manufacture, such as a kiln, was found during the data recovery. Moreover, the bricks from Feature 124 were very limited in their distribution, which suggested they reflected a small deposit, possibly purchased or scavenged in a single event, rather than the product of on-site or near-site manufacture.

The metal fasteners were mostly nails, including 85 indeterminate types and 18 cut specimens. An iron spike and unidentified hardware were also in this group. Finally, three fragments of mortar and a residual fragment of roofing slate comprised the balance of the architectural category.

Other artifact groups were much less common in the Feature 124 assemblage. The clothing group contained 15 items, including five bone button fragments, one brass button, two buttons of white metal, and six buttons of ferrous metal that were too heavily oxidized to observe any detail. The bone and non-ferrous metal buttons were two- or four-hole types, with sunken panels. The metal examples were utilitarian types stamped from thin metal sheets. A final artifact in this group is a cuprous cinch buckle (Figure 86). Cinch buckles were used to secure cloth straps on clothing and provide a custom fit. They were most often used on men's pants and vests, and occasionally suspenders (Matternes et al. 2011:338).

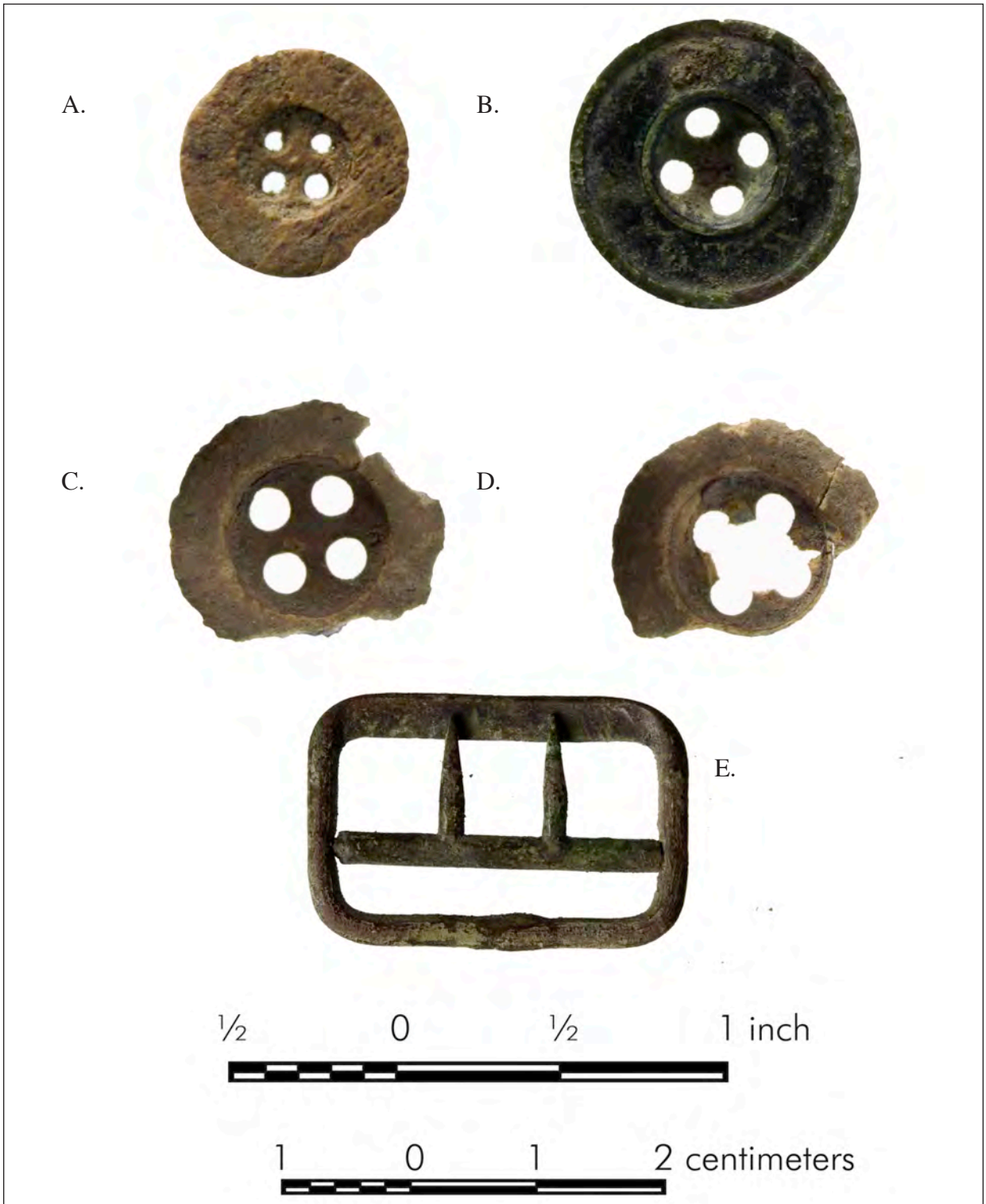
The personal group consisted of a single artifact: a metal fragment that was tentatively identified as part of a folding knife. The tobacco group included six small fragments of clay pipes. The activities group included only two artifacts: a railroad spike and an unidentified ferrous object.

Finally, the miscellaneous group included 63 artifacts. Fifty-nine of these were indeterminate oxidized ferrous objects. The remainder of the group included two unmodified pieces of stone and two pieces of charcoal.

The archaeobotanical assemblage from this feature was relatively sparse. Forty liters of soil yielded few carbonized plant remains, and these consisted of eight hickory, walnut, and acorn shell fragments, six maize cupule and cob remnants, and a single seed each of huckleberry and goosefoot. The scarcity of plant remains contrasted with the dense faunal assemblage, especially oyster shell, suggesting that these the plant refuse entered the feature accidently rather than through deliberate disposal.

Based on the artifact data, therefore, Feature 124 appears to have been filled primarily with food refuse along with occasional fragments of ceramics and glassware. The relatively low number of architectural artifacts, and all non-faunal materials, suggests casual discard and incidental inclusions in the feature rather than deliberate refuse disposal, with the possible exception of being used to dispose of food refuse.

Figure 86.
Selected Artifacts from Feature 124



A. Bone Four-Hole Sew Through; B. Cuprous Four-Hole Sew Through, Marked "STEARNS ELLIS & CO."
C. White Metal Four-Hole Sew Through; D. White Metal Four-Hole Sew Through; E. Brass Cinch Buckle

FEATURE 147

Feature 147 was a storage pit located in the western portion of Block 9. Although irregularly shaped, excavation showed it originally had a formal rectangular shape. Large artifacts recovered from the feature indicated it became a trash receptacle after abandonment.

The feature measured 2.4x1.7 meters (7.9x5.6 ft.) at the top, while the base measured 1.4x1.1 (4.6x3.6 ft.). The base probably reflects its true dimensions, the wider opening being a result of slumping. The feature's base lay at a depth of 65 centimeters (2.1 ft.) below the graded surface (95 centimeters [3.1 ft.] below surface (Figures 87 and 88). Using the dimensions at the base, a rough estimate of volume for this feature was 1.0 cubic meter (35.3 cu. ft.).

In profile, the feature initially appeared to have a basin shape. However, it was determined that slumping had caused the walls to appear more sloped than they had originally. Removal of the displaced wall material revealed surviving straight walls at the feature's base and a flat bottom. The fill predominantly consisted of very dark brown (10YR 2/2) sandy loam. A lens of light olive brown (2.5Y 6/4) sandy clay with mottles of red (2.5YR 5/8) clay loam was present in the upper part of the profile, and light olive brown (2.5Y 6/4) sand reflected the slumped walls.

Feature 147 generated 1,531 historic artifacts and one precontact artifact, a biface of Coastal Plain chert. The historic artifacts were sorted into the kitchen, architectural, clothing, furniture, miscellaneous, personal, tobacco, and activities artifact groups. The architecture group comprises nearly 60 percent of the total collection, while the next largest category, the kitchen group, represents just under 22 percent. The only other group to make up more than 10 percent of the total is the miscellaneous category (Table 30).

Table 30. Feature 147 Artifact Groups

Artifact Group	Count	%
Kitchen	335	21.88
Architecture	918	59.96
Clothing	9	0.59
Furniture	1	0.07
Miscellaneous	213	13.91
Personal	1	0.07
Arms	2	0.13
Tobacco	38	2.48
Activities	14	0.91
Total	1,531	100.00

Figure 87.
Plan and Profile of Feature 147

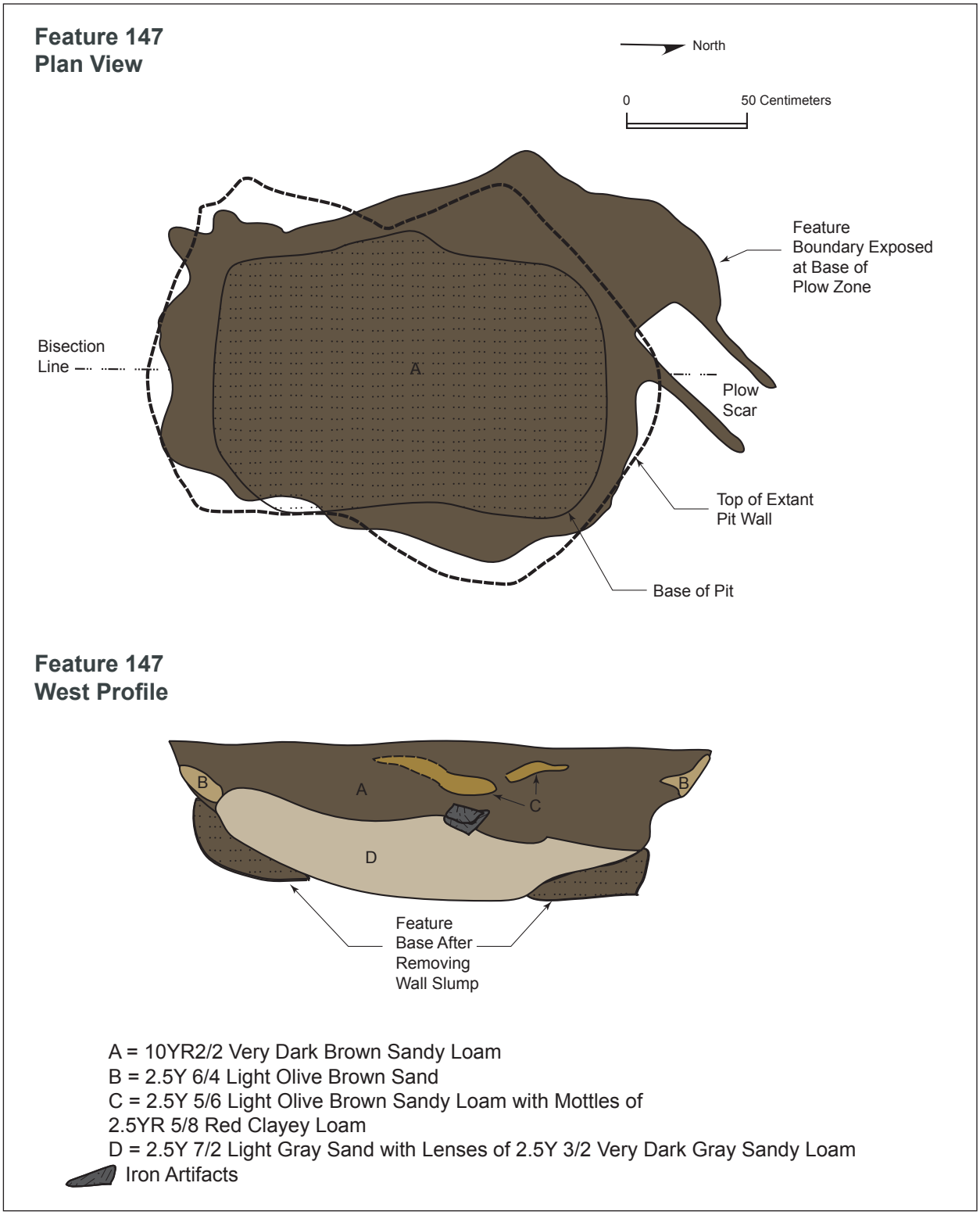


Figure 88.
Photographs of Feature 147

A. Feature 147, Top

B. Feature 147, West Profile with Coffee Pot on Pedestal and Shovel at Lower Right-Center

Chronologically diagnostic artifacts indicated this feature was filled during the later part of the nineteenth century. Two fragments of sun-colored amethyst glass provided a TPQ of 1880 for the assemblage. A silver dime, dated 1875, was also found. Moreover, compared to other features at the site, this assemblage contained relatively high numbers of ironstone ceramics, indicating it was open during the second half of the nineteenth century. Other datable ceramic types included creamware (n=4), pearlware (n=4), whiteware (n=73), yellowware (n=12), ironstone (n=12), slipware (n=1), stoneware with alkaline glaze (n=4), Albany slip (n=1), and bristol slip (n=1), and oriental export porcelain (n=1). The MCD for the assemblage, based on 114 dateable sherds, was 1858.7.

The ceramics comprised a relatively large portion of the kitchen group (42.7% of the group) compared to other features at the site. In addition to the types noted above, the ceramics included painted and plain porcelain (n=8), redware (n=3), saltglazed and indeterminate stoneware (n=9), stoneware bottle (n=1), and indeterminate earthenware (n=9). Glass was also a large portion of the kitchen group, comprising 25.4 percent of the total. The glass included, in addition to the sun-colored fragments noted above, 82 fragments of container glass of various colors, and two fragments of table glass. The glass and ceramics are extremely fragmented, making it difficult to identify specific vessel forms.

The faunal material comprised 31 percent of the kitchen group, the bulk being bone (n=82), and the balance oyster (n=18) and unidentified (n=4) shell. Other items in the kitchen group include a ferrous tablespoon and a ferrous hollowware vessel. Although tentatively identified as a cooking pot, this object has a narrow mouth (15-18 cm [6-7 in.] diameter) and relatively straight sides, which suggest a can. Finally, the feature produced a tin coffee pot (Figure 89). Although crushed and incomplete, this object had a base diameter of about 15 centimeters (6 in.) and tapered to the top, which had an opening about 10 centimeters (4 in.) in diameter. The pot was simply made from sheets of tin curved into the body of the pot and soldered at the back (handle) side. The base overlapped the sides to form a seal, while at the top opening, the sides rolled out to create a flange or finish. The handle was formed of a tapered sheet of tin with the edges rolled out (and away from the fingers), and was riveted to the sides at the seam. The spout was missing, but its location at the top of the pot was indicated by perforations in a triangular pattern. Two additional perforations at the top were to attach a wire handle.

The architecture group comprised a large proportion of the assemblage from this feature. The majority of this group (82%) was identified as nails (n=757). Of these, 212 were cut, while the rest could not be identified. Brick fragments (n=142) were also common in the feature. Eight fragments could be discerned as handmade while the rest could not be identified. The architecture artifacts also included a strap hinge and iron shutter dog.

Figure 89.
Coffee Pot Recovered from Feature 147

The nine artifacts in the clothing group included seven buttons and two buckles. The buttons included porcelain (n=4) and glass (n=1) examples, as well brass (n=2). One of the buckles is a large iron square shape, most likely used for a belt or strap. The other, made of brass, is D-shaped, with its long axis only 1.5 centimeters (0.6 in.). Among the metal buttons, is one cuprous example with four holes in a deep well with possible traces of gilding. The back is impressed with a mark, "STEARNS ELLIS & CO.", which could not be identified. The second is a brass two-piece Federal Army general service button. The domed front exhibits an eagle and shield emblem, the back is unmarked with a loop shank. It measures 1.9 centimeters (0.75 in.) in diameter. Although it probably related to the site's Civil War occupation, this button's presence in a feature that was filled after 1875 indicated it was recycled or included in the feature by chance.

The furniture group included only one artifact, a brass upholstery tack. Also containing a single item, the personal group was represented by a silver dime. This example is a Liberty seated ten-cent coin, the obverse having an image of the goddess Liberty encircled by the legend "UNITED STATES OF AMERICA" and the date, 1875. The reverse includes the legend "ONE DIME" enclosed by a wreath of grain. No mint marks were visible, and the faces were worn, suggesting the coin was in circulation for several years before being deposited in Feature 147.

The arms group contained only two artifacts: one cuprous shot cartridge, with a beginning date of 1846, and one shotgun shell fragment, with a beginning date of 1850 (Miller 2000). These most likely reflected subsistence or recreational hunting rather than military activities, given the later date of the feature's fill. Alternatively, they could be remnants of earlier military actions that were inadvertently incorporated into the feature. The tobacco group consisted of 38 pipe fragments. Among these were five molded bowl pieces, 15 plain bowl fragments, and 18 stem fragments.

The Activities group included 15 items. Except for three lamp chimney fragments, these were metal and reflected various undertakings. A gilded wick raiser knob also represented lamps. Agricultural work was reflected by a large iron shovel head (spade type), an iron hoe blade, and a large iron sheet tentatively identified as a plow part. A single fishing weight represented subsistence and/or recreational fishing. This item was round, cast lead with a sprue, and had a circular hole through the center. It measured 1.95 centimeters (0.8 in.) in diameter and weighed 39.5 grams (1.4 oz.). Other artifacts in this group do not have clear associations. These included two iron bolts, two railroad spikes, one iron washer, and one iron strap.

The miscellaneous artifact group consisted of artifacts that could not be specifically identified or that had indeterminate functions. The Feature 147 collection contained 213 artifacts in this group, most (93.9%) being indeterminate ferrous objects. The assemblage also contained small quantities of wood, charcoal, and unmodified stone. One artifact of note was a cuprous item,

rectangular in shape and measuring 23x7x4 millimeters (0.9x0.03x0.02 in.). It was hollow, had striations suggesting machine manufacture or hand filing, and one of the narrow faces was pierced near one end with a rectangular opening flanked by two circular holes. Although this item could not be identified precisely, it was tentatively interpreted as an umbrella or parasol rib hinge.

Plant remains indicated by pollen and phytoliths included wheat and maize, which were presumably cultivated in the vicinity rather than stored in the pit. The recovery of a palmetto phytolith indicated that these plants were present in the vicinity, which is not surprising because these plants are common in coastal areas (Wade et al. 2011), and its presence here could be incidental. However, Bullard (2010) noted the use of palmetto for thatched roofing and siding material on the Sea Islands during the second half of the nineteenth century, and it is possible that it was used similarly at 9CH1205. Another possibility is that palmetto fronds were used as a cover or insulating material in the feature.

The precontact artifact in this assemblage was a biface fragment of thermally altered Coastal Plain chert. Its original form could not be determined. Although clearly precontact, the artifact was found in a historic context. As discussed previously, American Indian stone tools have been associated with African American assemblages, and are interpreted as evidence of conjuring or related activities. It is unknown if this item was deliberately sought and used by an African American resident of the site or if it was included in the feature fill by accident.

A 50-liter (10 liters per level) soil sample produced a archaeobotanical assemblage composed mostly of nutshell (walnut and hickory) and maize (cupule and cob fragments). The archaeobotanical assemblage was diverse and in addition to the two dominant species, the sample included traces of rice (three seeds) along with fruits (mostly peach, along with plum and blackberry/raspberry), and traces of bean. All of these were likely foodstuffs that would not be kept in an underground storage pit, and most likely entered the feature as refuse disposal along with other artifacts.

Feature 147 was probably reused for refuse disposal. Its formal shape indicated it was created as a storage pit. Except for the large metal artifacts, the content of the feature fill is very fragmentary, suggesting the artifacts represent secondary deposition with some primary disposal.

Feature 147 was spatially associated with Post Cluster 3. The post cluster, consisting of a line of posts, extended northwestward from the feature. Further, Feature 147 lay only about 10 meters (30 ft.) southwest of Feature 173, one of the brick chimney bases. Feature 147, therefore, could have functioned as a storage pit in the yard of this house, with Post Cluster 3 possibly being the remnants of a fence line bounding the yard. These possibilities are discussed more fully in Chapter XIV.

FEATURE 170

Feature 170 lay in Block 2, east of the large oak tree, in an area where metal detecting suggested a nail concentration. Hand-excavation of a limited number of 1x1-meter (3.3x3.3-ft.) units yielded moderate artifact densities here and uncovered two features (Features 17 and 19) that were interpreted as postholes. Machine-assisted stripping adjacent to the east side of the hand-excavated area revealed Feature 170.

As exposed at the base of the plow zone, Feature 170 was sub-rectangular to oval in shape, with obvious root disturbance in its northwest portion. Its maximum dimensions were 1.7x1.3 meters (5.6x4.3 ft.). Bisection revealed a basin-shaped profile with an irregular bottom that sloped generally to the west and then dipped sharply at the feature's west edge. Depths were from 25-40 centimeters (0.8-1.3 ft.) below the graded surface, or 60-75 centimeters (2.0-2.5 ft.) below surface (Figures 90 and 91). The minimum volume estimate for the feature was 0.4 cubic meters (20.6 cu. ft.).

The fill matrix was predominantly dark grayish brown (10YR 4/2) sandy silt underlain by lenses of brown (10YR 4/3) mottled with light yellowish brown (2.5Y 6/3) silty sand and light olive brown (2.5Y 5/3) silty sand. The feature's lowest levels contained sandy silt of light olive brown (2.5Y 5/4) mottled with olive brown (2.5Y 4/3). The deep area at the west side was dark grayish brown (10YR 4/3) mottled with light yellowish brown (2.5Y 6/3) silty sand. This deep section likely reflected root disturbance.

This feature produced only 17 artifacts. Of these, the kitchen and architecture groups were the largest, but included only eight and six items, respectively. The clothing, tobacco, and miscellaneous groups were also present, represented by a single artifact each (Table 31).

Table 31. Feature 170 Artifact Groups

Artifact Group	Count	%
Kitchen	8	47.06
Architecture	6	35.29
Clothing	1	5.88
Miscellaneous	1	5.88
Tobacco	1	5.88
Total	17	100.00

Chronological information for this feature came from two creamware and three pearlware fragments, along with a cut nail. A sherd of transfer printed pearlware, with a beginning date of 1783 indicated a TPQ for the feature. The low total of artifacts did not provide strong

Figure 90.
Plan and Profile of Feature 170

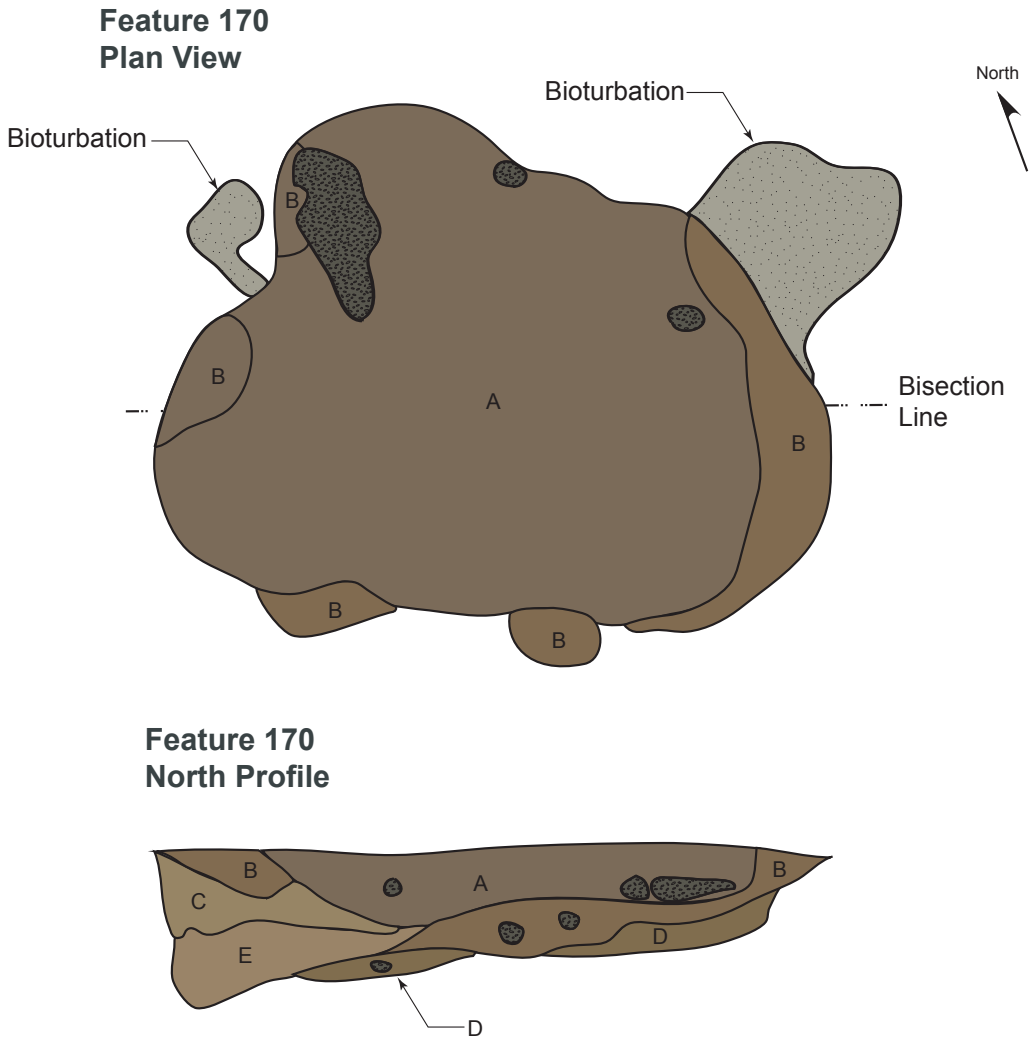


Figure 91.
Photographs of Feature 170

A. Feature 30, Top

B. Feature 30, West Profile

C. Feature 120, Post Excavation

chronological information, although the available data suggests deposition during the early part of the nineteenth century, and it is possible that this feature reflected the site's early occupation.

In addition to the five ceramic sherds, the kitchen group contained one bone and one oyster shell fragment, along with a clear glass fragment. The architecture group included the cut nail as well as four unidentified nails, and one piece of flat glass.

The balance of the assemblage consisted of one brass hook-and-eye clothing fastener, one tobacco pipe fragment, and one piece of oxidized metal. A soil sample yielded a small assortment of archaeobotanical remains containing trace amounts of nutshell, haw, and goosefoot, all of which could represent food remains but would not have been stored in a subsurface pit. The low artifact counts did not provide significant data for analysis. However, they suggested the feature was filled before quantities of debris accumulated in its vicinity, and therefore strengthen the interpretation that this feature dated to the site's early occupation.

INDETERMINATE PITS

Twelve pits were excavated that could not be interpreted with specific functions. Archaeological studies of rural African American occupations frequently encounter pits in domestic yards. In addition to those clearly used for storage, pits have been interpreted as receptacles for trash, clay-mixing containers for pottery or building material, and elements in ritual activities (Joseph 2007:103). The 12 pits included in this analysis include one (Feature 1) excavated during the Phase I/II investigations.

FEATURE 1

Identified by EPEI in Test Units 1 and 3, Feature 1 was located in Block 4 of the data recovery and approximately 1.5 meters (4.5 ft.) south of the wall trench structure delineated by Features 89/90. This feature was a round basin-shaped pit measuring 85 centimeters (2.9 ft.) in diameter and 20 centimeters (0.7 ft.) deep (approximately 45 cm [1.8 ft.] below the surface). The homogenous fill consisted of dark grayish brown (10YR 4/2) mottled with very pale brown (10YR 7/3) fine sand. The small assemblage of 27 artifacts included fragments of ceramics and glass, one square nail, brick fragments, and charcoal. A TPQ of 1787 for the feature was determined from a fragment of blue transfer-printed pearlware (Silliman and Quirk 2009:80).

FEATURE 26

Feature 26 was adjacent to the east side of Feature 71 and associated with the group of large posts identified in the northwest portion of Block 4. The feature was disturbed by bioturbation, but appeared to comprise an oval-shaped pit measuring 90x64 centimeters (3.0x2.1 ft.) with a

roughly flat base lying at a depth of 57 centimeters (1.9 ft.) below the graded surface (87 cm [2.9 ft.] below ground surface). The volume of this feature was roughly 0.1 cubic meters (3.5 cu. ft.) (see Figures 63-65).

The fill was distinct from adjacent Feature 71, being dark yellowish brown (10YR 4/4), mottled with light yellowish brown (2.5Y 6/4) silty sand along with large areas of yellowish red (5YR 4/6) sandy clay with charcoal flecks. The center of the feature contained zone of dark yellowish brown (10YR 4/4) sandy silt mottled with 5YR 4/6 yellowish red sandy clay with charcoal that was interpreted as a tree root.

Feature 26 produced 454 historic artifacts and a piece of quartz debitage with an unknown significance, if any, to the site's historic occupants. The artifacts were divided into the kitchen, architecture, clothing, personal, tobacco, activities, and miscellaneous groups. Of these, the kitchen group comprised the largest proportion of the collection by far, comprising over three-quarters of the assemblage, while the next largest group, architecture, comprised less than one-quarter. The other groups represented only minor parts of the collection (Table 32).

Table 32. Feature 26 Artifact Groups

Artifact Group	Count	%
Kitchen	346	76.21
Architecture	97	21.37
Clothing	2	0.44
Miscellaneous	4	0.88
Personal	1	0.22
Tobacco	2	0.44
Activities	2	0.44
Total	454	100.00

Fifteen ceramic sherds and 57 cut nails provided dating information for the feature. The ceramics included three pearlware and 12 whiteware sherds. The numbers were too low to provide an MCD for the assemblage, while the whiteware provided a TPQ of 1830. In combination, these ceramic types suggest a date during the second quarter of the nineteenth century. This date is also consistent with the Post Cluster 1 (Structure 4) associated with the feature. This locus appeared to date to the first third of the century with evidence for occupation extending until after the Civil War. The cut nails did not provide a precise date but were consistent with general nineteenth-century deposition.

No additional ceramics were recovered from the feature. The remainder of the kitchen group included 21 container glass fragments and 310 faunal items. These were primarily oyster shell (n=289) and bone (n=11). The quantities of oyster relative to all other artifacts suggested that the feature fill was composed of kitchen midden that was either discarded into an open pit or became included into the pit from adjacent areas. As discussed below, several nearby features were identified as residual midden, which indicated the presence of surface refuse that had been incorporated into the plow zone.

Architecture group artifacts included brick, mortar, and nails. The brick (n=34) was mostly residual fragments having an average weight of only 5.6 grams (0.2 oz.). Mortar was only a small part of this group, and included two fragments with shell and one that was unidentifiable. It is probable that the brick and mortar reflect incidental inclusions in the feature fill. The nails, however, were relatively common and included 57 cut specimens and three that were unidentifiable. These could indicate that Feature 26 was an architectural feature or lay in the vicinity of one.

The clothing group included one seed bead and one pin. The bead was glass and conformed to Kidd and Kidd's (1972) Class 1 type A, being a simple monochrome tube. This specimen was cut to a very short length of only 1.6 millimeters (0.05 in.). The diameter measured 4.0 millimeters (0.16 in.) and the color was puce. The pin was a brass/cuprous straight pin with rounded head. Though bent, the length was estimated at 22 millimeters (0.86 in.).

The single artifact in the personal group was a brass/cuprous finger ring, consisting of a plain band with an outside diameter of 20 millimeters (0.8 in.) and inside of 16.3 millimeters (0.64 in.; modern size 5-1/2). The width of the band was 3.9 millimeters (0.2 in.). In cross section, the band was flat on the inside and domed on the exterior.

The tobacco group was composed of only two fragments, both pipe bowl sections. The activities group also contained only two items: a metal can and iron hardware nut. Finally, the miscellaneous group included three indeterminate ferrous items and one indeterminate lead fragment.

In addition to the large artifact assemblage, the feature yielded a sizable collection of archaeobotanical finds. Maize remains (primarily cupule and cob fragments) dominated, suggesting disposal. This finding is consistent with the feature having filled with midden deposits. Other plant foods were much less common, with pumpkin/squash and nut fragments being present, along with traces of edible weeds.

This feature was associated with the projected structure (Structure 4) in the northwest part of Block 4. Because a clear footprint of the structure could not be identified, it is unknown if the feature would have been within the structure or in the yard. Although the feature appears to have been filled with midden deposits, the high numbers of nails could indicate it had an architectural function. Alternatively, the nails could relate to adjacent Feature 71, identified as a large post.

FEATURE 30

Exposed by machine stripping in the southern portion of Block 4, Feature 30 lay south of the wall trench structure that Features 89/90 delineated. The nearly circular feature measured 93 centimeters (3.1 ft.) in diameter and 32 centimeters (1.0 ft.) deep (62 centimeters [2.0 ft.] below ground surface). The feature was basin-shaped in profile and had an estimated volume of 0.1 cubic meters (2.7 cu. ft.) (Figures 92 and 93). The feature fill mainly consisted of light yellowish brown (2.5Y 6/4) fine sandy loam with mottles of pale yellow (2.5Y 7/4) fine sand. Irregular patches of light olive brown (2.5Y 5/3) mottled with brownish yellow (10YR 6/6) fine sandy loam at the top of the feature, and pale yellow (2.5Y 7/4) sand at the base probably reflected bioturbation. The feature matrix suggested natural filling.

Only five artifacts were recovered from this feature. These included two pearlware sherds and one olive green container glass fragment, which comprised the kitchen group. The architecture group included one cut nail and one flat glass fragment. The nail provided a TPQ of 1805 for the feature, but it could not be dated more precisely.

A 10-liter flotation sample from this feature yielded a small assemblage of archaeobotanical remains. The sparse collection, totaling seven carbonized seeds, included mostly species that occur as wild plants, although they could have cultural uses. The one domesticate from the assemblage was peach. The overall sparsity of archaeobotanical remains, in combination with low artifact counts, indicates the feature was not used for refuse disposal.

This feature was roughly 3.6 meters (12 ft.) south of Structure 3 (wall trench structure) and the sparseness of artifacts could indicate Feature 30 was created and filled while this site locus was relatively clear of occupation debris. Feature 30, along with the wall structure, might therefore also reflect this early occupation.

FEATURE 31

Feature 31 lay in the central portion of Block 4, west of the wall trench structure (Features 89/90) Structure 3. Oval shaped in plan with an irregular north edge, Feature 31 measured 1.0x0.8 meters (3.3x2.6 ft.). In profile, it exhibited a basin shape, with its deepest point slightly off

Figure 92.
Plan and Profile of Feature 30

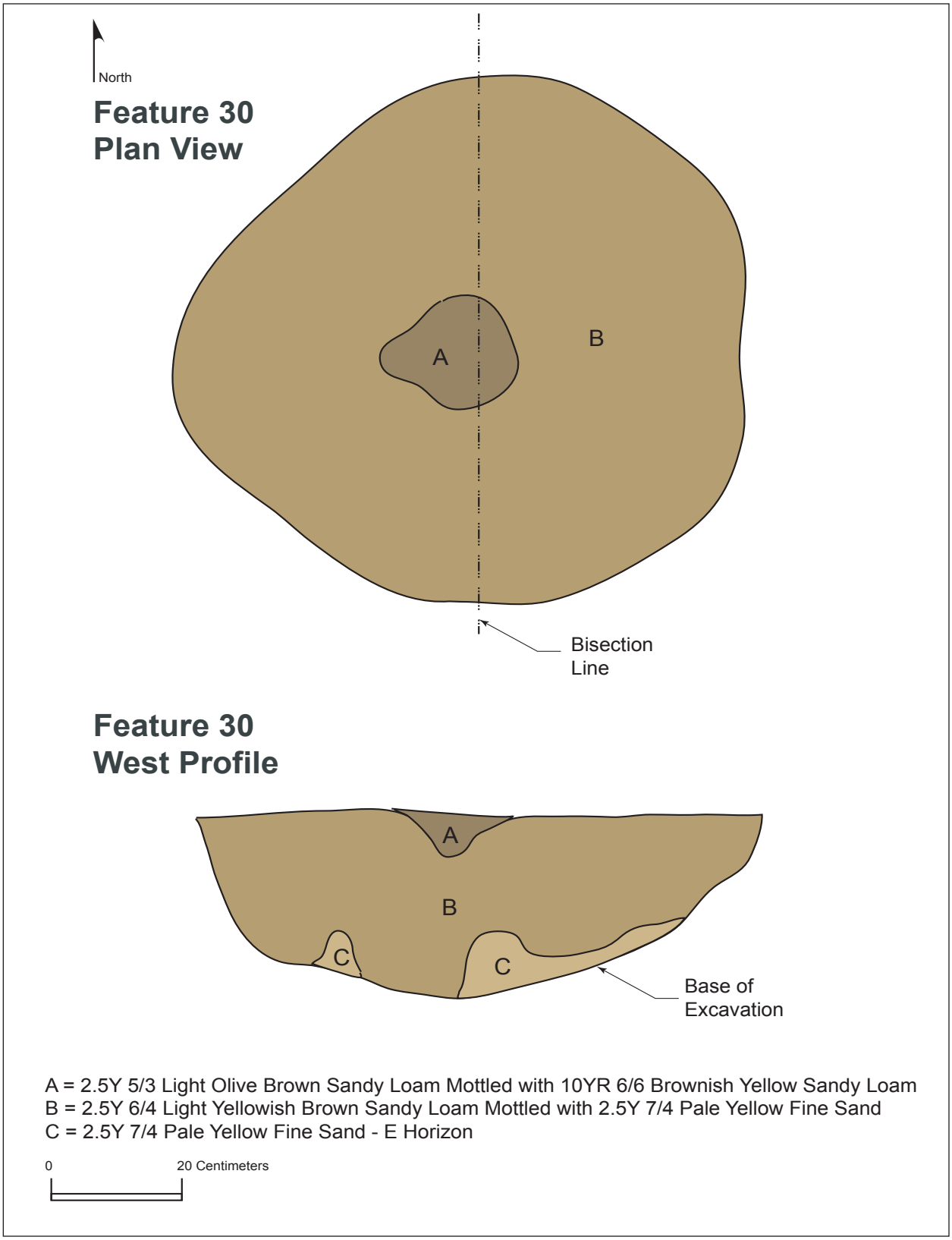


Figure 93.
Photographs of Feature 30

A. Feature 30, Top

B. Feature 30, North Profile

center to the east. The maximum depth of the feature was 28 centimeters (0.9 ft.) below the graded surface, or about 58 centimeters (1.9 ft.) below ground surface (Figures 94 and 95). The approximate volume of the feature was 0.1 cubic meters (2.3 cu. ft.).

The fill material consisted of dark brown (10YR 3/3) sandy silt with lenses of light yellowish brown (2.5Y 6/3) sand. The homogenous quality of the matrix suggested gradual filling through natural processes.

Only 31 artifacts came from the feature. Except for an indeterminate stone fragment that could not be identified as cultural or natural, the entire assemblage was placed in the kitchen group. These included 17 ceramics, three glass fragments, nine oyster shell fragments, and one indeterminate piece of shell.

The ceramics, all varieties of pearlware, indicated a late eighteenth- to early nineteenth-century date. Of the 17 total ceramics, 12 were plain, three were edge decorated with scalloped and impressed rims, which have a manufacturing date range of 1802-1832, and two were general edge decorated (1780-1834).

The feature lay roughly 3.3 meters (10 ft.) west of the wall trench structure and could reflect yard activities associated with this dwelling. Although the artifacts are too few to provide strong date, the range is consistent with the projected early occupation of this structure and this part of the site. The artifacts did not strongly point to any functions, and appeared to reflect incidental inclusions in the feature fill.

FEATURE 32

Feature 32 lay in the central portion of Block 4, west of the wall trench structure and south of 'Post Cluster 1.' The feature appeared to reflect a shallow pit that had been disturbed by tree growth. In plan, the feature was roughly oval-shaped, with an irregular projection on its east side representing a tree. These were bisected and excavated separately.

In plan, the cultural portion of the feature measured 1.1x0.8 meters (3.6x2.6 ft.). In profile, it was a shallow basin shape, with a slightly deeper section probably caused by bioturbation. The maximum depth of the feature was 20 centimeters (0.7 ft.) below the graded surface, or 50 centimeters (1.5 ft.) below the ground surface (Figures 96 and 97). An approximate volume for this feature was 0.05 cubic meters (2.0 cu. ft.).

Figure 94.
Plan and Profile of Feature 31

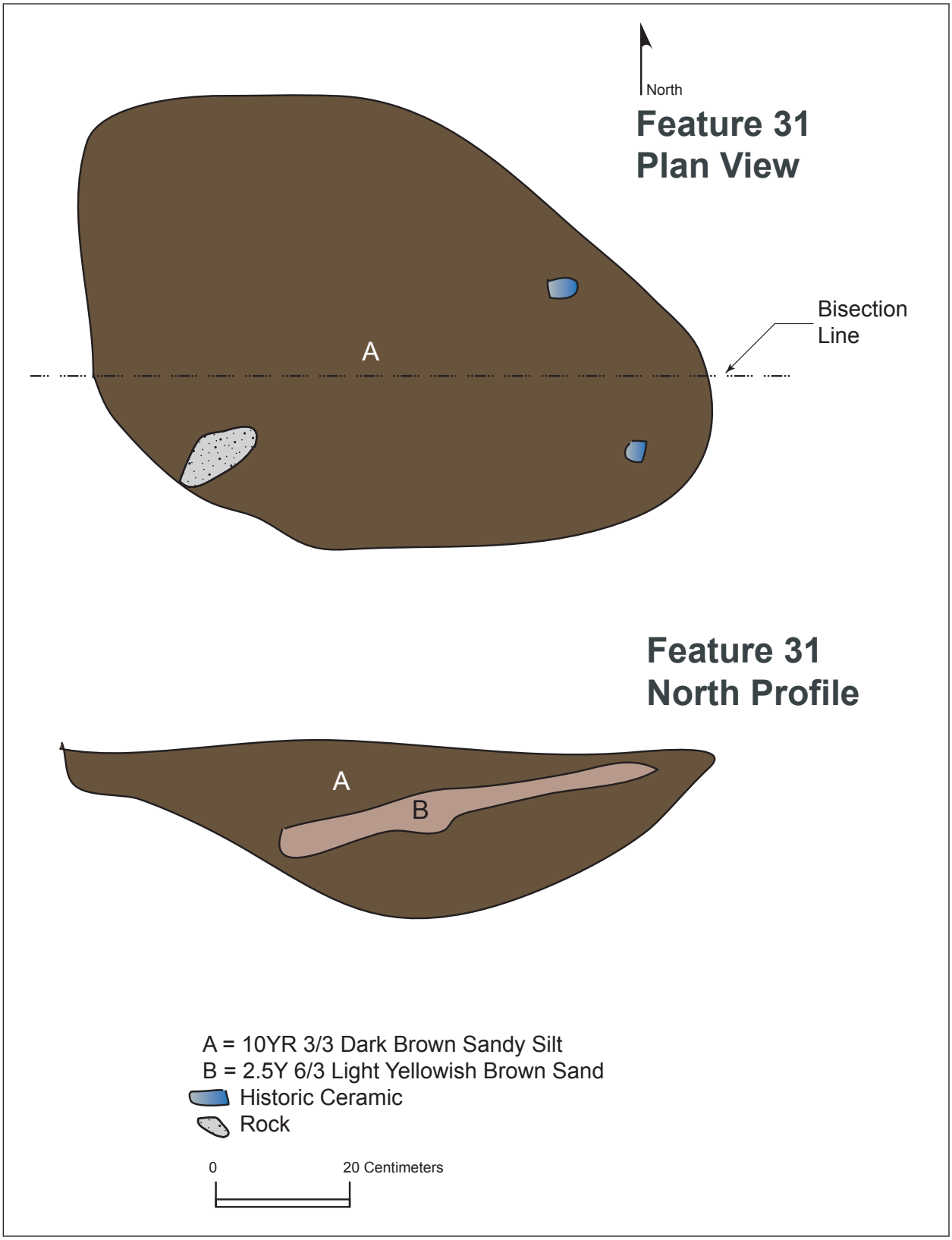


Figure 95.
Photographs of Feature 31

A. Feature 31, Plan at Top

B. Feature 31, North Profile

Figure 96.
Plan and Profile of Feature 32

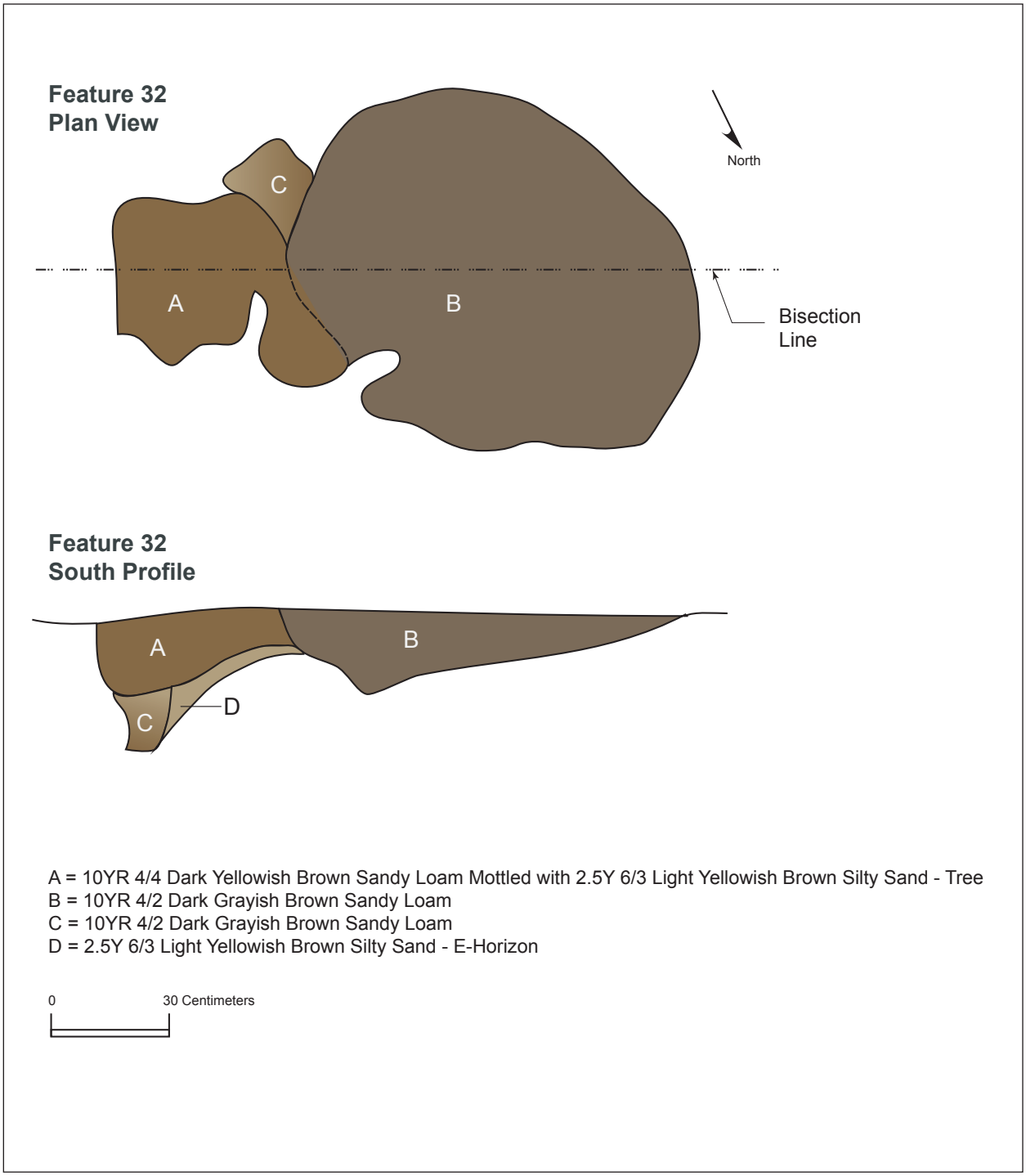


Figure 97.
Photographs of Feature 32

A. Feature 32, Plan at Top

B. Feature 32, Southwest Profile

The feature was filled with dark grayish brown (10YR 4/2) sandy loam, with mottled dark yellowish brown (10YR 4/4) sandy loam and light yellowish brown (2.5Y 6/3) silty sand toward the base. Mottling was also heavy at the east side of the feature where the tree had disturbed it.

A total of 55 artifacts from this feature were placed in the kitchen, architecture, and miscellaneous groups. With 36 total, the kitchen group was the largest, comprising just under two-thirds. The architecture group (n=12) was the next largest and the miscellaneous group, composed of seven fragments of oxidized iron, was the smallest.

The kitchen group was comprised of ceramics (n=14), glass (n=7), one iron kettle or pot fragment, and faunal material (n=14). Only the ceramics provided chronological information. The 14 sherds included creamware (n=2), varieties of pearlware (n=10), whiteware (n=1), and unidentified earthenware (n=1). The other sherds were consistent with an early nineteenth-century date, with whiteware providing a TPQ of 1830. The low number of sherds would not provide a confident MCD, but the feature has a date that is consistent with the wall trench structure, lying 15 meters (50 ft.) to the east.

The architecture group included only 12 items. Among these were seven residual brick fragments and five unidentified nails. The miscellaneous category, as noted, consisted of seven oxidized metal pieces.

As with nearby Feature 31, Feature 32 appeared to reflect a pit in the yard of an early structure. Artifact dates for this feature agreed with the projected chronology of this early occupation. The feature contents probably reflected occasional inclusions in the feature fill rather than deliberate discard. As with other features associated with this structure, the low artifact counts could be an indication of use and filling before quantities of refuse had accumulated at the site. Together, therefore, Structure 3 (including the wall trench structure and Post Cluster 2) and features 1, 30, 31, 32, and 38 appear to reflect a complex consisting of an early dwelling, storage pit, and yard areas with indeterminate pits.

FEATURE 47

Located in the northwest part of Block 4, Feature 47 lay in proximity to ‘Post Cluster 1’ and forms part of this complex of features. Its interpretation as a pit should be viewed as tentative; in terms of size and shape, it varied from many of the other pits identified during the data recovery but was similar to the nearby postholes. The principal difference was its fill, which contained higher quantities of artifacts than the postholes.

In plan, Feature 47 was oval and measured 62x50 centimeters (2.0x1.6 ft.). The exposed top also contained oyster shell and deposits of strong brown (7.5 5/8) clay. Bisection revealed tapering sides and a generally flat base. From an opening of 62 centimeters (2.0 ft.) wide, the feature narrowed to 20 centimeters (0.7 ft.) at the base, which lay at a depth of 44 centimeters (1.4 ft.) below the graded surface (74 cm [2.4 ft.] below ground surface) (Figures 98 and 99). The volume of this feature was estimated at 0.06 cubic meters (2.0 cu. ft.).

The feature fill was mottled dark yellowish brown (10YR 3/4), olive brown (2.5Y 4/3), and light olive brown (2.5Y 5/3) silty sand. Clods of strong brown (7.5YR 5/8) clay were included as well. Based on the mottled quality of the fill and artifact content, the feature appeared to have been filled deliberately with soil and household/kitchen refuse.

Artifacts from this feature were placed in the kitchen, architecture, clothing, tobacco, and miscellaneous categories (Table 33). Of the total 302 artifacts, 85.76 percent represented the kitchen group, and 12.58 percent were in the architecture group. The other three groups each comprised less than 1.0 percent.

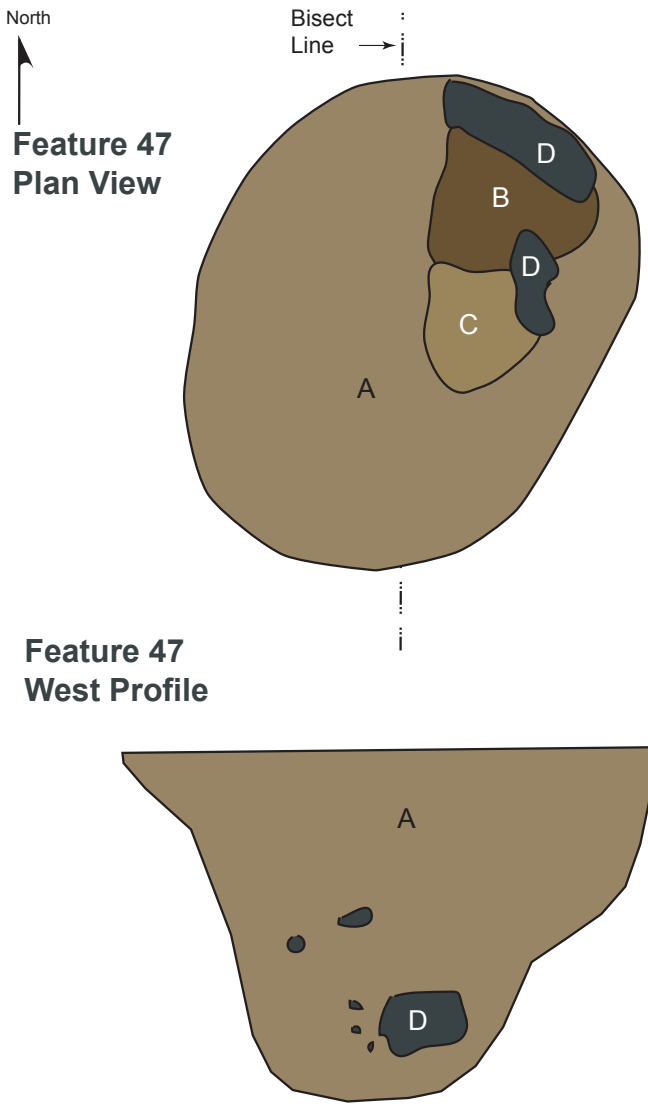
Table 33. Feature 47 Artifact Groups

Artifact Group	Count	%
Kitchen	259	85.76
Architecture	38	12.58
Clothing	1	0.33
Miscellaneous	3	0.99
Tobacco	1	0.33
Total	302	100.00

Chronologically diagnostic artifacts included five ceramics and 24 cut nails. The ceramics, including one creamware, one pearlware, and three whiteware sherds, suggested a date during the first third of the nineteenth century. Two whiteware fragments provided a TPQ of 1830. The number of sherds was too low to provide a useful MCD. The date range was compatible with the other features located in this part of Block 4. Based on date and proximity and chronology, therefore, Feature 47 was interpreted as relating to Post Cluster 1 (Structure 4).

In addition to the five ceramics noted above, the kitchen group contained an indeterminate earthenware sherd, two fragments of olive green container glass, and faunal material, which comprised the bulk of the group. Of 259 artifacts in the kitchen group, 210 were oyster shell and 40 were bone.

Figure 98.
Plan and Profile of Feature 47



A = 10YR 3/4 Dark Yellowish Brown Mottled with 2.5Y 5/3 Olive Brown and 2.5Y 5/3 Light Olive Brown Silt Sand
B = 10YR 3/4 Dark Yellowish Brown Silt Sand with Charcoal Clay Flecking
C = 2.5Y 5/4 Light Brown Olive Sand Mottled with 2.5Y 5/3 Olive Brown Silt Sand, Charcoal and Clay Flecking
D = 7.5Y 5/8 Strong Brown Clay

0 20 Centimeters

Figure 99.
Photographs of Feature 47

A. Feature 47, Top

B. Feature 47, West Profile

The architectural group (n=38) contained mostly nails (n=33), including the cut examples noted above and indeterminate fragments. Other artifacts in this group were two residual brick fragments and three mortar fragments.

The clothing group consisted of a single blue glass bead. This specimen conforms to Kidd and Kidd's (1972) type 'If', being a solid color and multifaceted. It measured 6.2 millimeters (0.24 in.) in diameter and 4.4 millimeters (0.17 in.) long. At 2.3 millimeters (0.1 in.), the bore was relatively wide compared to the exterior diameter, making the bead rather thin.

Tobacco group artifacts included a single clay pipe bowl fragment, while the miscellaneous group contained one fragment of cinder or clinker and two indeterminate ferrous metal fragments.

Carbonized maize remains, primarily cupule, dominated archaeobotanical samples from Feature 47 and cob fragments. The prevalence of these materials indicated disposal of food refuse. Few other plants were recovered from the feature, with traces of edible weeds (goosefoot) being the only other possible foodstuff.

The quantities of shell and bone recovered from Feature 47 compared to all other artifacts indicated it was filled mainly with kitchen midden, either deliberately or inadvertently from surface deposits. As seen below, this vicinity contained several features composed of residual shell midden that had largely been incorporated into the plow zone. The feature was larger than would be expected for a post, and the presence of nails in it could reflect incidental inclusions. This feature lay 3.6 meters (12 ft.) south of Post Cluster 1 in the north part of Block 4 and datable artifacts suggest it related to this occupation locus. Although it was not clear if the feature was used for primary refuse disposal, it appeared to represent a yard feature associated with this structure that became filled with food refuse after its abandonment.

FEATURE 53

Located in the northwest part of Block 4, Feature 53 was associated with 'Post Cluster 1.' A tree disturbed this feature, making its interpretation difficult. Its overall depth and size, however, were most consistent with a pit.

As initially delineated, the feature appeared to comprise an elongated soil anomaly, measuring 1.85 meters (6.1 ft.) long with varying width and encompassing a tree and an area of olive brown (2.5Y 4/3) silty sand. This soil surrounded a squarish area of dark yellowish brown (10YR 3/4) silty sand with charcoal and discrete concentrations of oyster shell east of the tree. Relatively high numbers of artifacts at the top suggested the presence of a substantial cultural feature here. Excavation ultimately indicated the feature measured 90x60 centimeters (3.0x2.0 ft.) and centered on the area of dark brown soil.

Bisection revealed slightly tapering sides and an irregular base possibly resulting from bioturbation. The maximum depth reached in the feature was 55 centimeters (1.8 ft.) below the graded surface (about 85 cm [2.8 ft.] below surface) (Figures 100 and 101). A very rough estimate of volume was 0.3 cubic meters (10.4 cu. ft.). The feature fill was difficult to interpret during the excavation. In profile, however, distinct, vertically separate zones were discernible. At the west side of the profile, the fill consisted of olive brown (2.5Y 4/3) sand mottled with light olive brown (2.5Y 5/3) silty sand. To the east was a 25-centimeter (0.8-ft.) wide U-shaped deposit of dark yellowish brown (10YR 3/4) silty sand with charcoal flecks that extended to 40 centimeters (1.3 ft.) below the graded surface. The fill material to the west underlay this deposit, which corresponded to the darker soil anomaly noted at the top of the feature, and resembled a post in profile.

Mottled light olive brown (2.5Y 5/3) and olive brown (2.5Y 4/4) silty sand lay east of this deposit and surrounded a tapering deposit of olive brown (2.5Y 4/4) silty sand mottled with light olive brown (2.5Y 5/3) silty sand that resembled a tree root in shape. Relatively high quantities of oyster shell and other artifacts suggested a large open feature into which refuse was deposited.

As excavation of the feature's north half preceded, its form clarified. The area to the west emerged as a moderately sized (approximately 40x40-cm [1.3x1.3-ft.] pit, while the zone on the east most likely represented bioturbation from tree roots. The large size of the feature suggests a pit rather than a posthole. The size, shape, and depth of the dark U-shaped soil deposit were strongly suggestive of a large post, however.

The artifact assemblage totaled 1,155 items placed in the kitchen, architecture, furniture, tobacco, and activities groups (Table 34). While the total was large, the bulk of the assemblage consisted of faunal material (n=1,069) placed in the kitchen group. The kitchen group (n=1,100) thus comprised 95.24 percent of the entire collection. The architecture group (n=52) comprised only 4.5 percent, while none of the other three groups totaled more than 0.1 percent. These relative proportions of artifact groups and types indicate that this feature contained primarily food refuse.

Table 34. Feature 53 Artifact Groups

Artifact Group	Count	%
Kitchen	1,100	95.24
Architecture	52	4.50
Furniture	1	0.09
Tobacco	1	0.09
Activities	1	0.09
Total	1,155	100.00

Figure 100.
Plan and Profile of Feature 53

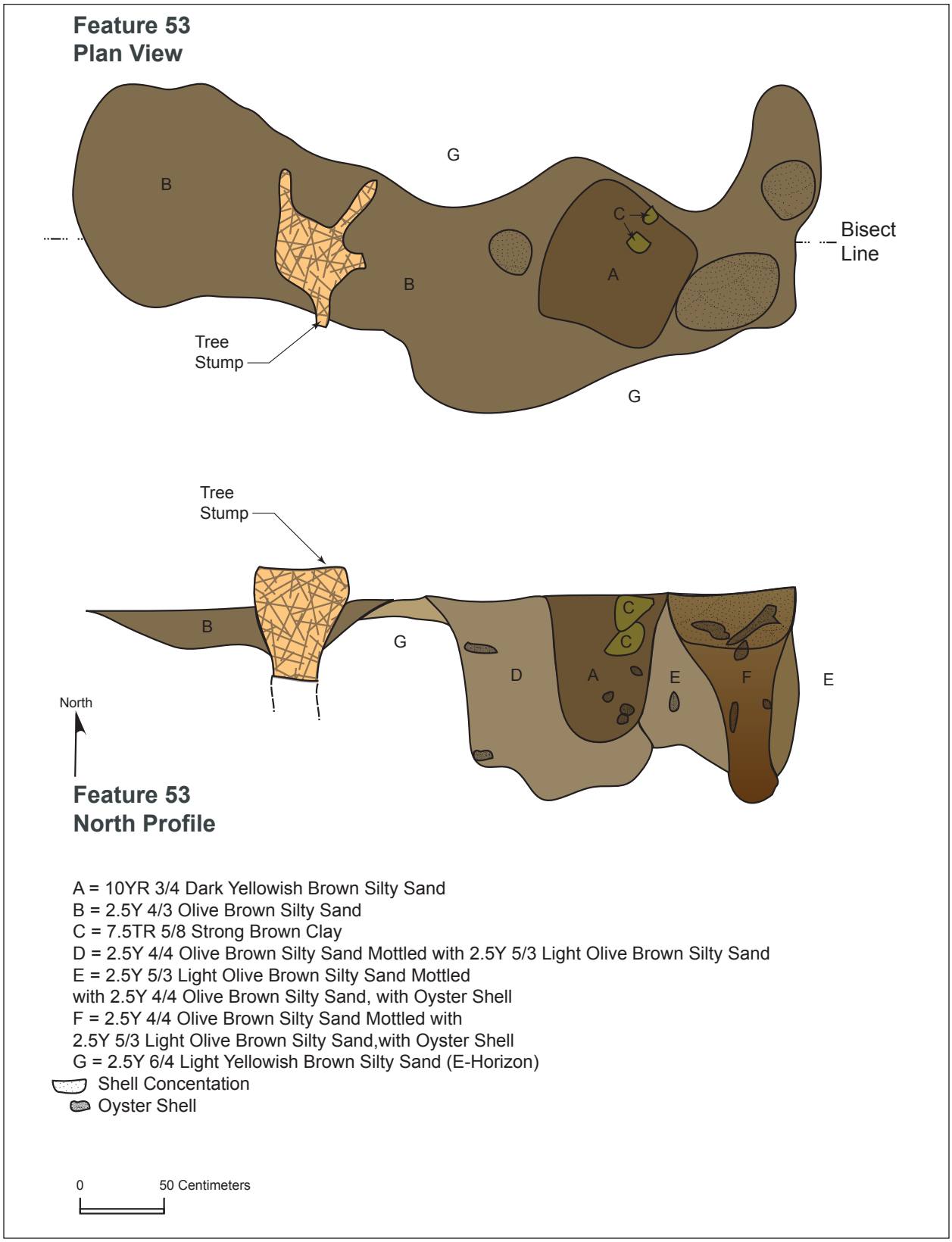


Figure 101.
Photographs of Feature 53

A. Feature 53, Exposed at Base of Plow Zone with Tree Stump

B. Feature 53, North Profile

Diagnostic artifacts included a small collection of 20 ceramic sherds, one bottle fragment, and 12 cut nails. The ceramic assemblage, consisting of pearlware and whiteware, provided an MCD of 1857.8, which is probably skewed toward a more recent date by the long manufacturing range of whiteware. The assemblage contained a shell edged fragment with an unscalloped and impressed rim that provided a TPQ of 1841. The bottle fragment had a down-tooled lip and string rim resembling Jones' (1986) Group 3A, which have dates ranging from the late eighteenth century to the first decades of the nineteenth century. The feature thus appeared to represent deposition during the early to mid-nineteenth century. The cut nails were consistent with this range, but did not provide precise dates.

In addition to the ceramics and bottle fragment noted above, the kitchen group contained 10 container glass fragments of varying color along with quantities of faunal material. The volume of oyster shell (n=1,056) indicated the feature was filled with kitchen refuse. The relatively small bone sample (n=13) appeared incidental.

Architectural artifacts included the 11 cut nails, 37 residual brick fragments, one flat glass fragment, and a single indeterminate iron object consisting of a round bolt attached to an iron strap or bar.

The furniture group included a brass butt hinge, measuring 3.6 centimeters (1.4 in.) long and probably from a box or cabinet. The tobacco category included a single pipe bowl fragment. Finally, the activities group consisted of a segment of a brass bar or pin. This object measured 4.7 millimeters (0.2 in.) in diameter and had a flange or band at one end. The surface of this end was uneven, indicating another section was broken off. The opposite end was also broken, and showed evidence of having once been a flattened tab that was drilled. This miscellaneous fragment could not be identified.

A 10-liter soil sample produced a relatively large archaeobotanical assemblage, which like others from this portion of Block 4, was comprised of mostly carbonized maize fragments (primarily cupule and cob). Small quantities of nutshell (walnut and hickory) were also recovered, along with wheat and raspberry. The feature thus illustrated a range of wild and domestic plant foods that were probably consumed by the site’s occupants. The presence of quantities of waste material supports the interpretation that this pit was filled with kitchen refuse.

Feature 53 appeared to reflect a moderately sized pit, possibly associated with a large post. The feature lay 4.5 meters (15 ft.) south of Structure 4/Post Cluster 1 and probably represented a yard feature associated with this projected structure. Excavation also revealed disturbance by a mature tree. The feature fill contained mostly oyster shell along with minor amounts of other artifact types that probably reflected kitchen refuse. Datable artifacts indicated deposition during the early to mid-nineteenth century, a range that is consistent with other features in this vicinity.

FEATURE 137

Feature 137 lay in the northern portion of Block 9 in the vicinity of the brick chimney base (Feature 173), and might have lain in a yard of the house. In plan, Feature 137 was oval-shaped and measured 1.4x0.6 meters (4.4x1.9 ft.). Bisection indicated a shallow basin measuring 24 centimeters (0.8 ft.) deep (approximately 50 centimeters [1.5 ft.] below surface) with an irregular base. The volume of this pit was roughly 0.1 cubic meters (1.9 cu. ft.). The feature fill consisted of a homogenous deposit of very dark brown (10YR 2/2) sandy loam (Figures 102 and 103). Artifacts from this feature, totaling 467 items, were placed in the kitchen, architecture, clothing, tobacco, and miscellaneous groups (Table 35). The kitchen and architecture groups comprised nearly equal proportions of the total assemblage, being 41.97 and 45.82 percent, respectively. The next largest group, miscellaneous, comprised only 10.06 percent of the total, while the tobacco group was 1.71 percent and the clothing group was 0.43 percent.

Table 35. Feature 137 Artifact Groups

Artifact Group	Count	%
Kitchen	196	41.97
Architecture	214	45.82
Clothing	2	0.43
Miscellaneous	47	10.06
Tobacco	8	1.71
Total	467	100.00

The chronologically diagnostic artifacts suggested deposition dating to the mid-nineteenth century. A Prosser button, with a beginning date of 1840, and an unscalloped shell edged whiteware sherd, manufactured between 1841 and 1895, provided a TPQ. Other diagnostic ceramics included pearlware (n=2) and whiteware varieties (n=8). The low number of ceramics would not provide a useful MCD, but the types present were consistent with a mid-nineteenth-century date. Cut nails in the assemblage also provided only a broad date.

The total ceramic assemblage totaled 17 sherds. In addition to the pearlware and whiteware already noted, the ceramic collection contained varieties of stoneware (n=7), including one fragment of a ginger beer bottle, two sherds of refined red stoneware with dark brown glaze, and indeterminate salt glazed fragments. A single fragment of clear container glass was also placed in the kitchen group. The group's largest component, however, was faunal (n=178), which included 119 bone fragments and 59 oyster shells.

Figure 102.
Plan and Profile of Feature 137

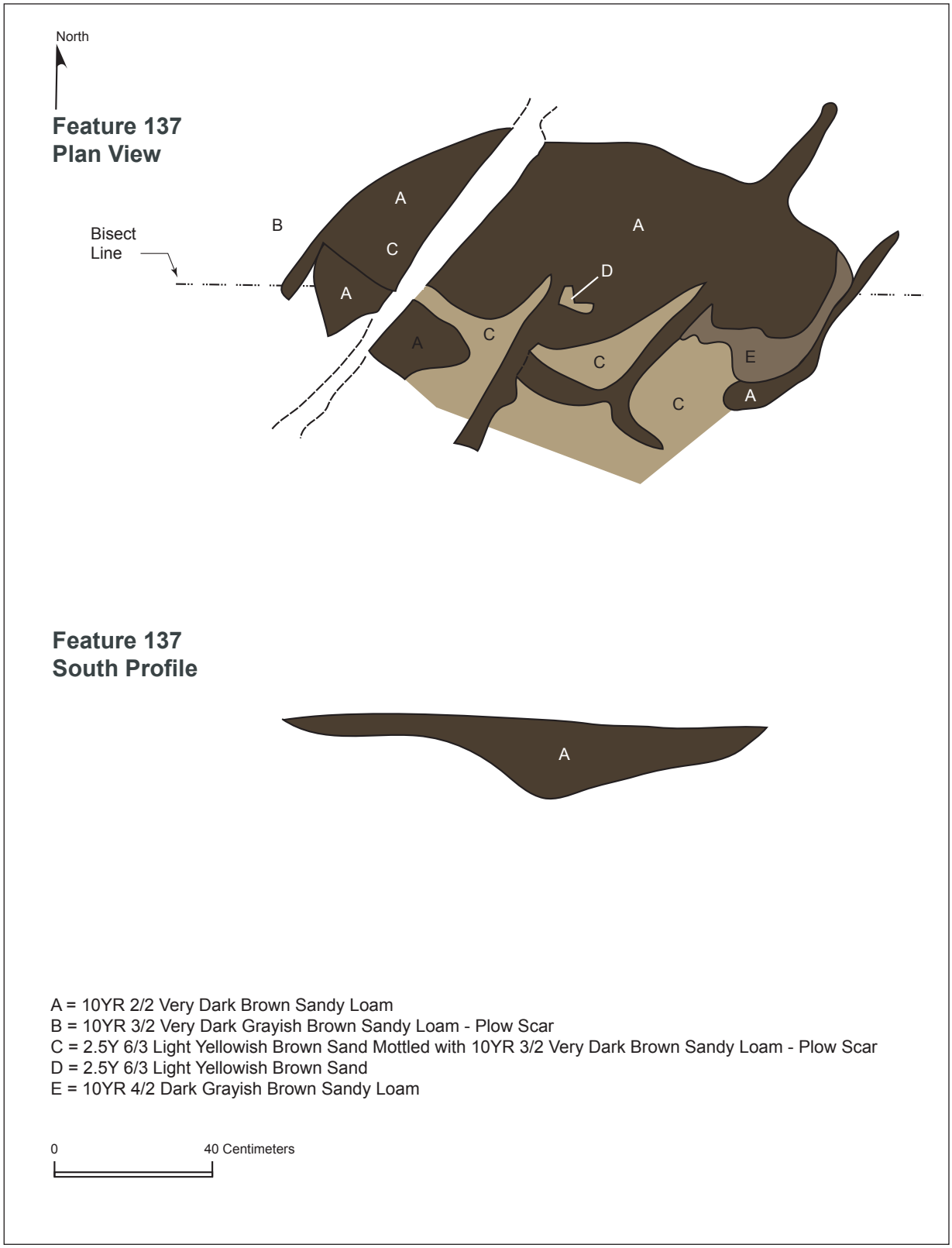


Figure 103.
Photographs of Feature 137

A. Feature 137, Top, Facing North

B. Feature 137, South Profile

The architecture group contained 214 artifacts, of which 28 were cut nails and 134 were indeterminate nails. Fifty-one brick fragments, including 17 that could be identified as handmade, were also in this group, along with a single fragment of mortar.

The clothing group consisted of only the Prosser button noted above. The tobacco group was comprised of two pipe bowl fragments and six pipe stem sections. Finally, the miscellaneous group included 38 indeterminate oxidized ferrous metal fragments and nine charcoal fragments.

Feature 137 thus reflected an indeterminate pit containing a dense artifact deposits dating to the mid-nineteenth century. The function of the pit was unclear. It lay equidistant, approximately 10 meters (30 feet), between Feature 173, a brick chimney base, and Feature 147, a storage pit, and was not obviously related to either. Chronologically, Feature 137 also appeared more closely associated with Feature 173, although it cannot be dated very precisely. The content of the feature was suggestive of discarded subsistence refuse, although the relatively high quantities of nails indicated a possible structure in this area as well. Functional interpretations for this feature were therefore inconclusive.

FEATURE 169

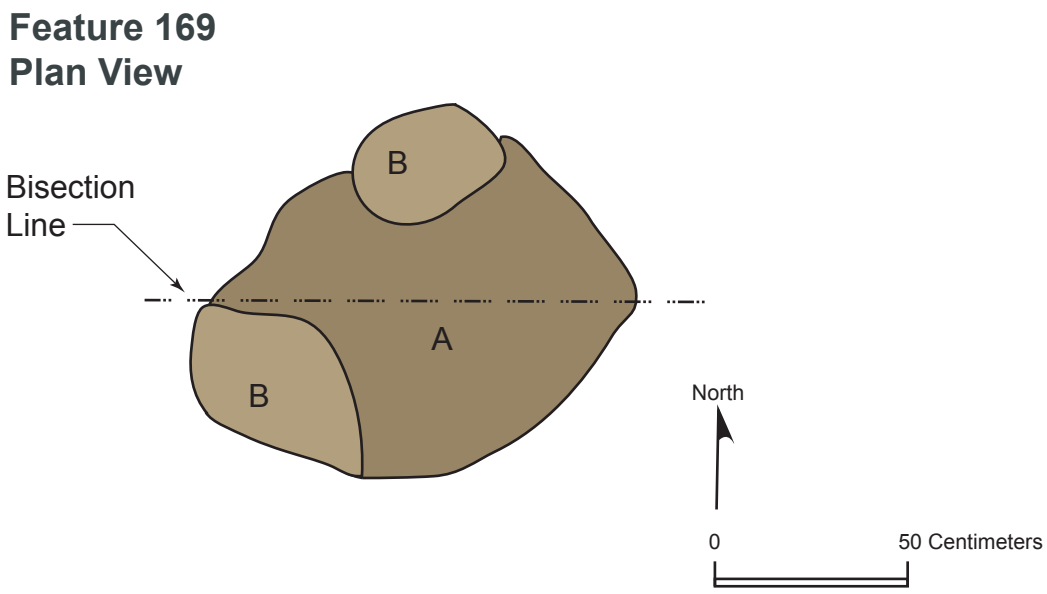
Located in the southeastern portion of Block 9, Feature 169 consisted of an oval-shaped pit measuring 1.1x0.9 meters (3.6x3.0 ft.). In profile, the feature was basin-shaped and reached a maximum depth below the graded surface of 25 centimeters (0.8 ft.), or about 55 centimeters (1.8 ft.) below the surface (Figures 104 and 105). The feature's volume was about 0.1 cubic meters (4.5 cu. ft.).

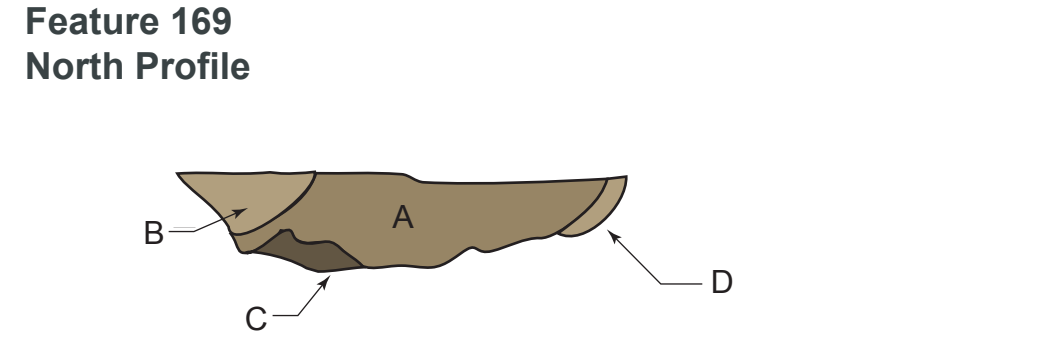
The fill consisted of light olive brown (2.5Y 5/3) sandy loam with few mottles of light yellowish brown (2.5Y 7/3) sand. Areas of light yellowish brown sandy loam mottled with dark grayish brown (2.5Y 4/2) and pale yellow (2.5Y 7/3) sand reflected bioturbation.

This feature produced an assemblage of 102 artifacts. Most of these were kitchen related (n=72) and the balance were architectural (n=26), tobacco (n=1), and miscellaneous (n=3). The only artifacts to provide chronological data were 13 cut nails, which provided a TPQ of 1805. The feature could not be dated more precisely, however.

Along with the cut nails, the architectural group contained eight unidentified nails, four residual brick fragments, and one piece of mortar. The kitchen group consisted of 65 bone fragments and seven oyster shells. A single pipe bowl fragment represented the tobacco group, while the miscellaneous group included three pieces of indeterminate oxidized metal.

Figure 104.
Plan and Profile of Feature 169





A = 2.5Y 5/3 Light Olive Brown Sandy Loam Mottled with
2.5Y 6/8 Light Yellowish Brown Sandy Loam and 2.5Y 7/3 Pale Yellow Sand
B = 2.5Y 6/3 Light Yellowish Brown Sandy Loam Mottled with
2.5Y 4/2 Dark Grayish Brown Sand and 2.5Y 7/3 Pale Yellow Sand
C = 2.5Y 3/2 Very Dark Grayish Brown Sandy Loam Mottled with
2.5Y 6/3 Light Yellowish Brown Sandy Loam and 2.5Y 7/4 Pale Yellow Sand
D = 2.5Y 6/3 Light Yellowish Brown Sand

Figure 105.
Photographs of Feature 169

A. Feature 169, Plan

B. Feature 169, North Profile

Feature 169 thus reflected a small, indeterminate pit. Given their low to moderate quantities, the artifacts probably represented incidental inclusions rather than deliberate disposal. The feature could not be dated precisely, and its associations were not clear.

FEATURE 172

A relatively small pit, Feature 172 lay in the southeast portion of Block 9. Measuring a maximum of 65x65 centimeters (2.1x2.1 ft.), the feature was pear-shaped in plan. The profile revealed a deep basin shape having irregular sides, probably due to slumping and bioturbation. The base of the feature lay 30 centimeters (1.0 ft.) below the graded surface (about 60 centimeters [2.0 ft.] below the ground surface) (Figure 106). The feature's estimated volume was 0.07 cubic meters (2.3 cu. ft.). Light olive brown (2.5Y 5/3) sandy loam with few mottles of light yellowish brown (2.5Y 6/4) and pale yellow (2.5Y 7/4) fine sand comprised the fill. Patches of olive brown (2.5Y 4/3) mottled with light olive brown (2.5Y 5/3) and light yellowish brown (2.5Y 6/4) sandy loam, as well as light olive brown (2.5Y 5/3) with pale yellow (2.5Y 8/3) and light yellowish brown (2.5Y 6/4) sandy loam reflected bioturbation within the fill.

Feature 172 generated only 10 artifacts, most of which (n=7) were in the architecture group and included five unidentified nails and two residual brick fragments. The kitchen group included only two artifacts, a fragment of edge-decorated pearlware and a brown stoneware sherd. The pearlware edge was scalloped with curved impressions, indicating a date range from 1802-1832. Finally, the miscellaneous category included one unidentified oxidized iron fragment.

The artifact sample was too small to provide useful chronological or functional information about this feature, except to indicate a TPQ of 1802. The low numbers of artifacts suggested deposition by chance rather than intentional discard, and the feature's function was undetermined.

FEATURE 177

Tentatively identified as a pit, Feature 177 lay in the northeastern portion of Block 9. In plan, the feature measured about 62x62 centimeters (2.0x2.0 ft.) and exhibited an amorphous shape distorted by bioturbation and plowing. Bisection revealed a deep bowl-shape profile that reached a depth of 27 centimeters (0.9 ft.) below the graded surface (approximately 52 centimeters [1.7 ft.] below surface). Bisection also indicated that the pit measured only about 40 centimeters (1.3 ft.) in diameter at the top; the larger opening size reflected distortion from post-deposition processes (Figures 107 and 108).

Figure 106.
Plan, Profile and Photographs of Feature 172

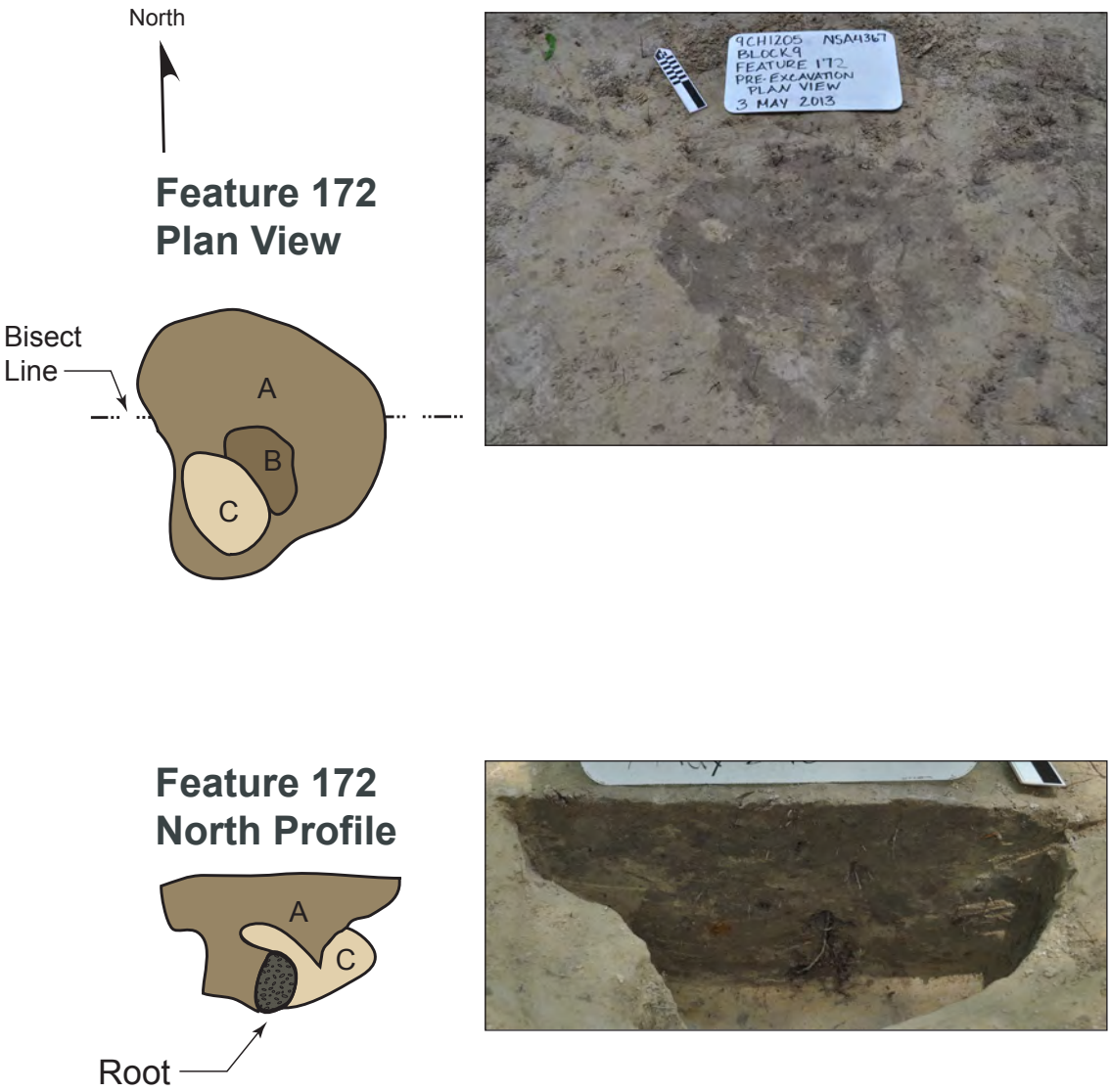
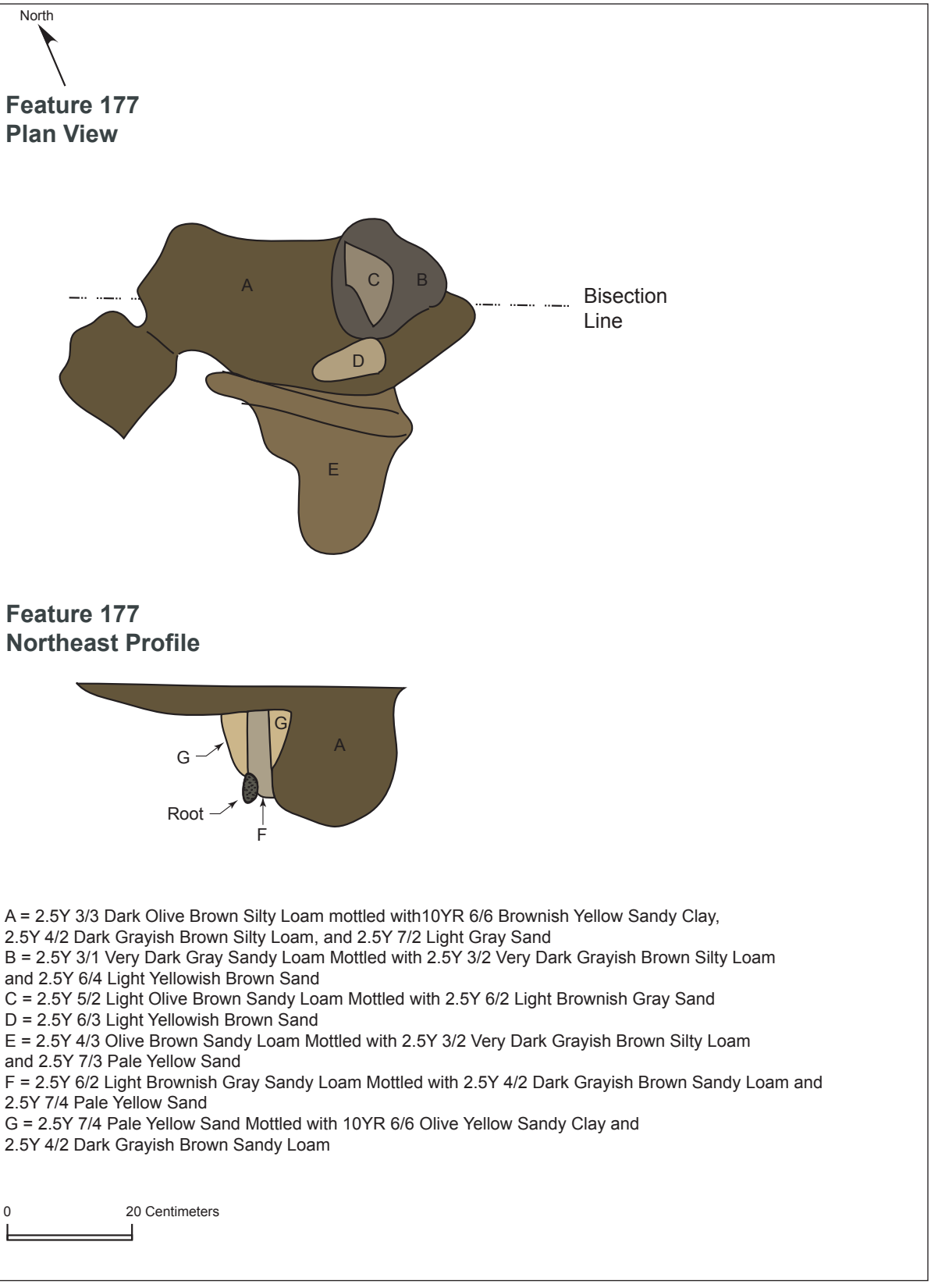


Figure 107.
Plan and Profile of Feature 177



A = 2.5Y 3/3 Dark Olive Brown Silty Loam mottled with10YR 6/6 Brownish Yellow Sandy Clay, 2.5Y 4/2 Dark Grayish Brown Silty Loam, and 2.5Y 7/2 Light Gray Sand
B = 2.5Y 3/1 Very Dark Gray Sandy Loam Mottled with 2.5Y 3/2 Very Dark Grayish Brown Silty Loam and 2.5Y 6/4 Light Yellowish Brown Sand
C = 2.5Y 5/2 Light Olive Brown Sandy Loam Mottled with 2.5Y 6/2 Light Brownish Gray Sand
D = 2.5Y 6/3 Light Yellowish Brown Sand
E = 2.5Y 4/3 Olive Brown Sandy Loam Mottled with 2.5Y 3/2 Very Dark Grayish Brown Silty Loam and 2.5Y 7/3 Pale Yellow Sand
F = 2.5Y 6/2 Light Brownish Gray Sandy Loam Mottled with 2.5Y 4/2 Dark Grayish Brown Sandy Loam and 2.5Y 7/4 Pale Yellow Sand
G = 2.5Y 7/4 Pale Yellow Sand Mottled with 10YR 6/6 Olive Yellow Sandy Clay and 2.5Y 4/2 Dark Grayish Brown Sandy Loam

0 20 Centimeters

Figure 108.
Photographs of Feature 177

A. Feature 177, Plan

B. Feature 177, Northeast Profile

A square soil anomaly at the feature's west side was initially interpreted as a root, and was excavated in its entirety without obtaining a profile. Excavation indicated it might reflect a square post measuring 20x20 centimeters (0.8x0.8 ft.).

The feature fill was primarily dark olive brown (2.5Y 3/3) silty loam mottled with brownish yellow (10YR 6/6) sandy clay, dark grayish brown (2.5Y 4/2) silty loam, and light gray (2.5Y 7/2) sand.

The total of 78 artifacts from this feature were sorted into the kitchen, architecture, tobacco, and miscellaneous groups. The architecture group (n=45) comprised the majority of the collection (57.69%), with the kitchen group (n=28; 35.90%) also common. The miscellaneous (n=4; 5.13%) and tobacco (n=1; 1.28%) groups were only small portions of the total.

Datable artifacts included only three plain whiteware sherds, which provided a TPQ of 1830. One nail was identified as handwrought, suggesting an early date. The date of this feature could not be determined with precision, however.

In addition to the whiteware sherds, the kitchen group contained two animal teeth, and 23 fragments of container glass, including one identified as a spirit bottle. The architecture group was mostly composed of residual brick fragments (n=23) and nails (n=22). Aside from the wrought specimen noted above, the nails were indeterminate. The tobacco group included a single pipe bowl fragment. The miscellaneous artifacts were four indeterminate oxidized ferrous items.

The feature yielded relatively high artifact counts for its size, suggesting it reflected a filled pit. Its size, however, was more consistent with a large posthole, and therefore this feature's function could not be conclusively determined.

MIDDEN RESIDUE

Although no buried midden deposits were identified during the data recovery, traces of these concentrated refuse dumps were recorded. Middens are a common feature at Lowcountry slave settlements. Archaeological examples in coastal Georgia and South Carolina contain quantities of shell along with varying amounts of bone and domestic artifacts, and they are typically found in direct association with, or close by, the dwellings (e.g., Butler 2007; Campo et al. 1998; Hacker et al. 1990:55; Poplin and Scardaville 1991:90; Simpkins and Lamas 1990:18-19; Trinkley and Hacker 1989:133-134, 2009).

At 9CH1205, evidence of midden deposits was most evident in the southern portion of the site, where oyster shell was noted on the ground surface and in the plow zone during stripping of Block 9. Features identified as midden residue reflected traces of refuse deposits that had lain on the ground surface and became incorporated into the plow zone.

Eleven features were categorized as midden residue during the data recovery. Four of these consisted of individual or groups of bottles with few or no additional artifacts. The interpretation of these features as midden residue is tenuous because they could reflect deliberate placement.

Seven other features identified as midden residue were amorphous soil anomalies of varying size, containing large pieces of oyster shell or other artifacts. These reflected material that subsided into the ground deeply enough to survive plowing. Although they do not provide ideal data for analysis because of their truncated character, these features are important in understanding the functions of nearby features and the use of space.

FEATURE 5/121

Feature 5/121 was identified initially by EPEI in the profile of Test Unit 6. During the data recovery, machine-assisted removal of plow zone exposed the unexcavated portion of the feature and it received a new feature number before being associated with the original designation. EPEI noted the feature in the unit's profile and interpreted it as a post. The profile indicated a deep basin-shape filled with very dark grayish brown (10YR 3/2) sandy loam and containing five fragments of container glass, including four amber and one aqua colored pieces. EPEI identified the amber bottle as machine-made, and thus assigned the feature a TPQ of 1900 (Silliman and Quirk 2009:92). Subsequent recovery of additional fragments of this amber bottle indicated it reflected a log cabin-shaped Plantation Bitters container, which were common from the 1860s to the 1880s (Lindsey 2013).

Exposure of this feature in plan during the data recovery revealed a roughly rectangular shape measuring 30x27 centimeters (1.0x0.9 ft.), excluding the previously excavated portion. This area contained two soil zones, one amorphous zone adjacent to the test unit consisted of olive brown (2.5Y 4/3) silty sand and contained the bottle fragments in a discrete concentration. East-southeast was a zone of light olive brown (2.5Y 5/3) mottled with olive brown (2.5Y 4/3) silty sand and light yellowish brown (2.5Y 6/4) silty sand. Bisection indicated an amorphous shape with an irregular boundary and fill of highly mottled olive brown, light olive brown, and light yellowish brown silty sand (Figures 109 and 110).

Figure 109.
Plan and Profile of Feature 5/121

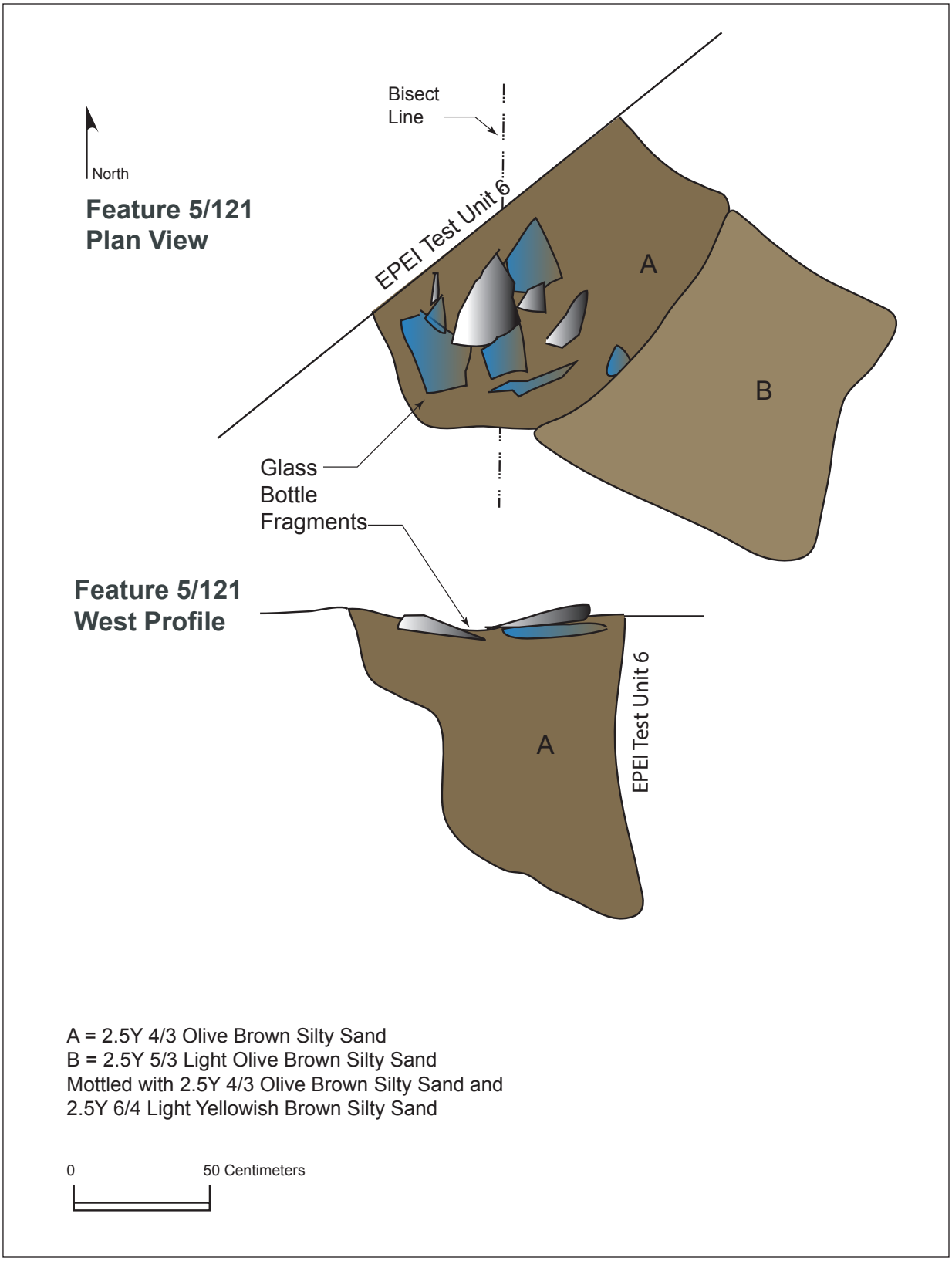


Figure 110.
Photographs of Feature 121

A. Feature 5/121 Exposed at Edge of Test Unit 6 (at Left)

B. Feature 5/121 After Bisection, With Test Unit 6 at Left

The feature's indistinct shape and heavy mottling indicated a natural feature, most likely a filled-in tree root or animal burrow. The bottle fragments were concentrated at the top of the feature and it is probable that they reflected incidental inclusions that moved down from higher in the profile.

The artifacts from the feature, therefore, related to the occupation in the Block 5 vicinity, and particularly Structure 1, represented by Feature 82. A total of 28 artifacts were recovered, including four nails (1 cut, 4 unidentified), and 24 bottle and container glass fragments. Glass colors included amber, olive green, and aqua. Embossed marks, glass color, and discernible shapes indicated a minimum of four vessels. Among the sample was a dark olive bottle base embossed "H. HEYE/BREMEN" on the base. This was a product of the Heye Glass Factory of Germany, which manufactured bottles for export during the nineteenth century. Lockhart et al. (2008) indicated the particular mark on this bottle was used between the 1840s and 1870s (Figure 111).

Twenty amber glass pieces represented at least two bitters bottles. These were the well-known log cabin-shaped bottle embossed "DRAKE'S/1860/PLANTATION/X/BITTERS" on one side and "PATENTED 1862" on the reverse. No complete embossed portions were recovered, although two separate fragments had portions of "DRAKES/1860/PLANTATION," indicating separate containers (Figure 111). These bottles were common during the 1860s to 1880s (Lindsey 2013). The datable sherds agree with the occupation range suggested for Structure 1, and strengthen the interpretation that the site was occupied into the postbellum period.

FEATURE 46

Located in the northern portion of Block 4, Feature 46 was a soil anomaly containing high quantities of oyster shell and other artifacts. The feature measured 80x35 centimeters (2.6x1.1 ft.), and exhibited an irregular shape. In profile, the feature was a rough basin shape, but with an uneven base that ranged in depth from eight to 15 centimeters (3-6 in.) below the graded surface (about 38-45 cm [1.2-1.5 ft.] below surface. The fill was dark grayish brown (10YR 4/2) mottled with very dark grayish brown (10YR 3/2) and light yellowish brown (10YR 6/4) loamy sand (Figures 112 and 113). The irregular shape and small size of this feature suggested it reflected bioturbation rather than a pit. The relatively high artifact counts thus reflected materials that worked downward from overlying midden deposits.

Feature 46 yielded 441 artifacts, reflecting the kitchen, architecture, and miscellaneous artifact groups. The kitchen group comprised the largest percentage of the total assemblage by far. The other two groups were minor components of the collection (Table 36).

Figure 111.
Embossed and Molded Bottle Fragments from Feature 5/121

A. (top and middle rows) Drake's Plantation Bitters Log Cabin Bottle Fragments
B. Spirit Bottle Base Embossed "H. HEYE/BREMEN"

Figure 112.
Plans and Profiles of Features 46, 48, 49, and 131A

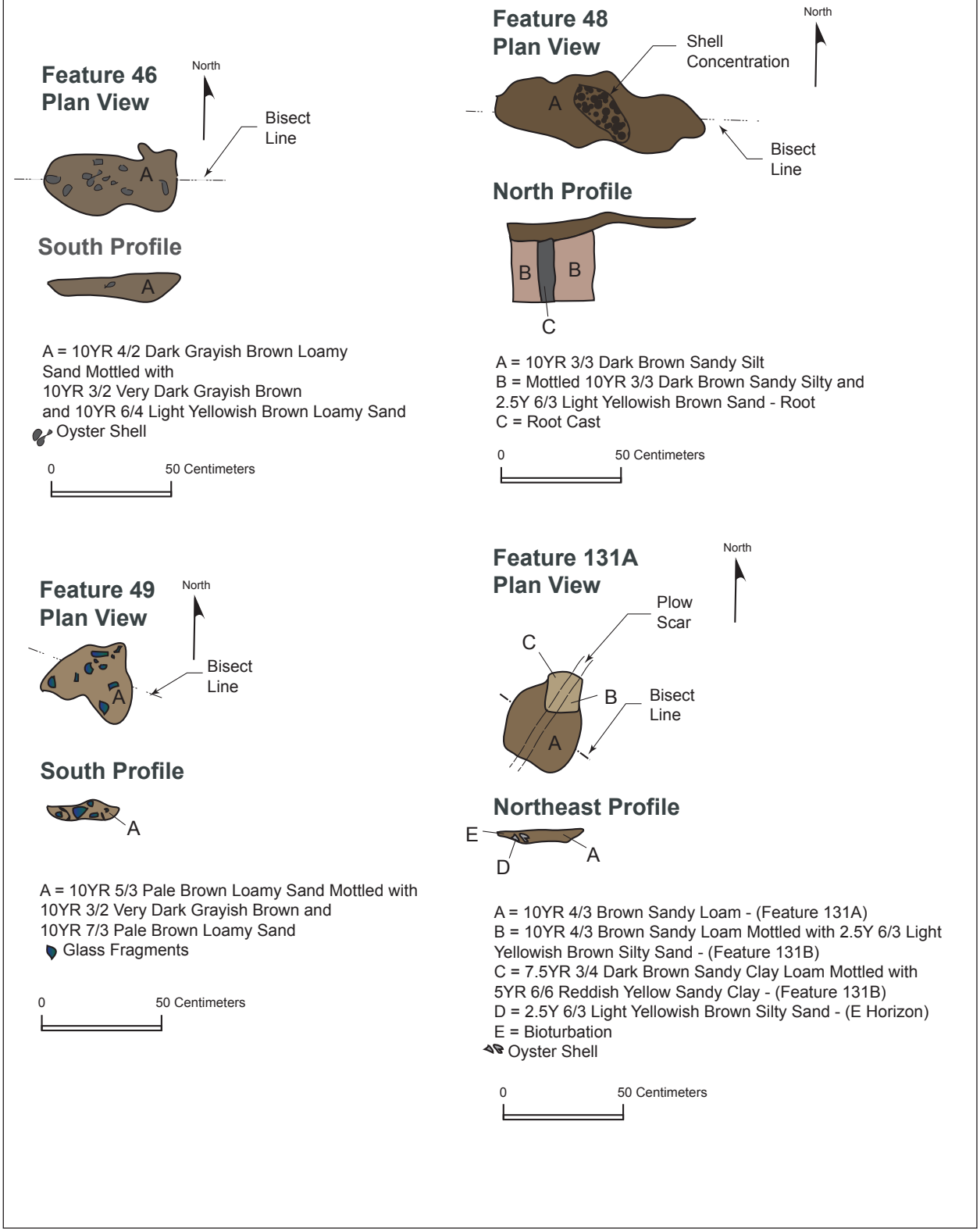


Figure 113.
Photographs of Feature 46

A. Feature 46, Plan

B. Feature 46, South Profile

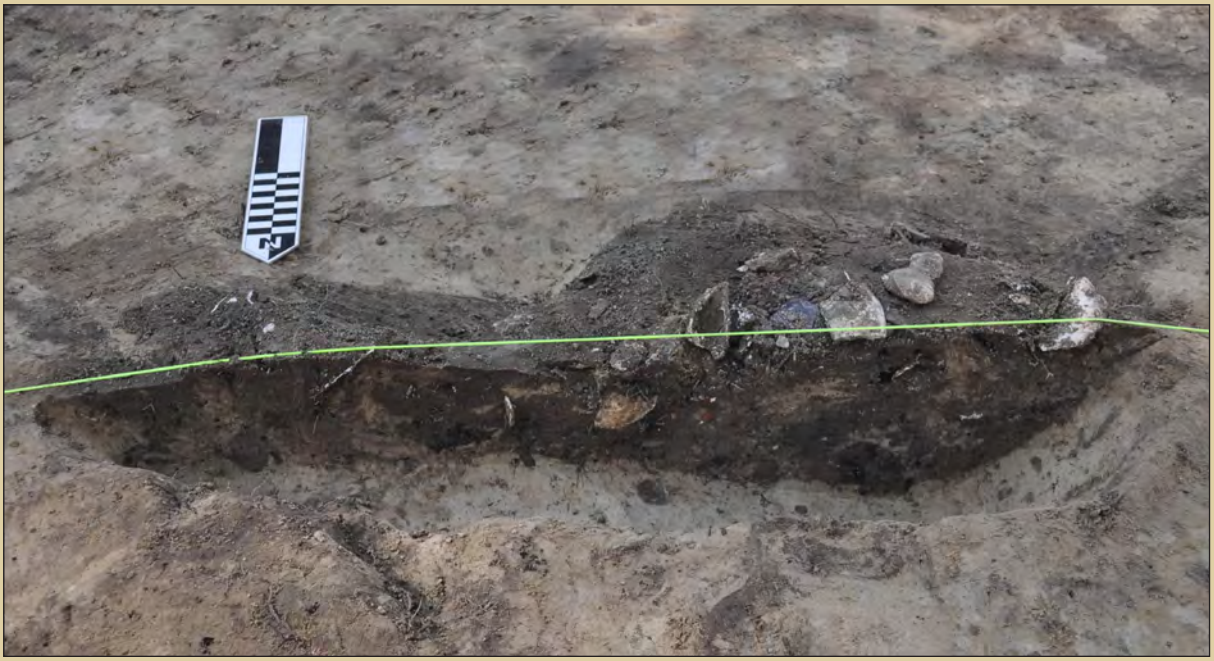


Table 36. Feature 46 Artifact Groups

Artifact Group	Count	%
Kitchen	389	88.21
Architecture	38	8.62
Miscellaneous	14	3.17
Total	441	100.00

The kitchen group consisted almost entirely of faunal materials, which comprised 97.69 percent of all kitchen artifacts. Faunal materials, presumably reflecting subsistence remains, included 355 oyster shells, 14 unidentified shell fragments, and 11 pieces of bone. The balance of the group consisted of five ceramic sherds and four container glass fragments. The ceramics included one pearlware and three whiteware sherds, along with one that could not be identified. This group is too small to provide a clear date, but they are consistent with the general chronological range of features in this portion of Block 4. The whiteware provided a TPQ of 1830.

The architecture group comprised only a small proportion of the assemblage, and mostly consisted of residual brick fragments (n=31; 81.58%). Other artifacts included four nails (1 cut, 3 unidentified), one piece of flat glass, and two residual mortar fragments. The miscellaneous group contained nine pieces of charcoal and five unidentified ferrous oxide fragments.

Feature 46 thus appears to contain kitchen refuse, mostly composed of subsistence remains, along with a few scattered artifacts. The feature is roughly intermediate between Structures 3 and 4 (wall trench structure and post cluster 1, respectively), and does not clearly relate to either. It is probable that the feature represented a surface midden located in the yard of one of these structures that was later incorporated into plow zone.

FEATURE 48

Like Feature 46, Feature 48 was situated in the north part of Block 4 and exhibited an amorphous shape with relatively high artifact counts at its exposed level. The feature measured 1.3x0.4 meters (4.3x1.3 ft.) with a 45x20-centimeter (1.5x0.8-ft.) oyster shell concentration in the center. In profile, the feature had an irregular shape, with the eastern portion being a shallow basin that reached a depth of only 10 centimeters (0.3 ft.) below the graded surface and the west side extending to 50 centimeters (1.5 ft.) (see Figure 112 and 114).

Figure 114.
Photographs of Feature 48

A. Feature 48, Plan

B. Feature 48, North Profile

The upper level of the feature contained a matrix of dark brown (10YR 3/3) sandy silt. On the east side, this matrix lay directly atop the light yellowish brown (2.5Y 6/3) sand E horizon. The deeper portion of the feature contained mottled dark brown and light yellowish brown sandy silt and sand as well as root casts that were indicative of a tree root. The concentration of artifacts reflected midden deposits that moved downward from bioturbation.

Artifacts were predominantly kitchen-related, with architecture and tobacco artifacts being less common (Table 37). The kitchen group was composed mainly of faunal material (96.45% of all kitchen artifacts), and of the 163 faunal items, 161 were oyster shells while the other two were bone. Four ceramics (1 whiteware, 1 redware, and 2 unidentified) were also in this group along with two fragments of container glass.

Table 37. Feature 48 Artifact Groups

Artifact Groups	Count	%
Kitchen	169	87.11
Architecture	24	12.37
Tobacco	1	0.52
Total	194	100.00

The architecture group consisted of 24 items, 75 percent (n=18) of which were brick fragments. Six nails, including four cut examples, were also found. The tobacco group consisted of a single pipe bowl fragment.

A 10-liter soil sample from this feature yielded a archaeobotanical assemblage consisting primarily of maize cupule and cob fragments. Traces of peach and walnut were also recovered. The quantity of maize refuse supports the interpretation of this feature as residue of kitchen midden.

The feature produced few artifacts with known manufacturing dates. The single whiteware sherd (TPQ of 1830) and four cut nails did not provide a precise date. The feature lay in the vicinity of Structure 1, and dates for the features in this area spanned from the early nineteenth century to the third quarter of the century. It is probable that Feature 48 dates to this period as well and reflects traces of kitchen midden that escaped plowing.

FEATURE 49

Situated in the north part of Block 4, Feature 49 consisted of a discrete deposit of bottle fragments. The feature exhibited an indistinct shape and color, and was noted primarily by the concentration of large glass pieces in an area measuring 50x46 centimeters (1.6x1.5 ft.).

Bisection revealed the glass extended to only 10 centimeters (0.4 ft.) below the graded surface (roughly 40 centimeters [1.3 ft.] below ground surface). The fragments were associated with a soil matrix of pale brown (10YR 5/3) fine sand mottled with dark grayish brown (10YR 3/2) and very pale brown (10YR 7/3) sand (see Figures 112 and 115).

The bottle fragments were relatively large and not articulated. The jumbled quality of the artifacts suggested the feature did not reflect a deliberate burial of glass bottles, but more likely downward movement of artifacts caused by bioturbation. This feature was also in the vicinity of Structure 1 and several other midden deposits, making it more likely that this feature reflects residual midden rather than a deliberate bottle burial or disposal.

This feature contained a high number of artifacts for its size, although broken glass fragments, which accounted for 657 of 713 total artifacts, or 92.14 percent, inflated the quantity. The assemblage was placed into the kitchen, architecture, and activities groups, with kitchen being the largest followed by activities (Table 38). The high frequency of this last group is also a result of being composed entirely of glass.

Table 38. Feature 49 Artifact Groups

Artifact Group	Count	%
Kitchen	527	73.91
Architecture	50	7.01
Activities	136	19.07
Table	713	100.00

The kitchen group contained mostly glass bottle and container fragments, which comprised 98.86 percent of all kitchen artifacts (Figure 116). The balance, consisting of six artifacts, included five bone fragments and one shell fragment. The glass was mostly dark olive green or clear with a few light green and aqua fragments. A minimum of 10 individual bottles was identified based on complete or nearly complete finishes. Of these, seven were dark olive “spirit” type bottles, while one additional specimen was light olive. Finish types identified among these were categorized into Jones' (1986) Groups 3b (n=6) and 3c (n=1), which both date generally to the period after 1820 and are characterized as having lips thicker than the neck, with downtooled lips and string rims. Group 3b finishes tend to be uneven, while Group 3c finishes are well-formed and clearly show use of a finishing tool. In the 9CH1205 assemblage, one dark olive green specimen could not be categorized because of a missing lip. Along with the bottle finishes, nine separate bases (eight dark olive bases and one light olive green) were recovered, indicating the presence of another bottle not known from the finishes. The large size of the fragments suggested that the bottles were discarded whole.

Figure 115.
Photographs of Feature 49

A. Feature 49, Plan

B. Feature 49, South Profile

Figure 116.
Representative Glass Artifacts from Feature 49

A. Various Finishes on Green "Spirit" Bottles
B. Pressed Glass Tableware or Furnishing
C. Pharmaceutical/Cosmetic Bottle

One aqua colored bottle had a one-piece finish reflecting an "Oil" or "Mineral" type and a relatively long neck, which, combined with its color, could indicate a beverage, food, or cosmetic container (Lindsey 2013). Finally, one bottle reflected a probable pharmaceutical/cosmetic type. This thin-bodied, aqua-colored finish neck fragment, had a short neck and one-part flanged lip. The small size, color, and style were consistent with the small aqua-colored "utility" bottles often used for medicines (Lindsey 2013). A small bottle base in the same color with a blowpipe pontil scar probably reflected the bottom of this bottle.

Additional glass artifacts were placed in the activities group. These included 125 fragments of thin clear glass that were identified as lamp chimney fragments, although no clear diagnostic attributes of a lamp were noted. Eleven additional glass fragments in the activities group represented a single clear pressed glass object of indeterminate form. The fragments included portions of a square base and with a vertical portion above it. The extant vertical portion exhibited a paneled exterior suggestive of a form such as a vase (see Figure 116).

The balance of the assemblage was placed in the architectural artifact group. Artifacts included 47 residual brick fragments and three nails, one being a cut example.

The feature also yielded a archaeobotanical assemblage containing 47 carbonized maize cupule, cob, and kernel fragments, along with traces of walnut and goosefoot. The prevalence of maize supports the interpretation that the feature reflected a remnant midden deposits. These materials hint that, except for the bottles, the bulk of the midden's contents were organic food remains.

The bottle fragments provided the clearest dating evidence for this feature, and indicated a TPQ of the 1820s. The bottles reflected types that were common during the middle part of the nineteenth century, and this range conformed to the projected occupation of nearby Structure 4.

FEATURE 85

Feature 85 was an individual bottle located in Block 5 about 7.62 meters (25 ft.) east of Feature 82 (brick chimney). The feature was exposed during machine-assisted clearing at a depth of approximately 30 centimeters (1.0 ft.) below the ground surface. Excavation indicated a complete bottle embedded in the light yellowish brown (2.5Y 6/4) subsoil with no associated soil anomaly. The bottle was inverted and at an angle, with its base turned up and extending into the lower part of the plow zone, while its mouth rested on a natural deposit of light olive brown (2.5Y 5/6) clayey sand (Figure 117). No other bottles or fragments were found in association with this isolated example, and the bottle, when found, was unsealed and did not contain any cultural materials.

Figure 117.
Photographs of Feature 85

A. Feature 85 (Glass Bottle) Exposed at Base of Plow Zone

B. Feature 85, Southwest Profile

This single artifact was a dark olive green “spirits” bottle that probably contained beer or ale originally. This specimen was manufactured in a three-piece Ricketts type mold, which was in use from 1820-1920 (Jones and Sullivan 1985:30). The finish was well-formed, even, and reflected the use of a finishing tool, which conformed to Jones' (1986:69) Group 3c. These were made after about 1820. Traces of the metal wrapper or capsule on the finish remained and the bottle exhibited an embossed crown on the shoulder that could not be identified as to a particular manufacturer or bottler (Figure 118). Although African American yards have been documented containing bottles for edging or decorative purposes (Westmacott 1992), the context of Feature 85 is not clear enough to make a determination of its function. While bottles were also used for ritual functions (witches bottles), in those instances other items were included within the bottle and the bottles were buried beneath the hearth. The fact that it appears as an isolated example, with no obvious signs of being deliberately buried and with no contents, suggests it reflects movement down through the soil.

FEATURE 98

Located southwest of Feature 82 (brick chimney) in Block 5, Feature 98 was a roughly rectangular soil anomaly measuring 1.4x0.5 meters (4.6x1.6 ft.). The dominant soil matrix consisted of light olive brown (2.5Y 5/3) silty sand, while an area in the southwest corner consisted of olive brown (2.5Y 4/3) silty sand. Relatively high numbers of artifacts were visible at the feature’s surface. The feature was also cut at its northeast corner by a wide plow scar (Feature 100) (Figures 119 and 120).

Bisection indicated an amorphous profile with an irregular base reaching 14 centimeters (0.5 ft.) below the graded surface (44 cm [1.4 ft.] below ground surface). Although in plan, the feature exhibited a relatively definite shape, in profile it was clear that it was probably a product of bioturbation. The overlying plow zone in the feature’s general vicinity was artifact-rich, and the feature was interpreted as reflecting material redeposited downward.

A total of 61 artifacts from the feature were sorted into the kitchen, architecture, and miscellaneous groups. Architecture artifacts (n=41; 67.21% of the total) were the most common, followed by kitchen artifacts (n=17; 27.87%). Miscellaneous artifacts, consisting of three iron oxide concretions, comprised only 4.92 percent of the assemblage.

The architecture group was composed mostly of brick fragments (n=30), six of which could be identified as handmade. These probably reflect displaced fragments from Feature 82. The group also contained eight nails (four cut, four unidentified), and three pieces of mortar.

Figure 118.
Bottle Recovered from Feature 85

Figure 119.
Plans and Profiles of Features 98 and 101

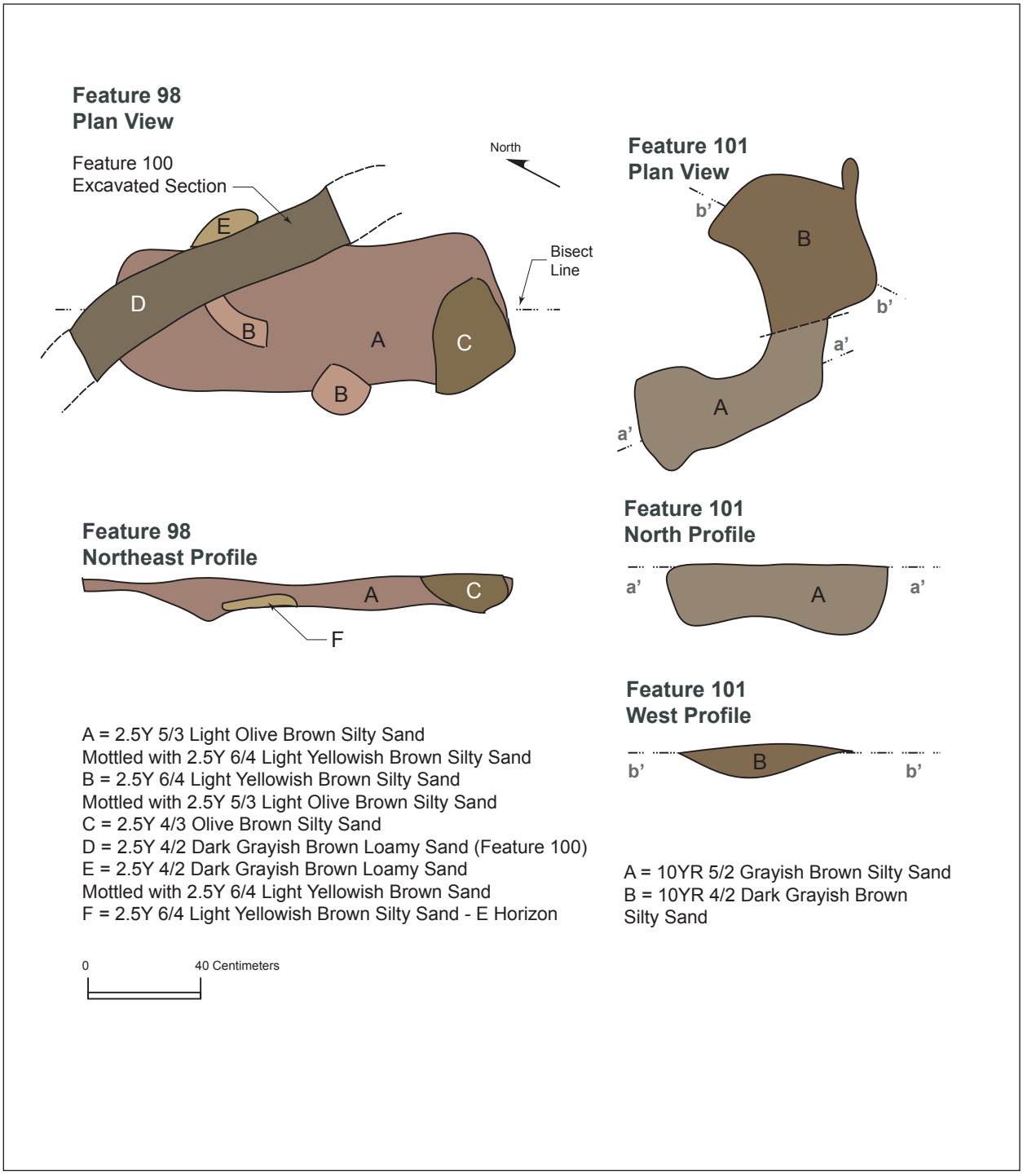
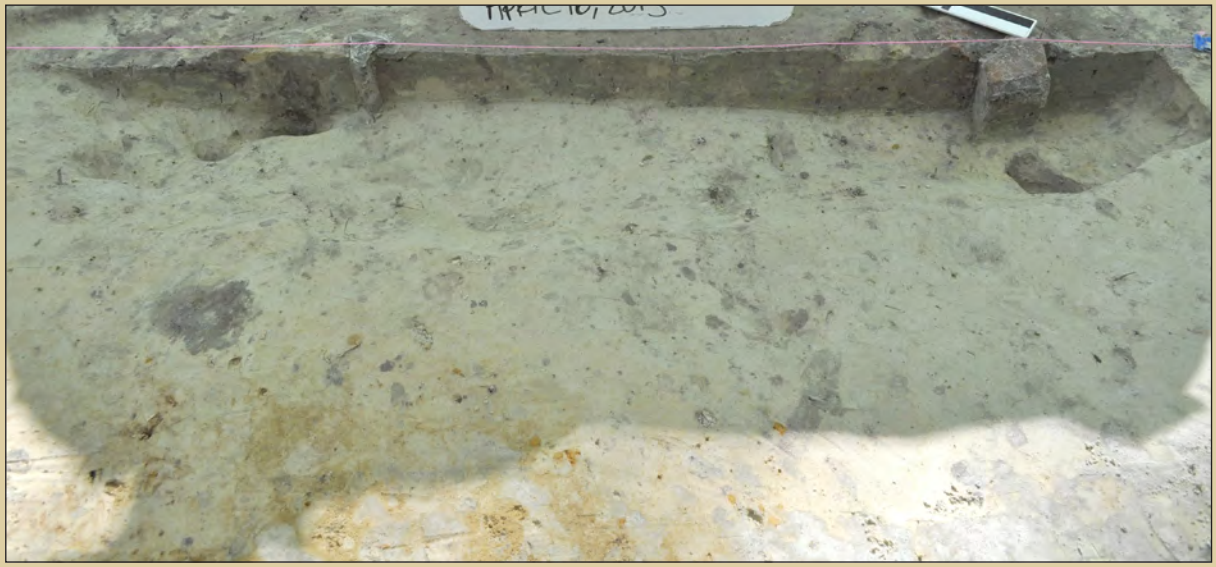


Figure 120.
Photographs of Feature 98

A. Feature 98, Top. Feature 100 is the Dark Band at Upper Left

B. Feature 98, Northeast Profile



The kitchen group included ceramics, glass, and faunal material. The total of 14 faunal remains consisted of nine shell (six unidentified, three oyster) and five bone fragments. Ceramics were one pearlware and one whiteware sherd. A single piece of olive green container glass comprised the balance of the assemblage.

The ceramics provided chronological evidence, although the total number of sherds is too small to suggest definitive conclusions. The single pearlware sherd was edge decorated, indicating a manufacturing date of 1780-1834. Whiteware has a lengthy date range that does not provide precise information. Feature 98 reflects occupations associated with Structure 1 in this area, and based on artifacts recovered from this block, these occupations date from the early or mid-nineteenth century to 1870 or later.

FEATURE 101

Also located in Block 5, Feature 101 was just northwest of Feature 98 and consisted of a soil anomaly with large artifact fragments exposed at its graded surface. In plan, the feature was C-shaped, measuring about 1.3 meters (4.3 ft.) with a varying width. Two separate soil matrices were noted, with the area to the northeast being dark grayish brown (10YR 4/2) sand and the area to the southwest being grayish brown (10YR 5/2) sand. Because of the feature's unusual shape and the varying soils, it was divided into two sub-features to facilitate bisection. Feature 101A was to the southwest and 101B to the northeast (see Figures 119 and 121).

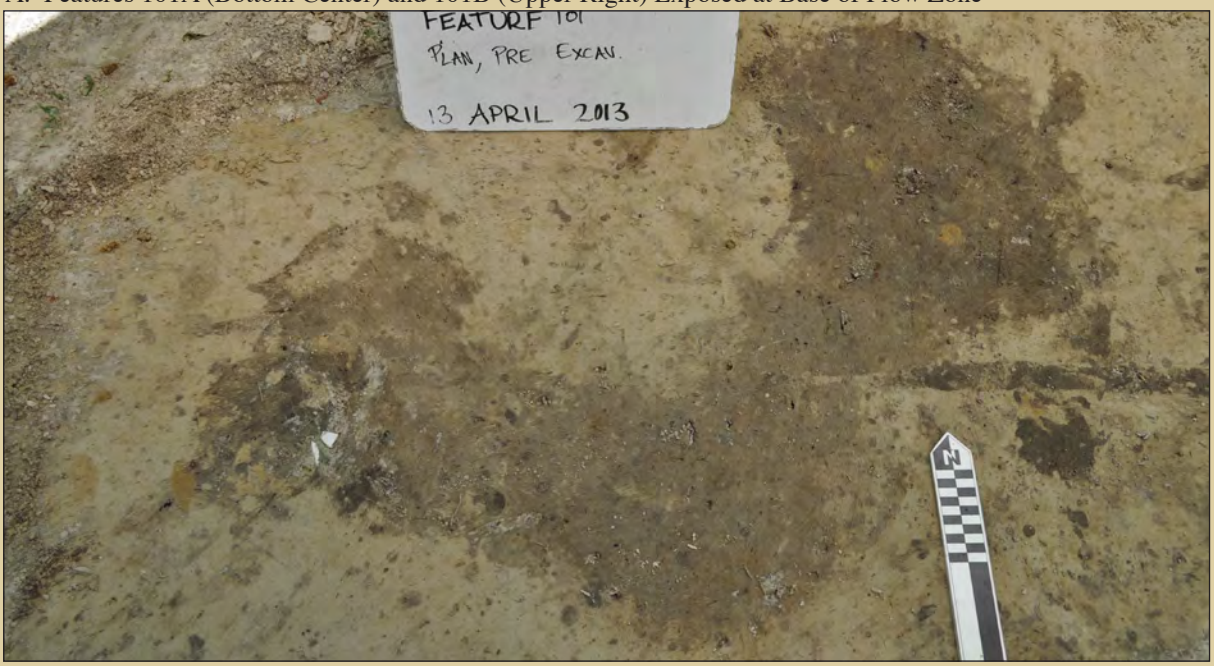
Feature 101A, in profile, was roughly basin-shaped but with an irregular base. The deepest part of the feature was 27 centimeters (0.9 ft.) below the graded surface (52 cm [1.7 ft.] below ground), and produced a moderate number of artifacts. Feature 101B was much shallower, reaching only 12 centimeters (0.4 ft.) below the graded surface (37 cm [1.2 ft.] below ground) and exhibiting a more distinct basin-shaped profile.

Based on their plan and profiles, these anomalies were interpreted as reflecting a large tree root cast rather than a cultural feature. The presence of large artifacts reflected displacement from higher in the profile.

Excavation of Features 101A and 101B generated a combined total of 17 artifacts, most of which (n=9) were placed in the kitchen group. Four artifacts represented the architecture and miscellaneous groups each. The kitchen group included two ceramics, one whiteware sherd and one refined redware with dark brown glaze. In addition, one unidentified shell was placed in the group. Most of artifacts in the group (n=6) were glass and included four green container glass shards and large base fragments from two green "spirits" bottles. These were either Ricketts or dip molded and both had embossing on their bases. One bottle exhibited an embossed "L" along with an illegible letter or symbol. The other was embossed "2". Neither mark could be attributed to a particular manufacturer or bottler.

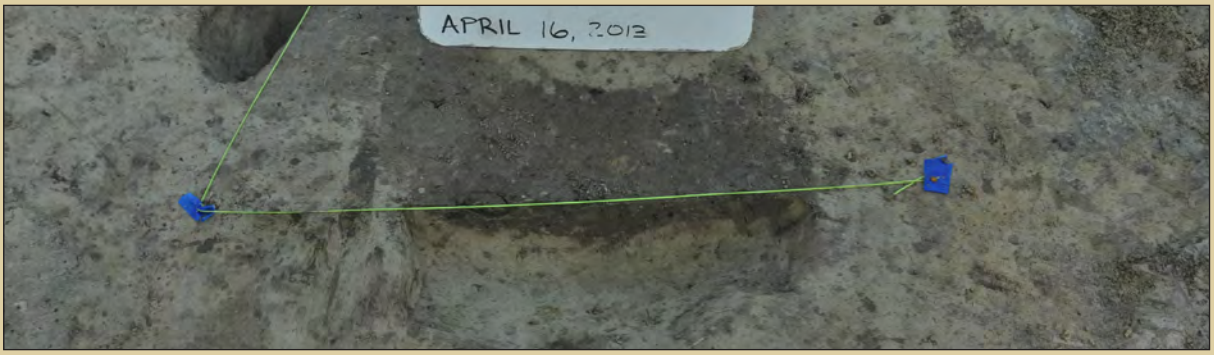
Figure 121.
Photographs of Feature 101

A. Features 101A (Bottom Center) and 101B (Upper Right) Exposed at Base of Plow Zone



B. Feature 101A, North Profile

C. Feature 101B, West Profile



The architecture group included three unidentified nails and one brick fragment. The miscellaneous artifacts included one fragment of stone with no evidence of function, and three oxidized ferrous metal fragments.

The artifacts from this feature, like those described for Feature 98 probably reflected midden and refuse scatters in the vicinity of the Feature 82. They therefore relate to the occupation of this structure.

FEATURE 106

Like Feature 85, Feature 106 appeared to represent an isolated buried glass bottle in Block 5. In this instance, the bottle fragment was associated with a 30x20-centimeter (1.0x0.7-ft.) soil anomaly that was amorphous in shape. Excavation revealed an irregular profile shape as well, with only the bottle base remaining (Figure 122). The articulated fragments indicated the bottle was resting with the base downward. The associated soils were brown (10YR 4/3) sand, and the feature's irregular form suggested a root cast rather than a deliberately excavated pit. The feature was therefore interpreted as reflecting bioturbation that resulted in vertical displacement of the bottle.

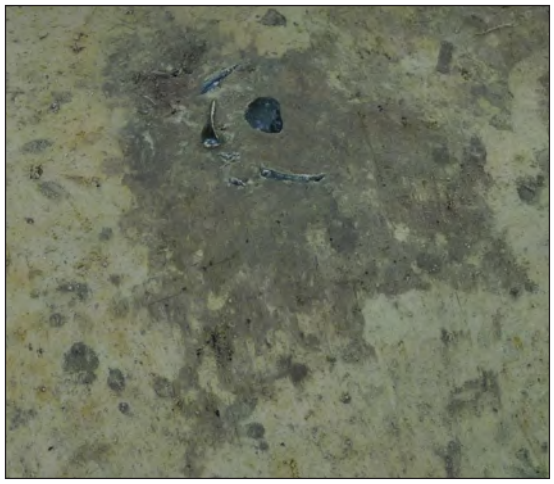
Only eight artifacts were recovered from this feature. These included seven items placed in the kitchen group and one, a fragment of mortar, in the architecture group. Two ceramic sherds, one whiteware and one pearlware, were in the kitchen group. The remainder of this group was glass (n=5), all identified as bottles or containers.

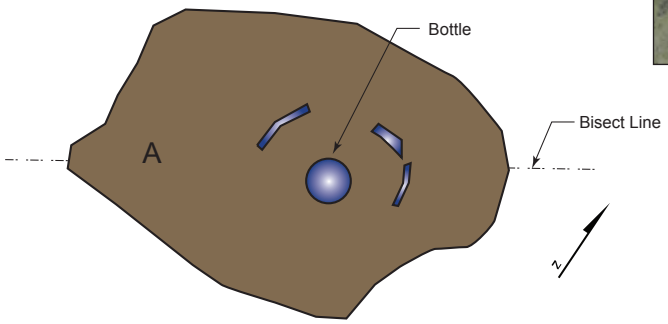
Feature 106 consisted of a tree into which a small number of artifacts had become deposited through natural processes. These artifacts most likely reflect the nineteenth-century occupation of Structure 1.

FEATURE 131A

Feature 131A was in the north portion of Block 4, approximately 50 centimeters (1.5 ft.) west of Feature 71, and thus was associated with 'Post Cluster 1.' Feature 131A was a roughly circular soil anomaly having a square-shaped intrusion (Feature 131B, interpreted as a possible post) at its north end. Feature 131A measured 50x45 centimeters (1.6x1.5 ft.) and consisted of brown (10YR 4/3) sandy loam with charcoal flecks and oyster shells. Bisection indicated a shallow basin shape that reached eight centimeters (0.3 ft.) below the graded surface (about 33 cm [1.1 ft.] below surface (see Figures 112 and 123).

Figure 122.
Plan, Profile and Photographs of Feature 106





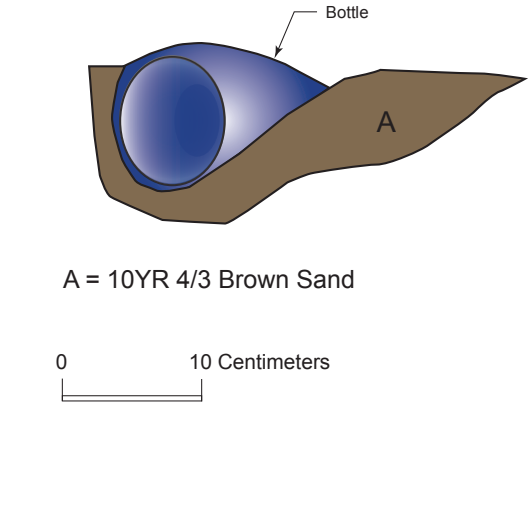
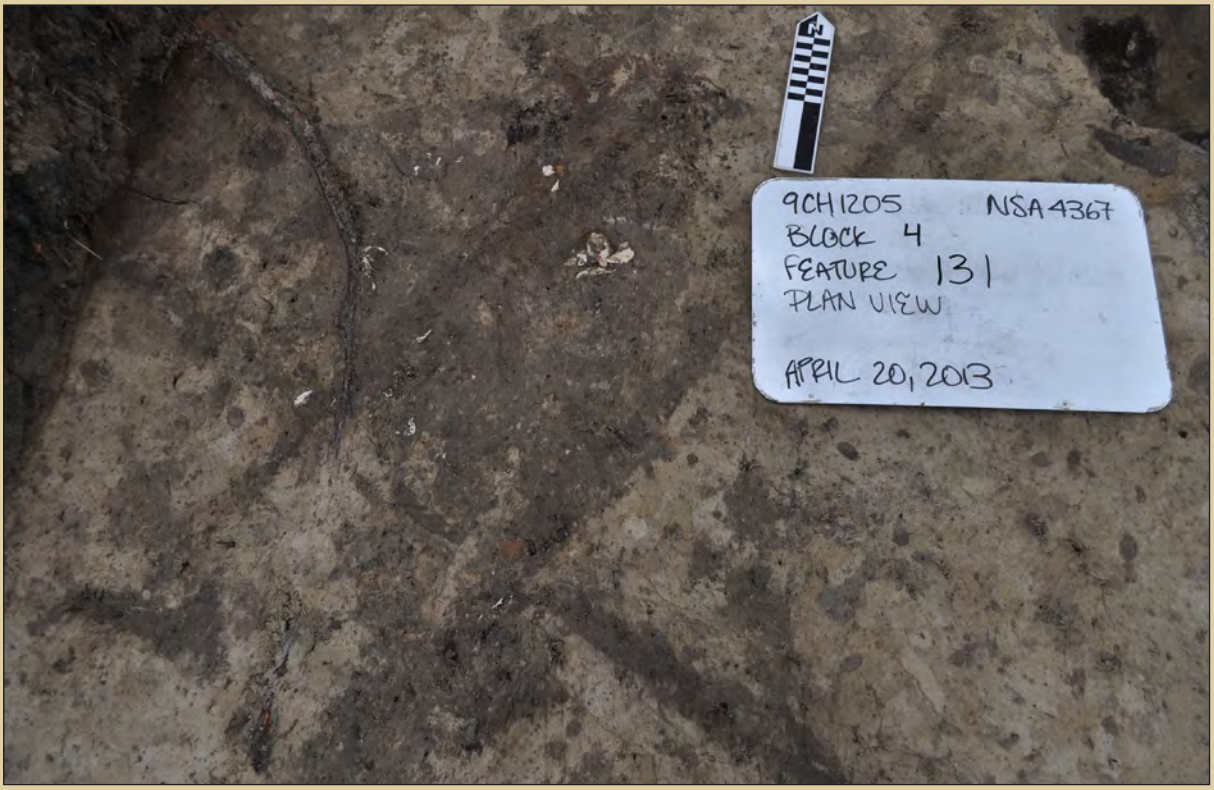


Figure 123.
Photographs of Feature 131A

A. Feature 131, Plan



B. Feature 131, Northeast Profile

Excavation produced 240 artifacts, which were placed in the kitchen, architectural, and miscellaneous categories. The kitchen group dominated the assemblage, comprising 70 percent of the total. Architecture artifacts were the second most common (Table 39).

Table 39. Feature 131A Artifact Groups

Artifact Group	Count	%
Kitchen	168	70.00
Architecture	51	21.25
Miscellaneous	21	8.75
Total	240	100.00

The kitchen group consisted entirely of faunal material. Of 168 total artifacts, three were bone fragments and the balance was oyster shell. These indicated the feature reflects traces of a kitchen midden in the vicinity of Structure 4.

The architecture group, containing only 51 artifacts, consisted mostly of cut nails (n=35) and unidentified nails (n=10). Six residual brick fragments were also in this group. The miscellaneous artifacts included 21 items, 17 being oxidized ferrous objects. Four charcoal fragments comprised the balance of the group.

Its size and content indicated Feature 131A reflected traces of the midden deposits identified in this vicinity. The feature lay just south of Structure 4 (Post Cluster 1), and the high frequency of oyster shell was indicative of kitchen waste associated with the occupation of this structure. The relatively high incidence of nails could reflect a frame structure, while other artifacts from the feature were probably incidental.

FEATURE 183

Feature 183 lay in Block 9 on the east side of Feature 173 (brick chimney). The feature was a relatively large 1.9x1.4-meter (3.04.6-ft.) soil anomaly that had been substantially impacted by plowing. It had an irregular profile that reached 15 centimeters (0.5 ft.) below the graded surface (40 cm [1.3 ft.] below ground). The matrix was very dark grayish brown (10YR 3/2) sandy loam mottled with dark grayish brown (2.5Y 4/2), light olive brown (2.5Y 5/3), and light yellowish brown (2.5Y 6/3) sandy loam and sand (Figures 124 and 125). The irregular shape in plan and profile, combined with the predominantly dark colored fill suggested the feature reflected an irregular transition between the plow zone and subsoil. Machine-assisted stripping in the vicinity of this feature had yielded a relatively high quantity of artifacts and the feature probably reflected midden deposits that were vertically displaced.

Figure 124.
Plan and Profile of Feature 183

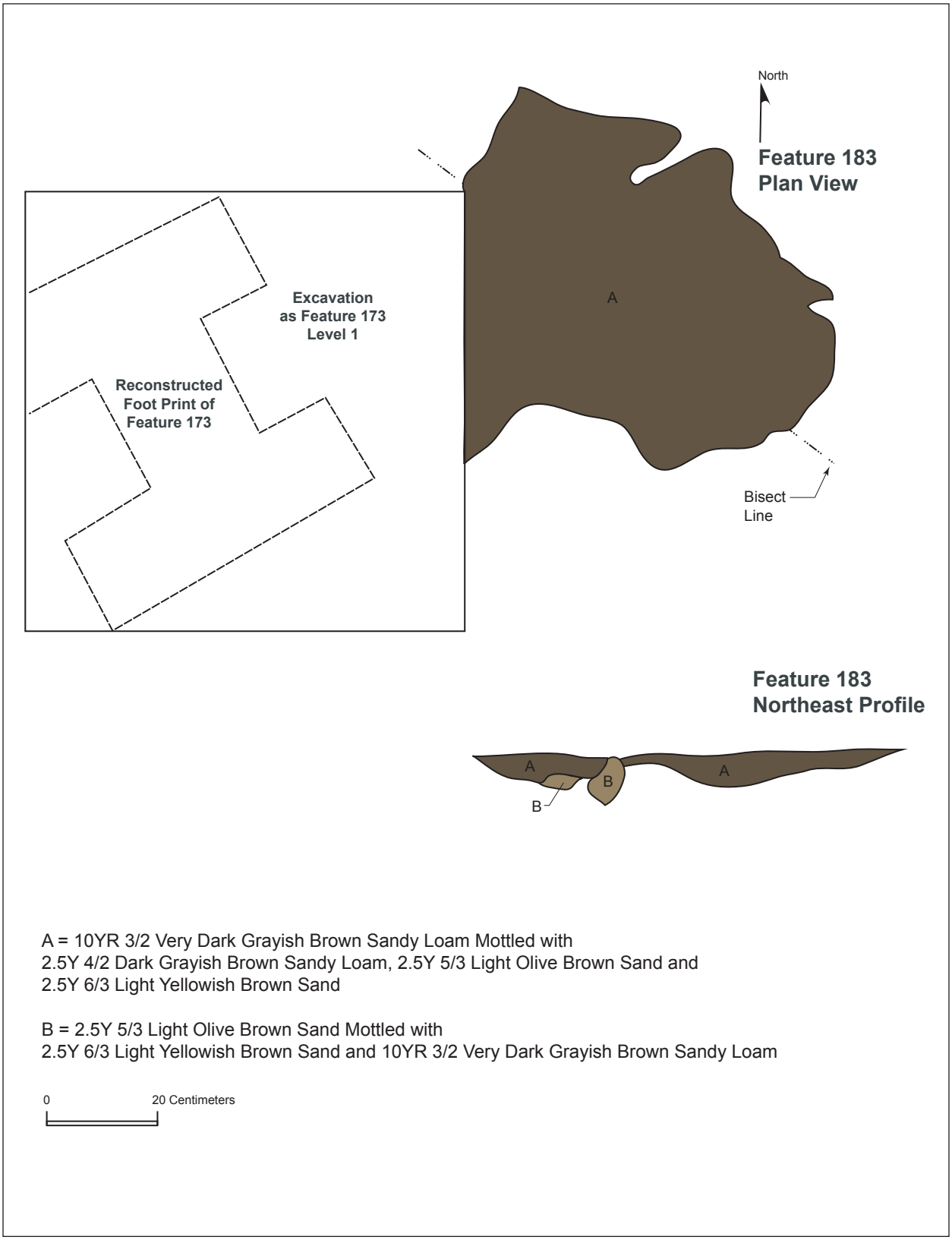


Figure 125.
Photographs of Feature 183

A. Feature 183, Exposed at Base of Plow Zone

B. Feature 183, Northeast Profile

The large assemblage included 331 artifacts. Architectural materials dominated, but this reflected the proximity to the brick chimney (Feature 173) and the fact that the feature probably was underneath the associated structure. Kitchen group artifacts also comprised a large proportion of the assemblage, while clothing, activities, tobacco, and miscellaneous artifacts were less common (Table 40).

Table 40. Feature 183 Artifact Groups

Artifact Group	Count	%
Kitchen	92	27.79
Architecture	204	61.63
Clothing	7	2.11
Miscellaneous	17	5.14
Activities	2	0.60
Tobacco	9	2.72
Table	331	100.00

The assemblage contained few chronologically diagnostic artifacts. The ceramics included one creamware sherd and three whiteware fragments. One of these exhibited a sponged decoration with a beginning date of 1840, which, along with five Prosser buttons (also with a beginning date of 1840), provided a TPQ for the feature. Twelve cut nails were also recovered. As a group, these artifacts do not provide a precise date for the feature, but they are consistent with the general range projected for the occupation associated with Feature 173 (Structure 2). This range began during the antebellum period and extended to the postbellum era.

In addition to the ceramics, which also included a single unidentified stoneware sherd, the kitchen group contained faunal materials, glass, and metal utensils. The faunal sample, consisting of 44 bone fragments and 37 shells (36 oyster, 1 unidentified), comprised the bulk of the kitchen group (88.04%). The glass included three container and one glass tableware fragment. This piece was clear and has molded or cut ribs/flutes. The vessel form could not be discerned, but the fragment could be part of the foot to a large stemware object. Two metal artifacts in the kitchen group represented a ferrous tablespoon, and a second ferrous utensil that appeared to be a cutlery handle.

The architecture group included 204 artifacts. The majority of the group (n=105; 51.47%) was nails, including 12 cut examples, and brick fragments (n=96; 47.06%), all unidentified. One iron spike and single pieces of flat glass and mortar comprised the balance of the architecture group.

The clothing group included seven items. Five of these were Prosser buttons of varying size. Also in the group were a single ferrous D-shaped buckle and a straight pin fragment.

The activities group included two lathe-turned bone artifacts (Figure 126). One of these, broken into two pieces, is a cylindrical object with incised rings around the circumference. One end exhibited a flange and slightly concave base. The opposite end was flat with a threaded bore extending 4.8 millimeters (0.19 in.) deep. The diameter of the bore measured 3.5 millimeters (0.14 in.) and the diameter of the object was 10.2 millimeters (0.40 in.). The total length of the object was 23.9 millimeters (0.91 in.) and its function was undetermined.

A second lathed bone object was in the form of a small spindle with a rounded bead flanked by two flattened or disk-shaped beads. Threaded dowels were at either end of the piece. The total length of this object was 17.7 millimeters (0.7 in.), and the maximum diameter was 7.2 millimeters (0.03 in.). The dowels at either end measured 5.0 millimeters (0.2 in.) in diameter and 0.4 millimeters (0.16 in.) long. Its function could not be determined.

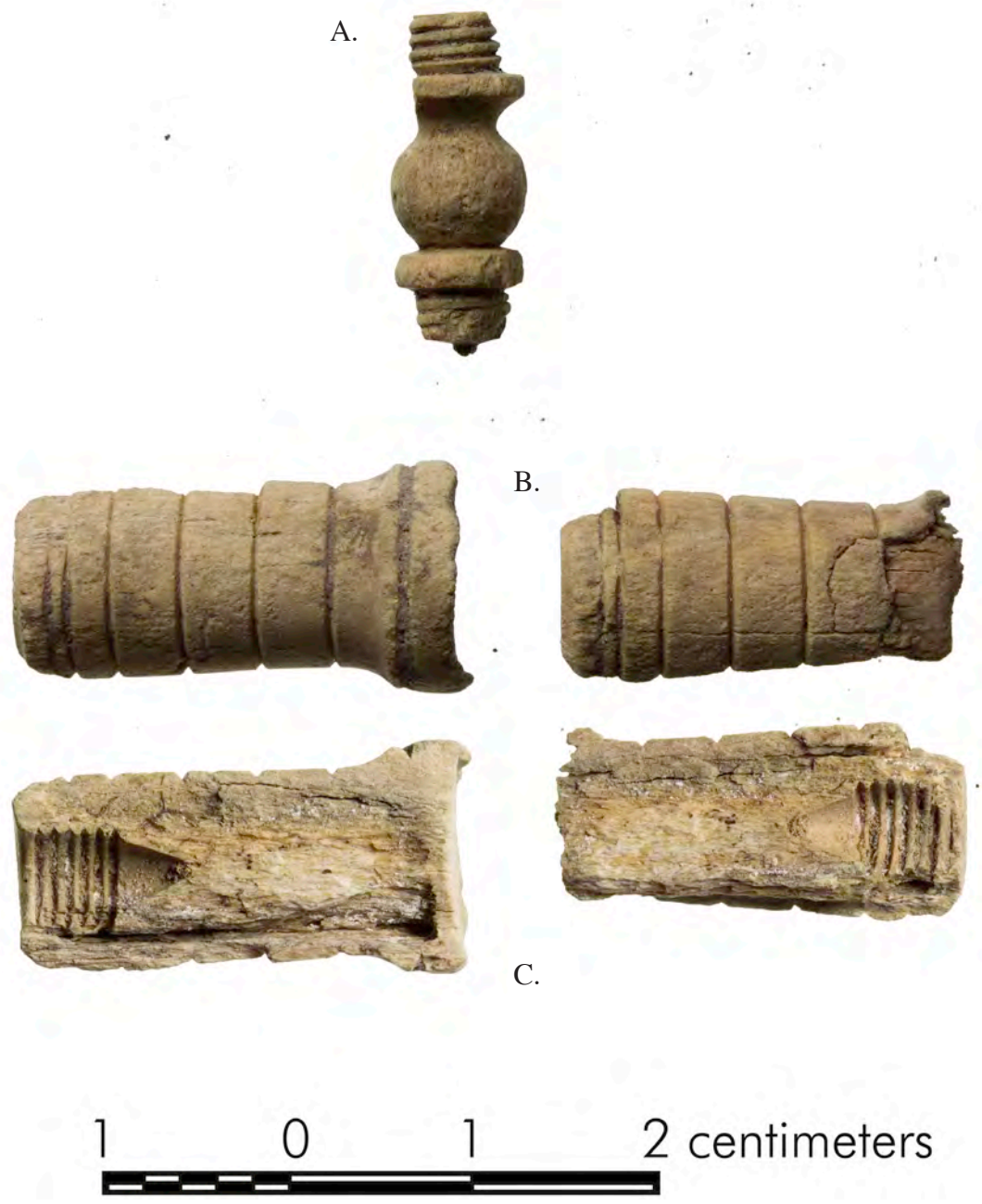
The remainder of this assemblage included nine clay tobacco pipe stem fragments and 17 items in the miscellaneous artifact group. These included 16 ferrous oxide items and one indeterminate glass fragment.

Feature 183 was interpreted as midden residue that survived plowing. The artifacts indicated that the feature content included building debris from Feature 173 (Structure 2), which was projected to have stood above the feature's position, along with kitchen refuse and general debris that was probably lost or discarded in the area of this structure and that chanced to settle deep enough to avoid plowing. These artifacts related to Structure 2's inhabitants.

FEATURE 192

Feature 192, located in Block 5 and 3.4 meters (11 ft.) southwest of Feature 82, consisted of an amorphous soil anomaly measuring 1.2x0.7 meters (3.9x2.3 ft.). In profile, the feature was extremely shallow—less than 10 centimeters (0.4 ft.) deep below the graded surface—and with a jagged base. The fill matrix consisted of very dark grayish brown (10YR 3/2) sandy loam with mottles of dark grayish brown (10YR 4/2) sand, as well as areas of dark grayish brown sandy loam mottled with light yellowish brown (2.5Y 6/3) sand (Figures 127 and 128). The irregular shape and shallow depth of the feature indicated a rough interface between the plow zone and subsoil or a tree root plate, which resulted in traces of the overlying midden deposits surviving plowing.

Figure 126.
Lathed Bone Artifacts from Feature 183



A. Spindle
B. Exterior of Threaded Object
C. Interior of Threaded Object

Figure 127.
Plan and Profile of Feature 192

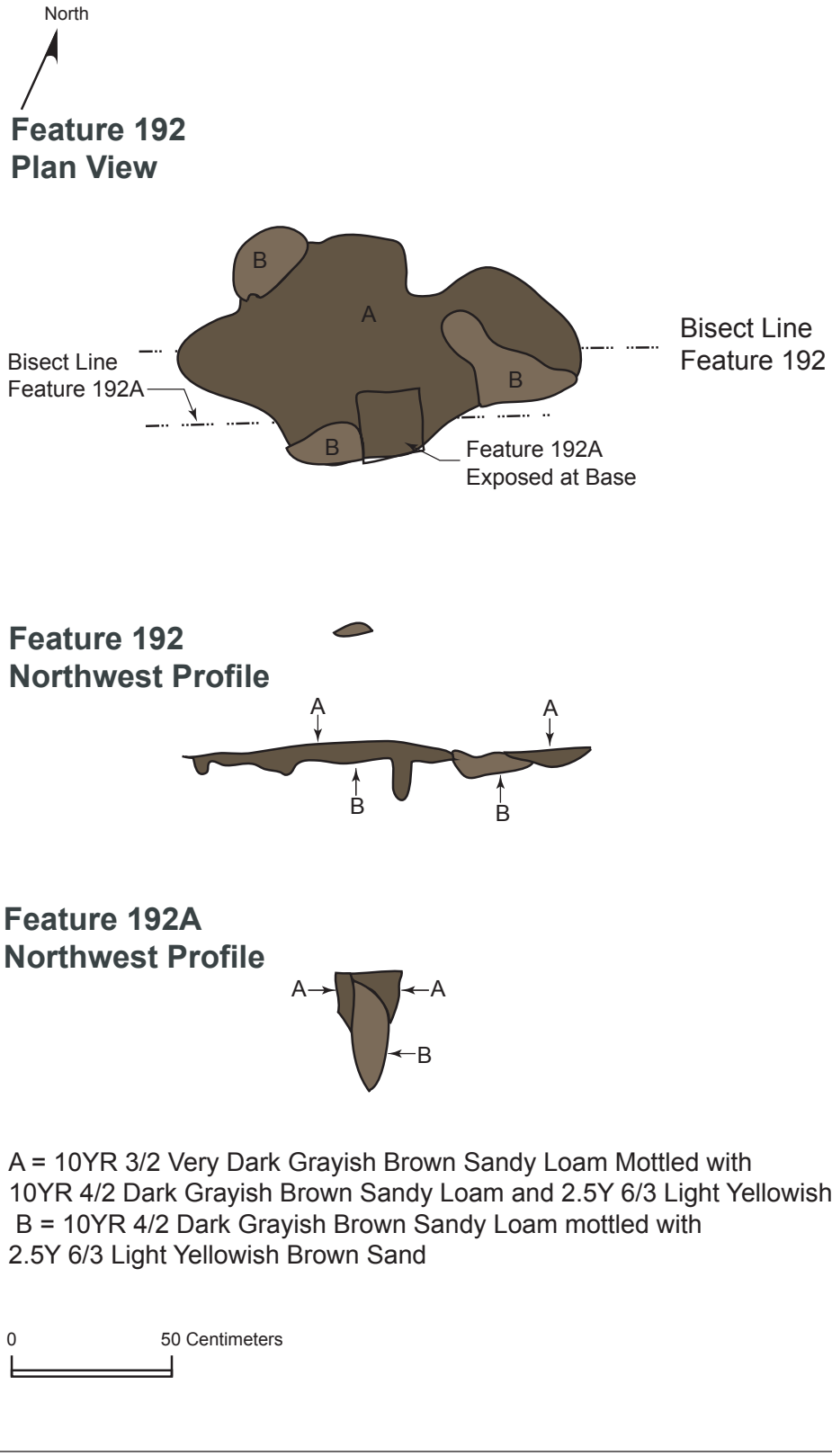


Figure 128.
Photographs of Feature 192

A. Feature 192, Plan

B. Feature 192, North Profile. The Square-Shaped Anomaly in the Center is Feature 192A

Excavation exposed a sub-feature (192A), which was interpreted as a post. This feature measured 20-centimeters (0.7 ft.) square and exhibited a profile that terminated at 52 centimeters (1.7 ft.) below the graded surface, or about 77 centimeters (2.5 ft.) below ground surface. The profile appeared to reflect a pointed post mold inside the square posthole. The post mold measured approximately 10 centimeters (0.4 ft.) in diameter and was characterized by dark grayish brown (10YR 4/2) sandy loam mottled with olive yellow (2.5Y 6/6) clayey sand. The posthole was very dark grayish brown (10YR 3/2) with mottles of dark grayish brown sandy loam.

Feature 192 generated a relatively small assemblage of 58 artifacts. These were placed in the kitchen, architecture, clothing, tobacco, and miscellaneous categories. Architecture comprised the largest part of the collection (n=35; 60.34%), followed by the kitchen (n=14; 24.14%) and miscellaneous (n=7; 12.07%) groups. The clothing and tobacco groups were each composed of a single artifact.

Chronologically diagnostic artifacts included 11 cut nails, which did not provide precise information, and an anthropomorphic tobacco pipe fragment. This fragment, a short-stem type, was made of red earthenware with clear glaze. The extant portion represented the shank from the mouth end (where the stem would attach) to the bowl heel, and was embossed "PRESIDENT" on the right side and "FRANK PIERCE" on the other (Figure 129). Bell (2004:52-53) illustrated a complete example of such a pipe, which was molded to resemble President Pierce (elected 1852, served 1853-1857). Bell stated these were manufactured by Barney Spring of Rochester, New York, and distributed from 1853-1858. Pfeiffer et al. (2007) noted that similar pipes were made by a number of manufacturers in the United States and Germany, and it is not clear if Bell's provenience data is accurate. Nevertheless, this artifact was likely manufactured no earlier than 1852, when Pierce ran for president, and provided a TPQ for the feature. Architecture group artifacts, in addition to the 11 cut nails noted above, included an unidentifiable nail fragment, 22 brick fragments, and one piece of mortar. The kitchen group artifacts were mostly faunal, and consisted of 13 bone fragments, along with a single olive green container glass fragment. The clothing group consisted of a single oxidized metal button, while the miscellaneous group contained seven fragments of ferrous oxide.

The low artifact counts suggest that the assemblage from this feature reflected residual materials that accumulated in a low spot, possibly associated with the post. These materials related to the occupations associated with Structure 1.

Figure 129.
Ceramic Face Pipe from Feature 192

MIDDEN RESIDUE, SUMMARY

This class of features appears to reflect incidental inclusions of materials originally disposed of on the surface or in shallow depressions, and that ultimately worked downward through the soil profile. The residual midden most likely reflected larger and denser deposits. The individual or discrete bottle finds were interpreted as items that similarly moved downward through the profile. Although they could represent deliberate burial, no clear evidence for this was found.

The midden residues provide useful information on two important topics: consumption and the use of space, particularly as it relates to refuse disposal. While these features reflect only a small fraction of larger midden deposits, they contain evidence of subsistence practices, as well as some information regarding household goods. Secondly, the association of these deposits to known or projected structure locations reveals how and where kitchen and household refuse was discarded, and by extension can indicate attitudes about land use.

Differences in the nature of the middens were noted. The midden deposits associated with 'Post Cluster 1' in Block 4 contained considerably higher quantities of shell than those examined elsewhere. A second midden containing relatively dense shell was noted in Block 9 but was not as closely associated with a structure location, the nearest being Features 120 (Structure 5) and 147 (Structure 6). This difference could indicate that occupants of the Structure 4 vicinity discarded subsistence remains in the areas adjacent to the structure. In contrast, midden deposits in Blocks 5 and 9 tended to contain house wares (e.g., ceramic tablewares, bottles, buttons), but low quantities of food remains.

These variations might indicate differences in how certain refuse was handled. Assuming the shell reflected food refuse, in the area of 'Post Cluster 1', it appears to have been dumped directly around the house. Food remains in the Block 9 area, however, appear to have been removed from the houses, and possibly placed in a communal midden (assuming several houses were present and occupied simultaneously). The midden residue found in the areas closer to these structures was much less dense, including the occasional individual bottle, and contained more architecture- and household-related artifacts. This could indicate the refuse in fact represented abandonment and demolition, rather than dumping during the site's occupation. If so, then the areas around these structures appear to have been kept relatively clear of daily trash. The midden residue features in Block 5, associated with Feature 82, reflected similar qualities, being composed mainly of household refuse instead of food remains. No evidence of a kitchen midden associated with this building was found, although the lack of such a find suggested a similar pattern of disposing of this food refuse away from the living areas.

DITCHES/TRENCHES

Eight features were designated ditches/trenches. In general, these were linear features of varying length, width, and depth that occurred individually or in groups. Most of these were straight and some extended for considerable distances, while other examples were short (about 3.0 m [10 ft.] in length). No clear function for these could be determined, although they appear to be roughly contemporaneous to the historic occupation rather than post-dating it. All of the ditch/trench features identified during the fieldwork were mapped, although not each one could be sampled.

FEATURES 115 AND 116

These two features were exposed in Block 9. They ran parallel to one another on a roughly northeast-to-southwest orientation that spanned the entire excavation block, indicating a minimum length of 36 meters (118 ft.). Feature 184 in Block 10 lay on the same orientation and lined up with Feature 115, indicating that this feature continued for a distance of at least 80 meters (262 ft.) (see Figure 43). No traces of the features were noted in Block 4, however, which provided a rough indication of their northeastern termini.

Spaced 1.6-meters (5.2-ft.) apart, Features 115 and 116 were sampled with 1.0-meter (3.3-ft.) excavated sections in the western portion of Block 9. Feature 115 measured about 50 centimeters (1.6 ft.) wide, but varied slightly, and in profile, it had a shallow, undulating base that was deepest at the edges. The depth of the feature reached 10-12 centimeters (0.3-0.4 ft.) below the graded surface (0.35-0.37 cm [1.1-1.2 ft.] below surface). The fill consisted of dark gray (2.5Y 4/1) silt loam with mottles of very dark grayish brown (10YR 3/2) sandy loam and light olive brown (2.5Y 5/3) fine sand (Figure 130). Artifacts were present in the upper portion of the feature and appeared to reflect residue from the overlying plow zone.

Feature 116 measured 50 centimeters (1.6 ft.) wide but varied, and 13 centimeters (0.4 ft.) deep below the graded surface (38 cm [1.2 ft.] below surface). The cross-section showed a basin-shape, while the feature base undulated slightly. The fill was the same as Feature 115, and few artifacts were found.

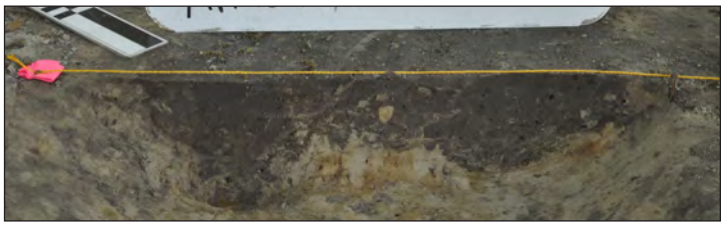
The excavated sample of these two features produced a combined total of only 17 artifacts. Feature 115 yielded just five items, including one container glass fragment, three brick fragments, and one unidentified nail. Feature 116 yielded 12 artifacts, all of which were bone fragments placed in the kitchen group. The artifacts provided no dating information. The low number of artifacts, suggests that the excavated sections of these features were peripheral to activity areas, or that they date to an early occupation and thus were created and sealed before enough debris accumulated to fill them.

Figure 130.
Profiles and Photographs of Features 115 and 116

A. Segment of Feature 115, West Portion of Block 9, Facing Northeast

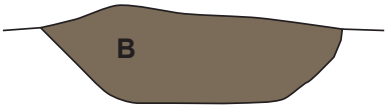
Feature 115
Northeast Profile

B. Profile of Feature 115, Facing Northeast



C. Profile of Feature 116, Facing Northeast

Feature 116
Northeast Profile



A = 2.5Y 4/1 Dark Gray Silty Loam Mottled with 10YR 3/2 Very Dark Grayish Brown Sandy Loam and 2.5Y 5/3 Light Olive Brown Fine Sand

B = 10YR 4/2 Dark Grayish Brown Fine Sandy Loam

0 20 Centimeters

FEATURE 142

Feature 142 was a relatively short (6.7-meter [22-ft.]) ditch/trench located in the south-central portion of Block 9 that ran on a roughly northeast-to-southwest orientation. The plow zone immediately north and northwest contained relatively dense oyster shell and notably darker soils, indicating a likely midden here. The feature varied in width from 25-50 centimeters (0.8-1.6 ft.) and possessed a rounded terminus in the southwest that measured about 90 centimeters (3.0 ft.) in diameter (Figures 131 and 132). This rounded section was unique among the linear features.

The rounded section was excavated separately, revealing an uneven basin shape that extended to a maximum of 15 centimeters (0.5 ft.) below the graded surface, or 40 centimeters (1.3 ft.) below ground. The fill was very dark gray (10YR 3/1) sandy silt with charcoal flecking.

Excavation of a 1.0-meter (3.3-ft.) section of the trench revealed a shallow basin shape in cross-section containing the same fill matrix, but with mottles of light brownish gray (2.5Y 6/2) silty sand at the base. The bottom of the feature was curved and, in contrast to Feature 115 and 116, lacked undulations and irregularities. No artifacts were found in either the trench/ditch or the rounded terminus. The function of this feature was not determined.

FEATURE 163

Located at the western margin of Block 9, Feature 163 was a short (3.3 m [10.8ft.]) linear soil anomaly that curved to form a nearly right angle. The feature measured between 30 and 50 centimeters (1.0-1.6 ft.) wide with irregular sides. Excavation of an 80-centimeter (2.6-ft.) long segment indicated a wide but shallow conical-shape in cross-section with its deepest point 15 centimeters (0.5 ft.) below the graded surface (about 40 cm [1.3 ft.] below surface). The fill was homogenous dark grayish brown (10YR 3/2) loamy silt except at the feature's base where it became mottled with grayish brown (10YR 5/2), pale brown (10YR 6/3), and light gray (10YR 7/2) loamy silt (Figures 133 and 134).

Feature 163 produced 71 artifacts, which were sorted into the kitchen, architecture, and miscellaneous groups, each comprising about one-third of the total. The architecture group, with 24 artifacts, comprised the largest proportion of the assemblage (35.21%), followed by kitchen (n=24; 33.80%), and miscellaneous (n=22; 30.99%). Five ceramic sherds, including four whiteware and one yellowware, along with six cut nails, provided chronological information. These materials indicated a TPQ of 1830, but the feature could not be dated more precisely.

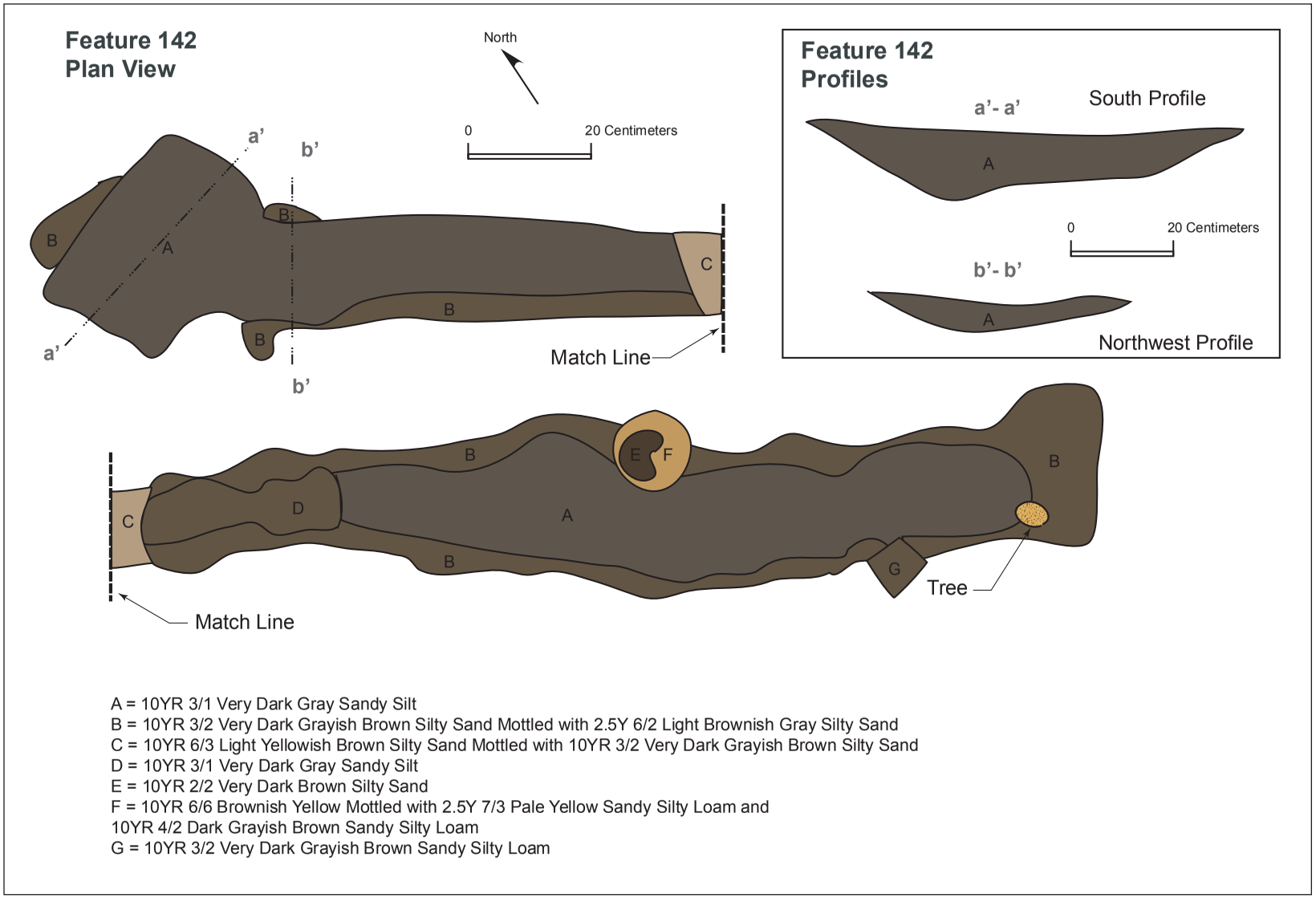


Figure 131.
Plan and Profile of Feature 142

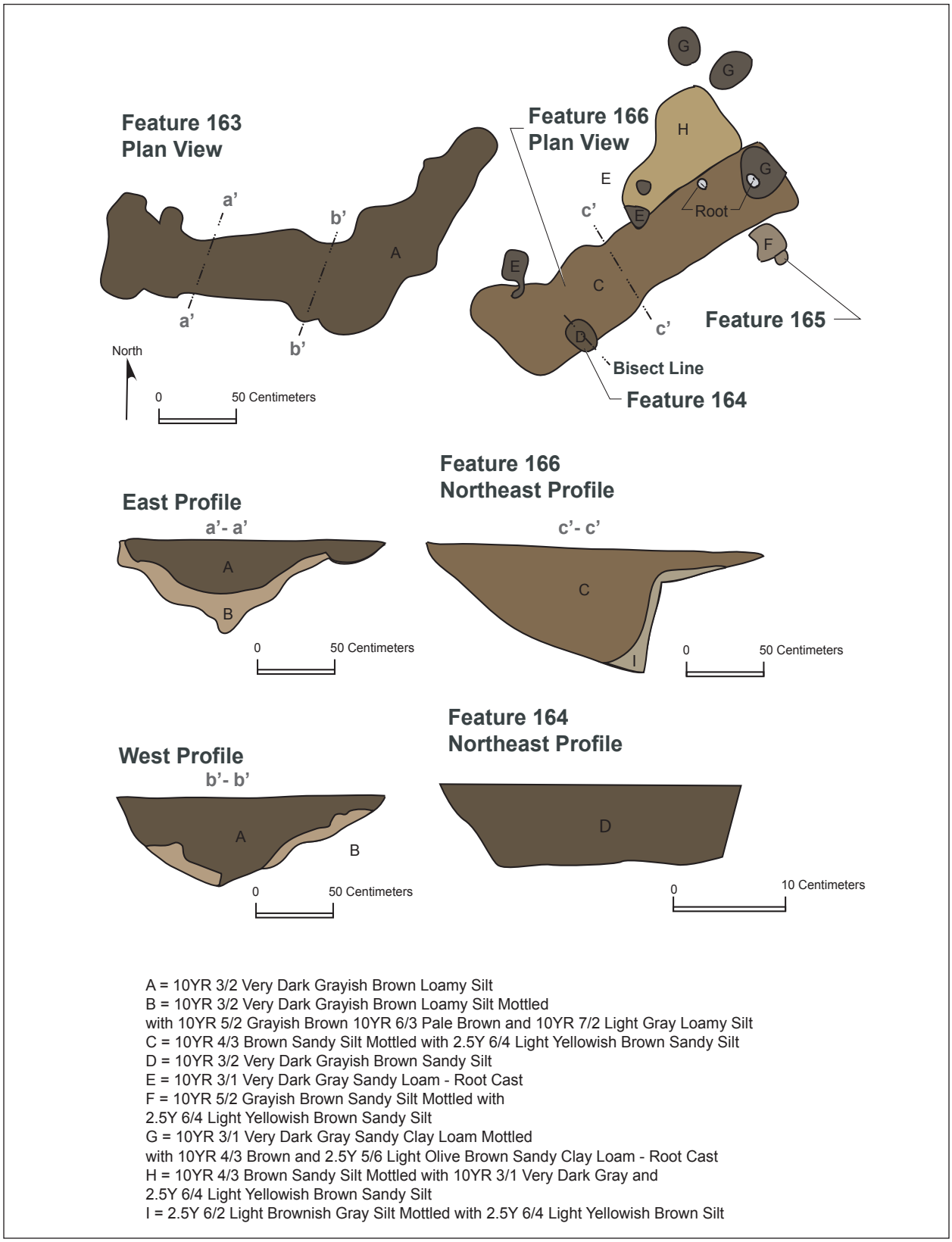
Figure 132.
Photographs of Feature 142

A. Plan of Feature 142, Facing Southeast

B. Profile of Section a' — a'

C. Profile of Section b' – b'

Figure 133.
Plans and Profiles of Features 163, 164, 165, and 166



A = 10YR 3/2 Very Dark Grayish Brown Loamy Silt
B = 10YR 3/2 Very Dark Grayish Brown Loamy Silt Mottled
with 10YR 5/2 Grayish Brown 10YR 6/3 Pale Brown and 10YR 7/2 Light Gray Loamy Silt
C = 10YR 4/3 Brown Sandy Silt Mottled with 2.5Y 6/4 Light Yellowish Brown Sandy Silt
D = 10YR 3/2 Very Dark Grayish Brown Sandy Silt
E = 10YR 3/1 Very Dark Gray Sandy Loam - Root Cast
F = 10YR 5/2 Grayish Brown Sandy Silt Mottled with
2.5Y 6/4 Light Yellowish Brown Sandy Silt
G = 10YR 3/1 Very Dark Gray Sandy Clay Loam Mottled
with 10YR 4/3 Brown and 2.5Y 5/6 Light Olive Brown Sandy Clay Loam - Root Cast
H = 10YR 4/3 Brown Sandy Silt Mottled with 10YR 3/1 Very Dark Gray and
2.5Y 6/4 Light Yellowish Brown Sandy Silt
I = 2.5Y 6/2 Light Brownish Gray Silt Mottled with 2.5Y 6/4 Light Yellowish Brown Silt

Figure 134.
Photographs of Feature 163

A. Feature 163, Plan Facing Southeast

B. Feature 163, Section a' – a'

In addition to the whiteware and yellowware, the ceramics included one stoneware fragment, 13 fragments of bottle or container glass, and five teeth, which represented subsistence. The architecture group contained 12 brick fragments, six unidentified nails, and one iron bar tentatively identified as a hinge, along with the nails noted above. The miscellaneous group consisted entirely of oxidized ferrous metal fragments. A 10-liter soil sample from this feature produced a small archaeobotanical assemblage consisting of 14 hickory and walnut shell fragments.

The artifacts probably reflect refuse or litter that became deposited in the feature fill. They were mostly small in size and the low quantities do not suggest deliberate disposal. Feature 163 lay approximately 4.6 meters (15 ft.) west of Feature 147, which was projected to represent a structure, and Feature 163 could relate to it, or to another structure that was not identified. However, its function and association could not be clearly determined, which limits its analytical value.

FEATURE 166

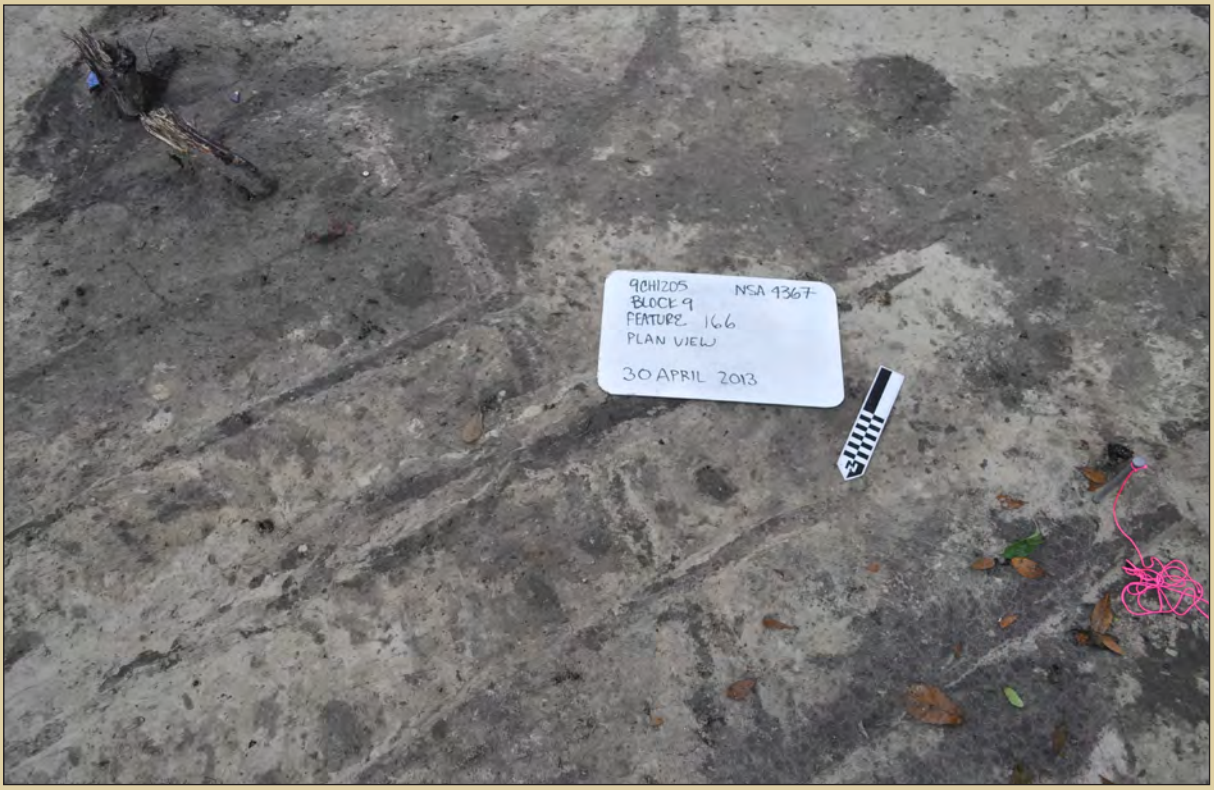
Located immediately east of Feature 163, Feature 166 was another relatively short linear anomaly in the west portion of Block 9. The roughly rectangular feature measured 2.3 meters (7.5 ft.) long and 45-55 centimeters (1.5-1.8 ft.) wide, and was oriented northeast-to-southwest (see Figure 134). The feature lay perpendicular to, and intersected, the line of posts that comprised Post Cluster 3 (see Figure 68). Two posts, Features 164 and 165, were near or intersected the linear ditch, suggesting this feature had an architectural association, although no clear function for it could be determined.

Excavation of the west two-thirds of Feature 166 (the northeast end was disturbed by tree roots) revealed an irregular base with no clear form. While the cross section at about the feature's mid-point formed a half-basin shape with a curved bottom on the north and a straight wall on the south, this shape was not consistent the entire length of the excavated sections. The base of the feature was generally amorphous, with its deepest portion at about 21 centimeters (0.7 ft.) below the graded surface (46 cm [1.5 ft.] below surface). The fill was brown (10YR 4/3) sandy silt with mottles of light yellowish brown (2.5Y 6/4) (Figure 135).

While the function of Feature 166 could not be determined, adjacent or intersecting features were tentatively identified as historic posts. These included Feature 164, which intersected the south edge of Feature 166 near its southwestern terminus and Feature 165, which lay just south of the feature's northeast edge. Oval in plan, Feature 164 measured 25x20 centimeters (0.8x0.7 ft.) and seven centimeters (0.2 ft.) deep below the graded surface (32 cm [1.0 ft.] below ground surface). In profile, this feature had slightly tapered sides and a flat base. The fill matrix was very dark grayish brown (10YR 3/2) silty sand. Feature 165 was described above as part of Post Cluster 3.

Figure 135.
Photographs of Feature 166

A. Feature 166, Plan Facing Southeast



B. Feature 166, Representative Cross Section

Features 164 and 165 generated a combined total of 16 artifacts. Feature 164 yielded six artifacts, including one whiteware sherd, one container glass fragment, two unidentified nails, one tobacco pipe fragment, and one oxidized ferrous object. Feature 166 generated 10 artifacts that were placed in the kitchen, architecture, and clothing groups. The kitchen group contained three whiteware fragments and two pieces of bone. Three unidentified nails and one brick fragment comprised the architecture group, while one Prosser button, indicating a TPQ of 1840, represented the clothing artifacts.

A 10-liter soil sample produced a small assemblage of archaeobotanical remains including four nutshell fragments, two maize cupule/cob fragments, and seven carbonized seeds. The small number of plant remains indicates that they likely arrived in the feature incidently rather than as primary disposal.

Feature 166 was thus filled sometime after the mid-nineteenth century. The function of this linear feature could not be determined. Intersecting Feature 164 could represent a post, although it is not clear how this post or Feature 166 relate to Post Cluster 3 or the projected structure associated with Feature 147 (Structure 7). The artifacts found in Feature 166 probably reflect incidental inclusions in the feature fill rather than deliberate disposal.

FEATURE 181

Exposed in the southwest part of Block 9, Feature 181 was a long linear trench or ditch that extended from the south wall of the block for a distance of at least 10 meters on a north-northeast to south-southwest orientation (see Figure 43). The feature measured 50 centimeters (1.6 ft.) wide. This feature was sampled to collect soil for flotation and phytolithic analysis, as well as document its profile, with a 40-centimeter (1.3-ft.) test window. The cross section indicated a basin shape filled with light yellowish brown (2.5Y 6/3) silty loam mottled with light olive brown (2.5Y 5/4) silty loam and (2.5Y 7/4) sand (Figure 136). No artifacts were recovered from the portions screened after the 10-liter (2.1-gal.) flotation sample was removed.

A sample submitted for pollen and phytolith analysis produced data suggesting the feature served as a drainage or irrigation channel. Pollen analysis found taxa associated with wet conditions were dominant. Phytolith data supported this interpretation. Maize was also common among phytoliths, suggesting it was cultivated nearby. Moreover, although the feature's date could not be determined, many of the taxa, including maize, found in it were also found only in features that could be positively dated to the antebellum period. This suggested that Feature 181 was also from this era. A possible interpretation of Feature 181, therefore, is that it reflected a drainage or irrigation feature associated with a cultivated field.

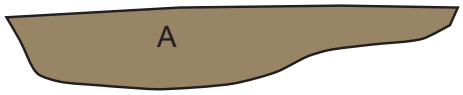
Figure 136.
Profiles and Photographs of Features 181 and 184

Feature 181
Northeast Profile

A = 2.5Y 6/3 Light Yellowish Brown Silty Loam
Mottled with 2.5 Y 5/4 Light Olive Brown Silty Loam
and 2.5Y 7/4 Pale Yellow Sand

0 20 Centimeters

Feature 184
Northwest Profile
at Mid-Section



A = 2.5Y 5/3 Light Yellowish Brown Silty Sand Mottled
with 10YR 3/2 Very Dark Grayish Brown and
2.5Y 6/3 Light Yellowish Brown Silty Sand

0 20 Centimeters

FEATURE 182

Feature 182 crossed through the southern part of Block 9 on a northeast-to-southwest axis (see Figure 43). Machine stripping exposed a section measuring approximately 12.2 meters (40.0 ft.) long extending from the block's south wall. Its overall length was thus not determined. Owing to time constraints, this feature was only mapped to record its length and orientation.

FEATURE 184

Feature 184 was exposed in Block 10, which it bisected on a northeast-to-southwest orientation (see Figure 43). The feature, as noted, aligned with Feature 115 in Block 9, and indicated that this trench extended at least 80 meters (262 ft.). The section in Block 10 measured 10 meters (33 ft.) long and between 40 and 100 centimeters (1.3-3.3 ft.) wide, although the wider portions typically reflected bioturbation. A more accurate width range was probably 40-50 centimeters (1.3-1.6 ft.). Bisection indicated the maximum depth was 10 centimeters (0.3 ft.) below the graded surface (40 cm [1.3 ft.] below ground surface). A section of this feature was excavated to examine its profile and collect samples for analysis. The profile was opened only halfway across, indicating a basin-shape (see Figure 136).

A small assemblage of 30 artifacts was recovered, which were placed in the kitchen, architecture, and miscellaneous groups. The kitchen (n=9) and architecture groups (n=16) comprised the largest part of the assemblage, while miscellaneous artifacts (n=5) was the smallest and entirely consisted of oxidized ferrous metal fragments. The architecture group was composed of 12 nail fragments, two cut nails, and four residual brick fragments. The kitchen group contained four bone fragments, two container glass fragments, and three ceramic sherds. The ceramics, two whiteware and one yellowware, provided a TPQ of 1830, but did not indicate a precise date for the feature. The artifacts probably reflect refuse generated by the occupation or demolition of Structure 1 (Feature 82), which was immediately north of Feature 184.

DITCHES AND TRENCHES SUMMARY

The functions and dates of the ditches and trenches identified at 9CH1205 cannot be conclusively determined. However, based on location, size, and associated features, there appear to be variations in function. The two shorter examples, Features 163 and 166, most likely had separate functions from the longer examples. Although it is possible that Feature 166 was architecture-related, this cannot be concluded with any certainty. It is also possible, given the irregular base of the feature, that it reflected root casts from a large tree. Feature 163, likewise, did not suggest any specific function and could reflect either natural processes or cultural activities.

The longer ditch/trench features are clearly cultural, although their functions are uncertain. Comparable features have been identified at other slave settlements, however, and provide some precedents for the examples found at 9CH1205. At Curriboo Plantation in Berkeley County, South Carolina, Wheaton et al. (1983:179-181) identified eight trenches, most of which ran in straight lines parallel to one another and that measured in excess of 75 meters (250 ft.). These were located within the slave settlement and in some instances were overlapped by houses. Excavation indicated they were shallow, had neatly excavated bottoms with constant grades, and contained thin lenses of water-laid sand at their bases. Postholes were absent and artifact content was generally low. Wheaton et al. (1983) interpreted these as irrigation ditches.

Zierden et al. (1986:4.36-4.38) encountered a grid of 13 lengthy trenches extending singly, in parallel pairs, and at perpendicular angles at the Lesesne Plantation (38BK202) near Charleston. These had varying shapes in profile and were generally level along their lengths, indicating they were not used for drainage. In this case, the features were interpreted as agriculture-related, possibly irrigation ditches or tree-ridges/furrows.

Carillo (1980:49, 51) reported a linear feature at Green Grove Plantation (38CH109) near Charleston in an area he interpreted as an eighteenth-century slave quarter. Carillo described Feature 13 as a trench containing brick fragments and a Colonoware sherd, but did not provide an interpretation. Maps and photographs of the feature indicate it measured about 18 meters (60 ft.) long and incorporated a near-90-degree angle.

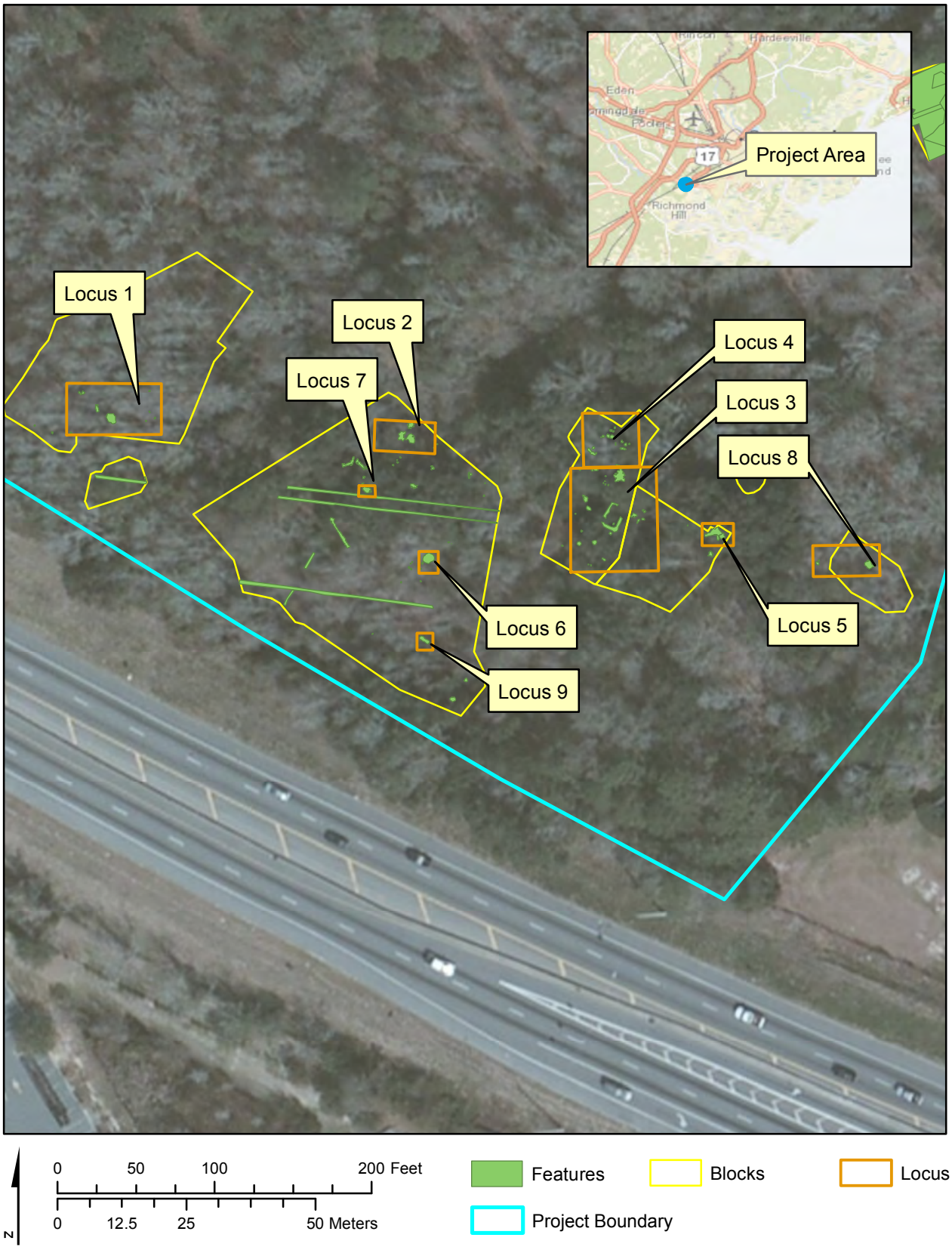
At Roupelmond Plantation in Beaufort County, South Carolina, Trinkley and Hacker (1999:71, 73) recorded a pair of parallel ditch features that curved slightly in the vicinity of a wall trench structure. The fill of these features was described as mottled or churned, and in this case the ditches were identified as ruts from wagon wheels. An 1862 photograph of the slave row at Drayton's Plantation (Fish Haul) in Hilton Head Island, South Carolina shows a pair of linear trenches extending between two rows of slave houses (Trinkley et al. 1989:22). These ditches look like tracks from wagon traffic.

Based on comparative data, long, linear features at coastal slave occupations are not unusual and could reflect several functions, either directly related to the occupation or to other activities.

DEPOSITIONAL UNITS/LOCI

Based on feature types, locations, and dates, nine separate depositional units or loci were defined and assigned numbers (Figure 137). Some of these reflect structures indicated by architectural remains with associated features, while others were projected as separate occupations

Figure 137.
Map of Occupational Loci



(which presumably represented houses) based on features such as isolated storage pits. Feature 170 in Block 2 is an example. In the following table, each depositional unit is described, with dates or general occupation range, and the corresponding features are indicated. Because they are assumed to be roughly contemporaneous and spatially associated, the features and artifacts from individual loci were grouped together for analysis.

Table 41. 9CH1205 Depositional Units

Depositional Unit	Block/Feature Number
Locus 1— Probably occupied prior to the Civil War and into the postbellum era. Feature 82 is a brick chimney base. Other features reflected midden or plow zone residue and possible posts associated with this occupation.	Block 5/ Features 82, 85, 95, 98, 121, 192, 101, 109
Locus 2—Probably occupied before the Civil War and into the post-war period. Feature 173 was a brick chimney base. Features 176 and 183 were shallow pits/midden residue.	Block 9/ Features 173, 176, 183
Locus 3—Appeared to reflect an early occupation (possibly ca. 1830). Features 89 and 90 were wall trenches. The other features reflected yard pits and postholes (including Post Cluster 2). Feature 38 was densely filled with refuse, possibly before the Civil War.	Block 4/ Features 30, 31, 32, 33, 34, 36, 37, 38, 42, 44, 45, 52, 58, 69, 72, 73, 80, 89, 90
Locus 4—This projected structure was represented by a concentration of posts, pits, and midden residue, including Post Cluster 1. Postholes were large and filled with burned red clay, suggesting the presence of a clay and stick chimney. No other clear architectural evidence was found. Dates appeared to span the first quarter of the 19th century to after the Civil War.	Block 4/ Features 20, 24, 25, 26, 47, 46, 48, 49, 53, 68, 71, 76, 104, 105, 131
Locus 5—This locus was represented by pits but no clear architectural evidence. Features 7 and 7B were the same deposit; Feature 7A was separate. Feature 7A was a deep cylindrical pit filled mostly with very fragmentary brick and mortar. Feature 7 was less clearly defined but could have been a root pit or similar feature and contained more kitchen refuse. Dates appear to span the antebellum to postbellum era. Both had a TPQ of 1866 and MCD in the 1850s.	Block 1/ Features 7, 7A, 7B, 19
Locus 6—This locus was represented by a single large storage pit with quantities of large artifacts suggesting primary disposal or site clean-up. The fill dated to later in the nineteenth century, as the feature produced a TPQ of 1880 as well as a few artifacts dating to the 1860s. Its location away from other loci suggested a separate occupation.	Block 9/ Feature 120
Locus 7—This locus consisted t of a single storage pit (F. 147) that was also filled late in the site's occupation and contained large items, suggesting primary disposal. The TPQ was 1880 with additional artifacts having beginning dates in the 1860s and 1870s. Its proximity to Locus 2 suggested this pit could have been in the yard associated with the Locus 2 occupation. Post Cluster 3 is associated with this locus.	Block 9/ Feature 147
Locus 8— This locus included a large pit (F. 170) and possible posts (F. 17 and 19). No other clear architectural evidence was found, although metal detectors reported a nail concentration here. The feature produced artifacts with earlier nineteenth-century dates and could indicate a separate occupation area.	Block 2/ Feature 17, 19, 170
Locus 9—Included a a single shallow pit feature. This feature contained a variety of architectural and domestic material but no direct evidence of a structure. It lay apart from the other loci and could reflect a root pit associated with a separate occupation. The TPQ for the feature was 1840 and it appearedto have been filled by the mid-19th century.	Block 9/ Feature 124

X. ARTIFACTS

Brad Botwick

The data recovery, including metal detecting, hand excavated blocks, and feature excavation, generated 33,858 artifacts. While the preceding chapter provided details on artifacts with respect to their proveniences, this chapter provides a descriptive overview of the entire assemblage, including a small collection of precontact period artifacts. Analysis of artifacts with reference to specific research questions is presented in Chapter XIV. Appendix B contains a complete inventory of the artifacts.

PRECONTACT ARTIFACTS

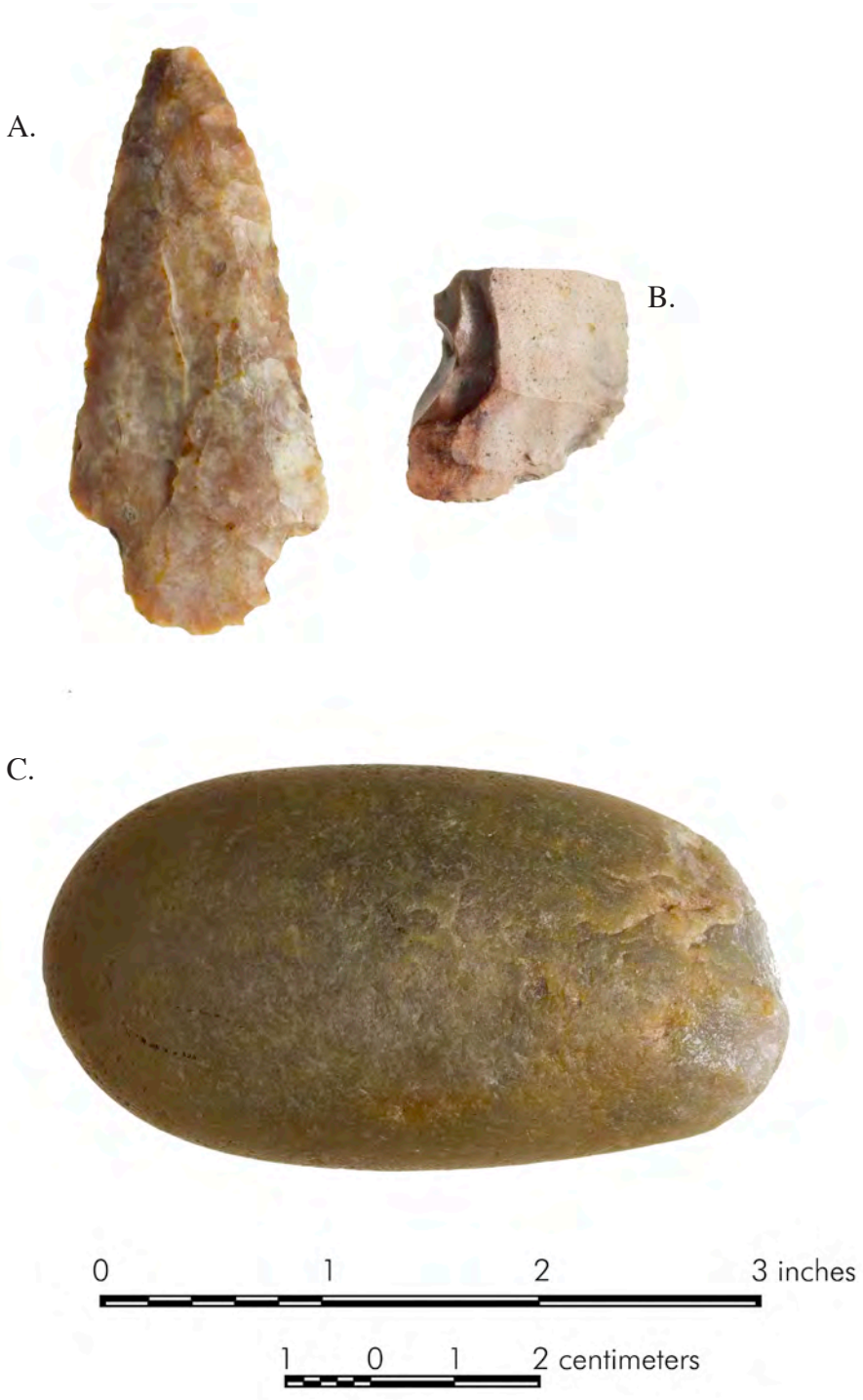
The data recovery yielded 39 precontact artifacts, the majority (n=33) being lithic. Six ceramic fragments were among the total and included two sand-tempered sherds with eroded surfaces that could not be identified further. The other four sherds were residual fragments. The residual sherds came from historic features deposits, but are interpreted as incidental inclusions rather than evidence for use by the site's historic occupants.

The 33 lithic artifacts are dominated by debitage (n=27). Formal tools include four flaked implements and two hammerstones. The debitage includes flakes of Coastal Plain chert (n=14), indeterminate chert (n=9), quartz (n=9), quartzite (n=1), and rhyolite (n=1). Debitage types include 14 identified as general flakes, seven flake fragments, and six angular debris.

Formal tools include three projectile points and one biface, all of Coastal Plain chert (Figure 138). One projectile point with a probable Late Archaic date came from the vicinity of Feature 173 and was described along with this feature. A second specimen was recovered from Feature 147. The other two were recovered from plow zone contexts.

Finally, the two hammerstones, both of quartzite, were recovered during machine-removal of plow zone in Blocks 5 and 9. The precontact artifacts, particularly the pottery and lithic flaking debris, are most likely the product of precontact American Indian use of the site area. However, instances of African Americans using items such as precontact lithic artifacts and naturally rounded stones for ritual purposes have been documented at many locations in the south (Russell 1997; Wilkie 1995), and it is possible that the formal tools at 9CH1205 were used in this way. Because they were not recovered from contexts that could be clearly associated with spiritual or religious activities, these items cannot be definitively assigned such functions.

Figure 138.
Representative Precontact Artifacts



A. Projectile Point, Coastal Plain Chert, Feature 173 Vicinity
B. Biface, Coastal Plain Chert, Feature 147
C. Hammerstone, Quartzite, Block 5

HISTORIC ASSEMBLAGE DESCRIPTION

As was done for individual features, the assemblage was sorted into functional groups based on South's (1977) categories, with the addition of a miscellaneous group, which is used here for objects having indeterminate functions. Although there is validity to the idea that varying frequencies of functional groups reflect patterned behavior, these categories are used here solely to organize and describe different types of artifacts. Presenting the assemblage in this way may also facilitate comparisons with other sites where the same categorization was applied. However, it must be remembered that the entire assemblage is grouped together for the following descriptions regardless of chronology and occupation area within the site. The following sections are intended chiefly to provide a descriptive overview of the collection.

Looking at the assemblage as a whole, artifacts were placed in the kitchen, architecture, clothing, furniture, miscellaneous, personal, arms, and tobacco groups. Kitchen and architecture-related artifacts dominate, comprising 44.91 and 43.70 percent of the collection, respectively. Of the balance of the assemblage, only the miscellaneous group (8.22%) reached a frequency over 1.50 percent. The other groups represent between less than 0.1-1.30 percent (Table 42).

Table 42. Data Recovery Artifact Assemblage Overview

Artifact Group	Count	%
Kitchen	15,206	44.91
Architecture	14,795	43.70
Clothing	167	0.49
Furniture	3	0.01
Miscellaneous	2,782	8.22
Personal	23	0.07
Arms	84	0.25
Tobacco	352	1.04
Activities	447	1.32
Total	33,859	100.00

KITCHEN

The kitchen artifact group contains a total of 15,206 individual artifacts sorted into ceramics, glass, metal, faunal, and “other,” which consists of two modern plastic fragments recovered from the plow zone. Following (South 1977:95) the kitchen group contains all ceramic and glass

artifacts except those specifically placed in certain other categories (e.g., brick and window glass). Thus, pharmaceutical containers, and by extension sanitary ceramics (i.e., chamber pots) are in this category despite not being related to subsistence activities.

Within the kitchen group, faunal and floral materials are most prevalent, comprising 45.99 percent of the group. Ceramics are the second largest part of the group, totaling 31.02 percent, and glass comprised the third largest material category with 22.61 percent. Metal artifacts totaled only 0.37 percent. Faunal and botanical materials are discussed in greater detail in subsequent chapters. Briefly, however, the total faunal assemblage of 6,993 items included 5,154 shell fragments, 4,907 being oyster and the balance unidentified. Bone totaled 1,836 fragments, 111 being teeth. Also included in the collection were two nut fragments and one peach pit, both recovered from 0.25-inch screen.

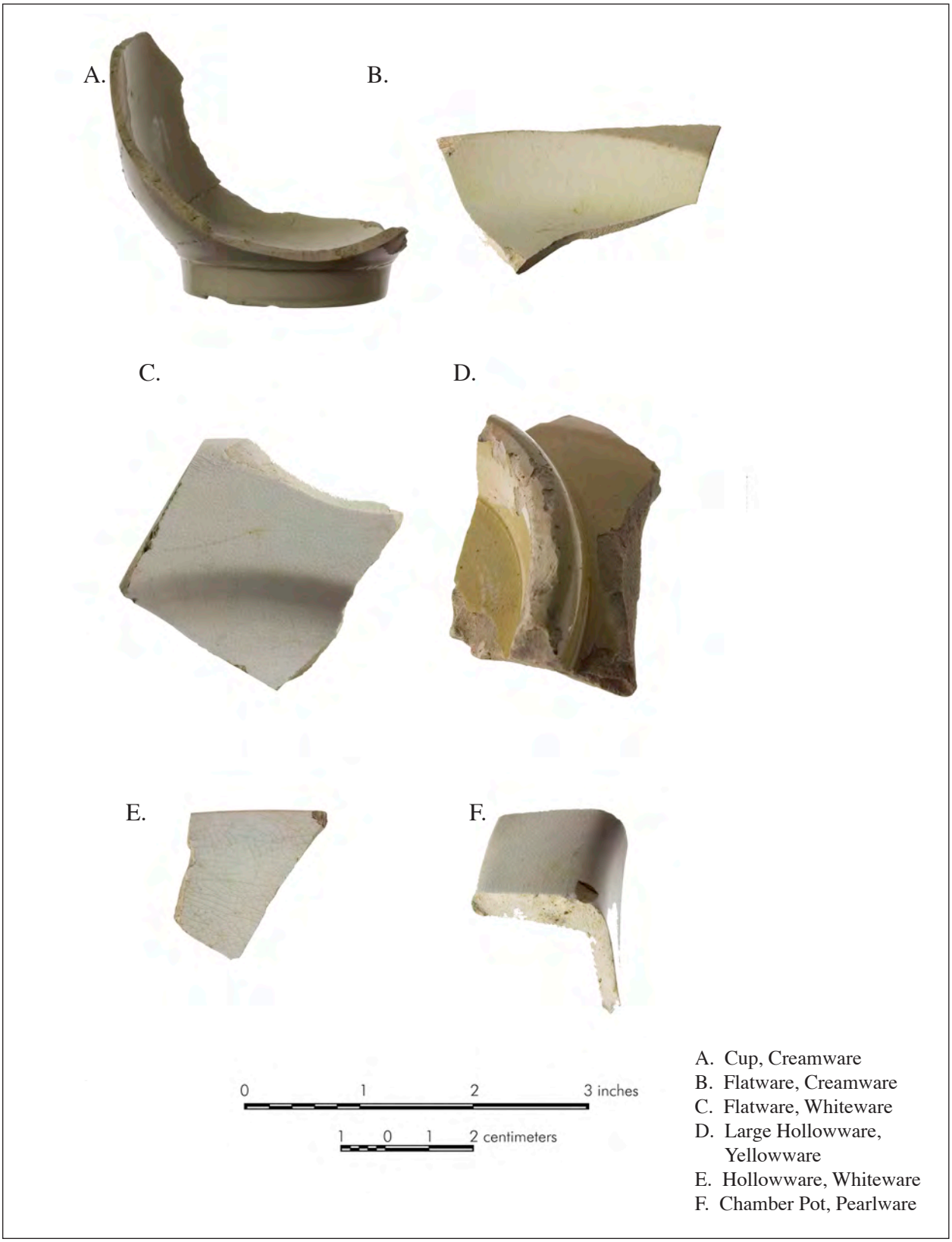
CERAMICS

The ceramic assemblage generated by the data recovery totaled 4,716 sherds that were sorted into refined earthenware, coarse earthenware, stoneware, and porcelain, and further divided by decoration or surface treatment (e.g., salt glazed), if any. The ceramics were extremely fragmentary, making it difficult to identify vessel form and decoration, except generally. For this reason, forms were examined only for selected occupation loci and are discussed in a later chapter. A few fragments were large enough or exhibited distincive shapes that indicated vessel form (Figure 139).

Refined earthenware types include creamware, pearlware, whiteware, ironstone, and yellowware. Creamware, totaling 395 sherds, are most often undecorated. The only fragments having any decoration are dipped/factory-made slipware (n=8). Creamware is the earliest type found at the site, and was in production from 1762-1820. Although its presence suggests a late eighteenth-century occupation, the lack of other artifacts that could be expected during this time (e.g., white salt glazed stoneware, wrought nails), combined with artifacts common for the early nineteenth century (pearlware, whiteware, cut nails), indicates that the creamware probably relates to an early nineteenth-century occupation.

Pearlware, represented by 802 sherds, comprises a moderate proportion of the ceramic collection. This type was manufactured between about 1775 and 1840, and is common on early nineteenth-century sites. The pearlware assemblage exhibits a considerable range in decoration (Table 43). Within this category, undecorated sherds are the most common, comprising more than half the total, with blue transfer printed types, comprising 15.34 percent, being the next most frequent. Underglaze painted vessels are also relatively numerous, with blue and polychrome types totaling 12.97 percent of the pearlware. Varying styles of edge-decorated flatwares were recovered as well. Combined, these constitute 10.35 percent of the pearlware. Other decorative techniques are much less common among this ceramic type, however.

Figure 139.
Representative Vessel Forms



A. Cup, Creamware
B. Flatware, Creamware
C. Flatware, Whiteware
D. Large Hollowware, Yellowware
E. Hollowware, Whiteware
F. Chamber Pot, Pearlware

Table 43. Pearlware Recovered During the Data Recovery

Type	Count	%
Dipped	37	4.61
Edge decorated - Blue/green-scalloped and curved impressed	31	3.87
Edge decorated - Blue/green-scalloped and straight impressed	12	1.50
Edge decorated - Blue/green-general	22	2.74
Edge decorated - embossed pattern	18	2.24
Plain	437	54.49
Spattered	4	0.50
Transfer Print Blue	123	15.34
Transfer Print Brown	2	0.25
Underglaze painted - blue	76	9.48
Underglaze painted -polychrome, floral	28	3.49
Unidentified	12	1.50
Total	802	100.00

Whiteware, represented by 2,794 sherds, and indicating a date range of 1830-the present (or 1950 for this site) is the most common type recovered. This type also exhibited the greatest diversity in decoration among the refined earthenware (Table 44). Plain sherds, comprising 51.75 percent of the whiteware, are most common. Common decoration techniques include transfer printing (17.07%), dipped/factory-made slipwares (11.45%), painted decorations, including solid blue and polychrome (8.27%), and edge-decorated flatwares (8.55%). Other decoration types comprised only small parts of the whiteware collection.

Table 44. Whiteware Recovered During the Data Recovery

Type	Count	%
Dipped	314	11.24
Dipped-mocha	6	0.21
Edge decorated - Blue/green-unscalloped and impressed	39	1.40
Edge decorated - general	85	3.04
Edge decorated - scalloped and impressed	102	3.65
Edge decorated - scalloped, no impression	7	0.25
Edge decorated - unscalloped, no impression	6	0.21

(Continues)

(Table 44, Continued)

Type	Count	%
Molded	19	0.68
Overglaze painted	2	0.07
Plain	1,446	51.75
Simple bands	2	0.07
Spattered	1	0.04
Sponged	9	0.32
Transfer Print Blue	367	13.14
Transfer Print Flow Blue	4	0.14
Transfer Print Red/Green/Purple/ Black or Brown	106	3.79
Underglaze painted	121	4.33
Underglaze painted-polychrome, floral	110	3.94
Unidentified	48	1.72
Total	2,794	100.00

The data recovery produced only a small collection of ironstone (n=32). Of this type, all but two sherds are plain. One is molded while the other could not be identified with a particular decoration technique (Figure 140). Makers marks or pattern names were identified only on whiteware and ironstone. Eight sherds exhibited marks that could be identified and/or described (Table 45, Figure 141). In general, the marks represent English manufacturers whose products were common in the United States during the nineteenth century (Godden 1964). Only the examples recovered from features provided useful dating information, and these confirm the postbellum dates of Features 120 and 147. One sherd, representing a flatware produced by James and Ralph Clews, between 1821 and 1835, came from the plow zone in the vicinity of Feature 173 and was transfer printed with a scenic view of Fishkill on the Hudson River, New York (Camehl 1971).

Table 45. Ceramic and Makers Marks on Whiteware and Ironstone

Mark	Identification and Date	Ceramic Type	Provenience
Partial pattern mark, probably: "*Picturesque Views Near Fishkill, Hudson River*"	Probably James & Ralph Clews, ca 1821-1835	Whiteware with black transfer print	Plow zone Block 9/vicinity of F. 173 (FB 879)
Partial maker's mark: "CLEME . . ./EN . . ."	Clementson Bros. 1865-1916 (mark probably 1867-1880)	Whiteware	Feature 147 (FB 848)
Partial makers mark with Royal Coat of Arms	Possible Turner, Goddard & Co., 1867-1874	Whiteware	Feature 147 (FB 775)

(Continues)

(Table 45, Continued)

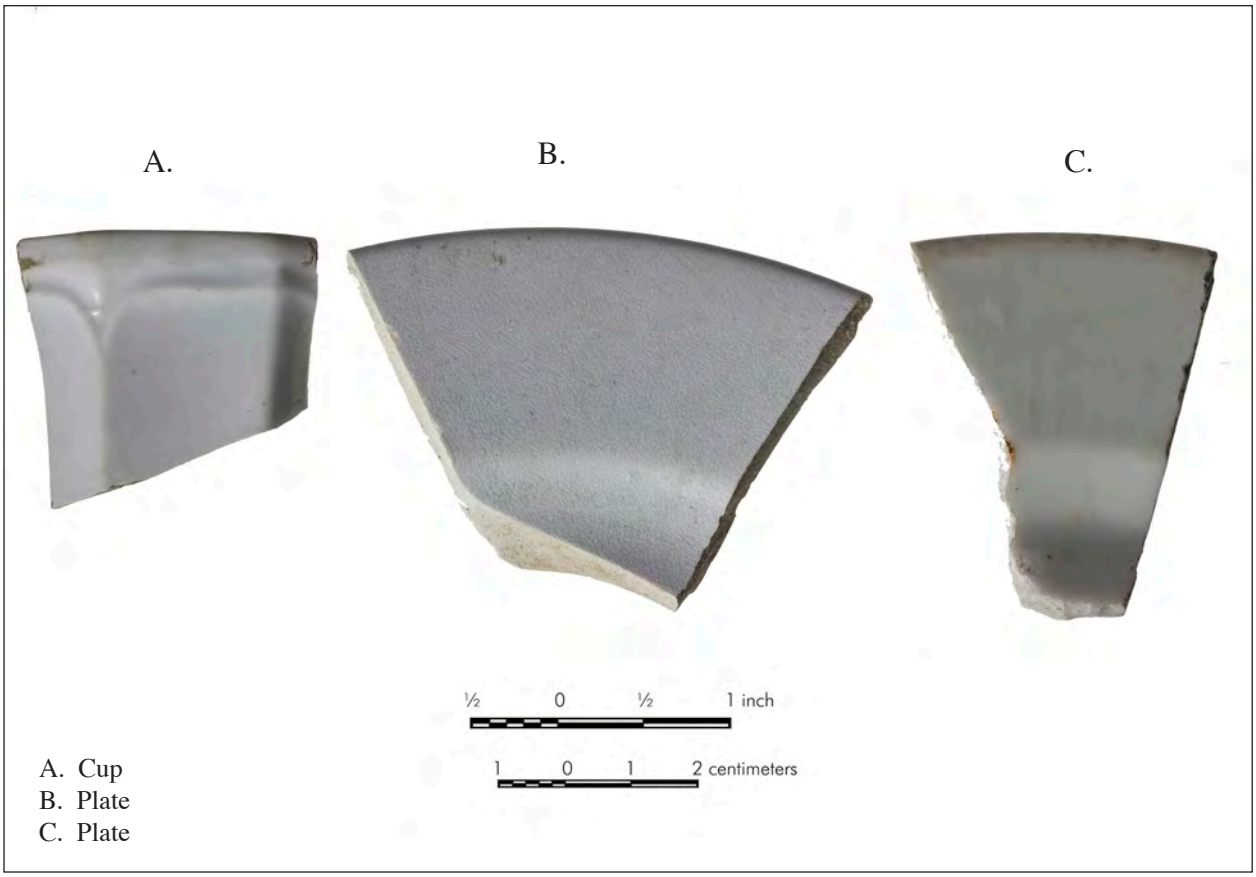
Mark	Identification and Date	Ceramic Type	Provenience
Partial maker's mark: ". . . TONE CHINA/. . .& G. MEAKIN/1869"	J&G Meakin, 1851-2000 (mark post-1869)	Ironstone	Feature 120 (FB 707)
Pattern and maker's mark: "NONPAREIL/RMW & CO."	Ridgway, Morely, Wear & Co., 1836-1842	Whiteware with blue transfer print	Plow zone Block 4/General (FB 563)
Indeterminate mark: "SEMI/CHINA" inside diamond with impressed asterisk	Indeterminate	Whiteware with blue transfer print, possible Willow pattern variation	Feature 59 (FB 510)
Partial maker's mark: " . . .ONE C . . /. . . DWAR . . " under coat of arms	Probably James Edwards (Ironstone China), 1842-1854	Ironstone	Test Unit, F. 173 vicinity (FB 889)
Partial maker's mark: " STONE . . ./J.M. . . ."	Possibly J. Meir & Son, 1837-1897	Whiteware, plain	Plow zone Block 1 (FB 355)

Yellowware (n=110) also comprised only a small proportion of the entire ceramic assemblage (12.33%). In addition to 50 plain sherds, 38 are dipped/factory-made slip, 12 exhibit Rockingham glaze, and 10 are molded or have embossed decorations.

Looking at just the decorative techniques among the refined earthenware reveals that while plain sherds are the most common (n=2,350), although the number of plain sherds is probably inflated by the fragmentary nature of the assemblage and the fact that many plain sherds probably represent undecorated parts of decorated vessels. Decorated ceramics are relatively numerous and reflect most common nineteenth-century types. Transfer-printed varieties (n=602) are the most common of these, followed by dipped (factory-made slipware; n=403), painted (n=335), and shell edge (n=322). Examples of applied or embossed molded decoration are also present (n=11).

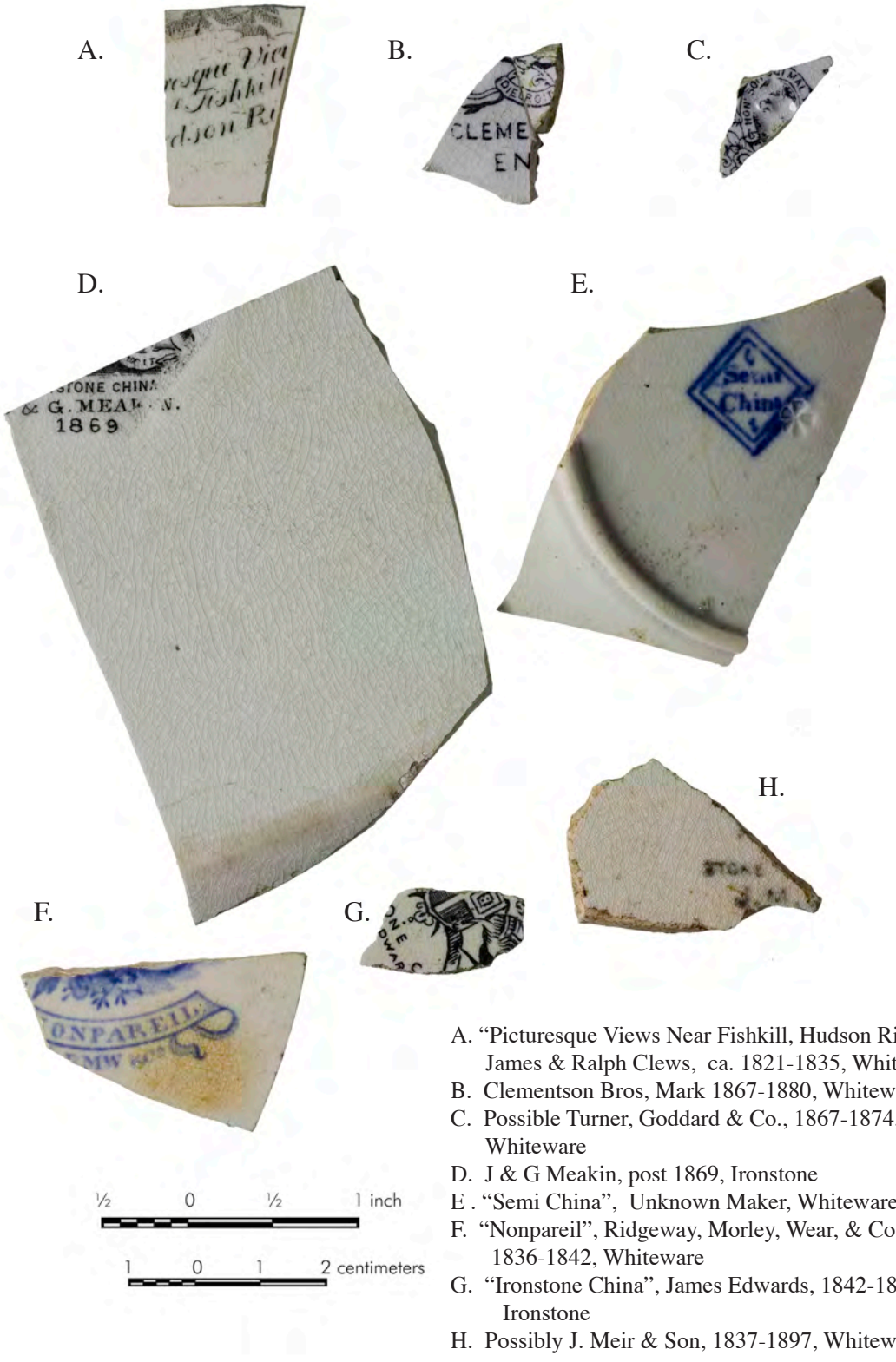
Transfer-printed varieties were mostly blue, with black, red, green, and purple examples also recovered. Here again, sherds were mostly too small to indicate the decorative motifs, although the Willow Pattern and possible variations of it were noted. Other motifs included floral and landscape, while two hollowware fragments had written words, suggesting they could be children's cups. Transfer printing occurred on a variety of vessel forms, although in general these could be identified only generally as flatware and hollowware (Figure 142).

Figure 140.
Representative Ironstone



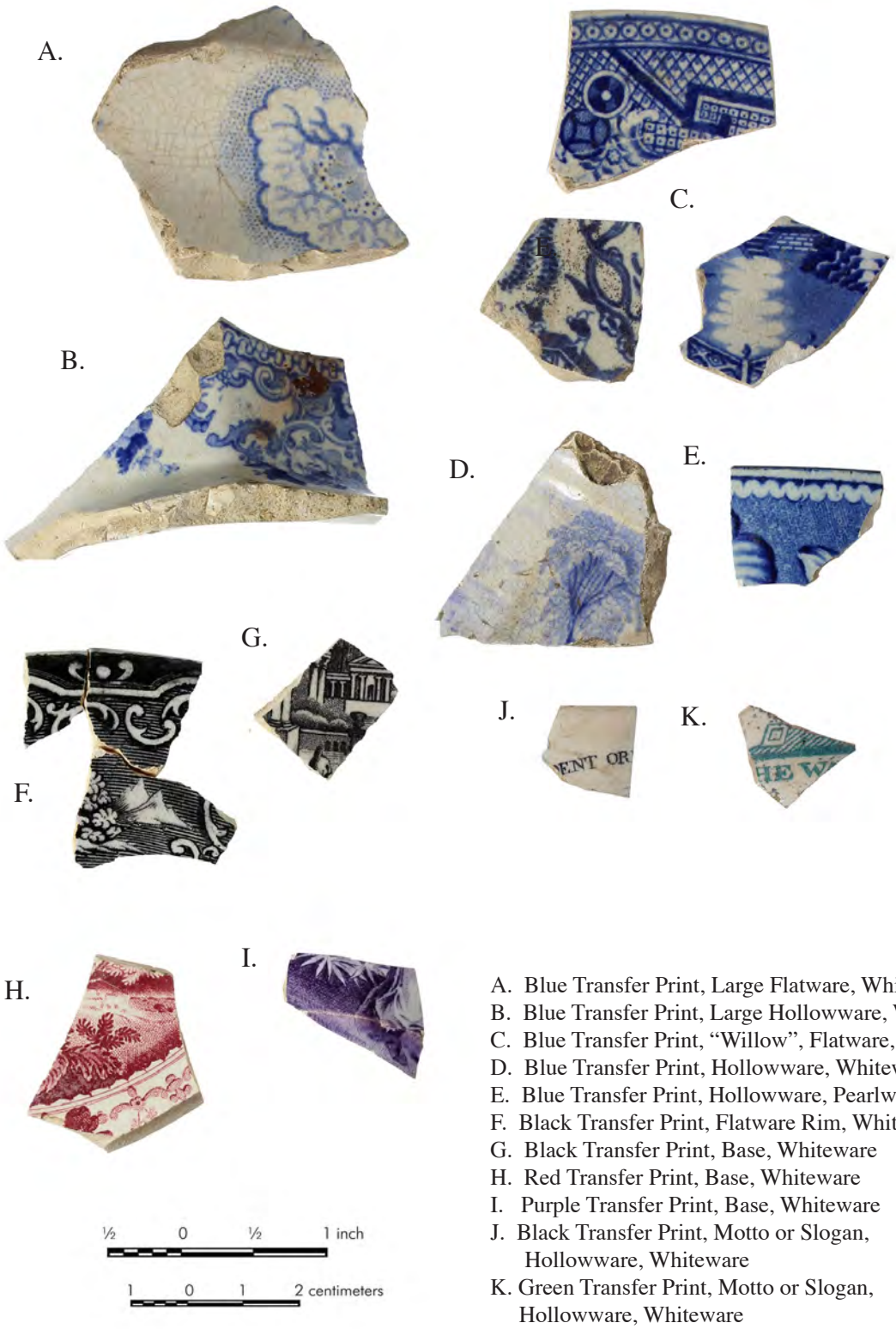
A. Cup
B. Plate
C. Plate

Figure 141.
Ceramic Makers and Pattern Marks on Whiteware and Ironstone



A. "Picturesque Views Near Fishkill, Hudson River", James & Ralph Clews, ca. 1821-1835, Whiteware
B. Clementson Bros, Mark 1867-1880, Whiteware
C. Possible Turner, Goddard & Co., 1867-1874, Whiteware
D. J & G Meakin, post 1869, Ironstone
E . "Semi China", Unknown Maker, Whiteware
F. "Nonpareil", Ridgeway, Morley, Wear, & Co., 1836-1842, Whiteware
G. "Ironstone China", James Edwards, 1842-1854, Ironstone
H. Possibly J. Meir & Son, 1837-1897, Whiteware

Figure 142.
Transfer Printed Ceramics



A. Blue Transfer Print, Large Flatware, Whiteware
B. Blue Transfer Print, Large Hollowware, Whiteware
C. Blue Transfer Print, "Willow", Flatware, Whiteware
D. Blue Transfer Print, Hollowware, Whiteware
E. Blue Transfer Print, Hollowware, Pearlware
F. Black Transfer Print, Flatware Rim, Whiteware
G. Black Transfer Print, Base, Whiteware
H. Red Transfer Print, Base, Whiteware
I. Purple Transfer Print, Base, Whiteware
J. Black Transfer Print, Motto or Slogan, Hollowware, Whiteware
K. Green Transfer Print, Motto or Slogan, Hollowware, Whiteware

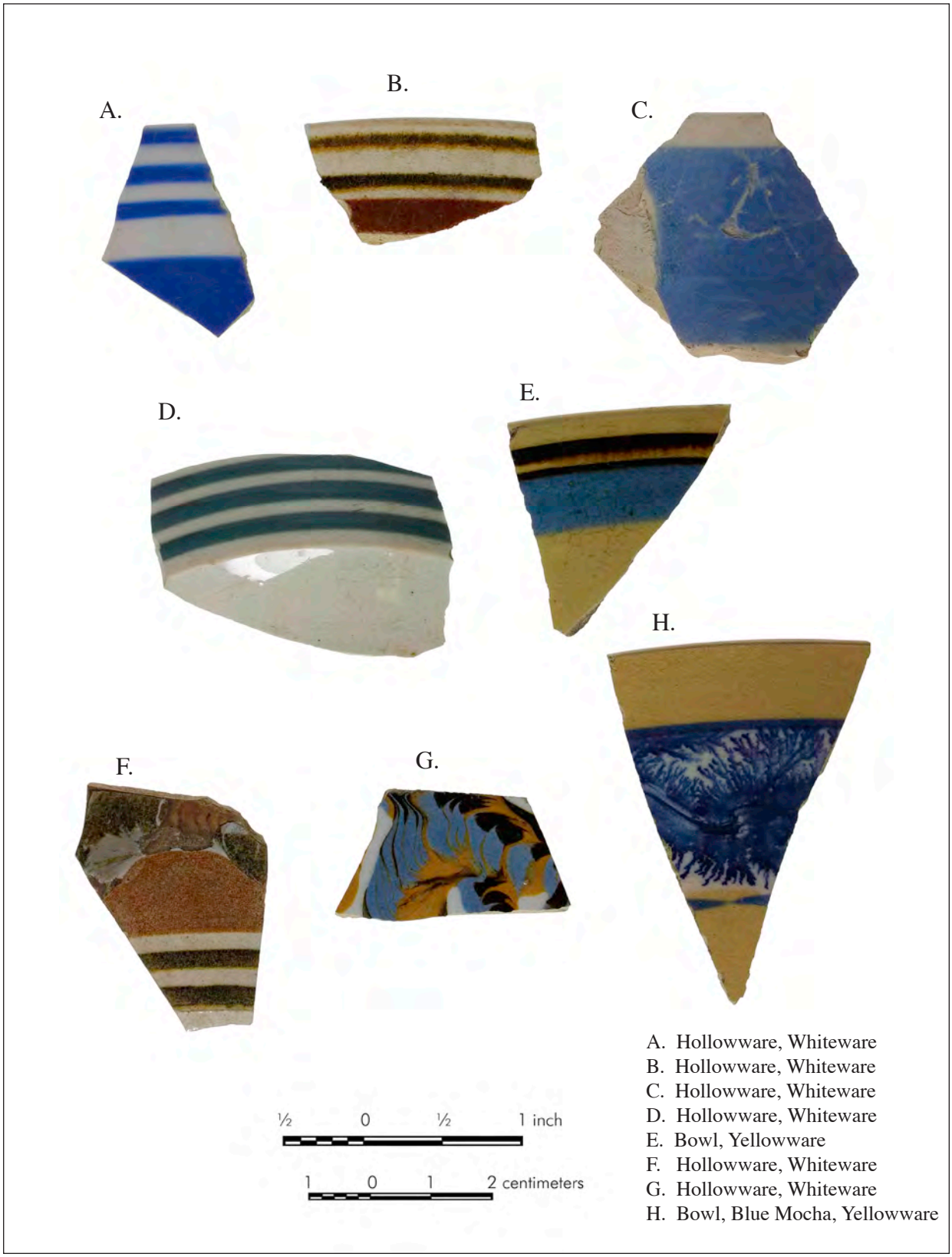
Dipped or factory-made slipware includes several variations (Figure 143). The majority of the identified design motifs were simple bands applied around the exterior of the vessel in varying widths and combinations. Examples of mocha and cable/cat's eye decorations were noted as well. Engine turned incised and rouletted sherds were rare. The only identiable forms were hollowware bowls of indeterminate size. Painted ceramics were underglaze with both blue and polychrome. Decorative motifs, insofar as could be determined, were mostly floral or simple bands or swags. Vessels could not be identified generally because of the extremely fragmentary condition, although these types appear to reflect chiefly hollowwares. The blue-painted wares, however, included fragments from larger vessels that could be identifed, including one chamber pot and one saucer or shallow dish (Figures 144 and 145).

Shell-edged types are diverse. Although most are blue, a few examples are green, while molded patterns include scalloped and unscalloped edges, straight and curved lines (with and without buds), dot-and-floral patterns, and examples with an embossed Greek-style palmette or "anthemion" (Figure 146). Shell edged ceramics in the collection entirely reflected flatware, one (from Feature 26) possibly being a platter.

Molded or embossed ceramics included 30 sherds of whiteware (n=19), yellowware (n=10) and ironstone (n=1). Patterns are primarily floral, with one yellowware sherd having a vertical bead. Two sherds in this group are highly fired and molded with motifs that resemble those common on Bennington wares. Although too small to make out, one of these is molded with an apparent animal figure and could reflect a hunting scene (Figure 147). Vessel forms were hollowware, but could not be identified more specifically.

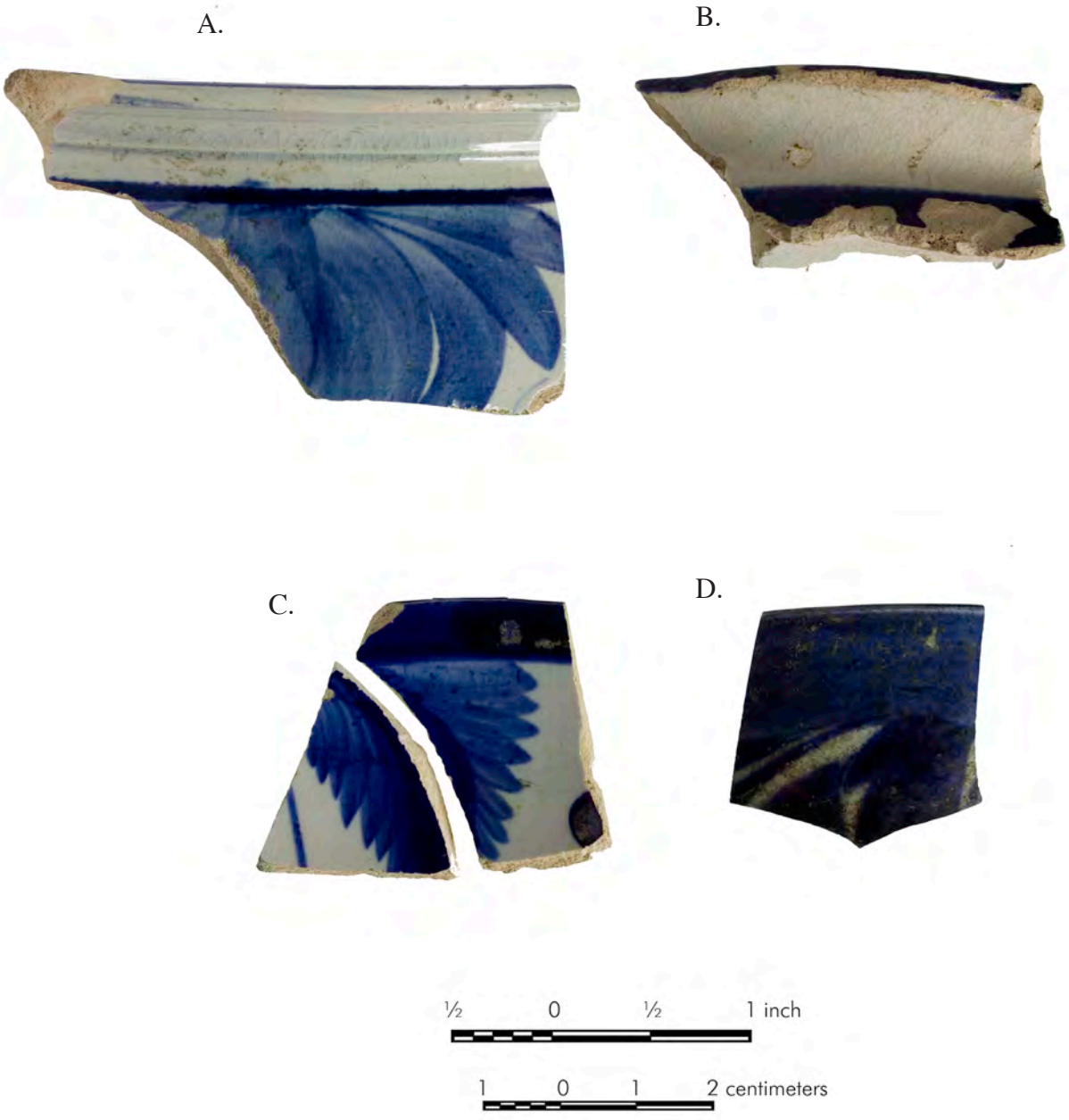
It is worth noting that within the among the decorated types, the most common, transfer-printed, was the priciest ceramic available during the late eighteenth and nineteenth centuries. Underglaze painted wares were the next most expensive followed by stamped and sponged, dipped, and then plain. Edge-decorated (shell edge) wares were less expensive than the other types, although cost more than plain wares (Miller 1991; Sussman 1997:50). The collection thus reflects a mix of the most and least expensive ceramic types available, with the most costly varieties being prominent. Although the difficulty identifying specific vessel types in this assemblage makes it problematic to perform an economic scaling analysis, it is interesting to note the prevalence of decorated ceramics from this site and the relatively high frequency of more expensive types. The site's residents do not appear to have been making do with cheap ceramics, although it is possible that the more pricey types were obtained second-hand or through other means that would decrease their cost. In order to more fully understand the meaning of relative ceramic values, a better understanding of the context of their acquisition would be necessary.

Figure 143.
Dipped/Factory-Made Slipware



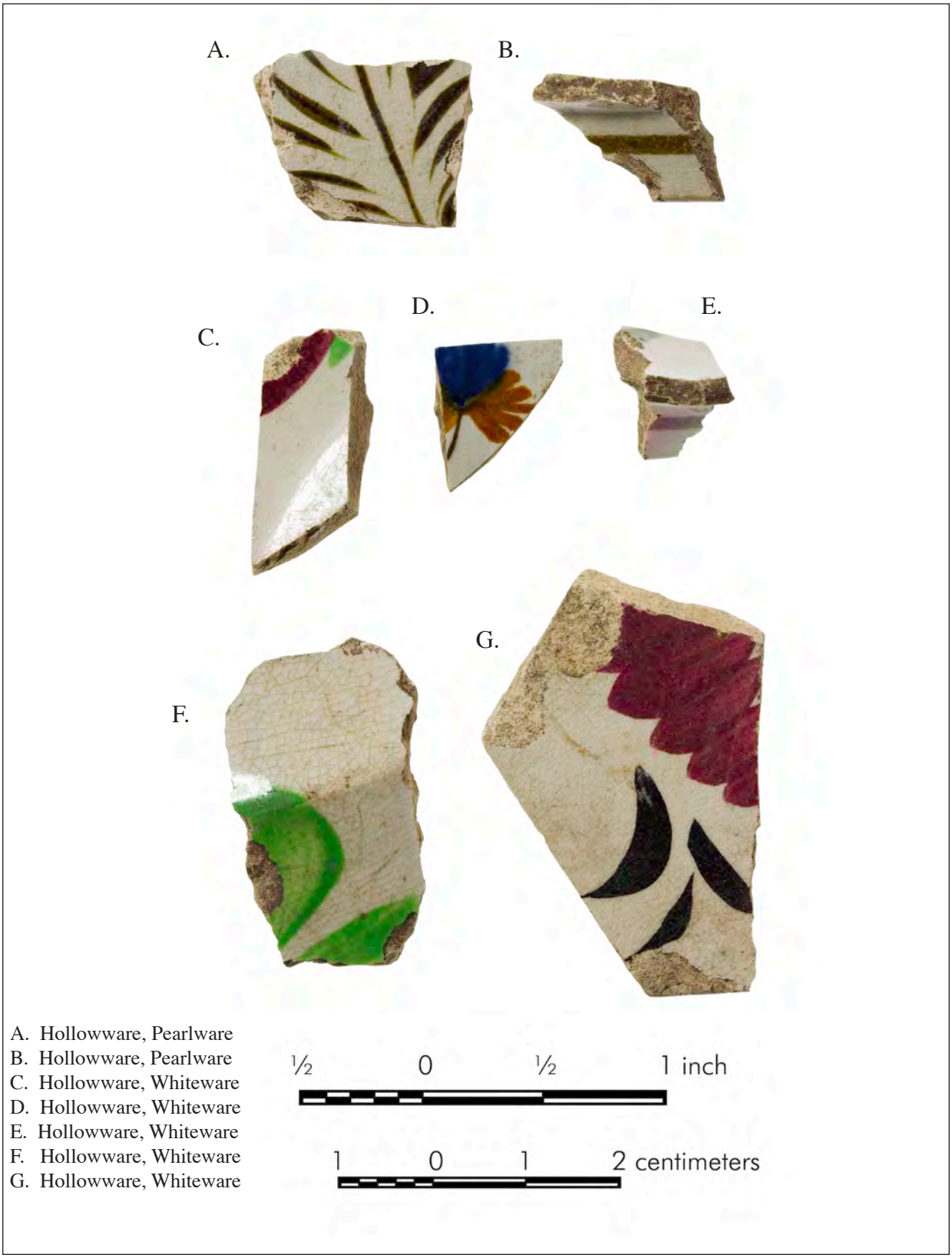
A. Hollowware, Whiteware
B. Hollowware, Whiteware
C. Hollowware, Whiteware
D. Hollowware, Whiteware
E. Bowl, Yellowware
F. Hollowware, Whiteware
G. Hollowware, Whiteware
H. Bowl, Blue Mocha, Yellowware

Figure 144.
Blue Painted Ceramics



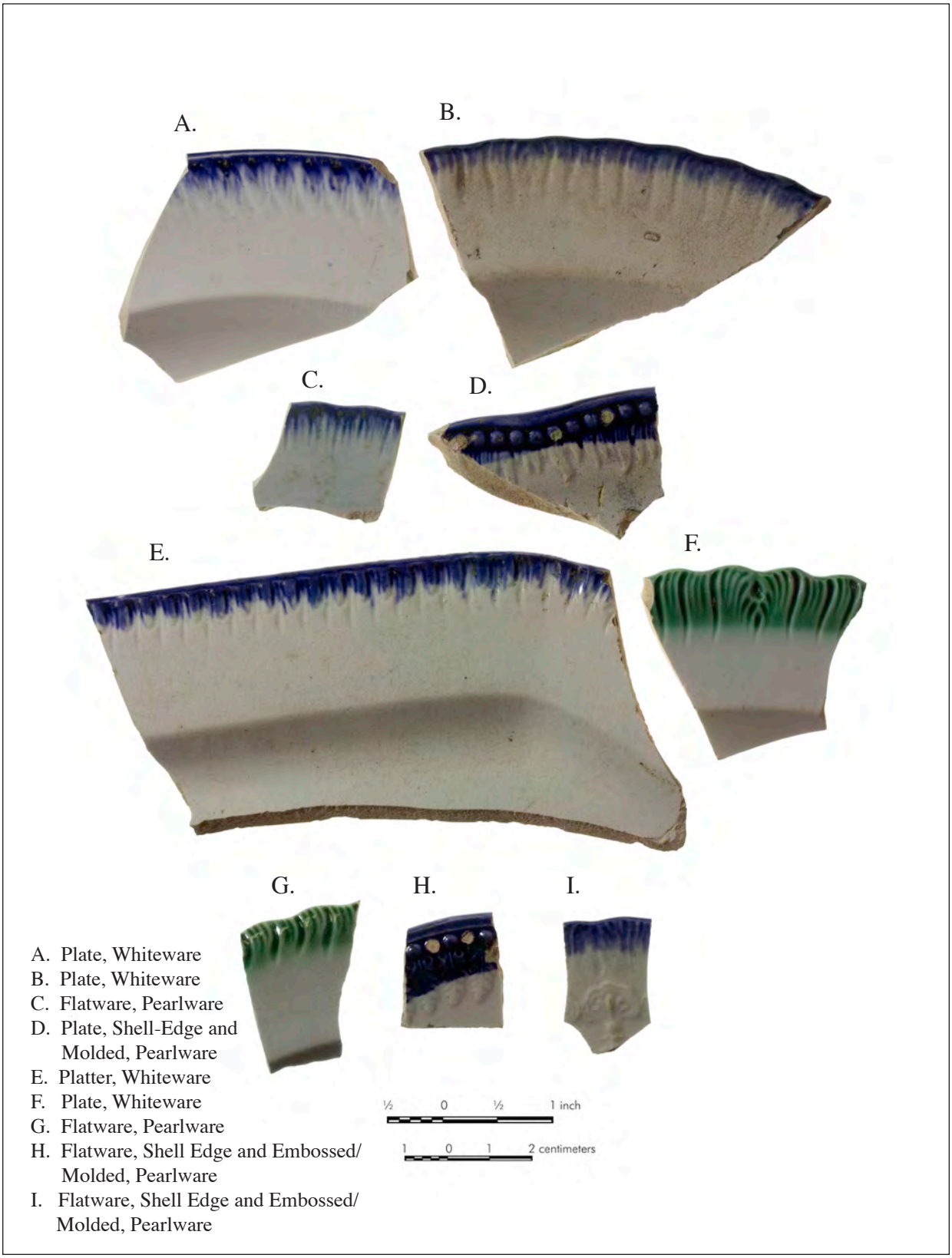
A. Chamber Pot, Pearlware
B. Hollowware, Pearlware
C. Saucer/Shallow Dish, Pearlware
D. Hollowware, Whiteware

Figure 145.
Polychrome Painted Ceramics



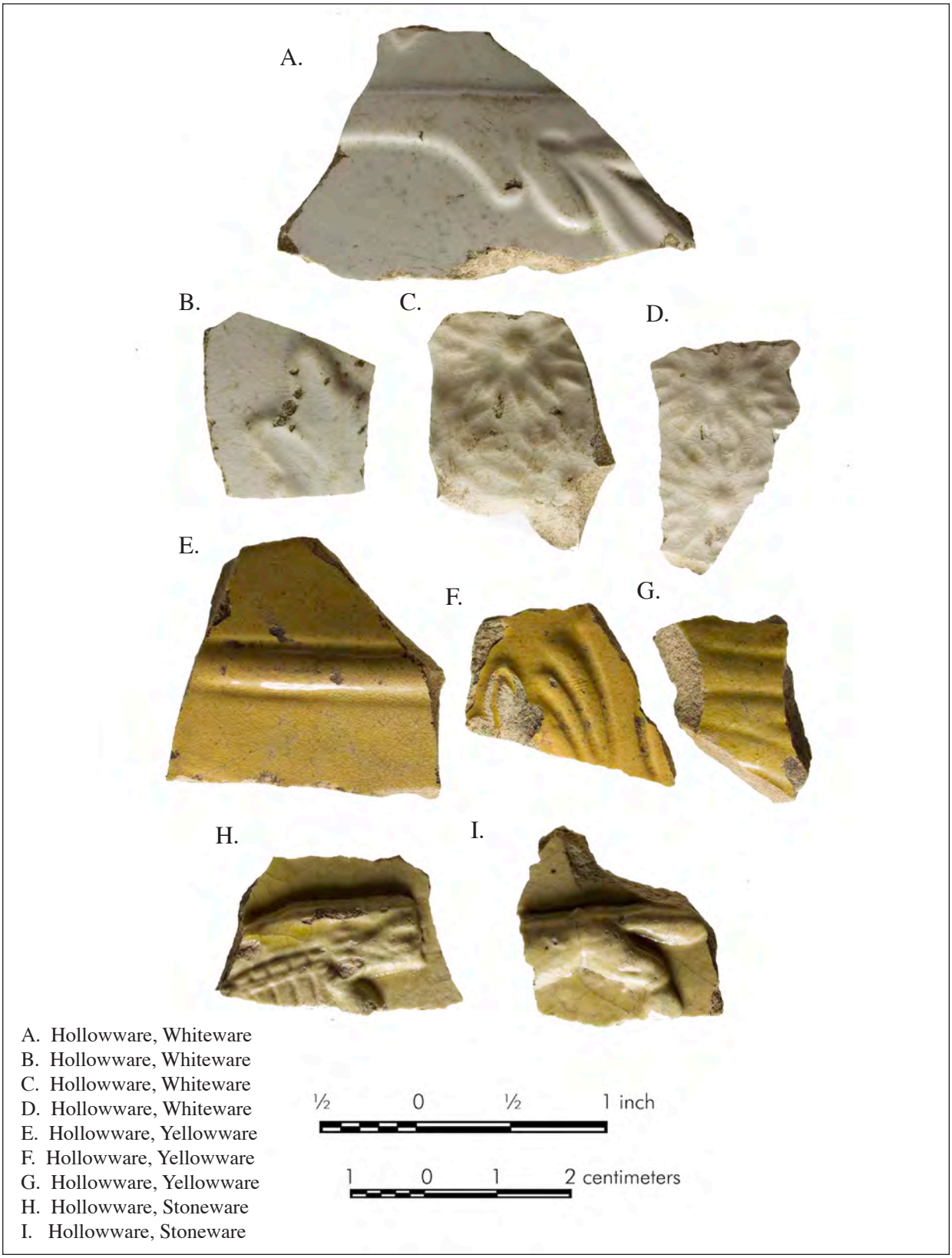
A. Hollowware, Pearlware
B. Hollowware, Pearlware
C. Hollowware, Whiteware
D. Hollowware, Whiteware
E. Hollowware, Whiteware
F. Hollowware, Whiteware
G. Hollowware, Whiteware

Figure 146.
Examples of Shell Edge Ceramic Motifs



A. Plate, Whiteware
B. Plate, Whiteware
C. Flatware, Pearlware
D. Plate, Shell-Edge and Molded, Pearlware
E. Platter, Whiteware
F. Plate, Whiteware
G. Flatware, Pearlware
H. Flatware, Shell Edge and Embossed/ Molded, Pearlware
I. Flatware, Shell Edge and Embossed/ Molded, Pearlware

Figure 147.
Molded/Embossed Ceramics



A. Hollowware, Whiteware
B. Hollowware, Whiteware
C. Hollowware, Whiteware
D. Hollowware, Whiteware
E. Hollowware, Yellowware
F. Hollowware, Yellowware
G. Hollowware, Yellowware
H. Hollowware, Stoneware
I. Hollowware, Stoneware

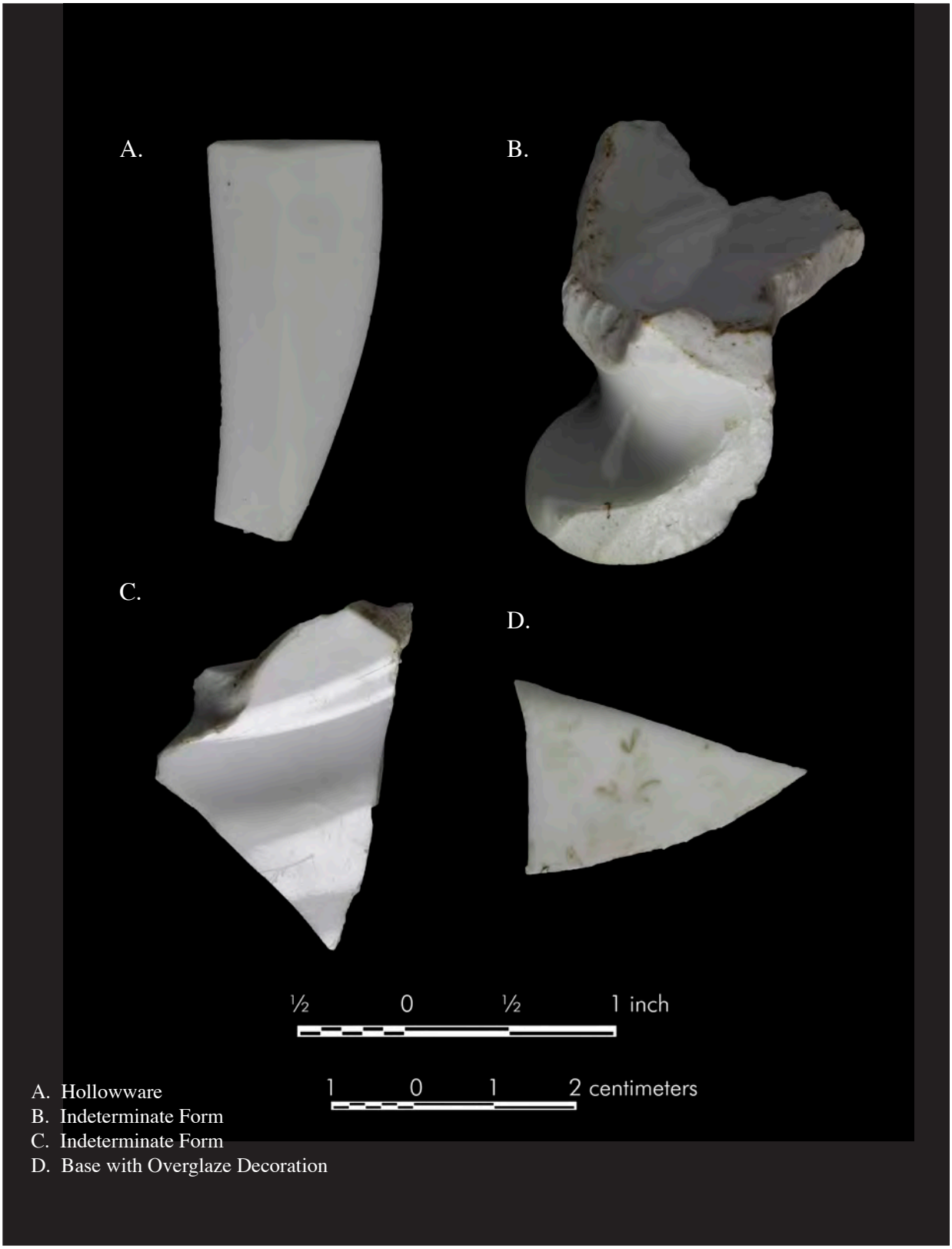
Other refined wares include porcelain (n=92) and thin-bodied red stoneware (n=44). Porcelain, for the most part, is undecorated and could not be identified beyond its general type. Six sherds, however, are identified as oriental export and four exhibit blue painted decorations. Vessel forms could be identified as hollowware, flatware, and general tableware or furnishings. One specimen included an overglaze floral design (Figure 148). The refined stoneware or earthenware consists of thin-bodied vitreous material that most often exhibits solid dark brown glaze (n=38). Four sherds have clear glaze and evidence of engine-turned incised decoration, while one has only clear glaze. Finally, one sherd is luster-decorated on the exterior with white slip on the interior. These types of refined stonewares were most often used for teapots and related vessel types, although none of the sherds in the assemblage could be identified as to form.

Looking at utilitarian ceramic types, these are much less common than refined types. A total of 251 stoneware and coarse earthenware sherds were collected during the data recovery, with stoneware being most common (n=153). The stoneware also exhibits the most variety in terms of type (Table 46). Common decoration or glazing techniques applied to the stoneware are salt glaze (n=50), followed by alkaline glaze (n=23). Examples with Albany and/or Bristol slips also occur, as do 12 fragments identified as bottles (see Figures 82 and 149).

Table 46. Stoneware Types Found During the Data Recovery

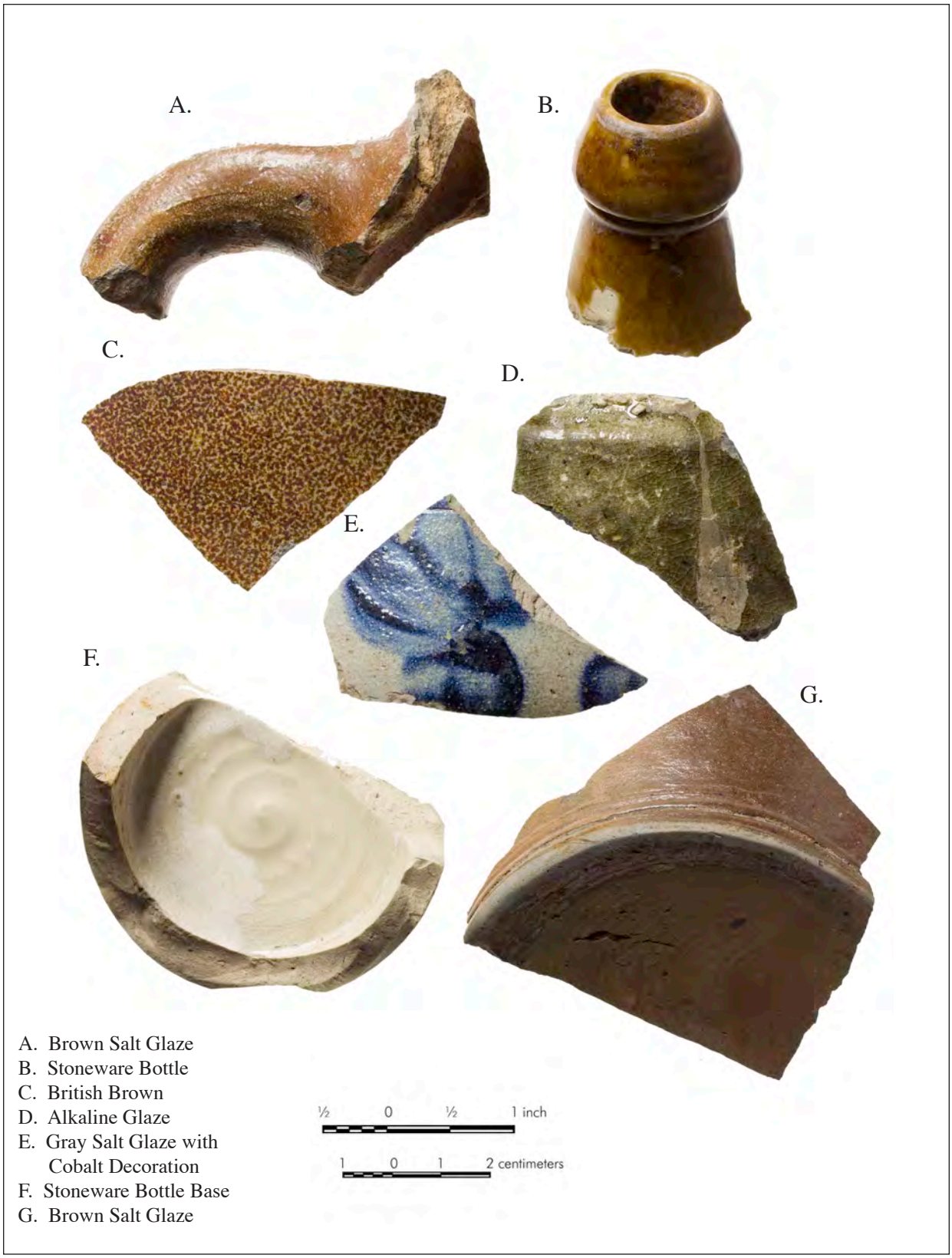
Type	Count
Albany and Bristol slip	1
Albany slip	9
Alkaline glaze	23
Bristol slip	6
British brown	6
Brown	11
Brown salt glaze	23
Gray salt glaze	25
Gray salt glaze, cobalt blue	2
Salt or Alkaline glaze	4
Ginger beer	11
Bottle	1
Unidentified	25
Unidentified-burned	6
Total	153

Figure 148.
Porcelain



A. Hollowware
B. Indeterminate Form
C. Indeterminate Form
D. Base with Overglaze Decoration

Figure 149.
Representative Stoneware Types



A. Brown Salt Glaze
B. Stoneware Bottle
C. British Brown
D. Alkaline Glaze
E. Gray Salt Glaze with Cobalt Decoration
F. Stoneware Bottle Base
G. Brown Salt Glaze

Coarse earthenware includes redware (n=92), buff-bodied (n=1), and unidentified types (n=3). Among the redware, the most common decorative or surface finish is simple glaze, which is predominantly black (n=60) or clear (n=12). Unglazed (n=9) and unidentifiable (n=11) types make up the balance of the redware. Three sherds are pink or salmon-colored with traces of green glaze on the interior. Vessel types could not generally be identified except as large hollowware (Figure 150). Finally, a buff-bodied earthenware, represented by a single sherd with colored glaze, is a thick-bodied vessel resembling an ointment pot. The glaze, a greenish gray color on the exterior and greenish blue inside, is relatively thick and vitreous (Figure 151).

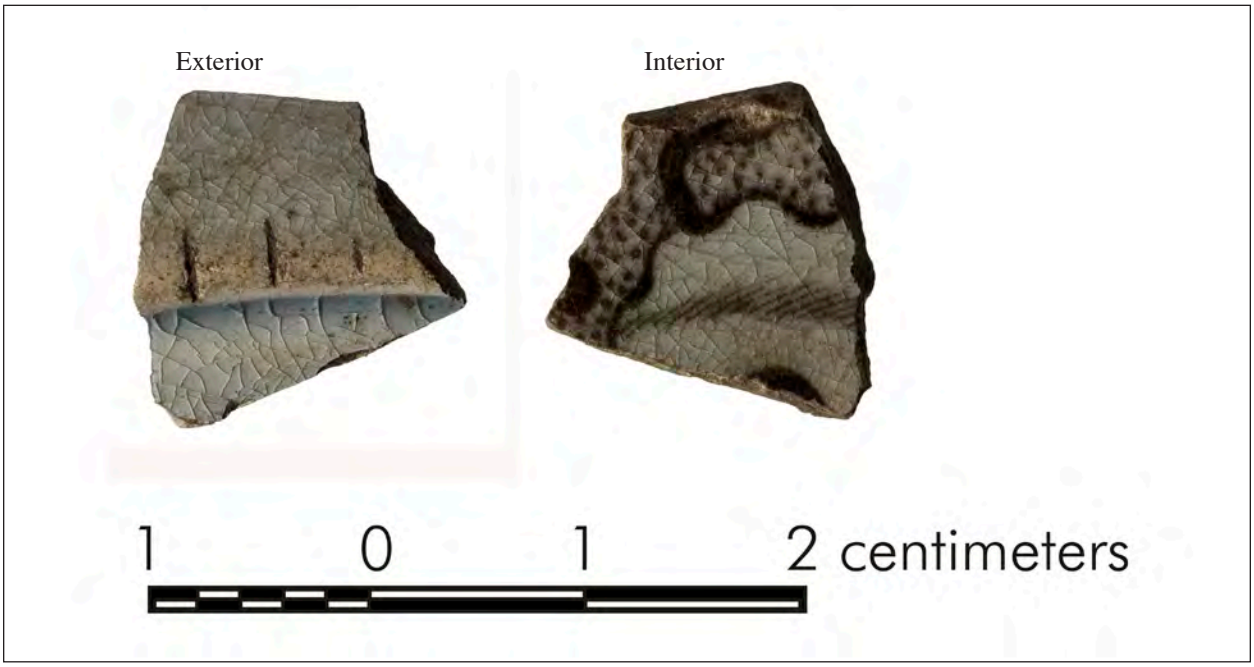
In summary, the ceramic assemblage is composed mainly of refined earthenware used for food consumption. Ceramics that are mostly associated with food preparation and storage make up a small portion of the assemblage. This finding suggests that most cooking was done in metal containers while storage was probably in containers of perishable materials, such as wooden casks or cloth bags, as well as utilitarian stonewares.

A notable finding is the relatively high incidence of more costly ceramic types among refined earthenware as well as the presence of refined stonewares that probably represent teapots and related equipment. The meaning of this finding is unclear. Ceramics could have entered the households of slaves and freepeople in different ways, for example through direct purchase, as gifts, or among the basic furnishings planters gave them. Moreover, they might reflect second-hand wares or out of date styles, and thus would not necessarily constitute the most expensive ceramics available at the time the site's inhabitants acquired them. Still, it is noteworthy that the African American families living here apparently utilized teawares, although the social context of their tea consumption is not known.

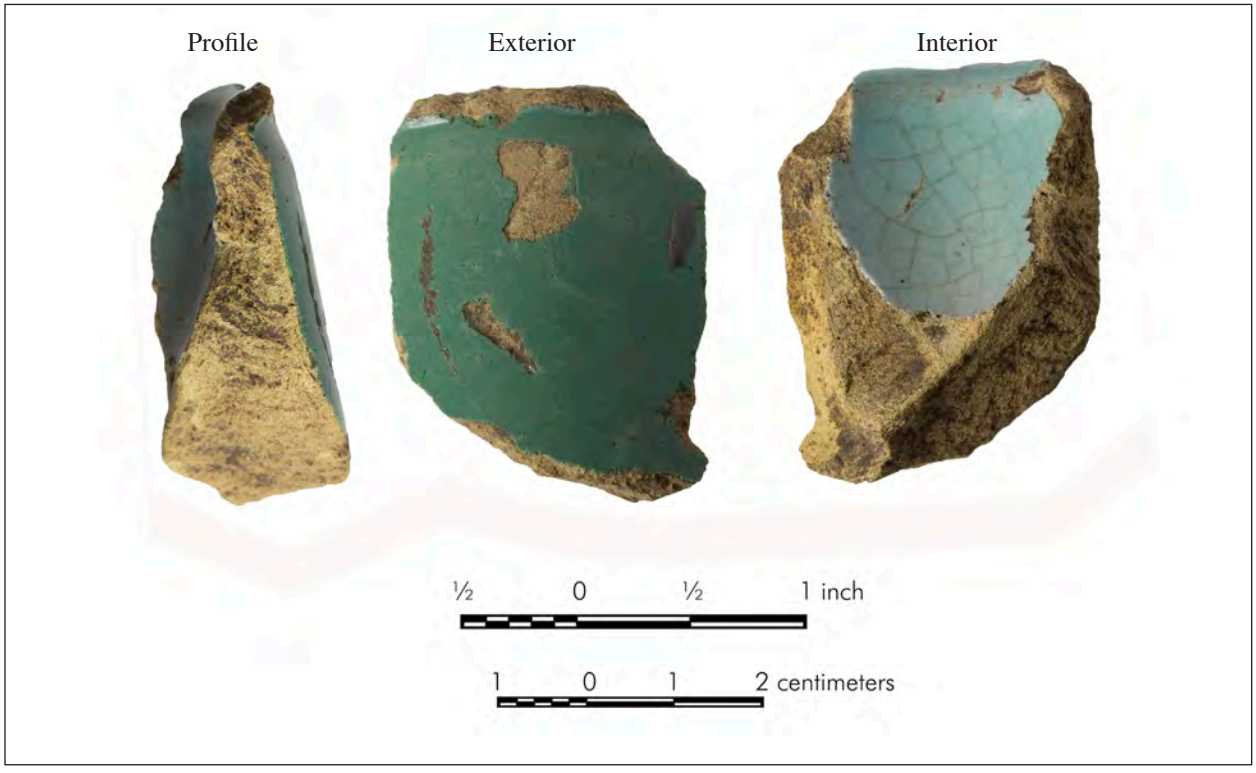
Archaeological sites with African American components have also yielded modified ceramic fragments. Only one specimen was noted in the collection from 9CH1205, and consists of a very small pearlware sherd with black transfer print (see Figure 151). The sherd represents the foot of an indeterminate flatware, and the foot exhibits three shallow incisions of different lengths. At Dublin/Richmond, just south of Ogeechee River in Bryan County, Butler et al. (2003:153-156) reported the discovery of numerous examples of what they interpreted as "owners marks" on ceramic vessels. In most instances single marks were made at separate points around the base of the vessel. The example from 9CH1205, in contrast, has the marks located close together (4.0 mm [0.15 in.]). Schroedl and Ahlman (2002:43-44) recovered examples like this on St. Kitts, West Indies. Notched ceramics here sometimes consisted of vessels with parallel lines that barely penetrated the glaze of the vessel. These marks have been interpreted as indicating ownership in communal living situations.

Figure 150.
Utilitarian Earthenware

Figure 151.
Unusual Ceramic Artifacts



A. Incised Pearlware



B. Possible Ointment Pot

GLASS

The glass assemblage contains 3,442 fragments. The collection was identified as bottles (n=427 fragments), indeterminate containers (n=2,995), tableware (n=19), and jars (n=1). Glass identified as "containers" generally indicated residual fragments that could not be identified with respect to any form.

Bottles that could be identified as to possible contents were predominantly green to dark olive "spirit" types (see Figures 116 and 118). Other bottle forms included aqua and clear "soda" or mineral water containers and pharmaceutical or cosmetic bottles (see Figures 51 and 111). Thirty-two of the bottle fragments exhibited identifiable finishes, some of which are useful for dating. Of these, 22 have two-part finishes, typically having down-tooled lips that were taller or equal to the string rims in thickness and height. The height of the lips varied, although most could be said to conform to Jones' (1986:61) Groups 3a, 3b, and 3c, with the last two groups more common, or to the variety that Lindsey (2013) terms "Mineral" or "Double oil". Some of these could date to the late eighteenth century but more likely post-date 1820. The type was common to the 1880s. Most of these examples from 9CH1205 are olive to dark olive colored glass.

Two additional examples in the assemblage have tall, down-tooled lips with a rounded or bead string rim that conform to the "Brandy" or "Wine" finish. These were most common between the 1860s and 1920s, and were used for spirits as well as medicinal bottles (Lindsey 2013).

One of the two-part finish fragments is a "Double Ring," a style widely used on a variety of bottle types from the 1840s to 1910 (Lindsey 2013). The example from 9CH1205 is brown and, although the body is missing, it appears to be on a flask-shaped container. The base of a brown flask made in a two-piece mold with embossed straps is also in the collection. At least one other flask-shaped bottle is in the assemblage. This second example is clear with an inswept heel.

Ten of the identifiable finishes were one-part. Of this group, five have down-tooled lips that can be characterized as "Oil" or "Ring" finishes. This type was used on a variety of bottles between the 1830s and 1920s (Lindsey 2013). The 9CH1205 assemblage includes one brown-colored example from one of the Plantation Bitters bottles in Feature 5/121, described previously (see Figure 111). Others include examples colored aqua (n=2) and cobalt (n=1).

Another one-piece type represented by a single specimen is a "Champagne" type, characterized by an applied band of glass just below the lip. This type appeared widely on various bottle types during the nineteenth century and could be found on bottles containing medicines as well as wine. The assemblage also contains a one-part blob finish in cobalt blue. These types of finishes were common on soda and mineral water bottles, as well as beer and some patent medicine containers, and were in use from the 1830s to the 1920s (Lindsey 2013).

Finally, three one-piece finishes are from small containers most likely reflecting small "utility bottles" that were mostly used for medicinal products during the nineteenth century (Lindsey 2013). One example, on light aqua-colored glass, has a rolled out finish. The others, one green and one aqua, have flared or flanged finishes. Another bottle that probably falls into this category is represented by a base fragment. This specimen is clear, with a small diameter and pontil scar typical of a vial shape.

Sixteen tableware fragments in the assemblage include examples of clear glass that were either molded or show other attributes that suggest functions as food or beverage consumption or as housewares. Most of these fragments are too small to determine forms, and at most all that can be said about them is they were press molded to achieve a shape and/or decoration. At least one undecorated tumbler was among these fragments.

METAL

Metal artifacts in the kitchen group included 55 individual items (Figure 152). Forty-six of these were fragments of cast iron kettles or pots, including two with lug handles attached. Metal utensils were the next most common artifact type, and fragments or nearly complete examples of knives and spoons were found. Spoons, where they could be identified, were roughly equivalent to modern tablespoons. All of the examples in the assemblage were ferrous and extremely oxidized, so that any ornamentation, if it existed, could not be discerned.

Fragments of other utensils were also recovered, including two identified as knife blades. Both examples in the collection are represented by fragments consisting of the shoulder with portions of the tang and blade on either side (see Figure 152). These are interpreted as table knives, although they cannot be identified conclusively.

ARCHITECTURE

The architecture group includes 14,795 individual artifacts that were sorted into material types of ceramics, glass, metal, and mineral. Ceramics, totaling 7,037 individual artifacts, are entirely bricks. The glass category contains 913 fragments of flat glass. Metal artifacts (n=4,557) are mostly nails (n=4,508), but also include other hardware. Finally, artifacts placed in the mineral group (n=1,953) include mortar and stone.

The ceramic artifacts in this group consist entirely of bricks and brick fragments. Of the total, 335 individual bricks or fragments could be identified as handmade, while the balance was unidentified. The unidentified fragments were typically extremely weathered residual sherds, with an average weight of only 3.80 grams (0.13 oz.).

Figure 152.
Representative Metal Kitchen Group Artifacts

A. Iron Pot/Kettle Lug
B. Iron Pot/Kettle Lug
C. Spoon, Iron/Ferrous
D. Spoon, Iron/Ferrous
E. Knife, Iron/Ferrous

Glass, as noted, consisted of flat fragments that presumably represent windowpanes. The high number of fragments is due to their highly fragile quality; most of the window glass is extremely small, with an average weight of only 0.42 grams (0.01 oz.). The significance of this material lies in its presence. Whereas slave housing is typically characterized as lacking glazed windows, the findings here suggest that at least some dwellings at the site possessed them. It is possible that glazed windows were installed after Emancipation and were meant to improve living conditions. One fragment in this group is notable because it reflects an instance of flashing, a decorative technique of fusing a thin layer of colored glass on clear glass. Whether this single fragment was from a window or decorative houseware cannot be determined.

Nails (n=4,508) dominate the metal artifacts in the architecture group (98.9% of all metal), and the collection exhibits a moderate variety. Over half of the nails could not be identified as to type. Of the identifiable specimens, cut nails are the most common. Other types constitute only minor portions of the nail collection (Table 47). The nails mostly reflect general use rather than specific functions. Cut nails have a lengthy date range beginning in 1805 and remaining in common use into the late nineteenth century. They do not provide precise dating information, but they are consistent with structures built during the first part of the 1800s. A small number of wire nails were found as well. These have a beginning date of 1850 but came into common use later in the century (Miller 2000). The five examples from 9CH1205 were recovered through metal detector survey in western portions of the site, while two were from Feature 126, identified as a tree root.

Table 47. Nail Assemblage, 9CH1205 Data Recovery

Type	Count	%
Nail, Cut Fragment	2,135	47.36
Nail, Cut w/ Hand Finished Head, Unmeasured	1	0.02
Nail, Handwrought Fragment, Unidentified	2	0.04
Nail, Other, Tack	5	0.11
Nail, T-Head Wrought, Unmeasured	1	0.02
Nail, Unidentified Cut or Wrought	5	0.11
Nail, Unidentified Fragment	2,354	52.22
Nail, Wire Common, Unmeasured	4	0.09
Nail, Wire Roofing	1	0.02
Total	4,508	100.00

The balance of the architectural hardware is diverse, although most artifacts are spikes used for fastening wooden structural components (railroad spikes were placed in the activities group). The assemblage also included several hinges, most of which were strap-type (Table 48). Presumably, these were used on doors and window shutters. The use of wooden shutters, which would be expected at a slave quarter, is suggested by two shutter dogs. A miscellaneous hardware item possibly represents a door, gate, or shutter hook fragment (Figure 153). Two metal sheet fragments were tentatively classified as roof material, but could not be conclusively identified. Finally, a single article of plumbing hardware, a faucet handle, probably represents modern refuse dumping.

Table 48. Architectural Hardware

Artifact	Count
Bolt and/or Bracket	4
Hinge, Iron/ Steel	8
Hinge, Wrought Strap	1
Metal Sheeting (roofing- etc.)	2
Metal, Architectural Hardware, Miscellaneous	3
Plumbing Hardware (faucets- etc.)	1
Shutter Dog/Hook	2
Spike	28

Artifacts in the mineral category (n=1,953) mostly consist of mortar fragments along with pieces of slate that were tentatively identified as roofing material. The mortar is divided into "general" and shell-bearing types. The shell mortar is distinguished by crushed shell fragments mixed into the material. It is distinct from tabby cement, which typically contains complete oyster shells. No clear evidence of this material was identified during the data recovery. The remainder of the mortar exhibited no evidence of inclusions. In general, the mortar recovered from the site was extremely fragmentary and represented residual fragments. Unidentified mortar includes 992 fragments with an average weight of 4.23 grams (0.15 oz.), while mortar with shell includes 938 fragments averaging 5.64 grams (0.2 oz.).

The slate fragments, totaling 22 pieces, suggest the possibility that this material was used for roofing. However, slate tiles were not commonly used for this purpose on Lowcountry slave quarters. If they do represent roofing, they might represent salvaged material that an individual household put into use, either before or after Emancipation. Alternatively, even if re-claimed building material, these could represent writing slates, which Barnes and Steen (2012:196) suggest could represent efforts at education among postbellum Gullah communities.

Figure 153.
Examples of Architectural Hardware

A. Wrought Nail
B. Cut Nail
C. Cut with/ Hand Wrought Head Nail
D. Wire Nail
E. Cut Nail
F. Cut Nail
G. Shutter Dog
H. Door/Gate/Shutter Hook

CLOTHING

The clothing group contains 166 items. These are predominantly fasteners (mainly buttons), with a small number of beads and sewing/textile-related items also included.

BUTTONS

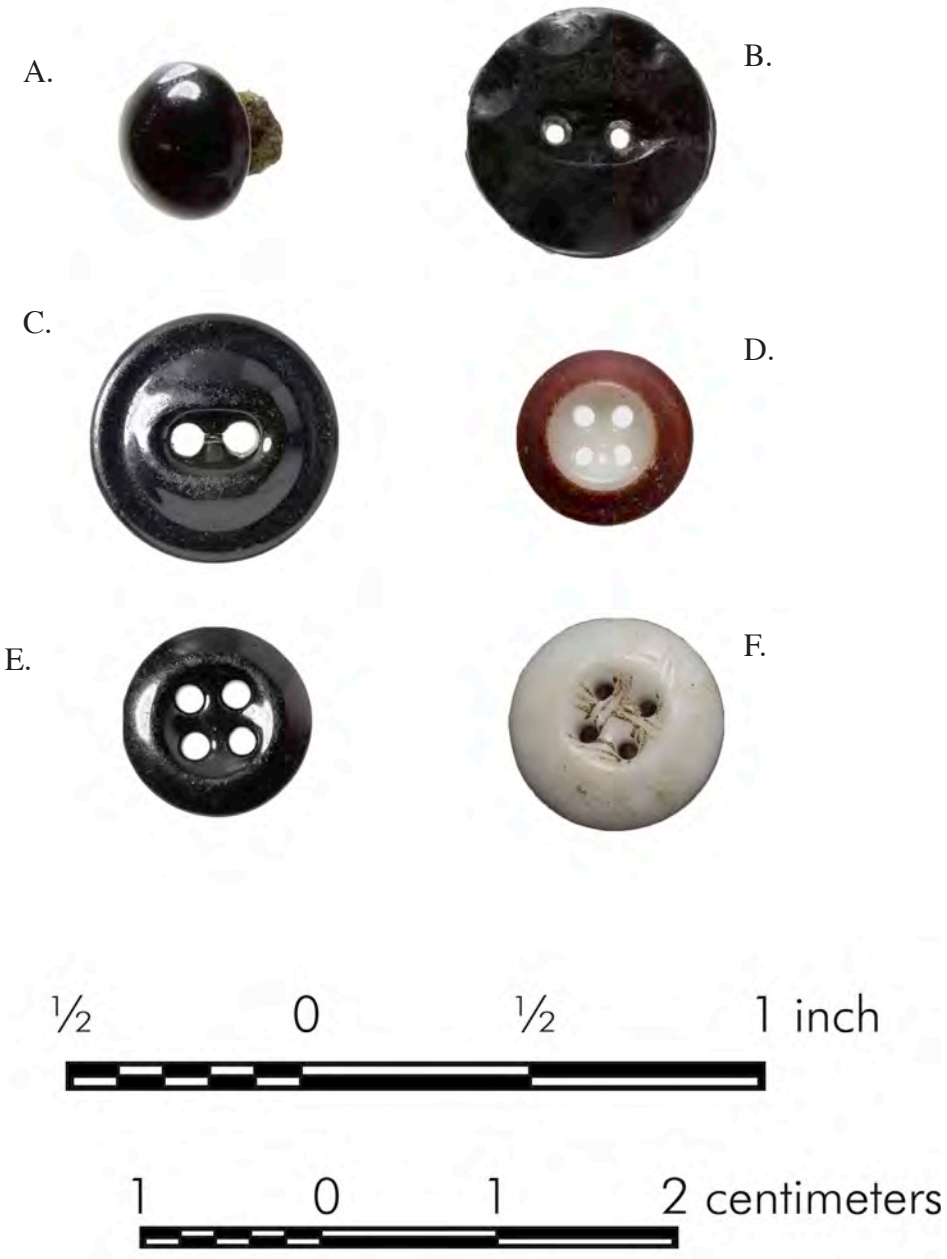
Buttons make up the majority of the clothing group (n=131; 78.92%). The sample reflects several types and materials, the majority being ceramic (61 Prosser type, and 7 unidentified), while metal varieties (n=48) were also common. Other materials included bone, shell, glass, and plastic (Table 49). In terms of manufacture, examples are molded, cast, stamped, and cut or carved, and exhibit either holes or shanks for attachment. Three of the buttons were clearly from military uniforms. An effort to categorize buttons by function was made, although recycling of buttons could lead to their being used for clothing other than their intended or traditional uses (Lindbergh 1999; Venovcevs 2013).

Table 49. Buttons Recovered During Data Recovery

Type	Count	%
Button, Bone	9	6.87
Button, Glass	4	3.05
Button, Other Brass	34	25.95
Button, Other Iron/Steel	12	9.16
Button, Other White Metal	2	1.53
Button, Plastic	1	0.76
Button, Porcelain, Prosser	61	46.56
Button, Porcelain	7	5.34
Button, Shell	1	0.76
Total	131	100.00

The porcelain buttons are chiefly white Prosser types, insofar as can be determined (Figure 154). These were introduced in 1840 and continued in production into the twentieth century. The examples in this collection are mostly four-hole dish types. All but one are four holed, with the exception being a two-holed pantywaist. Three exhibited decoration: one is a pie crust type, one is painted around the top, and the third is molded on the top to resemble a basket weave and has traces of paint, possibly indicating a gingham decoration. Dimensions range from 9-17 millimeters (0.35-0.67 in.), although of the 55 specimens that could be measured, 40 (72.72%) are 10-11 millimeters (approximately 0.4 in.). These white buttons were inexpensive and utilitarian. The size range suggests that most of the buttons were used for shirts, underwear, or waistcoats, although a small number over 15 millimeters (0.6 in.) could have been for coats, jackets, or pants (Lindbergh 1999:51).

Figure 154.
Prosser and Similar Buttons



A. Gaiter, Porcelain with Ferrous Shank
B. Hollow-Eye, Offbeat, Black Glass
C. Two-Hole Oval Eye, Mound Shape, Black Porcelain
D. Painted Four-Hole Dish Shape Prosser
E. Four Hole Dish Shape, Black Porcelain
F. Four Hole Dish Shape, Molded "Basket Weave" Prosser

An additional button resembles the Prossers but is opaque and solid black. Otherwise it matches the four-hole dish form. It also has the characteristic "orange skin" texture on the back and a seam on the edge. This example measures 9.4 millimeters (0.37 in.) in diameter.

Three buttons classified as glass, although they resemble porcelain, particularly the "orange skin" appearance on the backs, can be classified as two-hole with an oval eye and a mound shape. These have a molded rim enclosing a raised center, the two holes are within an oval eye at the top. Two of these are opaque black and one is translucent white. Another button, recovered from the plow zone in the vicinity of Feature 173 (brick chimney), that could not be clearly distinguished as glass or porcelain has a rounded top, flat back, and inserted metal loop shank. It is solid opaque black in color. This type of button, known as a 'gaiter' because of its presumed function with footware, has also been associated with women's and children's dresses and men's waistcoats (Lindbergh 1999:52).

One button that was clearly manufactured of glass was categorized as a hollow-eye offbeat shape. The shape description is based on the cross-section, which is domed with a sunken center and a raised ring around the circumference. The face is molded into an eight-pointed star with an oval eye and two holes. The color is opaque black.

Metal buttons included nine of ferrous material that was heavily oxidized. Only one of this group was intact enough to describe in detail. This example is cast in one piece with an integral shank and drilled eye and a lenticular cross section. It measures 23.3 millimeters (0.92 in.) in diameter, indicating it was probably a coat button.

A second specimen appears to be a two-piece construction, but the oxidization makes it difficult to identify. None of the other buttons in this group could be described in detail because of the concretions.

Non-ferrous metal buttons include 33 specimens, all but three being brass or cuprous (Figure 155). The other three are white metal. Two of these are one-piece four-hole dish types. They are unique in the assemblage for being extremely thin, and were stamped or cut from tin sheets. Both measure 15 millimeters (0.6 in.) in diameter and came from Feature 124. The third example has a lenticular shape and four holes with no further embellishment. It was found during metal detector survey. Like the ceramic sew-through buttons, these metal specimens reflect ordinary utilitarian types that were intended for fastening work shirts and pants (Lindbergh 1999:52).

Figure 155.
Selected Cuprous Buttons

A. Ball-Shaped, Two-Piece Brass Button with Shank, Back Marked "EXTRA/GILT"; B. One Piece, Four-Hole Dish, Brass; C. One Piece, Four-Hole Dish, Brass; D. Federal Army General Service Button, Two Piece with Shank, Back Marked "SCOVILLS & CO./EXTRA"; E. Federal Army General Service Button, Two Piece with Shank; F. Federal General Service, Infantry Button, Two Piece with Shank; G. One Piece Molded "Starburst" Decoration with Shank; H. Conical-Shaped Two Piece with Shank; I. One Piece Molded Abstract Floral with Encircling Pie Crust Decoration with Shank; J. One Piece, Three-Hole Dish with Makers Mark on Face. Marked "BONNARD/VIVIENNE/PA"; K. One Piece Molded "Curved Radials and Floral" Pattern with Shank

Most of the metal buttons (n=33) are cuprous (n=30) and are of one-piece (n=25) and two-piece (n=7) construction (with one indeterminate). One-piece buttons showed the greatest variety and included solid cast or stamped examples as well as hollow cast specimens. Fastener types were three- and four-hole sew-through varieties (n=1 and 2, respectively) as well as inserted or molded shanks (n=19). Seven two-piece buttons were all shanked.

Cross-section shapes also varied. The majority of the one-piece buttons had flat profiles (n=15). Other types noted were concave/saucer shaped (n=1), dish (n=3; all on the examples with holes), flat (n=14), and lenticular (n=2). One conical and one lenticular example each represent one-piece hollow types. The two-piece types are mostly domed (n=4) with one ball-shape and two indeterminate shapes represented by back pieces only.

Size ranged from 11.0-24.3 millimeters (0.4-1.0 in.), indicating a variety of uses. The cuprous sew-through buttons included one 12-millimeter (0.5-in.) example and two that were 16 millimeters (0.6 in.), indicating they were probably used for shirts or pants. Buttons with shank attachments (n=26) could be categorized as "small" (11-15 mm [0.4-0.6 in.]), "medium" (16-21 mm [0.6-0.8 in.]), and "large" (<22 mm [0.9 in.]). Most of these (n=15) fell into the small group. Seven and four buttons were in the medium and large groups, respectively. With respect to construction, five of the seven two-piece types were in the small group, with one each in the medium and large groups. Among the 19 one-piece types, 10 were in the small group, six were medium, and three were large. Although size sometimes determined function, smaller buttons could be used on coat or jacket cuffs. For example, three Union Army buttons in the assemblage include two in the smaller group and one in the large group.

Thirteen of the buttons have decorated or marked fronts. All but the three military buttons were one-piece types, with designs including floral motifs (n=3), floral with an encircling pie crust (n=1), curved radials and floral (n=1), concentric bands, and panels. Two undecorated examples appear to have traces of silver plate on the face. The three-hole sew-through has a manufacturer's mark on the face. This mark, "BONNARD/VIVIENNE/PA[Illeg]", could not be identified. It is notable that except for the military buttons, the examples with decorated faces fall into the small category. Although not directly comparable in age or design, Montgomery Ward & Co. sold "Fancy Metal Dress Buttons" and "Fancy Brass Buttons" for "ladies' or boys'" clothing in the 1890s within the size ranges noted in the 9CH1205 assemblage (Dover Publications 1969:84-85).

Three buttons in the assemblage were from military uniforms. Two of these, from Feature 147 and the plow zone associated with Feature 173, have been discussed in association with those features. The third came from a 2x1-meter (6.6x3.3-ft.) test unit placed north of Feature 173 to

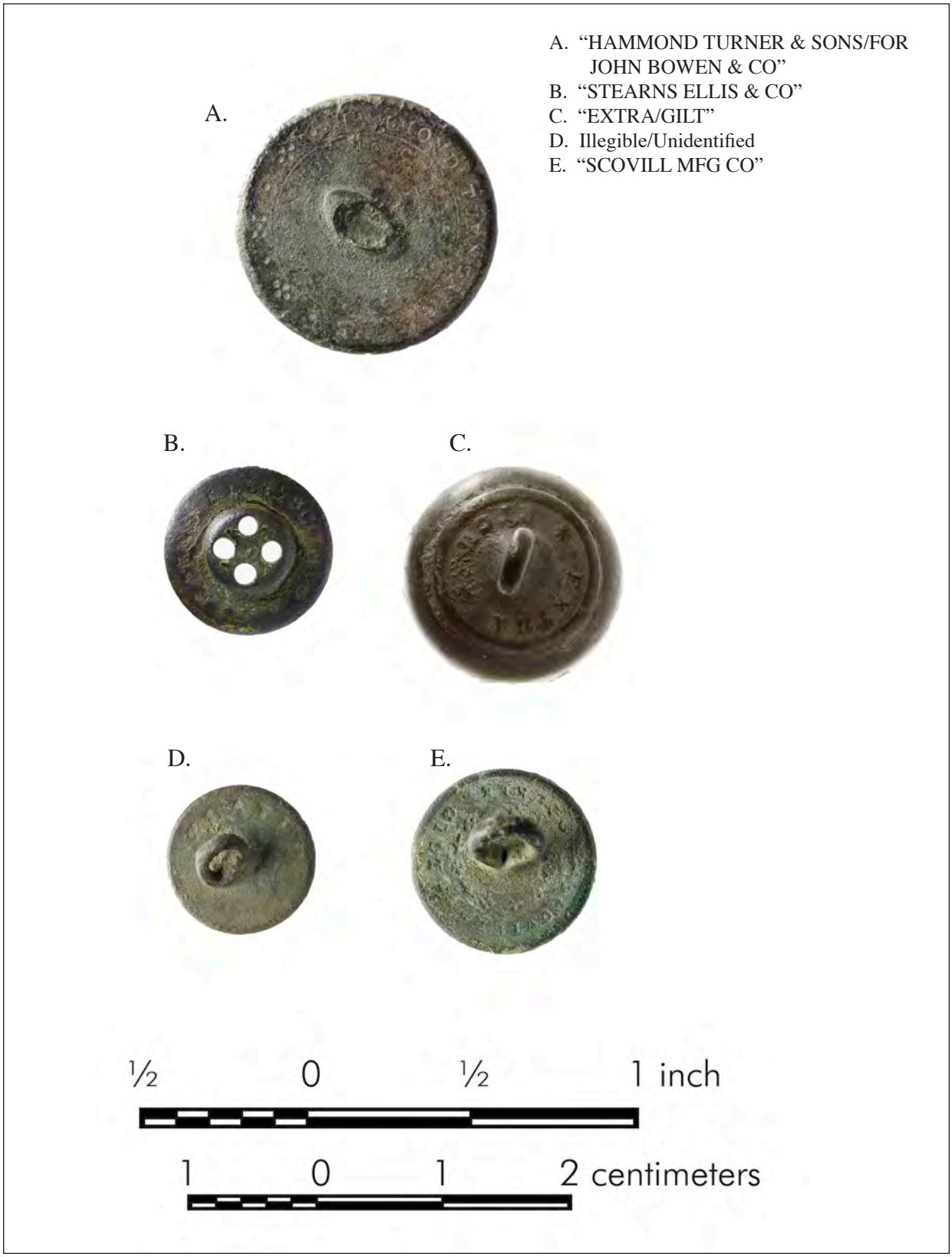
sample of plow zone deposits here. The previously described examples are the same type, being two-piece construction with domed fronts displaying the American eagle and shield symbol on the face, and shanked backs. The principal difference between them is size, with the one from Feature 147 measuring 19 millimeters (0.75 in.) in diameter and the other 13.6 millimeters (0.05in.). Both are Federal general service buttons that were probably intended for a coat and cuff, respectively. The mark, "SCOVILLS & CO./EXTRA," on the smaller example is a style that Scovill used between about 1840 and 1850 (Emilio 1911:29, 31). Scovill often used old backmark dies, however, and therefore the button could therefore reflect Civil War military activity or recycling of clothing after the war (Inkspot Antiques & Collectibles 2013). The word "EXTRA," as discussed previously, was probably used promotionally rather than as a genuine indication of precise gold content (Luscomb 1967:79).

The third example, also from the vicinity of Feature 173, is the same type as the others in terms of construction and measures 14.5 millimeters (0.57 in.), slightly larger than the other from this feature vicinity. A second variation from the other two was the symbol on the face, which also included the eagle and shield symbol, but an "I" inside the shield, indicating General Service, Infantry. The back does not have a legible mark.

The collection contains four, two-piece cuprous buttons in addition to the military examples. Two were represented only by the back portion and could not be identified more precisely. One other was recovered during plow zone stripping in the vicinity of Feature 173, and was described previously. This button has a ball-shaped top and a flat back with an integral shank. The back is stamped "EXTRA/RICH." As discussed above, marks such as these were most often promotional. The button measured 18 millimeters (0.71 in.) in diameter. The last metal button in the collection was a small, unmarked and undecorated domed example measuring 11.5 millimeters (0.45 in.) in diameter.

Six legible or partially legible back marks were identified among both the one-piece and two piece metal buttons. These included "SCOVILLS & CO/EXTRA", "EXTRA/RICH", and "BONNARD/VIVIENNE/[Illeg]", which were discussed above with respect to specific buttons. Additional marks included "STEARNS ELLIS & CO" and "HAMMOND TURNER & SONS/[Illegible}" on the backs of one-piece buttons (Figure 156). This second mark is on a flat stamped type with a now-missing soldered shank. Although this firm, based in Birmingham, England, was founded in the eighteenth century, it became known as Hammond Turner and Sons during the 1820s and operated into the 1850s, when the company partners changed. Hammond Turner and Sons continued to operate into the early twentieth century but produced fewer buttons while focusing on other items (Close 2012). Based on a similar specimen that Close (2012) illustrated, the illegible portion of the button, which was inside the outer circle, probably reads

Figure 156.
Button Maker's Marks



"FOR JOHN BOWEN & CO." No further information was found for this company or the connection between the two. Moreover, information about the maker of the STEARNS ELLIS & CO mark could not be found.

Among incomplete or partially legible marks was one where "SCOVILLS . . .GILT" could be made out. Other writing was present but not discernable on the back of this one-piece flat stamped button. Based on postings on the on-line Treasure Depot forum, the button probably reads "SCOVILLS/DOUBLE GILT." This mark might date to the period between 1827 and 1840 when James M.L and William H. Scoville operated the firm. In 1840, it became known as "Scovills and Company," and then changed to Scovill Manufacturing Company in 1850 (Gerow 2004:259). However, the company appears to have used out-of-date marks during the mid-nineteenth century and later, suggesting this specimen could have been made any time after 1827 (Ridgeway 2013).

The button collection also contains several examples manufactured from bone, shell, and synthetic material (Figure 157). Only three of five bone buttons were complete enough to describe. These were four-hole dish-types measuring 11.3 and 16.4 millimeters (0.44 and 0.65 in.). The shell button is a four-hole dish type as well. Measuring 9.5 millimeters (0.37 in.) in diameter, it has radiating spokes incised on its face. Bone and shell buttons in this size range were mostly used for shirts and undergarments, and served a similar functional role as porcelain types (Lindbergh 1999:51).

Finally, one button from the plow zone residue above Feature 173 was synthetic, apparently being celluloid or another early plastic. This specimen is flat with an inserted metal shank. It measures 19.6 millimeters (0.77 in.) and the edge is beveled to form a six-pointed star on the face. The dark color, large size, and decoration indicates this button was probably meant for a coat.

OTHER CLOTHING FASTENERS

In addition to buttons, artifacts placed in the clothing group include several buckles, shoe eyelets/hooks, rivets, and hook-and-eye fasteners (Figure 158). The buckle collection (n=6) contains examples discussed under the feature excavations, including a cuprous clinch buckle from Feature 124, a square-shaped iron buckle frame recovered from Feature 147, a second ferrous buckle or a ring from this same feature, and a D-shaped iron buckle from Feature 183. The fifth example is a rectangular iron buckle recovered from the plow zone in the vicinity of Feature 7.

Figure 157.
Shell, Bone, and Synthetic Buttons

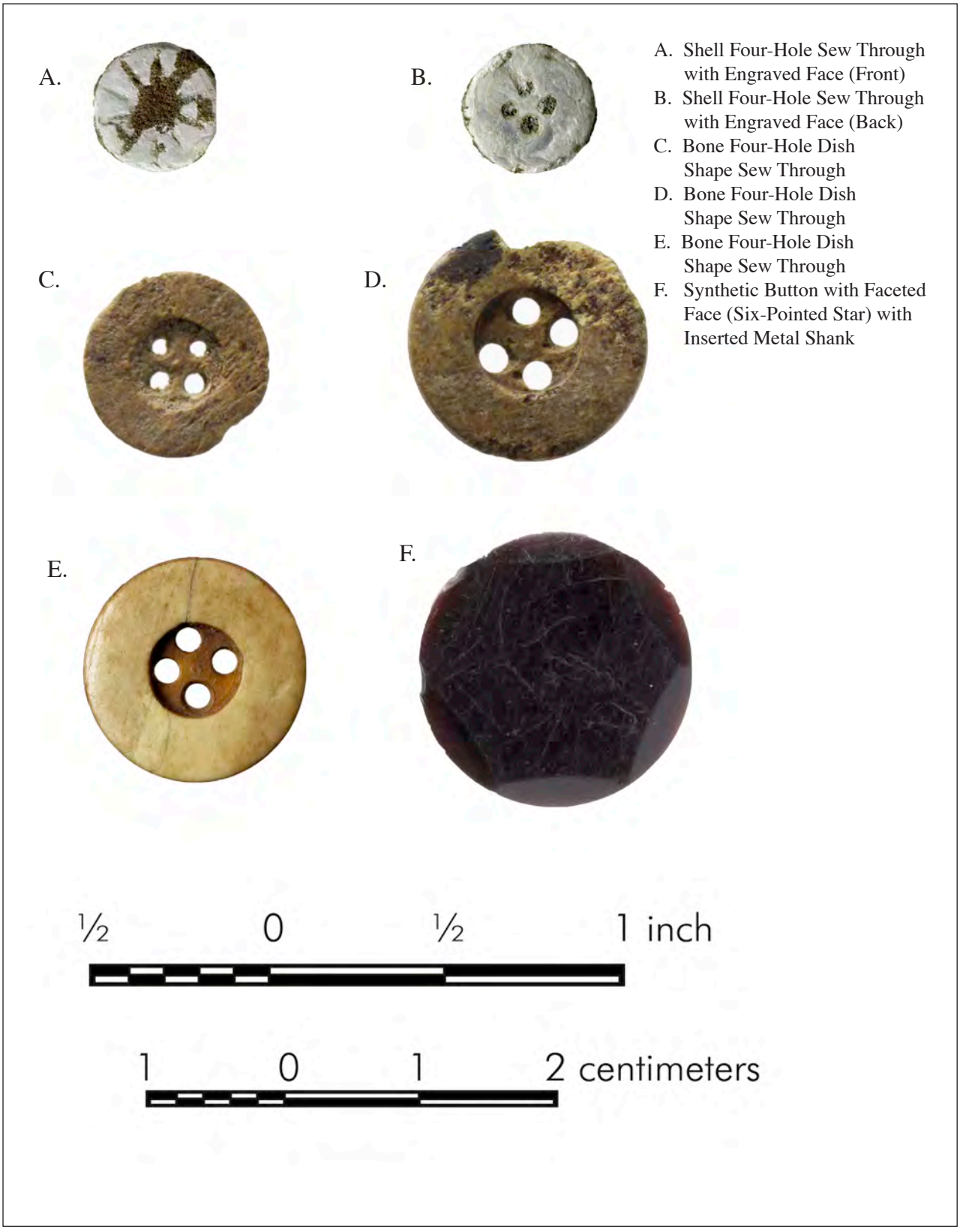
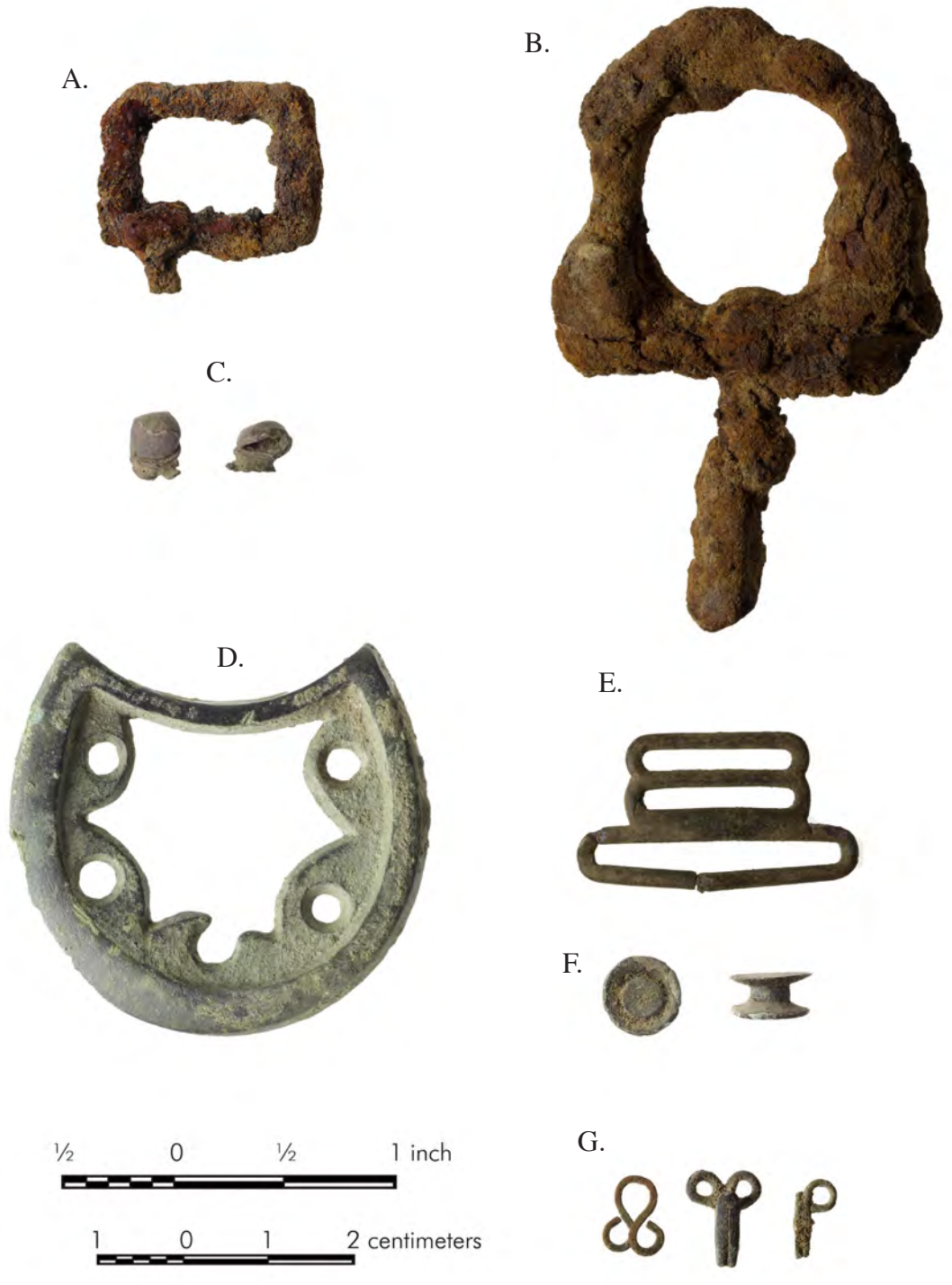


Figure 158.
Other Clothing Fasteners



A. Buckle, Iron; B. Buckle, Iron; C. Brass Boot Hook; D. Brass Heelplate; E. Brass Slide Buckle; F. Brass Clothing Rivet; G. Brass Hook and Eye Fasteners

The three iron buckles are generally heavily made and relatively large. The square-shaped buckle from Feature 147 is the largest, with a frame measuring 4.3x4.0 centimeters (1.7x1.6 in.). The D-shaped example from Feature 183 has maximum dimensions of 4.1x3.8 centimeters (1.6x1.5 in.). The smallest buckle, from the plow zone, measures 2.8x2.1 centimeters (1.1x0.8 in.). Although classified as clothing, it is possible that these larger iron buckles were used for horse tackle or other utilitarian purposes.

The clinch buckle, of brass or cuprous alloy, measures 3.0x2.4 centimeters (1.2x0.9 in.) and has two prongs attached to the bar (see Figure 88). These were typically used on clothing to tighten vests or pants waists (Heilen 2012:198). While they could be used in more utilitarian purposes, given the material used here, it is more likely that this item was an article of clothing. Another brass buckle recovered is a brass slide type with a loop to attach to one end of a strap or belt. This example measures 3.3x1.9 centimeters (1.3x0.8 in.) and is thin-bodied. A partial mark reads "CH. G . . ." with five-pointed stars on either side. This mark could not be identified.

The last buckle is a fine, ferrous wire in a rough D-shape measuring roughly 1.5 centimeters (0.6 in.) on its longest axis. This item is only tentatively classified as a buckle because of its small size and relatively delicate quality.

Two shoe parts were recovered, both as a result of metal detector survey. Each represents a brass lack hook for holding boot laces (see Figure 158). These were used primarily on men's and children's boots instead of eyelets to facilitate lacing (The Encyclopedia Americana Corporation 1919). The base of each is flared to clinch the edge of the hole punched through the leather.

One additional brass footwear fragment is a heel plate recovered during metal detecting in the vicinity of Block 9 (see Figure 158). This item measures 5.02x4.73 centimeters (2.0x1.9 in.) and consists of a crescent-shaped frame with an inset bracket having nail holes. Plates such as these were used to repair damaged shoe or boot heels.

Two brass rivets are also in the assemblage, also being products of the metal detector survey (see Figure 158). These most likely functioned to reinforce the pockets of denim pants. According to the website of Levi Strauss & Co., Strauss and Jacob Davis developed rivets for pants and received a patent for the invention in 1873 (Levi Strauss & Co. 2013). Although the two specimens are not marked, and cannot be attributed to Levi Strauss (the patent went into the public domain in 1890), these items could relate to the site's postbellum occupation, and they would not be unexpected in rural farming households that made use of work clothes.

Additional clothing fasteners include four parts of hook-and-eye closures (see Figure 158). These are brass wires formed into loops to form eyelets and hooks. Hooks and eyelets are sewn on opposite sides of a garment opening to be hooked together. Historically, they are most often located at the throat of a garment or in rows down the back or front. In terms of function, these are most often associated with dresses and blouses, as well as underwear, and have a clear female gender association in the nineteenth century (Heilen 2012:198-199; Tarrant 1994:22). The four specimens in the 9CH1205 collection include two hooks and two eyes from four separate proveniences (Features 7A, 120, 147, and 170). The hooks measure 9.0 and 11.0 millimeters (0.35-0.43 in.) and the eyelets are both 9.0 millimeters (0.35 in.).

BEADS

Six glass beads were collected during the data recovery (Figure 159). These came from five different features or their vicinities (Features 26, 47, 120, 163, and 173) and have each been discussed previously. Although only a small group, it exhibits variety in size, color, and shape. Size ranges from 2.5 millimeters (0.1 in.) for a puce-colored tube bead from Feature 26 to a maximum of 12.5 millimeters (0.49 in.) recorded for a teal-colored tube bead from Feature 173. Following Kidd and Kidd's (1972) classification, two of the beads are Class Ia, being simple monochrome tubes. These are also cut into short segments. Three specimens are Class If, meaning the surface of the basic tube was modified into facets by grinding. Finally, the large teal bead is Class IIa, indicating that rather than being left in the tube shape it has been reheated and tumbled to achieve a globular shape. All are monochrome, with colors including puce (n=1), teal (n=1), blue (n=1), and black (n=3).

Beads recovered from African American archaeological components have been interpreted as items of personal adornment, symbols of identity, and elements of ideological and spiritual belief (Lee 2011). Research suggests that among Lowcountry African Americans, beads were commonly used as amulets to ward off illness and misfortune, while the color blue was also thought to have protective qualities. A study of beads from African American archaeological components in Georgia and South Carolina revealed that blue examples were the most prevalent, suggesting this color had significance within African American culture (Stine et al. 1996). At 9CH1205, black beads were most common. Stine et al. (1996:63) noted that in quilts, black was often used for aesthetic purposes in combination with other colored cloth. Black was also used along with blue, red, and white in combinations that had symbolic meanings in African American culture. Caton (in Crist et al. 2000:61) notes that in Ghana, white, blue, and sometimes black beads were worn by children to ward off illness, but that the power of the bead came from medicines the bead was soaked in, more than the color. Beads are common at sites in the region, and occur in a range of colors. At present, the meanings of different colors are not completely understood (Singleton 2010:177).

Figure 159.
Beads and Possible Shirt Stud/Cufflink

A. Bead, Black Tube with Facets; B. Bead, Teal Globular; C. Bead, Blue Tube with Facets; D. Bead, Puce Tube; E. Bead, Black Tube with Facets; F. Bead, Black Tube; G. Glass and Cuprous Shirt Stud or Cufflink with Swan Motif

A last item with an apparent personal adornment function is a cuprous and glass object tentatively identified as a shirt stud or cuff link fragment. Measuring 12 millimeters (0.47 in.) in diameter and 4.0 millimeters (0.16 in.) thick, this artifact consists of a cuprous ring enclosing a glass disk engraved with a swan. The back of the ring has scars from now broken off components, indicating this item once formed part of a larger piece.

SEWING AND TEXTILE RELATED

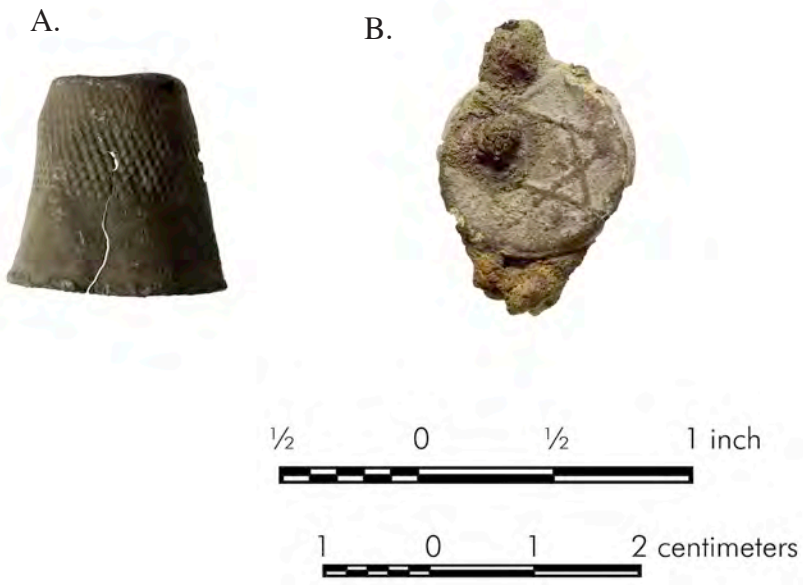
The clothing group also contains six complete or fragments of straight pins (Figure 160). Two are cuprous and four are ferrous. Only the copper alloy specimens can be definitively identified as pins, the ferrous ones are too oxidized for clear classification. The copper specimens, reflecting common sewing pins, were recovered from Features 26 and 183, and have been described previously. Only one of these is complete, and can be classified as a "short white" sewing pin (Beaudry 2006:25).

One sewing thimble was also recovered, from Feature 120. This artifact, of cuprous metal, exhibits a plain design with a flat top and concentric lines of dimples that extend down the sides just past halfway, leaving a plain band around the base. A thin flange extends around its circumference. The thimble measures 2.1 centimeters (0.8 in.) high and 1.85 centimeters (0.7 in.) in diameter at the base.

Two lead cloth seals are also in the clothing group. One of these, recovered from the plow zone in Block 1, is unmarked and measures 19.1 millimeters (0.75 in.) in diameter and 4.0 millimeters (0.16 in.) thick. The second, from Feature 191 (a tree root) in Block 9, has a six-pointed star embossed on one face (see Figure 160). This example measures 19 millimeters (0.75 in) in diameter and 0.5 millimeters (0.20 in.) thick. Seals such as these were used into the nineteenth century as tags for bolts of cloth and other materials and could be used to seal bags of general merchandise. Most often consisting of two or more disks attached with a tab, they were closed with pincers that could also impress a mark on the lead. Marks indicated various data, such as ownership, inspection status, quality control, or other information (Luckenbach and Cox 2003; Noel-Hume 1969:269). The lead seals recovered from 9CH1205 almost certainly functioned this way originally. It is possible that they were recycled for other purposes, such as fishing weights or charms. Although studies of African American spiritual iconography do not specifically note six-pointed stars, it is possible that this particular item served as a token or charm.

A final category of artifacts in the clothing group included three small cuprous grommets recovered through flotation from Features 7, 147, and 159. These measure between 4.5 and 5.0 millimeters (0.12-0.20 in.) in diameter and have C-shaped cross-section. They clearly represent grommets, but their specific function could not be determined.

Figure 160.
Sewing and Textile-Related Artifacts



A. Brass/Cuprous Thimble
B. Lead Cloth Seal
C. Straight Pin

FURNITURE

The furniture group contains only three artifacts, consisting of two brass upholstery tacks and one hinge (Figure 161). The two tacks are cuprous with undecorated convex heads. One specimen, from Feature 38, measures 8.2 millimeters (0.32 in.) in diameter, and the other, from Feature 147, measures 9.6 millimeters (0.37 in.). Notably, Feature 38 appears to date early in the site's occupation, suggesting that even during the antebellum period, the site's occupants had access to more than rudimentary furnishings.

The hinge, recovered from Feature 53, is a cuprous and ferrous butt-type hinge, measuring 3.6 centimeters (1.4 in.) long with three holes on each plate. The two plates, probably brass, are rectangular and joined by an iron pin. This item was probably used on a small box or piece of household furniture.

A fourth artifact, classified among the miscellaneous group because it cannot be precisely identified, but that most likely came from a piece of furniture, is a brass flat bracket with three holes (see Figure 161). Measuring about 5.8 centimeters (2.3 in.) long and 1.2 centimeters (0.5 in.) wide, the most notable aspect of this object is an inscribed "X" on the back face between two of the holes. As discussed previously, the X symbol has significance in African American culture and this find indicates that residents of the site made use of this iconography. If the X was applied to the bracket before its use, then it would have been hidden when the bracket was in place, possibly reflecting a form of concealment. On the other hand, it could have been carried in a pocket or tied on a string to wear around the neck like a charm.

A few additional artifacts are worth noting here. These consist of decorative brass items that could have been furniture but cannot be identified specifically. Because of their uncertain identifications, they are described below with the miscellaneous artifacts.

PERSONAL

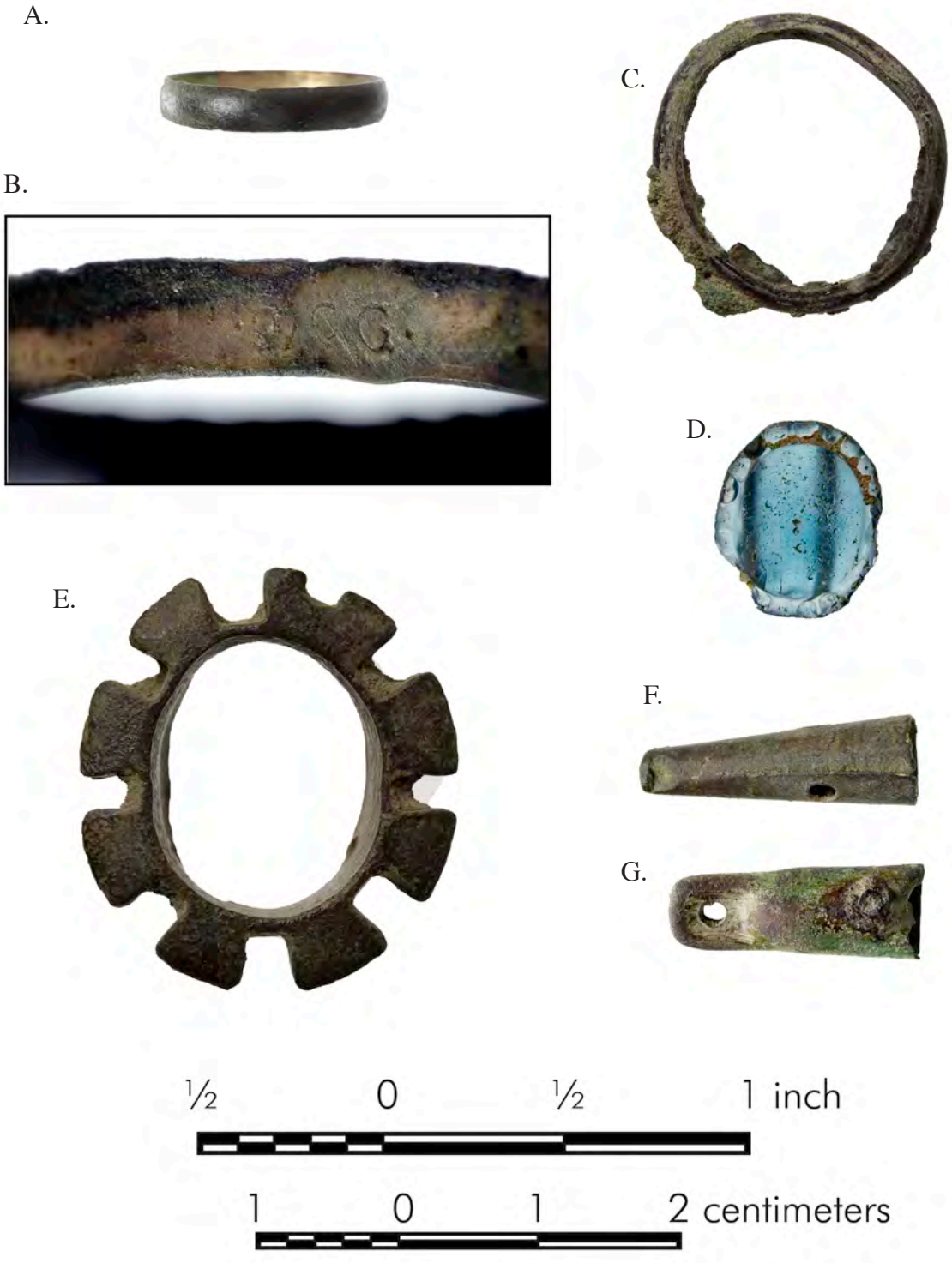
The data recovery generated a collection of 22 artifacts placed in the personal group. These generally reflect articles of personal adornment (except beads, which are classified as clothing), coins, and other personal effects. The assemblage is mostly metal, with only two glass items, and includes articles of jewelry, coins, and pocket knives.

The jewelry includes two metal rings and two glass gemstones (Figure 162). The glass jewelry, from Features 38 and the vicinity of Feature 82 in Block 5, were presented previously with the feature descriptions. The example from Feature 38 is a blue-colored oval glass inset measuring 14x12 millimeters (0.06x0.05 in.) and 5.8 millimeters (0.02 in.) thick, and was probably intended

Figure 161.
Furniture Group Artifacts and Related Miscellaneous Artifacts

A. Brass Butt Hinge
B. Upholstery Tacks
C. Flat Bracket with Incised "X"
D. Brass/Gilded Escutcheon
E. Embossed Brass Strip
F. Molded Brass Object
G. Embossed Brass Sheet

Figure 162.
Personal Artifacts



A. Brass Ring: B. Detail of Engraving Inside Brass Ring; C. Brass Ring; D. Glass 'Gem"; E. Umbrella Part; F. Umbrella Part; G. Umbrella Part

for a metal setting. Given its context with a slave occupation, and the known occurrence of various similar items for purposes other than just personal adornment, it is possible that that this artifact functioned as a charm or ritual object. The glass item from the Feature 82 vicinity was tentatively classified as jewelry (see Figure 51). This solid purple in color, flat glass fragment with chamfered corners and beveled edges measures 21.4 millimeters (0.8 in.), but originally was longer, and 19.9 millimeters (7.8 in.) wide. Although identified as jewelry, this item could also have been an inset from a household furnishing. Like the piece from Feature 38, however, it could also have had an ideological function.

The jewelry also includes two metal finger rings. One from Feature 26, described previously, is a brass/cuprous example representing a plain band with an outside diameter of 20 millimeters (0.8 in.) and inside of 16.3 millimeters (0.64 in.; modern size 5-1/2). The width of the band is 3.9 millimeters (0.2 in.). In cross section, the band was flat on the inside and domed on the exterior. The second specimen, recovered as a result of metal detector survey, is also cuprous, with traces of possible gilding. It is similar in shape to the previous example, being a narrow, plain band, but with a flat profile. The width is 3.4 millimeters (0.13 in.) and the diameter is about 17.2 millimeters (0.68 in; roughly modern size 7). The inside has a spot of solder in a light gold color, but unidentified metal, which is stamped ". . .G". There is a figure in front of the G that appears to be a "C" but is not quite legible.

The data recovery also produced a collection of 10 coins (Figure 163). Two of these, from Features 120 and 147, were described above. The coin from Feature 120 is a U.S. Indian head one-cent piece, dated 1865, and the one from Feature 147 is an 1875 Seated Liberty dime. The other seven specimens were recovered during the metal detector survey and hand-excavation of plow zone in Block 1. Table 50 summarizes information on these.

Table 50. Coins from Plow Zone Contexts

Provenience	Type	Material*	Date
MDF 6	U.S. one cent ("Large Cent" Coronet Liberty Head)	Copper	1827
MDF 36	U.S. one cent (Indian Head)	Bronze composite	1861
MDF 40	Mexican one Real	Silver	1831
MDF 43	U.S. one cent (Indian Head)	Unknown	Illegible
MDF S11	Spanish columnario	Silver	177[?]
MDF U4	U.S. half dime (Seated Liberty)	Silver/copper	1858
MDF ZZ13	U.S. one cent (Lincoln/Wheat)	Copper/tin/zinc	1916
Unit N1058/E1193	Civil War token (Patriotic theme)	Copper?	1863

* source for material composition of US coins: (USA Coin Book 2010)

The U.S. coins in this assemblage are relatively well-known types from the nineteenth and twentieth centuries. Three of the coins, one Spanish (Latin American), one Mexican, and one Civil War token are interesting and warrant further discussion. Of the two Latin American coins, the silver columnario (MDF S11) is older, having a partially legible date placing it in the 1770s. These coins were produced by the Spanish empire between 1732-1772, indicating a three-year manufacturing range for this particular specimen. Columnarios were produced in Mexico City as well as other mints in Central and South America. This coin is heavily worn, and the mint marks are smoothed away, but on the obverse, a pair of columns flanking two hemispheres and a large crown can be made out below the letters ". . . QUE," which was part of the inscription VTRAQUE VNUM (Banco de Mexico 2012:7; Clegg 2001). On the reverse, traces of the Spanish coat of arms and crown can be discerned, but the denomination is worn off.

The second Latin American coin is a Mexican silver one-Real dated to 1831 produced by the Mexican Republic, established in 1823. The Republic put out new coinage in line with the Spanish octal system, but with new designs. These incorporated motifs inspired by the French Revolution, such as the Phrygian cap, which Roman slaves wore after they were freed and that was adopted as a symbol in France during the Revolution (Banco de Mexico 2012:13). The example from 9CH1205 shows the eagle and snake national emblem on the obverse and a radian Phrygian cap on the reverse with the date. A notable aspect of this artifact is that it has a square-shaped puncture near one edge. The piercing measures 1.9 millimeters (0.07 in.) square and its placement with respect to the coin's design appears arbitrary. Modifications to coins like this have been widely documented at African American sites in the United States. Former enslaved people interviewed by the Works Progress Administration in the 1930s indicated pierced coins were tied to string and worn as charms or because they were believed to treat various ailments (e.g., Singleton 2010:176-177; Wilkie 1995:144). Although possibly coincidental, the symbol of liberty and freedom on this coin is also notable given the context of its discovery on a site occupied by African American slaves, and later by freedpeople.

It should be noted that while these two coins originated in Spanish America, there are no implications for long-distance interaction between this region and the site's inhabitants. Spanish and Mexican coins circulated widely throughout North America well into the nineteenth century due to the lack of local mints and precious metals. Columnarios and reals were both accepted as legal tender in the United States until 1857 (Clegg 2001).

The third coin of note is a Civil War token of copper or a similar metal. This example shows an equestrian statue of George Washington on the obverse, surrounded by the motto, "FIRST IN WAR/FIRST IN PEACE" and the date, 1863. The reverse reads "THE UNION/MUST/AND SHALL BE/PRESERVED/JACKSON." These tokens were privately minted, mostly between

Figure 163.
Coins

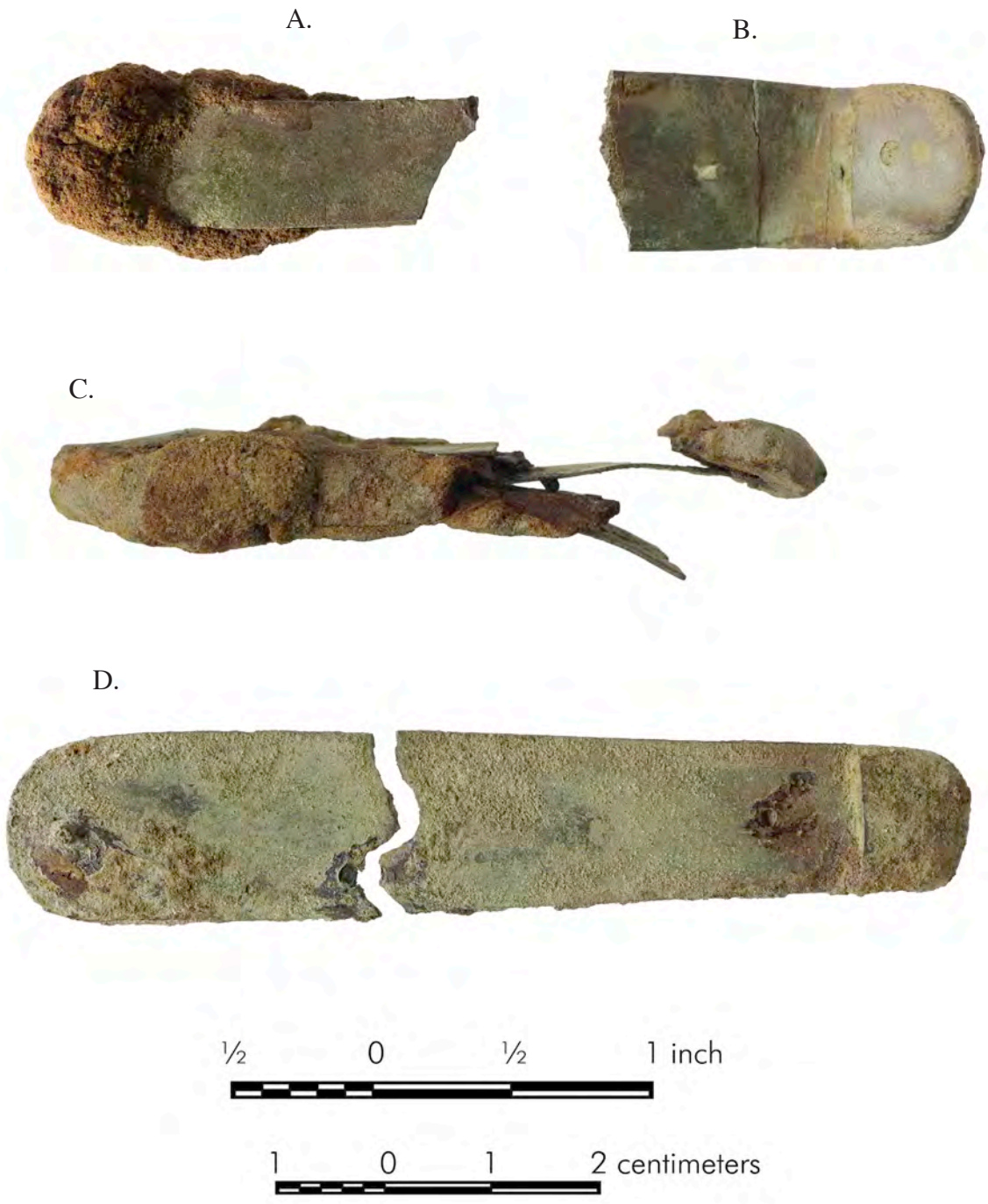
A. U.S. Dime, 1875
B. Mexican One Real, 1831
C. U.S. One Cent Indian Head, 1865
D. U.S. One Cent Indian Head, 1861
E. Civil War Token, 1863
F. U.S. Half Dime, 1858
G. U.S. One Cent, 1916
H. Spanish Columnario, 1770s
I. U.S. One Cent Liberty Head, 1827

1862 and mid-1864, to replace U.S. currency, which became scarce during the war. They were produced primarily in northeastern and Midwestern cities in a considerable variety of designs that collectors place into two broad categories: patriotics and store cards or tradesmen's tokens (Powell 2013; Yeoman 1988:187). The example from 9CH1205 falls into the first group and probably reflects something brought to the site or area by a Federal soldier. Because it was recovered from the plow zone, it cannot be determined if this item was simply lost during the Army occupation or if it had come into the hands of one of the site's African American residents.

The data recovery produced a collection of seven folding or clasp knife fragments, two from features (Features 59 and 124), and three from metal detecting (Figure 164). As a group, these are cuprous and ferrous, and appear to reflect the side scales and side covers, some with integral bolsters. Side covers or scales generally have attached inset handles made from wood, horn, or other materials between the bolsters (the raised or offset area at the hinge and sometimes cap ends). None of the examples from 9CH1205 had any remnants of such handles. Also, blade fragments were fragmentary and oxidized, so that the shape, and therefore type, could not be determined. Several umbrella or parasol fragments were recovered (see Figure 162). One item, representing the tip of an umbrella rib, is made from a cuprous sheet, and measures 2.1 centimeters (0.8 in.) long and 0.7 centimeters (0.2 in.) in diameter at its widest point. It was formed by curling a metal sheet into a cone and exhibits a seam along one edge. It also has a pair of holes drilled across from each other to allow a pin to attach it to the wooden rib. The *Mount Vernon's Mystery Midden* website illustrates similar examples still attached to a turn-of-the-nineteenth-century wooden umbrella frame (Breen 2012). Another part of an umbrella or parasol is a brass spike baffle recovered through metal detecting in the southeast part of the site. This item, which was originally round but has been warped to an oval, measures 2.9x2.6 (1.1x1.0 in.) and consists of a ring surrounded by two toothed flanges.

A final personal artifact is a brass tube or socket that tapers slightly from its open end and has a tab at the other. The entire piece is hollow, including the tab, which is also drilled or pierced. Additionally, a ferrous pin remains in place at the open end. The object measures 18.1 millimeters (0.7 in.) long with a maximum diameter of 7.0 millimeters (0.03 in.). This artifact probably represents the tip of an umbrella rib where it meets hinges with the shaft runner or baffle.

Figure 164.
Folding Knives



A. Indeterminate Knife Fragment
B. Side Scale with Bolster and Pin
C. Encrusted Fragment Containing Blade and Scales
D. Side Scale with Bolster and End Pin

ACTIVITIES

The activities group contains 447 artifacts. These primarily consist of items related to household activities, work outside the home (e.g., agriculture), play/recreation, and those that could not clearly be attributed to other groups. The group is mostly metal (n=205) and glass (n=237), although a few items of other materials (ceramic, bakelite, and plastic) are also present.

The glass assemblage includes 237 fragments, most of which (n=223) are thin clear pieces identified as lamp chimney. Only two glass vessels were identified. Feature 49 produced 11 fragments of a clear pressed glass object of indeterminate form (see Figure 116). A second glass vessel was recovered from Feature 120. Represented by three fragments, this vessel is a pressed clear base or foot to a large stemmed object, almost certainly a lamp. The glass is decorated with a series of inverted fan-shaped motifs on the inside of the foot (see Figure 82).

The 207 metal artifacts represent diverse activities (Table 51). Many of these, such as bolts, nuts, washers, rivets, chain fragments, iron rings, and sheet metal, are nondescript and have only general functions. Other identifiable hardware with generic or straighforward functions include barrel hoop pieces, wire, a metal container/can fragment, and a hammer fragment. The hammer is represented by part of the head with a flat-faced peen, but because the back part of the head is missing, the type of hammer cannot be determined.

Table 51. Metal Artifacts, Activities Artifact Group

Object	Count
Barrel Hoops	2
Bolts	17
Chain	3
Drill Bit	1
Electrical Wire	1
File	2
Fishing Weight, Lead	4
Graphite Object	2
Hammer	1
Horse Tack	2
Hoe	12
Lighting/Lamp	3
Metal Can	1
Hardware, Miscellaneous/Unidentified	49
Miscellaneous Farm Tool	4
Non-Electrical Wire	8

(Continues)

(Table 51, Continued)

Object	Count
Nuts	11
Padlock	3
Plow Part	2
Railroad Spike	26
Ring, Iron/ Steel	5
Rivet	2
Sheet of Copper	3
Sheet of Iron/Steel	20
Sheet of Lead	1
Shovel	1
Strap Iron/ Metal	17
Unidentified Machine Part	1
Washer	2

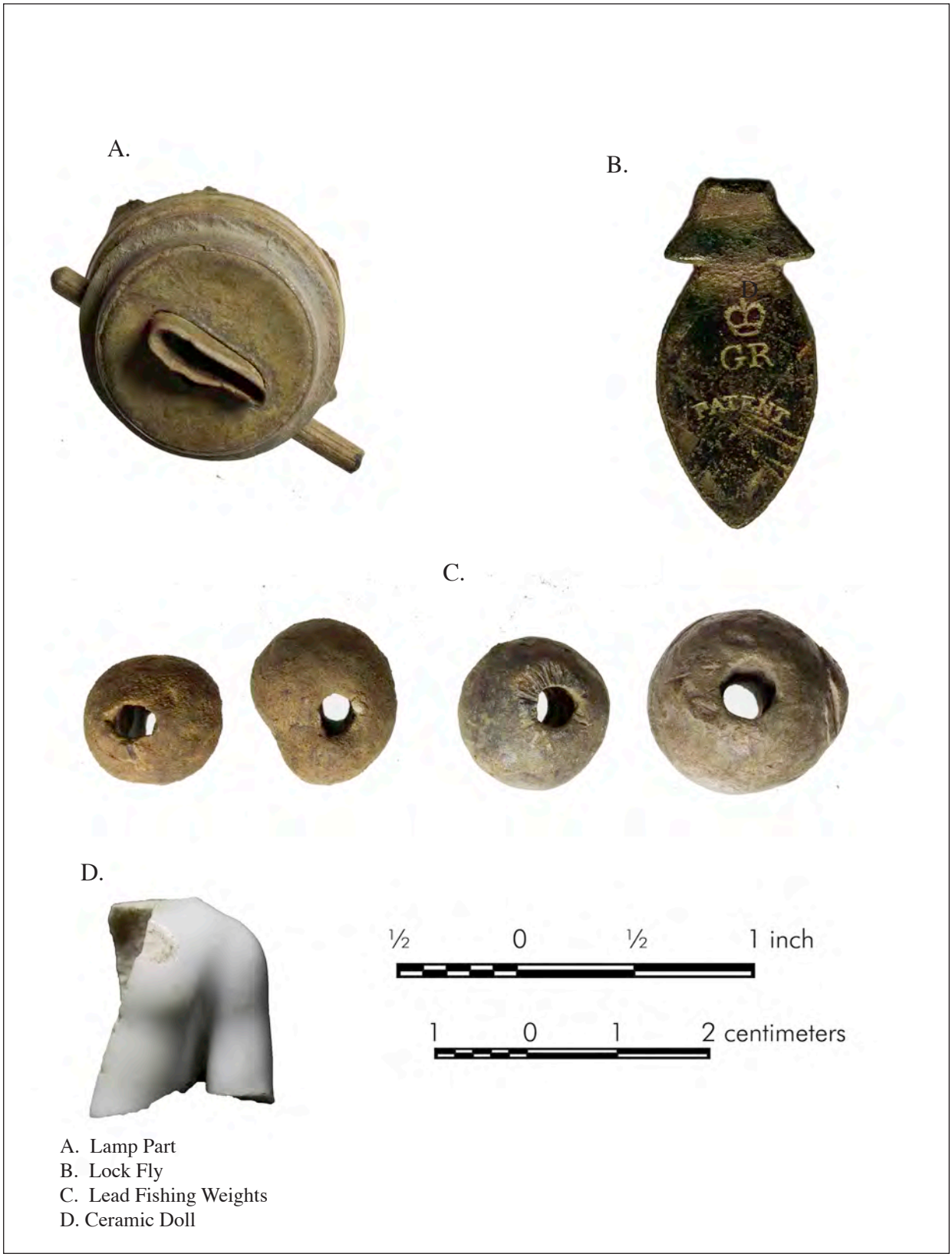
The group contains artifacts associated with wood or possibly metal working. One of these is a drill bit fragment. The extant segment, measuring 8.2 centimeters (3.2in.) long is relatively large and would make a hole about 1.8 centimeters (0.7 or 3/4 in.). Two hand files are also in the collection. One of these is a triangular tapered type with sides measuring 1.6 centimeters (0.6 in.), although its dimensions and shape are obscured by heavy oxidation. The other is a flat (rectangular) type represented by the tang and heel section. This specimen measures 2.4 millimeters (0.9 in.) wide.

Agricultural activities were represented by hardware identified as plow parts, one shovel head, and 12 complete or fragments of iron broad hoes. Four items were inventoried as farm tools, but could not be identified more specifically.

Two artifacts were tenatively identified as horse tack or stable equipment. One of these is a curry comb recovered from the deposits overlying Features 26 and 71. The other, recovered from the plow zone in Block 1, appears to consist of the mouthpiece and ring from a horse bit.

Household activities in this group relate primarily to lighting. Three metal lamp parts are present, including one gilded or brass plated wick raiser knob recovered from Feature 147. Another of the lamp parts, recovered through metal detecting in the vicinity of Block 9, is a brass wick holder/burner section (Figure 165). Other items in this group that possibly relate to household use include several brass or cuprous items. Among these is a lock's keyhold cover (see Figure 165). These were attached to locks above the keyhole to protect or block it, and

Figure 165.
Selected Activity Group Artifacts



A. Lamp Part
B. Lock Fly
C. Lead Fishing Weights
D. Ceramic Doll

could be found on various lock types. The example in this collection is missing the part that attached to the lock. The extant fragment, measuring 3.6 centimeters (1.4 in.) long and a maximum of 1.7 centimeters (0.6 in.) wide, is impressed with a crown above "GR/PATENT." The GR and crown indicate it refers to a British patent, probably dating to the era when George IV was king (1762-1830), and so could relate to the site's early occupation. A second example, roughly the same size, has only "PATENT" stamped onto its face.

Another household-related item is a pressed cuprous escutcheon intended for a piece of furniture, a box, or similar furnishing. This object measures 2.6x2.4 (1.0x0.9 in.), although is curled and would have been slightly larger. It has chamfered corners and an oval hole in the center surrounded by a plain band. The area between the band and edges is decorated with a floral pattern. Two other decorative items found in the southeast portion of the site through metal detector survey include another pressed cuprous sheet fragment impressed with a floral motif and a U-shaped object cast in the form of two intertwined ropes (See Figure 161). This small object measured 2.5 centimeters (1.0 in) high and probably represented a fragment of a larger piece. Finally, the group includes a heavily oxidized iron wheel that most likely reflects a furniture caster.

Recreational or subsistence related items include four lead fishing weights (see Figure 165). One of these was recovered from Feature 147, another from the plow zone in a unit at N1017/E1090, which was in the southeast part of Block 9. The third specimen was from metal detecting in this same vicinity. As noted, enslaved and later free African Americans supplied many of their own subsistence needs through fishing, and these reflect that activity. It is worth noting as well that fishing could have been viewed by these people as a recreational pursuit. The specimen from Feature 147 was large compared to the other two, measuring 2.0 centimeters (0.8 in.) in diamter and weighing 35.9 grams (1.3 oz.). The other three are roughly 1.6 centimeters (0.6 in.) in diameter (one being slightly mishapen) and weigh just under 18 grams (0.6 oz) each. All four are spherical with central holes. This type of weight could be used with a fishing line or attached to seine and cast nets, and so indicates possible different fishing methods by the site's residents.

An additional item that can be classified as subsistence or recreational is an iron leg-trap recovered from Feature 120. The type is suited for for small animals, but does not indicate a particular target because they are indiscriminate in what they catch. Butler (2007:129-130) excavated a similar item from the St. Anne's slave settlement (9GN197) on St. Simons Island, Glynn County. While these traps could have provided food, many of the animals that these devices could snare also had fur for home use or sale.

The group also contains indeterminate cuprous and white metal objects, as well as generic items, such as a brass strap segment with a ferrous rivet. Among the unidentified artifacts is a brass object with a threaded hole through the center and a tooled flange at one end. It measures 1.4 centimeters (0.5 in.) long and has a maximum diameter of 1.0 centimeter (0.4 in.). The object resembles a turn knob switch, but cannot be definitively identified.

One toy was collected during the data recovery (see Figure 165). This consisted of a fragment from a porcelain "Frozen Charlotte" type doll. These items were common during the second half of the nineteenth-century and were generally inexpensive and so could be obtained by a wider segment of society (Lima 2012:68-69). The example from 9CH1205 was retrieved from the plow zone during machine-stripping of Block 9 and could not be associated with a specific feature or locus. It suggest children lived at the site, although Wilkie (2002:607) referenced instances of adult women placing Frozen Charlottes in teapots to buffer against the sudden heat, and stated that they do not definitively indicate the presence of children.

The activities group also contains one item each classified as plastic, bakelite, and ceramic items. These three objects were too fragmentary to identify.

TOBACCO

The tobacco category contains smoking-related artifacts, which in this assemblage are entirely pipe fragments. A total of 352 fragments were placed in this group, including 148 stem fragments, 203 bowl fragments, and one face pipe.

The face pipe fragment, described previously under the description of Feature 192, is red earthenware with clear glaze (see Figure 130). The extant portion represents the shank from the mouth end (where the stem would attach) to the bowl heel, but is missing the bowl. The shank is embossed "PRESIDENT" on the right side and "FRANK PIERCE" on the other. The bowl would have resembled Franklin Pierce (elected 1852, served 1853-1857), and was possibly turned out in the shop of Barney Spring of Rochester, New York (Bell (2004:52-53). Pfeiffer et al. (2007) noted that similar pipes were made by a number of manufacturers in the United States and Germany, and it is not clear if Bell's provenience information is accurate. Nevertheless, this artifact almost certinly dates to 1852, when Pierce ran for president, or later. Pipes molded to resemble American political figures were common in the nineteenth century and commemorated not just presidents, but also presidential contenders (Pfeiffer et al. 2007). Whether the image of Franklin Pierce had any significance to the site's occupants is not known. Pierce, although a northerner, was sympathetic toward southern interests in his political career, and presumably his likeness would not have any positive connotations for enslaved people.

Much of the tobacco group consists of nondescript fragments. Seventy-six fragments, however, exhibited discernable decorations or marks (Figure 166). The majority of decorated fragments were bowls (n=65), and of these, most (n=27) exhibited raised ribs extending parallel to the bowl, while 12 others had a leafy vine motif along the bowl's vertical seam. Six others combined these two motifs. Other styles included ribs that were diagonal to the bowl, raised cross-hatching, and stars. At least one was elaborately molded but could not be discerned, while another sherd had a recognizable (American?) eagle symbol. Stem fragments were mostly undecorated, but motifs that were noted included ribs running either parallel or perpendicular to the stem. On one example, the spaces between the perpendicular ribs were filled with parallel ribs, and on another with raised dots.

Makers marks identified among the pipe fragments included three marked "PETER/DORNI" in a rectangular block surrounded by perpendicular ribs. This was a widely imitated logo, making it difficult to assign it a precise date (Sudbury 2006:36).

One otherwise undecorated bowl had a stamp facing the smoker that consisted of the number "51" below a crown. According to the website *Dutch Clay Pipes From Gouda*, several different Gouda pipe manufactures used this mark from 1733-1898 (Boon 2013). Another mark was of "Gambier/a Paris/M*M" impressed perpendicular to the stem. Although Gambier was a well-known French manufacturer, specific information on the history of this company and its marks could not be found. However, this particular mark has been reported from archaeological sites dating between the early to mid-nineenth century (e.g., Pfeiffer 2006:120).

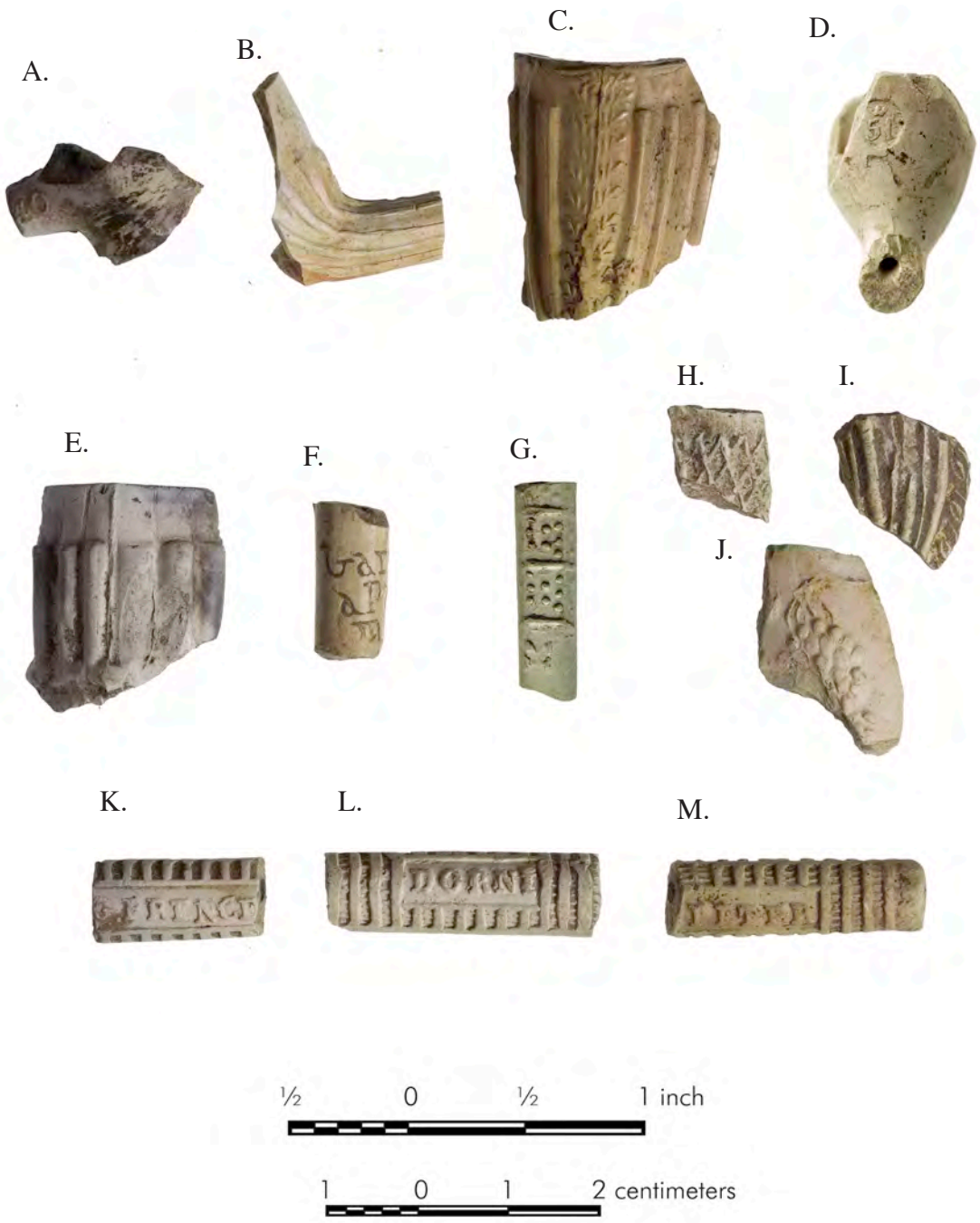
Partial marks that could not be identified include ". . .G. PRENC . . ./ . . .IN GOTH . . .", one that reads "m h e r," and one with the number "40" molded onto the spur. Two others with the single letters "D" and, possibly, "T" could not be identified either.

ARMS

The arms group from 9CH1205 contains 84 items, nearly all of which reflects ammunition or projectiles. Only five items were categorized as weapon parts.

Weapon parts included an 1842 musket butt plate and attached screw from Feature 120, which was described previously (Crouch 1995) (see Figure 82). The U.S. Model 1842 musket with a .69 caliber smoothbore barrel was a modified version of the 1840 model, with the flintlock ignition refitted for percussion. Production of the 1842 design began in 1844 and continued through 1855, when the armories began adapting them for Minie ball rifling. They remained in service through the Civil War (Madaus 1981:88, 94). Given that Feature 120 was filled after 1870, and did not contain any other identifiable gun hardware, this item probably reflects part of a discarded or damaged weapon rather than evidence of a Civil War military occupation directly related to the feature's fill.

Figure 166.
Tobacco Pipes



A. Pipe Bowl; B. Parallel Ribs; C. Ribs with Vine on Seam; D. Bowl with 51 under Crown; E. Vertical Ribs on Bowl; F. Stem Marked "Gambie"r; G. Stem with Ribs and Dots; H. Bowl with Net; I. Bowl with Ribs; J. Bowl with Floral; K. Stem Marked Frence; L and M. Stem Marked "Peter Dorni"

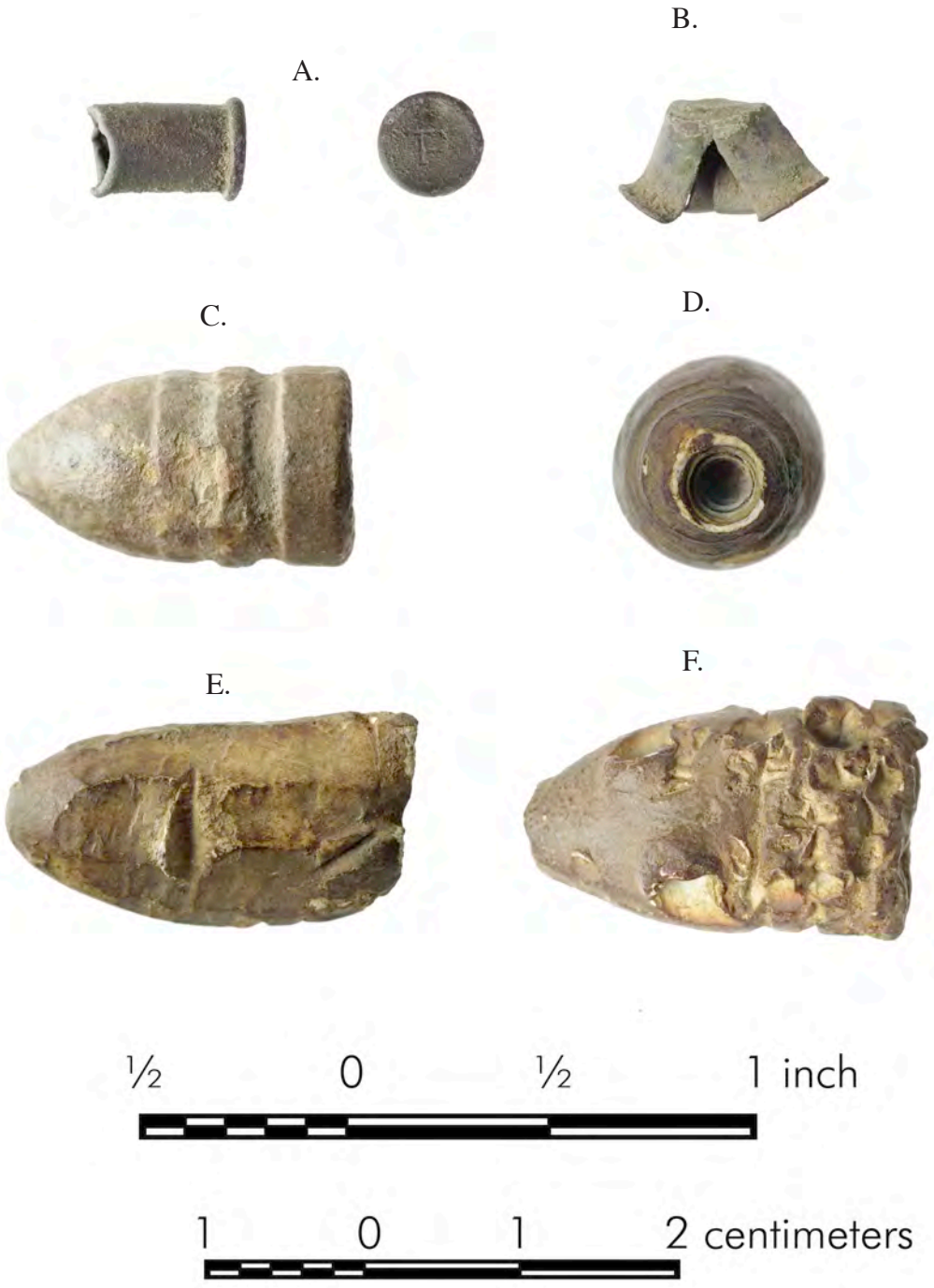
Three gunflints were also recovered. One of these, found in Block 5 was associated with Feature 82 (see Figure 51). The other two were recovered through hand-excavation of Block 1 in the vicinity of Feature 7. All three were honey-colored, indicating probable manufacture in France or the Low Countries, which were the most common type in the United States until about 1800. The specimen from Feature 82, as described previously, is sub-rectangular and wedge-shaped, with maximum dimensions of 20x19x7 millimeters (0.8x0.7x0.03 in.), and has a form indicative of manufacturing through blade technology. The two fragments from Block 1 could not be identified as to their original sizes and shapes. Gunflints in general would have been an outmoded technology by the mid-nineteenth century, although they were not completely replaced until the 1880s (Kenmotsu 1990:93, 96, 99). The one found in association with Feature 82 was among materials that were somewhat later, but it could relate to the site's earliest occupation and is consistent with the pearlware also found in this site area. The two fragments were found in a part of the site that appears to have been the earliest occupied locus, and their presence here is not unexpected.

The data recovery generated 79 ammunition and projectile-related artifacts (Figure 167). Table 52 provides summary information on the collection. Obtained through metal detector survey and excavation of features and plow zone, the ammunition reflects both the Union Army encampment of December 1864 as well as activities by the site's occupants. Some of these items also reflect sport hunting after the site's abandonment.

The assemblage includes 20 cartridges, classed as either indeterminate brass/cuprous (n=7), rim fire (n=12), or center fire (n=1). Cartridges in general reflect a type of ammunition containing a bullet, propellant, and charge within a metal, paper, or plastic container. The cartridges from 9CH1205 presumably comprise the discarded metal containers of spent ammunition. Among this group, the indeterminate cartridges are crushed flat and show no discernable marks from firing. None of these specimens, however, had noticeable primers, suggesting they were rimfire types. The single center fire cartridge was indicated by the primer located in the middle of the head (the striking end of the cartridge). The rimfire cartridges generally had flat heads with scars from the firing pin.

Four of these had headstamps: one had an impressed letter "P", one had a raised "P", and one was impressed "U." The fifth was incomplete but probably was also a "U." According to on-line references concerned with ammunition and cartridges, the impressed "P" indicates the Peters Cartridge Company, Cincinnati, Ohio, which was established in 1887 and operated into the twentieth century. Remington operated the Ohio plant after 1934 (Bradley 2010). The raised "P" might represent the Phoenix Metallic Cartridge Company, South Coventry, Connecticut, which operated from 1872-1888 (Huegel 2012). The "U" mark belonged to the Union Metallic Cartridge Company, Bridgeport, Connecticut, a subsidiary of Remington formed in 1867 that merged with the parent company in 1911 (Friends of Remington Woods 2013; Hedeen 2013).

Figure 167.
Ammunition and Projectiles



A. Brass Cartridge Manufactured by Peter's Cartridge Company; B. Percussion Cap; C. Minie Ball; D. Pulled Minie Ball: E. Carved Minie Ball; F. Minie Ball with Teeth Marks

Table 52. Ammunition Recovered from Site 9CH1205

Artifact	Remarks	Begin Date (if known)	Count
Brass or Copper Cartridges	Likely Sharps' Carbine	1846	1
		1846	6
Buck Shot	Appears to be modified/carved		1
	Melted		1
			24
Bullet	.32 caliber		1
	Fired, modern		1
	Lead pistol bullet		2
	Lead, fired		1
	Lead; fired, impact		1
	Modified		1
Center Fire Cartridge			1
Copper Percussion Cap		1816	4
Lead Ball	Bird shot		1
	Melted		1
			2
Minie Ball	Carved	1852	1
	Dropped	1852	5
	Fired	1852	1
	Fragment, cut	1852	1
	Fragment, melted	1852	1
	Pulled	1852	2
	With teeth marks	1852	1
		1852	2
Musket Ball			1
Rimfire Cartridge	.22 marked "P"	1887	1
	.22 marked P inside circle	1872	1
	.22 marked U	1867	1
	.22 indeterminate mark	1866	1
	.32 caliber	1866	4
	.32 caliber	1866	1
	.32 caliber	1866	1
		1866	4
Shotgun Shell	Remington 12 gauge	1850	1
		1850	1
Unidentified Lead Projectile, Fired			1
Total			79

The data recovery also produced seven bullets, all recovered from metal detector survey. Two complete or near complete specimens are round nosed with flat bases and one groove near the base. Two examples are deformed as a result of firing, while another appears modified or damaged. This example consists of a base fragment that has been split down the center. A modern bullet in the collection is a jacketed type that has been heavily deformed from impact.

The assemblage contains two shotgun shell fragments and 26 individual lead shot. The shell fragments, both made of brass or cuprous material, include one impressed "REMINGTON EXPRESS/12/GA". According to the *Remington Society of America* website, Remington introduced the Express shotgun line in 1987, and it is probable that the ammunition dates to roughly the same time (Marcot 2013), indicating it post-dates the site's historic occupation. The second shell fragment is stamped "U.M.C. CO./NEW CLUB/No/12" with a circle around the primer. This was a product of the Union Metallic Cartridge Company, which began manufacturing shotshells in 1868 but introduced the New Club line after 1891 (Farrar 2013). This item could post-date the site's occupation.

The lead shot generally falls into two groups: six smaller pieces represent birdshot and 20 are larger buckshot. The smaller shot range from 3.0-4.0 millimeters (Size 1-5). The larger shot ranges from 5.5-8.6 millimeters (size T to 00). All are lead or steel, insofar as can be determined. It is unknown if shot relate to the site's historic occupations or reflect recreational hunting unrelated to the occupation.

Artifacts that more likely, if not definitely, relate to Civil War era activities include 14 Minie balls, all recovered during the metal detector survey. Lead Minie balls were introduced in France in 1852 (Miller 2000), and commonly used by both sides during the American Civil War for muzzle-loading rifles. They lost favor among the military soon after the war as breech-loading weapons emerged. The assemblage from 9CH1205 contains eight complete examples typical of this projectile: they are cylindrical with pointed tips and deep concave bases encircled by three grooves. They measure 2.64 millimeters (1.03 in.) long and 1.43 millimeters (0.56 in.) in diameter at the base. Two have threaded holes in the tip, indicating they were manually extracted from the gun barrel after loading. Minie balls were "pulled" with a metal screw puller when a muzzle loading rifle either jammed or when rifles were stored while at camp. The recovery of these "pulled" minie balls from 9CH1205 are most likely indicative of a nearby encampment, given that there were no battles reported for the immediate area.

Other modifications include one example with teeth marks and two others with flat surfaces indicating carving or trimming. Another specimen is flattened as a result of impact while one is melted. Two examples are represented by fragments.

Four brass or cuprous percussion cap fragments were also recovered during the data recovery. Two of these came from Features (7 and 147), and a third was recovered during hand-excavation of plow zone in Block 1. The other was found through metal detector survey. Percussion caps were developed in the early nineteenth century to replace flintlock mechanisms for hunting guns, and preceeded the cartridge case. The basic principle for their operation involves loading a hollow cylinder with a shock-sensitive explosive that is placed over a metal receptacle at the rear of the gun barrel. The hammer striking the cap ignites the primer, which fires the powder charge. The four in this assemblage are all cuprous, and have been fired.

The arms group contains one round lead ball 14.8 millimeters (0.58 in.) in diameter and extensively pitted and roughened. This item was identified as a musket ball. The damage to it could reflect teeth marks, although this is not certain. A deformed lead projectile of uncertain identification is the final item in this group.

The arms category, in sum, reflects the brief Civil War military occupation of the site as well as activities engaged in by the site's enslaved and freed residents. Some of this assemblage also reflects sport hunting unrelated to either historic component. Although arms and ammunition would be expected at a military site, its association with freedpeople living at the site, and possibly with enslaved people as well, illustrates an aspect of their subsistence economy. As discussed, hunting for both subsistence and market, was an important element of Lowcountry African American life. The presence of firearms and associated gear in slave-occupation contexts surprised archaeologists when first discovered, although it has since become clear that enslaved African Americans often had access to such equipment for hunting (Morgan 1998:139; Singleton 1991:171). Hunting for economic and probably recreational purposes, persisted into the postbellum era.

Although no direct connections between the archaeological data and the events can be made, actions associated with the 1869 "Ogeechee Uprising" included a confrontation at nearby Miller's Station between armed locals and law enforcement officials from Savannah. Also worth noting for the postbellum period is that fact that African Americans faced and responded to increasingly violent and institutionalized racism. In this context, firearms were useful for self-defense and aggressive actions, and so can be viewed as a reflection of resistance and conflict in the postbellum Lowcountry (Barnes and Steen 2012:202).

MISCELLANEOUS

The miscellaneous artifact group includes 2,782 individual items that could not be identified, have no obvious function, or cannot be clearly assigned to one of the other functional groups. The assemblage from 9CH1205 is sorted into five principal categories based on material: biological, glass, metal, plastic, and mineral. Of these, metal is the most common (n=2,568; 92.31%) followed by biological, which comprises a much lower part of the total (n=151; 5.43%). The other groups make up only negligible frequencies. Mineral includes 51 individual artifacts (1.83%), glass includes eight artifacts (0.29%), and plastic is represented by four items (0.14%).

Among the metal artifacts, most (2,377 of the 2,568) are ferrous items too heavily oxidized to identify. Another 92 items were identified as iron oxide concretions, the state of the original metal being indeterminate. Twenty-five items are fragments of iron sheets and 29 are indeterminate lead fragments, most of which are deformed from melting or damage, or are fragments from larger items and cannot be identified. One lead artifact of note, from the plow zone in the Feature 7 vicinity, is an X-shaped piece measuring 15x14.5 millimeters (0.59x0.57 in.) and 4.7 millimeters (0.19 in.) thick. This item shows no breaks to suggest it was broken off of a larger article, and could not be identified. What is notable about this item is the context of an African American slave occupation, in which X-shaped imagery has been identified as significant (Ferguson 1992; Joseph 2011; Thompson 1983). An object such as the one recovered from the site might have served as a charm (Figure 168). Forty fragments of cuprous metal were also placed in the miscellaneous category. Most of these were nondescript sheet metal fragments. A few items were notable, however. One, found in Feature 147, could not be identified but was clearly a part or piece of something. This item, also described above with the feature, is rectangular in shape and measures 23x7x4 millimeters (0.9x0.03x0.02 in.). It is hollow and one of the narrow faces was pierced near one end with a rectangular opening flanked by two circular holes. Although this item could not be identified precisely, it is tentatively interpreted as an umbrella or parasol rib hinge.

Additional cuprous artifacts in the miscellaneous group included a segment of cuprous strap measuring 33 millimeters (1.3 in.) long and 15.8 millimeters (0.06 in.) wide. This fragment is punched in two places, with one hole mostly missing. The other shows traces of wear caused by the screw or fastener. One other item in the miscellaneous group is a triangular cuprous sheet, measuring roughly 20 millimeters (0.8 in.) on its longest side, with a molded decoration on one face. The decoration consists of a band along the long edge composed of adjacent triangles and a floral-framed cartouche filled with bands and stipples below it.

Figure 168.
Miscellaneous X-Shaped Metal Object

The remainder of the miscellaneous group includes non-descript items of various materials. The biological category contains 151 items, most of which (n=114) are charcoal. The balance is bone and wood fragments. Eight pieces of glass are burned or unidentifiable. The mineral group consists of stone that is either not obviously modified or that could be pieces of building material. Two pieces of plastic reflect modern trash and were retrieved from plow zone.

ARTIFACT SUMMARY

The data recovery artifact assemblage is extremely large. Most of the artifacts relate to the nineteenth-century African American occupation pre- and post-dating the Civil War. Few modern materials were mixed into the assemblage, suggesting that although disturbed by cultivation, the collection represents a relatively intact suite of goods related to the site's historic use. The sample has a strong potential for addressing certain of the research questions that guided this study, with qualifications.

Artifacts and proveniences that can be linked to particular time periods and that could be related to one of the occupation loci described at the end of the previous chapter have the best potential for analysis. This is particularly true for understanding aspects of landscape, economic activities, and other topics that might change over time.

Artifacts recovered from features have a strong potential for addressing certain of the research questions guiding this study, if they reflect relatively short time spans. A qualification to this interpretation is the extremely fragmentary condition of the artifacts retrieved from most of the features. While this condition does not necessarily detract from analytical value, it suggests that in many cases the artifacts found in features were incidental inclusions that had been circulating on the ground surface for a time before ending up in sealed contexts. These materials may therefore relate to earlier periods than the features they came from. At the same time these materials presumably reflect yard deposits and can be informative about disposal practices, community attitudes, and land use (LeeDecker 1994).

Nearly half of the collection (n=15,575; 46%) came from plow zone contexts, including unit excavation, metal detector finds, grab samples from backhoe stripping, and flotation samples obtained for comparative purposes. Because the site's occupation extended over a relatively lengthy time, and the plow zone contained mixed deposits from all periods, these artifacts had limited value for analyses that require chronological control. In some instances artifacts collected from plow zone contexts could be linked to particular loci if they came from discrete areas. The plow zone artifacts from Block 5, encompassing a brick chimney and adjacent areas, for example, could be associated with Locus 1 and a particular structure. In this instance, though, the lengthy occupation from the antebellum period until at least the 1870s make it impossible to compare changes over time within this locus.

Artifacts from plow zone contexts can be used in general to study topics related to horizontal distributions. To do so, it is important to have artifacts recovered through controlled excavation over a broad area. As discussed in the research design, this data recovery project was not intended to utilize plow zone distributions this way. The results of the study, discussed in a subsequent chapter, suggest that for future projects, it would be worthwhile to consider the potential of plow zone deposits for certain analyses.

Regarding the Civil War military artifacts in the assemblage, these consist primarily of ammunition and buttons. One gun part that would be appropriate to the period of the war was recovered from a deposit that post-dates 1875 and almost certainly represented a fragment that was in circulation at the site after the war. Three buttons from Union uniforms were found in association with features that either post-dated the war or that were established before the war and continued in use afterwards. Finds such as these could indicate the presence or occupation of slave cabins by Union soldiers during the short encampment of December 1864, that a site resident served in the Union army, and/or that recycled military clothing was used at the site.

The 14 minie balls in the collection probably relate to the Civil War military occupation. Although it is possible that soldiers occupied the houses at the site during the two-week encampment, the assemblage did not provide clear evidence of this.

XI. ARCHAEOBOTANICAL ANALYSIS

Leslie Branch-Raymer, Paleobot

This archaeobotanical study focuses on macroplant remains collected by flotation of materials recovered during 2013 excavations at Site 9CH1205. The flotation samples come from features dating to the antebellum slave settlement into the postbellum period. Archaeobotanical samples were collected from nine loci. Archaeobotanical studies undertaken included the identification and analysis of macrofloral remains collected from 529 liters. The samples were collected from three postholes, two hearths, two trenches, five storage pits, seven pits, and three midden deposits (Table 53).

Table 53. 9CH1205 Analyzed Archaeobotanical Sample Proveniences

Bag	Locus	Feature	Block	Level	Depth	Sampled Portion	Feature Type	Volume (L)
5133	1	82	5	1	30-36	E 1/2	Hearth/ Chimney	12
5130	2	173	9	2		SW 1/2	Hearth/ Chimney	10
5124	2	183	9	1	0-20		Midden	10
5030	3	30	4				Pit	10
5075	3	38	4			W 1/2	Storage Pit	10
5081	3	38	4	3		W 1/2	Storage Pit	10
5083	3	38	4	4		W 1/2	Storage Pit	10
5084	3	38	4	5		W 1/2	Storage Pit	10
5054	4	25	4			S 1/2	Post	10
5073	4	26	4			N 1/2	Pit	10
5076	4	26	4	1		N 1/2	Pit	10
5015	4	47	4	4		W 1/2	Pit	5
5018	4	47	4	1		W 1/2	Pit	10
5027	4	47	4	3		W 1/2	Pit	10
5006	4	48	4			N 1/2	Midden	10
5011	4	49	4	2	10-15	S 1/2	Midden	10
5012	4	49	4	1	0-10	S 1/2	Midden	10
5035	4	53	4	1-4		N 1/2	Pit	10
5082	5	7	1	4	90-95	N 1/2	Pit	10
5085	5	7	1	5	100-108	N 1/2	Pit	10
5032	5	7A	1	2	75-78	N	Pit	10
5033	5	7A	1	1	62-67	N 1/2	Pit	10
5043	5	7A	1	3	82-88	N	Pit	10

(Continues)

(Table 53, Continued)

Bag	Locus	Feature	Block	Level	Depth	Sampled Portion	Feature Type	Volume (L)
5048	5	7A	1	4	90-100	S 1/2	Pit	10
5063	5	7A	1	2	80-90	N 1/2	Pit	5
5064	5	7A	1	3	90-100	N 1/2	Pit	6
5065	5	7A	1	4	100-110	N 1/2	Pit	10
5066	5	7A	1	5	110-120	N 1/2	Pit	9
5067	5	7A	1	6	120-130	N 1/2	Pit	12
5068	5	7A	1	7	130-140	N 1/2	Pit	12
5069	5	7A	1	8	140-150	N 1/2	Pit	18
5096	6	120	9	1	0-10	NE 1/2	Storage Pit	10
5097	6	120	9	2	10-20	NE 1/2	Storage Pit	10
5099	6	120	9	3	20-30	NE 1/2	Storage Pit	10
5100	6	120	9	4	30-40	NE 1/2	Storage Pit	10
5101	6	120	9	5	40+	NE 1/2	Storage Pit	10
5113	7	147	9	2		W 1/2	Storage Pit	10
5114	7	147	9	3		SW 1/4	Storage Pit	10
5115	7	147	9	4		SW 1/2	Storage Pit	10
5116	7	147	9	5		SW 1/2	Storage Pit	10
5121	7	147	9			SW 1/4	Storage Pit	10
5078	8	170	2	2		NE 1/4	Storage Pit	10
5123	8	170	2	1		NW 1/4	Storage Pit	10
5137	8	170	2	2		NE 1/4	Storage Pit	10
5102	9	124	9	1	0-10	S 1/2	Storage Pit	10
5105	9	124	9	2	10-20	S 1/2	Storage Pit	10
5108	9	124	9	3	20-30	S 1/2	Storage Pit	10
5109	9	124	9	4	30-38	S 1/2	Storage Pit	10
5055		69	4	1	3-13	N 1/2	Post	10
5059		69	4	3	23-33	N 1/2	Post	10
5056		73	4	1		N 1/2	Post	10
5120		163	9				Trench/ Ditch	10
5119		166	9			E	Trench/ Ditch	10
5117		169		3	20-26	N	Pit	10

The rest of this chapter presents the analysis methods, archaeobotanical study results, and a report summary. The data upon which this analysis is based are presented in Appendix E, Tables 1-9, and Appendix F (raw data from each sample).

ARCHAEOBOTANICAL ANALYSIS METHODS

Prior to archaeobotanical analysis, New South Associates staff members floated each soil sample. The samples were subjected to machine-assisted water separation in a 55-gallon Shell Mound Archaeological Project (SMAP) type flotation machine (Pearsall 1989; Watson 1976). This system is utilized because SMAP-style flotation systems consistently exhibit excellent retrieval rates (Pearsall 1989:91–94). The heavy fraction trap is lined with 0.80 mm mesh.

In the laboratory, each flotation light fraction was weighed, and then passed through nested geologic sieves (4.0 mm, 2.0 mm, 1.0 mm, 0.71 mm, 0.5 mm). Each size-graded light fraction was fully sorted under low magnification (6-25x). All of the material that was greater than 2.0 mm was pulled from the sample matrices and was quantified by material type, weight (wood charcoal, nutmast), and/or count (seeds, mast, maize). Material that was smaller than 2.0 mm was sorted, but only charred and uncharred seeds were removed. Wood charcoal specimens were not identified during this study.

Seeds are identified with standard reference texts (e.g. Martin and Barkley 1961; Montgomery 1977; United States Department of Agriculture 1974) and a modern reference collection that is housed at Paleobot Consulting. In this analysis, the macroplant data are quantified by the site as a whole, locus, feature, and individual sample (See Appendix F for summary of macrofloral remains from each sample).

Three comparison ratios (species ubiquity, species density, relative proportions of plant remains) were utilized to study the macroplant remains. In ubiquity analysis, the occurrence of each plant type is expressed as a percentage of the total number of proveniences in which a particular taxon is present. This measure ascribes equal weight to the physical presence of a given taxon, regardless of the abundance of that plant type in a particular sample. Therefore, a sample that contains one seed of a given taxon is equivalent to a sample containing several hundred of the same seed. This offers a way to assess the relative importance of various plant species and gives an indication of how common each plant type is at the site.

The analytical procedure of Species Density was used to quantify the macroplant remains associated with each feature, each locus, and the entire assemblage. Species Density measures the count or weight of a plant taxon per liter of processed soil. This measure allows a comparison of the relative densities of different plant taxa and is useful for standardizing raw count/weight data. Relative proportions of each plant category (see Appendix E, Table 2, assigned on the basis of perceived economic importance in historic plant use literature) were calculated each locus, and the entire macroplant assemblage.

ARCHAEOBOTANICAL ANALYSIS

The 9CH1205 archaeobotanical remains consist of wood charcoal and resin, charred seeds and other reproductive structures from plant food remains, charred seeds from medicinal and ornamental plantings, and charred seeds from naturally deposited weedy taxa. These materials, collected from sealed feature contexts at 9CH1205, provide important evidence about local food production, gathering of wild plants for food and medicine, and the continual interaction between antebellum and postbellum residents of the plantation and the local environment.

The primary objective of this analysis is to examine plant use and refuse disposal patterns as they are manifested in the nineteenth-century occupations exposed during data recovery. This should enable us to gain a perspective on subsistence patterns and land-use practices of the antebellum enslaved individuals and postbellum freed persons who occupied this site, as well as vegetation growing in the site vicinity at the time the 9CH1205 was occupied.

Archaeobotanical analyses conducted by the author of antebellum and postbellum macrofloral assemblages at the Hermitage, Andrew Jackson's home in Tennessee; the eighteenth- and early nineteenth-century North Hill and Quarter sites at Poplar Forest (Thomas Jefferson's Bedford County, Virginia plantation); the Stable Quarter (44OR249) and Mount Pleasant sites at James Madison's Montpelier in Virginia; eighteenth- and nineteenth-century African American occupation of 92-98 Broad Street in Charleston, South Carolina; postbellum occupation of the Free Cabin site (9RI1036) in Georgia; and postbellum occupation of James City in North Carolina have documented a wide variety of domesticated and wild plants consumed by enslaved African Americans, and a continuity of foodways developed under slavery after Emancipation (Adams et al. 2005; Branch-Raymer 2012; Raymer 1997; 2003; 2004; 2007; Wheaton and Reed 1989). This analysis examines evidence of similar patterns of plant use among members of the Site 9CH1205 enslaved and post-slavery communities, with particular emphasis on locally gathered plant food resources.

The 9CH1205 archaeobotanical assemblage consists of a diverse (36 economic taxa) and abundant (N=814) carbonized seed assemblage including 2 condiment seeds (mustard), 301 crop seeds (7 taxa), 146 nutshell fragments (hickory, hickory/walnut, acorn), 103 seeds from edible fruit-producing herbs, shrubs, vines, and trees (9 taxa), 31 seeds from naturally occurring edible/medicinal herbs (7 taxa), 30 seeds from possible ornamentals (4 taxa), 18 weedy herb/grass seeds (5 taxa), 2 seeds that were only identifiable to family (1 taxa), 10 grass/conifer stem fragments, and 153 seeds that were unidentifiable (N=152) or unknown (N=1; Appendix E, Tables 3-5). Additionally, 549 uncharred seeds representing 18 taxa were recovered from the flotation samples (Tables 54-55; Appendix E, Tables 6-7).

Table 54. Summary of Identified Carbonized Seeds, Total Count, Overall Ubiquity

Major Use	Common Name	Vegetative Type	Overall Count	Overall Ubiquity (% of Sampled Features)
Condiment	Mustard	Annual/perennial herb	2	9
Vegetable	Common Bean	Domesticate	7	5
Vegetable	Maize Cupule/Kernel	Domesticate	301	82
Vegetable	Millet	Domesticate	2	5
Vegetable	Rice	Domesticate	3	5
Vegetable	Squash/Pumpkin Rind	Domesticate	2	9
Vegetable	Sunflower	Domesticate	1	5
Vegetable	Wheat	Domesticate	3	9
Fruit	Apple	Small tree	1	5
Fruit	Blackberry/ Raspberry	Shrub	52	18
Fruit	Blackgum	Tree	1	5
Fruit	Haw, arrow-wood	Shrub	28	18
Fruit	Hawthorne	Shrub, tree	1	5
Fruit	Huckleberry	Shrub	4	9
Fruit	Peach	Small tree	13	18
Fruit	Plum	Small tree	2	5
Fruit	Sumac	Shrub, small tree, vine	1	5
Nut	Acorn Shell	Tree	29	36
Nut	Hickory Shell	Tree	29	23
Nut	Hickory/Walnut Shell	Tree	88	59
Edible Herb	Bedstraw	Annual/perennial herb	3	14
Edible Herb	Burclover	Annual/perennial herb	12	5
Edible Herb	Goosefoot	Annual herb	9	32
Edible Herb	Greenbriar	Herbaceous vine	1	5
Edible Herb	Knotweed	Annual/perennial herb	2	9
Edible Herb	Plantain	Annual herb	3	9
Edible Herb	Pokeweed	Perennial herb	1	5
Ornamental	Chinaberry	Small tree and shrub	8	27
Ornamental	Violet	Annual/perennial herb	1	5
Ornamental	Dogwood	Shrub	1	5
Ornamental	Pine Seed	Tree	1	5
Ornamental	Pine Cone Scale	Tree	17	41
Ornamental	Pine Needle	Tree	2	9
Weed	Copperleaf	Annual herb	6	9
Weed	Ragweed	Annual/perennial herb	7	9
Weed	Spurge	Annual/perennial herb	1	5
Weed-Grass	Panic grass	Grass	1	5
Weed-Grass	Grass Family	Grass	3	5

Table 55. Summary of Carbonized Macroplant Remains

Major Use	Common Name	Vegetative Type	Count	Weathered (Old)?
Condiment	Pepper	Annual herb	1	1
Vegetable	Ground Cherry	Domesticate	8	3
Fruit	Blackberry/ Raspberry	Shrub	23	
Fruit	Elderberry	Shrub	5	3
Fruit	Fig	Shrub	2	
Fruit	Chokeberry	Shrub	2	2
Edible Herb	Burclover	Annual/perennial herb	7	
Edible Herb	Clover	Perennial herb	2	
Edible Herb	Goosefoot	Annual herb	425	
Edible Herb	Pokeweed	Perennial herb	1	
Ornamental	Morning Glory	Annual vine	4	
Ornamental	Dogwood	Shrub	1	
Weed	Copperleaf	Annual herb	1	
Weed	Jimsonweed	Annual herb	6	6
Weed	Nightshade	Weed	4	
Weed	Ragweed	Annual/perennial herb	27	
Weed	Sida	Annual/perennial herb	26	
Weed	Tickclover	Annual/perennial herb	2	
Weed	Composite Family	Grass	1	

SUMMARY AND DISCUSSION OF NINETEENTH-CENTURY MACROPLANT REMAINS

Summary of Carbonized Seeds and Wood Charcoal

The recovery of carbonized macrofloral remains was excellent and provided clues about the overall character and composition of local food production and the gathering of wild plants for food and medicine. There were 814 carbonized macrofloral remains recovered during this study (Table 54; Appendix E, Tables 3-5). Eighty percent of these specimens were identifiable to at least the family level (N=651). Six hundred and forty-nine of these identified seed taxa are divided into seven broad categories based on their presumed economic importance: condiment, vegetables/field crops, fruits, nut-bearing shade trees, edible herbaceous plants, possible ornamental trees/herbs, and herbaceous weeds and grasses. Twenty percent (N=165) of the recovered seeds were either unidentified (2 berry, 3 nutlet, 1 unknown, 77 unidentifiable seed fragment, 70 unidentifiable seed coat fragment) or could not be placed into these plant categories (2 bean family, 9 grass stem, 1 conifer stem).

Maize (18 kernels, 283 cupule/cob fragments) and nutshell (117 Juglandaceae-hickory and hickory/walnut combined, 29 acorn) account for a 55 percent (37% maize, 18% nutshell) proportion of the recovered carbonized plant remains. Maize and nutshell comprise a 68 percent proportion of the 649 identifiable seeds (46% maize, 22% nutshell). Ninety-six percent (N=783) of the carbonized seeds were recovered from the flotation samples. Thirty-one seeds representing a four percent proportion of the recovered nutshell, maize, and other seeds were found in the five features that were not clearly associated with Loci 1-8 and the Locus 9 isolated feature. Ninety-five percent of the analyzed features contained carbonized seeds. Wood charcoal was recovered from 100 percent of the features. Carbonized seeds were recovered from all nine of the identified loci.

Carbonized plant macrofossils observed and collected from the flotation samples include 141.45 grams of wood charcoal (greater than 4.0 mm), 6.15 grams of resin (greater than 4.0 mm), 146 greater than 2.0-millimeter nutshell fragments (hickory, indeterminate hickory/walnut, acorn), 319 vegetable crop/garden seeds (maize kernels, maize cupule/cob fragments, common bean, millet, rice, squash/pumpkin rind, sunflower, wheat), 103 tree/shrub fruit seeds (apple, blackberry/raspberry, blackgum, haw, hawthorne, huckleberry, peach, plum, sumac), two possible condiment seeds (mustard), 31 edible herb seeds (bedstraw, burclover, goosefoot, greenbriar, knotweed, plantain, pokeweed), 30 possible ornamental tree (chinaberry, dogwood, pine) and herb (violet) seeds, and 18 seeds from probable non-economic herbaceous weeds and grasses (copperleaf, ragweed, spurge, grass family, panic grass), two bean family seeds, nine grass stem fragments, one conifer stem fragment, and 153 unknown/unidentifiable seeds (see Table 54).

Summary of Uncharred Seeds

There were 549 uncharred seeds representing 19 taxa (1 condiment, 1 vegetable, 4 fruit, 4 edible herb, 2 ornamental, 6 weed, 1 composite family) recovered from the flotation samples. The uncharred seed assemblage consists of 1 condiment (pepper), 8 vegetable seeds (ground cherry), 32 fruit seeds (blackberry/raspberry, elderberry, fig, chokeberry), possible ornamental seeds (morning glory, dogwood), 435 edible herb seeds (burclover, clover, goosefoot, pokeweed), 66 seeds from probable non-economic herbaceous weeds and grasses (copperleaf, jimsonweed, nightshade, ragweed, sida, tickclover), a composite family seed, and an unidentifiable seed fragment (see Table 55).

The majority of the uncharred seeds, on the basis of their condition (neither mineralized nor weathered) and relative fragility (fragile seeds do not generally preserve for long periods of time in open soil conditions) appear to represent relatively modern intrusions into the archaeological

deposits (discussed in the next section). This is particularly true of the 425 goosefoot seeds that were recovered from Features 7 (N=342) and 7A (N=76) in Locus 5. Goosefoot accounted for a 77 percent proportion of the uncharred seeds found in the analyzed samples. Ninety-eight percent of these seeds were recovered from Locus 5 features.

Fifteen uncharred seeds from five taxa (1 pepper, 3 ground cherry, 2 chokeberry, 3 elderberry, 6 jimsonweed,), on the basis of their mineralized and weathered condition, may well date to the nineteenth-century occupation. These seeds were recovered from Loci 1 (Feature 82—1 pepper, 1 jimsonweed), 3 (Feature 38—4 jimsonweed), 5 (Feature 7A—3 elderberry, 2 chokeberry, 1 jimsonweed, 1 ground cherry), and 7 (Feature 147—1 jimsonweed, 1 ground cherry).

Origins of the Macroplant Assemblage

All of the identified seeds, both charred and uncharred, were analyzed in this study. The carbonized seeds recovered from the samples are interpreted as unquestionable archaeological remains. However, the origins of the uncharred seeds are more problematical. Uncharred seeds are frequently excluded from macroplant analyses, because they are interpreted as modern intrusions into archaeological deposits (Lopinot and Brussel 1982; Miller 1989; Minnis 1981). Several studies have assessed the problems associated with the long-term preservation of uncharred seeds in open-air sites in mesic environments (Miksicek 1987; Miller 1989).

Uncharred seeds are rarely preserved for many years in open-air, moist soils and are poorly preserved in open-air dry soils (Miksicek 1987). However, when suitable environmental conditions exist, fresh seeds will last for long periods of time (Miller 1989:50).

Because these sites were occupied in the early to late nineteenth century, uncharred seeds may be preserved in the macroplant assemblage. Extensive studies of macroplant assemblages from nineteenth-century archaeological sites have shown that even the most fragile seeds are frequently preserved in both features and midden deposits, particularly when the sites are rapidly and deeply buried (Cheek et al. 1994; Cummings 1993; O'Steen and Raymer 1995; O'Steen et al. 1995; Raymer and O'Steen 1993). With this in mind, the origins and antiquity of each plant taxon from this nineteenth-century historic site are assessed.

The available evidence suggests that the majority of the uncharred seeds postdate the nineteenth-century occupation of the sites. First, with the notable exception of Locus 5 features (Features 7, 7A), which contained 84 percent of the uncharred seeds, uncharred seeds were very sparse in the analyzed flotation samples. In most of the analyzed samples, 80-90 percent of the sample matrix consisted of carbonized material. Second, many of the uncharred seeds are derived from naturally occurring herbaceous weeds and grasses that produce hundreds of minute seeds that

could easily have been inserted into the features by post-depositional bioturbation. Minnis (1981) and Keepax (1977) discussed how enormous quantities of wind dispersed weed seeds can become incorporated into archaeological deposits through natural seed rain and agents of bioturbation such as rodents and earthworms. Finally, most of the historic features were located in open settings and were truncated by historic plowing. The open, truncated condition of the sampled features is not generally conducive to long-term preservation of fresh seeds and would have allowed the insertion of modern uncharred seeds into the archaeological deposit. With the exception of the 15 previously discussed weathered and mineralized seeds, all of the uncharred seeds are excluded from the following discussions because of their problematical origins.

Density of Carbonized Seeds and Wood Charcoal

Macroplant remains recovered through flotation of 529 liters of soil included 147.6 grams of wood byproducts (wood charcoal and resin), 146 nutshell fragments, and 668 charred seeds (503 identifiable, 165 unidentifiable). This recovery yielded an overall count density of 1.54 seeds (including maize and nutshell) per liter of floated soil. The count density of all nutshell (N=146 fragments) is 0.276 fragments per liter, and all maize (N=310 fragments) is 0.569 fragments per liter. The density of all specifically identified seeds (excluding nutshell) is 0.951 seeds per liter, and wood charcoal is 0.279 grams per liter of floated soil. These densities indicate the excellent state of preservation and recovery of carbonized macrofloral remains at this site (Appendix E, Table 3).

Examination of the density of wood charcoal, nutshell, maize, and all seeds (including maize and nutshell) associated with each locus allows for comparison of carbonized remains associated with each habitation (Tables 56 and 57). The wood byproduct (wood charcoal and resin) densities range from 0.133-0.498 grams per liter of floated soil (Table 56). The highest concentrations of wood byproducts are associated with Loci 3 (0.498 g/L), 4 (0.392 g/L), 6 (0.406 g/L), and 7 (0.475 g/L). There is no evident correspondence between site area (NE versus SW) or loci and these relatively higher wood charcoal densities. The Loci 3, 6, and 7 features that exhibited these higher wood charcoal densities were all pits and the Locus 4 high density features included pits, posts, and midden deposits. There is a correspondence between loci with high seed densities and a greater wood charcoal density. The samples from Loci 3-7 exhibited relatively high seed count densities relative to Loci 1, 2 and 9, as well as Locus 9 pit (Table 57). It is likely that the wood charcoal and seeds recovered from these features represents burned spent fuel and plant food debris that was dumped or swept into the pits and other features.

Table 56. Density of Carbonized Wood Charcoal, Resin, Nutshell, Maize, and Seeds (Per Liter of Floated Soil)

Locus		1	2	3	4	5	6	7	8	9	Other Features	Total
Volume (Liters)		12	20	50	85	132	50	50	30	40	60	529
Total Wood Byproducts	Wt	0.133	0.254	0.498	0.392	0.126	0.406	0.475	0.149	0.170	0.180	0.279
All Hickory/ Walnut Shell	Wt			0.004	0.001	0.002	0.005	0.009	0.001	0.001	0.001	0.002
Acorn Shell	Ct			0.100	0.012	0.038	0.220	0.080		0.050	0.017	0.055
Acorn Shell	Wt			0.001	0.0001	0.0002	0.001	0.0004		0.0003	0.0002	0.0003
Maize Kernel	Ct			0.040	0.082	0.023	0.080	0.020			0.017	0.034
Maize Kernel	Wt			0.001	0.001	0.0005	0.002	0.001			0.001	0.001
Total Maize Cob/ Cupule	Ct		0.250	0.360	2.482	0.129	0.240	0.200	0.033	0.075	0.100	0.535
Total Maize Cob/ Cupule	Wt		0.016	0.003	0.032	0.001	0.002	0.001	0.001	0.001	0.001	0.007
Total Carbonized Seeds*	Ct	0.08	0.35	0.72	0.66	0.73	2.48	0.46	0.23	0.10	0.22	0.69
Total Condiment	Ct			0.02		0.01						0.00
Total Vegetable *	Ct			0.08	0.02		0.18	0.06				0.03
Total Fruit	Ct			0.12	0.04	0.20	1.04	0.26	0.03	0.03		0.19
Total Edible Herb	Ct			0.08	0.04	0.02	0.32		0.03	0.03	0.05	0.06
Total Ornamental	Ct			0.12	0.12	0.02	0.08	0.02	0.03		0.08	0.06
Total Weed	Ct			0.08	0.01		0.26					0.03

* Excluding Maize

Table 57. Floated Volume (L) and Density of Carbonized Seeds from Locus 1-9

Locus	Volume (L)	Total Nutshell*	Total Maize**	All Seeds***
1	12			0.083
2	20		0.250	0.600
3	50	0.360	0.400	1.480
4	85	0.106	2.565	3.329
5	132	0.152	0.152	1.030
6	50	0.560	0.320	3.360
7	50	1.060	0.220	1.740

(Continues)

(Table 57, Continued)

Locus	Volume (L)	Total Nutshell*	Total Maize**	All Seeds***
8	30	0.100	0.033	0.367
9	40	0.050	0.075	0.275
Total	469	0.284	0.627	1.670

Examination of the density of nutshell, maize, and all seeds (including maize and nutshell) indicated that there is spatial patterning of plant food remains and other seeds (Table 57). First, the Loci 6 and 7 pits exhibited the highest densities of nutshell (Locus 6—0.560 fragments/liter; Locus 7—1.060 fragments/liter). The Locus 4 macrofloral assemblage yielded an exceptionally high density of maize remains (2.56 seeds/liter). Maize was also relatively abundant in the Loci 3 and 6 macrofloral assemblages. Finally, high overall seed count densities were associated with Loci 3-7. The high overall seed count density associated with Locus 4 (3.32 seeds/liter) is reflective of the high concentration of maize in this locus. The high density found in Locus 7 samples derives from the high concentration of nutshell found in this context. High overall seed densities found in Loci 5 (1.03 seed/liter) and 6 (336 seeds/liter) samples are reflective of the relatively large concentration of fruit pits, edible herbs, and herbaceous weed seed taxa in these contexts (Table 56). This is particularly true of the Locus 6 storage pit feature (Feature 120), which yielded exceptionally high (for this assemblage) count densities of fruit seeds (1.04 seeds/liter) and edible herb (0.32 seeds/liter) seeds (Table 56).

The density of naturally occurring herbaceous plants in the macroplant assemblage indicated a high degree of disturbance in the local environment and that substantial non-wooded open spaces were present in the site locality throughout the occupation. This disturbance is commensurate with gardening/farming in the immediate area of the residences. The greater density of edible versus inedible herbaceous plants in offers anecdotal evidence that the inhabitants gathered and utilized naturally occurring herbs as part of their diet and perhaps as herbal medicinal remedies. The density of naturally occurring fruit and nut species offers evidence of gathering of locally available naturally occurring plants as well.

This pattern has also been recognized at other antebellum and postbellum African American archaeobotanical assemblages examined by the author at James City in North Carolina, the Hermitage in Tennessee, Jefferson's Poplar Forest in Virginia, Montpelier Plantation in Virginia, 92-98 Broad Street in Charleston, South Carolina, and the Free Cabin (9RI1036) site in Georgia (Adams et al. 2005; Branch-Raymer 2012; Raymer 1997, 2003, 2004, 2007; Wheaton and Reed 1989). Reliance on naturally occurring plant species for medicine and food is suggestive of relatively poor access to commercial markets as a result of inaccessibility, low economic status,

and/or ethnic preferences that favor wild plant species as part of the diet. Evidence from archaeobotanical and zooarchaeological study of pre- and post-Jim Crow era subsistence patterns at James City, North Carolina (where use of wild taxa increased after Jim Crow) suggests that lack of access due to racial prejudice and low economic status may have been primary factors influencing a greater reliance upon wild taxa among nineteenth- and early twentieth-century African Americans in the South (Wheaton and Reed 1989).

Diversity and Proportion of Carbonized Macrofloral Assemblage

Thirty-six genera of seeds and other plant parts were identified in the macroplant assemblage, including one condiment, seven vegetable crops, nine fruits, three nuts, seven edible herbs, four ornamentals, and five weedy herbs and grasses (see Table 54; Appendix E, Table 2). Twenty of these taxa represent definite economically important plant foods including fruits, condiments, nut, and vegetables. It is quite possible that the edible herbs represent gathered food plant remains as well. The relative proportions of each plant category are 49 percent vegetable crops, 23 percent nut taxa, 15 percent fruits, 4 percent edible herbs, 5 percent ornamental tree/herb, 3 percent herbaceous weeds, and 1 percent condiment.

Ninety-six percent (N=783) of the carbonized seeds (including maize and nutshell) were recovered from the flotation samples. Thirty-one seeds representing a four percent proportion of the recovered nutshell, maize, and other seeds were found in the five features that were not clearly associated with Locus 1-9. Four loci (Locus 4—36%, 5—17%, 6—22%, 7—11%) contained 86 percent (N=674) of the seeds and nutshell that was recovered from the nine identified loci (Table 58).

Table 58. Number of Identified Taxa, Proportions, and Seed Count from Loci 1-9

Locus	Volume (L)	Number of Identified Taxa	Proportion Identified Seeds (% of Total)	Total Nutshell Fragments*	Total Maize Fragments**	Count of All Seeds***
1	12	1	0.1			1
2	20	1	2		5	12
3	50	16	9	18	20	74
4	85	12	36	9	218	283
5	132	11	17	20	20	136
6	50	19	22	28	16	168
7	50	9	11	53	11	87
8	30	5	1	3	1	11
9	40	5	1	2	3	11
Total	469	36		133	294	783

* Hickory shell, hickory/walnut shell, acorn shell

** Kernels, Cupules, Cob elements

*** Including maize and nutshell

Seventy-five percent of the seed assemblage (N=607) was recovered from seven (Loci 3-7) features (Table 59). The Feature 120 (Locus 6) assemblage, in addition to containing the greatest proportion of seeds recovered in any 9CH1205 context, also contained the highest number of identified plant taxa (N=16). The relative proportion of specifically identified seeds recovered from Feature 120 is 18 percent vegetable crops, 38 percent fruits, 12 percent edible herbs, three percent ornamentals, 20 percent nutmast, and nine percent herbaceous weeds. The rich macrofloral assemblage from this pit offers robust evidence that the inhabitants gathered naturally occurring fruits, nuts, and edible herbs to supplement their diet.

Table 59. Number and Proportion of Seeds Recovered from Locus 3-7 Features with High Seed Densities

Locus	Feature	Seed Count*	Proportion
3	38	66	8
4	26	60	7
4	47	78	10
4	49	64	8
5	7A	84	10
6	120	168	21
7	147	87	11

* Count Includes Maize and Nutshell

Vegetable crops, nutmast, and seeds from fruit-producing trees and shrubs account for the greatest proportion of the identified macrofloral assemblage. There were 319 seeds from seven field crops comprise a 49 percent proportion of the identified seed remains. The field crops include four native North American crop plants (common bean, maize, squash/pumpkin, sunflower) and three European/African/Asian imports (millet, rice, wheat). Nutshell accounts for a 23 percent proportion of the identified carbonized seeds. Maize (18 kernels, 283 cupule/cob fragments) and nutshell (117 Juglandaceae-hickory and hickory/walnut combined, 29 acorn) comprise a 51 percent (37% maize, 14% nutshell) proportion of the identified carbonized plant remains.

Finally, 15 percent of the identified seeds represent nine fruit producing taxa including two garden trees (apple, peach), three species that are both common naturally occurring edge zone species around habitations and along field borders and deliberately planted (blackberry/raspberry, huckleberry, plum), and four taxa that are common constituents of edge zones and disturbed habitats throughout the Southeast (blackgum, haw, hawthorne, sumac). The high proportion of nutmast and naturally occurring fruit species are indicative of the gathering of naturally occurring species to supplement garden crops grown by the enslaved inhabitants and provisions provided by the Anglo American owners at 9CH1205.

Ornamentals, which included both definite ornamental plantings (chinaberry) and possible ornamentals (dogwood, violet, pine), represent five percent of the overall macrofloral assemblage. Chinaberry was recovered from Loci 4, 5, and 6 contexts. Seven edible herbs and five herbaceous weeds account for a seven percent proportion of the identifiable seed remains. The seven edible herbs may represent gathered wild plant foods. On the other hand, they may represent naturally deposited seed rain. Even if these edible wild plants do not represent residue of gathered plant foods, they unquestionably document the relatively high diversity of economically important wild plant foods available in the local ecology.

Ubiquity of Macroplant Remains

Carbonized seeds were recovered from 95 percent of the analyzed features and 100 percent of the identified loci. The ubiquity of the seven economically important plant categories from the 22 analyzed features is 68 percent nutshell, nine percent condiments, 82 percent maize, 27 percent other vegetable crops, 50 percent fruits, 59 percent ornamentals, 45 percent edible herbs, and 14 percent weeds. The ubiquity of the plant categories found in each locus is 78 percent nutshell, 22 percent condiments, 89 percent maize, 44 percent other vegetable crops, 78 percent fruits, 67 percent ornamentals, 67 percent edible herbs, and 33 percent weeds. These percentage-presence scores indicate the wide variety of crop plants and naturally occurring nuts, fruits, and edible herbs that comprised the enslaved resident's diet at Site 9CH1205.

The percentage-presence of most of the 36 identified taxa found in the sampled features is relatively low (see Table 58). Seventeen of 36 taxa (50%) were found in only one feature (5% ubiquity) each including four vegetable crops (common bean, millet, rice, sunflower), five fruits (apple, blackgum, hawthorne, plum, sumac), three edible herbs (burclover, greenbriar, pokeweed), two ornamentals (dogwood, violet), and three weeds/grasses (spurge, grass family, panic grass). Eight taxa exhibited a nine percent ubiquity (2 features each) including the condiment (mustard), two vegetables (squash/pumpkin, wheat), one fruit (huckleberry), two edible herbs (knotweed, plantain), and two weeds (copperleaf, ragweed).

Four taxa (blackberry/raspberry—18%, hawthorne—18%, peach—18%, bedstraw—14%) yielded 14-18 percent ubiquities (present in 3-4 contexts each). The remaining six taxa, which included 2 ornamentals (chinaberry—27%, pine—50%), all of the nut taxa (23% hickory, 59% hickory/walnut, 36% acorn) and maize (82%) exhibited higher ubiquities, ranging from 23-82 percent. When the hickory and hickory/walnut (which almost certainly represents hickory) are added together, the ubiquity of Juglandaceae shell increases to 68 percent. The high ubiquity and abundance of maize, juglandaceae shell, and acorn shell indicates that this crop plant and these gathered nut crops were dietary staples throughout the antebellum and Postbellum occupations.

The low ubiquity of macroplant remains found in the majority of the samples is not unexpected, given the depositional context of these samples (cabins and yard features). The lack of shaft features such as privies and wells, which are both excellent preservational contexts and contexts in which plant food remains are directly deposited, greatly reduced the possibility of recovering a wide array of definite economically important plant foods. Given the less than ideal depositional context of the archaeobotanical samples, the high diversity and relative abundance of the recovered macroplant assemblage is noteworthy.

Summary and Interpretation of the Macroplant Assemblage

The identified seed taxa are divided into seven broad categories based on their presumed economic importance. These are condiment, vegetable crops, fruits, nut-bearing shade trees, edible herbaceous plants, possible ornamental trees/herbs, and herbaceous weeds and grasses. The first four categories represent definite economically important food plants. Evidence will be presented that the edible herbaceous plants likely represent edible plant foods that were gathered by the residents. The herbaceous weeds and grasses identified in the macroplant assemblage probably represent naturally deposited seed rain from plants growing in the site vicinity.

Vegetable Crops

There were 319 field/garden crops (49% of the identifiable macrofloral assemblage) were recovered from the analyzed samples. The three vegetables (common bean, sunflower, squash/pumpkin) and four grains (maize, rice, millet, wheat) are all field crops that may have been grown in gardens and large fields as cash crops and for provisioning humans and animals living at the plantation. The African American residents likely cultivated some of these plants in small kitchen gardens surrounding their quarters for their own consumption. Four of these crop plants: maize, common bean, cucurbits (squash/pumpkin), and sunflower, are American Indian domesticates that were adopted into European American farming systems. European colonists imported three grains (millet, rice, wheat) into the United States during the seventeenth and eighteenth centuries. Forty-eight (N=311 seeds) percent of the identified macroplant assemblage (N=649 seeds) originated from these native domesticates. One percent (N=8) of the charred seed assemblage originated from the imported field crops. The majority of the crop seeds were recovered from Loci 4 (N=220), 6 (N=25), 3 (N=24), and 5 (N-20) features.

Nutmast

There were 146 nutshell fragments (29 hickory, 88 indeterminate hickory/walnut, 29 acorn) representing a 23 percent proportion of the identifiable plant remains recovered from the macroplant assemblage. Significantly, nutshell was highly ubiquitous; 68 percent of the features

contained Juglandaceae shell fragments and 36 percent of the features contained acorn shell fragments. Nutshell ubiquity in the nine identified loci is 78 percent Juglandaceae and 67 percent acorn. The high ubiquity of nutmast suggests that the African American inhabitants commonly consumed nuts. The black acorns and hickory nuts were undoubtedly gathered from local hardwood stands surrounding the plantation. The Site 9CH1205 inhabitants undoubtedly retained some hardwoods in the vicinity of the plantation when they initially cleared the land, as mast producers and shade trees.

Domesticated and Gathered Fruits

Nine fruit taxa including one apple, 52 blackberry/raspberry, one blackgum, 28 haw, one hawthorne, 4 huckleberry, 13 peach pit fragments, two plum, and one sumac were identified in the archaeobotanical assemblage. These taxa represent a 15 percent proportion of the recovered plant remains**.** All of these fruits were once cultivated, and with the likely exception of apple, peach, and plum (which more probably represent domesticated fruits), are widely distributed in the wild as well. These taxa document the use of fruits that were either collected from naturally occurring plants growing in edge zones between forest and field surrounding the plantation or grown in kitchen gardens and as lawn trees. The apple and peach seeds probably originated exclusively from domesticated plantings. Blackberry/raspberry, huckleberries, and plums could have originated from either domesticates and/or wild plants. The haw, hawthorne, and sumac seeds most likely represent fruits collected from naturally occurring small trees and shrubs.

Fourteen percent (N=14) of the overall fruit assemblage originated from apples and peaches. Europeans imported peaches, like the European and African cereal grains, into the Americas. Fifty-six percent of the overall fruit assemblage originated from three possibly gathered, native American taxa (52 blackberry/raspberry, 4 huckleberry, 2 plum) that were likely collected by African Americans living in the slave quarter. The 31 (29%) blackgum (N=1), haw (N=28), hawthorne (N=1), and sumac (N=1) seeds probably represent exclusively gathered plant foods. These fruit taxa offer evidence of the rich variety of fruit-producing plant foods that were consumed by the inhabitants.

Ornamental, Edible Herbs, Medicinal Herbs, and Weeds

The possible ornamental/naturally growing trees/shrubs (8 chinaberry, 1 dogwood, 20 pine), and herbs (1 violet) and the edible herbs (3 bedstraw, 12 burclover, 9 goosefoot, 1 greenbriar, 2 knotweed, 3 plantain, 1 pokeweed) may either represent ornamental plantings and gathered plant food resources or accidentally carbonized natural seed rain. Of the possible ornamentals, the chinaberry almost certainly represents a deliberately planted border plant. Chinaberry seeds were extremely abundant in African American yard contexts at James City in North Carolina (Wheaton and Reed 1989).

The seven edible herbs are interpreted as possible gathered foodstuffs that functioned as seasonally available dietary supplements. Six of these weedy taxa (bedstraw, burclover, goosefoot, knotweed, plantain, pokeweed) were widely consumed as seasonal greens by nineteenth-century Americans of both African and European descent (Appendix E, Table 1). The seeds of three (burclover, goosefoot, knotweed) could also be ground for flour. Greenbriar tubers were eaten in historic times as well. All seven edible herbs were utilized as herbal medicines in the eighteenth and nineteenth centuries. All of these plants would have been easily accessible in the cabin yards and open fields surrounding the quarter.

Four percent (N=31) of the macroplant assemblage is derived from these seven naturally occurring taxa that were likely collected by the inhabitants of the slave quarters as dietary supplements and medicinal remedies. The evidence suggests that many of these edible taxa represent carbonized food remains. All of these edible herbaceous weeds have a long history of use as edible wild plant foods, both by American Indians and immigrants of European and African descent. All seven have been identified at other antebellum and postbellum African American sites studied by the author (Adams et al. 2005; Branch-Raymer 2012; Raymer 1997; 2003; 2004; 2007; Wheaton and Reed 1989).

Dietary Importance of Gathered Plant Foods

The recovery of the edible and medicinal herbs, along with the mast and possibly gathered wild fruit taxa from the 9CH1205 flotation samples indicates that the African American residents of these slave quarters relied on gathered plant foods for a significant proportion of their diet (Appendix E, Table 2). These 16 (acorn, hickory, blackberry/raspberry, blackgum, haw, hawthorne, huckleberry, plum, sumac, bedstraw, burclover, goosefoot, greenbriar, knotweed, plantain, pokeweed) naturally occurring plant taxa represent a significant 42 percent of the identified seeds in the 9CH1205 samples. These plants would have added variety to an otherwise bland diet of grains and legumes provided by field crops grown for the consumption of both humans and draft animals living at the site.

DISTRIBUTION AND POTENTIAL USES OF THE IDENTIFIED SEED TAXA

This section presents a discussion of the nutshell fragments, fruit pits, and seeds recovered during this archaeobotanical study. The numbers, distribution, uses, and natural environments of each plant taxon are discussed in this section.

Condiments

Mustard

Two charred mustard seeds were recovered from Locus 3, Feature 38 and Locus 5, Feature 7A. Mustard was found in 22 percent of the loci and nine percent of the features. Approximately 100 species of mustard (*Brassica* sp.) are found in the northern temperate parts of the Eastern Hemisphere (Bailey 1949). The mustards, many of which were introduced from Europe and Asia, are annual herbaceous plants that are common noxious weeds of old fields, roadsides, and other waste places. Bailey (1949) discussed 18 domesticated species of *Brassica,* including cabbage, cauliflower, broccoli, cresses, radishes, and brussel sprouts. The young leaves of mustard plants are consumed as a salad green and cooked as a potherb. The seeds are used as a seasoning for meats and salads and in the production of table mustard (Gillespie 1959; Hall 1976).

Mustards were widely used folk remedies and commonly prescribed by nineteenth-century physicians. Indeed, mustard was so popular among physicians that it is mentioned in virtually every medical text published in the nineteenth century (Crellin and Philpot 1989:II). The most common use for mustard seeds was in the application of heat-producing poultices for the topical treatment of respiratory ailments, lumbago, rheumatism, and strains (Angier 1978; Crellin and Philpot 1989). The seeds were taken internally as a cough medicine, emetic, and laxative (Angier 1978; Krochmal and Krochmal 1973).

Pepper

A single weathered and mineralized pepper seed was recovered from Locus 1, Feature 82. This uncharred seed is interpreted as potentially dating to the nineteenth-century occupation. Peppers are native annual and perennial herbs of Central and South America that have been cultivated for centuries by both American Indians and Europeans. Columbus first brought this popular spice and fresh vegetable back to Spain in 1493 (Ward 1941). Favretti and Favretti (1990) reported that peppers were a popular garden crop in eighteenth-century North America. Jefferson first cultivated peppers in 1768 (Leighton 1987). Naturalized pepper plants are naturalized as rare garden escapes from New York to Florida and in Texas, Louisiana, Arizona, and New Mexico (Radford et al. 1968). Peppers were used in eighteenth and nineteenth America as a medicinal remedy (Crellin and Philpot 1989). It is not surprising that peppers were principally used as a stimulant.

Fruits

Nine varieties of economically important carbonized fruits were retrieved by flotation. Seventy-eight percent of the charred fruit seeds and pits derived from two taxa, blackberry/raspberry and probable haw (arrowwood). Four fruits (blackberry/raspberry, elderberry, fig, chokeberry) are represented by uncharred examples. Two of the uncharred taxa, chokeberry and elderberry, on the basis of the weathered and mineralized condition of the seeds, may represent archaeological seeds dating to the nineteenth-century occupation. Both taxa are commonly recovered from Historic privies, wells, and cisterns. The uncharred fig and blackberry/raspberry seeds, which are fresh with no evidence of weathering, are interpreted as relatively modern intrusions into the archaeological deposit.

Apple

A single, partially carbonized, heavily weathered apple seed was recovered from Locus 5, Feature 7A. This seed likely represents a garden tree maintained for its delicious fruit. Apple was identified in five percent of the sampled features and 11 percent of the identified loci. The common apple, *Malus pumila,* a member of the rose family, is a common domesticate throughout Europe, Asia, and North America (Root 1980). Bailey (1949) stated that approximately 25 species grow wild in the northern temperate zone of both hemispheres. The first European colonists introduced the common apple to the New World. The Pilgrims apparently planted apples shortly after their arrival in Massachusetts. The governor of the Plymouth Colony purchased 200 acres of land from another colonist in 1649 that contained a three-year-old apple orchard comprised of 500 trees. By 1741, apples were being exported from New England to the West Indies (Root 1980). Since its introduction, this small domesticate, which seldom exceeds 20 feet in height, has escaped cultivation and become widely naturalized in the eastern United States ((Bailey 1949; Britton and Brown 1970; Radford et al. 1968). Apples were commonly planted in the nineteenth century as lawn and garden ornamentals and as a source of seasonal fresh fruit (Favretti and Favretti 1990; Leighton 1987). Apples were consumed fresh and prepared as jams, jellies, wines, ciders, vinegars, fresh juices, applesauce, apple butter, brandies, pies, and cakes. They may also be baked, fried, stewed, spiced, candied, or used in mincemeat or chutney (Angier 1978; Gillespie 1959; Hall 1976; Peterson 1977).

Apples have long been prized as a health preservative; the fresh fruits, apple cider, apple vinegar, and bark have been used as home cures for ailments such as diarrhea, constipation, upset stomach, bilious ailments, fever, and scurvy. Apple bark was apparently in regular use in the eighteenth century (Crellin and Philpot 1989). Rafinque (1828) stated in his early nineteenth-century medical treatise that the bark had medicinal properties similar to cherry bark. The pharmaceutical company Parke-Davis marketed an extract of apple bark in the 1890s as a tonic

and a medicine for the reduction of fevers. In addition to the fresh fruit and bark of this popular domesticate, apple cider and apple vinegar enjoyed minor medical reputations in the nineteenth century. Apple cider was regarded as a treatment for "putrid fever" and vinegar was sometimes sprinkled in sickrooms as an air purifier (Crellin and Philpot 1989:61).

Blackberry/Raspberry

Fifty-two carbonized blackberry/raspberry seeds were recovered from 18 percent of the sampled features and 44 percent of the identified loci including Locus 3, Feature 30, Locus 4, Feature 53, Locus 6, Feature 120, and Locus 7, Feature 147. Blackberry/raspberry seeds represent a 50 percent proportion of the recovered carbonized fruit seeds. Shrubs of the genus *Rubus,* (refers to all *Rubus* sp., including blackberries, dewberries, raspberries, etc.) were apparently a prized fruit in nineteenth-century American households, as blackberry/raspberry seeds are virtually ubiquitous in nineteenth-century archaeobotanical assemblages in the United States (Cheek et al. 1994; Cummings 1993; O'Steen and Raymer 1995; O'Steen et al. 1995; Raymer and O'Steen 1993). Blackberry/raspberries, which are distributed throughout the eastern United States, commonly form thickets along fence rows and roadsides, within old fields, and other disturbed habitats. The succulent berries are available for harvest from the late spring through midsummer (Bailey 1949; Radford et al. 1968). The berries are eaten fresh, prepared as a fresh fruit beverage, and made into jellies, jams, pies, and wine (Fernald and Kinsey 1958; Gillespie 1959; Hall 1976; Medve and Medve 1990; Peterson 1977).

Rubus fruits were highly regarded as a virtual medicinal panacea throughout the nineteenth century, both by professional medical practitioners and in folk medicine. Griffith (1847), in his influential *Medical Botany*, extolled the value of blackberry root as an astringent medicine (diarrhea treatment). Teas made from dried blackberry/raspberry root bark were used to control diarrhea, as a blood purifier, and as a spring tonic. Dried blackberry roots were sold commercially in the nineteenth century. Finally, decoctions of the roots were gargled for sore throats and to cure mouth ulcers. Berry juice, which was used as a diarrhea cure and to control upset stomachs, was stored in the form of blackberry brandy and thick syrup (Angier 1978; Crellin and Philpot 1989; Coon 1963; Krochmal and Krochmal 1973).

Blackgum

A single carbonized blackgum seed was recovered from Locus 7, Feature 147. This taxon was identified in five percent of the sampled features and 11 percent of the identified loci. Blackgums are middle-sized trees that may attain a height of 90 feet. This genus produces an acidic, ovoid, blue-black fruit that is an important wildlife food. Blackgum trees are large trees that grow in mature forests throughout the East. These stately trees favor rich soil and are

abundant in both upland hardwood forests and lowland alluvial settings including swamps and streambanks (Peterson 1977; Radford et al. 1968). The trees flower between April and June and bear fruit from August to October. Three species are native in the northern United States and Canada (Britton and Brown 1970). Blackgums are mentioned as an ornamental lawn tree in eighteenth-century gardens (Favretti and Favretti 1990; Leighton 1987). No mention is made of these trees being grown in nineteenth-century gardens (Favretti and Favretti 1990; Leighton 1987). The acidic fruit was collected and used by historic Americans to make preserves and jellies (Fernald and Kinsey 1958; Hedrick 1972). Blackgum wood was widely used in the past to make wheel hubs, eating utensils, and shoes. These plants were not apparently widely used as an herbal medicinal remedy; there is a minor oral tradition of the use of the bark to as a tonic and treatment for kidney ailments (Crellin and Philpot 1989).

Possible Chokeberry

Two uncharred, heavily weathered and mineralized possible chokeberry (*Aronia* sp.) seeds were identified in Locus 5, Feature 7A. These seeds are interpreted as possible nineteenth-century archaeological seeds. Chokeberries are small perennial shrubs that are native throughout the eastern United States. Three taxa are found in the northern United States and Canada (Britton and Brown 1970). Chokeberries are common understory components of wet woods, swamps, and floodplain habitats (Radford et al. 1968). Chokeberries were grown in eighteenth-century gardens both for ornamentation (principally as a hedging) and as a wildlife food (Favretti and Favretti 1990). The fruits, which are available for harvest from March through June, were occasionally made into jellies (Fernald and Kinsey 1958). Chokeberries were not apparently utilized as a medicinal home remedy in historic America (Angier 1978; Coon 1963; Cox 1985; Crellin and Philpot 1989; Duke 1992; Foster and Duke 1990; Grieve 1931; Justice 1939; Krochmal and Krochmal 1973; Krochmal et al. 1969; Massey 1942; Millspaugh 1884).

Elderberry

Five uncharred elderberry seeds were identified in the 9CH1205 macrofloral assemblage. Three examples, collected from Locus 5, Feature 7A, on the basis of the mineralized and weathered condition, are interpreted as possible archaeological seeds. Like blackberry/raspberry, elderberry seeds are found in most archaeobotanical assemblages in the East. About 20 species of elderberries (*Sambucus* sp.) occur in the temperate and subtropical regions of both hemispheres. Five species are commonly cultivated (Bailey 1949). Elderberries grow in moist soils bordering field edges or swamps. This deciduous shrub or small tree, which grows from 5-30 feet tall, flowers in the spring and fruits in October. Elderberry trees are found throughout North America and Europe in moist woods, roadside ditches, thickets, stream banks, and marsh edges (Angier 1978; Coon 1963; Radford et al. 1968).

Elderberries were principally grown in the nineteenth century for food, medicine, and ornamentation. Both native and imported varieties were planted as garden and yard ornamentals in the late eighteenth and nineteenth centuries (Favretti and Favretti 1990; Leighton 1987). Crellin and Philpot (1989) reported that elderberry bushes were planted around American homes so that the plant would be readily available for the production of medicine. Both imported European *elder (Sambucus nigra*) and native elderberry (*S. canadensis*) were employed in nineteenth-century domestic medicine in America. Elderberry was used to treat skin conditions, as a purgative, and as a diuretic (Crellin and Philpot 1989). Its popularity apparently declined in the latter half of the nineteenth century (Griffith 1847). The dried inner bark was commonly prescribed as a purgative in the past. Ointments made from the crushed leaves were applied to bruises and sprains and thickened fruit juice was administered internally for coughs and colds. The dried flowers, which were once listed in the United States Pharmacopoeia, were used as a topical treatment for sunburn, to relieve itching, and to remove freckles (Coon 1963). Elderberry has been used in folk remedies as a cure-all for "abrasions, asthma, bronchitis, bruises, burns, cancer, chafing, cold, dropsy, epilepsy, fever, gout, headache, neuralgia, psoriasis, rheumatism, skin ailments, sores, sore throat, swelling, syphilis, and toothache" (Duke 1992:423).

The primary edible portions of the elderberry are its fruits and flowers. The fruits were eaten fresh, made into wine and tea, processed for jellies and jams, added to pancake and muffin batter, and used as pie filling. The flower clusters were added to pancake, waffle, and muffin batter, made into tea, battered and fried as fritters, and turned into a sweet-smelling wine (Fernald and Kinsey 1958; Gillespie 1959; Hall 1976; Medve and Medve 1990; Peterson 1977). Green blossoms were pickled and served in place of capers (Hedrick 1972).

Haw (Arrowwood)

Twenty-eight carbonized probable haw seeds representing a 27 percent proportion of the carbonized fruit seeds were identified in 18 percent of the sampled features and 33 percent of the loci including Locus 3, Feature 38, Locus 5, Feature 7, Locus 5, Feature 7A, and Locus 8, Feature 170. Ninety-three percent of the haw seeds were found in Locus 5 contexts. Haw, or arrowwood, is a small shrub that was used for both food and as a source of domestic medicine (Crellin and Philpot 1989; Radford et al. 1968). Its fruits ripen from August through October and its favored habitat is rich soil horizons in alluvial woods and along streambanks (Britton and Brown 1970; Radford et al. 1968). Haws were collected and made into jellies, jams and juices throughout the eighteenth and nineteenth centuries. Haws have a variety of medicinal uses. Crellin and Philpot (1989) report that haws were used in the nineteenth century as a diuretic, topically for skin diseases, as a tonic for uterine problems, both internally and externally for cancer, and as a topical astringent. Haw was included in the United States Pharmacopoeia in 1882.

Hawthorne

A single carbonized hawthorne seed was identified in the Locus 6, Feature 120 sample. This taxon was recovered from five percent of the features and 11 percent of the loci. Hawthorne fruits, which grow wild in alluvial woods and swamp forests throughout the eastern United States, ripen from September through October (Peterson 1977; Radford et al. 1968). Hawthorne's are found in alluvial settings in both the Coastal Plain and Piedmont and in dry, rocky woods in the piedmont and upland regions. The fruits of these shrubs and small trees were used in Historic America to make jams and jellies. The dried fruits were used as a fragrant herbal tea (Peterson 1977). Foster and Duke (1990) reported that the fruits were a popular herbal medicinal remedy among Americans of both American Indian and European descent. Teas and tinctures were made of the fruits and used as a heart tonic. Hawthornes were also grown as ornamentals in American gardens (Leighton 1987).

Huckleberry

Four carbonized huckleberry seeds were identified in nine percent of the identified features and 22 percent of the loci including Locus 6, Feature 120 and Locus 9, Feature 124. Approximately 40 species of huckleberrry (*Gaylussacia* sp.), all of which have edible berries, are native to North America. This genus of the heath family (Ericaceae) is not found in Europe. These branching shrubs form thickets in a variety of habitats including both dry and moist woodlands, sandy and rocky soils, and swamps and bogs. Five species of huckleberry, which are available for harvest in July and August, are commonly found in the northern United States and Canada (Britton and Brown 1970). Huckleberry fruits are berry-like drupes containing 10 hard, seed-like nutlets that are so similar to blueberries in taste and appearance that they are prepared in much the same way as *Vaccinium* sp. fruits (Britton and Brown 1970; Hall 1976). Unlike blueberries, huckleberries were rarely grown in kitchen gardens, and the fruits have been little altered by husbandry over the years (Root 1980). These plants were not apparently favored as ornamentals in eighteenth and nineteenth-century gardens; no mention of *Gaylussacia* sp. is made in either Favretti and Favretti's (1990) or Leighton's (1987) listings of popular historic garden plants.

Huckleberries were apparently quickly added to British colonist's diets. An early Virginia immigrant noted an abundance of huckleberries, cherries, mulberries, strawberries, and other fruits growing at the mouth of the James River in 1607. Huckleberries were sold in nineteenth-century markets, since Hedrick (1972) noted that fruits of the species *Gaylussacia frondosa* were more valued in late nineteenth-century commercial markets than other varieties. Huckleberry was not apparently utilized as a medicinal remedy in the eighteenth and nineteenth centuries, as this taxon was not recorded in the historic literature reviewed for this report as a medicinal herb (Angier 1978; Coon 1963; Cox 1985; Crellin and Philpot 1989; Foster and Duke 1990; Grieve 1931; Justice 1939; Krochmal and Krochmal 1973; Krochmal et al. 1969; Massey 1942).

Peach

Thirteen carbonized peach pit fragments were identified in 18 percent of the sampled features and 33 percent of the loci including Locus 3, Features 30 and 38, Locus 4, Feature 48, and Locus 7, Feature 147. As has already been discussed, these remains likely derived from deliberately planted trees at 9CH1205. Peaches were first brought to the New World by the Spanish, where they were immediately adopted by the American Indians (Root 1980). The Massachusetts Bay Colony transported peach pits to New England in 1629. By the mid-seventeenth century, European explorers reported American Indian groups cultivating peaches in such widely separated regions as Pennsylvania and Florida. Indeed, peaches were so widely distributed in the East by the mid-eighteenth century, that Bartram regarded this fruit as a native American plant (Hedrick 1972). Peach trees were grown in the nineteenth century as ornamentals and as a source of their edible fruits (Leighton 1987).

Peaches were consumed as a fresh dessert fruit, and also made into jams and jellies, juice, wine, and pies. Although principally prized for their edible fruit, peaches were also used in a variety of home medicinal remedies by eighteenth and nineteenth-century Americans (Crellin and Philpot 1989). The flowers were described as a treatment for fever and pains in the Colonial Period. The fruits, leaves, kernels, and flowers were used as home remedies for stomach ailments, liver problems, and as a laxative in the nineteenth century (Crellin and Philpot 1989). Peaches were not apparently highly regarded by nineteenth-century American physicians, as this fruit was not even mentioned in such influential nineteenth-century medicinal texts as Griffith (1847).

Plum

Two plum seeds were identified in the Locus 7, Feature 147 storage pit. This fruit taxon exhibits a five percent ubiquity in the features and 11 percent ubiquity in the identified loci. Approximately 150-175 species of plum, most of which produce edible fruits, occur in the northern temperate zone, Asia, and the American tropics. Nine species of these small trees and shrubs, which grow to a maximum height of 35 feet, grow wild in the northern United States and Canada. Plums were principally grown in the nineteenth century for food, shade, and ornamentation. The fruits also had a minor reputation as a medicinal remedy for constipation. The fruits provide a rich and reliable food source for many animal species. Plum trees favor dry, sandy soils and are commonly found in dry woods, in sandy soils in waste places, and along the coast and on beaches (Bailey 1949; Britton and Brown 1970; Radford et al. 1968).

These small fruit trees were popular lawn and garden trees in the nineteenth century (Favretti and Favretti 1990; Leighton 1987). Bailey (1949) discusses 12 species of domesticated plums, and asserts that these economically important stone fruits, second only to the peach in commercial

production, are mainly valued as ornamentals and for their succulent fruits. Four species of plums account for the majority of commercially marketed fruits in the United States: the European, or common plum (*Prunus domestica*); the Japanese plum (*P. salicina*); the native American plum (*P. americana*); and the damson plum (*P. insititia*), another European variety (Root 1980).

There were 150 different types of plum listed in nineteenth-century nursery catalogs. The first British and French colonists imported the European plum into the United States. A memorandum dated March 16, 1629 was issued by the Massachusetts Bay Colony requesting the transshipment of domesticated European plum pits (Root 1980). The native American plum, whose natural range extends from Maine to Florida and to the west as far as Utah and Manitoba, was first encountered by the Pilgrims in 1621 (Hedrick 1972; Root 1980). Native wild plums were deliberately planted by New England Indians and to the south by the Cherokees around their dwellings, but the Indians did not cultivate the trees. Domesticated varieties of *Prunus americana* were developed by Euro-American immigrants in the eighteenth and nineteenth century (Root 1980). Virtually all of the imported European plum species have escaped cultivation and now grow wild in the East.

Like cherries, domesticated and wild plums were eaten fresh and prepared as conserves, desserts, and beverages. Plums were made into jams and jellies, mixed with sweeter fruits in pies, and added to fruit compotes. Plums were used to make sweet wine, and have been used to flavor liquor (Angier 1978; Gillespie 1959; Hall 1976; Peterson 1977). Crellin and Philpot (1989) found little evidence that plums were a popular medicine in nineteenth-century America. Unlike cherries, which were highly regarded by both professional doctors and laymen as a virtual medical panacea, plums were only recommended as a laxative, in the form of prunes.

Sumac

A single carbonized sumac seed was identified in the Locus 4, Feature 49 midden deposit. This fruit taxon exhibits a five percent ubiquity in the features and 11 percent ubiquity in the identified loci. Sumac is an edge zone taxon that likely represents a naturally occurring, gathered resource. This small deciduous shrub or tree, which varies in height from 10-30 feet, is a common understory tree of woodland margins, thickets, and old fields (Radford et al. 1968). Sumacs were grown in eighteenth and nineteenth-century gardens both for ornamentation and for their edible fruits (Leighton 1987). The edible fruits, which are available for harvest from August through October, were made into jelly and crushed and prepared as a hot beverage (Medve and Medve 1990). Sumac was used in a variety of home medicinal remedies by

eighteenth- and nineteenth-century Americans (Crellin and Philpot 1989). *Rhus* was used as a topical antiseptic and astringent and taken internally for diabetes, bladder and kidney problems, diarrhea, dysentery, incontinence, and intestinal worms.

Nut-bearing Shade Trees

Three categories of economically important nut taxa were retrieved by flotation, including oak acorns, hickory shell, and indeterminate hickory/walnut shell. The indeterminate hickory/walnut shell likely represents hickory. Hickory trees and oaks are common naturally occurring constituents of forests in the project area and also were commonly grown around nineteenth-century habitations as shade trees and for their nuts (Radford et al. 1968). The nuts and vegetative portions of these trees were also employed as medicinal remedies in nineteenth-century America.

Hickory and Indeterminate Hickory Walnut Shell

Twenty-nine specifically identified hickory shell fragments and 88 fragments of indeterminate hickory/walnut shell were recovered from the sampled features. Hickory and hickory/walnut shell account for an 18 percent proportion of the identifiable seed remains. After maize, hickory shell is the most abundant and ubiquitous macroplant remain identified in the assemblage. Hickory shell was recovered from 23 percent of the sampled features and 56 percent of the identified loci. Indeterminate hickory/walnut shell, which likely represents very fragmentary hickory fragments, was present in 59 percent of the features and 67 percent of the loci. When combined, hickory and hickory/walnut shell exhibited a 68 percent ubiquity in the features and 78 percent ubiquity in the loci. Juglandaceae shell was recovered from Loci 3 through 8 and Locus 9 samples and three features that could not be assigned to a specific locus (Features 69, 163, 166). The abundance and ubiquity of these nutritious nuts indicates they were commonly gathered and consumed by the inhabitants throughout the occupational history of this site.

Hickories (*Carya* sp.) are found in both dry upland habitats and wet alluvial bottomlands throughout the eastern United States (Radford et al. 1968). Twelve species, which fruit between September and November, occur naturally in the northern United States and Canada (Britton and Brown 1970). Hickories provide a rich source of fuel, building materials, food, and medicine, and also are deliberately planted in yards and gardens as shade trees and for their succulent nuts. Hickory nuts provide a rich and reliable food source for both humans and wildlife. The nuts are eaten raw, crushed and boiled for their oil, roasted and ground for flour, and candied. According to Gillespie (1959), hickory nuts were seldom pickled. The sap was collected in the spring and made into syrup. Shagbark hickory *(Carya ovata)* syrup is considered a delicacy.

Hickories were not as highly esteemed as walnuts as a source of medicine in the past. Rafinesque (1828), in his *Medical Flora: or Manual of the Medical Botany of the United States of North America* (1828-1830), was the first American medical authority to record the medicinal uses of hickories. He stated that hickory could be used in the same manner as walnut. There is evidence that hickories were somewhat popular as a folk remedy in the nineteenth and early twentieth centuries. The most commonly mentioned use is the internal consumption of a mixture of hickory ashes and water for reducing fevers and curing dyspepsia. Hickories were widely used by the Cherokees and other southern Indians as a diuretic, a laxative, a treatment for skin ailments, a tonic, and for gynecological problems.

Oak

Twenty-nine specifically identified acorn shell fragments were recovered from the sampled features. Acorn shell represents a four percent proportion of the identifiable seed remains. Acorns were recovered from 36 percent of the sampled features and 67 percent of the identified loci. Acorn shell was identified in two features associated with Locus 3 (Features 30, 38), one with Locus 4 (Feature 26), and one with Locus 5 (Feature 7A). Acorns were also found in Locus 6 (Feature 120), Locus 7 (Feature 147), and Locus 9 (Feature 124) storage pits. A single acorn shell fragment was recovered from one feature that could not be assigned to a specific locus (Feature 69). The abundance and ubiquity of these nutritious nuts indicates that like hickory nuts, they were commonly gathered and consumed by the inhabitants throughout the occupational history of this site.

Oaks (*Quercus* sp.) are one of the most economically important hardwood species found in North America. Approximately 70 taxa are found in the United States, fifty-eight of which are trees. Britton and Brown (1970) discuss 25 species that are commonly found in the northeastern United States. Oaks grow in virtually every ecological niche in the eastern woodlands, from dry upland ridges to rich alluvial bottomlands (Britton and Brown 1970; Radford et al. 1968). Oaks are used for fuel, building materials, food, medicine, shade and ornamentation, tannin, and cork (United States Department of Agriculture 1974). Oak acorns provide a rich and reliable food source for both humans and wildlife. The nuts are ground for flour, which made excellent muffins and pancakes. Acorns can be roasted and used as a coffee substitute. Acorns from white oaks are more palatable than red oaks, due to the higher levels of tannic acid found in the red oak acorns. Red oak acorns are more bitter, and must be soaked several times in boiling water prior to their consumption (Angier 1978; Gillespie 1959; Peterson 1977). Oaks were deliberately planted around dwellings in the nineteenth century as shade trees and for their acorns (Favretti and Favretti 1990; Leighton 1987).

Oaks have a long history of medicinal use in America, both as a home remedy and by professional medical doctors. Oak bark tea was consumed as a treatment for sore throat and diarrhea. Concoctions of oak bark and leaves were also used as external astringent and antiseptic medications, for the treatment of burns, skin sores, and ulcers (Crellin and Philpot 1989; Krochmal and Krochmal 1973). Acorns were only used medicinally when bark and leaves were unavailable. Griffith (1847), in his influential *Medical Botany*, provided detailed descriptions on the medical value and uses of oaks. White oak *(Quercus alba)* and black oak *(Quercus velutina)* were considered the most valuable species for medical uses in nineteenth-century America (Crellin and Philpot 1989).

Possible Ornamental Plants

Twenty-nine seeds and other plant parts from three possible ornamental/naturally growing trees/shrubs (8 chinaberry, 1 dogwood, 20 pine), and one herbaceous (violet) species may either represent ornamental plantings or accidentally carbonized natural seed rain. Of the possible ornamentals, the chinaberry almost certainly represents a deliberately planted border plant. Chinaberry seeds were extremely abundant in African American yard contexts at James City in North Carolina (Wheaton and Reed 1989). Pines are very common climax and second growth trees on the Coastal Plain in the Southeast.

Chinaberry

Eight carbonized chinaberry seeds were recovered from 27 percent of the sampled features and 33 percent of the identified loci including Locus 4, Features 49 and 53; Locus 5, Feature 7; Locus 6, Feature 120; and Feature 166 (not associated with the identified loci). Chinaberry was an enormously popular ornamental tree that was widely used as a landscaping plant in eighteenth-century gardens and yards (Hedrick 1972). Wheaton and Reed (1989) identified large quantities of chinaberry remains in African American yard contexts at James City in North Carolina. The carbonized remains at 9CH1205 probably derived from plantings around the slave habitations. Both Thomas Jefferson and George Washington planted this tree (Leighton 1987). It is widely planted in the south (Hedrick 1972), and has escaped cultivation in the Carolinas (Radford et al. 1968). Chinaberry fruits are not edible; however, this taxon sustains a minor reputation as a medicinal herb. The root bark was employed in eighteenth-century South Carolina as a treatment for intestinal worms (Crellin and Philpot 1989.

Flowering Dogwood

A single carbonized dogwood seed was recovered from Locus 7, Feature 147. This taxon was identified in five percent of the sampled features and 11 percent of the identified loci. Seven species of dogwood are native to the Southeast including flowering dogwood (*Cornus florida*), which this specimen most closely resembles. Dogwoods are small trees and shrubs that bear fruit from August to October (Radford et al. 1968). Favretti and Favretti (1990) reported dogwoods were planted in eighteenth through early twentieth-century gardens as a hedge plant and garden border. Dogwoods are not recorded as edible, but bark tea was used in the past as a treatment for fevers, malaria, and yellow fever. The hard wood was once used to make tool handles and the fruits are a valuable wildlife food (Duncan and Duncan 1998; Howell 2006).

Pine

Twenty pine cone scales, one seed, and two needles were recovered from 50 percent of the features and 56 percent of the identified loci (see Appendix E, Tables 4-5). Pine (*Pinus* sp.) trees are virtually ubiquitous in southern Coastal Plain forests and in disturbed second growth forests. Pine trees would likely have been common in the site vicinity. The literature reviewed for this study yielded no evidence of historical use of pines as medicinal remedies. However, both Peterson (1977) and Fernald and Kinsey (1958) report food uses of pine cones, shoots, cones, needles, and inner bark in the past. Pine shoots were made into candy; the inner bark was used as a flour substitute in times of famine; the male cones were also consumed as a famine food; and the needles were used as an herbal tea.

Violet

One carbonized violet (*Viola* sp.) seed was identified in the Locus 6, Feature 120 storage pit. This taxon was identified in five percent of the sampled features and 11 percent of the identified loci. It is possible that these seeds document an ornamental planting in the near vicinity of this feature. This annual or perennial herb occurs naturally in moist soils of open fields and open woods (Radford et al. 1968). Violets were popular constituents of eighteenth and nineteenth-century gardens (Leighton 1987). The young leaves and flowers were gathered in the spring and eaten as a fresh salad green, cooked as a potherb, added to soups, made into tea, and used in jellies (Medve and Medve 1990). Eighteenth- and nineteenth-century Americans used violets in a variety of home medicinal remedies (Crellin and Philpot 1989). *Viola* was used a topical antiseptic and taken internally as a diaphoretic, emetic, emollient, expectorant, laxative, and purgative.

Naturally Occurring Edible/Medicinal Herbaceous Plants

Seven edible herbs are interpreted as possible gathered foodstuffs that functioned as seasonally available dietary supplements. Six of these weedy taxa (bedstraw, burclover, goosefoot, knotweed, plantain, pokeweed) were widely consumed as seasonal greens by nineteenth-century Americans of both African and European descent (Appendix E, Table 1). The seeds of three (burclover, goosefoot, knotweed) could also be ground for flour. Greenbriar tubers were eaten in historic times as well. All seven edible herbs were utilized as herbal medicines in the eighteenth and nineteenth centuries. All of these plants would have been easily accessible in the cabin yards and open fields surrounding the quarter. All seven have been identified at other antebellum and postbellum African American sites studied by the author (Adams et al. 2005; Branch-Raymer 2012; Raymer 1997, 2003, 2004, 2007; Wheaton and Reed 1989).

Bedstraw

Three carbonized bedstraw seeds were recovered from 14 percent of the sampled features, 11 percent of the identified loci (Locus 5, Feature 7A), and two of the features (Features 73, 166) that could not be assigned to one of the identified loci. Bedstraw is an annual or perennial herb that is native to edge zones and woods in the East (Radford et al. 1968). Bedstraw is found both in dry, wooded areas and in saturated areas such as swamps and wetland meadows. Bedstraw fruits ripen between May and August. This plant derives its name from its apparent use a bedding material, although it has been documented as being used for medicinal purposes as well (Cox 1985). The young shoots of this herb are eaten both as a salad green and cooked as a potherb. The fruits have been used as a coffee substitute (Medve and Medve 1990). This taxa sustains a minor reputation as a medicinal herb; it has been used as a diuretic, to increase urine flow, as an appetite stimulant, to reduce fevers, and to cure vitamin C deficiencies.

Burclover

Twelve burclover (*Medicago* sp.) seeds were recovered from the Locus 6, Feature 120 storage pit. Burclover, which is also a member of the bean family, is an edible herbaceous plant that is commonly found in fields, waste places, and yards. This native of Europe, Asia, and Africa is widely naturalized in the United States and provides valuable forage for livestock, birds, and small mammals. The beans can be ground into flour and used to make a tea and its vegetative parts (young leaves and flower clusters) can be used as a potherb. It sheds its seeds throughout the summer months (Cox 1985; Radford et al. 1968). Burclover seeds were well-represented at the Stable Quarter site at Montpelier Plantation in Virginia (Branch-Raymer 2012).

Goosefoot

Nine carbonized goosefoot seeds were recovered from 32 percent of the sampled features and 56 percent of the identified loci. The seeds were recovered from one feature associated with Locus 3 (Feature 38), and two associated with Locus 4 (Features 26, 47) features. Goosefoot was also found in the Locus 6 (Feature 120), Locus 8 (Feature 170), and Locus 9 (Feature 124) storage pits. A single goosefoot fragment was recovered from one feature that could not be assigned to a specific locus (Feature 69). Goosefoot (*Chenopodium* sp.), also known as lambsquarters, has long been valued as a nutritious wild plant food. This annual herbaceous plant, which grows in disturbed habitats, is a common weed growing around human habitations throughout the continental United States (Britton and Brown 1970; Radford et al 1968). A single plant can produce up to 100,000 seeds. Young goosefoot leaves are cooked as a spinach-like potherb, eaten raw in salads, or added to soups, and the seeds can be ground for flour or consumed as a cereal (Cox 1985; Fernald and Kinsey 1958; Gillespie 1959; Hall 1976; Hedrick 1972; Medve and Medve 1990; Peterson 1977). Goosefoot greens and seeds have been used historically as a gathered dietary supplement. Euro American pioneers reportedly added goosefoot flour to breads, cookies, muffins, and pancakes (Duke 1992). Goosefoot seeds were mixed with wheat to extend the crop in times of famine in Europe (Krochmal and Krochmal 1973). Several species of *Chenopodium* were cultivated in the nineteenth century as medicinal herbs and garden ornamentals (Favretti and Favretti 1990; Leighton 1987). Lambsquarters (*Chenopodium album*) was not recorded in the literature reviewed for this report as a medicinal herb (Angier 1978; Cox 1985; Coon 1963; Crellin and Philpot 1989; Duke 1992; Foster and Duke 1990; Grieve 1931; Justice 1939; Krochmal and Krochmal 1973; Krochmal et al. 1969; Massey 1942; Millspaugh 1884).

Greenbriar

One carbonized greenbriar seed was identified in the Locus 3, Feature 38 storage pit. This fruit taxon exhibits a five percent ubiquity in the features and 11 percent ubiquity in the identified loci. Greenbriars (*Smilax* sp.) are herbaceous and woody vines that favor dry, sandy soil and are usually found in wooded areas and thickets (Radford et al. 1968). Their inedible fruits ripen between September and November. Historic Indians consumed the large tuberous roots of several species (*Smilax bona-nox, S. glauca, S. heracea, S. laurifolia, S. pseudochina, S. rotundifolia)*. The rootstocks were dried and ground into flour. These taxa were also commonly used as medicinal remedies. The greenbriar seed found in the midden almost certainly represents incidentally carbonized naturally occurring seed. The recovery of this taxa documents that this plant food was growing in the site vicinity, and that it was available for use as medicine or a vegetable food.

Knotweed

Two charred knotweed seeds were recovered from Locus 3, Feature 38 and Locus 5, Feature 7A. Knotweed was found in 22 percent of the loci and 9 percent of the features. The knotweeds/smartweeds, *Polygonum* sp., which are available for harvest in the summer, are common herbaceous weeds of disturbed habitats throughout the United States and Canada (Britton and Brown 1970; Radford et al. 1968). Britton and Brown (1970)) in their *Illustrated Flora of the Northern United States and Canada*, discuss 14 species of *Polygonum.* Smartweeds are common throughout the eastern United States in alluvial settings and disturbed areas (Britton and Brown 1970; Radford et al. 1968).

The seeds and greens of these herbaceous plants have long been utilized as a gathered dietary supplement in the United States, with the roots, seeds, and bulbs all being used for food. The smartweeds are most highly prized for their seeds, which are ground into flour for baking or parched and eaten as a cereal. The leaves and shoots are eaten fresh in salads and cooked as a potherb. The rootstalks of some species are valued as a potato substitute (Angier 1978; Gillespie 1959). Gillespie (1959) states that some varieties of smartweed were also used as a pepper substitute.

The smartweeds, particularly *Polygonum hydropiper* and *Polygonum aviculare,* have a reputation in folk medicine as an astringent, a diuretic, and a tonic. The smartweeds were best known in nineteenth-century America for their supposed diuretic and astringent qualities (Crellin and Philpot 1989). Smartweed was apparently not a very popular herbal medicine among nineteenth-century medical professionals since it was generally only briefly mentioned in medical treatises, and Griffith (1847) stated that this taxon was rarely prescribed as a medicinal remedy.

Plantain

Two carbonized plantain seeds were recovered from the Locus 5, Feature 7A possible root pit and Locus 6, Feature 120 storage pit. This edible herb exhibited a nine percent ubiquity in the features and was present in 22 percent of the identified loci. Plantains (*Plantago* sp.) are annual herbaceous weeds that include both indigenous American and naturalized European species. Britton and Brown (1970) record over 200 species in the northern United States and Canada. These leafy stemmed herbs are found in waste places, woods, old fields, swamps, and along streambanks. Plantains are common yard weeds throughout the eastern United States (Britton and Brown 1970; Cox 1985). Plantains sustain a minor reputation in the ethnobotanical literature as a potherb and salad green (Fernald and Kinsey 1958; Peterson 1977). Fernald and Kinsey (1958) report that common plantain (*Plantago major*) was used as a famine food in the

past. Another species, seaside plantain (*P. juncoides*), was gathered and consumed by New England coastal fishermen. Plantains were widely used as a home medical remedy in eighteenth and nineteenth-century America (Crellin and Philpot 1989). The leaves and plant juices were used as a topical treatment for a wide variety of skin ailments and wounds. The leaf juice was also used as a poison remedy.

Pokeweed

A single carbonized pokeweed seed was recovered from the Locus 6, Feature 120 storage pit. This taxon was identified in five percent of the sampled features and 11 percent of the identified loci. Pokeweed, *Phytolacca americana*, is an indigenous North American herbaceous weed that grows along the entire eastern seaboard, from Quebec to Florida. Pokeweed favors rich, low ground in open wooded areas, pastures and fields, and disturbed areas. The crimson berries, whose juice has been used as a food and wine coloring, paint pigment, dye, and ink substitute, are available for harvest from May until first frost (Cox 1985; Radford et al. 1968).

Young pokeweed shoots and leaves are harvested and consumed as a potherb. The young stalks can be cooked and eaten like asparagus or pickled and stored for later consumption. The leaves are cooked as a spinach-like potherb (Cox 1985; Gillespie 1959; Hall 1976). In the Appalachian region, the young leaves are canned and stored for future use (Krochmal and Krochmal 1973). The shoots of this herb have been, and still are, cultivated in the United States. Cox (1985) found gardeners cultivating pokeweed in southern Missouri and Gillespie (1959) stated that this plant was still sold commercially in West Virginia in the 1950s. Pokeweed was imported into Europe, where it is still cultivated as a garden vegetable (Angier 1978; Cox 1985; Hall 1976).

Pokeweed was widely used as a folk remedy during the eighteenth and nineteenth centuries in the United States (Cox 1985; Crellin and Philpot 1989; Krochmal and Krochmal 1973; Massey 1942). Indeed, this plant was in such high regard among both laymen and professional medical practitioners that it became known as a virtual cure-all during the nineteenth century. The principal medicinal value attributed to this plant was as a cure for rheumatism. In eighteenth and nineteenth-century America, pokeweed roots and berries were widely prescribed as treatments for rheumatism, skin conditions, syphilis, and as a laxative (Crellin and Philpot 1989). A 1912 survey of physicians referenced in Crellin and Philpot's (1989) monograph on herbal medicine found that pokeweed was still a popular botanical remedy in the early twentieth century.

Non-economic Weeds and Grasses

Five species of weedy herbaceous plants and grasses representing a three percent proportion of the carbonized macrofloral assemblage were retrieved by flotation (copperleaf, ragweed, spurge, grass family, panic grass). One weedy taxon, jimsonweed, is represented by uncharred seeds. The jimsonweed, on the basis of the weathered and mineralized condition of the seeds, may represent archaeological seeds dating to the nineteenth-century occupation. Jimsonweed is commonly recovered from historic privies, wells, and cisterns. The other five uncharred weed taxa (copperleaf, nightshade, ragweed, sida, tickclover) are interpreted as relatively modern intrusions into the archaeological deposit.

Copperleaf

Six carbonized copperleaf seeds were recovered from nine percent of the sampled features and 22 percent of the identified loci including Locus 3, Feature 38 and Locus 6, Feature 120. Copperleaf is an endemic weed of waste places, cultivated fields, and yards. This plant is not recorded as edible, and no mention of its use as a medicinal herb or garden ornamental was found in the literature reviewed for this project (Angier 1978; Coon 1963; Cox 1985; Crellin and Philpot 1989; Duke 1992; Foster and Duke 1990; Favretti and Favretti 1990; Grieve 1931; Justice 1939; Krochmal and Krochmal 1973; Krochmal et al. 1969; Leighton 1987; Massey 1942; Millspaugh 1884).

Jimsonweed

Six uncharred, heavily weathered and mineralized jimsonweed seeds were identified in 14 percent of the features and 33 percent of the identified loci including the Feature 38 (Locus 3) storage pit, the Feature 7A (Locus 5) root pit, and Feature 147 (Locus 7) storage pit. These seeds are interpreted as probable nineteenth-century archaeological seeds. Jimsonweed, *Datura stramonium,* is a widely naturalized endemic weed that was imported from Europe and grows abundantly on garbage heaps (Millspaugh 1884). Enslaved African Americans living at 9CH1205 may have utilized this taxon as a hallucinogen. Evidence of this practice is offered by the recovery of large quantities of weathered and mineralized jimsonweed from archaeological deposits associated with the African Burial Ground in Manhattan in New York City (Raymer and Bonhage-Freud 2000). The high abundance and ubiquity of this taxon at this site argues that the site inhabitants used this plant. African Americans who utilized the project area in the seventeenth and eighteenth centuries as a burial ground may have introduced this naturalized weed, which has both medicinal and narcotic qualities, to the local ecology. It is

possible that this plant, which has hallucinogenic properties, was used by enslaved African Americans in New York City in the eighteenth century. Jimsonweed was also identified at both the North Hill and Quarter sites at Jefferson's Poplar Forest (Raymer 2003).

Jimsonweed is recorded as a medicinal herb that although extremely poisonous, was used as an antispasmodic, topical treatment for skin conditions, antiasthmatic, and sedative (Crellin and Philpot 1989; Krochmal and Krochmal 1973; Krochmal et al. 1969). All parts of the plant are to some degree toxic, especially the seeds. The most common use of this herbaceous weed was as a treatment for the spasmodic coughing associated with asthma. The plant was burned and the asthma sufferer inhaled the smoke. The plant juices, flowers, leaves, and roots were also made into salves and poultices that were variously used as topical treatments for sores, boils, pimples, swellings, and skin ulcers (Crellin and Philpot 1989; Krochmal and Krochmal 1973). Crellin and Philpot (1989)) reiterated the value of this plant as an inhalant for asthma patients and state that jimsonweed cigarettes are available today in some parts of the world.

Ragweed

Seven carbonized ragweed seeds were recovered from nine percent of the sampled features and 22 percent of the identified loci including Locus 3, Feature 38 and Locus 6, Feature 120. Ragweed, *Ambrosia* sp., is an endemic weed that is widespread throughout the continental United States. Although ragweed is not edible, it has been utilized as a medicinal home remedy and to some degree by professional medical practitioners. It was used in nineteenth-century America as a topical astringent for the treatment of wounds, and taken internally as a treatment for hay fever. Parke-Davis marketed a liquid extract of ragweed mixed with goldenrod in the late nineteenth century as a tonic and astringent medicine (Crellin and Philpot 1989). It was also used in the United States as a treatment for gonorrhea, and digestive disorders such as diarrhea and upset stomach (Cox 1985; Crellin and Philpot 1989; Krochmal and Krochmal 1973). Cox (1985) and Krochmal and Krochmal (1973) report that ragweed is reputedly a valuable treatment in Mexico for intestinal worms and the reduction of fevers. Medical interest in ragweed declined in the early twentieth century (Crellin and Philpot 1989).

Spurge

A single carbonized spurge seed (5% ubiquity in feature samples; 11% in loci) was recovered from the Locus 6, Feature 120 storage pit. The spurges, *Euphorbia* sp., are a large family of annual and perennial herbaceous herbs and shrubs. Spurge fruits are available for harvest in the spring and summer months (Cox 1985; Kay and Lees 1913; Radford et al. 1968). This genus is distributed throughout the United States; Cox (1985) records six species as natives of the northeastern United States. Radford et al. (1968) discussed 20 species that are found in the

southern states. Several varieties of spurge are documented by Favretti and Favretti (1990) and Leighton (1987) as late eighteenth and nineteenth-century ornamental flowers (*Euphorbia lathyrus, E. marginata, E. corollata, E. variegata*). Four of these ornamentals have escaped cultivation (*Euphorbia lathyrus, E. marginata, E. corollata, E. variegata*), and two, *Euphorbia lathyrus and Euphorbia corollata,* are widely naturalized weeds in the eastern United States. Spurges are a widely distributed naturally occurring weed that is commonly associated with disturbed habitats such as yards, roadsides, and farm fields (Cox 1985; Kay and Lees 1913; Radford et al. 1968).

Some species of *Euphorbia* were utilized as medicinal home remedies in the nineteenth century. Two varieties of spurge, *Euphorbia corollata* (flowering spurge) and *Euphorbia maculata* (spotted spurge), are recorded as medicinal herbs that were utilized in the first half of the nineteenth century as a laxative and emetic (Crellin and Philpot 1989; Krochmal and Krochmal 1973). Spurge was prescribed in the same fashion as milkweed (*Asclepias* sp.). Parke-Davis marketed a preparation of spurge as a laxative in 1900. According to Crellin and Philpot (1989), spurge was less popular than other laxatives, and was primarily resorted to as a last resort after other laxatives had proven ineffective.

Grasses

At least two grass taxa were recognized, including panic grass and unidentified grass grains (*Poaceae*). Approximately 325 species of panic grass (*Panicum* sp.) are found in the United Sates. This grass is a common annual/perennial plant is a common weed in open fields, is found in open woods, and grows in wet conditions of swampy areas and along streambanks. These grass taxa likely represent yard weeds that grew naturally in the vicinity of the farm. One species, *Panicum* (*Dicanthelium*) *miliaceum*, is an introduced cereal grain that has never been an important crop plant in the United States (Fernald and Kinsey 1958). The fruits of these annual and perennial grasses ripen throughout the summer months. These grass taxa likely represent yard weeds that grew naturally on the property.

MACROPLANT REMAINS ASSOCIATED WITH ANTEBELLUM, MIXED ANTEBELLUM/POSTBELLUM, AND POSTBELLUM LOCI

Site 9CH1205 was occupied from circa 1825 through the 1880s by enslaved African Americans in the antebellum period and free African Americans in the postbellum period. Three loci (3, 8, 9) clearly date to the antebellum occupation. Four loci (1, 2, 4, 5) contain materials dating to both the antebellum and postbellum habitations. Finally, Loci 6 and 7 date to the postbellum period.

The carbonized macroplant assemblages associated with each occupational period are summarized in this section (Table 60). The antebellum occupation is interpreted as a slave settlement, separate from the planter's house, which was first occupied during the first third of the nineteenth century and extended through the Civil War. The postbellum occupation represents either a continuation of the slave era occupation or a postbellum re-occupation by freedpeople.

Table 60. Summary of Carbonized Macrofloral Remains from Antebellum, Mixed Antebellum/Postbellum, and Postbellum Loci

	Antebellum Occupation (Loci 3, 8, 9)	Postbellum Occupation (Loci 6, 7)	Mixed Antebellum/Postbellum (Loci 1, 2, 4, 5)
Volume (L)	120	100	249
Total Seed Count*	96	255	432
Total Seed Density	0.80	2.55	1.73
Total Maize Count	24	27	243
Total Maize Density	0.20	0.27	0.81
Total Nutshell Count	23	81	29
Total Nutshell Density	0.19	0.81	0.12
Proportion of Identified Seeds *	12	33	55

* Including Maize and Nutshell

ANTEBELLUM OCCUPATION

Three loci (3, 8, 9) are associated with the antebellum slave era occupation of 9CH1205. The antebellum archaeobotanical assemblage consists of 96 carbonized seeds representing a 12 percent proportion of the seeds that were collected from 120 liters of floated sediment. Twenty-five percent of the identified macroplant remains from these contexts are maize (N=24) and 24 percent are nutshell (N=23). Seventy-seven percent of the antebellum-age seeds were found in Locus 3 features. The antebellum seed assemblage included an impressive variety of naturally occurring fruits, edible herbs, and herbaceous weeds in addition to gathered nut crops and cultivated maize. These data indicate that the enslaved African American residents gathered a wide variety of plant foods in addition to relying on crops for their sustenance. This subsistence pattern continues unabated into the postbellum period.

Locus 3

Locus 3 was identified in the northeastern portion of the site. Locus 3 is a wall trench structure, consisted of two wall trenches (Features 89 and 90) and a cluster of associated yard pits and postholes (30, 31, 32, 33, 34, 37, 38). This structure represents an early occupation that appears to date to the 1830s. The Locus 3 macrofloral assemblage included 74 carbonized seeds that were collected from 50 liters of floated sediment. This locus yielded a large and diverse macrofloral assemblage consisting of 16 carbonized plant taxa that accounted for a nine percent proportion of the recovered seeds, nutshell, and maize remains. The macrofloral assemblage consists of four vegetable crops, two nuts, three fruits, one ornamental, three edible herbs, one possible ornamental, and two herbaceous weeds. Eleven of the 74 carbonized plant remains were not specifically identifiable. Twenty-nine percent of the identifiable seeds (18 of 63 seeds) found in this locus are nutshell and 32 percent are maize. These remains document the centrality of maize cultivation and gathering of nuts in the antebellum period African American diet at this site. The diverse assemblage of fruits, edible herbs, and herbaceous weeds in the macrofloral assemblage from this locus offers robust evidence for the collection of naturally occurring fruits, nuts, and herbaceous taxa by the African American inhabitants in the antebellum period.

Locus 8

Locus 8 is assumed to represent the remains of a habitation that was located in the northeastern portion of the site. Locus 8 is represented by single large pit (Feature 170). Artifacts recovered from this feature date to the earlier portion of the nineteenth century. The sparse Locus 8 macrofloral assemblage included 11 carbonized seeds from five plant taxa that were collected from 30 liters of floated sediment. The Locus 8 seeds represent a one percent proportion of the recovered macrofloral assemblage. The assemblage consists of one vegetable crop, one nut, one fruit, one edible herb, and one possible ornamental. Four of the 11 carbonized plant remains were not specifically identifiable. Forty-three percent of the identifiable seeds (3 of 7 seeds) found in this early nineteenth-century habitation are nutshell.

Locus 9

Locus 9, which dates to the 1840s and 1850s, consists of a single shallow pit feature that lacked direct evidence of a structure and was spatially separated from the other loci. The sparse Locus 9 macrofloral assemblage included 11 carbonized seeds from five plant taxa that were collected from 40 liters of floated sediment. The Locus 9 seeds represent a one percent proportion of the recovered macrofloral assemblage. The macrofloral assemblage consists of one vegetable crop, two nuts, one fruit, and one edible herb. Two of the 11 carbonized plant remains were not specifically identifiable. Forty-four percent of the identifiable seeds (3 of 7 seeds) found in this locus are nutshell and 33 percent are maize.

ANTEBELLUM/POSTBELLUM LOCI

Four loci (1, 2, 4, 5), all of which are identified as structural remains, are associated with mixed antebellum/postbellum occupations at 9CH1205. The archaeobotanical assemblage from these contexts consists of 432 carbonized seeds representing a 55 percent proportion of the seeds that were collected from 249 liters of floated sediment. Fifty-six percent of the identified macroplant remains from these contexts are maize (N=243) and seven percent are nutshell (N=29). Ninety percent of the maize remains and 66 percent of all seeds from mixed antebellum/postbellum contexts were found in Locus 4 features. Seed remains are scarce in Loci 1 and 2 features. The high density of maize in these antebellum/postbellum contexts documents the importance of maize in the African American diet throughout the occupational history of this site. The variety of naturally occurring plants identified in Loci 4 and 5 contexts demonstrates that the inhabitants also relied on the collection of nuts and other naturally occurring plants as important dietary supplements in both the antebellum and postbellum periods.

Locus 1

Locus 1 was identified in the southwestern portion of the site. Locus 1 consisted of a brick chimney base (Feature 82) and midden (or plow zone) residue (Features 81, 85, 98, 100, 121, 184, 192, 101A, 101B). This duplex structure is consistent with slave housing for this region and almost certainly pre-dates the Civil War. This habitation was probably occupied for a time after the war as well. The sparse Locus 1 macrofloral assemblage includes one carbonized grass stem fragment that was collected from 12 liters of floated sediment.

Locus 2

Locus 2 was identified in the southwestern portion of the site. Locus 2, which included a brick chimney base (Feature 173), shallow pits, and midden residue (Features 176, 183), was probably built before the Civil War and occupied into the postbellum period. The sparse Locus 2 macrofloral assemblage included 12 carbonized seeds from one plant taxa that were collected from 20 liters of floated sediment. The Locus 2 seeds represent a one percent proportion of the recovered macrofloral assemblage. The macrofloral assemblage consists of five maize cupules and seven unidentifiable seeds and other plant parts. Maize accounts for a 100 percent proportion of the identifiable seeds.

Locus 4

Locus 4 was identified in the northeastern portion of the site. Locus 4 is represented by a concentration of posts, pits, and midden residue (Features 20, 24, 25, 26, 47, 48, 49, 53, 68, 71, 104, 105). This locus appears to date from the first quarter of the nineteenth century to a time

after the Civil War. The Locus 4 macrofloral assemblage included 283 carbonized seeds that were collected from 85 liters of floated sediment. This locus yielded a large and diverse macrofloral assemblage consisting of 12 carbonized plant taxa that accounted for a 35 percent proportion of the recovered seeds, nutshell, and maize remains. The macrofloral assemblage consists of three vegetables, two nuts, three fruits, two ornamentals, one edible herb, and one weed. Thirty-seven of the 283 carbonized plant remains were not specifically identifiable. Eighty-nine percent of the identifiable seeds (218 of 246 seeds) found in this locus are maize. These remains document the centrality of maize in the African American diet throughout the occupational history of this site.

Locus 5

Locus 5, which was identified in the northeastern portion of the site, and is represented by three large pits including Features 7 and 7A. Feature 7A is a deep cylindrical pit that was filled with fragmentary brick and mortar. Feature 7 may represent a root storage pit. Locus 5 appears to date to both the antebellum and Post Bellum periods, with a date range from the 1850s through the 1860s. The Locus 5 macrofloral assemblage included 136 carbonized seeds that were collected from 132 liters of floated sediment. This locus yielded a large and diverse macrofloral assemblage consisting of 11 carbonized plant taxa that accounted for a 17 percent proportion of the recovered seeds, nutshell, and maize remains. The macrofloral assemblage consists of one vegetable (maize), two nuts, one fruit, two ornamentals, and three edible herbs. Sixty-two of the 136 carbonized plant remains were not specifically identifiable. Twenty-seven percent of the identifiable seeds (20 of 74 seeds) found in this locus are maize and 27 percent are nutshell fragments. These remains document the importance of maize cultivation and collection of nuts and other naturally occurring plants in the African American diet in both the antebellum and postbellum periods.

POSTBELLUM OCCUPATION

Two loci (6, 7), both of which are identified as pits associated with structural remains, are associated with postbellum occupation of 9CH1205. The archaeobotanical assemblage from these contexts consists of 255 carbonized seeds representing a 33 percent proportion of the seeds that were collected from 100 liters of floated sediment. Eleven percent of the identified macroplant remains from these contexts are maize (N=27) and 32 percent are nutshell (N=81). The count density of all seeds is a high 1.73 seeds per liter of floated soil. The density of nutshell is 0.81 fragments per liter and maize is 0.27 fragments per liter. Sixty-seven percent of the postbellum-age seeds concentrated in the Locus 6 pit feature. The postbellum seed assemblage includes an impressive variety of naturally occurring fruits, edible herbs, and herbaceous weeds in addition to a high proportion of gathered nut crops and lower proportion of

maize. These data indicate that the enslaved African American residents continued the antebellum tradition of collecting a wide variety of wild plant foods in addition to relying on crops for their sustenance. The lower proportion of maize remains relative to nutshell and all seeds offers anecdotal evidence that the postbellum inhabitants may have collected a greater proportion of their plant foods than in the antebellum period. However, this assertion must be viewed with caution, as the high concentration of nutshell in Locus 6 and maize in Locus 4 may represent localized cooking accidents rather than temporal differences in the degree of reliance on gathered versus cultivated plant foods.

Locus 6

Locus 6, which was identified in the southwestern portion of the site, is represented by a single large storage pit (Feature 120). The relatively late date from this locus and Locus 7 suggest this part of the site remained in use until after 1880. The Locus 6 macrofloral assemblage included 168 carbonized seeds that were collected from 12 liters of floated sediment. The Locus 6 storage pit, which was filled late in the nineteenth century, contained significant quantities of artifacts and a large and diverse macrofloral assemblage consisting of 19 carbonized plant taxa that accounted for a 21 percent proportion of the recovered seeds, nutshell, and maize remains. The macrofloral assemblage consists of three vegetable crops, two nuts, three fruits, four edible herbs, three possible ornamentals, and four herbaceous weeds. Thirty of the 168 carbonized plant remains were not specifically identifiable. Twenty-one percent of the identifiable seeds (29 of 138 seeds) found in this Locus represent naturally occurring edible herbs and weedy taxa. Nutshell accounted for a 20 percent proportion of the macrofloral assemblage and the proportion of fruits is 38 percent. The macrofloral assemblage from this Locus offers robust evidence for the collection of naturally occurring fruits, nuts, and herbaceous taxa by the African American inhabitants in the postbellum period.

Locus 7

Locus 7, which consisted of a single large storage pit (Feature 147), was identified in the southwestern portion of the site. The Locus 7 storage pit was filled late in the site's occupation and contained large items suggestive of primary disposal. The relatively late date from this locus, and Locus 6 suggest this part of the site remained in use until after 1880. Analysis of the Feature 147 carbonized macrofloral assemblage yielded nine carbonized seed taxa that represented an 11 percent proportion of the recovered maize, nutshell, and seeds. Forty-two percent of the Juglandaceae shell (hickory and indeterminate hickory/walnut) shell found in the 9CH1205 macrofloral assemblage was recovered from Feature 147. The Locus 7 macrofloral assemblage included 87 carbonized seeds that were collected from 50 liters of floated sediment. The macrofloral assemblage consists of two vegetable crops, two nuts, four fruits, and one

possible ornamental. Six of the 87 carbonized plant remains were not specifically identifiable. Sixty-five percent of the identifiable seeds (53 of 81 seeds) found in this locus are nutshell. Fruits accounted for a 16 percent proportion of the macrofloral assemblage. The macrofloral assemblage from this locus supports our assertion that the postbellum African American inhabitants relied upon naturally occurring fruits, nuts, and herbaceous taxa for a significant portion of their diet.

SUMMARY AND CONCLUSIONS

This archaeobotanical study focuses on macroplant remains collected by flotation of materials recovered during 2013 excavations at Site 9CH1205 in Chatham County, Georgia. Archaeobotanical studies undertaken as part of the Site 9CH1205 archaeological study included the identification and analysis of macrofloral remains collected from 529 liters of flotation samples from 22 circa 1825 through 1,880 cultural features (54 flotation samples) from nine loci identified in the site area.

The 9CH1205 archaeobotanical remains consisted of wood charcoal and resin, charred seeds, and other reproductive structures from plant food remains, charred seeds from medicinal and ornamental plantings, and charred seeds from naturally deposited weedy taxa. These materials, collected from sealed feature contexts at 9CH1205, provided important evidence about local food production, gathering of wild plants for food and medicine, and the continual interaction between antebellum and postbellum residents of the plantation and the local environment.

The 9CH1205 archaeobotanical assemblage included a diverse (36 economic taxa) and abundant (N=814) carbonized seed assemblage including two condiment seeds, 301 crop seeds (7 taxa), 146 nutshell fragments (hickory, hickory/walnut, acorn), 103 seeds from edible fruit-producing herbs, shrubs, vines, and trees (9 taxa), 31 seeds from naturally occurring edible/medicinal herbs (7 taxa), 30 seeds from possible ornamentals (4 taxa), 18 weedy herb/grass seeds (5 taxa), 2 seeds that were only identifiable to family (1 taxa), 10 grass/conifer stem fragments, and 153 seeds that were unidentifiable (N=152) or unknown (N=1). Additionally, 549 uncharred seeds representing 18 taxa were recovered from the flotation samples.

Vegetable crops, nutmast, and seeds from fruit-producing trees and shrubs accounted for the greatest proportion of the identified macrofloral assemblage. Three hundred and nineteen field/garden crops (49% of the identifiable macrofloral assemblage) were recovered from the analyzed samples. The three vegetables (common bean, sunflower, squash/pumpkin) and four grains (maize, rice, millet, wheat) are all field crops that may have been grown in gardens and large fields as cash crops and for provisioning humans and animals living at the plantation. The

African American residents also likely cultivated some of these plants in small kitchen gardens surrounding their quarters for their own consumption. Nutshell accounted for a 23 percent proportion of the identified carbonized seeds.

Fifteen percent of the identified seeds represent nine fruit producing taxa including 2 garden trees (apple, peach), 3 species that are both common naturally occurring edge zone species around habitations and along field borders and deliberately planted (blackberry/raspberry, huckleberry, plum), and 4 taxa that are common constituents of edge zones and disturbed habitats throughout the Southeast (blackgum, haw, hawthorne, sumac). Seven naturally occurring edible herbs and five herbaceous weeds accounted for a seven percent proportion of the identifiable seed remains.

The recovery of the edible and medicinal herbs, along with the mast and possibly gathered wild fruit taxa from the 9CH1205 flotation samples indicates that the African American residents relied on gathered plant foods for a significant proportion of their diet. The 16 (acorn, hickory, blackberry/raspberry, blackgum, haw, hawthorne, huckleberry, plum, sumac, bedstraw, burclover, goosefoot, greenbriar, knotweed, plantain, pokeweed) naturally occurring plant taxa represent a significant 42 percent of the identified seeds in the 9CH1205 samples. The identification of this same pattern at nineteenth-century, antebellum- and postbellum-era African American dwellings at the Hermitage plantation in Tennessee, Jefferson's Poplar Forest plantation in Lynchburg, Virginia, and Montpelier plantation in Orange, Virginia, indicates that this pattern of wild plant food collection was common among African Americans from the Mid-Atlantic through the Southeast from at least the mid-eighteenth through the late-nineteenth centuries.

Foraging is not normally associated with the lifestyle of nineteenth-century enslaved African Americans, but evidence of this practice is revealed by this research. These data indicate that both antebellum and postbellum residents of 9CH1205 exploited naturally occurring wild plants for fuel, food, and medicine. These collected resources supplemented a diet based upon American Indian crop plants (maize, beans, cucurbits, sunflower) and cereal grains imported into the Americas by Europeans (rice, millet, wheat). The gathering and consumption of naturally occurring herbs, fruits, and nuts indicates that the enslaved residents possessed an intimate knowledge of the potential value of wild plant foods growing in the local environment. The recovery of native North American domesticates, imported European crop plants, both native and imported domesticated fruit taxa, and gathered, naturally occurring North American herbs and fruits offers evidence of the richness of the enslaved and free African American resident's diet and the complexity of acquisition of knowledge of both domesticated and gathered foodstuffs by the antebellum and postbellum inhabitants of Site 9CH1205.

XII. ANALYSIS OF POLLEN AND PHYTOLITHS

John G. Jones, Archaeological Consulting Services

Pollen and phytolith samples were collected from a series of features identified at a historical age site in Chatham County, Georgia. The site is thought to represent a settlement of enslaved plantation workers, occupied from the eighteenth through the late nineteenth centuries. Most samples analyzed for this study represent pits or subfloor features, and proveniences are provided in Table 61. It was anticipated that a detailed microbotanical study of feature fill would provide information on past human/plant interaction at the site, as well as offering insights into early plant use or storage and feature use, and possibly assist in dating these cryptic features.

Paleoethnobotany is the study of behavioral and ecological interactions between past peoples and plants, as documented by analysis of pollen grains and other botanical materials—not simply to catalogue which plants past peoples consumed, but to better understand the nature of plant and human interdependency. Paleoethnobotany uses an ecological approach to elucidate the nature of human–plant interaction, seeking to understand not only which plants were used as food, fuel, in religious ceremonies, or as medicines, but how they were used, and why some plants were selected over others. Paleoethnobotany explores how the range of taxa present in an archaeological site and their season of availability structured settlement patterns, subsistence practices, and resource scheduling. It also documents the effects that past populations may have had on the distribution of particular plant taxa and human impact on plant communities. Paleoethnobotany, therefore, is well positioned to address research questions regarding settlement and subsistence variability and human–environment interactions, clarifying patterns of climate change and the cultural manipulation of space.

Table 61. Pollen and Phytolith Proveniences from 9CH1205

Bag No.	Feature	Description
637	7	Refuse-filled Pit, Indeterminate Function
615	7A	Storage Pit, Probably Post Civil War
633	38	Storage Pit, Probably Post Civil War
555	53	Pit, mid 19th Century
896	82	Sediment Below Brick Chimney/Hearth
703	120	Refuse Filled Storage Pit, Post Civil War

(Continues)

(Table 61, Continued)

Bag No.	Feature	Description
778	147	Refuse-Filled Storage Pit, Post Civil War
885	173	Sediment Below Brick Chimney/Hearth
883	181	Indeterminate Ditch/Trench

POLLEN ANALYSIS

THEORETICAL BACKGROUND

The foundation of palynological analysis lies in the observation that proportions of various pollen types contained within a sediment sample vary proportionally with the increasing or decreasing abundance of the source plants in the surrounding area, and with the relative proximity of those plants to the sampling locus. However, the relationship between plant and pollen is not straightforward. While there is not a direct one-to-one relationship between pollen in a sediment sample and past vegetation, through an understanding of pollen production, dispersion, and preservation, patterns can be established. Anemophilous (wind-pollinated) plants produce the most pollen, typically between 10,000 and 70,000 pollen grains per anther (Bryant and Holloway 1983), while zoophilous plants generally produce far fewer pollen grains, and rely on some animal (bats, birds) or insect (e.g., bees, moths, butterflies, flies) to transport the pollen from the anther of one flower to the stigma of another. An evolutionary outcome of this more efficient pollination method is decreased pollen production of approximately 1,000 or fewer grains per anther (Bryant and Holloway 1983). Furthermore, pollinators rapidly deplete the pollen content of a zoophilous flower (Harder and Thomson 1989; Young and Stanton 1990), leaving little potential for such pollen to become incorporated into the pollen record. On the other hand, some ostensibly zoophilous plants, such as willow and knotweed, are facultatively anemophilous, producing more pollen than is typical and therefore standing a far greater chance of being observed in the pollen record of a sediment sample.

Pollen of anemophilous and facultatively anemophilous taxa also can be transported and deposited hundreds of meters, and, particularly in the case of the anemophilous taxa, sometimes even hundreds of kilometers from their source (Faegri and Iversen 1989). Therefore, anemophilous pollen is both much more abundant and much more widely dispersed than zoophilous pollen. The result is that anemophilous plants are much better represented in the pollen record of archaeological sediment samples. If those plants are also common members of the vegetation community, their pollen will tend to dominate the palynological findings. Several pollen taxa tend to be overrepresented throughout their North American range, namely low-spine Asteraceae, Cheno-Ams, and Poaceae, with the consequence that insect-pollinated plants are underrepresented in these same samples.

In cultural settings, pollen samples are also affected by human activity. Often this activity directly affects the local source vegetation, enhancing and expanding suitable habitats for some plants, while degrading and reducing suitable habitats for others. Impacts on the vegetation associated with clearing the land for cultivation or construction, the introduction and use of irrigation or other forms of disturbance, and the cultivation or encouragement of selected native taxa are prime examples. Furthermore, amounts of local pollen can be augmented and nonlocal pollen introduced through collection of comestibles, fuel wood, or construction materials; and, during historic and recent times, by the planting of nonlocal taxa for aesthetic reasons. Thus, components of the pollen record can be interpreted culturally. Consequently, some fossil pollen grains are, in a sense, artifacts, and can be used to examine certain aspects of behavior, such as subsistence.

Preservation also affects the pollen record. If preservation is so poor that pollen is absent, then interpretation is straightforward though negative. Of greater concern is whether differential preservation—the prospect that one pollen taxon may be better or less well-preserved than other pollen taxa deposited as members of the same suite of grains—might lead to erroneous interpretation (Delcourt and Delcourt 1981). Pollen preservation is often of particular concern in archaeological palynology, as preservation in terrestrial deposits is seldom as good as in lacustrine deposits (Dimbleby 1985; Faegri and Iversen 1989). Further, and all else being equal, the older a terrestrial sample is the more degraded its pollen (Dimbleby 1985).

Preservation factors can be grouped as: 1) mechanical, 2) biological, and 3) chemical. Bryant and Holloway (Bryant and Holloway 1983) methodically review each, so only a few comments are presented here:

1) Mechanical degradation can begin during the transportation and sedimentation stages, and can continue following deposition on a surface; soil disturbance by farmers may further enhance it. Other physical factors as well as temperature and moisture can act to alter a pollen grain (Bryant and Holloway 1983). Pollen walls are reported to be especially susceptible to alternating episodes of wetting and drying (Holloway 1989), such as might be expected to occur at most open-air archaeological sites.

2) The vast majority of pollen is consumed by macroscopic and microscopic herbivores; after deposition, bacteria and various fungi can cause extensive pollen destruction. These biological degraders dissolve and penetrate the spore wall and, as several attacks occur simultaneously, several areas of the exine may become weakened, allowing further decomposition of the grain by physical or chemical means (Goldstein 1960). Ultimately, the entire grain is destroyed. To compound matters, some fungi are selective in their pollen preferences (Bryant and Holloway 1983), which may lead to differential preservation problems.

3) Corrosion of the pollen wall also arises from chemical processes (Birks and Birks 1980). Chemical oxidation of pollen grains is an important factor in many types of sediment, with pollen being best preserved in a reducing acidic environment (but see also Martin 1963). Greater amounts of sporopollenin in the pollen wall also enhance the grain's ability to withstand oxidation (Havinga 1964, 1965).

METHODOLOGY

The Palynology Laboratories at the Institute for Integrative Research in Materials, Environments and Society (IIRMES) at California State University in Long Beach, California processed the pollen samples, using a protocol favored by ACS (Jones 2013). First, 20 milliliter subsamples were collected from each sample and 25,084 grains of European *Lycopodium clavatum* (Danish club moss) spores were added to the samples to serve as tracers for calculating pollen concentrations. Carbonates were removed by soaking the sample in 10 percent hydrochloric acid. The sample was screened and swirled effectively removing larger and heavier materials. Next, the sample was immersed in 50 percent hydrofluoric acid for 12 or more hours to remove unwanted silicates. After the samples were neutralized, they were washed in 2 percent potassium hydroxide to remove humates, followed by an acetolysis treatment (Erdtman 1960) in a solution of nine parts acetic anhydride to one part sulfuric acid to remove unwanted organic materials. After this step, the samples were rinsed repeatedly in water to remove water-soluble humates and were further cleaned by a heavy density separation using sodium polytungstate (Sp. G. 2.00). The lighter organic materials, essentially pollen and charcoal, were collected, dehydrated in absolute ethanol, and curated in vials in glycerine.

Pollen analysis was conducted at the ACS laboratory. Pollen extracts were mounted on slides in glycerol and stained with safranin (as warranted) to aid in identification. A Nikon E200 compound microscope was used to view the slides at 400× magnification to obtain 200+ grain counts. Pollen grain abundances and taxa (or types) observed were: a) recorded until at least 200 pollen grains had been counted, or b) pollen concentrations were calculated after 75 or more tracer spores were counted yielding values of 1,000 pollen grains per ml of sediment (grains/ml) or less. These standards were chosen: a) because calculation using Bayesian probability intervals with a resolution of $\Delta = 0.0005$ indicates that where a taxon is absent in a count of 200 grains (i.e., $x = 0$, $n = 200$) there is a 95 percent probability that the taxon in question comprises 1.5 percent or less of the population, b) to maximize efficient use of time, and c) because such values indicate that it is less likely the sample contains a pollen concentration sufficient for analysis (Hall 1981). For each sample, the remainder of the slide was scanned at 150× magnification to identify pollen of domesticates or other economically significant taxa. Aggregates or anther fragments, when identified during counting, were noted as they are not efficiently transported by wind, thus indicating a source in the immediate sampling area (Fish 1995:661) or their

introduction into the site sediments by humans (Gish 1991). Pollen grain identification was facilitated through the use of the ACS pollen reference collection as well as standard pollen references (e.g., Kapp et al. 2000). Pollen was identified to the finest taxonomic level possible. Those grains that were too degraded to be taxonomically identified were assigned to the indeterminate category but were still tabulated within the 200+ grain count, as such values are of aid in assessing preservation levels and potential biases in the sample.

Pollen percentages were calculated from the 200+ grain count; concentrations (grains/ml) were calculated using the following formula:

$$\text{Concentration} = \frac{\text{Tracer spores added}}{\text{Tracers counted}} \times \frac{\text{Pollen grains counted}}{\text{Sample volume}}$$

Taxa observed in the pollen and phytolith samples are presented in Table 62; pollen counts and percentages are presented in Tables 63 and 64. Asterisks in the tables denote pollen grain types observed during the scans, but percentage occurrences were not made because of the low counts.

Table 62. Pollen Taxa Identified in the 9CH1205 Pollen and Phytolith Samples

Pollen Taxa	Common Name
Non-Arboreal	
Apiaceae	Parsley Family
Asteraceae High Spine	Sunflower Group
Asteraceae Low Spine	Ragweed Group
Brassicaceae	Mustard Family
Caryophyllaceae	Pink Family
Cheno-Am	Goosefoot, Pigweed
Cirsium	Thistle
Convolvulaceae	Morning Glory Family
Cucurbita	Squash
Cyperaceae	Sedge Family
Cyperus	Flatsedge
Fabaceae	Legume Family
Liguliflorae	Dandelion Group
Liliaceae	Lily Family
Malvaceae	Mallow Family
Onagraceae	Evening Primrose Family
Parthenocissus	Virginia Creeper
Poaceae	Grass Family
Plantago	Plantain

(Continues)

(Table 62, Continued)

Pollen Taxa	Common Name
Polygonaceae	Knotweed Family
Rosaceae	Rose Family
Rubus	Blackberry, Raspberry
Cerealea	Domesticated Old World Grain
Zea	Maize
Arboreal	
Acer	Maple
Alnus	Alder
Carpinus/Corylus	Hornbeam/Hazelnut
Carya	Hickory
Castanea	Chestnut
Celtis	Hackberry
Cephalanthus	Buttonbush
Fagus	Beech
Fraxinus	Ash
Liquidambar	Sweet Gum
Myrica	Wax Myrtle
Pinus	Pine
Prunus	Cherry, Plum
Quercus	Oak
Sabal	Palmetto
Salix	Willow
TCT	Juniper, Arbor Vitae, Bald Cypress
Tsuga	Hemlock
Ulmus	Elm
Indeterminate	Too Poorly Preserved to Identify
Osmunda	Cinnamon Fern, Royal Fern

Table 63. Pollen Counts from the 9CH1205 Sediment Samples

Sample	1	2	3	4	5	6	7	8	9
Taxa/Feature Number	7	7A	38	53	82	120	147	173	181
Apiaceae		1						2	1
Asteraceae High Spine			2		1	9	3	3	3
Asteraceae Low Spine	44	11	55	6	17	106	66	40	84
Brassicaceae			1						
Caryophyllaceae	1								

(Continues)

(Table 63, Continued)

Sample	1	2	3	4	5	6	7	8	9
Taxa/Feature Number	7	7A	38	53	82	120	147	173	181
Cheno-Am	6	3	51	6	7	13	63	55	13
Cirsium						2			
Convolvulaceae								1	
Cyperaceae	8	1	4		1	2		1	5
Fabaceae	4				1	2	2	1	1
Liguliflorae	2		2		2	3	1	2	3
Liliaceae	1							1	1
Malvaceae	1					1			
Onagraceae						1			1
Parthenocissus						1			
Poaceae	6	2	16	1	9	16	9	14	37
Plantago	4	2	3		2	2		1	
Polygonaceae	3	1	1		3	3	5	3	2
Rosaceae	6		1			2		1	
Rubus	8								
Cerealea	1		3			3			
Zea	1		1		1				2
Acer	1								
Alnus					1			1	
Carpinus/Corylus	1		1		2			2	3
Carya	2		4			1			
Castanea	1	1	15	2	3	4	6	8	7
Celtis	1								
Cephalanthus	1								
Fagus	1				1				
Fraxinus	1								
Liquidambar	4	1			3			1	1
Myrica	2				2		2	1	2
Pinus	13	7	19	1	8	7	16	23	12
Prunus	1		1					1	2
Quercus	58	6	9	1	20	13	13	16	12
Salix								1	
TCT	5		3	1	5	2	3	6	3
Tsuga					1				
Ulmus	1								1
Indeterminate	15	4	8	1	9	7	16	15	8
Total Pollen	204	40	200	19	99	200	205	200	204

(Continues)

(Table 63, Continued)

Sample	1	2	3	4	5	6	7	8	9
Taxa/Feature Number	7	7A	38	53	82	120	147	173	181
Lycopodium	55	75	97	75	183	35	63	64	32
Concentration Value (grains/ml)	4652	669	2586	318	678	7167	4081	3919	7996
Osmunda	1								1

Table 64. Pollen Percentages from the 9CH1205 Sediment Samples

Sample	1	2	3	4	5	6	7	8	9
Taxa/Feature Number	7	7A	38	53	82	120	147	173	181
Apiaceae		*						1	0.5
Asteraceae High Spine			1		*	4.5	1.5	1.5	1.5
Asteraceae Low Spine	21.6	*	27.5	*	*	53	32.2	20	41.2
Brassicaceae			0.5						
Caryophyllaceae	0.5								
Cheno-Am	2.9	*	25.5	*	*	6.5	30.7	27.5	6.4
Cirsium						1			
Convolvulaceae								0.5	
Cyperaceae	3.9	*	2		*	1		0.5	2.5
Fabaceae	2				*	1	1	0.5	0.5
Liguliflorae	1		1		*	1.5	0.5	1	1.5
Liliaceae	0.5							0.5	0.5
Malvaceae	0.5					0.5			
Onagraceae						0.5			0.5
Parthenocissus						0.5			
Poaceae	2.9	*	8	*	*	8	4.4	7	18.1
Plantago	2	*	1.5		*	1		0.5	
Polygonaceae	1.5	*	0.5		*	1.5	2.4	1.5	1
Rosaceae	2.9		0.5			1		0.5	
Rubus	3.9								
Cerealea	0.5		1.5			1.5			
Zea	0.5		0.5		*				1
Acer	0.5								
Alnus					*			0.5	
Carpinus/Corylus	0.5		0.5		*			1	1.5
Carya	1		2			0.5			
Castanea	0.5	*	7.5	*	*	2	2.9	4	3.4
Celtis	0.5								

(Continues)

(Table 64, Continued)

Sample	1	2	3	4	5	6	7	8	9
Taxa/Feature Number	7	7A	38	53	82	120	147	173	181
Cephalanthus	0.5								
Fagus	0.5				*				
Fraxinus	0.5								
Liquidambar	2	*			*			0.5	0.5
Myrica	1				*		1	0.5	1
Pinus	6.4	*	9.5	*	*	3.5	7.8	11.5	5.9
Prunus	0.5		0.5					0.5	1
Quercus	28.4	*	4.5	*	*	6.5	6.3	8	5.9
Salix								0.5	
TCT	2.5		1.5	*	*	1	1.5	3	1.5
Tsuga					*				
Ulmus	0.5								0.5
Indeterminate	7.4	*	4	*	*	3.5	7.8	7.5	3.9
Total Pollen (Percent)	100.3	0	100	0	0	100	100	100	100.3
Lycopodium	55	75	97	75	183	35	63	64	32
Concentration Value (grains/ml)	4652	669	2586	318	678	7167	4081	3919	7996
Osmunda	1								1

PHYTOLITH ANALYSIS

THEORETICAL BACKGROUND

Phytoliths are biogenically produced opal structures formed within and between plant cells. Many, but not all, plants produce phytoliths and these biosilicates are frequently recognizable and diagnostic, thus they are a valuable tool in paleoenvironmental and archaeological reconstructions. Phytoliths are small, within the size range of pollen, and diagnostic forms generally fall in the range of 8-100 microns. Because they are composed of silica, their recovery from soils necessitates they be extracted separately from pollen, because chemicals used to extract pollen are destructive to phytoliths. Similarly, all organic traces, including pollen must be removed from the sediments to successfully extract phytoliths.

Many plants produce phytoliths, but they are particularly well-represented in the Monocot group; palms, sedges, and grasses are prolific phytolith producers. The reason phytoliths are produced is not fully understood, but some factors in their production in plants include the prevention of herbivory, particularly from insects, and to minimize wilting in grasses. Phytoliths are formed

when dissolved silica in ground water is taken up by plants and is precipitated within and sometimes between plant cells. Fortunately, these phytoliths can take on diagnostic shapes and sizes allowing for their identification (Piperno 1988).

Phytolith analysis is a perfect complement to pollen studies for a number of reasons. First, phytolith production and recognition is often well represented in groups that have limited value in pollen studies. For example, all grasses produce pollen, but nearly all grass pollen grains are morphologically identical, with the exception of maize and domesticated cereal grains. The identification of grasses from pollen, then, is severely limited. However, all grasses produce phytoliths, and more than 10 different types of phytoliths have been observed in a single grass species. These forms can often be broken down into grass tribes or subfamilies based on their morphological characteristics. As these tribes of grasses each favor distinctive environmental conditions, the presence of a given grass phytolith type might signal specific environmental conditions.

North American grass tribes include the Festucoideae (Pooideae), mostly cool climate C3 grasses; the Chloridoideae, mostly warm and dry-favoring C4 bunch grasses; the Panicoideae, warm and moist favoring subtropical C4 grasses; and the Bambusoideae (bamboos); other grass phytolith subdivisions are also recognized. Similar types of subdivisions are recognized in the sedge family and among the palms, whereas these groups' pollen grains are often of limited value for identification. Fortunately for archaeologists, phytoliths are also well-represented among the native cultigens. Maize, beans, and squash, along with many other domesticates, are all known to produce diagnostic phytolith forms. For example, beans can produce distinctive hook-shaped silicified hairs (Bozarth 1990), although beans are virtually invisible in the pollen record. Since beans are cleistogamous (self-pollinating), they produce very few pollen grains, which tend to remain with the flower; further the grains are moderately fragile, and they are largely nondiagnostic.

Phytoliths, however, have some important limitations. First, most plants do not produce diagnostic phytoliths, thus the range of types encountered in archaeological sediments is limited. Further, preservation of phytoliths is imperfectly understood. Phytoliths are usually poorly preserved in calcareous environments, although they often have been recovered in perfect shape from shell middens. Conditions leading to phytolith dissolution are not well known. Still, in silica-rich settings, phytoliths can usually be extracted from most sediment types, particularly when the phytolith-sized silt fraction is well-represented.

Phytoliths also can be composed of calcium-based materials, particularly calcium oxalate. These phytoliths are common in many succulents, including all members of the cactus family, agave, and yucca. Calcium oxalate phytolith shapes are governed by chemistry, thus these forms take on crystalline shapes and usually have limited taxonomic value. Additionally, calcium oxalate

phytoliths tend to break apart and ultimately dissolve in most environmental settings, so the likelihood of these forms being recovered is low. Nevertheless, the potential for species identification exists under certain circumstances. For example, a fragment of dried cactus pad from a cave in west Texas was identified to the species level through the type and proportion of calcium oxalate phytolith types present in the pad (Jones and Bryant Jr. 1992), and many genera of cactus appear to produce distinctive calcium oxalate phytoliths. Thus, in dry caves, where edaphic alterations have been minimal, the potential for calcium oxalate phytolith recovery is high.

Most phytolith studies have centered upon their occurrence in either tropical environments or grasslands, where their value is most apparent (Piperno 1988). In contrast, there are severe limitations on phytolith studies in the southeastern United States. First, the number of useful phytolith-producing plants in the region is low. Significant phytolith producers in the area include grasses, sedges, and palms, many of which are of limited taxonomic value in terms of identification potential. Further, while many other locally available plants are likely to produce diagnostic phytoliths, baseline studies for this region are somewhat limited, thus the number of known phytolith types in the region is not high.

While finding any identifiable phytoliths in a sample is noteworthy and useful, assessment of differential preservation must also be addressed. Did one particularly durable phytolith type survive at the expense of other, more fragile types? Despite these challenges, phytolith analysis has a tremendous potential for providing information on past environmental conditions and human/plant interactions. The combined strengths of pollen and phytolith studies conducted in tandem will greatly augment our knowledge of the past in ways unobtainable from the use of just one of these techniques.

METHODOLOGY

The phytolith samples were extracted at the Washington State University Palynology Laboratory using a fairly conservative extraction procedure. Here, 5 g of sediment was placed in a beaker where it was washed with 10 percent hydrochloric acid to remove unwanted carbonates. The samples were next screened through 150-micron mesh, effectively removing all unwanted larger materials. The samples were next washed in 10 percent potassium hydroxide to remove alkaline-soluble humates, and were rinsed clean. Repeated short spins removed colloidal material smaller than 3 microns. Next, the samples were oxidized in 30 percent hydrogen peroxide (Jones 2013), resulting in the removal of organics—a step necessary before phytoliths can be isolated from all other silicates. Finally the phytoliths were isolated from the remaining silts through a heavy density separation using sodium polytungstate (Sp. G. 2.35). Phytoliths were removed by pipette, rinsed thoroughly, and dehydrated in absolute alcohol for curation in 1 dram glass vials.

A slide was prepared at ACS using Meltmount mounting media, and the phytoliths were identified on a Nikon E200 binocular microscope at 1000× magnification. Identifications were confirmed using published keys (Kapp et al. 2000) and the ACS reference collection.

Phytolith residue samples were fractionated in the laboratory into coarse (25–150 micron) and fine (3–25 micron) samples. There is usually little overlap between phytolith category groups within these size fractions. Coarse samples tend to contain large amounts of bulliform cells as well as rods, plates, and grass elongates. The fine fraction usually contains short cells from grasses, sedges, and spheroids common in many tree barks. Most diagnostic forms come from the fine fraction, thus more effort is expended counting these forms. Separation into fractions facilitates counting through a standardization of phytolith size in the visual search image. Although there is no standard agreement among researchers on how many phytoliths should be counted, the current analysis was based on counting at least 100 coarse phytoliths, and at least 200 fine-sized phytoliths per sample, a standard substantially more rigorous than most current methodologies. Percentage occurrences were calculated within their size division; thus, for each sample, two separate counts and sets of percentages were obtained. As phytolith categories within the size fractions are usually mutually exclusive, the data can be interpreted collectively. Phytolith counts and percentages are presented in Tables 65 and 66.

Table 65. Phytolith Counts from 9CH1205

Sample	1	2	3	4	5	6	7	8	9
Taxon/FS Number	7	7A	38	53	82	120	147	173	181
Coarse Fraction									
Bulliform	86	99	77	79	73	91	81	98	84
Faceted Irregular	2	3	2	1		1	1	1	6
Rod	3	9	7	7	13	7	2	2	7
Echinate Rod	1								
Irregular Echinate			1		1	1	2		
Type M					1	1	2		
Lunate	1	1	1	1					
Dicot Plate							1	1	
Spherical Faceted									1
Tracheid									1
Poaceae Bulliform	10	10	10	11	11	6	17	8	18
Poaceae Hair	4	8	7	8	2	5	7	2	3
Festucoid Elongate	1		1		1	2		1	
Jigsaw Spheres	2								
Total Coarse Fraction	110	130	106	107	102	114	113	113	120
Fine Fraction									

(Continues)

(Table 65, Continued)

Sample	1	2	3	4	5	6	7	8	9
Taxon/FS Number	7	7A	38	53	82	120	147	173	181
Festucoid Short Cell	57	46	35	26	26	45	35	22	30
Festucoid Irregular	4	2	1			2	1		
Panicoid Cross	9	4	7	4	3	5	6	4	5
Panicoid Bilobate	37	32	68	46	35	20	56	42	63
Zea mays Cross	1		2			2	1	2	6
Zea mays Rondel			1			1			1
Chloridoid Saddle	29	15	20	13	25	50	35	14	11
Stipa-type	5	3	7	3	3	8	9	2	3
Bilobate	26	62	22	55	47	44	35	64	61
Crenate	6		3	1	3	12	8	3	6
Bambusoidea			1					1	2
Solid Hair				1	1				
Hollow Hair	1	1		1	1			1	
Jigsaw	5							3	
Irregular Echinate	18	40	36	56	57	24	33	52	17
Cucurbita		1							
Sabal					1		1		
Cyperus, no centric		3				1	3	1	3
Cyperus	1	2	3	3			2		1
Cyperaceae	1		2						
Total Fine Fraction	200	211	208	209	202	214	225	211	209

Table 66. Phytolith Percentages from 9CH1205

Sample	1	2	3	4	5	6	7	8	9
Taxon/FS Number	7	7A	38	53	82	120	147	173	181
Coarse Fraction									
Bulliform	78.2	76.1	72.6	73.8	71.6	79.8	71.7	86.7	70
Faceted Irregular	1.8	2.3	1.9	0.9		0.9	0.9	0.9	5
Rod	2.7	6.9	6.6	6.5	12.7	6.1	1.8	1.8	5.8
Echinate Rod	0.9								
Irregular Echinate			0.9		1	0.9	1.8		
Type M					1	0.9	1.8		
Lunate	0.9	0.8	0.9	0.9					
Dicot plate							0.9	0.9	
Spherical Faceted									0.8

(Continues)

(Table 66, Continued)

Sample	1	2	3	4	5	6	7	8	9
Taxon/FS Number	7	7A	38	53	82	120	147	173	181
Tracheid									0.8
Poaceae Bulliform	9.1	7.7	9.4	10.3	10.8	5.3	15	7.1	15
Poaceae Hair	3.6	6.2	6.6	7.5	2	4.4	6.2	1.8	2.5
Festucoid Elongate	0.9		0.9		1	1.8		0.9	
Jigsaw Spheres	1.8								
Total Coarse Fraction	99.9	100	99.8	99.9	100.1	100.1	100.1	100.1	99.9
Fine Fraction									
Festucoid Short Cell	28.5	21.8	16.8	12.4	12.9	21	15.6	10.4	14.4
Festucoid Irregular	2	0.9	0.5			0.9	0.4		
Panicoid Cross	4.5	1.9	3.4	1.9	1.5	2.3	2.7	1.9	2.4
Panicoid Bilobate	18.5	15.2	32.7	22	17.3	9.3	24.9	19.9	30.1
Zea mays Cross	0.5		1			0.9	0.4	0.9	2.9
Zea mays Rondel			0.5			0.5			0.5
Chloridoid Saddle	14.5	7.1	9.6	6.2	12.4	23.4	15.6	6.6	5.3
Stipa-type	2.5	1.4	3.4	1.4	1.5	3.7	4	0.9	1.4
Bilobate	13	29.4	10.6	26.3	23.3	20.6	15.6	30.3	29.2
Crenate	3		1.4	0.5	1.5	5.6	3.6	1.4	2.9
Bambusoidea			0.5					0.5	1
Solid Hair				0.5	0.5				
Hollow Hair	0.5	0.5		0.5	0.5			0.5	
Jigsaw	2.5							1.4	
Irregular Echinate	9	18.9	17.3	26.8	28.2	11.2	14.7	24.6	8.1
Cucurbita		0.5							
Sabal					0.5		0.4		
Cyperus, no centric		1.4				0.5	1.3	0.5	1.4
Cyperus	0.5	0.9	1.4	1.4			0.9		0.5
Cyperaceae	0.5		1						
Total Fine Fraction	100	99.9	100.1	99.9	100.1	99.9	100.1	99.8	100.1

CHARACTERIZATION OF POLLEN SAMPLES

Forty different pollen taxa were noted in the 9CH1205 sediment samples, presented in Table 51. Included in this listing are 22 nonarboreal and 18 arboreal types. Pollen was generally poorly preserved in the samples, and three samples failed to provide sufficient pollen to allow a 200+ grain count to be achieved. The low concentration values of these particular samples reflect the

extreme oxidizing conditions at the site. The generally sandy sediments allows for moisture to move rapidly through the soil. Cyclic wetting and drying characteristic of this region resulted in conditions favoring the growth of pollen-destroying bacteria and fungi.

Overall, concentration values in the 9CH1205 sediment samples ranged from 2,586–7,996 grains/ml of sediment, values considered to be fairly low. The three samples that failed to produce a count had values from 318–678 grains/ml of sediment, well below the minimal acceptable threshold of 1,000–2,500 grains/ml. Pollen preservation was generally poor with most grains reflecting some amount of erosion, degradation, or distortion. Nonetheless, all pollen identifications are valuable as they represent plants that were likely to have been near the sampling location in the past.

ASSEMBLAGE COMPOSITION

On a gross scale, all of the samples are dominated by taxa that are common, are prolific pollen producers, and possess grains that are particularly durable. These overrepresented types include low-spine Asteraceae, Cheno-Ams, grasses, pine, and oak. Eastern Woodland samples, particularly, suffer from this overrepresentation as these plants are all abundant on the landscape. Wind-pollinated types were better represented in the assemblages than were the insect-pollinated plants, as expected.

Some limitations on the suites of pollen samples exist, and a few factors must be considered before drawing conclusions on past environmental conditions in the site area. Pollen was likely introduced into the sediments in a number of ways; many grains were likely to have been carried into the area by the wind, while others may have been washed into the sediments or introduced into the sediments through the natural decomposition of plants near the features. Some grains, however, likely represent cultural activities in the site area. Identifying grains of an extralocal origin can be difficult, if not impossible. Bioturbation may also have played a part in the making of these pollen records, making the interpretation of vegetation changes through time with mixed sediments a difficult task.

TAXA

Prior to any discussion or interpretation of pollen taxa, it is important to understand factors affecting pollen preservation, production, and dispersion of specific taxa. Pollen for this project has been divided into two groups: nonarboreal, and arboreal. Nonarboreal types refer to herbs, forbs, grasses, and cultigens while arboreal types are generally produced by plants that have a

woody stem. In some cases, plants identified to the family level such as Fabaceae or Rosaceae could well represent arboreal taxa, though they are usually classified as nonarboreal. In all cases, these ambiguous categories are represented by only one or a few grains.

Nonarboreal Taxa

Asteraceae

Pollen from members of the Asteraceae (aster family or Composite) family can usually be separated into subfamilies based on the grain's diagnostic morphology. In the 9CH1205 samples, members of this family that are readily recognized include *Cirsium* type (thistle), Liguliflorae (dandelion group), and both high- and low-spine Asteraceae types. Asteraceae grains from other parts of the world can be subdivided into additional categories, as well.

Insect-pollinated members of this group, though usually poorly represented in archaeological assemblages, are moderately common in some pollen samples. Members of the *Cirsium* group likely represent background weeds. The high-spine Asteraceae group encompasses many genera including *Aster* (aster) and *Helianthus (*sunflower*)*. Sunflower was an important indigenous cultigen in this area, though identification of this genus from its pollen is not possible.

Grains from low-spine Asteraceae are wind-pollinated and are produced in very large numbers and dispersed over large areas. Two of the most important members of this group are *Ambrosia* (ragweed) and *Solidago* (goldenrod). These grains also tend to be overrepresented in poorly preserved assemblages as their morphology makes them readily recognizable even when the grains are highly degraded. Further, these taxa are important indicators of disturbance in the Eastern Woodland area (Ogden III 1966; Wright Jr. 1971). Clearing for settlement and agriculture creates an environment favored by members of this group, and *Iva* (sumpweed or marsh elder) is an important cultigen/cultivar in much of the Eastern Woodlands (Smith 1989; Smith and Yarnell 2009); these factors account for elevated percentage occurrences of low-spine Asteraceae grains near archaeological sites during historic and precontact times.

Cheno-Am

Cheno-Am pollen, representing plants in the Chenopodiaceae family and in the genus *Amaranthus* in the Amaranthaceae family, are among the most commonly encountered grains in North America. This category is comprised of a broad group of plants including those used as food such as amaranth (*Amaranthus* sp.) and goosefoot (*Chenopodium* sp.), as well as a variety of weedy herbaceous plants encouraged by soil disturbance found near sites and agricultural fields (Cummings and Puseman 1990). Cheno-Am pollen is often abundant in archaeological assemblages for several reasons. First, the grains are produced in enormous quantities and are

widely dispersed over great distances by the wind. Second, the grains are extremely durable, surviving in poorly preserved assemblages long after most grains have deteriorated. Finally, Cheno-Am grains are easily recognized even when degraded. In the Eastern Woodlands, *Chenopodium* was an important cultivar widely domesticated from Late Archaic times (Asch and Asch 1977). Cheno-Am pollen can also derive from tidal wetland or salt marsh environments. Both Samphire (*Salicornia*) and seablight (*Suaeda*) are often abundant in these settings, and both plants have documented economic value for food (Moerman 1998). Old World domesticated members of the Cheno-Am group include beets (*Beta vulgaris*) and spinach (*Spinacia oleracea*).

Cyperaceae

Sedge and rush (*Juncus*) pollen grains are generally considered to be fairly fragile, thus these grains are usually found in sediments that exhibit exceptional pollen preservation. Rushes and sedges are most commonly encountered in perennially moist environments such as wet meadows, ponds, and stream banks. Some sedges are tolerant of brackish environments, and they are a common component of salt marshes along the Eastern Seaboard. Sedge pollen is wind-pollinated and is produced in large numbers and can be widely dispersed; most sedge pollen grains cannot be identified below the family level.

Poaceae

All grasses are wind-pollinated, producing copious amounts of distinctive pollen; thus these grains generally make up a significant proportion of most pollen assemblages. However, the morphology of grass pollen does not allow for identification below the family level, with the exception of cultivated Old World grains (Cerealea, including wheat [*Triticum*], barley [*Hordeum*], rye [*Secale*], oats [*Avena*]), and *Zea mays* (corn or maize), where the domestication process with these taxa has led to a significant enlargement of the pollen grains. Other native grass genera, some of which may have been economically important in the area, unfortunately cannot be identified based on their pollen.

Rosaceae

Pollen from the insect-pollinated rose family is sometimes fairly common in archaeological assemblages, probably largely due to the sheer abundance of the various members of this family. Most Rosaceae pollen grains are fairly fragile and diagnostic morphological features are easily lost; thus many eroded grains from this family can only be identified to the family level. Some grains in the Rosaceae family can be identified to type categories, representing a number of important economic species if preservation conditions allow. Diagnostic genera include *Malus/Pyrus* (apple or pear), *Rubus* (blackberry), *Rosa* (rose), and *Fragaria* (strawberry). Positive identification to the species level however is usually not possible. Rubus grains were

fairly common in one sample; whether these grains represent cultivated or wild plants is not known. Economically important members of this genus representing both native and introduced plants include blackberry, raspberry, wineberry, dewberry, and others.

Potential Economic Herbs

Several pollen types encountered in the assemblages represent potentially important or economically significant species. Among these potential economics are Malvaceae (mallow family), Liliaceae (lily family), Convolvulaceae (morning glory family), and Polygonaceae (knotweed or smartweed family). While a number of members of the mallow family are known from the area, the two grains encountered in the sediment samples possess morphological characteristics of cotton (*Gossypium hirsutum*), an important cultigen throughout much of the region. Though a definitive attribution to this genus is not possible, these grains almost certainly represent degraded cotton grains. A number of members of the lily family have economic value both as food (asparagus, onion, and garlic) and as ornamentals (lily, hyacinth, and tulip). The single grain from the morning glory family likely represents a background weed, although sweet potato (*Ipomoea*) is an important member of this family, widely cultivated throughout the southern states. The Polygonaceae family is widely distributed throughout North America, and a number of species of *Polygonum* (knotweed), *Eriogonum* (wild buckwheat), and *Rumex* have documented economic value among Eastern Woodland and historical groups (Moerman 1998).

Other Herbs

A number of the 9CH1205 pollen types were identifiable only to the family level, including Apiaceae, Brassicaceae, Caryophyllaceae, Fabaceae, and Onagraceae, or to the genus level but are otherwise economically insignificant taxa including *Parthenocissus* (Virginia creeper) and *Plantago* (plantain). While economics and ornamentals have representatives in all of these families, each also has native weedy representatives; thus a claim for a definitive economic usage cannot usually be made based on the presence of these grains. Because most of these families are insect-pollinated, they produce relatively low amounts of pollen and their pollen is scarce in the archaeological record.

Arboreal Taxa

Much of the pollen identified in the 9CH1205 sediment samples comes from arboreal or woody taxa representative of mostly local environments. Southeastern woodland trees are largely wind-pollinated, thus they tend to produce large amounts of readily dispersed pollen grains. Their grains can travel great distances; thus some of the 9CH1205 pollen grains are likely to have

originated some distance from the site area. Some taxa, like maple, are insect-pollinated and their grains are much less common in pollen assemblages from this region. These taxa are probably a reliable indicator of local vegetation.

Acer

Pollen from maple relies principally on insects for its dispersal, though since fairly large quantities of pollen are produced, many grains are facultatively carried by the wind. Maple grains are fairly fragile and are generally uncommon in archaeological assemblages. When found in pristine conditions they can be identified to sub-genus or even species level. The single grain encountered in the 9CH1205 samples was in the *Acer rubrum* group, recognized by its distinctive striations on the surface of the grains and is represented by *A. rubrum* (southern or red maple). Maples are found in a variety of environments including swamplands, floodplains, and drier uplands.

Alnus

Alder pollen is widely dispersed by the wind and is a common component of pollen samples throughout the Northern Hemisphere. Alders favor bogs, wetlands, and stream sides, as well as poorly drained soils.

Carpinus/Corylus

Pollen from hornbeam and hazelnut are similar in appearance and they are abundant components of Eastern Woodland assemblages. These wind-pollinated grains are fairly durable, though even a small amount of erosion on the grain's surface can make them unidentifiable below the group level. These taxa both represent mid-level understory arboreal elements. C*orylus* (hazelnut) produces edible fruits, widely used in the past by American Indians; these nuts also served as food for game animals including turkey, deer, and bears.

Carya

Pollen from hickory is dispersed by wind action, though the grains are large and moderately heavy. Because of these factors, the grains are not dispersed over great distances, but rather tend to largely stay in the area of hickory forests. Despite the thickness of the grains, hickory pollen is actually very fragile and is only common in extremely well-preserved samples. The few grains encountered in the site samples were all poorly preserved. Hickory nuts have been widely exploited as a food both by American Indians and by game animals.

Castanea

Chestnut pollen is among the smallest of grains, averaging around 15 microns in length. These grains are produced in large numbers and are widely dispersed with the wind. Chestnut pollen was among the most common of grains until the early-to-mid twentieth century when the chestnut blight led to the loss of these important trees from eastern forests. These grains, despite their thinness, are actually moderately durable and often make up a substantial percentage of many pre-twentieth-century pollen samples. American chestnut (*Castanea dentata*) has long been an important food item throughout its range, valued by both people and animals. The likely source of the 9CH1205 grains is from Allegheny chinkapin (*Castanea pumila*) or Florida chinkapin (*C. alnifolia*).

Celtis

Hackberry is a common small tree, found throughout much of the United States. This tree is strictly insect-pollinated, and its distinctive pollen is only infrequently encountered in most archaeological samples. Species found in the site area include sugarberry (*Celtis laevigata*) and Georgia hackberry (*C. tenuifolia*). The fruit of most hackberry species is edible.

Cephalanthus

Button bush is a common shrub or small tree, favoring stream or lake sides, and can often be found in marshy or wetland areas. Although insect-pollinated, this plant disperses enough pollen that it is occasionally found in archaeological samples in its range.

Fagus

Beech pollen is similar to oak in most respects, but these grains are significantly more fragile. Produced in moderately large numbers, beech pollen is actually an uncommon component of eastern United States archaeological assemblages because it is easily eroded and can be difficult to identify if encountered in less than perfect condition in pollen samples. Nuts produced by beech trees are edible and have served as foods for American Indians and for game animals, and beech comprises an important part of the eastern mast forest.

Fraxinus

Ash pollen is also fairly fragile, though its distinctive surface makes it identifiable if even a portion of a grain is encountered. Ash pollen is produced in moderate amounts and ash is one of the few members of the olive family that is wind-pollinated. Because ash pollen is so easily destroyed by bacterial and fungal activity, these grains are infrequently encountered in archaeological samples.

Liquidambar

Sweet gum trees are a common and characteristic component of the southeastern forests. Their pollen grains are dispersed by the wind, though in relatively low numbers, thus these distinctive grains are rarely found in large numbers. The occurrence of a few grains of this easily recognized wind-pollinated plant would be expected.

Myrica

Sweet gale or wax myrtle pollen is often locally abundant as the grains are produced in huge numbers and are widely dispersed by the wind. The grains are very similar to *Carpinus/Corylus* type, but these plants tend to favor a different environment of swamp, river, and wetland margins. Internal micromorphological features of the pollen grains allow for their identification even when the grains are modified through degradation.

Pinus

Pine pollen is among the most commonly encountered in North American sediment samples, as pine pollen is abundant, widely dispersed, readily recognizable even when highly degraded, and it is often very durable. Even small fragments of pine pollen are recognizable because of their characteristic bladder reticulations; thus a counting protocol for pine and hemlock addresses the identification of fragments of grains. Pine pollen, like spruce, possesses buoyant bladders that aid in the grains' dispersal, thus they tend to travel great distances. Pine pollen can often be separated into subgenera based on micromorphological features; however, these features can usually be seen only on perfectly preserved grains. Many pines produce edible nuts that have been widely harvested in the past.

Prunus

The distinctive pollen from *Prunus* is uncommon in archaeological sediment samples as the grains are produced in low numbers and are dispersed by insects and rarely travel far from the tree. *Prunus* trees in the Savannah, Georgia area include *Prunus serotina* (black cherry), *P. caroliniana* (Carolina laurelcherry), *P. umbellata* (flatwood plum), and *P. angustifolia* (Chickasaw plum). Most of these plants produce edible fruit. Old World members of the *Prunus* genus are more economically important today and include peach, apricot, plum, cherry, and almond.

Quercus

Oak pollen is produced in large quantities, and is durable and distinctive; thus it is commonly encountered in archaeological sediments. Oaks are widespread in the Northern Hemisphere, occurring in a variety of habitats. As these grains can travel great distances, the presence of a few grains might be expected in archaeological samples, even if located some distance from oak habitat. Oaks have long been a primary food source for both humans and animals throughout much of their native range, and acorns, along with chestnut, hickory, and several other trees provide an important part of the Eastern Woodland "mast forest." Oak trees, along with hickory and pine have been dominant trees in the Savannah area since post-glacial times (Delcourt and Delcourt 1980).

Salix

Willow pollen is produced in large numbers and the grains are largely disseminated by the wind, although insects also play a significant part in transporting *Salix* pollen grains. These grains are small and fairly fragile and are easily lost from many archaeological assemblages, although they are sometimes common in well-preserved samples. Willows generally prefer streamside or marshy settings.

TCT

The category TCT consists of pollen grains in the Taxodiaceae (bald cypress family), Cupressaceae (cypress family), and the genus *Thuja* (arborvitae). Grains from this group are difficult to identify even when perfectly preserved; thus palynologists group these cryptic grains into one large category. In the 9CH1205 sediment samples, most grains are likely to be from either juniper (*Juniperus*) or bald cypress (*Taxodium distichum*). Juniper favors upland locations while bald cypress prefers lowland marshy locations (Elias 1980). Both of these plants produce copious amounts of readily dispersed pollen, and TCT pollen is among the most common pollen types throughout most of North America.

Tsuga

Most hemlocks, being gymnosperms, have pollen that is surrounded by a buoyant bladder aiding in grain dispersal. Consequently, these grains, produced in large numbers, are known to travel great distances. Hemlock pollen is distinctive, with a unique surface allowing identification from even small fragments of the pollen grains. Not native to the site area, the single hemlock grain noted in this assemblage likely was carried in from the Appalachian Mountains.

Ulmus

Elm is a characteristic tree of the Eastern Woodlands. Its pollen is distinctive, if not particularly durable. Produced in large numbers, elm pollen is widely disseminated and can be fairly common in eastern archaeological assemblages.

Other

The "other" category consists of pollen grains that are included in the counts, but cannot be placed into a specific category. This category contains indeterminate grains that are distorted or otherwise unrecognizable, and grains that might be identifiable but are not in published keys or are not known to the analyst.

Indeterminate

In nearly all pollen samples, a number of grains were noted that were distorted, folded, eroded, crumpled, or in some other way unidentifiable. These poorly preserved grains were placed into the category indeterminate. Statistical calculations were made in consideration of this group. These types are important as they represent a portion of the entire pollen assemblage, and if this group were removed it would distort the percentage occurrence values of other taxa.

Ferns and Mosses

Spores from most ferns, mosses, and club mosses have limited diagnostic features and can rarely be identified. Many spores are produced in copious quantities; thus spores are an often abundant component of many pollen samples. Cinnamon and royal fern in the genus *Osmunda*, however, can be identified to the genus level and generally represent a woodland setting. Categories of ferns, based on shape and obvious surface decoration, have been established. While positive identifications of most ferns are not possible, trends in the appearance and disappearance of these fern categories often signals clearing, deforestation, and reforestation events. Fern spores were not calculated in the percentages of the 9CH1205 sediment samples.

CHARACTERIZATION OF PHYTOLITH SAMPLES

ASSEMBLAGE COMPOSITION

Well-preserved phytoliths were present in all of the 9CH1205 samples, and full counts were made for all samples. Assemblages were dominated by grasses, classified as Festucoid, Panicoid, Chloridoid, and Bambusoid categories. Cultigens were represented by maize, probable wheat, and squash. Also noted were undiagnostic and unidentified types, infrequent sedge forms, and occasionally other types.

PHYTOLITH TYPES

Phytolith types do not necessarily follow taxa lines, and one form may be found in several different plants. Nonetheless, patterns are present allowing for the discussion of these types.

Festuceae

Festucoid or Pooid (Pooideae) grasses are generally cooler climate grasses in the C3 carbon pathway group. These types are abundant in North America and throughout the temperate world, becoming less frequent as the climate becomes hotter and drier. For the most part, the only occurrence of Festucoid grasses in the tropics is at higher elevations (Twiss 1992). The Old World domesticated cereal grains wheat (*Triticum*), barley (*Hordeum*), rye (*Secale*), and oats (*Avena*) are all members of the Festucoid tribe. Common phytolith types in this category include a variety of short cells, elongate plates, and irregular echinate rods or plates that are particularly well-represented in domesticated wheat.

Paniceae

Panicoid grasses are C4 grasses favoring warmer and moister climates; maize (*Zea maize*) is an important domesticated member of this group, as is introduced sugar cane (*Saccharum officinarum*). Common Panicoid phytoliths include distinctive bilobate forms possessing a recognizable three-dimensional morphology, and cross forms. Maize, whose microscopic structures were modified extensively through the domestication process, is further recognizable by large bilobate cross forms as well as wavy-top rondel forms. Sugar cane bilobate phytoliths usually possess a distinctive groove along one surface not noted in phytoliths from other genera.

Chlorideae

The Chloridoid grasses are C4 bunch grasses, generally favoring warmer, drier climates. Chloridoid grasses are particularly well-represented in the western United States, though they are present in the southeastern states, as well. Chloridoid grasses are notable for producing saddle-shaped forms absent or rare in other grass tribes.

Bambuseae

The bamboos are largely tropical C3 grasses, characterized by the formation of a woody culm or stem. The most important native North American member of this group is giant cane (*Arundinaria*), which, in historical times formed thickets along rivers and moist areas, particularly in the southeastern and south-central states. This microenvironment, termed a canebrake, was favored by a number of animals, many of which are now threatened by habitat loss. Canebrakes were colonized early in historical times because they occurred on rich

bottomlands, suitable for agriculture and were easier to clear than were forested regions. Bamboos produce a number of recognizable saddle-like phytoliths that, in some tropical regions, can be identified to the genus level.

Stipa Type

Stipa, (needlegrass) a member of the Agrostideae tribe, is known for producing a distinctive form of bilobate phytolith. This form occurs rarely in other grasses, but is particularly well-represented in *Stipa*, hence its classification as *Stipa*-type.

Other Poaceae Types

Also noted in the assemblages were Poaceae bulliform or "keystone" type cells. These types are produced in many grasses and are rarely distinctive. Rice (*Oryza sativa*), an introduced species from southern or southeastern Asia, was widely cultivated in the lowlands of the southeastern states. Rice bulliform cells are often distinctive enough to allow for positive identification, however these types were wholly lacking in the 9CH1205 phytolith assemblages. Nondiagnostic grass hair cells were also noted in a number of samples, as were elongated crenate forms.

Cyperaceae

Phytolith production is well-developed in the Cyperaceae (sedge family), and in many cases, identification to the genus level based on distinctive phytolith forms is possible. Though produced in all parts of the plant, the platelets produced in the inflorescence of the sedges are most diagnostic. Most diagnostic forms of the 9CH1205 sedge phytoliths derived from flatsedge (*Cyperus*), a common plant in wet areas throughout much of North America.

Sabal

All members of the Arecaceae (palm) family produce phytoliths throughout their structures, and in some cases, these phytoliths can be diagnostic to the genus level. Only three species of palm are known from Georgia: Saw palmetto (*Serrenoa repens*), palmetto (*Sabal palmetto*), and bush palmetto (*Sabal minor*). Saw palmetto phytoliths are elongate with diminutive spines on the phytolith surface, while palmetto phytoliths are round with larger and more infrequent spines, indicating that this genus is the source of the two phytoliths found in the 9CH1205 samples.

Cucurbita

Most or all species of squash and bottle gourd produce distinctive phytoliths in the pericarp and peduncles of the fruit. These scalloped forms are often quite distinctive and with larger assemblages may even be useful in determining species.

Other forms of limited value were also noted in the assemblages. These types are produced by many plants, or in some cases, by unknown plants. These types include bulliform cells, faceted and spherical irregular forms, echinate and plain rods, Type M, a widely occurring form of uncertain origin, lunate, irregular echinate, spherical faceted types, silicified tracheids, jigsaw or deeply serrated types and spheres, and solid and hollow hairs. Dicot plates, represented by single phytolith occurrences in two samples, likely represent dicot leaves, though this type is produced by many plants.

DISCUSSION

Features will be presented individually in consideration of both pollen and phytolith findings.

FEATURE 7

Feature 7 is a refuse-filled pit of indeterminate age and function, but may represent a root pit, filled in around the middle of the nineteenth century. Both Feature 7 and adjacent Feature 7A are situated on what is one of the oldest sections of the property, occupied by the 1830s. Pollen preservation in the Feature 7 sample was fair with a concentration value of 4,652 grains/ml, a value generally considered to be fairly low. The pollen assemblage overall was dominated by oak (*Quercus*) and ragweed (low-spine Asteraceae) grains. Oak pollen is particularly high in this sample at 28.4 percent, the highest occurrence in these samples. The location of Feature 7 is beneath an oak tree that is thought to be several hundreds of years old, and this tree is likely to have been the source of many of these grains as it would have been present on the site in the nineteenth century. The pollen sample from Feature 7 is anomalous for several reasons. First, a number of arboreal taxa occur in this sample, that are absent from all other samples, including maple (*Acer*), hackberry (*Celtis*), Buttonbush (*Cephalanthus*), and ash (*Fraxinus*); many of these types are fragile, and their occurrence may simply signal better pollen preservation in the Feature 7 sample. Economic types are present in this sample, represented by a single grain each from Cerealea and maize, and a single grain of Malvaceae pollen probably representing cotton, and likely signaling that these crops were grown near the sampling location rather than representing storage. Blackberry (*Rubus*) pollen was well-represented in this sample as well. This pollen is produced in low numbers and is poorly dispersed. Its occurrence in this sample likely indicates that this plant was cultivated near this feature at some point in the past. Rosaceae pollen is also fairly common in this sample; these grains may represent poorly preserved blackberry pollen. Cheno-Am pollen, normally an abundant type in differentially or poorly preserved assemblages, is low in the sample from Feature 7, while sedge is relatively high.

Phytolith preservation in the Feature 7 sample was excellent, though the assemblage was not particularly informative. Cultigens were represented in the assemblage by a maize cross phytolith, as well as by Festucoid irregular forms, the latter probably representing wheat. Both cereal and maize pollen were noted in the sample, as well. One phytolith type labeled irregular echinate was somewhat reduced in this sample; these forms are produced in wood, bark, and leaves of some trees and are often used as a proxy for forests. The reduced number of these phytoliths might indicate that the area had been largely cleared, perhaps for agricultural purposes. The presence of crop pollen and phytoliths in the Feature 7 sample might support that the area was in crop production when the sediments were introduced into the feature.

One curious phytolith form was noted almost exclusively in this sample. Here, deeply serrated individual platelets were found in the fine fraction, and intact semi-spherical forms were found in the coarse fraction. The origin of these phytoliths is not known.

FEATURE 7A

Feature 7A is a probable storage pit, adjacent to Feature 7. Pollen preservation in this feature was very poor, and a 200 grain count could not be achieved, although a few degraded grains were noted during scanning. Phytoliths from this sample were well preserved, however the assemblage was not particularly informative. While most of the types represent normal background grasses, there were more forest elements in the Feature 7A sample than were present in Feature 7. The presence of a single squash *Cucurbita* phytolith in this sample might suggest that at some point squash was stored in the pit feature.

Recognizing a subfloor pit used for storage from microbotanical traces can be difficult. Pollen from stored materials might be expected only if flowers were present, as most pollen is lost from the plant before the fruits are harvested. Phytoliths might be more useful for identifying the past presence of economic plants, although many crops are not phytolith producers, and the plant may need to decompose in the feature for its phytoliths to enter the sediment record. Presumably, grasses (straw or hay) or sedges were used to cushion materials stored in the pit, and these materials may account for the relative abundance of grass phytoliths in the assemblages. The single squash phytolith identified in this sample could have entered the fill through sweepings or contamination; however as only the pericarp and stems of the fruit produce the diagnostic phytoliths, its occurrence in this context suggests that squash was stored in this feature at some time in the past.

FEATURE 38

Feature 38 is a storage pit associated with the early occupation locus and was likely to have been filled in prior to the Civil War. Pollen was present in poor to fair condition as indicated by its relatively low concentration value of 2,586 grains/ml. The pollen record was dominated by disturbance taxa that are also common and durable types, including low-spine Asteraceae, Cheno-Ams, grasses, chestnut (*Castanea*), and pine (*Pinus*). Cultigens were represented in the pollen sample by the presence of Cerealea and maize pollen. A single mustard family (Brassicaceae) grain was noted in this sample. Although members of the mustard family are widespread and common, the pollen is poorly dispersed and is usually rare. Economic members of this family include broccoli, cauliflower, Brussels sprouts, and cabbage, in addition to mustard and other greens. Whether this single grain represents an economic member of this family is not known.

Phytoliths record evidence of both cereal grains (probably wheat), and maize, the latter represented by two forms of phytolith. Both of these taxa were noted in the pollen samples suggesting that cereal grains and maize were cultivated in the area. Maize could have been harvested, dried, and subsequently stored in the pit feature for later use, although many varieties would not store well in coastal Georgia. Interestingly, a single bamboo (almost certainly *Arundinaria* [giant cane]) phytolith was noted in this sample. Cane was likely to have been present in the site area in the past, and some may have persisted even during the time of the site's use. Alternatively, the bamboo phytolith could represent the past use of this economically important plant in the site area. *Arundinaria* has a variety of uses including poles for fishing or construction, pipe stems, and especially fodder for animals.

Overall, the microbotanical record from Feature 38 reflects an environment that seems to be somewhat cleared for agriculture; the presence of cereal and maize grains and phytoliths are likely candidates for cultivation.

FEATURE 53

Feature 53 is a pit of unknown functions, and based on context and fill was likely to have been filled in around the mid nineteenth century. The feature itself is located in an early occupation locus but evidence suggests that the feature may date to a later period in the nineteenth century. Pollen was very poorly preserved in this feature, though a few grains were noted during scanning. The pollen concentration value for this sample was 318 grains/ml, well below the minimal acceptable threshold, and most grains were present in poor condition. Phytoliths were well preserved in the feature, and counts of both fractions were made. The phytolith assemblage was dominated by grasses and non-diagnostic forms, probably reflecting environmental or

background types. Cultigens were completely lacking in the sample, and the irregular echinate forest indicator type was elevated, hinting that a period of reforestation or possible abandonment had taken place when this feature was filled in.

FEATURE 82

Sediment from Feature 82 represents materials collected below a brick chimney or hearth feature. Deposits are thought to date to the antebellum period, representative of the time of chimney construction. Because of oxidation, pollen was largely gone from this sample, represented by a very low concentration value of 678 grains/ml. Identifications during scanning, however, were made of some grains, as noted in Tables 40 and 41. A single maize grain was noted during examination hinting at nearby maize cultivation at the time of construction. Like other pollen-bearing samples from the earlier context of this site, oak pollen appears to be elevated in this sample. Phytoliths largely reflect background types of grasses and non-diagnostic forms, and cultigens were absent from this sample. The Feature 82 sample contained the highest percentage occurrence of irregular echinate types (28.2 percent) possibly indicating a more forested setting. A single *Sabal* type (palmetto) palm phytolith was also identified in this sample. Two species of palmetto are native to the region, *Sabal palmetto* (palmetto or cabbage palm) and *S. minor* (scrub palmetto) and either could have produced this distinctive phytolith.

FEATURE 120

Feature 120 is a refuse filled storage or root pit of postbellum age. Preservation was poor to fair in the pollen sample, and was dominated by ragweed type grains, along with Cheno-Ams, grasses and lesser amounts of pine and oak. The high amount of ragweed type pollen may either represent an abundance of weedy types in the area at the time the feature was filled in, or the high percentage could signal differential preservation. Low-spine Asteraceae pollen is durable, abundant and easy to recognize even when highly eroded, thus these grains tend to be over represented in poorly preserved pollen assemblages. Economic pollen types are present in the pollen assemblage represented by a single probable cotton grain and by three Cerealea grains. These grains probably represent plants cultivated in the site area rather than items stored in the subfloor pit.

Phytoliths from Feature 120 were well preserved. Cultigens were represented in the assemblages by wheat type Festucoid irregular forms, and by both maize crosses and maize rondels, indicating, along with the corresponding pollen data, that these crops were being cultivated in the area. Interestingly, a relatively large amount of Chloridoid saddle phytolith forms (23.4 percent) were also identified in the sample though these likely represent only background grasses or perhaps subfloor pit packing materials.

FEATURE 147

Feature 147 is a postbellum-age refuse filled storage or root pit. Pollen from this feature was moderately well preserved, but largely uninformative. Dominant types were ragweed and Cheno-Ams, with lesser amounts of grass, pine, and oak. There was a relatively large amount of knotweed (Polygonaceae) pollen with 2.4 percent, though an economic usage is probably not indicated. These grains compare favorably to knotweed, a common weed throughout much of North America. While precontactally these plants have often had a value as a food or medicine (Moerman 1998; Yanofsky 1936), their role among enslaved populations has not been explored. The phytolith record is slightly more informative. Cultigens are represented in the phytolith assemblage by single item occurrences of Festucoid Irregular (probably wheat) and maize cross forms. Again, these occurrences likely signal the cultivation of grains in the area, rather than crop storage within the feature. A *Sabal* phytolith was also noted in this sample suggesting palmettos were present in the area at some point in the past.

FEATURE 173

Sediment collected from Feature 173 represents material below a brick chimney or hearth, and likely dates to the time of chimney construction prior to the Civil War. Pollen was present in fair condition, though the assemblage reflects environmental rather than cultural conditions. The pollen record is dominated by ragweed and Cheno-Ams, as well as grass pine and oak. As in the case of the other pre Civil War samples, there is a slight elevation in oak pollen. Economic types are lacking, although the presence of a single grain from Convolvulaceae could represent sweet potato (*Ipomoea*). The pollen from sweet potato would likely remain in the field and its association with the tubers would be highly unlikely except as a contaminant. If this grain does represent sweet potato, it would probably be as a contaminant from the local environment rather than indicating tuber storage.

Phytoliths from Feature 173 were well preserved, but were not particularly informative. Cultigens in the assemblage were represented solely by a single maize cross form, again probably reflecting local crops. Also noted in the assemblage were a single bamboo phytolith and three deeply serrate “jigsaw” forms of unknown origin.

FEATURE 181

Sediment from Feature 181 represents fill from an indeterminate linear ditch or trench. It was anticipated that the pollen or phytolith record may prove enlightening in terms of the feature’s age or origin. Pollen from this feature was moderately well preserved, with the highest concentration value at the site of 7996 grains/ml of sediment. The Feature 181 pollen assemblage was dominated by ragweed and grass pollen, with lesser amounts of Cheno-Am,

chestnut, pine and oak, all but the grass likely to have blown into the feature from the surrounding area. Both sedge and especially grass pollen is elevated and the feature may have served as a drainage or irrigation feature. Aquatic favoring taxa were noted in the feature, including, along with the sedge and grass, Apiaceae (umbel or parsley family), Onagraceae (evening primrose family), Polygonaceae and *Myrica* (wax myrtle). A single maize grain was also noted in the sample, likely reflecting nearby crop cultivation.

Phytoliths from Feature 181 support the idea that the feature was a drainage or irrigation feature that contained water at a greater frequency than other areas examined from the site. Two forms of Cyperus sedge phytoliths were identified in the feature, supporting the pollen findings of sedge near the feature. Grass phytoliths are common in the feature, but Chloridoid saddle forms are present in their lowest frequency in this feature. Chloridoid grasses favor well drained or drier upland settings, and would likely not be found in a saturated environment. Maize is well represented by cross and rondel phytoliths, supporting the pollen findings of maize being cultivated in the area. Irregular echinate forest type phytoliths are reduced in this sample, suggesting this immediate area was cleared or was more open than other parts of the site. This linear feature could well have been an irrigation or drainage ditch adjacent to garden plots or fields.

ENVIRONMENT AND THE SITE

Overall, the pollen and phytoliths samples present a good picture of plants that were found in the region and in the site area during the nineteenth century. Pollen is a strong tool for providing detailed information on local and regional vegetation, while phytoliths provide good evidence of predominantly local plant types. A fairly good representation of the local environment can be gleaned from the pollen. Forests near or surrounding the settlement were composed of oak, hickory, pine and chestnut. Also present were maple, hornbeam, hackberry, beech, ash, sweet gum, cherry, juniper and elm. Some taxa favor stream sides or marshy habitat including alder, wax myrtle, buttonbush and willow. The single grain of eastern hemlock found in Feature 82 likely travelled from the Appalachian Mountains, where it is known from the western Carolinas and northeastern Georgia. The abundance of weeds in the pollen records is consistent with a settlement/agricultural setting including members of the Asteraceae family, Cheno-Ams, grasses, plantain and knotweed. Several pollen taxa, in addition to representing weeds, could also represent ornamentals cultivated for their beauty or perhaps for medicinal purposes, including Caryophyllaceae (pink family), Liliaceae (lily family), Onagraceae (evening primrose family) and Rosaceae (rose family).

A COMPARISON OF FEATURES BY AGE

Phytolith and pollen samples suggest similar trends with respect to chronology. For phytoliths, samples dating to the antebellum period differ somewhat from those dating to the postbellum period occupation. Maize was noted mostly in the earliest period samples, as well as the Feature 181 trench, presumed to be of an early age, although some phytoliths were also found in later period samples. Forest taxa might be most telling in terms of age definition. Early period samples had several taxa that were lacking in the later period materials, including hornbeam, sweet gum, cherry and elm, suggesting that these taxa had been removed from the forests by the late nineteenth century. Bamboo phytoliths also occur only in older sediments, as well as trench Feature 181. Likely, these forest elements were cleared from the local forests for lumber or possibly to obtain additional land for agriculture.

A comparison of pollen samples by age is presented in Table 67. Maize pollen is found only in early period samples, and a single maize grain was also noted in Feature 181 sediment. Likewise several different forest taxa were found only in the earlier period sediments and also in Feature 181 including hornbeam or hazelnut (*Carpinus/Corylus*), sweetgum (*Liquidambar*), cherry (*Prunus*) and elm (*Ulmus*). Bamboo phytoliths, although always rare, were found only in early period sediments, as well as trench Feature 181. Although the age of feature 181 is unknown, the pollen evidence might suggest that the feature dates to the earlier (pre Civil War) phase of occupation.

Table 67. Pollen Percentages Arranged by Presumed Age

Age	Early	Early	cf Early	Early	Early	Unknown	Late	Late	Unknown
				Hearth	Hearth	Pit			Trench
Sample	1	2	3	5	8	4	6	7	9
Taxa/Feature Number	7	7A	38	82	173	53	120	147	181
Apiaceae		*			1				0.5
Asteraceae High Spine			1	*	1.5		4.5	1.5	1.5
Asteraceae Low Spine	21.6	*	27.5	*	20	*	53	32.2	41.2
Brassicaceae			0.5						
Caryophyllaceae	0.5								
Cheno-Am	2.9	*	25.5	*	27.5	*	6.5	30.7	6.4
Cirsium							1		
Convolvulaceae					0.5				
Cyperaceae	3.9	*	2	*	0.5		1		2.5
Fabaceae	2			*	0.5		1	1	0.5
Liguliflorae	1		1	*	1		1.5	0.5	1.5
Liliaceae	0.5				0.5				0.5
Malvaceae	0.5						0.5		

(Continues)

(Table 67, Continued)

Age	Early	Early	cf Early	Early	Early	Unknown	Late	Late	Unknown
				Hearth	Hearth	Pit			Trench
Onagraceae							0.5		0.5
Parthenocissus							0.5		
Poaceae	2.9	*	8	*	7	*	8	4.4	18.1
Plantago	2	*	1.5	*	0.5		1		
Polygonaceae	1.5	*	0.5	*	1.5		1.5	2.4	1
Rosaceae	2.9		0.5		0.5		1		
Rubus	3.9								
Cerealea	0.5		1.5				1.5		
Zea	0.5		0.5	*					1
Acer	0.5								
Alnus				*	0.5				
Carpinus/Corylus	0.5		0.5	*	1				1.5
Carya	1		2				0.5		
Castanea	0.5	*	7.5	*	4	*	2	2.9	3.4
Celtis	0.5								
Cephalanthus	0.5								
Fagus	0.5			*					
Fraxinus	0.5								
Liquidambar	2	*		*	0.5				0.5
Myrica	1			*	0.5			1	1
Pinus	6.4	*	9.5	*	11.5	*	3.5	7.8	5.9
Prunus	0.5		0.5		0.5				1
Quercus	28.4	*	4.5	*	8	*	6.5	6.3	5.9
Salix					0.5				
TCT	2.5		1.5	*	3	*	1	1.5	1.5
Tsuga				*					
Ulmus	0.5								0.5
Indeterminate	7.4	*	4	*	7.5	*	3.5	7.8	3.9
Total Pollen (Percent)	100.3	0	100	0	100	0	100	100	100.3

CROPS

Some evidence of agriculture on or near the site can be documented from the pollen and phytolith record. Several domesticated plants are represented in the pollen record, including Old World cereals, maize and cotton, while the phytolith record documents probable wheat, maize and squash. In addition to the cultigens, blackberry or raspberry may have been cultivated at the

site, as well. Maize is particularly well represented where its grains were noted in four samples, and phytoliths were noted in six samples. Whether maize was cultivated on a commercial or small garden scale is not known. The relatively low percentages of this plant's pollen and phytoliths in these samples may be somewhat misleading. These phytoliths could represent large scale farming somewhat removed from the area, or small scale farming in the immediate site area. As phytoliths tend to remain where the plants decompose, their occurrence in the site area might suggest that maize to some extent was grown in the immediate site area.

Cereal grains were clearly also grown in the area, represented by pollen grains in three samples and "Festucoid irregular" phytolith forms in five samples. Positive identifications of the specific grains are not possible, but the phytolith form identified in the samples is consistent with wheat, a plant that is known for producing large quantities of this type of phytolith. Wheat may well have been grown by the local residents in the immediate site area.

Pollen grains of what is probably cotton were noted in two samples. Cotton was a widespread crop throughout much of the southern states, and it is known to have been cultivated in coastal Georgia. As so few grains were noted in these samples, it seems likely that this crop was cultivated somewhat removed from the immediate settlement. Finally, the occurrence of a single squash phytolith in subfloor pit Feature 7A suggests that this crop may have been grown in the site area and possibly stored in the pit. The relative abundance of blackberry type (*Rubus*) pollen found only in Feature 7, suggests that this plant, though possibly native to the area, was cultivated in the site vicinity. Blackberry grains are scarce or rare in the pollen record because they are produced in low numbers and are poorly dispersed, relying exclusively on insects for transport from one flower to the next. The occurrence of more than a couple blackberry pollen grains suggests the flowers were present at this location. While a few grains might adhere to the fruit, more likely the blackberry pollen in this feature is indicative of the plants having grown in this location in the past. Pollen from both Brassicaceae and Convolvulaceae, each represented by single pollen grain, could represent either economic plants or common weeds.

Although rice cultivation has long been of tremendous importance in the lowlands of the southeastern United States, there is no evidence that rice was cultivated on or near site 9CH1205. Rice produces a diagnostic motor, or keystone bulliform cell, a type not present in these phytolith assemblages.

SUMMARY

A total of nine pollen and nine phytoliths from Site 9CH1205 were examined. Pollen preservation was variable, with counts being made in six of the nine samples examined. At least 40 different pollen taxa were noted in the assemblages, representing both local and regional

vegetation. Phytoliths recorded a different suite of types and taxa, reflecting a similar pattern to that obtained from the pollen. As the samples examined for this study were largely collected from subfloor pit features, insights into past vegetation from the time of pit filling was obtained, along with some insights into pit usages. As pits were broadly placed into early (antebellum) and late (postbellum) temporal categories, reflections of the local site environment through time were obtained. The antebellum age sediments reflect what appears to be a more forested setting, with evidence of maize cultivation in the region. Bamboo phytoliths, though rare, were noted only in sediments from this period, reflecting perhaps the persistence of canebrake in the area. Sediments dating to the postbellum period appear to show a more cleared environment in the site area. One linear trench feature (Feature 181) of unknown age and function contains a suite of pollen consistent with antebellum vegetation. As aquatic-loving taxa are fairly well-represented in the trench sample, the pollen and phytoliths suggest this feature might have been used for irrigation or draining fields in the area.

XIII. ZOOARCHAEOLOGICAL ANALYSIS

R. Jeannine Windham

INTRODUCTION

New South Associates, Inc. conducted a zooarchaeological study of faunal remains from Site 9CH1205. Numerous features and overlying deposits associated with these occupations produced a small and fragmentary faunal assemblage representing primary disposal and secondary deposition of sheet midden. The following zooarchaeological study describes the foodways of the site's nineteenth-century occupants of the nineteenth century.

To understand and interpret aspects of meat consumption by the nineteenth-century occupants, several research topics were set forth and guides this analysis. Three broad categories of occupants are recognized at the site and include African American slaves (antebellum/early nineteenth century), Civil War soldiers and officers, and emancipated African Americans (postbellum/late nineteenth century). The research topics for these three groups are as follows and are derived from the *Archaeological Research Design and Data Recovery Plan for Site 9CH1205* (Joseph and Botwick 2012):

- Were the antebellum or postbellum, African American occupants of 9CH1205 involved in:
  - the market economy,
  - hunting/trapping/fishing, or
  - ritual use of animals?
- Did the antebellum or postbellum, African American occupants:
  - use more domestic or wild animals for subsistence,
  - show differences between residences in regard to consumption, and
  - participate in a Georgia pattern of meat processing/consumption?
- During the Civil War occupation:
  - is there evidence for military rations as stated in historic documents, and
  - is there evidence for differing consumption patterns between enlisted soldiers and officers?

This chapter describes the analysis methods used in this study, results of analysis, and a brief discussion of the zooarchaeological assemblage in context of the above research topics. Appendix G includes an inventory (by provenience) of all analyzed faunal specimens.

ZOOARCHAEOLOGICAL METHODS

This chapter presents the 9CH1205 faunal assemblage and the zooarchaeological analysis methods applied to it. The faunal sample is discussed in the first section. The second section provides the methods used to analyze this sample for taxonomic and taphonomic variables.

FAUNAL SAMPLE

Numerous excavation blocks (1-10), feature contexts, and interpretative Loci (1-9) at 9CH1205 contained vertebrate and invertebrate remains. Table 68 summarizes the distribution of faunal remains from these contexts by provenience, count (number of individual specimens [NISP]), and weight (g). The total site assemblage consists of 1,938 specimens (1954.16 g). All specimens were recovered from 0.25-inch screens or flotation samples.

The majority of all remains were recovered from the Block 9 area, which represents 42 percent of the total faunal assemblage. This excavation block encompassed Loci 2, 6, 7, and 9. In addition, Block 1 and 4 contained 33 and 22 percent of the assemblage, respectively. All other contexts contained less than 10 percent of the total faunal specimens recovered at the 9CH1205.

Table 68. Faunal Remains by Recovery Context

Block	Locus	Feature#	NISP	Weight (g)
1	5	7	171	273.97
		7A	100	96.22
		7B	98	128.39
	na	16	2	0.07
		na	94	149.34
2	8	170	1	0.12
	na	na	2	0.68
4	3	32	14	2.55
		33	17	7.61
		37	1	0.05
		38	120	152.91
4	4	20	5	3.36
		24	2	0.47
		25	9	1.78

(Continues)

(Table 68, Continued)

Block	Locus	Feature#	NISP	Weight (g)
4	4	26	23	15.89
		47	45	7.11
		48	3	0.20
		49	5	2.84
		53	21	3.25
		68	4	5.15
		71	34	8.60
		104	4	1.00
		105	1	0.17
	5	7	1	0.59
	na	36	14	0.45
		40	1	22.51
		45	14	0.42
		46	12	2.07
		47	26	0.39
		59	9	0.75
		64	3	0.61
		69	25	57.71
		76	34	40.78
		84	1	0.98
		93	7	11.41
		103	1	0.17
		118	1	0.83
		131	3	9.48
		45A	21	46.56
		79A	3	3.89
		91A	4	2.40
		na	7	5.45
5	1	81	16	12.53
		82	23	10.31
		98	5	1.41
		192	16	3.26
	na	88	3	0.12
		95	2	0.26
		192A	1	0.35
		na	2	28.45

(Continues)

(Table 68, Continued)

Block	Locus	Feature#	NISP	Weight (g)
7	na	167	23	13.37
		na	2	0.55
9	2	173	30	30.56
		176	2	1.62
		183	54	102.84
	6	120	242	160.97
	7	147	148	159.42
	9	124	60	63.16
	na	116	26	25.40
		137	123	65.96
		149	5	3.68
		150	1	0.30
		151	2	3.18
		152	3	0.22
		159	1	0.17
		163	12	0.84
		165	5	3.49
		166	5	0.91
		169	106	25.79
		177	2	3.55
		178	2	6.24
		179	2	1.11
		186	1	0.76
		189	4	0.41
		190	16	13.37
		124A	3	0.30
		na	20	137.90
10	1	184	4	2.22
Grand Total			1938	1954.16

TAXONOMIC ANALYSES

All faunal remains from the 9CH1205 site sample were analyzed for taxonomic identification and taphonomic variables. Taxonomic identification was performed to the highest taxonomic division possible for each specimen (i.e. class, order, family, genus, and species). In regard to skeletal remains, bone density and thickness were analyzed by an experienced zooarchaeologist to identify taxonomic class when possible. Specimens (including fragments and teeth) that

retained diagnostic features were compared with New South Associates' zooarchaeological collection for taxonomic identification. In addition, illustrated manuals assisted in identification (Olsen 1968, 1973).

ZOOARCHAEOLOGICAL QUANTIFICATION

The quantification of zooarchaeological remains continues to be a debated topic. This study used count and weight (g) exclusively due to the small quantity of fragmentary remains recovered. The poor preservation and small assemblage overall negated the applicability of more robust quantitative measures.

The number of identified specimens (NISP), a numerical count of each bone identified in an assemblage, is one of the primary units of quantification. The "identified" label generally means the specimen was recognized as to class or a higher category (Lyman 1994:100). However, a large quantity of remains was "unidentifiable." Counts and weights of these unidentifiable specimens were also included with the results of the 9CH1205 zooarchaeological analysis.

NISP has been used to monitor changes in frequency, both spatially and temporally, of faunal remains from archaeological sites (Grayson 1984:17). However, NISP has several shortcomings inherent in its simplicity; one being that it is inflated by fragmentation. Fragmentation can result from taphonomic factors such as differential destructions of carcasses during butchering, the breaking of bone during processing, and scavenger activity (Grayson 1984:17). Along with intentional breakage, trampling, breakage during excavation, and careless handling of specimens can inflate NISP (Lyman 1994:101). All of these are post-depositional processes that can affect the outcome of the sampling.

Bone weight (g) data was also recorded for this analysis because it provides one of the most robust quantitative measures. Weight is useful for comparing relative size of specimens, as well as degree of fragmentation (Jackson and Scott 2001:189; Erlandson 1994:151; Reitz and Wing 1999:200; Zeder 1991:107, 219). It can also be used to compare in a relative way the quantities of bone representing different taxa (Driesch 1993; Reitz and Wing 1999:200; Stahl 1995:158). While it cannot account for differential densities of bone, it does eliminate the negative effects of fragmentation on assemblages (Jackson and Scott 2001:189).

TAPHONOMIC ANALYSIS

Primary and secondary modifications also were recorded and quantified during analysis of all specimens. Primary modification included butchery and thermal alteration. Secondary modification included carnivore or rodent gnawing.

Butchery method was recorded whenever observed, including marks from a knife (cut), an axe (hacked/chopped), saw, and spiral fracture (torque fracture and twist). One potential bias of such information was the effects of plowing, trampling, recovery, or other post-depositional modification of the faunal assemblage. Fragile bones, such as those of small mammals or birds, are disproportionately affected by these destructive processes as compared to more robust large mammal remains. During analysis, all butchery marks were quantified excluding spiral fracture due to the prevalence of this evidence.

In addition, these butchery marks were identified and quantified separately from carcass portion or meat cut as these two lines of evidence were not mutually exclusive for the faunal assemblage. In other words, not all fragments that showed butchery marks could be identified to carcass, or meat, portion and vice versa.

When possible, elements were identified as to possible part of the carcass with regard to traditional and commercial portions or cuts (e.g., picnic ham, roast, loin). These data can reflect socioeconomic status, ethnicity, and cultural trends. However, it was noted that not all represented carcass portions were culturally used in whole or part. Rather, some portions may have been "table scraps" or other such wastes discarded during butchery, processing, or consumption of the animal. Such bias is difficult to identify from archaeological assemblages, but examples may have included large mammal soup bones or a poultry winglet.

Thermal alteration refers to the degree of heat exposure and is divided into three categories: unmodified, burned, and calcined (see Lyman 1994). "Burned" bone reflects exposure to low and/or short duration heating events such as those produced for the purposes of warmth or roasting. "Calcined" bone results from high and/or long duration heating events that may not be related to the specific cooking technologies. Differential heating causes changes to the color and organic content of bone. Specimens assigned to the "burned" category were brown to black in color and included superficial and fully carbonized specimens. Specimens that were stained by an organically rich matrix could also appear burned. Specimens that could not be identified with confidence as stained or burned were labeled "burned?". White to blue specimens that had lost all organic components were classified as "calcined."

Non-cultural, secondary modifications among the assemblage also were recorded. Typical examples in this assemblage included rodent and carnivore gnaw marks, which generally indicate a context that was open or redeposited in some way that exposed the bones to scavengers. Rodents and carnivores gnaw on bones in specific patterns. Evidence of rodent gnawing includes grooves left by two small incisor teeth, and usually along the shaft portion of an element. Carnivore gnawing differs in that the remaining marks do not exhibit grooves and the gnawing is typically on the epiphysis portion of long bones. Gnawing marks were recorded as either present or absent and as produced by carnivore or rodent.

All zooarchaeological attributes were documented in accordance with accepted procedures (see Reitz and Wing 1999:200) and entered into a specially designed database for later query. The results of this zooarchaeological study are presented in the following section of this chapter and detailed by provenience in Appendix G.

ZOOARCHAEOLOGICAL RESULTS

Site 9CH1205 data recovery produced a total of 1,938 faunal remains, weighing 1954.16 grams. The highest quantities of faunal remains (including all specimens) were recovered from Blocks 9, 1, and 4, respectively. Other recovered contexts contained fewer faunal remains, many of which were potentially accidental inclusions rather than intentional disposal.

In regard to taxonomic distribution of the faunal remains, the vast majority is of mammalian items (Table 69). Cow was the most heavily represented species suggesting that beef was the primary source of meat subsistence at the site. In addition, pig/swine, rabbit, raccoon, and squirrel are represented within the assemblage in small quantities. The overwhelming majority of beef remains may partially be a result of taphonomic issues in preservation; however, other taxa are represented in scant amounts. These other taxa include Actinopterygii (fish), Amphibia, Aves, Bivalvia/Mollusca, Malacostraca (crab), Reptilia and Chordata (siren/frog/toad).

Table 69. Taxonomic Distribution of Faunal Remains

Class/Phylum	Order	Family	Genus	Species	Common Name	NISP	Weight (g)
Class Actinopterygii	na	na	na	na	unid fish	50	2.16
	Periciform	na	na	na	unid perch-like fish	2	0
	Siluriformes	Ictaluridae	*Ictalurus*	sp.	catfish cf.	5	1.14
Class Amphibia	Anura	na	na	na	unid frog	2	0
Class Aves	Galiformes	Phasianidae	*Gallus*	*gallus*	chicken cf.	1	0.1
	na	na	na	na	unid bird	17	3.73
Class Bivalvia	na	na	na	na	unid bivalve	15	7.84
	Ostreoida	Ostreidae	na	na	oyster cf.	3	16.17
Class Malacostraca	Decapoda	na	na	na	unid crab	1	0.64
Class Mammalia	Artiodactyla	Bovidae	*Bos*	*tarus*	cow	38	645.01

(Continues)

(Table 69, Continued)

Class/Phylum	Order	Family	Genus	Species	Common Name	NISP	Weight (g)
					cow cf.	9	36.99
		Suidae	*Sus*	*scrofa*	pig	11	42.54
	Carnivora	Proconidae	*Procyon*	*lotor*	raccoon	2	2.37
					raccoon cf.	1	0.2
	Lagomorpha	Leporidae	*Lepus*	sp.	rabbit	1	1.46
					rabbit cf.	1	4.4
	na	na	na	na	unid large mammal	152	548.37
					unid mammal	3	0.6
					unid med mammal	10	3.71
					unid med-large mammal	323	342.59
					unid medium mammal	2	1.32
					unid small mammal	11	2.09
	Rodentia	Muridae	*Mus*	sp.	unid mouse	1	2.21
		Scuridae	*Scurius*	sp.	squirrel	1	0.38
Class Reptilia	Testudines	Emydidae	na	na	unid turtle-large Emydidae	20	46.29
		na	na	na	unid turtle	12	3.56
na	na	na	na	na	unid	1238	237.04
Phylum Chordata	na	na	na	na	unid siren/frog/toad	4	0.02
Phylum Mollusca	na	na	na	na	unid mollusca	2	1.23
Grand Total						1938	1954.16

The results of the zooarchaeological analysis are discussed below, while Appendix G provides detailed results for each context. The animal common names are used for easier reference, but specific taxonomic designations are provided in Table 70. Summary data for each context, taxonomic category, and modification are provided within the following discussion of excavation blocks and interpretative loci.

The context descriptions below focus on only zooarchaeological evidence and do not provide information as to context function unless it is in regard to faunal evidence. The discussion is organized by context and taxonomic classification.

EXCAVATION BLOCKS AND LOCI

The faunal remains of 9CH1205 were recovered from a total of nine excavation blocks. These blocks contained sheet midden and feature contexts that were later used in the interpretation of site loci. The majority of remains are represented within the following contexts:

- Block 1 (NISP=465, 647.99 g) encompassing
  - Locus 5 - all 19th century (NISP=168, 271.74g).
- Block 4 (NISP=495, 420.39g) encompassing
  - Locus 3 - early 19th century (NISP=152, 163.12g) and
  - Locus 4 - all 19th century (NISP=156, 49.82g); and
- Block 9 (NISP=875, 812.15g) encompassing
  - Locus 2 - all 19th century (NISP=86, 135.02g),
  - Locus 6 - late 19th century (NISP=242, 160.97g),
  - Locus 7 - late 19th century (NISP=148, 159.42g), and
  - Locus 9 - early 19th century (NISP=60, 63.16g);

These contexts are discussed in greater detail below. Other block excavation contained few faunal specimens, are outlined within Table 70, and not discussed in detail within this chapter.

Table 70. Distribution of Faunal Remains by Excavation Block and Loci

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
1	5	Class Actinopterygii	catfish cf.	Fragment	unmod	unmod	4	0.87
			unid fish	atlas cf.	unmod	unmod	1	0.68
				Rib	unmod	burned	1	0.06
		Class Actinopterygii Total					6	1.61
		Class Mammalia	cow	Maxilla	unmod	unmod	2	104.48
				tooth-molar	unmod	unmod	1	36.05
				tooth-premolar	unmod	unmod	2	13.66
				tooth-unid	unmod	unmod	2	7.16
			cow cf.	tooth-incisor	unmod	unmod	1	2.7
			pig	tooth-premolar	unmod	unmod	1	1.69
			raccoon cf.	Canine	unmod	unmod	1	0.2
			unid large mammal	Fragment	unmod	unmod	16	4.66

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
1	5				chop	unmod	3	12.47
				fragment-cranial	unmod	unmod	7	12.75
				Longbone	unmod	unmod	1	9.48
				mandible/maxila	chop	unmod	1	1.54
				Phalanx	chop	calcined	1	0.55
				tooth-incisor	unmod	unmod	1	0.66
				tooth-premolar	unmod	unmod	1	1.47
				tooth-unid	unmod	unmod	1	0.7
				ulna	unmod	unmod	2	1.06
				vertebra	unmod	unmod	1	0.98
			unid med-large mammal	fragment	unmod	burned	2	1.58
						calcined	1	0.39
						unmod	21	26.89
				fragment-cranial	unmod	unmod	2	0.63
				longbone	unmod	burned	1	3.25
					chop	unmod	1	0.51
				mandible/maxila	chop	unmod	1	1.93
			unid medium mammal	calcaneum	unmod	unmod	1	0.75
			unid small mammal	femur-head	unmod	calcined	1	0.2
				pelvis	unmod	burned	1	0.23
				ulna	unmod	unmod	1	0
		Class Mammalia Total					78	248.62
		Class Reptilia	unid turtle	shell	unmod	unmod	3	1.28
		Class Reptilia Total					3	1.28
		Na	unid	fragment	unmod	burned	8	1.37
						calcined	17	3.4
						unmod	55	15.31
				longbone	unmod	unmod	1	0.15
		na Total					81	20.23
	5 Total						168	271.74
	na	Class Actinopterygii	unid fish	scale	unmod	unmod	5	0
		Class Actinopterygii Total					5	0

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
1	na	Class Aves	unid bird	longbone	unmod	burned	3	0.27
						calcined	1	0.97
						unmod	2	0.37
				vertebra	unmod	unmod	2	1.3
		Class Aves Total					8	2.91
		Class Malacostraca	unid crab	claw	unmod	calcined	1	0.64
		Class Malacostraca Total					1	0.64
		Class Mammalia	cow	carpal/tarsal	unmod	unmod	1	28.66
				tooth-premolar	unmod	unmod	1	5.25
				tooth-premolar/molar	unmod	unmod	4	20.33
			cow cf.	pelvis-acetabulum	cut	unmod	1	4.73
				tooth-premolar/molar	unmod	unmod	1	2.94
			pig	humerus	unmod	unmod	1	15.56
				tooth-incisor	unmod	unmod	1	0.42
			rabbit	mandible	unmod	unmod	1	1.46
			unid large mammal	fragment	unmod	unmod	7	30.92
				longbone	unmod	unmod	6	55.03
				mandible	unmod	unmod	1	2.7
					chop	unmod	1	15.07
				mandible/maxila	chop	unmod	1	3.42
				pelvis	unmod	unmod	1	6.86
				pelvis cf.	saw	unmod	1	20.82
				tooth-incisor	unmod	unmod	1	2.4
				tooth-premolar/molar	unmod	unmod	2	1.66
				tooth-unid	unmod	burned	1	0.72
						unmod	3	0.95
				vertebra	unmod	unmod	1	1.39
			unid med mammal	fragment	unmod	unmod	1	0.39
				metacarpal/metatarsal	unmod	unmod	1	0.58
				pelvis	unmod	unmod	1	0.26

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
1	na		unid med-large mammal	fragment	unmod	burned	2	1.85
						calcined	4	3.2
						unmod	69	62.88
					chop	unmod	2	2.01
					saw	unmod	3	6.33
				fragment-cranial	unmod	unmod	1	0.85
				longbone	unmod	unmod	8	27.15
				rib	unmod	burned	1	0.44
				tooth-unid	unmod	unmod	1	0.27
		Class Mammalia Total					131	327.5
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.14
						unmod	3	0.96
		Class Reptilia Total					4	1.1
		na	unid	fragment	unmod	burned	19	5.42
						calcined	44	14.46
						unmod	82	23.45
				longbone	unmod	burned	2	0.95
				rib	unmod	unmod	1	0
		na Total					148	44.28
		Phylum Mollusca	unid mollusca	fragment	unmod	unmod	1	0.41
		Phylum Mollusca Total					1	0.41
	na Total						298	376.84
1 Total							466	648.58
2	8	na	unid	fragment	unmod	calcined	1	0.12
		na Total					1	0.12
2	8 Total						1	0.12
	na	Class Mammalia	unid large mammal	tooth-unid	unmod	unmod	1	0.3
			unid med-large mammal	tooth-unid	unmod	unmod	1	0.38
		Class Mammalia Total					2	0.68
	na Total						2	0.68
2 Total							3	0.8
4	3	Class Actinopterygii	unid fish	dorsal spine	unmod	unmod	1	0.02

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
4	3			scale	unmod	unmod	3	0
		Class Actinopterygii Total					4	0.02
		Class Aves	unid bird	eggshell	unmod	unmod	6	0.08
				longbone	unmod	unmod	1	0.5
		Class Aves Total					7	0.58
		Class Bivalvia	oyster cf.	fragment	unmod	unmod	3	16.17
			unid bivalve	fragment	unmod	unmod	15	7.84
		Class Bivalvia Total					18	24.01
		Class Mammalia	cow	phalanx cf.	cut	unmod	1	10.84
			cow cf.	carpal/tarsal	unmod	unmod	2	13.8
				rib	chop	unmod	1	8.49
			pig	scapula	unmod	unmod	1	7.58
				tooth-molar	unmod	unmod	1	1.4
			raccoon	mandible	unmod	unmod	1	2.29
			unid large mammal	fragment	unmod	calcined	1	3.69
						unmod	6	12.11
				fragment-cranial	unmod	unmod	3	8.11
				longbone	unmod	unmod	1	7.67
				rib	unmod	burned	1	4.79
						unmod	1	1.72
					chop	unmod	1	5.25
				scapula	unmod	unmod	1	12.39
				tooth-incisor/canine	unmod	unmod	1	2.25
				tooth-unid	unmod	unmod	1	0.34
			unid med mammal	femur	unmod	unmod	1	0.85
			unid med-large mammal	fragment	unmod	burned	2	1.52
						unmod	9	13.37
					chop	burned	1	2.09
				longbone	unmod	unmod	1	1.88
				tooth-unid	unmod	calcined	3	0.18
						unmod	2	0.38
			unid small mammal	mandible/maxila	unmod	unmod	1	0.1

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
4	3	Class Mammalia Total					44	123.09
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.12
		Class Reptilia Total					1	0.12
		na	unid	fragment	unmod	burned	13	2.3
						calcined	26	4.46
						unmod	35	5.52
					chop	unmod	1	0.51
				longbone	unmod	unmod	3	2.51
		na Total					78	15.3
	3 Total						152	163.12
	4	Class Actinopterygii	unid fish	cleithrum cf.	unmod	unmod	1	0.88
				dorsal spine	unmod	unmod	1	0
				fragment	unmod	unmod	4	0.13
				fragment-gill cover	unmod	unmod	2	0.3
				rib	unmod	unmod	1	0
				scale	unmod	unmod	15	0.01
			unid perch-like fish	vertebra	unmod	unmod	2	0
		Class Actinopterygii Total					26	1.32
		Class Aves	chicken cf.	humerus	unmod	unmod	1	0.1
			unid bird	coracoid cf.	unmod	unmod	1	0.17
		Class Aves Total					2	0.27
		Class Mammalia	pig	tooth-molar	unmod	unmod	1	3.28
				tooth-premolar/molar	unmod	unmod	1	1.77
			rabbit cf.	femur	unmod	unmod	1	4.4
			squirrel	tibia	unmod	unmod	1	0.38
			unid large mammal	fragment	unmod	unmod	1	1.06
				longbone	unmod	unmod	1	3.18
				rib	chop-saw	unmod	1	3.47
			unid med mammal	canine	unmod	unmod	1	0.12
			unid med-large mammal	fragment	unmod	calcined	1	1.02

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
4	4					unmod	7	5.26
					chop	unmod	1	0.25
				fragment-cranial	unmod	unmod	1	0.77
				longbone	unmod	unmod	2	4.88
				tooth-unid	unmod	unmod	2	0.75
			unid mouse	cranium	unmod	unmod	1	2.21
			unid small mammal	femur	unmod	unmod	2	0.94
				metacarpal/metatarsal	unmod	unmod	1	0.09
				pelvis	unmod	unmod	1	0.43
				phalanx	unmod	unmod	2	0.07
		Class Mammalia Total					29	34.33
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.32
		Class Reptilia Total					1	0.32
		na	unid	fragment	unmod	burned	12	0.74
						calcined	19	2.37
						unmod	54	6.51
				longbone	unmod	unmod	1	0.31
				rib	unmod	unmod	4	0.61
				vertebra	unmod	calcined	1	0.87
						unmod	6	1.35
		na Total					97	12.76
		Phylum Mollusca	unid mollusca	fragment	unmod	unmod	1	0.82
		Phylum Mollusca Total					1	0.82
	4 Total						156	49.82
	na	Class Actinopterygii	catfish cf.	fragment	unmod	unmod	1	0.27
			unid fish	fragment	unmod	unmod	1	0.04
				scale	unmod	unmod	14	0.04
		Class Actinopterygii Total					16	0.35
		Class Amphibia	unid frog	mandible/maxila	unmod	unmod	1	0
				radius-ulna	unmod	unmod	1	0
		Class Amphibia Total					2	0
		Class Mammalia	cow	tooth-premolar/molar	unmod	unmod	3	71.09

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
4	na		unid large mammal	carpal/tarsal	chop	unmod	1	9.22
				fragment	unmod	unmod	17	17.18
					chop	unmod	1	2.18
				humerus cf.	unmod	unmod	1	1.84
				mandible	unmod	unmod	2	36.8
				tooth-premolar/molar	unmod	unmod	1	0.98
			unid med-large mammal	fragment	unmod	burned	1	0.33
						unmod	6	6.43
				longbone	unmod	unmod	1	3.7
				tooth-unid	unmod	unmod	1	0.17
			unid small mammal	phalanx	unmod	calcined	1	0.03
		Class Mammalia Total					36	149.95
		Class Reptilia	unid turtle-large Emydidae	shell	unmod	unmod	20	46.29
		Class Reptilia Total					20	46.29
		na	unid	fragment	unmod	burned	17	1.72
						calcined	22	1.96
						unmod	65	6.48
				rib	unmod	unmod	3	0.05
				vertebra	unmod	unmod	1	0.04
		na Total					108	10.25
		Phylum Chordata	unid siren/frog/toad	longbone	unmod	unmod	1	0.02
				pelvis	unmod	unmod	2	0
				vertebra	unmod	unmod	1	0
4	na	Phylum Chordata Total					4	0.02
	na Total						186	206.86
4 Total							494	419.8
5	1	Class Aves	unid bird	femur	unmod	unmod	1	0.07
		Class Aves Total					1	0.07
		Class Mammalia	cow cf.	tooth-premolar/molar	unmod	unmod	1	0.61
			Pig	tooth-molar	unmod	unmod	1	5.3

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
5	1		raccoon	tooth-premolar	unmod	unmod	1	0.08
			unid large mammal	longbone	unmod	calcined	1	1.48
				tibia	saw?	unmod	1	4.72
			unid med-large mammal	carpal/tarsal	unmod	unmod	1	0.55
				fragment	unmod	calcined	5	3.85
				longbone	unmod	calcined	1	0.67
				rib	unmod	calcined	1	0.79
				vertebra-epiphysis	unmod	unmod	2	0.56
			unid medium mammal	femur	unmod	unmod	1	0.57
		Class Mammalia Total					16	19.18
		Na	Unid	fragment	unmod	burned	1	0.1
						calcined	27	4.87
						unmod	15	3.29
		na Total					43	8.26
	1 Total						60	27.51
	na	Class Mammalia	Cow	tooth-molar	unmod	unmod	1	27.25
			unid med-large mammal	fragment	unmod	unmod	1	0.35
		Class Mammalia Total					2	27.6
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.31
		Class Reptilia Total					1	0.31
		Na	Unid	fragment	unmod	burned	2	0.19
						calcined	6	1.08
		na Total					8	1.27
	na Total						11	29.18
5 Total							71	56.69
7	na	Class Mammalia	Pig	mandible/maxila	unmod	unmod	1	3.03
			unid large mammal	tooth-unid	unmod	unmod	1	0.25
			unid med mammal	rib	unmod	unmod	1	0.29
			unid med-large mammal	fragment	unmod	calcined	3	3
		Class Mammalia Total					6	6.57

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
7	na	na	Unid	fragment	unmod	burned	3	1.08
						calcined	1	0.3
						unmod	14	5.57
				longbone	unmod	calcined	1	0.4
		na Total					19	7.35
	na Total						25	13.92
7 Total							25	13.92
9	2	Class Mammalia	Cow	tooth-premolar/molar	unmod	unmod	1	14.4
			cow cf.	tooth-premolar	unmod	unmod	1	2.33
			unid large mammal	fragment	unmod	calcined	1	0.76
						unmod	1	1.52
				longbone	unmod	unmod	1	13.2
				mandible	unmod	unmod	1	11.26
				mandible/maxila	unmod	unmod	1	10.81
				tooth-incisor	unmod	unmod	2	7.44
				tooth-premolar/molar	unmod	unmod	1	33.65
			unid mammal	carpal/tarsal	unmod	calcined	1	0.38
			unid med mammal	longbone	unmod	unmod	2	0.68
				phalanx	unmod	unmod	1	0.27
			unid med-large mammal	fragment	unmod	unmod	11	15.6
				longbone	unmod	unmod	1	5.11
				tooth-unid	unmod	unmod	2	2.32
		Class Mammalia Total					28	119.73
		na	Unid	fragment	unmod	burned	1	0.53
						calcined	17	3.74
9	2					unmod	39	9.89
				pelvis	unmod	unmod	1	1.13
		na Total					58	15.29
	2 Total						86	135.02
	6	Class Mammalia	Cow	tooth-incisor	unmod	unmod	2	2.91
				tooth-molar	unmod	unmod	1	21.54
				tooth-premolar/molar	unmod	unmod	7	75.68

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
9	6		unid large mammal	fragment	chop	unmod	1	3.72
				fragment-cranial	unmod	unmod	2	3.08
				mandible/maxila	unmod	unmod	1	1.87
				tooth-premolar/molar	unmod	unmod	1	0.32
				tooth-unid	unmod	burned	1	0.29
						unmod	6	3.43
			unid med-large mammal	fragment	unmod	burned	11	11.48
						calcined	2	1.53
						unmod	3	6.36
				tooth-unid	unmod	burned	12	6.12
						unmod	11	4.58
		Class Mammalia Total					61	142.91
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.23
		Class Reptilia Total					1	0.23
		Na	Unid	fragment	unmod	burned	13	2.33
						calcined	81	8.84
						unmod	86	6.66
		na Total					180	17.83
	6 Total						242	160.97
	7	Class Mammalia	Cow	carpal/tarsal	unmod	unmod	1	4
				tooth-premolar	unmod	unmod	2	44.37
			unid large mammal	fragment	unmod	burned	1	0.7
						unmod	2	15.52
				fragment-cranial	unmod	burned	1	6.27
				longbone	unmod	burned	1	5. 83
				mandible/maxila	unmod	unmod	2	11.33
				rib	chop	unmod	1	2.12
				scapula	unmod	unmod	1	2.15
				tooth-incisor	unmod	unmod	1	1.94
				tooth-unid	unmod	unmod	2	1.97
			unid med-large mammal	carpal/tarsal	unmod	calcined	1	0.92
				Fragment	unmod	burned	3	3.57

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
9	7					calcined	5	5.2
						unmod	15	18.7
				Longbone	unmod	burned	1	3.12
						calcined	1	2.61
					chop	burned	1	2.06
				tooth-unid	umod	burned	1	0.16
						unmod	1	0.15
		Class Mammalia Total					44	132.69
		Na	unid	Fragment	unmod	burned	31	9.45
						calcined	23	6.27
						unmod	46	10.12
					chop	burned	4	0.89
		na Total					104	26.73
	7 Total						148	159.42
	9	Class Mammalia	cow	Pelvis	unmod	unmod	1	4.4
				tooth-premolar	unmod	unmod	2	11.48
			unid large mammal	Longbone	unmod	unmod	1	10.46
				Rib	saw	unmod	1	8.55
				tooth-incisor	unmod	unmod	1	1.55
			unid med mammal	Phalanx	unmod	burned	1	0.27
			unid med-large mammal	Fragment	unmod	calcined	17	10.31
						unmod	2	7.21
				fragment-epiphysis	unmod	calcined	4	1.76
		Class Mammalia Total					30	55.99
		na	unid	fragment	unmod	burned	1	0
9	9					calcined	14	2.47
						unmod	15	4.7
		na Total					30	7.17
	9 Total						60	63.16
	na	Class Mammalia	cow	calcaneum	chop	unmod	1	30.62
				horn	unmod	unmod	1	18.74
				metatarsal	chop	unmod	1	92.1

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
9	na		cow cf.	tooth-premolar/molar	unmod	unmod	1	1.39
			pig	tooth-molar	unmod	burned	1	2.22
				tooth-premolar/molar	unmod	unmod	1	0.29
			unid large mammal	longbone	cut	unmod	1	12.25
					unmod	unmod	4	36.9
				phalanx	unmod	unmod	1	0.5
				Rib	unmod	unmod	1	4.48
				tooth-incisor	unmod	unmod	1	3.38
			unid mammal	tooth-unid	unmod	unmod	2	0.22
			unid med-large mammal	fragment	unmod	burned	6	10.87
						calcined	14	7.96
						unmod	6	6.82
				longbone	unmod	burned	3	8.63
						calcined	2	0.94
						unmod	1	0.99
				maxilla-palette	unmod	calcined	1	2.27
				rib	unmod	unmod	1	1.46
				tooth-unid	unmod	burned	7	0.37
						unmod	1	0.12
		Class Mammalia Total					58	243.52
		Class Reptilia	unid turtle	shell	unmod	calcined	1	0.2
		Class Reptilia Total					1	0.2
		na	unid	fragment	unmod	burned	34	4.3
						calcined	110	19.89
						unmod	130	24.52
				longbone	unmod	unmod	1	0.84
				tooth-unid	unmod	unmod	5	0.31
		na Total					280	49.86
	na Total						339	293.58
9 Total							875	812.15
10	1	Class Mammalia	unid large mammal	tooth-premolar/molar	unmod	burned	1	1.88
		Class Mammalia Total					1	1.88
		na	unid	fragment	unmod	calcined	3	0.34

(Continues)

(Table 70, Continued)

Block	Locus	Class/Phylum	Common Name	Element	Butchery	Thermal	NISP	Weight (g)
10	1	na Total					3	0.34
	1 Total						4	2.22
10 Total							4	2.22
Grand Total							1938	1954.16

MAMMALIA

Within the Blocks 1, 4, and 9, mammalian remains were the most numerous and beef remains ranged from 26-46 percent of the identifiable mammalian items within each of these blocks. Pork represented three to four percent of the mammalian assemblage within Blocks 1 and 4. However, pork was represented far less, 0.4 percent, in the area of Block 9, whilst containing the highest proportion (46%) of beef. Other mammalian remains included a handful of raccoon, rabbit, and squirrel within Blocks 4 and 1, but these small game species were absent from Block 9 and Loci 2, 6, 7, and 9. Additional mammalian remains were present in small quantities within Blocks 2, 5, 7, and 10 having a combined total of 27 specimens (55.91g) and one mouse skull was recovered from Block 4/Locus 4.

In general, few mammalian remains within the total assemblage showed any butchery marks (NISP=32, 267.31 g). However, these butchered specimens were of larger size/weight and encompassed 14 percent of the total assemblage weight. Butchery marks recorded during analysis included chop, saw, and cut marks and occurred on medium-large sized mammals and identifiable cow specimens. Evidence for spiral fracture was prevalent throughout the assemblage and not specifically recorded.

The mammalian remains of Block 1 fit the above characterization with 16 specimens, or 12 percent, showing butchery marks, primarily chopping. These butchered remains were fairly equally distributed between Block 1/Locus 5 and other Block 1 contexts. Within Block 4, eight specimens (14%) showed butchery marks, were primarily from chopping, and were distributed amongst Block 4/Loci 3 and 4 and other contexts. The Block 9 area contained nine specimens that showed butchery, 22 percent by weight, and also were primarily chop marks. Furthermore, no faunal specimens from 9CH1205 represented recognizable meat cuts traditional of markets and commercial butchers.

Thermal alteration of faunal specimens included 138 (134.33g) burned or calcined items, or seven percent, of the total assemblage. These items were fairly evenly distributed between burned (NISP=65) and calcined (NISP=73) items. Thermal alteration was observed most regularly on medium-large sized, mammalian specimens, in addition to a handful of small mammal and swine specimens.

The mammalian remains of Block 1 fit the above characterization with 15 specimens, or two percent of the context weight, showing thermal alteration. These altered remains were fairly equally distributed between Block 1/Locus 5 and other Block 1 contexts. Within Block 4, 11 specimens (4%) were burned or calcined and occurred mostly within Locus 3. The Block 9 area contained 100 thermally altered specimens or 14 percent by weight of the Block 9 assemblage. This higher percentage of burned/calcined remains was concentrated within Block 9/Locus 6 and other Block 9 context not associated with a specific locus. Other loci of Block 9 (Loci 2, 7, and 9) contained thermally altered remains, but in fewer quantities.

Post-depositional modification of the mammalian remains was scarce at the site. Only one item showed carnivore gnaw patterns.

AVES

Avian remains, bird specimens, were rare within the 9CH1205 assemblage and only one item was identified as domestic chicken (NISP=17, 2.98g, 0.2% weight). These bone and eggshell remains were distributed evenly between both 0.25-inch screened and flotation samples, suggesting that preservation and recovery bias of fragile, bird remains is somewhat mitigated at the site. In concert, this evidence indicates that the site inhabitants did not heavily exploit domestic or wild birds for meat or eggs.

In regard to context, the majority of avian specimens occurred within Blocks 1 and 4. The Block 1 bird remains (NISP=7, 2.1g) were not associated with a specific locus and four were burned or calcined. Block 4 remains (NISP=9, 0.9g) occurred within Loci 3 (NISP=7) and 4 (NISP=2), included the chicken specimen within Loci 4, and showed no modification. In addition, Block 5 contained one bird item.

OTHER TAXA

Faunal remains of other taxanomic classes, excluding mammal and birds, totaled 116 items (79.1g). These remains were small in size, fragile, and most heavily represented within flotation (NISP=74) as opposed to 0.25-inch screened (NISP=42) samples; however, this distribution further illustrates that preservation and recovery bias at the site is somewhat mitigated. Identifiable remains of other taxa include Actinopterygii (fish, NISP=57, 3.3g), Amphibia and

Choradata (siren/frog/toad, NISP=6, 0.0g), Mollusca and Bivalvia (NISP=20, 25.2g), Malacostraca (crab, NISP=1, 0.6g), Reptilia (turtle, NISP= 32, 49.9g). Identifiable animals included catfish, turtle, crab, oyster, and frog.

These other taxa represent food and, presumably, non-food remains (i.e. scavengers, incidental deposition) at the site. None of the remains were in large quantities (see Table 68) or showed no specific cultural activities or taphonomic incidents. Rather, these specimens of other taxa were scattered throughout the major loci of the site.

Overall, these taxa occurred Block 1, 4, and 9 as did other faunal remains of 9CH1205. One reptilian specimen also occurred in Block 5 excavations. Within Block 1, a total of 20 (5.0g) specimens were recovered and evenly distributed between Locus 5 and other Block 1 contexts. The other taxa of Block 4 occurred within Loci 3 (NISP=23, 24.2g) and 4 (NISP=28, 2.5g), but mostly were recovered in other context of Block 4. Of these, a total of three recognizable oyster specimens (16.17 g) were recovered from Locus 4. These showed no sign of cultural activities such as shucking or use in tabby construction material (i.e. attached to mortar). Block 9 contained few remains of other taxa (NISP=2, 0.2g) and occurred with Locus 6 and other context of the block.

Modification of these few other taxa is limited. A total of eight (2.0g) are burned or calcined and none show butchery marks. The thermally altered remains were distributed amongst Blocks 1, 4, and 9.

UNIDENTIFIABLE VERTEBRATE

Typical of most archaeological assemblages, unidentifiable vertebrate remains represent the large proportion of specimens. A total of 1,238 (237.0g) faunal specimens, or 12 percent weight, from 9CH1205 could not be identified to taxonomic class/phylum.

The spatial distribution of these unidentifiable specimens was similar to patterns discussed above with remains concentrated within Blocks 1, 4, and 9. Modification of these items totaled five chopped fragments and 574 burned/calcined fragments.

ZOOARCHAEOLOGICAL DISCUSSION

Site 9CH1205 data recovery produced a total of 1,938 faunal remains weighing 1954.16 grams. These remains are associated with nineteenth-century deposits including early/antebellum, late/postbellum, or all portions of this timeframe depending on the locus. Archaeological evidence of other artifact classes and historic documentation indicate that the investigated occupations reflect African American inhabitants, both slave and emancipated, with little

evidence of the short-term Civil War encampment. The following discussion reflects on the research topics outlined within Section 1 of this chapter in light of this information and zooarchaeological analysis of the relatively small and fragmentary assemblage.

ANTEBELLUM

The proportion of faunal remains reflecting the early nineteenth century is small (NISP=213, 226.4g), but provides some information as to animal use. Animal use was focused on subsistence and no remains or site loci suggested ritual animal use (i.e. bone markings, unique taxa, bundles), differential access to meat amongst residents, or use for construction (i.e., tabby).

During this timeframe at 9CH1205, the African American slave inhabitants relied on a diet of domestic meat sources, specifically beef (20%) and to a lesser extent pork (4%) and eggs. There is evidence for supplemental game animals including fish, oyster (possibly related to tabby architecture), raccoon, and turtle. These wild game species represent approximately 12 percent of the antebellum faunal assemblage and show that fishing, trapping, and hunting were not major activities of the inhabitants. There is little evidence for purchasing or selling of these beef/pork portions or wild game based on the lack of regular sized commercial beef/pork cuts (i.e. communal or Georgian-style individual cuts) or excess of game species. Therefore, it appears that the slave occupants relied most heavily on beef rations supplied by the plantation owner with some supplementation of the meat diet. These rations appear to be less desirable portions of the animal such as phalanges, cranium, rib, pelvis, and scapula rather than roast, steaks, or tenderloin of the femur, humerus, and vertebra.

CIVIL WAR

The Civil War encampment of 9CH1205 was short-term and the data recovery excavation could not differentiate a distinct occupation of this timeframe. Therefore, this faunal analysis can not comment on related research topics including evidence for military rations or differing consumption patterns between enlisted soldiers and officers.

POSTBELLUM

The proportion of faunal remains reflecting the late nineteenth century is comparable to the earlier occupation (NISP=390, 320.4g), and suggests a similar population size of the community. Although small, the assemblage does provide some information as to animal use and comparison to the early nineteenth-century community. During the postbellum period the inhabitants of 9CH1205 did shift their meat subsistence toward greater consumption of beef. Animal use was

focused on subsistence and no remains or site loci suggested ritual animal use (i.e. bone markings, unique taxa, bundles), differential access to meat amongst residents, or use of oyster for construction.

Interestingly, contexts of this later timeframe reflect that beef was the choice meat for the emancipated African American inhabitants as represented by 46 percent of the sample weight. There is no evidence for swine or any other domestic or wild animal within contexts specifically reflecting the late nineteenth century. This indicates that there was no longer a need to supplement to meat diet with wild game as observed for the earlier, enslaved inhabitants. Furthermore, the portions of the animal present are similar to the previous findings with few longbones or other choice cuts represented. This pattern suggests that the late nineteenth-century inhabitants: 1) preferred these meat portions culturally and/or 2) they could not obtain "choice" cuts due to socioeconomic status or other reasons.

SUMMARY

In summary, the zooarchaeological analysis of 9CH1205 remains illustrates that the nineteenth-century diet of African Americans in this region was fairly consistent. There was a reliance on domestic meat, which was supplemented by wild game and poultry/eggs during the antebellum period. There is no clear evidence of participation within a market economy or differential access to resources with regard to meat. Rather, these peoples show a clear dependence on a beef diet. Zooarchaeologial remains recovered from the site show no evidence for the use of animals in ritual activities/contexts or for tabby construction.

XIV. ANALYSIS OF RESEARCH TOPICS AND SYNTHESIS

Brad Botwick

This chapter presents the results of the analysis with respect to the research topics presented in Chapter II. To address questions dependent on intrasite comparisons, nine depositional units were defined for the site, as indicated in Chapter IX. Comparisons of chronological, locational, and other attributes between these depositional units provided a basis for understanding the historical development of the site's landscape, variations in material culture, and other topics dependant on intrasite comparisons. Each of the depositional units is interpreted as reflecting a discrete habitation or activity area and received a "Locus" number (see Figure 137). Figures 169-173 illustrate each locus and associated features to reference in the following discussions.

Two of the research topics are addressed briefly here because they bear on certain of the others. First, the issue of time-lag in artifact assemblages could not be addressed. Dates for artifacts were generally consistent with the overall assemblages of individual occupation loci. Where both early and late artifacts were present, there was no clear evidence for heirloom artifacts or out-of-date items. Where artifacts from different time periods were present in a single deposit, these mostly reflected lengthy occupations, insofar as could be determined. A second topic dealt with Colonoware ceramics and their role in the slaves' internal economy. However, no Colonoware was found during the data recovery.

CHRONOLOGICAL COMPARISON

The feature and feature-specific artifact analysis broadly suggest the chronological trajectory of the site (Figure 174). The site was occupied during or across two broad time spans: the antebellum period (for this study, roughly the 1820s-1860), and postbellum period (1864 to the 1880s or later). These were divided by the Civil War (1861-1864). It was not determined if the site's African American inhabitants remained in residence or not during the war. Although eighteenth-century artifacts (e.g., creamware and pearlware) were recovered, the combined dating evidence suggests that the earliest occupations were during the first decades of the nineteenth century. Moreover, there were suggestions that some features, notably those associated with Loci 3, 8, and 9 were abandoned prior to the Civil War (Figure 174).

Figure 169.
Detailed Map of Locus 1

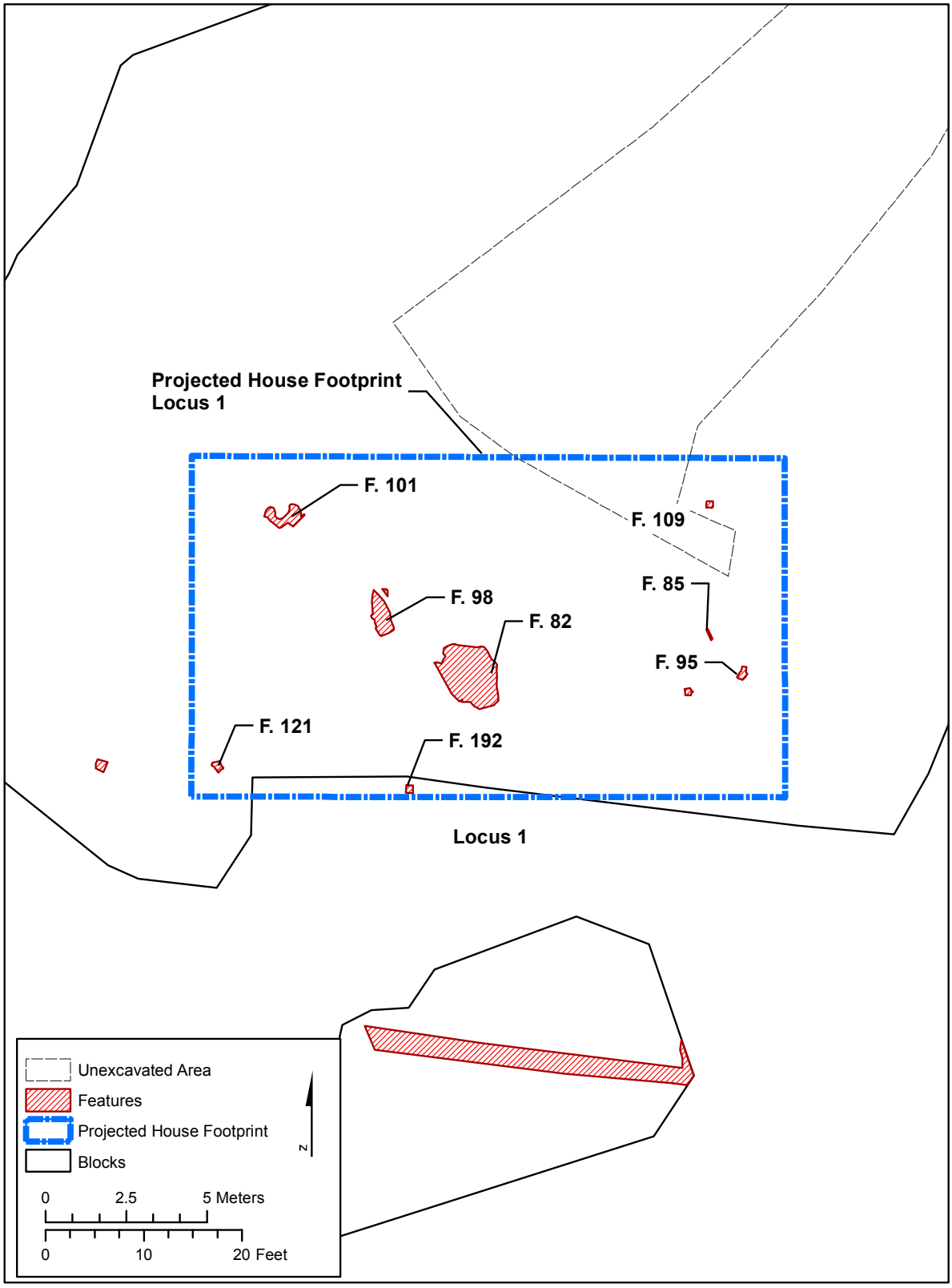


Figure 170.
Detailed Map of Loci 2 and 7 with Post Cluster 3

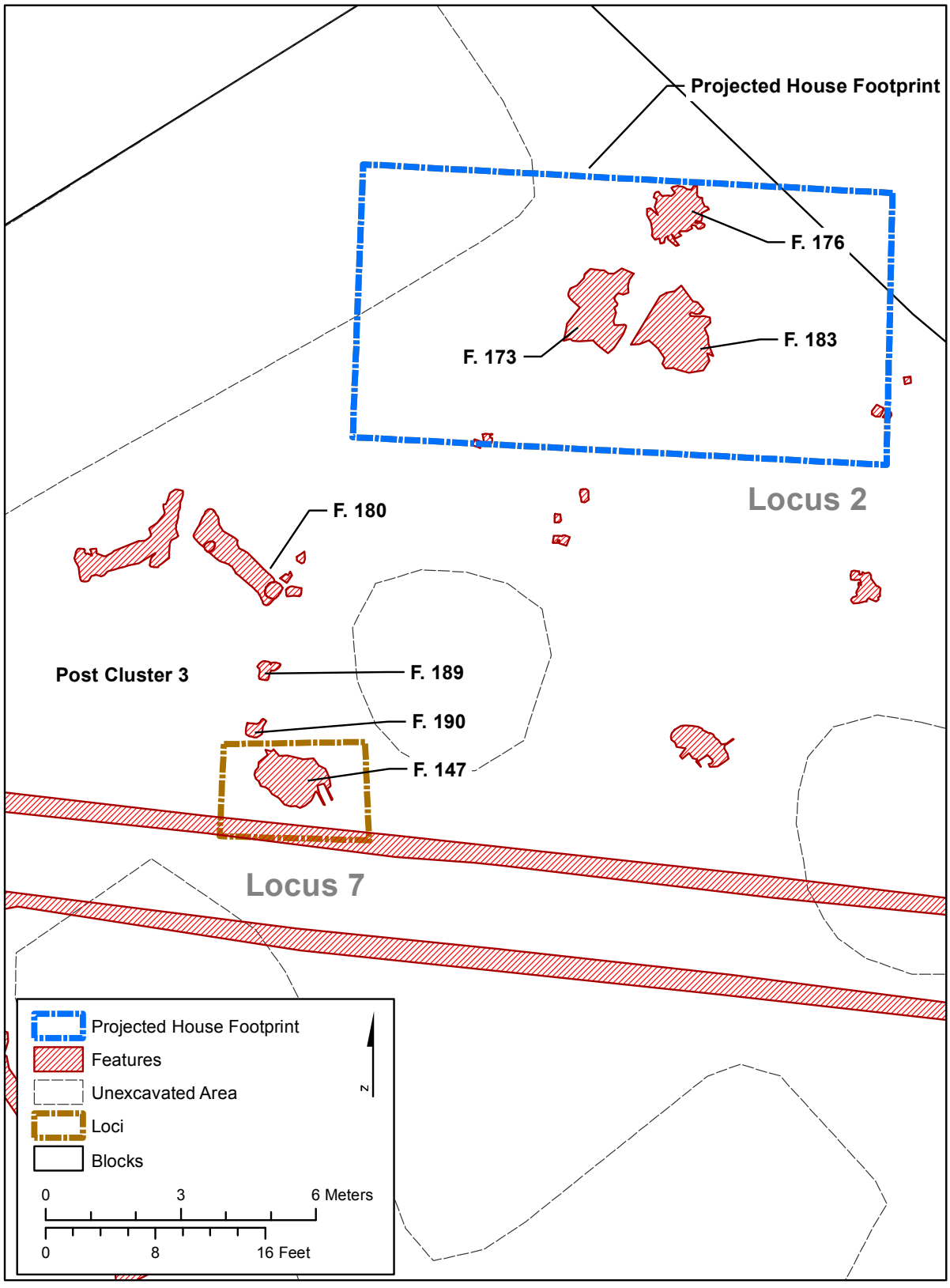


Figure 171.
Detailed Map of Loci 3 and 4

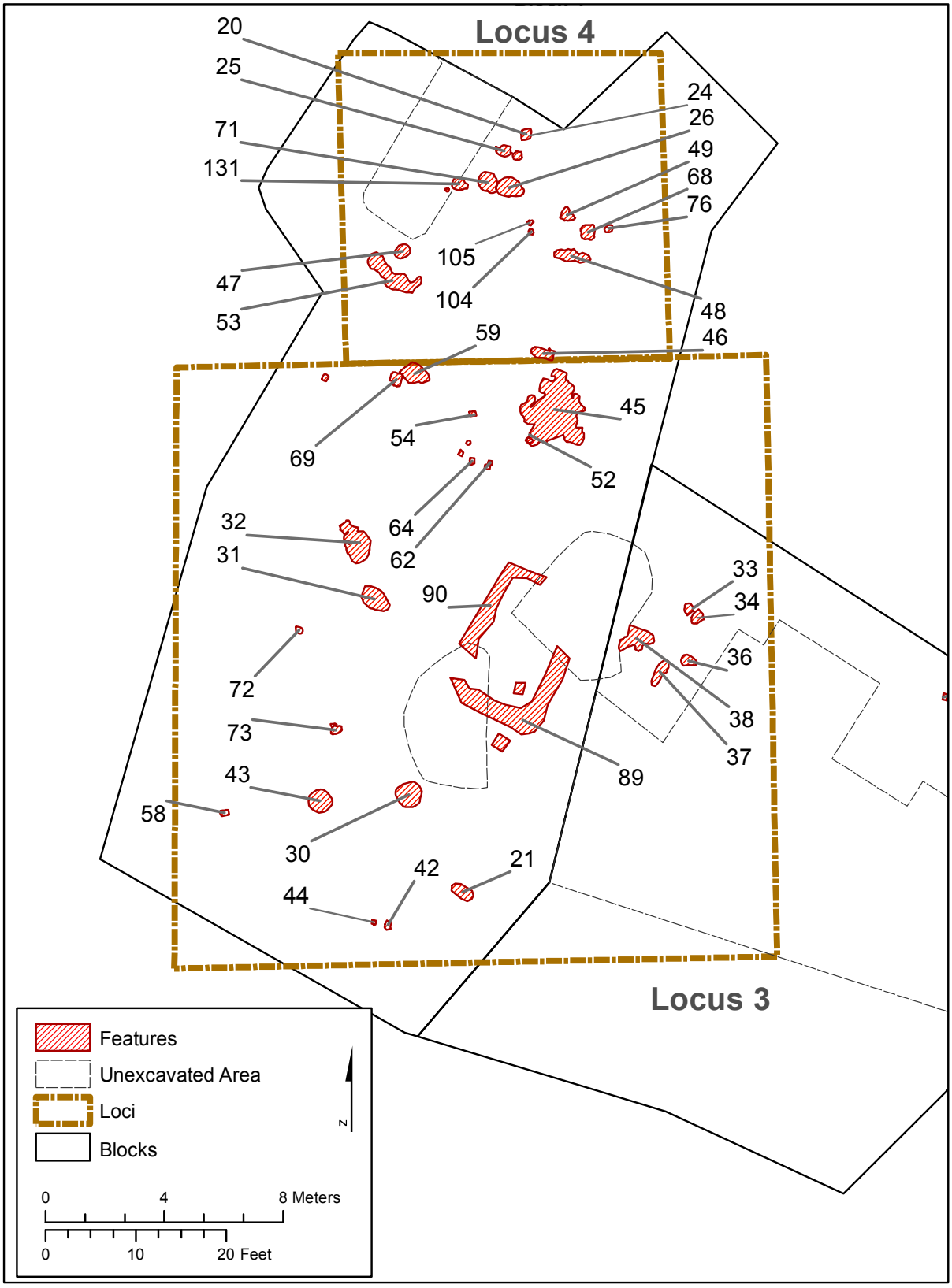


Figure 172.
Detailed Map of Loci 5 and 8

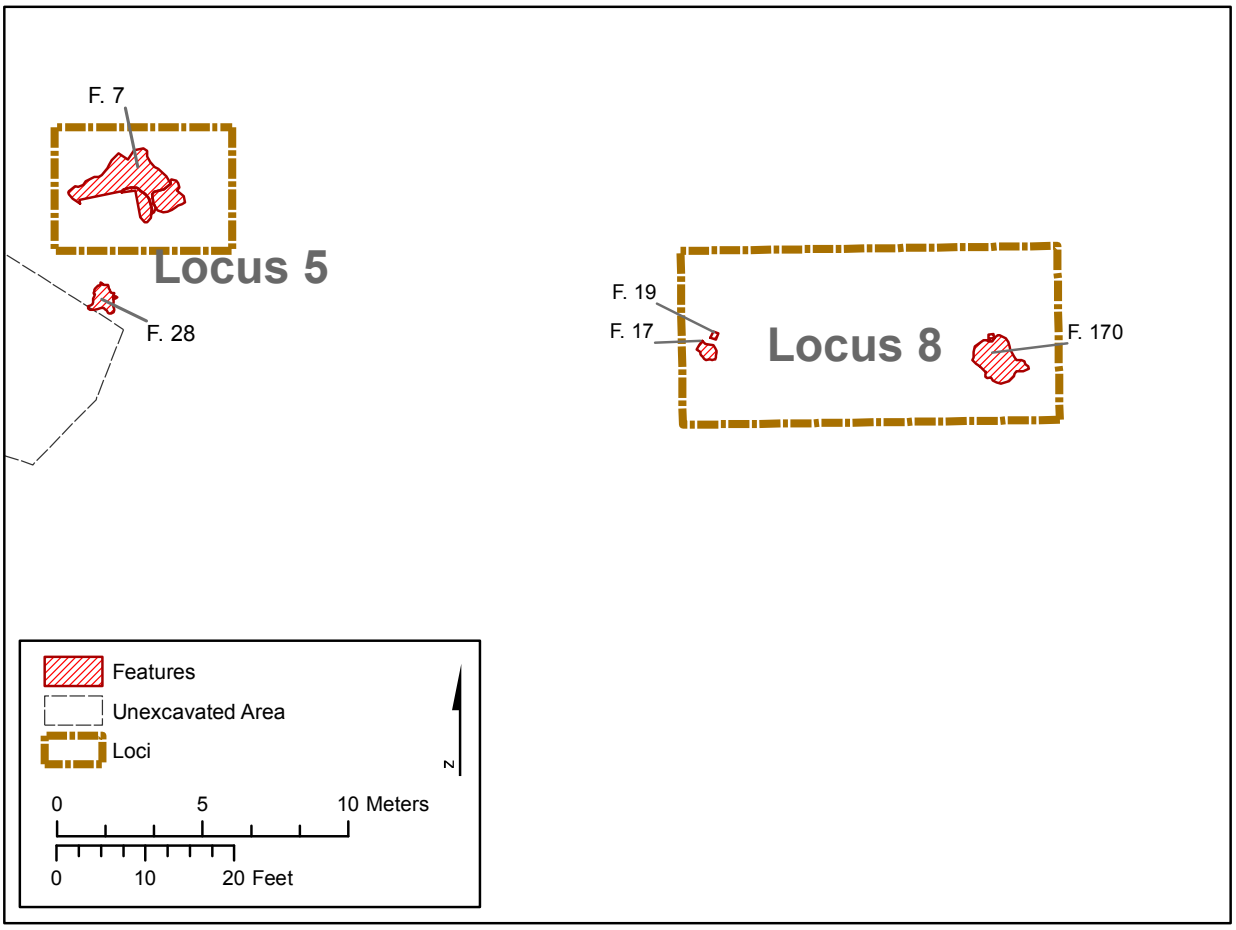
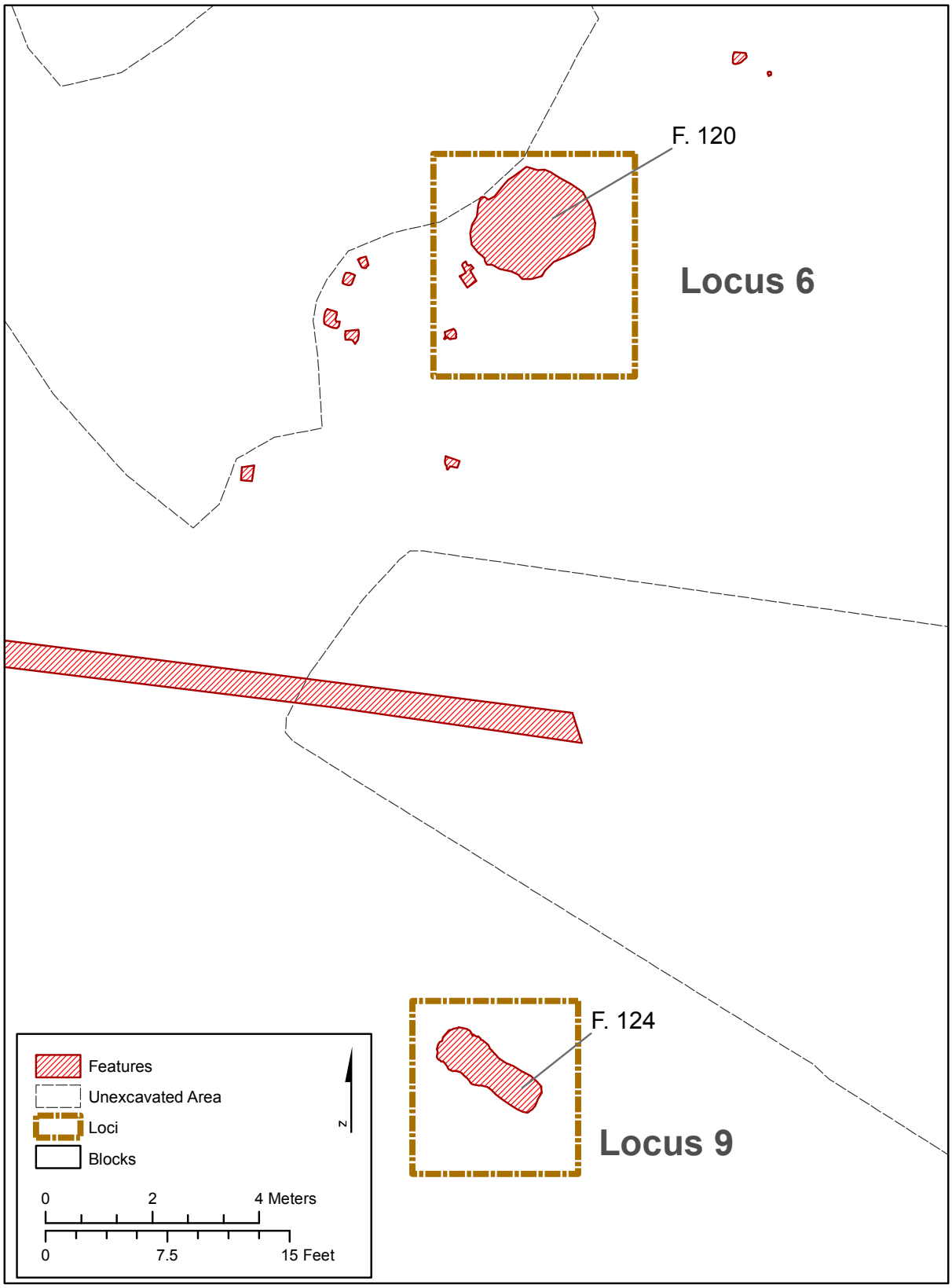


Figure 173.
Detailed Map of Loci 6 and 9



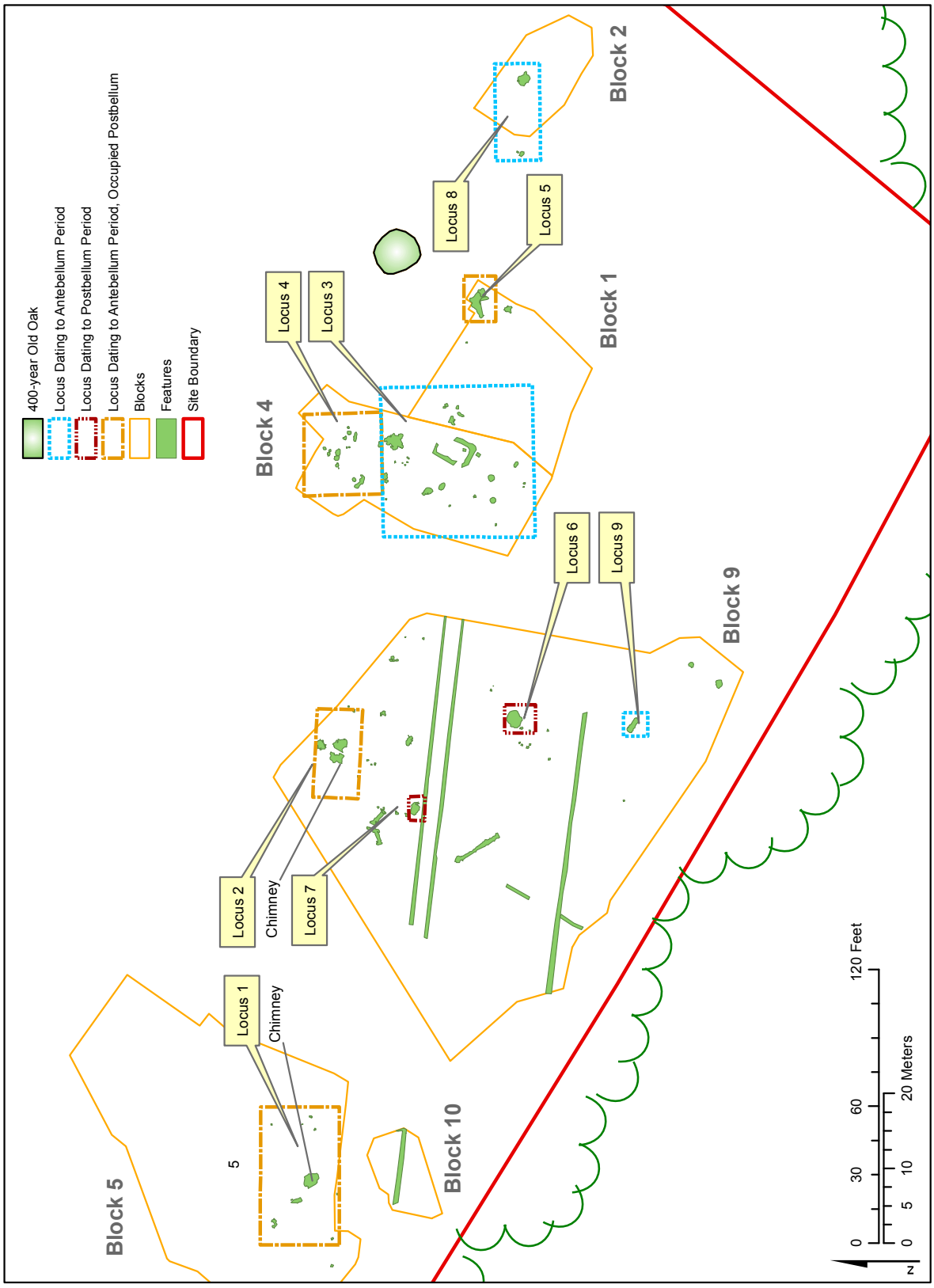


Figure 174.
Chronological Distribution of Loci

Other loci showed evidence of having been established during the antebellum period and either remained occupied through the Civil War or were re-occupied after Emancipation. Loci 1, 2, 4, and 5 reflected this pattern. In the case of loci 1 and 2, the two brick chimney bases did not yield direct evidence for antebellum construction, but the double-faced hearths, representing double houses, were a characteristic type for slave housing. Artifacts found in direct association with the features indicated likely occupation into the later part of the nineteenth century.

Union Army buttons found in association with Feature 173 imply occupation of the house by Federal soldiers in December 1864. Such artifacts could, alternatively, reveal occupation by African American army veterans or recycling of surplus uniforms after the war. Overall distributions of artifacts that obviously reflected Civil War military activities or that could be reasonably associated with them, including minie balls (n=14), firing catridges (n=7), percussion caps (n=4), a gun butt (n=1), and the three buttons, which did not point to any clear occupations of the loci by soldiers. Of the five loci that contained any of these artifact types (Loci 1, 2, 5, 6, and 7), none produced more than two (Loci 2 and 7 might reflect parts of the same occupation [see below] and together produced four Civil War artifacts). The balance of the Civil War artifacts came from metal detector survey and plowzone excavation. Thus, none of the loci provided strong evidence of occupation by Civil War soldiers, although their presence could not be entirely ruled out.

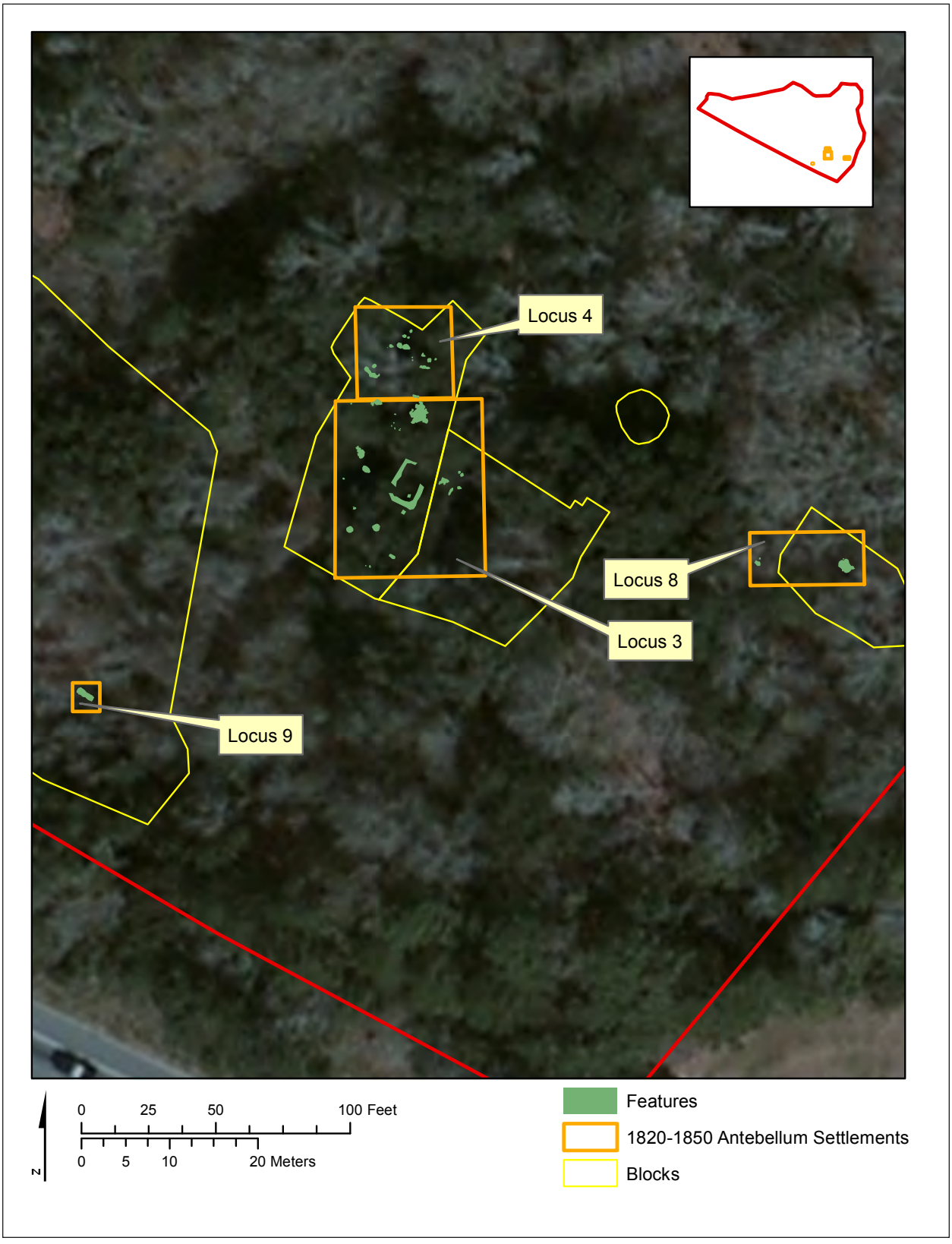
Loci 4 and 5 similarly yielded evidence of occupations spanning the antebellum and postbellum periods. In the case of Locus 4, the initial occupation might relate to the site's earliest period. Locus 5, represented by two adjacent pits (Features 7 and 7A), were filled after the Civil War, but earlier artifacts included in the feature fill suggested this area was occupied prior to the war and that the features were created then.

Loci 6 and 7, two pit features, were filled relatively late, suggesting this part of the site remained in use until after 1880 (see Figure 174). These features produced little direct evidence of antebellum construction or use, and might indicate later additions to the settlement. Locus 7, represented by a storage pit (Feature 147), might in fact make up part of the same occupation as Locus 2.

CHRONOLOGICAL-SPATIAL DEVELOPMENT

Dates for the occupation loci suggest chronological trends in the site's development. As revealed during the data recovery, the site lies on a roughly east-west orientation, with earlier structures or activity areas in the east. The early loci include the wall trench structure (Locus 3), a structure projected from Post Cluster 1 (Locus 4) and three projected from pits (Loci 5, 8, and 9) (see Figures 174 and 175). Two of these loci (Loci 3 and 8) appear to have been abandoned

Figure 175.
Antebellum Settlement at 9CH1205 (Circa 1820s-1850)



during the antebellum period. Occupation in the general vicinity persisted, however. Artifacts at the Locus 4 post cluster suggested occupation into the second half of the nineteenth century, while Features 7 and 7A at Locus 5 produced artifacts that indicated filling after 1866.

To the west, there were two duplex structures (Loci 1 and 2) as well as one or two other projected structures based on large storage pits (Loci 6 and 7) (see Figures 174 and 176). It is possible that one of these (most likely Feature 147, given its location) relates to the structure at Locus 2. The two structures represented by brick chimneys are clearly a different type of construction than those to the east and are more typical of the kinds of structures that slaves built or planters insisted upon during the antebellum period. These almost certainly post-date the wall trench structure at Locus 3 and reflect the westward spread of the settlement over time.

Another possible occupation area, Locus 9, was projected for the area of Feature 124 (see Figure 175). In addition to this large storage pit, two smaller indeterminate pits were found in its vicinity, suggesting that a structure was located here. Feature 124 appeared to have been filled prior to the Civil War, and so could relate to the site's early occupation. The location of this feature is to some extent aberrant in that it lies to the south-southwest of the other early loci and apart from the general east-to-west trend of the settlement. Because only a limited area between this locus and the other early occupation areas to the north was excavated, it cannot be said if Locus 9 reflects an outlying activity area or if it was part of an north-to-south alignment of the settlement during its early years.

During the site's last period of development, at least one new occupation area, Locus 6, represented by Feature 120, was established in the western part of the site. This feature was filled late in the nineteenth century and does not have a clear association with any other structure. Another pit, Feature 147 (Locus 7) that was filled in around this could relate to one of the duplex structures. The location of Locus 6, however, suggests a house was built at the site after Emancipation. Around this same time, Loci 4 and 5 to the east, which apparently dated to the antebellum period, were abandoned (Figure 177).

SIZE, FORM, AND CONSTRUCTION OF SLAVE CABINS

The data recovery produced direct evidence of three structures (Loci 1, 2, and 3), while a fourth area, Locus 4, yielded possible evidence for a building. These loci illustrated variation within the site as well as conformity with known construction techniques used for Lowcountry African American housing during the antebellum and postbellum periods.

Figure 176.
Late Antebellum Settlement at 9CH1205 (Circa 1840-1860s)

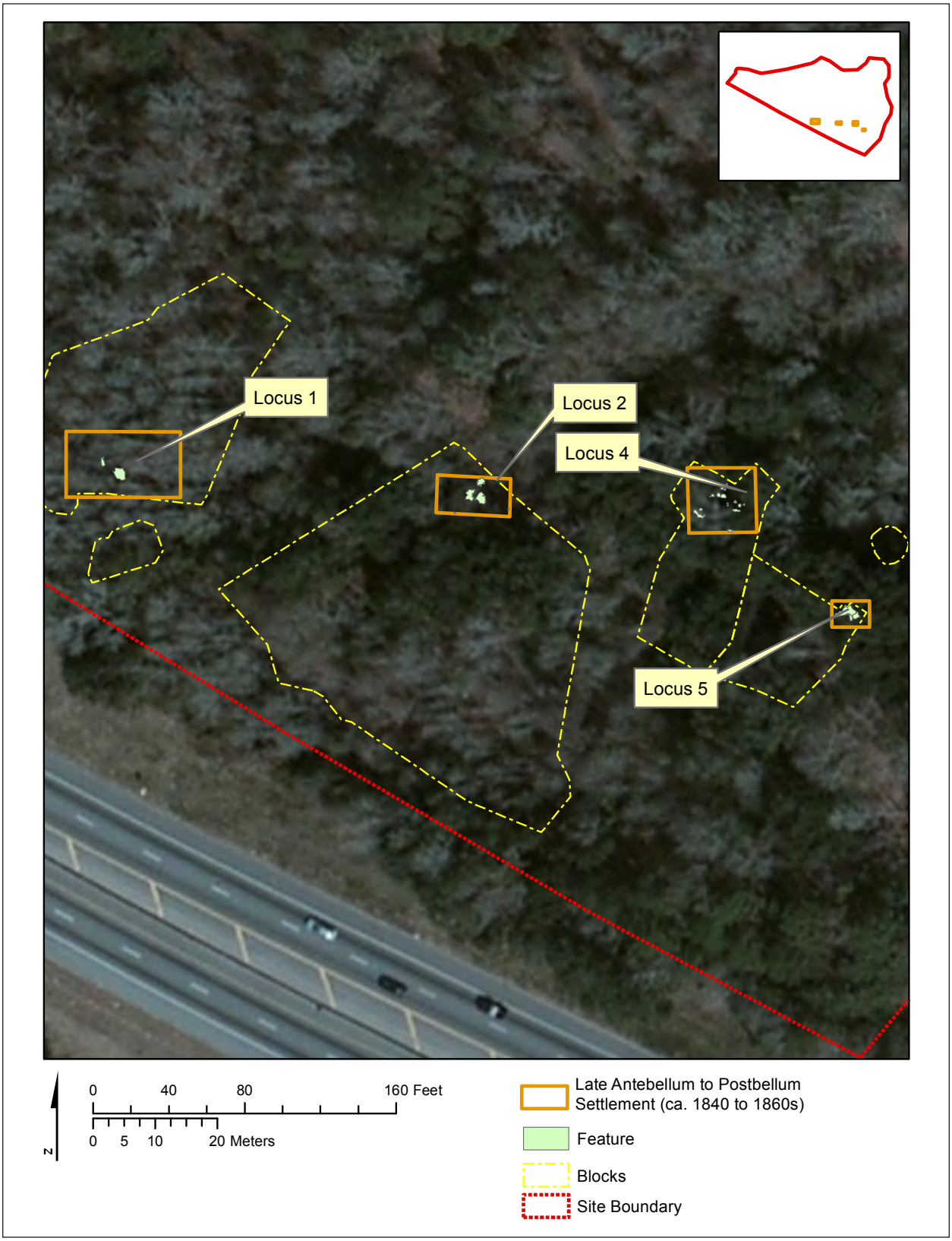
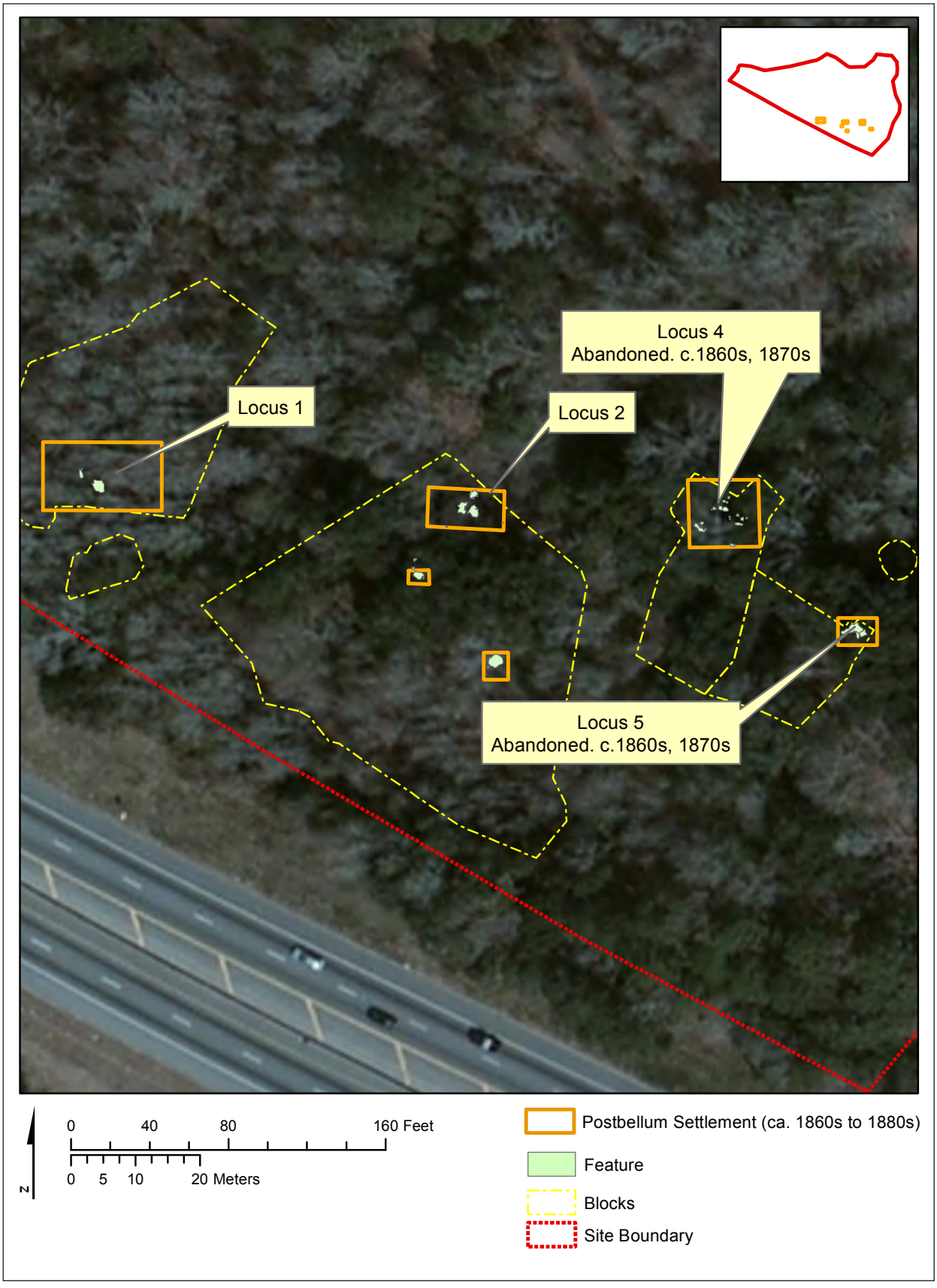


Figure 177.
Postbellum Settlement at 9CH1205 (Circa 1860s-1880)



The earliest structure remains were associated with Locus 3 and consisted of the wall-trench structure delineated by Features 89 and 90, along with sub-features representing posts inside and adjacent to the trenches. The building defined by these features measured roughly 4.5x3.2 meters (14.8x10.5 ft.) and encompassed 14.4 square meters (155.4 sq. ft.), smaller than the 6.1x4.8 meters (20x16 ft.; 29.28 sq. m/315 sq. ft.) noted as an average for slave housing during the antebellum period. The size of the structure is comparable, however, to similar ones from Colonial-era Yaughan and Curriboo plantations in South Carolina, where smaller structures averaged 13.5 square meters (145 sq. ft.) (Wheaton et al. 1983:98, 203). Like the examples at Yaughan and Curriboo, the Locus 3 structure had no interior hearth or chimney remains. Clay-filled postholes at one side of the building, however, could indicate the presence of a stick and mud chimney.

The trench fill associated with Locus 3 consisted of sandy deposits, and therefore the walls' material could not be clearly determined, although in general structures such as these have been interpreted as cobb or wattle and daub. If the walls of the Locus 3 structure were built of these materials, clay would be expected in the trenches. At Yaughan and Curriboo, for instance, the trenches contained prepared clay that was interpreted as residue of the walls (Wheaton et al. 1983). Direct evidence of wattle and daub have also been documented at eighteenth- and nineteenth-century plantation occupations in the region, particularly at the Fish Haul Site in Beaufort County, South Carolina, where the daub consisted of tabby mortar (Claggett et al. 1986:153). Further, thatch was used as a wall covering in the Sea Islands during the nineteenth century (Bullard 2010). The Locus 3 building could reflect to this type of construction.

Although the exact construction materials could not be determined, Locus 3 appears to have an early date, indicated by associated artifacts and a low number of artifacts from the wall trenches, which suggest the building was erected early in the site's occupation. Wall trench structures encountered at archaeological sites in South Carolina and Georgia primarily date to the Colonial era, and are interpreted as reflecting African influence. They went out of style during the first quarter of the nineteenth century (McKee 1992; Morgan 1998:110; Trinkley and Hacker 1999:173; Wheaton and Garrow 1985:257), apparently because planters objected to the use of African forms combined with their desire to use what they considered improved housing. Wall trench structures are not associated with Anglo American habitations in Georgia and South Carolina, and therefore the structure at 9CH1205 can be considered a slave dwelling. Moreover, its date indicates it represents a relatively late example of this type.

The other two structures with direct evidence, Loci 1 and 2, were each represented by brick chimney bases (Features 82 and 173, respectvely). Both were similarly arranged with double-faced hearths indicating that both buildings were duplexes. These were a typical plan for

Lowcountry plantation slave houses, the average size of the total unit being 6.7x12.8 meters (22x42 ft.). Such houses were usually frame construction, although tabby and brick examples have been documented, and accommodated two separate family units. These types of houses were also often raised on piers and reflect a movement during the antebellum period when slave owners began implementing "improved" housing practices (Genovese 1972:524; McKee 1992). The two brick chimneys from 9CH1205 are similar in size, construction, and orientation, the principal difference being the greater use of brick fragments in Feature 173. Both of the chimneys contained high proportions of fragments to complete bricks, however, implying the use of salvaged materials.

Except for the chimney bases, no definite evidence for the associated structures was found. The absence of tabby from the site makes it likely that these houses were frame or log, while the lack of foundations indicates they rested on piers, probably also of wood. The actual size of these structures could not be determined.

The fourth projected structure was Locus 4, consisting of a post cluster. In this case, the postholes were unusually large and entirely or partly filled with burned or prepared clay. Although the posts did not form a coherent pattern, the presence of burned clay suggested a stick and mud chimney. Such structures were common among slave houses in the south. No other evidence of the house associated with this possible chimney was found. However, many of the nearby features reflected midden residue or pits filled with midden. Excavations at slave occupations in the region have revealed that kitchen refuse was frequently discarded around the house yard (eg. Adams et al. 1995:47; Butler 2007; Campo et al. 1998; Hacker et al. 1990:55; Poplin and Scardaville 1991:90; Simpkins and Lamas 1990:18–19; Trinkley and Hacker 1989:133–134; 2009), and the midden deposits concentrated around this post cluster supports an interpretation of a house location.

The structural remains, in combination with chronological evidence, indicates a progression from earlier, African-derived architecture to forms influenced by planter choice. The wall trench structure appears to represent one of the earliest occupations of the site, and possibly its first habitation by African Americans. It comprises a type of building associated with colonial plantation slave quarters, although the building at 9CH1205 would be a late example. These types of structures also reflect a time period when slaves possessed greater latitude in how they arranged their housing.

During the first quarter of the nineteenth century, Lowcountry planters began taking more interest in controlling the houses their slaves built and occupied. The reasons for this switch, as noted, were to promote greater health among the slave forces, and thus protect their value, as

well as to demonstrate humanitarian practices in the face of increasing criticism from abolitionists. It is probable that planters also objected to the blatant use of forms resembling African models, and moreover, insisted on certain designs, construction, and use to demonstrate control and authority (Joyner 2003; McKee 1992). These newer house forms were used even in isolated slave settlements (Butler 2007), thus extending the apparent range of the planters' domination to remote outposts.

At 9CH1205, the two duplexes reflect this later trend in slave housing. Although the actual construction date of these two houses could not be determined, given the similarity in size of the two hearths and their orientation it is probable that the two double houses were built as part of a plan dictated by a single authority. Therefore, it is reasonable to conclude they were put up within the context of a plantation slave settlement. Artifact data suggest the structures associated with these features could have been occupied by the first third of the nineteenth century. The timing roughly corresponds to the period when William Miller bought the property of John Wilson (1840; Miller acquired the neighboring Spencer-Scott property in 1851). This circumstance could indicate that while there is no documentary evidence, it is likely that there were slaves at the site during the period that the Wilson family was present. These slaves probably lived in older-style dwellings, and the acquisition of the property by Miller might have led to a transition to newer architectural types, as well as the abandonment of older forms and buildings.

If the coincidence of building type and ownership changes is correct, then it could indicate that Miller followed the prevailing trends in slave management. Another possibility is that Miller's slaves built the newer style of housing because they were accustomed to it.

The fourth projected structure (Locus 4) appears to have an occupation date contemporaneous to Locus 3 (the wall trench structure) but was occupied until after Emancipation. Because this locus might have been used prior to Miller's acquisition, the lack of clear architectural evidence is unfortunate, because this structure could provide further insights into the nature of housing at early Georgia slave quarters. It is clear, however, that this structure differed from those at Loci 1 and 2 in lacking a brick chimney base. In addition, it exhibited possible differences from the Locus 3 structure in having no wall trench and possibly a more substantial chimney. If this structure predated Miller's tenure, then it could reflect a period when slaves had greater choice in how they built and arranged their houses.

With respect to broader regional patterns, the findings at 9CH1205 provide further data on the use of African-derived architecture in Georgia at early slave settlements. Much of the initial research on coastal Georgia slave occupations had suggested the use of frame houses for slaves (Joseph 1989:60). The evidence for this came from sites occupied during the antebellum period,

however. More recently, excavation at a colonial-era slave quarter at Silk Hope Plantation in Bryan County, Georgia, encountered a wall trench structure (Whitley et al. 2003:89–91). The Locus 3 structure provides further evidence that even beyond the Colonial era, slaves continued building houses or other structures using these earlier techniques and forms. Notably, the time period when the Locus 3 structure appears to date to just after a period (1803-1808) when the slave imports resumed, and it is likely that the enslaved population included numerous Africans. This circumstance might account for the relatively late use of this form at 9CH1205.

PLANTATION LANDSCAPE

Initial map research suggested that Site 9CH1205 represented a slave settlement placed on an existing road, a situation that diverged from the older settlement pattern oriented toward water transportation. In this case, the proximity of a major urban center with a developing suburban road network might have caused planters to arrange their holdings to enhance transportation access, either generally or specifically to place slave settlements closer to interior agricultural fields. The settlement pattern might therefore resemble the one noted for Piedmont plantations, which were oriented toward roads, with slave housing initially near the planter's house and later relocated closer to agricultural fields.

Examination of map data indicated that the two planters' houses that were most likely associated with 9CH1205 at the time the settlement was established, Spencer's and Wilson's, were located on bluffs overlooking Grove River. The earliest map of the area to show settlement is McKinnon (1816), which indicated that by this time, the principal north-south road through the region, Ogeechee Road (corresponding to present-day U.S. 17), already existed (see Figure 7). A road extended east-southeast towards Wild Horn Plantation, and a spur from this road connected with Wilson's and Spencer's properties. Site 9CH1205 was along this spur. No settlement appears on the 1816 map, and archaeological data suggest the site might not have existed at that time. More generally, the map shows settlement in the vicinity followed this pattern of plantations having a nucleous near a watercourse with access roads extending from the main road.

Civil War-era maps illustrated a settlement in the 9CH1205 vicinity (see Figures 8 and 9). Poe (1864), for example, showed a single row of three structures roughly parallel to the railroad with a separate structure set apart and nearly adjacent to the railroad. This settlement was reached via a short road spur extending from the main access road to Wild Horn. Entrance to the two plantations remained on a separate road off the Wild Horn road, which split apart, with the north fork heading toward the former Spencer property (William Miller had acquired both plantations by this time). This fork apparently corresponded to the road that cut through the site and that showed clearly on the twentieth-century soil survey maps. The map labeled the area of the four structures "Miller's Station," suggesting that the buildings were railroad-related. Notably,

georeferencing the map suggested that the four buildings lay outside the Site 9CH1205 boundaries. The site was projected to lay on the north fork of the plantation entry roads. A map prepared by Dennis (1865) one year later illustrated two additional structures on the east side of the north fork plantation entry road, as well as the four located at the railroad tracks. This later illustration appears to show the slave settlement, although based on archaeological data it under-represents the number of slave houses. Moreover, if the north fork entry road was the same route that exists in the present, then there should have been structures on both sides of it.

Returning to the question of whether the location of 9CH1205 reflects an emerging settlement pattern oriented around the road network, it appears that it did. Initial plantation settlement was oriented toward the river and presumably water transportation, but by the early ninteenth century, plantations in the vicinity were making terrestrial transportation connections. In the case of the Wilson/Miller plantation, a slave quarter was established on a road to the plantation at a distance from the main house. This settlement was on a road that crossed from the Wilson plantation property to an adjacent plantation, and was apparently not part of a formal entry to the Wilson/Miller main house. The reason for placing the quarter here was most likely practical; this location was probably near where the slaves worked.

VILLAGE ORGANIZATION

SITE-WIDE

Comparison of the locations and chronology of occupation loci at 9CH1205 suggests its historic landscape and how the settlement was organized. In addition, changes over time are apparent. The structure of slave villages evolved over time from informal plans resembling African villages, with houses clustered together, to more grid-like arrangements of houses in single or multiple rows or "streets" (Joseph 2007:193). African village organization at the time the slave trade was in force varied considerably depending on region and ethnicity, although circular arrangements of houses and residential compounds appear to have been common (Thompson 1983:203). Researchers who have described the organization of slave quarters overwhelmingly emphasize the linear arrangment of houses, most often in single or double rows, regardless of whether or not the quarter is located within sight of the planter's house. Examples of more than two rows of houses have also been documented from map data (Brabec 2003; Brabec and Richardson 2007; Joyner 2003; Vlach 1991:31). Crook (2008) noted a variant of this pattern on Sapelo Island. Individual houses in this case were dispersed within a pre-defined area presumably designated by the planter. Houses were aligned in a rough grid but were staggered and appeared to have been organized to achieve maximum contiguous acreage per house.

For the postbellum period, Brabec and Richardson (2007) documented a different settlement model oriented around family compounds. This arrangement reflected Gullah/Geechee cultural norms respecting property ownership and proxemics. In contrast to the linear arrangement of slave quarters, these compounds were composed of houses and service buildings irregularly spaced and clustered in a single parcel with communal yard space.

The known and projected structures at 9CH1205 generally followed a linear pattern, but with variations. The linear pattern is suggested by the alignment of Loci 1, 2, and 4, consisting of the two brick chimney hearths and Post Cluster 1, respectively. Loci 7, 3, 5, and 8, composed of three pit features and the wall trench structure (Locus 3), lie along a second line (see Figure 174). The two lines are not parallel, presumably because the pit features reflect only the general vicinities of structures, not their actual locations. It should be noted, however, that the orientation of the wall trench structure does not align with the orientation of the row suggested by it and the three pits. If a line were extended parallel to the north-south or east-west walls of this structure, it would not match up with any other loci or with the row indicated by Loci 1, 2, and 4. Given that the wall trench structure is potentially the earliest documented building at the site, it appears that later development was made without reference to its orientation. A third line roughly intersects Loci 2, 6, and 9, representing a brick chimney and two pits. This line would be perpendicular to the first and could indicate a grid pattern of settlement.

Taking into account chronology suggests a different pattern. Loci that can be considered roughly contemporaneous include Loci 3, 4, 8, all in the eastern part of the site, and Locus 9, to the southwest of these other loci. It is possible that Locus 7, also in the east, was established during the early part of the settlement, although it was certainly filled late. Locus 4 was also occupied into the postbellum period. Loci 1 and 2, to the west, were built before the Civil War but occupied afterward. Moreover, they almost certainly post-date the loci to the east. Loci 6 and 7 have uncertain beginning dates, but were filled late in the nineteenth century and probably reflect the latest occupations of the site.

Loci 3, 4, 8, and 9 show no particular pattern in their arrangment (see Figure 175). They are irregularly spaced and do not form alignments of three or more loci. If Locus 5, represented by Feature 7/7A is included, then Loci 3, 5, and 8 form a row that omits Loci 4 and 9 from the alignment. Although this assessment cannot be stated definitively because of unexcavated areas between some of these loci, the distant location of Locus 9 and irregular spacing suggests a less formal arrangement of the site during its early occupation.

At some point during the antebellum period, the structures at Loci 1 and 2 were built in rough alignment with a structure at Locus 4 (see Figure 176). Although the spacing of these loci is inconsistent, the alignment could indicate an effort to establish a linear slave quarter. By this time, the structures at Loci 3, 8, and 9 may have been abandoned or removed, thus making the

new arrangement more obvious. Locus 5 (Feature 7/7A) might have been open at this time but was outside the alignment. Because the location of the house associated with this feature is unknown, however, it cannot be said that the feature disrupted the linear settlement pattern.

Loci 6 and 7, two storage pits filled late in the nineteenth century, could indicate post-Civil War developments (see Figure 177). First, although Locus 7, represented by Feature 147, falls in a rough line with earlier loci to the east, it was probably not related to them chronologically. In fact, the pit lies only 10 meters (30 ft.) south of Locus 2 and could very likely be within the yard of the house here rather than representing a separate dwelling. Locus 6 (Feature 120) lies at least 20 meters (60 ft.) from the nearest identified structure (Locus 2), has an unknown association, and could indicate a house built after Emancipation. The fact that it does not lie within a grid or alignment with other loci could reveal the dissolution of the plantation quarter's linear plan.

In summary, the site's early settlement organization appears to have been informal and organic compared to the "classic" model of a linear slave quarter. Dwellings or activity area locations showed no discernable pattern or regular spacing. It is possible that the distributions of projected structures resembles the model that Crook (2008) proposed of houses in a loose grid within a larger area designated by the planter. The dwellings were arranged to maximize space for the use of individual households. Crook (2008) believed this pattern reflected Gullah/Geechee cultural preferences, and its presence implies that the planter—John Wilson at this time—did not vigorously dictate how the slaves arranged their living space.

Later in the antebellum period, this earlier settlement was either supplemented with, or replaced by, a line of slave houses in keeping with the more typical pattern of slave quarter arrangments. Its introduction apparently coincided with a change in property ownership to William Miller. Miller evidently chose to accommodate his slaves at the same location as John Wilson did, but apparently, he or his agent directed them to establish a quarter that fit the planters' conception of how such a space should be organized. Alternatively, the new arrangement could reflect what the slaves themselves were inclined to build. Miller probably brought new residents to the plantations and had them add to the existing quarter. The newcomers might have already internalized the linear arrangement as normal and preferable.

Evidence for the postbellum period suggested that site residents established at least one new structure, represented by Locus 6, and this was done without reference to the linear plantation arrangement. Moreover, the location of this structure is more in keeping with the the settlement cluster associated with Gullah/Geechee family compounds (Brabec and Richardson 2007). Locus 6 was filled in sometime during the last quarter of the nineteenth century, indicating that the compound-based settlement pattern had emerged soon after Emancipation.

HOUSEHOLD

At the individual household level, the evidence for use of space suggests some general patterns. The clearest evidence is associated with Locus 3, representing an early occupation, and Loci 1 and 2, which are later, making possible comparisons between different time periods. Locus 3, encompassing the wall trench structure and associated features, appears to include a house (Features 89 and 90), an attached or adjacent structure or enclosure (Post Cluster 2), and several indeterminate pits (Features 1, 30, 31, and 32) grouped around the house at distances between 1.0 and 4.5 meters (3.3-14.8 ft.). In addition, Feature 45, interpreted as a hearth, was about 5.0 meters (16.4 ft.) north of the house (Figure 178). This pattern of house with exterior features, including pits, is a common attribute of African American sites in the region (Joseph 2007).

The purpose of the pits in this instance could not be determined precisely, but some possibilities can be eliminated, which helps to understand the organization of the site. The pits almost certainly did not serve as raw material for mud or daub walls and they were not used for trash disposal, except casually. The fact that they were located outside the house makes it less likely they functioned as personal storage containers, although it is possible they were used for root crops or other produce. Samford (1999; 2007) demonstrated that in some instances these types of features had a ritual significance, but the content, location, and internal structure of the pits at 9CH1205 did not suggest such a function. The most likely interpretation is that they served as storage for root crops. Thus, the array of features associated with the wall trench structure was mostly utilitarian and related to daily subsistence operations of the household. It is certain that in addition to the pits and hearth, there were other activity areas that did not leave discernable archaeological remains.

It should be noted that a non-cultural feature (Feature 40), identified as the root plate of a large tree, lay roughly 10 meters (30 ft.) west of the house in this locus (Figure 179). Artifacts recovered from a 25 percent sample of this feature were generally contemporary with those obtained from nearby loci, although more numerous than those associated with Locus 3, except for Feature 38. Shade trees were among the locations where activities were conducted (Posnansky 1999:28), and if this tree was present at the time the site was occupied, it probably served as a focal point for some domestic tasks and social activities.

With respect to the use of space associated with Locus 3, another point to highlight is the low numbers of artifacts recovered from the pits (except Feature 38, which appeared to have been deliberately filled), and the relatively high number of artifacts recovered from the large tree feature (n=114). The pit features appear to have filled naturally with the artifacts being accidental inclusions. This indicates that the general vicinity of these pits did not contain

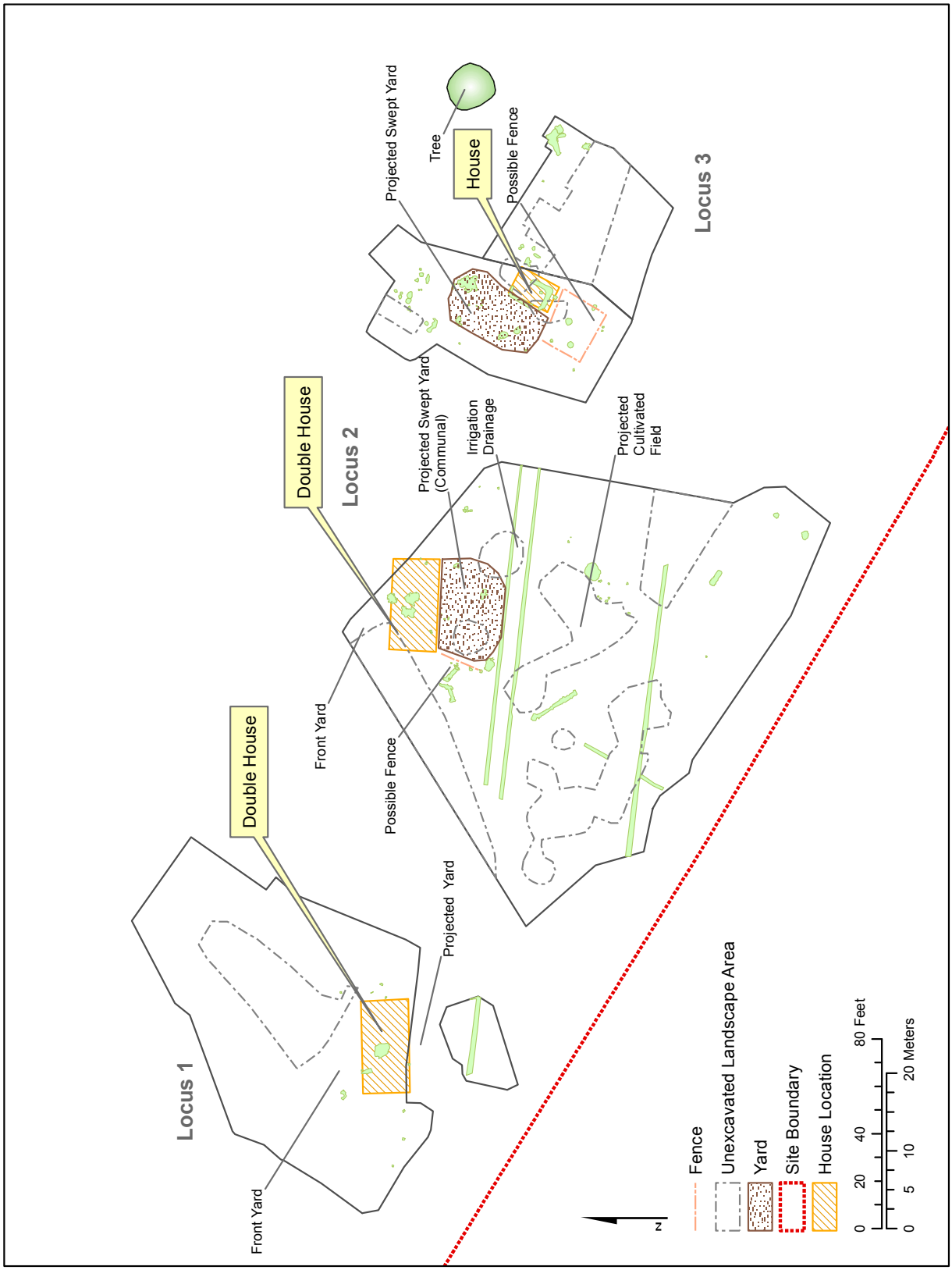


Figure 178.
House and Yard Areas of Loci 1, 2, and 3

Figure 179.
Feature 40

A.
Feature 40 Exposed Below Plow Zone with Feature 90 Under Plastic in Background. Facing Northeast

B.
One-Quarter Excavation of Feature 40 Revealed it was a Tree Plate. Facing Southeast

accumulations of refuse. In contrast, the 25-percent sample of the tree feature yielded moderate artifact densities, revealing that some activities took place near the tree. Another interpretation is that the area of the pit features was kept clear of debris through sweeping, a widespread practice at African American and African residential sites (Posnansky 1999:28; Westmacott 1992). In this case, the zone around the tree might reflect the margins of the yard where the sweepings accumulated.

It should also be noted that features associated with Post Cluster 2, on the northeast side of the wall trench structure, including storage pit Feature 38, produced relatively high numbers of artifacts. Additionally, these features contained varying quantities of burned clay, which could indicate the presence of a stick-and-clay chimney here. Although no direct evidence of a midden was found in this vicinity, the higher incidence of artifacts, with early dates (pre Civil War), implies this area was used for disposal of household refuse.

With these understandings of feature functions, the use of space around the wall trench structure can be interpreted. The zones to the north, east, and south appear to have been used for everyday tasks. Cooking and storage are the only activities that could be identified. In addition, the area at the northeast and east side of the structure was used for refuse disposal. Finally, the data suggest that the work yards were kept clear of artifacts, probably through sweeping.

Feature locations suggest the dimensions of the yard (see Figure 178). Assuming both the hearth (Feature 45) and the southern pit (Feature 30) were both associated with the wall trench structure, then the yard measured a minimum of 15 meters (50 ft.) north-to-south. If the accumulation of sweeping debris indicates the large tree plate (Feature 40) represents a boundary, than the yard extended for about 10 meters (30 ft.) east-to-west and covered roughly 150 square meters (1,615 sq. ft.). By way of comparison, LeMaistre (cited in Westmacott 1992:4) indicated an average size of swept yards at Georgia Piedmont slave occupations measured about 10x10 meters (30x30 ft.) or 100 square meters (1,076 sq. ft.). An example from Jefferson's Poplar Forest in the Virginia Piedmont measured only 3.7x9 meters (12x30 ft.) and contained only 33.3 square meters (358 sq. ft.) (Heath and Bennett 2000:47). This example is roughly contemporary to Locus 3 at 9CH1205. While the yard at Locus 3 appears large compared to these examples, the proximity of Locus 4 could have influenced the size of the yard. Locus 4, encompassing Post Cluster 1 and associated pits and midden residue, lies northwest of Locus 3 and although clear evidence of a structure was not found, the post cluster is only 8.0 meters (26 ft.) from the hearth (Feature 45) that has been attributed to Locus 3. It is possible, therefore, that the postulated dimensions for the Locus 3 yard include yard areas that actually belong to Locus 4, or that the two loci had a communal yard. Brabec and Richardson (2007:162) noted that Gullah/Geechee residential compounds typically incorporate shared yards. If the area between Loci 3 and 4 represent such as space, it might be in keeping with Lowcountry African American cultural practices and indicate that they existed within slavery.

Moving outward from the immediate house area, the machine clearing opened up relatively broad areas to the north and south, with limited areas also cleared to the southeast. Areas to the northeast and east were not exposed because of the large oak tree or other smaller trees. Beyond the zone projected as domestic yard, the area to the north contained Post Cluster 1, while the area to the south was mostly clear of discernable cultural features except for scattered posts. Areas to the southeast were also clear of cultural features.

Of note is the area to the south, where a few posts were recorded. Although several features were excavated in this area, only Features 42, 44, 58, 72, and 73 were identified as posts or possible posts. Excluding Feature 73, which appears randomly placed, the other of these posts form three corners of a trapezoidal area. If lines are extended east from Feature 72 and north from Features 42/44, they meet at the southeast corner of the wall trench house. If these posts formed corners of an enclosure, it would be relatively small, measuring only about 7x7 meters (23 x 23 ft) and encompassing 49 square meters (527 sq. ft.). Moreover, it would have contained Feature 30, one of the storage pits (see Figures 171 and 178; the background of Figure 179B shows this area during excavation). The size of this possible enclosure would be far below the average of one-half acre (2,023.4 sq. m/21,780 sq. ft.) that was typical for slaves to receive for growing provisions. It might be suitable as an animal pen or kitchen garden, however, both of which were common elements of slave yards (Vlach 1991:31).

Machine clearing in the vicinities of Loci 1 and 2 indicated some similarities and variation in house yard organization. Locus 1, in particular, was notable for its lack of associated pits. Extensive areas were cleared around the brick chimney base (Feature 82), especially to the north, northeast, and west, with a supplemental area (Block 10) to the southeast. Clearing to the south and east was constrained by trees and the berm for SR 204. The cleared areas were generally barren of cultural features, except for midden residue and apparently random posts (see Figures 169 and 178).

Clearing in the Locus 2 vicinity, in contrast, exposed features that can be reasonably associated with the feature situated here (see Figures 170 and 178). These include the storage pit represented by Feature 147 (Locus 7) and a nearby line of posts (Post Cluster 3). Several additional posts (Features 149, 150, 151, 177, 186, and 187) lay in the vicinity of the chimney base, although they did not form any discernable patterns. An indeterminate pit (Feature 137) was also in this area, along with midden residue and two indeterminate trenches or ditches (Features 163 and 166). Although this area contained fewer pit features than Locus 3, the combination of pits, posts, and midden residue was comparable and probably reflects similar patterns of land use. This finding contrasted with Locus 1, however, where clearing yielded few features that could definitely be associated with yard activities. The principal difference between

the areas exposed in Locus 1 and Locus 2 is that in Locus 2, plow zone clearing was mostly in the south of the house location whereas clearing around Locus 1 was largely north of the house. This result could indicate that in this part of the site, the rear or working yards of the houses were south of the houses, while the north sides were kept clear.

The size of the yard associated with this locus is more difficult to estimate than for Locus 3. The distance between Feature 173 (chimney) and 147 (storage pit) was about 12 meters (39 ft.), which would be within the parameters suggested by the comparable examples noted above, if Feature 147 lay at the periphery of the yard. The presence of two long ditches (Feature 115 and 116) just south of Feature 147 supports this supposition because these features appear to have been used for drainage or irrigation, based on pollen and phytolithic analysis, and would create a boundary at the south part of the yard. The only other suggestion of a boundary is the line of posts (Post Cluster 3) north of Feature 147. The distance between a line from the center of Feature 173 and this line of posts measures about 6 meters (20 ft.). Assuming the boundaries of the yard are correctly projected, the 60 square meters (645.9 sq. ft.) it contained would be considerably smaller than Locus 3 and only about 60 percent of the average size for Georgia Piedmont slave houses (LeMaistre cited in Westmacott 1992:4). The smaller dimensions of this yard might be because of its association with a double house; the two yards might share space for certain activities and so require less individual yard space. As noted above, this situation would not be entirely unexpected and could in fact reflect a common cultural practice (Brabec and Richardson 2007).

A final aspect of the topic of village organization dealt with the arrangement of space for covert activities. Archaeologists have found evidence that slaves conducted various ritual or other activities which would have to be performed out of sight of planters and overseers (Whitley 2008). Alternatively, they might simply have sought refuge from constant surveillance, and so opted to use space within the quarter that offered privacy (Epperson 1990). The settlement at 9CH1205 appears to have been isolated from the planter's immediate view and no indication of an overseer's house was found. However, historic maps indicate the settlement was on a road and, after the 1850s, near Miller's Station on the Atlantic and Gulf Railroad. The arrangement of the site with work areas to one side could indicate an effort to keep out of sight of passing road traffic, at least at the time the double-houses were built.

LIVE OAKS AS LANDSCAPE FEATURES

Live oak trees were used as landscape elements at Lowcountry plantations, most often along the roadway approach to the main house. This study sought to determine if the 300-400-year old oak tree at 9CH1205, along with several younger 100-200-year old trees were incorporated into a designed landscape. Archaeological fieldwork also identified a large tree plate in the vicinity of the older tree, although the age and species was not determined.

Aerial photographs from the middle and later twentieth century show the locations of surviving live oaks at the site (see Figures 15, 16, 18, and 19). At the time of fieldwork, four separate individual or clusters of these trees were extant. In addition to the one older tree, situated at the site's historic occupation area, there was a linear group of three trees of unknown age in the far west of the site, a grouping of four trees estimated at 100-200 years old near the site's center, and another linear group of three trees of unknown age in the east and outside the site boundary. The two linear groups were oriented north-to-south (Figure 180).

Based on archaeological results, only the 300-400-year old tree was associated with evidence of a historic occupation. The others could not be linked to any known historic or modern landscapes, although historic maps indicated that property lines in this area formerly lay on a north-south/east-west orientation (Platen 1875) (see Figure 14). The linear rows of trees could therefore represent field divisions. The oldest oak tree pre-dates any known historic period occupation of the site, and therefore, at most, could have been incorporated into a landscape scheme, but would not have been planted as part of one. The four trees near the center of the site are arranged in a rough trapezoid and most likely reflect naturally occurring trees that were left undisturbed over the course of the property's history.

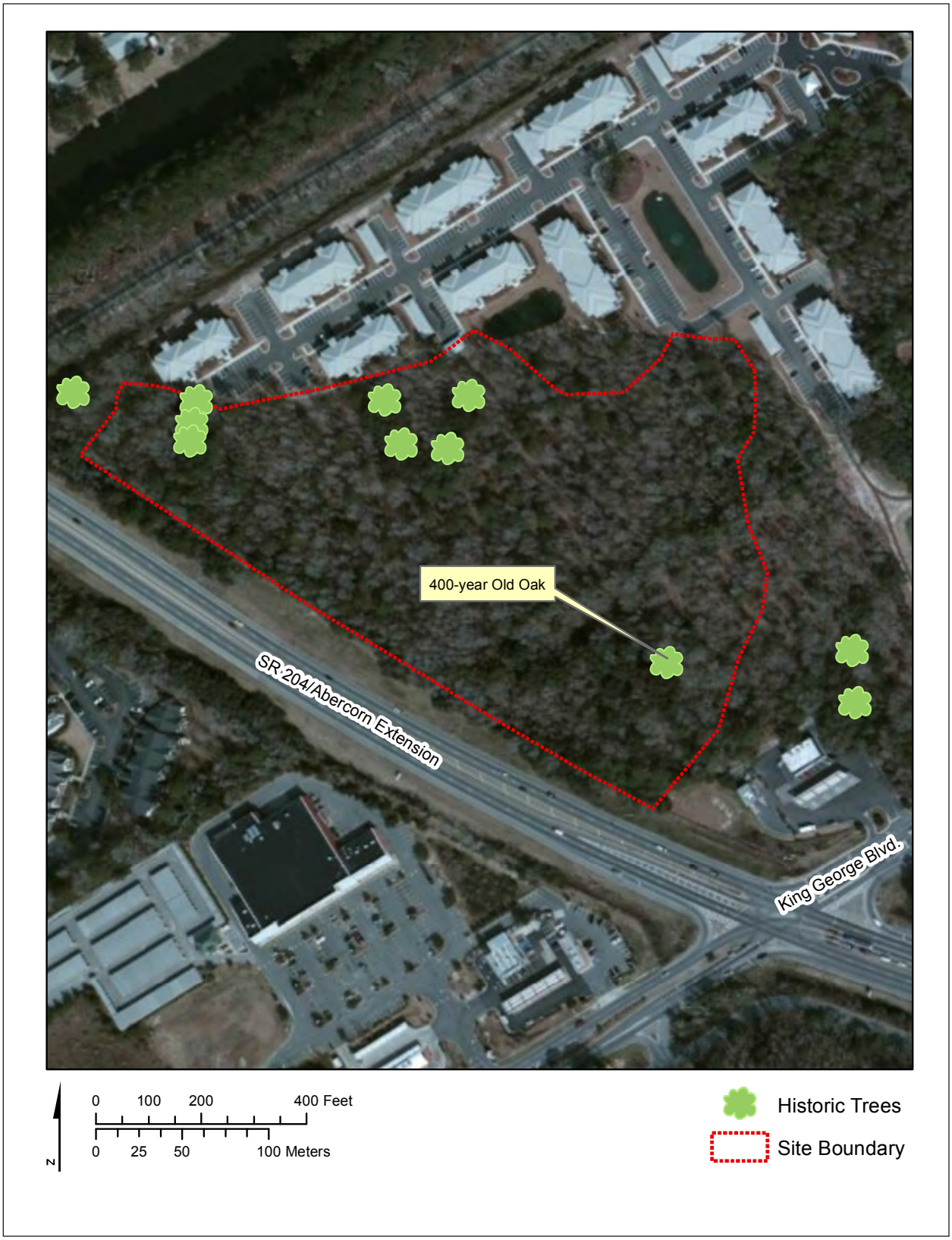
The significance of the live oaks as landscape features in this instance has to do with being elements of the residential yards of the slave quarter. As noted, African Americans undertook many daily activities out of doors, and locations under shade trees would have become activity areas (Posnansky 1999:28). The trees would also be shaded places for having meals, relaxing, or socializing. While it was not planted as part of the settlement, the large oak tree was allowed to remain after the general area was cleared and probably came to serve as a focal point for the small community that lived and worked in its shadows.

The four younger trees located northwest of the settlement had an undetermined function or significance. The arborist assessing these trees thought they showed indications of intential planting. If they were planted here, they presumably served a function to the site's occupants or the landowner. Given the uncertainty in determining the trees' ages at this time (they could have been planted between circa 1810 and circa 1910), combined with the absence of artifacts, it is not possible to more definitively interpret their significance.

SUBFLOOR PITS

The data recovery identified and excavated a number of pit features, which were classified as having storage and indeterminate functions. An issue for this study was to determine the presence of pits being used for ritual behavior, a practice noted at several African American occupations in the Lowcountry, the Chesapeake region, and as far west as Texas. Subfloor pits, or pits that were within a structure, would have been hidden from view, while forbidden

Figure 180.
Historic Tree Locations



activities might also take place in obscured locations outdoors (Brown 2004; Samford 1999; 2007; Whitley 2008; Whitley et al. 2003). A related aspect of this topic was whether ritual activites were associated with the construction of hearths. Examples of this would include incorporating artifact caches into the fabric of the brick chimney base or in pits below it. Notably, ritual activities involving concealment of select items is not limited to African Americans or certain ethnic groups. Examples with European origins are also known, for example (Springate 2010). In the case of 9CH1205, however, there is no indication of a Euro-American occupation.

Excavation indicated that insofar as could be determined, none of the pits identified at 9CH1205 had ritual functions. The only pits whose functions could be identified appeared to have been used for storage. Moreover, with the possible exception of Feature 38, all the pits that could be associated with structures directly were were located in house yards. None of the pits produced evidence in their content, structure, or locations to suggest any ritual use.

With respect to the two brick chimney bases, each contained only one extant course. Cleaning and removal of these produced few artifacts intermixed with the bricks themselves, and those that were recovered, mainly from Feature 173, appeared to have moved downward from the overlying plow zone. Removal of the bricks in both features exposed no pre-construction deposits.

Feature 147 contained at least one artifact type that is sometimes associated with ritual behavior: a large spade-shaped iron blade, tentatively identified as a shovelhead. Iron implements, especially axe heads, have been documented in association with African American occupations and interpreted as evidence of ritual practices. The iron object is supposed to serve a protective function and was usually placed inside the house (Springate 2010:16). Examples of this phenomenon were found at Kings Bay in south Georgia, although not explicitly recognized as such (Adams et al. 1987). In the case of Feature 147, however, the large bladed object was included in a yard feature that was used for storage. The associated artifacts indicated that the object almost certainly reflected purposely discarded trash. Brown and Cooper (1990) pointed out that artifact context is key to understanding any meanings attached to artifacts with respect to ritual, ethnic, or other behavior. The case of Feature 147 serves as a representative example of many of the features and deposits at 9CH1205 which contained unusual items or objects often associated with ritual, spiritual, or other ideotechnic activities. It is tempting to interpret some of these items as having ritual or similar functions, but in most cases their contexts do not provide the necessary support. Still, the presence of these items, discussed in the next section, cannot be ignored.

SEA ISLAND RELIGION AND BELIEF

Religion and spirituality, as well as folk magic, permeated many or most aspects of African American life in the Lowcountry (Bailey 2000; Wilkie 1997). The topic of religion and belief in the context of this study relates to the use of charms or ritually charged artifacts, the identification of artifacts that were modified for this purpose, or that appear to have been grouped or arranged in ways that might reflect religious or spiritual practices. Certain practices have been interpreted as deriving from African precedents, while others may reflect distinct African American developments. Brown (2004), Orser (1994), Wilkie (1995) and others have discussed material correlates of these practices. For this data recovery, the emphasis in pursuing this topic was to identify the presence of objects or practices such as concealment or ritual deposits.

As noted in the previous section, no evidence of ritual deposits was found during the data recovery. Several individual items, however, could have had ritual functions, although in no instances were they found in contexts that signified religious, spiritual, or magic activities. The items are identified as potential charms or having similar functions largely by reference to comparable artifacts with contexts that were better for interpretation.

Among the artifacts that could be identified as charms or ritual objects were a pierced silver coin and brass hinge with an "X" scratched onto one face (see Figures 161 and 163). Pierced coins, in the context of African American occupations, have been interpreted as protective charms that were strung to wear around ankles or neck (Barnes and Steen 2012:173; Lee 2011:113; Singleton 2010:176; Wilkie 1995:144; 1997). These were also considered to have medicinal functions and certain metals were thought to affect particular conditions. Silver, such as the pierced Mexican Real from 9CH1205, was believed to alleviate stomach cramps when worn around the ankle or rheumatism when at the neck. Intact coins could serve similar purposes: copper pennies placed in shoes also cured rheumatism (Wilkie 1995:144). Pierced silver coins are commonly recovered at African American sites and indicate a widespread tradition of use (Wilkie 1997:89). Singleton (2010) noted that a pierced Spanish Real was recovered at the Harmony Grove slave village and suggests that foreign currency may have had special significance as protective charms. The Mexican Real found at 9CH1205, a product of Mexico's independence, may have had a similar added element of significance.

The scored brass hinge exhibits an "X" scratched into one surface. The small item was probably originally meant for a piece of furniture or box and was pierced to receive screws, but which could have allowed it to be worn on a string. Presumably derived from African beliefs, and specifically the Bakongo cosmogram, X marks are considered indicative of African American

occupation and ritual practice (Ferguson 1992; Joseph 2011; Russell 1997:64; Springate 2010:12; Thompson 1983). Another artifact of note is an X-shaped metal object recovered from the plow zone in the vicinity of Feature 7/7A that could not be identified with respect to any function (see Figure 168). The shape of this object, however, is interesting in the context of ritual objects and suggests a possibility that someone carried it for a charm.

Additional artifacts found during the data recovery that could fall into this category include a few American Indian lithic items and unmodified stone. The fieldwork generated a small assemblage of stone and ceramic materials that indicated the presence of a precontact component. Diagnostic artifacts indicated Late Archaic through Woodland occupations. Specific artifacts that are relevant to this topic included a nearly complete Late Archaic pojectile point of coastal plain chert, recovered from the vicinity of Feature 173, a coastal plain chert biface fragment from Feature 147, and two quartzite hammerstones recovered from the plow zone in Blocks 5 and 9 (see Figure 138). Because the precontact artifacts, most of which were debitage, came from plow zone contexts, they do not clearly relate to historic ritual activities. Moreover, while some of these artifacts were in features, the contexts did not suggest deliberate inclusion. Thus, it cannot be said for certain if the precontact artifacts were collected and used as ritual objects by the site's African American occupants or if they were incidental to the site's assemblage.

The data recovery also generated a small collection of four unmodified smooth stones or pebbles, two of quartz and two quartzite. Similar finds have been reported from African American sites throughout the southeast. Russell (1997) noted they were used in conjuration. Outside of a context that strongly indicates a function, items such as these are difficult to interpret. However, along with the precontact artifacts, their presence, combined with documented African American use of similar items (Russell 1997; Wilkie 1995:144), suggests that the inhabitants of Site 9CH1205 deliberately collected and used some of them.

ARTIFACT COMPARISONS: SLAVE AND PLANTER PATTERNS

One of the research objectives for this study was to recover and compare assemblages from multiple slave households as well as between sites to refine our understanding of pattern formation and recognition on coastal plantations. Initial investigation of Feature 7 suggested that the artifact collection resembled the Georgia Slave Pattern (Singleton 1980). The following discussion explores this issue first by comparing the complete assemblage from 9CH1205 with established patterns of plantation sites and then comparing artifact group percentages from individual occupation loci within the site. Artifact patterns are based on those established by (Stanley South 1977).

For comparison with other assemblages that did not include a miscellaneous category, these artifacts were removed and relative artifact group frequencies recalculated (Table 71). The omission of the miscellaneous group did not significantly affect the relative proportions of the other groups. Other than the kitchen and architecture groups, which combined comprise 96.56 percent of the artifact inventory, none of the groups make up more than 1.50 percent.

Table 71. Assemblage Overview Excluding Miscellaneous Artifacts

Artifact Group	Count	%
Kitchen	15,209	48.94
Architecture	14,798	47.62
Clothing	166	0.53
Furniture	3	0.01
Personal	21	0.07
Arms	84	0.27
Tobacco	352	1.13
Activities	441	1.42
Total	31,074	100.00

South (1977:97) excluded bones from pattern analysis, noting that "it requires specialized analysis and is not the same type of by-product of human behavior represented by the other groups." Because the patterns used for comparison below probably also omitted bones and possibly other faunal material, the relative frequencies of each artifact group from 9CH1205 were re-calculated without faunal materials (Table 72). For this study, both bone and shell were excluded. In Lowcountry contexts shell could represent tabby architecture. Because no evidence of such material was found at 9CH1205, the shell was presumed to represent food remains. Recalculating the artifact group percentages resulted in a much more dominant architecture group. Kitchen group artifacts were still common but made up only about a third of the entire assemblage.

Table 72. Assemblage Overview Excluding Faunal Materials

Artifact Group	Count	%
Kitchen	8,213	34.11
Architecture	14,795	61.45
Clothing	167	0.69
Furniture	3	0.01
Personal	23	0.10
Arms	84	0.35

(Continues)

(Table 72, Continued)

Artifact Group	Count	%
Tobacco	352	1.46
Activities	441	1.83
Total	24,078	100.00

The assemblage, with faunal included, varies from what would be expected at an African American plantation site in the region. Comparison with artifact patterns previously established for Georgia and South Carolina sites indicated an artifact profile that differed from both planters and slaves (Table 73). Looking at variations only among Georgia slave occupations, the proportions of kitchen and architecture artifacts from 9CH1205 stand out. At Georgia slave components, kitchen group artifacts always comprised a considerably smaller proportion of the assemblage than architecture group artifacts, with the kitchen group ranging from about 20-38 percent and the architecture group from just under 50 to just over 71 percent. The ratio of architecture to kitchen group was between 1.3:1 and 3.4:1, with the low and high ends representing outliers. The other sites in the sample had ratios between 2.25:1 and 2.75:1 in favor of the architecture group. The kitchen group comprised about one-quarter to less than one-third of the assemblage ((Joseph 1989:59). In contrast, the assemblage from 9CH1205 had a ratio of 1.03:1, favoring the kitchen group. Georgia and South Carolina planter patterns exhibited kitchen to architecture ratios of 1.25:1 and 1.3:1, respectively. The 9CH1205 assemblage with faunal is therefore most similar to the Georgia Planter pattern, and is substantially different from those of both Georgia and South Carolina slaves.

Table 73. Comparison with Georgia and South Carolina Plantation Artifact Patterns

	9CH1205	9CH1205, Faunal Omitted	Georgia Planter	Georgia Slave	South Carolina Rice Planter	South Carolina Slave
Kitchen	48.93	34.11	54.09	24.34	53.2	77.39
Architecture	47.61	61.45	43.27	70.78	39.65	17.81
Clothing	0.53	0.69	0.59	1.03	0.35	0.49
Furniture	0.01	0.01	0.01	0.02	0.05	0.07
Personal	0.07	0.10	0.11	0.09	0.1	0.11
Arms	0.27	0.35	0.09	0.14	0.05	0.17
Tobacco	1.13	1.46	1.55	3.32	3.65	3.53
Activities	1.44	1.83	2.4	0.28	2.05	0.51

Source for comparative data: Joseph (1989:58)

Removing faunal material from the assemblage produced results much closer to the Georgia Slave Pattern (Table 71). In this formulation, the ratio of architecture to kitchen group artifacts was 1.8:1. This was still slightly out of sync with other Georgia slave sites used to generate the pattern. As noted, the rations for those sites ranged from 1.31:1 to 3.4:1, with these two figures being outliers. The others in the group were between 2.25:1 and 2.75:1, the kitchen group typically making up around one-quarter to less than one-third of the assemblage. The collection from 9CH1205, minus the faunal assemblage, therefore, does not neatly fit the Georgia Slave pattern, but could be considered consistent with its parameters.

Joseph (1989:59–60) pointed out that field methodology and sampling approaches can influence the relative frequencies of artifact patterns. In the case of 9CH1205, both yard and house areas were sampled, insofar as can be determined, and the inventory should accurately reflect artifact distributions. However, the recovery effort focused on machine stripping and feature excavation, which may have decreased the presence of architectural remains which would be expected to be found in overburden after the abandonment and collapse of a structure, versus pit features where household activity refuse would be expected. The similarity to a planter artifact profile raises the possibility that a planter or overseer lived at the site. However, no archival or archaeological evidence of such an occupation was found. Documentary sources suggest that the plantation house was located elsewhere, while the archaeological evidence indicated building types—the wall trench structures and duplex houses—that are consistent with African American occupations. The possibility that a planter or overseer lived at the site at one time cannot be entirely discounted, but it is certain that the artifacts recovered during the data recovery were mostly found associated with the African American building types and associated features. The possible presence of Federal Army troops at the site was also considered, but the short duration of the military encampment would not have significantly impacted the artifact patterns.

The possibility that the pattern at 9CH1205 reflects a postbellum profile was also considered, but comparison to a Colonel's Island, Georgia site from this period indicates deviations regardless of whether faunal materials are included or not (Table 74). Singleton (1985), who examined the Colonel's Island site, suggested that material conditions for ex-slaves were worse than for slaves, at least in the years immediately after the Civil War. In contrast, at the Mitchelville Freedmen's settlement on Hilton Head Island, South Carolina, Chicora Foundation found less extreme differences between kitchen and architectural artifacts, suggesting to Trinkley that Mitchelville residents were materially better off than antebellum slaves (Claggett et al. 1986; Trinkley 1987). The patterns derived from the 9CH1205 assemblage do not match well with the Mitchellville assemblage either.

Table 74. Site 9CH1205 Compared to Colonel's Island Ex-Slave Pattern and Mitchelville Freedmen

	9CH1205	9CH1205, Faunal Omitted	Ex-Slave Profile*	Mitchelville Block 161-162**
Kitchen	48.94	34.11	14.93	41.0
Architecture	47.62	61.45	82.45	54.2
Clothing	0.53	0.69	1.43	1.0
Furniture	0.01	0.01	---	0.6
Personal	0.07	0.10	0.55	0.1
Arms	0.27	0.35	0.14	0.3
Tobacco	1.13	1.46	0.40	0.6
Activities	1.42	1.83	0.10	2.2

Source for comparative data: *Singleton (1985:295); **(Trinkley 1987)

After studying additional postbellum sites, researchers at Chicora came to the conclusion that these occupations do not produce a specific pattern, and tend to vary from site to site or even between structures within sites (Campo et al. 1998:126). For example, at Seabrooke Plantation, also on Hilton Head, enslaved African Americans inhabited the South Slave Row before the war, while Freedmen re-occupied these houses later. This component thus has a similar occupation sequence to the one postulated for 9CH1205. Data provided for four loci at Seabrooke indicate variation in relative proportions of different artifact groups (Table 75). Of particular note are Structures 1 and 2 (at Seabrooke), which yielded roughly opposite frequencies of kitchen and architecture artifacts. The Structure 2 frequencies were similar to those of 9CH1205 with the faunal materials omitted.

Table 75. Artifact Patterns, Seabrooke Plantation, South Slave Row

	Structure 1	Structure 2	Yard	Midden 4
Kitchen	50.9	37.8	44.8	85.4
Architecture	39.7	51.0	42.3	13.0
Clothing	2.6	1.9	2.5	0.4
Furniture	0.0	0.2	0.1	0.4
Personal	0.5	2.8	1.1	0.1
Arms	0.2	0.4	0.1	0.1
Activities	1.6	2.2	3.1	0.6

Source: Campo et al. (1998:124)

In sum, comparing the artifact group frequencies at 9CH1205 to those of other sites did not produce any conclusive results in terms of characterizing the site's occupation. The nearly equal proportions of kitchen and artifact groups are unusual for Lowcountry African American occupations. The difficulty in characterizing this site, however, could be an effect of combining the entire inventory. Looking at assemblages that can be attributed to specific depositional units or occupation loci might reveal more clearly whether artifact pattern analysis has any value for understanding patterns of behavior at sites spanning the antebellum to postbellum periods.

LOCI COMPARISON

Comparisons within the site indicate variations between individual loci. For Loci 1 and 8, artifacts from the associated blocks (5 and 2, respectively) were included with those collected from features because they could reasonably be associated with occupations or activities in these areas. The data were tabulated first with all artifacts except the miscellaneous group (Table 76), and second with the faunal materials omitted from the kitchen group (Table 77). This second presentation follows Stanley South's (1977:97) procedure for examining artifact patterns and makes the 9CH1205 depositional units comparable with other sites. In the case of 9CH1205, this adjustment removed quantities of shell from certain features and, as indicated by the resulting tables, substantially altered the relative proportions of certain artifact groups.

The resulting tables illustrate considerable variation, although the kitchen and architectural groups are the most diverse. The other groups typically comprise only small percentages of the overall assemblage from any given locus except for the activities artifacts associated with Locus 4, the tobacco artifacts from Locus 7, and the clothing artifacts from Locus 9. In the case of Locus 4, the comparatively high frequency of activities group artifacts is due to 127 thin glass fragments that were identified as lamp chimney.

Table 76. Comparison of Artifact Group Frequencies by Locus

Group	Locus 1	Locus 2	Locus 3	Locus 4	Locus 5	Locus 6	Locus 7	Locus 8	Locus 9
Kitchen	389/ 23.72%	417/ 30.24%	633/ 64.33%	3,247/ 83.06%	1,312/ 31.08%	520/ 40.82%	335/ 25.42%	412/ 56.28%	482/ 64.61%
Architecture	1,225/ 74.70%	898/ 65.12%	332/ 33.74%	504/ 12.89%	2,817/ 66.74%	721/ 56.59%	918/ 69.65%	301/ 41.12%	240/ 32.17%
Activities	9/ 0.55%	5/ 0.36%	3/ 0.30%	143/ 3.66%	47/ 1.11%	7/ 0.55%	14/ 1.06%	2/ 0.27%	2/ 0.27%
Arms	2/ 0.12%	0/0	3/ 0.30%	0/0	5/ 0.12%	2/ 0.16%	2/ 0.15%	0/0	0/0
Clothing	5/ 0.30%	33/ 2.39%	0/0	4/ 0.10%	15/ 0.36%	8/ 0.63%	9/ 0.68%	6/ 0.82%	15/ 2.01%
Furniture	0/ 0	0/0	1/ 0.10%	1/ 0.03%	0/0	0/0	1/ 0.08%	0/0	0/0

(Continues)

(Table 76, Continued)

Group	Locus 1	Locus 2	Locus 3	Locus 4	Locus 5	Locus 6	Locus 7	Locus 8	Locus 9
Personal	1/ 0.06%	0/0	1/ 0.10%	1/ 0.03%	0/0	1/ 0.08%	1/ 0.08%	0/0	1/ 0.13%
Tobacco	9/ 0.55%	26/ 1.89%	11/ 1.12%	9/ 0.23%	25/ 0.59%	15/ 1.18%	38/ 2.88%	11/ 1.50%	6/ 0.80%
Total	1,640/ 100%	1,379/ 100%	984 / 100%	3,909/ 100%	4,221/ 100%	1,274/ 100%	1,318/ 100%	732/ 100%	746/ 100%

Counts for Loci 1 and 8 include plow zone artifacts from Blocks 5 and 2, respectively

*Table 77. Adjusted Comparison of Artifact Group Frequecies by Locus**

Group	Locus 1	Locus 2	Locus 3	Locus 4	Locus 5	Locus 6	Locus 7	Locus 8	Locus 9
Kitchen	307/ 19.70%	287/ 22.98%	291/ 45.33%	682/ 50.78%	473/ 13.99%	231/ 23.45%	231/ 19.03%	397/ 55.37%	27/ 9.28%
Architecture	1,225/ 78.63%	898/ 71.90%	332/ 51.71%	504/ 37.53%	2,817/ 83.29%	721/ 73.20%	918/ 75.62%	301/ 41.98%	240/ 82.47%
Activities	9/ 0.58%	5/ 0.40%	3/ 0.47%	143/ 10.65%	47/ 1.39%	7/ 0.71%	14/ 1.15%	2/ 0.28%	2/ 0.69%
Arms	2/ 0.13%	0/ 0	3/ 0.47%	0/ 0	5/ 0.15%	2/ 0.20%	2/ 0.16%	0/ 0	0/ 0
Clothing	5/ 0.32%	33/ 2.64%	0/ 0	4/ 0.22%	15/ 0.44%	8/ 081%	9/ 0.74%	6/ 0.84%	15/ 5.15%
Furniture	0/ 0	0/ 0	1/ 0.16%	1/ 0.07%	0/0	0/0	1/ 0.08%	0/0	0/0
Personal	1/ 0.06%	0/0	1/0.16%	1/0.07%	0/0	1/0.10%	1/ 0.08%	0/0	1/0.34%
Tobacco	9/ 0.58%	26/ 2.08%	11/ 1.71%	9/ 0.67%	25/ 0.74%	15/ 1.52%	38/ 3.13%	11/ 1.53%	6/ 2.06%
Total	1,640/ 100%	1,249/ 100%	642 / 100%	1,344/ 100%	3,381/ 100%	985/ 100%	1,214/ 100%	717/ 100%	291/ 100%

*Counts and percentages for Loci 3 and 4 Omit Faunal

Counts for Loci 1 and 8 include plow zone artifacts from Blocks 5 and 2, respectively

The kitchen and architecture groups vary widely among loci when faunal material is considered, with the kitchen group comprising between 23.74 and 83.06 percent of the assemblages from individual loci. The architecture group also exhibits a considerable range, with a low of 12.89 percent and a high of 74.70 percent.

Removing the faunal material substantially lowers the frequency range of kitchen group artifacts. The low drops to 9.28 percent while the high decreases considerably to 55.37 percent. The greatest change was in Locus 9, represented only by Feature 124, where removing the faunal

material decreased the percentage of kitchen artifacts from 64.61 to 9.28 percent. The architecture group percentages correspondingly changed, with the revised low at 37.53 percent and the high at 82.47 percent. In this case, Locus 9 also saw the largest change.

Looking at the relative percentages with respect to chronology, and only after removing the faunal material, indicates a general trend from kitchen and architectural groups having roughly similar frequencies to architecture group artifacts comprising much larger parts of the assemblage (Table 78). Here again, Locus 9 is anomalous, having an extremely low percentage of kitchen artifacts. For the other loci that seem to have been established and terminated during the antebellum period (Loci 3 and 8), the kitchen and architectural groups comprised just under or over half the collection. Moving forward in time to loci that appeared to have antebellum beginning dates but that were occupied after Emancipation (Loci 1, 2, 4, and 5), the kitchen group dropped sharply except in Locus 4, which maintained relative proportions between the two groups that was similar to those of the earlier groups. Notably, chronological information from this locus did not strongly suggest a late occupation while Loci 1 and 2 were almost certainly occupied into the last quarter of the nineteenth century. Locus 5 also produced relatively late TPQs, although not as late as the other two. Finally, the two latest depositional units, Loci 6 and 7, generally corresponded to the results from Loci 1, 2, and 5.

Table 78. Artifact Frequencies Arranged in Chronological Order

Group	Locus 3	Locus 8	Locus 9	Locus 4	Locus 1	Locus 2	Locus 5	Locus 6	Locus 7
Kitchen	291/ 45.33%	397/55.37%	27/ 9.28%	682/ 50.78%	307/ 19.70%	287/ 22.98%	473/ 13.99%	231/ 23.45%	231/ 19.03%
Architecture	332/ 51.71%	301/ 41.98%	240/ 82.47%	504/ 37.53%	1,225/ 78.63%	898/ 71.90%	2,817/ 83.29%	721/ 73.20%	918/ 75.62%
Activities	3/ 0.47%	2/ 0.28%	2/ 0.69%	143/ 10.65%	9/ 0.58%	5/ 0.40%	47/ 1.39%	7/ 0.71%	14/ 1.15%
Arms	3/ 0.47%	0/ 0	0/ 0	0/ 0	2/ 0.13%	0/ 0	5/ 0.15%	2/ 0.20%	2/ 0.16%
Clothing	0/ 0	6/ 0.84%	15/ 5.15%	4/ 0.22%	5/ 0.32%	33/ 2.64%	15/ 0.44%	8/ 0.81%	9/ 0.74%
Furniture	1/ 0.16%	0/ 0	0/ 0	1/ 0.07%	0/ 0	0/ 0	0/ 0	0/ 0	1/ 0.08%
Personal	1/ 0.16%	0/ 0	1/ 0.34%	1/ 0.07%	1/ 0.06%	0/ 0	0/ 0	1/ 0.10%	1/ 0.08%
Tobacco	11/ 1.71%	11/ 1.53%	6/ 2.06%	9/ 0.67%	9/ 0.58%	26/ 2.08%	25/ 0.74%	15/ 1.52%	38/ 3.13%
Total	642 / 100%	717/ 100%	291/ 100%	1,344/ 100%	1,640/ 100%	1,249/ 100%	3,381/ 100%	985/ 100%	1,214/ 100%

Compared to established patterns for the Lowcountry, the earlier loci are most like the Georgia Planter pattern, with both kitchen and architectural groups hovering near half the assemblage. It should be noted that the tobacco group for Georgia planters averages 1.13 percent, while in the Loci 3 and 8 collections tobacco artifacts make up 1.71 and 1.53, respectively, further mirroring the pattern. These two loci are significantly different than both the Georgia Slave and South Carolina Slave patterns. Locus 4 also shows similarities to the Georgia Planter pattern, but with a proportionately smaller tobacco group. Locus 9 is once again anomalous in having a very small kitchen group, a high architecture group, and a large proportion of clothing artifacts. The closest match for this locus, in fact, is the Ex-Slave Profile (Singleton 1985).

Loci with longer date ranges, as well as those with the latest dates at 9CH1205 generally coincide most closely to the Georgia Slave Pattern (Joseph 1989). For those depositional units that date from the antebellum period but extend into postbellum era, this finding is not entirely surprising, although it could be expected that these loci would most closely resemble Structures 1 and 2 at the Seabrooke Plantation South Slave Row (Campo et al. 1998), which had similar occupational histories. For the most recent loci at 9CH1205, the closest established artifact pattern is the Ex-Slave Profile (Singleton 1985), which is perhaps not surprising, although African American sites that date to the postbellum era seem to have widely divergent patterns (Campo et al. 1998:126).

Based on this review, the artifact patterning for individual loci does not conform well to established patterns. The reasons for this most likely relates to the nature of the depositional units. Loci 3 and 4, for example, are dominated by features containing midden deposits composed of kitchen refuse. Locus 5, consisting of fill from Features 7 and 7A, appeared to reflect clearing of architectural debris. It was not clear in all instances that the depositional units represented general daily activities that were comparable between loci.

Some comparisons within the site appear valid. Loci 6 and 7 appeared to reflect a mix of household refuse and incidental inclusions dating to the abandonment of the site. Locus 3 included contributions from several features, but the dominant deposit was Feature 38, a pit that appeared to contain refuse and accidental inclusions, and that was apparently abandoned and filled before the Civil War. These loci exhibited very different artifact patterns that could be indicative of chronological and behavior variables. Following Joseph (1989:61), the higher incidence of architecture group artifacts in the later depositional units could reflect the use of frame construction. Conversely, Locus 3 was associated with the wall trench house, a form of construction that is expected to leave much lower architectural remains in archaeological contexts. This locus produced a high proportion of architectural materials, which is difficult to explain if Joseph's model is correct, although the presence of Post Cluster 2 could have influenced this.

Locus 4 also reflected mostly midden deposits that were captured in postholes, abandoned pits, and natural low spots. These materials may be comparable to Loci 3, 6, and 7, in representing deliberate disposal. As noted, the artifact pattern from Locus 4 was closer to the earliest ones, although it reflects a somewhat later beginning date and/ or longer period of deposition. Given its intermediate chronology, this feature might be expected to show the pattern that it does.

Finally, Loci 5 and 8 both reflect pits that appeared to have been filled through similar sequences. Locus 8, the earlier of the two, was consistent with the other early features in having roughly even proportions of architectural and kitchen artifacts. Similarly, Locus 5, which probably dated to the antebellum period but was filled later, produced a similar artifact profile as the contemporary loci, having a very high proportion of architectural artifacts.

The overall chronological artifact patterns at this site appear to hold up to scrutiny. Earlier loci having kitchen and architectural group artifacts in roughly equal proportions, while those loci with later dates or longer date ranges had much higher architecture group artifacts, a profile reminiscent of Singleton's (1985) Ex-Slave Pattern.

The explanation for these patterns may reflect the influences that Joseph (1989) put forth, including differences in chronology, technology and availability of building materials, and acculturation. Another point to consider besides these is the possibility that the patterns noted for the later time periods reflect a more impoverished situation. This is not to say that conditions under slavery were bountiful. But given that slaves evidently received some latitude in their ability to conduct economic activities, as well as the use of land, they might have been able to achieve a material life that was disrupted and truncated after Emancipation. As the century progressed, African Americans faced increased hostility from whites, which might have limited their economic activities. In addition, as was noted, African Americans were also willing to withhold their labor from plantation work and subsist on home-production of foods and other necessities (Armstrong 1980). At 9CH1205, the archaeobotanical data produced further evidence for this (see Chapter X). Moreover, in the early postbellum years, the Ogeechee Neck region became isolated to an extent (Bell 2001), which might have further reduced the circulation of mass-produced consumer goods that make up the kitchen artifact group.

How these circumstances played out at 9CH1205 and its vicinity are uncertain. The residents of the site in the postbellum years were apparently there with the permission of William Miller, presumably under some agreement concerning the use of land. Still, Miller might have restricted access to garden plots or required payment, which would reduce profits of any economic activities that site residents conducted. Nevertheless, the historical circumstances combined with archaeological data, including Singleton's (1985) Ex-Slave Pattern, could explain the changes in artifact patterning.

PLANTATION AND MARKET, MARKET ACCESS, AND MATERIAL CORRELATES OF TASK LABOR

These issues deal with the interaction between enslaved African Americans and local or area markets, both as producers/ sellers and consumers. A related issue is the material correlates of the task labor system, which made it possible for slaves to conduct economic activities for their own benefit. The internal economy of Lowcountry slaves has been widely discussed, as has their ability to accumulate property apart from their owners (Morgan 1983; 1998; Penningroth 1997). For this particular study, the question was whether any evidence could be found that the site's residents participated in the region's markets and if so, then what were the archaeological manifestations of these activities. It was anticipated that participation in the market as producers would be evidenced by craft activities, such as the manufacture of Colonoware ceramics, or the production of surplus garden produce. As buyers, variations in household artifact profiles was considered potential evidence of differences in ability to purchase consumer goods. The presence of ceramic dining and tea sets, and cost indexing of ceramics, were considered potential avenues of inquiry into consumer behavior.

With respect to the task labor system, it can be assumed that the site's residents worked under its conditions during the antebellum period. Although no records could be found regarding the organization of labor at the Wilson/Miller plantation, the task system was so pervasive in the Lowcountry, that it would be unusual if it were not in place here.

The data recovery produced no Colonoware, and there was no evidence that the site's inhabitants manufactured it. Additionally, efforts at identifying garden areas did not reveal clear results that could be used to assess the production of surplus produce. Finally, no clear evidence of craft production was recovered. The only potential evidence of productive activities included an animal trap, recovered from a postbellum context, and fishing weights, some of which were also from later contexts. These could reflect procurement of animal products for sale, but could also be for subsistence. The lack of evidence for productive undertakings should not be interpreted as an absence of them, however. Slaves may have engaged in many activities that could be productive, such as collecting and selling firewood or making and selling baskets, neither of which would leave archaeological evidence, or raising and butchering livestock for sale, the remains of which would not necessarily be discernable from general subsistence activities.

Individual artifacts and composites may represent task labor expenditures. Joseph (1987) noted tobacco as one area of personal expenditure and the higher frequencies of tobacco artifacts in the antebellum Loci 3 and 8 contexts could represent the task labor income and expenditure of the inhabitants of those loci. The X-marked brass hinge was a metal detector find that appears to be

a small furnishings hinge, and could represent a small chest or box purchased with task labor earnings. Another small butt hinge recovered from Locus 4 could reflect the same acquisition route. Beads and buttons from several antebellum loci could reflect task labor purchases. Finally, the high density of window glass associated with antebellum locus 8 may represent a task labor expenditure. Planters did not provide glazed windows in the slave quarters, and Joseph (1987) suggests that the enslaved may have purchased window glass with their earnings from task labor, for both the comfort and convenience of their family as well as for the display of social status glazed windows provided.

CC INDEX ANALYSIS

Looking at European-made ceramics as an indicator of access to markets and expression of income is problematic in the context of a slave occupation. One reason for this is that there is no evidence that slaves used ceramics as symbols of wealth or status in the same way that has been demonstrated for elite and middle class whites during the eighteenth and nineteenth centuries. Another reason is that it is not clear through what means slaves acquired ceramics. It is assumed they obtained them directly from planters as part of their standard provisions, as gifts or hand-me-downs from planters, or through direct purchase (Singleton 1991:170). Inheritance from relatives is another probable means for ceramic acquisition (Penningroth 1997). All of these methods have implications for the types, value, age, and symbolic meaning of ceramics that might be found in archaeological contexts associated with enslaved African Americans.

A final problem in considering ceramics as economic indicators in the case of 9CH1205 is the highly fragmentary nature of the ceramic assemblage. Using Miller's (1980; 1991) CC Index requires identifying vessel forms and minimum vessel counts. The fragmentary nature of the assemblage provided very limited results in this regard.

Nevertheless, an effort was made to characterize the ceramic assemblage for eight of the occupational loci (Locus 9 did not yield any ceramics useful for this analysis). The total number of ceramics reflects only those sherds that could be assigned a rough form. Very fragmentary sherds were not counted for this analysis generally unless they exhibited qualities that suggested an individual vessel, such as a unique material, form, or decorative motif. The examination of the assemblage resulted in very few discernable vessel forms, the majority being identifiable only broadly as flatware or hollowware (Table 79).

Table 79. Vessel Forms Identified Among Depositional Units

Form	Number of Sherds	Minimum Number of Vessels (MNV)
Base	4	
Body	7	3
Body -Complex Shape	1	1
Bottle	4	2
Bowl	2	2
Chamber Pot	7	4
Cup with Handle	2	2
Flatware	49	26
Flatware – Base	8	3
Flatware – Rim	7	4
Footed Hollowware	3	1
Handle	1	
Handle-Small	1	1
Hollowware	46	29
Hollowware - Med with Base Ring	1	
Hollowware with Handle	2	
Hollowware with Handle, Large	1	1
Hollowware- Everted Rim	2	2
Hollowware-Large	2	1
Hollowware-Large, Everted Rim	1	1
Hollowware-Medium	4	3
Hollowware-Small	5	5
Hollowware-Small, Everted Rim	1	1
Indeterminate – Decorative	1	
Jar with Collar	1	1
Knob	1	
Plate	16	5
Plate - 10"	17	12
Plate - 8"	1	1
Platter-Large	1	
Rim	14	5
Rim - Medium/Large	1	1
Rim – Small	8	8
Saucer	1	1
Saucer - 5"	2	2
Shallow Hollowware	1	1
Total	226	129

Decoration types exhibited all the common varieties of the nineteenth century. Plain ceramics were the most common by sherd count, but among the MNV count, they were less prominent. Sherds with shell edge and transfer printed decorations were also common by both sherd count and MNV. Dipped and painted sherds were moderately common (Table 80).

Table 80. Decoration Types

Decoration	Sherd Count	MNV
Plain	77	35
Shell edge	47	23
Dipped	20	15
Transfer print	46	30
White granite	4	4
Painted	14	12
Brown glaze	3	1
Total	211	120

Excludes types not covered by CC Index analysis (e.g., stoneware) or that were indeterminate

To calculate a CC index value, only plates, cups, and bowls are used. Additionally, plates must be measured. Removing nondiagnostic forms from the assemblage produced a minimum of 21 vessels distributed among seven loci; Locus 6 did not produce any vessels with discernable forms and so dropped out of the analysis (Table 81).

Table 81. Vessel Forms by Locus

Locus	Vessel Form	Sherd Count	MNV
1	Plate - 10"	1	1
2	Plate - 10"	2	2
	Saucer (muffin)	1	1
	Saucer (muffin) - 5"	1	1
3	Bowl	1	1
	Plate - 10"	3	1
4	Plate - 10"	1	1
	Platter (dish) large	1	
5	Cup with handle	1	1
	Plate - 10"	1	1
	Plate (twiffler) - 8"	1	1
7	Bowl	1	1
	Plate - 10"	6	4

(Continues)

(Table 81, Continued)

Locus	Vessel Form	Sherd Count	MNV
8	Cup with handle	1	1
	Plate - 10"	3	3
	Saucer (muffin) - 5"	1	1
Total		26	21

Sorting vessels according to decoration type, necessary to assess value, further reveals the limited number of specimens available for the study, which weakens the conclusions that can be drawn (Table 82). Nevertheless, some patterns emerged from the sorting process. In particular, 10-inch plates were the most common vessel among those that could be recognized. Undecorated varieties were most common among these, followed by shell edge. These decorative types tend to be the least costly available for all time periods, and their prevalence among all loci suggests some continuity in acquisition practices. The dominance of these decoration types among identifiable vessels does not reveal an absence of other types, however. There is ample evidence that the site's occupants owned considerable numbers of transfer print, dipped, and painted ceramics, but what forms these represented is unknown.

Table 82. Decoration Types Sorted By Vessel Form

		Vessel Form					
Locus	Decoration	Bowl	Cup with handle	Plate - 10"	Plate - 8"	Platter	Saucer
1	shell edge			1			
2	plain			1			1
	shell edge			1			
	white granite						1
3	shell edge			1			
	transfer print	1					
4	shell edge			1		1	
5	plain		1	1	1		
7	plain			4			
	dipped	1					
8	plain			1			
	shell edge			2			1
	transfer print		1				

A final difficulty in using the CC index analysis for this study is determining which year's index to use. For certain loci with shorter known date ranges, an index year can be selected. For Loci 1 and 2, however, the longer time periods associated with these makes the results of the analysis less valid. Index dates were assigned to these loci that were thought to approximate a mid-point of occupation. Another complicating factor is the possibility that ceramics reflected out of date styles or were purchased used. In these situations, a vessel might cost less than its index value would suggest. At the time of this analysis, there was no way to control for this variable.

The results of the CC Index analysis suggest some variation between loci (Table 83). However, the low MNV for each locus, combined with the absence or paucity of certain types of ceramics from the identifiable vessels, calls these results into question. The identifiable vessel types are among the least costly available for all years (plain and shell edge). The incidence of cups with handles, a more expensive form, is notable but the presence of the handle made the vessel identifiable; there were doubtless many more cups in the assemblage that could not be identified as such. Thus, the CC Index analysis does not provide a meaningful basis for determining relative purchasing abilities or even preferences among individual households in this instance.

Table 83. CC Index Analysis Results

			Vessel Form/ Index Value						
Locus	Index Year	Decoration	Bowl	Cup with handle	Plate - 10"	Plate - 8"	Platter	Saucer	Average CC Index Value
1	1859	Shell edge			1/ 1.09				1.09
2	1859	Plain			1/1.00			1/ 1.00	
		Shell edge			1/1.09				1.05
		White granite						1/ 1.09	
3	1838	Shell edge			1/1.33				2.07
		Transfer print	1/ 2.8						
4	1838	Shell edge			1/1.33		1/ 1.57		1.45
5	1859	Plain		1/ 1.5	1/1.00	1/ 1.00			1.16
7	1870	Plain			4/1.00				1.03
		Dipped	1/1.13						
8	1838	Plain			1/1.0				1.61
		Shell edge			2/1.33			1/1.25	
		Transfer print		1/3.14 (1833 index)					

SMALL FINDS

Although ceramic costing analysis did not yield significant results in understanding the site residents' economic and consumer activities, other artifact types offer possible avenues of approaching this topic, as well as others. Objects used for personal adornment, for example, can be interpreted as expressions of identity as well as manifestations of the ability to obtain certain kinds of goods. Additionally, artifacts typically associated with routine tasks can actually reflect multiple arenas. Sewing equipment, for instance, was an integral component of enslaved womens' lives because they had to make and maintain clothing and bedding. At the same time, clothing, quilts, pillowcases, and the like could be sold for extra income. These kinds of artifacts were not found at 9CH1205 in quantities that can be used for pattern and statistical analyses, and more productive investigation relies on developing and interpreting them within contexts for individual or groups of items (Muraca et al. 2011:6). The following discussion refers back to the context for Lowcountry African American life present in Chapter VI.

In terms of material correlates of task labor and market participation, it was noted that enslaved African Americans in the region used the time afforded them through the task system to engage in numerous economic activities. Further, it was suggested that they did not express wealth through the accumulation of household goods, but rather might have invested in, or cultivated, products that would not be readily identifiable in the archaeological record. Goods they might produce or amass that might be considered as marks of success in slave communities might include livestock. Penningroth (1997) found evidence that many slaves raised horses, which would comprise a type of movable wealth. At 9CH1205, a currycomb recovered from Locus 4 and a possible horse bridle/bit could be indicative of this activity.

Clothing also constitutes a form of wealth, both as a commodity that can be made and sold, and as an expression of purchasing ability. The sewing equipment found at the site, as noted, reflects the production of clothing. As discussed in Chapter VI, slave women had to sew out of necessity. Rather than a ration of finished clothing, which slave men received, planters gave women cloth and annual allocations of needles and buttons, and expected them to fashion their own wardrobes (White 1999:122–123). They also engaged in other textile-based craftwork, quilting being particularly well-known (National Park Service 2005). The discovery of a thimble in (postbellum) Locus 6 along with straight pins in Loci 2, 4, 5, and 7, as well as a scissors fragment from Locus 5 during the Phase II (Silliman and Quirk 2009), are evidence of sewing and potentially participation in the slaves' internal economy and/or the postbellum emphasis on home production.

Buttons and items of personal adornment also indicate wealth and purchasing ability. Although it is understood that these types of artifacts can have many different and intertwined meanings (Lee 2011; Heath 1999; White 2005), for the purposes of this discussion they are considered as potential symbols of status or class within the African American community. Buttons in the 9CH1205 collection include both everyday types and more ornate examples. Generally buttons are associated with men's clothing but examples in the collection could also relate to women's and children's clothes. Over 75 utilitarian types were recovered and include the porcelain Prosser buttons along with small bone and shell varieties. These were used primarily for shirts and underwear. Also in the category of utilitarian buttons were the metal sew-through types that were intended for work clothes (Lindbergh 1999:51). Excluding three military uniform buttons (all from the Feature 173/Locus 2 vicinity), the assemblage includes 30 brass or cuprous buttons, both plain and with molded decorations, that primarily reflect outerwear, presumably men's coats, cuffs, and vests. A black celluloid or early plastic button was also recovered from Locus 2. This type of button could go with either men's or women's clothing, and suggests a garment that was more than utilitarian. A black glass button with a molded star design is also in the assemblage, and suggests an ornamental function.

Buttons can have long use-lives and be recycled beyond their intended purpose (Venovcevs 2013). Therefore, it is possible that buttons in this assemblage that were intended for more formal clothing could have been salvaged and used on clothing used for working in agricultural fields. Even the three military buttons, each from the same general provenience, were not a matching set, suggesting they could have been obtained separately. Nevertheless, given what is known about property ownership among African American slaves and presumably freedpeople, it must be acknowledged that some buttons could have been used for quality clothing. Penningroth (1997) noted the ownership of fine shirts and suits, which slaves reserved for particular occasions. Heath (1999) cited references to slaves wearing mourning clothes, as well as outfits that distinguished certain special events from daily existence. The discovery of these artifacts, and their quantity, at 9CH1205 strongly implies that the site's residents made use of purchasing ability to augment their wardrobes beyond what planters provided and what was necessary for performing agricultural or manual work.

The distributions of different button types suggests some variations. Prosser buttons were the most common type that could be assigned to specific loci, and they were generally the most frequent in each loci except Locus 3, which yielded no buttons, Locus 4, which contained only one button (bone), and Locus 9, which contained five bone and eight utilitarian metal buttons but no Prossers. Buttons of brass or other materials that could be considered indicative of fine clothing came entirely from the loci associated with Block 9, including Loci 2, 6, and 7. This suggested that the occupants of this part of the site (the structure represented by the Feature 173

chimney) had greater purchasing ability or more of an interest in expressing wealth or other values through clothing. Clothing remains from other loci tended to be much more utilitarian. The fact that the three loci with the highest numbers of ornamental buttons also had the latest dates might be significant and possibly indicates a shift in the meanings of these materials between the antebellum and postbellum periods.

A final artifact type that is considered for this discussion is tobacco pipes. Tobacco use was widespread in North America. While there is evidence from the Chesapeake that suggests the local manufacture of pipes, no similar finds have been made in the South Carolina and Georgia Lowcountry. Tobacco pipes were a commodity that were in high demand among Lowcountry slaves, and shopkeepers evidently imported special varieties they marketed to slaves (Morgan 1998:374). Although not necessarily expensive items, pipes and tobacco still had to be purchased and variations in their frequency could indicate differences in access.

In the 9CH1205 assemblage, tobacco pipe fragments averaged about 1.5 percent of the artifacts from the nine loci. Three of the loci, however, produced higher than average frequencies. The tobacco group comprised 3.13 percent of the artifacts from Locus 7. Among the artifacts from Loci 2 and 9, the tobacco group comprised 2.08 and 2.06 percent, respectively. As with certain button types, these loci were associated with Block 9, although they reflect different time periods. Moreover, in the case of Locus 9, the earliest of these three loci, the counts are not very high, suggesting the proportion of tobacco pipes is not significant. Locus 2, however, appeared to have the greatest investment in clothing and the high frequency of the tobacco group, if it reflects spending or expressions of wealth, is notable.

FOODWAYS

The issue of foodways was meant to explore the degree to which enslaved African Americans supplemented the rations planters supplied them with wild foods. Additionally, taking into account that slaves might be denied firearms for hunting, this topic involved speculations regarding the techniques of wild animal food procurement. The discovery during the fieldwork and analysis that the site represented occupation into the postbellum era suggested further questions regarding continuities and change in foodways. Data came from macrobotantical samples, phytolithic and pollen analysis, and zooarchaeological specimens.

Archaeobotanical data indicated that the site's inhabitants utilized a wide range of plants for food, medicine, and fuel. Species documented in samples included both cultivated and wild taxa, with many of the domesticates being American Indian crop plants (maize, beans, cucurbits, sunflower). European-introduced cereals (rice, millet, wheat) were also present. Site residents also made use of numerous varieties of wild and cultivated fruits and herbs. Phytolith and pollen

analysis generally agreed with the macroplant data in terms of the species that were present and probably consumed at the site, as well as providing evidence of maize being cultivated in the site vicinity.

Comparing samples from the earlier and later occupations suggested changes in plant use over time. While maize was a common component of loci from early to late occupations, some differences were seen in other field crops. For example, beans, millet, and rice appeared only in those loci with clear late dates (Loci 6 and 7), while squash/pumpkin, sunflower, and wheat were only in those with early and intermediate dates (Loci 3 and 4). Overall totals of these taxa were low, however, suggesting the possibility that the differences reflect sampling error.

More striking differences were noted among fruit and edible herbs. Among the fruit, a variety of plants were noted for all time periods. Early loci, however, yielded low proportions of several varieties, while loci with later dates included very high frequencies of few varieties. In particular, Locus 5 (represented only by Features 7 and 7A) contained a high number of haw/arrowwood seeds, while blackberry/raspberry dominated in Locus 6 (represented by Feature 120). Locus 7 (Feature 147), on the other hand, yielded a high proportion of peach and plum.

Edible herbs indicated another contrast, with earlier loci again showing some variety and low frequencies of any one species, except for goosefoot, which occurred in each of the early loci (Loci 3, 8, and 9, as well as Locus 4 which had a longer date range). For the later depositional units, only Locus 6 produced any remains in this category, with burclover dominating the assemblage.

Although not used for food, the percentages of non-edible weeds suggests further differences in the use of plants. In particular, Locus 6 generated a relatively high proportion of plants in this category, including copperleaf and ragweed. In contrast, early Locus 3 also produced these two species but in much lower numbers. Copperleaf has no known food or medicinal uses, but is indicative of disturbed and unused ground. Ragweed, on the other hand, was used in the nineteenth century for various medical conditions and injuries.

Animal protein sources were suggested through analysis of faunal materials. The faunal assemblage suggested differences between the antebellum and postbellum occupation, with residents during the earlier period utilizing a more diverse range of animal sources, although depending primarily on domestic beef. Pork comprised only a minor portion of the meat, while wild sources, including fish, oyster, raccoon, and turtle comprised 12 percent of the antebellum faunal collection. Cuts of beef that were identified suggested they reflected rations supplied by the planter rather than animals raised and butchered on-site.

The postbellum assemblage suggested an even greater reliance on beef than during the antebellumwar period. Contexts dating to this time that produced faunal material did not contain any other domestic or wild animal remains. The cuts of beef were similar to those identified in earlier contexts, suggesting continuity in preference or access to meat.

While the contrast in meat sources is striking between the antebellum and postbellum assemblages, factors other than food consumption should be considered. For one, although the faunal sample from later depositional units did not include wild resources, later features (Features 120 and 147) contained a small animal trap and fishing tackle. Thus, it is certain that the site's later occupants made use of terrestrial and aquatic animals, although it cannot be said for certain if they did so for consumption or sale.

Another consideration is that the depositional units associated with the two time periods vary. The earlier loci included several instances of midden residue composed largely of kitchen refuse, particularly oyster shell, while the later loci tended to contain household refuse with incidental inclusions. Also, as was noted, the disposal practices appeared to vary during the two periods, with refuse disposed in the immediate area of residences during the antebellum period but further away after Emancipation. This circumstance probably affected the overall counts and content of the faunal assemblages.

XV. PUBLIC OUTREACH DURING THE 9CH1205 DATA RECOVERY

Rita F. Elliott

METHODOLOGY

New South designated and hired a full-time Public Archaeologist for the 9CH1205 data recovery project. The Public Archaeologist, Rita Elliott, was tasked with all items related to the public-outreach component of the project. New South proposed and instituted a "four-fold approach", which specifically included a website and Facebook page, site interpretive signage, site tours, and media coverage (Joseph and Botwick 2012). As a whole, outreach tasks included pre-planning, promotion, public relations, site tours, social media, curriculum development and creation, and development and creation of a related children's book.

PRE-PLANNING

Elliott attended the pre-planning meeting held in December 2012. This meeting was on site and included representatives from the GDOT, McGee Partners, New South, and others associated with the project. It included a site walk and the opportunity to discuss various aspects of the project with different entities involved, including start-up, public interaction, and completion of different stages of the work. Additional pre-planning by Elliott occurred prior to the beginning of site tours for the public, including developing partnerships within the community, creating specific on-site outreach components, developing a social media presence, and intensive promotion of outreach opportunities for the public. Each of these is detailed below.

PROMOTION & PUBLIC RELATIONS

Modern American society is inundated with an unprecedented level of both leisure time and educational activities vying for the public's attention. Experience has shown that events require minimally 200-300 percent more advertising efforts than expected to generate substantial attendance. New South made a concerted effort to promote the 9CH1205 data recovery. Site promotion was undertaken in four distinctive ways, including the internet, established personal network connections and new contacts, cold calls, and media.

PROMOTING PUBLIC OPPORTUNITIES

Internet promotions incorporated both new contacts and established networks of individuals and entities. Internet promotions included establishing and posting on the site Facebook and website pages (more about this later), posting on electronic calendars of events, emailing digital site tour flyers to individuals, and contacting administrators of other websites, blogs, and Facebook pages to post information and the tour flyers. Elliott posted information on the following online calendars: WTOC, WSAV, *Savannah Morning News* (Savannahnow), *Connect Savannah*, Liberty County Historical Society, and Richmond Hill Historical Society (Bryan County). The Savannah Tribune was contacted, but did not respond and had no online calendar, nor did the Effingham County Historical Society. Successful attempts were made to reach the homeschool community. Site flyers and information was emailed to Savannah Unlimited Homeschool Network and two other networks. The internet avenue of promotion was quite successful and many visitors reported finding out about the site through that venue. One particularly striking example of this was posting of information on the Southern Mamas website. The site owner not only put the flyer on her site but promoted it on her Facebook site as well. Both have a huge following among homeschoolers and many who visited 9CH1205 remarked on learning about the opportunity on Southern Mamas. Interestingly, the information and flyer was "picked up" from Southern Mamas and other sites and reposted on a variety of other blogs, websites, and calendars. This was quite helpful, although some sites that summarized the information rather than posting *verbatim* got the dates, times, or other information skewed. Elliott also sent digital flyers and emails to public, private, and parochial schools. This included 52 K-12 public schools in Chatham County, as well as various Christian schools, military academies, and other K-12 educational institutions. Schools in neighboring Richmond Hill (Bryan County) were notified as well.

Elliott also sent emails with flyer attachments directly to organizations and individuals. This included multiple contacts at area universities (Armstrong Atlantic State University, Georgia Southern University, and Savannah College of Art and Design), and historical organizations (Archaeological Society of South Carolina Hilton Head Island Chapter, Beaufort County South Carolina Historical Society, Coastal Georgia Archaeological Society, Coastal Museums Association, Charleston Museum, Daughters of the American Revolution Savannah, Exploring the Revolution, Georgia Historical Society, and Historic Savannah Foundation). Emails and flyers were also distributed to government entities including Effingham County Chamber of Commerce, City of Savannah (Chamber and Visitors' Bureau, Municipal Archives and Research Library, Department Heads, Savannah City Council aldermen/women), and Savannah-Chatham County Metropolitan Planning Commission. The latter distributed the information more widely among city and county staff and citizen-appointed members of various commissions.

Other area entities received information about the project, as well. Elliott located and contacted Savannah Council district leaders of the Girl Scouts and Boy Scouts in Chatham, Bryan, Effingham and Liberty counties. She emailed them site flyers resulting in postings on the web. Contacts at various state-owned parks and historical sites were sent email information. Elliott also sent an electronic flyer and information to the webmaster of the Society for Georgia Archaeology.

Elliott made physical "cold calls" with hard copies of the flyer to entities throughout the community, beginning with the area immediately around the project. The idea was to have flyers posted throughout the community. She spoke to managers at the local Ace Hardware Store, Waffle House, Food Lion, Cobblestone Apartments, Parker's Convenience Store, Union Mission Thrift Store, and two branches of the public library (Southwest Chatham and Bull Street branches). All refused to post flyers, except Ace Hardware and Union Mission, citing company policy. A cold-call to the nearby Georgetown Community Services Association resulted in a contact there who published the flyer information in the hard copy newsletter "The Georgetowner", which reached homeowners in 16 area neighborhoods. Many local visitors reported learning about the site in this manner. Hard copy information about the site also was printed in the 2013 Archaeology Month Calendar of Events, sponsored by The Society for Georgia Archaeology, since the May portion of site tours overlapped with Georgia Archaeology Month. Hard copies of announcements were distributed to visitors to the ArchaeoBus, a traveling education bus, when it was stationed at Armstrong Atlantic State University one day in March. Elliott made site announcements at the end of two presentations she gave during lecture series at Armstrong Atlantic State University in January and Savannah College of Art and Design in April.

Media contacts were made on two fronts, by Elliott and also by Jill Nagel, District Five Communications Officer, Georgia Department of Transportation. Elliott emailed the two television stations and three newspapers mentioned above with site information. Nagel distributed a press release about the site to a vast range of media outlets. This included television (WSAV, WJCL, WTOC), radio (Clear Channel, WTKS 1290, 977-the river, Cumulus, WBMQ-630, WSSJ-100.1, WTHG-104, National Public Radio WSHV-1190/WWIO-88.9, 765 live, WAEV-97.3, WSGA 92.3, WTYB-103.9, WBMZ, WRHQ), newspaper (*Bryan County News, Coastal Courier*, *Connect Savannah*, *Effingham Herald, Glennville Sentinel, Savannah Morning News*, *Savannah Herald*, *Savannah Daily News*, Associated Press- Savannah, *Tattnall Journal*), and internet (Savannah Now, Savannah Southern Cross, the Landings).

Elliott responded to inquiries generated by her and Nagel's announcements and from independent journalists who found out about the site. Articles about the site appeared in *Connect Savannah* and the *Savannah Morning News*. Radio announcements and stories were broadcast on National Public Radio and several local stations. Journalists with *Connect Savannah*, Cumulus Radio (three stations including WBMQ) and Diversifiededucation.com interviewed Elliott for stories. Editors and board members of the *Georgia Engineer* magazine proposed to publish an article about the site, so Field Director Brad Botwick and Elliott co-authored an article for the June 2013 issue.

ENGAGING THE AFRICAN AMERICAN COMMUNITY

Public outreach at 9CH1205 targeted many groups, including the local community, academia (K-12 and collegiate), residents (city, county, and coastal), tourists, and descendant communities (African American). The last of these target audiences proved to be the most challenging to reach. Front-end efforts consisted of contacting the community through announcements and invitations to tour the site during fieldwork. Elliott emailed the Vice President of *The Savannah Tribune*, the local, traditionally African American newspaper. Receiving no reply, she called the newspaper and left a voice message to which there was no response. Elliott searched for an online form to complete on *The Savannah Tribune's* website for a listing in a calendar of events or other announcements, but unlike other media websites, *The Savannah Tribune* had no such form available.

Outreach also encompassed entities that were not specifically African American but contained a large number of African Americans among their rosters. This included Savannah public schools. Outreach contacted the principals or specified program contacts for fifty-two (52) K-12 public schools in Chatham County. In 2010-2011, Savannah metropolitan (inner city) schools had a total enrollment of 54,372 students. Of this total, 30,454 or 54 percent were minorities, including 23,119 African Americans (Diversity.org 2014). Included in this contact were several city schools with overwhelmingly minority attendance, such as Jenkins High School and Beach High School, with minority enrollments of 73 percent and 94 percent, respectively *(U.S. News and World Report* 2014a; 2014b). Emails invited educators and students to special tours of the site through field trips. While visiting school groups did include African American students, there was no response from the inner city schools.

Other targeted audiences that included African Americans in the area consisted of media (such as other newspapers, television and radio stations). This media highlighted the project throughout its fieldwork phase and may have generated visits by some of the African Americans who made it to the site. Announcements and invitations were presented at the Coastal Museums Association (CMA) meetings and through its list-serve. CMA members include a number of

entities whose missions and audiences target African American history and heritage. An African American independent writer who provides articles for the website "Diverse: Issues in Higher Education" did visit the site. The website states, "*Diverse: Issues in Higher Education* stands alone as the only source of critical news, information and insightful commentary on the full range of issues concerning diversity in American higher education". The writer interviewed the Public Archaeologist and participated in a site tour, as well as a custom private tour. The writer posted an article on that website detailing the African American component at 9CH1205 (Brown 2013).

Back-end outreach may provide a better opportunity for reaching the descendant community of 9CH1205. Back-end outreach is public outreach done following fieldwork and after large amounts of data have been processed and interpreted. Anecdotal evidence suggests that many African Americans may not be interested in visiting excavations of plantation sites where African Americans were held in slavery. One possibility to engage African American audiences may lie in sharing with them the material cultural of nineteenth-century African Americans as revealed through archaeology. Joseph (1993a) has found this to be an effective way of engaging such an audience during his work at the Springfield Site in Augusta, Georgia. The message of discovering Gullah/Geechee culture may resonate better than a focus on enslavement. There may be opportunities to explore this possibility through presentations to African American church congregations and other suitable venues.

Another back-end outreach effort targeting a wide audience, yet taking special care to include the African American community, is the children's book created about the site as part of the GDOT archaeology contract. The book is discussed in detail elsewhere in this section. It is mentioned here, however, because the female protagonist is a strong, young African American girl named Enitan. One-half of the book is devoted to her story as it relates to historical and archaeological information from Site 9CH1205. The book touches on African Yoruba and Gullah/Geechee cultures, in addition to historical events that not only shaped her life, but that were shaped by the actions of African Americans.

PARTNERSHIPS

Prior to the initiation of tours, Elliott began contacting entities within the community that had potential to be interested in a mutually beneficial partnership. This included the immediate geographical neighbors of the site, a Parker's Convenience Store, the Trellis Apartments, and Brasseler USA. Elliott contacted Mr. Greg Parker, of Parker's Convenience Stores and began a dialogue with him and later with two members of the public relations firm working for Parker's about the possibility of a partnership, offering several ideas to promote both the site and the

neighboring store. Ideas included offering coupons to people who toured the site for discounts to select merchandise in the store, cross-linking Parker's website and the web and Facebook sites for the data recovery, promoting the site tours on convenience store marquees, and allowing site access through the Parker's parking lot via a proposed curb ramp. While not all these ideas materialized, the critical one of site access did become a reality.

Prior to this, New South had begun a discussion with the Trellis Apartments, and both entities were already engaged in a mutually beneficial arrangement for site access and crew housing. Elliott and other New South Associates staff joined the conversation to expand the dialogue to include the public component of the project. The Trellis Apartment staff was extremely excited and interested in this aspect of the project and provided much appreciated assistance. They offered access to the apartment picnic area adjacent to the site to set up the ArchaeoBus while it was at the Abercorn location, and they promoted the site tours by distributing the promotional flyer to every apartment resident as well as posting it on the apartment's website. Trellis staff took one of the first public tours in order to learn about the site and be able to share the information with apartment residents. The Trellis Apartments also provided a batch of bottled water to distribute to visitors.

Elliott contacted Brasseler USA, which is a corporation that neighbors the site. Brasseler posted site tour flyers within its building and several employees participated in tours. The corporation also allowed site egress through its parking lot for elementary school and college students on field trips. This was especially important on days when back-to-back tours of large groups of students would have created a bottle-neck if the same entry and exit areas were used.

SITE COMPONENTS

INTERPRETATION

All aspects of site interpretation for the public revolved around recognized standards in the interpretive profession. These best practices were established initially with the movement to conserve natural resources in the 1800s, then expanded on throughout the nineteenth, twentieth, and twenty-first centuries. Such practices are championed by the National Association for Interpretation. The interpretation at 9CH1205 incorporated aspects from Tilden's principles (1957) and Beck and Cable's (1997) expansion of Tilden's work.

Those composite 15 principles can be summarized as follows:

- sparking interest and relevancy in the visitor; relate interpretation to the visitor;
- using information as a gateway to deeper meanings; information is not interpretation;

- using the interpretive story as a way to inform, entertain, and enlighten;
- inspire and provoke to broaden horizons;
- present complete themes; present whole rather than parts; address the whole person;
- use fundamentally different approaches with children;
- enliven the unique history of a place to make the present enjoyable and future meaningful;
- incorporate technology with foresight and care;
- use focused, well-research interpretation; consider selection & accuracy/quantity & quality;
- use honed communication techniques, knowledge, and skills;
- in text, use knowledge and humility to address what readers would like to know;
- design a program capable of attracting support (i.e. financial, volunteer, attendance, social media following, etc.);
- instill the ability and desire to sense beauty in surroundings, uplift and to encourage resource preservation;
- promote optimal experiences through intentional, thoughtful program and facility design; and
- use essential ingredient – passion- for the resource and for the visitor, for powerful and effective interpretation (Brochu and Merriman 2002:24–29).

Interpretation at 9CH1205 also used Ham's (1992) guidelines to interpretive communication, in that it should be enjoyable, relevant, organized, and have a theme.

In addition to the cognitive and emotional needs answered by the various interpretive principles above, site outreach also addressed the physiological needs of the visitor. Maslow's Hierarchy of Needs examines important aspects of human nature related to public outreach, including the basic needs of safety and comfort to achieve a peak experience (Maslow 1954). These latter needs were addressed at the site by reminding visitors in flyers, promotions, on the web and Facebook sites, and in emails to wear closed-toe shoes. Access was enhanced by the public archaeologist, who made paths through the woods and removed fallen limbs and other tripping hazards daily. Insect repellent was available for visitors when they first arrived on site and throughout the duration of the tour. Chairs were available at the entrance for visitors arriving early for a scheduled tour. A porta-potty was rented and placed near the entrance gate, along with hand sanitizer, since the site was a wooded area with no facilities. Archaeologists placed an archaeology banner and parking signs in key places to cue the visitor to the parking and entrance

areas. Archaeologists purchased gravel and installed a curb ramp so that visitors could access the parking area more easily. Interpretive signs were created and installed next to the entrance, but facing the parking lot. The three signs provided context and logistical information for those arriving for a tour as well as those coming to the site when it was closed.

SITE TOURS

Tours were designed to be both site-specific and to provide the public with an overview of preservation issues in archaeology. The range of content and the large scale of the site (20 acres) resulted in the design of a 90 minute interactive tour that encompassed up to seven "stops" throughout the wooded area. Tour topics included information on why archaeology was being done at that particular location, the role of GDOT and federal law, the information gathered because of these site protections versus the surrounding developments that didn't have archaeological investigation, brief background about the three phases of archaeology on the site, an overview of the history of the landowners and site use, the significance of features and other clues in the soil, the meaning of stratigraphy, destructive events on archaeological sites, scientific field and lab techniques incorporated by archaeologists, soil analyses, site protection and preservation (on both a general and local level), and curation and its importance.

The tours were delivered in informal conversational style, using question-and-answer techniques to engage the audience. Laminated 11x17 color "flashcards" helped illustrate points throughout the tour, such as aerial images of the site and surrounding modern land development, historic maps showing structures and landscaping features that once existed in the area, and images of archaeologists using remote sensing equipment and the computer generated results of this work conducted prior to the initiation of tours. Tour participants saw and touched examples of "typical" artifacts recovered on the site, along with ones representing specific periods of site use. While many of the stops on the tour were standard, some changed throughout the fieldwork as archaeologists shifted to different parts of the site and uncovered new examples of various feature types. This was fortuitous from a public outreach aspect because it kept portions of the tour novel and encouraged visitors to come back to the site to see new discoveries. Repeat visitors again followed the entire tour in order to see the new discoveries, giving them the added benefit of hearing the background and preservation content of the tour again. Since most of the information on the tour was foreign to virtually all of the visitors, this repeated exposure served a very good purpose in helping the information and salient points "sink in". Tour visitors were invited to sign the guest book as a way to help them feel connected to the site, in addition to helping archaeologists evaluate visitorship, such as the number of visitors and their affiliation. It is estimated that names and/or headcounts recorded after each tour by Elliott in the book reflect 98 percent of actual participants. Almost every tour group was photographed for posting in the

visitor albums on the site's Facebook page. Visitors were first asked their permission to take and post photos. Those who did not wish to participate were not included. The majority of the tours included an on-site visit to the ArchaeoBus. This is described in greater detail below.

An ambitious tour schedule was established in an effort to maximize public reach. The 90 minute tours were offered four times a day, at 8:30 and 10:30 a.m. and 12:30 and 2:30 p.m. The 8:30 time slot was the least-visited. Retirees and some "early-bird Moms" and others took advantage of these tours and were rewarded by few crowds. The public was encouraged to "drop-by" for tours during any of the designated times. Groups of 11 people or more were encouraged to make a reservation with the Public Archaeologist in advance by email, Facebook, or telephone. This was done to enhance the tour experience by avoiding multiple large groups on a single tour. Generally, group visitors were very good about making reservations in advance. The combined nature of drop-by visitors and those with reservations meant that tour groups ranged from no visitors to 30-40 or more participants at a time (Figure 181a).

New South established a work week of Tuesday through Saturday in an effort to provide tour opportunities to people who worked during the week. Saturdays were the most popular, followed by Fridays and then almost equally by Wednesdays and Thursdays. Tuesdays averaged the smallest number of visitors (Figure 182). Figure 182 shows visitorship over time, from March 12-May 11. The extremely irregular peaks and graphs is a true reflection of how varied visitor totals were by day, as drop-by guests were a daily unknown until tour times arrived.

Regardless of the sharp peaks and valleys of the graph, some patterns do emerge. The initial flat line shows that in spite of a great deal of promotion and advertisement, visitorship did not substantially increase until word-of-mouth spread from visitors to others, and through media, Facebook, and the expansion of tour reservations by the public. Some of the earliest weekday peaks (in late March and early April) is attributed to Spring Breaks at area schools, when many students and families came to the site. Two extreme dips in the middle of the project are explained by rain days when fieldwork was cancelled and/or rainy, uncomfortable weather when archaeologists worked but the public did not venture outside. The final extreme, and greatest, peak represents large groups of elementary students visiting following the completion of mandated testing (CRCT) in their schools, as well as the realization from the public that this was the final opportunity to visit the site.

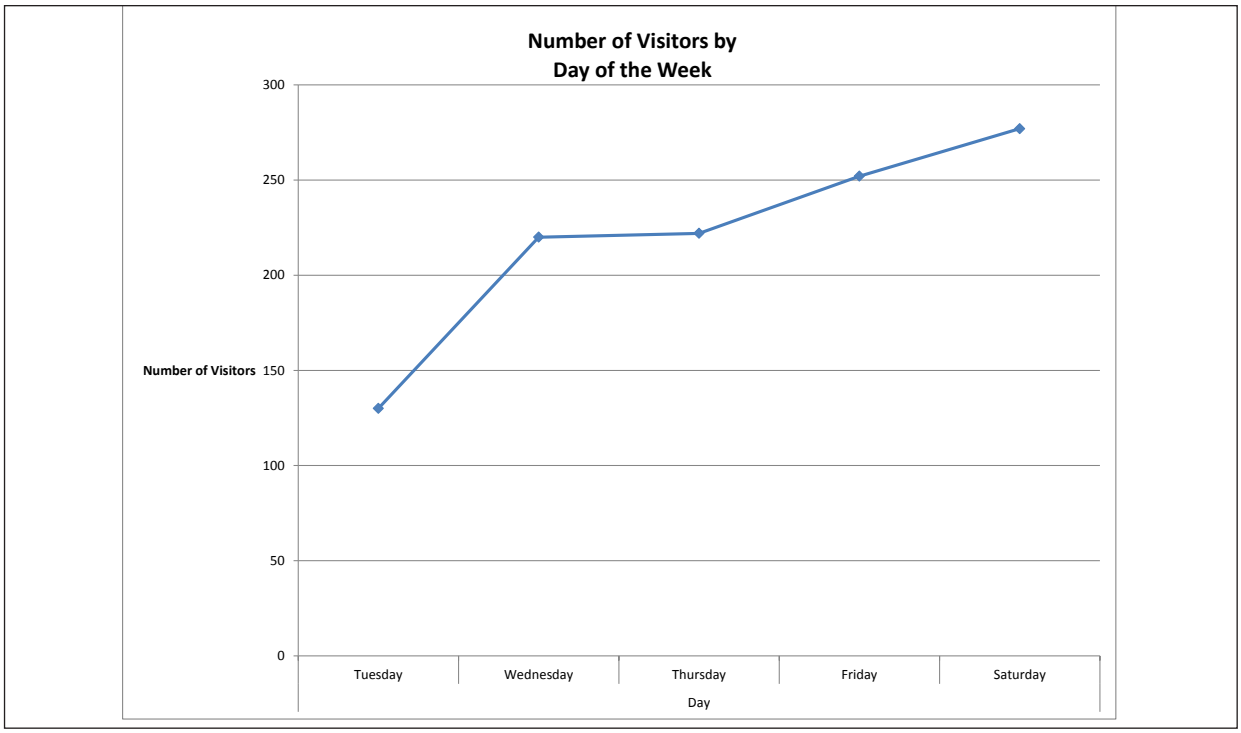
Generally, most visitors were not versed in archaeological and preservation issues and their level of knowledge could be termed novice or beginner. A handful of visitors included archaeologists and preservationists with high to moderate levels of knowledge on the subject. While personal information was not requested, anecdotal and guest register book information indicates that

Figure 181.
Photographs of Tours of the Site

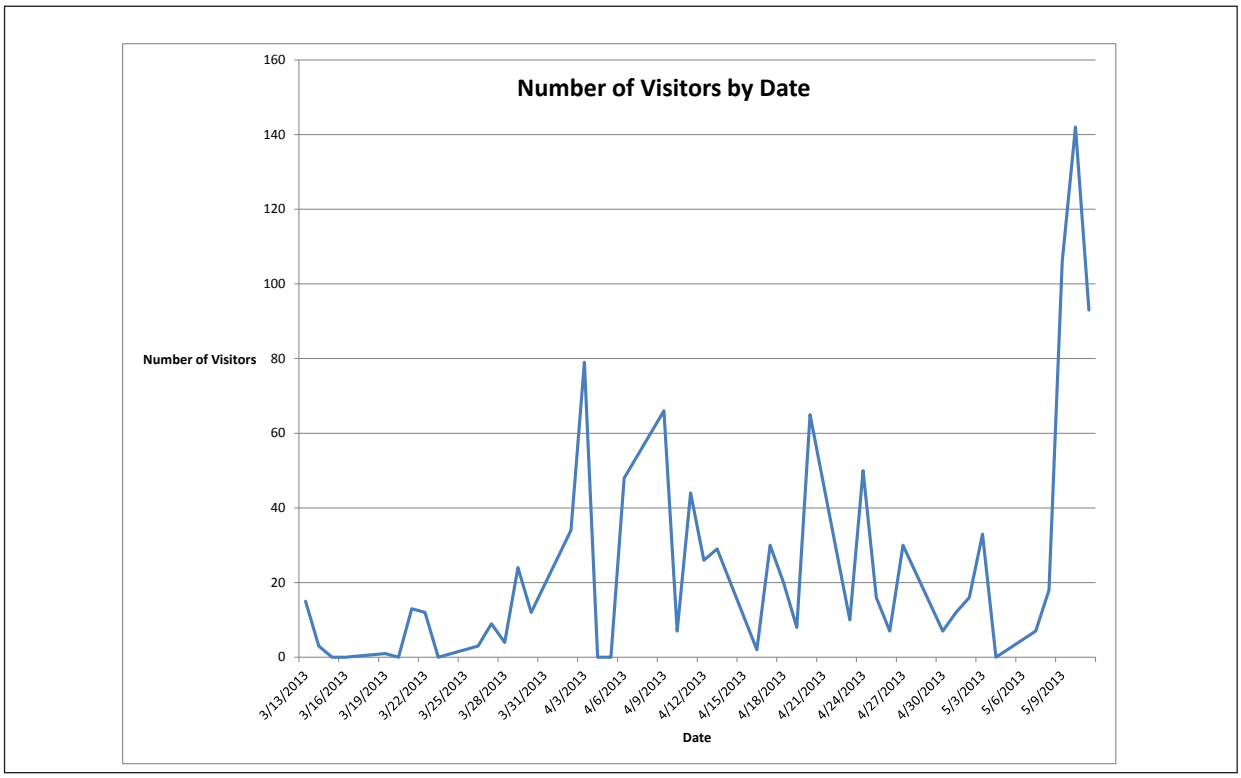
A. Tour Sizes Ranged from One or Two Individuals to Groups of 40

B. Tour Participants were Diverse Members of the Public

Figure 182.
Visitor Statistics



A. Visitors to the Site by Day of Week



B. Visitors to the site by date

people with a range of backgrounds and experiences visited the site. Visitors included neighborhood residents, City of Savannah and Chatham County staff and employees, homeschooled students, elementary school students, college students, members of museums and historical organizations, Girl Scouts, Boy Scouts, Federal agency staff, employees of private corporations, journalists, and members of the armed forces.

Tour participants reflected a range of diversity in age, ethnicity, geographic origin, gender, occupation, learning styles, and knowledge base (Figure 180b). Age range included 6 months to octogenarians. Caucasian, African American, Hispanic, Asian, and likely other ethnicities were present. Men and women participated. Visitors came from the local Georgetown community, from within the city limits of Savannah, from outside of the city but within Chatham County, from neighboring counties, from elsewhere in Georgia, from other states, and from other countries. A few memorable visitors from other states and countries included tourists from Iowa, and Massachusetts, as well as one from Montréal, Canada, and emigrants from the Dominican Republic, Russia, and Korea. Out of state tourists can be attributed to the tourism industry in Savannah and the presence of nearby military bases and an art college of international repute.

Some visitors identified themselves as associated with the following entities: Brassler USA; City of Savannah (Engineering Department, Information Technology, Permit Specialist, and Research Library and Municipal Archives), Coastal Georgia Archaeological Society; Coastal Heritage Society; Georgia Department of Natural Resources (Coastal Resources Division); the Georgia Historical Records Advisory Board; Savannah Ogeechee Canal; and the Trellis Apartments (staff and residents).

Group Tour reservations were made for city, county, state, and federal agencies. Tours arranged by the Chatham County-Savannah Metropolitan Planning Commission (MPC) included participants from the Chatham Area Transit, Chatham County Department of Engineering, Chatham County Historic Preservation Commission, Chatham County Resource Protection Commission, the Coastal Georgia Greenway, Coastal Region Metropolitan Planning Organization and Citizens Advisory Committee, Georgia Conservancy, Historic District Board of Review, and members and staff of the Metropolitan Planning Commission, itself. The first group tour of the project was arranged for Georgia Department of Transportation staff and their contractors/consultants for the Abercorn project. Another tour included staff from the U.S. Army Corps of Engineers, Coastal Branch Regulatory Division.

Group Tour reservations also included homeschool, elementary school, and college students. Homeschool students generally visited the site in groups containing fellow homeschool students, friends, and family members of all ages and most often including mothers. Homeschoolers also visited as part of larger homeschool consortiums entities, such as Independent Learning

Network, and "Classical Conversations". Two groups of students from local schools included Georgetown Elementary (76 students and 10 chaperones) about three miles from the site, and Charles Ellis Elementary (120 students and 10 chaperones) in Savannah. Students from each school visited the site en masse. Smaller groups of students also visited. These included 17 students with nine teachers and chaperones from Hancock Day School in Savannah. A total of 14 seventh and eighth grade students and their chaperones visited from Savannah Adventist Christian School in Pooler.

Students in 10 undergraduate and graduate courses toured from three universities, including Armstrong Atlantic State University (Anthropology 1102 –two classes, and an Introduction to Archaeology class), Georgia Southern University (Field Methods in Archaeology class), and the Savannah College of Art and Design (Architectural History in Savannah, Preservation Philosophy and Criticism, Preservation Planning in the Built Environment, Preservation Law and Advocacy, Introduction to Historic Preservation, and Preservation Law classes). Other group tours included family or friends who happened to number more than 10 people, as well as groups of Boy Scouts (Troop 7 and Pack 10), Girl Scouts (Troops 30305 and 30593), and three tours arranged by the Metropolitan Planning Commission (Figure 183a). The commission hoped to encourage City of Savannah and Chatham County policy makers, city employees, managers, staff, and others to visit the site.

Some of these tours resulted in interesting activities. Twenty members of Boy Scout Troop 10 were invited back to the site for supervised excavation activities related to additional requirements to complete their Boy Scout Archaeology merit badge. One member of Girl Scout Troop 30197 created an Archaeology badge designed using the "Create Your Own" troop badge. She came on several tours, interviewed the site's public archaeologist, wrote a summary of the project, devised a hand-out with 14 questions for other scouts to complete to earn the badge, brought other Girl Scouts to the site, and made the artistic design for the badge (Figure 182b).

ROUND ROBINS

Reservations of large groups of school students (76 and 120 per tour) necessitated a different tour model than the 90 minute walking tours with small groups of 30 participants or less. A Round Robin program was devised that would accommodate up to 120 students at a time, in groups of 30 each. Timing was critical, as the tours needed be contained within the 90 minute window to accommodate the school's time frame for the field trip and travel. Originally, 90 high school students from a third school in an adjacent county were also scheduled to visit but had to cancel.

Figure 183.
Boy Scouts and Girl Scouts Participation at Site

A. Local Boy Scout Troop Participates in a Tour

B.
The Abercorn Archaeology Site
Girl Scout Badge

Archaeologists established four Round Robin stations paired at two key locations on the site. These were close enough together to walk between in three minutes time, but far enough apart to keep groups and noise separated. Establishing four groups/stations meant that there would be a maximum of 30 students in a group (the very upper end of practicality) and each group would have 18 minutes at a station. This left 18 minutes for arrival, grouping, walking between each station, and departure. Fewer than four groups meant too many students in each group and more than four groups would have reduced the already short time at each station to less than 18 minutes. Round Robin stations consisted of: Context, Mapping, Sifting, and Lab (Figure 184).

The Context Station provided an overview of archaeology, a brief history of the site, exposure to features as clues to the past, and an introduction to artifacts and curation. The Mapping Station allowed teams of two students each to learn and practice mapping skills, such as locating and examining extant landscaping features in real life and on a historic map, pacing distances, using a compass, and making a legend. At the Sifting Station, students worked in teams to screen plow zone soils, recover artifacts, and bag them for the lab. The Lab Station was divided into two sections. One contained a variety of hands on interactives borrowed from The Society for Georgia Archaeology's ArchaeoBus, such as a 3D ceramic puzzle, ethnobotanical ID games examining palynology, archaeobotanical study and phytoliths, and American Indian artifacts and pottery design stamping. The other section of the Lab Station was a directed activity in which students learned about the innate value of artifacts from an archaeological perspective. This was done with a penny activity in which students participated in a guided brainstorming session about clues on artifacts.

In spite of the "down to the wire" timing of the Round Robins, and issues with some bus drivers not dropping off or picking up students at the designated locations, the sessions went remarkable well. Students, teachers, and chaperones were very engaged, appeared to be learning new content, and spoke favorably and enthusiastically about the fieldtrip. Key elements to its success included prior communication with the lead teachers for the field trips, prior preparation of the site and stations, attentive and able Station Leaders (archaeologists from the project and the lab crew), and timing (through the use of a disposable air horn operated by another archaeologist to signal rotation times throughout the Round Robin sessions). Happily, several students with physical disabilities, including blindness and an agility disorder, also were able to participate in the Round Robins in spite of the wooded and uneven terrain and excavations.

ARCHAEOBUS

The Society for Georgia Archaeology generously allowed the pro-bono use of its ArchaeoBus for much of the duration of the project. Logistical issues precluded its use for the entire span of fieldwork. The ArchaeoBus was on site for seven weeks, and several of its "tent activities" were used for an additional two days. The ArchaeoBus served as a successful addition to the outreach

Figure 184.
Activities at the Site for Tour Participants

A. Round Robin Activities Included Context, Mapping, Screening, and Lab

B. Learning about Artifacts and How They Connect with the Past

efforts by providing hands-on archaeological activities for children and adults. This kinesthetic addition was a particularly engaging addition to the tours, and the activities inside the bus and outside under the tent served to reinforce archaeology and preservation information delivered on the tour in a fun, interactive, and colorful way. The presence of the bus on site served to promote The Society for Georgia Archaeology, which is a significant internet resource for visitors to the site who wanted more information about site preservation and archaeological education in Georgia.

The Trellis Apartments graciously allowed New South Associates to park the ArchaeoBus in a shady picnic area immediately outside the fenced perimeter of the site (Figure 185). Archaeologists had a gate installed in the fence at the path from the site to the picnic area. Archaeologists erected a tent and tables inside the fence for the bus' outdoor activities. This enabled the activities to be secure behind the locked gate throughout the day, even when tours were in progress elsewhere across the 20 acre site. The location of the ArchaeoBus nearby in the picnic area enabled visitors at the end of the tour to walk the short distance to the bus after trying the tabletop activities. The bus location allowed it to be plugged into an apartment building outlet and set up daily, while being locked between tour visits. The location was ideal due to its proximity to the site, view of the bus from both the main road and by residents within the apartment complex, location in a shaded area, and proximity of picnic tables for students following field trips to the site. This was a one of several valuable contributions made through the partnership with the Trellis Apartments.

INTERPRETIVE SIGNAGE

New South staff, including historians, production directors, editors, graphic specialist and designers, archaeologists, and administrators created the three interpretive sign panels for the site. These were printed on weather-resistant, exterior materials and mounted on iron posts. Sign topics included "Archaeology Under the Live Oak", "History of the Abercorn Site", and "The Civil War Comes to Georgetown". The first provided a brief context for the archaeology work at the site, logistical information about the tours, website, and Facebook page, and an invitation to take a tour. Signs included text, images, period maps, and decorative graphics. The signs provided an overview for visitors arriving prior to tour time, additional details not mentioned in the tour, and allowed information to be readily available to visitors stopping by the site when archaeologists were not working and the gate was locked.

SOCIAL MEDIA

Public outreach included two aspects of social media, a website and a Facebook page. These were designed specifically for the project. Discussion among New South archaeologists and GDOT staff determined that the name used for the site on outreach materials would be the

Figure 185.
Society for Georgia Archaeology's ArchaeoBus, Conveniently Located for Site Interaction

"Abercorn Archaeology Site" in lieu of the official state site number of 9CH1205. The former would be more readily identifiable, more "public-friendly" and more memorable than the latter. This discussion set the tone for the public outreach initiative that was informative, yet jargon-resistant. The website at www.abercornarchaeology.org contained an overview of the project and the history of the site. It had a link to the Facebook page with the same name. The Facebook page offered an opportunity to provide new information about the site. Postings were made approximately every 2-4 days and old posts were available to be viewed on-line. Photograph albums were designated that included photos (by permission) of visitors touring the site as well as an album for timeline photographs appearing on the main page. Initial posts by New South Associates staff provided background information, such as a YouTube video overlay of historic maps onto the project area as well as an overview of remote sensing techniques used on the project prior to tours.

Once excavation was underway, Facebook activity increased. Elliott made posts that included photographs and text about fieldwork, features, artifacts, and discoveries. A contest to "Name the Tree" was created. New South's marketing coordinator put up related posts, encouraging viewers to submit suggestions to name the 400-year-old oak on the site. He also created a ballot for the most popular suggestions generated and viewers were invited to vote on their favorite name. The name Oaklethorpe (a play on Savannah's founder James Oglethorpe and the word "oak") won. Interestingly, the contest generated interest among Facebook readers (with 1,790 page viewers), although fewer than 20 people actually submitted names or voted in the election. Another popular posting concerned the creation of a badge by a Girl Scout visiting the site. More than 1,084 people saw this post, many from repostings on other internet sites. Elliott established a "Before and After" series showing features in plan view prior to excavation and photos during and after excavation, often including artifacts or feature drawings as well. The Abercorn Archaeology Site Facebook page was maintained and posts made throughout the laboratory phase of work as well as other post-fieldwork aspects such as additional research, report writing, other outreach activities, and curation efforts. The largest number of page views per week, as of June 4, 2013, was 1,664 unique viewers who saw content associated with the Abercorn Archaeology Site Facebook page.

CURRICULUM DEVELOPMENT AND CREATION

Outreach components of the Abercorn Archaeology Site project included the development of a 4th grade curriculum for educators. The curriculum uses the site and its archaeology as the focal point of multi-disciplinary activities that teach Georgia state-mandated standards and higher order thinking skills. Ten activities allow students to investigate archaeology-related items while learning science, social studies, math, art, and English/Language Arts. The curriculum addresses

different learning styles and provides resource information about archaeology and preservation for educators. A certified early childhood educator will review the curriculum and provide comments. Fifty copies of the curriculum are slated for printing and distribution.

CHILDREN'S BOOK DEVELOPMENT AND CREATION

One unique outreach component of the project is the creation of a children's book based on the site and its archaeology. The book is aimed generally at an 8-year-old audience and falls roughly into the category of an "Easy Reader" book. The 25-page book was written by the Public Archaeologist and is fully illustrated by Carol Schwartz, a professional children's book artist. The historical fiction book is actually two stories in one. The stories can be read independently, but when both stories are read the interconnection between them becomes apparent. The first is the story of Enitan, an African American girl living in the site's village where other African Americans enslaved on the plantation reside. The story touches on African and Gullah Geechee culture as well as local and national historical events. The second story begins behind the opposite book cover and is printed upside down to the first story, with the last page of each book resting back-to-back. The second story details the exploits of Vicenté, the son of an archaeologist who works with the crew excavating the Abercorn Site. Vicenté discovers Enitan's story in the archaeology and interprets it. The magnificent 400-year-old oak tree that still lives on the site also links both stories. A certified early childhood educator, a certified children's librarian, several children, and others will review the draft and provide comments. There will be 150 copies of this book printed for free distribution across the State of Georgia, with distribution beginning at the public and elementary school libraries of the Chatham County area.

PUBLIC OUTREACH SUMMARY

Public outreach was an important component of the 9CH1205 data recovery. Outreach efforts included on-site events during fieldwork, as well as indirect opportunities through social media before, during, and after fieldwork, and post-project educational materials such as a curriculum and a children's book. In terms of numbers of the public reached, messages perceived, awareness levels raised, opportunities presented, and variety of mediums used, the outreach can be termed successful. In spite of this success, there were challenges during the project and opportunities for future improvement through the lens of hindsight.

One over-arching challenge to the outreach was making the public aware of opportunities for site tours and for relevant information available on the Internet. In spite of a concentrated media blitz through a variety of venues aimed at many different audiences, many people remained unaware of the project and outreach opportunities. The challenge for this and other such projects

continues to be, "How do you reach people in a society inundated with advertising, marketing, and an abundance of educational and leisure time activities?" Another challenge was reaching descendant communities. While outreach efforts also specifically targeted African American audiences in the region, the results fell short of anticipated outcomes. A one-on-one invitation to specific individuals, such as community and religious leaders, may have resulted in more awareness and participation.

Many factors contributed to the public outreach successes enjoyed by the project. Physical factors were favorable, such as:

- site logistics, including accessibility to major transportation arteries and public transit;
- proximity to schools, universities, local communities, and tourism destinations; and
- proximity to a major population center and residents in surrounding counties.

Other positive factors included a lengthy window of time to establish tour opportunities and a dedicated portion of the project budget to provide tailor-made outreach. GDOT's genuine interest in facilitating public outreach enabled archaeologists to produce meaningful opportunities that successfully engaged many audiences. Assistance from GDOT staff, especially archaeologist Pamela Baughman, was particularly helpful in developing and implementing outreach activities. GDOT historian Madeline White and district communications officer Jill Nagel also contributed to the success of the outreach components.

The successes, challenges, and "lessons learned" during public outreach at 9CH1205 result in the following recommendations for future consideration on sites with similar characteristics.

1. Ninety-minute structured tours provide a greatly needed, in-depth look at the benefits of archaeological investigations far beyond the "what artifacts are you finding" mentality (as opposed to informal public visitation where individuals ask questions and/or watch archaeologists work.)

2. Promote, promote, promote! Advertise outreach opportunities through as many venues as possible, especially ones with large "trickle down" audiences (including blogs, web sites, web calendars).

3. Use "full-spectrum" interpretation, covering everything that occurs before and after fieldwork, in addition to fieldwork itself (including research designs, historical research,

remote sensing, fieldwork, lab analyses of various types, report writing, curation, and outreach).

4. Incorporate visuals, hands-on materials, examples, multi-sensory aids, and other tangibles in outreach (such as color "flash cards", artifacts, stories, round-robins, and the ArchaeoBus).

5. Employ social media heavily as a way to share information and promote "ownership" (such as a Facebook page and web site page).

6. Find alternate, personal means of reaching hard-to-reach audiences (such as personal phone calls and conversations with those recognized as leaders in the targeted audience).

7. Do not skimp on outreach planning before, during, and after the project (such as logistical planning, accessibility, tour arrangements, and physical amenities).

8. Employ multiple and diverse outreach activities that will include various audiences before, during, and after the project (such as tours, social media, curriculum, and children's book).

9. Gather and consider input about outreach activities from a variety of individuals and staff associated with the project (project staff, client staff, educators, and relevant parties).

10. Connect outreach activities to relative tangents whenever possible, to target and engage a wider audience (such as annual celebrations, community activities, and social calendars).

Outreach resulting from the 9CH1205 project will continue to serve the public far into the future, through the information recovered, as well as through long-lived outreach products such as the curriculum and children's book.

XVI. CONCLUSIONS

Brad Botwick

This data recovery produced insights into the lifeways of African Americans living in Georgia's Lowcountry under slavery as well as after Emancipation. Site 9CH1205 was unique in some respects among plantation sites because of its proximity to the City of Savannah and for being a slave settlement located away from the plantation house. The continued occupation of the site after Emancipation provided information about continuities and differences on either side of this significant historic event. The site was also involved in two important historical episodes: the 1864 Union Army attack on Savannah and the 1869 "Ogeechee Insurrection." Scattered military artifacts reflected these events, although archaeology provided little new information about them.

The study focused on a variety of questions concerning aspects of plantation life and how it changed after Emancipation. Historical research was chiefly concerned with the site's chronology, but short of determining a chain of title and historical land use, little could be found concerning its African American residents, either before or after Emancipation. The archaeological investigations, however, resulted in some new information about the people living at the site and contributed to interpretations about the lives of African American slaves and freedpeople, as well as aspects of Gullah/Geechee culture. Additionally, the study involved a mixture of investigation techniques and exposed strengths and weakness of these that can be taken into account in future research designs. A final outcome of this work included suggestions for additional study.

RESEARCH CONTRIBUTIONS

The investigations produced a number of conclusions concerning the site's inhabitants that are intrinsically interesting and that bear on broader topics in African American archaeology in the Lowcountry. An important finding was the variation in architecture at the site. Slave housing is typically characterized as uniform, and there were indications that a single plan was imposed on the site later in its history. However, archaeological data indicated that a minimum of two or three different construction types were in use and possibly overlapped in time. A related finding was the late use of African-derived designs and construction methods. Wall trench houses, in this instance with an indeterminate wall material, are most often associated with colonial era sites. The example at 9CH1205 appears to date to the first decades of the nineteenth century and possibly to just after a period when slaves were imported directly from Africa (1803-1808). The

structure thus indicates the variation that might be expected at individual sites, and serves as a reminder of the development of African American culture, which evolved through periods of stability and infusions of new traditions from Africa.

The data recovery also produced evidence for changing organization of the settlement. Early on, the settlement appeared to follow a loose grid with houses situated at irregular intervals and in no particular arrangement. Following Crook (2008), this arrangement is thought to reflect a system in which the planter designated a location for the slaves to establish the quarter, but let them lay out the settlement as they chose. Crook (2008) believed this reflected an incipient Gullah/Geechee cultural preference. After about 1840, the organization of 9CH1205 changed to a linear format consistent with a more traditional plantation layout. This change, which coincided with the addition of different architectural forms and new ownership, could reflect either the dictates of a new owner or the preferences of a different slave population. There is evidence that following Emancipation, at least one new house was built at the site, and was placed in a location that was consistent with documented Gullah/Geechee residential compounds, a more organic and irregular settlement pattern that emphasized clusters of houses on a single property with shared yards (Brabec and Richardson 2007). Though instances of this pattern were documented by the first part of the twentieth century, the findings at 9CH1205 imply that the cluster settlement system may have emerged soon after Emancipation.

Moreover, analysis of yard areas and residential land use suggested the existence of communal yards during the antebellum period. Although not conclusive, there appeared to be potential overlap of activity areas between early Loci 3 and 4, as well as possible shared space associated with the duplex house in Locus 2. If this interpretation is correct, it indicates patterns of behavior that are associated with twentieth-century Gullah/Geechee landscapes already existed within slavery. In the organization of houses and yards, therefore, the site's inhabitants appear to have trended toward their own preferences where they could. In some cases, houses were set in clusters or loose grids, while at other times a—probably—planter imposed linear arrangement was in place. Within this forced plan, however, African American site residents still organized outdoor activities in communal yards.

The results of the landscape study also demonstrated the benefits of large-scale excavations at African American sites. Prior research in the region has often proceeded with testing or small block excavations that uncover, at most, individual structures without exposing the contiguous yards and activity areas. Although machine stripping of plow zone has drawbacks (see below), investigation of large areas, including zones of occupation and activity as well as relatively clear areas, can provide important information on the organization and use of space at the household and settlement levels.

The research also provided information about the numerous ways enslaved African Americans participated in formal and internal economies, both as producers and consumers. The proposed approaches to addressing this issue relied on the discovery of Colonoware ceramics, which were not present at the site, and economic scaling of English-made refined ceramics, which appears to have limited usefulness for analysis at sites such as this (see below). However, taking an approach that emphasized contextualization of material culture yielded important information. In the case of 9CH1205, artifacts associated with sewing suggested the possibility of craftwork that could be sold or exchanged. Similarly, the realization that Lowcountry slaves engaged in animal husbandry, and especially raised horses, cast the discovery of a currycomb and possible bridle part in a different light.

Questions relating to ritual or similar behavior were also addressed through contextualization of artifacts more than through direct observation of cultural features or deposits. At least two artifacts, a pierced coin and a brass hinge inscribed with an "X" almost certainly reflect African American folk beliefs or folk medicine. Other artifacts that could have such associations, such as precontact artifacts and glass beads, were not found in archaeological contexts that could conclusively indicate their use for ritual purposes, if any. However, the fact that these kinds of items have been found in such situations at other sites, combined with the pervasiveness of religion and magic in Lowcountry African American culture (Bailey 2000; Wilkie 1997), suggests at least the possibility that some of these objects operated in these spheres.

These last two topics indicate the strength of contextualization in African American archaeology. Sites such as 9CH1205 often do not produce data suitable for broad comparative or statistical analysis. However, the development of detailed general and specific contexts can help illuminate the functions and meanings of individual and groups of artifacts (Muraca et al. 2011).

Artifact patterning, while producing inconsistent results, revealed apparent changes in the economic circumstances between the antebellum and postbellum periods. The most notable finding of the artifact patterns was that depositional units with clear antebellum dates seemed to have a richer artifact content, manifested by high frequencies of kitchen group to architecture group materials. Excluding faunal materials, the kitchen group is composed mostly of mass produced ceramics and glass, suggesting that slaves had relatively easy access to these materials. After Emancipation, the frequencies of kitchen group artifacts dropped significantly. This suggested three possible explanations: first, the economic situation of freedpeople put these materials out of reach; second, they were cut off from access to these materials as a form of segregation imposed by whites; or third, they deliberately withdrew from markets as consumers as part of a broader retreat from participation in postbellum labor and economic activities. Singleton (1985) found similar patterns further south and the question of how freedpeople interacted with the broader economy in this region is worth studying further.

A final contribution of this study was the discovery of possible economic differences between one occupation locus of the site and the others. Certain artifacts associated with a duplex structure (Locus 2) that was built during the antebellum era but occupied into the later nineteenth century implied that the residents of this house had access to or emphasized acquisition of higher quality goods. In particular, indications of finer clothing and a greater use of tobacco were noted. Although this evidence can only suggest tentative conclusions, it serves as a reminder that even in an isolated slave settlement, African American society was not monolithic and that many interests, ambitions, and objectives prevailed simultaneously.

EVALUATION OF METHODS

The data recovery utilized a variety of methods and techniques with varying degrees of success. Evaluating these approaches provides a basis for making modifications to apply during future projects. The majority of these assessments deal with fieldwork procedures, while certain of the research topics are worth revisiting as well.

The principal fieldwork tasks were metal detector survey, geophysical survey, machine-assisted plow zone removal, and feature excavation. The combination of methods generated useful and productive returns in terms of guiding excavation and identifying occupation areas.

Block excavation revealed that the combination of metal detector survey and geophysical methods, in many instances, accurately identified the locations of significant cultural features and occupation areas. The two most prominent examples were excavation Blocks 5 and 8. Metal detector survey in the south-central part of the site indicated a relatively high number of metal railroad spikes and dense metal deposits in general, while the magnetic gradiometer delineated a large metal-rich scatter here (see Figures 25-26, 29; Table 13). Subsequent test units and excavation of Block 5 indicated this area was the location of an antebellum to postbellum house (Locus 1). The high incidence of metal identified by both metal detector survey and magnetometer probably represented the nails used for the house's construction, among other residues of this occupation.

In Block 8, situated in the east part of the site, metal detector survey accurately indicated a low incidence of metal in general, but encountered a strong individual signal that prompted further investigation by magnetometer and GPR. These devices revealed a large area of disturbed soil that excavation confirmed was a clay borrow pit (Feature 29) (see Figures 27-28, 31). Machine stripping of plow zone here produced few artifacts (the soils were not screened because of concerns that the disturbance could be modern and potentially hazardous), and therefore the metal detector and geophysical surveys yielded a large feature that would not have been found through shovel testing at standard intervals.

Finally, these methods revealed occupation loci in areas that were not fully exposed during block excavations. For instance, in Block 2, to the east of the large oak tree, metal detector survey indicated a nail concentration. Block 2, initially begun with hand excavation at the drip line of the oak, was later expanded with the backhoe to expose Feature 170, an antebellum-period storage pit. Magnetometer survey had indicated an anomaly in this general vicinity, while GPR encountered three buried objects interpreted as possible structure remains. The block excavation did not fully expose these because of their proximity to the large oak as well as other obstructions south of Block 2, but in combination, the nail concentration, GPR results, and presence of a storage pit suggested a structure was located east or southeast of the oak tree.

Results were more ambiguous in some instances. In Block 4, for example, the excavation results hinted that the metal detector and geophysical methods had encountered remnants of structures or activities, but nail concentrations and geophysical anomalies did not distinctly correlate to exposed features. Magnetometer Anomaly 2, representing a large metal scatter, however, partly overlapped the wall trench structure (Features 89/90). In addition, Magnetometer Anomaly 1 overlay several pit, post, and midden residue features associated with Locus 4 in the north end of Block 4 (see Figure 30). Finally, GPR Anomaly 58, a compact surface, coincided with a possible yard area. Metal detector survey indicated relatively dense metal deposits and a nail concentration in the Block 4 vicinity, further suggesting the presence of a structure. The metal detector and magnetometer results seem to indicate that the building or structural remains were spread out over a relatively large area.

These methods also produced results that were not borne out by excavation. Several magnetometer anomalies and a nail cloud were located in the northern part of the site. Excavation of screened test units and machine-stripped blocks (Block 7) produced no evidence of structures or activities (see Figure 32). To the west, geophysical methods identified Anomaly 4, which was characterized as a possible wall trench next to one of the younger oak trees. Metal detector survey here suggested a relatively barren area with respect to artifacts. Six hand-excavated 2x1-meter units (Block 6) intended to expose this anomaly confirmed low artifact densities and did not encounter any structural remains (see Figure 34).

In sum, the metal detector and geophysical surveys provided useful guidance for placing excavation blocks. The majority of hand and machine excavation took place in areas where these methods suggested the highest potential for structural remains, cultural features, and artifact deposits. Generally, locations where metal detector survey, geophysical methods, and shovel testing produced coinciding evidence for historic occupation were the most productive for cultural features and deposits. The likelihood of genuine cultural features being present declined if only one or two methods signaled their presence.

The geophysical and metal detector survey also yielded false positives and indefinite information on site structure and content, suggesting that data generated by these methods should be interpreted cautiously and that multiple lines of evidence yield the best results. Examples of false positives indicated by geophysical methods were Blocks 3, 6, and 7. Additionally, metal detector survey produced confusing results regarding the distributions of historic materials across the site. Although it showed the highest metal densities in the south-southeast portions of the site, which contained the historic occupation, it also indicated a widespread scatter of metal throughout most parts of the previously delineated and larger site boundaries. The distribution indicated by metal detector survey thus produced noise that made the site appear denser than it proved to be.

At the same time, metal detector survey provided information on the Civil War military component. Such sites are often difficult to identify through shovel testing and, as was the case with the Phase I/II survey, the presence of this component was not discovered until metal detectors were used. The use of this equipment is therefore warranted, but modifications to how it is used in future projects would refine its product. First, because metal detector targets were sampled (all non-ferrous items were collected, a 10 percent sample of ferrous artifacts were recovered), it would be useful to collect all targets so that positive artifact identifications can be made and the site's content and structure can be more accurately assessed. Second, metal detector targets should be treated like shovel tests and completely screened for systematic artifact recovery. This will ensure that metal items are considered in the context of associated artifacts and will account for isolated metal objects or concentrations of metal artifacts that are not associated with historic components.

More extensive controlled plow zone excavation is also recommended to obtain better information on spatial distributions across a site. This data recovery focused on feature excavation rather than artifact distributions. In retrospect, however, the site's shallow deposits could have provided important data on the use of space and historic landscapes, which was mostly inferred through sub-plow zone finds. Although plowing mixes artifacts vertically, artifacts tend to remain close enough to their original deposition areas to view spatial relationships. Some past activities, moreover, produce archaeological deposits that are manifested only in the plow zone (Muraca et al. 2011:4). Structures on wood piers or posts might yield nail concentrations in plow zone contexts that do not have associated sub-plow zone remains. This appears to have been the case at 9CH1205; no coherent structural evidence was found where metal detecting indicated nail concentrations. Midden deposits, likewise, might exist mostly in the plow zone, leaving only traces in the subsoil, as seen at 9CH1205.

Because horizontal relationships remain roughly intact in the plow zone, information on site organization can still be obtained. It is suggested that expanding hand-excavation and screening of plow zone in 1x1-meter units within larger blocks, and supplementing these with machine-

stripping would produce informative data. This technique has been demonstrated as a valuable approach to understanding site content and structure, and has become a common method in Chesapeake archaeology (Muraca et al. 2011:5). It would yield important data for studies of past landscapes and settlement on slave and freedpeople sites in Georgia. For the present study, hand excavation of plow zone was performed on a large scale only in proximity to the historic oak tree (Block 1). Again, the limited data on artifact distributions in the plow zone emerged as a concern only in retrospect. Nevertheless, this approach would have been helpful in understanding historic land use at the site. For instance, in characterizing the areas south and west of the early wall trench house (Feature 89/90) as a swept yard, having a clearer picture of artifact distributions would have provided stronger conclusions than could be drawn from feature locations and contents in this locus. For future projects, therefore, it is recommended that plow zone data should be taken into account and appropriate methods for sampling or recovering it should be considered.

This approach has certain limitations that also warrant consideration. First, plow zone deposits vary. Thus, a midden that has been plowed up, like any other feature, is more useful if it has a relatively discrete date. At 9CH1205, the plow zone artifacts from Block 2, associated with Feature 170/Locus 8, were therefore considered more useful than those associated with Block 1 (Feature 7/Locus 5), whose deposits appeared to span a period beginning in the antebellum era and ending after the 1860s. (Block 1 produced a large quantity of plow zone artifacts from controlled excavation but because other site areas were not handled this way, the plow zone samples were not suitable for discerning variation over space.)

Second, balance bewteen time and cost would be required. Hand-excavation of large areas takes longer than machine-stripping and potentially yields considerably more artifacts to handle. Because research objectives should guide the methods used for data collection, thought must be given to whether the data recovery objectives merit the added time and costs of this approach.

For the analysis, one approach in particular, CC index values, appeared to have the least usefulness for studies of African American slave and freedpeople sites. This analysis seems to apply best in cultural situations where specific households used refined earthenware ceramics for social displays. There is currently no evidence that Lowcountry African American slaves did so. What is more, the means by which slaves acquired ceramics makes it difficult to evaluate what meaning the cost of ceramics had for them, if any. Three suggested routes of ceramics into slave quarters were: 1) from the planter as castoffs or gifts, 2) purchase by slaves from china dealers, and 3) theft (Singleton 1991:170). Inheritance is another possibility for acquisition (Penningroth 1997). Any of these could have ramifications for the cost of ceramics found at a slave occupation. A more effective approach to this issue would be to determine how and where slaves obtained ceramics and once the context for their acquisition and use was better known, reconsider if CC index analysis is warranted.

FURTHER RESEARCH/NEW QUESTIONS RAISED

Moving forward, this study raised topics that are worth pursuing at sites with suitable datasets. These may require combinations of archaeological and historical research to develop contexts for interpretation. The research issues include the following:

- Continue to explore the variability in architecture and site organization, especially at isolated slave settlements.
- Develop analyses to measure involvement in the slaves' internal economies and "official" markets, with a particular emphasis on commodities that slaves are known to have produced, but which have ambiguous archaeological correlates.
- Determine if and how slaves and freedpeople expressed socioeconomic status and then reconsider certain analyses, such as CC indexing.
- Further explore the multiple and multivalent meanings of various artifact types.

REFERENCES CITED

Adams, Natalie P.

1994 *Management Summary of Archaeological Data Recovery Excavations at 38BU323 and 38BU821, Hilton Head Island*. Chicora Foundation, Inc., Columbia, South Carolina.

Adams, Natalie P., Debi Hacker, and Michael Trinkley

1995 In the Shadow of the Big House: Domestic Slaves at Stoney/Baynard Plantation, Hilton Head Island. Research Series 40. Chicora Foundation, Columbia, South Carolina.

Adams, Natalie P., Mark T. Swanson, J. W. Joseph, Leslie Raymer, and Lisa D. O'Steen

2005 The Free Cabin Site (9RT1036): Archaeological Examination of a Postbellum Tenant Occupation Near Hepzibah, Richmond County, Georgia. New South Associates, Inc., Stone Mountain, Georgia.

Adams, Natalie P. and Mark T. Swanson

2007 Archaeology of a Tenant Farming Landscape: the Free Cabin Site, Hephzibah, Georgia. *Early Georgia* 35(2):161–182.

Adams, William H. and Sarah Jane Boling

1989 Status and Ceramics for Planters and Slaves on Three Georgia Coastal Plantations. *Historical Archaeology* 23(1):69–96.

Adams, William Hampton, Richard B. Adams, William R. Adams, Sarah Jane Boling, Lee A. Newsom, Carolyn Rock, Jeanne Ward, and Janis Kearney-Williams

1987 *Historical Archaeology of Plantations at Kings Bay, Camden County, Georgia*. Reports of Investigations 5. Department of Anthropology, University of Florida Press, Gainesville.

Angier, Bradford

1978 *Field Guide to Medicinal Wild Plants*. Stackpole Books, Harrisburg, Pennsylvania.

Armstrong, Thomas F.

1980 From Task Labor to Free Labor: The Transition Along Georgia's Rice Coast, 1820-1880. *Georgia Historical Quarterly* 64(4):432–447.

Asch, David L., and Nancy B. Asch

1977 Chenopod as Cultigen: A Re-evaluation of some Prehisotric Collections from Eastern Northern America. *Midcontinental Journal of Archaeology* 2(1):3-45.

Aspinall, Arnold, Chris Gaffney, and Armin Schmidt

2009 *Magnetometry for Archaeologists*. Rowman Altamira, New York, New York.

Avery, Joseph

1780 *The Coast, Rivers, and Inlets of the Province of Georgia*. Published by Command of Government by J.F.W. Desbarres, 1st Feb 1780.

Bagwell, James E.

2000 Rice Gold: James Hamilton Couper and Plantation Life on the Georgia Coast. Mercer University Press, Macon, Georgia.

Bailey, Cornelia

2000 *God, Dr. Buzzard, and the Bolito Man*. Doubleday Books, New York, New York.

Bailey, Liberty Hyde

1949 *Manual of Cultivated Plants*. Macmillan Publishing Co., Inc., London.

Bailey, Ralph, William R. Jordan, and Eric C. Poplin

1995 *Cultural Resources Survey of the Savannah Quarters Tract - Southwest Quadrant, Chatham County, Georgia*. Report Prepared for Hall Development Company. Brockington and Associates, Inc., Myrtle Beach, South Carolina.

Banco de Mexico

2012 *Banknotes and Coins, Circulation*, Banco de México. Distrito Federal, Mexico.

Barnes, Jodi and Carl Steen

2012 Archaeology and Heritage of the Gullah People: A Call To Action. *Journal of African Diaspora Archaeology and Heritage* 1(2):167–224.

Barnett, Amanda

1868 *Map of Chatham County*. N.C. Barnett, Secretary of State, Milledgeville, Georgia.

Baughman, Pamela J.

2010 *Remote Sensing and Further Testing at Site 9CH1205, Chatham County, Georgia*, Project NH-111-1(24), PI #522870. Georgia Department of Transportation, Atlanta, Georgia.

Baumann, Timothy

2011 Faunal Remains. In *World of a Slave: Encyclopedia of the Material Life of Slaves in the United States*, edited by Kym S. Rice and Martha B. Katz-Hyman. pp. 205–210. Greenwood Press, Santa Barbara, California.

Beaudry, Mary C.

2006 Findings: The Material Culture of Needlework and Sewing. Yale University Press, New Haven, Connecticut.

Beck, Larry and Theodore Cable

1998 *Interpretation for the 21st Century*. Sagamore Publishing, Champaign, Illinois.

Bell, Karen B.

2001 "The Ogeechee Troubles": Federal Land Restoration and the "Lived Realities" of Temporary Proprietors, 1865-1868. *Georgia Historical Quarterly* 85(3):375–397.

2002 Atlantic Slave Trade to Savannah. The *New Georgia Encyclopedia*. Electronic document, http://www.georgiaencyclopedia.org/articles/history-archaeology/atlantic-slave-trade-savannah, accessed September 11, 2013.

Bell, Max

2004 Collecting American Face Pipes. *Bottles and Extras* 17(Spring):52–55.

Berlin, Ira

1998 *Many Thousands Gone: The First Two Centuries of Slavery in North America*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts.

2003 *Generations in Captivity: A History of African-American Slaves*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts.

Bevan, Bruce W.

1998 *Geophysical Exploration for Archaeology*. Special Report No. 1. Midwest Archeological Center, Lincoln, Nebraska

Birks, H. J. B., and H. H. Birks

1980 *Quaternary Palaeoecology*. University Park Press, Baltimore, Maryland.

Blandford, Richard A.

n.d. *Map of Chatham County*. Richard A. Blandford, Savannah, Georgia.

Boon, Paul

2013 Gouda Claypipe Marks. *Dutch Clay Pipes From Gouda*. Electronic document, http://www.goudapipes.nl/books/meulen/catalog/cijfermerken.php, accessed December 10, 2013.

Botwick, Brad and Mark Finlay

2000 Phase I Historical and Archaeological Survey, Savannah and Ogeechee Canal, City of Savannah, Chatham County, Georgia. CRM. New South Associates, Inc., Stone Mountain, Georgia.

Bowes, Jessica

2011 Provisioned, Produced, Procured: Slave Subsistence Strategies and Social Relations at Thomas Jefferson's Poplar Forest. *Journal of Ethnobiology* 31(1):89–109.

Bozarth, Steven R.

1990 Diagnostic Opal Phytoliths from Pods of Selected Varieties of Common Beans (*Phaseolus vulgaris*). *American Antiquity* 55:98–104.

Brabec, Elizabeth

2003 Slave Landscapes of the Carolina Low Country: What the Documents Reveal. Paper presented at the Council of Educators in Landscape Architecture Annual Conference, Charleston, South Carolina.

2014 About the Gullah: Then and Now. Gullah, St. Helena Island, South Carolina. Electronic document, http://gullahcommunity.org/about-website/, accessed January 28, 2014.

Brabec, Elizabeth and Sharon Richardson

2007 A Clash of Cultures: The Landscape of the Sea Island Gullah. *Landscape Journal* 26(1):151–167.

Bradley, Eric

2010 Peters Cartridge armed the West. *Cincinnati.com*. Electronic document, http://cincinnati.com/blogs/ourhistory/2010/10/04/peters-cartridge-armed-the-west/, accessed December 9, 2013.

Bragg, William H.

1999 *DeRenne, Three Generations of a Georgia Family*. University of Georgia Press, Athens, Georgia.

Branch-Raymer, Leslie

2012 *Between Mansion and Field Archaeobotanical Study of Montpelier Plantation (44OR249), Orange, Virginia*. Technical Report. Paleobot Consulting Technical Report. Paleobot Consulting, Decatur, Georgia.

Breen, Eleanor

2012 Parasol Tip: Case Closed! *Mount Vernon's Mystery Midden*. Electronic document, http://mountvernonmidden.org/wordpress/?p=840, accessed December 9, 2013.

Brighton, Stephen A.

2001 Prices that Suit the Times: Shopping for Ceramics at the Five Points. *Historical Archaeology* 35(3):16–30.

Britton, Nathaniel L. and Addison Brown

1970 An Illustrated Flora of the Northern United States and Canada. Reprint. Dover Publications, New York, New York.

Brochu, Lisa and Timothy Merriman

2002 *Personal Interpretation.* National Association of Interpretation, Singapore.

Brooker, Colin, J. Faith Meader, and Brad Botwick

2002 Tabby Wall and Ruins (Site 38BU1431) Management Plan for the Marine Corps Air Station, Beaufort, South Carolina. New South Associates, Inc., Stone Mountain, Georgia.

Brown, Kenneth L.

2004 Ethnographic Analogy, Archaeology, and the African Diaspora: Perspectives from a Tenant Community. *Historical Archaeology* 38(1):79–89.

Brown, Kenneth L. and Doreen C. Cooper

1990 Structural Continuity in an African-American Slave and Tenant Community. *Historical Archaeology* 24(4):7–19.

Brown, Tina

2013 Georgia University Students Save Slave Artifacts from Demolition. *Diverse Issues in Higher Education*.

Bryant, Pat

1975 Entry of Claims for Georgia Landholders, 1733-1755. State Printing Office, Atlanta, Georgia.

Bryant, V.M. and Richard G. Holloway

1983 The Role of Palynology in Archaeology. In *Advances n Archaeological Method and Theory*. Academic Press, New York, New York.

Bullard, Mary R.

2010 A Thatched Cabin on Cumberland Island, Georgia. The *African Diaspora Archaeology Network Newsletter (On-line Version)*(September):1–82.

Butler, Larry

1993 *A Biography of Raymond M. Demere.* Armstrong State College, Savannah, Georgia.

Butler, Scott

2007 Data Recovery Excavations at the St. Anne's Slave Settlement, St. Simons Island, Georgia. *Early Georgia* 35(2):111–136.

Butler, Scott, Joseph Charles, Connie Huddleston, Heather Mauldin, Whitney Olvey, and Jen Webber

2003 The Ford Plantation Project: Archeological Data Recovery at Dublin/Richmond Plantation (Sites 9BN44, 9BN174, 9BN177) Bryan County, Georgia. Brockington and Associates, Inc., Atlanta, Georgia.

Cadle, Ferris

2008 Research for Area 2 Cemetery (Archaeological Site No 9CH875), near Neal Boulevard, in the Old Village of Hampstead, Hunter Army Airfield, Savannah, Chatham County, Georgia. Letter Report. Garden City, Georgia.

Camehl, Ada Walker

1971 The Blue-China Book, Early American Scenes and History Pictures in the Pottery of the Time. Dover Publications, Inc., New York, New York.

Campbell, Emory S.

2010 A Sense of Self and Place: Unmasking My Gullah Cultural Heritage. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Philip Morgan, pp. 281–292. University of Georgia Press, Athens, Georgia.

Campo, Rachel, Michael Trinkley, and Debi Hacker

1998 The Plantation Landscape: Slaves and Freedmen at Seabrook Plantation, Hilton Head Island, South Carolina. Chicora Foundation Research Series. Chicora Foundation, Inc., Columbia, South Carolina.

Carillo, Richard F.

1980 Green Grove Plantation: Archaeological and Historical Research at the Kinlock Site (38Ch109), Charleston County. The South Carolina Department of Highways and Public Transportation, Columbia, South Carolina.

Carlson, Shirley J.

1992 Black Ideals of Womanhood in the Late Victorian Era. *Journal of Negro History* 77(2):61–73.

Carney, Judith Ann

2001 Black Rice : the African Origins of Rice Cultivation in the Americas. Harvard University Press, Cambridge, Mass.

Chaplin, Joyce

1992 Tidal Rice Cultivation and the Problem of Slavery in South Carolina and Georgia, 1760-1815. *William and Mary Quarterly*. Third 49(1):29–61.

1996 Anxious Pursuit: Agricultural Innovationn and Modernity in the Lower South, 1730-1815. University of North Carolina, Chapel Hill, North Carolina.

Chapman, T.M., Victor G. Schreck, and G. Reuben Butler

1906 Map of Chatham County Showing the Location of Properties, Public Roads, Etc. City of Savannah, Savannah, Georgia.

Chatham County Clerk of Probate Court

1789 Chatham County Clerk of Probate Court Record 17. On file at the Chatham County Clerk of Probate Court, Savannah, Georgia.

Chatham County Clerk of Superior Court

1839a Chatham County, Clerk of Superior Court Deed Book 3M. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1839b Chatham County, Clerk of Superior Court Deed Book 3P. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1840 Chatham County, Clerk of Superior Court Deed Book 2Y. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1849 Chatham County, Clerk of Superior Court Deed Book 5D. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1850 Chatham County, Clerk of Superior Court Deed Book 3F. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1851 Chatham County, Clerk of Superior Court Deed Book 3K. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1852 Chatham County, Clerk of Superior Court Deed Book 3L. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1853 Chatham County, Clerk of Superior Court Deed Book 3O. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1857 Chatham County, Clerk of Superior Court Deed Book 3Q. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1882 Chatham County, Clerk of Superior Court Deed Book 5F. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1917a Chatham County, Clerk of Superior Court Deed Book 13B. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1917b Chatham County, Clerk of Superior Court Plat Book 10T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia

1917c Chatham County, Clerk of Superior Court Plat Book 86A. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1920 Chatham County, Clerk of Superior Court Deed Book 13N. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1925a Chatham County, Clerk of Superior Court Deed Book 20T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1925b Chatham County, Clerk of Superior Court Deed Book 20Y. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1939 Chatham County, Clerk of Superior Court Deed Book 34T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1950 Chatham County, Clerk of Superior Court Deed Book 52H. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1960 Chatham County, Clerk of Superior Court Plat Book R. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1966a Chatham County, Clerk of Superior Court Plat Book T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1966b Chatham County, Clerk of Superior Court Deed Book 91B. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1966c Chatham County, Clerk of Superior Court Deed Book 91K. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1969 Chatham County, Clerk of Superior Court Deed Book 96O. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1971a Chatham County, Clerk of Superior Court Deed Book 100A. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1971b Chatham County, Clerk of Superior Court Plat Book T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1982a Chatham County, Clerk of Superior Court Deed Book 118T. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1982b Chatham County, Clerk of Superior Court Plat Book 4P. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1983 Chatham County, Clerk of Superior Court Plat Book Y. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1986 Chatham County, Clerk of Superior Court Deed Book 129N. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1990a Chatham County, Clerk of Superior Court Plat Book 11S. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1990b Chatham County, Clerk of Superior Court Deed Book 147U. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

1991 Chatham County, Clerk of Superior Court Plat Book 11P. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2000 Chatham County, Clerk of Superior Court Deed Book 296J. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2005a Chatham County, Clerk of Superior Court Deed Book 129N. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2005b Chatham County, Clerk of Superior Court Deed Book 318J. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2006 Chatham County, Clerk of Superior Court Deed Book 331R. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2007a Chatham County, Clerk of Superior Court Deed Book 337H. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2007b Chatham County, Clerk of Superior Court Deed Book 376F. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

2008 Chatham County, Clerk of Superior Court Deed Book 332F. On file at the Chatham County Clerk of Superior Court, Savannah, Georgia.

Cheek, Charles D., Rebecca Yamin, D.B. Heck, Leslie E. Raymer, and Lisa D. O'Steen

1994 Chapter 5.3, Subsistence Remains. In Phase III Data Recovery, Mechanic Street Site (18AG206), Station Square Project, Cumberland, Maryland. John Milner Associates, Alexandria, Virginia.

Cimbala, Paul A.

1997 Under the Guardianship of the Nation: The Freedmen's Bureau and the Reconstruction of Georgia, 1865-1870. University of Georgia Press, Athens, Georgia.

Claggett, Stephen R., Cheryl Claassen, Debi Hacker, David Lawrence, Andrea Lee Novick, Billy L. Oliver, Michael Trinkley, Homes H. Wilson, and Jack H. Wilson Jr.

1986 Indian and Freedmen Occupation at the Fish Haul Site (38BU805), Beaufort County, South Carolina. Research Series 7. Chicora Foundation, Columbia.

Clark, Anthony

1996 *Seeing Beneath the Soil: Prospecting Methods in Archaeology*. Batsford, London.

Clayton, Walter A.

2011 New Georgia Encyclopedia: Chatham County. The *New Georgia Encyclopedia*. Electronic document, http://www.georgiaencyclopedia.org/nge/article.jsp?path=/citiescounties/counties&id=h-2309, accessed December 5, 2012.

Clegg, Carl

2001 www.columnarios.com, accessed December 4, 2013.

Clinton, Catherine

1982 The Plantation Mistress: Woman's World in the Old South. Pantheon Books, New York, New York.

Close, Lesley

2012 Hammond Turner & Sons History. *Hammond Turner & Sons, Birmingham Button Makers*. Electronic document, http://hammond-turner.com, accessed December 7, 2013.

Cody, Cheryll Ann

1996 Cycles of Work and Childbearing: Seasonality in Women's Lives on Low County Plantations. In *More Than Chattel: Black Women and Slavery in the Americas*, edited by David Barry Gaspar and Hine, pp. 61–78. Indiana University Press, Bloomington, Indiana.

Cohen, Lizabeth A.

1984 Embellishing a Life of Labor: An Interpretation of the Material Culture of American Working Class Homes, 1885-1915. In *American Material Culture, The Shape of Things Around Us*, edited by Elizabeth Mayo. Bowling Green State University Popular Press, Bowling Green, Ohio.

Coleman, Kenneth, ed.

1991 *A History of Georgia.* Second. University of Georgia Press, Athens.

Collier, Thomas

1795 *Map of Hardwicke.* Thomas Collier, Inc., Georgia.

Colquit, Delores B.

1930 America's First Railroad Built in Savannah in 1830. *The Right Way*(January):20–21.

Conyers, Lawrence

2004a *Ground-Penetrating Radar for Archaeology*. AltaMira Press, Walnut Creek, California.

2004b Moisture and Soil Differences as Related to the Spatial Accuracy of GPR Amplitude Slice Maps at Two Archaeological Sites. Tenth International Conference on Ground Penetrating Radar, June.

2012 *Interpreting Ground-Penetrating Radar for Archaeology*. Left Coast Press, Walnut Creek, California.

Conyers, Lawrence and Jeffery Lucius

1996 Velocity Analysis in Archaeological Ground Penetrating Radar Studies. *Archaeological Prospection* 3(1):25–38.

Coon, Nelson

1963 *Using Plants for Healing*. Hearthside Press, North Potomac, Maryland.

Cox, Donald D.

1985 *Common Flowering Plants of the Northeast*. State University of New York Press, Albany, New York.

Crane, Brian D.

1993 Colono Ware and Criollo Ware Pottery from Charleston, South Carolina and San Juan, Puerto Rico in Comparitive Perspective. Unpublished Dissertation. University of Pennsylvania, Philadelphia, Pennsylvania.

Crellin, J.K. and Jane Philpot

1989 Herbal Medicine Past and Present, Volume II: A Reference Guide to Medicinal Plants. Duke University Press, Durham, North Carolina.

Crist, Thomas A., William R. Henry, J.W. Joseph, R.H. Pitts, Wade P. Catts, A. Caton, A. Washburn, and Sean Norris

2000 *With Death Came Liberty: The Archaeology and History of the Sam Goode Cemetery, Mecklenburg County, Virginia*. U.S. Army Corps of Engineers. New South Associates Technical Report No. 747. Stone Mountain, Georgia.

Crook, Roy

2001 Gullah and the Task System. A*nthropology of Work Review* 22(2):24–28.

2008 Gullah-Geechee Archaeology: The Living Space of Enslaved Geechee on Sapelo Island. The *African Diaspora Archaeology Network Newsletter (On-line Version)*(March).

Crouch, Howard R.

1995 Civil War Artifacts: A Guide for the Historian. SCS Publications, Oak Park, Virginia.

Cummings, Linda .S.

1993 Pollen and Macrofloral Analysis of Material for Package 116, the Privies and Possible Garden Areas Assocaited withthe Old Master Armorer's House at Harper's Ferry National Historic Park, West Virginia. In *Interdisciplinary Investigations of Domestic Life in Government Block B: Perspectives on Harper's Ferry Armory and Commercial District*, edited by Paul A. Shackel, pp. 7.1–7.46. U.S. Department of the Interior, National Park Service, Washington, D.C.

Cummings, Linda S. and K. Puseman

1990 Chapter 5: Pollen, Phytolith, Parasite, and Macrofloral Analysis. In *Archeological Views of the Upper Wager Block, A Domestic and Commercial Neighborhood in Harper's Ferry*, edited by Jill Y. Halchin. U.S. Department of the Interior, National Park Service, Washington, D.C.

Davis, Burke

1980 *Sherman's March*. Random House, New York, New York.

Davis, Major George B., Leslie J. Perry, and Joseph W. Kirkley

1893 *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*. (Reprinted 1983). U.S. Government Printing Office, Washington D.C., Washington D.C.

2003 *Atlas to Accompany the Official Records of the Union and Confederate Armies*. Reprint of 1891 Edition (United States Government Printing Office, Washington, D.C.). Barnes and Noble Books, New York, New York.

Delcourt, Paul A. and Hazel R. Delcourt

1980 Pollen Preservation and Quaternary Environmental History in the Southeastern United States. *Palynology* 4:215–231.

1981 Vegetation Maps for Eastern North America: 40,000 Years BP to Present. In *Geobotany*, pp.123–166. Plenum Publishing, New York, New York.

Dennis, William H.

1865 *U.S. Coast Survey Map of the Vicinity of Savannah*. National Oceanographic Data Center, Washington, D.C.

Dimbleby, Geoffrey W.

1985 *The Palynology of Archaeological Sites*. Academic Press, Inc., New York, New York.

Diversity.org

2014 *Savannah, GA. Education*. Total Number of Students in Public Schools by Race/Ethnicity. Electronic document, http://diversitydata.sph.harvard.edu/data/profiles/show.aspx?loc=1268&notes=true&rgn=none&cat=4, accessed February 6, 2014.

Dorsey, Allison

2010 "The great cry of our people is land!": Black Settlement and Community Development on Ossabaw Island, Georgia, 1865-1900. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Philip Morgan, pp. 224–252. University of Georgia Press, Athens, Georgia.

Dover Publications

1969 Montgomery Ward & Co. Catalogue and Buyers' Guide, No. 57, Spring and Summer 1895 (Facsimile). Dover Publications, Inc., New York, New York.

Dozier, Howard D.

1920 *A History of the Atlantic Coast Line Railroad*. Houghton Mifflin Company, Boston, Massachusetts.

Driesch, A. von den

1993 *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Harvard University, Peabody Museum of Archaeology and Ethnology Bulletin. Peabody Museum, Cambridge, Massachusetts.

Drucker, Lesley M.

1981 Socioeconomic Patterning at an Undocumented Late 18th Century Lowcountry Site: Spiers Landing, South Carolina. *Historical Archaeology* 15(2):58–68.

Duke, James A.

1992 *Handbook of Medicinal Plants*. CRC Press, Boca Raton, Florida.

Duncan, Wilbur H. and Marion B. Duncan

1998 *Trees of the Southeastern United States*. University of Georgia Press, Athens, Georgia.

DW Consulting

2007 *ArchaeoSurveyor Manual*. DW Consulting, Barneveld, the Netherlands.

Edgar, Walter

1998 *South Carolina: A History*. University of South Carolina Press, Columbia, South Carolina.

Elias, Thomas S.

1980 *The Complete Trees of North America*. Van Nostrand Reinhold Company, New York, New York.

Emilio, Luis Fenollosa

1911 The Emilio Collection of Military Buttons in the Museum of the Essex Institute. Essex Institute, Salem, Massachusetts.

Epperson, Terrence W.

1990 Race and Disciplines of the Plantation. *Historical Archaeology* 24(4):29–36.

Erdtman, Gunnar

1960 The Acetolysis Method: A Revised Description. *Svensk. Bot. Tidsk.* 54:561–564.

Erlandson, J.M.

1994 Early Hunter-Gatherers of the California Coast. Plenum Press, New York, New York.

Ernenwein, Eileen G. and Michael L. Hargrave

2009 Archaeological Geophysics for DOD Field Use: A Guide for New and Novice Users. Environmental Security Technology Certification Program (ESTCP), U.S. Department of Defense.

Espenshade, Christopher T.

2001 Novel Approaches to Reconstructing Lifeways in Camp Baird, the Autumn 1864 Encampment of the 32nd USCT. Paper presented at the Scientific Tools in Historical Archaeology, Long Beach.

2011 Animal Traps. In *World of a Slave: Encyclopedia of the Material Life of Slaves in the United States*, edited by Martha Katz-Hyman and Rice, pp. 29–30. Greenwood Press, Santa Barbara, California.

Faegri, K. and Johannes Iversen

1989 *Textbook of Pollen Analysis*. John Wiley & Sons Inc., New York, New York.

Farrar, Jon

2013 The History and Art of Shotshells. Government Agency. *NEBRASKAland: Nebraska Game and Parks Commission*. Electronic document, http://outdoornebraska.ne.gov/nebland/articles/history/shotshells.asp, accessed December 10, 2013.

Faust, Drew Gilpin

1996 Mothers of Invention Women of the Slaveholding South in the American Civil War. Vintage Books, A Division of Random House, Inc. New York, New York.

Favretti, Rudy J. and Joy P. Favretti

1990 *For Every House a Garden*. University Press of New England, Hanover, New Hampshire.

Fennell, Christopher C.

2011 Early African America: Archaeological Studies of Significance and Diversity. *Journal of Archaeological Research* 19:1–49.

Ferguson, Leland

1980 Looking for the "Afro" in Colono-Indian Pottery. In *Archaeological Perspectives on Ethnicity in America: Afro-American and Asian American Culture History*, edited by Robert L. Schuyler, pp. 14–28. Baywood Publishing Company: Farmingdale, New York.

1992 Uncommon Ground: Archaeology and Early African America, 1650-1800. Smithsonian Institution Press, Washington D.C.

Fernald, L.F. and A.C. Kinsey

1958 *Edible Wild Plants of Eastern North America*. Harper and Brothers, New York, New York.

Fish, Suzanne K.

1995 Pollen Analysis. In *Archaeological Excavations at Pueblo Blanco: The MCDOT Alma School Road Project, Volume 2*, edited by David E. Doyel, Andrew T. Black, and Barbara S. Macnider, pp. 393–408. Cultural Resources Report No. 90. Archaeological Consulting Services, Tempe, Arizona.

Fitts, Robert K.

1999 The Archaeology of Middle Class Domesticity and Gentility. *Historical Archaeology* 33(1):39–62.

Foner, Eric

1988 *Reconstruction: America's Unfinished Revolution, 1863-1877*. Perennial Classics an Imprint of HarperCollins Publishers, New York, New York.

Foster, S. and J.A. Duke

1990 *A Field Guide to Medicinal Plants, Eastern and Central North America*. The Peterson Field Guide Series. Houghton Mifflin Company, Boston, Massachusetts.

Fox-Genovese, Elizabeth

1988 Within the Plantation Household: Black and White Women of the Old South. University of North Carolina Press, Chapel Hill, North Carolina.

Friedlander, Amy

1991 House and Barn; the Wealth of Farmers 1795-1815. *Historical Archaeology* 25(2):15–29.

Friends of Remington Woods

2013 History of the Woods - The Remington Connection. *Friends of Remington Woods*. Electronic document, http://home.earthlink.net/~remington_woods/id28.html, accessed December 10, 2013.

Frobel, B.W.

1869 Map of Chatham County By Authority of the State. Savannah Chamber, Savannah Georgia.

Gaffney, Chris and John Gater

2003 *Revealing the Buried Past: Geophysics for Archaeologists*. Tempus Publishing Ltd., Briscombe Port Stroud.

Genovese, Eugene

1972 *Roll Jordan Roll: The World the Slaves Made*. 1976th ed. Vintage Books, New York, New York.

Georgia Department of Natural Resources

2001 *Ogeechee River Basin Management Plan 2001*. Planning Document. Georgia Environmental Protection Division, Department of Natural Resources, Atlanta, Georgia.

Gerow, Peggy A.

2004 Guardian of the Trail: Archaeological and Historical Investigations at Fort Craig. Bureau of Land Management, Santa Fe, New Mexico.

Gillespie, W.H.

1959 A Compilation of the Edible Wild Plants of West Virginia. Scholar's Library, New York, New York.

Gish, Jannifer W.

1991 Current Perceptions, Recent Discoveries, and Future Directions in Hohokam Palynology. *Kiva* 56:237–254.

Godden, Geoffrey

1964 *Encyclopedia of British Pottery and Porcelain Marks*. Schiffer Publishing, Ltd, Exton, Pennsylvania.

Goldstein, S.

1960 Degradation of Pollen by Phycomycetes. *Ecology* 41(3):543–545.

Granger, Mary

1997 *Savannah River Plantations*. Oglethorpe Press, Savannah, Georgia.

Grayson, Donald K.

1984 *Quantitative Zooarchaeology*. Academic Press, Inc., New York, New York.

Grieve, Margaret

1931 A Modern Herbal: The Medicinal, Culinary, Cosmetic, and Economic Properties, Cultivation, and Folk-Lore of Herbs, Grasss, Fungi, Shrubs, and Trees with all the Modern Scientific Uses. Dover Publications, New York, New York.

Griffith, Glenn E., James M. Omernik, Jeffrey A. Comstock, Steve Lawrence, and Trish Foster

2001 *Ecoregions of Georgia Map*. U.S. Environmental Protection Agency, Corvallis, Oregon.

Griffith, Robert E.

1847 *Medical Botany*. Lea and Blanchard, Philadelphia, Pennsylvania.

Hacker, Debi, David Lawrence, and Jack H. Jr. Wilson

1990 Archaeological Excavations at 38BU96, A Portion oOf Cotton Hope Plantation, Hilton Head Island, Beaufort County, South Carolina. Edited by Michael Trinkley. 1 Research Series. Chicora Foundation, Inc., Columbia, South Carolina.

Hall, Alan

1976 *The Wild Food Trail Guide*. Holt, Rinehart and Winston, Inc., New York, New York.

Hall, Stephen A.

1981 Deteriorated Pollen Grains and the Interpretation of Quaternary Pollen Diagrams. *Review of Paleobotany and Palynology* 32:193–206.

Hallam, Jennifer

2004 *Slavery and the Making of America*. The Slave Experience: Men, Women & Gender-Historical Overview. Electronic document, http://www.pbs.org/wnet/slavery/experience/gender/history.html, accessed September 18, 2013.

Ham, Sam

1992 Environmental Interpretation: A Practical Guide for People with Big Ideas and Small Budgets. North American Press, Golden, Colorado.

Hamby, Theresa M. and J.W. Joseph

2004 A New Look at the Old City: Archaeological Excavations of the Charleston County Judicial Center Site (38CH1708), Charleston, South Carolina. New South Associates, Inc., Stone Mountain, Georgia.

Harder, L. and J.D. Thomson

1989 Evolutionary Options for Maximizing Pollen Dispersal of Animal-Pollinated Plants. *American Naturalist* 133:325–334.

Harper's Weekly

1863 Sketch Entitled "Rebel Steamer 'Nashville' Lying at the Railway Bridge, on the Ogeechee River." *Harper's Weekly*.

Havinga, A. J.

1964 Investigation into the Differential Corrosion and Susceptibility of Pollen and Spores. *Pollen et Spores* VI(2):621–635.

1965 A 20-year Experimental Investigation into the Differential Corrosion Susceptibility of Pollen Spores in Various Soil Types. *Pollen Spores* 26:541–558.

Heath, Barbara J.

1999 Buttons, Beads, and Buckles: Contextualizing Adornment Within the Bounds of Slavery. In *Historical Archaeology, Identity Formation, and the Interpretation of Ethnicity*, edited by Maria Franklin and Garrett Fesler, pp. 47–68. Colonial Williamsburg Foundation, Williamsburg, Virginia.

Heath, Barbara J. and Amber Bennett

2000 "The little Spots allow'd them": The Archaeological Study of African-American Yards. *Historical Archaeology* 34(2):38–55.

Hedeen, Randy

2013 Dating Cartridge Boxes By Peters Cartridge Company. *International Ammunition Association*. Electronic document, http://cartridgecollectors.org/?page=peters-cartridge-box-dates, accessed December 9, 2013.

Hedrick, U.P.

1972 *Sturtevant's Edible Plants of the World*. Reprint. Dover Publications, New York, New York.

Heilen, Michael

2012 Uncovering Identity in Mortuary Analysis: Community-Sensitive Methods for Identifying Group Affiliation in Historical Cemeteries. Left Coast Press, Inc., Walnut Creek, California.

Hemperly, Marion R.

1973 English Crown Grants in Christ Church Parish in Georgia 1755-1775. State Printing Office, Atlanta, Georgia.

Higginson, Thomas Wentworth

1870 *Army Life in a Black Regiment*. Fields, Osgood, & Co., Boston, Massachusetts.

Holloway, Richard G.

1989 Experimental Mechanical Pollen Degradation and Its Application to Quaternary Age Deposit. *Texas Journal of Science* 41:131–145.

Howell, Patricia K.

2006 *Medicinal Plants of the Southern Appalachians*. Botanologos Books, Mountain City, Georgia.

Howson, Jean E.

1990 Social Relations and Material Culture: A Critique of the Archaeology of Plantation Slavery. *Historical Archaeology* 24(4):78–91.

Huddleston, Connie, Jen Webber, and Dea Mozingo

2003 The Ford Plantation Project: Archaeological Data Recovery at Cherry Hill Plantation (9BN49/56/57), Bryan County, Georgia. Brockington and Associates, Inc, Atlanta, Georgia.

Huegel, Roger E

2012 Phoenix Metallic Cartridge Co., South Coventry, CT. Electronic document available at http://22box-id.com/Dunn/Phoenix.pdf, accessed January 12, 2014.

Hughes, N.C., Jr.

1963 Hardee's Defense of Savannah. *Georgia Historical Quarterly* 47(1):43–67.

IndianHeads.org

2012 Design. *IndianHeads.org*. Electronic document, http://www.indianheads.org/index.html, accessed November 18, 2013.

Inkspot Antiques & Collectibles

2013 Identifying U.S. Military Uniform Button Backmarks - Age, Type, Design, and Construction. *InkspotAntiques.com*. Electronic document, http://inkspotantiques.com/shop/index.php?main_page=page&id=1, accessed November 25, 2013.

Isenbarger, Nicole

2006 Potters, Hucksters, and Consumers: Placing Colonoware Within the Internal Slave Economy Framework. Master's Thesis, University of South Carolina, Columbia, South Carolina.

2008 Necessity or Commodity?: An Analysis of the Ford Plantation Colonoware, Bryan County, Georgia. *Early Georgia* 36(1):43–50.

J.M. Elstner & Co., Publishers

1886 The Industries of Savannah, Chief Cotton Port of the South Atlantic Coast and the Principal Shipping Point of the World for Naval Stores, Her Trade, Commerce, Manufactures and Representative Establishments. J.M. Elstner & Co., Publishers, Savannah, Georgia.

Jackson, H. Edwin and Susan L. Scott

2001 Archaic Faunal Utilization in the Louisiana Bottomlands. *Southeastern Archaeology* 20(2):187–196.

Janes, Thomas P.

1876 *Hand-Book of the State of Georgia*, Second Edition. Atlanta, Georgia.

Johnson, A. Sydney, Hilburn O. Hillestad, Sheryl Fanning Shanholtzer, and G. Frederick Shanholtzer

2005 An Ecological Survey of the Coastal Region of Georgia. National Park Service Scientific Monograph 3.

Jones, Charles C., Jr.

1878 Hardwick. In *Dead Towns of Georgia*, IV: pp. 224–232. Collections of Georgia Historical Society. Reprinted 1974 by The Reprint Company, Spartanburg, South Carolina.

Jones, Jacqueline

1985 Labor of Love, Labor of Sorrow: Black Women, Work, and the Family from Slavery to the Present. 2010th ed. Basic Books, New York, New York.

2008 Saving Savannah, The City and the Civil War. Random House, New York, New York.

2010 A Spirit of Enterprise: The African American Challenge to the Confederate Project in Civil War-Era Savannah. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Philip Morgan, pp. 188–223. The University of Georgia Press, Athens, Georgia.

Jones, John G.

2013 Pollen and Phytolith Processing Protocols for ACS Sediments. Manuscript on File, ACS, Ltd., Tempe, Arizona.

Jones, John G., and V. M. Bryant Jr.

1992 Phytolith Taxonomy in Selected Species of Texas Cacti. In *Phytolith Systematics: Emerging Issues*, edited by George Rapp, Jr. and S. Mullholland. Plenum Press, New York.

Jones, Olive R.

1986 *Cylindrical English Wine and Beer Bottles 1735-1850*. Studies in Archaeology, Architecture, and History. National Historic Parks and Sites Branch, Parks Canada, Ottawa, Ontario, Canada.

Jones, Olive R. and Catherine Sullivan

1985 The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures. National Historic Parks and Sites Branch, Parks Canada, Environment Canada.

Joseph, J. W.

1987 Highway 17 Revisited: The Archaeology of Task Labor. *South Carolina Antiquities* 19(1-2):29–34.

1989 Pattern and Process in the Plantation Archaeology of the Lowcountry of Georgia and South Carolina. *Historical Archaeology* 23(1):55–68.

1993a "*And They Went Down Both Into the Water": Archaeological Data Recovery of the Riverfront Augusta Site (9Ri165)*. New South Associates, Inc., Stone Mountain, Georgia.

1993b White Columns and Black Hands: Class and Classification in the Plantation Ideology of the Georgia and South Carolina Lowcountry. *Historical Archaeology* 27(3):57–73.

2004a Colonoware for the Village- Colonoware for the Market: Observations from the Charleston Judicial Center Site (38CH1708) on Colonoware Production and Typology. *South Carolina Antiquities* 37(1 and 2):72–86.

2004b Columns and Rows -- Allees and Quarters: The Archaeology of Plantation Ideology in the Lowcountry of South Carolina. *South Carolina Antiquities* 36(1-2):1–12.

2007 African-American Life in Georgia Through the Archaeological Looking Glass. *Early Georgia* 35(2):101–110.

2011 "…All of Cross" - African Potters, Marks and Meanings in the Folk Pottery of the Edgefield District, South Carolina. *Historical Archaeology* 45(2):134–155.

Joseph, J. W. and Bradford Botwick

2012 Archaeological Research Design and Data Recovery Plan for Site 9CH1205, Chatham County, Georgia. New South Associates, Inc., Stone Mountain, Georgia.

Joseph, J. W. and Rita F. Elliot

1993 Report on Early Eighteenth-Century Macroplant Remains from the Charleston Courthouse Data Recovery. In *Restoration Archeology at the Charleston County Courthouse Site (38CH1498), Charleston, South Carolina*. New South Associates, Inc., Stone Mountain, Georgia.

Joseph, J. W., Theresa M. Hamby, and Catherine Long

2004 *Historical Archaeology in Georgia*. Georgia Archaeological Research Design Paper No. 14. Athens, Georgia.

Joyner, Charles

1984 *Down by the Riverside: A South Carolina Slave Community*. University of Illinois Press, Urbana and Chicago.

1991 The World of the Plantation Slaves. In *Before Freedom Came: African-American Life in the Antebellum South*, edited by Edward D.C. Campbell Jr. and Kym S. Rice. The Museum of the Confederacy, Richmond, Virginia.

1999 *Shared Traditions: Southern History and Folk Culture*. University of Illinois Press, Urbana and Chicago.

Joyner, Stefanie L.

2003 Slave Housing Patterns Within the Plantation Landscape of Coastal Georgia. M.S. Thesis, University of Florida, Gainesville, Florida.

Justice, Noel D.

1995 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States: A Modern Survey and Reference*. Indiana University Press, Bloomington, Indiana.

Justice, R.S.

1939 Some Medicinal and Poisonous Plants of Georgia. *Bulletin of the University of Georgia* 39(9):1–49.

Kapp, Ronald O., Owen K. Davis, and James E. King

2000 *Pollen and Spores*. 2nd ed. American Association of Stratigraphic Palynologists Foundation, Texas A&M University, College Station.

Kay, George F. and James H. Lees

1913 *The Weed Flora of Iowa*. Iowa Geological Survey Bulletin 4. Des Moines, Iowa.

Keepax, Carole

1977 Contamination of Archaeological Deposits by Seeds of Modern Origin with Particular Reference to the Use of Flotation Machines. *Journal of Archaeological Science* 4:221–229.

Kenmotsu, Nancy

1990 Gunflints: A Study. *Historical Archaeology* 24(2):92–124.

Kennedy, Linda, Marian Roberts, and Christopher T. Espenshade

1993 Archaeological Data Recovery at River Club (38BU880), Hilton Head Island, Beaufort County, South Carolina: A Study in Late Eighteenth/Early Nineteenth Century Slave Settlement. Brockington and Associates, Inc., Atlanta, Georgia.

1994 Archaeological Data Recovery at Colleton River Plantation (38BU647), Beaufort County, South Carolina: A Study of Early Nineteenth Century Slave Settlement. Brockington and Associates, Inc., Atlanta, Georgia.

Kidd, Kenneth and Martha Ann Kidd

1972 Classification des Peles de Verre å L'intention des Archeologues sur le Terrain. In *Lieux Historiques Canadiens: Cahiers D'archeologie et D'histoire no. 1*, pp. 47–100. Parks Canada, Ottawa, Ontario.

Kilbourne, Elizabeth E.

1999 *Savannah Georgia Newspaper Clippings (Georgia Gazette*), Volume I, 1763-1770. Published by the Author, Savannah, Georgia.

2000 *Savannah Georgia Newspaper Clippings (Georgia Gazette)*, Volume II, 1786-1792. Published by the Author, Savannah, Georgia.

2003 *Savannah Georgia Newspaper Clippings (Georgia Gazette)*, Volume V, 1800-1806. Published by the Author, Savannah, Georgia.

2009a *Savannah Georgia Newspaper Clippings* (Columbian Museum), Volume I, 1796-1808. Published by the Author, Savannah, Georgia.

2009b *Savannah Georgia Newspaper Clippings* (Columbian Museum), Volume II, 1798-1802. Published by the Author, Savannah, Georgia.

2009c *Savannah Georgia Newspaper Clippings* (Columbian Museum), Volume III, 1803-1814. Published by the Author, Savannah, Georgia.

King, Julia A.

1994 Rural Landscape in the Mid-Nineteenth Century Chesapeake. In *Historical Archaeology of the Chesapeake*, edited by Paul A. Shackel and Barbara J. Little, pp. 283–299. Smithsonian Institution Press, Washington, D.C.

King, Wilma

1996 "Suffer With Them Till Death": Slave Women and Their Children in Nineteenth-Century America. In *More Than Chattel: Black Women and Slavery in the Americas*, pp. 147–168. Indiana University Press, Bloomington, Indiana.

Knight, Lucian Lamar

1917 *A Standard History of Georgia and Georgians*. The Lewis Publishing Company, Chicago, Illinois.

Koch, Augustus

1891 Bird's Eye View of Savannah, Georgia. Augustus Koch, Savannah, Georgia.

Krakow, Kenneth K.

1999 *Georgia Place Names, Third Edition*. Winship Press, Macon, Georgia.

Krochmal, Arnold and Connie Krochmal

1973 *A Guide to the Medicinal Plants of the United States*. Quadrangle/The New York Times Book Company, New York, New York.

Krochmal, Arnold, Russell S. Walters, and Richard M. Doughty

1969 *A Guide to Medicinal Plants of Appalachia*. USDA Forest Service Research Paper. USDA Forest Service, Washington, D.C.

Kryder-Reid, Elizabeth

1994 "As Is the Gardner, So Is the Garden": The Archaeology of Landscape as Myth. In *Historical Archaeology of the Chesapeake*, edited by Paul A. Shackel and Barbara J. Little, pp. 131–148. Smithsonian Institution Press, Washington, D.C.

Kvamme, Kenneth L.

2006a Magnetometry: Nature's Gift to Archaeology. In *Remote Sensing in Archaeology: An Explicitly North American Perspective*, edited by Jay K. Johnson, pp.205–234. University of Alabama Press, Tuscaloosa, Alabama.

2006b Data Processing and Presentation. In *Remote Sensing in Archaeology: An Explicitly North American Perspective*, edited by Jay Johnson, pp.235–250. University of Alabama Press, Tuscaloosa, Alabama.

Kvamme, Kenneth L., Eileen G. Ernenwein, Michael L. Hargrave, Thomas Sever, Deborah Harmon, and Fred Limp

2006 *New Approaches to the Use and Integration of Multi-Sensor Remote Sensing for Historic Resource Identification and Evaluation*. Center for Advanced Spatial Technologies, University of Arkansas, Fayetteville, Arkansas.

LaFar, Mabel Freeman and Caroline Price Wilson

1963 Abstracts of Wills, Chatham County, Georgia, 1773-1817. National Genealogical Society, Washington D.C.

Lane, Mary C.

1931 *Untitled Map.* Georgia Department of Natural Resources, Atlanta, Georgia.

Lawton, David E.

1977 *Geologic Map of Georgia*. Georgia Department of Natural Resources, Atlanta, Georgia.

Lee, F.D. and J.L. Agnew

1869 Historical Record of the City of Savannah. J.H. Estill, Savannah, Georgia.

Lee, Lori

2011 Beads, Coins, and Charms at a Poplar Forest Slave Cabin (1833-1858). *Northeast Historical Archaeology* 40:104–122.

LeeDecker, Charles H.

1994 Discard Behavior on Domestic Historic Sites: Evaluation of Contexts for the Interpretation of Household Consumption Patterns. *Journal of Archaeological Method and Theory* 1(4):345–375.

Legg, James B., Christopher T. Espenshade, and Lynn M. Snyder

1991 Camp Baird: Archaeological and Historical Investigations of the Autumn 1864 Camp of the 32nd U.S. Colored Infantry, Hilton Head Island, South Carolina. Brockington and Associates, Inc., Atlanta, Georgia.

Leighton, A.

1987 *American Gardens of the Nineteenth Century*. University of Massachusetts Press, Amherst, Massachusetts.

LeMaistre, Elise Eugenia

1988 In Search of a Garden: African Americans and the Land in Piedmont Georgia. Master's thesis, Princeton University, Princeton, New Jersey.

Leone, Mark P.

1987 Rule by Ostentation: The Relationship Between Space and Sight in Eighteenth-Century Landscape Architecture in the Chesapeake Region of Maryland. In *Method and Theory For Activity Area Research: An Ethnoarchaeological Approach*, edited by Susan Kent, pp. 604–633. Columbia University Press, New York, New York.

1988 The Relationship Between Archaeological Data and the Documentary Record: 18th Century Gardens in Annapolis, Maryland. *Historical Archaeology* 22(1):29–35.

Levi Strauss & Co.

2013 Heritage: Company Timeline. *Levi Strauss & Co.* Electronic document, http://www.levistrauss.com/about/heritage, accessed December 7, 2013.

Lewis, Kenneth E.

1985 Plantation Layout and Function in the South Carolina Lowcountry. In *The Archaeology of Slavery and Plantation Life*, edited by Theresa A. Singleton, pp. 35–65. Academic Press, Orlando, Florida.

Lima, Tania Andrade

2012 The Dark Side of Toys in Nineteenth-Century Rio de Janiero, Brazil. *Historical Archaeology* 46(3):63–78.

Lindbergh, Jennie

1999 Buttoning Down Archaeology. A*ustralasian Historical Archaeology* 17:50–57.

Lindsey, Bill

2013 Historic Bottle Website. *Historic Glass Bottle Identification & Information Website*. Electronic document, http://www.sha.org/bottle/index.htm, accessed August 23, 2013.

Littlefield, Daniel

1981 Rice and Slaves: Ethnicity and the Slave Trade in Colonial South Carolina. Louisiana State University Press, Baton Rouge.

Lockhart, Bill, Carol Serr, and Bill Lindsey

2008 The Dating Game: Herman Heye Glasfabrik. *Historic Glass Bottle Identification & Information Website*. Electronic document, http://www.sha.org/bottle/makersmarks.htm#bottlemakersmarks, accessed November 25, 2013.

Lopinot, Neal H. and David E. Brussel

1982 Assessing Uncarbonized Seeds from Open-Air Sites in Mesic Environments: An Example from Southern Illinois. *Journal of Archaeological Science* 9:95–108.

Luckenbach, Al and C. Jane Cox

2003 17th Century Lead Cloth Seals From Anne Arundel County, Maryland. *Maryland Archeology* 39(1 & 2):17–26.

Luscomb, Sallie C.

1967 *The Collector's Encyclopedia of Buttons*. Crown Publishers, Inc., New York New York.

Lyman, R. Lee

1994 *Vertebrate Taphonomy*. Cambridge University Press, Cambridge, England.

Madaus, H. Michael

1981 The Warner Collector's Guide to American Longarms. Warner Books, New York, New York.

Marcot, Roy

2013 A Guide to Collecting Remington Model 870 Shotguns. On-line journal. The *Remington Society of America*. Electronic document, http://www.remingtonsociety.com/rsa/journals/870/, accessed December 10, 2013.

Martin, Alexander and William D. Barkley

1961 *Seed Identification Manual*. University of California Press, Berkeley, California.

Martin, Paul S.

1963 The Last 10,000 Years: A Fossil Pollen Record of the American Southwest. University of Arizona Press, Tucson.

Maslow, Abraham

1954 *Motivation and Personality*. University of Michigan, Ann Arbor, Michigan. Harper & Row, New York, New York

Massey, A.B.

1942 Medicinal Plants. Bulletin of the Virginia Polytechnic Institute 35(13):5–51.

Matternes, Hugh B., Valerie S. Davis, Julie Coco, Staci Richey, and Sarah M. Lowry

2011 *Hold Your Light on Canaan's Shore: A Historical and Archaeological Investigation of the Avondale Burial Place (9BI164)*. Report Prepared for Atkins Global, Inc. and the Georgia Department of Transportation. New South Associates, Inc., Stone Mountain, Georgia.

McAllister, Ward

1890 *Society as I have Found It*. Cassell Publishing Company, New York, New York.

McFarlane, Suzanne S.

1975 The Ethnoarcheology of a Slave Community: The Couper Plantation Site. Master's Thesis, University of Florida, Gainesville, Florida.

McIlvoy, Karen E.

2013 The Ceramics Assemblage from the Kingsley Plantation Slave Quarters. *NPS Archeology Program: Research in the Parks*. Electronic document, http://www.nps.gov/archeology/sites/npsites/kingsleyceramics.htm, accessed September 17, 2013.

McKee, Larry

1992 The Ideals and Realities Behind the Design and Use of 19th Century Virginia Slave Cabins. In *The Art and Mystery of Historical Archaeology*, edited by Anne Elizabeth Yentsch and Mary C. Beaudry, pp. 195–213. CRC Press, Boca Raton, Florida.

McKinnon, John

1816 *Plan of the County of Chatham*. Copies available at Chatham County, Georgia.

McNab, W. Henry and Peter E. Avers

1994 *Ecological Subregions of the United States*. U.S. Department of Agriculture Forest Service, Washington, D.C.

Medve, Richard J. and Mary C. Medve

1990 Edible Wild Plants of Pennsylvania and Neighboring States. Pennsylvania State University.

Meinig, Donald W.

1986 The Shaping of America, Volume 1: Atlantic America, 1492-1800. Yale University Press, New Haven, Connecticut.

Messick, Denise, J.W. Joseph, and Natalie P. Adams

2001 *Tilling the Earth: Georgia's Historic Agricultural Heritage - A Context*. Report Submitted to the Georgia Department of Transportation and Georgia Department of Natural Resources. New South Associates, Inc., Stone Mountain, Georgia.

Miksicek, Charles H.

1987 Formation Processes of the Archaeobotanical Record. *Advances in Archaeological Method and Theory* 10:211–247.

Miles, Jim

1989 To the Sea: A History and Tour Guide of Sherman's March. Routledge Hill Press, Nashville, Tennessee.

Miller, George L.

1980 Classification and Economic Scaling of 19th Century Ceramics. *Historical Archaeology* 14:1–41.

1991 A Revised Set of CC Index Values for Classification and Economic Scaling of English Ceramics from 1787 to 1880. *Historical Archaeology* 25(1):1–23.

2000 Telling Time for Archaeologists. *Northeast Historical Archaeology* 29:1–22.

Miller, Naomi

1989 What Mean These Seeds: A Comparative Approach to Archaeological Seed Analysis. *Historical Archaeology* 23(2):50–59.

Millspaugh, Charles F.

1884 American Medicinal Plants: An Illustrated and Descriptive Guide to the American Plants Used as Homeopathic Remedies, their History, Preparation, Chemistry, and Physiological Effects. Boericke and Tafel, New York, New York.

Minnis, P.E.

1981 Seeds in Archaeological Sites: Sources and Some Interpretive Problems. *American Antiquity* 46:143–152.

Moerman, Daniel E.

1998 *Native American Ethnobotany*. Timber Press, Portland, Oregon.

Moir, Randall W.

1987 Farmstead Proxemics and Intrasite Patterning. In Historic Buildings, Material Culture, and People of the Prairie Margin: Architecture, Artifacts, and Synthesis of Historic Archaeology, edited by David H. Jurney and Randall W. Moir, 5: pp. 229–237. Richland Creek Technical Services. Institute for the Study of Earth and Man, Southern Methodist University, Dallas, Texas.

Montgomery, Francis H.

1977 Seeds and Fruits of Plants in Eastern Canada and Northeastern United States. University of Toronto Press, Toronto, Ontario.

Moore, Sue Mullins

1985 Social and Economic Status on the Coastal Plantation: An Archaeological Perspective. In *The Archaeology of Slavery and Plantation Life*, edited by Theresa A. Singleton, pp. 141–160. Academic Press, Inc., Orlando, Florida.

Morgan, Philip D.

1982 Work and Culture: The Task Labor System and the World of Lowcountry Blacks, 1700 to 1800. *William and Mary Quarterly* 39:563–599.

1983 The Ownership of Property by Slaves in the Mid-Nineteenth Century Low County. The *Journal of Southern History* 49:397–420.

1998 Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcounty. University of North Carolina Press, Chapel Hill, North Carolina.

2010 Lowcountry Georgia and the Early Modern Atlantic World, 1733-ca. 1820. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Morgan, Philip, pp. 13–47. The University of Georgia Press, Athens, Georgia.

Morgan, Philip D. and George D. Terry

1982 Slavery in Microcosm: A Conspiracy Scare in Colonial South Carolina. *Southern Studies* 16(Summer):121–145.

Muraca, David, John Coombs, Phil Levy, Laura Galke, Paul Nasca, and Amy Muraca

2011 Small Finds, Space, and Social Context: Exploring Agency in Historical Archaeology. *Northeast Historical Archaeology* 40(1):1–20.

National Park Service

2005 Lowcountry Gullah Culture Special Resource Study and Final Environmental Impact Statement. Special Resource Study and EIS. NPS Southeast Regional Office, Atlanta, Georgia.

Noel-Hume, Ivor

1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York, New York.

O'Steen, Lisa D., Nancy A. Parrish, and Leslie E. Raymer

1995 Report on Subsistence Remains from the National Museum of the American Indian, Washington, D.C. New South Associates, Inc., Stone Mountain, Georgia.

O'Steen, Lisa D. and Leslie E. Raymer

1995 The Relationship Between Diet and Socioeconomic Status and Ethnicity in Nineteenth Century Small Urban Settings: An Example from the Mechanic Street Site (18AG206). Paper presented at the Annual Meeting of the Society for Historical Archaeology, Washington, D.C.

Ogden III, J. G.

1966 Forest History of Ohio. I. Radiocarbon Dates and Pollen Stratigraphy of Silver Lake, Logan County, Ohio. *Ohio Journal of Science* 66.

Olsen, Stanley J.

1968 Fish, Amphibian, and Reptile Remains from Archaeological Sites. Peabody Museum, Cambridge, Massachusetts.

1973 Mammal Remains from Archaeological Sites. Part I. Southeastern and Southwestern United States. Peabody Museum, Cambridge Mass.

Opala, Joseph A.

n.d. *The Gullah: Rice, Slavery, and the Sierra Leone-American Connection*. Electronic document, http://www.yale.edu/glc/gullah/05.htm, accessed October 29, 2012.

Orser, Charles E., Jr.

1988 The Archaeological Analysis of Plantation Society: Replacing Status and Caste with Economics and Power. *American Antiquity* 53(4):735–751.

1994 The Archaeology of African-American Slave Religion in the Antebellum South. *Cambridge Archaeological Journal* 4(1):33–45.

Otto, John

1977 Artifacts and Status Differences: A Comparison of Ceramics from Planter, Overseer, and Slave Sites on an Antebellum Plantation. In *Research Strategies in Historical Archaeology*, pp. 91–118. Academic Press, New York N.Y.

1980 Race and Class on Antebellum Plantations. In *Archaeological Perspectives on Ethnicity in America: Afro-American and Asian American Culture History*, edited by Robert L. Schuyler, edited by Robert L. Schuyler, pp. 3–13. Baywood Publishing Company, Inc., Amityville, New York.

1984 Cannon's Point Plantation, 1794 - 1860 : Living Conditions and Status Patterns in the Old South. Academic Press, Orlando, Florida.

Pacheco, Paul J., Jarrod D. Burks, and Dee Anne Wymer

2005 Investigating Ohio Hopewell Settlement Patterns in Central Ohio: A Preliminary Report of Archaeology at Brown's Bottom #1 (33Ro21). *Ohio Archaeological Council*. Electronic document, http://www.ohioarchaeology.org/joomla/index.php?option=com_content&%20task=view&id=103&itemid=32, accessed August 8, 2013.

2009a The 2006 Archaeological Investigations at Brown's Bottom #1 (33R01104). *Ohio Archaeological Council*. Electronic document, http://www.ohioarchaeology.org/joomla/index.php?option=com_content&task=view&id=268&itemid=32, accessed August 8, 2013.

2009b The 2007-2008 Archaeological Investigations at Lady's Run (33R01105). *Ohio Archaeological Council*. Electronic document, http://www.ohioarchaeology.org/joomla/index.php?option=com_content&task=view&id=281&itemid=32, accessed August 8, 2013.

Parish of Christ Church

1755 Parish of Christ Church Land Grant Book C:246. On file at the Chatham County Clerk Office, Savannah, Georgia.

1756 Parish of Christ Church Land Grant Book C:1085. On file at the Chatham County Clerk Office, Savannah, Georgia.

Pearsall, Deborah M.

1989 *Paleoethnobotany: A Handbook of Procedures*. Academic Press, New York, New York.

Penningroth, Dylan

1997 Slavery, Freedom, and Social Claims to Property Among African Americans in Liberty County, Georgia, 1850-1880. *Journal of American History* 84(September):405–435.

Peterson, L.A.

1977 *A Field Guide to Edible Wild Plants, Eastern and Central North America*. The Peterson Field Guide Series. Houghton Mifflin Company, Boston, Massachusetts.

Pfeiffer, Michael A.

2006 *Clay Tobacco Pipes and the Fur Trade of the Pacific Northwest and Northern Plains*. Research Series. Historic Clay Tobacco Pipe Studies Research Monograph. Phytolith Press, Ponca City, Oklahoma.

Pfeiffer, Michael A., Richard T. Gartley, and J. Byron Sudbury

2007 *President Pipes: Origin and Distribution*. Electronic document, http://www.uark.edu/campus-resources/archinfo/SCHACPresidentPipes.pdf, accessed January 12, 2014.

Piperno, Dolores R.

1988 Phytolith Analysis: An Archaeological and Geological Perspective. Academic Press, San Diego.

Platen, Charles

1875 *Map of Chatham County, State of Georgia*, Compiled Exclusively from Certified Plats and Maps of the Most Eminent Local Surveyors. Savannah, Georgia.

Poe, Orlando M.

1864 Map Illustrating the Defense of Savannah, Georgia. Available from the Library of Congress.

Pollitzer, William S.

1999 *The Gullah People and Their African Heritage*. University of Georgia Press, Athens, Georgia.

Poplin, Eric C. and Michael C. Scardaville

1991 Archaeological Data Recovery at Long Point Plantation (38CH321), Mark Clark Expressway, Charleston County, South Carolina. Brockington and Associates, Inc., Atlanta, Georgia.

Posnansky, Merrick

1999 West Africanist Reflections on African-American Archaeology. In *"I, Too, Am America": Archaeological Studies of African-American Life*, edited by Theresa A. Singleton, pp. 21–38. University Press of Virginia, Charlottesville, Virginia.

Powell, David

2013 Patriotics and Storecards: The Tokens of the American Civil War. *London Numismatic Club*. Electronic document, http://www.mernick.org.uk/lnc/index.htm, accessed December 5, 2013.

Praetzellis, Adrian and Mary Praetzellis

2001 Mangling Symbols of Gentility in the Wild West: Case Studies in Interpretive Archaeology. *American Anthropologist* 103(3):645–654.

Prince, Richard E.

2000 Atlantic Coast Line Railroad, Steam Locomotives, Ships and History. Indiana University Press, Bloomington, Indiana.

Quitmyer, Irvey

1985 The Environment of the Kings Bay Locality. In *Aboriginal Subsistence and Settlement Archaeology of the Kings Bay Locality*, edited by William H. Adams. Reports of Investigations 2. Department of Anthropology, University of Florida, Gainesville, Florida.

R.J. Taylor Foundation

1989 *An Index to English Crown Grants in Georgia, 1755-1755*. The Reprint Company, Spartanburg, South Carolina.

Radford, A.E., H.E. Ahles, and C.R. Bell

1968 *Manual of the Vascular Flora of the Carolinas*. University of North Carolina Press, Chapel Hill, North Carolina.

Rafinesque, Constantine Samuel

1828 Medical Flora; or Manual of the Medical Botany of the United States of North America. Atkinson and Alexander, Philadelphia, Pennsylvania.

Ransom, John L.

1881 *Andersonville Diary Escape, List of Dead*. Reprinted 1974 by Haskell House, Publishers LTD, New York, New York. Douglass Brothers, Philadelphia, Pennsylvania.

Raymer, Leslie E.

1997 Macroplant Remains from Six Nineteenth-Century Cabins at the Hermitage, Tennessee: A Study of Antebellum and Early Emancipation Period African-American Subsistence Patterns. New South Associates, Inc., Stone Mountain, Georgia.

2003 Archaeobotanical Analysis from Data Recovery Excavations at the North Hill and Quarter Sites, Jefferson's Poplar Forest: A Study of Enslaved African-American Substistence Patterns. New South Associates, Inc., Stone Mountain, Georgia.

2004 Paleoethnobotany of the Mount Pleasant Site, Montpelier Plantation,, Orange, Virginia. New South Associates, Inc., Stone Mountain, Georgia.

2007 Foraging and Farming in the City: Archaeobotanical Investigations Assocaites with the Charleston Judicial Center Data Recovery. *South Carolina Antiquities* 39:34–51.

Raymer, Leslie E. and Mary Theresa Bonhage-Freud

2000 Archaeobotanical Analysis in Archaeological Excavations in the Brasstown Valley. *Early Georgia* 28(2):74–92.

Raymer, Leslie E. and Lisa D. O'Steen

1993 Report on Subsistence Remains from the 1992 Francis Scott Key Memorial Park Data Recovery, Washington, D.C. New South Associates, Inc., Stone Mountain, Georgia.

Reitz, Elizabeth J., Tyson Gibbs, and Ted A. Rathbun

1985 Archaeological Evidence for Subsistence on Coastal Plantations. In *The Archaeology of Slavery and Plantation Life*, edited by Theresa A Singleton, pp. 163–191. Academic Press, Inc., Orlando, Florida.

Reitz, Elizabeth Jean and Elizabeth S. Wing

1999 *Zooarchaeology*. Cambridge University Press, Cambridge, England.

Richey, Staci and Stacey Young

2009 Phase I Cultural Resource Survey of US Highway 17 Between SC-517 and Darrell Creek Trail. New South Associates, Inc., Stone Mountain, Georgia.

Ridgeway, Harry

2013 *Ridgeway Reference Archive, Civil War Buttons*. Electronic document, http://www.relicman.com/archiveaaa.htm, accessed December 12, 2013.

Rogers, George A. and R. Frank Saunders Jr.

1984 *Swamp Water and Wiregrass*. Mercer University Press, Macon, Georgia.

Rogers, George H. (Compiler)

1877 *Rogers City Directory of Savannah*. George H. Rogers, Savannah, Georgia.

Root, Waverly

1980 Food: An Authoritative and Visual History and Dictionary of the Foods of the World. Simon and Schuster, Inc., New York, New York.

Russell, Aaron E.

1997 Material Culture and African-American Spirituality at the Hermitage. *Historical Archaeology* 31(2):63–80.

Rutland, Jerry

2004 Echoes of the Riverbend, A History of Bryan Neck Along the Great Ogeechee River, 1733-2000. Trafford Publishers, Victoria, British Columbia.

Samford, Patricia

1999 "Strong is the Bond of Kinship": West African-Style Ancestor Shrines and Subfloor Pits on African-American Quarters. In *Historical Archaeology, Identity Formation, and the Interpretation of Ethnicity*, edited by Maria Franklin and Garrett Fesler, pp. 71–91. Colonial Williamsburg Foundation, Williamsburg, Virginia.

2007 *Subfloor Pits and the Archaeology of Slavery*. University of Alabama Press, Tuscaloosa, Alabama.

Schablitsky, Julie M.

2012 Meanings and Motivations Behind West African Spirit Practices. In *The Importance of Material Things II*. Special Publication Series 9. Society for Historical Archaeology, Germantown, Maryland.

Schreck, Victor G., G. Reuben Butler, and W.F. Brown

1930 Map of Chatham County Showing the Location of Properties, Public Roads, Etc. City of Savannah, Savannah, Georgia.

Schroedl, Gerald F. and Todd M. Ahlman

2002 The Maintenance of Cultural and Personal Identities of Enslaved Africans and British Soldiers at the Brimstone Hill Fortress, St. Kitts, West Indies. *Historical Archaeology* 36(4):38–49.

Seramur, Keith C. and Daphne Owens

2010 Archival Research and Geoarchaeology Investigation to Prepare a Cultural Resource Management Plan for 12,000 Acres Between Wright River and the Mouth of the Savannah River, Jasper County, South Carolina. Appalachian State University, Boone, North Carolina.

Sheehy, Barry, Cindy Wallace, and Vaughnette Goode-Walker

2011 Savannah Immortal City Volume 1 - Cvil War Savannah. Emerald Book Company, Austin, Texas.

Silliman, Garrett W.

2009 Additional Archaeological Testing Conducted at 9CH1205, Chatham County, Georgia. CRM. Edwards-Pitman Environmental, Inc., Atlanta, Georgia.

Silliman, Garrett W. and Phillip W. Quirk

2009 Phase I Archaeological Survey of the Proposed SR 204/Abercorn Extension Improvements from US17 to Rio Road and from Rio Road to Truman Parkway Phase V, and Phase II Archaeological Testing of 9CH1205, Chatham County, Georgia. Edwards-Pitman Environmental, Inc., Atlanta, Georgia.

Simpkins, Daniel L. and Claudia Lamas

1990 A Phase II Archaeological and Historical Investigation of Springfield Plantation and a Civil War Earthwork at the North End of Skidaway Island State Park. CRM. West Georgia College, Carrollton, Georgia.

Singleton, Theresa A.

1980 The Archaeology of Afro-American Slavery in Coastal Georgia: A Regional Perception of Slave Household and Community Patterns. Department of Anthropology, University of Florida, Gainesville, Florida.

1985 Archaeological Implications for Changing Labor Conditions. In *The Archaeology of Slavery and Plantation Life*, pp. 291–308. Academic Press, Inc., Orlando, Florida.

1991 The Archaeology of Slave Life. In *Before Freedom Came: African-American Life in the Antebellum South*, edited by Edward D.C. Campbell Jr. and Kym S. Rice. The Museum of the Confederacy, Richmond, Virginia.

1995 The Archaeology of Slavery in North America. *Annual Review of Anthropology* 24:119–140.

2010 Reclaiming the Gullah-Geechee Past: Archaeology of Slavery in Coastal Georgia. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Morgan, Philip, pp. 151–187. University of Georgia Press, Athens, Georgia.

Smith, Bruce D.

1989 Origins of Agriculture in Eastern North America. *Science* New Series 246, No. 4937:22.

Smith, Bruce D., and Richard A. Yarnell

2009 Initial Formation of an Indigenous Crop Complex in Eastern North America at 3800 B.P. *Proceedings of the National Academy of Sciences* 11(16):6561–6566.

Smith, Derek

1997 *Civil War Savannah*. Frederic C. Beil, Savannah, Georgia.

Smith, Julia Floyd

1985 *Slavery and Rice Culture in Low Country Georgia, 1750-1860*. The University of Tennessee Press, Knoxville, Tennessee.

Snay, Mitchell

2007 Fenians, Freedmen, and Southern Whites: Race and Nationality in the Era of Reconstruction. Louisiana State University Press, Baton Rouge, Louisiana.

Sneden, Robert Knox

1864 Map of the Siege and Investment of Savannah, Georgia 5th to 20 Decr. 1864.

Soil Survey Staff

2014 *Official Soil Series Descriptions*. Natural Resources Conservation Service, United States Department of Agriculture. Electronic document, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/class/?cid=nrcs142p2_053587, accessed January 7, 2014

South, Stanley

1977 Method and Theory in Historical Archaeology. Academic Press, Inc., London.

Spalding, Phinizy

1991 Colonial Period. In *A History of Georgia*, edited by Kenneth Coleman. pp. 9–68. University of Georgia Press, Athens, Georgia.

Springate, Megan E.

2010 The Sexton's House Has a Ritual Concealment: Late Nineteenth-Century Negotiations of Double Consciousness at a Black Family Home in Sussex County, New Jersey. The *African Diaspora Archaeology Network Newsletter (On-line Version)*(June).

Stahl, Peter W.

1995 Differential Preservation Histories Affecting the Mammalian Zooarchaeological Record from Forested Neotropical Lowlands. In *Archaeology in the Lowland American Tropics: Current Analytical Methods and Recent Applications*, pp. 154–180. Cambridge University Press, Cambridge, England.

Stanley, Mrs. E.A. and Mrs. Thomas C. Johnson

1968 *Chatham County Georgia Tax Digest for the Year 1798*. Reprinted from the Georgia Genealogical Magizine (July and October:1961-1970; 2043-2051). No Publisher Listed.

State of Georgia

1867 Oath Book for Chatham County, Georgia. Book 4, No 3187.

Stewart, Mart A.

1996 What Nature Suffers to Groe: Life, Labor, and Landscape on the Georgia Coast, 1680-1920. University of Georgia Press, Athens, Georgia.

Stine, Linda F., Melanie A. Cabak, and Mark D. Groover

1996 Blue Beads as African American Cultural Symbols. *Historical Archaeology* 30(3):49–75.

Storey, Steve

n.d. Atlantic and Gulf Railroad. Timetable reproduced from *Official Guide to the Railways*, 1870, pp. 292. National Railways Publication Company, New York.

Strasser, Susan

1982 Never Done : a History of American Housework. Pantheon Books, New York.

Sudbury, J. Byron

2006 *Historic Clay Tobacco Pipe Studies*. Phytolith Press, Ponca City, Oklahoma.

Sullivan, Buddy

2000 From Beautiful Zion to Red Bird Creek: A History of Bryan County, Georgia. Darien Publishing Company, Darien, Georgia.

Sussman, Lynne

1997 *Mocha, Banded, Cat's Eye, and Other Factory-Made Slipware*. Studies in Northeast Historical Archaeology 1. Council for Northeast Historical Archaeology.

Sutton, Mark Q. and Brooke S. Arkush

1996 *Archaeological Laboratory Methods: An Introduction*. Kendall/Hunt Publishing Company, Dubuque, Iowa.

Swanson, Mark

2004 Atlas of the Civil War Month by Month; Major Battles and Troops Movements. University of Georgia Press, Athens, Georgia.

Tarrant, Naomi

1994 *The Development of Costume*. Routledge, London, England.

Taylor, Lynne

2012 This History Track: Coastline Train Depots. *Georgia Backroads*. (Winter) 11:4

Teague, Megan Ann and James M. Davidson

2011 Victorian Ideals and Evolving Realities: Late Nineteenth- and Early Twentieth-Century Black Dallas and an Engendered African America. In *The Materiality of Freedom: Archaeologies of Postemancipation Life*, edited by Jodi A. Barnes, pp. 87–114. University of South Carolina Press, Columbia, South Carolina.

The Encyclopedia Americana Corporation

1919 Lack Hook. The *Encyclopedia Americana*. New York, New York.

Thompson, Mary V.

2011 Fishing Poles. In *The World of a Slave: Encyclopedia of the Material Life of Slaves in the United States*, edited by Martha Katz-Hyman and Kym S. Rice, pp. 227–228. Greenwood Press, Santa Barbara, California.

Thompson, Robert

1983 Flash of the Spirit; African & Afro-American Art & Philosophy. Random House, Inc., New York, New York.

Tilden, Freeman

1957 *Interpreting Our Heritage*. University of North Carolina Press, Chapel Hill, North Carolina

Trinkley, Michael

1987 The Lifestyle of Freedmen at Mitchelville, Hilton Head Island: Evidence of a Changing Pattern of Afro-American Archaeological Visibility. Chicora Foundation Research Series. Chicora Foundation, Inc., Charleston, South Carolina.

1989 Archaeological Investigations at Haig Point, Webb, and Oak Ridge, Daufuskie Island, South Carolina. Research Series 15. Chicora Foundation, Columbia.

Trinkley, Michael, Colin Brooker, and Debi Hacker

1989 An Archaeological Survey of the Barker Field Expansion Project, Hilton Head Island, Beaufort County, South Carolina. Chicora Foundation Research Series. Chicora Foundation, Inc., Columbia, South Carolina.

Trinkley, Michael and Debi Hacker

1989 Excavations at 38BU634. In *Archaeological Investigations at Haig Point, Webb, and Oak Ridge, Daufuskie Island, Beaufort County, South Carolina*, edited by Michael Trinkley, pp. 118–171. Chicora Foundation Research Series 15. Chicora Foundation, Inc., Columbia, South Carolina.

1999 Roupelmond: An Eighteenth and Nineteenth Century Interior St. Helena Parish Plantation, Beaufort County, South Carolina. Research Series 53. Chicora Foundation, Columbia, South Carolina.

2009 Shoolbred's Old Settlement: Excavations at 38CH123, Kiawah Island, Charleston County, South Carolina. Chicora Foundation Research Series. Chicora Foundation, Inc., Columbia, South Carolina.

Trudeau, Noah A.

2008 *Southern Storm, Sherman's March to the Sea*. Harper Collins Publishers, New York, New York.

Twiss, Page C.

1992 Predicted World Distribution of C3 and C4 Grass Phytoliths. In *Phytolith Systematics*, edited by George Rapp, Jr. and Susan C. Mulholland, pp. 113–128. Plenum Press, New York, New York.

Upton, Dell

1984 White and Black Landscapes in Eighteenth-Century Virginia. *Places: Forum of Design for the Public Realm* 2(2):59–72.

U.S. Census Bureau

1820 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1830 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1840 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1850a U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1850b Seventh (1850) Federal Census of the United States, Slave Schedule. Online database. Ancestry.com Operations, Inc, Provo, Utah.

1860a U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1860b Eighth (1860) Federal Census of the United States, Slave Schedule. Online database. Ancestry.com Operations, Inc, Provo, Utah.

1870 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1880 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1890 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1900 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1910 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1920 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1930 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

1940 U.S. Federal Population, Agricultural, and Manufacturing Census. U.S. Census Bureau, Washington, D.C.

U.S. Department of Agriculture

1974 *Important Trees of Eastern Forests*. United States Department of Agriculture, Southern Region.

U.S. Geological Survey

1957 *Burroughs, GA. Quadrangle*. U.S. Government Printing Office, Washington D.C.

U.S. News and World Report

2014a Education: Best High Schools. Beach High School. *usnews.com*. Electronic document, http://www.usnews.com/education/best-high-schools/georgia/districts/chatham-county/beach-high-school-5757, accessed February 6, 2014.

2014b Education: Best High Schools. Jenkins High School. *usnews.com*. Electronic document, http://www.usnews.com/education/best-high-schools/georgia/districts/chatham-county/jenkins-high-school-5759, accessed February 6, 2014

U.S. War Department

1882 *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*. Volume 1. U.S. Government Printing Office, Washington D.C., Washington D.C.

1893 *The War of the Rebellion: A Compilation of Official Records of the Union and Confederate Armies*. Volume 2. U.S. Government Printing Office, Washington D.C., Washington D.C.

USA Coin Book

2010 USA Coin Book. *USA Coin Book*. Electronic document, http://www.usacoinbook.com/, accessed December 4, 2013.

Venovcevs, Anatolijs

2013 Dress for Life and Death: The Archaeology of Common Nineteenth-Century Buttons. Paper presented at the Annual Forward Into the Past Conference, Waterloo, Ontario.

Vlach, John Michael

1991 The Plantation Landscapes of the Antebellum South. In *Before Freedom Came: African-American Life in the Antebellum South*, edited by Edward D.C. Campbell Jr. and Kym S. Rice, pp. 21–50. Museum of the Confederacy, Richmond, Virginia.

Wade, Gary, Elaine Nash, Ed McDowell, Brenda Beckham, and Sharlys Crisafulli

2011 Native Plants for Georgia Part I: Trees, Shrubs and Woody Vines. *University of Georgia College of Agricultural & Environmental Sciences*. Electronic document, http://www.caes.uga.edu/publications/pubdetail.cfm?pk_id=7763#palmetto, accessed January 2, 2014.

Wall, Diana diZerega

1994 *The Archaeology of Gender*. Plenum Press, New York, New York.

Wallace, David

1969 *South Carolina; A Short History, 1520-1948*. University of South Carolina Press.

Ward, A.

1941 *The Encyclopedia of Food*. Reprint. Peter Smith, New York, New York.

Washington, Margaret

2005 Gullah Attitudes Toward Life and Death. In *Africanisms in American Culture*, edited by Joseph Holloway, pp. 152–186. Second. Indiana University Press, Bloomington, Indiana.

Watson, Patty Jo

1976 In Pursuit of Precontact Subsistence: A Comparative Account of Some Contemporary Flotation Techniques. *Midcontinental Journal of Archaeology* 1(1):77–100.

Wells, Camille

1993 The Planter's Prospect: Houses, Outbuildings, and Rural Landscapes in Eighteenth-Century Virginia. *Winterthur Portfolio* 28(1):1–31.

Westmacott, Richard

1992 *African-American Gardens and Yards in the Rural South*. The University of Tennessee Press, Knoxville, Tennessee.

Wharton, Charles H.

1978 *The Natural Environments of Georgia*. Georgia Department of Natural Resources Bulletin 114. Atlanta, Georgia.

Whatley, John S.

2002 An Overview of Georgia Projectile Points and Selected Cutting Tools. *Early Georgia* 30(1):7–133

Wheaton, Thomas R.

2002 Colonial African American Plantation Villages. In *Another's Country: Archaeological and Historical Perspectives on Cultural Interactions in the Southern Colonies*. The University of Alabama Press, Tuscaloosa, Alabama.

Wheaton, Thomas R., Amy Friedlander, and Patrick H. Garrow

1983 Yaughan and Curriboo Plantations: Studies in Afro-American Archeology. Soil Systems, Inc.

Wheaton, Thomas R. and Patrick H. Garrow

1985 Acculturation and the Archaeological Record in the Carolina Lowcountry. In *The Archaeology of Slavery and Plantation Life*, pp. 239–260. Academic Press, Inc., Orlando, Florida.

Wheaton, Thomas R., Jr. and Mary Beth Reed

1989 *James City: An African American Urban Village*. New South Associates, Inc., Stone Mountain, Georgia.

White, Carolyn

2005 American Items of Personal Adornment, 1680-1820: A Guide to Identification and Interpretation. Alta Mira Press, Walnut Creek, California.

White, Deborah Gray

1999 *Ar'n't I a Woman? Female Slaves in the Plantation South*. Revised. W.W. Norton & Company, New York, New York.

Whitley, Thomas G.

2008 Residential and Communal Landscapes at the Ford Plantation Development, Richmond Hill, Georgia. *Early Georgia* 36(1):3–22.

Whitley, Thomas G., Connie M. Huddleston, and Dea Mozingo

2003 The Ford Plantation Project: Archaeological Data Recovery at Silk Hope Plantation (9BN58 & 9BN176), Bryan County, Georgia. Brockington and Associates, Inc., Atlanta, Georgia.

Wilkes, Robert L., J.H. Johnson, H.T. Stoner, and D.D. Bacon

1974 *Soil Survey of Bryan and Chatham Counties, Georgia*. United States Department of Agriculture, Soil Conservation Service, Washington, D.C.

Wilkie, Laurie A.

1995 Magic and Empowerment on the Plantation: An Archaeological Consideration of African-American World View. *Southeastern Archaeology* 14(2):136–148.

1997 Secret and Sacred: Contextualizing the Artifacts of African-American Magic and Religion. *Historical Archaeology* 31(4):81–106.

2002 Toys. Edited by. Charles E. Jr. Orser. *Encyclopedia of Historical Archaeology*. Routledge, London, England.

Williams, Mark and Victor Thompson

1999 A Guide to Georgia Indian Pottery Types. *Early Georgia* 27(1):1–167.

Winn, Les R.

1995 *Ghost Trains and Depots of Georgia*. Big Shanty Publishing Company, Chamblee, Georgia.

Wood, Betty

1995 Women's Work, Men's Work: The Informal Economies of Lowcountry Georgia. University of Georgia Press, Athens, Georgia.

2010 "High Notions of their Liberty": Women of Color and the American Revolution in Lowcountry Georgia and South Carolina, 1765-1783. In *African American Life in the Georgia Lowcountry: The Atlantic World and the Gullah Geechee*, edited by Philip Morgan, pp. 48–76. University of Georgia Press, Athens, Georgia.

Wood, Peter

1974 Black Majority: Negroes in Colonial South Carolina from 1670 Through the Stono Rebellion. W.W. Norton and Co. Inc, New York, New York.

Wright Jr., Herb E.

1971 Late Quarternary Vegitational History of North America. In *The Late Cenozoic Glacial Ages*, edited by K.K. Turekian, pp. 425–464. Yale University Press.

Yanofsky, Elias

1936 *Food Plants of the North American Indians*. USDA Miscellaneous Publication No. 237, Washington D.C

Yeoman, R.S.

1988 *A Guidebook of U.S. Coins, 45th Edition*. Western Publishing Company, Racine, Wisconsin.

Young, Helen and Maureen Stanton

1990 Influences of Floral Variation on Pollen Removal and Seed Production in Wild Radish. *Ecology* 71:536–547.

Younge, Henry

1754 Exact Plan of Georgetown So Named by Patrick Graham, Esquire, President of the Province of Georgia.

Zeder, Melinda A.

1991 Feeding Cities: Specialized Animal Economy in the Near East. Smithsonian Institute Press, Washington D.C.

Zierden, Martha A., Lesley M. Drucker, and Jeanne A. Calhoun

1986 *Home Upriver: Rural Life on Daniel's Island, Berkeley County, South Carolina.* Carolina Archaeological Services, Inc./The Charleston Museum, Columbia, South Carolina.