1989

"The Best Ever Occupied...": Archaeological Investigations of a Civil War Encampment on Folly Island, South Carolina

James B. Legg
University of South Carolina - Columbia, leggj@mailbox.sc.edu

Steven D. Smith
University of South Carolina - Columbia, smiths@mailbox.sc.edu

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"The Best Ever Occupied...": Archaeological Investigations of a Civil War Encampment on Folly Island, South Carolina

Description
In May of 1987, the South Carolina Institute of Archaeology and Anthropology was informed that human remains were being unearthed by road construction in a private residential development on Folly Island, South Carolina. This information led to a two year investigation of the 1863 winter camp of the Federal Army, used during its siege of Charleston. During the investigations a black military cemetery was salvaged (site 38CH920), and three areas of the Federal camp were examined as part of a data recovery project, and a later research effort (sites 38CH964, 38CH965, 38CH966). All of the sites were recommended as eligible for nomination to the National Register of Historic Places. This report presents the results of all archaeological and historical investigations of the winter camp conducted from May 1987 to May 1989. The cemetery contained the remains of at least 19 black soldiers, most likely from the 55th Massachusetts, 1st North Carolina Colored Infantry, and the 2nd U.S. Colored Infantry. The material culture from the camp sites represented refuse of several possible Federal military units, deposited in latrines, wells, and trash pits. In addition to the archaeological analysis, a detailed historical overview is presented.

Keywords
Excavations, Cemeteries, Civil War, Union army, African Americans, Folly Island, South Carolina, Archeology

Disciplines
Anthropology

Publisher
The South Carolina Institute of Archeology and Anthropology--University of South Carolina

Comments
In USC online Library catalog at: http://www.sc.edu/library/
"THE BEST EVER OCCUPIED..."

ARCHAEOLOGICAL INVESTIGATIONS
OF A CIVIL WAR ENCAMPMENT
ON FOLLY ISLAND, SOUTH CAROLINA

Research Manuscript Series 209

JAMES B. LEGG
AND
STEVEN D. SMITH

with contributions by
Chris E. Fonvielle, Lynn M. Snyder, Ted E. Rathbun,
and
Sharon L. Pekrul, Natalie Adams, Ramona Grunden, and David R. Lawrence

Principal Investigator
Steven D. Smith

THIS BOOK DONATED BY

The South Carolina Institute of Archaeology and Anthropology
University of South Carolina
1321 Pendleton Street
Columbia, South Carolina 29208
1989
ABSTRACT

In May of 1987, the South Carolina Institute of Archaeology and Anthropology was informed that human remains were being unearthed by road construction in a private residential development on Folly Island, South Carolina. This information led to a two year investigation of the 1863 winter camp of the Federal Army, used during its siege of Charleston. During the investigations a black military cemetery was salvaged (site 38CH920), and three areas of the Federal camp were examined as part of a data recovery project, and a later research effort (sites 38CH964, 38CH965, 38CH966). All of the sites were recommended as eligible for nomination to the National Register of Historic Places. This report presents the results of all archaeological and historical investigations of the winter camp conducted from May 1987 to May 1989. The cemetery contained the remains of at least 19 black soldiers, most likely from the 55th Massachusetts, 1st North Carolina Colored Infantry, and the 2nd U.S. Colored Infantry. The material culture from the camp sites represented refuse of several possible Federal military units, deposited in latrines, wells, and trash pits. In addition to the archaeological analysis, a detailed historical overview is presented.
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ACKNOWLEDGEMENTS

It would take another volume to adequately thank all of the many, many people who played some part in seeing this report to its completion. The people mentioned below are among the foremost of this large group, and I am sure that someone who has played a part has been missed. To those who remain unidentified, I thank you, and hope you will forgive the oversight.

The cemetery site was brought to the Institute's attention by collectors Robert Bohm and Eric Croen. Robert and Eric worked hard, side by side with us, during the first two hot weeks of excavations. Robert continued to help us throughout the project, especially towards the end, in the interpretation of the project area. I am also happy to say that despite a serious illness, he is rapidly recovering and was able to attend the reburial of the soldiers in May of 1989. Mr. David Ruth of the National Park Service was also instrumental in alerting us to the site and I thank him for his efforts behind the scenes.

Coordination for the rescue of the burials in 1987 was accomplished by Michael Roberts of Ravenel, Eiserhardt Securities, Inc., Mayor Richard Beck and the City Council of Folly Beach, and the Charleston County Medical Examiner's Office under Dr. Sandra Conradi. Lee Wilson and Judy Koelpin of the Medical Examiner's Office worked many a long hot day with us, and provided field identification for the skeletal remains as they appeared. Their help was immeasurable. During that first effort, the developer and the city provided night and weekend site security (T.M. Marshall, Fred Bothman, George Horton, and Shep Bone) at their expense. Ravenel, Eiserhardt Securities also provided the assistance of a professional surveyor at no cost. Coordination with the Public Service Department of Folly Beach was provided through Steve Robinson. Edward Seabrook, former landowner, provided invaluable oral history concerning the last 40 years of the project area.

Excavations at 38CH920 were completed by an outstanding Institute crew consisting of Keith Derting, Nena Powell, Peggy Brooks, Carl Naylor, and Tommy Charles; all directed by Sharon Pekrul. Volunteers consisted of Barbara Hiott, Carl Steen, Robert Bohm, and Eric Croen. Additional professional help came from Martha Zierden, and Kimberly Grimes with the approval of Dr. Charles Brungardt of The Charleston Museum. Artifacts from the project will be transferred to The Charleston Museum for long-term curation.

Keith Derting and Sharon Pekrul continued their help once the Institute returned from the field. Keith and Sharon worked hard to complete preliminary analysis while doing their full-time jobs. Sharon did the majority of the preliminary analysis for site 38CH920 and contributed to Chapter III. She was also helpful in turning this text into English.

Dr. Ted Rathbun, Deputy State Archaeologist for Forensics with the Institute, has been with the project since its beginning, volunteering time during the fieldwork, and continuing the physical anthropological research. Ted contributed Appendix A in this report, and has maintained support and friendship throughout some amazingly complex times. His personal dry-screens took quite a beating throughout the project. Assisting Ted in the lab were Sharon Pekrul, Pauley Smith, and Tom Crist.

Another stalwart of this project, who kept with it from the beginning (pre-funding), was USC Department of Anthropology graduate student Natalie Adams. Natalie worked for two years as a Research Assistant to the project, conducting preliminary historical research, and generally helping anywhere and everywhere. During the final phase of the project, Natalie assisted in the analysis of the artifacts and contributed to Chapter V.

Carolina Archaeological Services, Inc., recovered the four final burials from 38CH920 and conducted the compliance level survey of the tract. Dr. Lesley M. Drucker of CAS provided field notes and photographs of their work for completion of this report.

The second phase of the Institute's project was field-directed by Lisa D. O'Steen. Her crew consisted of Tommy Charles, Nena Powell, Carl Naylor, Mark Newell, and Jean Spencer. Volunteers on that project included Jackie Baker and Jody McInerny. It was also at this time that Chris Fonville, an Instructor at East Carolina University, joined the research team as primary historian. Chris did an excellent job, the fruits of which are seen in Chapter II.
First Coastal Properties, Inc. funded the second phase of excavations and provided the finest housing I have ever had on any dig. They also provided a backhoe. First Coastal was represented by Jackie Baker and William G. Hantske. Both of these individuals, as well as the company, went out of their way to cooperate with the archaeology and it was a pleasure to work with them.

The work during Phase II demonstrated the extreme importance of the site and the Institute began working with state legislator's to secure additional funding to return. State Senators Glenn McConnell and Herbert Fielding worked hard in an attempt to obtain funding through the State's Contingency Fund. Their efforts made the final field phase of the project possible. Behind the scenes support also came from Paul Manley, Executive Director of the South Carolina School for the Deaf and Blind. In the end, the funds were not appropriated, and the Institute filled-in the financial gap.

In October of 1988, the Institute was able to return again to the site to sample the project area. This effort was field-directed by James B. Legg. Jim has been the outstanding asset in the completion of the Folly Island project, hence his senior authorship. An expert in Civil War history and military equipment, he is one of those whose working knowledge of the war and its artifacts turns fieldwork into a field school. Jim is also a conscientious archaeologist and an artist with a trowel. Jim's efforts in the lab and in the analysis phase were equally exacting.

Jim's professional crew consisted of the finest I have ever worked with: Ramona Grunden, Elizabeth Pinckney and Tommy Charles. Volunteers consisted of Larry Cadigan and Barbara Hiott. Extra professional experience was again provided by Martha Zierden and Kimberly Grimes of The Charleston Museum. Bruce Thompson and Chris Amer, Institute regulars, volunteered a few days to help us recover one of the well barrels. The artifacts will exist long after this report is gone, thanks to the conservation efforts of Bruce Thompson, Harold Fortune, Ruth Troccoli and Natalie Adams. After fieldwork Ramona Grunden worked at Institute to assist in artifact processing, historical analysis, and just anything else that needed to be done. This included some unpaid, but much appreciated hours. Ramona is an expert field and lab archaeologist with a solid knowledge of the latest theory and method, but doesn't let all that get in the way of her practical knowledge and expertise in dirt archaeology.

It was also a pleasure to have the constant support of Dr. Stephen Wise of the Parris Island Museum. Steve's knowledge of the Civil War is widely recognized by his scholarly research on the Morris Island Campaign and blockade runners. His advice kept us from making too many historical gaffs, and any that still exist in this report are the fault of the Principal Investigator. One of the real intellectual pleasures of this project has been to be present when Jim, Ramona, and Steve get together. The occasion inevitably turns into a Civil War think tank. Their combined knowledge of the war, if written down, would approach the size of the Official Records.

Lynn Snyder of the Department of Anthropology, University of Tennessee, did an excellent analysis of the faunal material from Folly Island, Appendix B. She would like to thank Terry Faulkner for her assistance. Dr. David Lawrence of the USC Geology Department analyzed the oysters. His report is Appendix C.

Throughout the project, Dr. Patricia Cridlebaugh has provided coordination through the South Carolina State Historic Preservation Office. Dr. Cridlebaugh also provided professional assistance in reviewing the draft manuscript, for some much needed outside review. I appreciate her continued support and tolerance during a long complicated process that never followed the textbook solution to compliance archaeology problems.

Another reader, Dr. Chester DePratter, took a great deal of his personal time to read and re-read our often plodding text, and made excellent editorial suggestions. Chester has remained a good friend throughout the project, and I took all of his suggestions, except to go into another line of work.

Very late in the project, Jim Legg and I were able to obtain funding for a brief trip to Massachusetts to research the 55th Massachusetts Volunteer Regiment. This funding was provided through the Beaufort Veteran's County Affairs Office, Beaufort, South Carolina, and Mr. William Grant, Veteran's Affairs Officer. This research was in conjunction with the reburial of the soldiers on May 29, 1989 at the Beaufort National Cemetery. The reburial ceremony was coordinated through that Office and the Veteran's Affairs Planning Committee. I especially thank Bill for providing the funding for much needed research, even when the research was instrumental in proving that the troops were not all members of the 55th Massachusetts. He kept his commitment under heavy pressure and is to be greatly admired for his integrity. David Bayard and Tom Creed of the Atlanta Regional Office of the Veteran's Administration, and Virgil Wertenerberger of the Beaufort National Cemetery are also thanked for their support.

While in Massachusetts we were treated like royalty by Coordinator Martha Richardson and Historian, Steven
Hill of the Massachusetts State House Flag Project, and by James Fahey and Dana Essigman of the Massachusetts National Guard Supply Depot. The success of our research in Massachusetts was due entirely to these individuals who went beyond the call of duty to help us. We were also helped very much by Peter Drummey and Brenda Lawson of the Massachusetts Historical Society, and by Brenda Howitson of the George Fingold Library at the State House. During our visit, we were able to meet with Representative Byron Rushing who coordinated the Massachusetts reburial effort.

Consultants and informants were abundant throughout the project and include James Hill of the Caroliniana Library at USC, Tracey Power at the State Archives and History Department, A. Torey McLean of the North Carolina Department of Archives and History, Mike Music of the National Archives, Michael Trinkley of the Chicora Foundation, and Lt. Col. Joseph Whitehorn of the Office of Inspector General, Washington D.C. Also, Brett Cullen and James Ivers shared their collecting experience. During our laboratory research, we were greatly honored by a visit from Dr. Francis Lord, professor-emeritus of the USC Department of History, who helped with artifact identification. Dr. John Cosby of Northeast Dental Associates, Inc. also lent his expertise, as did Douglas Green of the United States Army Corps of Engineers, Wilmington District. Archaeologist Robert Johnson advised us concerning his experience at Civil War sites. Archaeologist Mark Brooks of the Savannah River Site and the Institute advised us on the geology of Folly Island. Two other archaeologists, Guy Prentiss and Bruce Lawson shared information from Andersonville, Georgia and National Park Service work in Virginia, respectively. Colleagues who have lent advice and friendship over the past two years, and thus aided the cause, include Dr. Charles Orser, Dr. William H. Adams, Dr. Timophy Riordan, Jim Michie, and Dr. Kathleen Byrd.

Production assistance for this report was provided by Karen Wooten who did a beautiful job as layout editor. Diane Moses, Janet Weatherly and Carol Shealy helped with typing. Jennifer Jewell provided support in the Institute’s business office. Stan South did an excellent job of artifact photography. Mark Newell also helped with photography. Thanks to all of you.

Dr. Bruce Rippeteau, Director and State Archaeologist, supported the project from its onset. Bruce Rippeteau is especially thanked for his special help in securing Institute funds for phase III. Also, throughout the project, small but critical emergency funds were graciously provided by S & L Overhead. This support has not gone unnoticed.

Jim Legg and I would like to personally thank Colonel Charles Fox, late of the 55th Massachusetts, for his diligent efforts to record the history of that unit. We also thank the unknown soldiers of the 55th Massachusetts Volunteer Regiment, the 1st North Carolina Colored Infantry, the 2nd United States Colored Infantry, and whomever else may have lost their lives in the fight for freedom on Folly Island, and were among the remains discovered at 38CH920.

Finally, I must sincerely thank my wife, Patricia Luken Smith, for her support throughout these long two years. She bore the brunt of my responsibility to complete a major excavation and research effort while maintaining a full-time job as Deputy State Archaeologist.

Final editing was completed by myself, as Principal Investigator, and Karen Wooten. Faults, shortcomings, omissions, typos, and other problems in this report remain my responsibility.

Steven D. Smith
Principal Investigator,
September 1989
CHAPTER I

INTRODUCTION

Between April 12, 1861, and April 9, 1865, Americans fought Americans in a civil war costing the lives of some 618,200 soldiers, and devastating the property and economy of the southeastern portion of the United States. One of the longest campaigns of this war was the siege of Charleston, South Carolina. From June 1863 to February 1865, Union forces attempted to reduce the fortifications protecting Charleston Harbor so that a fleet could enter and capture the town. During the long siege, Folly Island, a small barrier island approximately six miles southeast of Charleston (Figure 1.1), was used by the North as a staging ground and encampment. Today, most of the physical remains of this occupation have been erased by erosion, development, and relic collectors. However, in May of 1987, and in the summer and fall of 1988, the South Carolina Institute of Archaeology and Anthropology (SCIAA or the Institute) was given a rare opportunity to archaeologically investigate a portion of a Union camp, and a cemetery of black Union troops, before the area was developed. This report presents the preliminary results of that investigation.

The next section of Chapter I relates the Institute's work history at Folly Island. Following a brief examination of the local environmental conditions, the research design and methodology are presented. These latter two sections were prepared to organize and focus project goals, and to outline the manner in which the goals would be reached. In military terms, they are the strategy and tactics of the project, as President Lincoln's strategy for winning the war included the capture of Charleston. More specific and specialized methods are presented, as necessary, within each later section of the report. In war, generals and captains must constantly revise and even change their methodology once the battle is joined, adjusting to the problems and opportunities observed through the 'fog of war.' In archaeology, field directors and excavators must also adjust their methods as the site is revealed through the 'fog of excavation.'

Chapter II presents an overview of the history of Union occupation on Folly Island as it relates to the archaeological efforts. Here, no attempt has been made to provide a definitive work on the war around Charleston. A thorough history is provided, but its purpose is to provide context and to present details which will aid an understanding of the archaeological findings. Especially pertinent was information about the lives of soldiers in the 55th Massachusetts and the 1st North Carolina Colored Infan-

try, since these two regiments are probably represented by the skeletal remains recovered at the cemetery site 38CH920. The reams of historical documents that are available for future research, are staggering. Like the archaeology, the Institute has only scratched the surface of what could be learned through further archival research.

Chapter III presents the results of the archaeological excavations at 38CH920. Chapter IV discusses the excavations at 38CH964, 38CH965, and 38CH966 (Figure 1.2). This separation of the archaeological sites into two chapters is made both for convenience, and because the deposits from 38CH920 are different from the other three sites. Site 38CH920, as noted, was a black military cemetery. The other sites represent camp refuse and activity areas of several unidentified Union military units, both black and white. Information about methods particular to each site is detailed in these two chapters. The features found at each site and where possible, their function, are also described. Artifacts are discussed in these chapters as they relate to, and help to interpret the features discovered. For the professional archaeologist, raw counts of artifacts are presented in Appendix F.

Chapter V looks at the artifacts in a different way. Here, they are discussed as functional groups and analyzed to see what they reveal about the soldiers' lives on Folly Island. This section should be of special interest to archaeologists who might excavate similar sites.

Chapter VI presents preliminary conclusions and attempts to incorporate all findings into a synthetic statement. Undoubtedly, further documentary and archaeological research will change the conclusions presented here, and for that reason alone, they must be seen as preliminary. Given the limited scope, funding, and timeframe for this project, as well as the staggering reality of the unsearched documents and unexcavated portions of the site, this report must be seen as simply an attempt to assess the archaeological study of Folly Island to date. The conclusions review what is known and what is not known, and offer recommendations for future research. It should be noted that in preparing this report, every attempt has been made to reach both the professional archaeologist and the interested layman. It is hoped that the format and style are both readable for the public, and complete in technical detail for the professional.

As a final note, it must be stated that SCIAA is quite aware of the overwhelming body of Civil War literature available today. Because so much information exists,
skeptics may legitimately ask, “What can archeology offer that is not available in the historical documents?” The answer to this question is simple and often understated. Archaeology offers a view of the past through a different perspective (v. Adams 1977). Historians use the perspective of documents which carry the bias of the author. Data derived from archaeology carries its own bias: the ravages of time. Neither type of data is inherently better than the other. Combined, they offer a three-dimensional look at the past, just as two eyes are better than one.

The continually growing body of Civil War literature, the increasing numbers of the public engaging in re-enactments, and the advancing crowds of relic collectors, all provide clear testimony to the war’s profound and enduring effect on the country, and the importance placed on its study. Because it is so important to America, every piece of information that might help understand this period of history is invaluable. It is hoped that this preliminary report contributes in some small way to that understanding.

HISTORY OF INVESTIGATIONS

The history of archaeological investigations at Folly Island is as complex as the history of the Civil War itself. When salvage excavations initially began at the cemetery site, 38CH920, no one had any idea that the project would continue for two years and would involve three field seasons for the Institute, as well as a compliance level survey by other archaeologists. In hindsight, had this been a pure research project from the beginning, the research, methods, and results would have been very different. Still, comfort is taken in the knowledge that if the problem had been ignored after that first visit, the site and all of its secrets would have been forever lost.

On May 11, 1987, SCfA was informed by relic collectors that human bones were being unearthed at a construction site on Folly Island. The area, which is known as the Seabrook Tract after its former owner, was being developed as a private residential community by Ravenel, Eiserhardt Securities, Inc., through First Coastal Properties, Inc. The area was previously known by local and out-of-state collectors as an excellent place to find Civil War relics. During the war, the entire island was the staging ground for Union troops as they besieged Charleston. Much of the modern town of Folly Beach covers these grounds, but the Seabrook property had remained undeveloped until 1987. Collecting had occurred at a steady pace for at least twenty years, drawing metal detector enthusiasts from the surrounding states. However, the construction of roadbeds had turned parts of the project area from a forest with moderate to heavy understory into open, exposed sand dunes. When word of the construction activities spread, the collectors began flocking to the area. Two avid collectors, Mr. Robert Bohm and Mr. Eric Croen, discovered the bones, and eventually called the Institute.

Principal Investigator, Steven D. Smith, met the collectors at the site on May 14, 1987. They were concerned that other collectors might loot the cemetery, and wanted the Institute to recover the burials and rebury the remains in a National Cemetery. At that point, it was clear that the cemetery was threatened by further construction of the roadbed (today, the sand ridge has been totally leveled) and probable discovery by other collectors. To prevent further disturbance of the cemetery, protective, legal steps needed to be implemented immediately. A key question was whether the site could be considered to have archaeological potential, or whether the burials should be turned over to the Charleston County Coroner for handling as an abandoned cemetery. South Carolina has no specific archaeological burial law, and the only laws pertaining to this problem at that time were SC Code of Laws 27-43-10 through 40 and 16-17-600. These laws define an abandoned cemetery, and state that the persons wishing to move an abandoned cemetery must work with the local governing body to locate next of kin prior to re-interment. There is no law providing for scientific examination.

The landowner and the County Coroner were contacted, along with the Charleston County Medical Examiner’s Office and officials of the City of Folly Beach. After much discussion with all of these interested parties, everyone was in agreement that the burials were not of recent origin and had considerable historical interest. All parties were concerned that the skeletal material eventually be reburied, but they also were interested in the archaeological potential of the site. Despite subsequent problems with many parties over the next two years, the Institute then received and continued to receive, cordial, professional assistance from the developer, the City of Folly Beach, and the State Historic Preservation Office (SHPO). The project also received excellent press and strong public interest.

SCfA proceeded with plans for sampling the burials and contacted the SHPO on May 15, to see if any State Coastal Council compliance or Federal compliance was involved with the project. At that point, there was none, and there was no legal obligation on the part of the developer to stop construction. On May 18, the Principal Investigator and the developer met on site, where a 30-day construction delay in the area, while the Institute conducted salvage archaeological excavations. Assistance was provided by the developer and the City of Folly Beach, who together arranged security for the site. During the excavations, the collectors who discovered the site, the Charleston County Medical Examiner’s Office, and The Charleston Museum provided extra labor and equipment.

Fieldwork at 38CH920, the cemetery site, began on May 19, 1987 with two management goals in mind: 1) to
Figure 1.1: Detail of Folly Island, U.S.G.S. 7.5 James Island topographic map, 1959 (photorevised 1979). (Arrow locates project area.)
collect an archaeological sample of the burials, and 2) to take the sample from the roadbed where they would otherwise be destroyed or looted. Balanced against these goals were the unknown number of burials and only a limited ability to sustain fieldwork due to lack of funding. An arrangement was made for the Institute to help monitor further road construction to facilitate the recovery of any burials not found during the excavations. Burials not discovered during archaeological excavation or construction were best left in place at this point. It was hoped that local environmental conditions and the new residents would help to protect any burials left behind.

The fieldwork was completed after two weeks (May 19, 1987 to May 29, 1987) and during that time the Institute recovered 14 burials, the skeletal remains being only partially complete. This fieldwork was field directed by Sharon L. Pekrul. The archaeological materials were taken to the Institute in Columbia, South Carolina, where washing, cataloging, and preliminary analysis began. Meanwhile, Dr. Ted Rathbun, Deputy State Archaeologist for Forensics began analysis on the skeletal material. Progress with both the archaeological analysis and the physical anthropological analysis was slow, as it was conducted during spare time with limited funding.

At this point in time it was assumed that, except for limited monitoring, SCIAA's efforts at Folly Island would be confined to producing a report on 38CH920, and reburial of the skeletal materials afterwards. In June 1987, the developer received word from the South Carolina Coastal Council that because of the cemetery discovery, there might be other sites in the project area. In compliance with the Coastal Zone Management Act, certification of their Department of Health and Environmental Control water supply permit must take into account any further sites eligible for the National Register of Historic Places. A survey of the 42-acre project area was recommended by the SHPO. Carolina Archaeological Services, Inc. (CAS) began monitoring further construction on the property and performed the required survey beginning on July 30, 1987. They discovered nine additional sites and two isolated finds (Drucker and Jackson 1988:4). Three of the sites, 38CH964, 38CH965, 38CH966, were recommended as eligible for the National Register. Carolina Archaeological Services, Inc. continued to monitor these sites through the fall of 1987.

During this period, the Institute produced a management summary for Ravenel, Eiserhardt Securities, Inc. submitted on August 10, 1987. In the summary, SCIAA recommended that the cemetery site was eligible for the National Register. In that same month, a Memorandum of Agreement (MOA) was signed by the developer and the SHPO. The MOA stipulated that the sites recommended as eligible by CAS would be preserved in place, or if they could not be avoided, data recovery would be conducted. The Institute was named in the MOA as responsible for producing a report on 38CH920, prior to the final certification of the developer's permits. Finally, if more burials were discovered in subsequent landscaping activities, these activities would cease, and the SHPO and the Institute would be notified. The Institute agreed to oversee the recovery of any further burials.

In late December 1987, the Institute was again contacted by Robert Bohm and told of additional human burials being exposed by sewer line construction near 38CH920. This was reported to the SHPO, and because CAS was currently under retainer by the developer, they conducted excavations of these burials (numbered 15 through 18) and monitored the rest of the pipeline construction (Anthony and Drucker 1988). The burial materials were transmitted to Dr. Rathbun upon completion of CAS's report. Because of these late discoveries, the developer and the SHPO reached another agreement for all house lots in the immediate area of 38CH920. This agreement included a clause in the deeds of sale for the lots, which stated that SCIAA must be contacted if further human burials were ever discovered.

In April 1988, CAS submitted its final survey report and it was clear that data recovery (excavation) would be necessary at the three sites 38CH964, 38CH965, and 38CH966. The sites could not be avoided with the construction of housing. The Institute had been negotiating a contract with the developer to complete its studies and finish the report of investigations at 38CH920. Since further excavations were now necessary, SCIAA entered into a contract with the developer to complete both projects.

It was clear that a major Civil War occupation existed in the area, confirmed by both collectors and by continuing archival research. However, all previous efforts led the Institute to believe that though the project area contained artifacts, it was heavily disturbed. The project area, for instance, had been logged three times by the past landowner, and also had been thoroughly churned for artifacts. There were many potholes within the wooded project area. The survey report by CAS appeared to corroborate this assumption as only three partially potted sites were recommended as eligible for the National Register. Therefore, the Institute submitted a proposal for a small data recovery project of three weeks fieldwork. The SHPO reviewed the proposal and was very cooperative in speeding up the paper work so that excavations could begin.

These archaeological investigations (June 28, 1988 to July 22, 1988) were directed by Lisa D. O'Steen. The first two weeks of fieldwork confirmed the Institute's suspicions about the condition of the sites. Sites 38CH966 and 38CH965 both appeared to be heavily disturbed (see Chapter IV). Features were discovered, but they were disturbed and mixed with the refuse of modern relic
collectors. Further, the Institute's research goal, which was to obtain a sample of material culture from a Civil War camp, was being met. However, during the third and final field week, archaeologists began to discover deeply buried, intact deposits at 38CH964 dating to the Union occupation. Also, collectors independently verified the Field Director's suspicions that the depressions seen throughout the project area often contained deep, intact features. Collectors called these depressions "tent sites." (In the final analysis, these depressions represented both potholes and Civil War features.) However, the true character of the project area, which in hindsight should have been obvious, was finally being discovered. With this data, combined with the potential of 42 acres of uninvestigated buried deposits confronting the archaeologists, the Institute decided it had to entirely re-think its approach to the project.

The Institute completed an additional, unscheduled week of fieldwork, concentrating on resurvey of the project area, in an attempt to assess what lay beyond the site limits originally defined by CAS. Some 150 surface depressions were recognized and flagged throughout the project area.

The archaeologists were now faced with a situation in which the scheduled compliance fieldwork was complete, but further investigation was definitely necessary. The South Carolina Coastal Council regulations, which necessitated the survey by CAS and the data recovery project by SCIAA, do not have provisions for late discoveries. From a research point of view, there was a real need to collect a sample of material culture from different military units, including samples from both white and black units. This, combined with the cemetery excavations, offered a unique and important research opportunity. Once again, the developer and the SHPO reached a revised agreement. This agreement allowed time for the Institute to pursue independent funding for further work while completing a management summary covering the compliance phase fieldwork. This summary was submitted December 1988. During the month of August and into September 1988, the Institute worked with Senators Glenn McConnell and Herbert Fielding to secure funding through the State's Contingency Fund. Additional funding was promised, and in October of 1988, the Institute returned to Folly Island. This work lasted over one month, and SCIAA was able to intensively investigate 38CH964, and to sample areas between 38CH920 and 38CH966. This final phase of excavations was directed by James B. Legg. Again, expert help came from The Charleston Museum and from volunteers throughout the area, including relic collectors.

From November 1988 until July 1989, the Institute worked to complete this comprehensive report of all archaeological investigations it conducted at sites 38CH920, 38CH964, 38CH965, and 38CH966. For the reader's convenience, each separate field investigation has been referred to as a phase (Phase I: Salvage of 38CH920; Phase II: Data Recovery at 38CH964, 38CH965, 38CH966; and Phase III: Return to 38CH964, and Environments of 38CH966 and 38CH920). It is important to keep in mind that initially, three phases were not planned, and that the authors use this term only to clarify when a particular activity occurred.

This report should represent only the beginning of scholarly research on Folly Island's Civil War period. The potential for additional research is great, especially in integrating the physical anthropological findings with the historical and archaeological record. Literally volumes of historical records exist, hidden in national and state archives, awaiting the return of researchers. What SCIAA's findings clearly demonstrate is that despite modern occupation, and a steady invasion of private collectors, important, intact deposits from the Union occupation of Folly Island still exist for the archaeologist to recover and study.

ENVIRONMENTAL SETTING

The project area is located on Folly Island, South Carolina, an Atlantic Coast barrier island six miles due south of Charleston, South Carolina (Figure 1.1). Folly Island is 6.25 miles long (southwest to northeast) by 0.5 miles wide, and its maximum elevation above mean sea level (MSL) is 15 feet. The island is comprised of three physiographic features: 1) ocean front sand dunes, 2) interior dune ridges, and 3) back island tidal marsh adjacent to the Folly River. Though the beach has suffered severe erosion since the war, surprisingly, Civil War period maps (Figure 2.2) show the three major ocean front and interior dune ridges seen today. This indicates that if the interior was used agriculturally after the war, no major modifications took place. Thus, the only major changes in local topography after the Civil War encampment were from logging.

Soils in the project area consist of the Crevasse-Dawhoo complex on the interior dune ridges, and the Capers series in the tidal marsh to the north (Miller 1971: 8-12). The Crevasse-Dawhoo soils are described as excessively drained grayish-brown fine sand (A1 horizon 10YR5/2), underlain by brownish-yellow to very pale brown (C 10YR6/6) fine sand. The Capers series is a dark gray (5YR4/1) silty clay to silty clay loam, poorly drained and saturated with salt water. Archaeologically, the only visible difference in the natural profiles below the topsoils was that they became more coarse and slightly gray with increasing depth. Most artifacts were found in the upper topsoil (A horizon), with features intruding deeply into the subsoils. The root mat in the topsoil was often quite thick.
Area protection and freedom. Trinkley’s report examined which was situated on the Island of which are quite different site functions that have thick when hundreds of slaves arrived on the island in summer, was also palisade at Fort Moultrie during his study of 1975: 54-55). South also encountered a parts can the South Temper­ into but other areas are relatively open for survey. The climate sites has not been extensive, but there is a growing body of literature. To date, this work has been overwhelmingly Forest Climax. The project area is forested with a moderate understory, parts of which are quite thick in summer; but other areas are relatively open for survey. The climate is mild to temperate, with an average yearly rainfall of 49 inches. The average January temperature is 46° F, and the average July temperature is 80° F (Purvis 1983: 20-26).

**RESEARCH DESIGN**

**Overview of Civil War Sites Archaeology**

Archaeological investigation of Civil War military sites has not been extensive, but there is a growing body of literature. To date, this work has been overwhelmingly site specific in perspective. This is to be expected since so little baseline data is readily available for comparative study. At this point in the archaeological study of Civil War sites, significant contributions can be made by simply reporting data collected from a particular site. Below, a sample of the archaeological work at Civil War sites is discussed. While this overview is not exhaustive, it does represent the state-of-the-art for Civil War archaeology in the Southeast.

One can define four general site functions that have been investigated by archaeologists: 1) fortifications and other engineering sites, 2) cemeteries, 3) camps or temporary villages, and 4) shipwrecks. While battlefields could have been classified as a separate site function, all of the reported battle site archaeology actually concentrated around some fixed position. Obviously, combinations of different site functions are more the rule than the exception, and for this reason, the discussion that follows is by state rather than by site function. Forts and fixed positions like trenches, redoubts, batteries, and other engineering sites have received the greatest amount attention from archaeologists. In South Carolina, much of this work has concentrated in and around Charleston Harbor. Stanley South has investigated Fort Johnson, a site which had been used since 1708 to protect Charleston Harbor (South 1975; South and Widmer 1976). Several forts were built within the same general area. South’s work concentrated on interpreting a complex of military architecture, including an 1812 period powder magazine, barric ruins, and Civil War earthworks (South 1975: 54-55). South also encountered a Confederate palisade at Fort Moultrie during his study of that Revolutionary War fort (South 1974: 255). Also, a possible yellow fever cemetery, dating to 1858, has been investigated at Fort Moultrie (Ehrenhard and Hsu 1977: 60).

Below this however, the subsoil is excellent for excavation, though unit walls gradually become unstable, and with depth, increasingly dangerous.

Generally, Folly Island falls into the South Temper­ ate Deciduous Forest Biome, and specifically, into what Shelford (Shelford 1963: 67-68) considers the Magnolia Forest Climax. The project area is forested with a moderate understory, parts of which are quite thick in summer; but other areas are relatively open for survey. The climate is mild to temperate, with an average yearly rainfall of 49 inches. The average January temperature is 46° F, and the average July temperature is 80° F (Purvis 1983: 20-26).

Other types of sites excavated in South Carolina include Michael Trinkley’s (1986) investigation of Mitch­ elville, a freedmen’s village on Hilton Head Island. Mitch­ elville was established by the Union army occupying Hilton Head when hundreds of slaves arrived on the island seeking protection and freedom. Trinkley’s report examines artifact patterning at the site to gain insights about the transition of slaves to freedmen (Trinkley 1986: 6). Few military artifacts were recovered at the freedman’s site (Trinkley 1986: 278).

Civil War period shipwrecks in South Carolina have not been extensively studied by archaeologists, although salvors have been working under state permit on blockade runners, including the CSS Minho, in Charleston Harbor. Artifacts from these sites have been examined by SCIAA and include bullets, rifles, and ship hardware.

In Mississippi, fixed positions also have received the most attention. William C. Wright (1982, 1984) has in­ vestigated Confederate fortifications at Grand Gulf, Missis­ sippi. The goals of this work were to locate the gun emplacements, identify the caliber and size of the guns used, and synthesize previous work at both the upper and lower batteries at Fort Wade (Wright 1984: v).

It is the authors’ understanding that archaeologists in Tennessee are currently conducting a state-wide survey to identify sites from the Civil War period. To date, archaeo­ logical work on fortifications dominate the literature from this state. Fortress Rosecrans, in Murfreesboro, was sampled archaeologically in 1976 to provide accurate data for restoration of the earthworks (Fox 1978: 19). Between 1976 and 1978, Fort Pillow State Historic Area was also excavated (Mainfort 1980). The main thrust of the work there was to document the fortifications and architectural features within the Union fort, which was situated on the Mississippi River at the time of the Civil War (Mainfort 1980: 12). Of special interest to the Folly Island research, the Fort Pillow project attempted to locate a mass Union burial ground. While the burial ground was located, the remains had been re-interred at the National Cemetery in Memphis (Mainfort 1980: 88-90).

Civil War archaeology in Georgia includes most notably the Gilgal Church battlefield (Braley 1987). Braley’s interesting report on investigations at the location of the Battle of Gilgal Church, in Cobb County, Georgia, were primarily focused on three segments of a Confederate trench system at the battle site (Braley 1987: 57). Artifacts recovered indicated that the trench probably was used in preparation for combat, although no combat occurred (Braley 1987: 53). Work has also been done at the prison camp at Andersonville, Georgia, by John Walker and Guy Prentice. These efforts concentrated on the stockade and posts within the stockade trench works (Guy Prentice, personal communication May 3, 1989). A report is in preparation. The CSS Georgia, a Confederate iron-
clad wrecked near Savannah, has been documented using magnetometer and diving survey (Garrison and Anusiewicz 1987).

In Louisiana, the variety of site investigations has been much greater. Fortifications at Port Hudson have been examined by Koch (1980), and Kelly and Castille have excavated Lt. Colonel Joseph Bailey’s famous dam at Alexandria, Louisiana (Kelly & Castille 1985, Smith & Castille 1986). Bailey’s dam saved Admiral Porter’s gunboats from being lost to the Confederates during the Red River Campaign. One of the more detailed reports of Civil War site investigations was completed by Goodwin, Poplin, and Hewitt (1988) on the battle of Fort Bisland. While no fieldwork was conducted, the authors completed an exhaustive historic and map overview of the battle. Interestingly, much of the work concentrated on analysis of the battlefield. With this data, they developed an excellent research design and methodology for further work. One of Port Hudson’s cemeteries also has been surveyed and tested by archaeologists (Owsley, Manhein, and Whitmer 1988). This report is of special interest to the Folly Island research in that comparative data on burial patterning was included. These patterns are detailed in Chapter III.

Virginia was the scene of extensive action during the Civil War and archaeologists there have examined a large number of sites. Most of this work has been completed in compliance with the Section 106 process of the National Historic Preservation Act of 1966, and is confined to documentation of trench lines and other fixed positions (Bruce Lawson, personal communication May 3, 1989). One early study of a battlefield and camp area was conducted at Belle Grove Plantation (Rockwell 1974). The report primarily describes excavations around a plantation house which stands in the center of the Cedar Creek Battlefield (Rockwell 1974: 7). The artifact illustrations in this report are useful for comparative analysis.

In North Carolina, a cemetery and campground have been investigated (Phelps 1979). The cemetery dates to after the Civil War, but the information gained through archaeology there is useful for comparative analysis with the cemetery at 38CH920. The area was used by both Confederate and Union armies. Hearths and refuse pits were discovered, and the report provides excellent comparable data on both features and artifact descriptions. Off the North Carolina coast lies the remains of the USS Monitor. This famous ironclad has had much attention by archaeologists and historians (Miller 1978).

The reports cited above demonstrate that though much work has been done, there are few archaeological examinations of isolated Civil War period campgrounds. Further, the authors know of only a few efforts to examine military cemeteries of the period. These include the attempt at Fort Pillow, Tennessee, where the graves had been exhumed, and the work at Port Hudson (Owsley, Manhein and Whitmer 1988). Also included here is the work currently being conducted in New Mexico at a mass burial of Civil War soldiers (London 1989). Investigation of the Union camp and cemetery at Folly Island was, therefore, a rare opportunity for archaeologists and breaks new ground in this burgeoning field.

**Folly Island Research**

As has been previously stated, this project evolved into three phases: Phase I, salvage of the cemetery site 38CH920; Phase II, data recovery at 38CH964, 38CH965, and 38CH966; and Phase III, further excavation at 38CH964 and the project area. As each phase developed, SCIAA’s research design also progressively evolved. Furthermore, the direction of fieldwork was very much influenced by elements beyond pure research considerations. Phase I research, for instance, was influenced by the need to salvage burials within a construction roadway before they were destroyed. Phase II research was influenced by the findings of a survey completed to meet the requirements of state environmental laws, and the requirements of data recovery at the three National Register eligible sites. Phase III excavations offered the first real possibility of approaching research questions and the project area unhindered. However, the size of the 42 acre project area permitted the Institute to only sample the total potential of the Union camp.

All research proceeded, from the very first salvage excavations, along three simultaneous lines of inquiry: archaeology, history, and physical anthropology. Before refined archaeological questions could be approached, however, some very basic questions needed to be answered first. In some cases, the answers to these basic questions did not come until the very end of analysis. During the first phase of excavations, the initial problem was to identify, as fully as possible, the skeletal remains at 38CH920. The race and sex of the buried individuals were foremost questions, along with confirming that they were indeed Civil War period burials. After these questions were answered, it was important to try to determine which military regiments were represented. The answer to this question only came at the very end of the project, and still may not be complete.

In the second phase, the identity, function, and occupants of sites 38CH964, 38CH965, and 38CH966 were very important basic questions. Depending on the answers to all of these questions, the second and third phases appeared to offer the intriguing possibility of recovering comparative samples of material culture from both black and white units. The point to be stressed is that before such broad issues could be addressed, the answers to the funda-
mental questions were needed. On this basis, the following areas of inquiry guided, and continue to guide, archaeological research at Folly Island:

1) What burial patterning is evident? Is this pattern similar to or different from civilian cemeteries?
2) What was the cause of death of the individuals buried at the Folly Island cemetery, 38CH920?
3) What does a Civil War camp look like archaeologically? Were the military regulations followed in the layout of the camp?
4) What is the range of artifacts and artifact patterns at a Civil War camp? Is the Folly Island sample comparable to that from other Civil War sites?
5) What does the archaeology tell us about camp life for the soldiers on Folly Island?
6) What differences, if any, are recognizable in the archaeological record concerning the living conditions of black versus white units? Are such differences reflected in equipment, diet, and housing?

The primary questions posed above largely have been answered by the work discussed in this report. The broader questions have been approached, but their full answers await other comparable studies.

Beyond archaeology, physical anthropological research can expand the range of the archaeologist’s ability to see into the past. For instance, a growing body of data is being gathered on black slave populations. In analyzing these data sets, very significant questions can be posed, comparing free blacks and slaves in the nineteenth century. Generally, the physical anthropological research at Folly Island was directed to the following questions:

1) What are the differences and similarities in physical traits of free blacks and slave populations (Rathbun 1987; Rose 1985)?
2) What comparisons can be made from these samples between slave/free diet, nutrition, mortality, and pathology (Steckel 1979; Rose 1985; Rathbun and Scurry 1983, Cleavenger et al. 1985; Gibbs et al.1980) ?
3) How does the archaeological data (assuming a relationship between the midden sites and the cemetery) support or differ from the conclusions drawn from the physical anthropology?

Unfortunately, most of the research effort involving physical anthropology to date, has been confined to bone processing and data collection. While the above questions are addressed in this work, the analysis of the physical remains has only begun. Some baseline data is provided in Appendix A.

The historical research was geared primarily to support and supplement the archaeology and the physical anthropology. A general overview of camp life during the Civil War, and specifically at Folly Island, was developed for comparison with the archaeological record. Further historical research on the 55th Massachusetts Regiment was done to confirm that the skeletal remains recovered were indeed those of the 55th. Once the 1st North Carolina Colored Infantry was also identified in the project area, the research expanded to include that unit. The primary research questions to be asked from archival investigations were:

1. What do the historical documents reveal about camp life on Folly Island?
2. What is the history of the 55th Massachusetts Regiment and the 1st North Carolina?
3. Do historical burial records exist for these units?
4. Why were the skeletal remains not complete at 38CH920? Were they looted, or disturbed by other forces?
5. What military units occupied sites 38CH964, 38CH965, and 38CH966?

Chapter VI provides an overall summary of the above questions and offers recommendations as how future research can move toward broader anthropological studies using the data presented.

METHODOLOGY

This section discusses the general and standard methods used to meet the project goals, to order the work, and to answer the research questions posed. Unique field methods, or deviation from the field methods discussed here, are noted within each site description. As is noted below, deviations occurred primarily as a result of opportunities and/or time limitations. They were also due to the transition from a small two-week salvage project (Phase I), to a compliance project (Phase II), and finally, to a limited research project (Phase III).
Fieldwork

Archaeological investigation at each site began by setting a site datum and establishing a grid across the sites. Each site datum was later tied to a permanent monument. Site 38CH920 was tied to the contractor’s central control point on W. Indian Avenue by professional surveyors, and thus also to the project map (Figure 1.2). Sites 38CH964, 38CH965, and 38CH966 were tied to a permanent monument also marked on the developer’s project map. As a cross reference, site 38CH966 was tied to the datum, set at 38CH920. From the site data points, the grids for each site were oriented to Magnetic North.

The primary method of site investigation involved systematic shovel testing and block excavation. Shovel tests were consistently 50 x 50 cm in size, usually excavated to 80 cm or greater below surface and fill always was screened. At 38CH920, slot trenching was also performed along grid lines. These trenches were a shovel width (approximately 30 cm) in size and excavated to at least 80 cm in depth. Soil from all slot trenches was screened. Screening was conducted using 1/4 inch hardware cloth. Slot trenching proved most useful for finding burials at 38CH920.

Block excavation was conducted in 1 x 1 m, 1 x 2 m, and 2 x 2 m units. Excavation proceeded at arbitrary 10 cm or 20 cm levels until features were observed, and then cultural stratigraphy was followed. All unit soil was shovel-skimmed or troweled to culturally sterile soil, and except where noted at 39CH920, all soil was screened through 1/4 inch hardware cloth. Elevations were taken at the four corners of the excavation unit, using a control elevation stake, usually in the northwest corner. Control stake elevations were then recorded by a surveyor to Magnetic North. Site 38CH920, Carolina Archaeological Services, Inc., used a backhoe to excavate trench lines while exploring for burials. The Institute also used a backhoe to scrape and clear areas at 38CH920, 38CH964, and 38CH966. At 38CH964 it was used for safe well excavation. The Institute was quite successful in using a controlled metal detector survey at 38CH964 to locate features and material just below the surface. This was conducted by walking systematic transects across the site with the metal detector and recording the location of diagnostic artifacts found.

Standard recording procedures were employed throughout the field investigations. All features, and any level plan or profile that provided useful data were drawn to scale. Unit levels were photographed, regardless of their productiveness, as were features. Excavation units and discovered features were tied to a site map, with field information recorded on the appropriate forms by level. Soil colors were described by consulting the Munsell Color chart. Field Directors maintained a field book, as did the Principal Investigator. The Principal Investigator also used a pocket tape recorder. This proved useful for keeping miscellaneous data, but was not an adequate substitute for a field notebook.

Recovered artifacts were packaged in plastic and paper bags by provenience. Fragile items were placed in small plastic vials. Large items, for instance a shovel and a ration can, were removed in soil matrix for the conservator to ‘excavate’ at SCIAA. One large barrel was kept moist in a plastic garbage can for transport back to the Institute Conservation Facility in Columbia, South Carolina.

Laboratory

Artifacts were washed, sorted, stabilized, and cataloged by site and provenience. A special catalog sheet for Civil War period material was developed by Lisa O’Steen and modified by James B. Legg. Because there was the opportunity to derive much important archaeological data from a tightly dated site, a great amount of time was spent
in mending ginger beer and wine bottles (Chapter V). Metal artifacts were drawn and/or photographed prior to conservation. A conservation processing card was maintained for every artifact to be conserved. Soil samples were saved for later flotation. Artifacts were re-bagged in plastic or paper for curation at SCIAA, following in-house standards and guidelines.

All human bone was dry-brushed, damaged elements reconstructed whenever possible, and a complete inventory of the skeletal elements was maintained. These materials were then transported to the University of South Carolina's Department of Anthropology for further cleaning and analysis by Dr. Ted Rathbun. Completeness of each skeleton varied considerably due to previous disturbance (see Chapter III). Too frequently the cranium and other significant portions were missing. Variation in completeness complicated direct statistical comparisons and reduced the accuracy of diagnosis. Bone samples were collected for chemical analysis. Samples of pathology were collected for the Armed Forces Institute of Pathology in Washington, D.C. Further discussion of the methods used in the skeletal analysis are presented in Appendix A. On May 29, 1989, the remains of the soldiers were reburred at the Beaufort National Cemetery in Beaufort, South Carolina. The remains were wrapped in plastic, sealed in a plastic liner, and placed in authentic pine box coffins for reburial. A plastic numbered tag was inserted into the plastic liner and the location of each burial was referenced for the future.

Faunal materials were washed at SCIAA and rough sorted into probable diagnostic bone elements. This large sample was then shipped to the University of Tennessee for analysis by Lynn Snyder. Her report and specialized methods are presented in Appendix B. Two samples of oyster shells were analyzed by Dr. David Lawrence of the Department of Geological Sciences at the University of South Carolina (Appendix C).

Documentary Research

Documentary research proceeded in two related directions. A general historical overview was prepared by Chris E. Fonvielle, Instructor at East Carolina University, North Carolina. His research was directed toward providing a historic context for the siege of Charleston. He also searched for any supplementary information concerning the 55th Massachusetts Regiment. Meanwhile, James B. Legg and the Principal Investigator continued archival research focused on the 55th Massachusetts and the 1st North Carolina Colored Infantry. Research materials at the following facilities were reviewed:

- Thomas Cooper Library, University of South Carolina, Columbia, South Carolina
- South Caroliniana Library, University of South Carolina, Columbia, South Carolina
- South Carolina State Library, Columbia, South Carolina
- South Carolina Department of Archives and History, Columbia, South Carolina
- Richland County Public Library, Columbia, South Carolina
- Archives and Manuscripts Department, East Carolina University Library, Greenville, North Carolina
- U.S. National Archives and Records Service, Washington, D.C.
- Massachusetts Historical Society, Boston, Massachusetts
- George Fingold Library, State House, Boston, Massachusetts
- Massachusetts National Guard Supply Depot, Natick, Massachusetts

The following facilities or people were consulted:

- U.S. Army Military History Institute, Carlisle Barracks, Carlisle, Pennsylvania
- Dr. Francis Lord, Professor Emeritus, University of South Carolina, Columbia, South Carolina
- Dr. Stephen Wise, U.S. Marine Corps Recruit Depot Museum, Parris Island, South Carolina
- Mr. A. Torrey McLean, North Carolina Department of Archives and History, Raleigh, North Carolina

Readers will note that footnotes accompany the text in Chapter II: Historical Background. While this is a non-standard practice in archaeological reports, the authors recognized this inconsistency as necessary for the proper citation of historical documents regarding this complex campaign. Far more historic documents and manuscripts were collected than could easily be analyzed and discussed in the time frame necessary for completing this report. Information on the 55th Massachusetts is available to complete an extensive regimental history. It is hoped that future funding can be obtained to publish this important information.
PART 1: THE SIEGE OF CHARLESTON

The occupation of Folly Island was critical to the Union Army’s siege of Charleston, South Carolina (April 1863-February 1865). When General John C. Pemberton ordered Confederate troops to abandon Coles Island and Folly Island, he was warned that the decision would come back to haunt the defenders of Charleston (Figure 2.1). He made it against the advice of several subordinate officers and keen military engineers. In fact, the Coles Island battery was part of the system of coast defense devised in April 1861, by General P.G.T. Beauregard, perhaps the most talented engineer in the Confederacy. By late March of the following year, however, Pemberton believed his command contained too few troops and armaments to hold all of the outposts protecting the Carolina seaport.

The abandonment of Coles Island, however, opened the way for the Union to control the important Stono River, and to occupy both Coles and Folly islands without having to fight for them. The Federals took possession of those sea islands in the spring of 1863. From that time until February 1865, they put Charleston under siege. And while the city held out until the closing days of the war, it underwent the longest and one of the most debilitating sieges in the Civil War. The experience was just as demanding for the besiegers as it was for the besieged.

The Union troops stationed on Folly Island and the other sea islands below Charleston were challenged not only by an enemy hostile to their presence, but also were subjected to a strange and often harsh environment. Protecting Charleston was part of the overall Confederate coastal defense plan to deny the Union access to strategic centers and important cities. Southern seaports were the key links to the outside world where the Confederacy’s ability to wage war rested, and perhaps its best chance for winning the conflict. Because of its weak industrial base, the South depended heavily upon European markets to arm and equip its military forces and supply goods for the home front. Through Charleston and other port towns, the Confederacy received a steady influx of supplies vital to its war effort.

The United States was aware of the South’s dependency on these imports and set about to disrupt its maritime commerce. In April 1861, President Abraham Lincoln proclaimed a naval blockade of Southern seaports. Soon afterwards, a Blockade Strategy Board convened and drew-up detailed plans to close all Southern ports with a wall of ships or combined land and sea operations. The intent of this blockade was to handicap the Confederacy’s fighting capability by choking off the importation of essential goods.

While the plan was a sound one, the North was, at the war’s outset, ill prepared to enforce it. In the spring of 1861, the United States Navy comprised less than one hundred vessels only forty-two of which were commissioned. Half the fleet consisted of obsolescent sailing ships and antiquated steamers. Indeed, only three steamers of the Home Squadron were ready for immediate blockade duty along the 3,549-mile-long Southern shoreline. Moreover, the coast of the Atlantic states was marked by a series of barrier and sea islands, as well as waterways cut by numerous bays and inlets. Consequently, the Union was forced to concentrate its dragnet on the Confederacy’s major seaports, including Charleston, that possessed good harbors and interior lines of communication.

The blockade’s ineffectiveness in the early months of the conflict stimulated a booming business for blockade runners. Attracted by the huge profits to be made by trading through the blockade, Southern and British shippers and merchants set up blockade running companies. Some 1,600 vessels of all classes were employed as blockade runners to feed the Confederacy during the war. As the Union cordon tightened and the risk of capture or destruction increased (so did profits), fast, sleek steamers were designed and constructed specifically for running the blockade. More often than not they were successful.

Blockade runners brought into the South rifle muskets, cannon, ammunition, swords, bayonets, blankets, shoes, medicine, food, and other necessities, as well as luxury items. A recent study claims that the Confederacy imported at least 400,000 rifles, enough to arm approximately forty percent of the Southern troops. Blockade running greatly aided the Confederacy’s fighting capability.

The United States Navy eventually closed most of the important Southern seaports by blockade or captured them in joint operations with the Army. But while the Army and Navy impeded the Confederacy’s sea trade, they failed to sever the lifeline of supplies until 1865. Indeed, the Carolina seaports remained open to overseas trade for almost the duration of the conflict.

Charleston was the Confederacy’s most important seaport on the South Atlantic coast. Early in the war it received the greatest volume of trade of any city on the
seaboard. A new study finds that at least 63 different steam blockade runners sailed in and out of Charleston. Moreover, the city served as the center of operations for most of the South’s blockade running firms. In fact, Charleston so dominated the blockade running trade that its capture early in the war would have been disastrous to the Confederacy, and done much toward discouraging European trade.9

Charleston was significant not only as a favorite port-of-call for blockade runners, but also as a key distribution depot for supplies they imported. The city was linked by rail to North Carolina, Virginia, and Georgia, as well as the states of the lower South. Charleston also held symbolic importance. South Carolina had been the first state to withdraw from the Union, and the secession ordinance was passed in Charleston, giving birth to the Southern Confederacy.10

Because of its strategic and symbolic importance, the United States Navy targeted Charleston for capture early in the war. To Northerners, Charleston was the “cradle of rebellion.” However, the Union’s inability to effectively blockade or launch an invasion against Charleston gave the Confederates time to assemble troops, construct fortifications, and mount cannon for her protection. These efforts made Charleston’s capture more difficult.

Charleston was located at the tip of a peninsula at the confluence of the Ashley and Cooper rivers, about six miles from the Atlantic Ocean (Figures 1.1, 2.1). The city was bounded by the mainland to the north, and James Island to the south. The huge James Island was accessible to the sea through the Stono River. A series of long, low sandy sea islands, bordered by soft alluvial marshes and shallow creeks, ran parallel to the seaboard. The 2,700-yard-wide mouth to Charleston’s deep harbor was formed by two of these islands: Sullivans Island on the north side of the entrance, and Morris Island below it. Between Morris Island and Stono Inlet lay Folly Island, a spindly, six-mile-long spit of sand, with underwater, palmetto and pine trees.11

Charleston’s pre-war defenses, built by the United States Army, were designed solely to resist a naval attack. The key to the harbor was Fort Sumter, a two-tiered brick casemated fort on an artificial island on the south side of the main channel. Castle Pickney, an old brick fort on Shutes Island about a mile east of Charleston, and Fort Moultrie, another brick fort located on Sullivans Island, comprised the remainder of the main fortifications guarding the city.12

At the outbreak of the Civil War, the Confederates under the skillful talents of General P.G.T. Beauregard, began to add to and strengthen Charleston’s existing defenses. They constructed strong earthwork batteries around the perimeter of the harbor. By April, 1863, a circle of forts and batteries was fairly complete. These included Battery Beauregard and Fort Moultrie on Sullivans Island, Fort Johnson on James Island, and Batteries Wagner and Gregg on Morris Island. These works were placed in such locations as to produce a converging fire on the harbor and to support Fort Sumter. At the same time, Fort Sumter’s guns covered the surrounding batteries and the approach into the harbor.13

Preparations to defend against a land attack also were made. On James Island, generally regarded as the linchpin to Charleston’s defenses, soldiers and slaves erected works to guard the approach from the Stono River. Most Confederate engineers believed that if the Union Army ever secured a foothold on James Island, the fall of Charleston would be only a matter of time. Federal guns could be emplaced beyond the range of Fort Sumter, but within easy shelling distance of the city. A securely entrenched enemy force supported by reinforcements would require a larger army to dislodge it than was available to Confederate commanders at Charleston. The entrance to the Stono River was defended by an enclosed battery on Coles Island. There was talk of putting works on Folly Island, until General Pemberton ordered these outer islands to be left undefended.14 That was the opening for which the Federals had been waiting.

The Federals already had launched a failed attempt to seal Charleston from overseas trade. On December 20, 1861, the first anniversary of South Carolina’s withdrawal from the Union, the Union Navy scuttled and sank an odd assortment of decrepit whaling ships and merchant vessels filled with stones in the main channel leading into Charleston harbor. A second “stone fleet” was sunk in another nearby channel the following month. These efforts proved to be an ignominious failure. Toredo worms weakened the hulks causing them to break apart, and the strong currents flowing around the stones created deeper passageways that actually improved navigability.15

The second Union move to subdue Charleston was an overland assault on James Island. When Pemberton ordered the Confederate abandonment of Coles Island, Union gunboats gained access into the Stono River as far up as the southwestern shore of James Island. In June 1862, Union Major General David D. Hunter, commander of the Department of the South, headquartered at Hilton Head, South Carolina, proposed an expedition against Charleston by way of the Stono River. On a hot and muggy June 16, Union General Henry W. Benham led 6,500 troops against one-third as many strongly entrenched Confederates near the hamlet of Secessionville, on James Island. Hunter had sanctioned a reconnaissance in force, but Benham chose to attack instead. Three Union frontal assaults incurred heavy casualties and were repulsed in a few hours. Benham was compelled to order a retreat from James Island.16

After the miserable failure at Secessionville and the
Figure 2.1: Detail of “Map of the Defenses of Charleston City and Harbor, showing also The Works Erected by the U.S. Forces in 1863 and 1864.” *(Official Records Atlas, Plate IV-1).* (Arrow locates project area).
Union abandonment of James Island, ten months elapsed before the Federal forces made a serious attack on Charleston. This time the Navy Department cooked up a scheme; Assistant Secretary of the Navy, Gustavus V. Fox, proposed to run a squadron of ironclad ships into the throat of Charleston harbor and past the guns of Fort Sumter. Charleston apparently was Fox's obsession, the "hot-bed of secession" whose Rebel fortifications had turned back his personal effort to rescue Fort Sumter's garrison of United States troops in April 1861. To the Navy Department in 1863, Charleston was the ultimate prize in the South Atlantic.\(^\text{17}\)

Admiral Samuel F. Du Pont, commander of the South Atlantic Blockading Squadron, reluctantly agreed to lead the attack. Du Pont opposed using monitors in such an assault. They were a new class of ship relatively untested in battle. The Admiral believed that the best hope for capturing Charleston was still by a land and sea operation up the Stono River. Fox, however, insisted upon an unsupported navy attack using ironclads in the harbor.

When Du Pont complained and delayed the attempt to capture Charleston with the fleet alone, Fox consented to a joint operation, but with the army playing only a limited role. He got the War Department to commit ten thousand infantrymen to support the navy. General Hunter chose General John G. Foster to head the army's part in the assault. The Admiral believed that the best hope for capturing Charleston was still by a land and sea operation up the Stono River. Fox, however, insisted upon an unsupported navy attack using ironclads in the harbor.

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Du Pont continued to argue for another landing on James Island, where the army would have ample cover fire from gunboats in the Stono River. But the army rejected this plan. For one thing, it still remembered the disaster at Secessionville the previous summer. And while James Island was much larger than Morris Island, a force could not maneuver well on it because of the numerous marshes, creeks, and swamps. Moreover, Foster was unsure of Confederate troop and fortification strength on the island.

While Lincoln and his supporters wanted Charleston and were under considerable political pressure to capture it, they were opposed to a siege, as was implied in Foster's plan. A siege would require too much time, energy, and resources, and dampen public enthusiasm, if not politically embarrass the administration. For now, Lincoln was more interested in an operation that would produce quick success with the army playing only a minor role. Fox, for his part, agreed. He desired to win the laurels of victory himself.

The plan of attack essentially reverted back to Fox's original proposal: a naval squadron of mostly ironclad ships was to run past the guns of Fort Sumter, the chief obstacle to the navy's passage into the harbor. Surely, Fox believed, the Confederates must evacuate the area once Sumter was lost. The army would land a support force on Folly Island and make ready to invade Morris Island if circumstances dictated. Foolhardy as it all seemed to Du Pont, Fox seriously considered this the most practicable method of attack.

By early April, the army had assumed its position to support the navy. General Hunter reported on the third that approximately half of the troops assigned to the operation were safely in the Charleston vicinity, either on Coles Island or North Edisto Island. On the night of April 6, Colonel Joshua B. Howell's XVIII Army Corps was transported across from Coles Island to Folly Island. Part of General Alfred H. Terry's detachment of the X Army Corps also was put ashore that evening on Folly Island, while the balance was held at the ready on board transports in Stono Inlet. These soldiers landed the following morning. Thus the entire force, probably numbering 10,000 men under the immediate command of General Truman Seymour, Hunter's chief-of-staff and artillery, were massed on the north end of Folly Island on April 7.

From there preparations were made for crossing Lighthouse Inlet on the night of April 8.\(^\text{19}\) Du Pont and Hunter delayed a possible invasion of Morris Island until the navy had silenced Fort Sumter. With Sumter out of the picture, the Union troops would not face enfilading fire from its huge guns.

16 "THE BEST EVER OCCUPIED"
the fall of that key fortification would demoralize the defenders of Morris Island, if not cause their abandonment of it. In the meantime, the Union soldiers were kept in the woods on Folly Island, supposedly out of sight of the enemy on the opposite shore.

But Confederate pickets had been keeping a sharp eye on Folly Island since Foster's reconnoitering party had appeared back in February. Consequently, they were fully aware of the Federal landing on the island in early April. They informed General Beauregard, who had been reassigned in August 1862 to command Charleston's defense, that a sizeable Union force was assembling on the north end of Folly Island. This news concerned Beauregard. Just exactly what the Federal presence meant was, as yet, unclear. Were they to cooperate with the navy by remaining on the sea-line islands, or would they strike for the city by operating again on James Island, the weak link to Charleston's defenses? These questions were answered only with a victory over the Union navy.

The defenders of Fort Sumter were thoroughly prepared for the Union attack that came on April 7. The channels had been carefully buoyed, so that the gunners of the harbor fortifications would know the exact range of the enemy ships. Du Pont's assault reflected his cautiousness, the vagueness of his orders, and his lack of confidence in ironclads. He obviously did not intend to press the attack at the risk of losing any of his ships. In the end, the engagement was brief (it lasted barely two hours), and terrifyingly one-sided. Five of the seven monitors in the squadron received extensive damage from the Confederates' "wall of fire." Only one monitor, the U.S.S. Nahant, and the U.S.S. Keokuk, an iron-hulled, lightly armored ship, even got within half a mile of Fort Sumter. For that the Keokuk paid the ultimate price. She was perforated by some ninety shot and shells, and sank the next day. Du Pont's flagship, the New Ironsides, barely got into the action at all.

The disparity of fire was as one-sided as the battle. Du Pont's flotilla expended only 139 shots, while Fort Sumter alone unleashed 2,000 rounds. The guns from Fort Moultrie, batteries Bee and Beauregard on Sullivans Island, and batteries Wagner and Gregg on Morris Island fired another 200 rounds. All told, the Confederates registered 520 hits against the Union ships, and forced them to withdraw. Perhaps Admiral Du Pont best reflected the humiliating defeat when he said: "I have attempted to take the bull by the horns, but he was too much for us." Although Du Pont failed to silence Fort Sumter, he did succeed in convincing his superiors of what he had argued from the beginning. Charleston could only be taken by a large scale combined operation.

After three unsuccessful attempts to capture Charleston, some Union military leaders considered it bad strategy to resume operations against the Carolina sea-
The presence of Union troops on Folly Island likewise concerned Confederate forces on adjacent islands. The Southerners escalated their efforts to prevent a successful invasion of Morris Island by bolstering their earthworks on the southern tip. Moreover, vedettes (sentinel stations) were placed on Long Island, between the Folly River and James Island. The Confederates also harassed the Federals by occasionally lobbing artillery shells onto Folly Island. The Union gunboats retaliated by firing projectiles at Confederate batteries.

By late May 1863, General Hunter was bored by the relative inactivity and the failure of the administration to push Admiral Du Pont into resuming active operations against Charleston. In Hunter's view, Union forces were lodged fruitlessly on Folly Island, while the North's continued presence there encouraged the Confederates to strengthen their own defenses, particularly on Morris Island. That made the Federal task of capturing Charleston all the more difficult. "[What] could have been effected in a couple of hours and with but little sacrifice six weeks ago will now involve, whenever attempted," Hunter maintained, "protracted operations and a very serious loss of life." Hunter begged President Lincoln to "liberate" him from "those orders to 'cooperate with the Navy' which tied him down at Charleston. He asked for a force of 10,000 soldiers to invade the heart of Georgia where he planned to destroy railroads and resources, as well as to free slaves. This far-fetched scheme was the excuse Lincoln had been looking for to replace General Hunter. For some time Lincoln had been uneasy with Hunter, a self-righteous volunteer officer. Now Hunter's fanatical plan confirmed the President's suspicion that the general was also a bit crazy.

Hunter's relief paved the way for a more stable and experienced engineer officer familiar with both capturing forts and the South Carolina coastal area. That soldier was General Quinncy A. Gillmore, former chief engineer in the Department of the South, and conqueror of Ft. Pulaski, Georgia. In late May 1863, Gillmore submitted a plan to the administration for reducing Fort Sumter in lieu of a strong concentrated effort between the Navy and Army. Specifically, Gillmore suggested an invasion of Morris Island to capture its fortifications. With Morris Island secured, heavy rifled artillery would be employed to destroy Fort Sumter, and afterward to support a naval movement into the harbor. This was basically the same proposal General Foster earlier had advocated to capture Charleston. This time, however, the Army would take the lead role. Lincoln consented, and on June 3, 1863, he assigned Gillmore to the temporary command of the Department of the South. Gillmore assumed command on June 12, setting up his headquarters on the beach (Figure 2.2). Later, he moved his headquarters to the Campbell house, the only residence on the island. Union soldiers dubbed it the "White House" (today a modern residence there is known as the Seabrook house). 41

Shortly after taking command, Gillmore reconnoitered Morris Island and its surroundings. Up to this time, General Vogdes' work on Folly Island had been purely defensive. All that changed under Gillmore. The new commander instructed Vogdes to erect masked batteries behind the sand dunes on the northern tip of Folly Island. The guns of these batteries would be used to silence Confederate works and cover the proposed landing on the south end of Morris Island. 42

Between mid-June and early July, Federal soldiers worked hard to erect the masked batteries. They were constructed of sand and sod, with ordnance magazines or bomb proofs underneath. The work progressed as rapidly and secretly as possible. The soldiers toiled mostly at night and in almost total silence, hoping to ensure a surprise troops, the Union attack force numbered about 11,000 effectives. 44 To cooperate more fully with the army, Lin-
Figure 2.2: Detail of "Military Map of the Middle Part of Folly Island, Surveyed by Order of Brigadier General T. Vogdes." (A. Becker, Oct. 5, 1863). (National Archives).
attack on Morris Island. If trees needed felling, the men sawed them from the tops and lowered the pieces gently with ropes to the ground. All of the cannon were hauled tediously up the island through the woods and mounted in the darkness. By bright moonlight or heavy thunder showers, the exhausting work continued. “Our... duty was quite arduous,” observed a Connecticut soldier, “as we were obliged to work nights, and had to maintain the utmost silence, speaking only in whispers.”

So intent were Gillmore and Vogdes to keep the work concealed that they declined to destroy the blockade runner Ruby that ran aground within point-blank-range of their newly constructed batteries. Confederates salvaged goods from the derelict ship, while the Union army held their fire rather than risk exposing their position.44

Despite their efforts, the Federals failed to mask their designs. Indeed, Confederate commanders on Morris Island and at headquarters in Charleston knew perfectly well that Folly Island was occupied by an increasingly large Union force busily at work erecting batteries and preparing for an offensive. In fact, it seemed that every Confederate in the area knew what the Yankees were up to. The intelligence became the source of jokes between Confederate and Union pickets, who frequently communicated with each other. Confederate pickets informed their Federal counterparts that “General Beauregard had such an exalted opinion of the Yankees on Folly Island that he was coming over to [pay them] a visit and give [them] all a ‘farm six feet by two.’”45

Beauregard’s soldiers may have found humor in the Federals’ presence, but the general himself took a more serious view. While confident a Union attack was imminent, Beauregard still did not know with certainty where it would be directed. He strengthened the works on the south end of Morris Island, yet he continued to think that James Island was the Federals’ real target.46

That was precisely what Gillmore wanted Beauregard to believe. He suspected that the Confederates were without the necessary reinforcements and resources to adequately protect both James and Morris Islands. Gillmore surmised correctly that Beauregard was compelled to detach troops from Morris Island to defend James Island. To further mislead Beauregard, Gillmore planned a demonstration in force on James Island to coincide with the main Union attack against Morris Island.

Within about twenty days of taking command, Gillmore was ready to move against Charleston. The north end of Folly Island concealed ten masked batteries mounting forty-seven field rifles and siege mortars. Each cannon was provided with 200 rounds of ammunition.47 During the first week of July, additional troops of the X Army Corps arrived on Folly Island. General Alfred H. Terry’s division, about 3,800 strong, and General George C. Strong’s brigade of 2,500 soldiers landed by the eighth day of the month. Together with Vogdes’ occupation coin assigned Admiral John A. Dahlgren to replace the timid Du Pont as chief of the South Atlantic Blockading Squadron. Dahlgren assumed his new command on July 6, 1863.48

Gillmore set the attack for July 8. That afternoon General Terry landed with his division for the show-of-force on James Island. Under cover fire from the U.S.S. Pawnee and two lightly armed transports in the Stono River, Terry clashed with Confederates on the same ground where General Benham had met defeat the previous summer.

Inclement weather delayed the invasion of Morris Island for about thirty-six hours. At dawn on July 10, Vogdes’ guns on Folly Island signaled the beginning of the assault. The ensuing two hour bombardment from Vogdes’ cannon and incessant shelling by Admiral Dahlgren’s gunboats enabled General Strong’s brigade to establish a beachhead without difficulty. The Federals soon overran the Confederate works on the south end of Morris Island, and by mid-morning had advanced to within musket range of Battery Wagner. Here the attack bogged down.49

Two unsuccessful attempts were made to capture the defiant Battery Wagner by direct infantry assault. In the first on July 11, the Federals reached the parapet but were turned back by heavy fire. They were repulsed again one week later in a night attack. Black soldiers of the 54th Massachusetts led the charge in which they suffered terrible casualties, including the regiment’s white commander, Colonel Robert Shaw. Several white regiments also were mauled badly when a portion of the assault column penetrated the fort, but was then pushed back by the Confederates. Some wounded were removed to hospitals on Folly Island for treatment.50

Sobered by the loss of more than 1,500 men in frontal assaults against Battery Wagner, Gillmore turned to siege tactics. He set up eight batteries of heavy rifled cannon on Morris Island and adjacent marshes to shell nearby enemy posts. One gun was the fabled “Swamp Angel,” an eight-inch Parrott rifle which could reach Charleston, four and a half miles away, with a 200 pound shell.

Thus began the nineteen-month-long Union siege of Charleston. At first Gillmore focused his attention on Fort Sumter. It became the target of relentless bombardments. During the latter part of August 1863, some 5,643 shots were fired at it in seven days, according to General Beauregard. Meanwhile, Gillmore’s infantrymen dug zigzag trenches toward Battery Wagner. By early September, the approaches were close enough to almost guarantee a successful assault, but the Confederates denied the Federals the opportunity for victory. Late on September 6, the Southern troops abandoned Morris Island. Beauregard willingly sacrificed Morris Island to save James Island.51

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The heavy shelling of Fort Sumter resumed in October 1863, but the Union objective shifted from trying to capture the fort to simply neutralizing its effectiveness. The Union shells turned the walls of Fort Sumter into rubble, but failed to silence its guns, or open a wedge in the harbor defenses so the navy could attempt an attack. The ultimate financial cost to the city was great, but it did not fall. Even an occasional blockade runner slipped through the Union naval dragnet to bring desperately needed supplies to the besieged city.

Although the siege dragged on, the Federals started drawing off troops and vessels from Charleston by the winter of 1864. They were needed in more important theaters of operation, Lincoln's administration and military leaders no longer considered Charleston so critical once the Union blockade had virtually sealed Charleston to outside trade, and Union forces had gained control of the strategic Mississippi River in the West. From that time the siege of Charleston degenerated into a holding action.53

Until February 1865, the Union force was usually only large enough to man the siege artillery and protect the barrier island enclave from recapture by the Confederates. A standoff ensued between the two armies, along a front running roughly from Coles Island, across Long Island, to Payne's Wharf on Charleston Harbor (Figure 2.1). Several incursions were made into Confederate territory, particularly onto James Island, but essentially the Federal force on Folly and Morris Islands was a machine that functioned solely to hurl artillery projectiles at Charleston and its fortifications. This desultory “siege” finally ended on February 17, 1865, when General William T. Sherman's unstoppable western army had penetrated deeply into the interior of South Carolina, threatening Charleston from the rear. The Confederate forces abandoned the South Carolina coast, and Federal forces from the sea islands occupied Charleston.54

So the Union ordeal at Charleston ended. The Federals' efforts to capture Charleston by repeated land and sea operations, and then by siege, failed. The prize Confederate seaport finally fell, but Union military strategy to take it by joint Navy and Army cooperation came to nothing. Meanwhile blueclad soldiers stationed on the South Carolina sea islands suffered greatly from the excessive duty and the harsh environment.

PART TWO: LIFE ON FOLLY ISLAND

The main base of Union operations against Charleston shifted from Folly Island to Morris Island in July 1863. Yet General Vogdes maintained a sizable occupation force on Folly Island for the remainder of the year, and a lesser one until the end of the war. The soldiers' duty there was demanding, even for veterans used to hardships and privations.

Some Federals claimed that their stint on Folly Island constituted perhaps the gloomiest period of their service under the Stars and Stripes. "Folly Island was probably the worst place in the army," complained a soldier. "If there is a worse place than these sea islands I don't want to see it..."55 The Northerners found it difficult to acclimate themselves to the Carolina weather and the sea island environment while performing the demanding duties required of them to safeguard the beachhead.

The soldiers' first summer on Folly Island was particularly enervating to their well being. By mid-summer much of the island's vegetation had been cleared to make way for encampments, and many men were living on the open sand. The sun beating down on the sandy beaches made the temperatures stifling hot. "Our exposure to the excessive heat of the day..." a soldier pointed out, "rapidly reduced the physical tone of the organization."56 Relief from the heat came only with darkness or northerly winds off the ocean.

The winds may have cooled the temperatures somewhat, but they also ruffled the blanket of sand that covered Folly Island. Sand was everywhere and filled everything "If you fell asleep," explained a bluecoat, "on waking your face would be covered, your clothes were full [of sand]."57 The troops also battled insects that bred in the sandy waste of Folly Island, or in marshes that bordered it. Sand fleas and ticks were bothersome, but mosquitoes threatened the soldiers' sanity. Mosquitoes made sleeping difficult and "even overcoats [were] no protection from the ravenous... hoard of blood suckers ... stinging, buzzing ... screaming ... dashing into your ears, wearing a fellows life out with coughing, slapping, pinching, and scratching," maintained a New York soldier.58

The Commissary and Quartermaster Departments only added to the misery of the Union troops on Folly Island. During July and most of August 1863, the staple diet of the men was comprised of molded hardtack, spoiled meat, and coffee. Complaints increased over the vast shortages of good food—beef, pork, sugar, potatoes, bread, butter, milk, fruit, and other "Yankee Notions." Moreover, the drinking water to be found on the island was brackish and sulfurous. The soldiers constantly dug new wells searching for decent water (see Chapter IV). To make health matters worse, the Quartermaster Department failed to forward the tents of some regiments from their previous stations. The absence of standard camping equipment forced many men to sleep in the open, exposed to all kinds of weather conditions.59

Even with the deprivations the men were expected to fulfill rigorous soldierly duties. Guard duty, fatigue work, and daily drills of companies, battalions, brigades, and divisions characterized most of the daily schedule. Many soldiers drilled on artillery in the morning, and shouldered rifles for infantry maneuvers in the afternoon. One New
York soldier recalled that he nearly marched his legs off on Folly Island, while “fatty Vogdes” looked on.  

Guarding Folly Island against Confederate intruders took up much of the soldiers’ time. According to some accounts, each man stood guard for one day, and was relieved the next. No picket could sleep, lay, or even sit down while on duty. The penalty for a soldier caught reclining was hanging by the thumbs. A soldier faced a possible execution by firing squad if he fell asleep at his picket post. When not on picket duty, soldiers generally were kept on reserve, in anticipation of a Confederate attack.

On days off from guard detail, the soldiers constructed buildings, tent foundations, signal stations, and piers, prepared parade grounds, and cleared and cleaned encampment areas. A New York soldier claimed that the men generally spent thirty-six of forty-eight hours straight at the hardest kind of work with little or no rest. Men in his regiment, he lamented, once labored for sixty hours, without rations. “Gillmore will have ... a great reputation for killing [his own] men if he stays in service long enough,” maintained the bluecoat.

A Union soldier’s life on Folly Island was dull and boring. The regime of duty repeated itself over and over, while the island offered few breaks from the monotony. “We looked every hour upon the same naked beaches of sand, the same drooping palmettos,” observed a disgusted soldier. The troops sought escape from their boredom by taking up a number of recreations. Collecting sea shells was popular. Day after day soldiers of all ranks, from generals to drummer boys, combed the beach gathering the “ocean’s playthings.” Oystering and fishing provided the men with some fun and supplemented their otherwise neglected diet. But the tedium was often so acute that the soldiers amused themselves by taking potshots with their rifles at their comrades across Lighthouse Inlet.

Incessant hard work, irregular and poor rations, contaminated drinking water, unfavorable living conditions, and the pangs of boredom soon took their toll on the blueclad soldiers. A host of diseases and sickness swept onto Folly Island, debilitating much of the command. Diarrhea, dysentery, fevers, ague (a malaria-like fever), and scurvy prevailed. In mid-September 1863, the 112th New York had 127 men in hospitals and only two captains fit for duty. A medical circular two weeks later disclosed that 106 members of the 142nd New York were hospitalized. The 27th Massachusetts lost so many men to sickness and death, that the regiment, or its remnants, was transferred to Fernandina, Florida. Every few weeks a medical ship visited Folly Island to remove ill soldiers who needed a change of environment to survive. The vessel seldom had room for all of the sick.

If soldiers avoided physical illness, few escaped despondency and depression. Isolation and the infrequency of letters from family and loved ones caused many men to suffer from home-sickness, or “nostalgia,” as Civil War physicians termed it. One Federal soldier observed a prevailing depression among his regiment and a stillness rarely broken by the sounds of laughter and joy. “[An] indescribable shadow... overhung and pervaded our organization,” he recalled. “The men [were in] a negative mood, never seen in the regiment before...” A young soldier dealing with a life-threatening illness and nostalgia had a reduced chance of recovery.

When conditions failed to improve, the soldiers’ anger grew, and they vented their frustrations at their commanders. General Vogdes came under heavy criticism. “It is the general opinion that [Vogdes] is the meanest man alive,” insisted a trooper. “He is the greatest coward in the Army; keeps a whole company to guard his headquarters, and dares not go out after dark.”

Vogdes attempted to thwart health problems in his command as the summer dragged on. He recognized that more soldiers were casualties of disease than battle in warm weather climates. He strictly followed the sanitary rules of the Department (see Appendix D). Areas favorable for camp grounds were selected as carefully as was possible on the low and marshy Folly Island. Soldiers policed and moved the camps often. Tents were raised at least two feet off the ground, and screened or covered to keep out insects. At the same time, soldiers struck and ventilated their tents at least three times a week. Latrines were sunk at a safe distance from each camp.

Despite these measures, however, conditions really only got better with an increase and improvement in the food supply, an acceptance on the part of the soldiers as to their situation, and the onset of cooler weather. By late autumn 1863, soldiers, who earlier had condemned Folly Island, were proclaiming it “quite a healthy place,” with mild, pleasant weather. By mid-winter, more profound changes had taken place. Military duty was less arduous, and the men resumed participation in camp sports and recreation. “The health of the command was excellent,” a soldier acknowledged gleefully. “Balls, quoits, [a game similar to horseshoes], and gymnastic exercises were liberally patronized. The men were cheerful... and vivacious.”

The onset of cold weather also brought about a general change in camping locale among the units that remained on Folly Island. In warmer weather, most regimental camps were situated along the beach, where strong breezes partially alleviated the discomforts caused by insects and heat (Figures 2.2, 2.3). With the approach of winter, camps were relocated to the interior or inland side of the island, where insects and “swamp miasma” were no longer a problem, and what remained of the forest provided some shelter from cold winds. It was this movement
inland that was responsible for the dense occupation of the project area in the winter of 1863-64.\textsuperscript{31} It was this area that was investigated by SCIAA during during the archaeological investigations on Folly Island.

\textbf{PART 3: THE 55TH MASSACHUSETTS VOLUNTEER REGIMENT}

Among the units which moved into the project area in November 1863 was a small brigade consisting of two black units, the 1st Regiment of North Carolina Infantry (or 1st North Carolina Colored Infantry) and the 55th Massachusetts Volunteer Infantry. This brigade, formerly known as "Wild's African Brigade," had camped since August 1863 at Lighthouse Inlet on the north end of Folly Island.

For several reasons, the 55th Massachusetts has been singled out for intensive treatment in the remainder of this chapter. The regiment is one of only three units specifically tied to the project area: the other units being the 1st North Carolina and Battery E, of the 3rd U.S. Artillery. It was one of two units thought to have utilized the cemetery, archaeological site 38CH920: the other unit being the 1st North Carolina. Finally, the primary historical sources available for the 55th Massachusetts are extensive and remarkably detailed, thanks to the efforts of Major, and later Lt. Colonel, Charles B. Fox, regimental adjutant.

The success in raising the black 54th Regiment of Massachusetts Volunteer Infantry encouraged state officials to form a second regiment, the 55th Massachusetts.

The 55th Massachusetts mustered at Readville, Massachusetts late in the spring of 1863, with Colonel N.P. Hallowell as its white commander. Hallowell spent the summer making soldiers out of the motley array of farmers and laborers from the Midwest and Northeast. The regiment shipped out for the front at the end of July 1863.\textsuperscript{72}

The regiment made a temporary landing at New Bern, North Carolina, a port town on the Neuse River occupied by the Union since 1862. The 55th Massachusetts remained in New Bern only five days, just long enough to be assigned to General Edward A. Wild's "African Brigade," along with the 1st North Carolina.\textsuperscript{73} In contrast to the 55th Massachusetts, which was comprised of mostly freemen, the 1st North Carolina was raised from slaves freed in the Federal occupation of coastal North Carolina. The organization soon received orders to embark for Charleston, South Carolina. The brigade was needed to supplement the forces already in Charleston, including the 54th Massachusetts, which had suffered so severely in the assault on Battery Wagner, on Morris Island. Military authorities had another reason for stationing "Wild's African Brigade" in the Charleston area. They believed black soldiers could better endure, and were more likely to survive, the South Carolina sea islands' humid climate, than their white comrades.\textsuperscript{74}

Most of Wild's regiments made landfall on Folly Island on the third of August. The remainder of the brigade, delayed by foul weather and rough seas, arrived about a week later. General Gillmore assigned Wild's brigade to Vogdes Division, X Army Corps, and stationed

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2_3.jpg}
\caption{Figure 2.3: Photograph of unidentified Federal camp on the beach, Folly Island, S.C. (USAMHI).}
\end{figure}

24 "THE BEST EVER OCCUPIED"
on the north end of Folly Island. During August and September, the black soldiers joined the white troops in the arduous labor of a major siege. Work details were kept busy cutting timber, constructing wharves, as well as unloading supplies, artillery, and ammunition from various transport vessels. The 55th Massachusetts also erected batteries, mounted heavy guns, and dug trenches on Morris Island. The soldiers performed most of this work under almost constant fire from Confederates defending Battery Wagner. After the evacuation of Morris Island, the 55th Massachusetts spent most of its time performing fatigue and guard duty on Folly Island.75

Despite presumptions at the time that men of African descent would be better suited to the Carolina climate, sickness and death took a heavy toll on the 55th Massachusetts. The unhealthy environmental conditions and overwork affected all men regardless of race. The declining health of the 55th Massachusetts was further affected by the absence of equipment and clothing. The soldiers’ hurried departure from New Bern compelled them to leave behind their tents, blankets, knapsacks, and personal luggage. Their tents finally reached Folly Island in late August, but uniform coats and personal property did not arrive until the end of September. Even then much of it was missing, stolen or lost due to the neglect of the officer left in charge at New Bern. The army declined to compensate the soldiers of the 55th Massachusetts for their losses, and the men suffered as a result. Twelve members of the regiment died of sickness or disease in their first seven weeks on Folly Island and 23 more died by the end of 1863.76

In November, with the siege effort much reduced and the “African Brigade” widely detached on other duties, the 55th Massachusetts and the 1st North Carolina Colored Infantry moved their winter camp on Folly Island (Figures 2.4, 2.5). The orders for preparation of the camp were revealing:

HQ “Wilds Brigade”
Folly Island, S.C. Nov. 4, 1863
Special Order # 52)

One Co- each from 1st NCC Vols. and 55th Mass. is hereby detailed to clear ground, and lay out their respective regimental camps... full marching order w. camp equipage & 5 days rations.

A competent officer from each regt. will be present to locate the respective camps, which so far as possible should be uniform as to size and general arrangement.

The large timber on the camp ground will be left standing, so much of the smaller growth as may be suitable for firewood should be collected & preserved.

The uniform width of the mens streets will be 30 ft. or thereabouts, the camp front proper about 500 ft., and the interval between the camp lines on the inner flank, not less than 60 yards.

The detachment will march as early as possible on the 5th inst.
James Beecher
Com. Brigade

Major Fox commanded the detachment of the 55th Massachusetts assigned to prepare the campsite. He left a detailed narrative of the work, excerpted below, and appended a map and drawings (Figure 2.4).

Wednesday Nov. 4” It is just before noon and Col. Beecher has just ridden up to say it is proposed to change the camp of the brigade to a point further south... of course it is in our interest to look out that the location is a good one...

2 1/2 o’clock P.M. Have just returned from our new camping ground. For a winter location it is much better than the one where we now are. The camp will be in the woods, the officers tents on a little ridge... the fronts, as now, toward the marsh, but with an old cotton field, which will make a fine parade ground, and a ridge of land covered with brush and dwarf palmetto, between us and it. We shall send one company down tomorrow, to take charge of the ground and clear it up...

Thursday Nov. 5” All day I have been employed at the new camp, running lines, etc.

Friday Nov. 6” ...the front of our camp is 500 feet, and as the company which is doing the work here - K. Co. - is the one belonging in the extreme left, while my position is on the right in rear of the fourth company, I am as it were camped out in the woods by myself. The Chaplain is a little beyond me, however, and about fifteen men of H, the fourth company are camped on their street.

Sunday Nov. 8” The view from my tent is quite limited, for though it is pitched
on a little hillock there is one much higher in front and the woods are quite dense in the rear. I will enclose a sketch. When I want to look out, I climb the bluff in front and look down upon camp. I fear it will take some time to bring things to level. I doubt if we attempt it except on a small scale.... The troops around our camp have seen but little of colored soldiers I expect and they have a great deal of curiosity, standing and looking at our men...

Monday Nov. 9" Our annoyances we have escaped (by change of camp) the blowing of the sand. The soil is light, but the leaves and undergrowth confine it where it is. I have been tinkering with my tent at odd times during the day, and it is now so nicely closed in that the cold wind will trouble me but little.... We finished main part of our camp cleaning today, but hardly expect the Regt. before Wednesday - so we shall go on digging wells, building stables and so on.... All the convalescents and slightly sick men were sent down to me this afternoon, so that with very few men for duty, I really have more men in number of the regiment than are together at any other point. My eyes are somewhat affected by the smoke...from the fires built to clear up the leaves and rubbish.... I bought today a nice little sheet iron stove about a foot square which stands in one corner of my tent and heats it very comfortably.

Wednesday Nov. 11" The regiment is gradually collecting at this place, a large number of convalescents having come down today with much of the baggage...

Friday Nov. 13" Yesterday was a day of hard work. The regiment has not yet moved down, and we are still cutting brush, moving logs, grubbing up stumps, digging wells, & c. [sic] To - day we fixed up two hospital tents quite nicely, and built a stable, or rather a frame to be covered with canvas, for the horses...

Saturday Nov. 14" As it will give you no idea of our location or the forces near us, I think I will make you a little sketch of the camp this afternoon, that you may judge of our canvas city and our various positions [Figure 2.4]78

Fox later recalled that the camp was "...soon made, if not the best regimental camp on the island, certainly the best ever occupied there by the regiment."79 Two photographs (Figures 2.5, 2.6) taken of unknown interior camps on Folly Island resemble the camp described by Fox.

The health of the regiment was greatly improved in November and December. Fox recalled that "...the loss by disease during August and September had been heavy, but as severe night fatigue duty was reduced, and especially after the first frosts, deaths became less frequent." In December, "A great improvement was also made in the condition of the regimental hospital, floors being laid, frames put up for the tents, doors constructed, bunks built, and the kitchen, nurses' quarters, and dispensary put in fine order for the comfort of the sick."80

The monthly regimental hospital report for December is reproduced below.


Surgeon General Dale

Sir,

The following is a Summary of the Monthly Return of Sick and Wounded for Dec., 1863: -

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number treated</td>
<td>355</td>
</tr>
<tr>
<td>Sent to Gen'1 Hospital</td>
<td>6</td>
</tr>
<tr>
<td>Died</td>
<td>5</td>
</tr>
<tr>
<td>Average in Hospital daily</td>
<td>18/10/31</td>
</tr>
<tr>
<td>&quot; Sick, Quarters &quot;</td>
<td>98/10/31</td>
</tr>
<tr>
<td>[?] Officers Sick</td>
<td>8</td>
</tr>
</tbody>
</table>

The principal diseases were: -

<table>
<thead>
<tr>
<th>Description</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diarrhoea</td>
<td>22 cases</td>
</tr>
<tr>
<td>Catarrh</td>
<td>42</td>
</tr>
<tr>
<td>Typhoid fever</td>
<td>8</td>
</tr>
<tr>
<td>Typho-malarial fever</td>
<td>11</td>
</tr>
<tr>
<td>Rheumatism</td>
<td>23</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>26</td>
</tr>
<tr>
<td>Pleurisy</td>
<td>8</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>2</td>
</tr>
<tr>
<td>Tonsillitis</td>
<td>13</td>
</tr>
<tr>
<td>Intermittent fever</td>
<td>12 [?]</td>
</tr>
</tbody>
</table>

In addition to the number of deaths in our own regiment, two privates of Co. A 2nd Reg. U.S. Col'd Infantry died in our hospital. They were on detached service; and as the Post Hospital on Folly Island has been broken up, they had no other place to go to.
Figure 2.4: Map and other details of the interior camp of the 55th Massachusetts established in November 1863; drawn by Major Charles Fox, Nov. 14, 1863. (Massachusetts Historical Society.)
The troops are more comfortably situated than at any previous time since landing here. Nearly every tent is provided with a stove or fireplace.

I have the honor [sic] to remain
Very respectfully
W.S. Brown
Surgeon 55th Mass.

Although the camps served as regimental headquarters, units seldom saw collective duty there. Companies were frequently detached from the 55th Massachusetts for duty elsewhere on Folly Island or adjacent islands. Companies B and I, for instance, spent December 1863, at Pawnee Landing, about two miles north of the winter camp on the Folly River. That same month Companies E and K picketed Long Island. Company F served at Fort Green on Lighthouse Inlet, while Company H spent much of its time at Fort DelafIELD, on Stono Inlet. A

The carefully prepared winter camp was abandoned on February 13th and 14th 1864, when the 55th Massachusetts and 1st North Carolina (now redesignated the 35th U.S. Colored Infantry) embarked for Jacksonville, Florida. The 55th Massachusetts saw active campaigning, but little combat, during the Florida expedition. They returned to Folly Island by April 20, 1864. They found the island nearly abandoned, with only two other regiments on duty there. The 55th Massachusetts did not re-occupy their previous camp. Detachments were scattered at various posts on the island, and the regimental camp was ultimately placed at Stono Inlet. B

The 55th Massachusetts saw more active duty starting in the spring of 1864. On May 21, four companies of the 55th Massachusetts, accompanied by the 103rd New York, skirmished with Confederates on James Island. It turned out to be only a minor clash, but it gave the black soldiers a little fighting experience. Two days later the entire regiment, commanded by A.S. Hartwell who had replaced the retired Hallowell, made a demonstration near Legareville on Johns Island. The one-day-skirmish was more notable, however, for the exchange of fire between the two supporting Union gunboats and Confederate shore batteries. D

In June, the 55th Massachusetts formed part of an army under General Alexander Schimmelfennig in an advance on Charleston. The column to which the regiment was attached included the 33rd United States Colored Troops and 103rd New York. It directed its attack on Fort Lamar on James Island. By then the Union military leaders recognized that their best chance for capturing Charleston was by taking James Island. The Federals failed to make any headway, and the 55th Massachusetts lost seven men killed and 21 wounded. E

For the remainder of its stay on Folly Island, the 55th Massachusetts saw heavy duty because of the small number of troops retained on the island. Indeed by August 1864, only three regiments (55th Massachusetts, the 33rd United States Colored Troops, and the 44th New York) occupied the post of Folly Island, including Folly, Coles, and Long Islands. All other units had been pulled away for theaters-of-war elsewhere. Even General Gillmore and General Vogdes departed, going in May 1864, to Virginia, where the fighting was growing more intense as the war entered its final stages. Only a skeletal Confederate army as well remained in the Charleston area to oppose the Federals. Their strength too had been depleted as regiments were assigned to more strategic battlefronts. E

The remaining task of the 55th Massachusetts was not guard and fatigue duty on Folly Island, however. It continued to participate in forays against Charleston, though Union military commanders believed by then that capturing Charleston with a strong army advance was unlikely. On November 27, 1864, eight companies of the 55th Massachusetts assisted in an action at Honey Hill, on the Broad River near Hilton Head. The regiment suffered its greatest losses of the war in that battle, 31 soldiers killed, and 138 wounded. F

After the Battle of Honey Hill, the 55th Massachusetts saw duty near Savannah, Georgia; Beaufort, South Carolina; and on James Island, but it did not return to camp on Folly Island. The Confederates abandoned Charleston on February 17, 1865, and four days later the 55th Massachusetts was among the Federal regiments that took possession of the city. For the remainder of the war and into the summer of 1865, the regiment served occupation duty in eastern South Carolina. On August 29, 1865, the 55th Massachusetts was mustered out at Charleston, and officially discharged in September upon its return to Massachusetts. P.C. Headley wrote a fitting tribute to black Massachusetts units stating"...They added to the military reputation of the Commonwealth, gave strength to the Union cause, and forever silenced the clamor against them in advance by the enemies of the colored race."
Figure 2.5: Photograph of unidentified Federal camp in the interior of Folly Island. This location strongly resembles that described and depicted by Major Fox (see Figure 2.4). (USAMHI).

Figure 2.6: Photograph of Federal officer's tents in an unidentified interior camp on Folly Island. Major Fox (1863) depicts similar arrangements of shrubs planted around the officer's tents in the interior camp of the 55th Massachusetts. (National Archives).
FOOTNOTES TO CHAPTER II


19. In fact, Foster's reconnaissance alerted the Confederates to the Union plans. Foster and his party indiscreetly aroused suspicion when they appeared on the north end of Folly Island in full view of Confederates on the opposite shore. As a result, the Confederates on Morris Island began to erect batteries to sweep Lighthouse Inlet and the northern end of Folly Island (Bacon to Du Pont, February 16, 1863, and Balch to Du Pont, February 16, 1863, in *Official Records of the Union and Confederate Navies in the War of the Rebellion*, 30 volumes [Washington, DC: Government Printing Office, 1900], Series 1, Volume XIII, 650; War Department, *Official Records of the Union and Confederate Armies in the War of the Rebellion*, 128 volumes in 70 parts [Washington, DC: Government Printing Office, 1880-1901], Series 1, Volume XIV, 425 [hereafter cited as ORA, e.g. 1, XIV, 425.])


21. David Hunter to Abraham Lincoln, May 22, 1863, *ORA*, 1, XIV, 455. On March 31, 1863, Colonel Joshua B. Howell commanded the 56th New York and 85th Pennsylvania (Second Brigade, Second Division, XVIII Army Corps). Other regiments may have been assigned to his brigade for the Charleston operation of April, 1863 [ORA, 1, XIV, 435].

23. According to the historian of the 3rd New Hampshire, the troops had "surf and india-rubber pontoon boats" which they were to use to cross Lighthouse Inlet (Eldredge, Third New Hampshire, 269).


25. Reed, Combined Operations, 293-294; Burton, Siege of Charleston, 136-140.

26. Du Pont to Hunter, April 8, 1863. ORA, 1, XIV, 437.

27. Abraham Lincoln's determination to capture Charleston in the spring of 1863, is suspect. Publicly at least, the president insisted that the Carolina port must be sealed. According to correspondence with General Hunter and Admiral Du Pont, the chief executive hoped that they could gain control of the harbor and its defenses. He wished "the attempt to be a real one (though not a desperate one)...if it afford[ed] any chance of success." But whether they could succeed or not, Lincoln wanted the department leaders to keep up a demonstration "for a time for a collateral and very important object...But if prosecuted as a demonstration," Lincoln maintained, "only this must not become public, or the whole effect will be lost." (Lincoln to Du Pont and Hunter, April 14, 1863, ORA, 1, XIV, 441).

28. Lincoln to Du Pont, April 13, 1863, and Halleck to Hunter, April 13, 1863, ORA, 1, XIV, 440; Hunter to Halleck, April 16, 1863, ORA, 1, XIV, 443.


30. Special Orders, No. 189, VI, Hqrs. Dept. of the South, April 11, 1863, ORA, 1, XIV, 439.

31. Seymour to Vogdes, April 22, 1863, and Vogdes to Seymour, April 24, 1863, ORA, 1, XIV, 446.

32. Vogdes to Seymour, April 24, 1863, 1, XIV, 446.


37. Vogdes to Halpine, April 16, 1863, ORA, 1, XIV, 444.

38. Vogdesto Halpine, April 16, 17, 20, ORA, 1, XIV, 443, 445, 450.

See also: Balch to Du Pont, June 15, 1863, ORN, 1, XIV 261.


41. Special Orders No. 249, Hqrs. of the Army, Adjt. Genls. Office, June 3, 1863, ORA, 1, XIV, 446; General Orders, No. 47, Hqrs. Dept. of the South, Hilton Head, Port Royal, S.C., June 12, 1863, ORA, 1, XXVIII, 2; W.B. Dean ? to Colonel Woodford, 1863, U.S. Army, 1st Brigade, 1st Division Letterbook, 1862-1863, South Caroliniana Library, University of South Carolina, Columbia (hereafter cited as U.S. Army, 1st Brigade, 1st Division Letterbook, South Carolina). The White House was on the bank of the Folly River, immediately southwest of the SCIAA project area. Today, the Seabrook house occupies the same location. At other times, Gillmore's Headquarters was located near the beach on Folly Island, and on Morris Island.


43. Caldwell, Sixth Connecticut, 64.

Harpers). The navy encouraged Vogdes to destroy the blockade runner *Ruby* and deny the Confederates her goods. But Vogdes "was of the opinion that it would be better to forgo any small advantage that might be gained by offensive operations against the wreck for the infinitely greater advantage to be gained [by keeping the Federals work a secret]." Vogdes did not, however, object to the blockading vessels attempts to destroy the *Ruby*. (Du Pont to Balch, June 28, and Balch to Du Pont, June 29, 1863, *ORN*, vol. 1A, 301-302).


49. Welles to Dahlgren June 24, 1863, *ORN*, vol. 1A, XIV, 295.


82. Fox, *Record of the 55th Massachusetts*, 19-20; Dyer *Compendium*, vol. 2, 1267.


84. Fox, *Record of the 55th Massachusetts*, 27; General Order No. 44, Hdqrs. Dept. of the South, Hilton Head, S.C., March 26, 1864. United States Army, Dept. of the South, South Caroliniana Library, University of South Carolina, Columbia.


CHAPTER III

CEMETERY SITE ARCHAEOLOGY 38CH920

INTRODUCTION

Archaeological site 38CH920, an abandoned Union Army cemetery, was found in the south-central portion of Folly Island (Figure 1.2, 3.1). It covered an open, small sandy knoll surrounded by mixed deciduous and coniferous vegetation (Figure 3.2). The site had remained undeveloped, although it had been logged three times. The knoll is part of an interior dune ridge, ranging in elevation from 7.55 ft to 10.89 ft (3.32 m) above MSL. These elevations have, however, only a relative association to the contemporary site topography. Since the cemetery was discovered after construction of a roadbed had started, elevations recorded during the archaeological investigations can only be compared to the developer’s maps for some indication of the cemetery’s original topography. Further discussion of this problem is presented below. In any case, the destruction of the topsoil (A horizon) and original surface by bulldozers left the site area like a loose sandy beach. The new surface consisted of pure sandy subsoil, and until SCIAA arrived, subject to constant change by heavy equipment travel. Therefore, the provenience of artifacts and features found in the upper 20 cm of the entire site must be treated with caution.

A 0/0 point was established on the highest site elevation (10.89 ft or 3.32 m MSL), and magnetic north/south, east/west lines were drawn. The on-site datum was tied to a nail driven into a tree off-site. This elevation nail was 42° from magnetic North, and 26.30 ft from the 0/0 point. It was placed by professional surveyors. The nail, which is still in place, is 10.04 ft or 3.06 m above MSL. Because the loose sandy soil on site made it difficult to take consistent elevation readings, the instrument height of the transit was monitored closely and checked daily against the fixed elevation nail. Later, professional surveyors tied the 0/0 point into the developer’s project control points 1540 and 1054 located along W. Indian Ave. (1054 is at 301,545.83606 Northing, 2,324,211.39887 Easting, State Coordinate System). The 0/0 point can be relocated by bearing 153.31° (MN) from point 1054 to 1540, distance 650.88 ft (or 333° MN from 1540 to 1040). Using the line struck from 1054 to 1540, turn 265°, distance 591.69 ft, to a random point. From this random point, turn 170°, distance 230.67 ft, to the 0/0 point.

Fieldwork began with two simultaneous excavation techniques. Open block excavations were begun immediately around Burial 1, exposed by grading, while other archaeologists systematically explored the site with screened 50 x 50 cm shovel tests at 2 m grid intervals. The shovel testing was not entirely satisfactory in locating burials, so the search methodology was changed to slot trenching along the lines of the established grid. The trench dirt was screened through 1/4 in hardware cloth. The trenches were 30 cm (a shovel width) in size, and varied in length depending on the size of the exposed road cut.

Block excavations consisted of 2 x 2 m units, placed where burials were discovered. These units were sometimes expanded in 1 x 2 or 2 x 2 m blocks as needed. Fifty-four square meters were exposed in this manner.

RESULTS

Beach sand deposits, with little natural stratigraphy, characterized the subsoil at 38CH920. A 50 x 50 cm unit control was excavated in an undisturbed area of the site (12S/0W), and except for the addition of topsoil, no visible differences were observed between the undisturbed and disturbed areas. Munsell color coding at the site indicated that the sands began as a light yellowish brown (10YR6/4) on the surface and became more coarse and slightly greyer with increasing depth (Figure 3.3). This change was so slight that the Principal Investigator could distinguish no Munsell value or chroma differences and probably was the result of differences in moisture content. Indeed, it was often difficult to distinguish archaeological back-filled shovel tests in exposed block excavations once the soils dried. Irregular dark banding of the sands appeared randomly in some of the test unit profiles. These bands were more pronounced on the dune at 38CH964, where it was easy to see angled wind-blown dune deposits, which overlay deeply buried horizontal Late Holocene beach-face deposits (Mark Brooks, personal communication April 3, 1989).

Shovel Tests

Ninety-one shovel tests were excavated. Most were spaced at two meter intervals across the site. The shovel tests ranged in depth from 80 cm to one meter below the surface. The interval was reduced to one meter where the burial density was greatest, and increased to four meters when no cultural manifestations were revealed (Figure 3.1). The shovel tests were used to find burials, and when artifacts or bone were discovered, a block excavation unit...
was superimposed over the shovel test. Materials from positive shovel tests were incorporated into the burial findings where possible. Some shovel tests did not reveal a burial but did recover artifacts. Forty-three artifacts, found in shovel tests (Appendix F), could not be associated with a burial. They include 21 nails located at 10S/12W (depth 50-70 cm), rubber blanket fragments at 4S/14W (depth 0-20 cm), an iron four-hole button and 10 nails at 10S/14W (depth 0-20 cm), a pale-green bottle glass fragment at 4S/16W (surface), a clear glass medicine bottle rim at 6S/19W (depth 0-40 cm), six nails at 4S/20W (depth 0-25 cm), another nail at 0N/23W (depth 0-25 cm), and an unidentified metal object (two joining fragments) at 10S/23W (surface). The large number of nails at 10S/12W and 10S/14W would imply the presence of a burial, but no bone was discovered. This southwest area was in the lowest elevation on the site and the artifacts perhaps represent trash deposits or an empty grave.

Slot Trenches
Seven slot trenches were dug to a depth of 80 to 95 cm below the surface. They were located along the 7W, 9W, 11W, 16W, 19W, 21W, and 22W lines (Figure 3.1). The interval along the 7W line from 0 to 4S was excavated to only 20 cm. Like shovel tests, the slot trenches were used to discover burials, and the artifacts located during trench excavation usually could be incorporated as part of a burial. Only eight trench artifacts were not associated with a burial. They were six dark olive-green bottle fragments found along the trench at 7W, and two olive-green bottle fragments found along trench 9W.

Beyond the established grid, two other slot trenches were placed on the next southerly ridge from the immediate site area. These trenches, placed perpendicular to each other to form a “T”, were 60 m and 244’ (magnetic) southwest of the 0/0 point. The depth of these trenches was from 65 to 80 cm. The fill of these trenches was not screened. No burials or artifacts were found in these two trenches (12 m and 8 m in length).

Burials
In the individual burial descriptions that follow, an effort has been made to determine what articles of military and civilian attire are represented by surviving material. (A full discussion of uniform components and their associated hardware is found in Chapter V.) The disturbed nature of most of the burials made this effort an imperfect process of elimination. In only two cases (Burials 5 and 14) could the artifact assemblage be considered intact, and both of these individuals, ironically, were virtually unclothed. Artifacts in all other burials were subject to removal by several agents, including historic reburying efforts, road grading, and relic collecting. These agents also disturbed the original placement of many artifacts within the burials, providing the archaeologist with only a general provenience. The artifacts listed in the individual burial descriptions include only those diagnostics that aided feature interpretation. For a complete artifact inventory see Appendix F.

BURIAL 1 (1.5S/20W)
Type: primary interment
Position: extended, supine
Orientation: east-west, head to west
Condition:
Preservation: fair to good
Articulation: poor, only humeri and lower legs in correct anatomical position
Completeness: Poor; badly disturbed due to road construction, no cranium [unless otherwise specified, assume no cranium for remaining burials]

Skeletal Data:
Sex: male Age: 19-22 years
Stature: 168.8 (+/- 3.78) cm or ~ 5'6"
Strength: moderate
Pathology: 2 Harris lines, tibia infection (healed)
Diagnostic Artifacts: 2 large eagle buttons, 1 small eagle button, 9 four-hole iron buttons, 1 four-hole bone button, 8 rubber blanket grommets, rubber blanket fragments, 1 forage cap strap fragment
Grave: 200 cm e/w x 75 cm n/s (6.53 ft x 2.46 ft)

Discussion: This first burial was found from 20 to 40 cm below the surface, but it had been partially exposed by construction and discovered by relic collectors. A 2 x 2 m unit was opened over the burial as the first excavation activity. A light grave stain was visible, but neither coffin wood nor nails were recovered. The individual was wrapped in a rubber blanket for burial, as indicated by both grommets and blanket fragments. Clothing was uncertain, but probably included either a uniform coat or sack coat (suggested by large eagle buttons), uniform trousers (suggested by iron buttons), and a forage cap (suggested by the strap fragment). A civilian shirt was suggested by a single four-hole bone button. No evidence was found of drawers or shoes. A fragment of a ball-clay pipe also was found in the burial.

most of thoracic, pelvic areas, and
Figure 3.1: Sito 38CH920, General Site Map.
BURIAL 2 (OS/20W)

Type: primary interment

Position: extended, supine, hands across abdomen

Orientation: east-west, head to west

Condition:
- Preservation: fair to good
- Articulation: partial, upper body only
- Completeness: most of lower body missing or disturbed

Skeletal Data:
- Sex: male
- Age: 21-23
- Stature: 172.69 (+/- 3.94) cm or ~ 5' 8"
- Strength: slight

Pathology: 3 slight Linear Enamel Hypoplasia (LEH), Schmorl's nodes, healed femur infection

Diagnostic Artifacts: 1 large eagle button, 7 four-hole iron buttons, 9 rubber blanket grommets, rubber blanket fragments, 1 forage cap buckle.

Grave: ?, skeletal remains and stain appear to be 200 cm e/w x 75 cm n/s (6.53 ft x 2.46 ft)

Discussion: Found approximately 50 cm (20 in) north of the Burial 1 grave stain, this burial also was first found near the surface (24 cm) and was highly disturbed. Most of the right side of the skeleton was disturbed, while the left half was much more complete (Figure 3.4). A grave feature was seen, but no wood or coffin nails were found in association with the burial. Grommets and fragments indicate that this individual was wrapped in a rubber blanket. The single large eagle button (found resting on the sternum) could be from either a uniform coat or a sack coat. Uniform trousers and a forage cap were evident. There was no evidence for drawers or shoes.

BURIAL 3 (2.5S/20W)

Type: primary interment

Position: extended, supine

Orientation: east-west, head to west

Condition:
- Preservation: fair to good
- Articulation: most of cervical vertebrae, lower legs, upper arms articulated
- Completeness: poor; no cranium,

Discussion: Found approximately 50 cm (20 in) north of the Burial 1 grave stain, this burial also was first found near the surface (24 cm) and was highly disturbed. Most of the right side of the skeleton was disturbed, while the left half was much more complete (Figure 3.4). A grave feature was seen, but no wood or coffin nails were found in association with the burial. Grommets and fragments indicate that this individual was wrapped in a rubber blanket. The single large eagle button (found resting on the sternum) could be from either a uniform coat or a sack coat. Uniform trousers and a forage cap were evident. There was no evidence for drawers or shoes.
femurs missing

**Skeletal Data:**
- Sex: male  
- Age: 16-18
- Stature: 169.02 (+/-3.78) cm or ~5'6"
- Strength: marked

**Pathology:** Spina Bifida, LEH

**Diagnostic Artifacts:** 2 large eagle buttons, 2 small eagle buttons, 2 four-hole iron buttons, 2 four-hole bone buttons, 12 rubber blanket grommets, sheet brass number “5”, rubber blanket fragments, wood coffin fragments, 2 forage cap strap fragments, 1 iron suspender buckle

**Grave:** 7 skeletal remains within 175 cm e/w x 75 cm n/s (5.74 ft x 2.46 ft)

**Discussion:** This burial was located approximately 60 cm (24 in) south of the Burial 1 grave stain, first appearing at 25 cm below the surface. This individual was wrapped in a rubber blanket and buried in a wooden coffin. Attire probably included either a uniform coat or sack coat, uniform trousers, a forage cap, a civilian shirt with bone buttons, and suspenders. There was no evidence of drawers or shoes. The most interesting artifact from this burial was a small, sheet-brass “5” insignia, apparently the by-product of stencil manufacture, with an attachment device soldered to the back. It is reasonable to speculate that this is half of a non-regulation “55” regimental forage cap insignia, handcrafted by a soldier (see Chapters II and V).

**BURIALS 4 AND 6 (6S/14W AND 5S/19W)**

**Type:** unknown B4, B6

**Position:** unknown B4, B6

**Orientation:** unknown B4, B6

**Condition:**
- Preservation: both fair
- Articulation: no articulated remains found for either
- Completeness: poor, badly disturbed

**Skeletal Data:**
- Sex: males  
- Age: No. 4, 24-32; No. 6, 23+
- Stature: unknown B4, B6
- Strength: No. 4, large, No. 6, strong hands

**Discussion:** This burial was located approximately 60 cm in south of the Burial 1 grave stain, first appearing at cm below the surface. This individual was wrapped in rubber blanket and buried in a wooden coffin. Attire probably included either a uniform coat or sack coat, uniform trousers, a forage cap, a civilian shirt with bone buttons, and suspenders. There was no evidence of drawers or shoes. The most interesting artifact from this burial was a small, sheet-brass “5” insignia, apparently the by-product of stencil manufacture, with an attachment device soldered to the back. It is reasonable to speculate that this is half of a non-regulation “55” regimental forage cap insignia, handcrafted by a soldier (see Chapters II and V).

**Burial 4**
- **Skeletal Data:**
  - Sex: male  
  - Age: 15-16
  - Stature: 166.02 (+/-3.78) cm or ~5'5"
  - Strength: marked

**Discussion:** This burial was located approximately 60 cm (24 in) south of the Burial 1 grave stain, first appearing at 25 cm below the surface. This individual was wrapped in a rubber blanket and buried in a wooden coffin. Attire probably included either a uniform coat or sack coat, uniform trousers, a forage cap, a civilian shirt with bone buttons, and suspenders. There was no evidence of drawers or shoes. The most interesting artifact from this burial was a small, sheet-brass “5” insignia, apparently the by-product of stencil manufacture, with an attachment device soldered to the back. It is reasonable to speculate that this is half of a non-regulation “55” regimental forage cap insignia, handcrafted by a soldier (see Chapters II and V).

**Burial 6**
- **Skeletal Data:**
  - Sex: male  
  - Age: 16-18
  - Stature: 169.02 (+/-3.78) cm or ~5'6"
  - Strength: marked

**Discussion:** This burial was located approximately 60 cm (24 in) south of the Burial 1 grave stain, first appearing at 25 cm below the surface. This individual was wrapped in a rubber blanket and buried in a wooden coffin. Attire probably included either a uniform coat or sack coat, uniform trousers, a forage cap, a civilian shirt with bone buttons, and suspenders. There was no evidence of drawers or shoes. The most interesting artifact from this burial was a small, sheet-brass “5” insignia, apparently the by-product of stencil manufacture, with an attachment device soldered to the back. It is reasonable to speculate that this is half of a non-regulation “55” regimental forage cap insignia, handcrafted by a soldier (see Chapters II and V).

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**Figure 3.3:** Site 38CH920, Representative soil profile.
ing attachment, coffin wood fragments.

**Grave:** B4 at least 138 cm e/w by x 40 cm n/s (4.52 ft x 1.31 ft), B6 unknown

Discussion: These two burials were found so disturbed by grading that excavators were unable to sort artifacts and bone in the field. Furthermore, feature stains were very indistinct during excavation. Bone material from Burial 4 first appeared near the surface at 25 cm, and only after complete exposure of both burials was it possible to reconstruct that Burial 6 was first seen at 58 cm below the disturbed surface. At the base of both burials, two grave outlines were partially discerned. Based on reconstruction, they appear to have been approximately 20 cm apart. Skeletal analysis confirmed two individuals. Both interments appear to have been in coffins, but without rubber blanket shrouds. However, in a shovel test at 4S/14W, north of Burial 6, rubber blanket fragments were found in the first 20 cm and may be part of these burials. Despite the very disturbed condition of the burials, the quantity and variety of artifacts present allow determinations of their attire with some precision. Both were buried in nine-
button uniform coats rather than sack coats. Both apparently wore uniform trousers, and at least one forage cap and one pair of suspenders were indicated. There was no evidence for either drawers or shoes.

BURIAL 5 (7.5S/19W)
Type: primary interment
Position: extended, supine, hands across abdomen
Orientation: east-west, head to west
Condition:
Preservation: very good
Articulation: very good, undisturbed
Completeness: complete, including cranium
Skeletal Data:
Sex: male Age: 35-40
Stature: 171.09 (+/- 3.53) cm or 5'7"
Strength: marked
Pathology: caries, tibia infection, Schmorl's nodes
Diagnostic Artifacts: 9 four-hole iron buttons, coffin fragments
Grave: 230 cm e/w x 75 cm n/s (7.5 ft x 2.46 ft)
Discussion: The grave stain of this burial was first seen at 2.01 m MSL, and the skeletal material was found at 1.86 m MSL, or approximately 48 cm below the disturbed surface. The stain continued into the west wall of the unit and joined with another stain at Burial 12 (see also Burial 12). One of only two complete skeletons found at this site, the burial was in excellent condition (Figure 3.5). Analysis of the skulls of this burial and Burial 14 provided the strongest evidence of black racial affinity among the burials at 38CH920 (see Appendix A). The coffin was poorly preserved, but it was clearly hexagonal, with nails still in place. No rubber blanket grommets or material fragments were present. Uniform trousers were represented by exactly the correct number (nine) of iron buttons. It is possible that a pull-over shirt or a shirt with wooden buttons also was worn by this soldier. This speculation, of course, might apply to any of the burials. However, it seems particularly apt in the case of a soldier buried in a substantial coffin, but unshrouded, and otherwise half-naked (see also Burial 14). No shoes were suggested in this burial.

BURIAL 7 (7.25S/16W)
Type: primary interment
Position: extended, supine
Orientation: east -west, head to west
Condition:
Preservation: fair to good
Articulation: partial, upper body only
Completeness: lower body missing or disturbed
Skeletal Data:
Sex: male Age: 20-24
Stature: 153.05 (+/- 4.43) cm or 5'0"
Strength: moderate
Pathology: Schmorl's nodes
Diagnostic Artifacts: 4 four-hole iron buttons, 1 four-hole bone button, 14 rubber blanket grommets and fragments, wood coffin fragments and nails
Grave: none seen (coffin and skeletal stain only 200 cm x 40 cm, 6.5 ft x 1.3 ft)
Discussion: First discovered 36 cm below the surface, this was another highly disturbed burial; the spinal column was articulated, but severely curved in the grave (Figure 3.6). Only the upper chest area was found in situ. This individual was interred in a hexagonal coffin and shrouded in at least one rubber blanket. Uniform trousers and possibly a civilian shirt are the only other articles of clothing suggested.

BURIAL 8 (7S/22W)
Type: primary interment
Position: extended, supine
Orientation: east -west, head to west
Condition:
Preservation: fair to good
Articulation: very poor, only feet and right fibula articulated
Completeness: poor, badly disturbed
Skeletal Data:
Sex: male Age: 30-35
Stature: ? short
Strength: marked
Pathology: Caries, abscess, Schmorl's nodes
Diagnostic Artifacts: 2 large eagle buttons, 2 four-hole iron buttons, 1 gilt-brass button, whittled lead scraps, wood coffin fragments
Grave: 200+ cm e/w x 175 cm n/s (6.5 ft x 2.4 ft)

Discussion: Skeletal material was first seen approximately 85 cm below the surface. Therefore, while this burial was highly disturbed, the agent of disturbance could not have been construction. The bone inside the coffin was very jumbled due to partial exhumation (see Chapter III: Interpretations), looting, or some other agent. No rubber blanket shroud was present. This soldier was buried in either a uniform coat or a sack coat and uniform trousers. The article of clothing represented by the civilian brass button is unknown, as is an explanation for the lead scraps present in the burial (these are not impacted bullet fragments). No drawers or shoes were indicated.

BURIAL 9 (5.5S/16W)
Type: primary interment
Position: extended, prone
Orientation: east-west, head to east
Condition:
Preservation: fair to good
Articulation: partial; cervical and thoracic vertebrae, and some ribs articulated
Completeness: poor, badly disturbed

Figure 3.5: Site 38CH920, Burial 5.

42 "THE BEST EVER OCCUPIED"
Skeletal Data:
Sex: male  
Age: 19-21  
Stature: 174.43 (+/- 3.94) cm or ~5' 9"  
Strength: slight  
Pathology: Schmorl’s nodes  
Diagnostic Artifacts: 1 large eagle button, 7 four-hole iron buttons, 1 four-hole bone button, wood coffin fragments and nails, rubber blanket fragments, 7 rubber blanket grommets  
Grave: not visible  

Discussion: This burial was originally found by relic collectors and had been disturbed by construction. SCIAA’s excavations encountered it at around 20 cm from the disturbed surface. The most interesting attributes of the burial was that it was oriented with the head to the east, and was found in a prone position, unlike any of the others. Oyster shell and bottle fragments were found in association with the burial. Burial 9 was part of a complex of disturbed graves including Burials 4 and 6. The individual represented here was interred in a coffin with a rubber blanket shroud. Attire included either a uniform coat or sack coat, uniform trousers, and possibly a civilian shirt. No drawers or shoes were indicated.

BURIAL 10 (3.5S/10W)
Type: primary interment  
Position: extended, supine  
Orientation: east - west, head to west  
Condition:
Preservation: fair to good  
Articulation: partial, vertebrae and lower legs articulated  
Completeness: poor, upper body badly disturbed  
Skeletal Data:  
Sex: male  
Age: 23-25  
Stature: 172.53 (+/- 3.78) cm or ~5' 8"  
Strength: moderate  
Pathology: fused little toe  
Diagnostic Artifacts: 2 four-hole iron buttons  
Grave: not visible  

Discussion: This individual was buried in neither coffin nor rubber blanket. The remains were first seen at approximately 28 cm below the surface. A grave stain was not observed except immediately around the skeleton. It is possible that a small shallow grave was prepared, just

Figure 3.6: Site 38CH920, Burial 7.
large enough to accommodate the body. Uniform trousers were the only article of clothing suggested by the artifacts, although heavy disturbance may have removed many diagnostic artifacts.

**BURIAL 11 (5S/10W)**

**Type:** primary interment  
**Position:** extended, supine  
**Orientation:** east-west, head to west  
**Condition:**  
- Preservation: fair to good  
- Articulation: poor, parts of rib cage and vertebrae articulated  
- Completeness: poor, badly disturbed  

**Skeletal Data:**  
- **Sex:** male  
- **Age:** 20-25  
- **Stature:** ?  
- **Strength:** large feet  

**Pathology:** LEH-1  
**Diagnostic Artifacts:** 11 large eagle buttons, 3 small eagle buttons, 10 four-hole iron buttons, 3 four-hole white glass buttons, 2 rubber blanket grommets, 2 hooks and 1 eye fasteners, 2 Confederate .577/.58 Pritchett-pattern bullets, 1 unfired percussion cap  
**Grave:** 200+ cm e/w x 50 cm n/s (6.5 ft x 1.6 ft)  

**Discussion:** Part of the heavy disturbance around this shallow (28 cm below the surface) burial was caused by tree roots. The burial contained oyster shell, as did Burial 9. There was no coffin, but a rubber blanket shroud was probably present. The massive disturbance to this burial was especially unfortunate as the artifact assemblage was the most complete found at 38CH920. This individual was dressed in a uniform coat, uniform trousers, and either drawers or a civilian shirt, as evidenced by white glass buttons. No shoes were indicated. The unfired Confederate bullets and unfired percussion cap recovered within the burial were of special interest. These may have been battlefield souvenirs, buried with the soldier in his trousers pocket.

**BURIAL 12 (8.5S/21W)**

**Type:** primary interment  
**Position:** extended, supine  
**Orientation:** east-west, head to west  
**Condition:**  
- Preservation: fair to good  
- Articulation: poor, only lower leg articulated  
- Completeness: very poor  

**Skeletal Data:**  
- **Sex:** male  
- **Age:** 25-30  
- **Stature:** 166 (+/- 3.94) cm or ≈5’5”  
- **Strength:** ?  

**Pathology:** Tibia infection, pipe smoker, hand fracture, LEH-2  
**Diagnostic Artifacts:** melted bullet lead, wood coffin fragments and nails  
**Grave:** 200 cm e/w x 75 cm n/s (6.5 ft x 2.4 ft)  

**Discussion:** This burial had a very distinct coffin stain. However, most of the coffin had deteriorated by the time it was exposed, although fragments of wood were collected beginning only a few cm below the surface. Many of the 143 nails and wood fragments were found in situ along the distinct outline of the coffin stain. The human remains, however, were very incomplete. Also missing were any clothing-related artifacts originally present. The presence of a melted lead bullet in the burial remains unexplained.

**BURIAL 13 (1S/11W)**

**Type:** primary interment  
**Position:** extended, supine  
**Orientation:** east-west, head to west  
**Condition:**  
- Preservation: fair to good  
- Articulation: poor, vertebral column, some ribs, humeri and feet articulated  
- Completeness: very poor, disturbed  

**Skeletal Data:**  
- **Sex:** male  
- **Age:** 25-30  
- **Stature:** 170m (+/- 4.43) cm or -5'7”  
- **Strength:** extreme  

**Pathology:** Schmorl’s nodes, os acromial  
**Diagnostic Artifacts:** 1 large eagle button, 6 four-hole iron buttons, 5 four-hole black glass buttons  
**Grave:** 200+ cm e/w x 50 cm n/s (6.5 ft x 1.6 ft), distinct stain  

**Discussion:** Like many of the other burials, the cranium and lower body were missing, with the feet remaining in articulated position. The skeletal material first appeared
approximately 36 cm below the surface. This burial was interred without a coffin or rubber blanket shroud. Clothing included either a uniform coat or a sack coat, uniform trousers, and either a civilian shirt or drawers, as evidenced by the black glass buttons. Shoes were not indicated. (See also the discussion of Burial 18.)

BURIAL 14 (7.5S/10W)
**Type:** primary interment
**Position:** extended, supine, hands across abdomen
**Orientation:** east-west, head to west
**Condition:**
  - Preservation: very good
  - Articulation: excellent
  - Completeness: complete

**Skeletal Data:**
- **Sex:** male
- **Age:** 30-35
- **Stature:** 167.64 (+/- 3.53) cm or 5'6" 
- **Strength:** extreme
- **Pathology:** LEH-2, slight infection
- **Diagnostic Artifacts:** 3 four-hole iron buttons

**Grave:** 200 cm e/w x 50 cm n/s (6.5 ft x 1.4 ft)

Discussion: This complete, well-preserved skeleton was one of the more deeply buried ones, appearing at 2.11 m MSL or 68 cm below the disturbed surface (Figure 3.7). The burial was without coffin or rubber blanket shroud. Like Burial 5, Burial 14 was completely intact but very poorly clothed. Only uniform trousers are indicated (but see discussion of Burial 5). This interment was the last recovered by the Institute during the May 1987 excavations.

BURIAL 15 (6N/10W)
**Type:** primary interment
**Position:** extended, supine, hands across chest
**Orientation:** east-west, head to west
**Condition:**
  - Preservation: very good
  - Articulation: good, most bone articulated
  - Completeness: poor; cranium, half lower legs missing

**Skeletal Data:**
- **Sex:** male
- **Age:** 17-18
- **Stature:** 176.96 (+/- 3.53) cm or 5'10"
- **Strength:** moderate
- **Pathology:** tibia, healed trauma/infection
- **Diagnostic Artifacts:** 13 four-hole iron buttons, coffin (?) wood fragments

**Grave:** 160+ cm e/w x 50 cm n/s (5.2 ft x 1.4 ft)

Discussion: This was the first of the burials recovered by Carolina Archaeological Services, Inc. The information presented here is from their report (Anthony and Drucker 1988) and from field notes, which they kindly supplied. Burial 15 was discovered when ditches were excavated for sewer lines (Figure 3.8). It had been impacted by the construction efforts, but much of the burial remained for archaeological excavation. Wood fragments were found in association with the grave feature and CAS states that, "Both [Burials 15 and 16] appear to have been placed in wooden coffins, presumably with a simple 'pinched toe' design similar to those excavated by SCIAA" (Anthony and Drucker 1988: 5). There were no coffin nails found. No rubber blanket grommets or fragments were reported by CAS, although the presence of more than the normal number of four-hole iron buttons found on a pair of uniform trousers may indicate a rubber blanket was present and possibly removed (see below). Nevertheless, trousers were the only clothing evidenced.

BURIAL 16 (8N/10W)
**Type:** primary interment
**Position:** extended, supine, hands across abdomen
**Orientation:** east-west, head to west
**Condition:**
  - Preservation: very good
  - Articulation: good, most bone articulated
  - Completeness: poor; cranium, half lower legs missing

**Skeletal Data:**
- **Sex:** male
- **Age:** 25-30
- **Stature:** 164.65 (+/- 3.53) cm or 5'5"
- **Strength:** extreme
- **Pathology:** femur infection, fibula trauma
- **Diagnostic Artifacts:** 2 four-hole bone buttons, 3 four-hole iron buttons, 3 four-hole white glass buttons, 1 large
four-hole white glass button

**Gravity: not visible**

Discussion: This burial was found opposite Burial 15, approximately 16 cm below the surface (Figure 3.8). It had been more heavily impacted by construction than Burial 15. Like Burial 15, it may have been in a coffin, but no nails were recovered. The variety of four-hole buttons suggest uniform trousers, drawers, and a civilian shirt. No shoes or coat were indicated.

**BURIAL 17 (7N/10W)**

- **Type:** unknown
- **Position:** unknown
- **Orientation:** unknown
- **Condition:**
  - Preservation: good
  - Articulation: unknown
  - Completeness: poor; most missing

**Skeletal Data:**
- **Sex:** male
- **Age:** 16-19
- **Stature:** 167.07 (+/-4.43) cm or ~5' 6"
- **Strength:** moderate
- **Pathology:** slight infection
- **Diagnostic Artifacts:** 1 small eagle

**Discussions:**

Discussion: This burial was situated between Burials 15 and 16. It was completely impacted by construction of the pipeline ditch and the bone and artifacts collected were from this modern feature. No grave or coffin stain was preserved in this essentially destroyed burial, and no nails or rubber blanket components were found. If the buttons recovered can be considered 'in association,' then clothing articles may have included a uniform coat or forage cap, uniform trousers, and possibly a civilian shirt. No evidence was seen for shoes. The disturbance to this burial is particularly unfortunate as its general provenience included the most intriguing artifact from any of the burials: a fired U.S. rifle-musket bullet. The impact surface of the bullet exhibits neither wood grain nor soil particle impressions that are typical of most fired Civil War bullets. However, there was no evidence that the individual represented by Burial 17 was struck by this projectile. The association of the bullet with the burial is speculative, and no wound was seen on any recovered bone. While two members of the 55th Massachusetts were shot to death by fellow Union soldiers on Folly Island, both of these deaths post-dated the probable use of this cemetery (see below).
BURIAL 18 (~OS/10W)
Type: unknown
Position: unknown
Orientation: unknown
Condition:
  Preservation: good
  Articulation: ?
  Completeness: poor, only two femurs
Skeletal Data:
  Sex: male   Age: 23-30
  Stature: 175.01 (+/- 3.94) cm or
  ~5' 9"
  Strength: marked
Pathology: infection
Diagnostic Artifacts: none
Grave: not visible

Discussion: Burial 18 was represented by only two femurs found while CAS monitored construction of a ditch across, and perpendicular to, the road and SCIAA’s site (Figure 3.1). The femurs were found in a redeposited context in the upper 10 cms “...approximately six meters south of the row of graves [CAS burials]” (Anthony and Drucker 1988: 5). This places these two femurs very close to Burial 13 which was missing its femurs. However, osteological analysis indicates that the femurs recovered represent a separate individual rather than the individual in Burial 13.

Miscellaneous Human Bone
Both SCIAA and CAS recovered miscellaneous bone from disturbed contexts, or on the surface, which could not be placed with any of the above burials. These materials include six unidentified rib fragments, one cervical and two thoracic vertebrae, one lumbar vertebra, one humerus, two metacarpals, seven hand phalanges, eight foot phalanges, and, finally, a maxilla fragment. The number of individuals represented by this collection was impossible to estimate, but was obviously more than one.

Miscellaneous Features and Artifacts
Carolina Archaeological Services, Inc. excavations also discovered what is interpreted as an empty grave (CAS Feature 1). This grave was located 38 cm south of

Figure 3.8: Site 38CH920, Burials 15 and 16. (Carolina Archaeological Services, Inc.)
Burial 15. It was approximately 30 cm deep and 102 cm wide (Anthony and Drucker 1988:5). The length was not evident. No artifacts were found in association with this feature. Carolina Archaeological Services, Inc. also recovered artifacts from mixed contexts including a faceted hard-rubber pipe with ceramic insert (see Chapter V). Finally, the Institute recovered a four-hole bone button from the surface.

**Extent of Cemetery Coverage by Archaeologists**

As discussed previously, the Institute's immediate goal in its May 1987 (Phase I) excavations was to remove all burials within the roadway, before their certain destruction by further road development or by relic collectors. Investigation beyond the roadway was not of immediate concern as the wooded nature of the surrounding area provided some protection against looting. Furthermore, arrangements were made with the developer for SCIAA to recover any other burials that might be encountered in these, as yet, unimpacted areas. Investigation of the cemetery was as extensive as possible given the conditions of sustaining unplanned and nonfunded salvage excavations. Shovel testing, slot trenching, and block excavation combined to cover the area as seen in Figure 3.1, leaving the space (later examined by CAS, Figure 3.1) for planned mechanical stripping during SCIAA's last two days in the field. The stripping did not occur because the mechanical equipment did not arrive and, unfortunately, burials were present. Given this result, an obvious question arises as to how many more graves may remain undiscovered.

This question cannot be answered with certainty, however, an examination of Figure 3.1 and the following discussion may help to alleviate concerns. First, there is little likelihood of graves within the immediate site area encompassed by W 4 to W27 and N9 to S10, because this area was extensively investigated by SCIAA and CAS before the ridge was leveled by the final road development. If undiscovered graves exist in the roadway, they must be buried very deep, are now protected by the asphalt road, and cannot be looted. They are perhaps best left in place. This explanation also follows for the next western ridge examined using slot trenches, with totally negative results. Further the site was later bounded by the construction of sewer lines, which, when new burials were discovered, CAS was retained to investigate.

Carolina Archaeological Services, Inc. monitored two backhoe trenches in areas defined as archaeologically sensitive by the SHPO (Anthony and Drucker 1988:4). Trench A was perpendicular to the pipeline trench (Figure 3.1) and ran from the CAS excavation block south through SCIAA's excavations. This southern extension was 6.5 m long, 1.5 m wide, and averaged 50 cm deep. Carolina Archaeological Services, Inc. later extended their excavation block, using a backhoe, an additional 6 m to the north and found nothing (Anthony and Drucker 1988:3). Parallel to the road, on both sides of the road and bounding 38CH920, sewer lines had been excavated prior to the arrival of CAS. No burials were discovered, except as described above. These trenches would have certainly uncovered further burials if such were present.

During Phase III investigations, SCIAA returned to the site area and further tested it using a backhoe on the southern remnant of the ridge containing 38CH920 (Figure 3.1). Two large areas, approximately 2 x 4 m each, were scraped down slowly with a backhoe. No burials or artifacts were discovered from these excavations. Carolina Archaeological Services, Inc. also investigated the same area with four shovel tests during the summer of 1987 (Drucker and Jackson 1988:37) and found no burials.

In summary, while SCIAA cannot be sure that all of the burials from the abandoned cemetery have been excavated, certainly most of them have been removed. The site area has been heavily investigated. Still, should burials be discovered around or near 38CH920, a legal agreement exists to insure that they will be protected, excavated, and reburied. The SHPO, the developer, and SCIAA have agreed that the Institute will be notified if the developer or future property owners near the site discover burials any time in the future. The Institute will excavate the burials, and have them re-interred. These arrangements are written into the property deeds of sale.

**INTERPRETATIONS**

Despite the disturbances encountered at this site, some valuable insights have been gained concerning burial of black Union soldiers during the siege of Charleston. The best supported interpretation of 38CH920 is that it was an abandoned brigade cemetery which contained members of the 55th Massachusetts and the 1st North Carolina Colored Infantry regiments, who were buried there as a result of death due to sickness or disease. The project area is the general location of the November 1863 through February 1884 winter encampment of these and other Union military units. The cemetery was adjacent to the campground of the 55th Massachusetts. The following discussion presents evidence for this interpretation, along with a site analysis regarding burial patterning. In this section free use is made of three kinds of data (archaeological, historical and physical), integrating the evidence as needed in these interpretations. Further information regarding the physical anthropology is provided in Appendix A.
Burial Patternning

The first area of investigation was to reveal, from the physical evidence of archaeology, the burial practices used on Folly Island. Though almost every aspect of the Civil War has been investigated by historians, historical data concerning burial practices have not been thoroughly researched. The subject is occasionally discussed in soldier's letters or diaries, but has not been discussed, in detail, by historians. Noted historian on the lives of Civil War soldiers, Francis Lord, has stated that burial was rather informally handled during the war (personal communication January 24, 1989). Burial of soldiers who died in hospitals was done by a regimental detail, or by the individual's friends.

Still, the army has regulations for everything and, officially, it was the duty of the regimental surgeon to bury those who died in the regimental hospital:

Should a soldier die in camp or regimental hospital, the Surgeon should notify his Commanding Officer and forward to him an inventory of his effects, with the disease from which he died and the date of death, select a place for burial and see that he is decently buried and his grave carefully marked. The duties thus far pointed out are obligatory, and no excuse can be made for their nonperformance in camp (Otis and Huntington 1883: 910).

The regimental surgeon was also responsible for the morning sick call and seeing that the camp was inspected daily.

Coates (1977), who has written on battlefield burial, reproduced a watercolor from the National Archives entitled "Sketch of Mode of digging and filling Graves." This sketch has no date, and most regrettably, no scale. However, it does show a row of graves in profile, all of equal depth and evenly spaced. The sketch caption details the process of filling graves, using dirt from one grave to fill another. This was "To ensure the least handling of earth, and therefore the most economical mode of digging a row of graves, it will be found most expedient to throw the earth from the first grave out upon the bank at h, there to remain until the row is finished" (Coates 1977: 19). Further, "...the earth dug from each grave, being used to fill the preceding [sic] one, until the end of the row is reached, when the earth from a left at h is wheeled or carted to fill up the last grave h" (Coates 1977: 19).

Despite these regulations and recommendations, Coates supports Lord's statements that burial was rather informally handled. His figure caption below the watercolor states "The type of burial recommended by the U.S Govt. but seldom used" (Coates 1977: 19). This was especially true after combat. With large numbers of dead lying on the battlefield, "The means of burial used by the army at the time was, by necessity, fast and crude" (Coates 1977: 20). Further,

Attempts were made to mark the graves of those whose identification was known, but those who could not be readily identified and the bodies of most of the enemy were simply placed in a single shallow grave or trench and covered over (Coates 1977: 20).

Often, soldiers were buried on the battlefield where they fell. Marking the graves was done by placing a board at the head of the grave. Some of these headboards were carved and/or penciled-in with the name, and possibly regiment, of the individual. Coates (1977: 20) states that sometimes a sheet-brass stencil, which soldiers often obtained from sutlers to mark equipment, was nailed to the grave headboard to identify the individual buried (note that our Burial 3 had a number blank from such a stencil). As stated, trenches were used to bury multiple fatalities.

The above cited manner of digging graves, of course, presupposes that more than one individual was to be buried. In a hospital situation, where deaths occur over a longer time span and individually, one can assume that trenches were not often used. Actual burial patterning and mortuary practices in a hospital situation could have been very consistent, if the regimental surgeon took his duties seriously, or less consistent, if different regimental details were used for each burial and the surgeon did not carefully supervise. If friends buried their comrades, even greater variation in burial patterning would be likely. Supporting evidence for such variation was found among historical accounts by soldiers on Folly Island. A Captain in the Third New Hampshire Volunteer Infantry stated:

The word "buried" may mean much or little, and the variation is largely governed by circumstances. It may mean a hastily-dug and shallow excavation,- the dumping into it of a comrade's body, a rapid movement to push back the earth that had been removed, and the disappearance from the spot of the living. That only, and nothing more, happened thousands of times under varying conditions.

When a regiment or company was encamped for any considerable time in one place, a suitable burial spot was selected near by and the dead buried in it, and almost always with ceremony (Eldredge 1893: 1003).
From Eldredge's description, one might assume that regulations were followed in the creation and maintenance of a hospital cemetery. But it would also appear that, while there was an approved method, the actual method varied according to circumstances. This is where archaeology can be of valuable service, in providing solid physical evidence of the actual burial behavior.

**BURIAL PATTERNING: GRAVE DEPTHS AND LOCATION**

To determine the degree of regulation at the Folly Island cemetery, the placement and depth of individual graves needed to be analyzed. However, because of the heavy disturbance to the burials by road construction, the results presented below in determining vertical and horizontal patterning must be viewed with caution, and are inconclusive. For instance, to discern how deep the original graves were dug, the original surface elevations were needed. Unfortunately these elevations were not known, as the bulldozer had cleared the surface prior to SCIAA's arrival at the site. Still, to offer some insight into this question, an exercise was conducted to measure the grave depths at Folly Island.

To determine this original surface an attempt was made to analyze the developer's map of the pre-construction surface in relation to the topographic map produced by the Institute's archaeologists (Figure 3.9). The original ridge elevations, according to the developer's project map range from nine to twelve-plus ft MSL (2.74 m to 3.65 m MSL). The general topography, including the gentle slope from northeast to southwest was consistent with SCIAA's topographic map, which ranges from 2.4 m to 3.32 m MSL. It would appear that construction activities prior to SCIAA's arrival consisted of shaving approximately 30 cm (1.5 ft) off the ridge and removing the trees. However, the highest elevation recorded by SCIAA (the 0/0 point), was not the highest elevation on the original ridge, which was removed. So initially there was a ridge top which may have had more than 30 cm shaved from its original MSL elevation.

Having assumed that, except for the ridge top, the ridge was shaved with some consistency, the burial depths were then examined in three-dimensional space. The hypothesis made was that if graves were dug to a consistent, regulated depth below the original surface, the base of the graves would be found at a consistent MSL depth roughly parallel to the northeast to southwest slope (Figure 3.9) observed and recorded in the field. Burials which were begun at roughly the same MSL elevation (i.e. a flat surface) should end at the same MSL depth, if the soldiers digging the graves were ordered to dig them according to some regulated depth. Comparing the MSL elevations at the bases of the burials with that of the general topographic elevations produces the results shown in Table 3.1. While the results are unclear, they do imply that the graves were not all dug to the same regulation depth. Yet, some graves, which clustered horizontally in space, were dug to similar depths. For instance, a group of graves (Burials 1, 2, 3) was found generally at the same elevation of 2.84 m MSL. It would be expected that the base of the graves would be at the same elevations. In fact, Burials 1, 2, and 3 do fall within 11 cm of each other, which can be considered the same depth considering the loose sandy soils. This was not the case with another burial cluster. Burials 5, 8, and 12 clustered closely in horizontal space, but were found at varying depths.

<table>
<thead>
<tr>
<th>Burial</th>
<th>Top/Base</th>
<th>Surface</th>
<th>Depth Below Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-1</td>
<td>2.60/2.44</td>
<td>-2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>B-2</td>
<td>2.60/2.44</td>
<td>-2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>B-3</td>
<td>2.59/2.33</td>
<td>-2.84</td>
<td>0.51</td>
</tr>
<tr>
<td>B-4</td>
<td>2.28/1.85</td>
<td>-2.60</td>
<td>0.75</td>
</tr>
<tr>
<td>B-5</td>
<td>2.01/-1.80</td>
<td>-2.49</td>
<td>0.69</td>
</tr>
<tr>
<td>B-6</td>
<td>2.23/2.03</td>
<td>-2.60</td>
<td>0.57</td>
</tr>
<tr>
<td>B-7</td>
<td>2.21/?</td>
<td>-2.57</td>
<td>?</td>
</tr>
<tr>
<td>B-8</td>
<td>1.66/1.46</td>
<td>-2.58</td>
<td>1.12</td>
</tr>
<tr>
<td>B-9</td>
<td>2.36/2.16</td>
<td>-2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>B-10</td>
<td>2.62/2.23</td>
<td>-2.90</td>
<td>0.67</td>
</tr>
<tr>
<td>B-11</td>
<td>2.52/2.05</td>
<td>-2.80</td>
<td>0.75</td>
</tr>
<tr>
<td>B-12</td>
<td>1.97/1.29</td>
<td>-2.00</td>
<td>0.71</td>
</tr>
<tr>
<td>B-13</td>
<td>2.64/2.29</td>
<td>-3.00</td>
<td>0.71</td>
</tr>
<tr>
<td>B-14</td>
<td>2.11/1.75</td>
<td>-2.70</td>
<td>0.95</td>
</tr>
<tr>
<td>B-15</td>
<td>2.36/2.02</td>
<td>-2.60</td>
<td>0.68</td>
</tr>
<tr>
<td>B-16</td>
<td>2.44/1.93</td>
<td>-2.60</td>
<td>0.67</td>
</tr>
<tr>
<td>B-17</td>
<td>2.38/?</td>
<td>-2.6</td>
<td>?</td>
</tr>
<tr>
<td>B-18</td>
<td>?</td>
<td>-3.00</td>
<td>?</td>
</tr>
</tbody>
</table>

The evidence above does not support the contention that the soldiers were digging graves at a consistent depth below the surface. Interestingly, two general burial depths are seen in Table 3.1. Burials 4, 5, 6, 10, 11, 13, 15, and 16 all are within a range of 67 to 75 cm (~2.2-2.4 ft) below the disturbed surface. Another four 1, 2, 3, 9 cluster at 40 to 51 cm (~1.5 ft) below this surface. No explanation is offered for this observation, unless the contemporary surface was vastly different and much more irregular than the developer's map indicated.

In any case, adding 30 cm (1.5 ft) to the depths discussed above still places the base of these burials approximately 105 cm or 3.5 to 4 ft below the surface as surveyed and recorded on the developer's project map. The deepest burial (Burial 12) can be projected at 150 cm,
Figure 3.9: Site 39CH920, Topographic map.
or approximately 5 ft deep. Whatever the original grave depths were, the evidence would indicate that they were more shallow than six feet deep, as folklore would have them.

Despite the questionable accuracy of this data, the grave shallowness does have an archaeological correlate. Nine military graves in a Civil War cemetery at Port Hudson, Louisiana were found at maximum depths of 102 to 148 cm, with one additional grave at 63 cm (Owsley et al. 1988: 61). Seven of these graves clustered within a range of 106 to 116 cm below the surface. On the other hand, at the St. Peter Street Cemetery in New Orleans, Louisiana, a different pattern is indicated. This was a civilian cemetery dating ca. 1725-1789 (Owsley & Orser 1985). Like the cemetery at Folly Island, the original surface was lost to construction. However, ten adult graves ranged from 120 to 240 cm in base grave depth. Interestingly, the mean depths for the males in this cemetery was 203 cm and for females, 220 cm (Owsley and Orser 1985: 93). At Cedar Grove in Arkansas, 72 graves were recovered in a black civilian cemetery dating ca. 1890 to 1927. There again, the original surface was lost. While adult graves were at varying depths at Cedar Grove, most appeared to be around 2 m, with children's graves more shallow (Trubowitz in Rose 1985: 20, 30).

One might be tempted to conclude that military graves tend to be shallower than civilian graves. This might be an interesting hypothesis to test in the future. However, a more likely explanation for why the Folly Island graves lacked depth is that the soldiers dug shallow graves so that ground water would not intrude upon the body. For instance, Lt. Frank Heimer, a member of the white 144th New York Volunteer Infantry, related that when he took sick, he became concerned about where he might be laid to rest on Folly Island. Heimer stated, "You will also remember that after digging about eighteen inches in the cemetery the bottom fell out and water filled the grave. Well, when on the third week I got worse I thought my time had come and I did not want to be buried in a water hole. I began to look around for a better spot" (McKee 1903: 133). (Heimer's full description of death and his sickness is priceless reading and has been reproduced for the reader's interest in Appendix D.) Site 38CH920 appears to have been an ideal location for a cemetery as the Institute's burial excavations did not encounter the water table. The water table was encountered at 38CH964 and 38CH966.

Another method of analyzing the degree to which the cemetery met military regulations was to examine the horizontal burial distribution. Figure (3.1) indicates four to six rows of graves running north to south, with a definite trend from northwest to southeast across, and down, the ridge slope. Drawing a line through the centers of these graves, it would appear that from the west, row 1 would consist of Burials 8 and 12. Row 2 would include Burials 1, 2, 3, 5 with a large gap between Burials 5 and 3, although perhaps Burial 5 was intended to be a separate row. Burials 4, 6, 7, 9, may be two separate rows. A definite row is seen along a line from 10, 11, 13, 14 and 18(?). A line running north from this latter row would not necessarily intercept CAS Burials 15, 16, 17 and CAS Feature 1. One explanation for the gaps between these burials is that originally burials were present in the gaps but were removed. The issue of post-war exhumation is discussed below. It is possible that empty graves were present, but were not visible to the archaeologists. Another explanation is that the graves were placed around trees which existed at the time of burial.

The distance between adjacent burials was also inconsistent. This inconsistency was partly the result of the archaeologists inability to discern grave outlines. However, it appears that Burials were generally either 40 cm or 120-140 cm apart. For instance, Burials 1,2, and 3 are approximately 40 cm apart (~1 1/2 ft?). Burials 15, 16, 17, and Feature 1 appear to have similar spacing, but the disturbances in this area preclude precise measurements. Meanwhile, Burials 10, 11, 14 were 120 and 140 cm apart (~3 1/2 ft?). Burials 7 and 9 were 120 cm apart.

The above patterning has archaeological correlates. The investigation of the Bryan Cemetery near New Bern, North Carolina revealed similar patterns (Phelps 1979). This cemetery, active from 1865 to 1930, was a black civilian cemetery containing some 522 graves, over a 12 acre area. The cemetery was stripped of its topsoil to locate the graves for later removal. Of interest, the plan of the cemetery clearly shows the same loose, overlapping rows of graves seen at 38CH920 (see Figure 8, Phelps 1979: 20). Further the same drifting of the rows from northwest to southeast occurs, and the spacing was also irregular. The pattern at the Port Hudson military cemetery was inconclusive but tends toward more carefully aligned graves (Owsley et al. 1988). At Cedar Grove the rows were distorted as at the Bryan Cemetery and 38CH920, but trend toward the northeast rather than northwest (Rose 1985: 21).

The patterns discussed above, as stated previously, were hardly conclusive or even clear enough to arrive at definite conclusions with any real authority. However, given all of the above data, it is tentatively concluded that the graves were dug intermittently, with perhaps enough time between burial episodes for surface markings to be confusing to the burial details. Thus, rows were not neatly organized, nor were distances between the burials tightly controlled (Figure 3.1). One could speculate, for instance, that the row containing Burials 1, 2, 3, was created within a short time. (Interestingly, two soldiers from the 55th Massachusetts who died in December of 1863 were buried on the same day and another shortly afterward, see below.)
Likewise, clusters composed of Burials 15, 16, and 17, Burials 10, 11, 13, 14, Burials 8, 12, and Burials 4 and 6, may have had a similar history. Burials 7 and 9 appear to have been dug at different times, and their row intrudes upon, or was intruded by the row formed by Burials 4 and 6. Burials 4 and 6 intrude upon one another and Burial 5 intrudes upon, or is intruded by 12.

However the cemetery developed, the loose rows, the inconsistency in distance between graves, the varying depths, the corroborative evidence from Bryan Cemetery, all suggest that the graves were not dug as a single episode. It is clearly evident that the burial details were not closely supervised, and that burial at 38CH920 was rather casual or informal. This data supports the conclusions drawn by Lord and Coates. Further, this pattern supports the contention that death, and burial, occurred randomly through time, as would be expected if the soldiers were dying of diseases in a hospital over several months time.

BURIAL PATTERNING: MORTUARY PRACTICES

While the patterning discussed above is not conclusive, definite patterns exist for mortuary practices exhibited within the graves. Tables 3.2 and 3.3, along with the data previously discussed in the Burials section of this chapter, present the results of this analysis. First, where grave shaft size could be recorded, it appears to be fairly consistent at 200 cm in length by -75 cm in width (6.56 ft x 2.46 ft). Depressions from 16 Civil War graves at Port Hudson averaged 189.6 cm x 54.6 cm (Owsley et al. 1985: 73). Grave shafts at the black Cedar Grove cemetery, where adults and children were interred, ranged from 90 cm to 260 cm in length, and 50 cm to 120 cm in width, the mean being 186 cm x 90 cm (6.1 ft to 1.67 ft) (Trubowitz in Rose 1985: 20).

Table 3.2: Grave and Coffin Size (in cm), 38CH920

<table>
<thead>
<tr>
<th>Burial</th>
<th>Grave Shaft</th>
<th>Coffin</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-1</td>
<td>200 x 75</td>
<td></td>
</tr>
<tr>
<td>B-2</td>
<td>200 x 75</td>
<td></td>
</tr>
<tr>
<td>B-4</td>
<td>-138 x 40</td>
<td></td>
</tr>
<tr>
<td>B-5</td>
<td>230 x 75</td>
<td>185 x 40</td>
</tr>
<tr>
<td>B-7</td>
<td></td>
<td>195 x 40</td>
</tr>
<tr>
<td>B-8</td>
<td>200 x 175</td>
<td>187 x 52</td>
</tr>
<tr>
<td>B-11</td>
<td>200 x 50</td>
<td></td>
</tr>
<tr>
<td>B-12</td>
<td>200 x 75</td>
<td>195 x 40</td>
</tr>
<tr>
<td>B-13</td>
<td>200 x 50</td>
<td></td>
</tr>
<tr>
<td>B-14</td>
<td>200 x 50</td>
<td></td>
</tr>
<tr>
<td>B-15</td>
<td>160 x 50</td>
<td></td>
</tr>
</tbody>
</table>

Only four coffins were complete enough to be measured (Table 3.2), and were from 185 cm to 195 cm in length, and from 40 cm to 52 cm in maximum width (approximately 6+ ft x 1 1/2 ft). All were hexagonal. CAS reports that Burials 15 and 16 also had hexagonal coffins (Anthony and Drucker 1988: 93). At the Port Hudson military cemetery, nine coffins with distinguishable form were hexagonal, their mean length and width being 189.6 cm x 54.6 cm (Owsley et al. 1985: 73). The coffins from the 18th century New Orleans cemetery were smaller, the mean size of male coffins being 174.29 cm in length and 46 cm in width (Owsley and Orser 1985: 93).

Disregarding Burials 4/6, 17 and 18, which were too damaged for most analysis, there was remarkable consistency in the position and orientation of the skeletons (Table 3.3). All but one of the remaining burials were laid in the ground in an extended, supine position, oriented east/west with head to the west. Only Burial 9 was different, being discovered in a prone position with head to the east. Placement of the hands was discernable in five burials (Burials 2, 5, 14, 15, and 16). In all cases except Burial 15, were across the abdomen. The hands in Burial 15 were placed across the chest.

Eight individuals, plus Burial 4/6 were buried in coffins. In seven graves rubber blankets were used as a burial shroud (Table 3.3). Four of the coffin coffins had a shroud. Three shroud burials had no coffins, and three other burials had neither shroud nor coffin, so it would not appear that rubber blankets were necessarily a substitute for a coffin. Curiously, Burials 5, 8, and 12, which cluster in the same location, each have coffins but no rubber blanket shrouds (Figure 3.1, Table 3.3).

Seven of the individuals, plus Burials 4/6, were buried in uniform or sack coats (Table 3.3). Fifteen were probably buried with trousers. Burial 17 probably had both a sack coat and trousers. Burial 12 was possibly nude, and it appears Burials 14 and 15 wore only trousers. Nine individuals probably had civilian attire under their coats. No definite evidence of drawers was found, however, the four-hole white glass buttons recovered in several burials could be evidence for either a shirts or drawers.

In light of these patterns, it is interesting to note that the black soldiers would not voluntarily wear a dead man's clothing. Charles Bowditch, a white officer with the 55th Massachusetts, wrote to his father from Folly Island on February 6, 1864:

The negroes are the hardest people to reason with that you can imagine. Last night I had a talk with one of my men, a very respectable inhabitant of Connecticut, and one who has received a very good high school education. I asked him how it was that his class refused so earnestly to wear the clothes of a man who had died. He couldn't tell exactly, but said that he had a suit of...
clothes of his father' [sic] and grandfather's and that he would sooner go naked than wear them. I tried to argue with him, but it was not [sic] use; the superstition was too deeply imbedded in his mind to be easily eradicated (Bowditch 1924: 469-70). Still, this "superstition" does not appear to have extended to shoes. While the recovered soldiers were almost all clothed in some manner, there was no evidence of shoes in any of the burials. This pattern can not be explained simply as the result of the shoes being removed later during the burials' (probable) historic exhumation (see below). Archaeological evidence shows that Burials 1 through 14 had foot bones present. Eight of these burials (Burials 3, 5, 7, 8, 10, 12, 13, 14) were found with the foot bone very well-articulated (the other two showed evidence of articulation). There was no way the people exhumeing the bones could have removed shoes without disturbing this bone. Therefore, shoes were definitely not part of the burial clothing. Furthermore, Colonel (then Major) Fox, the 55th Massachusetts' Regimental Adjutant, noted that shoes were a problem. He stated that, "There are some 15 more or less in the regiment who No. 12 and two who wear No. 13, and it is with great difficulty we can keep them from having to go barefooted" (Fox, 1863-1865: November 17, 1863).

BURIAL PATTERNING: CAUSE OF DEATH

The interpretation that the soldiers at 38CH920 died from disease and camp sicknesses in the regimental hospital is, to date, mostly based on negative evidence. First, there is no historical documentation of combat on Folly Island, other than random artillery shots fired against or from long range Confederate batteries on John's Island, and supporting fire during the amphibious landing on Morris Island (see Chapter II). It would be a rare occurrence, indeed, for the bodies of combat victims on James and Morris Islands to be transported to Folly Island for burial. Wounded from the assault on Battery Wagner were brought over from Morris Island, but were probably placed in the Post Hospital, since their regiments were still camped on Morris Island. Further, while deaths from wounds was a possibility, no physical evidence of bone shatter, shrapnel, fired Confederate bullets, or amputation has been seen in the physical analysis (see Appendix A). Evidence that the soldiers were members of the 55th Massachusetts and 1st North Carolina Regiments will be presented below. Both of these regiments have been pinpointed in the area, along with their regimental hospitals. Both had many documented disease-related deaths. All of the above evidence leads SCIAA archaeologists to believe that the soldiers in this cemetery died due to sickness rather than combat wounds. As been discussed, the variety of burial patterns revealed further supports this hypothesis.

BURIAL PATTERNING: HISTORIC EXHUMATION

One of the most consistent patterns seen at 38CH920 regards missing skeletal parts. It was obvious during excavation that road construction was not the primary agent of disturbance within the graves themselves. Of the 19 individuals recovered (18 burials, plus miscellaneous human bone found on the ground surface, totaling at least 19 individuals), only two, Burials 5 and 14, had complete skeletons, including skulls. After skulls, the next most common missing skeletal elements were the two innominatees, which, with the sacrum, comprise the pelvic area. Only Burials 1, 5, and 14 had complete pelvic regions. The chest area of many skeletons was also half missing or greatly disturbed. Yet in all of the burials, except Burials 4/6, 17, and 18 (burials very badly, or totally disturbed by road construction), at least some bone remained articulated in the grave. This disturbance pattern can not be fully explained by road construction, or natural occurrences like animal activity, tree roots or flooding. Sometime after the burial of these soldiers, the bone appear to have been deliberately exhumed.

Many possible disturbance agents were considered as explanations for the missing skeletal elements, including voodoo, and relic collecting. However, the most logical explanation was that the graves were opened and skeletal remains were removed sometime after the war as part of the general effort by the U.S. Government to rebury soldiers in national cemeteries. There is overwhelming historic documentation of this practice at other locations in the South. Reburial started during the war at battlefields like Gettysburg, and by 1883, a quarter of a million Union soldiers had been reburied in 79 national cemeteries (Sylvia & O'Donnell 1978: 82). According to Sylvia and O'Donnell, who reference Lord (1960: 328), the government received 34 bids for such work ranging from $1.59 to $8.00 per body. At Gettysburg, one "Mr. W. Brecker was contracted to remove bodies from the field for reburial at the rate of $1.59 each, with no more than 100 to be moved on one day" (Coates 1977:21). The authors cannot restrain from noting that even in the 1860s, the U.S. Government awarded the low bid. To be completely fair, this was not always the case. At Fort Pillow, for instance, the cost of exhuming 258 Union battlefield casualties and reburying them at a fort cemetery was $7.00 per body; the total cost plus head-posts and fencing was $2,145.65 (Mainfort 1980: 89). These soldiers were later exhumed and moved yet again to the national cemetery in Memphis (Mainfort 1980: 88). (Mainfort's reburial information was found in the National Archives, in Record Group 92.)

The authors have made an attempt to locate documentation concerning the removal of the 38CH920 cemetery,
but to date, none has not be found. Eldredge states that the soldiers who were members of his regiment (3rd New Hampshire Infantry) and died on Folly Island, were removed and re-interred at the Beaufort National Cemetery, in Beaufort South Carolina (Eldredge 1893: 1004-1005). The authors visited this cemetery and found the graves of soldiers from the 55th Massachusetts. The records at the cemetery do not indicate the location from which the Beaufort soldiers were originally recovered. Some were likely casualties of the battle of Honey Hill and others may be from hospitals at Hilton Head or Beaufort. Still, Eldredge’s evidence implies that the 38CH920 burials may also have been taken to Beaufort.

In any case, it is obvious that the contractor for the Folly Island burial removal was careless, taking only partial remains, and in at least two cases, missing entire burials (Burials 5 and 14). The observed patterns of disturbance at 38CH920 are clearly explained by such carelessness, for which there is also solid supporting historical evidence. For instance, an often reproduced photograph shows exactly this pattern at the battlefield at Cold Harbor, Virginia (Figure 3.10). While this photograph was historically labeled as depicting a burial party at work, in actuality, the random pattern of the burials shown make it much more likely to be a reburial party, excavating soldiers killed during the battle. Furthermore, Bresecker relates this grisly scene at Gettysburg: “Many of the undertakers who were removing bodies, also performed their work in the most careless manner, invariably leaving the graves open and often leaving particles of bones and hair lying scattered around...” (Bresecker, in Coates 1977: 21). No doubt this was what happened at 38CH920. Perhaps the burials were easily discovered by the presence of still existing markers, or were located by probing. Then, it appears that a small hole was dug to remove the skull, and another to remove the pelvic area. The rubber blankets probably had not deteriorated much at that time and were convenient for grasping and removing portions of bodies.

To further support the proposed exhumation scenario consider J. T. Trowbridge’s (1866) book describing his visits to various battlefields throughout the South, immediately after the war. The following long passage is from his visit to the Chickamauga battlefield:

Driving southward along the Lafayette Road we soon reached the site of Cloud Spring Hospital, in the rear of the battlefield....There were indications that here the work of disinterment was about to begin. Shovel and picks were ready on the ground; and beside the long, low trenches of the dead waited piles of yellow pine coffins spattered with rain. [Later] The Dyer Farm was beyond; upon which we found two hundred colored soldiers encamped, in a muddy village of winter huts near the ruins of the burned farm-house. ...The camp was a strange spectacle. The men were cooking their dinners or

<table>
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<td>Y</td>
<td>Y</td>
<td>Y/?</td>
<td>Y</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y/?</td>
<td>Y</td>
<td>-</td>
<td>Across Ab.</td>
</tr>
<tr>
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<td>Y/</td>
<td>Y</td>
<td>Y</td>
<td>-</td>
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<td>Y(1)</td>
<td>?</td>
<td>Y</td>
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<td>-</td>
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<td>N</td>
<td>Y/Y</td>
<td>Y</td>
<td>-</td>
<td>Across Ab.</td>
</tr>
<tr>
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<td>Y</td>
<td>N</td>
<td>Y/Y</td>
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<td>N</td>
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<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y/Y</td>
<td>Y</td>
<td>Y(possible)</td>
<td>-</td>
</tr>
<tr>
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<td>N</td>
<td>N</td>
<td>N</td>
<td>Y/Y</td>
<td>N</td>
<td>N</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y/Y</td>
<td>Y</td>
<td>Y(possible)</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y/Y</td>
<td>Y</td>
<td>N</td>
<td>Across Ab.</td>
</tr>
<tr>
<td>15</td>
<td>Y(possible)</td>
<td>N</td>
<td>N</td>
<td>?</td>
<td>Y</td>
<td>N</td>
<td>Across Chest</td>
</tr>
<tr>
<td>16</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>?</td>
<td>Y</td>
<td>Y</td>
<td>Across Ab.</td>
</tr>
<tr>
<td>17</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>?</td>
<td>Y(possible)</td>
<td>Y(possible)</td>
<td>-</td>
</tr>
<tr>
<td>18</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
drying their clothes around out-door fires of logs which filled the air with smoke. Near by were piles of coffins,—some empty, some containing the remains of soldiers that had just been disinterred.

...There were two hundred and seventeen soldiers in camp. At first they had a horror of the work for which they were detailed. All the superstition of the African was roused within them at sight of the mouldering dead. They declared that the skulls moved, and started back with shrieks. An officer, to encourage them, unconcernedly took out the bones from a grave and placed them carefully in a coffin. They were induced to imitate his example. In a few hours they chatted or whistled and sang at their work; and in a few days it was common to see them perform their labor and eat their luncheons at the same time, lay bones into the coffin with one hand, and hold with the other the hardtack they were nibbling.

...More than nine tenths of the bodies taken from Chickamauga were unknown. Some had been buried in trenches; some singly; some laid side by side, and covered with a little earth, perhaps not more than six inches deep, leaving feet and skull exposed; and many had not been buried at all. Through-out the woods were scattered these lonely graves. The method of finding them was simple. A hundred men were deployed in a line, a yard apart, each examining half a yard of ground on both sides of him, as they proceeded. Thus was swept a space five hundred yards in breadth. Trees were blazed or stakes set along the edge of this space, to guide the company on its return. In this manner the entire battlefield had been or was to be searched. When a grave was found, the entire line was halted until the teams came up and the body was removed. Many graves were marked with stakes, but some were to be discovered only by the raised
or disturbed appearance of the ground. Those bodies which had been buried in trenches were but little decomposed; while of those buried singly in boxes not much was left but the bones and a handful of dust (Trowbridge 1866: 264-266).

The scene, so graphically painted by Trowbridge at Chickamauga, was repeated throughout the South after the war. In summary, it is extremely likely that the burials at 38CH920 were exhumed sometime after the war. The patterns seen archaeologically are convincingly explained by this activity and historical documents support this contention. Furthermore, it is very possible that the soldiers were taken to, and reburied at, the Beaufort National Cemetery.

Identity of Remains

One of the intriguing problems posed in this study was the identification of the regiment(s) represented at the cemetery. Even more intriguing was the possibility of identifying individuals by name, but this goal, without recovering an I.D. tag, was virtually impossible. The buttons recovered through excavation demonstrate that the individuals buried at 38CH920 were Union soldiers. Also, archaeological excavations recovered a sheet-brass numeral "5," which apparently was used as a regimental insignia. Beyond this, historic documents and especially maps, were used to establish the regimental identity of the troops. The combination of historical, archaeological, and physical data clearly supports the conclusion that the soldiers were members of the 55th Massachusetts Volunteer Regiment and the 1st North Carolina Colored Infantry. Both of these regiments were members of Wild's African Brigade, on Folly Island from August 1863. Also two members of the 2nd United States Colored Infantry probably were buried in 38CH920. Much information regarding the 55th Massachusetts and 1st North Carolina has already been provided in Chapter II. In the discussion below, some of this data is repeated with the purpose of identifying the location of the winter camp.

Racial Identity

Physical anthropology studies have not been completed, but the data indicates that the remains are of black males aged 16 to 40 (see Appendix A). The racial identity of most of the burials was not conclusive. This was because only two skulls (both definitely black males) were found: skulls provide the best evidence of racial identity. However, the non-cranial data from the other burials was suggestive of black physical traits. As stated previously, historical evidence demonstrates that the cemetery was most likely a black brigade cemetery. Given the social climate of the period, it is highly unlikely that white soldiers would be buried in a black brigade cemetery. In a combat situation where blacks and whites fought together, mixed racial burials might have occurred, as the soldiers were quickly buried where they fell. However, when the soldiers were buried in a planned cemetery, the burials would certainly have been racially segregated. For instance, at Fort Pillow, soldiers were collected or exhumed from the battlefield and when reburied, "The white men were buried on the east side of the cemetery and the colored men on the west" (Colburn in Mainfort 1980: 89).

Regimental Identity

The two black skulls, a general knowledge of social conditions in the 1860s, and the eagle buttons recovered, all point to the conclusion that the burials are of black Union soldiers. There were many black regiments on the island at various times during the siege of Charleston. These units include:

1) 21st U.S.C.I. (Colored Infantry, also called 3rd and 4th S.C. C.I.),
2) 33rd U.S.C.I. (1st S.C.C.I.),
3) 34th U.S.C.I. (2nd S.C.C.I.),
4) 1st N.C.C.I. (North Carolina Colored Infantry, who in February 1864 became the 35th U.S.C.I.),
5) Elements of the 2nd N.C.C.I. (became the 36th U.S.C.I.),
6) Elements of the 3rd N.C.C.I. (became the 37th U.S.C.I.),
7) Elements of the 2nd U.S.C.I.,
8) 54th Massachusetts Volunteer Regiment, and,
9) 55th Massachusetts Volunteer Regiment.

The details of their service in the siege of Charleston eliminate most of the above listed black regiments from further consideration. Dyer (1908: 1727) records that the 21st U.S.C.I. served on Folly and Morris Islands from April 1864 to February 1865. However, the Official Records of the War of The Rebellion indicate that they were camped on Morris Island until at least October 31, 1864 (O.R., Vol. 35, Part 2: 321). On February 20, 1865 they were detached from Morris Island to Charleston. Therefore the 21st U.S.C.I. never camped on Folly Island, but simply performed fatigue duty there.

The 33rd U.S.C.I. was only on duty at Folly Island from July to November 1864, and briefly in December of...
that same year (Dyer 1908: 1729). This was after the winter encampment of 1863/1864, which existed in the project area (see below). The 34th U.S.C.I. arrived on Folly Island on April 13th, 1864, to be quickly transferred to Morris Island (Dyer 1908: 1729).

The 2nd and 3rd N.C.C.I. both had small detachments on Folly Island from July 1863 to December 1863 (Dyer 1908: 1472). Another small detachment of black soldiers on Folly Island was from the 2nd U.S.C.I. They were on Folly Island from August to December 1863, and are more fully discussed below. The 54th Massachusetts had duty on Folly and Morris Islands from April to November 1864 (Dyer 1908: 1266), but apparently did not camp on Folly Island. Thus it appears that all of the units discussed were on Folly Island for only relatively short periods, or were there after the 1863/64 winter encampment which was located in the project area. Certainly, all of the above units could have had small detachments camping on Folly Island anytime during their participation in the siege.

Two units, which were brigaded together as Wild's African Brigade, camped on Folly Island for significant lengths of time, and were there long enough to suffer large numbers of casualties from disease. They were the 55th Massachusetts Volunteer Regiment and the 1st North Carolina Colored Infantry. The 55th Massachusetts was on Folly Island from July 1863 to February 1864 (Dyer 1908: 1266-67). After two months, they returned to Folly Island and remained there from April until November of 1864. The 1st North Carolina was also on Folly Island beginning in July 1863 and remained until February 1864. Then they became the 35th U.S.C.I and left Folly Island with the 55th Massachusetts (Dyer 1908: 1472). The 1st North Carolina did not return to Folly Island, although their sick may have remained on the island.

There is very little information available on the 1st North Carolina. No regimental history exists. Almost all the documentation the authors could locate concerning this unit was found in the National Archives in the form of original documents. However, the unit was brigaded together with the 55th Massachusetts during their service on Folly Island from July 1863 to February 1864. This means that they camped, shared officers on brigade duties, and performed picket duties together. During November 1863 they moved, together, to the project area to make camp (see Special Order No. 52, Chapter II).

To this point, the authors have continually referred to the critical period of the winter camp of Folly Island which was occupied from November 1863 to February 1864. The reason for this is that the historical data overwhelmingly suggests that the project area was the location of this camp (see also Chapter II). The published version of the 55th Massachusetts Regimental history states that in November the unit moved inland to:

...a spot on the west slope of a wooded ridge, in the middle of the island, on the road leading from the Campbell House to the beach. This ridge was the third from the sea—the bluff over the beach being the first—and only a gentle rise or two of wooded ground separated it from the marshes bordering on Folly River. A good location for cold weather; it would have been decidedly unhealthy in summer, when the health of the troops could only be preserved by encamping as near as possible to the beach, exposed to the sea breeze. This camp was gradually improved, a parade ground cleared in front, and soon made, if not the best regimental camp on the island, certainly the best ever occupied there by the regiment (Fox 1868: 16).

Engineer A. Becker, of the 103rd N.Y., produced a Military map of Folly Island dated October 5, 1863, by order of General Vogdes (Figure 2.2). This map was completed, unfortunately, one month before the 55th Massachusetts moved to the interior of the island. Still, examination of a detail of this map in conjunction with a U.S.G.S. topographic map (Figures 3.11, 3.12), and the above description, clearly places the 55th Massachusetts winter camp in the project area. Further, a sketch of that camp (Figure 2.4), drawn by Colonel (then Major) Fox, allows the authors to precisely place the camp and the cemetery site in close proximity.

In fully presenting this argument, some points of reference are needed. The present Seabrook house (Figure 3.11) is in the location of the Campbell or White house marked on the Becker military map (Figure 3.12). The road shown on the military map going east from the White house still exists today as Hudson Ave. and is on the U.S.G.S. map. Finally, small path leading from the beach to the Hudson Ave. on the U.S.G.S. topographic map is the remnant of the road on the military map leading from the beach to the White house (E.M. Seabrook, personal communication 1989).

With these reference points, 38CH920 and the camp of the 55th Massachusetts can be placed in virtually the same location. The above historical description by Major Fox places the 55th Massachusetts three ridges back along the road to the Campbell or White house. Counting three ridges from the beach places the camp east of the location of Battery E, 3rd U.S. Artillery, depicted on the military map (Figure 3.12).

There was some discrepancy in the documents as to the number of ridges back from the beach that the 55th Massachusetts camped. The published regimental history, which is a compilation of Major Fox’s letters and journals, stated that the regiment camped three ridges
Curiously, Fox’s letters to his wife stated:

**Wednesday, Nov. 4**, 2 1/2 o’clock P.M.

Have just returned from our new camping ground. For a winter location it is much better than the one where we now are. The camp will be in the woods, the officers tents on a little ridge, the second from the sea, the fronts as now, toward the marsh, but with an old cotton field, which will make a fine parade ground, and a ridge of land covered with brush and dwarf palmetto, between us and it (Fox 1863-1865: Nov. 4, 1863)

However, a draft version of the regimental history stated:

The 8th day of Nov. the Brigade Camp was changed to a spot previously selected on the slope of the wood ridge in the middle of the Island, on the North side of the road leading from the Campbell (or White) House to the beach. This ridge was the third or farthest in land from the sea, the beach bluff being the first, an had only a gentle rise or two of wooded ground between it and the marsh bordering on Folly River. A good location in cold weather, it would have been decidedly unhealthy in summer (Fox 1866, MS: 36).

This final description clears up the discrepancy between the two other documents. It eliminates the problem of the second or third ridge. However the ridges were counted, the camp was on the farthest ridge from the sea. Several additional documents support this location. For instance, a letter from W.L. Brown, regimental surgeon of the 55th Massachusetts to Surgeon General Dale of Massachusetts stated, “The camp is now located midway between Stono Inlet and Pawnee Landing, to the rear of General Gillmore’s headquarters [see Figure 2.2]. We occupy a dense wood; and the water got here is of better quality that found to the north end of the island” (Brown to Dale Dec. 6, 1863).

All the available information indicates that the camp was south of a cotton field, with the front of the camp toward a marsh, and Company K on the left by a road. This places the camp of the 55th Massachusetts precisely as indicated on Figures 2.4 and 3.12. The road on the left flank of the 55th camp is clearly the same path marked on the U.S.G.S. topographic map (Figure 3.11), which places the cemetery near the right rear of the 55th camp. This was the location of the regimental hospital and chaplain (Figure 2.4). A very logical location for a camp cemetery, and supported by Eldredge’s regimental history which stated, “When a regiment or company was encamped for any considerable time in one place, a suitable burial spot was selected near by and the dead buried in it...” (Eldredge 1893: 1003).

One piece of historical documentation indicated that 38CH920 was a brigade rather than regimental cemetery, linking both the 55th Massachusetts and the 1st North Carolina to the project area. The Morning Reports of the 1st North Carolina indicated that on February 3, 1864, Private Primus Rin died in the 1st N.C.C.I. regimental hospital. This reference indicates that each regiment had its own hospital. However, the next entry stated that on February 4, 1864, Private Rin was buried in the brigade cemetery (Morning Report, 1st North Carolina: February 4, 1864). This was the only documentary evidence mentioning a cemetery for the two units during the winter camp. It must be assumed that 38CH920 was the brigade cemetery.

In summary, there is a very tight link between the camp location of the 55th Massachusetts and 38CH920. While the camp of the 1st North Carolina has not been located, it must be nearby because both regiments used same cemetery and they were brigaded together. Verification of these findings has been provided by the collector who first discovered the site. He found a stencil of Private Harrison Perl, Company K of the 55th Massachusetts west of the cemetery, in the direction of the Seabrook property (Campbell or White House location) (Robert Bohm, personal communication 1989).

**INDIVIDUAL IDENTITIES**

Throughout this project there has been strong interest in identifying, by name, the individuals buried in the cemetery. The evidence presented above strongly suggests the identity of the regiments included in the cemetery, and it would seem logical that the names of those individuals buried there could be discerned. In reality, this task is impossible to achieve with any certainty, given the documentary and physical evidence found to date. Most likely, the soldiers whose remains are represented by the burials will remain forever unknown.

A very tentative list of possible individuals is provided in Table 3.4. This table lists 25 individuals of the 55th Massachusetts and 1st North Carolina, who died between November 14, 1863 to February 13, 1864. Also included are two unknowns from the 2nd United States Colored Infantry, bringing the total to 27 possible individuals represented among the (at least ) 19 soldiers recovered during the excavation of 38CH920.
The list is highly speculative for several reasons. First, determining the date for the first probable internment at 38CH920 is difficult. The winter camp was being established during November of 1863. Sometime during that period the regimental hospitals were sufficiently completed to treat patients at the winter camp. On November 11th and 13th Fox notes:

*Wednesday Nov. 11th*" The regiment is gradually collecting at this place, a large number of convalescents having come down today with much of the baggage....

*Friday Nov. 13" To-day we fixed up two hospital tents quite nicely, and built a stable, or rather a frame to be covered with canvas, for the horses...(Fox 1863-1865: n.p.).

For this reason the authors chose to start the list at November 14, 1863, assuming that those very sick and likely to die could not have arrived until after the hospital was operating. No evidence has been found to indicate when the 1st North Carolina hospital was established, however two 1st North Carolina soldiers died on November 13th.

The date at which to end this death list is even more speculative. The two regiments left the island together on February 13, 1864, the camp being struck on the 12th (Fox 1868: 21). However the very sick clearly remained on the island: "On leaving Folly Island, a number of the men who had been exposed in Virginia to the small-pox, were left behind...

### Table 3.4: Possible Individuals Buried at 38CH920
(Died, Folly Island November 14, 1863, to February 13, 1864)

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Reg.</th>
<th>Co.</th>
<th>Cause</th>
<th>Date</th>
<th>Reference</th>
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<tr>
<td>Edwin Barber</td>
<td>Pvt.</td>
<td>55th</td>
<td>E</td>
<td>Disease</td>
<td>12/15/63</td>
<td>A,B</td>
</tr>
<tr>
<td>Samuel Fields</td>
<td>Corp.</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>11/27/63</td>
<td>A,B</td>
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<tr>
<td>Albert Johnson</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>11/28/63</td>
<td>A,B</td>
</tr>
<tr>
<td>Richard Gentry</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>H</td>
<td>Typhoid</td>
<td>11/19/63</td>
<td>A,B</td>
</tr>
<tr>
<td>Hiram Wood</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>I</td>
<td>Typhoid</td>
<td>12/22/63</td>
<td>A,B</td>
</tr>
<tr>
<td>John Bryant</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>K</td>
<td>Disability</td>
<td>11/21/63</td>
<td>A,B</td>
</tr>
<tr>
<td>Stephen Maddox</td>
<td>Corp.</td>
<td>&quot;</td>
<td>A</td>
<td>Pneumonia</td>
<td>1/31/64</td>
<td>A,B</td>
</tr>
<tr>
<td>Charles Cole</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>B</td>
<td>Typhoid</td>
<td>12/20/63</td>
<td>A,B</td>
</tr>
<tr>
<td>William Herbert</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>B</td>
<td>Typhoid</td>
<td>12/21/63</td>
<td>A,B</td>
</tr>
<tr>
<td>James Fox</td>
<td>Pvt.</td>
<td>&quot;</td>
<td>B</td>
<td>Typhoid</td>
<td>12/23/63</td>
<td>A,B</td>
</tr>
<tr>
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<td>Pvt.</td>
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<td>A</td>
<td>?</td>
<td>12/7/63</td>
<td>C</td>
</tr>
<tr>
<td>Unknown</td>
<td>Pvt.</td>
<td>2nd*</td>
<td>A</td>
<td>?</td>
<td>12/7/63</td>
<td>C</td>
</tr>
<tr>
<td>Unknown</td>
<td>Pvt.</td>
<td>2nd*</td>
<td>A</td>
<td>?</td>
<td>12/7/63</td>
<td>C,A,B,C**</td>
</tr>
<tr>
<td>John Bird</td>
<td>Serg.</td>
<td>55th</td>
<td>F</td>
<td>Pneumonia</td>
<td>?***</td>
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</tr>
<tr>
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<td>Pvt.</td>
<td>55th</td>
<td>F</td>
<td>Consumpt.</td>
<td>?***</td>
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</tr>
<tr>
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<td>G</td>
<td>Typhoid</td>
<td>?***</td>
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<td>A</td>
<td>Disease</td>
<td>?***</td>
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<tr>
<td>Stanly Tadton</td>
<td>?</td>
<td>1st</td>
<td>K</td>
<td>Sickness</td>
<td>12/26/63</td>
<td>D</td>
</tr>
<tr>
<td>Warren Miles</td>
<td>?</td>
<td>&quot;</td>
<td>B</td>
<td>Typhoid</td>
<td>12/21/63</td>
<td>D</td>
</tr>
<tr>
<td>Jackson Benson</td>
<td>?</td>
<td>&quot;</td>
<td>C</td>
<td>Smallpox</td>
<td>2/10/64</td>
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<tr>
<td>Issac Coleman</td>
<td>?</td>
<td>&quot;</td>
<td>E</td>
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<tr>
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<td>G</td>
<td>?</td>
<td>12/26/63</td>
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<tr>
<td>Frank Newby</td>
<td>?</td>
<td>&quot;</td>
<td>G</td>
<td>Deblity</td>
<td>12/31/63</td>
<td>D</td>
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<tr>
<td>Primus Rin</td>
<td>?</td>
<td>&quot;</td>
<td>I</td>
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<td>?</td>
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<td>2/10/64</td>
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<td>Alfred Mack</td>
<td>?</td>
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<td>Sickness</td>
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<tr>
<td>Elisha Gibbs</td>
<td>?</td>
<td>&quot;</td>
<td>K</td>
<td>Sickness</td>
<td>1/28/64</td>
<td>D</td>
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</table>

A= Fox 1868, B= Fox 1866,ms, C= Brown to Dale Jan. 1864, D= 1st N.C.C.I. Descriptive Rolls

*2nd U.S.C.I.

** Both the published and draft versions of the regimental history state six individuals died in December, Regimental Surgeon Brown states 5 (Brown to Dale January 12, 1864)

*** Published version of the Regimental History states these individuals died in June, draft clearly shows they actually died in January

**** Regimental histories state he died in 1864, however, Lt. Garrison diary indicates 1863.
Figure 3.11: Enlarged detail of U.S.G.S. 7.5 min. James Island topographic map, 1959 (photorevised 1979), with Civil War features superimposed on project area. A = White house (Seabrook), B = Hudson Ave. (road to beach), C = 55th Mass. camp, 38CH920, D = cotton field, E = former location Gillmore HQ, F = unnamed creek (common reference point).
bly would have been buried at 38CH920. If the hospitals were moved, the use of the cemetery may have ceased. As stated in the history, the 55th Massachusetts later returned to the island and a total of 63 men died during their entire Folly Island service. Interestingly, there were no recorded deaths due to disease in the 55th Massachusetts from February until around April of 1864. In the 1st North Carolina, deaths continued among those left on Folly Island, though the unit never returned. Obviously, the sick from the 1st North Carolina remained on Folly Island for some time, but how long or where, remains to be researched.

To further induce uncertainty into this list, the authors found discrepancies in the various historic documents pertaining to the 55th Massachusetts. A total of ten men died of disease in November 1863 according to the monthly statistical summaries in both the draft and published versions of the regimental histories (Fox 1866, MS: n.p.; Fox 1868: 111). Nine died in regimental hospital, and the other individual died elsewhere (Fox 1866, MS: n.p.). However, both the draft and published histories rosters (which accounts for individuals by name) name only nine individuals who died that November. A diary kept by Lt. Garrison (an officer of the 55th Massachusetts) may account for this discrepancy. Garrison recorded that Sergeant Samuel P. Thomas of the regiment died of disease on November 17, 1863 (Soule n.d.: n.p.). While both the published and draft versions of the regimental history state that Thomas’s death occurred in November 1864 (Fox 1866, MS: n.p.; Fox 1868: 116), the authors have decided to include Thomas in the Table 3.4 list, because Garrison’s diary appears to have been written in November 1863 and not after the war from memory.

Still another problem in compiling this list was that, in December, both the draft and published regimental histories monthly statistical summaries of deaths state that six men died in the regimental hospital. However, Regimental Surgeon Brown’s letter report to Massachusetts Surgeon General Dale states that only five died in December (Brown to Dale, January 12, 1864). The roster’s of both the draft and published histories name only five individuals, supporting Brown. The sixth man remains unaccounted. This individual has been listed as an unknown.

Brown also states that “In addition to the number of deaths in our own regiment, two privates of Co. A, 2nd Reg. U.S. Col’d Infantry, died in our hospital. They were on detached service; and as the Post Hospital on Folly Island has been broken up, they had no other place to go” (Brown to Dale, January 12, 1864). Officially, the 2nd U.S.C.I. were assigned to the Department of the Gulf and never on Folly Island. However, Bright (1973: 212-213) mentions that, indeed, Company A, of the 2nd U.S.C.I. was placed on detached service on Folly Island from August 1863 to December 1863. Actually, the 2nd U.S.C.I. had not even been formally organized as a regiment when Company A was detached from its assembly area in Virginia and sent to Folly Island (Dyer 1908: 1723). This kind of ambiguity typifies the difficulty in deriving an accurate list of individuals possibly represented among the 38CH920 burials, and also the difficulty in trying to pinpoint the location of any one regiment at a particular time. In any case, these two 2nd U.S.C.I. troopers have been included in the table as unknowns.

Three members of the 55th Massachusetts (Bird, Burton, and Henry) were recorded in the published regimental history as dying in June of 1864 (Fox 1868: 130, 134). However, this is clearly a misprint as the handwriting in the draft looks much more like “Jan” (see Fox 1866, MS: n.p.), and both monthly statistical summaries agree that a total of four deaths occurred in January 1864, as does Brown’s summary reports to Massachusetts Surgeon General Dale (Brown to Dale, April 2, 1864). Including Private Maddox, whose January death is not disputed, all five January deaths in the 55th Massachusetts are accounted for and listed in Table 3.4.

SUMMARY 38CH920

A rather detailed history of 38CH920 has been revealed through a combination of archaeological, historical, and physical anthropological data. The best evidence points to this cemetery being a brigade cemetery for two black regiments during the winter camp of 1863 to 1864. From approximately November 14, 1863 to at least February 13, 1864, the 55th Massachusetts and the 1st North Carolina buried their dead in this cemetery. How many were buried is still uncertain as well as their names. Perhaps this information could be found through additional archival research. Sometime after the war the burials were exhumed rather carelessly. Two soldiers were missed entirely, and the partial remains of many others were left behind.

The archaeological patterns, although not precise because of the high degree of disturbance, do support the historical documents. Further, they imply that the cemetery was not neatly maintained. Mortuary patterns indicate that the soldiers were buried in a variety of ways, from being carefully wrapped in a shroud and placed in a coffin to simply placed in the ground with a minimum of clothing. Almost all were buried on their backs with hands across the abdomen or chest. The physical anthropological data has been collected and some preliminary analysis completed. Future physical anthropological analysis of these remains should produce intriguing results.
Figure 3.12: Detail of Vodges - Becker Map of 1863 (see Figure 2.2) with additional Civil War features superimposed. (National Archives.) A = White house (Seabrook), B = road to beach (Hudson Ave.), C = 55th Mass. camp, 38CH920, D = cotton field, E = Gilmore HQ, F = unnamed creek (common reference point).
CHAPTER IV

CAMP SITE ARCHAEOLOGY,
38CH964, 38CH965, 38CH966

INTRODUCTION

This chapter describes the archaeological investigations at three sites, 38CH964, 38CH965, 38CH966, investigated during Phase II and Phase III (Figure 1.2). These sites have been identified as loci within the greater project area that was within the 1863-1864 winter camp for many Union soldiers during the siege of Charleston. The original boundaries of these three sites were delineated by shovel tests (Drucker and Jackson 1988). In reality the sites, as defined by these boundaries, were merely denser artifact loci or activity areas within the much larger Civil War period site. However, as the site designations have entered the literature, and as they provide convenient spatial divisions within the tract, they have been retained in this chapter with modifications as noted.

SITE 38CH964

Introduction

Site 38CH964 was the area most heavily investigated by SCIAA during the 1988 field efforts (Phases II & III). Carolina Archaeological Services, Inc., archaeologists originally identified 38CH964 on the basis of surface artifacts discovered in the newly-graded cut of Road "B" (Figure 4.1), near its intersection with the Hudson Avenue extension cut (Drucker and Jackson 1988: 31-34.) Subsequent shovel testing revealed that the site extended some 100 m east of the road-cut, along the crest of a narrow, east-west dune line that runs parallel to Hudson Avenue West. (It will be seen that this same east-west, relict dune line also includes 38CH965 and Locus A of 38CH966.) On the basis of surface artifacts and four (of 11) positive shovel tests, CAS described 38CH964 as "...characterized by a scatter of kitchen midden containing butchered animal bone, metal, stoneware bottle fragments, container glass fragments, and a cut nail," probably associated with the Union Army occupation of Folly Island (Drucker and Jackson 1988: 31-32). They recommended the site as being eligible for nomination to the National Register of Historic Places. The Institute conducted data recovery at 38CH964 in June and July of 1988 (Phase II), and the positive findings of that work led to the additional field work by SCIAA in October and November 1988 (Phase III).

Phase III excavations at 38CH964 were essentially a continuation of Phase II work, and all SCIAA excavations are discussed herein as a single effort. It should be noted that Excavation Units (EUs) 1 through 8 and Features 1-9 were excavated during Phase II. Excavation Units 9-17 and Features 9-16 were excavated during Phase III. Shovel testing was confined to Phase II, while a controlled metal detector survey (CMDS) and all backhoe excavations were conducted during Phase III. These excavations constituted the major effort to understand and evaluate the archaeological remains of the Civil War encampment in the 42-acre development tract.

The nature and integrity of 38CH964 were poorly understood when excavations began. Initial excavations consisted of systematic shovel testing intended to explore site stratigraphy and integrity. Later, as the site became better known, excavations focused on suspected features which usually first appeared as surface depressions.

A grid system, established during Phase II excavations, was tied to temporary markers along Hudson Avenue. This system proved inadequate for the larger scale Phase III excavations on the densely wooded site. Therefore, all work at 38CH964 was mapped relative to a permanent datum established at a concrete manhole plate at the intersection of Hudson Avenue West and Road "B" (Figure 4.1). The two systems were later consolidated during the analysis phase. Generally, excavations followed the methods discussed in Chapter I. Specific changes in these methods are described in the appropriate sections below.

38CH964 Stratigraphy

The upper 30-50 cm of the site, both on the slope and crest of the dune, appeared to consist of an extensively mixed loose sand "A" horizon. The very dense root system here has mixed these soils, leaving them much like a plowzone. This "A" horizon was typically a gray to grayish-brown (10YR5/1-5/2) sand near the surface, becoming somewhat more brown with depth (10YR5/3-5/4), before fading into the light yellowish-brown (10YR6/4) subsoils (dune sands). At 1 to 1.5 m below the surface, the subsoil
became neutral or light gray (10YR7/1-7/2) and was finely lensed with bands of dark gray sand (10YR4/1) typical of wind or beach sand deposits. Features in the upper soils were usually impossible to distinguish, and often were not discovered until seen in contrast to the surrounding subsoils. This subsoil was compact, gritty, quite distinct; allowing for precise excavation of deep features. The water table was encountered at varying depths across the site. At the water table the sand appeared blue, or gray (7.5YRNS/5-N6) in color (Figure 4.2).

38CH964 Excavation Results

SHOVEL TESTING

The Institute’s investigations at 38CH964 began with a systematic shovel testing program designed to guide the placement of block excavations. Earlier shovel testing by CAS had suggested that no substantial Civil War-era midden was present. The Institute’s shovel testing seemed to confirm CAS’s understanding of the site. After 66 shovel tests at 5 m intervals had been excavated across the site’s western half, only 18 were found to contain cultural material. None of the shovel tests revealed dense cultural deposits or features except where they encountered Feature 9, which was already apparent as a surface depression. The artifact assemblage recovered during testing was identical to that reported by CAS and included chiefly bottle fragments and nails. This information was of little value in the placement of excavation units and suggested that 38CH964 was either a very low-density site, or that artifacts were confined primarily to discrete features. The analysis of shovel testing and re-examination of the site surface resulted in the development of a new strategy: placement of excavation units directly on suspected surface features. This strategy was used throughout the rest of the archaeological investigations at 38CH964.

EXCAVATION UNITS 2 & 5

Still, two 2 x 2 m units, EU 2 and EU 5, were placed without regard to specific surface features, but adjacent to positive shovel tests (Figure 4.1). The artifacts and matrix of these units helped to confirm the misleading site interpretations that were made when shovel testing alone was used at Folly Island.

Excavation Unit 2 was excavated on the crest of the site dune. A cultural “A” horizon of gray, loamy sand was found to a depth of 30 to 50 cm below surface, overlying sterile, yellow sand subsoil (Figure 4.3). While no soil feature was encountered in EU 2, a surprising quantity of 570 artifacts was recovered; 506 of these were machine cut nails and nail fragments. Sixty glass fragments also were found, including 53 light olive-green fragments, one dark olive-green fragment, five clear fragments, and one aqua fragment. Three unfired U.S. .577/.58 cal. bullets were the only military artifacts from the unit. Also recovered were one blue transfer-printed whiteware sherd, three brass nails, and three strap iron fragments. Small pieces of brick and mortar also were present.

No feature was seen in this unit and it is difficult to explain the concentration of material in EU 2. Artifact density suggests an unrecognized, shallow feature or surface deposit. The topsoil zone elsewhere on the site typically yielded far less material, even in the vicinity of major features.

Excavation Unit 5 (2 x 2 m) was placed about eight meters southwest of EU 2 to test the southern slope of the dune line (Figure 4.1). Excavation revealed a cultural zone of gray and brown loamy sand to a depth of 45-48 cm below surface, overlying sterile yellow sand. No features were encountered in EU 5. Two hundred machine cut nails and nail fragments, two strap iron fragments, three clear glass fragments, one clay smoking pipe fragment, and one iron bit chain were recovered from the unit. Unlike EU 2, the density of material found within this 2 x 2 m area was typical of the entire site (see EUs 10 and 11).

THE “5 x 6 M BLOCK” (EUs 1, 3, 4, 6, 7; FEATURES: 1, 2, 3, 4, 5, 6, 8.)

A 5 x 6 m block excavation, designated by its maximum east-west/north-south dimensions, was the largest area opened on 38CH964 (Figures 4.1, 4.4). Excavation of this area was extremely complex because of the very ambiguous, poorly defined, and highly disturbed features. The block consisted of five excavation units, including EUs 1, 3, & 4, (each 2 x 2 m), EU 6 (2 x 4 m), and EU 7, (1 x 2 m). In the field, seven feature numbers were assigned (Features 1, 2, 3, 4, 5, 6, and 8). For the purposes of this discussion, the “5 x 6 m Block” is considered as a single unit, subsuming all of the more particular excavation proveniences.

The excavation block was placed on the northern slope of the east-west dune, about 5 m east of Road “B” that cut perpendicularly through the dune. At this location, an irregular, shallow depression encompassing several square meters showed signs of extensive modern disturbance. Faunal material, container glass fragments, and other artifacts were scattered on the depression’s surface, and a collector informant suggested that the “feature” was possibly a tent site, excavated and backfilled by other collectors. During excavations, the first 2 x 2 m unit was found to embrace only a portion of the entire disturbance, and the other units were opened to define the original feature and the collector’s pot hole (Figure 4.4).

The 5 x 6 m block ultimately revealed a complex of refuse-laden Civil War features that had been substantially disturbed by bottle collectors, rather than by collectors seeking military artifacts. The most dramatic evidence of their activities was a back-filled pot hole more than two meters in diameter and over 1.20 m in depth. Fill
Figure 4.1: Site 38CH964, General Site Map.
consisted of very loose, mottled gray and brown sand. Cigarette butts, modern glass and plastic soft-drink bottles were found throughout the fill, as were large quantities of Civil War-era faunal material, bottle glass, minie balls, and uniform buttons. Portions of two relatively undisturbed features were found to the west of the large pot hole. These features appear to have originally been similar, rectangular pits, measuring one meter north-south, 1.30 to 1.35 m east-west, and .45 to .60 m in depth (Figure 4.4). Both pits contained Civil War artifacts.

The original configuration and function of this feature complex remains unknown. It is clear from the magnitude of the bottle hunter's digging and the density of material in their back-filled spoil that the most important portion of the 5 x 6 m Block and feature complex was destroyed. Too little of the features remained to allow positive identification, but the original Civil War feature may well have been a latrine.

Whatever the primary function of the Civil War feature, the secondary function was clearly refuse disposal. Despite the removal of an unknown quantity and variety of artifacts by collectors, the 5 x 6 m block excavation yielded a very large and diverse artifact collection that included both faunal and military material. More than 1,880 artifacts and faunal specimens were recovered from the 5 x 6 m block excavation. Faunal material included 307 specimens of identifiable faunal material and 70 oyster shells and shell fragments. Artifacts included approximately 300 sheet iron can fragments and 1211 artifacts of all other kinds. Also in this total were nine nonedible molluscan shells.

Glass and ceramic container fragments numbered 907, not including fragments of a modern, clear glass bottle which were also found. Many of these container fragments, like those from EU 2, were finely broken and badly abraded, as if they had been crushed before being deposited in the feature. Perhaps they had been policed from a road-bed or horse corral (see 38CH964: Interpretations). Others exhibited normal breakage and no signs of abrasion, and two vessels (both inkwells) were undamaged. The container fragments were mended in the lab, resulting in reconstruction of seven full-profiles and a minimum vessel count of 24 (see Chapter IV).

The assemblage of 24 mended vessels was dominated by ale bottles, including five stoneware ale bottles (two shouldered and two unshouldered) and four dark olive-green glass ale bottles. Another type, probably also an ale bottle, was represented by a single sherd of alkaline-glaze stoneware. The dominance of the ale bottle artifacts in relation to other artifact types in this excavation unit was typical of most Folly Island proveniences. Six light olive-green "champagne" style wine bottles were represented, as were two whiskey bottles, one amber and one dark brown. The amber whiskey bore an "Ellenville Glass Works" base plate mark (see Switzer 1974: 32, 71-72). Two medicine bottles (probable) were present. Both were aqua glass, unembossed, panel bottles. A cylindrical condiment bottle was the only food bottle represented.

"A" Horizon, Topsoils
30 to 50 cm, 10YR5/1, gray sand, gradually changing to 5/3-5/4 at bottom
B Subsoil
10YR6/4 light yellowish brown sand
C Subsoil with banding
10YR7/1-7/2 light gray sand
Water table
D Saturated Subsoil
7.5YRN5/N6 fine sand

Figure 4.2: Site 38CH964, Representative Stratigraphic Profile (Dune)
Figure 4.3: Site 38CH964, EU2, profile of north wall.

Figure 4.4: Site 38CH964, 5 x 6 m excavation block, plan.
Finally, three inkwells were present, including one undamaged aqua “umbrella” style inkwell, and one complete and one fragmentary aqua “igloo” inkwell. Many of these artifacts are illustrated in Chapter V.

Tinned iron cans, probably ration cans, were represented by more than 300 fragments. Unfortunately these were so badly broken and decomposed that reconstructive measurements and minimum vessel counts were impossible. It is likely that these cans were similar to the measurable specimens recovered elsewhere (See Feature 1, 38CH965, and Chapter V).

Faunal material from this the 5 x 6 m block included 307 pig and cow elements that were substantial enough for identification (see Appendix B). The faunal collection from the 5 x 6 m block was one of two collections from the project area that was chosen for formal faunal analysis. Seventy oyster shells and fragments were recovered, and a sample of these was included in the oyster shell analysis (Appendix C). Whelks, oyster drills, and cockles accounted for nine shellfish specimens that were unlikely to have been used for food. Beach combing by soldiers is a more likely explanation for the presence of these shells and the historical documents support this conclusion (see Chapter II).

Fifty-five clothing-related artifacts were recovered from the 5 x 6 m block. These included 11 U.S. “eagle” buttons, two New York buttons, one civilian brass button, 18 four-hole glass buttons, 18 four-hole iron buttons, one forage cap buckle, one company letter “F” insignia, and two rubber blanket grommets. Also recovered, but not quantified, were badly decomposed fragments of at least two shoes. Clothing represented by this material include U.S. and New York uniform coats, uniform trousers, a forage cap, drawers, a rubber blanket, suspenders, and shoes.

Military arms were represented in 5 x 6 m block by 65 U.S. .577/.58 bullets, 23 musket percussion caps, and a fragmented cartridge box tin. All of the bullets were unfired, and most probably represent the discard of spoiled paper cartridges. An undisturbed cluster of 13 bullets was found in an intact remnant of feature fill, along with a dense, black stain from their black powder charges (Figure 4.5). Two bullets had been whittled, including one that was formed into a fishing sinker.

Other artifacts recovered were a U.S. M1858 canteen, fragments of a mess fork, two steel pen-tips, a hard rubber finger ring, several brick specimens, and 170 machine cut nails and fragments.

Since the integrity of this feature complex was essentially destroyed by collectors, SCIAA was unable to interpret its depositional history. Thus, the artifact collection from the 5 x 6 m block excavation constitutes the only good evidence available for feature interpretation. Based on the artifacts it contained, the feature appears to have

Figure 4.5: Site 38CH964, 5 x 6 m excavation block, bullets in situ.

"THE BEST EVER OCCUPIED"
Figure 4.6: Site 38CH964, Feature 9, plan.
been a latrine complex that would have been created in response to "General Order No. 40" (reproduced Appendix D). This order details camp regulations including the use of latrines for refuse disposal. The large and diverse collection from this excavation block clearly does not represent primary habitation refuse such as a tent site. Instead, the artifacts probably were dumped into this feature as trash and garbage collected elsewhere. In fact, two disposal patterns were indicated. First was the immediate dumping of bulk trash and garbage, such as damaged equipment and meal refuse into the latrine. Second, was the policing of surface trash, also deposited in the latrine. This second type of artifact collection was clearly suggested by the abraded bottle fragments.

**EUs 8 AND 9, BACKHOE CUT #1, FEATURE 9**

Feature 9, indicated by a shallow linear depression in the forest floor on the north slope of the east/west dune line, was recorded during Phase II (Figures 4.1, 4.6 through 4.9). As the depression appeared undisturbed and quite old, it was chosen for investigation. The depression ran eight meters south/southwest from the northern base of the dune slope to a termination near the dune crest. The feature's width for most of this distance was approximately 1.5 m, but at its southern end, near the crest of the dune, it expanded to about two meters. Eventually, Feature 9 was identified as a Civil War period well complex, including an approach trench leading into the dune, a round well chamber, the remnants of a wood well head, and a well shaft consisting of a barrel and fill.

Feature 9 was the first of three Civil War period wells investigated at 38CH964. It was revealed by excavation of EUs 8 and 9 (both 2 x 2 m) and Backhoe Cut 1. The feature was discovered and partially excavated during Phase II. At that time the feature was believed to be a trench. Excavation of the feature was completed in Phase III and its identity as a well became clear at that time. The feature was large and complex, and three feature numbers (Features 7, 9, and 10) were assigned to portions of it before it became obvious that all were inter-related as part of the larger well feature. The original Features 7 and 9 were subsequently combined as Feature 9A, and the former Feature 10 became 9B. Table 4.1 records the various proveniences involved in the excavation of Feature 9.

During Phase II, EU 8, a 2 x 2 m unit, was placed near the northern end of a surface depression. From 0-40 cm the soil was the same grayish-brown "A" horizon seen across the site and containing a variety of artifacts. This material included 19 bottle fragments, 11 sheet iron fragments, ten machine-cut nails or nail fragments, two unfired U.S. .577/.58 cal. bullets, one forage cap buckle, and one New York button back. These artifacts may represent slope-wash prior to re-forestation, but the depth of the "A" horizon here was no greater that that seen at the crest of the

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**Figure 4.7: Site 38CH964, Feature 9, profiles of well approach trench.**

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72 "THE BEST EVER OCCUPIED"
Figure 4.8: Site 38CH964, Feature 9, south end of well approach trench before excavation.

Figure 4.9: Site 38CH964, Feature 9, south end of well approach trench and well chamber after excavation.
dune (see EU 2).

At 40 cm below the surface in EU 8, Feature 9 became apparent. It appeared as a trench running with the surface depression. Excavation Unit 8 bisected the feature (Figure 4.6, 4.7). Excavation revealed that the trench bottom was nearly level, with its overall depth below the surface increasing southward as the trench intruded farther into the dune. The trench was neatly dug by the original Civil War period excavators, and the north profile of EU 8 displayed zones of grayish-brown sand fill, suggesting deliberate backfilling (Figure 4.7). The original excavation was thus well-preserved. Within this trench was a substantial refuse deposit (Feature 9A) and a small pit or post hole (Feature 9B) containing bottle glass.

Feature 9A, the refuse deposit, lay in an irregular heap on the floor of the Civil War excavation. Additional artifacts were later found scattered along the entire length of Feature 9, but the deposit within EU 8 was dense and discrete, and thus it was designated Feature 9A and analyzed separately. This material totaled 702 artifacts, 679 of which were bottle fragments. These fragments were mended to arrive at a minimum vessel count of 17 bottles. Thirteen of these bottles were probably ale bottles including three dark olive-green glass bottles, six brown and white bristol-glazed stoneware bottles, and four “alkaline-glazed” stoneware bottles. The latter are an unidentified type resembling alkaline-glazed wares of the American Southeast (see Chapter V). Also present in this feature were one champagne style wine bottle, one brown whiskey bottle, one aqua condiment bottle, and one small aqua bottle embossed “F. Brown's Ess. of Jamaica Ginger Philada” (Figure 5.15, Chapter V). Fragments of this bottle were also found in the well complex, Feature 9, south of this concentration. Two crushed, but substantially complete, ration cans also were recovered.

Also within Feature 9A were three eagle buttons, one eye from a hook and eye set, and fragments of shoe leather. A single percussion cap was the only arms-related artifact found in this feature. Finally, Feature 9A included 18 machine cut nails and fragments, a fragment of copper wire, and large fragments of an iron barrel band.

Feature 9B (Figure 4.6) was a small round stain underneath Feature 9A. The feature was 20 cm in diameter and 8 cm in depth and may have been a post-hole.

<table>
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<th>Designation</th>
<th>Horizontal Location</th>
<th>Description</th>
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<td>EU 8</td>
<td>EU 8 (2 x 2 m)</td>
<td>“A” horizon, above Fea. 9</td>
</tr>
<tr>
<td>Feature 9A</td>
<td>EU 8</td>
<td>Dense refuse deposit at north end of Fea. 9</td>
</tr>
<tr>
<td>Feature 9B</td>
<td>EU 8</td>
<td>Small pit or post hole underlying Fea. 9A</td>
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<tr>
<td>EU 9</td>
<td>EU 9 (2 x 2 m)</td>
<td>“A” horizon, above Fea. 9</td>
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<td>EU 9, Zone I</td>
<td>EU 9</td>
<td>Well chamber fill</td>
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<tr>
<td>EU 9, Zone II</td>
<td>EU 9</td>
<td>Below “A” horizon, outside well chamber</td>
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<tr>
<td>Well approach fill</td>
<td>Backhoe Cut 1</td>
<td>Portion of well approach path between EUs 8, 9 exposed by Backhoe</td>
</tr>
<tr>
<td>Path</td>
<td>Backhoe Cut 1 and EU 9</td>
<td>Lens of compacted soil, discolored at base of well approach</td>
</tr>
<tr>
<td>Well head frame stain</td>
<td>EU 9</td>
<td>Stain of wood frame at well head</td>
</tr>
<tr>
<td>Well barrel fill</td>
<td>EU 9</td>
<td>Contents of well barrel and shaft</td>
</tr>
</tbody>
</table>
four glass fragments were recovered from Feature 9B, including dark olive-green, light olive-green, and brown bottle glass fragments.

The excavation of EU 8 confirmed that a large, undisturbed Civil War feature lay beneath the as-yet unexcavated depression running south up the dune slope. To further investigate the depression, EU 9 (2 x 2 m) was excavated at the depression’s south end (Figure 4.6). The “A” horizon in EU 9 was also 40 cm in thickness. Few artifacts were recovered here. These included one four-hole iron button, one brown glass bottle fragment, eight brown and white stoneware ale bottle fragments, and nine machine cut nails or fragments. At the base of this level, Feature 9 clearly contrasted against the culturally sterile subsoil.

Excavation of Feature 9, in EU 9, continued to a depth of 1.7 m. This essentially defined the upper portion of what turned out to be the well chamber. Further, time constraints did not permit the formal excavation of six to eight square meters of “A” horizon that obscured the remainder of the feature between EU's 8 and 9. Instead, a backhoe was used (Backhoe Cut 1) to expose this area. This allowed the entire feature to be exposed in plan (Figure 4.6). With the entire feature exposed, hand excavation of feature fill proceeded from north to south, up the well approach trench, concluding with the removal of the remainder of the well chamber fill. A second profile of the approach trench (the first being the south wall of EU 8) was recorded during this work (Figure 4.7, 4.8).

Thus exposed, Feature 9 was revealed to be a large, walk-in well excavation, identical to wells described in historical documents (see 38CH964: Interpretations). A level approach was excavated into the dune slope, allowing access to a round well chamber with a barrel-lined well shaft centered in the chamber’s floor. The Institute’s re-excavation of the feature was facilitated by the appearance of clearly lensed Holocene dune deposits approximately one meter below the dune surface. These soils were more dry, gritty and compacted in comparison to feature fill and allowed for precise definition of the Civil War period excavation (Figure 4.9).

As seen in EU 8, the well approach was very neatly dug, and showed no evidence of erosion. It had clearly been backfilled, after a scatter of refuse was discarded along its length. A compacted lens of well-trod subsoil, one to three centimeters in depth, was seen on the floor of the approach trench. This lens was excavated separately (Figure 4.6), and contained 19 bottle fragments, 51 machine cut nails and fragments, and 41 sheet iron fragments. All of these artifacts were heavily abraded, probably the result of foot traffic. Five different bottles were represented, including one light olive-green, one dark olive-green, one amber bottle, one essence of Jamaica Ginger bottle (see Figure 5.16, Chapter V), and one brown and white stoneware ale bottle. The ginger bottle fragments mended with those from Feature 9A and the approach trench fill. The stoneware bottle fragments mended with a nearly complete bottle recovered from the well barrel.

These mends indicate that probably two disposal patterns occurred at this well. First was bottle breakage and disposal during the well’s construction and use. These fragments being walked on and broken into small abraded fragments. The well was later abandoned and backfilled, and more refuse probably thrown in at that time.

A total of 112 artifacts were recovered from the fill of the well approach trench between EU 8 and its southern termination at the well chamber (Figure 4.6). Some 43 bottle fragments were present, representing at least three whole bottles. These were the Jamaica Ginger bottle discussed above, a brown whiskey bottle, and a brown and white stoneware ale bottle. The brown whiskey bottle fragments mended to form the complete lower half of a bottle which was neatly scored and cut, probably to serve as a drinking tumbler (see Chapter V).

One unfired .577/.58 cal. bullet was the only arm-related item in the approach trench fill. Clothing-related items included three four-hole iron buttons, three eagle buttons, a large, civilian, flat brass button, and a silver bar pin (see Chapter V). Three poorly preserved ration cans were found, one of which had been converted for use as a small bucket by adding bale holes at the top. Fragments of a rectangular sheet iron vessel resembling a biscuit pan were recovered. A sheet iron mess cup handle, a wrought iron wheel hub, and 53 machine cut nails and fragments made up the rest of the metal artifact assemblage in this feature. Faunal materials included unidentified bone fragments, one clam shell, and nine oyster shell fragments.

The well chamber backfill contained few artifacts. However, one brown glass fragment, eight brown and white stoneware ale bottle fragments, one percussion cap, one four-hole iron button, and nine machine cut nails and nail fragments were recovered. The stoneware fragments mended to form a nearly complete bottle.

At approximately 1.90 m below the surface, the original working floor of the circular well chamber was revealed. At this level, the stain of a timber framework was found, surrounding a circular stain representing the well shaft (Figures 4.6, 4.7). At the level of the timber frame, and between it and the end of the approach trench, was found a eye glass or locket lens.

After the timber stain was recorded, it was excavated and found to be on one of a metal artifacts in depth. Nine machine cut nails were recovered from the stain. The original Civil War period well-chamber excavation extended an undetermined depth beneath the working floor. Apparently, after the barrel liners were in place, the chamber was backfilled to the level of the approach trench, and the well-head installed. At about 35 cm below
the working surface, the water table was encountered and excavations ceased. At least two wicker-bound barrels were used in the well shaft. At the time of the Institute's investigations, the upper barrel was almost entirely decomposed, and its upper 35 cm were visible only as a soil stain. At the water table, this barrel was defined by a ring of rotten wood. The archaeologists investigated below the water level by feeling-about, as deeply as possible, in the mud. This revealed the presence of, but not the exact dimensions of an additional barrel. This inexact procedure at least suggested that the lower barrel, and probably both barrels, were similar in size to the barrel recovered in Feature 10, another well (Figure 5.24). The barrels were not recovered.

A steel probe and “hand” excavation was used to recover an artifact deposit below the water table and more than a meter below well chamber's working floor. This deposit included four stoneware ale bottles, all virtually complete, ten machine cut nails, and the remains of a ration can. One of the ale bottles was of a previously unidentified alkaline-glazed variety like those found in EU 8. The other three examples were brown and white stonewares, including the bottle that mended with fragments from the well approach trench fill.

The overall length of Feature 9, measured from the north wall of EU 8, was 7.60 m. The diameter of the well chamber below the “A” horizon was about 1.80 m, and it narrowed to approximately 1.25 m at the well-head/working floor level, which was 1.90 m below the surface (top of dune). The approach trench was consistently 1.30 m wide (Figure 4.6).

EU 10, BACKHOE CUT #5, FEATURE 10

Like Feature 9, Feature 10 was discovered during the investigation of an old, shallow surface depression along the dune. This depression was basin-shaped, about 1.5 m in diameter, and located eight meters south of Feature 9, on the southern dune face. Excavation revealed Feature 10 to be the second of three Civil War period wells found at 38CH964 (Figure 4.1, 4.10, 4.11). While identical in design to Feature 9, Feature 10’s surface expression did not include a linear trench depression. Only a basin-shaped depression was visible at the surface. However, during excavation of Feature 10, an approach trench, identical to the one found in Feature 9, was discovered.

Feature 10 was revealed through the excavation of EU 10 (2 x 2 m) placed directly over the surface depression. When it became obvious that a single 2 x 2 m unit would be insufficient for understanding Feature 10, Backhoe Cut 5 was excavated to strip the “A” horizon from the top of the feature. Feature 10 proveniences are noted in Table 4.2.

Excavation Unit 10 and Backhoe Cut 5 were excavated to a depth clearly defining Feature 10 was against the culturally sterile subsoil. This level averaged 50-55 cm below the surface. The general “A” horizon in EU 10 contained a light scatter of small artifacts totaling 42 specimens. These included 23 glass and stoneware bottle fragments, one eagle button, 17 machine cut nails and fragments, one whetstone, and an unidentified bone fragment.

Monitoring of backhoe stripping, both visually and with a metal detector, recovered an additional 124 artifacts. These included 60 glass and stoneware bottle fragments, one eagle button, one iron four-hole button, three unfired .577/.58 bullets, 43 machine cut nails and fragments, five iron barrel-hoop fragments, and an iron pintle. Tiny, completely corroded, sheet iron can fragments were also noted, but only a sample were collected.

Feature 10 was remarkably similar to Feature 9 in both design and placement (Figure 4.10). Both exhibited long approach trenches beginning near the base of the dune slope and cutting deeply into the slope. In both cases, the floor of these approach trenches remained level, causing the trench to deepen as it intruded into the dune slope. Both trenches terminated with an enlarged circular well chamber with well shafts centered in the floor and lined with wooden barrels.

Both well complexes were also deliberately backfilled. Like Feature 9, there was no evidence of slumping or erosion in Feature 10, which would have surely occurred had the wells been simply abandoned. The fill of Feature 10 was consistently pale brownish-gray sand, often only slightly stained relative to the pale yellow-brown sand surrounding subsoils. The major difference between Features 9 and 10 was in the refuse seen in each. Artifacts from Feature 10 were smaller and more evenly distributed throughout the feature fill than they were in Feature 9. Most of Feature 10 artifacts were probably incidental inclusions, rather than a deliberate act of disposal as evidenced in Feature 9.

Materials from the Feature 10 approach trench fill and the well chamber fill were collected separately in the field but as they appear to represent a single episode of backfilling, they are combined in this discussion. A total of 158 artifacts was recovered from this backfill. Some 85 glass and stoneware ale bottle fragments dominated the assemblage. Most of these fragments were quite small, and there were virtually no mendable fragments. This pattern provided further evidence that the artifacts within the fill were secondary deposits rather than primary disposal.

In contrast to the artifacts in the fill, two complete, undamaged bottles were found near the bottom of the well chamber at a depth of nearly two meters below the surface. These probably represent primary refuse disposal during backfilling (a behavioral pattern that was unconsciously re-enacted by the archaeologists depositing soda cans,
during the backfilling of SCIAA’s excavations). These two bottles were a brown and white stoneware bottle and an olive-green free-blown wine bottle (see Chapter V).

Clothing-related artifacts included one four-hole bone button, one four-hole glass button, and a brass enlisted man’s shoulder scale fragment (see Chapter V). Three unfired .577/.58 bullets and 63 machine cut nails or fragments were included in the collection. A large, round-nosed shovel blade was found in the same context as the whole bottles, discarded in the well chamber near the initial act of backfilling. This shovel blade, found near the water table, was badly deteriorated and could not be conserved. Finally a brass bit chain was also recovered, and was identical to two other chains recovered during the Controlled Metal Detector Survey.

Like the well chamber at Feature 9, the well chamber at Feature 10 was composed of three distinct types of fill. These were the chamber’s backfill, the backfill beneath the chamber floor which surrounded the well casings, and the barrel’s fill. Again, the depth of the well shaft could not be determined, as it extended into the water table and was not fully excavated. Probing suggested that the cultural fill extended at least 30 cm below the top of the well shaft. Sampling the well shaft fill yielded one unfired .577/.58 cal. bullet and five bottle fragments. Intensive probing did not locate any substantial refuse deposits beneath the chamber floor.

The water table was encountered at about 2.30 m below the surface, and at this level the stain of a decomposed barrel well liner was visible. At about 2.4 m below the surface the barrel liner was seen as a ring of intact but rotten wood, 55 cm in diameter (Figure 4.10, 4.11).

Additional formal excavation was precluded at this point by the water table. As at Feature 9, the contents of the well shaft at Feature 10 was explored using a probe and by hand. Two brown and white stoneware bottle fragments and a quantity of fragmented oyster shells were recovered in this manner. Only one barrel was indicated and it appeared to be similar in size and construction to those seen in Feature 9 and Feature 11. The well shaft was at least 60 cm in depth (probing and hand excavation could not reach below that depth).

The overall length of Feature 10 was not determined because the southern extremity of the approach trench was not excavated. The excavated portion was 4.2 m in length. The well chamber was approximately 2.15 m in diameter, both at the base of the “A” horizon and at the water table, as the walls were roughly vertical. The approach trench was 1.05 m in width.

**EU 11, FEATURE 11**

Feature 11 was the third Civil War period well excavated at 38CH964 (Figure 4.1, 4.12 through 4.14). Like Features 9 and 10, this feature was suggested by the presence of an old, shallow depression in the forest floor. This surface depression, about one meter in diameter, was observed on the south slope of the dune.

Feature 11 was probably quite similar in design to Features 9 and 10, but only that portion of Feature 11, contained in a single 2 x 2 m excavation unit (EU 11), was hand investigated. This included much, but not all of the well chamber. No portion of a well approach trench was seen (Figure 4.12). Proveniences assigned during the excavation of Feature 11 are listed in Table 4.3.

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**Table 4.2: Feature 10 Proveniences, 38CH964**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Horizontal Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 10</td>
<td>EU 10</td>
<td>“A” horizon above feature</td>
</tr>
<tr>
<td>Feature 10, well approach</td>
<td>EU 10, Backhoe</td>
<td>Feature 10 fill of well approach trench and well chamber</td>
</tr>
<tr>
<td>trench, well chamber</td>
<td>Cut 5</td>
<td></td>
</tr>
<tr>
<td>Backhoe Cut 5</td>
<td>Backhoe Cut 5</td>
<td>Material collected during</td>
</tr>
<tr>
<td></td>
<td>stripping</td>
<td></td>
</tr>
<tr>
<td>Feature 10, well Chamber</td>
<td>EU 10, Backhoe</td>
<td>Well chamber fill below</td>
</tr>
<tr>
<td>bottom</td>
<td>Cut 5</td>
<td>working floor</td>
</tr>
<tr>
<td>Feature 10, well barrel</td>
<td>EU 10</td>
<td>Contents of barrel</td>
</tr>
<tr>
<td>fill</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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CAMP SITE ARCHAEOLOGY 77
Figure 4.10: Site 38CH964, Feature 10, plan.

"THE BEST EVER OCCUPIED"
Table 4.3: Feature 11 Proveniences, 38CH964

<table>
<thead>
<tr>
<th>Designation</th>
<th>Horizontal Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU 11</td>
<td>EU 11</td>
<td>&quot;A&quot; horizon above feature definition</td>
</tr>
<tr>
<td>Feature 11, well chamber</td>
<td>EU 11</td>
<td>Well chamber fill</td>
</tr>
<tr>
<td>Backhoe Cut 3</td>
<td>Backhoe Cut 3</td>
<td>Material recovered during stripping</td>
</tr>
<tr>
<td>Feature 11 well barrel fill</td>
<td>EU 11</td>
<td>Contents of well barrels</td>
</tr>
</tbody>
</table>

At this well, the "A" horizon in EU 11 averaged only 30 cm in depth. Below this level, Feature 11 was revealed against the culturally sterile subsoil. The "A" horizon yielded only 18 artifacts, including a brass pocket knife fragment, seven glass bottle fragments, and 10 machine cut nail fragments.

The excavation of Feature 11 proceeded differently from that of the other two well features. Initially, the depression was investigated using a 2 x 2 m excavation unit (EU 11). These excavations were conducted simultaneously with those of Feature’s 9 and 10, and only after the recognition of those two features as wells, did it become apparent that Feature 11 was also a well. Much more of Feature 11 than the other two features had been excavated vertically before this identification was made. However, eventually Feature 11 was recognized, and in the interests of time and to attempt to recover a barrel from this well, a backhoe cut was made beginning south and down slope of EU 11, to expose Feature 11.

Excavation of Feature 11 revealed a well chamber and a barrel-lined well shaft very similar to that seen in Features 9 and 10. Feature 11 also had been deliberately backfilled, but not as thoroughly as the other well chambers. This resulted in a plainly visible, conical slump of humic material toward the center of the well chamber (Figure 4.13). The slumped area contrasted markedly with the historic backfill of the feature. The slump material was dark gray, heavily organic, and minutely lensed, while the remainder of the chamber fill was pale yellow sand, differing only slightly from the subsoil. The slump contained no artifacts, while the deliberately backfilled matrix contained small numbers of artifacts throughout. Three large artifacts, a ration can, a horseshoe, and a nearly complete brown and white stoneware ale bottle, rested on the backfill, at the interface of the lower backfill and upper, lensed humic matter. This indicated that the chamber had been roughly backfilled, perhaps by pushing adjacent spoil into the chamber from the sides. Afterward, the three artifacts were discarded in the remaining hole, and the well was abandoned. Much later, after enough time for humus to develop, the well chamber sides slumped in naturally. This complex scenario was apparent in the north wall of EU 11 (Figure 4.13).

Like the well chambers of Features 9 and 10, the backfill in Feature 11 contained no large deposits of refuse. What artifacts were present (excepting the three discussed above) were mixed throughout the backfill, as if incidentally included in the available soil for backfill. The backfill assemblage totaled 127 artifacts. Twenty-three glass and stoneware bottle fragments were recovered. These did not mend, and were too few and too small to permit derivation of a minimum vessel count. Clothing-related materials consisted of two four-hole iron buttons.

Figure 4.11: Site 38CH964, Feature 10 after excavation.
and one infantry officer’s eagle button. A single percussion cap was the only arms-related artifacts found. Two fragments of a brass pocket knife were recovered, possibly from the same knife as the knife fragments found in the “A” horizon. A large civilian serving spoon was found in two fragments, separated vertically by approximately one meter of fill. Perhaps the most interesting artifact in this assemblage was a fragment of sheet iron, possibly a flattened can body, that was perforated for use as a strainer. This artifact could not be conserved due to its deteriorated condition. One iron staple and 84 machine cut nails or fragments also were recovered.

While the upper perimeter of Feature 11 was not revealed, the base of the well chamber (1.75 m in diameter) was entirely exposed in EU 11 and in an extension cut into the north wall (Figure 4.12, 4.14). This definition occurred very near the water table, and like the original chamber excavations in Features 9 and 10, its full depth could not be determined.

Initial investigation of the well shaft in Feature 11 revealed the bottom portion of one barrel in place over the top of a second, and apparently complete, barrel. The upper barrel was badly decomposed; but even allowing for the disappearance of its uppermost portion, if it were a complete barrel of equal size to the lower barrel, it would have protruded above the water table. This may have been the case, or it may have been sawed in half before its insertion into the well shaft.

The lower barrel seemed to be in excellent condition, and an attempt was made to recover it. Extraction of the barrel presented a difficult challenge. However, two other wells (Features 9 and 10) were being excavated simultaneously, and both contained poorly preserved barrels. The three wells were already providing redundant data, but recovery of a barrel would provide new information unavailable from the other two wells. Thus the possibility of obtaining a barrel seemed to be worth the time and effort necessary for its recovery.

Removing the barrel intact proved to be impossible. The upper barrel remnant, which was preserved below the water table, was mapped and removed with little difficulty. The lower barrel was completely beneath the water table. Every effort at excavation around the barrel resulted in the immediate filling of the void created by a mixture consisting of water and the surrounding wall sand. A pump was employed, but water pumping only hastened the collapse of the wet sand walls surrounding the barrel. Slowly the moisture-laden walls would slump, followed by a more dramatic collapse of the drier upper chamber walls. The backhoe was used to remove the dangerous vertical walls above the work area, and timber shoring was begun. When this proved unworkable, a 55 gallon drum casing was driven into place around the barrel. This was a failure also. In a final effort to recover the barrel, the interior barrel fill was rapidly and completely excavated, and the barrel staves were mapped, labeled and removed.

Figure 4.12: Site 38CH964, Feature 11, plan of portion excavated.

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38CH964_EU11
Feature 11
North Wall Profile

A Humus  
B 10YR 5/2 grayish brown  
C 10YR5/3 brown  
D 10YR3/1 very dark gray  
E 10YR7/3 very pale brown  
F 10YR6/6 brownish yellow  
G 10YR6/4 light yellowish brown  
H 10YR7/4 very pale brown  
All Fine Sand

Figure 4.13: Site 38CH964, Feature 11, profile, north wall of EU11.

Figure 4.14: Site 38CH964, Feature 11, well chamber and shaft near water table.
individually for re-assembly at the SCIAA Conservation Facility.

The well shaft below the water table in Feature 11 exhibited excellent preservation. Masses of leaves, pine needles, and wood fragments were found perfectly preserved. Unfortunately, little cultural material was found in the saturated environment excavated. However, the preservation of organic material here indicates that the potential still exists for excellent artifact preservation in similar features elsewhere in the project area. Six artifacts were recovered in Feature 11 below the water table, including two bottle fragments, three machine cut nails, and a U.S. M1858 canteen stopper with the cork completely preserved (see Chapter V).

A number of artifacts were observed or found with a metal detector in the large amount of earth moved by the backhoe during the attempted barrel excavation. They were certainly part of Feature 11, but their exact provenience was lost. These artifacts included three bottle fragments, one canteen stopper pull-ring, one unfired .577/.58 cal. bullet, one iron watering bit fragment, eight machine cut nails and fragments, and one very large iron "S" hook (see Chapter V).

EU 12 (2 x 2 m)

An area, very poorly defined, in the eastern portion of 38CH964 (Figure 4.1) was tested to locate a possible blacksmith forge. An informant reported that the area contained a heavy iron-oxide metal anomaly which discouraged relic collecting with metal detectors (Robert Bohrn, personal communication 1988). This anomaly was relocated, and was found to be vaguely an oval-shaped area, 20 x 30 m (east/west) along the dune (Figure 4.1). Several horseshoes, obviously placed by collectors, were found hanging in trees in the vicinity of the anomaly. The ground in the area contained a number of depressions. The Institute selected one depression in this area for investigation using a 2 x 2 m unit, EU 12.

The unit did not yield the kinds of information anticipated. The surface depression was revealed as a shallow disturbance caused by a tree fall. The "A" horizon at EU 12 consisted of a light gray sand and was 20 to 30 cm in depth. Below this was culturally sterile subsoils. Materials recovered included two small glass fragments (one aqua and one olive-green), two machine cut nail fragments, one iron chain link, three small bone fragments, and four small oyster shell fragments. Excavation Unit 12 provided little information other than the artifacts discussed above. Due to time limitations this area was not explored further. However, the horseshoes found in the trees in this area, along with horse related artifacts found throughout 38CH964 during the Controlled Metal Detector Survey, provide supporting evidence for the location of a stable nearby (see 38CH964: Interpretations).

EU 13 (1 x 1 m), FEATURE 13

Feature 13 was discovered during a preliminary metal detector scan of 38CH964, which was conducted to locate large anomalies like the suspected blacksmith forge described above. This feature produced a strong reading on the metal detector and the area indicated was selected for investigation.

While the area surrounding this anomaly was being cleared for excavation, a pothole was found about 20 cm in diameter and 30 cm deep. Apparently this feature, like so many others within the project area, had been 'investigated' before SCIAA's arrival. A portion of a large iron barrel band was present in the pothole. The Institute's archaeologists hoped that this barrel band would prove to be the remains of a barrel-lined latrine.

Excavation of EU 13 (1 x 1 m) revealed not one but two complete barrel bands, one inside the other, lying flat at the interface of the "A" horizon and the culturally sterile yellow-sand subsoil, at a depth of 30 cm (Figure 4.15). The larger band was 52 cm in diameter and the smaller 46 cm in diameter. Each was approximately five centimeters in width. No feature was present beyond the barrel bands. It is possible that originally this feature consisted of a single barrel that decomposed, leaving its remaining bands aligned on the ground surface.

EUs 14 THROUGH 17 (4 x 4 m BLOCK), FEATURES 14 & 15

As has been previously described, old, apparently cultural depressions in the ground surface guided the placement of excavation units across the project area, after shovel testing proved to be an insufficient methodology. Except for EU 12 and Features 14 and 15, this methodology was consistently very rewarding. The surface expression of Features 14 and 15 were similar to surface depressions throughout the project area. Each were also indicated by a heavy, but sharply defined, iron-oxide metal detector anomaly. A 4 x 4 m block excavation unit was used to investigate Features 14 and 15. The unit was placed west of Road Cut B (Figures 1.2, 4.1), on the south side of the same dune ridge that ran parallel to Hudson Avenue. Farther west of the 4 x 4 m block, numerous other depressions are present today. A collector reported that this area was and is rich in artifacts.

Removal of the cultural topsoil "A" horizon (25-30 cm in depth) in this 4 x 4 m block revealed Features 14 and 15 and recovered large numbers of machine cut nails and fragments, small brick fragments, and tabby mortar fragments. The features were very amorphous, but each were about 1.75 m² in area, and their fills were identical. This fill consisted of primarily black charcoal, brick and mortar. Upon excavation, both features appeared to be thoroughly robbed hearths or fire boxes separated by about 65
The inexplicable aspect of these features was the absence of any artifacts clearly associated with the Civil War. All fill was thoroughly screened through 1/4 in mesh, but beyond the machine cut nails and brick rubble, only a fragment of sheet iron and an iron rod (not a ramrod) were found in the features. Given the proximity of these features to the rest of the site it seems odd that no diagnostic artifacts were found. Even more puzzling was the lack of glass fragments (even melted), buttons, or stoneware fragments, that seem to be part of the clearly established artifact assemblage at the Civil War camp features found elsewhere in the project area.

The cultural affiliation and function of Features 14 and 15 remain unknown. Obviously, they were the result of a burning episode and probably date to the 19th century (as evidenced by the machine cut nails). They may precede or post-date the Civil War occupation. The features were probably part of some architectural feature, like a hearth. It is unlikely, but still possible, that the features were part of a firebox for a Civil War tent site, the nails being the result of burning nail-laden wood in the firebox.

No further excavations were conducted in this area of the site. On the opposite side of the dune ridge (north) was a large surface depression, located 10 m north of Features 14 and 15. The size, shape and configuration of this depression clearly identified it as another well. It had the characteristic “light-bulb” shape of the other wells, and intruded into the dune in an identical manner. With time restricted and three other wells already excavated, a decision was made not to investigate this feature.

**FEATURE 16, BACKHOE CUT #4**

Feature 16 (Figures 4.1, 4.16) was located by backhoe stripping in an area of the site that contained recent collector disturbance. Although no depressions were visible on the surface, bottle glass and machine cut nails were scattered about, and a scan with the metal detector indicated an anomaly 1.5 m in diameter. Unlike most of the project area, this particular locality had no large trees, and it therefore represented a rare opportunity to strip a large open area in an attempt to find multiple features. The area stripped was at the northern base of the dune ridge.

Backhoe Cut 4 ultimately exposed approximately 24 m² stripped to the interface between the “A” horizon, 35 to 50 cm in thickness, and the subsoil. Stripping was conducted carefully in vertical increments of about 10 cm. This was done to determine if features could be found at the level of their suspected origin within the “A” horizon. Up to this point in SCIAA’s excavations, features had not been defined until they contrasted against the culturally sterile subsoil. After each pass, artifacts were recovered through backhoe monitoring and metal detecting of the stripped soil. The materials collected in this manner were bagged as “Backhoe Cut 4.” When Feature 16 was exposed in the cut, the artifacts from this area were bagged.
as “Feature 16, loose association.”

The material in “loose association” with Feature 16 totaled 226 artifacts, including 43 faunal specimens. Sixty-seven bottle fragments were recovered, representing at least six different bottles. These included one dark olive-green ale bottle, one brown and white stoneware ale bottle, one “champagne style” wine bottle, one brown whiskey bottle, one possible aqua panel bottle, and one aqua food bottle or jar. Military material consisted of six unfired U.S. .577/.58 cal. bullets, one of which was curved. Clothing artifacts included three iron four-hole buttons and one white glass four-hole button. Sheet iron totaled 226 artifacts, including 43 faunal specimens. Sixty-two bottle or jar. Several of the wine bottles were represented by the 37 bottle fragments recovered. These vessels were one dark olive-green ale bottle, one brown and white stoneware ale bottle, one brown whiskey bottle, one free-blown wine bottle, an unidentified aqua bottle, and an unidentified clear glass bottle. The wine bottle was represented by the entire bottom half of a bottle, neatly cut like the whiskey bottle from Feature 9 and the wine bottle top from the Feature 16 pothole. Arms-related artifacts included three percussion caps and three unfired .577/.58 cal. bullets. Clothing-related artifacts included a four-hole white glass button, an iron four-hole button, and a silver officer’s regimental hat number “8” (see Chapter V). Seven machine cut nail fragments were recovered. Two completely intact but badly decomposed ration cans were found, as well as 12 fragments. Five brick fragments were recovered.

Faunal materials included 132 bone fragments dominated by cow and pig, but at least two bird bones also were present in this assemblage.

Feature 16 probably was a possible latrine. The backfilling and refuse disposal behavior indicated by the artifacts within the feature fill was consistent with that required by General Orders No. 40 (see 38CH964: Interpretations and Appendix D).

CONTROLLED METAL DETECTOR SURVEY

A controlled metal detector survey (CDMS) was conducted across the site to determine if an artifact distribution pattern could be discerned, and to locate undisturbed features. Although the site was carefully searched, no patterns were observable, and the resulting collection must be considered only a small sample of the metallic artifacts contained within the upper soil of the site.

The inability to observe a Civil War period distribution pattern from the CDMS was due to several elements. One was the great depth of the “A” horizon, often as thick as 40 to 50 cm. This placed many small bullet or button sized artifacts beyond the range of the metal detector,
which generally would detect small objects only to about 30 cm below the surface. Another reason was that artifacts were scarce in relatively open areas of the forest floor, but they were more common in densely vegetated portions of the site where the use of a metal detector was difficult. This distribution probably was the result of some 20 years of selective collection of easily accessible areas by relic collectors. Finally, the SCIAA collection was purposely selective in that the metal detector was "tuned" to not indicate the presence of small iron objects, such as nails and fragments. Such artifacts probably number in the thousands within 38CH964, and their excavation would have made the survey impractical without adding appreciably to the collection of diagnostic artifacts already available.

The method for the survey was simple. The site was transect searched and when a non-ferrous or large ferrous reading was encountered, the artifact was immediately excavated and bagged, and its location was fixed with a pin flag. The bag and pin flag were marked with the same sequential CMDS number, and the numbered flags were mapped by transit. Only 32 artifacts were recovered in this manner, and their distribution, upon analysis, had little meaning considering the unknown amount of material previously removed by collectors. However, several artifacts recovered were not previously represented in the 39CH964 assemblage, and the equestrian and artillery-related objects aided in the overall interpretation of the site (see Interpretations).

The artifacts recovered in the CDMS survey are listed below by provenience (Table 4.4), and these proveniences are mapped in Figure 4.1.

<table>
<thead>
<tr>
<th>Table 4.4: CMDS Artifact Collection, 38CH964</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Artillery friction primer</td>
</tr>
<tr>
<td>2. Officer’s shoulder straps</td>
</tr>
<tr>
<td>4. Artillery Rosette</td>
</tr>
<tr>
<td>5. Brass bit chain</td>
</tr>
<tr>
<td>6. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>7. Horse shoe</td>
</tr>
<tr>
<td>8. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>10. U.S. .577/.58 bullet, fired?</td>
</tr>
<tr>
<td>11. Iron washer</td>
</tr>
<tr>
<td>12. 2 U.S. .577/.58 bullets, unfired</td>
</tr>
<tr>
<td>13. Large enlisted man’s eagle button</td>
</tr>
<tr>
<td>14. U.S. .69 bullet, carved</td>
</tr>
<tr>
<td>15. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>16. Enlisted man’s epaulette scale</td>
</tr>
<tr>
<td>17. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>18. Large New York button</td>
</tr>
<tr>
<td>19. Shovel shank, (fits with #21)</td>
</tr>
<tr>
<td>20. U.S. cartridge box plate</td>
</tr>
<tr>
<td>21. Square shovel blade, (fits with #19)</td>
</tr>
<tr>
<td>22. Two-hole pewter button</td>
</tr>
<tr>
<td>23. Two-hole pewter button</td>
</tr>
<tr>
<td>24. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>25. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>27. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>28. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>29. U.S. .577/.58 bullet, unfired</td>
</tr>
<tr>
<td>30. Large eagle button back</td>
</tr>
<tr>
<td>31. Brass bit chain</td>
</tr>
</tbody>
</table>

![Figure 4.16: Site 38CH964, Feature 16, plan and profile.](image)
38CH964: Interpretations

SITE USE

Site 38CH964 was a complex Civil War site. It was probably occupied at least twice, and also used by several different military units during each of those occupations. Probably no single, complete, occupation fell entirely within the site boundaries excavated, much less was any one occupation completely investigated. All that SCIAA was able to accomplish was to sample a number of features which probably were part of at least two overlapping components. Except for the unidentified Features 14 and 15, all features investigated by SCIAA definitely dated to the Civil War period. Major activities tied directly to the site by artifacts and historic documents include collecting fresh water, blacksmithing, stabling horses (probably not for cavalry troops as there was only one Union cavalry unit in the entire campaign), refuse disposal, and latrine use.

The list of military units which might have occupied the site is extensive. A large number of Union Army units were part of the 1863-1864 winter encampment and a few other units may have used it earlier that fall. The units included in the Folly Island winter encampment were Alford’s brigade, Foster’s Brigade, Wild’s African Brigade, and Gordon’s entire Division. It is not physically possible that all of these units occupied 38CH964 or even camped within the project area. The Institute has identified the camp location of the 55th Massachusetts, which was part of Wild’s African Brigade. The 55th Massachusetts and the rest of Wild’s African Brigade (1st North Carolina, see Chapter II, III), were nearby, north, and slightly east, of 38CH964.

Only one specific unit can be definitely tied to the 38CH964 site limits by the historic documents. This unit, Battery E of the 3rd U.S. Artillery Regiment, is depicted on the Becker map of October 5, 1863 (Figure 2.2). The artifacts from 38CH964 support Battery E’s presence. Artifacts related to artillery include a cannon friction primer and a U.S. Artillery bit rosette (see Chapter V). The stables of this battery were also depicted on the map, and are probably the explanation for the horse-related artifacts discovered, and the possible blacksmith area discussed. As no habitation sites were identified, the campsite location for Battery “E” remains unknown.

Other than the artillery, a strong infantry presence also was indicated by the archaeological finds at 38CH964. Practically every excavation unit and feature contained various numbers of infantry rifle-musket bullets, and two infantry officers buttons also were recovered. At least one New York unit was suggested by the recovery of three New York coat buttons. This unit could be the 89th New York which was part of Alford’s Brigade. The Institute recovered an officer’s regimental hat-numeral “8.” Relic collectors have found regimental hat-numerals “8” and “9” (Robert Bohm, personal communication June 1, 1989) in the site area. Beyond these possibilities it would be necessary to conduct an extensive archival search to discover which other units were present in the immediate area.

The multiple unit use of the site probably was both sequential and contemporaneous. The best interpretation of the sequence of occupation is that sometime during the late summer of 1863, Battery E, U.S. Artillery, moved into the area. At that time the stables were created, and perhaps a blacksmith began work there. During the winter of 1863 many troops moved into the interior portion of Folly Island. Wild’s brigade, for instance, camped just northeast of the 38CH964. An unknown number of these units used the area for obtaining fresh water. The site was probably not used after that winter, as the troops remaining on the island would have moved to the beaches for the warmer weather. Only a few troops were on the island the following winter.

Both the wells and latrines were dug and abandoned sometime after the artillery battery arrived, based on the presence of horseshoes and horse bits found in these features’ fill. Bullets in this same fill indicate that the features were still in use during the time when infantry units occupied the surrounding area. As two New York buttons were found in the 5 x 6 m block, this latrine complex was definitely used and/or abandoned after the arrival of the New York unit. The proximity of the latrines to the wells is curious, and it is doubtful they were used simultaneously. Based on regulations (see Appendix D) and sanitary considerations, one could speculate that the wells were used and abandoned before the latrines were built. Perhaps the infantry units filled-in the wells and dug the latrines. No artillery-related artifacts were found in the latrines, although horse-related artifacts were. These artifacts could have been left by the artillery, and policed and disposed of by the infantry.

WELLS

Three fresh water wells (Features 9, 10, 11) were excavated. The shortage of non-brackish drinking water was a severe problem for the soldiers occupying Folly Island and Morris Island. Many historical documents relate the problems of poor quality water (see Chapter II). The camp map of the 55th Massachusetts (see Figure 2.4, Chapter II) to the northeast of 38CH964, indicates a series of wells placed in an area that is now marsh. The water obtained in such areas was only marginally potable. The hydrology of the barrier islands, however, provided an alternative in the large, ancient dune lines that exist. Underlying such landforms are columns of fresh water reaching depths several times the height of the dune (Douglas Green, personal communication May 1989). This natural attribute may have been known by the soldiers or accidentally discovered. A historian of the 157th
New York recalled:

All the water used on the island [Folly] was obtained by digging below tidemark and curbing with barrels. The finest and best protected well in camp was made by cutting into a sand dune and making a winding passage to the water, thus placing the water continually in the shade and protecting it from dust and dirt blowing around the camp (Barlow 1899: 158).

This passage, which very accurately describes the wells excavated by SCIAA, implies that the soldiers may have not been aware of the hydrologic qualities of the dunes but were simply trying to keep the water cool and clean.

The three wells at 38CH964 were carefully dug, and their walls were preserved below the "A" horizon. This suggests that the subsoil was compact enough to support the excavation walls during the life of the wells. The procedure used to place the barrels and form the well shafts was not determined. None of the three well chambers was re-excavated to its original depth because of the water table. However, the soldiers excavating the wells originally must have encountered the same problems with collapsing walls as did SCIAA, so the original well shafts probably did not extend much farther down than SCIAA was able to excavate. Certainly the depth of the soldiers’ excavations was less than that of the barrels. It would have been extremely difficult to dig deep enough to place the barrels upright in a hole. More likely, the soldiers worked a barrel gradually into the muck by removing fill from the interior. In all three excavated examples, shaft feature stains were visible several centimeters above the level of saturation. This method of construction allowed for maintenance of a dry working floor around the finished well head, and the upper portion of the barrel probably protruded above the floor. Feature 9 was the only well head exhibiting any type of supplemental platform or framework. It is possible that the wells were protected overhead by some configuration of tent cloth, rubber blankets, or timbers, but no evidence of stakes or post holes in support of this interpretation was observed.

Each of the three wells at 38CH964 appeared to have been deliberately backfilled, and Feature 9 saw secondary use during backfilling as a refuse pit. No evidence was recovered which would explain what caused the wells to be abandoned and backfilled. Perhaps the wells were abandoned as units moved, or, in other cases, simply to eliminate the hazard of a contaminated or abandoned well.

**LATRINES**

Feature 16 and the destroyed feature complex in the 5 x 6 m block were pits containing substantial deposits of refuse. General Orders No. 40 (Appendix D) pertained to the entire Department of the South, including the camps on Folly Island. Among many other interesting details, these orders required that each camp be policed daily, and the collected refuse discarded in the sinks (latrines). This implies that trash pits, as such, were not usually dug, as latrines served both functions. Examination of several detailed regimental camp maps (see for example, Figure 2.4), consistently revealed latrine locations but no formally planned trash pits or dumps. The 1861 U.S. Army Regulations for camps (Appendix D) also depict "sinks" only. Based on this information, it seems likely that Feature 16 was a latrine. The identity of the 5 x 6 m block feature complex is less certain than Feature 16 because of the massive collector disturbance, but it also could have been a latrine. Obviously, other types of features were used as refuse pits, as was seen at Feature 9, the first well.

**SITE 38CH965**

**38CH965: Introduction**

Site 38CH965 was interpreted as simply a locus of refuse or latrine pits within the large winter camp of 1863-64. It was located approximately 100 m east of Site 38CH964, on the crest of a knoll on the same east-west relict dune formation (Figures 1.2, 4.17). The designation of this locality as a discrete archaeological site was based on shovel tests by CAS. While, in reality, it was part of the larger winter camp, it did exhibit a small, denser locus of Civil War material relative to that in the surrounding lower areas. The site proper was an oval area, oriented east/west, approximately 5 x 15 m, with a thin scatter material extending further west and south (Figure 4.17). Upon discovery, the most obvious indications of Civil War features in this area were an array of large, recent, back-filled potholes and a scatter of artifacts discarded by relic or bottle collectors. Also present, however, were several older depressions that suggested that intact Civil War features or portions of features might remain (Drucker and Jackson 1988: 34-35; Smith & O’Steen 1988: 13).

Drucker and Jackson (1988: 36) recommended that this site was eligible for nomination to the National Register of Historic Places and the SHPO agreed. Based on CAS’s findings, data recovery goals in Phase II were to more precisely delineate site boundaries, to determine if intact subsurface features were present, and to recover a representative sample of artifacts. A total of 43 screened shovel tests and three formal excavation units totaling 6 m² was excavated by SCIAA. A metal detector survey was also conducted.

**Stratigraphy And Results**

Stratigraphy at 38CH965 was identical to 38CH964,
consisting of 20-50 cm of mixed grayish-brown (10YR5/2) sand "A" horizon above a very pale yellow (10YR7/4) sand subsoil which contained features. The Institute's shovel testing of 38CH965 indicated very low artifact density beyond the immediate vicinity of the recent pot-holes. Of 43 shovel tests placed at five meter intervals across the site, only four contained artifacts. A metal detector survey located no buried artifacts. This absence of artifacts is probably as much a result of intensive relic collecting as it is an indication of an original low artifact density.

Excavation Units 1, 2, and 3 were placed adjacent to potted areas in the hope of recovering intact portions of features (Figure 4.17). Excavation Unit 1 (1 x 2 m) yielded 12 small iron fragments and four oyster shell fragments, all within 20 cm of ground surface. No features or substantial midden were present. A similar lack of material characterized EU 3 (1 x 1 m) which contained one nail fragment, one unfired U.S. .577/.58 cal. rifle-musket bullet, and two oyster shell fragments. The bullet was the only example in the entire bullet assemblage bearing the mark of an extraction screw, a tool was used for unloading muzzleloading firearms.

Excavation Unit 2, originally a 1 x 2 m unit, was also largely devoid of artifacts, except along its northern wall. There it exposed the edge of a large, deep, backfilled pothole. The unit was expanded to define the extent of this feature and to remove its contents. It was hoped that an undisturbed remnant of the original feature might be encountered, but the fill was plainly disturbed throughout, with modern material including cigarette filters and modern soft drink bottles encountered at all levels. It seems probable, however, that the hole was backfilled with essentially its original contents, excluding those items such as unbroken bottles and military artifacts that were desirable to the collector. Thus the artifacts from the pothole were assumed to have originated in the disturbed pit, Feature 1.

In plan, Feature 1 was a rough oval, oriented east-west, and approximately 1 x 1.5 m in extent. The bottom of the feature was rounded, with a maximum depth of 1.40 m below surface. All indications were that the walls and floor of the feature were entirely modern, so that the original size and shape of the Civil War period excavation were impossible to determine. An informant suggested that the feature was typical of tent or hut sites in the area (Smith and O'Steen 1988: 13), but the considerable depth of the pothole makes this doubtful. In any event, the original excavation was back-filled with large quantities of mid-19th century refuse.

In spite of the disturbance of Feature 1 by collectors, the rich variety and large quantity of material recovered in its re-excavation comprise one of the most valuable components in the Folly Island assemblage. More than 1200 artifacts and faunal specimens were recovered but 665 of these were finely broken sheet iron fragments.

Glass and stoneware bottle fragments comprised the most significant artifact group. The 203 fragments from Feature 1 were exhaustively mended in the lab, with interesting results. A minimum vessel count of 30 was derived, and it was clear from the minor collection of un mendable fragments that remained that 30 vessels was very near the actual count. Eleven bottles were virtually complete, or at least exhibited full vessel profiles.

The 30 vessels represented included 24 alcoholic beverage bottles, four food bottles or jars, and two probable medicine bottles. The alcohol bottles exhibited considerable variety, including six dark olive-green ale bottles, 11 stoneware ale or "ginger beer" bottles, three light olive-green wine or champagne bottles, one light and one dark olive-green whiskey bottles. The light olive-green whiskey bottle was the only example in the project collection bearing the Rickett's mold "PATENT" mark on the shoulder. Also present were two variants of an unknown, dark olive-green bottle form that were probably large-capacity ale bottles (see Chapter V).

A minimum of four food bottles or jars were present. Two were light aqua-green, shouldered, wide mouthed forms typical of those that contained foods such as horse-radish, pickles, and olives (Chapter V). Two mustard jars were also represented, including one of clear glass and one of milky white, but transparent, glass. Neither example was reconstructable. Probable medicine bottles were represented by a single fragment of cobalt blue glass, and two fragments of a small, multi-sided light aqua-green bottle.

As noted, sheet iron can fragments were abundant in Feature 1, totaling approximately 665 pieces. Unfortunately, little information could be derived from this collection, as the cans were heavily fragmented and mostly rust. At best it could be ventured that at least a dozen or more food cans were represented. Also in evidence were five measurable examples of small (4-6 cm diameter) shallow (less than 1 cm) can bodies or lids that resemble those used for commercially distributed percussion caps. There were also many small rust-covered fragments of this type of can. No such caps were present, and the quantity and context of the cans suggest an alternate, unknown function.

Faunal material from Feature 1 included 102 oyster shells and fragments and approximately 230 specimens of cow, pig, and chicken bone (see Appendix B and C).

In addition to the artifacts above, Feature 1 yielded one undecorated whiteware sherd, one four-hole iron button, two four-hole white glass buttons, one large U.S. enlisted men's eagle button, one iron suspender buckle fragment, one small brick fragment, seven nail fragments,
Figure 4.17: Site 38CH965, General Site Map.
two fragments of an iron cooking fork, one bone mess fork handle, and a portion of a pewter canteen spout. The eagle button and the spout fragment (from a regulation U.S. M1858 canteen) were the only diagnostic military artifacts recovered from the feature.

**38CH965: Interpretations**

Feature 1 provided the only substantial material data from site 38CH965. Although only three diagnostic military artifacts were recovered from 38CH965, the overall make-up of the artifact collection was consistent with known military deposits elsewhere in the project area. The site was clearly part of the Union Army winter camp on Folly Island; however, evidence of intensive occupation was not present at the site. The primary function of the Feature 1 remains unknown, but it was probably a latrine, based on similar features at 38CH964, and General Order No. 40. Certainly its secondary function was refuse disposal. Based on excavations at Feature 1, it is believed that site 38CH965 consisted primarily of a small group of refuse pits, or latrines, back-filled with refuse. No further excavations were conducted at this site.

**SITE 38CH966**

**Introduction**

The site boundaries of 38CH966 as defined by CAS (Drucker and Jackson 1988) was subsumed by SCIAA within a much larger and more complex site that retains the original designation. This revision recognizes three internal components within Site 38CH966: Loci A, B, & C. The CAS site has been designated by SCIAA as Locus A (Figure 1.2, 4.19).

Site 38CH966, as enlarged by SCIAA, included a roughly square area about 100 x 100 m. The Institute’s site limits represented an effort to combine an array of similar and possibly related features within a manageable spatial label. Loci A and C were extensive, dense deposits of Civil War material, consisting almost entirely of bottle fragments, originally deposited on or near the ground surface. Locus B was more arbitrarily defined. The entirety of 38CH966 was characterized by feature depressions, potholes, and surface scatters of artifacts discarded by collectors. A subjectively selected group of three such features in close proximity were investigated, and these comprise Locus B. Stratigraphy within these three loci was identical to the other sites, although in the low areas of Locus B, the very pale brown (10YR7/4) or yellowish-brown (10YR6/4) sand varied in thickness, changing to a gray or blue-gray (7YR5/0-5/2) saturated sand at the water table.

**38CH966: Locus A**

The center of Locus A of site 38CH966 was located 73 m west and 12 m north of the corner of 3rd Street West and Hudson Avenue West, 182 m east of site 38CH965.

![Diagram of Site 38CH965, Feature 1, profile, north wall of EU2.](image-url)
(Figure 1.2, 4.19). The locus was on the same east/west
dune line as sites 38CH964 and 38CH965. The southern-
most portion of Locus A was destroyed by the grading of
Hudson Avenue West. Drucker and Jackson (1988) origi-

nally recognized the site (Locus A) in the road cut, and
investigated the wooded area to the north. After visual
inspection and shovel testing, they delineated the site as a
circular area about 45 m in diameter, centered about 12 m
north of the Hudson Avenue West road cut. On the basis
of five shovel tests with artifacts (of nine excavated) and
overwhelming surface evidence, Drucker and Jackson
recommended 38CH966 as eligible for nomination to the
National Register of Historic Places. Investigations were
conducted by SCIAA in Phase II (July 1988) and addi-
tional work was conducted during SCIAA’s field effort in
Phase III (October-November 1988).

Locus A contained an unusually dense surface scatter
of artifacts. A slight knoll in the center of the locus was
literally covered with thousands of glass and stoneware
ale bottle fragments, and the entire surface had been
thoroughly churned by collectors. This dense, primary
deposit was about 15 x 20 m, oriented north/south. Two
informants provided intriguing details concerning the site.
The former owner of the property called the area a “sut-
ler’s camp” (Mr. Edward Seabrook, personal communica-
tion July 1988). He reported discovering the deposit
several decades ago, when logging activities exposed
square arrangements of upright, unbroken bottles, as if
cases of bottles had been cached on or near the surface. A
local collector reported removing numerous complete
bottles from the site, including some that were unopened.
He also found bottles that were apparently cached in cases,
and he reported finding a sutler token in the vicinity
(Robert Bohm, personal communication July 1988).

Despite the apparently massive collector disturbance
of Locus A, it was hoped that excavations might locate
intact deposits of cached or discarded bottles, or other
Civil War features. At a minimum, SCIAA sought to
recover both controlled and selective samples of the great
mass of artifacts discarded by collectors. Toward these
goals, in the July and October 1988 efforts combined,
SCIAA personnel excavated two formal excavation units
totaling 6 m², and used a backhoe to strip approximately
40 m². A large, selective collection of diagnostic bottle
fragments (chiefly necks and bases) was gathered from
both the surface and the backhoe cuts.

EU 1

Excavation Unit 1 was a 1 x 2 m unit, oriented east/
west, near the center of the surface artifact concentra-
tion (Figures 4.19, 4.20). A disturbed, redeposited zone
approximately 25 cm in depth was found to rest on sterile
subsoil. In one area (Figure 4.20), the deposit intruded an
additional 18 cm into the pale yellow subsoil, possibly
indicating the former presence of a feature. It was clear
that the bottle collectors had done their work thoroughly,
having "chased" the cultural zone throughout the unit. A
total of 6,181 fragments of glass and stoneware ale bottles
was recovered from this 1 x 2 m unit. No unbroken or
broken in-situ bottles were encountered. The large quan-
tity of fragments and their redeposited context made
evessel reconstructions impractical. Minimum vessels
counts and vessel identifications were based on numbers
and types of bottle necks (herein bottle neck is used to refer
to the neck and lip finish) and bases.

Some 5,326 fragments (86.1%) were dark olive-
green glass, and apparently all were derived from several
variations of ale bottles. These were identical to mended
examples found elsewhere in the project area (see Chapter
V). At least 52 glass ale bottles were represented in the
collection. A total of 614 slightly lighter green fragments
of ale bottles accounted for 9.9% of the total. At least three
of the lighter green bottles were present, and one example
was substantially reconstructed. Fourteen Bristol-glaze,
brown and white stoneware ale bottles were represented,
accounting for 196 fragments, or 3.1% of the collection.
Forty-five fragments of clear glass (<1%) were present, all
of which appeared to derive from a drinking tumbler and
a laboratory beaker. Neither was reconstructable. Many of
the bottle necks retained all or portions of copper closure
wires and lead foil remnants were common. Numerous
separated closure wires and fragments were also col-
lected. Finally, nine small, non-diagnostic fragments of
sheet iron and several fragments of oyster shell were
recovered.

EU 2

Excavation Unit 2, a 2 x 2 m unit, was placed four
meters north of EU 1, to sample an area that appeared
considerably less disturbed (Figure 4.19). Excavation
revealed an artifact-bearing “A” horizon of 28-30 cm
thick throughout the unit, and no apparent disturbance in
the underlying sterile subsoil. Systematic “mining” of the
cultural zone had not occurred in this area of the site,
probably because the artifact deposit around EU 2 was
much less dense than that around EU 1. Instead, the unit
was marked by small, discrete, back-filled potholes. These
may represent the investigation of individual probe-rod
“hits” by the relic hunters. Thus, portions of the cultural
zone were undisturbed, but only because they bore no
substantial material. A single dark olive-green ale bottle
was found apparently broken in place, and its fragments
were successfully mended in the laboratory (Chapter V).

Excavation Unit Two yielded 270 glass and stonew-
are ale bottle fragments, or only about 2.2% (by area) as
much as EU 1. The EU 2 assemblage, however, was like
that from EU 1. Fragments included dark olive-green
(89.2%), lighter olive-green (1.1%), stoneware ale bottle

CAMP SITE ARCHAEOLOGY 91
SURFACE COLLECTION

The surface collection from Locus A also included material collected during backhoe explorations and backfilling. These two collections essentially came from the same provenience, as all material was derived from collectors' spoil. No undisturbed features or midden deposits were located by backhoe stripping. All observed bottle necks were collected, as well as a sample of bases. An effort was made to include all varieties of bottle bases, including the full range of impressed initials on stoneware ale bottles. Body fragments were not collected, except for a sample of dark olive-green ale bottle necks embossed with the crown symbol, and other diagnostics including shouldered and unshouldered stoneware ale body fragments and a fragment of dark olive-green case bottle.

As all readily visible bottle necks were collected, they provide a rough measure of relative numbers of bottle types present at Locus A. A few other diagnostic fragments were also included in the collection. In Table 4.5 below, identifications of bottle types was based entirely on fragments, but these identifications are most likely correct, based knowledge gained from similar material in the project collection. The relative proportions of vessel types was similar to EU 1 and EU 2 (Table 4.6).

The miscellaneous bottle types found in the surface collection accounted for only 3.5% of the total. The three

<table>
<thead>
<tr>
<th>Bottle Type</th>
<th>QTY</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dark olive-green ale</td>
<td>256</td>
<td>90.4%</td>
</tr>
<tr>
<td>Light olive-green ale</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>Stoneware ale</td>
<td>16</td>
<td>5.6%</td>
</tr>
<tr>
<td>Brown whiskey</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>Shouldered wine</td>
<td>4</td>
<td>1.4%</td>
</tr>
<tr>
<td>&quot;Champagne&quot; style wine</td>
<td>1</td>
<td>.4%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1.4%</td>
</tr>
<tr>
<td>Total</td>
<td>283</td>
<td>100%</td>
</tr>
</tbody>
</table>

“other” vessels represented in the excavation unit collections were two clear glass tumblers and a laboratory beaker. Dark olive-green and lighter olive-green ale bottles may be considered functionally identical containers, and it is probable that the stoneware ale bottles are properly added to this group. All would have contained an alcoholic beverage. Glass and stoneware ale bottles accounted for more than 97% of the vessels represented in the Locus A collection. Very little material other than container glass was collected or observed from 38CH966. Minor amounts of fragmented sheet iron, oyster shell, and faunal bone were present, and CAS (Drucker and Jackson 1988: 56-57) reported a grommet fragment and a clay pipestem. No diagnostic military material was recovered.

Figure 4.19: Site 38CH966, Locus A, General Map.
Locus A was clearly not a long-term campground or area for camp refuse. The high frequency of ale bottles in the Locus A collection differs significantly from what would be expected in general camp refuse. Examination of several provenanced, private collections from Federal camps in the Department of the South suggested that ale bottles more typically comprise a small percentage of container assemblages, which are dominated by food, medicine, wine, and whiskey bottles (Torrey McLean, James Ivers, and Brett Cullen, personal communications 1988). Further, few artifacts were found other than bottles. One would expect to find other kinds of artifacts if the area was occupied as a camp. Informants' suggestions that Locus A was related to a sutler's activities seems a reasonable possibility. The bottles could have been abandoned from a sutler's operation. The isolation of Folly Island at the end of a long and expensive supply line may have ultimately precluded any profitable recycling efforts, resulting in the one-time abandonment of the bottles. As noted, one collector has reported complete bottles that were still sealed with corks and sealing wires, and he has collected a sutler's token from the area (Robert Bohrn, personal communication 1988). The complete bottles might reflect the discard of spoiled merchandise, or possibly the underground caching of stock to prevent theft.

The wide variation among the glass and stoneware ale bottle types is interesting but unexplained. Many varieties of bottle necks and bases were seen among the dark olive-green bottles, and the stoneware ale bottles include several closure varieties, both shouldered and unshouldered bodies, and 14 different basal initials (see Chapter V). Obviously, the assemblage represents recycled, dumped bottles, or an accumulation of bottles from several dumping episodes.

Locus B

Locus B of site 38CH966 consisted of a cluster of three apparent Civil War features located in the low ground between Loci A and C (Figure 1.2). A backhoe was employed to examine this small sample of the numerous features visible throughout 38CH966, and, indeed, throughout the project area. Selection of these three particular features was primarily based on the backhoe's ease of access in the dense woods. The discovered features were designated B1, B2, and B3. This work was conducted entirely during Phase III.

Features B-1, B-2, B-3 were mapped relative to a stake tied into the elevation nail at 38CH920. The stake was located 36.02 m, 136° from a random point on the dune ridge running along Indian Ave (Figure 1.2). This point was 60.56 m, 85° east of the 38CH920 elevation nail. The center of Feature B-1 was 12.38 m from the stake and the center of Feature 3 was 6.25 m from the stake, both at 191°. The center of Feature B-2 was 13.34 m from the stake at 263°.

**FEATURE B-1**

Feature B-1 (Figure 1.2) was representative of a feature type readily found throughout the project tract. These were potted and backfilled Civil War pit features with discarded artifacts present on the surface. Feature B-1 was characterized by a sunken, disturbed pit approximately one meter in diameter with faunal materials in association. Investigation of the feature was accomplished by backhoe excavation of a trench that removed the eastern half of the feature. This bisection revealed a round-bottomed pit approximately one meter in depth and one meter in diameter, 30 cm below the surface. Feature B-1 dimensions were based largely on soil texture and the recorded diameter at the surface, as the feature walls were largely obscured by the water table which saturated the feature matrix and surrounding subsoils to a consistent blue-gray (7YR5/0) color. Chunks of well-preserved hemic

| Table 4.6: Minimum Number of Vessels From EU 1 and 2, Locus A, 38CH966 |
|------------------|------------------|------------------|------------------|
|                  | EU 1 (MNV)       | EU 2 (MNV)       | SURFACE (MNV)*   |
|                  | QTY   %          | QTY   %          | QTY   %          |
| Dark olive-green ale | 52  73.2 | 8  50.0 | 256  90.5 |
| Light olive-green ale | 3  4.2 | 1  6.25 | 1  .4 |
| Stoneware ale | 14  19.7 | 6  37.5 | 16  5.6 |
| Other | 2  2.8 | 1  6.25 | 10  3.5 |
|                  | 71  99.9 | 16  100 | 283  100 |

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mat were encountered throughout the feature fill, and all of the fill had been disturbed by relic collectors. Material recovered included faunal materials and iron barrel band fragments that were recently broken (after oxidation/concretion). The function of Feature B-1 remains unknown. It is conceivable that a very shallow, single-barrel well was present. Alternate explanations include a latrine, trash pit, or a single excavation that served both of these functions.

FEATURE B-2

Feature B-2 was an irregular surface depression containing artifacts approximately 3 x 5 m, oriented northeast/southeast. Two questions concerning this feature were addressed by backhoe stripping. First, was Feature B-2 a sheet refuse deposit, or did it contain deep deposits? Second, was the feature thoroughly disturbed, or did intact portions remain? The area surrounding the feature was stripped to subsoil, approximately 20-25 cm below surface. No artifacts or soil stains were visible at that level, and no intact deposits of material were encountered during stripping. Feature B-2 was apparently a small surface dump that had been completely "mined" by collectors, who presumably removed all whole bottles and other desirable artifacts. A small sample of diagnostic artifacts was collected from Feature B-2. This collection included two stoneware ale bottle necks, two dark olive-green ale bottle necks, a clear lead glass tumbler base, and the base of an aqua-green condiment bottle.

FEATURE B-3

Feature B-3 was seen originally as a very shallow, circular depression approximately two meters in diameter, which appeared to be quite old. Scanning with a metal detector revealed a strong iron-oxide anomaly that remained undisturbed by collectors. Initially, a block 3 x 3 m in extent was stripped to subsoil, approximately 30 cm below surface. This revealed a circular, yellowish brown feature stain 1.7 m in diameter, surrounded by an irregular band of gray soil that was very similar to topsoil (Figures 4.21, 4.22). This gray soil brought the total diameter of the feature to approximately 2.2 m. At this level (30 cm b.s.), several large fragments of iron barrel band were imbedded in the center of the feature, accounting for the iron-oxide metal detector anomaly. Here hand excavation of the western half of the feature began.

The stratigraphic relationship between the inner and outer soil components of Feature B-3 was not determined. Almost immediately after trowelling began, the appearance of both feature components and the surrounding subsoil took on a consistent blue-gray color typical of saturated sands at or near the water table. Soil distinctions

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**Figure 4.20:** Site 38CH966, Locus A, EU1, profile, north wall.

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were difficult to see, and initially it was believed that sterile subsoil had been encountered between 30 and 40 cm below surface. Probing was employed however, which revealed consistently softer soil within the outline of the interior feature stain to a depth of at least one meter below surface. Excavation was then continued, and an aqua glass ink bottle was recovered 65 cm below surface. Ground water intruded into the feature at this point and stopped additional excavation with hand tools. Using an iron probe, a large, upright, wooden barrel was identified, some 55 cm into the wet soil.

As manual excavation was precluded, and the feature stain was no longer distinguishable, the backhoe was employed to open a large excavation west of the barrel, in an effort to recover it intact. This was accomplished after a full day of difficult and precarious effort with the outcome consistently in doubt due to constant flooding of the excavation. Eventually, the barrel was removed in excellent condition, although fragile wicker bands had to be recovered separately, in fragments (Figure 5.25). Both the head and bottom of the barrel had been removed prior to placement in the feature. Large samples of barrel fill and feature fill were screened through 1/4" wire mesh during the excavation process. Only a single fragment of dark olive-green bottle glass was recovered from inside the barrel. Masses of well preserved organic matter were encountered inside the barrel also, including leaves, pine needles, and wood chips. A large portion of this material was recovered in several gallons of barrel fill and retained.

The feature was clearly another Civil War well, differing from those at 38CH966 in its placement in low, fairly level ground. Excavation suggested that the water table has risen substantially since the 1860s, as it would have been extremely difficult for workers with hand tools to have placed the well lining (barrel) as far below the water table as it was found in 1988. This suggestion was further supported by the historical record which clearly indicates that the marsh behind 38CH920 was a cotton field before the war and was used by the 55th Massachusetts as a parade ground during the encampment. No evidence for an entry passageway or ramp was associated with the well chamber feature, although such a detail may have been obscured by the general soil staining discussed above. Feature B-3 appears to have been deliberately backfilled after its usefulness as a well ended, and it was not used for refuse disposal. The vicinity of the well was apparently quite clear of artifacts at the time of backfilling, as very little material found its way into the chamber or barrel.

**Locus C**

Locus C of site 38CH966 was located 106 m, 270° west of the stake at Locus B (Figure 1.2). Like Locus B, Locus C was located well outside of the original boundaries of site 38CH966, and was not discovered during the 1987 survey (Drucker and Jackson 1988). The locus was
discovered and flagged during SCIAA Phase II investigations (Smith and O'_Steen 1988), and it was investigated during Phase III.

Locus C looked much like Locus A, but it was only about 20% as large as Locus A. Bottle fragments and evidence of intensive collector digging covered a roughly oval area approximately 5 x 10 m in extent, oriented north/south. No shovel tests or formal excavation units were excavated at Locus C. Backhoe cuts were scattered across the locus in an effort to locate artifact concentrations, or other features, and a selective collection of artifacts was made from the surface and the backhoe cuts. Like the Locus A surface/backhoe collection, the Locus C collection included all bottle necks observed, and a representative sample of bottle bases and other diagnostic artifacts.

The backhoe cuts located no undisturbed deposits or features, nor any unbroken or reconstructable bottles. As at Locus A, the bottles at Locus C appear to have been densely deposited on or near the original ground surface, and accordingly the area had been systematically mined to subsoil (20-30 cm) by collectors. Consequently, the locus retained little research potential beyond the diagnostic and comparative value of the surface/backhoe collection.

In the Locus C collection 42 bottles are represented by tops, and a single brown whiskey bottle is represented by a base only. Vessel type counts by number and percentage of total for both Loci A and C are shown in Table 4.7.

*Table 4.7: Minimum Number of Vessels From Locus A and C: 38CH966*

<table>
<thead>
<tr>
<th></th>
<th>Locus C</th>
<th></th>
<th>Locus A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qty</td>
<td>%</td>
<td>Qty</td>
<td>%</td>
</tr>
<tr>
<td>dark olive-green ale</td>
<td>20</td>
<td>46.5</td>
<td>316</td>
</tr>
<tr>
<td>light olive-green ale</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>stoneware ale</td>
<td>15</td>
<td>34.9</td>
<td>36</td>
</tr>
<tr>
<td>other</td>
<td>8</td>
<td>18.6</td>
<td>12</td>
</tr>
<tr>
<td>total</td>
<td>43</td>
<td>100</td>
<td>370</td>
</tr>
</tbody>
</table>

Ales bottles, both glass and ceramic, comprise 81.4% of the Locus C collection, as compared to 96.5% of the Locus A collection. Numerous closure and base variations were present among the dark olive-green ale bottles. The stoneware ale bottles included several closure varieties, shouldered and unshouldered body types, and nine different basal initials (see Chapter V). The six wine bottle closures from Locus C represent five shouldered and one "champagne" style bottle. One brown glass whiskey bottle was represented. An unidentified bottle type, probably an ale bottle, was represented by a single stoneware closure with off-white, feldspathic glaze. No other examples of this bottle type were present in the project assemblage (Chapter V). A rim sherd from a blue shell-edged white-ware plate was collected, and a few small sheet iron fragments were observed but not collected. No diagnostic military artifacts were recovered.

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**Figure 4.22: Site 38CH966, Locus B, Feature B-3, conjectural profile of well.**

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Like Locus A, the site appeared to be a bottle dump. Both Loci A and C contained very similar deposits, with size being the only important difference between the two.

38CH966: Interpretations

As identified by SCIAA, site 38CH966 was a large area that contained an abundance of potholes and depressions which were, usually, potted and disturbed Civil War period features. However, the disturbed, and the occasional undisturbed, depressions were archaeologically valuable. The Institute’s work at this site was intended to sample as many of these features as time permitted. The surface expressions of this site were clearly representative of the entire project area.

Locus A has been tentatively identified as a bottle dump, possibly created by a Civil War sutler. It also remains a remote possibility that the bottles were collected from all over the project area sometime after the Civil War, but this is considered unlikely. Excavation Unit 1 was clearly the site of an extremely dense deposit of Civil War period alcoholic beverage bottles, on or near the original surface. This artifact density resulted in the systematic mining of the deposit to subsoil by collectors, and presumably many unbroken bottles were removed prior to CAS and SCIAA investigations of the site.

Locus B consisted of a series of depressions, three of which were sampled. A Civil War period well was identified, dug by the soldiers in a low area of the island as contrasted with the dune ridge wells at 38CH964. There are most likely numerous examples of both well types throughout Folly Island and the project area. The function of the other two Locus B features was not determined but they were obviously part of the Civil War camp. Locus C appears to have been a dump or abandoned cache of bottles very similar to, but smaller than Locus A.
CHAPTER V

MATERIAL CULTURE

INTRODUCTION

The artifacts recovered during excavations at the four sites have been previously discussed in Chapters III and IV. The purpose of artifact discussions in those chapters was to assist in the identification of feature and site functions. In this chapter the artifacts have been examined as a group, to reveal something of soldier life on Folly Island.

Pattern recognition has been a primary method of analysis in historical archaeology (South 1977). However, after considerable deliberation, the authors have carefully avoided the temptation to establish a "Civil War Camp Artifact Pattern" using the data from Folly Island. This decision was based on the nature of the sites excavated.

As has been discussed previously, the entire project area, was (and is) an archaeological site. The sites, as previously bounded, were actually loci within the larger historical site, which could be more accurately defined as a large winter camp. What SCIAA investigated during its work were specialized activity areas, including a cemetery, a possible sutler's trash dump, a stable area, and several well localities. Only a small sample of the refuse pits, latrines, and other camp features in the project area were investigated. Therefore, a valid sample, from which a valid artifact pattern could be discerned, awaits further work.

ARTIFACT CATALOG

Instead of an artifact typology by material type, the artifacts from Folly Island have been organized as a functionally-oriented artifact catalog (Smith 1983:33) (Table 5.1).

The analyses of three other classes of material are discussed in the appendices. The skeletal materials are discussed in Appendix A, the faunal (bone) materials are discussed in Appendix B, and oysters are discussed in Appendix C. Furthermore, the raw counts of artifacts are provided in Appendix F. Finally, it must be noted that the nature of the artifact assemblage makes the discussions within each functional category below very unbalanced. For instance, the recovery of only three ceramic plate sherds precludes a detailed analysis of that artifact category.

Table 5.1: Folly Island Artifact Catalog

<table>
<thead>
<tr>
<th>A. Clothing</th>
<th>E. Indulgences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Military</td>
<td>1. Alcoholic Beverage Containers</td>
</tr>
<tr>
<td>2. Civilian</td>
<td>a. Ale Bottles</td>
</tr>
<tr>
<td>B. Arms</td>
<td>b. Whiskey Bottles</td>
</tr>
<tr>
<td>1. Ammunition</td>
<td>c. Wine Bottles</td>
</tr>
<tr>
<td>2. Accoutrements</td>
<td></td>
</tr>
<tr>
<td>C. Personal</td>
<td>2. Tobacco Pipes</td>
</tr>
<tr>
<td>1. Jewelry</td>
<td></td>
</tr>
<tr>
<td>2. Pocket Knives</td>
<td>F. Medicine</td>
</tr>
<tr>
<td>3. Writing Implements</td>
<td></td>
</tr>
<tr>
<td>4. Toothbrush</td>
<td>G. Work, Architecture, and Transportation</td>
</tr>
<tr>
<td>D. Kitchen</td>
<td>1. Tools</td>
</tr>
<tr>
<td>1. Food Preparation and Consumption</td>
<td>2. Architecture</td>
</tr>
<tr>
<td>2. Food Storage, Preservation, and Shipment</td>
<td>3. Transportation</td>
</tr>
<tr>
<td></td>
<td>4. Storage</td>
</tr>
</tbody>
</table>

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A: CLOTHING

A.1 Military

Military clothing-related artifacts from Folly Island were overwhelmingly representative of the U.S. Army regular issue uniform. However some state-issue buttons were recovered from 38CH964 and others have been recovered by collectors from the project area.

United States Army uniforms of the Civil War period are well documented, not only by formal regulations, but by unofficial sources as well. Photographs are a particularly rich source of information on uniforms. These include thousands of studio portraits, which must be considered somewhat idealized, and more candid camp and campaign photos, including those of combat dead. Quartermaster contracts, inventory records, and the personal narratives of veterans are also important sources. Numerous documented examples of uniforms are extant for study, as are many excavated clothing-related artifacts (Phillips 1974, 1980). These sources, considered together, form a consistent and coherent picture of uniform use, and permit meaningful generalizations regarding archaeologically recovered clothing hardware as was demonstrated in Chapter III.

The primary component of a U.S. Army Civil War period uniform was a dark blue coat or jacket. Uniform shirts were not used at the time. For infantry enlisted men, the coat took one of two forms. These were the dress coat (also called the uniform coat or frock coat) and the sack coat (also called the fatigue coat or the four-button blouse). The dress coat was a long, nearly knee-length wool coat, fastened in front with nine eagle buttons, the stand-up collar fastened with an iron hook and eye (Figure 5.1). Two or three small eagle buttons adorned each sleeve, and some dress coats had two large eagle buttons adorning the back at the waist. If the coat was fitted for brass shoulder scales, the shoulders of the coat had two small brass strips and two brass studs sewn into the fabric for attachment of the scales. Thus, archaeologically, a fully trimmed enlisted man’s dress coat might be represented by as many as 11 large eagle buttons (Figure 5.2), six small eagle buttons (Figure 5.3), a hook and eye set (Figure 5.8), and four shoulder scale attachments (Francis Lord, personal communication March 1989; Lord 1970: 18, 23, 28; Todd 1974: 52, 55-57).

The Army intended that the ‘uniform coat’ serve not only for dress, but as the general uniform for most duties including active campaigning. In practice, however, veteran units usually wore the flannel sack coat as their basic uniform (Figure 5.4). Intended for fatigue duty, the sack coat was shorter, lighter, roomier, and featured an open collar. It was fastened in front by only four large eagle buttons, and featured no other durable hardware. Veteran soldiers of all branches and officers of all ranks, including some general officers, wore sack coats (Lord 1970: 21, 22; Todd 1974: 52, 57-58; McAfee 1981: 10-15).

Enlisted men of cavalry and horse artillery often wore the ‘uniform jacket,’ a short wool jacket fastened in front with 12 small eagle buttons. Unmounted troops occasionally wore jackets, just as mounted troops sometimes wore sack coats. The regulation overcoat and various nonregulation items such as vests and capes also employed small and large eagle buttons (Todd 1974: 52, 54; McAfee 1982: 6-11).

Officers of all branches wore a wide variety of coats and jackets, some nonregulation, but normally company grade officers wore nine-button uniform coats, while field grade officers wore double breasted uniform coats with two rows of eight or nine large eagle buttons each. Officer’s shoulder boards (Figure 5.5) and rank devices were of embroidered metallic thread or stamped brass simulating embroidery (Francis Lord, personal communication March 1989; Lord 1970: 15; Todd 1974: 51; Phillips 1974: 95).

During the early part of the War, many state volunteer regiments in U.S. service retained various state militia uniforms and regalia. Most common were uniform and equipment components using state seals or acronyms (e.g. “SNY” for “State of New York” and “VMM” for “Volunteer Maine Militia”). As these items wore out they were usually replaced by standard U.S. issue material. Many officers, however, retained state buttons on tailored uniforms, and apparently New York continued to issue state material well into the War (Figure 5.21 and J). The New York jacket, which was typical of northern state-issue uniforms, was a short wool jacket fastened with eight large New York state seal buttons (Lord 1970: 52-75; McAfee 1982: 14; Albert 1976: 202-203).

Federal issue uniform trousers were of sky blue wool. They featured nine, four-hole, tinned-iron buttons (Figure 5.6). Five buttons were found on the fly and two each, front and back, for attaching suspenders (Francis Lord, personal communication March 1989; Todd 1974: 58-59).

Standard U.S. Army headgear was the Model 1858 Army Hat (Figure 5.1). This was a wide-brimmed, tall-crowned black felt affair that actually saw little use in active service. Parallelizing the replacement of the dress coat by the sack coat, the Army Hat was overshadowed by the M1858 Forage Cap (Figure 5.4). This was a light, informal cap of the type that is commonly (and incorrectly) called a kepi. Hardware on the forage cap included a small brass frame buckle on the chin strap, and two small eagle buttons that secured the strap on either side (Figure 5.5). The forage cap was the most commonly worn headgear of the war, although many officers and Western Theatre veterans preferred nonregulation, black felt, brimmed hats. Whatever the variety of hat or cap, they
Figure 5.1: U.S. Army model wearing dress or uniform coat, Model 1858 Army Hat, and rifle-musket accoutrements. The hat insignia designate "Company A, 1st Infantry Regiment." (Smithsonian Institution).
Figure 5.2: Large uniform buttons.

A. U.S. enlisted, backmark "SCOVILLE MFG Co. WATERBURY," (38CH920, Burial 4).
B. U.S. enlisted, backmark "WATERBURY BUTTON CO," (38CH920, Burial 4 or 6).
C. U.S. enlisted, backmark "EXTRA QUALITY," (38CH964, Feature 10).
D. U.S. enlisted, backmark "EXTRA QUALITY," (38CH920, Burial 4).
E. U.S. enlisted, no backmark, (38CH920, Burial 3).
F. U.S. enlisted, no backmark, (38CH964, CMDS #13).
G. U.S. enlisted, no backmark, (38CH964, 5 x 6 m block).
H. U.S. enlisted, no backmark, (38CH964, Feature 9).
I. New York, backmark "WATERBURY BUTTON CO. EXTRA," (38CH964, 5 x 6 m block).
J. New York, backmark "EXTRA QUALITY," (38CH964, 5 x 6 m block).
Figure 5.3: Small uniform buttons and forage cap hardware.

A. U.S. enlisted, backmark "EXTRA QUALITY," (38CH920, Burial 4 or 6).
B. U.S. enlisted, backmark "EXTRA QUALITY," (utility cut, SE corner of Indian Ave. and Road "B").
C. U.S. enlisted, backmark "EXTRA QUALITY," (38CH964, 5 x 6 m block).
D. U.S. enlisted, backmark "EXTRA QUALITY," (38CH964, 5 x 6 m block).
E. U.S. enlisted, white metal back missing, (38CH920, Burial 4).
F. U.S. enlisted, no backmark, (38CH964, 5 x 6 m block).
G. U.S. infantry officer, no backmark, (38CH964, Feature 11).
H. U.S. infantry officer, no backmark, (38CH964, 5 x 6M block).
I. Model1858 Forage Cap strap buckle, (38CH964, Feature 9).
J. Remains of leather forage cap strap, side buttons backmarked "SCOVILLE MFG CO," (38CH920, Burials 3 and 4).
Figure 5.4: U.S. Army model wearing flannel sack coat and Model 1858 Forage Cap. (Smithsonian Institution).
generally bore the insignia originally prescribed for the Army Hat. For enlisted men, these included stamped brass company letters, regimental numerals, and branch of service insignia (Figure 5.5). Officers' hat devices were usually of embroidered metallic thread, or stamped brass simulating embroidery. Photographs reveal that insignia were commonly dispensed with entirely (e.g. Howell 1975: 9-16; Phillips 1974: 75-94).

Other issued articles that left behind durable diagnostic artifacts include drawers and rubber blankets (Figure 5.7). U.S. drawers utilized varying numbers of four-hole white glass buttons (Figure 5.6). The rubber blanket (commonly called the "poncho") had 12 small brass grommets around its perimeter, and several tinned-iron buttons similar to trouser buttons, to facilitate use of the blanket as a tent component (Francis Lord, personal communication March 1989; Lord 1970: 42-43).

The familiar U.S. Army eagle button of the Civil War period originated with specifications issued in 1851 and 1854. After 1854, eagle buttons with branch of service initials (I=Infantry, A=Artillery, C=Cavalry, etc.) in the shield were to be worn only by officers. Enlisted men, regardless of branch, were to wear a 'general service' button with the American flag motif in the shield (Figure 5.2). These specifications remained in effect until 1875 (Albert 1976: 38-41).

At Folly Island, large and varied collections of military clothing-related artifacts were recovered, especially from 38CH920 and 38CH964 (Table 5.2). These collections obviously represent entirely different forms of deposition. The 38CH920 material was deposited as part of the dead soldier's effects during burial. The 38CH964 and 38CH965 artifacts presumably represent incidental loss and discard in camp. Also included in this table are white glass buttons, often recovered from 19th century sites, and found both on civilian and military clothing. Examples of military buttons recovered archaeologically at Folly Island are illustrated in Figures 5.2, 5.3, 5.6.

Figure 5.5: U.S. insignia and other militaria.

A. Cartridge box plate, backmark "HUNTER," (38CH964, CMDS #20).
B. Enlisted company letter "F," (38CH964, 5 x 6 m block).
C. Officer's regimental number "8," (38CH964, Feature 16).
D. Stencil scrap number "5," adapted for use as regimental number, (38CH920, Burial 3).
E. Fragment of officer's shoulder strap of gilt, false-embroidered stamped brass, (38CH964, CMDS #2).
F. Fragment of enlisted shoulder scale or epaulette, (38CH964, Feature 10).
Table 5.2: Military Clothing-Related Artifacts

<table>
<thead>
<tr>
<th>ARTIFACTS</th>
<th>38CH920</th>
<th>38CH964</th>
<th>38CH965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eagle buttons, large</td>
<td>34</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Eagle buttons, small</td>
<td>12</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Eagle infantry buttons, small</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York buttons, large</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four-hole iron buttons</td>
<td>99</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td>Four-hole white glass buttons</td>
<td>7</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Hooks</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyes</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubber blanket grommets</td>
<td>52*</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Forage cap buckles</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Shoulder scale parts</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Officer's epaulette parts</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headgear insignia</td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

* This figure does not include an undetermined number of grommets in fragments of intact rubber blanket material

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**Figure 5.6: Utility and civilian buttons.**

A. Four-hole white glass, (38CH964, 5 x 6 m block).
B. Four-hole white glass, (38CH964, 5 x 6 m block).
C. Four-hole white glass, (38CH920, Burial 16).
D. Four-hole white glass, defective, (38CH920, Burial 11).
E. Four-hole white glass, (38CH920, Burial 16).
F. Four-hole white glass, decorated with radial lines, (38CH964, 5 x 6 m block).
G. Four-hole white glass, domed, (38CH920, Burial 16).
H. Four-hole black glass, (38CH964, 5 x 6 m block).
I. Four-hole black glass, (38CH964, Feature 10).
J. Four-hole black glass, domed, (38CH920, Burial 13).
K. Four-hole tinned iron, (38CH920, Burial 2).
L. Four-hole tinned iron, (38CH920, Burial 3).
M. Two-hole pewter with gray paint, (38CH964, CMDS #22).
N. Four-hole bone, (38CH920, Burial 16).
O. Four-hole bone, (38CH964, Feature 10).
P. Four-hole bone, (38CH920, Burial 9).
Q. Hard rubber with brass shank, backmark "N.R.CO. GOODYEAR'S PT.," (38CH920, Burial 17).
R. Two-piece brass, no backmark, (38CH964, 5 x 6 m block).
S. One-piece brass, backmark "PLATED," (38CH964, Feature 9).
T. One-piece brass, gilt, backmark "PLATED," (38CH920, Burial 8).
FIGURE 57: U.S. Army model wearing rubber blanket or poncho with garments.
Since eagle buttons and iron trouser buttons were the most numerous buttons on issued Union uniforms, it would be safe to assume that the Folly Island assemblage is representative of Union Army camps elsewhere. Additional military button varieties recovered from the project area were noted in private collections. These varieties are listed below (Table 5.3) (Torrey McLean, personal communication December 1988; Robert Bohm, personal communication June 1988).

### Table 5.3: Varieties of Buttons From Private Collections, Folly Island

<table>
<thead>
<tr>
<th>Officer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eagle, Infantry, large</td>
<td></td>
</tr>
<tr>
<td>Eagle, Artillery, large</td>
<td></td>
</tr>
<tr>
<td>Eagle, Artillery, small</td>
<td></td>
</tr>
<tr>
<td>U.S. Navy, small</td>
<td></td>
</tr>
<tr>
<td>New York, small</td>
<td></td>
</tr>
<tr>
<td>Rhode Island, large</td>
<td></td>
</tr>
<tr>
<td>Rhode Island, small</td>
<td></td>
</tr>
</tbody>
</table>

Insignia recovered during SCIAA and CAS excavations included an enlisted man’s company letter “F,” an officer’s false-embroidered regimental number “8,” a portion of an officer’s false-embroidered epaulette, and the sheet brass number “5” (Figure 5.5). Private collectors have found a variety of insignia, including enlisted men’s company letters and regimental numerals, officer’s infantry and artillery insignia, and officer’s false-embroidered shoulder boards (Torrey McLean, personal communication December 1988; Robert Bohrn, personal communication June 1988).

#### A.2 Civilian

Numerous civilian clothing articles supplemented the uniform, including shirts, underwear shirts, vests, and suspenders. The shipments of material donated to the 55th Massachusetts while on Folly Island included many types of civilian clothing (Appendix D). Such articles were represented in the archaeological record by a wide variety of two and four-hole buttons, of black glass, bone, pewter, and rubber, shanked buttons of brass and rubber, and various metallic suspender buckles (Table 5.4). Note again, that some or all of the white glass buttons listed in Table 5.2 could have come from civilian clothing. Examples of civilian clothing items are illustrated in Figures 5.6 and 5.8.

#### Figure 5.8: Miscellaneous clothing-related artifacts.

- **A.** Leather shoe heel fragment with brass nails, (38CH964, 5 x 6 m block).
- **B.** Iron suspender buckle, (38CH920, Burial 3).
- **C.** Brass suspender buckle, (38CH920, Burial 4).
- **D.** Iron eye from hook and eye fastener, (38CH920, Burial 11).
- **E.** Silver bar pin, (38CH964, Feature 9).
- **F.** Fragment of rubber blanket with brass grommet, (38CH920, Burial 2).
TABLE 5.4: Civilian Clothing-Related Artifacts

<table>
<thead>
<tr>
<th>ARTIFACTS</th>
<th>38CH920</th>
<th>38CH964</th>
<th>38CH965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-hole black glass buttons</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two-hole pewter buttons</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Four-hole bone buttons</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Flat brass buttons, 1-piece</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Brass buttons, 2-piece</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hard rubber buttons, shanked</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspender buckle, iron</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Suspender buckle, brass</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.5: Arms-Related Artifacts

<table>
<thead>
<tr>
<th>ARTIFACTS</th>
<th>38CH920</th>
<th>38CH964</th>
<th>38CH965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Musket percussion caps</td>
<td>1</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>U.S. .54 cal. bullet, unfired</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>U.S. .577/.58 cal. bullets, unfired</td>
<td>97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. .577/.58 cal. bullets, fired</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>U.S. .577/.58 cal. bullets, extracted</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>U.S. .577/.58 cal. bullets, carved</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>U.S. .69 cal. bullet, carved</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>C.S. .577/.58 cal. Pritchett bullet, unfired</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Musket cartridge box tin</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Musket cartridge box “US” plate</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Artillery friction primer</td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

B. ARMS

B.1 Ammunition

Military weapons were represented in the Folly Island collection by ammunition and cartridge box components (Table 5.5, Figure 5.9). The majority of these artifacts were recovered from 38CH964, although several specimens of interest were found at 38CH920 and 38CH965. No gun parts or implements were recovered during SCIAA excavations.

Like Civil War uniforms, U.S. arms and associated material from that period are well documented and have been intensively studied. This is not merely a reflection of the widespread popular, antiquarian, and scholarly fascination with the Civil War. The 1850s and 1860s were a revolutionary period in the history of arms technology, and thus, in warfare itself. The Civil War period witnessed the development of breech-loading, metallic cartridge weapons of essentially modern design, as well as the ultimate refinement of muzzle-loading weapons for infantry; the rifle-musket. The Folly Island small-arms-related materials were all artifacts of the very brief, but remarkably sanguinary, career of the rifle-musket.

The rifle-musket (as distinct from the musket, the rifle, and the rifled musket) was a muzzle-loading, percus-
sion-cap primed long arm, that fired a distinctive, hollow-based conical bullet with great accuracy. It was adopted by most major western powers in the 1850s, and was obsolete by 1865. Its complex technical evolution is outside the scope of this study but summaries can be found elsewhere (v. Fuller 1958, Thomas 1981).

All but two of the Folly Island bullets fell into the .577/.58 cal. range (Figure 5.9). This bore size accounted for most of the rifle-muskets used by both sides in the Civil War. Two rifle-musket types overwhelmingly dominated the other varieties in U.S. service. These were the regulation U.S. M1855/61 Springfield, cal. .58, and commercial copies of the British M1853 Enfield, cal. .577. The 55th Massachusetts Infantry was armed with Enfields. The slight difference in caliber between these weapons did not require the manufacture of two different sizes of bullets. According to U.S. Ordnance Dept. records, "...no cartridges are made of .58 Calibre, they are all of .57 Calibre, which makes them answerable for the Enfield musket of .57 and the American muskets of .58 Calibre" (Thomas 1981: 72). The standard U.S. bullet was a refinement of the French "Minie Ball," and might properly be called the

Figure 5.9: Ammunition.
A. U.S. .54 caliber rifle-musket bullet, unfired, (38CH964, CMDS #3).
B. U.S. .557/.58 caliber rifle-musket bullet, unfired, most common pattern, (38CH964, 5 x 6 m block).
C. U.S. .577/.58 caliber rifle-musket bullet, unfired, variant with bulbous ogive, (38CH964, 5 x 6 m block).
F. U.S. .577/.58 caliber rifle-musket bullet, extracted, (38CH965, EU3).
G. U.S. .577/.58 caliber rifle-musket bullet, fired (?), with ramrod mark on ogive, (38CH964, CMDS #10).
I. U.S. .69 caliber rifled musket bullet, carved, (38CH964, CMDS #14).
J. U.S. (?) rifle-musket bullet, carved, (38CH964, Feature 16).
K. U.S. (?) rifle-musket bullet, carved, (38CH964, 5 x 6 m block).
L. U.S. (?) rifle-musket bullet, carved and shaped to form a fishing sinker, (38CH964, 5 x 6 m block).
M. Percussion cap, head embossed with reversed "R," (38CH964, 5 x 6 m block).
N. Friction primer, missing serrated pull wire, (38CH964, CMDS #1).

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U.S. Burton pattern Minie bullet (Figure 5.9). Numerous minor variations of the bullet exist, but all are essentially cylindro-conical, with hollow bases and three grease-grooves near the base. These bullets were pressed in dies (not cast), rolled in paper cartridges with their powder charges, and packaged ten each in paper wrappers. Twelve percussion caps were included in each wrapper (Thomas 1981: 4-10).

One .54 cal. and one .69 cal. Burton pattern bullet were found at 38CH964 (Figure 5.9). By 1864 the Union Army used almost exclusively rifle-muskets of .577/.58 cal. Earlier in the War, however, various weapons of .54 and .69 cal. saw use. The .54 cal. weapons included M1841 U.S. rifles, and .54/.55 cal. Austrian rifle-muskets. The .69 cal. weapons were mostly smooth bore muskets that had been rifled (hence rifled-muskets) and used rifle-musket bullets rather than spherical musket balls (Thomas 1981: 23).

Two unfired Confederate .577/.58 cal. bullets were associated with Burial 11 at 38CH920 (Figure 5.9). Both are Confederate-made copies of the Pritchett pattern bullet used by the British in Enfield rifle-muskets. This distinctive, smooth-sided bullet was one of numerous varieties, including the Burton pattern, manufactured or imported by the South (Thomas 1981).

A range of alterations were noted on nine bullets from the project area. Three .577/.58 U.S. bullets were fired, while two showed signs of being extracted from the barrel. One of the extracted bullets was removed by use of the regulation extraction screw, while the other was removed using a barrel cleaning-worm, which was effective if the bullet was not tightly seated. Four bullets from 38CH964, including three .577/.58 specimens and the single .69 cal. example, were carved (Figure 5.9). Three of these appear to have been whittled with no object in mind, while the remaining creation was obviously a fishing sinker. A soldier of the 3rd New York, stationed on Folly Island in 1864, reported the use of bullets for fishing sinkers (Longacre 1984: 132). Carved bullets are commonly found on Civil War sites, and many examples have been reported in collector and archaeological publications (Phillips 1974: 191-196; Phillips 1980: 133-137; Coryell 1978: 30-31; Braley 1987: 33).

An artillery friction primer was recovered from 38CH964 (Figure 5.9). These sheet brass tubes were used to fire Civil War cannon. A lanyard was hooked to a serrated wire that ran through the top of the friction primer. To fire, the primer was inserted in the gun's vent hole. When the lanyard was pulled, the serrated wire ignited an explosive mixture in the tube, firing the main propellant charge in the cannon barrel (Manucy 1949: 26-27). The Folly Island specimen was missing the wire, and was probably an artifact of the 3rd U.S. Artillery, Battery "E," or the 3rd Rhode Island Heavy Artillery. Both of these units possibly camped in near 38CH964 (see Chapter IV, Appendix E).

### B.2 Accoutrements

Accoutrements are defined as those elements of a soldier's equipment related to his weapons. For a U.S. infantryman armed with a rifle-musket (Figure 5.1), this equipment included a waist belt with oval "U.S." buckle, which carried the percussion cap box and bayonet scabbard, a cartridge box and plate, and a cartridge box shoulder belt and plate (the "sling", worn over the left shoulder) (Sylvia and O'Donnell 1978: 20, 209-211). Two accoutrement parts were recovered at 38CH964.

Portions of a badly broken cartridge box tin were found in the refuse deposit in the 5 x 6 m block at 38CH964. Normally, a cartridge box contained two of these tinned, sheet iron compartments, each holding 20 rifle-musket cartridges. Also, a U.S. cartridge box plate was recovered during the controlled metal detector survey at 38CH964 (Figure 5.5). These plates were fabricated of embossed sheet brass, with the back filled with lead alloy. They were identical to the waist belt buckle, except for the attachment devices on the back. The pattern recovered at Folly Island dates to 1839 and 1841 (Gavin 1975: 3-15). This specimen was die stamped "HUNTER" on the reverse. No "Hunter" has been identified among the contractors or inspectors of period accoutrements who often back-marked plates. The stamp could be an owner's mark, although one collector thought he had seen other specimens (Torrey McLean, personal communication 1989).

A number of accoutrement plates recovered from the project area were noted in private collections. These included examples of all three regulation U.S. plates; the waist belt plate or buckle, the cartridge box plate, and the circular shoulder belt plate, or "eagle plate." Of particular interest were two examples of the "SNY" (State of New York) version of the waist belt plate (Gavin 1975: 3-15, 27-29; Torrey McLean, personal communication 1989; Robert Bohrn, personal communication 1988).

### C. PERSONAL

Personal items are defined in this study as those items normally in the personal possession of an individual soldier, excluding clothing, kitchen, and indulgence-related material (Smith 1983). The SCIAA excavations recovered only a small number of personal items.

#### C.1 Jewelry

A finger ring of black, hard rubber was found at 38CH964 (Figure 5.10). The ring is whittled, and appears to have been made from a portion of some other object, possibly a smoking pipe shank. An aqua, flat glass oval was recovered from 38CH964. This is thought to be a locket face, although it may be an eyeglass lens.
C.2 Pocket knives

Fragments of two similar brass pocket knife frames were recovered from separate features at 38CH964 (Figure 5.10). Phillips (1974: 158) states that pocket knives are common finds on Civil War sites, and illustrates specimens similar in size and shape to those from Folly Island.

C.3 Writing Implements

Two complete iron or steel pen tips were recovered at 38CH964. In addition, heavily corroded iron fragments were found that probably represent several additional specimens. Phillips (1974: 103) illustrates similar varieties.

Inkwells were issued by the military, and could be regarded as issued supplies. However, they were also bought for personal use and the authors have included them under personal items in this artifact catalog. Three complete glass inkwells and fragments of a fourth were found at 38CH964 and 38CH966 (Figure 5.11). Interestingly, two of the three complete specimens were recovered from pothole backfill. Varieties included two, eight-sided “umbrella” ink wells and two domed, “igloo” style ink wells. Both umbrella wells were pontil marked, and one specimen has a base mark “N,” partially obscured by the pontil scar. The igloo wells exhibit two-piece mold marks, and are embossed around the body “J.M. & S.” Similar ink wells are illustrated by Phillips (1974: 57, 62; 1980: 47).

C.4 Toothbrush (?)

A portion of a well-finished bone handle, found at 38CH964, was probably a toothbrush fragment (Figure 5.10).

D. KITCHEN

Kitchen items were divided into those objects used for food preparation and consumption, and containers used for food storage, preservation, and shipment (bottles, jars, and cans). Alcoholic beverage and medical bottles were not included in this class.
D.1 Food Preparation and Consumption

Sherds of ceramic plates, saucers, and serving vessels usually make up a significant portion of the artifact assemblage from a historic site. In SCIAA's excavations at Folly Island, ceramics were conspicuous by their virtual absence (excluding stoneware ale bottles discussed below). Only three whiteware sherds were recovered, including one plain, one blue shell-edged, and one blue transfer-printed sherd (Figure 5.12). Although the eccentric nature of the Folly Island artifact assemblage does not lend itself to objective suggestions of patterning, this lack of ceramic tableware was not surprising. Civil War soldiers, both officers and enlisted men, ate and drank from tinned, sheet iron vessels. Not only were these items regulation mess gear (not necessarily a consideration among officers), but they were far more practical in camp and on the march than bulky, fragile ceramics. Among thousands of camp photographs observed by the authors, ceramic tableware was rarely seen. A pattern that might be drawn from several archaeologically excavated Civil War campsites would be that the quantity of ceramic tableware would be larger at sites close to civilian population centers than at rural isolated campsites like Folly Island. It is reasonable to assume that a permanent military position (garrison, fort) near a city would contain significantly more ceramic tableware than a temporary or seasonal camp in a rural area (v. Phelps 1979: 41-46, 65-70, for the possible influence of looting on this pattern).

Several examples of nondisposable tinned iron ware were recovered at 38CH964. Most, unfortunately, were very poorly preserved. A sheet iron handle (Figure 5.12) was probably from a regulation mess cup (Lord 1963: 170; Phillips 1974: 147). A badly crushed ration can, upon cleaning, revealed two bale attachment holes demonstrating reuse as a cooker, cup, or bucket (Phillips 1980: 178). Fragments of a badly decomposed sheet iron vessel were found that represented a rectangular pan or tray, about 27 x 20 cm, and 4 cm deep. It was formed from a single piece of sheet iron. A rectangular sheet iron strip was found that may have functioned as either a colander or a grater. It might have been made from a flattened ration can. This object was perforated with numerous small holes that left one face of the sheet very rough. Finally, a U.S. M1858 canteen and two canteen stoppers were recovered (Figure

![Figure 5.11: Ink wells.](image)

A. "Umbrella" ink well, (38CH966, Locus B, Feature B-3).
B. "Umbrella" ink well, (38CH964, 5 x 6 m block).
C. "Igloo" ink well, embossed "J.M. & S.," (38CH964, 5 x 6 m block).

While ceramic tableware was uncommon in the Civil War mess, glass drinking tumblers were not. Photographs often show tumblers supplementing the tinware at officers' mess tables, and broken tumblers are often encountered by collectors (Brett Cullen, personal communication 1989). Fragments of a clear, lead glass tumbler were recovered from 38CH966 (Figure 5.14), and evidence of bottle cutting to create tumblers was found at both 38CH964 and 38CH966 (Figure 5.15). At least five bottles were represented in this group, including one brown whiskey, two free-blown wine bottles, and two dark olive-green ale bottles. Each had been crudely scored, possibly with a file, and then broken by percussion or thermal shock. The brown whiskey bottle specimen appeared to be a finished tumbler, with the cut edge partially smoothed with some abrasive.

A small number of food preparation and consumption implements was recovered. Two fragments of a large, iron, two-tine meat fork were found at 38CH965 (Figure 5.12) (Phillips 1974: 145). Several fragments of individual mess forks were recovered. These were of the common, three-tine variety with two-piece bone or wood handles (Figure 5.12) (Phillips 1974: 145). A large brass serving spoon of ornate civilian pattern was found broken and discarded in Feature 11, 38CH964 (Figure 5.12). The spoon was apparently silver plated at one time, as the back of the handle exhibits a row of imitation hallmarks.

D.2 Food Storage

This category includes those containers, ultimately disposable, in which food was packaged for storage, preservation, and shipment.

In the mid-19th Century, nonresealable jars and bottles were widely used in the commercial packaging of many kinds of foods, chiefly vegetables and fruits. A large portion of the Bertrand cargo (1865) consisted of culinary bottles and jars (Switzer's Class V, Switzer 1974: 43-66).

Figure 5.12: Kitchen-related artifacts.
A. Civilian brass spoon bowl, (38CH964, Feature 11).
B. Civilian brass spoon handle, (38CH964, Feature 11).
C. Iron meat fork fragment, (38CH965, Feature 1).
D. Iron utensil handle (from "C7"), (38CH965, Feature 1).
E. Iron mess fork, (38CH964, 5 x 6 m block).
F. Blue-edged whiteware plate sherd, (38CH966, Locus C, surface).
G. Small "S" hook, (38CH964, loose association, Feature 16).
Figure 5.13: U.S. Model 1858 Canteen.
A. U.S. M1858 canteen, non-excavated example, with cover, strap, stopper, and chain.
B. U.S. M1858 canteen body, (38CH964, 5 x 6 m block).
C. Canteen stopper with cork preserved, (38CH964, Feature 11, well barrel fill).
D. Pewter canteen spout, (vicinity of 38CH966, Locus A, private collection).

Figure 5.14: Tumbler and beaker bases.
A. Base of lead glass tumbler, (38CH966, Locus A, EU 1).
B. Base of clear glass hospital beaker, (38CH966, Locus A, EU 1).
Although foods in glass containers were apparently not issued by the army as rations, they nevertheless saw widespread consumption by Civil War soldiers. Sources would have included sutlers, grocers, and packages from home (Appendix D). Phillips (1974: 56-60; 1980: 36-45) illustrates a wide variety of glass food containers removed from Civil War campsites. Identical examples have been excavated from Federal refuse deposits by Phelps (1979: 56-58).

Examination of several large private collections recovered from southeastern military campsites revealed that culinary bottles and jars were common finds, comprising, subjectively, perhaps a third of the glass containers recovered (Brett Cullen, personal communication 1989; James Ivers, personal communication 1988). They were not nearly as common in the archaeologically recovered SCIAA assemblage from Folly Island.

Many of the non-diagnostic aqua and clear glass fragments in the SCIAA Folly Island collection may represent culinary containers. Even after intensive mending, however, only a few such containers were identified. A large class of four-sided, ornate, wide-mouthed containers commonly called "cathedral bottles" found at the Bertrand site were represented at Folly Island by only two small fragments. Examples from the Bertrand contained a wide variety of foods, including pickles, pickled vegetables, honey, and tamarinds (Switzer 1974: 50-57). The common plain, cylindrical jar or wide-mouthed bottle was represented by one reasonably complete specimen in the Folly Island collection (Figure 5.16) and several fragments. Phelps (1979: 58) illustrates a similar example. Comparable bottles from the Bertrand, but with "blow over" rather than folded finishes, contained horseradish (Switzer 1974: 64). One possible ketchup bottle was reconstructed from the Folly Island assemblage (Figure 5.16), and one or two additional specimens were suggested by fragments. Very similar bottles from the Bertrand contained ketchup (Switzer 1974: 48). Portions of two mustard jars, one clear glass and one translucent white glass, were recovered. Neither was reconstructable, but one base is illustrated (Figure 5.16). The type is well known. Switzer's (1974: 49, 50) Bertrand examples contained Bordeaux mustard. Phillips (1974: 56-58; 1980: 42, 43) illustrates numerous varieties from Civil War sites.

Figure 5.15: Cut bottles
A. Bottom of brown whiskey bottle, (38CH964, Feature 9).
B. Top of free-blown wine bottle, (38CH964, Feature 16).
C. Bottom of free-blown wine bottle, does not mend with "B" (38CH964, Feature 16).
D and E: Tops of dark olive green ale bottles, (38CH966, Locus A, surface).

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specimen is also illustrated by Phelps (1979: 58).

Tinned, sheet iron cans were another method of storing food during the Civil War period. "Tin" cans came into widespread use in the 1860s. Hermetic sealing of cans was patented in 1810, and the British army first used canned rations during the Napoleonic War (Busch 1981: 95-96).

Food cans in use during the Civil War period were mostly of the hole-in-cap technology. These cans were manufactured with a large hole in the top to facilitate filling. After filling, the top was closed by soldering-on a plate, or cap, which had a small vent hole in its center. This allowed the filled can to be heated, and then the excess air and moisture vented, before the small hole was sealed with solder (Rock 1984: 99).

Cans encountered on Union Civil War war sites may include both canned rations, issued by the commissary department, and commercial canned foods obtained from sutlers or other sources (See Appendix D). A great variety of foods were canned. One supplier for the Union Army listed sweet corn, chicken, turkey, duck, goose, and beef, among other items (Rock 1984: 102). Lord (1969: 58-59) mentions canned milk, sardines, tomatoes, oysters, cranberry sauce, peaches, and lobster among sutlers' stores.

Food cans were well represented in the SCIAA Folly Island artifact assemblage. Unfortunately, the can collection was in extremely poor condition. Substantial deposits of cans were present in two large, potted features. The delicate sheet iron from these features was thoroughly fragmented, eliminating most vessel attributes (see 5 x 6 m Block, 38CH964, and Feature 1, 38CH965). Several crushed or badly decomposed cans were found in undisturbed features, but only one completely intact can was recovered (Figure 5.17). Even this specimen was almost completely rusted, and beyond permanent conservation. This intact can was 10.6 cm (4.2 in) tall and 8.9 cm (3.5 in) diameter. Its top had been crudely removed, probably with a knife. Other can remains that could be reasonably

Figure 5.16: Food and medicine bottles.
A. Mustard jar base, smokey white glass, (38CH965, Feature 1).
B. Food jar, aqua glass, (38CH965, Feature 1).
C. Condiment bottle, aqua glass, (38CH964, Feature 9).
D. Jamaica Ginger bottle, aqua glass, embossed "F. BROWN'S ESS. OF JAMAICA GINGER PHILADA," (38CH964, Feature 9).
E. Panel medicinal, aqua glass, (38CH964, 5 x 6 m block).
measured included a specimen 8.9 cm (3.5 in) tall and 8.4 cm (3.3 in) in diameter, and another 12.7 cm (5 in) tall and 8.4 cm (3.3 in) in diameter. All diagnostic top fragments exhibited “hole-in-cap” technology.

E. INDULGENCES
This class includes artifacts related to drug use. The SCIAA Folly Island assemblage reflects the use of alcohol and tobacco.

E.1 Alcoholic Beverage Containers
Alcoholic beverage bottle fragments comprised the largest group of artifacts recovered from sites 38CH964, 38CH965, and 38CH966. This observation cannot be expressed statistically, as most bottle fragments are not strictly diagnostic regarding their use. It is probable, however, that the great majority of fragments of stoneware, olive-green glass, and brown glass were the remains of alcoholic beverage bottles. Of some 20 completely reconstructed bottles, all were alcoholic beverage forms, and many more were represented by diagnostic necks and bases. Although the refuse-containing features investigated by SCIAA cannot be considered a representative sample of the variety of features at Folly Island, those that have been sampled strongly suggest that large amounts of alcohol were consumed by personnel camped in the vicinity of the project area. Further, this conclusion would be drawn even if 38CH966 (the bottle dump) had not been investigated, as features from 38CH964 and 38CH966 contained many alcoholic beverage bottles.

The availability of alcohol to officers and enlisted men on Folly Island is a complex subject. The use of drugs, especially alcohol, throughout the long history of warfare has been documented by military historians (e.g., Keegan 1976: 326). Consumption of alcohol by Federal soldiers may have been somewhat more prevalent on Folly Island than elsewhere, for a variety of reasons. These include the boredom of a long, isolated and static occupation, combined with the fatigue and fear associated with inglorious but dangerous labor in the siege lines. Also, the poor quality of the drinking water available on the barrier islands may have contributed to this consumption (see Chapters II and IV).

Sutlers, normally the source of non-issue consumables, were normally prohibited from selling alcohol to enlisted men (Eldredge 1893: 986). This regulation, however, seems to have been widely ignored. An officer of the 104th Pennsylvania, assigned to enforce regulations on incoming sutler shipments to Folly Island, made some interesting and conflicting observations in his journal:

“A non-commissioned officer... came with an order for 4 boxes of wine and bought 11. The provost-martial seized his whole lot and I suppose they will be

Figure 5.17: Tinned iron food can (38CH964, Feature 11).
confiscated.

I had 4 bottles of ale given to me one of which I kept myself and distributed the rest among my men.

The Provost-martial General by order of Genl. Gilmore seized goods of a Mr. Clark Sutler, ... and have arrested him - goods consisting of ale, wines, etc.

I sold my mocking bird Dick for $60 to Sutler of 62 Ohio Volunteers. Rec'd four barrels of ale in payment... I have turned over to our Sutler one barrel ale.

Cargo of sloop Golden Rod confiscated and unloaded at wharf. I had to be very sharp to keep detail of 56th Regt. Pena. Volunteers from all getting drunk. They broke open a number of barrels of bottled ale and started the side barrels to leaking... A great many boxes were stolen - of wine... One of Capt. Holmes men boasted that he stole three boxes. The Capt. discovered one box and appropriated it to his own use.

Mr. Clark, sutler on Golden Rod was released last evening having been compelled to work on fortifications at the front... the whole of his ales, wines, and cider were confiscated" (Marple 1863: 19-20).

Other important sources of alcoholic beverages were boxes sent by family or friends to individuals, and shipments donated to units by aid societies. The record of donations to the 55th Massachusetts (excerpted, Appendix D) is particularly revealing. Along with Bibles and dressing gowns are listed wine, cider, rum, and whiskey.

Alcohol was also about the only pain remedy available to the regimental surgeon beyond various derivations of the opium poppy. Regimental hospitals maintained large stocks of liquor, chiefly whiskey, issued by the army. These stocks were readily accessible to officers, but enlisted men required a "prescription." General issues of whiskey to a regiment sometimes followed "...a strenuous march, heavy fighting, or in cold, rainy, or snowy weather" (Lord 1963: 58-59). The regimental historian of the 127th New York recalled that on Cole's Island the regiment was supposed to have whiskey sufficient to "... afford each soldier a gill or two each day, presumably for medicinal purposes and chiefly to go against the effect of the miasma from the marshes, but much of the whiskey... was in some way diverted, with the result that the soldier lost his antimalarial medicine, with the exception of about one gill per month" (McGrath 1898: 82-83). The authors had the opportunity to peruse a regimental surgeon's book from the 54th Massachusetts, and alcohol and opium were the usual prescription.

In the following discussion, references are made to Switzer's (1974) typology for bottles from the 1865 wreck of the Bertrand. Although an excellent source of information for Civil War period bottles, Switzer's typology is unfortunately only applicable to fairly complete specimens. A given top variety might occur on bottles with several major basal variations, for example, such that use of a Bertrand Class number would create a false association. Furthermore, many examples were recovered by SCIAA that had no direct parallels among Bertrand specimens.

E.1A ALE BOTTLES

Glass and stoneware ale bottles dominated the SCIAA alcoholic beverage bottle assemblage from Folly Island. Site 38CH966, Loci A and C, consisted almost entirely of broken ale bottles, and they were heavily represented at 38CH964 and 38CH965 as well. As suggested above, references to ale are fairly common among primary sources from the siege of Charleston. No references to beer, stout, or ginger beer were seen among the many primary historical sources consulted.

Pasteurizing of beer did not begin until 1873. Thus ordinary beer, as it is known today, was unsuitable for bottling in the 1860s because of its very short shelf life. Ale is a dense, bitter beer with undecomposed sugar content and an alcohol content sufficient to preserve the beverage for extended periods (Switzer 1974: 9). Switzer's (1974) typology places ales, beers, and stouts in his Class 1, although only ale was actually identified in the Bertrand collection. All of the bottles from the Folly Island collection which were identified as ales, were either identical to Switzer Class I specimens, or were similar in size and overall form to those specimens.

Switzer's Class I, Type 1 was comprised of stoneware ale bottles. Ceramic was not a common bottle material in the United States, and most examples from Folly Island probably were imported. According to Kendrick (1971: 69) such bottles commonly filled the holds of cotton and wheat freighters returning from Britain.

A wide variety of stoneware ale bottles were recovered by SCIAA. Most common were cream colored bottles with a brown (Switzer calls it yellow-ochre) slip covering the upper half of the vessel. These included both shouldered (Figure 5.18), and unshouldered (Figure 5.19) varieties with much variation among tops. Similar bottles have been recovered from many Civil War sites (Phelps 1979: 46; Phillips 1980: 39; Trinkley 1986: 231). The Folly Island specimens were often stamped near the base, and 20 different marks were noted: A, B, C, D, E, G, H, J,
Two unidentified types of stoneware bottles were recovered that were probably ale bottles. The first variety resembles an unshouldered example like those discussed above, but it lacks the brown slip and has an unusual top (Figure 5.18E). Only one example was recovered. The other unknown type (Figure 5.18D) is a gray bodied, alkaline glazed bottle similar in form to a 20th Century beer bottle. One complete and several fragmentary examples were recovered.

The remainder of the Folly Island ale bottles are of varying shades of dark, olive green glass, fitting Switzer's Class I, Type 3. Seemingly endless variations exist among these bottles (reconstructed examples are illustrated in Figure 5.20). All appear to be products of Ricketts '3-piece mold' technology. No examples that appeared free-blown or molded in a two-piece mold were observed. Figure 5.21 illustrates the wide variety of bottle necks recovered that were probably from ale bottles. Base varieties included examples that were pontil-marked, and others that were crudely molded with push-ups or formally molded with plates. Those molded with push-ups were often embossed, and eleven variations of these marks were noted (Table 5.6).

Table 5.6: Embossed Marks

<table>
<thead>
<tr>
<th>Dark Olive-Green Ale Bottle Bases</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Ricketts Bristol&quot;</td>
</tr>
<tr>
<td>&quot;W &amp; JG”</td>
</tr>
<tr>
<td>&quot;Woolfall”</td>
</tr>
<tr>
<td>&quot;Woolfall Manch”</td>
</tr>
<tr>
<td>“p” (facing center)</td>
</tr>
<tr>
<td>“p” (facing away from center)</td>
</tr>
<tr>
<td>“GB”</td>
</tr>
<tr>
<td>circle with six rays</td>
</tr>
<tr>
<td>circle with eight rays</td>
</tr>
<tr>
<td>St. George’ cross</td>
</tr>
<tr>
<td>raised dot</td>
</tr>
</tbody>
</table>

Figure 5.18: Stoneware ale bottles, shouldered brown and white varieties and unidentified varieties.

A. Brown and white stoneware ale bottle, stamped "PRICE BRISTOL," (isolated surface find west of 38CH966).
B. Brown and white stoneware ale bottle, (38CH964, 5 x 6 m block).
C. Brown and white stoneware ale bottle, (38CH964, Feature 9).
D. Alkaline glazed ale (?) bottle, unidentified, (38CH964, Feature 9).
E. Feldspathic glazed ale (?) bottle, unidentified, (38CH964, Feature 1).
F. Bottle neck from brown and white stoneware ale bottle, (38CH966, Locus A, surface).
G. Bottle neck from brown and white stoneware ale bottle with wire closure intact, (38CH966, Locus A, surface).
H. Bottle neck from feldspathic glazed ale (?) bottle, unidentified, (38CH966, Locus C, surface).
In addition to basal marks, shoulder fragments were found embossed with a crown motif. This same design was illustrated by Phelps (1979: 48).

One complete bottle and one bottle neck could not be identified but may have contained ale, or some other alcoholic beverage (Figure 5.22A and B). They were included here as they were quite different from wine and whiskey forms in collection, and they shared several attributes with glass ale bottles. Both were dark olive-green glass, appeared to be made in three-piece molds, and had crude push-ups and lip varieties similar to ale bottle forms. Neither was shouldered, and both were much larger than the known ale bottle forms.

E.1B WHISKEY BOTTLES

No reconstructable whiskey bottles were recovered by SCIAA. Many examples were represented by fragments, however, and a partial specimen is illustrated in Figure 5.22F. All of the Folly Island whiskey bottles appear to fit Switzer’s (1974) Class III, Type 4. The examples recovered from the Bertrand contained bourbon whiskey. Additional examples have been reported by Phelps (1979). All were made in three-piece molds, with relatively flat, plate-molded bases. Typically, these bottles had a liquid capacity of 24 oz. Four color varieties were found at Folly Island, including amber, brown, olive-green, and dark green. Two examples were embossed on the base, one with six evenly spaced raised dots, another with “ELLENVILLE GLASS WORKS.” Ellenville examples were found on the Bertrand (Switzer 1974: 32) and in the Union Army site near New Berne, N.C. (Phelps 1979: 55). One whiskey bottle shoulder fragment was recovered embossed with the commonly seen Rickett’s “PATENT” mark (Jones and Sullivan 1985: 29).

E.1C WINE BOTTLES

Wine Bottles in Folly Island assemblage include both major forms, the unshouldered “champagne” style and the fall, shouldered style, both still in use today. The “champagne” style bottles (Switzer Class III Type 2) were well represented by fragments, but no reconstructable or complete examples were found. Incomplete examples are
illustrated in Figure 5.22D and E. All were mold made, turned in the mold, and had a liquid capacity of 28 oz or 12 oz. Shouldered, free-blown wine bottles (Switzer Class III, Type 3) were equally common, and one intact specimen was recovered (Figure 5.22C). This bottle had a liquid capacity of 25 oz. All wine bottles were green or olive-green, in shades noticeably lighter than that of ale bottles.

E.2 Tobacco

Use of Tobacco by soldiers on Folly Island was represented by a complete, hard rubber pipe and two small fragments of white clay pipes. Phillips (1974: 135-137; 1980: 166-169) illustrates numerous examples of smoking pipes recovered from Civil War contexts. These include both ceramic and hard rubber varieties.

The hard rubber pipe (Figure 5.10) was recovered by Carolina Archaeological Services from a disturbed context at 38CH920. It may well have been buried with one of the soldiers interred in the Brigade cemetery. The pipe features a white ceramic liner in the bowl, and the stem retains traces of the “Goodyear’s Patent 1851” mark usually seen on hard rubber items of the period.

F. MEDICINE

Little evidence of medicine or medical related activity was recovered in the Folly Island artifact collection, except for an unknown percentage of the alcohol bottles discussed above. Artifacts relating to medical activity, of course, probably would be concentrated in the vicinity of regimental and post hospitals, and none of these localities were investigated by SCIAA.

The artifacts recovered included the base of a clear glass beaker and commercial medicine bottles. The beaker (Figure 5.14B) was originally thought to be a fine, thin-walled tumbler. However, examination of a collection of Civil War material recovered from the wreck of the Maple Leaf (1864) revealed a complete medical beaker with an identical base (Keith Holland, personal communication 1989). The commercial medicine bottles recovered could

Figure 5.20: Glass ale bottles.

A. Dark olive-green glass ale bottle, (38CH964, 5 x 6 m block).
B. Dark olive-green glass ale bottle, retains closure wire, (38CH965, Feature 1).
C. Dark olive-green glass ale bottle, (38CH965, Feature 1).
D. Dark olive-green glass ale bottle, (38CH966, Locus A, EU2).
E. Dark olive-green glass ale bottle, (38CH965, Feature 1).
legitimately be classed under "indulgences" as they probably contained no effective drugs other than alcohol. Portions of two aqua glass, unembossed panel medicinal bottles were recovered, one of which was substantially reconstructed (Figure 5.16E). These are of the form commonly associated with "patent medicines" (Fike 1987). A single example of an essence of ginger bottle was reconstructed (Figure 5.16D). This small, aqua bottle was embossed "F. Brown's, Essence of, Jamaica Ginger, Philada," on four lines. According to Fike (1987:16) Jamaica Ginger was popular during the last half of the 19th century and was seldom bottled in any shape other than that seen in Figure 5.16. Very popular as an alcohol substitute on military posts, this product was an alcoholic extract of ginger used for flavoring and medicine. An example identical to the Folly Island bottle is illustrated in Phillips (1980: 45).

G. TOOLS, ARCHITECTURE, AND TRANSPORTATION

This broad and miscellaneous category includes a variety of artifacts that were used by the soldiers on Folly Island to complete tasks, shelter themselves, or move materials from one location to another.

G.1 Tools

Four large iron or steel tools were recovered at 38CH964. These included an axe head, two shovels, and a large "S" hook. The iron axe head (Figure 5.23) was a common 19th century form called the "Ohio Pattern" (Herskowitz 1978: 80; Russell and Erwin 1865: 203). Phillips (1974: 154) also has illustrated this axe form and he noted that it was the most common recovered from Civil War sites. This suggests that the pattern may have been the regulation U.S. Army axe, but any marks that might have identified the Folly Island specimen as such have been obliterated by corrosion.

Two shovel blades were recovered. One, a round-bladed shovel, was in such a poor state of preservation that it could not even be measured with any confidence. A square-bladed "flat" shovel (Figure 5.23) was reasonably well preserved. Russell and Erwin (1865: 292) picture examples similar to both shovel types from Folly Island. The "S" hook (Figure 5.23) is far too massive to have been related to cooking or used as a well-bucket suspension. It is possible that it was used to move artillery.

G.2 Architecture

Nails and brick fragments were the only architectural
artifacts recovered in the Folly Island excavations. Small quantities of brick and mortar fragments were found in several contexts at 38CH964, but not in sufficient numbers to suggest chimneys or other structures (see Features 14 and 15, 38CH964). The presence of bricks and brickbat was noted on the field forms during excavations but individual pieces were not counted.

Nails were very common in several contexts at 38CH964. They were overwhelmingly in a poor state of preservation, and therefore, were not formally analyzed here. All identifiable examples were machine cut nails, appropriate to the Civil War period. It is important to note that many of these nails probably were used and recycled during their use in the winter camp. For instance, many probably were originally from shipping or storage containers. The containers could have been burned as camp-fire fuel or reused for various needs in camp, like tent supports, or even as components in some architectural unit.

G.3 Transportation

Site 38CH964 yielded a number of artifacts related to horse or horse-drawn transportation. These probably derive from the 1863 occupation of the area by Battery E, 3rd U.S. Artillery. Some, however, may be from infantry officers mounts, quartermaster teams, or similar sources.

Two horseshoes were recovered archaeologically, and two others were found hanging in trees where they had been placed by collectors (Figure 5.24). Four bit-curb chains were found; three were made of brass and the other was made of iron (Figure 5.24C). These fit the regulation U.S. pattern and are similar to examples illustrated in

![Figure 5.22: Miscellaneous alcoholic beverage bottles. A. Bottle neck of unidentified dark olive-green glass bottle, possibly a large, unshouldered ale, with closure wire, (38CH965, Feature 1). B. Unidentified dark olive-green glass bottle, possibly a large, unshouldered ale, (38CH965, Feature 1). C. Free blown olive-green wine bottle, (38CH964, Feature 10). D. Body of blown-in-mold dark green "champagne" style wine bottle, (38CH964, 5 x 6 m block). E. Upper portion of mold blown dark green "champagne" style wine bottle, (38CH965, Feature 1). F. Partial reconstruction of amber whiskey bottle, (base, not shown, is embossed "ELLENVILLE GLASS WORKS."), (38CH964, 5 x 6 m block).](image-url)
An artillery bit rosette (Figure 5.24) was found at Folly Island and was identical to one illustrated in Phillips (1974: 80). A watering bit may be represented by a fragment of light iron chain with a T-bar (Figure 5.24E). Collectors have reported numerous horse related artifacts in the same vicinity or at 38CH964 (Robert Bohrm, personal communication 1989).

A wagon or artillery carriage wheel was represented by the heavy iron hub casing found (Figure 5.24). A small iron pintle (not illustrated) was recovered that may be an element of wagon hardware, or may belong in the architecture category. As noted above, the large “S” hook may have had a transportation function.

G.4 Storage Containers (Barrels)

This final category of artifacts includes the well-preserved barrels recovered at Folly Island. Wooden barrels were an important bulk-container type during the Civil War period and were employed primarily in the storage and shipment of foods and beverages. With the major exceptions of hard bread (“hard tack”) and canned food, which were boxed, most ration foods were barrelled. Alcoholic beverages including ale and whiskey were often barrelled rather than bottled, and even bottles were sometimes packed in barrels. Barrelled goods mentioned in historical sources from Folly Island and Morris Island include flour, sugar, apples, eggs, pork, pigs feet, ale, wine, and cider (Jackson & O’Donnell 1965: 107, 117; Marple 1863: 20, 23, 26).

Civil War encampment areas often contained large numbers of empty barrels which were recycled not only as containers, but they were also altered or disassembled to serve a wide variety of other functions. Camp photographs typically reveal surplus barrels in a wide variety of adaptive re-uses, including chimneys and wells (Miller 1911; Davis 1983). In addition to the archaeologically confirmed well linings, several other secondary uses for barrels are historically documented. Maj. General David Hunter’s “General Orders No. 40” (Appendix D) recommended that soldier’s bunks be constructed of barrel stoves laid perpendicularly along parallel, elevated poles. Quartermasters were to provide the staves. Fox, among others, also shows the use of barrels as chimneys, a common Civil War practice (Figure 2.4, Billings 1887: 125).
55-56). A private collection of Folly Island artifacts includes an iron barrel band bent into a handled coil, presumably for use as a grill (Torrey McLean, personal communication 1988.)

Although barrels of the mid-19th century retained their familiar ancient form, they were no longer an entirely handcrafted product. The Industrial Revolution spurred the partial mechanization of barrel-making, and by the 1850s, use of steam powered saws and drills had supplanted handcrafting of less complex elements (Kilby 1971: 151). The barrel industry was still divided into two major specializations, dry and wet cooperage. Dry coopers made barrels adequate to hold non-liquids such as sugar and flour. Normally the wood used in ordinary dry cooperage was cheap, soft, and second hand. The most skilled dry coopers crafted dry-tight barrels, which contained products such as butter, soap, syrup, and gunpowder. Metal hoops were used for the better barrels, and split hazel, coiled elm, or wire for the cheaper ones (Kilby 1971: 49). Wet coopers made barrels for wine, whiskey, ale, sauces, and jam. The wood, normally oak, used for these casks was much harder than for dry cooperage (Kilby 1971: 70).

It is impossible to know what the contents of the recovered barrels were prior to their re-use as well liners. The two nearly intact barrels recovered during Phase III well excavations in the Federal camp include examples of both dry and wet cooperage. The smaller barrel, recovered from 38CH964, was evidently the product of dry cooperage (Figure 5.26A). This barrel was hooped with wicker only, with three bands each at top and bottom. A soft wood was indicated and no bung was present. These traits suggest a dry barrel, which may have contained sugar or flour. The remnant of the second barrel that was fitted over the upper one-third of the Feature 11 barrel (see Chapter IV) suggests a cask of similar size, perhaps hammered in place for a tight fit. The larger of the nearly intact barrels, from Feature B-3, 38CH966, was clearly made for liquid storage (Figure 5.25 and Figure 5.26B). This barrel was well crafted of hardwood staves, hooped with both iron and wicker bands, and included a bung. The iron bands recovered from Feature 13, 38CH964, were quite similar to

![Image of transportation related artifacts](image-url)
those from the Feature B-3 barrel. Additional fragments of iron barrel band were recovered from a number of other proveniences at sites 38CH964 and 38CH966 (see Appendix F).

SUMMARY

The artifact assemblage from Folly Island testifies to the isolated, tedious, and spartan existence experienced by the soldiers during the siege of Charleston. Few comforts and amenities were represented in this assemblage, which, excluding the glass and ceramic bottle fragments, mostly consisted of military issued items. Personal affects and civilian artifacts were practically nonexistent. Alcoholic beverages, despite official sanctions, must have been widely consumed. While the artifacts excavated and reported here were from selected features, it is likely that the sample collected is representative of assemblages that would be found in more systematic excavations of similarly isolated sites. This hypothesis would be worth further investigation at Folly Island and other barrier islands in South Carolina.

Figure 5.25: Barrel well liner, (38CH966, Locus B, Feature B-3).
Figure 5.26: Barrel well liners.
A. Barrel, (38CH964, Feature 11). B. Barrel, (38CH966, Locus B, Feature B-3).
CHAPTER VI

CONCLUSIONS

INTRODUCTION

While the excavations at Folly Island only sampled the full potential of the project area, valuable data was gathered. Of equal value to the data gathered, were the lessons learned, which will serve future archaeological work. This chapter addresses the questions posed in the research design, summaries the results of excavations, and offers some recommendations for the future. As has been stressed throughout the report, these results must be seen as preliminary, and the conclusions tentative.

IDENTITIES OF MILITARY UNITS OCCUPYING SITES

The first and most basic questions center on the identities of the human remains excavated at 38CH920. The data derived from archaeology, history, and physical anthropology points most strongly to the remains being members of two black regiments of Wild's African Brigade. These units were the 55th Massachusetts Volunteer Regiment and the 1st North Carolina Colored Infantry. Additionally, two members of the 2nd United States Colored Infantry probably were represented. These soldiers died in their regimental hospitals and were buried in a brigade cemetery. These unit identifications are not conclusive, but the evidence supporting them is very strong. To date, all data support these conclusions and the authors have found nothing which contradicts them.

The regiments whose refuse makes up the material culture assemblage from the other three sites (38CH964, 38CH965, 38CH966) were not conclusively identified. There were many units camped in the project area during the winter of 1863-1864, and prior to the arrival of these units, Battery E, of the 3rd U.S. Artillery was already camped very near, or on, 38CH964. There is the possibility that other units were in the area prior to Battery E. Sharing the picket front on the north side of the island with Wild's Brigade in December of 1863, were General Foster's brigade and Gordon's Division. Foster's Brigade at that time consisted of the 13th Indiana, 112th New York, 169th New York (O.R. Vol. 28, Part II: 138). Gordon's division consisted of 12 regiments (O.R. Vol. 28, Part II: 138). Obviously, all 17 regiments could not have camped within the project area. The general location of each unit's campground probably could be discovered, but only after considerably more archival research.

Furthermore, somewhere near 38CH964 was the campground of Alford's Brigade. The artifact assemblage from SCIAA's excavations and relic collectors provides moderate evidence of the brigade's proximity. Alford's Brigade consisted of four regiments: the 3rd New York, 89th New York, 103rd New York, and 117th New York (O.R. Vol. 28, Part II: 138). Archaeologists recovered New York buttons and a numeral "8" at 38CH964, perhaps from the 89th New York. Collector Robert Bohrn has collected numerals "8" and "9" used as hat insignia. Furthermore, Alford's Brigade and Foster's Brigade (see above) were in the same Division under General Vogdes, so it is reasonable to assume that they would have wintered near each other.

SITE FUNCTIONS AND HISTORY

Site 38CH920 was a brigade cemetery for two black infantry regiments. Apparently, the soldiers died of various diseases rather than combat wounds. The two regiments were camped near the cemetery and probably next to each other. They camped in the project area from November 1863 to February 13, 1864. At that time the two units left the island, however, the soldiers in the regimental hospitals remained behind. How long the hospitals remained at the winter camp location, and how long the brigade cemetery remained in use, is not known. Following abandonment, the site remained undisturbed for an unknown period of time. Then, as part of an extensive effort to exhume and collect the remains of soldiers throughout the South for reburial in National Cemeteries, the U.S. Government contracted with an unknown individual (or perhaps assigned a military unit) to exhume the 38CH920 burials. The burials were exhumed rather carelessly, leaving behind the remains SCIAA excavated in May of 1987. Two burials were entirely missed. The remains collected by this contractor may well have been taken to the National Cemetery at Beaufort, South Carolina. No other activities were indicated at 38CH920.

Site 38CH964 represented a multicomponent activity area, possibly used, abandoned and then reused. Water procurement, horse stabling and possibly blacksmithing were activities evident at the site. The site was also the
location of latrines. The existence of latrines at 38CH964 is the only real evidence for site reuse, since the placement of a latrine next to an active well surely would have been recognized as unhealthy. Furthermore, this arrangement does not conform to regulations concerning the proper placement of various camp necessities. Therefore it is a reasonable conclusion that the site was used first as a stable and well area and then later as an area for regimental or company latrines.

The function of site 38CH965 remains unknown. The feature SCIAA discovered there had been heavily disturbed by bottle or relic collectors, and its function obscured by this action. It could simply represent another refuse pit, latrine, or some type of structure. There did not seem to have been intensive activities on the site. Whatever its function, the site was definitely part of the military occupation of the project area.

Locus A and C of site 38CH966, as originally defined, may well represent sutler’s activities as identified by relic collectors and the former landowner. The sites were not necessarily sutler’s camps. What is clear is that a large number of alcoholic beverage containers were abandoned at these two areas; these bottles presumably arrived on the Island as sutler’s stock. The artifact assemblages recovered from features at 38CH964 and 38CH965 were identical to the assemblages found at these loci, indicating that Locus A and C were created as a result of the military occupation of the project area. Beyond the site limits defined by CAS, SCIAA extended its testing at 38CH966 to sample a larger part of the project area. Excavations at Locus B encountered another well and other disturbed Civil War features.

**COMPARATIVE ANALYSIS**

The above site functions and identifications changed the framework of the research design originally proposed. The authors had hoped that the occupants of the sites could be clearly identified so that comparisons could be made between cultural assemblages from the various units represented. For example, comparisons might have been made between the material culture assemblages of white units and black units or between infantry and artillery units. Because the sites and their assemblages were not clearly linked to specific military units, this could not be done. Ironically, and unfortunately, while SCIAA recovered the human remains of the 55th Massachusetts and 1st North Carolina regiments, no formal archaeological work was conducted at their actual camp location, which remained a mystery until the very last phase of analysis. Thus, there is currently no artifact assemblage that can be clearly linked to these units.

However, the potential for such comparative research is still present at Folly Island. The work conducted to date, has identified the camp location of the 55th Massachusetts, and other unit camps probably could pinpointed with further historical research. The investigations discussed in this report clearly indicate that further archival work, followed by further archaeological investigation on Folly Island, would provide the kind of data needed for comparative research. Still, despite the inability to link the assemblages to particular units, the work conducted has been, and will continue to be, extremely important for comparative work with other Civil War sites.

**ARCHAEOLOGY**

**Site Patterning**

One of the important questions addressed in this research concerned defining the archaeological expression of a Civil War campground. The investigations conducted at Folly Island have provided some clear indications of what might be expected at other Civil War camps, especially those on barrier and sea islands in North Carolina, South Carolina, and Georgia.

The archaeological profile of the Civil War sites on Folly Island can be characterized as consisting of two layers. Uppermost was an A horizon (topsoil) which contained a moderate to light, evenly distributed, assemblage of military refuse. The soils and artifacts were highly mixed due to thick root growth and post-occupational activities like logging. This upper layer extended as deep as 50 cm below the surface, but averaged approximately 30 cm. The underlying sand subsoil was riddled with features including refuse pits, latrines, wells, and possibly tent sites, although SCIAA did not actually excavate a feature that could be positively identified as a tent site. The camp was extensive, spreading over the entire project’s 42 acres, and historical documents indicate that it was much larger.

Based on historical documentation and indications from the archaeology, the authors strongly believe that the camp settlement pattern on Folly Island very much followed U.S. Army regulations (see Chapter II and Appendix D). The locations of officers' tents, enlisted men’s tents, kitchens, sinks, and wells probably strictly followed these regulations. For instance, Major Fox, the officer in charge of laying out the winter camp of the 55th Massachusetts, even used surveying instruments. His sketch map of the 55th Massachusetts camp is very similar to the regulation infantry camp (compare Figure 2.4 with map in Appendix D). This strict patterning offers an opportunity for quick and efficient camp site excavation in the future.

If camp regulations were strictly followed elsewhere on Folly Island and at other Civil War camps, the authors believe that future excavations might attempt to locate camp features based on an expected military pattern. The challenge would be to discover a feature whose function...
was clearly evident, like a tent, latrine, or well. Then, following the expected pattern, the rest of the camps features could be located by measuring distances from the known feature to the suspected location of other features. The Principal Investigator has seen this method of excavation used quite successfully at Roman military camps in England. The pattern would only be diffused (or confused) by reuse of the site by successive units as was seen at 38CH964. However, it would be an extremely useful exercise to attempt such work at Folly Island or at other Civil War camps.

Burial Patterning

The burial patterns at 38CH920 were not clearly evident because of site disturbance, but some generalities can be made. The soldiers were buried in individual, usually shallow, graves dug to perhaps three to four feet below the original surface. The location of the cemetery on a dune ridge and the shallowness of the graves may be the result of the soldiers' fear of being buried in water, as the water table was close to the surface in low areas of island. The inconsistent distance between graves and the arrangement of graves in loose rows is similar to that resulting from long term use of civilian cemeteries, and may be evidence of informal burial ritual, as has been implied in historical sources.

Mortuary practices were easier to identify than burial patterning and it appeared that soldiers were buried in many different ways. Some were buried in coffins, others in their rubber blankets, some in both, and still others simply were placed in a grave without either covering. All but one burial lay in the extended supine position, aligned east/west with head to the west. Of those that could be observed, all had hands laid across the abdomen or chest. Clothing varied from individual to individual. Most were buried in their uniform coats or wrapped in rubber blankets. One soldier may have been buried without clothing or, more likely, only in undergarments.

The causes of death for the individuals buried at 38CH920 were probably various camp diseases like typhoid, dysentery, and pneumonia. This conclusion is based on: 1) the physical evidence, which indicates that no burials showed signs of a violent death due to combat, 2) the type of casualties known to have occurred during the winter camp on Folly Island, and 3) the causes of death listed for the tentative list of soldiers from the 55th Massachusetts and 1st North Carolina who may be represented by the burials.

Artifact Patterning

A systematic artifact pattern analysis was not attempted using the Folly Island assemblage. This was because the Institute did not have a solid representative sample from all the possible feature types that are probably in the area. A valid assemblage, from which a pattern could be identified, would have to include samples from a specific number of identified latrines, wells, enlisted men's tent-sites, officer's tent-sites, kitchens, and other structure locations.

However, wells, and probable latrines were sampled at 38CH964, 38CH965, 38CH966, and based on the assemblage collected to date, some general conclusions can be drawn. The types of artifacts from the various features was very consistent, with the percentages of artifact types present being the only variable. A subjective observation is that feature assemblage (in order of decreasing number of fragments) generally consisted of small ration can fragments, glass and stoneware ale bottle fragments, faunal materials, machine cut nails, minie balls, military buttons, and occasionally military regalia missed by the relic collectors. Ceramic dishware was practically non-existent; only three sherds being recovered during SCIAA excavations.

SOLDIER LIFE ON FOllY ISLAND

The artifacts recovered, along with the extensive historical documentation, give archaeologists and historians a rich and detailed picture of soldier life on Folly Island. That picture is of a very isolated, Spartan life, filled with hard labor, boredom, tension and fear. Under these stressful conditions, it is remarkable that more soldiers did not die than was recorded, and that more serious morale and social problems did not occur than indicated. Life was not comfortable for any of the troops, and for black soldiers, the tension was probably greater due to racial prejudices.

The soldiers' daily activities consisted of fatigue and picket duties. This labor was difficult, with human and animal muscle being the only sources of energy for building gun batteries, trench excavations, moving artillery and other such hard labor. Meanwhile soldiers also stood guard, and the cost of falling asleep on duty was possible execution.

Artifacts testify to the soldiers' Spartan existence. The great lack of civilian-related artifacts and personal artifacts gives clear evidence of the isolated nature of the camp. The enlisted soldiers survived with few personal items other than those issued to them. Clothing was primarily military issue; only 27 civilian clothing artifacts were found at all sites compared with 292 military clothing related artifacts. Personal items from all four sites consisted only of a finger ring, a locket glass, pocket knives, a hard rubber pipe and two clay pipe fragments (excluding the writing implements as these may have been personal, but military issue).

The lack of civilian ceramics, other than alcoholic beverage containers, clearly was the result of the soldiers'
Based on the excavations at Folly Island, the authors can now offer some thoughts on the best methods for finding and excavating Civil War period military sites. The strongest lesson from Folly Island was that the traditional methods of archaeological site survey are inadequate for Civil War site discovery. Shovel testing was, and is, not a useful method on such sites.

At Folly Island, archaeologists failed on three attempts to correctly assess the sites using a systematic shovel testing regime. The first time was at 38CH920, when systematic shovel testing failed to discover some burials. The archaeologists changed to slot trenching and the burials were found. The second time was the use of shovel testing during the overall compliance-level survey of the project area. As a result of this testing only three small sites were recommended for further work by CAS. The Institute returned to Folly Island and used shovel testing in Phase II at those three sites. Only when the SCIAA's Field Director abandoned shovel testing in favor of more subjective feature selection at 38CH964 did the area's true complexity become known. In Phase III, the investigations were based almost entirely on selective sampling. Phase III proved to be the most productive effort in terms of time and energy expended.

The use of systematic shovel testing has been a time-honored method for site survey over large land areas, and the authors realize that this conclusion concerning the utility of shovel testing will be controversial. Archaeologists can not be faulted for continuing to use this method at Folly Island, and the authors are not advocating the abandonment of shovel testing altogether. In a general compliance survey, shovel testing remains an important method of locating other types of sites, particularly prehistoric components. However, shovel testing was not adequate for finding the Civil War components on Folly Island, and the method has also proved inadequate on Bray's Island (Robert Johnson, personal communication 1989). There, a similar Civil War period site was missed using systematic shovel testing. The site was found later using a metal detector. The shovel testing did not work because of the broad scatter of artifacts and dispersed nature of features characteristic of such Civil War camp sites. For these reasons, supplementary methods are recommended.

Based on the above discussion, the authors recommend the following methodology for Civil War site discovery and excavation. The first step is adequate historical research. This recommendation is made with full knowledge of the immensity of this task. However, secondary sources pertaining to the Civil War history are extensive, readily available, and should give some indication of the possibility of Civil War sites in any given area. Primary sources are more difficult to obtain, but they are well worth the effort needed to find them. As a routine part of every compliance survey in South Carolina, especially along the coast, the authors recommend a concerted effort in the local archives to identify possible Civil War camps or other related activities. If possible, a weeks research in the National Archives or other appropriate facility should...
be conducted. This effort in the archives is worth several weeks effort in the field.

Another valuable source to check prior to fieldwork are the local relic collectors. While archaeologists can not condone the site destruction they cause, neither can they deny the average collector's knowledge of his or her local area. Today survey archaeologists, faced with conducting time limited compliance-level work, do not always have the luxury of completing long-term research of an area they must survey. Interviewing local collectors, in conjunction with archival research, will prove very valuable in delimiting Civil War sites.

Once in the field archaeologists must turn to a revised field strategy. The authors strongly recommend the employment of a controlled or systematic metal detector survey at any suspected Civil War site. Metal detectors proved critical to the work at Folly Island, and to ignore their use is to misinterpret or miss entirely important archaeological features. Controlled metal detector surveys, or magnetometer surveys, may be the only feasible method for finding such sites. Obviously, metal detectors, in the wrong hands, can have disastrous results. However, archaeologists should adopt the best methods for the discovery of dispersed features, and at Folly Island, metal detectors were very useful for that purpose.

Preservation of sites is always the best alternative to excavation, however, if excavation of a Civil War site is necessary, the authors recommend a controlled survey, followed by stripping the area, if possible, to quickly locate subsurface deposits. This method proved very useful at the Bryan Cemetery and camp at New Bern (Phelps 1979), and would be the best method to reveal camp settlement patterns.

In the future assessment of the significance of Civil War sites, it must be remembered that most, if not all, Civil War sites have been disturbed prior to the arrival of the archaeologist. Folly Island was riddled with the holes dug by relic collectors and bottle hunters. However, the work at Folly Island has clearly demonstrated that previously collected sites still have archaeological value. Collectors are selective in their search for completely intact bottles or well-preserved metal specimens. While these kind of artifacts belong in public ownership for museum display, and their loss severely hinders archaeological interpretation, such loss and disturbance does not mean that disturbed sites are not worthy of study. The project area at Folly Island had been thoroughly collected over the past twenty years, yet valuable archaeological features still existed. Beyond the loss of museum quality specimens, the sherds and fragments of the Civil War camp still remained. Of course, archaeologists can not expect all collectors to be as 'polite' as the Folly Island collectors at 38CH965, where potholes were refilled with the original contents of the feature, sans the desired object.

In conclusion, two final comments can be made concerning archaeology at Civil War sites. In the beginning of this report it was stated that some will question the need for research at Civil War sites, given the amount of historical records that exist for such sites. What could archaeologists possibly learn that is not in the history books? Again, the answer to this is simply that the tremendous public and scholarly interest in this period of American History makes it critical to use every bit of evidence available. Archaeology is a part of that evidence. Archaeology is a relatively new technique in historic research and must not be overlooked. As a new technique, archaeology has theoretical and methodological problems. Archaeologists must learn how to apply the their technique to this particular historical period in order to learn useful, new information, about the Civil War. This will take time, and much further work at sites like Folly Island, before major contributions are recognized. Still, the work must be done.

Beyond history, archaeologists must also learn how to apply the evidence from Civil War sites to anthropological questions. They must learn how apply the artifacts collected to meaningful hypothesis testing. In this report, the authors have avoided establishing anthropological models using the evidence from Folly Island, primarily because there is so little comparative data available from other archaeological contexts. To extend the results of Folly Island archaeology to broader questions of human behavior would be premature, and should not be attempted until a larger data base is available. The authors hope that the information in this report represents a good beginning toward understanding Civil War sites, and that it is presented in such a manner that other archaeologists will find it useful for model building and hypothesis testing as the data base broadens.
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APPENDICES
APPENDIX A

Human Remains From 38CH920

By Dr. Ted Rathbun
Department of Anthropology
University of South Carolina
Columbia, South Carolina

INTRODUCTION

The human skeletal remains from Folly Island represent a unique sample of a 19th century population. In the future, the use of the information derived from this sample will be used to generate areal and temporal comparative statements concerning demography, stature, and skeletal indicators of health and disease. Although initial steps have been taken to characterize the health and disease of Afro-Americans from Colonial times through the early 20th century (Rose and Rathbun 1987), the samples are relatively small and spatially diverse. The opportunity to fully analyze the Folly Island skeletal samples will contribute to a fuller understanding of the major social, racial, environmental, and occupational influences on health and adaptation in the 19th century. The temporary availability of this rare sample of relatively well preserved, although fragmentary, human remains provides a unique opportunity for a direct glimpse at the biological attributes of historical Americans. This appendix provides a summary of the data collected to date.

OVERVIEW OF PHYSICAL ANTHROPOLOGICAL RESEARCH TO DATE

This summary discusses the initial steps taken for a thorough documentation of the sample, who presumably represent free and ex-slave black Union troops who died on Folly Island during the siege of Charleston, South Carolina from 1863-1865. The data will be used for a systematic areal and temporal comparison with other 19th century skeletal samples. Of particular interest are the indicators of health, disease, stature, demography, and the effects of individual occupation that can be elucidated through osteological analysis. This type of information currently is not available from traditional 19th century sources, especially not for Afro-Americans of that period. Topical problems of special importance are patterns of skeletal indicators of health and disease such as dental pathology, skeletal indicators of developmental interruption as evidenced by linear enamel hypoplasia and Harris lines, frequencies of anemia and infection, and eventual analysis of chemical elements in the bone related to diet and health. The major social, racial, environmental and occupational contrasts, to be considered are: free versus slave, white versus black, north versus south, and military versus civilian populations. The data may provide a link to interdisciplinary collaboration with historians, economists, and other researchers with an interest in questions of past social and biological conditions. Military historians and those with an interest in biomedical questions may be able to use the data as base line information to trace temporal trends in their own specialties.

The application of osteological science to problems in historical and archaeological research are of particular interest to researchers, and the author has argued that human remains are an important archaeological resource (Rathbun 1981, 1986). However, the application of biological and osteological data to historical problems is relatively recent. The paucity of physical anthropological research and skeletal studies in this area stems partially from the rarity of historical skeletal material available for study. Although some historians and economists have used biological data gleaned from traditional historical records as part of their research, especially those concerned with slavery, only recently have physical anthropologists demonstrated the significance of osteological data to some of these problems. The author has reviewed the current findings and examples of physical anthropology contributions to the study of Afro-American biohistory (Rathbun 1987) and the related symposium proceedings should be a stimulus to further collaboration across these disciplinary lines.

Historical archaeologists also noted the lack of the potentially important data from cemeteries (Fairbanks 1984, Orser 1984, Wilson 1985), and Reitz et al. (1985) suggest the uses of human skeletal material in analyses of subsistence studies of plantation societies. Keel (1985), among others in the peer review of Rose’s 1985 cemetery study, notes that important cultural resource information not available elsewhere, can be gleaned from individual cemeteries and thus would meet National Register criteria.

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in particular cases. The analysis of the military skeletons recovered on Folly Island and the subsequent comparative findings should provide additional pieces to the emerging mosaic of 19th century biological history.

**RESEARCH QUESTIONS**

The general research design (Chapter I) of this report has outlined specific research domains for the physical anthropological study of the Folly Island materials. These are further discussed below.

Questions that can be addressed using basic osteological data include: Who are represented? Do the remains match muster rolls and can individuals be identified? What is the demographic profile of the deceased (age at death, race, etc)? Are there patterns of military selection by stature (Steegman 1985, 1986) or other characteristics such as the necessity of occluding anterior teeth to tear powder packets? Does individual health and disease history coincide with historical trends? How does this sample compare or contrast with biological characteristics of 19th century slave samples (Rathbun 1987), white Confederate troops (London 1989), white Charleston, South Carolina elite (Rathbun n.d.) white Georgia farmers (Wood et al. 1985), and postwar rural blacks (Rose 1985). Subsequent comparative analysis with free black skeletal samples such as the Philadelphia First African Baptist Church sample (Parrington and Roberts 1984), and with Caribbean samples (Handler et al. 1986), will broaden both temporal and areal significance.

**METHODS**

The field methods used in the recovery of the Folly Island skeletal assemblage have been discussed in Chapter I of this report. To date, 18 individual skeletons and miscellaneous bone from disturbed contexts have been recovered and processed. For each burial all bones were dry brushed. Then, wherever possible, damaged elements reconstructed and a complete inventory of skeletal elements was taken. Completeness of each skeleton varied considerably (see Chapter III) due to historical exhumation. Too frequently the cranium and other significant portions were missing. Variation in completeness complicates direct statistical comparisons and reduced the accuracy of diagnosis.

Standard osteometric data were gathered using both traditional (Bass 1971, Ubelaker 1978) and forensic protocols (Rathbun and Buikstra 1984; Stewart 1978; Moore-Jansen and Jantz 1986) for the cranium, and postcranial elements. These measurements were then used in the determination of gender, stature, ancestry, and robusticity.

Age determinations used all available criteria and varied from skeleton to skeleton due to differences in skeletal element present and completeness. Of prime importance were dental development, epiphyseal union of the long bones and vertebrae, cranial suture union, metamorphosis of the pubic symphysis and auricular surface, joint degeneration, sternal rib end changes, and radiological evaluation of the clavicle, femur, and humerus.

Gender determination relied upon standard morphological criteria of the various elements as well as univariate metrical data and in appropriate instances, discriminate function statistical procedures (see Stewart 1978; Rathbun and Buikstra 1984; and Moore-Jansen and Jantz 1986).

Although the individual skeletal elements were in an excellent state of preservation, all but two of the burials had been disturbed at some time since initial interment. The two complete skulls reflected significant African ancestry from morphological and discriminate function analysis. Attempts to determine genetic affinity of the remaining skeletons entailed evaluation of femur curvature, calculation of the crural and brachial indices, dental features, and calculation of the discriminate function formulae for the calcaneus (Pickering 1986).

Radiographs of all long bones and the skulls were taken for age determination, Harris line formation, pathology evaluation, and osteoporosis. Bones were placed directly on the x-ray film and the cone was at 40 inches. All radiographs used the anterior-posterior orientation and exposure typically was 10 MAS at 50 KV.

Standards for the indentification of pathology from gross and radiographic examination were based on criteria established by Ortner and Putshcar (1981), Zimmerman and Kelley (1982) and Steinbock (1976). Each individual bone was examined visually and under three-power magnification.

**RESULTS**

All individual skeletons were male. Morphological features as well as metric analysis were congruent. Robusticity and muscle crests were marked in almost all individuals. Individual ages ranged from a minimum of 16 to a maximum of 40 years (Table A-1). The average age at death (25 years) is compatible with a military sample of young males. Most individuals were in the 20 to 30 year range.

Racial ancestry was indicated by the two complete skulls which reflected significant Afro-American affinity. None of the postcranial indicators such as femur curvature, crural and brachial indices, or calcaneus statistics were definitive. Dental characters also suggested a significant element of Native American admixture. Many of the incisors, both in situ and loose, presented the shovel shape which characterizes Asian and American Indian
populations. The calcaneus analysis produced inconclusive results with a mixture of Asian and African features. Besides the two individuals with two complete skulls that definitely reflect African ancestry, no conclusive determination of race for the entire series is currently possible. No indication of genetic anemia or the sickling trait was revealed in the radiographs of the skulls.

Pathology occurred relatively rarely. This relatively low incidence of past disease may well be a function of the youth of the sample. Typical indications of past disease included slight, healed infection (especially the tibiae), infrequent and slight linear enamel hypoplasia of the canines and incisors, and Schmorl’s nodes resulting from physical activity. The nodes occur in the vertebral bodies, typically in the lower thoracic spine, and usually are interpreted as resulting from heavy lifting and strenuous activity. Two instances of trauma were noted. One individual had a healed fracture of the 4th and 5th fingers of the left hand and another had a fused little toe.

Dental disease also was relatively infrequent, again probably due to the youth of the group and also the absence of all teeth and dental structures available for evaluation. The dental defects that were observed included infrequent interproximal caries, occasional slight linear enamel hypoplasia from childhood metabolic insult, and almost universal exposure of the dentine of the incisors occlusal surface, even among the very young. This “wear” probably resulted from activities involving holding or tearing abrasive objects between the front teeth.

Evidence of metabolic stress and then recovery, as illustrated by the occurrence of Harris lines in the tibiae, also were infrequent. Only two of the 14 individuals with tibiae exhibited these lines of increased density. In contrast, an all slave series from the same time had an average of four lines for 45 percent of the males (Rathbun 1987).

The average height of the group was 169 cm or approximately five feet, six inches. Estimates of stature ranged from 153 cm (5 ft) to 179 cm (5 ft, 9 in). The average of 169 cm is only slightly above the 167 cm average for highly stressed male slaves at Mt. Pleasant, South Carolina (Rathbun 1987).

Although stature was not remarkable, evidence of great physical strength and strenuous physical activity appeared in the humerus and clavicles of this series. Some individuals had remarkable development of the crests for the upper arm muscles and bony crest extensions near the elbow. Schmorl’s nodes occurred very frequently in the lower thoracic vertebrae and lumbar spine as well. Marked development of the tendon sheaths of the fingers indicated both labor and strength for most of the individuals. Finally, size indications were reflected in the size of the feet and of the wrist bones.

Individual characteristics included one individual with failure of fusion of the first cervical vertebrae, another with slight Spina Bifida of the sacrum, one with a failure of fusion of the acromion of the scapula (os acromiali) and another with an usual dental wear pattern of the mandible. The circular wear of the left incisor and canine suggests habitual pipe smoking. Unfortunately, the maxillary teeth were not recovered.

**SUMMARY**

This unique sample of 19th century Americans reflects a young, vigorous, relatively healthy, strong group of males. No cause of death was indicated by the skeletal remains. The composite impression of the typical individual from the skeletal remains is that of a muscular male aged 25 years with relatively good health, five feet, six inches tall, strong hands, and big feet.

Although the basic osteological data have been collected and the demographic characteristics determined, future data analysis will include, discrete trait comparison, and evaluation of trace elements for dietary information.
Table A-1: Human Remains
From 38CH920

<table>
<thead>
<tr>
<th>Burial Age</th>
<th>Stature</th>
<th>Strength</th>
<th>Pathology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19-22</td>
<td>168.80(+/-3.78)</td>
<td>Moderate 2 Harris Lines, tibia infection healed</td>
</tr>
<tr>
<td>2</td>
<td>21-23</td>
<td>172.69(+/-3.94)</td>
<td>Slight 3 slight LEH, Schmorl’s nodes, healed femur infection</td>
</tr>
<tr>
<td>3</td>
<td>16-18</td>
<td>169.02(+/-3.78)</td>
<td>Marked Spina Bifida, LEH</td>
</tr>
<tr>
<td>4</td>
<td>24-32</td>
<td>?</td>
<td>Large 3 slight LEH, Schmorl’s nodes</td>
</tr>
<tr>
<td>5</td>
<td>35-40</td>
<td>171.09(+/-3.35)</td>
<td>Marked Caries, tibia infection, Schmorl’s nodes</td>
</tr>
<tr>
<td>6</td>
<td>23+</td>
<td>?</td>
<td>Strong Hands LEH-1 slight</td>
</tr>
<tr>
<td>7</td>
<td>20-24</td>
<td>153.05(+/-4.43)</td>
<td>Moderate Schmorl’s nodes</td>
</tr>
<tr>
<td>8</td>
<td>30-35</td>
<td>? short</td>
<td>Marked Caries, abscess, Schmorl’s nodes</td>
</tr>
<tr>
<td>9</td>
<td>19-21</td>
<td>174.43(+/-3.94)</td>
<td>Slight Schmorl’s nodes</td>
</tr>
<tr>
<td>10</td>
<td>23-25</td>
<td>172.53(+/-3.78)</td>
<td>Moderate Fused little toe</td>
</tr>
<tr>
<td>11</td>
<td>20-25</td>
<td>?</td>
<td>Large feet LEH-1</td>
</tr>
<tr>
<td>12</td>
<td>25-30</td>
<td>166(+/-3.94)</td>
<td>? Tibia infection, pipe smoker, hand fracture, LEH-2</td>
</tr>
<tr>
<td>13</td>
<td>25-30</td>
<td>170.01(+/-4.43)</td>
<td>Extreme Schmorl’s nodes, os acromiali</td>
</tr>
<tr>
<td>14</td>
<td>30-35</td>
<td>167.64(+/-3.53)</td>
<td>Extreme LEH-2, slight infection</td>
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<tr>
<td>15</td>
<td>17-18</td>
<td>176.96(+/-3.53)</td>
<td>Moderate Tibia, healed trauma/infection</td>
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<tr>
<td>16</td>
<td>25-30</td>
<td>164.65(+/-3.53)</td>
<td>Extreme Femur infection, fibula trauma</td>
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<tr>
<td>17</td>
<td>16-19</td>
<td>167.07(+/-4.43)</td>
<td>Moderate Slight infection</td>
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<tr>
<td>18</td>
<td>25-30</td>
<td>175.01(+/-3.94)</td>
<td>Marked Infection</td>
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</table>
APPENDIX B

Vertebrate Faunal Materials
From Sites 38CH964 & 38CH965
Folly Island, Charleston County, South Carolina, 1988 Excavation

By
Lynn M. Snyder
Department of Anthropology
University of Tennessee
Knoxville, Tennessee

INTRODUCTION

This report provides identifications and descriptive analysis of vertebrate faunal remains recovered from two sites, 38CH964 and 38CH965, located within the Union Army Civil War encampment on Folly Island, Charleston County, South Carolina. These materials were recovered during 1988 field investigations by the South Carolina Institute of Archaeology and Anthropology, supervised by Lisa O’Steen and James B. Legg, with Steven D. Smith as Principal Investigator.

The faunal remains were recovered, using 1/4 in dry screen, from a block excavation at 38CH964, and Feature 1 at 38CH965. The block excavation at 38CH964 appeared to encompass a large pit, possibly several latrines, filled with refuse. Feature 1 at 38CH965 consisted of a looter’s hole, excavated and refilled. Both sites had been extensively disturbed by collectors (Smith and O’Steen 1988: 11).

METHODS

Faunal materials from both sites were received for analysis at the University of Tennessee in late January 1989. Prior to shipment, each sample had been washed and roughly sorted into potentially diagnostic specimens plus all specimens larger than two inches, and fragmented bone debris. Upon receipt at Tennessee, the assemblages from both sites were again examined and all specimens were then separated for further analysis. A bone or bone fragment was considered identifiable if the skeletal element represented could be determined.

Identifications were completed using modern comparative materials in the Vertebrate Skeletal Collection maintained by the Department of Anthropology, University of Tennessee, Knoxville. Orientation and placement of saw cuts, knife cuts and chop marks were recorded for all identifiable specimens. When original element margins and/or saw cut edges were preserved, length measurements were taken to the nearest millimeter using a standard osteometric measuring board. Mark Guilbeau, University of Tennessee, also examined all saw cut edges for evidence of the type of tool used to make the cuts. Descriptions of cuts of meat or carcass portions represented are based primarily on Eakins (1924), Military Meat and Dairy Hygiene. Nomenclature for skeletal landmarks and orientation follow Getty (1975).

RESULTS

Approximately 31.3 kilograms of bone was recovered from sites 38CH964 and 38CH965. Virtually all this material consisted of domestic pig and cow bone which showed clear evidence of butchering in the form of saw cuts, chop marks and cut marks. In addition to 60 specimens which could be assigned to taxa and elements, over 3,000 bone fragments larger than 1/4 in were recorded. This fragmentary material consisted of split rib shaft fragments, vertebral centrum and process debris, and long bone cortical bone fragments. Much of this material had broken or exfoliated from larger bone segments represented in the identifiable portion of the assemblage.

Preservation of faunal materials was generally excellent, and little erosion or leaching of bone surfaces was noted. However, in many cases bones appeared rather dry and brittle, and the outer cortical bone surfaces tended to crack and exfoliate during handling. On many specimens saw cut edges were extremely well preserved, clearly retaining details of striations, false starts and termina
broken margins. In other cases, these saw cut edges were dulled, smoothed or broken away, and original saw orientation could not be determined.

Site 38CH964

Faunal remains from this site were recovered from a 5 x 6 m block excavation which appeared to encompass most or all of an original large pit or latrine complex filled with refuse. A total of 1197 bones or bone fragments larger than 1/4 in, weighing approximately 9.9 kilograms, were recovered from this excavation. Of these, 307 specimens were assignable to taxa and element. Two taxa, domestic cow (Bos taurus) and domestic pig (Sus scrofa), are represented in this feature in about equal proportions. A total of 130 domestic pig elements make up 42.3% of the identifiable specimens from the feature; 177 cattle elements constitute the remaining 57.7% of the assemblage. Table B-1 summarizes both pig and cattle elements recovered. Table B-4 provides additional detailed descriptions of individual specimens.

SUS SCROFA (DOMESTIC PIG)

There are no cranial elements in the identified pig remains. Axial elements are limited to a maximum of seven thoracic vertebrae, six lumbar vertebrae, and 10 indeterminate vertebra fragments. Two of the thoracic vertebrae have been sawed through the centrum, and one bears cut marks. One lumbar vertebra also shows cut marks. Eight rib shaft segments were recovered. Because all eight segments are broken at both the proximal and distal ends, it is impossible to determine if they were originally sawed or chopped. The number of carcass segments represented by these vertebrae and ribs is no more than one whole loin and two rib slabs, one left and one right.

Limb elements of pig are predominantly those of the hindlimb. Front limb elements include three scapula segments representing at least one left and one right scapula. Two of these elements have been sawed through at least one margin. A right humerus has light cut marks on the lateral and anterior faces of the diaphysis. These elements would be included in a picnic ham, and two such cuts, one left and one right are indicated. A single right carpal plus one right metacarpal and two sets of articulating left metacarpals also indicate that three pork front quarters are represented, if the quarters were received with foreshanks attached. It is also possible that the metacarpals represent parts of pickled or fresh cooked pigs' feet.

Hindquarter elements are remarkably consistent, and clearly indicate fresh or smoked hams. A minimum of 13 hams, nine lefts and four rights are represented. This cut would include the innominate posterior to the ilium, complete femur, and complete tibia - possibly sawed through the extreme distal end. Recovered left hindlimb bones (Table 1) include seven partial innominates, nine femora, and eight tibiae. Rights include four innominates, three femora and four tibiae. Fewer fibulae and patellae were recovered, but this is not unusual given the smaller size of patellae and the likelihood that the slender fibulae might be broken into small, easily lost segments.

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<tr>
<th>Taxa (common name)</th>
<th>Element-portion</th>
<th>Left</th>
<th>Right</th>
<th>Axial</th>
<th>Unsided</th>
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Table B-1.
Summary of identified vertebrate remains recovered from site 38CH964, Folly Island, Charleston County, South Carolina, 1988 excavations.

B-2 "THE BEST EVER OCCUPIED"
Table B-1. Summary of identified vertebrae remains recovered from site 38CH964, Folly Island, Charleston County, South Carolina, 1988 excavations, continued.

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"THE BEST EVER OCCUPIED" B-3
Table B-1. Summary of identified vertebrate remains recovered from site 38CH964, Folly Island, Charleston County, South Carolina, 1988 excavations, continued.

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### Table B-1. Summary of identified vertebrate remains recovered from site 38CH964, Folly Island, Charleston County, South Carolina, 1988 excavations, concluded.

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</table>
Where sawed edges have been preserved, innomina­
tates have been sawed through the ilial neck anterior to the
acetabulum. One tibia has also been sawed through just
above the distal epiphysis. Four fibular tarsals and three
tibial tarsals have also been sawed through, further docu­
menting the separation of hindquarters at the hock, as is
common when trimming hams (Eakins 1924: 206). Four
of the innomina­
tates show cut marks, and six of the femur
diaphyses show multiple short parallel cut marks oriented
perpendicular to the long axis of the bone. Marks such as
those on the femur commonly result from cutting ham
slices from the bone.

One articulating pair of bones, a left tibia and fibula,
have been partially sawed or chopped through at mid­
diaphysis, then broken. The reason for this is unclear;
however, it is possibly the result of cutting away the distal
portion of a ham that had “gone bad.”

Hindlimb foot elements are limited to one metatarsal
and three phalange fragments. These elements show no
saw, knife or chop marks, and could be the remains of
pickled or fresh pigs’ feet.

BOS TAURUS (DOMESTIC COW)

With the exception of lower legs and feet, all parts of
the cow skeleton are at least minimally represented in this
feature. A single cranial fragment, an occipital fragment
with left and right condyles, was recovered. Seven whole
or partial cervical vertebrae were recovered, including at
least two 7th cervicals, indicated portions of at least two
animals are represented. Five of the more complete
cervical vertebrae had been sawed vertically through the
long axis of the centrum, usually toward one lateral edge.
Such a pattern would result from the splitting of the
carcass prior to quartering. Twenty-three thoracic and
four lumbar vertebrae segments or fragments were iden­
tified. Many of these specimens had also been sawed
through the long axis of the vertebral body or centrum.
Additional saw cuts oriented perpendicular to the centrum
long axis probably represent segmentation of rib (thoracic
verteebrae) or loin (lumbar vertebrae) cuts or segments.
Because of the fragmentary nature of recovered vertebras,
the number of cuts represented cannot be determined.

Five sacrum segments or fragments were recovered.
At least two sacra are represented by the left anterior wing
and centrum, sawed through the centrum along the long
axis. These saw cuts indicate that the sacrum was also split
when the beef carcass was divided into sections.

Nineteen proximal ribs and nine rib shaft segments
represent both right and left rib segments or rib plates.
The majority of complete proximal ribs have been sawed
through at or above mid-shaft, and those with preserved
sawed edges range in length from 67 to 210 mm. At least
three segments also have cut marks on their lateral sur­
faces. A total of 32 sternebra or sternal cartilage fragments
represents parts of beef briskets or short plates.

Front quarter elements include one right scapula
glenoid and neck and three right proximal humeri. The
scapula has been sawed through the neck, separating the
glenoid from the blade, and all three proximal humeri have
been sawed through just below the proximal epiphysis.
Such cuts suggest separation of the neck segment from the
chuck and pot roast portions. None of these elements
show cut marks, and they may represent stew or soup meat
remains.

One or possibly two articular units are represented by
the remaining front quarter elements. A right distal
humerus has been sawed through above the distal epiphysis.
This element articulates with a proximal radius and
ulna which were partially sawed, then chopped and
broken off at both the proximal and distal ends of the dia­
physis. This appears to represent a single foreshank. The
extensive chopping of the elements into segments may
indicate reduction to stew or soup meat. The unfused
distal epiphysis of a right radius articulates with a com­
plete set of carpals. These elements show no butchering
or processing marks, and may be part of the same foreshank,
representing possible butchering debris or portions trimmed
from a beef front quarter.

Portions of at least three beef hindquarters are repre­
sented by recovered innomina­
tates, femora, tibiae and pa­
tellae. Two innominate segments indicate probable sir­
loin or rump cuts. A proximal femur, sawed through
below the epiphysis, is probably also from a rump cut,
while a complete femur diaphysis, sawed through just
below the proximal epiphysis represents part of a beef
round. A right distal femur and proximal tibia epiphysis
are probably articulating elements, and parts of a hind­
shank. Four patellae represent additional portions of hind­
shanks, or discarded debris.

Site 38CH965

Feature 1 at site 38CH965 consisted of a looted pit.
Approximately 21.4 kilograms of faunal debris, including
2,582 specimens larger than 1/4 in was recovered from
this feature. A total of 363 of these specimens was
identified and assigned to four taxa. The taxonomic
diversity in this feature was increased over that repre­
sented in 38CH964 by the recovery of minimal remains of
two additional taxa, in addition to the more plentiful cattle
and pig materials (Table B-2, Table B-5). In contrast to the
assemblage recovered from 38CH964, cattle remains
constitute 93.4% of identified materials (NISP=339), while
only 20 pig elements (5.5%) were recovered.

AVES SP.

A single cervical vertebra of a large bird was recov­
ered from this feature. The specimen is broken, but
compares well in size and morphology with wild or
domestic turkey.

**OVIS/CAPRA.**

Two left innominate fragments and a left patella are from a domestic goat or sheep. Because of breakage of the innominate fragments, identification to species is not possible. However, overall morphology of all three specimens suggest they are probably sheep (e.g. Boessneck 1969). This provides evidence that at least an occasional sheep or goat hindquarter was consumed on the island. The elements do not bear cut, saw or chop marks.

**SUS SCROFA.**

Domestic pig elements from this feature are limited almost entirely to vertebra fragments, and hind foot elements which are probably from a single articular unit. One cranial fragment and one proximal rib segment were also recovered. The vertebra fragments include portions of cervical, thoracic, and lumbar vertebra, and may be debris from a pork shoulder (cervical, thoracic) and/or loin (thoracic, lumbar).

The single proximal femur fragment may have come from a fresh or smoked ham, and the hind foot elements may represent a pickled or fresh pig’s foot. No cut marks or saw marks were noted on this mostly fragmentary material.

---

Table B-2. Summary of identified vertebrate remains recovered from site 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations.

<table>
<thead>
<tr>
<th>Taxa (common name)</th>
<th>Element-portion</th>
<th>Left</th>
<th>Right</th>
<th>Axial</th>
<th>Unsided</th>
<th>Total</th>
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"THE BEST EVER OCCUPIED" B-7
Table B-2. Summary of identified vertebrate remains recovered from site 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations, continued.

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B-8 "THE BEST EVER OCCUPIED"
Table B-2. Summary of identified vertebrate remains recovered from site 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations, continued.

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"THE BEST EVER OCCUPIED" B-9
Table B-2. Summary of identified vertebrate remains recovered from site 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations, concluded.

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<th>Taxa (common name)</th>
<th>Element - portion</th>
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<th>Right</th>
<th>Axial</th>
<th>Unsided</th>
<th>Total</th>
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</tr>
<tr>
<td>wing fragment</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>femur</td>
<td></td>
<td>1</td>
<td>3</td>
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<td></td>
<td>4</td>
</tr>
<tr>
<td>proximal</td>
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<td>2</td>
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<td>2</td>
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<tr>
<td>tibia</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>lateral malleolus</td>
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<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>tibial tarsal</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>TOTAL (domestic cow)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>339</td>
</tr>
</tbody>
</table>

**BOS TAURIS**

As in site 38CH964, with the exception of lower leg elements, including metapodials and phalanges, all parts of the cow skeleton are represented in this feature. Cranial material is, however, limited to a single partial skull, hyoid segment, and left and right mandible portions which are probably from the same animal. The skull consists of the fragmented remains of the left side from the occipital condyle through the maxilla. Although the full molar and premolar tooth row is present, several of the teeth are broken, and aging is impossible other than noting that all permanent teeth appear to be fully erupted and in wear. This would indicate an animal at least 30-36 months old (Silver 1969: 296). There are no saw, chop or cut marks on the skull debris. The hyoid segment is a left posterior segment, and the mandibles consist of articulating left and right anterior portions with symphysis, and the left posterior mandible or vertical ramus. Both anterior mandibles have been chopped partially through the inferior border immediately in front of the tooth row, then broken. The posterior mandible has also been chopped or sawed partially through the inferior border, then broken. Breakage of the mandibles may have been to facilitate removal of the tongue, and it is likely that this cranial material represents discarded butchering debris.

A total of 77 cervical, thoracic and lumbar vertebrae or vertebra fragments was identified, as well as 75 additional indeterminate vertebra fragments. The majority of the more complete specimens appear to have been sawed through the long axis of the centrum, either near the midpoint of the vertebral body or toward a lateral edge. This is consistent with splitting the beef carcass during butchering, prior to quartering. At least three animals are represented by lateral portions of the 1st cervical vertebra, or atlas. These vertebrae would have been parts of the neck (cervical), chuck, rib or loin (thoracic) cuts. Other axial elements are parts of three sacra which have also been sawed through the centrum.

Seventy-three ribs or rib shaft segments were recovered. Of these, six left and five right ribs with intact saw cut distal margins range in length from 38 to 272 m, and one unsided shaft segment with saw cut at both ends is 96 mm in length. Eleven sternebra or sternum cartilage fragments were also recovered. These ribs, rib segments and sternebrae may have been parts of the chuck (thoracic), brisket (distal ribs, sternebrae) or rib plates.

**Beef front quarters are represented by 506 carapula.**
humerus, radius and ulna segments or fragments. Scapula segments include three glenoid and neck portions, plus 40 blade segments, nearly all of which show one or more saw cut margins. These segments were probably all parts of chuck steaks or roasts, while the glenoid portions of the scapula may have been part of the square cut chuck or shoulder.

The proximal and distal epiphyses of at least five humeri, two left and three rights, have been removed, leaving only the element diaphysis. In addition, two unfused left proximal epiphyses and two right proximal humeri sawed through the diaphysis directly below the proximal epiphysis were recovered. The humerus shaft segments indicate large bone-in pot roasts. No cut marks were noted on any of these elements. The proximal humeri, along with the glenoid portion of scapulae noted above, were probably parts of square chucks.

Four radius and ulna specimens include proximal, distal and shaft segments. These elements have been sawed through the diaphysis near the proximal or distal ends. All would have been parts of foreshanks, and may have been further divided for use as stew or soup meat. A single ulnar carpal was also recovered.

Parts of at least 10 beef hindquarters are represented by hind limb elements. Thirty-one innominate segments include ilial neck, ilial wing, ischium and acetabula. The ilial wing and neck segments are parts of the sirloin, while the acetabula and ischium would have been part of the round or rump. Portions of at least 5 proximal femora were recovered. The more complete segments have been sawed through the diaphysis just below the proximal epiphysis. These segments would have been parts of either beef rumps or rounds. Two proximal tibiae were recovered. One is broken approximately 10 cm below the proximal epiphysis, and the extreme proximal portion of the epiphysis, or intercondylar eminence, has been sawed through. This would occur during separation of the hind leg at the femoral/tibial joint and would have separated the round (femur upward) from the hindshank (tibia downward). A left distal tibia, lateral malleolus and tibial tarsal are parts of a hindshank, and probably would have been used as soup or stew meat.

**DISCUSSION**

With the exception of one bird vertebra and three possible sheep elements recovered from 38CH965, both faunal assemblages considered in this analysis consist entirely of butchered cow and pig bone. There are, however, differences in the proportions in which these animals are represented in the two sites, as well as some indication of variation in the types of meat cuts represented, and the tools used to accomplish the butchering of the assemblages.

**Beef Butchering Procedures**

The overall butchering pattern for beef carcasses, as reflected by the faunal assemblages from both sites, appears to generally follow those commonly practiced in the mid to late 19th and early 20th centuries (v. Lyman 1977). This butchering sequence is presented for the home butcher in the USDA Farmers Bulletin No. 183, (1903), entitled *Meat on the Farm*. The standard military slaughterhouse or commissary procedure is detailed in Eakin’s (1924) *Military Meat and Dairy Hygiene*, and more generally in *How to Feed an Army*, (1901), which contains reports made to the Department of the Army by Union commissary officers at the close of the Civil War.

On August 14, 1865, Jno. L. Hathaway, Brevet Lieutenant Colonel of the Commissary of Subsistence of Volunteers, Washington D.C. recorded the general procedures for slaughtering and dressing cattle in the field and at the National Monument cattle yard in Washington D.C. With the exception of shooting the animals (in the field) or felling them with an ax blow (Washington cattle yard), the procedure was basically the same. Cattle were allowed to stand without food or water for 12 hours, or overnight, prior to slaughter. They were then slaughtered, bled and skinned. The head was cut off, after which the carcass was hung by the hind legs. Either before or immediately after hanging, the legs were “disjointed” at the knee (forelimb) and gambrel (hindlimb) joints. The procedure was then the same: “the tallow and entrails taken out, chuck severed from the body at fourth joint (inclusive of ring-bone joint) of neck, the animal split through the back-bone from head to tail” (U.S. War Department 1901: 23-24). After hanging for a period, and just before the beef was issued from the commissary: “the shins are taken off 4 inches above the knee joint (in forequarters) and 8 inches above the gambrel joints (in hindquarters), the beef, cut into quarters, is then entirely ready for issue” (U.S. War Department 1901: 23-24). Offal was immediately buried, and hides, heads, feet and other butchering debris were kept for sale to rendering plants or other facilities. When this was not practical, these materials were also buried.

The assemblages from 38CH964 and 38CH965 appear to reflect these procedures. Most vertebrae had been split lengthwise either at mid-centrum or toward one lateral edge. The total absence of metapodials and phalanges, which are the lower leg and foot elements occurring below the “knee” and “gambrel” joints, suggests that primary butchering did not take place in the immediate vicinity of the sites, and that recovered assemblages represent quartered and dressed carcasses and food debris.

In the 38CH964 assemblage, neck and chuck (cervical & thoracic vertebrae, scapula, proximal humerus), rib, loin, short plate (ribs, thoracic, lumbar vertebrae), and brisket (sternabrae, sternal cartilage) were represented (Table B-3, Figure B.1). Additional front quarter cuts
included elements of the foreshank (distal humerus, radius & ulna). Hindquarter cuts include sirloin (ilium), rump (acetabulum, ischium, sacrum, proximal femur), round (femur diaphysis) and hindshank (distal femur, tibia, patella). While there is some indication of choice meat cuts such as the sirloin, this assemblage appears to be predominantly lower value, stew or soup meat bones.

The beef assemblage from 38CH965, in contrast, is more diversified, and contains numerous bones indicating prime front and hindquarter cuts. Possible butchering debris in this feature includes one partial skull with associated mandibles. In addition, portions of at least three 1st cervical vertebrae were recovered. These may represent butchering debris, as would be the case if the standard procedures quoted above were being followed. However, the presence of additional 3rd, 4th and 5th cervicals might indicate that the neck was being used as stew or soup meat. At least four neck cuts are also indicated by four proximal humeri. Ribs, sternebra, thoracic and lumbar vertebra indicate the presence of briskets, rib plate and loins. Foreshanks (radius & ulna) as well as hindshanks (distal femur, proximal tibia) are also represented.

Fig. B.1: Generalized beef cuts indicated by the faunal remains from sites 38CH964 and 38CH965, Folly Island, South Carolina.
Table B-3. Meat cuts represented by domestic cattle & pig remains recovered from sites 38CH964 & 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations.

<table>
<thead>
<tr>
<th>Meat Cut</th>
<th>Associated Elements</th>
<th>38CH964</th>
<th>38CH965</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beef Cuts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td>cervical vertebra</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>proximal humerus</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>glenoid of scapula ?</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Chuck</td>
<td>thoracic vertebra</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>scapula blade</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>proximal rib</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td>Pot roast</td>
<td>humerus diaphysis</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Rib/Rib plate</td>
<td>thoracic vertebra</td>
<td>24</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>proximal ribs</td>
<td>19</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>rib shaft</td>
<td>9</td>
<td>38</td>
</tr>
<tr>
<td>Brisket</td>
<td>sternebra/sternal cartilage</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Foreshank</td>
<td>distal humerus</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>radius/ulna</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>carpals</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Loin</td>
<td>lumbar vertebra</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>Sirloin</td>
<td>lumbar vertebra</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>sacrum ?</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ilial wing &amp; neck</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Rump</td>
<td>ischium</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>acetabulum</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>proximal femur</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Round</td>
<td>femur diaphysis</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Hindshank</td>
<td>distal femur</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>tibia</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>patella</td>
<td>4</td>
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<tr>
<td></td>
<td>tarsals</td>
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<td>1</td>
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<tr>
<td><strong>Pork Cuts</strong></td>
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</tr>
<tr>
<td>Shoulder</td>
<td>cervical vertebra</td>
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<td></td>
<td>thoracic vertebra</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>scapula</td>
<td>3</td>
<td>0</td>
</tr>
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</table>

"THE BEST EVER OCCUPIED"  B-13
Table B-3. Meat cuts represented by domestic cattle & pig remains recovered from sites 38CH964 & 38CH965, Folly Island, Charleston County, South Carolina, 1988 excavations, concluded.

<table>
<thead>
<tr>
<th>Meat Cut</th>
<th>Associated Elements</th>
<th>38CH964</th>
<th>38CH965</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loin</td>
<td>thoracic/lumbar vertebra</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>proximal ribs</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Spareribs</td>
<td>rib shaft segments</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Picnic ham</td>
<td>humerus</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>glenoid of scapula</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>radius/ulna</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fresh/Smoked ham</td>
<td>innominate</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>femur</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>tibia</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>fibula</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>calcaneum/astragalus</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>patella</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Fresh/Pickled pigs' feet</td>
<td>metapodials</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>carpals/tarsals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>phalanges</td>
<td>3</td>
<td>0</td>
</tr>
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</table>

Besides stew or soup cuts, at least five front quarters or pot roasts are indicated by humerus diaphyses, and as many as 10 hindquarters are indicated by portions of the innominate (pelvis) and femur. Eight ilial wing segments and three ilial necks were recovered. These portions of the innominate are included in the sirloin, a choice hind quarter cut. In fact, the sirloin, as indicated by portions of the ilial neck and wing, is the most common portion of the beef carcass in the assemblage from 38CH965.

BEEF BUTCHERING CUTS & BUTCHERING TOOLS

There is a great deal of uniformity in the placement of saw cuts on recovered beef bones from both sites. In the forequarter, the scapula is separated into glenoid/neck and blade portions, and the humerus is divided into three parts by cuts through the diaphysis just below the proximal epiphysis and above the distal condyles. The hindquarter is separated into one or two sirloin cuts by sawing through the ilial neck just behind the wing of the ilium and just in front of the acetabulum. Although less often recovered, femurs appear to have been routinely sawed through just below the proximal epiphysis, separating the rump from the round. These cuts are generally consistent with secondary butchering of fore and hind quarters as described in Eakins (1924), and noted by Lyman (1977).

The use of such standardized cuts, plus the repetition of cuts in the assemblages, suggests butchering was done by someone who had been a butcher prior to military service, or at least received some training in butchering. It also suggest that one person, or group of individuals was routinely responsible for butchering. Despite the nearly total lack of primary butchering debris, the presence of low value cuts such as foreshanks, hindshanks and necks suggests whole carcasses were available and were probably being processed on the island.

Reports received at the end of the war provided estimates of the number of cattle needed to supply a specific number of troops with fresh rations at least two or three times a week, and also detailed the facilities and tools needed to process them. One such estimate notes that, "fair cattle" will average about 500 pounds in net weight and that, "This will give 25 cattle per month to 100 men, including sales to officers and issues to hospitals (1250 cattle to 50,000 men). A safe estimate is 30 cattle and 10 sheep per 1000 men per month" (U.S. War Department 1901: 103). In 1863 thousands of troops were stationed on Folly Island, and extensive facilities were constructed on the island (Smith and O'Steen 1988: 5-6). Given such an extensive encampment, which lasted over a year, it seems quite likely that a permanent slaughter house or slaughter area might have been constructed, and experienced men
employed to do the slaughtering and butchering. The documentation of shipments of as many as 30 live cattle arriving on the island (Marple 1863: 23) also indicates that butchering probably routinely took place on Folly Island.

Reporting to the War Department in August of 1865, J.L. Hathaway included the following in his list of equipment to be used by a brigade commissary in the field: "one cleaver, one hatchet, one meat saw, one meat hook, four butcher knives, one butcher steel," and N.J. Sappington, Capt. of Commissary of Subsistence of Volunteers, Elmira, N.Y. noted, "It will require also for each regiment or separate command of the corps or brigade, one spring balance, three scoops, one cleaver, one meat saw, and two or three butcher knives to make the net issue of stores received in bulk from the corps or brigade commissary" (U.S. War Department 1901: 61).

At least three types of tools are indicated by saw and chop marks in the present assemblage. The majority of saw cuts in both sites were made by a thin, fine-toothed meat saw. The resultant cuts are straight, with fine, even striations. The width of the saw blade or tooth set is documented by a distal humerus from site 38CH964 which was sawed through just above the distal condyles. A small spur of bone left at the terminal edge of the saw cut retained the mark of the saw. This square groove measures approximately 0.5 mm in diameter, and compares well with a modern meat saw blade which measures 0.5 to 0.6 mm in diameter with sharpened but unbeveled teeth. The thickness of the blade used to cut the humerus is also evidenced by the slight curve of the cut edge, a result of the blade flexing during sawing.

A thicker, heavier saw was used on a scapula glenoid and neck segment also found in 38CH964. A false start or partial saw cut on this element left a measurable, squared groove. This groove measures approximately 1.7 mm in diameter. The completed saw cut has heavier, more pronounced striations, and both marks were probably made by a hand held rip saw, which also had unbeveled teeth. Use of a third tool, probably a hatchet or cleaver, is evidenced by the chop marks on an articulating radius and ulna from 38CH964, as well as the mandibles from 39CH965 which had been chopped through the inferior border of the ramus.

**PORK CUTS**

With the exception of two front quarters represented in 38CH964 by scapula fragments and one humerus diaphysis segment, and limited vertebral and rib debris, pork cuts present in the assemblages are hindquarter hams, and fresh or pickled pigs’ feet.

Innominates, complete femora and complete tibiae are the bones contained in standard short cut hams. The hams were separated from the lower leg below the distal epiphysis of the tibia, a method of trimming which Eakins identifies as preferable because the narrow cavity of the tibia is thus not exposed (Eakins 1924: 206). Cut marks noted on several of the femur diaphyses are consistent with cutting slices from a ham. The nearly complete absence of cranial debris and foot elements, and the underrepresentation of front limb elements compared to hind limb suggest that, for the most part, already dressed fresh or smoked hams were delivered to Folly Island, rather than whole hog carcasses or live animals.

**SALT PORK/SALT BEEF?**

Along with fresh beef, bacon and smoked meats, plus salt or barreled pork and beef were regularly issued to Civil War troops. In a report of stores on hand at the Subsistence Depot, City Point, Virginia on July 20, 1865, 800 barrels of pork, representing 213,333 rations, and 20,000 pounds of bacon or 24,000 rations are listed. The records also note 200 barrels of salt beef “due on requisitions” (U.S. War Department 1901: 120).

Although both salt pork and beef were produced and issued, the troops preferred salt pork, when available, over salt beef which was apparently bulkier to carry, tasted saltier, and required soaking before it could be consumed (U.S. War Department 1901: 62; Wiley 1951: 239). Because bacon and salt pork were less bulky, lasted longer, and were easier to prepare, they were also the preferred ration on the march.

Barreled or pickled pork (salt pork) consisted of “pieces from the sides of fat hogs, including standard mess pork, back, belly and shoulder pork, and spareribs...cured in plain brine with or without salt peter and barreled for shipment. Hams are not made into barreled pork. Offal parts as lips, snouts, and ears are also included” (Eakins 1924: 301-302). A barrel of salt pork contained about 200 pounds of meat; half barrels and quarter barrels contained 100 and 50 pounds, respectively.

The bones which would be contained in the commonly salted/barreled meats include rib segments (spare-ribs, brisket), vertebra (rough back, back parts), and cervical vertebra & scapula (shoulder). Cervical, thoracic and lumbar vertebra do occur in limited numbers in both 38CH964 and 38CH965. At least eight rib shaft segments, and three scapula segments were recovered from 38CH964. Thus, there is the possibility that some of the assemblage could be the remains of barreled or salt pork. The majority of pork bones recovered, however, are clearly parts of hindquarter hams, which were not salted or barreled.

“Barreled or plain pickle beef” consisted of “straight plate beef and assortments which may contain plates, flanks, briskets and square cut chucks” (Eakins 1924: 313-315). Rumps might also be included. The bones included in these cuts are the rib segments and sternebrae (rib plates, brisket), and the proximal portions of the 1st five ribs and cervical vertebra (square cut chuck). Proximal
ribs, including what appear to be anterior ribs, cervical vertebra and sternum or sternal cartilage fragments were recovered from both 38CH964 and 38CH965, and may represent the remains of barreled beef. However, the majority of beef bones recovered from both assemblages are limb elements contained in beef quarters, and cuts such as the shoulder, pot or chuck roasts, sirloin, round and shanks.

SUMMARY

The faunal assemblages from sites 39CH964 and 38CH965 are composed almost entirely of butchered cow and pig bone. Other taxa minimally represented are a large bird, possibly turkey (one vertebra), and sheep or goat (innominate, patella). In general the bones from both sites are extremely well preserved, and in many instances details of saw cut striations, false starts and terminal bone spurs, plus cut marks are clearly visible.

The assemblage from site 38CH964, the apparent location of a large trash filled pit or latrine, is composed of pig and cow bones in about equal proportions. The pig bones are predominantly those of hindquarter full cut or short cut hams, with some evidence of possible salt pork and minimal evidence of fresh or pickled pigs feet. The cow bone from this site represents all parts of the beef carcass, with the exception of lower legs and feet, and appears to be composed primarily of the remains of soup or stew meat cuts such as neck, foreshank, brisket and hindshank.

The pig bone from site 38CH965 is minimal, and consists mostly of vertebra fragments and a portion of one articulating hind foot. The bird and possible sheep elements were also recovered from this feature. Cow bone makes up virtually all the assemblage from this site. A somewhat wider variety of beef bones are present in the assemblage including a partial skull and several first cervical vertebrae, which appear to be butchering debris. As in 38CH964, no lower leg or foot bones were recovered. However, in contrast to 38CH964, choice cuts such as pot roasts, sirloin and round make up a large portion of this assemblage.

Butchering techniques which can be inferred from the recovered faunal assemblages indicate that whole beef carcasses were being processed nearby, although the absence of primary butchering debris at both sites suggests the initial butchering was being done elsewhere. The consistency of the placement and orientation of preserved saw cuts indicates that those responsible for the butchering probably either had prior experience, or received training in standard butchering techniques.

At least three types of tools were used in sectioning and trimming the beef carcasses. The majority of cuts on limb bones were made using a thin, flexible meat saw. A thicker, hand held saw such as a rip saw was used to cut several elements, and a few specimens had been chopped with an instrument such as a hatchet or cleaver.

At least two types of saws, and a hatchet or cleaver were used in butchering and further dividing the beef carcasses represented in these two assemblages. A majority of the cuts, however, are uniform in placement, sure and straight, with few false starts or uneven margins. This pattern also suggests that the men who did the butchering and processing of the carcasses were either experienced butchers or had training or practice in beef butchering.

There is very little evidence of barreled or salt pork or beef, and overall these two assemblages seem to reflect a supply of fresh beef, transported live to the island and slaughtered there, or perhaps received as freshly slaughtered carcasses to be further reduced on the island. Fresh or smoked hams, and possibly an occasional turkey and sheep are also indicated.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sus scrofa</td>
<td>4 thoracic vertebrae (1 w/cut marks on posterior/lateral margin of spinous process)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (lateral 1/2; sawed through anterior edge of centrum)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (sawed vertically through centrum)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (posterior arch fragment w/posterior articual processes)</td>
</tr>
<tr>
<td></td>
<td>4 lumbar vertebrae (centrum segment)</td>
</tr>
<tr>
<td></td>
<td>lumbar vertebra (posterior &amp; anterior articual process &amp; transverse process fragment)</td>
</tr>
<tr>
<td></td>
<td>lumbar vertebra (arch fragment w/posterior articual processes, cut marks anterior to 1 articual process)</td>
</tr>
<tr>
<td></td>
<td>indeterminate vertebra (10 centrum/arch/articular process fragments)</td>
</tr>
</tbody>
</table>
Table B-4. Identified vertebrate remains from block excavation, site 38CH964, Folly Island, Charleston County, South Carolina, 1988, excavations.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ribs</td>
<td>(right shaft segments)</td>
</tr>
<tr>
<td>3 ribs</td>
<td>(left shaft segments)</td>
</tr>
<tr>
<td>scapula</td>
<td>(right blade, caudal border fragment; sawed through blade)</td>
</tr>
<tr>
<td>scapula</td>
<td>(left glenoid &amp; neck; sawed at angle through neck)</td>
</tr>
<tr>
<td>scapula</td>
<td>(left caudal border/medial blade fragment)</td>
</tr>
<tr>
<td>humerus</td>
<td>(right proximal diaphysis, epiphysis unfused; cut marks on lateral &amp; anterior diaphysis faces)</td>
</tr>
<tr>
<td>3rd carpal</td>
<td>(right)</td>
</tr>
<tr>
<td>2 3rd metacarpals</td>
<td>(left)</td>
</tr>
<tr>
<td>2 4th metacarpals</td>
<td>(left)</td>
</tr>
<tr>
<td>3rd metacarpal</td>
<td>(right)</td>
</tr>
<tr>
<td>innominate</td>
<td>(right acetabulum w/ischial &amp; ilial necks; sawed through ilial neck)</td>
</tr>
<tr>
<td>innominate</td>
<td>(right ischial portion of acetabulum &amp; ischial fragment)</td>
</tr>
<tr>
<td>innominate</td>
<td>(right acetabulum w/ischial segment; cut marks on ischium posterior to acetabulum)</td>
</tr>
<tr>
<td>innominate</td>
<td>(right; sawed through ilial neck, cut marks on ilial neck)</td>
</tr>
<tr>
<td>innominate</td>
<td>(left; sawed through neck of pubis &amp; ischium near symphysis, sawed through neck of ilium)</td>
</tr>
<tr>
<td>innominate</td>
<td>(left acetabulum w/pubic neck &amp; ischium, cut marks on pubic portion of acetabulum)</td>
</tr>
<tr>
<td>innominate</td>
<td>(left acetabulum w/ilial &amp; pubic necks; sawed through ilial &amp; pubic wings)</td>
</tr>
<tr>
<td>innominate</td>
<td>(left acetabulum/ischium fragment, cut marks on ischium, below acetabulum)</td>
</tr>
<tr>
<td>innominate</td>
<td>(left acetabulum/ischium fragment)</td>
</tr>
<tr>
<td>femur</td>
<td>(right diaphysis; cut marks on posterior &amp; anterior diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(right diaphysis; cut marks on posterior diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(right proximal epiphysis fragment; sawed through anterior margin &amp; greater trochanter)</td>
</tr>
<tr>
<td>femur</td>
<td>(left diaphysis, epiphyses unfused; cut marks on posterior &amp; anterior diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left diaphysis; cut marks on posterior, anterior, medial &amp; lateral diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left diaphysis, heavily eroded)</td>
</tr>
<tr>
<td>femur</td>
<td>(left diaphysis; cut marks on anterior &amp; posterior diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left distal diaphysis, bleached)</td>
</tr>
<tr>
<td>femur</td>
<td>(left distal diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left distal diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left distal, epiphysis unfused)</td>
</tr>
<tr>
<td>femur</td>
<td>(left proximal diaphysis)</td>
</tr>
<tr>
<td>femur</td>
<td>(left proximal diaphysis; sawed through greater trochanter)</td>
</tr>
<tr>
<td>femur</td>
<td>(4 unsided distal epiphysis fragments)</td>
</tr>
<tr>
<td>femur</td>
<td>(7 unsided proximal epiphyses/major trochanters, unfused)</td>
</tr>
<tr>
<td>femur</td>
<td>(10 unsided proximal epiphyses/heads, unfused)</td>
</tr>
<tr>
<td>tibia</td>
<td>(right proximal diaphysis, 2 fragments)</td>
</tr>
<tr>
<td>tibia</td>
<td>(right diaphysis segment, heavily eroded)</td>
</tr>
<tr>
<td>tibia</td>
<td>(right diaphysis, distal epiphysis partially fused)</td>
</tr>
<tr>
<td>tibia</td>
<td>(right diaphysis, distal epiphysis partially fused, heavily eroded)</td>
</tr>
<tr>
<td>tibia</td>
<td>(right diaphysis, heavily eroded)</td>
</tr>
</tbody>
</table>

"THE BEST EVER OCCUPIED" B-17
Table B-4. Identified vertebrate remains from block excavation, site 38CH964, Folly Island, Charleston County, South Carolina, 1988, excavations, continued.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tibia (left proximal epiphysis, unfused)</td>
</tr>
<tr>
<td></td>
<td>2 tibiae (left distal epiphysis, unfused)</td>
</tr>
<tr>
<td></td>
<td>tibia (left diaphysis; sawed on posterior &amp; medial faces at mid-diaphysis, then broken)</td>
</tr>
<tr>
<td></td>
<td>2 tibiae (left proximal diaphysis)</td>
</tr>
<tr>
<td></td>
<td>tibia (left proximal diaphysis; cut marks on medial &amp; lateral/posterior edges)</td>
</tr>
<tr>
<td></td>
<td>tibia (left diaphysis, distal epiphysis unfused; cut marks on proximal medial/posterior edge &amp; posterior face)</td>
</tr>
<tr>
<td></td>
<td>tibia (left diaphysis)</td>
</tr>
<tr>
<td></td>
<td>tibia (left diaphysis; sawed through diaphysis above distal epiphysis, cut marks on posterior /medial edge)</td>
</tr>
<tr>
<td></td>
<td>fibula (right distal diaphysis)</td>
</tr>
<tr>
<td></td>
<td>fibula (left distal epiphysis)</td>
</tr>
<tr>
<td></td>
<td>fibula (unsided proximal epiphysis)</td>
</tr>
<tr>
<td></td>
<td>3 fibulae (left distal diaphyses; 2 w/cut marks at mid-diaphysis)</td>
</tr>
<tr>
<td></td>
<td>fibula (left diaphysis; partially sawed, then broken at mid-diaphysis)</td>
</tr>
<tr>
<td></td>
<td>3 patellae (left)</td>
</tr>
<tr>
<td></td>
<td>3 patellae (right)</td>
</tr>
<tr>
<td></td>
<td>patella (unsided, heavily eroded)</td>
</tr>
<tr>
<td></td>
<td>2 fibular tarsals (left proximal; sawed through articular process)</td>
</tr>
<tr>
<td></td>
<td>2 fibular tarsals (left proximal; sawed through above articular process)</td>
</tr>
<tr>
<td></td>
<td>2 fibular tarsals (left proximal portion; sawed through below proximal condyles)</td>
</tr>
<tr>
<td></td>
<td>fibular tarsal (left? proximal condyle; sawed through proximal condyle)</td>
</tr>
<tr>
<td></td>
<td>3rd metatarsal (right)</td>
</tr>
<tr>
<td></td>
<td>1st phalange (distal)</td>
</tr>
<tr>
<td></td>
<td>2nd phalange (distal fragment)</td>
</tr>
<tr>
<td></td>
<td>2nd phalange</td>
</tr>
<tr>
<td>Bos taurus</td>
<td>occipital (basiooccipital w/left &amp; right occipital condyles, bleached)</td>
</tr>
<tr>
<td></td>
<td>3rd cervical vertebra (posterior centrum)</td>
</tr>
<tr>
<td></td>
<td>5th cervical vertebra (lateral portion; sawed through centrum near lateral margin)</td>
</tr>
<tr>
<td></td>
<td>6th cervical vertebra (arch fragment w/posterior articular process; sawed through centrum &amp; behind anterior articular processes)</td>
</tr>
<tr>
<td></td>
<td>6th cervical vertebra (lateral 1/2; sawed through centrum)</td>
</tr>
<tr>
<td></td>
<td>7th cervical vertebra (sawed through 1 lateral margin of centrum)</td>
</tr>
<tr>
<td></td>
<td>7th cervical vertebra (lateral arch fragment w/articular processes, bleached &amp; heavily eroded)</td>
</tr>
<tr>
<td></td>
<td>7th cervical vertebra (lateral 1/2; sawed through centrum)</td>
</tr>
<tr>
<td></td>
<td>indeterminate cervical vertebra (arch fragment w/posterior articular process)</td>
</tr>
<tr>
<td></td>
<td>2 thoracic vertebrae (right lateral 1/2; sawed through centrum)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (right lateral 1/2; sawed through centrum &amp; posterior to transverse process)</td>
</tr>
<tr>
<td></td>
<td>5 thoracic vertebrae (left lateral 1/2; sawed through centrum)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (left lateral 1/2; sawed through centrum &amp; posterior to transverse process)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (complete; sawed through lateral margin of anterior articular process, posterior articular processes, and spinous process)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (arch &amp; spinous process; sawed through one lateral margin)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (arch &amp; spinous process; sawed through lateral/posterior margin)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (arch &amp; spinous process)</td>
</tr>
<tr>
<td></td>
<td>3 thoracic vertebrae (spinous processes)</td>
</tr>
</tbody>
</table>
Table B-4. Identified vertebrate remains from block excavation, site 38CH964, Folly Island, Charleston County, South Carolina, 1988, excavations, continued.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 thoracic vertebra (4 transverse processes)</td>
<td>thoracic vertebra (transverse process; sawed through posterior margin)</td>
</tr>
<tr>
<td>thoracic vertebra (transverse process; sawed through medial portion at centrum)</td>
<td>lumbar vertebra (sawed through distal margin of centrum)</td>
</tr>
<tr>
<td>lumbar vertebra (sawed through centrum, false start on inferior surface on centrum)</td>
<td>lumbar vertebra (sawed through centrum)</td>
</tr>
<tr>
<td>lumbar vertebra (arch w/posterior articular processes; sawed through posterior margin of centrum)</td>
<td>indeterminate vertebra (12 centrum fragments)</td>
</tr>
<tr>
<td>indeterminate vertebra (35 intervertebral plates, unfused; 6 sawed through one margin)</td>
<td>sacrum (left anterior centrum &amp; wing; sawed through centrum &amp; wing, partial saw cut through inferior portion of centrum)</td>
</tr>
<tr>
<td>sacrum (left anterior centrum &amp; wing; sawed through centrum &amp; anterior articular process)</td>
<td>sacrum (centrum segment, heavily eroded)</td>
</tr>
<tr>
<td>sacrum (centrum/spinous process fragment)</td>
<td>sacrum (centrum/spinous process fragment; sawed transversely through centrum)</td>
</tr>
<tr>
<td>8 ribs (right proximal; 4 sawed through distal margin of segment, 1 w/cut marks on lateral face)</td>
<td>10 ribs (left proximal; 7 sawed through distal end of segment, 1 w/cut marks on lateral face, length range: 85-102 mm)</td>
</tr>
<tr>
<td>2 ribs (right shaft segments; sawed through one end, 1w/cut marks on medial &amp; lateral faces)</td>
<td>rib (left shaft segment; sawed through one end)</td>
</tr>
<tr>
<td>rib (left shaft segment; sawed through both ends, length: 120 mm)</td>
<td>rib (left distal shaft segment; sawed through proximal end of segment)</td>
</tr>
<tr>
<td>ribs (4 unsided shaft segments; sawed through one end)</td>
<td>rib (unsided proximal/head; chopped through proximal diaphysis)</td>
</tr>
<tr>
<td>sternebrae (32 sternabrae/ster nal cartilage fragments)</td>
<td>scapula (right glenoid &amp; neck; sawed through neck)</td>
</tr>
<tr>
<td>2 humeri (right proximal, epiphysis partially fused; sawed through diaphysis below epiphysis)</td>
<td>humerus (right proximal; sawed through diaphysis below epiphysis)</td>
</tr>
<tr>
<td>humerus (right distal; sawed through diaphysis above condyles, part of articular unit below)</td>
<td>radius (right proximal; chopped &amp; broken below proximal epiphysis, part of articular unit)</td>
</tr>
<tr>
<td>radius (right diaphysis; chopped through at proximal end of segment, partially sawed then chopped through distal end of segment, part of articular unit)</td>
<td>ulna (right proximal, olecranon tuberosity unfused; chopped through diaphysis below articular surfaces, part of articular unit)</td>
</tr>
<tr>
<td>ulna (right diaphysis; chopped through proximal end of segment, partially sawed then chopped through distal end of segment, part of articular unit above)</td>
<td>radius (right distal epiphysis, unfused, bleached, articulates w/below)</td>
</tr>
<tr>
<td>2nd &amp; 3rd carpal (right, part of articular unit)</td>
<td>4th carpal (right, part of articular unit)</td>
</tr>
<tr>
<td>ulnar carpal (right, part of articular unit)</td>
<td>intermediate carpal (right, part of articular unit)</td>
</tr>
<tr>
<td>radial carpal (right, part of articular unit)</td>
<td>accessory carpal (right, articulates w/above)</td>
</tr>
<tr>
<td>innominate (right ischial wing, bleached, rodent gnawed)</td>
<td>innominate (left? ilial wing fragment; sawed through posterior end of neck)</td>
</tr>
<tr>
<td>femur (right proximal epiphysis/head, unfused)</td>
<td>femur (right proximal/lateral, epiphysis partially fused; sawed below greater trochanter)</td>
</tr>
</tbody>
</table>
### Table B-4. Identified vertebrate remains from block excavation, site 38CH964, Folly Island, Charleston County, South Carolina, 1988, excavations, concluded.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aves sp.</strong></td>
<td>femur (right distal, epiphysis partially fused; sawed through diaphysis 140 mm above distal margin)</td>
</tr>
<tr>
<td></td>
<td>femur (left diaphysis, epiphysis unfused; sawed through diaphysis below lesser trochanter)</td>
</tr>
<tr>
<td></td>
<td>femur (left diaphysis segment; partially sawed then broken above foramen, sawed then broken at supracondylar fossa)</td>
</tr>
<tr>
<td></td>
<td>tibia (right proximal epiphysis, unfused)</td>
</tr>
<tr>
<td></td>
<td>2 patellae (right)</td>
</tr>
<tr>
<td></td>
<td>patella (unfused, heavily eroded, bleached)</td>
</tr>
<tr>
<td></td>
<td>patella (left)</td>
</tr>
</tbody>
</table>

### Table B-5. Identified vertebrate remains from Feature 1, site 38CH965, Folly Island, Charleston County, South Carolina, 1988, excavations.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aves sp.</strong></td>
<td>cervical vertebra</td>
</tr>
<tr>
<td><strong>Ovis/Capra</strong></td>
<td>innominate (left ilial portion of acetabulum &amp; neck)</td>
</tr>
<tr>
<td></td>
<td>innominate (left pubic portion)</td>
</tr>
<tr>
<td></td>
<td>patella (left)</td>
</tr>
<tr>
<td><strong>Sus scrofa</strong></td>
<td>cranial fragment (right jugular process)</td>
</tr>
<tr>
<td></td>
<td>rib (left proximal shaft)</td>
</tr>
<tr>
<td></td>
<td>cervical vertebra (3 articular process/arch fragments)</td>
</tr>
<tr>
<td></td>
<td>3 thoracic vertebrae (proximal articular processes &amp; arch)</td>
</tr>
<tr>
<td></td>
<td>thoracic vertebra (centrum)</td>
</tr>
<tr>
<td></td>
<td>lumbar vertebra (posterior articular processes)</td>
</tr>
<tr>
<td></td>
<td>lumbar vertebra (2 centrum fragments)</td>
</tr>
<tr>
<td></td>
<td>indeterminate vertebra (2 centrum fragments)</td>
</tr>
<tr>
<td></td>
<td>femur (right proximal/posterior diaphysis fragment w/minor trochanter; sawed through diaphysis below trochanter, cut marks on posterior diaphysis)</td>
</tr>
<tr>
<td></td>
<td>3rd tarsal (left)</td>
</tr>
<tr>
<td></td>
<td>4th tarsal (left)</td>
</tr>
<tr>
<td></td>
<td>2nd metatarsal (left)</td>
</tr>
<tr>
<td></td>
<td>3rd metatarsal (left)</td>
</tr>
<tr>
<td></td>
<td>4th metatarsal (left)</td>
</tr>
<tr>
<td><strong>Bos taurus</strong></td>
<td>crania (left occipital/parietal/temporal/frontal/maxilla, w/posterior zygomatic &amp; partial dentition)</td>
</tr>
<tr>
<td></td>
<td>crania (2 unsided fragments)</td>
</tr>
<tr>
<td></td>
<td>hyoid (left posterior)</td>
</tr>
<tr>
<td></td>
<td>mandible (left anterior/symphysis w/il-4, broken anterior to premolars, articulates w/below)</td>
</tr>
</tbody>
</table>

B-20 "THE BEST EVER OCCUPIED"
Table B-5. Identified vertebrate remains from Feature 1, site 38CH965, Folly Island, Charleston County, South Carolina, 1988, excavations, continued.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandible</td>
<td>(right anterior/symphysis w/ili; chopped partway through inferior margin anterior to premolars, then broken, articulates w/above)</td>
</tr>
<tr>
<td>mandible</td>
<td>(left posterior vertical ramus, chopped partially through ramus below condyle, then broken)</td>
</tr>
<tr>
<td>2 1st cervical vertebrae</td>
<td>(left lateral 1/2)</td>
</tr>
<tr>
<td>1st cervical vertebra</td>
<td>(left anterior portion; sawed through dens)</td>
</tr>
<tr>
<td>2 3rd cervical vertebrae</td>
<td>(left &amp; right lateral centrum w/anterior &amp; posterior articular processes)</td>
</tr>
<tr>
<td>4th cervical vertebra</td>
<td>(left lateral centrum; sawed through lateral edge of centrum)</td>
</tr>
<tr>
<td>4th cervical vertebra</td>
<td>(right lateral 1/2; sawed through posterior articular process)</td>
</tr>
<tr>
<td>4th cervical vertebra</td>
<td>(right lateral 1/2; sawed vertically through centrum)</td>
</tr>
<tr>
<td>5th cervical vertebra</td>
<td>(right lateral 1/2; sawed through centrum)</td>
</tr>
<tr>
<td>cervical vertebrae</td>
<td>(5 articular processes; 3 sawed through neck)</td>
</tr>
<tr>
<td>cervical vertebrae</td>
<td>(3 lateral fragments; 2 sawed through lateral edge of centrum)</td>
</tr>
<tr>
<td>10 thoracic vertebrae</td>
<td>(arch segments w/posterior articular processes and spinous process; 1 sawed vertically lateral to articular process)</td>
</tr>
<tr>
<td>thoracic vertebra</td>
<td>(sawed vertically, lateral to articular processes)</td>
</tr>
<tr>
<td>3 thoracic vertebrae</td>
<td>(centrum)</td>
</tr>
<tr>
<td>3 thoracic vertebrae</td>
<td>(lateral centrum segment; sawed vertically through centrum)</td>
</tr>
<tr>
<td>thoracic vertebrae</td>
<td>(4 spinous process segments; 1 sawed at one edge)</td>
</tr>
<tr>
<td>thoracic vertebrae</td>
<td>(5 centrum/spinous process fragments)</td>
</tr>
<tr>
<td>thoracic vertebrae</td>
<td>((2 transverse processes; 1 sawed through near centrum)</td>
</tr>
<tr>
<td>2 lumbar vertebrae</td>
<td>(left lateral 1/2; sawed vertically at midcentrum)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(left lateral 1/2; sawed vertically toward right lateral edge of centrum)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(left lateral 1/2; sawed vertically through right lateral edge of centrum, and vertically anterior to posterior articular process)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(left lateral centrum/transverse process fragment)</td>
</tr>
<tr>
<td>2 lumbar vertebrae</td>
<td>(left lateral centrum/transverse spine fragment; sawed vertically through left lateral edge of centrum)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(spinous/transverse/articular processes broken away)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(sawed? vertically through right lateral edge of centrum)</td>
</tr>
<tr>
<td>3 lumbar vertebrae</td>
<td>(centrum segments only)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(right lateral 1/2; sawed vertically through mid-centrum)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(right lateral 1/2)</td>
</tr>
<tr>
<td>2 lumbar vertebrae</td>
<td>(right lateral centrum/transverse spine fragment)</td>
</tr>
<tr>
<td>2 lumbar vertebrae</td>
<td>(posterior articular process/arch fragments)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(left spinous process/articular process fragment)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(4 anterior articular processes)</td>
</tr>
<tr>
<td>lumbar vertebrae</td>
<td>(9 posterior articular processes; 1 sawed through neck)</td>
</tr>
<tr>
<td>indeterminate vertebrae</td>
<td>(23 body fragments; 3 sawed through one edge of centrum)</td>
</tr>
<tr>
<td>indeterminate vertebrae</td>
<td>(32 intervertebral plates/fragments, unfused; 8 sawed through one margin)</td>
</tr>
<tr>
<td>indeterminate vertebrae</td>
<td>(20 arch/articular process fragments; 2 sawed through one margin)</td>
</tr>
<tr>
<td>sacrum</td>
<td>(anterior portion; sawed vertically through right wing, sawed medially/laterally through centrum at 3rd sacral vertebra)</td>
</tr>
<tr>
<td>sacrum</td>
<td>(right anterior portion, unfused; sawed vertically through centrum)</td>
</tr>
<tr>
<td>sacrum</td>
<td>(right anterior centrum/wing fragment; sawed through centrum body and anterior face)</td>
</tr>
<tr>
<td>sacrum</td>
<td>(left anterior portion; sawed/broken through centrum along medial plane)</td>
</tr>
<tr>
<td>sacrum</td>
<td>(left anterior portion; sawed vertically through centrum)</td>
</tr>
</tbody>
</table>
Table B-5. Identified vertebrate remains from Feature 1, site 38CH965, Folly Island, Charleston County, South Carolina, 1988, excavations, continued.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sternbrae</td>
<td>(11 sternbrae/sternal cartilage fragments)</td>
</tr>
<tr>
<td>6 ribs (left proximal; sawed through distal end, length range: 59-272 mm)</td>
<td></td>
</tr>
<tr>
<td>10 ribs (left proximal; distal edge broken)</td>
<td></td>
</tr>
<tr>
<td>4 ribs (left proximal shaft segments; sawed through distal end, length range: 88-155 mm)</td>
<td></td>
</tr>
<tr>
<td>2 ribs (left proximal shaft segments)</td>
<td></td>
</tr>
<tr>
<td>4 ribs (right proximal; sawed through distal end, length range: 48-148 mm)</td>
<td></td>
</tr>
<tr>
<td>rib (right proximal; partially sawed through distal end then broken, length: 101 mm)</td>
<td></td>
</tr>
<tr>
<td>7 ribs (right proximal; distal ends broken)</td>
<td></td>
</tr>
<tr>
<td>ribs (22 unsided shaft segments; sawed at one end of segment)</td>
<td></td>
</tr>
<tr>
<td>ribs (15 unsided shaft segments)</td>
<td></td>
</tr>
<tr>
<td>rib (unsided shaft segment; sawed at both ends of segment, length: 96 mm)</td>
<td></td>
</tr>
<tr>
<td>rib (unsided proximal, articular fragment)</td>
<td></td>
</tr>
<tr>
<td>scapula (right anterior glenoid, neck &amp; wing; sawed at sharp angle through neck &amp; wing)</td>
<td></td>
</tr>
<tr>
<td>scapula (right cranial border/proximal spine fragment; sawed on two edges at acute angle)</td>
<td></td>
</tr>
<tr>
<td>2 scapulae (right cranial border/spine segment; sawed through neck)</td>
<td></td>
</tr>
<tr>
<td>2 scapulae (right caudal border/blade segment; sawed through neck)</td>
<td></td>
</tr>
<tr>
<td>scapula (left anterior glenoid &amp; neck; sawed through neck below origin of spine)</td>
<td></td>
</tr>
<tr>
<td>scapula (left cranial &amp; neck; sawed through neck at two angles from cranial and caudal margins)</td>
<td></td>
</tr>
<tr>
<td>scapula (left blade; sawed through neck at two angles &amp; through caudal blade border)</td>
<td></td>
</tr>
<tr>
<td>2 scapulae (left blade; sawed at angle through neck &amp; blade)</td>
<td></td>
</tr>
<tr>
<td>3 scapulae (left caudal portion of blade; sawed at angle through neck)</td>
<td></td>
</tr>
<tr>
<td>scapula (left caudal portion of blade; sawed through neck at two angles)</td>
<td></td>
</tr>
<tr>
<td>scapula (left cranial blade &amp; spine segment; sawed through neck)</td>
<td></td>
</tr>
<tr>
<td>scapula (unsided blade &amp; spine segment)</td>
<td></td>
</tr>
<tr>
<td>scapula (unsided spine segment; sawed through one end of segment)</td>
<td></td>
</tr>
<tr>
<td>scapula (23 unsided caudal border &amp; blade fragments; sawed on one margin)</td>
<td></td>
</tr>
<tr>
<td>humerus (right proximal, epiphysis partially fused)</td>
<td></td>
</tr>
<tr>
<td>humerus (right proximal, epiphysis unfused; sawed through diaphysis between epiphysis &amp; deltoid tuberosity)</td>
<td></td>
</tr>
<tr>
<td>humerus (right diaphysis; sawed above distal condyles &amp; through deltoid tuberosity)</td>
<td></td>
</tr>
<tr>
<td>humerus (right diaphysis; sawed above radial fossa &amp; above deltoid tuberosity)</td>
<td></td>
</tr>
<tr>
<td>humerus (right diaphysis; sawed above distal condyles &amp; below deltoid tuberosity, cut marks on medial/anterior diaphysis above radial fossa)</td>
<td></td>
</tr>
<tr>
<td>humerus (left proximal diaphysis fragment; unfused)</td>
<td></td>
</tr>
<tr>
<td>2 humeri (left proximal epiphysis, unfused)</td>
<td></td>
</tr>
<tr>
<td>humerus (left distal diaphysis; sawed above condyles, proximal edge broken)</td>
<td></td>
</tr>
<tr>
<td>humerus (left diaphysis; sawed above radial fossa &amp; below proximal epiphysis)</td>
<td></td>
</tr>
<tr>
<td>radius &amp; ulna (left proximal, fused; sawed below proximal articular surfaces)</td>
<td></td>
</tr>
<tr>
<td>radius &amp; ulna (left distal, fused; sawed ca. 100 mm above distal end)</td>
<td></td>
</tr>
<tr>
<td>radius (left distal &amp; diaphysis, distal epiphysis unfused; sawed at proximal end of diaphysis, articulates? w/below)</td>
<td></td>
</tr>
<tr>
<td>ulna (left? shaft segment; sawed at proximal end of segment, articulates? w/above)</td>
<td></td>
</tr>
<tr>
<td>ulna (right proximal, olecranon tuberosity unfused; sawed below proximal articular process)</td>
<td></td>
</tr>
<tr>
<td>ulnar carpal (left, articulates? with distal radius &amp; ulna above)</td>
<td></td>
</tr>
<tr>
<td>innominate (right acetabulum w/ischial &amp; pubic necks; sawed through ischial, pubic and ilial necks)</td>
<td></td>
</tr>
<tr>
<td>innominate (right ischial &amp; ilial portion of acetabulum; sawed through ilial neck)</td>
<td></td>
</tr>
</tbody>
</table>
Table B-5. Identified vertebrate remains from Feature 1, site 38CH965, Folly Island, Charleston County, South Carolina, 1988, excavations, concluded.

<table>
<thead>
<tr>
<th>Taxa</th>
<th>Element (side, portion; comment)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>innominate (right ilium; sawed through neck at acetabulum, and through anterior margin of wing)</td>
</tr>
<tr>
<td></td>
<td>2 innominates (right ilial wing; sawed through anterior neck)</td>
</tr>
<tr>
<td></td>
<td>innominate (right ilial neck; sawed through neck at acetabulum)</td>
</tr>
<tr>
<td></td>
<td>2 innominates (right ilial neck; sawed through neck at acetabulum &amp; immediately posterior to wing)</td>
</tr>
<tr>
<td></td>
<td>2 innominates (left ilial &amp; ischial portions of acetabulum; sawed through ilial &amp; ischial necks)</td>
</tr>
<tr>
<td></td>
<td>innominate (left ischium; sawed through neck)</td>
</tr>
<tr>
<td></td>
<td>innominate (left ilial neck; sawed through at anterior &amp; posterior margins)</td>
</tr>
<tr>
<td></td>
<td>innominate (left ilium; sawed through neck)</td>
</tr>
<tr>
<td></td>
<td>4 innominates (left ilial wing; sawed through anterior portion of neck)</td>
</tr>
<tr>
<td></td>
<td>innominate (left ilial wing; sawed through mid-neck)</td>
</tr>
<tr>
<td></td>
<td>innominate (3 unsided ilial/ischial wing fragments; 1 sawed through acetabular margin)</td>
</tr>
<tr>
<td></td>
<td>femur (right proximal, epiphysis unfused; sawed below proximal epiphysis)</td>
</tr>
<tr>
<td></td>
<td>femur (right proximal/lateral fragment, major trochanter partially fused; sawed below trochanter)</td>
</tr>
<tr>
<td></td>
<td>femur (right proximal/major trochanter, unfused)</td>
</tr>
<tr>
<td></td>
<td>femur (left proximal; epiphysis unfused; sawed below proximal epiphysis)</td>
</tr>
<tr>
<td></td>
<td>femur (left proximal/neck; sawed through neck)</td>
</tr>
<tr>
<td></td>
<td>femur (left proximal/head, unfused)</td>
</tr>
<tr>
<td></td>
<td>tibia (left proximal; sawed through intercondyloid eminence)</td>
</tr>
<tr>
<td></td>
<td>tibia (left proximal epiphysis, unfused)</td>
</tr>
<tr>
<td></td>
<td>tibia (left distal)</td>
</tr>
<tr>
<td></td>
<td>lateral malleolus (left)</td>
</tr>
<tr>
<td></td>
<td>tibial tarsal (left)</td>
</tr>
</tbody>
</table>

"THE BEST EVER OCCUPIED" B-23
Oyster Analysis 38CH964, 38CH965

By Dr. David R. Lawrence
Department of Geological Sciences
University of South Carolina
Columbia, South Carolina

Oysters from both Feature 1, 38CH965 and the 5 x 6 m Block, 38CH964, are heavily penetrated by roots, chalky in part, and at best, in a moderate state of preservation. None show valve discolorations or recrystallization textures which are typical of those subjected to moderate to intense heat (either by being burned as refuse or baked/roasted).

The oysters were shucked raw for use as foodstuffs. Distinctive marginal notches indicate that, most commonly, shucking was achieved by the stabbing of the shell with a blade-like object, perhaps a knife. Evidence of multiple stabbing is preserved on left valves in both 38CH965 and 38CH964 samples, and the notches occur at the position of right valve ribs or topographic highs (i.e., they lie between the left valve ribs). Several valves from 38CH965 show evidence of ventral cracking, but these valves are rather thin ones where knife rotation or prying would have been sufficient to break the shell. No special hammering tools were necessary to crack these valves.

There is a possible and subtle environmental source difference between the 38CH965 and 38CH964 oysters. Those from 38CH965 have a more typical low inter-tidal to sub-tidal oyster association and came from waters of lowered salinity or other, very unusual, locations. Lower parts of creek banks could have been collecting sites for these oysters. The oysters from 38CH964 have the more classic attributes of those from inter-tidal mud flat environments—thin, elongate valves, small left-valve attachment areas, and very few preserved oyster associates. In the Folly Island area, both of these settings yield oysters today.

Ligament analysis for seasonality estimates suggests that the oysters, in both samples, were collected during the fall, perhaps with a September-November concentration. However, the sample size is not large enough to allow strong seasonal inferences.
Article XXXVI – Troops In Campaign
Camp Of Infantry

515. Each company has its tents in two files, facing a street perpendicular to the color line. The width of the street depends on the front of the camp, but should not be less than 5 paces. The interval between the ranks of tents is 2 paces; between the files of tents of adjacent companies, 2 paces; between regiments, 22 paces.

516. The color line is 10 paces in front of the front rank of tents. The kitchens are 20 paces behind the rear rank of company tents; the non-commissioned staff and sutler, 20 paces in rear of the kitchens; the company officers, 20 paces farther in rear; and the field and staff, 20 paces in rear of the company officers.

517. The company officers are in rear of their respective companies; the Captains on the right.

518. The Colonel and Lieutenant-Colonel are near the centre of the line of field and staff; the Adjutant, a Major and Surgeon, on the right; the Quartermaster, a Major and Assistant Surgeon on the left.

519. The police guard is at the centre of the line of the non-commissioned staff, the tents facing to the front, the stacks of arms on the left.

520. The advanced post of the police guard is about 200 paces in front of the color line, and opposite the centre of the regiment, or on the best ground; the prisoners' tent about 4 paces in rear. In a regiment of the second line, the advanced post of the police guard is 200 paces in rear of the line of its field and staff.

521. The horses of the staff officers and of the baggage train are 25 paces in rear of the tents of the field and staff; the wagons are parked on the same line, and the men of the train camped near them.

522. The sinks of the men are 150 paces in front of the color line - those of the officers 100 paces in rear of the train. Both are concealed by bushes. When convenient, the sinks of the men may be placed in rear or on a flank. A portion of earth dug out for sinks to be thrown back occasionally.

523. The front of the camp of a regiment of 1000 men in two ranks will be 400 paces, or one fifth less paces than the number of files, if the camp is to have the same front as the troops in order of battle. But the front may be reduced to 190 paces by narrowing the company streets to 5 paces; and if it be desirable to reduce the front still more, the tents of companies may be pitched in single file—those of a division facing on the same street.
Camp of a Regiment of Infantry.

Cl.—Colonel.
Lt. Cl.—Lieut. Colonel.
M.—Major.
Surg.—Surgeon.
Adj.—Adjutant.
Q. M.—Quartermaster.
n.c.e.—Non-Comm.—Staff.

D1-2 "THE BEST EVER OCCUPIED"
Extract From Revised Regulations
For The Army Of The United States (1861)

Article XLIII – Subsistence Department
Supplies

1176. Subsistence stores for the army, unless in particular and urgent cases the Secretary of War shall otherwise direct, shall be procured by contract, to be made by the Commissary-General on public notice, to be delivered on inspection in the bulk, and at such places as shall be stipulated; the inspector to give duplicate inspection certificates (see Form 15), and to be a legal inspector where there is such officer.

1177. Purchases to supply such corps and posts as by reason of their position, the climate, or for other sufficient cause the Secretary of War may specially direct to be supplied in that way, will be made in open market, on public notice, from the lowest bidder who produces the proper article.

1178. And whenever a deficiency of subsistence stores makes it necessary to buy them, the commissary, where they are needed, will make a requisition for that purpose on the proper purchasing commissary, or buy them himself of good quality corresponding with the contract.

1179. When subsistence is received under contract, the commissary will receipt for it on the inspection certificates (see Form 15). He will deliver one of these to the contractor, and forward the other to the Commissary-General, with a report on the quality of the provisions and the condition of the packages.

1180. Whenever subsistence stores are purchased, the advertisements and bids, and a copy of the bill of purchase, with a statement of the cause of purchase, will be forwarded by the purchasing officer to the Commissary-General. This rule does not apply to the ordinary purchase of hospital supplies. Pork, salt beef, and flour must be inspected before purchase by a legal inspector where there is such officer. Duplicate certificates of inspection (see Form 15) will be taken as sub-vouchers to the vouchers for the payment.

1181. Fresh beef, when it can be procured, shall be furnished as often as the commanding officer may order, at least twice a week; to be procured by the commissary, when practicable, by contract. (For form of contract and bond, see Forms 20 and 21.) When it can be provided at not more than six and a quarter cents per pound, net weight, or at not more than an equivalent proportion of salt pork, it will be issued to the troops five times per week. When beef is taken on the hoof, it will be accounted for on the provision return by the number of cattle and their estimated weight. When the pasture is insufficient, hay, corn, and other forage will be procured for public use.

1182. When circumstances are favorable, and it can be done with advantage to the government, the Subsistence Department will keep beef cattle to supply the issues.

1183. Good and sufficient store-room for the subsistence stores will be procured by the commissary from the quartermaster. Care shall be taken to keep the store-room dry and ventilated. Packages shall be so stored as to allow circulation of air among and beneath them. The flour should occasionally be rolled out into the air.

1184. Before submitting damaged commissary stores to boards of survey, the commissary shall separate and repack sound parts.

1185. Wastage on issues, or from evaporation or leakage, will be ascertained quarterly, or when it can be most conveniently; and the actual wastage thus found will be charged on the monthly return. Loss, from whatever cause, exceeding ordinary waste, must be accounted for by the certificate of an officer, or other satisfactory evidence. Ordinary waste on issues should not exceed, say 3 per cent on pork, bacon, sugar, vinegar, and soap; and 1 per cent on hard bread, beans, rice, coffee, and salt.

1186. No wastage is admitted on issues of fresh beef.
furnished the company, detachment, or regiment directly from the butcher. But in beef on the hoof, errors in estimated weight, and losses on cattle strayed, stolen, or which have died, will be accounted for by the certificate of an officer, or other satisfactory evidence. When cattle are transferred, they should be appraised, and loss in weight reported as wastage by the officer delivering them. Fair wastage in transportation of stores is accounted for by the receiving officer.

1187. When practicable, cattle presented for acceptance must be weighed upon the scales. From the live weight of a steer, thus ascertained, his net weight shall be determined by deducting forty-five per centum when his gross weight exceeds thirteen hundred (1300) pounds, and fifty per centum when it is less than that and not under eight hundred (800) pounds.

1188. When it is impracticable to weigh upon the scales, one or more average steers must be selected, killed, and dressed in the usual manner. The average net weight of these (necks and shanks excluded) will be accepted as the average net weight of the herd.

1189. In all written instruments for the delivery of cattle on the beef, the manner prescribed above for ascertaining net weight must, in express terms, be inserted; in verbal agreements, it must be understood and accepted by the party delivering the cattle.

1190. Vouchers for the payment of cattle will state the method observed in determining their net weight, except where payment is made on the certificate of an officer, when it must be stated in the certificate.

THE RATION

1191. The ration is three-fourths of a pound of pork or bacon, or one and a fourth pound of fresh or salt beef; eighteen ounces of bread or flour, or twelve ounces of hard bread, or one and a fourth pound corn meal; and at the rate, to one hundred rations, of eight quarts of beans, or, in lieu thereof, ten pounds of rice, or, in lieu thereof, twice per week, one hundred and fifty ounces of desiccated potatoes, and one hundred ounces of mixed vegetables; ten pounds of coffee, or, in lieu thereof, one and one-half pound of tea; fifteen pounds of sugar; four quarts of vinegar; one pound of sperm candles, or one and one-fourth pound of adamantine candles, or one and one-half pound of tallow candles; four pounds of soap, and two quarts of salt.

1192. The table on page 280 shows the quantity of each part of the ration in any number of rations from one to one hundred thousand.

1193. On a campaign, or on marches, or on board of transports, the ration of hard bread is one pound.*

*During the rebellion in the Southern States the ration is to be increased as follows: Twenty-two ounces of bread or flour, or one pound of hard bread, instead of the present issue; fresh beef shall be issued as often as the commanding officer of any detachment or regiment shall require it, when practicable, in place of salt meat; beans and rice shall be issued in the same ration in the proportions now provided by the regulation, and one pound of potatoes per man shall be issued at least three times a week, if practicable; and when these articles cannot be issued in these proportions, an equivalent in value shall be issued in some other proper food, and a ration of tea may be substituted for a ration of coffee upon the requisition of the proper officer.
GENERAL ORDERS,
No. 40.

HDQRS. DEPARTMENT OF THE SOUTH,
Hilton Head, Port Royal, S.C.,
May 22, 1863

I. The major-general commanding desires to call the attention of all officers and men in this department to the paramount necessity of observing rules for the preservation of health during the warm months, upon which we have now entered. There is less to be apprehended from battle than disease; the records of all campaigns in climates such as this showing many more victims to the neglect of sanitary precautions than to the skill, endurance, or courage of the enemy.

The following rules for the sanitary government of all the troops at present serving in this department are hereby promulgated, and all officers having the charge of camps or posts will be held to a strict responsibility for their enforcement.

II. Care will be taken in the selection of camping grounds to avoid as much as possible the vicinity of malarious morasses or swamps, and the tents, in so far as practicable, are to be faced to the south. Each camp will be thoroughly policed twice each day, morning and evening, and all garbage or refuse matter will be collected and buried in the sinks. Post and regimental commanders will be held directly responsible for any neglect of police duty.

III. Each tent will be screened or covered at the top and half way down the sides with an arbor of brush-wood or palm leaves, and shall be floored at an elevation of not less than 3 inches from the ground. Where lumber cannot be procured each soldier will have a bunk raised 18 inches from the ground on side poles, supported by forked sticks. All quartermasters, to the extent of their ability, will furnish barrel staves to be placed across these side poles, and will issue the necessary lumber on receipt of proper requisitions.

IV. Tents will be struck at least three times each week and every article of bedding and clothing taken out and aired, the flooring and bunks to be thoroughly cleansed before the tents are re-erected. On the days in which the tents are not struck the sides will be raised and kept raised for the purpose of ventilation, and during the nights free ventilation will be secured by having the center seam in rear of the tent opened for the space of 2 feet and kept opened by the insertion of a forked stick. An officer of each company will inspect the tents of his men nightly, except during stormy weather, to see that this provision is carried out.

V. Sinks of the proper size, screened with pine or palmetto branches, shall be sunk at suitable distances on different sides of each camp, and the bottoms of these will be covered each morning with a layer of sand or clay. It will be the duty of the camp police to see that only the sinks on the lee side of the camp are used.

VI. Fresh meat is to be issued as often as practicable, and commanding officers, while near the sea-coast, will encourage such of their men as are off duty or not otherwise employed to fish during the cool hours of the morning and evening, not later than 9 in the morning and not earlier than 6 in the evening. In a scarcity of fresh meat those troops in the most exposed and unhealthy situations are to be first served.

VII. Breakfast will be ready for the men as soon as they leave their tents, which must not be until after sunrise. Except when immediately in face of the enemy, or when specially ordered by the commanding officer, reveille will not be sounded until half an hour after sunrise, by which time the sun's heat will have absorbed the miasma of the night dews. All the men will be furnished with straw hats, and will be required to bathe or wash themselves thoroughly at least twice each week and change their under-
clothing once a week, or oftener if practicable. Sentry-boxes of lumber, or small shade arbors of brush-wood, will be erected in the vicinity of all points where sentries are stationed, and all soldiers on night picket or sentry duty will be provided with India-rubber ponchos.

VIII. The proper cooking of provisions is a matter of great importance, more especially in this climate, but has not yet received from a majority of the officers in our volunteer service that attention which is paid to it in the Regular Army of the United States and by the armies of Europe. Hereafter an officer of each company will be detailed to superintend the cooking of provisions, taking care that all food prepared for the soldiers is sufficiently cooked, and that the meats are boiled or roasted, not fried. With a little care bestowed on this point, and the advantage both to health and comfort of good cooking explained to the men, much good may be effected.

Post and regimental commanders, post provost-marshal, post inspectors, and the officers of the medical staff will see that the provisions of this order are complied with, and will promptly report any failure or neglect to the senior officers of the commands they are serving with and to the medical director of this department.

By command of Maj. Gen. De. Hunter:

CHAS. G. HALPINE,

Lieut. Col. and A.A.G., Tenth Army Corps and Dept. of the South.
Letter Of Lt. Frank Heimer  
Co. C, 144th New York Volunteers  
(McKee 1905: 132-134)

While on Folly Island in September, 1863, you will remember that very near every man in the Regiment got sick; the cause being in my opinion that everlasting marching in Virginia in the hot summer and then being transplanted to a sandy island in South Carolina, with bad and unhealthy water to drink. Well, for about three days I was the only officer for duty, the others reporting sick, and the common saying was, 'You can never kill a Dutchman unless you hang him and he will get used to that.' But soon some of the officers got better and I too came on the sick list and got worse and worse every week. Surgeon Leal's opium pills did not do me any good; only just put me to sleep and being asleep saw lots of little men dancing and laughing with all their might around me. One week passed and no better; another passed and still worse, and another week commenced finding me worse. Now things began to get serious. You will remember also that we buried our dead over and beyond a sand knoll marching by the dispensary tent. A Massachusetts Regiment which had their camp south of ours also buried their dead on the same ground, and almost every day we were obliged to hear the Dead March played through our camp, which told to us that another good Massachusetts man had died for this country. You will also remember that after digging about eighteen inches in the cemetery the bottom fell out and water filled the grave. Well, when on the third week I got worse I thought my time had come and I did not want to be buried in a water hole. I began to look around for a better spot. During my sickness which lasted three weeks (by the way this was the only time I was off duty during the service) I got in the habit of reporting myself daily at the dispensary tent to get the ills and drops and then crawl over the knoll on all fours, being so weak, and toward the burying ground and then set myself on a piece of palmetto log under a live oak tree. There was a cooler air here than in camp. I sat there in pain and distress thinking of my poor wife and children at home, and thought of all the good and bad I ever did in my life. The tree stood on a little rising ground and I expected to lay in a dry grave if buried under it. I took two of my most intimate comrades to the spot and asked them to bury me there, and they promised they would do so as soon as I was dead. This satisfied me and I thought I would die in peace. But lo! and behold! next day I again crawled over the knoll and to my surprise found two Massachusetts men digging and just finishing a grave for one of their comrades on the very spot picked out for myself. This make me so angry and mad that I left with disgust and said to myself: 'Now, I shan't die anyhow,' and started, apparently with less pain but much vexation across the island. I got to the White House, the only house on the island and provided myself with a brick from the chimney and a door latch from the door, then started for Pawnee Landing, where the tide was about going out, exposing any amount of small oysters. I sat down placed the brick before me and with the latch knocked off the end of the oyster's shell and devoured the oyster, continuing at it the rest of the day. When night came I felt better and stronger, the oysters being the only thing I had eaten in two weeks. When I came to camp I bought a half pound of raisins and ate them skin and all. The next day I did the same thing and the next day reported for duty. I do believe if it had not been for that Massachusetts fellow stealing my grave I would not be here to relate this story.

"THE BEST EVER OCCUPIED" D4-1
APPENDIX D-5

Extracts From Ledger Recording Donations Received By The 55th Massachusetts Colored Infantry 1863-64

Col. Alfred S. Hartwell Papers
Special Collections
George Fingold Library of Massachusetts

Aug 17 —457—

Box Geo Fall
3 Bottles Raspberry Vinegar
1 " Blackberry "
1 " Currant Jelly
1 " " Syrup
1 " " Shrub [see notes below]

Aug 21 —458—

Box J.T.. Benedict Washington
13 Jars Jelly Barberry empty
5 " Pickles
8 Bottles Currant Shrub damage
3 Neck Ties
21 Cotton Hdkfs
3 Flannel bandages
61 Cotton Shirts
9 Wool "
38 Pair Wool Socks
6 " Old Cotton "
20 " Cotton Drawers
1 " Old Wool "
13 " Cloth Slippers
3 Vests
1 Old Flannel wrappes
2 1/2 Lbs Dried Apples
44 Small Cans Jelly
19 Furnished Bags

Aug 25 —460—

Box Soldiers B.S. Charlestown

11 Pamphlets
12 Can Condensed Milk
18 Papers Corn Starch
6 " Broma
42 Hdkfs
15 Arm Slings
2 Dressing Gowns
12 Napkins
1 Vest
36 Pair Cotton Socks
12 Neck Ties
12 Cotton Shirts
4 Pr " Drawers
2 Thin Coats
4 Lbs Arrow Root
2 " White Sugar
6 Towels
6 Pair Linen Pants
1 Hair Ring
6 Pillows
Cotton & Linen Pieces

Aug 25 —461—

12 Cotton Shirts
6 Pr " Drawers
24 " " Socks
24 Neck Ties
48 Hdkfs
6 Napkins
18 Arm Slings
2 Pillows
12 Can Condensed Milk
18 Papers Farina

D5-1 "THE BEST EVER OCCUPIED"
<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 Bottles Cologne</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 Combs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Hair Brushes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Pair Linen Pants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Tumblers Current Jelly</td>
<td></td>
<td>Blackberry Jelly</td>
</tr>
<tr>
<td>2 “ Blackberry Jelly</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

August 27 —462—

Bbl Sol Relief Association
New Bedford

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dressing Gown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>66 Pair Cotton Drawers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 Cotton Shirts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Flan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Bottles Cherry Juice</td>
<td></td>
<td>Wine</td>
</tr>
<tr>
<td>1 Jar Grape Jelly</td>
<td></td>
<td>Blackberry</td>
</tr>
<tr>
<td>2 “ Blackberry</td>
<td></td>
<td>Currant</td>
</tr>
</tbody>
</table>

Sept 5 —463

Bundle J. W. Merrill Boston
36 Thin Coats

Sept 5 —464—

Bundle Mrs. Louise Hugdon Boston
3 Night Shirts
8 Cotton Bandages

Sept 9 —465—

Box Soldiers Relief Society
Charlestown
12 Flannel Shirts
11 Cotton “
9 Linen Jackets
6 Towels
12 Hdkfs
24 Neck Ties
28 Cakes Soap
4 Bottles Lemon Syrup
4 “ Cologne

6 Bed Rings
3 Bed Cushions

Sept 14 —467—

Box Edwin Nuyman Roxbury
80 Wool Shirts
54 Pair Wool Drawers
20 “ Cloth Slippers
43 “ Wool Socks
16 Hdkfs
4 Cotton Shirts

Sept 14 —468 & 469—

2 Boxes Soldiers Relief Society
Charlestown Mass
3 Bottles Lemon Syrup
7 “ Cologne
24 Neck Ties
12 Towels
24 Arm Slings
12 Pair Cotton Socks
8 “ Wool “
2 Linen Jackets
4 Under Shirts
41 Cotton “
30 Sets Domino
48 Checker Boards & Men
24 Hdkfs
4 Fox & Greesboards & Men
3 Dressing Gowns
24 Jewsharps
18 Puzzels

Sept 21—470

Bbl Soldiers Relief Society
New Bedford
24 Cotton Shirts
24 “ Drawers
24 Flan Shirts
17 Wash Towels
11 Pair Socks
4 Flan Under Shirts
20 Bottles blackberry Syrup
6 “ Currant Wine
3 “ Whortteberries
1 “ Lemon Syrup

Sept 22, 471 & 472

2 Boxes Soldiers Relief Society
Charlestown

“THE BEST EVER OCCUPIED” DS-2
Sept 29—474—
Box Soldiers Relief Society
Milford
4 Cans Barbaries
2 " Currant Jelly
1 Bottle " "
6 " " Wine
2 " " Blackberry Jam
2 Boxes Mustard
2 Papers Maizena
1 " Farina
1 Pearl Barley [?]" Arrow Root
1 Bottle Pine Apple
1 " Tamarinds
1 " Cider
1 Can Honey
6 Cakes Soap
2 lbs Oat Meal
1 " Ginger

Oct 7—475 &476
2 Boxes
New Bedford
1 Pair Cloth Slippers
164 Cotton Shirts
185 Pair Cotton Drawers
35 " Cotton Flan"
57 " " " Shirts
5 Flann Under "
20 " Bandages
26 Dressing Gowns
27 Pillow Cases
14 Sheets 17 Towels

Oct 12—477—
Bundle J.T. Benedict Washington
16 Pair Cloth Slippers

Oct 21—478—
Box J.T. Benedict Washington
18 Pamphlets
30 Flannel Shirts
70 Cotton "
76 Towels
82 Hdkfs
36 Pairs Cotton Drawers
4 " Flannel "
12 Napkins
26 Coliers
5 Bottles Cherry Rum
3 " Blackberry Syrup
1 " Raspberry Vinegar
1 " Currant Shrub
7 " Cherry Cordial
4 Jars Barbaries
2 " C. Jelly
3 Arm Slings
5 Pillow Cases
2 Vests
3 Pairs Pants
2 Coats
? Boxes Ackerman
Social Games
8 Pair Socks

Oct 22—479—
Bundle Miss Conant
Washington
? Quilts
? Pair Cotton Socks

Oct 25"480"
New Bedford Sol. Relf.
Ass through Rev. W. J. Potter
(1 Box)
92 Cotton Shirts
23 Flannel Shirts
15 Sheets
<table>
<thead>
<tr>
<th>Item Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Gowns</td>
<td>4</td>
</tr>
<tr>
<td>Single</td>
<td>6</td>
</tr>
<tr>
<td>Flannel under Shirts</td>
<td>18</td>
</tr>
<tr>
<td>pr Cotton Drawers</td>
<td>19</td>
</tr>
<tr>
<td>Flannel</td>
<td>16</td>
</tr>
<tr>
<td>&quot; &quot; Flannel &quot; &quot;</td>
<td>1</td>
</tr>
<tr>
<td>&quot; &quot; &quot; &quot; &quot;</td>
<td>1</td>
</tr>
<tr>
<td>Coat</td>
<td>1</td>
</tr>
<tr>
<td>pr Trousers</td>
<td>3</td>
</tr>
<tr>
<td>Towels</td>
<td>8</td>
</tr>
<tr>
<td>Caps</td>
<td>5</td>
</tr>
<tr>
<td>Vest</td>
<td>1</td>
</tr>
<tr>
<td>pr Yarn Socks</td>
<td>67</td>
</tr>
<tr>
<td>Demijohn Brandy</td>
<td>1</td>
</tr>
<tr>
<td>Bottles &quot;</td>
<td>14</td>
</tr>
<tr>
<td>&quot; Cherry Rum</td>
<td>1</td>
</tr>
<tr>
<td>Flannel drawers</td>
<td>7</td>
</tr>
<tr>
<td>&quot; Cotton lo</td>
<td>4</td>
</tr>
<tr>
<td>Wool Vest</td>
<td>1</td>
</tr>
<tr>
<td>Handkerchief</td>
<td>1</td>
</tr>
<tr>
<td>Pkg. of Lint &amp; Bandages</td>
<td>3</td>
</tr>
<tr>
<td>Slippers</td>
<td>1</td>
</tr>
<tr>
<td>Box Soda Crackers</td>
<td>1</td>
</tr>
<tr>
<td>Papers Cocoa</td>
<td>12</td>
</tr>
<tr>
<td>&quot; Com Starch</td>
<td>1</td>
</tr>
<tr>
<td>&quot; Gelatin</td>
<td>1</td>
</tr>
<tr>
<td>&quot; Broma</td>
<td>1</td>
</tr>
<tr>
<td>Boxes Mustard</td>
<td>2</td>
</tr>
<tr>
<td>Bottles Pepper Saucer</td>
<td>2</td>
</tr>
<tr>
<td>Box Sago</td>
<td>1</td>
</tr>
<tr>
<td>&quot; Arrowroot (not received)</td>
<td>1</td>
</tr>
</tbody>
</table>

#481 November 12, 1863
Marlboro Soldiers Relief Society
(1 Box)
19 Flannel Shirts (1 Missing)
19 Pair Knit Socks
11 Cotton Shirts
7 " Pail flannel drawers
4 " Cotton lo
1 Wool Vest
1 Handkerchief
1 Pkg. of Lint & Bandages
3 Slippers
1 Box Soda Crackers
1 Papers Cocoa
12 " Com Starch
1 " Gelatin
1 " Broma
2 Boxes Mustard
2 Bottles Pepper Saucer
1 Box Sago
1 " Arrowroot (not received)

Nov 16 —483—
Box Soldiers Relief Society
New Bedford
71 Wool Shirts
30 White Flannel Shirts
60 Pair Yarn Socks
1 Bot. Blackbury Syrup
1 Bottle Raspberry Vinegar

Nov. 16 —484
Barrell Soldiers Relief Society
New Bedford
51 Pair Cotton Drawers
3 Coats
2 Vests
9 Flannel Shirts
19 Cotton " do
2 Pair Socks

Dec. 7—485—
Bbl Soldiers Aid Society
Duchville [?]
124 Pillow Cases
29 Sheets
18 Hdksf
3 Cotton Shirts
2 Quilts
2 Towels
54 Yards Bandages

Dec 24—486—
Box Soldiers Aid Society
Waltham
9 Wool Shirts
12 Cotton " do
12 Pair Wool Socks
8 " C. F Drawers
4 " Cloth Slippers
5 Dressing Gowns
24 Handkerchiefs
2 Boxes Lint
2 Cans Jelly
1 Box Soap
2 Boxes Mustard
1 pr of Slippers
6 Towels

"THE BEST EVER OCCUPIED" DS-4
<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillow Cases</td>
<td>1</td>
</tr>
<tr>
<td>Bottle Pepper Sauce</td>
<td>1</td>
</tr>
<tr>
<td>Tomato catchup</td>
<td>2</td>
</tr>
<tr>
<td>Sheet</td>
<td>1</td>
</tr>
<tr>
<td>Bundles old cotton</td>
<td>77</td>
</tr>
<tr>
<td>pr stockings</td>
<td>21</td>
</tr>
<tr>
<td>Magazines</td>
<td>1</td>
</tr>
<tr>
<td>Bundle ?</td>
<td>1</td>
</tr>
<tr>
<td>Bottle Tomatoes</td>
<td>1</td>
</tr>
<tr>
<td>Yards Bandages</td>
<td>1</td>
</tr>
<tr>
<td>file (?) News Papers</td>
<td>77</td>
</tr>
<tr>
<td>Books</td>
<td>2</td>
</tr>
<tr>
<td>Bottle Preserved Cherries</td>
<td>1</td>
</tr>
<tr>
<td>pr stockings</td>
<td>21</td>
</tr>
<tr>
<td>Pillow</td>
<td>1</td>
</tr>
<tr>
<td>bundles Dried Apples</td>
<td>4</td>
</tr>
</tbody>
</table>

Jan 8th/65 (246)
Case from Halliston Orwin Thomson (?)
6 Sheets 2 Comforters
3 Pillows & Pillow Cases
1 Blanket 1 Shirt
4 pr Drawers

February 16th 1864
American Society Leym (?) Mass

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pillow Cases</td>
<td>2</td>
</tr>
<tr>
<td>Currant Jelly</td>
<td>2</td>
</tr>
<tr>
<td>Bottle Cologne</td>
<td>1</td>
</tr>
<tr>
<td>Clarkes Bitters</td>
<td>6</td>
</tr>
</tbody>
</table>

Dec 29 (242)
Case from dorchester
20 New Flannel Shirts
5 Old pr
3 Cotton pr
26 pr Flannel Drawers
4 Old Knit
6 Vests
2 pr Pants
19 Hdkfs

Dec 29 (243)
Bbl from Littleton
22 Shirts
42 pr Socks
20 Pillow Cases
60 Hdkfs
41 pr Slippers
4 Dressing Gowns
5 Old Shirts
11 Pr Cotton Drawers
101 yds bandages
14 bags Hops (?)
5 Harper Monthlys
18 Coppies Gospel of St John

Feb 17
Soldiers Relief Society Farmhill
 Box 63

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flan Shirts</td>
<td>23</td>
</tr>
<tr>
<td>Drawers</td>
<td>28</td>
</tr>
<tr>
<td>Cot- Shirts</td>
<td>34</td>
</tr>
<tr>
<td>Drawers</td>
<td>15</td>
</tr>
<tr>
<td>pr. Socks</td>
<td>36</td>
</tr>
<tr>
<td>Towells</td>
<td>6</td>
</tr>
<tr>
<td>pack Mazenia</td>
<td>4</td>
</tr>
<tr>
<td>“ Farina</td>
<td>6</td>
</tr>
<tr>
<td>“ Con. Milk</td>
<td>5</td>
</tr>
<tr>
<td>dox bx Ginger</td>
<td>2</td>
</tr>
<tr>
<td>Box Tamerinds</td>
<td>1</td>
</tr>
<tr>
<td>pack bacon</td>
<td>4</td>
</tr>
<tr>
<td>Role Bandages</td>
<td>2</td>
</tr>
</tbody>
</table>

Ladies Soldiers Relief Society
New Bedford Jan 20 64
127 pr Wood Drawers
69 pr Socks
52 pr Shirts
13 under
9 (?) 18 pr Mittens
1 (?) 8 pr mittens
11 Hdkfs 2 Napkins
2 pr CF Drawers

March 15th 1864
Box from Salem

DS-5 "THE BEST EVER OCCUPIED"
2 Quilts
100 pr Socks
12 Pillows
34 (?) Shirts
48 Hdkfs
40 Towels
2 Bags Apples dried
Great Variety of Hospital Gloves

Box H.B Fernald
30 Flan. Shirts
26 " Drawers
2 doz prs Wool xxxx
2 Flan Vests
2 pr Mittens (?)
1 Home Guard (?)
12 Bef Sacks (?)
Pamplets

March 30 1864

Box Soldiers Relief Society
New Bedford Mass

30 pr Drawers
29 Wood Shirts
16 Pillow Cases
5 Half worn shirts
78 (?) Hos. Shirts
3 prs (?) Slips
2 dressing Gowns
2 prs Wool Socks
6 Flan Shirts

Waltham Soldiers
[?] Society forwd by
Surgeon Genl. Dale
Mar 3 1864

12 Shirts
12 Flan
12 prs C F Drawers
18 " Wool Socks
48 Towels
1 pack D Apple
Books and pieces (?)

April 4

Box from Georgetown Mass
General Surgeon Gene Dale
5 Quilts

2 Sheets pr pillows
35 Towels
12 Hdfs
3 pr Socks

April 7th 1864

Contents of Box from
Ladies Soldiers Relief
Society New Bedford Mass

95 Flan undershirts
14 " C "
13 Fans
145 Towells
15 Hdfs
13 Flan Drawers
4 " Shirts
1 Double Gown

April 27, 1864

Soldiers Relief Society
New Bedford Mass

2 Boxes
78 Flan Undershirts
36 pr Wool Socks
39 Wool under Shirts
2 (?) Flan "
12 Towels
11 Hdkfs
5 Wool caps
35 (?) Shirts
6 (?) Drawers

Principal Investigator’s Notes

The original list was hand written and very difficult to decipher. Where impossible to read or where an item did not seem to make sense, a (?) mark was included. The original spelling and punctuation was retained. The following is a selected list of words no longer in common usage, but still found in a good dictionary.

“Shrub” — an alcoholic drink, made from a mixture of rum or brandy with fruit juice.
“Bounce” — an alcoholic drink.
“Cravat” — a scarf or necktie.
“Sago” — a powder starch used as a food thickener or textile stiffener.
“Tamarind” — tropical tree and fruit.

"THE BEST EVER OCCUPIED"  D5-6
July 14, 1863- Near New Bern

Rgt. Special Order No. 15

In case of the death of any enlisted man of this Regt. the Surgeon in charge will notify the Qr. Master (who will provide coffin and transportation) and the adjutant.

The Adjutant will notify the commandant of the company to which the man has belonged of his death and order the proper details for digging the grave. Escort, etc.

The Adjutant will also, after consultation with the Chaplain, appoint the hour of the funeral services and notify all parties concerned.

In accordance with Genl. Order No. 84 - Sec. 2nd all drumming at funeral escorts will be dispensed with and no salutes will be fired.

By Order
Col. James C. Beecher
Wm. C. Manning, Adjt.
Collectors as Sources

by James B. Legg

Practically all Civil War sites have been severely impacted by collectors using metal detectors. The information removed in this fashion should not, however, be considered completely lost. An archaeologist working in any area with the potential for the presence of Civil War sites should consult with local collectors to retrieve this information.

Collectors span a broad spectrum of sophistication, and hence utility, to any archaeological endeavor. At one extreme are those who have little understanding of the history of the sites they collect, and who are often remarkably ignorant or uninformed about the material culture they amass. They seldom have any regard for provenience, and their collections and information are of very limited value to the researcher. At the opposite extreme are collectors who are virtually (or actually) scholars of the period and its material culture. Their archival research in their areas of interest is often definitive, or in any event would require months or years of effort to surpass. Their collections are usually well provenienced, conserved, and are often organized by site or locus rather than by class. The authors of this report were fortunate to communicate with two collectors from the latter extreme of this spectrum who had extensive knowledge of Civil War resources of Folly Island. These were A. Torrey McLean of Raleigh, North Carolina, and Robert Bohm of Charleston, South Carolina.

McLean and Bohm were interviewed separately regarding their impressions of the internal components (loci) within the project area. (They agreed that the entire tracts was a site.) Although McLean and Bohm have not communicated, their impressions were remarkably similar, supporting the validity of their generalizations. Figure E-1 depicts the military unit occupations identified in the project area by McLean and Bohm. Both identified the "equestrian" locus at the eastern end of 38CH964, and the Rhode Island/Artillery site. They agreed that all of both major dune lines were dense site areas. Neither had identified the probable location of the 55th Massachusetts camp, although Bohm found a 55th Massachusetts stencil at that location. Both identified the eastern third of the project area (as well as areas further east) as a New York infantry occupation area. Their collections were quite similar, and included many diagnostic artifacts not found by SCIAA. The similarities between this collector's map and those seen through archaeological investigation and archival research (see previous chapters), demonstrate the value of informant interviewing and consultation with collectors in conducting excavations at Civil War sites.
Figure E-1: Military unit camp locations as seen by collectors. A = New York Infantry, B = stables, C = Rhode Island Artillery, D = 55th Mass. Camp, E = low area discounted by archaeologists and collectors, actually 55th parade ground and camp, F = additional camps.
# 38CH920 Artifacts

| Category          | Unit 1 | Unit 2 | Unit 3 | Unit 4 | Unit 5 | Unit 6 | Unit 7 | Unit 8 | Unit 9 | Unit 10 | Unit 11 | Unit 12 | Unit 13 | Unit 14 | Unit 15 | Unit 16 | Unit 17 | Unit 18 | Unit 19 | Unit 20 |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| CLOTHING          |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| Buttons           |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| Bronze-Large      |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| Bronze-Small      |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| 4-Hole sku        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| 4-Hole bone       |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| 4-Hole white glass, small |    |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| 4-Hole glass, large |    |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |
| Pendant discs      |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| HAIRITTLE         |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Beads             |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Benches           |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Suspended Crosses |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Can lids          |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Can Ends          |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Skeletal M (MALE)|        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Rubber Band jacket|        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Buckles           |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Leather Ties      |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| PERSONAL          |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Burns Pachis Pipe |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| ARMS              |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Lead bullets      | 9      | 2      | 1      | 1      |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Rubber bullet uncle C.L. |    |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Projectile Points (L.B.) |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| PROJECTILE CAS   |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| WORK, ARTIC, TANK |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Nail fragments   | 34     | 11     | 1      | 228    | 165    | 148    | 165    | 72     | 165    | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| WHT. iron fragments | 2      | 3      | 1      | 2      | 1      | 2      | 1      | 2      | x      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      |
| Corroded fragments (P) |        |        | x      | x      |      x | x      | x      | x      | x      | x      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| Iron wood fragments |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| BOTTLE GLASS     |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| CLD               | 1      | 2      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| DDB               | 1      | 4      | 1      |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Clear             | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |
| FAUNAL           |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |
| Water sheet      |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |

**Note:** The table above represents the distribution of artifacts across different units. The values indicate the count or percentage of each artifact type found in each unit.
## 38CH965 Artifacts

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"THE BEST EVER OCCUPIED" F-3
### 38CH966 Artifacts

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**F-4 "THE BEST EVER OCCUPIED"**
To The Reader: In the rush to 'deliver' this manuscript to the printers before our manuscript formatting specialist delivered her baby, the Principal Investigator overlooked several typographical errors. Foremost among these are:

Covers: Front (and Title Page), read Ted A. Rathbun; both prints provided by the Massachusetts Historical Society.

Acknowledgements: p. viii, paragraph 4, last line, read Dr. John Brumgardt; p. x, paragraph 2, last line, read Timothy Riordan.

Chapter II: p. 18, column 2, last two lines, insert on p. 21, column 2, before line 2.

Chapter III: p. 36, column 2, last line, insert on p. 38, column 2, last line.

Chapter IV: p. 67, Figure 4.1, substitute new map provided; p. 70, paragraph 3, line 1, delete "the", read "this 5 x 6m block"; p. 71, Figure 4.6, EU 8 outline (2 x 2m) did not print; reverse A-A' and B-B'; p. 77, Table 4.2, column 2, "stripping", move under column 3, "Material collected..."; p. 78, Figure 4.10, read 230 cm b.s.; pp. 84-85, controlled metal detector survey abbreviation, read CMDS; p. 88, column one, paragraph 2, last sentence, delete "was", read "a tool used".

Chapter V: p. 111, column 2, line 1, delete "in", read "camped on or near".

References: p. 136, citation under Coryell, Ken, reverse with p. 143 citation under Bohrn, Bob.

Appendix B: p. B-6, bold print for heading "Site 38CH965".

The responsibility for these errors, and any others, rests solely on the Principal Investigator and in no way reflects on the scholarship of the co-authors. Incidentally, baby Mitchell arrived on December 3, 1989 and was flawless; obviously reflecting the services of a higher and better editor.

Steven D. Smith
Principal Investigator
Figure 4.1: Site 38C1964, General Site Map.