2000

"Gimmie Shelter": Union Shelters of the Civil War, a Preliminary Archaeological Typology.

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"GIMMIE SHELTER":

UNION SHELTERS OF THE CIVIL WAR,

A PRELIMINARY ARCHAEOLOGICAL TYPOLOGY

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Todd L. Jensen

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APPROVAL SHEET

This thesis is submitted in partial fulfillment of

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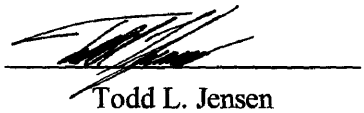

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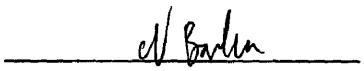

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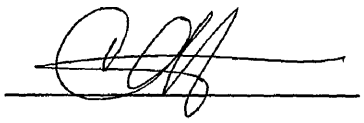

Dr. Clarence R. Geier

DEDICATION

This thesis is dedicated to those who gave their lives to defend and preserve our glorious nation. Also, to the men and women that served in the wars and battles that tempered our Union; the Revolutionary War, the War of 1812, the Mexican War, the Spanish American War, the Civil War, World War I, World War II, the Korean War, Vietnam, Desert Storm, and all other conflicts in which American blood was shed.
"Dulce et decorum est, pro patria mori"

GOD BLESS YOU!

"... It is rather for us to be here dedicated to the great task remaining before us-that from these honored dead we take increased devotion to the cause for which they gave the last full measure of devotion-that we here highly resolve that these dead should not have died in vain-that this nation, under God, shall have a new birth of freedom-and that the government of the people, by the people, for the people, shall not perish from the earth" (Abraham Lincoln Gettysburg Address).

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To my family I owe everything. My sister Laura helped and supported me with her insights and feedback. My mother gave willingly of her time and effort in countless editing sessions . My father provided a never-ending stream of ideas and possibilities that gave this work its depth. My wife Jessyca gave me the support that only she could provide. Without her sacrifices and careful prodding this project would never have come to fruition.

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ABSTRACT

This study examines the shelters used by Union soldiers during the Civil War and argues two hypotheses: that archaeological footprints can be linked with specific shelter types and that the elaborateness of shelters is directly proportional to time in camp. After linking documentary evidence and archaeological features, a preliminary archaeological typology of footprints left by Union shelters has been constructed.

Union soldiers had several standard-issue tents at their disposal during the Civil War. Soldiers used these tents as they were designed, as well as incorporating them in more elaborate shelters, such as log huts. The extensive pictorial documentation of the Civil War provides evidence of these shelters, as do the written documents of the period. Features in the archaeological record can be as explicit as the photographs. As the archaeological feature is an accurate representation of the shelters constructed, it can be used to identify the type of shelter present on any given site.

The first hypothesis, that specific archaeological footprints are left by particular shelter types, has been tested through thorough documentary research, presenting all of the general shelter types used by Union soldiers. Then archaeological evidence of shelters has been compared to the documentary evidence. A typology has been constructed using analogy to hypothesize how each shelter type should be represented in the archaeological record.

The second hypothesis of this thesis is that the elaborateness of shelters is directly proportional to time spent in camp. This hypothesis has been found true through a correlation of time in camp and shelters constructed. A corollary to this hypothesis shows that even in the strictest of societies, a certain amount of deviation from the standards will occur given certain pressures and stress. Archaeological as well as pictorial and written evidence is incorporated in the proof of this hypothesis.

The data provided in this body of work will enhance archaeologists' ability to determine the nature of shelter-related features at Civil War sites. Also, while just scratching the surface, this thesis shows that a good deal of anthropological work needs to be done on warfare and the fighting man/woman. This work has consolidated information that will be useful to those conducting archaeological research on Civil War sites, particularly in areas in which Union soldiers were encamped.

"GIMMIE SHELTER":

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CHAPTER I

INTRODUCTION

The Civil War

From 1861 to 1865, the Civil War commanded the thoughts of the American people. This war between states devoured resources, both material and human. What began as an "insurrection", ended with some 689,000 of the sons and daughters of America dead or wounded between the north and the south (Katcher 1992).

Tomes have been written about the Civil War. All aspects of this four-year period of conflict have in some shape or form been documented. Tactics of both armies, biographies of the generals, diaries of the soldiers, and letters home from the front all have been examined and re-examined. It is said by some historians that the Civil War is in fact the most well-documented period of United States history.

Aside from the meticulous documentation of this tragic period of America's history, the Civil War encapsulates the potential of historical archaeology. Historical archaeology enables us to look at the past through the material remains of the period. Primary documentation - the voices of the soldiers and their officers who lived through the experience – clarifies the window to the past.

Common to the experiences of every Civil War soldier was that of time spent in camp. Each day began and ended in some sort of camp. Whether the soldier had slept under the stars with no shelter whatsoever - as was often the case in bivouac situations – or rose to the smell of coffee in the warmth of his log hut in winter quarters, camp life was a large part of the soldier's existence. Soldiers detailed every facet of camp life to those at home, as often it was the only experience that would not send a mother, father, or loved one into tears.

The soldier's shelter was his home during his tour in the service. What made a good shelter? What could soldiers do to increase the comfort of their shelters? What materials did they use? What was the trade-off between the effort required to construct a livable shelter and the comfort afforded by that shelter? This study looks at the shelters built and utilized by Union soldiers in all their various forms and attempts to understand the rationale behind, and methods of, shelter construction. Because archaeology looks at material remains, independent of what the documents and military regulations have to offer, archaeology can provide a true understanding of what the soldiers actually did construct.

Union Military Shelters

Both the Union and Confederate soldiers constructed and used several different forms of shelter during the Civil War. Although this work was designed specifically to examine shelter types used by Union soldiers, Confederate soldiers often employed similar tents and methods of construction (Katcher 1992).

The Union soldiers had at their disposal (depending on military resources at any particular time) a limited variety of tents that were issued to or purchased by them for the purpose of housing. During the course of the Civil War four basic tent types were utilized by the union soldier: the Sibley tent; the "A" or Wedge tent; the Wall tent; and, lastly, the Half-Shelter, Shelter, or "Dog" tent. Two other tents were infrequently used – the umbrella tent, and the tent d'abri (a French prototype of the half-shelter tent). This study does not consider these last two types since they were so rarely used.

The type of tent used depended largely on an individual's rank. Officers, under ideal conditions, were issued wall tents (Figure 1). Officers of high rank often had one

Figure 1. Photograph of a reproduction wall tent (Wellikoff 1996:71).

or two wall tents to themselves, while lieutenants were often two to a single wall tent. Non-Commissioned Officers were generally issued wall tents but were housed four to a tent (Wiley 1952).

The enlisted soldier was housed in a Sibley tent during the first year of the war (Figure 2). The Sibley tent could accommodate up to twenty soldiers (Katcher 1992).

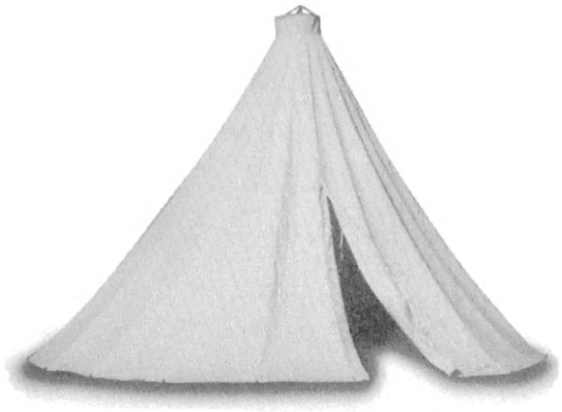

Figure 2. Photograph of a reproduction Sibley tent (Wellikoff 1996:70).

The Sibley tent was phased out during the second year of the war and replaced with the "A" or wedge tent (Figure 3), or the Half-Shelter tent (Figure 4).

Figure 3. Photograph of a reproduction "A" tent (Wellikoff 1996:71).

Figure 4. Photograph of a reproduction half-shelter tent (two halves assembled) (Wellikoff 1996:70).

Moreover, Union soldiers, officer and enlisted alike, would often make modifications to their tents, use their tents as roofing material, or abandon their tents altogether and build log huts during the winter months, when , troop movements were often limited by inclement weather and muddy conditions. Because of curtailed movement and military actions, the Union troops would go into Winter Quarters - a semi-permanent camp in which the troops of any given outfit would spend the winter months. It was primarily during Winter Quarters that the Union troops would build log cabins or huts, and little shantytowns would emerge over the war-torn landscape.

The Problems

This thesis addresses two problems associated with looking at the encampments occupied and shelters used by the Union soldier. First and foremost is the practical problem of recognizing military shelters in archaeological situations. This problem relates to the reconciliation of physical and documentary evidence.

The features that exist on Civil War sites are often difficult to see and understand, particularly because of the duration of the occupation of any particular site. Civil War encampments, when found, often contain archaeological features that are peculiar to Civil War encampments. This study focuses on military shelters and hypothesizes about the archaeological features they would leave, in an attempt to aid future investigations of Civil War encampment areas.

Concerning the recognition of military shelters, Civil War archaeology poses several problems. One of the most crucial setbacks to Civil War archaeology has been the advent of the metal detector and the relic hunting community. Although relic hunters in most cases adhere to the law and operate legally, the retrieval of artifacts from the ground disturbs the vertical integrity of sites or features and hinders successful understanding of them. The tenacity of relic-hunters puts archaeologists in the position of always being "Johnny-come-lately's".

Second, the problem of accounting for deviations from the military regulations concerning tents (and encampment layout) and tolerance of these deviations. These deviations reflect the anthropological issues that can be observed when soldiers are under the pressures of war. The behavior of soldiers in wartime conditions presents an opportunity to look at the anthropological implications of their actions.

The military is known for being a cultural entity that is rather strict in its environment and regulations. The shelters built by the soldiers more often than not were much different from those prescribed by the regulations. The deviations were, in reality, condoned. This work attempts to offer an explanation for the deviation, and acceptance of those deviations from the military letter of the law.

To accomplish the goals of this study, Union military shelters are evaluated using archaeological data, written documentary sources, photographs, paintings, and sketches. Chapter II provides a research framework as well as an in-depth description of the hypotheses this study has tested. Chapter III evaluates the various documentary sources and details the various shelter types. Chapter IV summarizes additional facilities that contribute to the archaeological footprints of the Union shelters. Chapter V furnishes examples of the archaeological data that is representative of the military shelters in question. Chapter VI analyzes and evaluates shelter types, shelter footprints, and encampment areas based on the research done, and evaluates the original hypotheses. Chapter VII presents conclusions, and offers recommendations for future work in this area of study. Included in Chapter VII is a discussion of anthropological issues as well as guidelines for management of Civil War encampment sites.

CHAPTER II

METHODS AND RESEARCH DESIGN

Introduction

After a brief introduction to the subject of campsites and shelters, this chapter presents a summary of major problems to be considered relative to Civil War archaeology, followed by the rationale for this specific research. The hypotheses that guided this study are stated next. Lastly, the methodology used to test these hypotheses is spelled out.

The War Department, in its *Revised Regulations for the Army of the United States 1861,* outlined the procedures to be followed in laying out campsites. The regulations also stipulated what sort of tents should be issued to each person. Over the course of the war the types of tents utilized changed as the requirements of the Union Army changed.

For the majority of the year, the Union troops used the tents issued to them, with or without modification. During the winter months and during winter quarters tents metamorphosed into huts and structures of all sizes and varieties. Soldiers were ingenious in their use of local materials to construct shelters that afforded them more comfort than the army-issue tents.

In order to reconstruct and make useful predictions about camp size, orientation, and season of occupation of Union campsites, a basic understanding of shelter types and construction is essential. Moreover, in the absence of photographs or written accounts of specific encampments, an understanding of the archaeological "footprints" left by each shelter type (real or hypothetical) is the only means that archaeologists have to reconstruct and understand the encampment. A grasp of encampment techniques and properties can yield the tools necessary to understand the daily life and conditions, both physical and mental, of the Union soldier.

The Problems

Two major problems are addressed in this study. The first of these problems is the recognition of archaeological features. After a Civil War encampment has been identified, the greater problem of predicting and deciphering the nature of the features present still remains. Length of occupation, permanence of the archaeological footprints of the encampment, successive occupations by different military units, looting by relic hunters, and the limited amount of excavation that has been carried on Civil War campsites are all factors in the recognition of features.

Because the site may not have been occupied for any considerable length of time, the features may be indistinct or so amorphous as to make recognition an exercise in futility. Speaking of the excavation of 44GL358 (Gloucester Point), Higgins et al. (1995:7) relate: "Many of the military sites identified within the region show evidence of

having been briefly occupied and/or disturbed, and afford little insight beyond their historical context."

Even when the same units occupied the site for a reasonable length of time, tents were moved frequently and the areas around them policed to clean trash and ground debris from the campsite, further increasing the challenges to successful interpretation of the site. Moreover, sanitary regulations of the War Department required striking and ventilating tents at least three times a week. Chances of erecting the tent over the exact spot three times a week are small if any at all. These standard procedures no doubt garble the archaeological record significantly.

A second impediment is that the footprints left by different military shelters are not equally substantial. Log huts with brick or sod chimneys stand a greater chance of being recorded in the archaeological record than a simple tent held to the earth with pegs. Sites containing the remains of log huts, such as those that served as winter quarters, may be more easily recognized than a temporary summer camp where soldiers were more likely to ride out the encampment in a simple tent. Of the archaeological sites supporting this study, the majority contain features that are related to long-term, substantial structures. Whether log huts, foundations for winterized tents, or a combination of both, the features are relatively obvious. The campsite at Fort Pocahontas is the only site that displays features that relate to tents without foundations or excavated interiors. These features are faint; it is possible that simple tents were utilized at the other campsites discussed in this study, however, they may have been erected in such a fashion as to leave no trace at all.

A third complication is that multiple occupations of any particular campsite create considerable background noise. Overlapping and mixed deposits of separate groups with very few distinguishing characteristics are apt to result from such a situation. Clues such as regimental buttons left behind by decamping soldiers are greatly prized by "casual archaeologists," which leads into the fourth deterrent to successful interpretation of Civil War sites – their fascination for relic hunters.

One has only to explore the web pages of relic hunters to achieve a sense of how widespread the relic hunting craze really is. While relic hunters often operate legally, gaining permission from landowners, or hunting on their own property, the destruction to archaeological features and sites is inevitable. One relic hunter's web page introduces the owner of the page and discusses his late entry into the relic-hunting world. From this opening paragraph, one can understand the danger to archaeological sites if relic hunters get there first: "I was raised on a farm outside of Murfreesboro, a very short distance from the Stones River Battlefield. A few short years ago, relics were plentiful and the Middle Tennessee area was a digger's paradise. Unfortunately, my interest in this period of our history lagged behind the other relic hunters in the area" (http://www.stonesrivertrading.com/main.html). Relic hunters often work areas that could yield a wealth of information for the archaeologist (Figure 5). Needless to say, over the long run, the relic hunters have done a fine job of retrieving all diagnostic Civil War artifacts, and destroying countless features in the process.

Looting of historic sites by relic hunters using metal detectors often removes the diagnostic artifacts of the Civil War and in the process obscures the feature altogether.

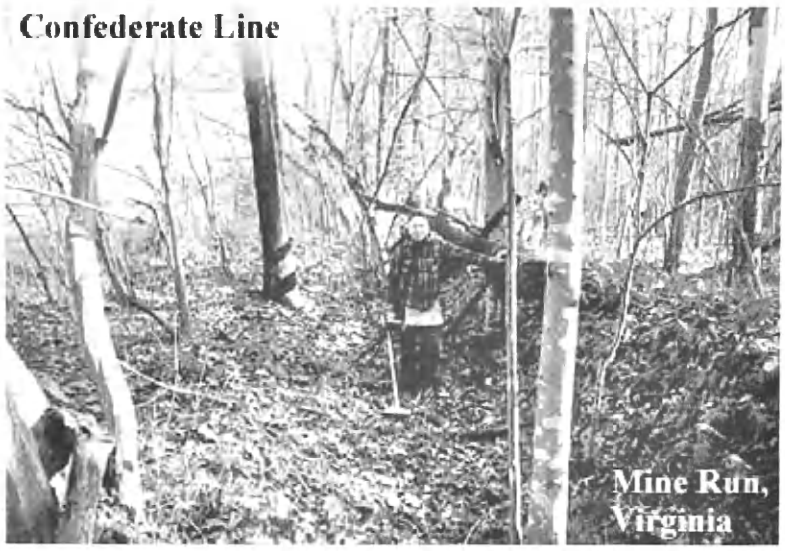

Figure 5. Relic hunter with equipment by earthworks (http://www.stonesrivertrading.com/main.html).

This is not to say that relic hunters do not have anything to offer aside from knowledge of artifacts. Relic hunters often have knowledge of Civil War sites and locations that would otherwise elude archaeologists, particularly during surveys, as demonstrated at Winchester, Virginia where information from relic hunters and letters written by relic hunters informed the Virginia Department of Transportation of a Civil War site. This Civil War site had not been recognized for what it was by two independent archaeological firms (Jones 1998). Robert L. Jolley discusses the importance of relic hunters in locating civil war sites: "One proven method for locating Civil War sites is to consult with those individuals who are most knowledgeable of their location. The success of the West and Middle Tennessee surveys of Civil War sites was heavily dependant on the cooperation of relic hunters" (Jolley 1997:9).

Beyond all these obstacles is the fact that precious little archaeology has been done on Civil War campsites. Excavation of military campsites has been limited by sites available for archaeological research, many of which are in national parks. Cultural resource management (CRM) firms doing archaeological research around the country have excavated a handful of military campsites; however, CRM companies typically excavate limited areas dictated by the project limits. If the CRM company finds a campsite of any significance, the client also has the option of avoiding the area to escape the costs of archaeological research. If by moving a road to the right or left, the campsite can be avoided, the Highway Department might be inclined to alter the route of the road to avoid paying thousands of dollars for additional archaeological excavation (King 1998).

The second problem considered in this thesis is deviation from the military regulations. The military is stigmatized by its infatuation with picayune regulations and strict adherence to those regulations. During the Civil War the army was no less attached to regulations than it is today. *The Revised Regulations for the Army of the United States* of 1861 gave step-by-step instructions for camping procedures for each particular section of the army; the infantry, the cavalry, and the artillery (Appendix A). Illustrations of the prescribed camp layouts for the Cavalry (Figure 6) and Infantry (Figure 7) (taken from the regulations) can be seen below.

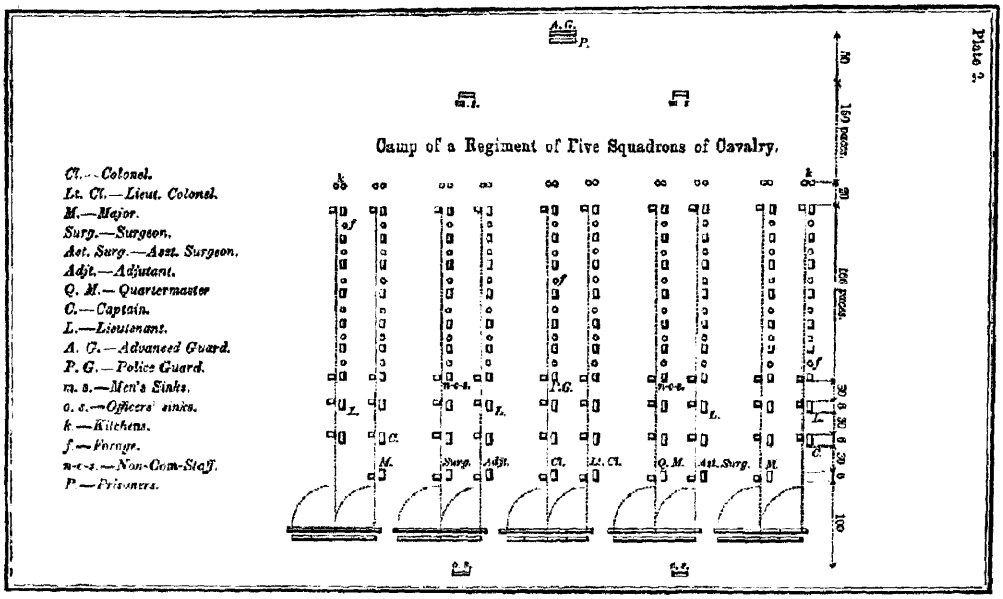

Figure 6. Regulation Cavalry camp layout (United States War Department 1863:78).

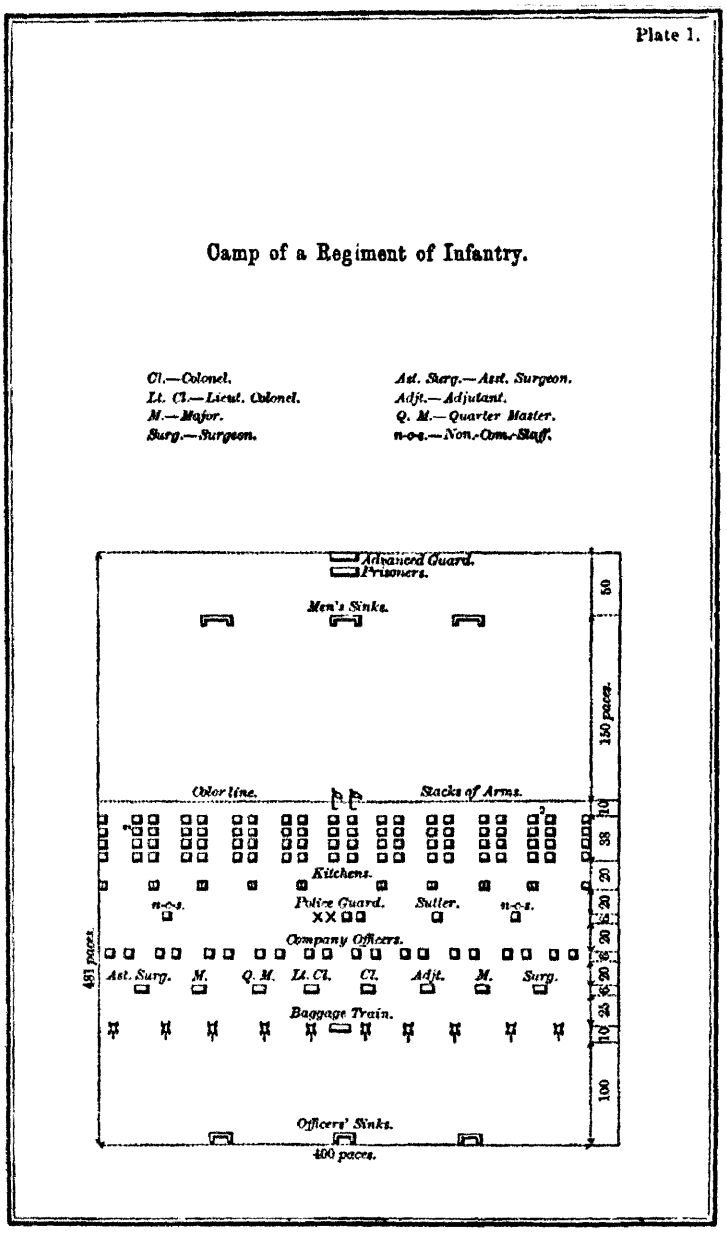

Figure 7. Regulation Infantry camp layout (United States War Department 1863:77).

Campground regulations like all the other regulations, were supposed to be followed without question. However, as this study illustrates, there were deviations from the military letter of law that were tolerated and even condoned.

Deviation from the military standard and toleration of this deviation is important anthropologically for several reasons. First and foremost, the military is a stratified society with strict rules for conduct and interaction between the various levels of the society-particularly the officers and enlisted men. During the Civil War the officers in charge of the men in the field allowed and in almost all cases condoned the deviation from the military regulations dealing with the camp (layout, structures used, and cleaning practices). Officers in the offices in Washington had limited knowledge of the goings-on in camp; however, they relied on field officers to convey information regarding the enlisted men's conduct and adherence to the regulations. Obviously there are discrepancies in what the high-ranking officers knew, and how the field operations were actually conducted. These discrepancies are important for understanding the inner workings of the military as a social entity. Feld states that: " the flow of commands is from superior to subordinate, the flow of information from subordinate to superior" (Feld 1977:78). However, it would seem that certain aspects of in-field conduct and command are maintained at the local level.

Other important anthropological questions will be discussed in chapter seven; however, due to the limited scope of this study not all the possible questions will be addressed or answered.

Campground layout deviations were common and certainly understandable as strategically important areas may have had topography on which the prescribed camp layout would be inadvisable, if not impossible. A case in point are the campgrounds on Maryland Heights, documented by Susan Frye (1990). These encampments bear little resemblance to the ordained campground layout scheme issued by the army. "None of

the recorded campground areas on the mountain, however, followed the regulations. In fact, no two campgrounds had the same layout, although the range and types of features generally were similar" (Frye 1990:171).

Certainly, this type of deviation from the regulations was expected in situations where the primary objective of the military was control of a specific area that did not lend itself to the camp regulations.

Apart from camping situations where layout schemes were modified or abandoned altogether, there is the issue of shelters. The tents issued by the military were sufficient for keeping the soldier out of the elements. Although the soldiers often complained about their shelters, the tents issued by the military were designed to keep the soldiers dry and under some sort of roof. During the summer months the tents were certainly used as they were designed to be. However, during the colder months of the year the tents were either modified, abandoned, or used as roofing material for more substantial structures built by the soldiers to provide better protection from the cold and rain. This is not to say that every time an army camped during the more frigid months of the year the soldiers set out to build elaborate structures to keep out of the cold. It was not uncommon to have active campaigns during the winter months. In campaign situations, the soldier would certainly use his issued tent when his unit was on the move. Only when time in camp was prolonged did the soldiers seek to improve their shelters.

These more substantial shelters were constructed when time in camp permitted and the officers in charge allowed or encouraged the soldiers to build these shelters. Winter quarters provided the soldier with an opportunity to construct a shelter that was more substantial than his issue tent in order to keep warm during the colder, less

militarily active months of the year. These log or plank shelters were deviations from the regulations of the military regulations; the regulations mentioned huts in the first line of camping procedures but huts are not discussed any further. The shantytowns that were erected during winter quarters were certainly not what the creators of the regulations had in mind. As they often bark at new recruits in the military today –"If it was not issued to you it is not regulation." Of course, this judgment is rendered only when the offending article was not in some way, shape, or form beneficial to the military powers that be.

This is apparently the case when it came to the construction of shelters during the winter months. In a letter to Brigadier General John Pope, Major General H. W. Halleck specifies how to go about making the soldiers comfortable for the winter:

> No considerable expense must be incurred in the encampment at La Mine. The work must be all done by the command. Each squad should be required to provide for its own comforts in a hut or tent. With proper attention on the part of the officers this can be readily accomplished. A few nails and tools and a little lumber are the only things required. Very little lumber, however, should be used, for in case the troops move the encampment must be abandoned. They, however, should be given to understand that they are to make themselves as comfortable as possible for the winter [OR 8:420].

Orders such as these were certainly given verbally as well as in written form.

Chapter three considers this phenomenon further and discusses a considerable number of these official documents encouraging the officers in charge to build log shelters for the winter months. Not only were log huts and shanties built but these shelters were made more elaborate with the addition of heating devices such as fireplaces and chimneys. The interiors of these shelters were also decorated, adorned with beds, chairs, tables, and other amenities that made military life more tolerable. In his diary entry of May 10, 1861, Oliver W. Norton writes: " We have fixed up our quarters first-

rate. Four of us occupy a shed about ten feet by five feet. Plenty of lumber was furnished and we partitioned off a cabin, about half our room, and covered it all over except a little hole to crawl into. Inside we have a berth or bunk for one, and straw in the bottom for the rest, a first-rate camp. The front room we use for sitting room, parlor, reception room, reading room, writing room, etc., a place about five feet square" (Norton 1903:9). The soldiers utilized all tenable means to make their living quarters not just a safe haven from the elements but a sanctuary from the bloodshed and rigors of war.

Rationale for this Research

The translation of military shelter into archaeological feature, and back into military shelter, is the crux of this study. Understanding archaeological features requires some understanding of the formation processes involved. Whether the feature is a Woodland palisade line, smudge pit, hearth, a 17th century earthfast house, or a brick-lined cellar, many interpretations are based on precedent or some historical account. As archaeology is a destructive process, information that gives a baseline for interpretation prior to excavation of any feature increases the accuracy of that interpretation and, therefore, increases the amount of information that can be gleaned during excavation. Noël Hume states quite eloquently: "Thus, to extract this information the archaeologist must be competent to do two things: he must be able to take the ground apart in such a way that its secrets can be wrested from it, and he must be sufficiently versed in the history and objects of the appropriate period or culture to properly interpret the site he is destroying" (Noël Hume 1969:12).

As discussed briefly before, features found on Civil War encampment areas are often difficult to interpret. While one can assume that the features are in fact footprints of military shelters, matching specific feature types to shelter types requires delving into the written historical and pictorial documents of the Civil War. This thesis attempts to arrive at a typology of shelters and their associated footprints. Linking shelter type to archaeological footprint type will be of great assistance to archaeologists working in areas of high Civil War activity potential.

Beyond the archaeological importance of Civil War campsites, there are anthropological considerations as well. Civil War encampments are an almost untapped cultural resource. The Civil War was a defining period in the history of the United States. This war that pitted brother against brother changed the way that Americans thought about themselves, and the way that they and their neighbors lived. As much as the Revolutionary War changed the way that Americans lived, so too did the Civil War. The soldiers that lived in these encampments were our ancestors; the ancestors of most American families who came to the United States prior to 1850 probably include one or more Civil War soldiers. Combatants came even from states that seemed not to have a vested interest in the conflict.

The understanding of military encampments, and more specifically military shelters can assist archaeologists in reconstructing camp life and filling the gaps in history books as to how the common soldier spent his leisure time and how he understood his environment as well as his duties in the service of the Union army. A soldier's sleeping quarters provides a unique look at this individual's perception of reality and his standing in the Union army. Information gleaned form the footprints left by shelters can

give a glimpse of soldiers' ideas of self preservation, comfort, and need to retain a sense of self in a deep sea of conformity that is military service.

Beyond the common soldier, the shelter types on any given campground can also yield details on how those in charge felt about their men, health, and adherence to military regulations.

Testable Hypotheses

Two hypotheses, derived directly from the problems discussed above, are evaluated by this study.

Hypothesis #1

Characteristic archaeological footprints will be left by particular shelter types.

Hypothesis #2

Elaborateness of the shelter is directly proportional to time in camp. A corollary to this hypothesis is that when time in camp permitted, military officers allowed, and even encouraged, the men to improve their regulation shelters, deviating from the military standard.

Methodology

The methods used to test hypothesis one include: 1) review of archaeological results from several different campsite excavations and 2) evaluation of documentary sources such as official military records, personal diaries, letters written by the soldier to those at home, photographic records of the Civil War, and paintings and sketches done by the soldiers themselves or contemporary artists.

Archaeological results from various campsite excavations were obtained from several CRM companies and academic departments. The University of Tennessee Transportation Center provided reports from two separate campsite excavations (Creswell 1998, Kim 1993). Two separate campsite excavations by The William and Mary Center for Archaeological Research were evaluated (Higgins et al. 1995, Harwood et al. 1998, Jensen et al. 1999, Nasca et al. 1998). Archaeological investigations at Maryland Heights (Frye 1990), Chesterfield County, Virginia (Cromwell and Geier 1985), and Folly Island (Legg and Smith 1989) were evaluated also.

Evaluation of documentary sources was achieved by searching through various libraries, CD-ROM's, books, diaries, and Internet sources. The Official Military records in their entirety were purchased on CD-ROM. *The Civil War CD-ROM – The War of the Rebellion: A compilation of the Official Records of the Union and Confederate Armies,* was purchased from Guild Press of Indiana, INC. The personal diaries of soldiers and letters written by the soldier to those at home, were found at the major libraries in the area including The Rockefeller Library, The Swem Library at William and Mary, and The Library of Virginia in Richmond. Not all of the diaries or letters had pertinence for this study. Therefore, a sample of those diaries and letters that contained useful information was incorporated. The photographic records of the Civil War were also obtained from libraries and books. Several books that contained numerous Civil War photographs were selected out of the plethora of available photographic sources. The Internet also contained web pages with myriad Civil War photographs including the Smithsonian Museum web page. Paintings and sketches of encampment areas were

found in a variety of places including the libraries, the Internet, Civil War histories, and even contained within the journals and letters of the Civil War soldiers.

By using documents, photographs, and sketches and linking these with archaeological features, shelter types can be connected to their respective archaeological footprint. The use of analogy and a careful process of determining which materials were used in the construction of the Union shelters as well as the methods in which the shelters were constructed, a potential shelter footprint can be established. For instance if soldier Joe Q. Northerner states that he made a log foundation for his tent (a shelter tent) that was 5 feet wide by 7 feet long, and dug out the interior of this log hut, we can use this information to hypothesize about how the signature of his structure would present itself in the ground. An example of the archaeological results evaluated by this study is the excavation at Gloucester Point (44GL358) by the William and Mary Center for Archaeological Research (Higgins et al. 1995). Several features were exposed during this excavation that were found to be the footprints of stockaded Sibley tents. Portions of three of these features were excavated and evaluated. An illustration of the features is included below as well as an especially useful overlay of the feature with a photograph of the shelter that created this footprint (Figure 8).

Figure 8. Illustration showing tent superimposed over archaeological features (Higgins et al. 1995:55)(photograph from Lord 1965).

An example of the official correspondence that was useful for this study is a report by Surgeon Thomas A. McParlin (January 14 to May 8, 1864): "*Nature of quarters*.—The winter quarters of the troops were completed during the month of January, consisting for the most part of log huts about 8 feet square, the walls 4 feet high, and roofed with shelter-tents, each hut accommodating from 3-5 men. Much skill and taste was evinced in the arrangement of many of the camps, those of the Maine regiments being especially noticeable on account of the neatness and comfort of their huts" (OR 67:211). Reports of this nature were useful in understanding the size and nature of the log huts as well as aiding in constructing a typology of the huts.

One example of the nature of diary entry that was considered by this study is an entry made in January of 1865 in the diary of Roger Hannaford of the Second Ohio Volunteer Cavalry. Hannaford writes:

> Maxel, Fry & myself at about the 9th & 10th of January determined to get at our hut, which was to be of larger size than any other (in our Company); the inside dimensions were 8 by 101/2 ft.; the logs were 5 ft. high. Our huts were all of the same general pattern, with logs on [the] east & west sides & north end, while the south end was open for the chimney & door. . . The chimneys of most of the huts were. . . built as large as possible, after allowing room at the southeast corner for the door. It was impossible to enter a hut without 'making your manners,' for the crosspiece was scarcely ever over 5 ft. high. Most of the boys had so planned their huts that their shelter tents were amply large enough to cover them, but I well knew that ours would be too wide, making it necessary to have some boards at the eaves; but where they were to be found, that was the question; every board to be found for two or three miles from camp was already gobbled [Starr 1978:326].

This particular diary was found in the Virginia Magazine of History and Biography, every volume of which, was searched. Only three similar diaries or group of letters from this journal were found to be useful.

One example from each type of picture utilized for this study; photographs, sketches, and paintings, is provided below. A photograph of a typical winter encampment shows the log huts with canvas roofing material built by the Union soldiers (Figure 9).

Figure 9. Example of photograph showing log huts in a winter encampment (Miller 1911 :4:195).

A sketch from the diary of Charles Mattocks illustrates both the floor plan of the huts in his camp but also provides a sketch of the typical hut (Figure 10).

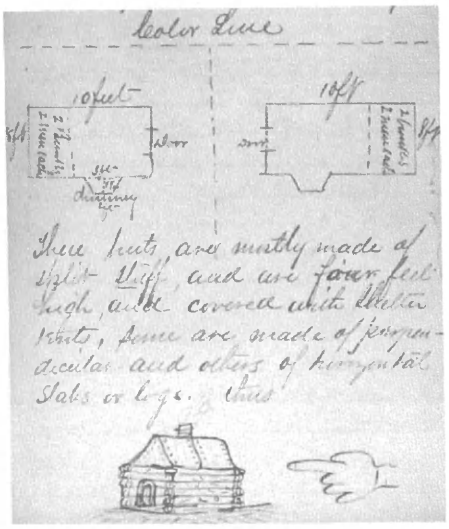

Figure 10. Example of sketch showing floorplan of log hut and sketch of log hut (Racine 1994 :100).

A painting of a winter encampment provides insight as to how these log huts were constructed and a window into life at a Union camp (Figure 11).

Figure 11. Example of painting showing an encampment with log huts (Catton 1996:339).

The documentary sources utilized for this study will be discussed at great length in the following chapter. Archaeological data that was considered during this study is discussed in chapter V.

Methods that were enlisted to evaluate hypothesis two included mostly the same methods used for the evaluation of hypothesis one. However, a much larger emphasis was put on the official records of the military.

For hypothesis two, the official military correspondence was scrutinized for pieces of information that would substantiate the premise of hypothesis two. Moreover, letters and diaries of military officers were of great help in revealing how the military felt about the deviations from the regulations.

An example of a letter that indicates the position of H. W. Halleck concerning tents or deviations from the regulations was written on May 2, 1864. Halleck writes: "Lieutenant-General Grant directs that general Orders, No. 160, series of 1862, in regard

to the issue of tents, be strictly adhered to. Where troops refuse to accept shelter-tents, they will receive none of any kind. All common, wall, Sibley, or other tents issued to troops under your command in violation of Orders, No. 160, will be returned, and any quartermaster who shall hereafter violate that, order will be arrested and tried by court-martial" (OR 63:400).

A document that expresses a different standpoint is a letter written by JNO. F. Philips on January 10, 1865. Philips writes: "At this place we have a splendid camp, some 100 huts, well built and arranged, and good stables for 1,000 horses. Such huts have been built at all the posts and stations in the district and with very little cost to the Government" (OR 101:476).

Documents such as these illustrate the dichotomy that exists in the military between what the regulations indicate and what happens in reality. The use of these and similar documents were used to test hypothesis two. In addition to those methods used to test each hypothesis, which are described below, tables presenting shelter characteristics and dimensions were used to compare each shelter type. These tables are given and discussed in Chapter V.

CHAPTER III

REVIEW OF THE SHELTERS USING DOCUMENTARY SOURCES

Introduction

The Civil War is perhaps the most extensively documented period of United States history. Books have been written, diaries and letters published, photographs taken and stored. The documentation of the Civil War did not end with the war; today meaningful histories and accounts are still being published and collected that increase our collective knowledge about all aspects of the conflict. Compiling a list of every work that deals with the Civil War would be a monumental task in itself. It is well beyond the scope of this thesis to consult all the resources available

This study gives a sampling of the hoard that exists to be mined in the future. Photographs, sketches, and written accounts of shelters are abundant. In order to make sense of the archaeological footprints left by Union military shelters, a review of the documentary record for those shelters is very useful.

The discussion that follows introduces each shelter type, beginning with those issued to the troops, and presents excerpts from official documents, diaries, and letters

relevant to each type. The discussion of each shelter type is illustrated with samples of period pictures, sketches, and paintings.

Table 1 presents the standard-issue military tents along with relevant information regarding those tents. A detailed description of each type of tent will follow.

Table 1. Military Issue Tents and Characteristics

TENT TYPE	STANDARD DIMENSIONS	STANDARD HEIGHT	NUMBER OF OCCUPANTS	MATERIAL (DATES OF ISSUE)
Sibley Tent	18 Ft. in diameter	12 ft. high	12-20 men	Cotton drilling-duck (1861-1862
Wall tent	14 x 14.5 ft., 10.5 x 11.5 ft., 8.9 x8.9 ft.	11'7" in height, 8'6" in height	1-4 officers	Cotton drilling-duck (1861-1865)
Wedge or "A" tent	7 x 7 ft. floor space	≅ 6 ft. high	4-6 enlisted men, 1-2 officers	Cotton drilling-duck (1861-1863)
Shelter tent (half-shelter tent)	5'2" x 4'8" (1862), 5'6" x 5'5" (1864)	Height depended on end stakes-rifles usually used	2 men (two halves made one tent-more could be fitted together to accommodate a larger number of soldiers	Cotton drilling-duck (1862-1865)

Tents were the primary shelters issued to the troops by the military. *The Revised Regulations for the Army of the United States* mentions a few of the tents used by military personnel. These regulations from 1861 reflect the tent types utilized at that time:

> 1579. *For all Commissioned Officers*-wall tent, with a fly, pattern now issued by the Quartermaster's Department.
> 1581. *For all Enlisted Men*- Sibley's patent, according to the pattern now issued by the Quartermaster's Department, at the rate of one tent to 17 mounted or 20 foot men. Sheet-iron stoves will be issued with the tents in cold climates, or when specially ordered.
> 1582. *For Officers' Servants and Laundresses*- small common tent, old pattern [United States War Department 1863:489].

(The small common tent mentioned in article 1582 might have been used while the Sibley tent was being decommissioned; however, it is difficult to ascertain exactly which tent this article is describing.)

During the Civil War period, Union troops used primarily four types of tents: The Sibley tent, the wall tent, the wedge tent, and the half-shelter tent. Chronologically, the Sibley tent was the first type extensively used by the enlisted man, whereas the wall tent was the first used by the officers. The wall tent was utilized throughout the war by both officers and the hospital. The Sibley tent, however, was phased out and replaced by the "A" tent. The Sibley and "A" tent were both eventually replaced by the shelter-tent, which became the only type issued to the enlisted man and officers of lowest rank.

The Sibley Tent

The Sibley Tent was designed and patented by Henry Hopkins Sibley and was put into use years before the Civil War erupted. [i] This tent was copied from the well-known teepee of the Plains Indians. Conical in shape, the Sibley tent was about 12 feet high and had a diameter of eighteen feet. It could accommodate from 12 to 20 men; army regulations stated that 17 mounted soldiers or 20 foot soldiers should be housed in one of

these tents. "The sibley tent was... supported by a single pole which rested on an iron tripod, by means of which the tent could be tightened or slackened at will. At the top of the tent was a circular opening, about a foot in diameter, which served the double purpose of ventilation and of passing a stove pipe through in cool weather. . . . These tents were comfortable for 12 men, but the tents were much too cumbersome for active operations in the field. . . During the war the Federal Army used 44,958 Sibley tents" (Lord 1965:280).

The Sibley tent is probably one of the Civil War's most recognized tents. Even after discontinuation of the type, units with Sibley tents in their possession continued to use them. The official documents of the Civil War are replete with mentions of the Sibley tent although its use was short lived. During the second year of the conflict (1862) the Sibley tent was discontinued, primarily due to difficulty in transport. Although the tent is not explicitly named in the following excerpt from a letter to Major General George H. Thomas dated June 28th 1863, its burdensome nature is a cause of great concern:

> The general commanding has noticed with great regret the criminal neglect to obey department orders in reference to the reduction in baggage. If this army fails in the great object of the present movement, it will be mainly due to the fact that our wagons have been loaded down with unauthorized baggage. Officers and soldiers who are ready to die in the field do not hesitate to disgrace themselves and imperil the army by luxuries unworthy of a soldier. Second. The general commanding direct that all baggage trains be reduced to the minimum. To effect this, all tents, except shelter tents and one wall tent to each regiment, will be dispensed with [OR 35:478].

A second letter, written to Major General W.T. Sherman on April 20, 1864, mirrors the opposition to the use of Sibley tents and advocates the exclusive use of shelter tents:

> To one thing let me call your attention- the burdensome tentage of your armies. Requisitions are still referred here, asking, in violation of general orders, for Sibley tents, wall-tents, A-tents, &c. We make no more Sibley tents. The eastern armies are fitted out with shelter-tents entirely. Burnside's command turned in the other day a complete outfit of A-tents, which they had received while encamped at Annapolis, and yesterday they marched through Washington, every man with a shelter-tent rolled up on his knapsack, all contented. I rode out to meet them on Sunday evening, and I saw a division go into camp. In half an hour after stacking arms, without waiting for wagons, every man had his shelter-tent up and all were housed. The shelter-tent is more healthy than the A, or wall, or Sibley, and the difference in mobility of an army thus sheltered and an army with the other tents is enormous [OR 59:435].

A third letter was written on November 12, 1864 to Lieutenant Colonel Von Schrader, inspector general Army of the Cumberland from Charles Cruft, commander of a convalescent camp. This was a fixed camp and, therefore, transportation of tents was not an issue: "I have used forty old Sib-ley tents and some old bell and wall tents to assist in making them comfortable, and for the residue have procured the issue of shelter-tents. I suggest the use of all the old or repaired sibley and bell tent-age that may be on hand for these camps. The difficulty in procuring boards or slabs to make the shelter-tent warm and raise it from the ground makes the former tents better for this use" (OR 93:881).

The Sibley tent is described by the enlisted men in a variety of manners; some liked the accommodations: "We have the large round tent, about eighteen feet across the bottom and tapering to a point at the top. A round pole in the center supports it, and, on

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The Sibley tent is described by the enlisted men in a variety of manners; some liked the accommodations: "We have the large round tent, about eighteen feet across the bottom and tapering to a point at the top. A round pole in the center supports it, and, on

this pole, two tables are suspended by ropes. One above the other, and so arranged that we can lower them to use as tables or raise them up above our heads... We used to sleep on the ground or on pine boughs when we had the small or wedge tents, but when we obtained these we concluded to be a little more extravagant" (Norton 1903:49).

Some soldiers did not enjoy the large tents because of the cramped conditions. A soldier from Vermont stated:

> It was quite a spacious pavilion, large enough for a good size circus side show... The foot of the centre pole was held in position by an iron frame, called a tri-pod, the legs of which straddled out like those of a daddy-long-legs. This straddling attachment seems to have been invented expressly for the soldier to stumble over when moving about at night. It served its purpose admirably... The men were packed like sardines in a box, from fifteen to twenty in each tent, At night they lay with their feet mixed up around the centre pole, their heads fringing the outer line. Each man's knapsack marked the particular section of the ground that belonged to him... The men slept like a great circular row of spoons, and if one wanted to turn over to give the bones on the other side a chance, he would yell out the order to 'flop' and all would go together [Robertson 1988:103].

Photos of the Sibley tent abound. It is difficult to open any Civil War photo-documentary without seeing at least several examples of the Sibley tent (Figure 12).

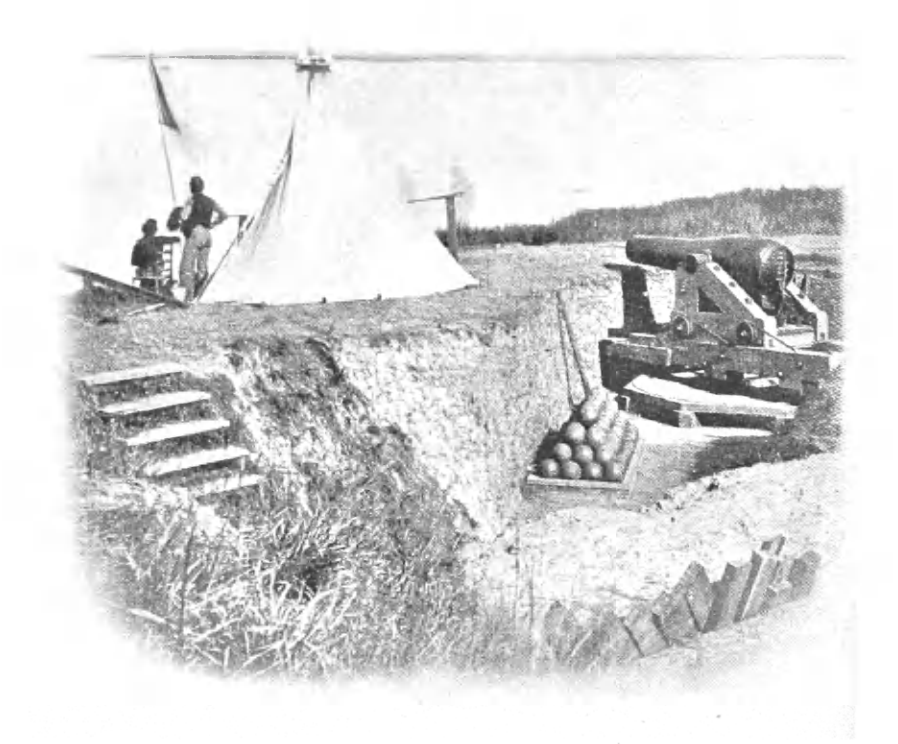

Figure 12. Photograph of a Sibley tent in use (Miller 1911:8:334).

Paintings and sketches of the Sibley tent in a variety of settings are at least as common as the photographs of the same (Figures 13 and 14).

Figure 13. Painting of Sibley tents in use at camp (Catton 1996:372) (Winslow Homer).

Figure 14. Sketch of Sibley tents on a campsite (Billings 1888:46).

The Sibley tent, though decommissioned in 1862, was utilized, to some extent, right to the end of the war. Some units carried the tents with them while others sent their

Sibley tents back to the Quartermasters' depots to be used by more sedentary groups or used in training camp and enlistment posts. This accounts for the mention of Sibley tents through to the end of the war. A note of interest is that as the tents deteriorated, the bottom edge, often decomposing because of mold and mildew, would be cut off, reducing the overall diameter of the tent and decreasing its size. This may account for the misconception that the tent was sixteen feet in diameter rather than the actual diameter of eighteen feet: "The Sibley tents, though ordinarily capable of accomodating [sic] eighteen men, do not generally contain over eight or ten at the camp, they are so cut down, many of them, at the bottom from the decay of the canvas, while others are much contracted by the manner of erecting them, and from these causes and from being banked up they are much contracted, and the same remarks will generally apply to the other tents of the camp" (OR 118:334-335).

An interesting and particularly relevant accessory that could be ordered in conjunction with the Sibley tent was an iron stove, used during periods of inclement weather. The military regulations indicate that these sheet-iron stoves, which came in at least three models, should be issued with the tents in cold climates, or specially ordered. Similar types of stoves were available in the civilian markets.

The Wall Tent

As its name implies, the wall tent, or hospital tent, was used as a hospital facility. The wall tent was rectangular with side walls typically 45 inches tall. The tents came in several sizes: 14' by 14.5'; 10' 6" by 11' 6"; and 8' 9" square. The height of these tents was 11', 7' and 8' 6," respectively. A tent fly, commonly 21.5' by 14', accompanied these tents and could be set up just outside the front entrance on poles.

division headquarters. Corps commanders, having the books and blanks of their respective commands to provide for, are authorized to take such tents as they deem absolutely necessary, but not to exceed the number allowed by General Orders, No. 160, Adjutant-General's Office, series 1862" (OR 38:213).

General Order No. 160 was issued on October 18, 1862 and gave explicit instructions as to who got what sort of tent and how many each person could receive. General Orders No. 160 is included in its entirety in Appendix B and should be consulted to see the exact language of the order (Appendix B).

The journals of officers often discuss their living quarters which, more often than not, are wall tents. Captain Charles Porter Mattocks describes his commanding officer's quarters and his own, illustrating the extensive fixing-up that could be done to these tents:

> Col. West has a very good prospect of retaining the command of the Brigade for a considerable time. He is fixing up his Head Quarters in fine style, and will no doubt remain in the enjoyment of them some time. I have completed my *office*, but the bed room will require a day or two more. The office is 10 feet by 8, and the *bed room* a wall tent opening from the 'off.' I have a most excellent glass door, upon which I propose to paint some fine devices. As yet I have no floor for my sleeping room. Shall have to hew one from logs, as boards are "played out" in this vicinity. I have a very nice table, and book case, &c [Racine 1994:94].

Because wall tents doubled as hospital tents, photographs of hospital areas could easily be confused with those of encampments. Photographs from the period containing large numbers of wall tents should be further researched to exclude the possibility of being a hospital staging area. Photographs of wall tents are quite common. Officers were often photographed in front of their wall tent (Figure 15).

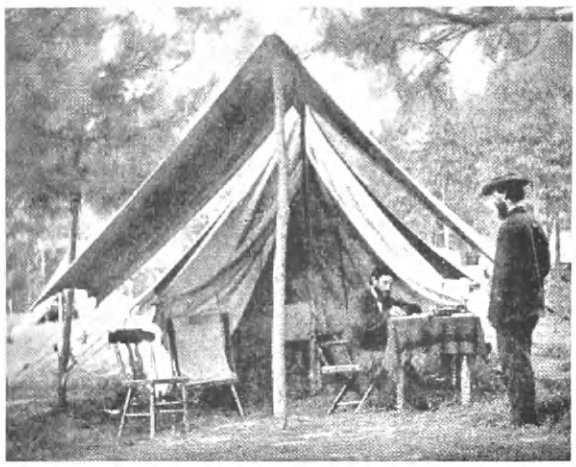

Figure 15. Photograph of a wall tent in use (Miller 1911:8:317).

The sketch below mirrors the manner in which photographs of the same subject were taken (Figure 16).

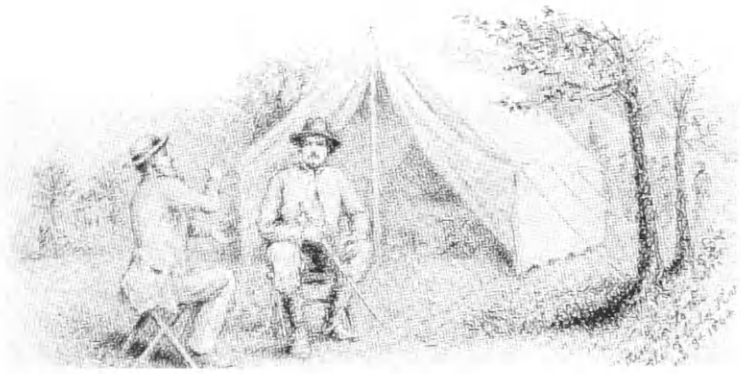

Figure 16. Sketch of Captain David Cronin in front of his wall tent (Hudson 1997:50).

The lithograph below illustrates that chaplains were also allotted wall tents (Figure 17).

Figure 17. Lithograph of a chaplain giving a Sunday service near his wall tent (Neely and Holzer 2000: 78).

The Wedge or "A" Tent

The wedge tent was the usual replacement for the Sibley tent. This tent was typically six feet square but could be up to seven feet wide. The tent was placed over a ridgepole not more than six feet off the ground and staked in at the sides. The wedge tent, also known as the "A" tent, could house up to six uncomfortable men:

> The wedge or 'A' tent, which from the front looked like an inverted 'V', was a piece of canvas stretched over a horizontal bar and staked to the ground on either side, with extensions for closing front and rear. The floor space, some seven feet square, was adequate for accommodation of four men; but when six were crowded in, as was frequently the case in the first months of the war, soldiers had to sleep 'spoon fashion' and when one Yank turned over all had to turn. Congestion brought greater discomfort in the daytime as there was no spot within where a tall man could stand erect, and the farther away from the ridge pole he moved the more he had to stoop [Wiley 1951:56].

> The A tents were in general use by the state and also the national government in the first two years of the war, but like the Sibley, they required too much wagon

> transportation to take along for use in the field. Accordingly they were turned over to camps of instruction, rendezvous depots, and to troops permanently located in or near important military centers or stations [Lord 1965:276].

On rare occasions a lucky soldier might be the only one housed in an A tent: "Some of the First Sergeants have 'A' tents for their own use alone. These tents are about seven feet square on the ground" (Thompson 1888:3).

Photographs, paintings, and sketches of the "A" tent are not as prevalent as for other tents; however, they do exist. Below several examples are presented with brief descriptions of each (Figures 18 and 19).

Figure 18. Photograph of men boxing in front of their "A" tents (Miller 1911:8:243).

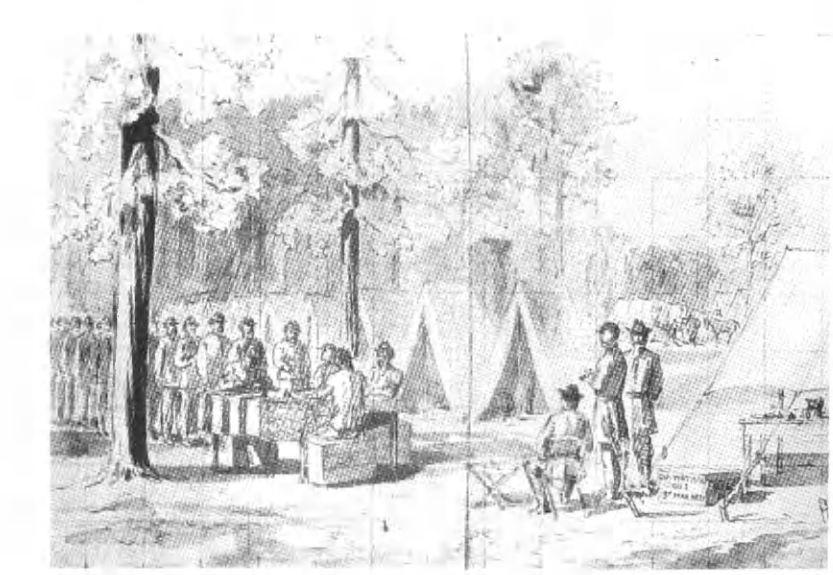

Figure 19. Sketch showing a camp with "A" tents (Catton 1996:512).

The Shelter-Tent

The half-shelter tent, more commonly referred to as the shelter tent, was issued beginning in 1862. These tents, also referred to as "dog tents," (forerunners of our "pup tents") were made of cotton drilling or duck. These tent halves came in two sizes, increasing from 5' 2" by 4' 8" in 1862 to 5' 6" by 5' 5" in 1864. Buttonholes and buttons dotted the edges of these tents along with three loops attached to each end. A rope six feet ten inches long came with each shelter half. The men, each equipped with a shelter half, would seek one another out and put their halves together to make a whole. The shelter halves could be buttoned together and draped over the rope which was fastened to the trigger guards of two muskets, stuck into the ground bayonet first. This would make an effective lightweight tent that would provide shelter from the elements. More often than not, three or more men would put their halves together, forming a larger, more comfortable tent.

The official records of the war abound with references to the shelter-tent, which is no surprise since it was the most common type of the Civil War period. One of the biggest problems with tentage for the troops was transportation. This problem was resolved with the advent of the shelter-tent: "The introduction of the shelter-tent enables our Army to carry the tents of the rank and file upon the persons of the soldiers, and the wagon trains can therefore be reduced to as low a standard as that advised by Napoleon" (OR 123:654).

To the 20 ½ pounds of a typical soldier's knapsack, his half-shelter tent contributed only 1 ¾ pounds (OR 40:488). This is a far cry from the Sibley tents and "A" tents which required a wagon to haul them.

General Orders, No. 160, 1862 prescribed one shelter tent (two halves) "for every two non-commissioned officers, soldiers, officers' servants, and authorized camp followers" (see Appendix B). After this order, only shelter-tents were issued to the enlisted soldier. After 1862, official correspondence concerning tents reflects the frequency with which the shelter-tent was used: "The General commanding directs that all baggage trains be reduced to the minimum. To effect this, all tents, except shelter tents and one wall tent to each regiment, will be dispensed with." (OR 35:478).

The shelter tents were met with varying degrees of disdain by the soldiers: "Many Yanks held the shelter tents in low esteem when first they were issued, one soldier writing in 1862 that he wished 'the man who invented them had been hung before the invention was completed,' as they reminded him 'forceably of a hog pen.' The nickname 'dog tent' reflected initial attitudes with a fair degree of accuracy. But disparagements

declined in vehemence as the men became accustomed to their tiny dwellings, and in time references to them usually revealed more of affection than of disdain" (Wiley 1951:56-57).

S. Millett Thompson wrote, "The shelter tents afford but little protection against the driving storm," and then added: "To-night we have another cold bivouac, though less severe than on the 6th and 7th, and the men have learned to make better use of their shelter tents. The writer and two other men have enjoyed a chateau, made on a sharp hillside by throwing a shelter tent and a few armfuls of pine brush over a fallen pine tree resting securely on a stump, raising it three or four feet from the ground. This tree serves eight or ten men, who are tucked under it from one end to the other" (Thompson 1888:33).

J.F. Culver (a whiner at heart) wrote to his wife: "We are all packed up here & ready. The regiments turned over their tents to-day, and to-night the Boys are trying the virtue of 'dog tents' (shelter). I wished very much to see how they looked but could not get time to go up to camp" (Dunlap 1978:).

Oliver Wilcox Norton stated: "There are also little skirmishers' tents to be carried on the march. They can be taken apart and carried by two men, who can put them together and sleep in them anywhere" (Norton 1903:36).

Photographs of the shelter tents are abundant, since they were utilized by a vast majority of the soldiers for the greater part of the Civil War (Figure 20).

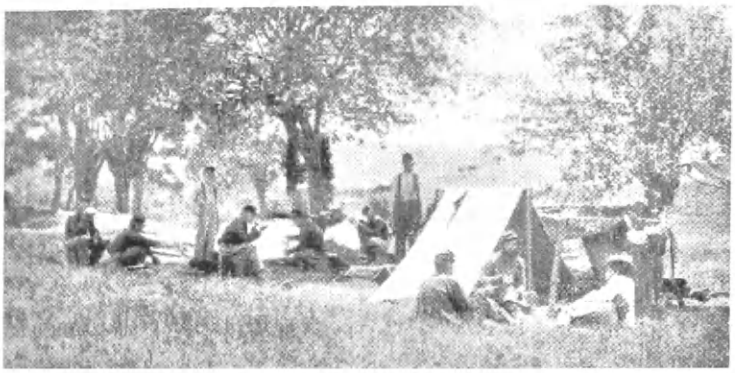

Figure 20. Photograph of men sitting in front of their shelter tent (Miller 1911:8:213).

Sketches and paintings of the shelter tents, like the photographs, are also abundant (Figure 21).

Figure 21. Sketch of shelter tents in camp (Billings 1888:52).

Winterized Tents, Log Huts, and Bomb-Proofs

In addition to the tents available and utilized by the Union troops, three other forms of shelter were constructed and used by the soldiers: winterized tents, log huts, and bomb-proofs. During the winter months of the Civil War, weather and ground conditions made fighting nearly impossible. Cold temperatures combined with snow or rain

rendered the men tired and hungry as the often muddy terrain made supply routes impassable. Moreover, troop movements were often limited by the soft ground, and artillery movements were out of the question. Therefore, from November to March, the army would go into winter quarters. (Depending on the climate of any particular theater of conflict, the winter months could be shorter or longer.)

Not only were winter quarters a sort of reprieve from the bloody plains of battle, they offered the soldier, officer and enlisted, a chance to get out of the elements. A dramatic change from the sleeping conditions found under the government-issue tents could be seen in the winter encampments of the federal troops. Because of the time that the troops spent in winter quarters, semi-permanent structures were often built to increase the comfort of the soldier. The very term "winter quarters" conjures up some notion of semi-permanence. These semi-permanent dwellings consisted of two major types; winterized tents, and log huts. There was a great deal of creativity in the style and construction methods of each of these two shelter types. The most prevalent traits will be discussed below with a brief mention of the possible variances. Bomb-proofs were shelters built into the sides of earthworks and defensive ditches. Log enclosures would be covered over with soil and sod to provide protection from incoming mortar rounds and shells from artillery. Bomb-proofs could house a great number of men and afford safety at the same time.

Winterized Tents

The tents used during months of fighting were also employed during relatively inactive periods, mainly during winter quarters. Each type of tent was to some extent

utilized during winter quarters; however, certain tents were more amenable to "winterization". These include the Sibley tent, the Wall tent, the Shelter tent, and the "A" or Wedge tent.

The Sibley tent, with its large interior and accompanying stove lent itself well to the winterization process. The typical winter configuration for the Sibley type winter was to set the tent on a stockade constructed of logs, matching the diameter of the tent (18 feet) or less (down to 16 feet), depending on the overlap of the tent on the logs. The log stockade was made out of whole or split logs ranging from two to eight feet in height (eight being an extreme). The logs were placed upright into a circular ditch and then held in place by returning the trench spoil to the trench. The sod removed to make the trench, was often put back into place to increase the water tightness of the stockade. "Cross the brook eastward and you come upon the cellars of the huts of the field and staff officers, where the earth was ridged up around the log walls of the miserable quarters to keep water out of the cellars, and from the earth floors of the huts" (Thompson 1888:89-90). Two large posts were then positioned to allow for the placement of a door that would fit into the original tent opening. The spaces between the logs would be filled with mud or clay. In some cases this tent "foundation" would then be whitewashed: "A proud Federal officer recounted the appearance of his unit's stockaded Sibleys in a letter to his mother: 'Our camp is beginning to look beautiful. The men have sodded all around their tents and placed flowers which are thriving finely, the avenues between the tents are rolled hard and smooth and cleanly swept every morning and woe betide the unfortunate man that throws anything on them. The tents are all stockaded and the stockades whitewashed and our camp the admiration of all that see it" (Nelson 1982:83).

One amusing account of an exceptional winterized Sibley tent with a basement is told by O.W Norton in a letter to his cousin:

> One, Monday, I think, we had a gale, a very severe one, that dried up the mud considerably. It was the strongest wind we've had in Virginia since I've been here. It blew down a great many tents in all the regiments. Ours are so large and well staked down that only six or eight blew down, but in the Michigan and the Ellsworth regiments some companies had not a tent left standing. I was over in the Forty-fourth New York when the gale commenced and the tents began to fly about. I saw one whisked off the foundation and blown into the next street, carrying with it three guns, coats, caps, bottles, etc., and as it struck a watch bounded out and dropped in the mud. The jewelry had a perilous voyage, but wasn't injured. In another tent, the boys had dug a basement and fixed it up very nicely. They were busy at a game of cards when the wind unroofed their cave. Nothing disconcerted, they kept on, saying, 'Let her go, we won't stop for a little wind-its nothing to the lakes [Norton 1903:54].

A sketch of a Sibley tent with a dug-out basement is provided below. The sketch combined with this account illustrates that this particular method of winterizing was not uncommon (Figure 22).

Photos showing the typical stockaded arrangement of the Sibley tents are shown below (Figure 23). In addition, a Sibley tent with a stockade of nearly eight feet tall is also shown (Figure 24).

The wall tent was also winterized, usually by the addition of a board floor and board siding placed either on the interior or exterior of the tent. The board floor kept the inhabitants of the tents from direct contact with the cold earth while the combination of boards and canvas on the sides served as insulation from the cold and wind.

Figure 22. Sketch showing a Sibley tent with two living floors (Johnson 1898:275).

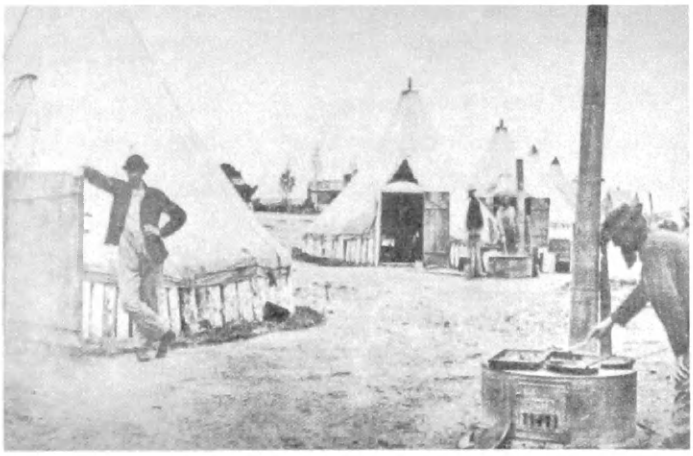

Figure 23. Example of a stockaded Sibley tent (Lord 1965:67).

Figure 24. Example of a Stockaded Sibley tent with eight-foot stockade (Miller 1911:4:61).

Charles A. Humphreys describes a winterized wall tent: "Here we spent the winter of '63 to '64, and made ourselves as comfortable as we could, with board floors in our wall-tents, and with brick fireplaces, and with chimneys made of mud and stick" (Humphreys 1918:4).

Wall tents, in times of inclement weather, were supplemented with a stove or fireplace, the former taking precedence. Photos of wall tents with chimneys or stovepipes are common. Unfortunately, the interiors of the winterized wall tents were seldom the objects of photographic records. A sketch of the interior of a wall tent with a Sibley stove shows this method of improvement (Figure 25).

Figure 25. Example of a winterized wall tent with Sibley stove (Higgins et al. 1995:79).

In spite of the large number of photographs of winterized wall tents, winterization was actually a rather infrequent occurrence. If time permitted for the winterization of tents, the officers preferred to construct log huts described later.

The shelter tent was both winterized and employed in log hut construction. The most common winterization method for the shelter tent gave the appearance of a half log hut-half tent configuration with a short log foundation and a tent serving as the roof. Logs were stacked horizontally to form a foundation for the tent. The foundation occupied the same outline that the tent would typically occupy. The logs would then be chinked with mud or clay. The interior might have a wood floor but more typically had a floor of straw or pine boughs, depending on the location of the encampment and the resources available.

A detailed description of a shelter tent-hut is described by Lieutenant Thompson on January 13th 1863:

> Reg. Again takes a day, and makes special endeavors to improve its quarters, for there is much sickness, and great mental depression among the men. Teams are hauling logs to our camp; and shelter tents, which have afforded nearly all the protection that the men have been able to secure, through all the stormy, wet, wintry weather since Dec. 1, are being replaced by low huts. Little cellars are dug seven feet square and one or two feet deep. Log walls are raised about two feet high close around these little cellars on all sides, excepting one. At this side is the doorway, chimney and fireplace. The logs are plastered with mud and banked up with earth on the outside to keep the water out of the cellars. A fireplace is built of mud and turf at one corner of the hut, and above it on the outside of the hut is raised a chimney of mud and sticks, with a pork or flour barrel placed on top. Shelter tents are drawn over the hut for a roof [Thompson 1888:99].

J. F Culver employed similar tactics and included a description of his arrangements in a letter to his wife: "I procured some timbers and built a house about 3-1/2 feet high, & set my tent on top. I have a fireplace in it, & by noon to-day I commenced operations again" (Dunlap 1978:240).

Another description of the winterized shelter tent is provided in a report by S. Williams: "The winter quarters of the troops were completed during the month of January, consisting for the most part of log huts about 8 feet square, the walls 4 feet high, and roofed with shelter-tents, each hut accommodating from 3 to 5 men" (OR 67:211).

Photographs sketches and paintings of winterized shelter tents abound as they were quite common. Several examples are presented to give a representative sample of these structures (Figures 26 and 27).

Figure 26. Examples of stockaded shelter tents (Miller 1911:8:187).

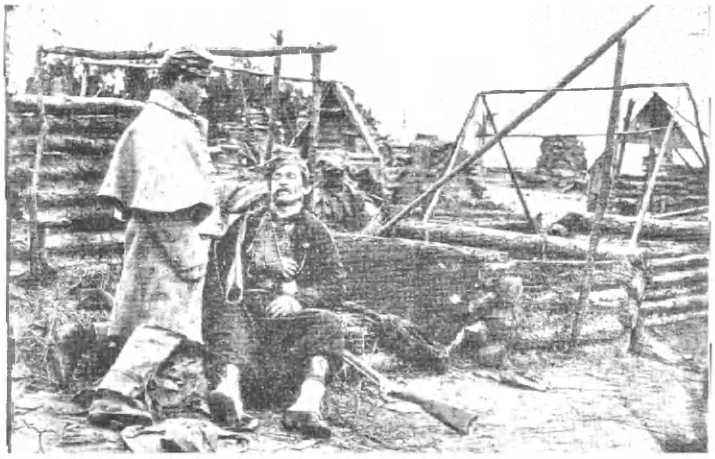

Figure 27. Photograph showing stockaded shelter tents with tents removed (Library of Congress, LC-B8184-40485).

The "A" tents were winterized in a similar fashion as the shelter tents. Typically, a low foundation of logs would be assembled according to the dimensions of the tent. This foundation would be plastered with mud or clay to keep out the elements and the tent would be set up over the foundation. This method of winterizing the "A" tent allowed for increased room on the interior and added warmth as the tent could be fastened to the foundation in such a manner as to limit drafts. Often times a shallow

cellar or pit would be excavated prior to the construction of the log foundation. This operation again increased the amount of room afforded to each occupant while supplying the builders with ample soil for chinking the gaps between the logs and reinforcing the exterior of the contraption with a low exterior soil wall. Lieutenant Thompson wrote in his journal: "We sign Pay-rolls for four months' pay now due, and draw A tents. Two good things at once. An A tent is small, but when mounted on walls of logs- 'stockaded' – it makes a good roof, and holds on better than any other" (Thompson 1888:123).

Sketches and photographic evidence of these structures indicates that they were commonly used where the troops were issued "A" tents. Below are several examples of these illustrations (Figures 28 and 29).

Figure 28. Sketch showing stockaded "A" tents (Billings 1888:66).

Figure 29. Photograph of soldiers in front of a stockaded "A" tent (Davis 1986:173).

Log Huts

The log hut was certainly the most predominant structure in the winter encampment of the Federal troops. The huts ranged in size and construction methods. Some employed tent material for roofs while others had a wooden roof. Some of these huts had several rooms while others were small single-occupant dwellings. The one-room log hut was the most common form used during winter quarters: "The predominant form of winter house was the single-room log hut of horizontally laid, end-notched log walls with a single doorway set in the gable end or the side wall" (Nelson 1982: 83).

Some of the log huts were constructed by inserting logs vertically into the ground. The logs were cut to form peaks in the middle of the narrow end while remaining uniform in height along the other walls. As with most of the log huts, the gaps between the logs were filled with clay or mud to keep out the elements. The roofs of these structures were often made of overlapping planking or more commonly some sort of tenting materials.

A vast amount of time and energy was expended on construction and improvement of shelters during the establishment of winter quarters. A military document from Alfred Gibbs to G.B. Sanford illustrates the effort put into these huts: "I do not wish to be understood as wishing to move back. I desire particularly to remain where I am and allow the command to enjoy while they can the winter huts that have cost them hard labor to construct" (OR 60:610).

In his memoirs of the Civil War, Roger Hannaford, of the Second Ohio Volunteer Cavalry talks about the time that men spent constructing log huts: "It was no small trouble to build these huts, lacking as we did every necessary to work with. . . . Now came topping out our chimney, chinking & daubing, fixing our door, then the putting up [of] our bunks, so that before we were finished the month was more than half done" (Starr 1978:328).

He further gives an excellent account of building his log hut:

> Maxel, Fry & myself at about the 9th & 10th of January determined to get at our hut, which was to be of larger size than any other (in our Company); the inside dimensions were 8 by 10 1/2 ft.; the logs were 5 ft. high. Our huts were all of the same general pattern, with logs on [the] east & west sides & north end, while the south end was open for the chimney & door. . . The chimneys of most all of the huts were. . . built as large as possible, after allowing room at the southeast corner for the door. It was impossible to enter a hut without 'making your manners,' for the crosspiece was scarcely ever over 5 ft. high. Most of the boys had so planned their huts that their shelter tents were amply large enough to cover them, but I well knew that ours would be too wide, making it necessary to have some boards at the eaves; but where they were to be found, that was the question; every board to be found for two of three miles from camp was already gobbled. . . . [Starr 1978:326].

The result of this time and effort was creation of "shantytowns" with sometimes hundreds of smoking chimneys: "The camp presents the appearance of a small town of log cabins. We have built one, twelve by seventeen feet, in which ten of us dwell in peace" (Black 1961:207).

The log hut was typically constructed of timbers secured from local sources such as forests or nearby sawmills or even nearby houses. Often, vacant houses were subject to complete demolition by troops going into winter quarters. If logs were used they were laid out horizontally and notched on the adjoining ends to allow for each additional course of logs. A door was typically placed on the narrower side. Roofs were typically fabricated out of smaller trees or saplings nailed or tied together. More often than not, fabric roofs were utilized as the soldiers had their tents readily available.

The military documents are filled with references to and descriptions of the log huts built by Union soldiers: "After making choice of the most suitable location, you will at once construct log huts or buildings sufficient to protect the men of your company and the Government property in your possession from the storms of winter" (OR 106:643). "Quarters: kind of, and condition, whether properly policed. Where timber cannot be obtained or barracks constructed, log huts must be built of a uniform size and properly located" (OR 103:743). Even U. S. Grant discusses the log huts in a letter to Captain Chauncey McKeever: "The cold season is now so nearly at hand, that it is time to think of providing winter quarters for the garrison that must necessarily occupy this place. Log huts could be cheaply built, but even they would call for the outlay of some money" (OR 3:509).

E. J. Marsh, Surgeon-in-Chief, describes the huts of several brigades:

> On November 17 the first brigade moved to the open field about the West brook house, and as it was supposed probable that they might remain there during the winter, a circular was issued from brigade headquarters directing the plan of huts and ordering all to be erected according to the same model. The plan was a good one, except that it put too many men in one house, and in practice it was found that they were almost never occupied by the entire number. Each hut was to accommodate six men, and built according to the following:
>
> Dimensions: Length twelve feet, width seven feet, and from five to six feet from the ground to the eaves. Digging down into the ground is strictly prohibited and the foundation for the houses will be laid on the surface of the ground. Fire-places can be made, and no stoves will be allowed.
>
> About the middle of December, when there was every prospect of remaining in our present quarters for the winter, several of the regiments of the Second Brigade were moved to new and better ground, and an order published regulating the formation of camps and the size of huts, &c.:
>
> The houses for the men will be built of logs or poles six feet long, set upon end, or sunk in the ground, seven feet long; gable ends facing the picket-line; chimneys on left side or facing the front of the camp; houses to be covered with shelter-tents, and four men will occupy one house.
>
> In the Third Brigade no general orders were given respecting the size of huts, but in each case left to the regimental commander [OR 87:622-623].

The details provided in diary entries and letters home pertaining to the winter quarters of the men all describe similarities in hut design and construction. With the exception of some small deviations, the log huts were typically designed to incorporate the shelter tents as roofing material. Charles Mattocks describes his regiment's winter quarters: "The Regiment will have some very fine huts-all of a size eight by ten, mud and stone for chimneys, shelter-tents for roofs, and everything in good shape" (Racine 1994:96).

Mary A. Livermore discusses a log hut in which she stayed during a visit to some troops of the Chicago Mercantile Battery: "Everything in the way of shelter, in camp

parlance, that was not a tent, was a *shebang*. Mine was a rough hut made of boards, with a plank floor, roofed with canvas, with a *bona fide* glass window at one end and a panneled door at the other"(Livermore 1889:304).

It was quite common for the soldiers, while building winter quarters, to cannibalize nearby houses, stripping them of any amenity that might prove useful in fending off the winter chill. Doors and glass windows were frequent victims of the looting Union soldiers. Bricks, fireplace mantles, mirrors, and even the occasional piano were not safe from the troops scouring the countryside for useable materials for their huts.

The pictorial documentation of the Civil War provides a wealth of examples of the huts constructed by the Union soldier (Figures 30, 31, 32, 33, and 34).

Figure 30. Photograph showing log huts constructed for winter quarters (Miller 1911:4 :37).

Figure 31. Photograph of the winter quarter log huts of the "Oneida" company (Miller 1911:4:195).

Figure 32. Photograph of the log huts of the Thirteenth New York Artillery (Miller 1911:8:243).

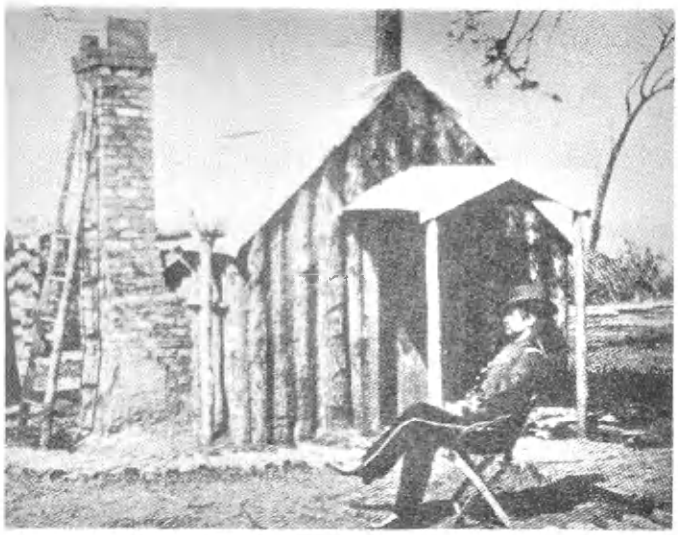

Figure 33. Photograph showing log hut made with vertical timbers (Nelson 1982:85).

Figure 34. Photograph showing log hut with glass windows and framed door (Miller 1911:8:193).

Bomb-Proofs

Bomb-proofs were generally constructed where earthworks and defensive ditches were required. These shelters served two purposes: protection during bombardment and shelter from the elements. Large logs were used to build a three-sided enclosure; timbers served as a roof and then the whole structure would be covered with soil and sod. The bomb-proofs were actually part of the defensive earthworks being constructed. The side facing the enemy had a good deal of earth separating the soldiers from the enemy. These shelters were constructed in much the same fashion as the geothermal houses built into the sides of hills today.

The military documents from the war are filled with references to bomb-proofs. In a letter to George B. McClellan describing the fortifications around Washington J.G. Barnard states: "Forty-eight different works, some of which, like Forts Ethan Allen, Runyon, and Lyon, are of very large size, extensive abatis, &c., have been constructed, and many of them, besides the usual magazines, are provided with extensive bomb-proofs for quarters" (OR 5:677). A similar account of the bomb-proofs used is related in a letter to General Jos. G. Totten: "Steamers are quite active, especially at night, in delivering materials at this point. A very large quantity of timber has been delivered, in and used for revetments, platforms, and, apparently, bomb-proof shelters"(OR 1:161).

Accounts of bomb-proofs within the personal accounts and diaries are slim; however, Billings discusses the bomb-proofs in his book:

> These bomb-proofs were built just inside the fortifications. Their walls were made of logs heavily banked with earth and having a door or wider opening on the side away from the enemy. The roof was also made of heavy logs covered with several feet of earth.

> The interior of these structures varied in size with the number that occupied them. Some were built on the surface of the ground, to keep them drier and more comfortable; others were dug down after the manner of a cellar kitchen; but all of them were at best damp and unwholesome habitations—even where fireplaces were introduced, which they were in cool weather [Billings 1888:57-58].

The pictorial documents of the period display the variety in size as well as shape of these shelters constructed by the Union Soldiers (Figures 35, 36, 37, and 38).

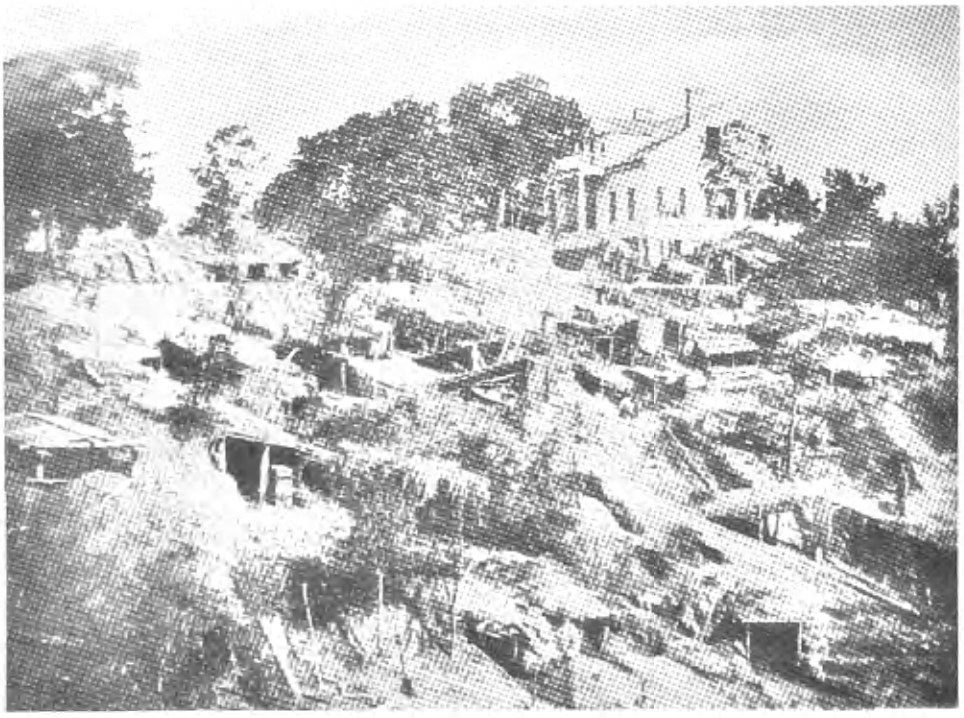

Figure 35. Photograph of Bomb-proofs in the side of a hill near Vicksburg (Catton 1996:300).

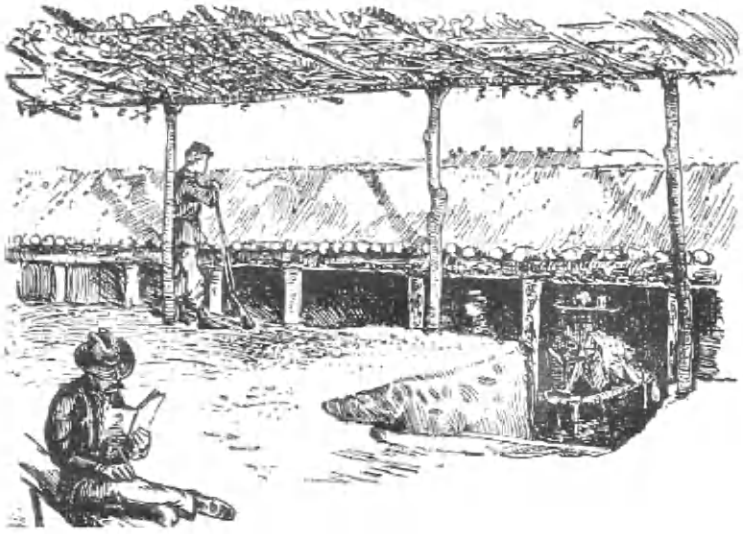

Figure 36. Sketch of bomb-proof (Billings 1888:59).

Figure 37. Photograph of a cone shaped bomb-proof (Davis 1986:218).

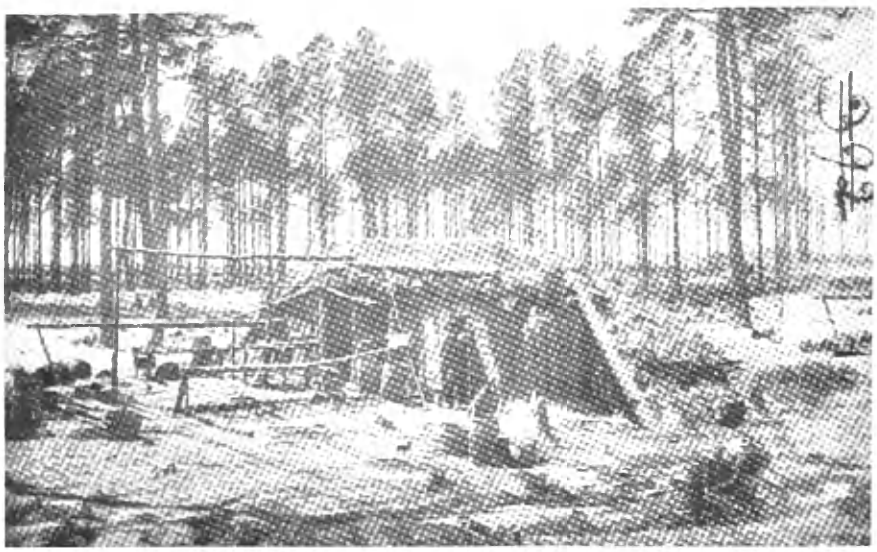

Figure 38. Photograph of bomb-proof with a chimney near Petersburg (Catton1996:520).

Summary

The shelters described above were those utilized most frequently throughout the Civil War by the Union soldiers. The archaeological signatures of each type of shelter will be discussed at great length in chapters V, and VI. It is certainly worth noting that the archaeological footprint of each shelter increases with size and incorporation of materials such as logs and wood planks. The more substantial the shelter structure, the greater the odds of its preservation within the archaeological record. Furthermore, those shelters that required some excavation of the interior portions stand a better chance of survival within the archaeological record since the depressions that are left are subsequently filled and sealed.

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[i] Of interesting note is the fact that when Henry Sibley joined the Confederate forces, the federal government reneged on the five-dollar-per-tent patent royalty they had promised Sibley before he went

over to the Confederate side (Lord, 1965). The government supplied 240,000 Sibley tents for the first years of the Civil War (Shannon, 1928). Mr. Sibley lost a fortune in royalties.

CHAPTER IV

ARCHAEOLOGICAL EVIDENCE OF FACILITIES AT UNION SHELTERS

Introduction

In addition to the shelter types discussed in the previous chapter, several procedures and facilities utilized by Union soldiers may contribute to identification of archaeological features with Civil War shelters and help in recognizing shelter footprints. One such standard procedure was digging trenches around the tents and along the streets of the campsites. Also, devices used to heat the shelters have the potential to leave characteristic features within or near the shelters, thus increasing the odds of identification of those shelters.

Drainage Trenches

During encampment, whether in winter quarters or not, drainage trenches were often excavated to keep tents and equipment dry. Typically, the drainage trenches were dug when the regiment or company was camped for some period of time where the soil was not conducive to natural drainage. In these cases, the Sanitary Commission along with certain medical officers felt that trenches around shelters would improve the health of soldiers. In a report to the Office of the Medical Director of the Army of the Potomac,

Chas S. Tripler suggests: " To guard against these [diseases], so far as practicable, I have the honor to suggest that in addition to the ordinary trench about the tents, the trace of every regimental camp shall be provided with a ditch not less than 12 inches wide and deep, to secure a more perfect drainage" (OR 5:664). While there are few military records that speak specifically to the number and nature of the trenches dug around the tents and through the camps, the Sanitary Commission inspectors write of them quite frequently.

The Sanitary Commission was a humanitarian organization set up to assist the Federal army with health issues. The Commission took medical supplies to the camps and aided with the treatment of sick and wounded soldiers. One of the tasks of the Sanitary Commission was the inspection of the Union camps. Inspectors were sent to document the camps. Included in this inspection was the evaluation of shelters, trenches, and sinks. This is certainly important information, as any campsite that was inspected could hypothetically be reconstructed using the reports of the Sanitary Commission inspectors.

None of the actual completed inspection forms have been found; however, modified versions and descriptions of campsites exist in some of the bulletins published by the Commission. (A blank inspection form can be seen in Appendix C.) In Bulletin 51 of the Sanitary Commission, the camp inspectors are advised on how to conduct their inspection of the camps. The inspectors are to point out to key officials how they should remedy certain issues. Section XVII of Document 51 speaks to "Artificial Drainage."

> Should the camp be on a side-hill, you will especially recommend catch-water drains above it, and round its sides, by which the flow of water from the upper part of the hill will be effectually diverted. You will endeavor to

> secure also, *in every case*, the digging of a trench (the deeper the better, but at least six inches deep) around each tent or hut. These trenches should be connected, as far as may be, according to the nature of the ground, with main drains, so as to readily carry off rain water. They should be made as straight as practicable, as all sinuosities arrest the flow of water, and lead to stagnation. The sides should be cut sloping.
>
> You will urge, if you see occasion, that all drains, (especially those around tents and huts) should be kept clean, and that refuse food, &c., be not thrown into them. If they become offensive, they should be cleaned out at once, and disinfected with lime or charcoal.
> In camps likely to be occupied for some time, especially in winter-quarter camps, the 'streets' should be perfectly 'turnpiked,' or rounded, with a regular convexity, from the centre nearly to the drains, falling into a regular concave for the drains, with a convex rise again, to the front of the tents [United States Sanitary Commission [USSC] 1866-1871:1:51:11].

While this may seem to translate into an outrageous amount of time spent by the soldiers mucking about with these trenches, the Sanitary Commission seems to have operated in a manner similar to today's OSHA; it was certain that if this "advice" was not followed the "higher-ups" would hear about it.

Document No. 36 is a report of the condition of troops in the valley of the Mississippi. The inspector reports as to the layout of camp and the artificial drainage in section 3- *Arrangement and Condition of Camps*: "I found the camps arranged mainly in accordance with the army regulation, wherever the locality and the circumstances would permit it. The tents were, on average, nine yards apart in the rows, the artificial drainage systematic and complete, (except 7th Iowa, 8th Mo., 23rd Indiana, 18th, 22nd, 40th, and 41st Ill.) with straight drains averaging four inches in depth, and sixth in width, around tents, deeper and wider mains, kept tolerably clean, but rarely with a good outlet. . . In many cases the commanding officers told me that their men were taught to drain their tents be an inundating shower" (USSC 1866-1871:1:36:26-27). It is obvious from the details of

the above reports and the requested information of the Camp Inspection Return (see Appendix C) that these documents would be quite useful in campsite excavations.

A letter from O. W. Norton to his sister describes the trenches at his campsite in Hall's Hill, Va. "Each company's tents are in a line, and we have good wide streets between. These are all nicely graded and a trench dug round each tent and on each side of the street" (Norton 1903:38).

These drainage trenches around the tents and running down the streets of the camp would certainly leave some trace in the archaeological record, depending on site condition and vertical integrity, and would certainly provide evidence of shelter type. These trenches will be discussed further in Chapter V.

Heating Devices and Chimneys

The heating devices used by the Union soldier are discussed here because of their potential for leaving traces or features in the archaeological record. Much like the drainage trenches discussed above, the archaeological features associated with characteristic behavioral patterns of the Union soldiers can enhance the odds of recognizing their campsites and shelter footprints.

Heating Devices

For both winterized and regular tents and the log huts, four basic modes of heating were utilized: the fireplace, the Sibley stove or other small stoves, fire pits, and the "California" style furnace. The California furnace is also called the Crimean oven, although the California furnace required adaptation of the Crimean.

Fireplaces. The fireplace was commonly used throughout the Civil War in winter quarters and in cold weather when time in a particular camp allowed for their

construction. The fireplaces were made of brick, stone, or wood. In a letter to his sister dated November 27, 1864, O.W. Norton describes his quarters: " I have one of the most gorgeous residence I have had since I came to the army. It is about the size of your parlor, perhaps a little larger, with a canvas roof which also serves for window, and then the beauty of it is a fireplace, a regular old-fashioned kitchen fireplace that I can have a group sitting around and enjoying themselves" (Norton 1903:242).

"Inside, fireplaces were built of turf and mud, with pork barrels for chimneys" (Herberger 1999:88).

"All of the houses are made of logs, partly hewn, chinked with mud, and most have chimneys of brick – all standing outside, Southern fashion – and wide, open fireplaces" (Thompson 1888:211).

The procurement of brick or stone for fireplaces is well documented in the diaries and letters of the Federal soldiers. One particularly droll example is in the memoirs of Roger Hannaford.

> I remember Mr. Grants' relating while at dinner a story of one of his neighbors who lived near Winchester. During the early part of the war his farm was fenced with rails; these the soldiers of both armies burnt, so he determined to build stone walls, swearing they could not burn them. For awhile all was well & he was quite elated & began building a splendid piece of wall along the pike, which he finished just as winter began. Soon the soldiers began building Winter Quarters, & one morning while at breakfast he was horrified to see a long string of wagons halt close beside his beautiful wall, of which he was so proud; with the wagons was a heavy detail of men, these sprang out & vigorously attacked his wall & by night he had scarcely a rod of stone wall left on his farm. The soldiers needed stones for their chimneys. . . .[Starr 1978:331].

Another example of the removal of construction materials from nearby houses is provided in an account from Billings. "If there was a deserted house in the neighborhood of the camp which boasted brick chimneys, they were sure to be brought low to serve the Union cause in the manner indicated, unless the house was used by some general officer as headquarters" (Billings 1888:55).

The telltale signs of fireplaces or hearths along with brick or stone scatters would certainly be recognizable to archaeologists if site conditions were decent and vertical integrity maintained. Even without excavation, surface scatters of brick fragments are often recognizable at Civil War winter campsites.

Sibley stoves. The Sibley stove was a cast iron stove that could be ordered from the Quartermaster separately or with a Sibley tent (Figure 39).

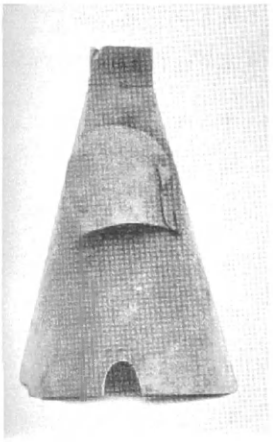


Figure 39. Sibley stove (Lord 1965:267).

These small stoves had pieces of pipe accompanying them that could be placed together to form a chimney. These stoves came in a variety of sizes and weights.

> Sibley stoves were commonly used in conjunction with tents of the same name; however, they were also used with other tents. In Sibley tents, this cone-shaped stove sat beneath the tripod supporting the tent and was attached to a stove pipe that exited the top of the tent. A hook on which a kettle could be suspended was attached to a chain that hung from the fork in the tripod. There were three models of the Sibley stove, including 18-, 25-, and 30-pound versions. The specifications of the 30-pound model consisted of a 30-in. –tall air-tight cylinder with an 18-in. –diameter base, five sections of pipe that tapered from 5 to 4 in., and a door measuring 8 x 6 in. (lord 1977:264). The Sibley stove was the most widely used stove at the beginning of the war; however, its general use lasted only as long as that of the tent, about a year, After 1862, both the Sibley stove and tent were used in the rear echelons [Higgins et al. 1995:79-80].

Other "camp stoves" were being patented during this period and were fairly accessible to the common soldier through the sutler or from stores. "The storm cleared at night, but very cold. I bought a small stove for our tent and am quite comfortable" (Herberger 1999:100). These small stoves were similar in function to the Sibley stove and provided the soldiers tents or huts with more than sufficient heat. "The miserable stoves in the Sibley tents fill them with smoke. Several stoves got overheated and set fire to the tents, wet as they are" (Thompson 1888:21).

Fire pits. Fire pits were typically used in the smaller winterized tents, as they required very little room. The fire pit consisted, simply, of a dug out corner of the area inside of the shelter anywhere from one to two feet on each side. These pits were dug into the soil to a depth of one to two feet. Only one specific reference to this type of heating device was found in the written documents. A journal entry of December 24, 1863 by Augustus D. Ayling describes these fire pits. "By digging a hole a foot square,

and as deep in a corner and filling it with coals from the company fire, I can keep the tent very comfortable" (Herberger 1999:189).

Although this is only one example of this sort of heating device, it would seem only rational that if one soldier is using this type of fire pit, they are used extensively by others, in the same manner. This sort of heating device, given that it was excavated and filled with burning charcoal or wood, might preserve nicely depending on site conditions and the integrity of that site.

California furnaces. The "California" furnace or stove came in all sorts of varieties, all similar in construction. In its simplest form, the "Californian", was a small pit dug into the center of the living space in which a fire was built. A trench extending to the exterior of the living quarters (tent or hut) was excavated and covered in some manner. The "fire opening" would be covered using either a large rock or a piece of heavy sheet iron, thus radiating heat produced by the fire underneath. Several variations in the flue or trench leading to the exterior of the living quarters have been noted. In some cases the flue is lined with brick, in others metal pipes have been placed within the trench. However, the most common technique seems to be to leave the earth surface and cover it with planks, mud, or some combination of both.

A Letter from Chas S. Tripler, Surgeon and Medical Director, to The Office Medical Director included a detailed description of the California furnace from the notes of Dr. McRuer.

> A trench 1 foot wide and 20 inches deep to be dug through the center and length of each tent, to be continued for 3 or 4 feet farther, terminating at one end in a covered oven fire-place and at the other in a chimney. By this

> arrangement the fire-place and chimney are both on the outside of the tent; the fire-place is made about 2 feet wide and arching; its area gradually lessening until it terminates in a throat at the commencement of the straight trench. This part is covered with brick or stone, laid in mortar or cement; the long trench to be covered with sheet-iron in the same manner. The opposite end to the fire-place terminates in a chimney 6 or 8 feet high; the front of the fire-place to be fitted with a tight moveable sheet-iron cover, in which an opening is to be made, with a sliding cover to act as a blower. By this contrivance a per-feet draught may be obtained, and no more cold air admitted within the furnace than just sufficient to consume the wood and generate the amount of heat required, which not only radiate from the exposed surface of the iron plates, but is conducted throughout the ground floor of the tent so as to keep it both warm and dry, making a board floor entirely unnecessary, thereby avoiding the dampness and filth, which unavoidably accumulates in such places. All noise, smoke, and dust, attendant upon building the fires within the tent are avoided; there are no currents of cold air, and the heat is so equally diffused, that no difference can be perceived between the temperature of each end or side of-the tent [OR 5:655].

This is a rather idealized image of the contraption. A more realistic description of the California is provided by Wiley: "Both log cabins and winterized tents were commonly heated by fireplaces built of sticks and daubed with clay; but some Yanks preferred the 'California' type of furnace which was made by digging a hole in the ground, covering it with a removable stone and tunneling the smoke to an outside flue" (Wiley 1951:57). No specific reference to the California could be found in any written documents of individual soldiers; however, although the documentary references may be slim, there are archaeological features conforming to the description provided in the military documents and the histories cited above (Higgins et al. 1995).

Chimneys

The chimney seems to have been one of the more problematic areas for the soldier during the establishment of winter quarters. To avoid going into a detailed description of the physics involved in the workings of a fireplace/stove and chimney, it is sufficient to say simply that there has to be a draft pulling the smoke out of the fire area. Without this draft, smoke fills the area in which the fire is built, and adjoining areas (e.g. tent or hut), and the fire cannot "breath" properly.

All varieties of chimneys were employed by the Federal soldiers. Some chimneys were made of stone, some of brick, still others out of barrels and mud. More often than not certain individuals within the regiment or company had a knack or were trained in building chimneys and were employed, often to their chagrin, in this task during the establishment of winter quarters. Billings describes the efforts of men in his company: "In my company there were two masons who had opportunity, whenever a winter camp was pitched, to practise[sic] their trade far more than they were inclined to do" (Billings 1888:55).

Summary

The drainage trenches and heating devices listed and discussed above can be useful, if not essential for the archaeologist working on a Civil War site, for aiding in the recognition of shelter features within the campgrounds.

CHAPTER V

SHELTER-RELATED FEATURES AT ARCHAEOLOGICAL SITES

Introduction

This chapter is a summary of archaeological sites at which Union shelter footprints have been found, documented, and correlated to specific shelter types. In some cases I have offered alternative explanations of the archaeological features. On the basis of this information, I have constructed a framework for linking shelter type with archaeological features, which is discussed in Chapter VI. The sources discussed in this chapter are, for the most part, reports generated by cultural resource management (CRM) firms. Table 2 summarizes the seven reports utilized in this thesis.

The Sites

These seven reports by no means describe the only Civil War campsites excavated, nor do they represent any particular cross section. They are situated in a fairly compact geographic area, specifically the mid-Atlantic states. Three of the seven campsites (Fort Pocahontas, Gloucester Point, and Smith Site) are located in southeastern

Table 2. Overview of Reports

SITE	INVESTIGATOR	DATES	LEVEL	ENCAMPMENT	REFERENCE
Folly Island	South Carolina Institute of Archaeology and Anthropology	May 1987-May 1989	Phase III	April 1863 – February 1865	Legg and Smith 1989
Fort Pocahontas	William and Mary Center for Archaeological Research	Summers 1997, 1998, 1999, ongoing	Phase I, II	May 1864–end of war	Nasca et al. 1998; Harwood et al 1999; Jensen et al 1999
Gloucester Point	William and Mary Center for Archaeological Research	November 1994, April 1995	Phase II, III	May 1861-May 1862 (Confederate) August 1862–end of war (Union)	Higgins et al. 1995
Loudon County	University of Tennessee Transportation Center	September-October 1997	Intensive Phase I	August–October 1863	Creswell 1998
Maryland Heights	National Park Service	1985-1987	Limited Phase I	July 1861–end of war	Frye 1990
Sevierville Hill	University of Tennessee Transportation Center	July – October 1991	Phase II, III	September 1863-??	Kim 1993
Smith Site	James Madison University Archaeological Research Center	August-September 1984	Pre-mitigation	Not given	Cromwell and Geier 1985

Virginia (Nasca et al 1998, Harwood et al 1999, Jensen et al 1999; Higgins et al 1995; Cromwell and Geier 1985).

One (Maryland Heights) is in western Maryland (Frye 1990). Two (Loudon County and Sevierville Hill) lie in neighboring Tennessee (Creswell 1998; Kim 1993). Only one (Folly Island) lies further away in South Carolina (Legg and Smith 1989). All of them are strategically located near major water thoroughfares, which provided easy access and defendable communication routes for the troops encamped there.

All of the sites have been studied within the last fifteen years, evidence of recent recognition of the importance, both archaeologically and historically, of Civil War sites. However, it should be stressed that the discovery of each of these encampments was serendipitous. Maryland Heights, where the features were already aboveground and well-known to the National Park Service, was exceptional.

The number of these sites subjected to data-recovery is an indication of the significance of Civil War encampment sites. Only Loudon County and Maryland Heights are survey-level (Phase I) investigations and the methodology used at Loudon County shows an awareness of the potential significance of this encampment. Although not subjected to more than a pedestrian survey, Maryland Heights is owned by the National Park and is not threatened in any way.

Most of these sites show signs of lengthy encampment. The two-month encampment at Loudon County is the shortest, and even that represents considerable time for a late summer-early fall encampment. It is the contention of this thesis that length of occupation is certainly a factor in terms of recognition of sites; the odds of discovering a site using archaeological survey methods are directly proportional to the length of occupation.

Table 3. Methods of Excavation

SITE	SHOVEL TESTING	TEST UNITS	BACKHOE TRENCHES	METAL DETECTOR SURVEY	FEATURE EXCAVATION
Folly Island	X	X	X	X	X
Fort Pocahontas	X	X		X	X
Gloucester Point	X	X	X		X
Loudon County	X	X	X	X	X
Maryland Heights					
Sevierville Hill			X	X	X
Smith Site	X	X			X

Several observations on excavation methods, summarized in Table 3, are warranted (Table 3). Shovel tests and test units are almost universally employed as site and feature locators. At Sevierville Hill, shovel tests were most likely employed during the survey. Because the site was large, a backhoe was used to expose extant features in a time-efficient and effective manner. Once high probability areas have been located, the use of backhoes is accepted as a means of removing plowzone quickly while keeping project costs low.

The use of metal detectors by archaeologists is fast becoming an accepted and necessary practice (Jones 1998). While not always needed to locate Civil War sites (as demonstrated by the study at Gloucester Point), they are useful for finding high

concentration areas on large, sprawling campsites. Maryland Heights shows none of the excavation methods because the research was designed only to map above-ground features.

A discussion of all the features exposed at these seven sites is beyond the scope of this thesis, but for the sake of comparison a simple listing of the types of features found is provided in Table 4 (Table 4).

Table 4. Feature Types by Site

SITE	DOMESTIC	ARCHITECTURAL	DEFENSIVE	BURIAL
Folly Island	latrines, wells, refuse pits	post molds,		burial grounds
Fort Pocahontas	refuse pits	trenches, postmolds, cellars, brick foundations	earthworks	
Gloucester Point	refuse pits, hearths	post molds, trenches	bastion, gun battery, fortification ditch	
Loudon County	hearths	dugout structures	earthworks	
Maryland Heights		tent platforms, stone foundations, earthen terraces	stone walls	
Sevierville Hill	hearths,	dugout structures	earthworks	
Smith Site	hearth			

In most cases, the exposed features have been linked to the Civil War era. At Fort Pocahontas, some of the features pre-date the Civil War, but they were used by Union soldiers occupying the fort. Most of the encampments are situated in close

proximity to defensive structures. The use of stone at Maryland Heights emphasizes the soldiers' exploitation of locally-found materials.

When it comes to features that can be linked positively to shelters, few incontrovertible claims can be made. Table 5 lists the features linked to shelters at each site (Table 5).

The lack of any shelter-related features at Folly Island is due to the limited amount of excavation actually performed there (Legg and Smith 1989). The Civil War encampment on Folly Island covered some 42 acres. On a parcel this large, there are certainly shelter features present. That they were not exposed during this particular excavation is unfortunate; however, this does not eliminate the possibility of their presence.

Earthen Platforms

Frye (1990) speculates that the earthen platforms found carved into the slopes at Maryland Heights were dug out by soldiers to provide a level surface for their (shelter) tents. Some of the platforms have stone retaining walls on one side. However, she admits that the platforms are "too indistinct to define accurately, and therefore, map" (Frye 1990:169). Linking these platforms with shelter tents in particular is a leap since any number of shelters could have been erected on such a surface, including shelter tents, "A" tents, or even lean-tos. However, it is clear that some sort of shelter would have been placed on these platforms. Some of the platforms documented by Frye, however, would allow for the erection of an "A" tent. These platforms have dimensions of 8' X 8'. A platform of this size would provide ample space for the "A" tent with room to secure the

Table 5. Shelter Features by Site

SITE	EARTHEN PLATFORMS	STONE FOUNDATIONS	TRENCHES	DUGOUT FEATURES	HEARTHS	CIRCULAR TRENCHES	CIRCULAR PLATFORMS
Folly Island							
Fort Pocahontas			X				
Gloucester Point			X	X	X	X	
Loudon County				X	X		
Maryland Heights	X	X					X
Sevierville Hill				X	X		
Smith Site					X		

tent to the ground. It is possible that a log shelter could have been erected on this platform, but there is no above-ground evidence for one.

Stone Foundations

Along with the earthen platforms, stone foundations were also found at Maryland Heights. The large number of these foundations as well as their substantial nature suggests "a long-term sojourn by one or more groups" (Frye 1990:168). One particularly large, dry-laid foundation is left from a building that "probably functioned as a stockaded blockhouse" (Frye 1990:168). The remains of this foundation do not give any hints as to what it supported, other than the stone foundation itself. Other stone foundations scattered on Maryland Heights can provide information as to materials utilized by the soldier for completing the shelter. Feature 41 is "a well- preserved, three-sided, dry-laid stone hut or tent foundation with interior dimensions of 8 x 5 ft." (Frye 1990: 168). Depending on the resources available, such as lumber and tent material, this foundation could have been topped with shelter tents. Since the shelter tents had dimensions of about 5' 6" X 5' 5", two placed together would have provided ample roofing material for this foundation. The difficulty with positively linking the foundation size to a military-issue tent is demonstrated by Feature 8 in Campground 9. The extant stone foundation encloses an interior space measuring 9.7 X7 ft. (67.9 sq. ft.). If this foundation were used to support an "A" tent (which covers a 7 X 7 ft. area, 49 sq. ft.), 2.7 ft. (18.9 sq. ft.) would have been left without roofing material. However, in this instance certain clues hint at what sort of materials might have been used to complete this shelter.

Frye suggests that the foundation "appears to have been built into the east side of a charcoal hearth" (Frye 1990:170). It is more likely however, that the foundation supported a combination of timber and tent canvas and that at some point the timber portion of this shelter was set ablaze. It was common practice to burn the shelters left on a campsite as it was being vacated so the enemy could not easily reoccupy the areas. S. Millet Thompson wrote casually in his diary: "Our old camp is set on fire as we leave it, and makes a fine blaze" (Thompson 1888: 137).

Moreover, because these shelters had internal heating devices, embers from open fires very often ignited the canvas or wood, setting the entire shelter on fire. Oliver Wilcox Norton discussed a burning incident in an offhand way: "The colonel burned up his tent the other day and to-morrow [sic] we have a new major coming and I have to give up my tent to him, so I made the excuse of necessity, rolled up my sleeves and finished my house so that I could occupy it, and moved in, and I am so comfortable to-night! [sic]" (Norton 1903: 242). These two phenomena provide a more reasonable explanation for the charcoal and dark soils to the west and south of this structure than Frye's conjecture of the structure having been built into a hearth.

Trenches

The narrow trenches exposed at Fort Pocahontas (Harwood et al. 1999; Jensen et al. 1999) and on Gloucester Point (Higgins et al. 1995) provide information on two levels: encampment layout and shelter type. Encampment layout is a topic that has been addressed in a cursory manner by many researchers. No definitive work has been done, and it is beyond the scope of this thesis to deal with the topic other than briefly mentioning that trenches had at least two functions in the construction of an encampment.

The trenches on Gloucester Point were dug along a row of tents to provide drainage for the vicinity; these trenches were meant to line the "streets" created by the alignment of tents as discussed in Chapter Four. This type of trench was recommended by the Army and the Sanitary Commission. The trenches that have been exposed thus far at Fort Pocahontas, while functioning in the same basic manner as those found at Gloucester Point, were excavated around individual shelters and probably emptied into larger drainage trenches.

The overriding value of trenches comes in determining what type of shelter they enclosed. The trenches at Fort Pocahontas provide information on the type of shelter used primarily because they indicate the maximum dimensions of the shelter, although some speculation will always remain because of idiosyncratic practices of erecting the tents. For instance, trenches would certainly not have been dug right next to the tent since a certain amount of ground would be needed to secure the tent with tent pegs.

One drawback to using trenches for shelter identification is that in certain cases the trench features are very faint because the encampment was not occupied long enough for sufficient debris to be incorporated in the trench fill and to alter the color of the fill. Often the only way of knowing that a trench exists is the subtle presence of mottled soil containing subsoil or surface debris. Mottling in the trench fill on the Promontory at Fort Pocahontas is adequate for defining the trenches (Jensen et al. 1999).

There are two areas at Fort Pocahontas on which trench features have been exposed: the Promontory (Jensen et al. 1999) and the Eastern Cleared Area (Harwood et al. 1999). The trenches on the Eastern Cleared Area form roughly horseshoe-shaped

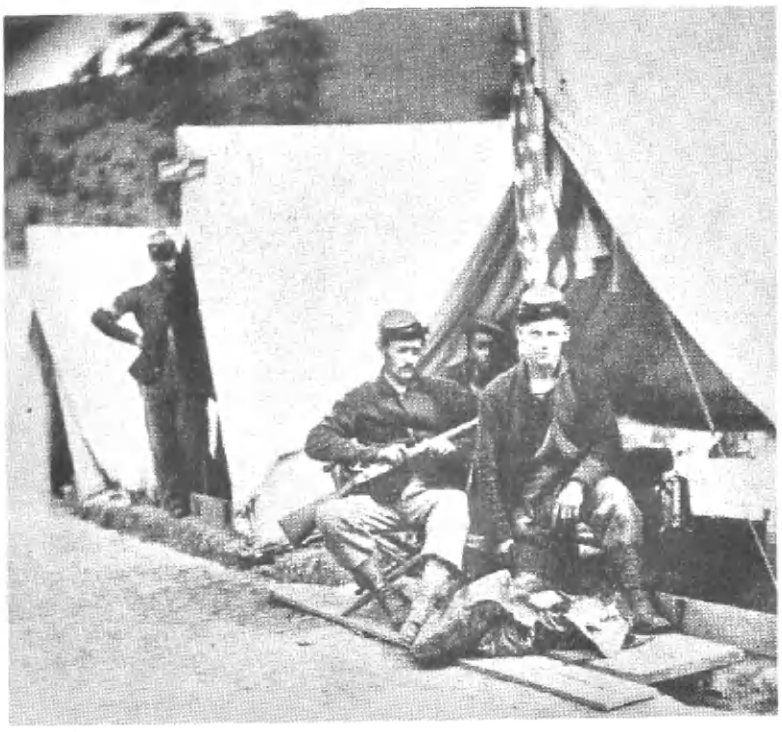


Figure 40. Photograph illustrating the drainage trenches excavated around tents (Davis 1986:177).

structures with an open side. Two of the structures were completely uncovered during the 1998 field season. Two other structures were also exposed, although not completely (Figure 41).

Harwood et al. (1999) suggest that the fully-exposed structures represent trenches dug around "A" tents because of the area enclosed by the structures. " If the distinctive trenches in this area (Features 4, 8, and 11) (see Figure 41) were constructed as drainage ditches, the most likely structure present in the Eastern Cleared Area would have been an "A" tent. "A" Tents typically covered approximately 50 ft^2. The area within the trenches of Structure 1 measures 40-48 ft^2" (Harwood et al. 1999:32-33). An alternative

explanation of the features in Figure 41, however, might be that Structures 1 and 2 were shelters made with half-shelter tents.

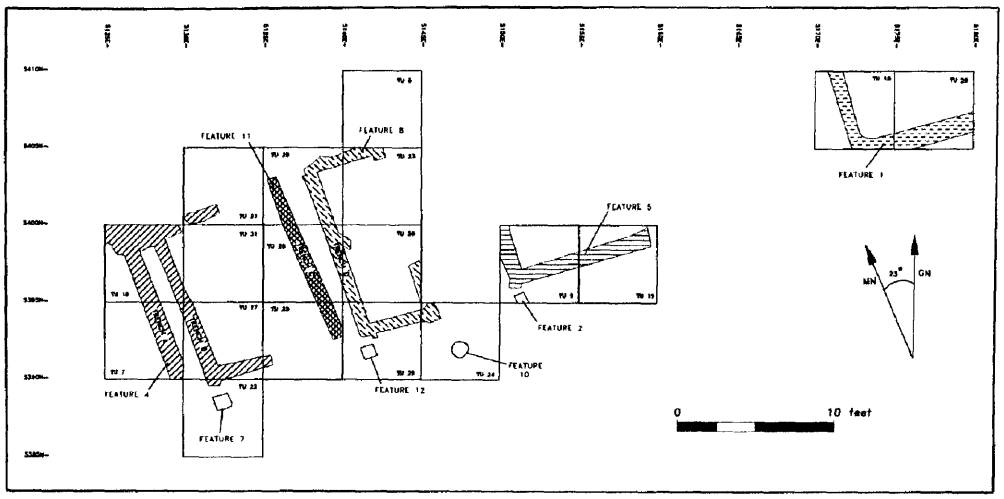


Figure 41. Plan of units and features on the Eastern Cleared Area at Fort Pocahontas (Harwood et al. 1999 :11, Figure 5).

Two half-shelter tents joined together and stretched taught, rather than draping over a ridgepole would cover an area 5' X 10' , exactly the dimensions of the area within Trench B and Trench D. Hypothesizing the erection of a "long" shelter tent used as a lean-to, or set on uprights to act more as an awning, would yield a more plausible explanation of the narrow structures.

The second set of structures to the west most likely represent "A" tents. The 7' X 7' ground space required by "A" tents would fit inside the area surrounded by Feature 1 and that surrounded by Feature 5 with sufficient area for pegging the tent (Figure 42).

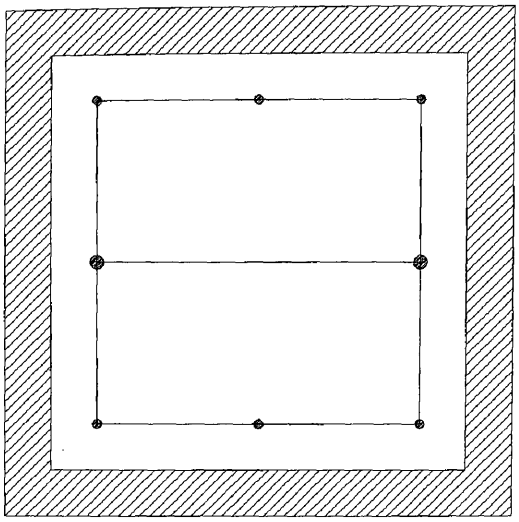


Figure 42. Plan drawing of an "A" tent circumscribed by a drainage trench (hatched area).

During the 1999 field season, trenches were discovered on the Promontory, similar in function to those in the Eastern Cleared Area. The Promontory trenches form a discrete alignment and are explained by Jensen et al. (1999):

> A total of four trench features were identified on the northern portion of the Promontory (Features 15,16,17, and 18). Feature 15 was exposed immediately below the plowzone in Test Units 4, 6, 7, 8, and 9. This feature appears to be composed of several trenches that were used as drainage for tent/shelter areas occupied by soldiers (Figure 24). If entirely exposed, it is hypothesized that Feature 15 would have the appearance of a large "ladder" on an east-west alignment, with two large trenches forming the legs of the ladder and smaller trenches forming the rungs (Figure 25). It is postulated that the spaces between the "rungs" of Feature 15 would be the location of tents or shelters, around which the soldiers dug trenches to facilitate drainage of the area. [Jensen et al. 1999:33]

Figure 43 shows the features found on the promontory.

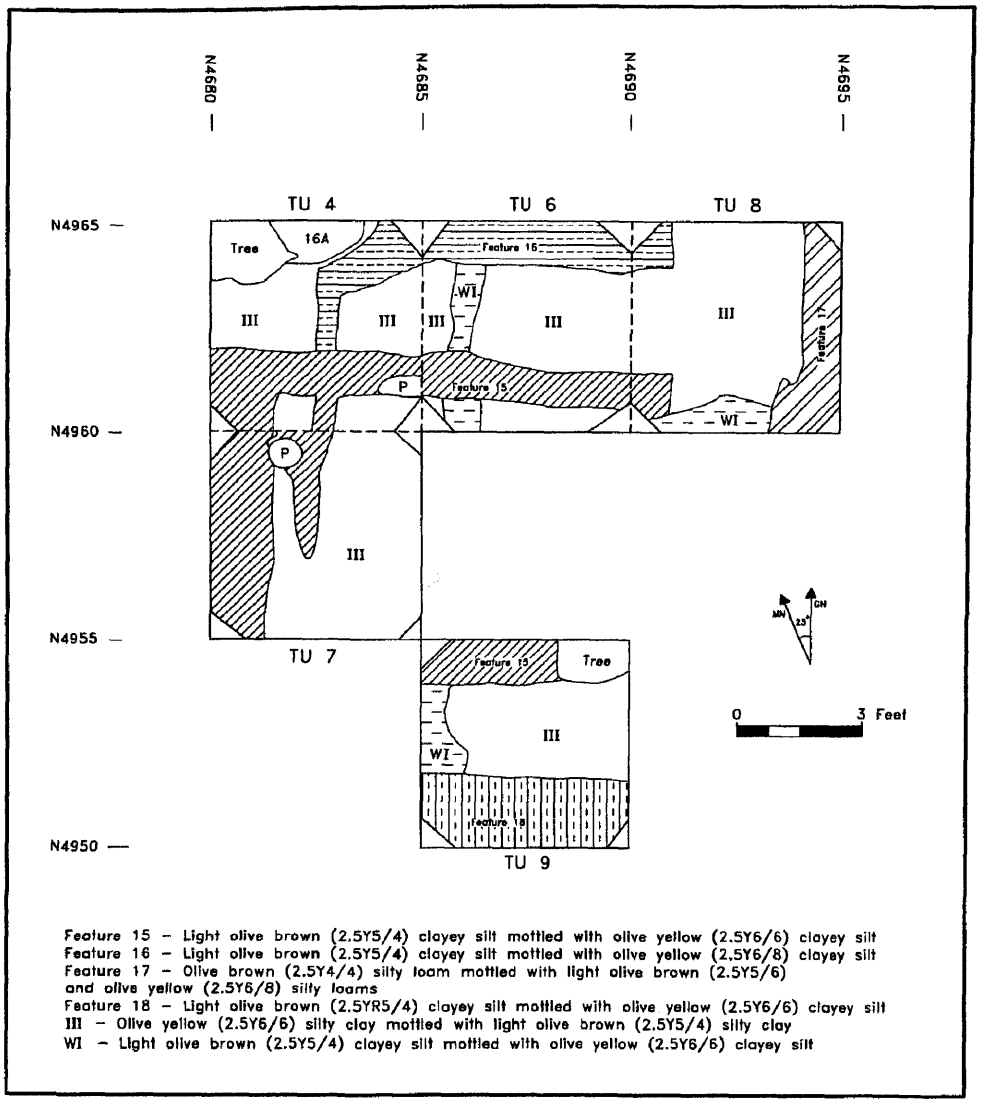
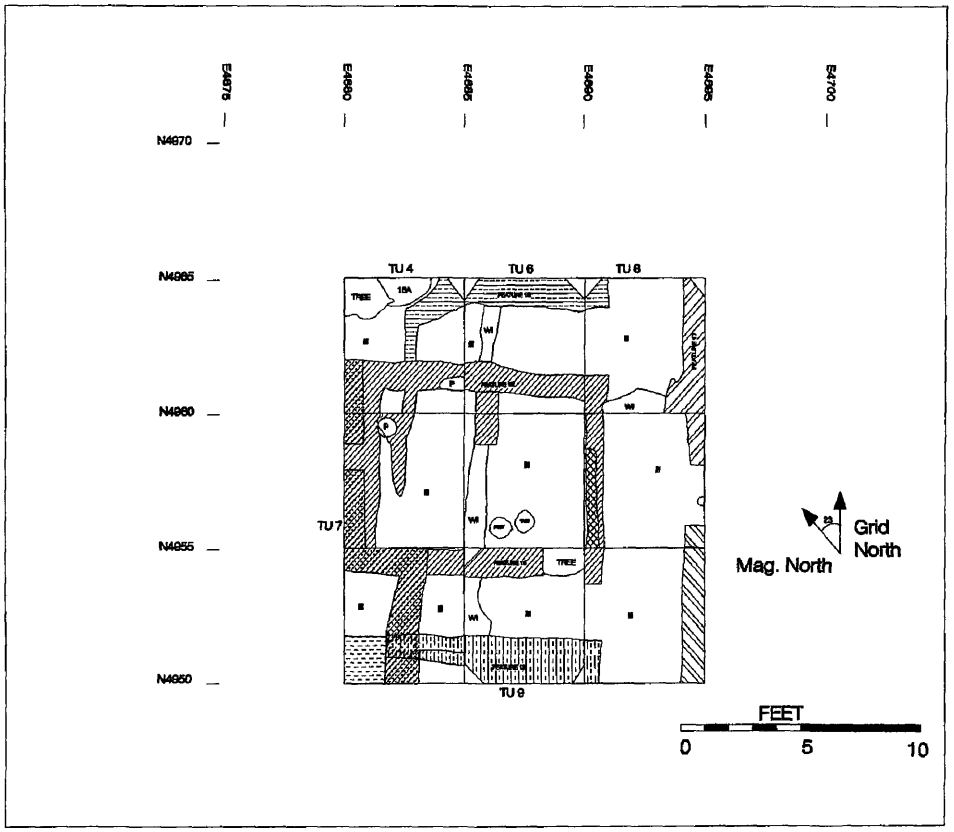


Figure 43. Plan of units and features on the Promontory (Jensen et al. 1999:34, Figure 24).

The tents used on the Promontory were most likely shelter tents. These tents would fit within the bounds of the trenches with ample surface for pegging the tent and moving about the tent without falling into the trenches.

Further excavation on the Promontory has yielded information as to the nature of the trenches. Features 15, 16, and 18 are definitely trenches that circumscribed tents, however, the easternmost portion of Feature 15, the southernmost portion of Feature 18, and Feature 17 are separate features that superimpose tent trenches (Figure 44). While there has been no excavation of the features proper, it is hypothesized at this point that these larger, darker features represent log huts constructed during the winter.



KEY
Feature 15 - Light Olive Brown (2.5YR5/4) Mottled with Olive Yellow (2.5Y6/6) Clayey Silt
Feature 16 - Light Olive Brown (2.5YR5/4) Mottled with Olive Yellow (2.5Y6/6) Clayey Silt
Feature 17 - Olive Brown (2.5Y5/6) Silty Loam with Light Olive Brown (2.5YR5/4) Mottled with Olive Yellow (2.5Y6/6) Clayey Silt
Feature 18 - Light Olive Brown (2.5YR5/4) Mottled with Olive Yellow (2.5Y6/6) Clayey Silt
III - Light Olive Brown (2.5Y5/6) Mottled with Light Olive Brown (2.5Y5/4) Silty Clay
WI - Light Olive Brown (2.5YR5/4) Mottled with Olive Yellow (2.5Y6/6) Clayey Silt

Figure 44. Plan of units and features on the Promontory at Fort Pocahontas.

Dugout Features

The dugout features that were found at Gloucester Point (Higgins et al. 1995), Loudon County (Creswell 1998), and on Sevierville Hill (Kim 1993) differ slightly in form, and they exhibit distinct characteristics that were utilized to determine the nature of the shelter they represent.

The structure on Gloucester Point was not completely exposed; however, it was deemed entirely possible that it was a semi-subterranean structure with a plank floor (Higgins et al. 1995). The excavation of Test Unit 3 revealed a compact base with plank-like features, suggesting that planks had been used for flooring (Higgins et al. 1995:36). While this information cannot yield a definitive idea of what sort of structure this feature represents, numerous references are made to semi-subterranean structures with plank floors (see Chapter III). This feature may represent a wall tent with a plank floor or a winterized tent with a plank floor.

The structures at Loudon County (Creswell 1998) and at Sevierville Hill (Kim 1993) are described as semi-permanent dugout structures by the authors. Seven semi-permanent dugout structures were exposed at Sevierville Hill and eight at Loudon County.

The structures at Sevierville Hill were divided into two categories based on feature size and volume of fill.

> Category I dugout structures (n=3) consist of very shallow fill areas with adjacent hearths. The fill areas were difficult to define because of the similarity of feature fill and the subsoil. These relatively thin fill areas extended out from the unfired ends of the hearths. The fill areas may represent either shallow living floors depressed by trampling within the

> structure or the eroded remains of an excavated structure basin. Category I dugout structures had rectangular, oval, or irregular shaped dugout sections in plan view. The mean dimensions of the dugout sections are 118 cm X 76 cm in plan view and 9 cm in depth (Table 2). The hearth sections were rectangular in plan view and had vertical walls in profile. Two hearths had central basins in the floors. The mean dimensions of the hearths are 91 cm X 59 cm in plan view and 25 cm in depth. The direction of orientation exhibited in Category I dugout structure hearths and Category II dugout structure hearths is consistent in that the unfired ends face into the dugout sections of the structures. Fills from the dugout sections of the Category I structures were collected with the corresponding hearth fills. [Kim 1993:44]
>
> Category II dugout structures (n=4) had rectangular or square dugout sections with rounded corners in plan view and had vertical to inslanting walls and flat bases in profile. The mean dimensions of the dugout sections are 169 cm X 138 cm in plan view and 30 cm in depth (Table 2). Two of the four hearth sections protruded from the center of one dugout section wall while the other two hearths were attached at the corner of the dugout sections. The hearths were square to rectangular in plan view and had vertical, inslanting, belled, and shelved walls and flat bases in profile. The mean dimensions are 67 cm X 59 cm in plan view and 31 cm in depth. [Kim 1993:49]

Kim hypothesizes that these features are the remains of a combination of log and tent shelters, referred to in this work as winterized tents. While the author does not comment on the tent type used for these structures, he mentions the different types available and cites several cases of dugout shelters being constructed (Kim 1993:56-67). From the dimensions, it is most likely that these features can be linked with the shelter tent. The footprint of the shelter tent when two halves were combined would be about 5.5' X 4'8" (167.5 cm X 142.5 cm) depending on the model of shelter tent (i.e. 1862 or 1864 model). These dimensions conform well to the features present at Sevierville Hill.

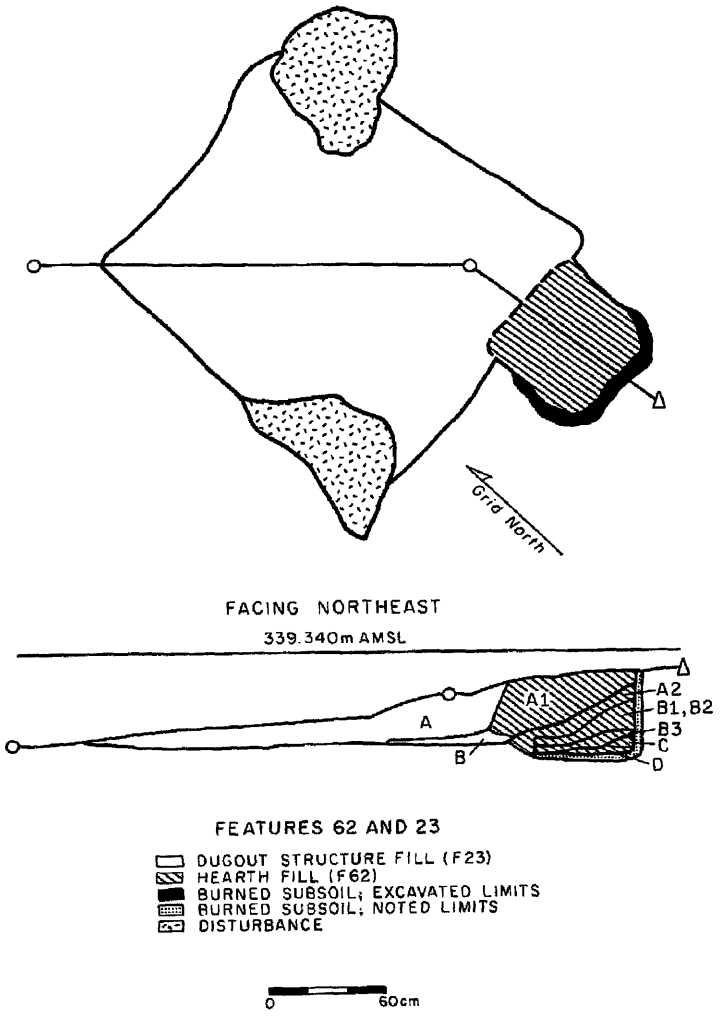


Figure 45. Plan and Profile map of Feature 23/62 at Sevierville Hill (Kim 1993:54, Figure 24). Feature 62/23 is a Category II dugout.

It is quite possible that these shelters did not have a log or plank foundation upon which the tents were placed. Two varieties of dugout shelters were used by the Union soldier: those with a log foundation and those without. Because hearths are attached to the dugout it likely that these shelters had a log foundation supporting both the tent and

the chimney. This, however, is not necessarily the case as there are photographs that illustrate dugout shelters having chimneys but no log foundations (Figure 46).

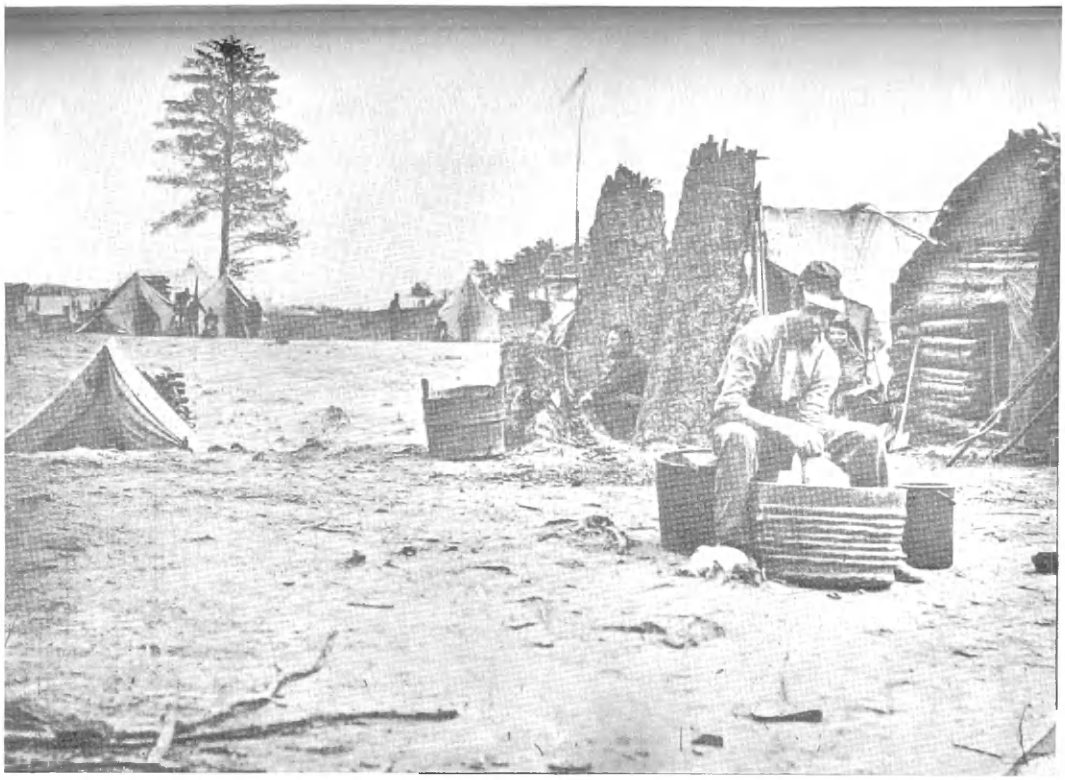


Figure 46. Photograph showing a dugout shelter tent with a chimney (Lord 1965:277).

The structures at Loudon County are similar to those at Sevierville Hill with the exception of the attached hearths. "Eight features (1, 2, 3, 4, 5, 7, 10, and 11) are interpreted as the excavated floor or cellar remains of possible Civil War 'wintering huts' or other Civil War related structures. The mean dimensions of the features are 172 cm by 169 cm in plan view and 29 cm in depth" (Creswell 1998:46).

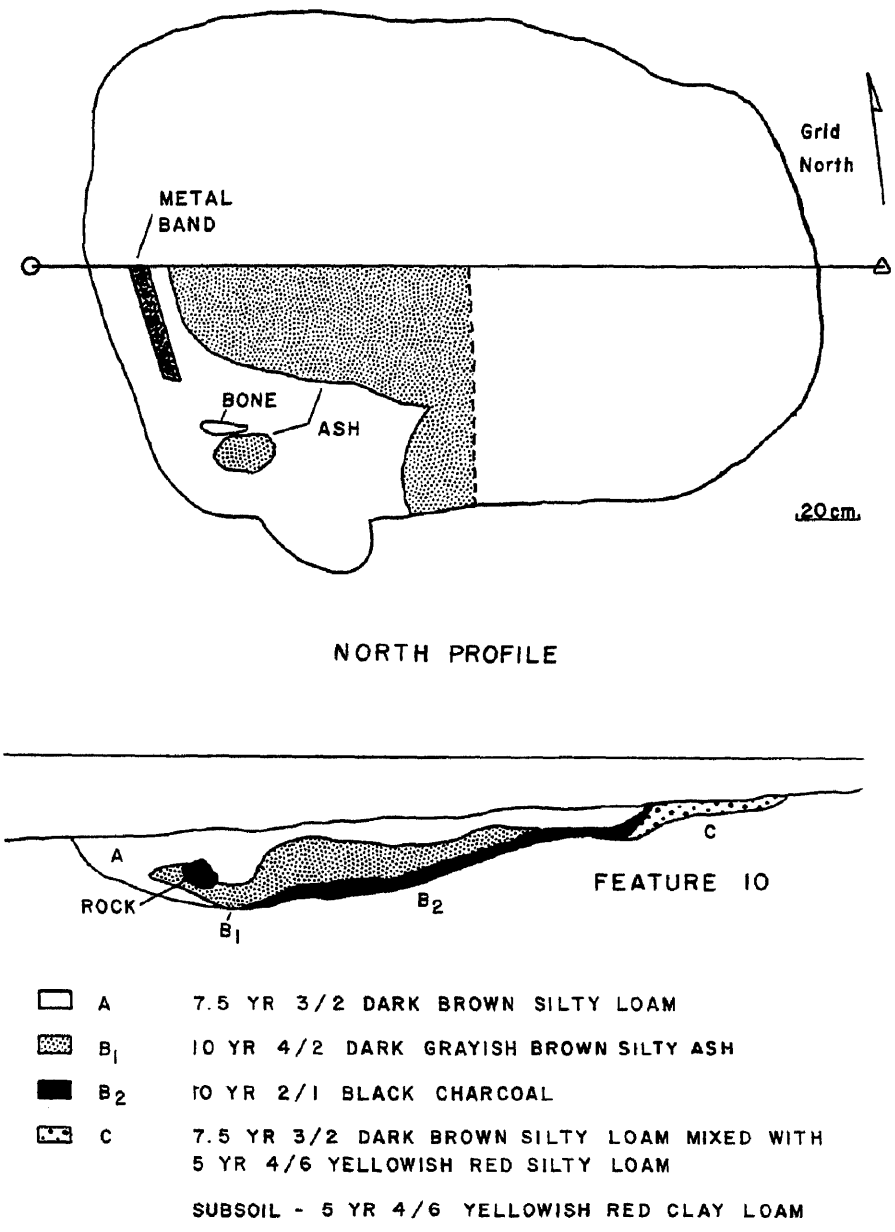


Figure 47. Plan and Profile of Feature 10 at Loudon County (Creswell 1998:43, Figure 18).

These features display much of the same characteristics as those found at Sevierville Hill and are very similar in size. Creswell cites Kim's interpretation of these features:

"Winter structures of the Civil War have been documented ' as being the remains of semipermanent [sic] winter quarter log huts or tent structures constructed over excavated/dugout floors with attached hearths (Kim 1993:61)' " (Creswell 1998:48). The Loudon County shelters, because of the lack of an attached hearth/chimney, are most likely simple dugout cellars over which shelter tents were erected.

Creswell includes a comment about a previous investigation on the same site by the Department of Anthropology at The University of Tennessee-Knoxville, which identified a similar feature with dimensions of 226 cm X 204 cm in plan view that had a depth of 53 cm (Creswell 1998:48). This is an interesting note as this feature, though similar, is quite a bit larger than those exposed by Creswell. This larger dugout structure certainly represents a shelter that incorporated an "A" tent because of its size. Though it is difficult to ascertain the exact nature of this shelter (i.e. whether it was stockaded, had a log foundation, or was anything more than an "A" tent with a dugout floor), it corresponds to the dimensions of an "A" tent. The 7' X 7' (213.5 cm X 213.5 cm) footprint is consistent with tent size - give or take a few centimeters or inches for the excavation methods of the soldiers.

Hearths

Hearths play an important role in archaeology. They are often well preserved because of the discoloration of the surrounding soils, they often contain information as to what sort of activities those using the hearth took part in, and often times if a pit was excavated for the hearth the odds of preservation increase by distancing the remains from the topsoil or plowzone. Civil War hearths are no different. The hearths found at the

sites discussed in this work take many shapes and forms and can yield a good deal of information as to shelters in which they were used.

The hearth found on the Smith Site was a dry-laid brick hearth (Figure 48). Cromwell and Geier (1985) describe this feature:

> The hearth was made primarily of quartered and halved handmade bricks. A line of bricks set on their sides formed the semicircle and extended ca 3 to 7 in. above the hearth floor. There was one gap in the back of the hearth wall of ca 10 in. The wall and hearth floor were neither permanently set nor mortared. In fact, there was no evidence of a standing chimney. Neither the amount of brick nor their arrangement suggests a brick chimney (like the one from Petersburg, shown in Plate 18). If there was a chimney, it was more than likely a temporary one, possibly of sticks and dried mud or perhaps simply a barrel (Plate 19). The floor of the hearth was small (2 ½ ft across) and is similar to hearths known to have been used in military winter quarters during the Civil War. [Cromwell and Geier 1985:47]

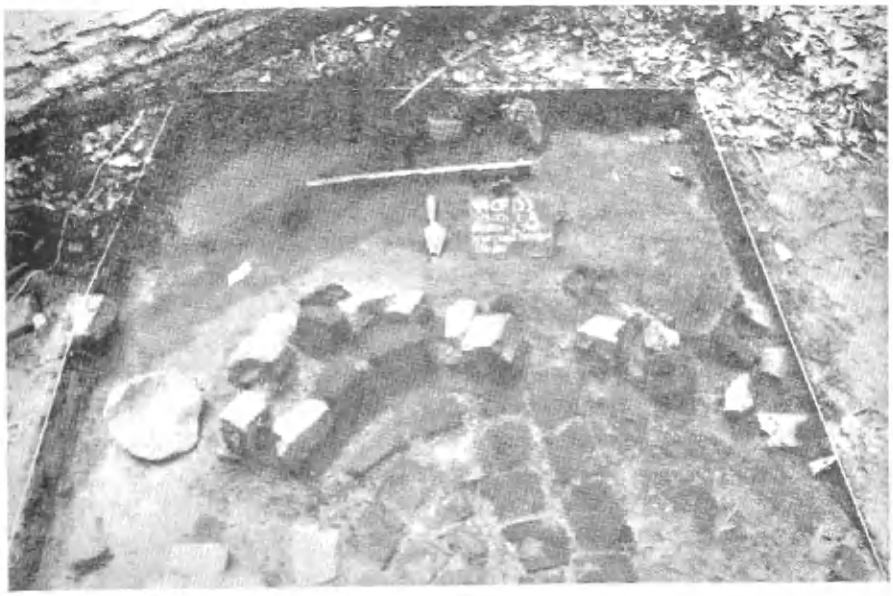


Figure 48. Photograph of Hearth at the Smith Site (Cromwell and Geier 1985:55, Plate 21).

Cromwell and Geier speculate that this hearth was constructed within some sort of winter quarters. While no other features were found associated with this hearth, the artifacts contained within the fill, such as military buttons, associate this feature with the Civil War encampment on this site. A pintle and a hinge in the vicinity of the hearth suggest that the feature was within a log hut, constructed by soldiers as a shelter for the winter months.

Just as substantial as the hearth at the Smith Site, are the hearths found on Gloucester Point (Higgins et al. 1995) (Figure 49). These hearths, however, were located within structures (structures will be discussed below). The hearths found at Gloucester point represent two different styles of heating. The first mode incorporates a stove and a flue. The other is called a California furnace and consists of some sort of centrally-located firebox. Smoke and fumes are channeled out of the firebox via trenches or a trench dug into the ground and vented outside of the structure using a chimney. They are described as follows:

> The trench found in Sections 25-1 and 25-2 had roughly vertical walls and a flat bottom, measuring 1.19 ft. wide at its top, 1.0 ft. wide at its base, and 0.60 ft. deep (see Figure 46). In Section 25-1, the south wall of the trench was lined with two courses of dry-laid bricks (Feature 137). In Section 25-2, only the north side of the trench was lined, indicating that part of the brick work had been robbed away. The channel between the two courses measured 0.80 ft. wide. The presence of the brick-lined trench indicated that Feature 25 was not collapsed chimney debris, but rather the remains of a flue-like feature. [Higgins et al. 1995:56]
>
> Features 25, 26, 122, 128, and 130 probably represent the remains of a heating system(s) inside Structure 2. the types of features and their contents suggest that different systems or components of one system were used to heat Structure 2 during the life of the structure. The western half of feature 25, for example, was different from the eastern half of this feature.

The eastern half of Feature 25 was linear, and contained some intact brick lining, Feature 25-3, on the other hand, was curved, and contained no lining and fewer artifacts. In addition, Feature 122 cut sections 25-3 and 25-4 of Feature 25, indicating that Feature 122 postdated those sections. Feature 122 appears to be associated with the brick channel (Feature 137). [Higgins et al. 1995:59]

The largest stove (Feature 122) was connected to Feature 26 via the brick channel. The channel most likely served as a major component of the heating system, helping to dissipate heat. Feature 26 was probably part of this system. Its ashy remains may represent a stove or a fire box for which no structural evidence remains. The irregular shape of the deposit and the similarity of its deposits to those inside the channel indicate that it probably formed the end of the channel next to the side of the structure. Feature 130 may have been either an ash deposit associated with Feature 122, or traces of a later, circular stove that replaced a more box-like stove (Feature 122). [Higgins et al. 1995:59]

Features 12, 13, 140, and 166 are remains of a heating system. This system included a brick-lined channel (Feature 12) on the interior of structure 3 which was tied into a stove (Feature 166) and an exterior chimney (Feature 140). This arrangement varies from Structure 3 in that both stove and a chimney were used. [Higgins et al. 1995:61]

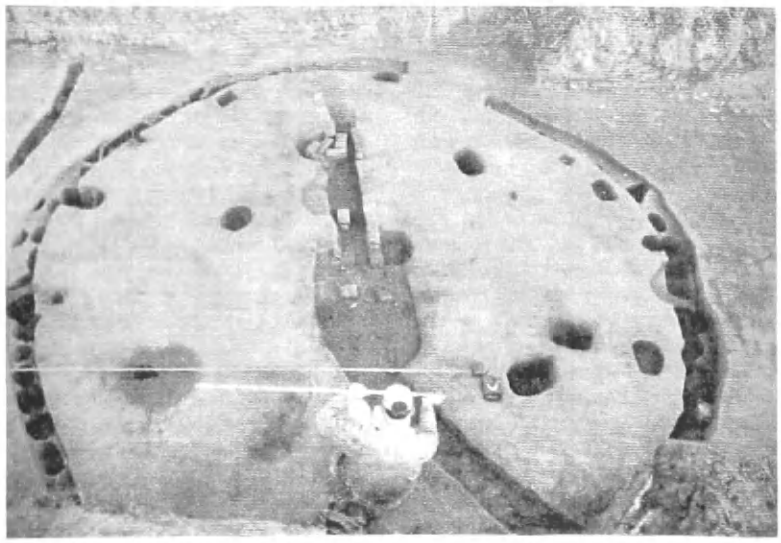


Figure 49. Photograph of Hearth features at Gloucester Point (Higgins et al. 1995:60, Figure 51). The California furnace is in the center of the photograph.

Higgins et al. (1995) correctly interpret these hearths as traces of a California furnace serving as a stove using a brick-lined flue that was tied to an outside chimney (Higgins et al. 1995:80). While we see the California furnace and a stove and chimney combination, they are related through the incorporation of California-furnace-type arrangement of the stove-flue-chimney arrangement.

The hearths at Sevierville Hill take on a much different appearance both in their construction and in their elaborateness. A total of forty-one hearths were exposed at Sevierville Hill (Kim 1993) (Figure 50). Associated with these hearths were seven semi-permanent dugout structures. These features are related since, as mentioned above, the dugout structures contain hearths. Kim (1993) suggests that it is quite feasible that the hearths that appear to be independent of shelters could, in fact, be associated in some manner with a shelter of some sort, possibly one without an excavated floor. The hearths found at Sevierville Hill were grouped into four categories based on size and volume of fill:

> Category I hearths (n=5) were the remaining bases of these features and were characterized by a flat intensely burned area that had mean dimensions of 56 cm X 48 cm in plan view (Table 1). Category I hearths were roughly square to rectangular in shape with rounded corners and did not contain any fill. The smooth flat hard burned subsoil areas were very similar to many of the bases of the hearths that were not eroded or truncated. [Kim 1993:31]
>
> Category II hearths (n=8) were the truncated remains of features that contained up to 10 liters of fill. Only three of the eight hearths in this category produced historic artifacts. Category II hearths were square to rectangular in plan view and had vertical to inslanting walls and flat bases in profile. Wall descriptions could not be determined on some of these features due to erosion. The mean dimensions of Category II hearths are

> 61 cm X 49 cm in plan view and 9 cm in depth (Table 1). The mean volume of fill is 6.5 liters. [Kim 1993:35]
>
> Category III hearths (n=17) were square to rectangular in plan view and had vertical to inslanting walls and flat bases in profile. One circular basin shaped hearth is also included in this category. The mean dimensions of Category III hearths are 98 cm X 73 cm in plan view and 23 cm in depth (Table 1). The mean volume of fill is 57.7 liters. Five of these features contained multiple fill zones. [Kim 1993:35]
>
> Category IV hearths (n=11) were square to rectangular in plan view with vertical to inslanting walls and flat bases in profile. The base of Feature 75 was flat with a centrally depressed basin. The mean dimensions of Category IV hearths are 83 cm X 72 cm in plan view and 26 cm in depth (Table 1). Five of these features contained multiple fill zones. [Kim 1993:39]

A summary of the hearths is provided by Kim:

> Category I and II hearths were the basal remains of these features and produced limited data and artifacts. Category III and Iv hearths were relatively intact examples of this feature type and produced more information on feature attributes and artifacts. Most hearths were square to rectangular in plan view with three intensely burned sides. The walls were vertical to inslanting with flat bases that sometimes had centrally depressed areas. Historic artifacts recovered from the hearths consist of cut nails, historic ceramics, military and civilian buttons, minie balls and percussion caps, and a variety of personal items. [Kim 1993:42]

The hearths described above could have been exterior hearths as suggested by the author (Kim 1993:67). Alternatively, it is possible that these hearths were associated with shelter features. Because of erosional loss of a certain amount of the vertical integrity of the site, it is difficult to ascertain whether these hearths were simply deeper than those directly connected to the dugout shelter features, or if they were actually exterior hearths used for cooking or warming the soldiers, or if they were associated with shelters that did not incorporate a dug out floor.

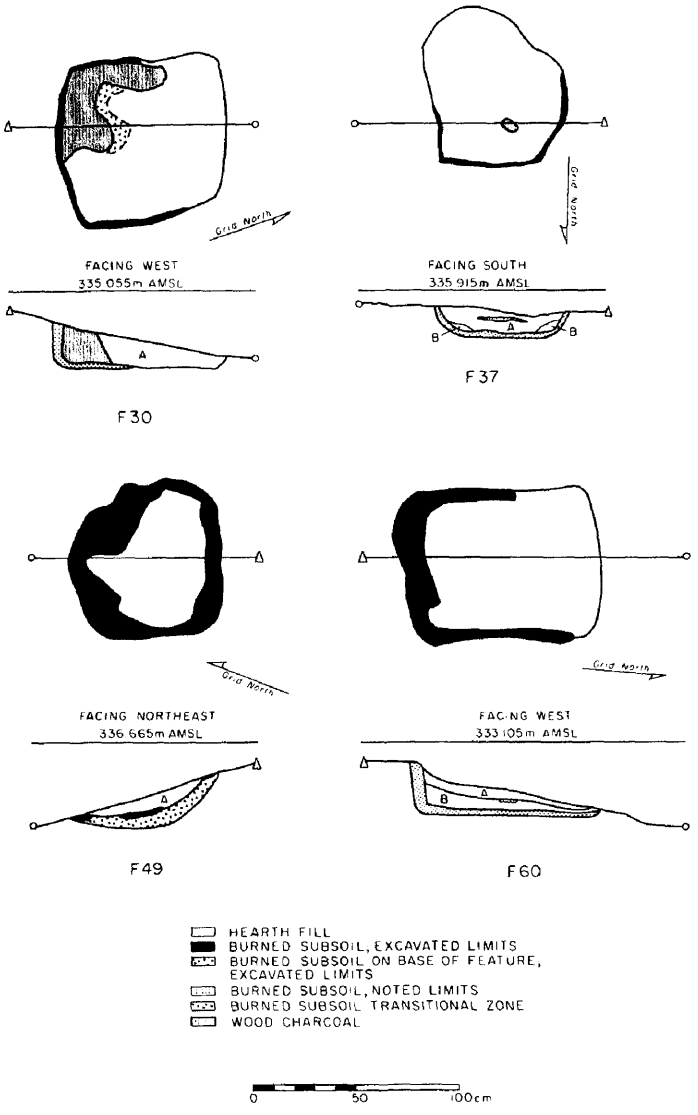


Figure 50. Plan and Profile of several Category III hearths at Sevierville Hill (Kim 1992:36, Figure 12).

The hearths on Sevierville Hill that were associated or connected to the dugout shelter features were generally similar in size to the independent hearths. Kim points out

that independent hearths had burn patterns concentrated in certain sections of the hearth, indicating a draft of some sort during burning (Kim 1993:67). The same burn patterns were seen on those hearths associated with dugout structures, indicating that a certain number of these hearths were associated with a structure similar, if not exactly like, the seven other dugout structures found on the site.

Only one possible hearth was exposed at Loudon County. Creswell states that this feature is most likely a truncated hearth (Creswell 1998:48). This feature, which was an oval shaped burned area, was not excavated so it is difficult to determine its exact nature. However the author states that it is similar to the Category I hearths at Sevierville Hill (Creswell 1998:48).

Circular Trenches

The circular trenches at Gloucester Point are remnants of several stockaded Sibley tents (Figures 51, 52, and 53). They were described as follows:

> The archaeological remains within the project area consisted of seven slot trenches, including three narrow, circular trenches with diameters of approximately 20 ft., spaced approximately 1 ft. apart (Features 31, 14 and 28, 17); one circular trench (feature 163) that either intrudes or is intruded by the southernmost of the three trenches; and three linear slot trenches (Features 141, 144, 149) (see Figure 33). The circular trenches were virtually identical to each other in terms of their soil color and their widths, measuring from 0.5 ft. to 1.1 ft. wide, and filled with dark loamy soil. Portions of three of the circular trenches extended outside the impact zone of the project right-of-way. Three of these trenches (Features 31; 14, 28, and 161; 17 and 162) appear to have the same diameter, while feature 163 is smaller. The central trench (Features 14 and 28) was complete. This trench measured 19.5 ft. in diameter and had a 2.7-ft.-wide opening on its east side, likely a doorway. Evidence for a door was also found on the east side of Feature 17. the preliminary evidence indicated that Features 17 and

162; 14, 28, and 161; 163; and 31 represented four individual structures. These structures were designated as Structure 1 (Feature 31); Structure 2 (Features 14, 28, and 161); Structure 3 (Features 17 and 162); Structure 4 (Feature 163)... [Higgins et al. 1995:42]

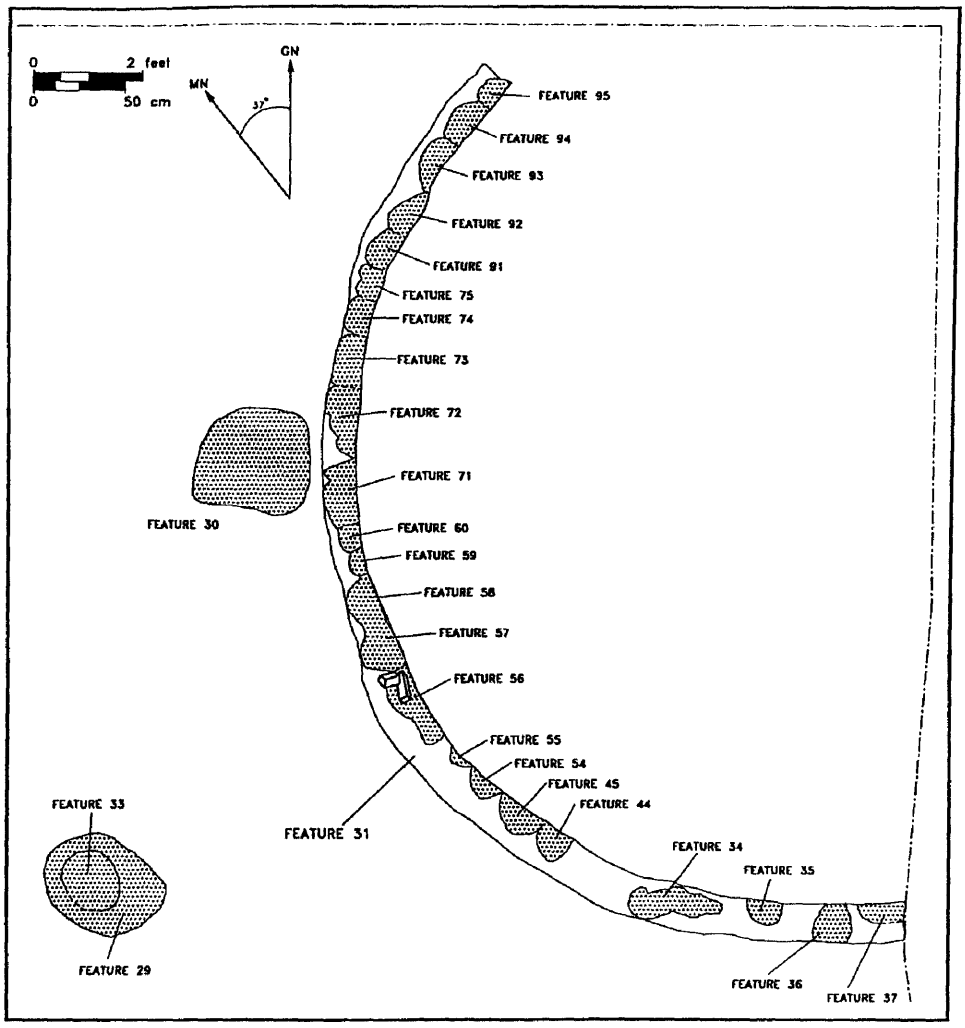


Figure 51. Plan of Structure 1 complex at Gloucester Point (Higgins et al. 1995:48, Figure 37).

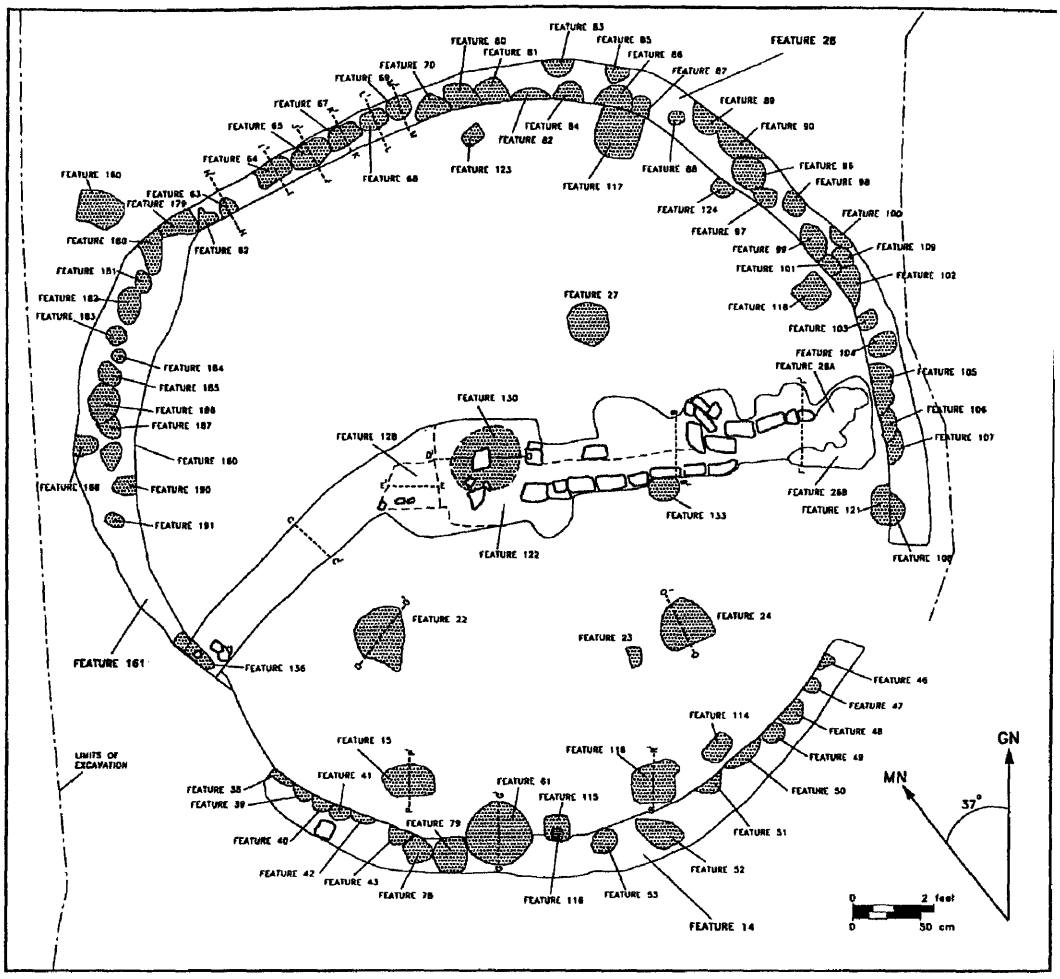


Figure 52. Plan of Structure 2 complex at Gloucester Point (Higgins et al. 1995:49, Figure 38).

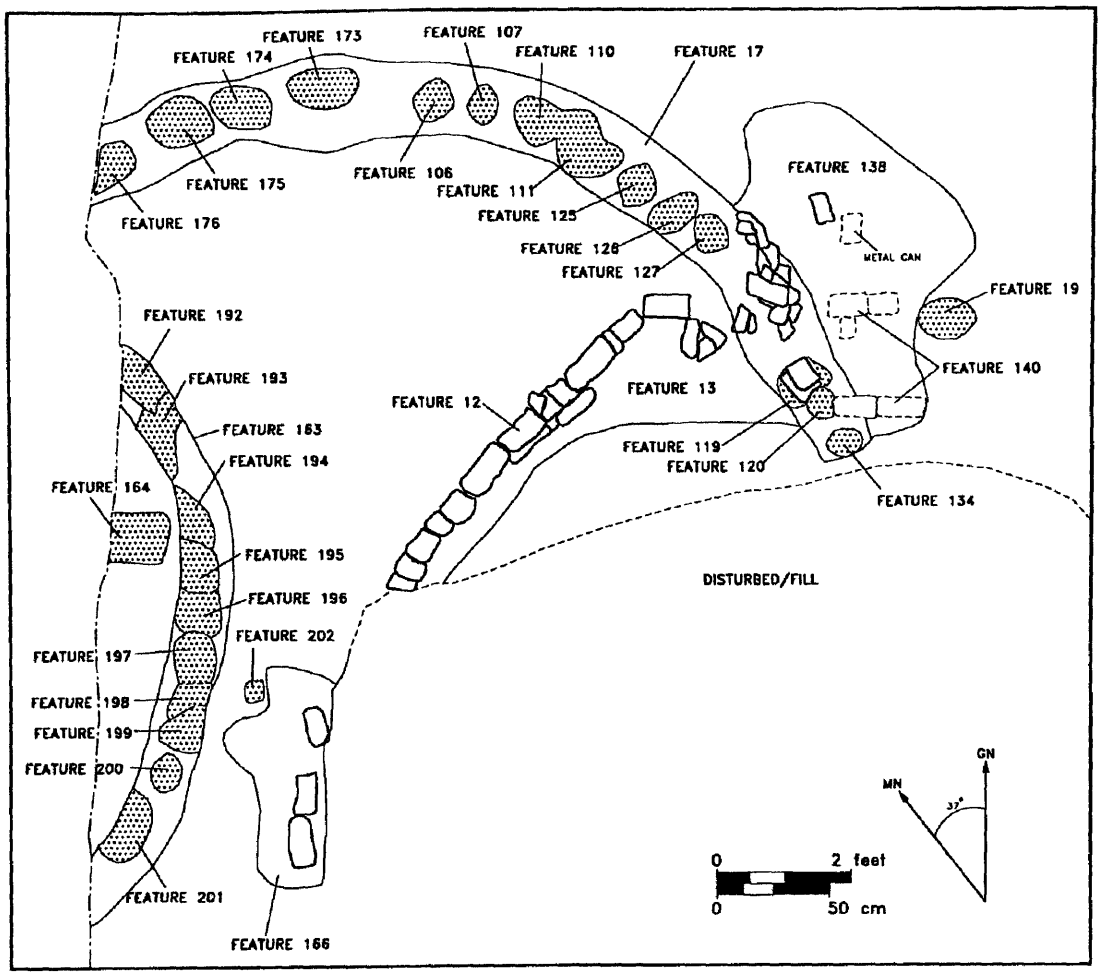


Figure 53. Plan of Structure 3 and 4 complexes at Gloucester Point (Higgins et al. 1995:50, Figure 39).

These circular trenches contained postmolds of various-sized logs, set on end within the narrow trench. Higgins et al. (1995) state that "the shapes and sizes of the post molds indicated that the posts probably included both split and whole rough timbers. Some of the timbers were shored up by packing brick around them; however, most timbers were merely set in the trench and secured by dirt back fill" (Higgins et al. 1995:52).

There is no question that these represent Sibley tent outlines. While the diameter of the features varies, it should be noted that a certain amount of overlap must be accounted for (tent over logs). Depending on how high the logs stood, they may have been angled in or out depending on the construction methods used by this particular group of soldiers. Furthermore, the feature with the smaller diameter might represent a Sibley tent that had the lower portions removed because of wear and tear or mold.

Circular Platforms

Much like the circular trenches discussed above, the circular platforms found on Maryland Heights are indicative of the Sibley tent. "Circular platforms average 16 ft across-the same diameter as Sibley tents" (Frye 1990:168). Although the diameter of a Sibley tent is actually 18 feet, Frye is correct in attributing these platforms to Sibley tents. From the maps in Frye's article (Frye 1990: Figures 3, 4, and 6), it appears that there are several of these platforms scattered over the campgrounds. These tents may have been stockaded around the platform or shortened because of mold or wear and tear, thus accounting for the smaller-than-expected diameter.

Summary

The features discussed above linked to shelters do not exhausts the shelter types utilized by Union soldiers. However, enough information can be teased out of these examples to hypothesize how each shelter type would be expressed archaeologically.

Chapter VI presents a framework constructed for linking shelter type with archaeological features. The above studies illustrate that certain archaeological features

can be linked positively with shelter types and some cannot. The key to unlocking the nature of the shelter type is the dimensions of the archaeological features. Some features conform directly to the dimension of the standard-issue tents utilized. Other features are complicated by the incorporation of construction materials and techniques that modify the dimensions of the tents. Shelters that incorporated tents for roofing material may have retained some of the dimensional attributes of the tent itself. This, however, is dependent on the construction materials available and the whims of the builder.

CHAPTER VI

ANALYSIS AND DISCUSSION

Analysis

This study has provided sufficient evidence to construct a basic rubric of archaeological features that should be left by specific types of Union shelters of the Civil War, on Union campsites and within Union fortifications. Further, the associated archaeological features like trenches, dugouts, platforms, and hearths may assume many forms. As with any archaeological feature, aspects of site condition and formation have a bearing on how well features are preserved, if at all.

In an ideal world, excavation of an encampment would be supported by research into written and pictorial documentation of that site. Then, and possibly only then, could we be sure that our interpretation of the archaeological record was accurate. In lieu of that ideal, a preliminary typology will be presented, in some areas more complete than others owing to prior archaeological investigations. Hearths, because of their substantial nature, especially lend themselves to making principled interpretations.

Hearths, as noted, take on many different forms. Hearths attached to shelters will indicate the presence of a chimney and often a log foundation, as there exists a need to support the chimney structure. The hearths found at Gloucester Point were found within a shelter identified as a Sibley tent (Higgins et al. 1995). However, in cases like the Smith Site, where the hearth is a substantial feature without obvious traces of a shelter around it, the size and nature of the hearth can provide information, though limited, as to the type of shelter in which the hearth was located (Cromwell and Geier 1985). For instance in the case of the Smith Site, the hearth was over two feet square and was composed of dry laid brick. This hearth would not fit within a shelter tent and most likely not in an "A" tent, leaving the Sibley tent, the wall tent, and a log hut as candidates. The artifacts associated with the hearth give clues as to the type of structure. The pintle and hinge suggest a substantial structure that could support a door (Cromwell and Geier 1985). As there were no features around the hearth, we can deduce that this hearth was within a log hut. A large log hut would support the use of a hearth of this size and might not leave any footprint feature depending on the construction methods employed by its builders, especially if subsequently plowed.

A California furnace that is not associated with any features can still yield limited information on the size and, therefore, the nature of the structure within which it was built. Generally, the firebox was centrally located with a flue connecting to a chimney on the outside of the shelter. By taking the length of the flue, doubling it, and comparing that to tent sizes, one can determine the tent type used (Figure 54). If the furnace was employed in a log hut, the same principle is applied. This gives the rough dimensions of

the log hut. At Gloucester Point, hypothetically speaking, if there were no trench features indicating the type of tent used, and the flue feature was approximately 8.5 ft. long, doubling this gives a length of 17 ft., which is close to the diameter of the Sibley tent. Armed with the knowledge that the tent used might have been a Sibley tent, the archaeologist can look for features or information that might otherwise support this hypothesis.

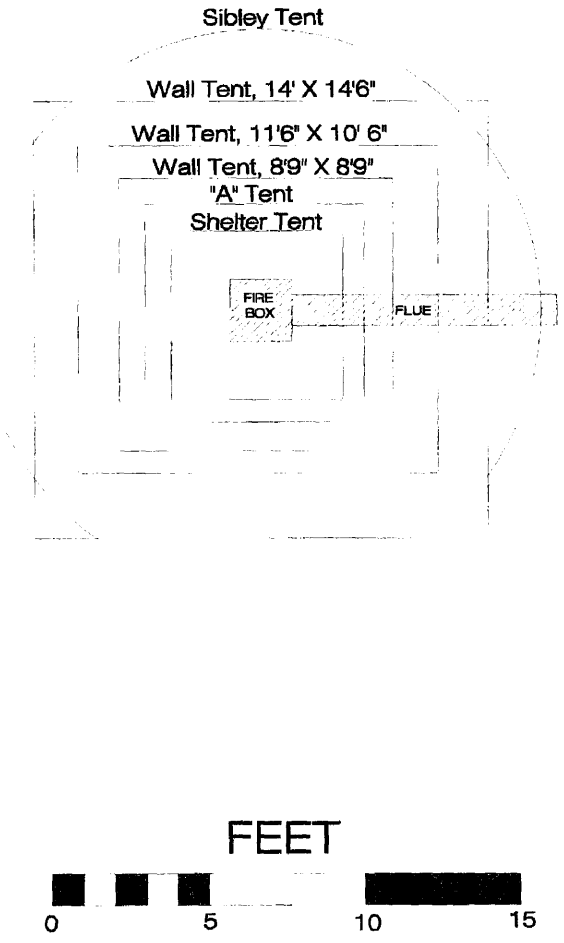


Figure 54. Diagram illustrating comparison of tent types to hypothetical California furnace feature (firebox and flue).

Platforms have been found primarily on steep terrain. Platforms that were used to level the ground on which a tent, winterized tent, or log hut was constructed should match the dimensions of the structure that they supported (Figure 55). Platforms of six feet square or less most likely indicate the pitching of a shelter tent. Platforms of about 8 feet square or so can be attributed to the use of an "A" tent. Circular platforms with a diameter of 16 to 22 ft. or more can be attributed to the use of Sibley tents. Platforms that were used for wall tents or log huts will be more difficult to separate, as the typical log hut was often about ten feet square, and the wall tents were the same size or larger.

Construction of platforms is certainly indicative of a prolonged encampment; men who were simply bivouacked on a hill would not have taken the time to carve out the mountainside. Lengthy occupation of a slope requires the fashioning of some solid, relatively flat surface for shelters, otherwise the soldier would wake up at the foot of the hill. The only reason to occupy a steep hillside is the strategic importance of that particular locale. This being the case, the soldiers defending the position would construct platforms on which they could pitch their tents. Maryland Heights is a perfect example; it was a strategically important place that was occupied for a considerable amount of time, hence the platforms. Considering the duration of the encampment and the location of Maryland Heights, it is surprising that no pictorial evidence has come to light, other than sketches which do not seem to conform to the exposed features.

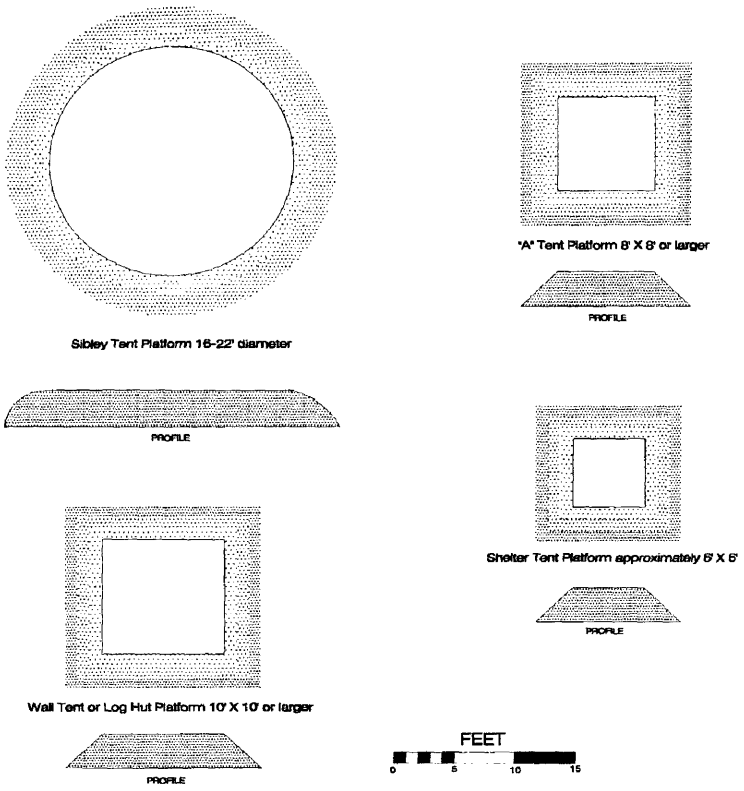


Figure 55. Diagram depicting hypothetical forms of shelter platforms and their profiles.

Dugout features are similar to platforms in that they correspond to the dimensions of the tent that was pitched above them. Therefore, they can be attributed to tent type through a comparison of size (Figure 56). For instance, dugout structures that have dimension of about 5' X 5' can be attributed to the use of shelter tents. The dugout shelters at Loudon County had a mean dimension of 172 cm X 169 cm (5'8" X 5'7") in plan view. A certain amount of variability will occur as the structure may have had a log foundation or attached hearth (Figure 57).

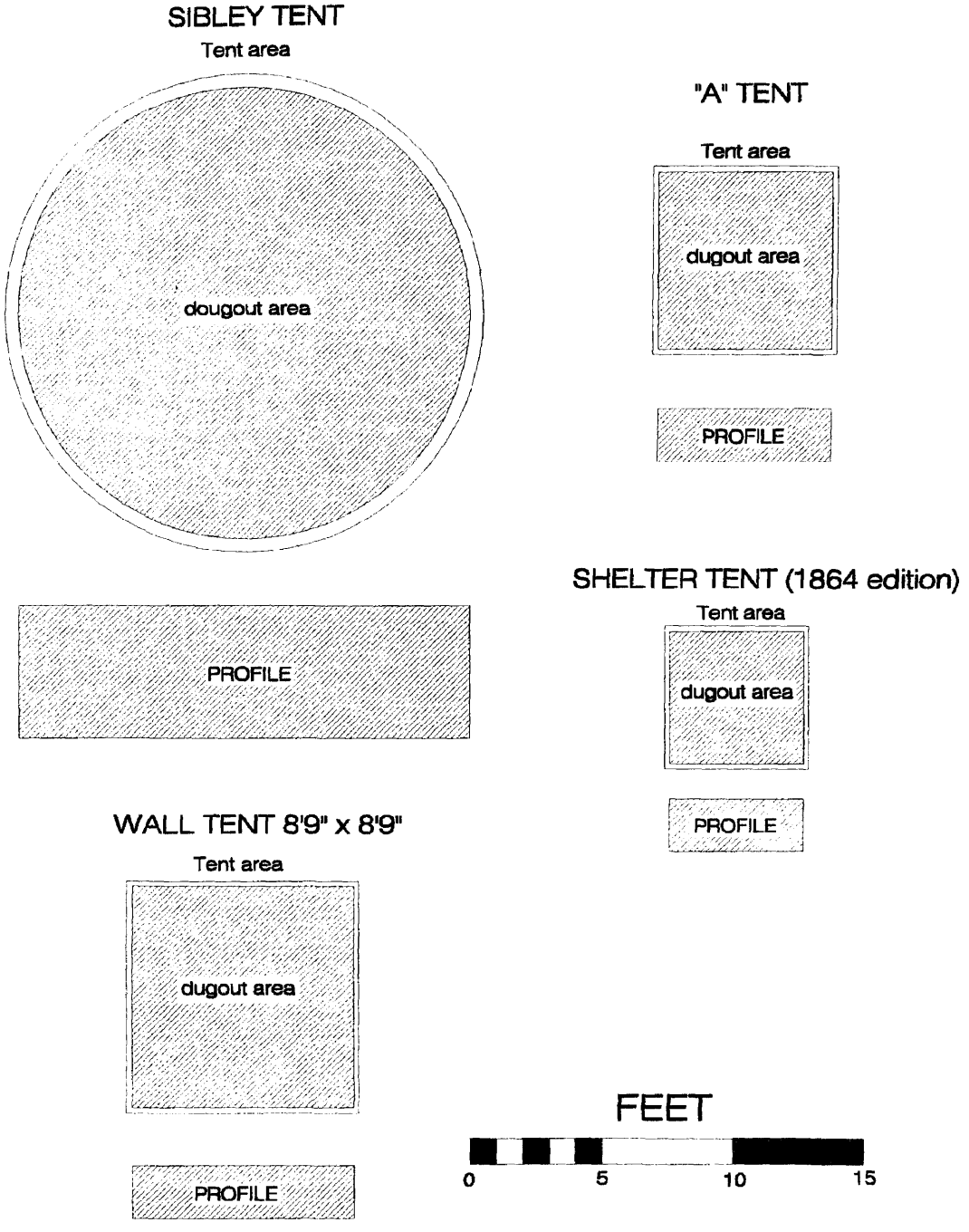


Figure 56. Diagram illustrating potential dugout features associated with tent types and their profiles.

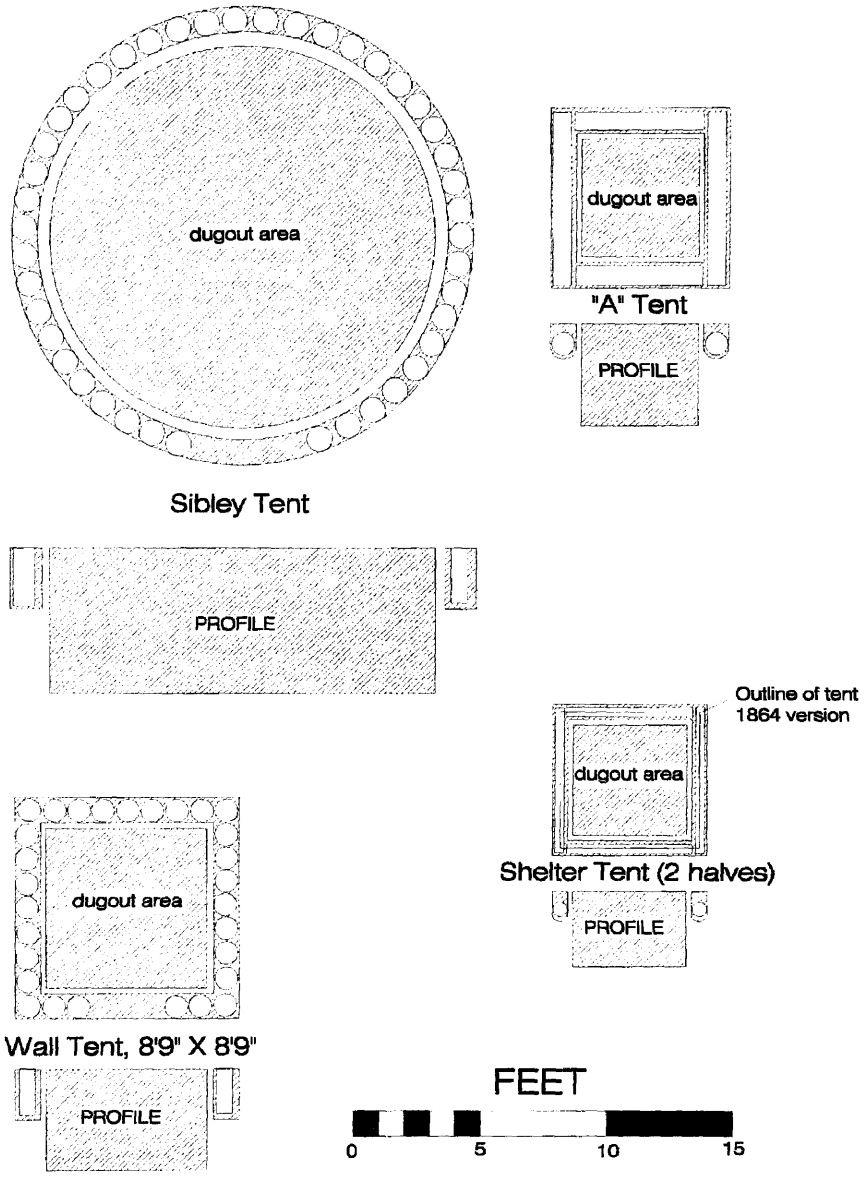


Figure 57. Diagram illustrating potential dugout features with wall trenches, and profiles associated with tent types.

The dugout features at Sevierville Hill have mean dimensions of 169 cm X 138 cm (5'7" X 4'6"). The hearths are attached and extend off the side of the primary

feature. These are certainly features topped by two half-shelter tents joined in the standard configuration. The larger mean dimensions of the features at Loudon County may indicate tents pitched at a more obtuse angle than those at Sevierville Hill, allowing for a larger area to be occupied underneath.

Several tent types were used to cover dugout shelters. Dugout features with dimensions of about 7 ft. square can be attributed to the "A" tent. In his 1998 report, Creswell (1998) indicates that a feature having dimensions of 226 cm X 204 cm (7'5" X 6'8") was found on the Loudon County site. Again, this tent may have had a log foundation that supported the tent or an attached hearth so a certain amount of variability will ensue. Feature 8 at Gloucester Point may have been a wall tent that had an excavated floor topped with planks (Higgins et al. 1995). The attribute of a dugout wall tent will be similar to those of other shelters in that the dugout feature will meet the general dimensions of the tent. In the case of the wall tent however, there may also be planks lining the walls, which may leave some feature on the floor of the shelter.

Two types of *trenches* are important in a study of shelters: drainage trenches and wall trenches. The problem with drainage trenches lies in their ephemeral nature; no provisions were made to ensure that they outlasted the first rain. The Sanitary Commission recommended trenches about 12 inches wide and deep. They could fill in rapidly with dirt or debris or collapse in a heavy rain.

Wall trenches are a different story. They were dug specifically to hold logs or timbers supporting a tent or log hut. As demonstrated by the trenches at Gloucester Point, they are more substantial in nature than drainage trenches and are more visible in archaeological situations. Because of the depth to which the logs were sunk in the trench,

the trench stands a greater chance of being preserved even with plowing activities. The logs in the trench through the decomposition process would discolor the surrounding soil, creating an indelible feature (Figure 58) (Table 6).

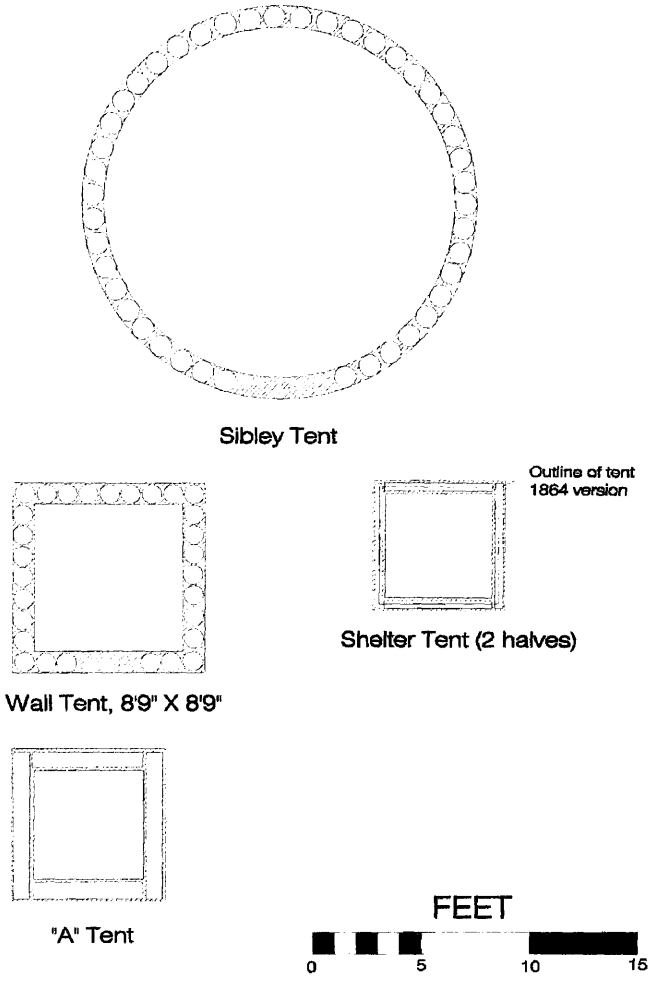


Figure 58. Diagram showing hypothetical wall trenches associated tent types. Shelter tent and "A" tent depict horizontal arrangement of logs.

Table 6. Attributes of Wall Trenches

SHELTER TYPES	FOOT-PRINT SIZE	LOGS: VERTICAL/ HORIZONTAL	WIDTH OF TRENCHES	WIDTH OF POSTS	DEPTH OF TRENCHES	PROFILE OF TRENCH SIDES*/**
Sibley tent	18' DIA.	Vertical	4"–24"	2"–18"	4"–36"	V, S°, ◡
Wall tent (not shown)	14' x 14.5'	Both	4"–24"	2"–18"	4"–36"	V, S°, ◡
Wall tent (not shown)	10.5' x 11.5'	Both	4"–24"	2"–18"	4"–36"	V, S°, ◡
Wall tent	8'9" x 8'9"	Both	4"–24"	2"–18"	4"–36"	V, S°, ◡
"A" tent	7' x 7'	Horizontal	4"–24"	2"–18"	4"–36"	V, S°, ◡
Shelter tent (1862) (not shown)	5'2" x 4'8"	Horizontal	4"–24"	2"–18"	4"–36"	V, S°, ◡
Shelter tent (1864)	5'6" x 5'5"	Horizontal	6"–24"	4"–18"	4"–36"	V, S°, ◡
Log hut (not shown)	(8' x 8') variable	Both	4"-24"	2"-18"	4"-36"	V, S°, ◡

* VERTICAL (V), SLANT (S°), SHALLOW CONCAVE (◡)
** Soil type determines hole profile.

Drainage trenches would be excavated around tents in the warmer periods of the year in order to keep the area dry. Any encampment during the warmer months is likely to have left a grid outlining the camp and tents (Figure 59). Such trenches may be the only archaeological feature to indicate an encampment that took place during summer months, when troop movements were at their peak.

Regardless of their temporary nature, drainage trenches dug around tents, winterized tents, and log huts, can point to the type of shelter used. Drainage trenches that circumscribed tents will most likely represent the footprint of the tent they surround (Table 7). An examination of the interior dimensions of the space within the trenches should provide adequate information to determine tent size and, therefore, tent type.

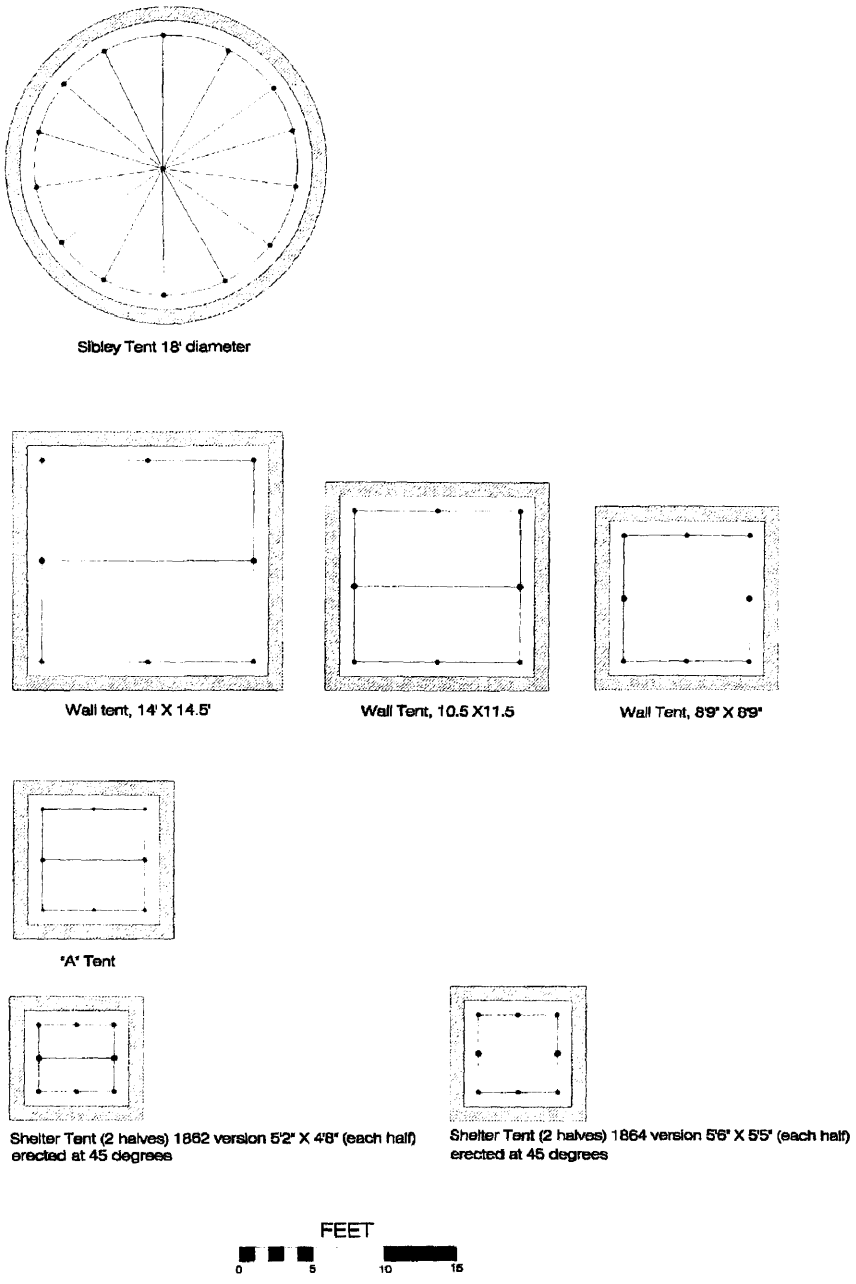


Figure 59. Diagram illustrating potential arrangement of drainage trenches around tent types.

Table 7. Attributes of Drainage Trenches for Shelter Types

SHELTER TYPES	FOOT-PRINT SIZE	TRENCH DISTANCE FROM SHELTER	WIDTH OF TRENCH	DEPTH OF TRENCH	SLOPE OF SIDES *	SOIL TYPE **
Sibley tent	18' DIA.	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Wall tent	14' x 14.5'	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Wall tent	10.5' x 11.5	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Wall tent	8'9" x 8'9"	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
"A" tent	7' x 7'	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Shelter tent (1862)	5'2" x 4'8"	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Shelter tent (1864)	5'6" x 5'5"	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**
Log hut	(8' x 8') variable	4" – 24"	6" – 18"	4" – 12"	V, S°, ◡	**

* VERTICAL (V), SLANT (S°), SHALLOW CONCAVE (◡)
** Soil type determines fill-in profile and rate.

Drainage trenches excavated around winterized tents and log huts likewise provide information as to the size of the structure (Figure 60). The drainage trenches may vary in size and width depending on how the drainage system for the camp was established.

Wall or stockade trenches are particularly relevant to winterized tents and log huts. As was the case at Gloucester point, certain configurations of trenches may be indicative of a certain type of tent. The circular trench patterns indicated the presence of

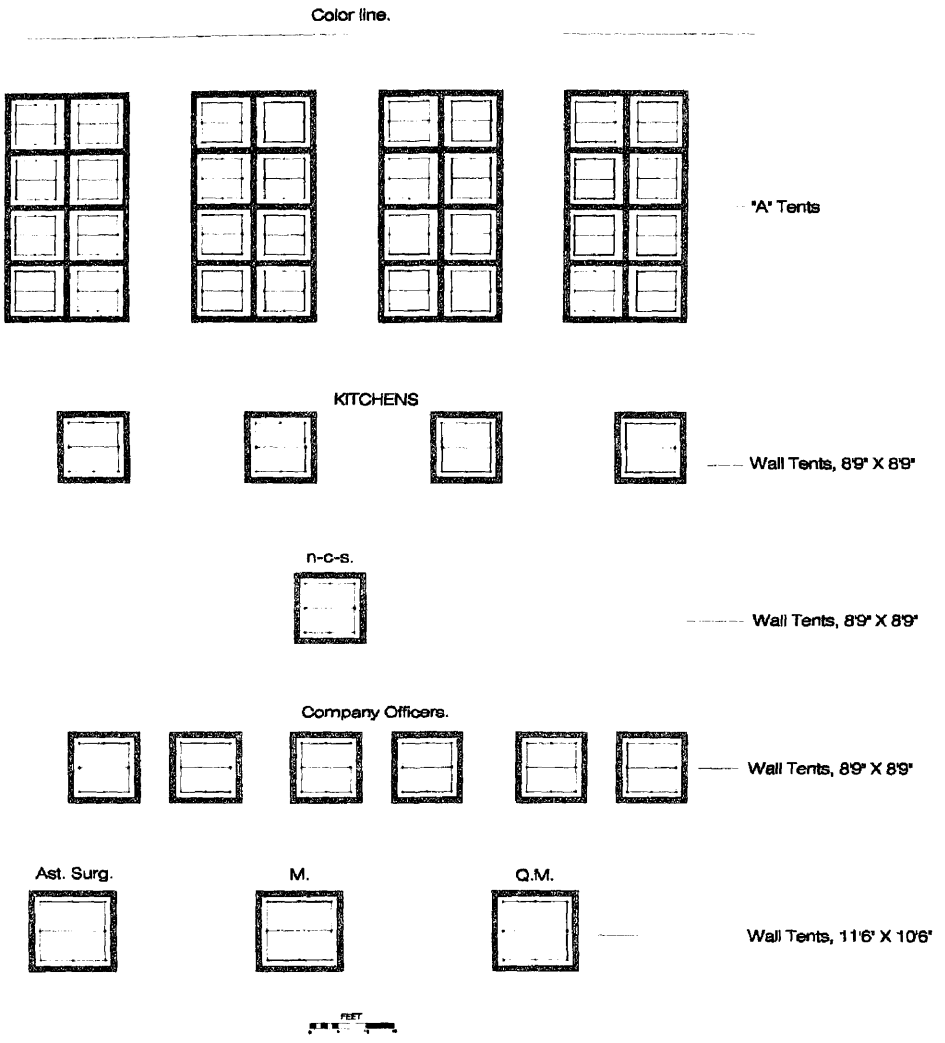


Figure 60. Diagram illustrating potential arrangement of drainage trenches around tents on a regulation layout camp. Refer to figure 7 to see corresponding camp layout.

stockaded Sibley tents (Higgins et al. 1995. An "A" tent that was stockaded should have a trench footprint of approximately 7' X 7' allowing a certain amount of variability depending on overlap of the tent with the logs. In the case of stockaded shelter tents, the

trench footprint should be approximately 5' X 5.5,' depending on the year in which the tent was manufactured (1862 or 1864) and the amount of tent overlap.

In the case of log huts, the dimensions of the trenches may not correspond to any specific tent size, as roofing material was not restricted to tent canvas. In those cases for which tent material was employed for roofing, a general correlation to specific tent size should indicate that that particular tent material was used to fashion a roof over the log hut. Figure 11 indicates that four half shelter tents were used to construct the roof for these log huts (see Figure 11). In this instance, the dimensions of the hut footprint should be in the neighborhood of 5.5' X 10' depending on the angle (or pitch) of the roof. Additional of half shelter tents would increase the size of the structure incrementally, i.e. four half-shelter tents together might result in a log hut 10' X 10' or 5' X 20'.

Sometimes tenting would be combined with planks or any locally obtainable material. Roger Hannaford wrote in his diary, " Most of the boys had so planned their huts that their shelter tents were amply large enough to cover them, but I well knew that ours would be too wide, making it necessary to have some boards at the eaves..." (Starr 1978: 326).

Another problem exists in that log huts may or may not leave recognizable footprints in the archaeological records. When logs were placed vertically in the ground a trench feature may be left; however, if logs were laid horizontally, the structure may not leave archaeological features, because the first course of logs may have been placed directly on the ground rather than in a trench (Figure 61).

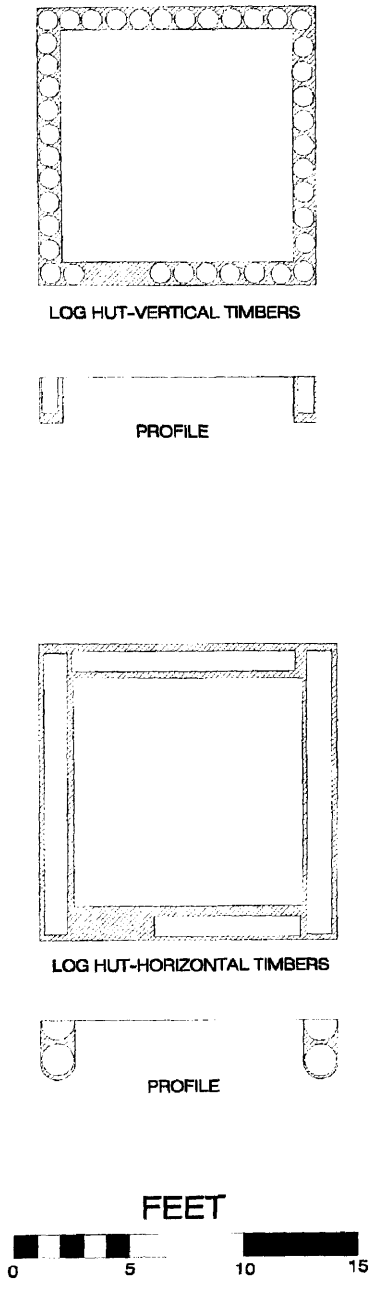


Figure 61. Diagram illustrating potential arrangement of hypothetical archaeological features associated with log huts. Two types of log arrangement show.

Much depends on the construction methods and soil conditions. Supporting information, such as documents from the units that occupied the site, can assist in deciphering features or footprints left by these structures. Hearths constructed within these shelters can also assist in evaluating their size and methods of construction.

Bomb-proofs, like the log huts, may be difficult to interpret. None of the sites discussed in this work contain bomb-proofs. However, considering that the bomb-proofs were built into defensive earthworks and ran along the length of these structures, these should be easily teased out of the archaeological record. On the surface, these should have the appearance of a long rectangular depression, as soil was used to cover them, immediately adjacent to earthworks. When excavated there should be three sides with large post molds representing the log walls that supported the log and sod roof (Figure 62). These three sides should be in a generally horseshoe shape. Some of these features may contain hearths or brick fireplaces depending on local resources.

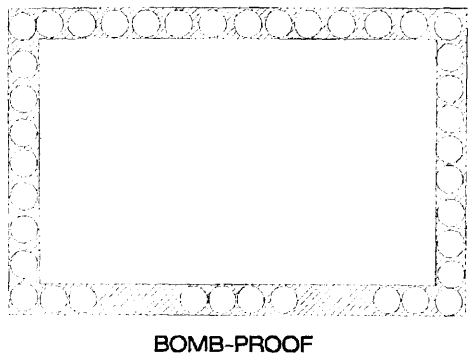


Figure 62. Diagram illustrating potential archaeological footprint of an idealized bomb-proof.

Summary

The footprints of Union shelters, though varied in nature, fall into four groups: tents, winterized tents, log huts, and bomb-proofs. The archaeological footprints can not only render information as to what sort of encampment, winter or summer, but also as to

how long the camp was occupied. The contents of this study provide a roadmap for evaluating and determining the nature of Civil War encampments of the Union military. While this study focused on the shelters of the Union soldier, recognition of the archaeological signature of each type of shelter can facilitate broader studies of Union campsites. An understanding of the shelters used at any particular campsite can yield information as to the duration, season, and general timeframe of the occupation.

Evaluation

This study approached Union campsites with both archaeological and anthropological goals in mind. The archaeological goal was to provide a template against which features on Union campsites could be measured. The anthropological goal was to illustrate the ever-present dichotomy between military regulation and human nature. With these goals in mind, two hypotheses were formulated; both have been tested and proven to hold true. In the following section, each hypothesis is listed and evaluated separately to assess its validity.

Hypothesis #1

Characteristic archaeological footprints will be left by particular shelter types.

This work has provided ample evidence that individual shelter types will leave archaeological signatures specific to that shelter type. While shelter types are varied and any specific shelter type may present irregularities depending on who built the shelter and how it was constructed, a general schema can be constructed for each shelter type used by the Union soldiers during the Civil War. Analogy allows for each shelter type to be

classified according to defining characteristics. As described, each shelter has certain dimensions that when compared to archaeological features can result in an understanding of the shelter type that the feature represents.

Anomaly is as important as analogy. The variety of shelter types described, along with their individual archaeological signatures, indicates that the shelters used by the Union soldiers can be grouped and identified using specific traits. It is the anomaly, however, that is important archaeologically and, furthermore, anthropologically. Gould argues that it is the argument by anomaly that has the potential to unlock the secrets of the exception to the rule (Gould 1980:138). With anomaly, we move from general to specific and from the large group to individual. While the anomaly may be one specific shelter within a camp, it is also possible for an entire camp to stand out as anomalous in terms of the shelters erected there.

Dugout structures on two Tennessee sites illustrate this point. At Sevierville Hill, the dugout structures have attached hearths. This is what we would expect to find because the encampment took place in the fall when the weather was turning cool. Since these dugouts conform to the dimensions of shelter tents, and the encampment took place in 1863, it is safe to assume these dugouts were excavated to provide more room for the occupants of standard-issue shelter tents. However, dugout structures sharing these same general dimensions and, therefore, assumed also to be footprints of shelter tents at the Loudon County site lack an attached hearth. This encampment occurred from August to October of the same year. So we have features representing the same type of shelter but differing significantly in structural elements. Which is the standard and which is the

anomaly? We simply do not know at this stage of Civil War archaeology; more excavation of encampment sites is the key to separating typical from anomalous.

Deviations such as these are permanent records of an individual's or group's characteristic mode of thinking. Just as ballistic testing of fired rounds can successively eliminate possibilities until the only remaining choice is one group of guns from a certain production, these recorded deviations can yield information as to social status, regional customs, and a host of yet undiscovered variables. Gould paraphrases this argument:

> By looking at the totality of human behavior relating to residues, we can discover anomalies that are just as circumstantial as the orbits of the outer planets in relation to their mass. These anomalies cannot be dismissed as 'mere idiosyncrasies' or 'particularist exceptions.' They demand an explanation, and the explanation of these deviations or idiosyncrasies may prove more interesting than explanations for dominant patterns or 'behaviors in the aggregate' [Gould 1980:139].

Returning to the Tennessee dugout structures, it may be that the units encamped at Loudon County, coming from further north were simply hardier souls than their comrades at Sevierville Hill. It could be that among the soldiers at Sevierville Hill were men who were experienced at building hearths. Sociocultural aspects of shelter-building may be decipherable given enough information.

Hand-in-hand with the standard and anomaly discussed above are the patterns that may emerge within and across Union campsites. While the information within this work is sufficient to present a preliminary typology of Union shelters, patterns of building styles and encampment layout can only be dealt with as more campsites are excavated.

Hypothesis #2

Elaborateness of shelters is directly proportional to time in camp. A corollary to this hypothesis is that when time in camp permitted, military officers allowed, and even encouraged, the men to improve their regulation shelters, thus deviating from the military standard.

Through the comparison of archaeological data with Civil War documents it is apparent that the longer Union soldiers were in camp the more elaborate their shelters became. While this fact is clearer in the case of winter shelters, as these take a certain amount of time to construct besides leaving a more substantial signature in the archaeological record, the primary records indicate this is also the case in summer or fair weather camps. Troops that stayed in camp for greater periods of time in the warmer months may not have constructed log huts; however, they certainly made provisions for keeping their tents dry. The excavation of drainage trenches around tents may be seen as an effort to make tents more elaborate. While it does nothing to the shelter itself other than keep it dry, it certainly represents an investment of time on the part of the soldier to improve his living conditions.

Efforts made to beautify the camps also fall into the category of increasing the elaborateness of their shelters (Figures 63 and 64). Culver writes home to his wife describing their camp: "Our camp is very nicely fixed up with pine trees lining both side of the streets. The boys have built comfortable houses and was there *any prospect of remaining here long enough to justify it*, we could make this camp very beautiful [italics mine]" (Dunlap 1978:419).

The corollary to Hypothesis 2 is that commanding officers allowed, or otherwise encouraged, their men to improve their regulation shelters. Improvements in soldiers' shelters resulted in deviation from the military standard. Deviation can be seen in camp-layout schemes as well as shelter forms and construction. In most cases it was the

Figure 63. Photograph of a beautified camp with trees lining the streets (Davis 1985:104).

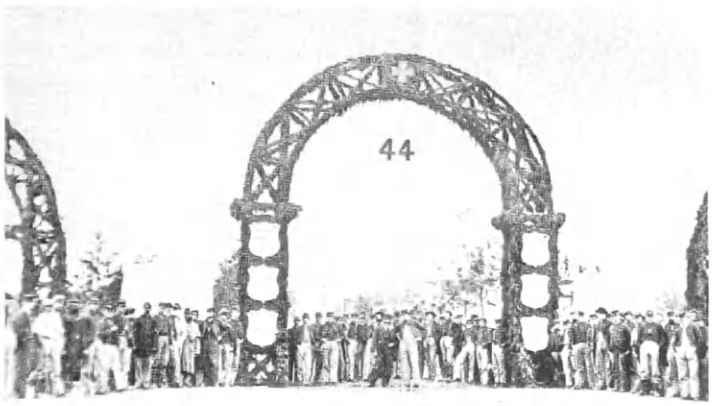


Figure 64. Photograph of a beautified camp with pine bough arch (Davis 1985:97).

officer in charge of a particular unit or camp who would be ultimately responsible for these deviations from the military regulations. Some of these deviations were not, in civilians' eyes, anything remarkable. The construction of log huts was not considered a deviation, even though the regulations mention huts only once.

Those infractions that were most serious included the retention of certain tents or non-regulation equipment. The language of certain official documents reflects the serious nature of this sort of infraction. H.W. Halleck sent out the following letter: "Lieutenant-General Grant directs that General Orders, No.160, series of 1862, in regard to the issue of tents, be strictly adhered to. Where troops refuse to accept shelter-tents, they will receive none of any kind. All common, wall, Sibley, or other tents issued to troops under your command in violation of Orders, No. 160, will be returned, and any quartermaster who shall hereafter violate that order will be arrested and tried by court-martial" (OR 63:400). The pictorial documentation of the war, however, shows quite clearly that this order was ignored. Specific violations of this order have been discussed in previous chapters.

The true extent of deviations from the military regulations is difficult to ascertain. Concisely stated, commanding officers turned a blind eye toward deviations that did not compromise their mission.

More important than quantifying the amount of deviation is qualifying why it was allowed. It is here that anthropological concerns come to bear. What factors of the human condition predisposed officers to tolerate their men's deviating from the military regulations? Feld (1977) discusses one important motivation. "The conduct of war

imposes an operational gulf between those who plan and those who execute. The high degree of destruction inherent in battle conditions forces those in command to accept certain instances of failure as natural and unavoidable" (Feld 1977:72). Officers in charge have the ultimate responsibility of "getting the job done"; how this is accomplished is often left to their own discretion.

In the military, there are two distinct divisions of command. *Staff officers* are those in the highest echelons of command. It is the staff officers who order movements, define and make the rules. *Line officers*, those officers directly in charge of the soldiers, carry out orders and see to the immediate needs of the army and its men. Line officers experience the horror of war alongside their men. Moreover, it is the line officers who suffer privation along with their men in battle and in camp. Feld (1977:72) sums up the roles of the staff and line officers quite nicely:

> This antimony of outlooks has found its embodiment in the traditional military opposition of staff and line assignments, differing not only in outlook and objective but also, and even more sharply, in working conditions. The staff setting is that of command. The emphasis given to coordination carries with it a concern for rank and assignment. The chain of command and responsibility is nowhere more clear. Staff men know precisely who their superiors and subordinates are; they know what is required of them and what sort of assistance they can expect.
>
> The disorganization of combat, on the other hand, strips officers, insofar as they are immersed in it, of their specialized functions. The emphasis under such conditions is not so much upon rationalized individuation as upon group cohesion. Leadership in battle falls to the individual who supplies the convincing example. In uncontrolled circumstances such an example may be one of flight and paralysis; in controlled ones, of resolution and enthusiasm. The leader is not the man who methodically observes the limits and potentialities of his particular assignment, but the one who establishes his mode of behavior as a meaningful, general norm.

It is certain that staff officers are ignorant of conditions at the line level, insofar as those conditions are inconsequential to primary directives or functioning of the military whole. Military regulations were presented to officers in written form. There were manuals dealing with conduct and comportment as well as operation of army equipment. Any military man or woman would suggest all regulations are followed to the letter, knowing full well that this is not the case. There is a distinct line between the ideal notions that the military represents a strict highly organized force, and the reality of the soldiers' world. The primary reason for the disparity is that the military is composed of human beings. Humans are not engineered to be robots; despite the military's best efforts to train and "reprogram" humans to endure the rigors of battle, human nature perseveres.

> The incoming serviceman begins his military life with an abrupt and complete break with the civilian world. He must undergo a two-month period of "basic training" (Army and Air Force) or "boot camp" (Navy and Marine Corps). . . This process effectively strips the new soldier from most of his pre-service social status. He is acted upon either alphabetically, by roster number, or on a first-come-first-served basis. During this initial period, the recruit is subjected to intensive training in basic combat skills-much of it grueling-and experiences military regimentation at its most severe. . .With varying degrees of success, the recruit is socialized into acceptance of military values. . . Even in basic training, however, some differentiation appears. A few men seem to be natural "eight balls" while others seem always to "stand tall." The vast majority merely persist [Moskos 1970:56]

Military regulations are to be followed; however, in certain instances, they provide guidelines rather than rules. The regulations are there to be enforced if any officer feels that his men are taking too many liberties. Pushing the limits in the military is quite common and often soldiers "test the fence" to see just how much they can get

away with (AD1 Clark –personal communication). In the military situation there has to be some compromise as the soldiers live with considerable stress, especially in combat. To compensate for this stress, officers are more likely to allow or even encourage soldiers to take certain liberties - within reason. Deciding how much is too much is not easy. An officer has to be strict without inciting the crowd, or causing a mutiny.

Building warmer shelters was obviously one of those deviations that fell within the bounds of "reasonable". During the Civil War, enforcing the lines between reasonable and not so reasonable were more severely hampered because the men comprising the military carried different world views. In describing the soldiers of the Civil War, Catton provides insight as to the men that the officers had to deal with:

> Poorly trained and cared for, often very poorly led, he was unmilitary but exceedingly warlike. A citizen in arms, incurably individualistic even under the rod of discipline, combining frontier irreverence with the devout piety of an unsophisticated society, he was an arrant [sic] sentimentalist with an inner core as tough as the heart of a hickory stump. He had to learn the business of war as he went along because there was hardly anyone on hand qualified to teach him, and he had to pay for the education of his generals, some of whom were all but totally ineducable. In many ways he was just like the G.I. Joe of modern days, but he lived in a simpler era, and when he went off to war he had more illusions to lose. He lost them with all proper speed, and when the fainthearts and weaklings had been winnowed out, he became one of the stoutest fighting men the world had ever seen. In his own person he finally embodied what the war was all about [Catton, 1996:332].

Catton continues with additional insight as to how the soldier proved to be a force to be reckoned with by the officers in charge:

> These sons of a rawboned democracy considered it degrading to give immediate and unquestioning obedience to orders, and they had a way of wanting to debate things, or at least to have them explained, before they acted. In the South a hot-blooded young private might challenge a company officer to a duel if he felt that such a course was called for, and if

> the Northern regiments saw no duels, they at least saw plenty of fist fights between officers and men. The whole concept of taut, impersonal discipline was foreign to the recruits of 1861, and many of them never did get the idea [1996:335].

While the men were certainly a force to contend with, the officers in charge were made of the same "stuff." However, command came in quite different ways than those in which the modern officers attains his rank. This factor alone provides insight as to the motivations for deviation from military regulations. The Civil War officer might have been promoted from the rank of the enlisted, without any formal training in warfare or leadership. Catton discusses the officers of the civil war, and the discipline they exacted, with great clarity:

> One reason why discipline was imperfect was the fact that company and regimental officers were mostly either elected by the soldiers or appointed by the state governor for reasons of politics: they either were, or wanted to be, personally liked by the men they commanded, and an officer with political ambitions could see a post war constituent in everybody in the ranks. Such men were not likely to bear down very hard, and if they did the privates were not likely to take it very well. . . . Most officers had to learn their jobs while they were performing them, and there is something pathetic in the way in which these neophytes in shoulder straps bought military text books and sat up nights to study them [Catton, 1996:336].

A final comment from Catton as to order: "There is one thing to remember about Civil War discipline. In camp it was imperfect, and on the march it was seldom tight enough to prevent a good deal of straggling, but in battle it was often very good" (1996:337).

The officers had more to gain from allowing their soldiers to build warmer, more weather-resistant shelters than they had to lose. A tough-skinned bunch of men in combination with an officer greener than the drinking water is a troublesome combination when push comes to shove. The officers had two primary responsibilities- win the war,

and keep the men fighting. All else was second priority. The age-old adage of "An army moves on its belly" is quite correct, but sleep is just as essential as food. Any unhappy, cold soldier who is not able to sleep becomes a liability rather than an asset. Allowing a soldier to build a warm, cozy hut, results is soldiers who are merely unhappy. No soldier is happy, particularly in times of war.

Moreover, the construction of log shelters - particularly in times of relative inactivity - allowed the officers to keep the men relatively productive without having to create busy work that would simply upset their men unnecessarily. The construction of shelters allowed the men to work toward a goal of their own comfort. This work had two great benefits for those in charge: the men were busy during the slow times of the year; the men were involved in work they saw as their own, improving their conditions while the military footed the bill (time wise). Keeping the men busy in this fashion relieved the pressure of dealing with hundreds of men, armed and restless.

Anthropological Concerns

The anthropological information that can potentially be gleaned from Civil War sites is, in itself, phenomenal. First and foremost is the possibility to look at the dynamics of the soldier - officer relationship. Very little has been written, anthropologically speaking, about the military and the dynamics of this social entity. The military is a social being with its own specific rules, mores, and dynamics that are separate from the American society at large. Understanding the military society can lend information as to how we understand society at large because the military is composed of members of the larger society that are, or become adept at, moving in and out of either society. Exploring

the nature of the military social standards can aid in discovering how it is that those men and women involved in and with the military contribute and form the greater society. The Civil War period presents the anthropologist with a well-documented context to explore. Period diaries provide insights into the social dynamics of the military. Additionally, the present day military presents an opportunity to draw corollaries and analogies between present and past. Moreover, there is the interaction of the military with society at large during this period of time that could prove to be very interesting. Sociologists have looked at the military and its inner workings for a long period of time (Lang 1972), however anthropologists seem to have done their best to ignore it. If they want to examine humans and the human experience, anthropologists need to look at soldiers and war since they are ever-present in the history of man.

It is vitally important to reiterate the value of future studies dealing with the military that has through the history of this nation secured our freedoms, protected our borders from the ravages of those who would seek to oppress the masses, and fought so valiantly asking for nothing in return. To avoid studies centered on the military of this country is an injustice to the nation itself.

> The essential fact about soldiers is that they exist. Until a time when they will not have to exist, we need more, not fewer, scholars to study objectively what soldiers do and how and why they do it. If we fail to do this, we shall leave the military free from the serious scrutiny that we apply to other segments of society. And if we so exempt the military, how can we truly allow ourselves to make critical judgements about it and still call ourselves scholars? [Glick 1971]

Remaining untapped in the annals of military history, archaeology, anthropology, and sociology, is a wealth of information on regional differences, gender issues, race issues, and evolution of American thought processes concerning the protection of country and way of life. Although some might find distasteful the results of military conflict and the waging of war, those who died in the struggles to preserve freedom deserve our attentions. They demand it!

Importance of Encampments

Civil War encampments, while seriously underrepresented in the archaeological database, are a treasure trove of information. These sites safeguard information as to the conditions of the Civil War soldier. Theoretically, each documented campsite can provide information as to the worldview of soldiers from the states represented in the Civil War, as well as regionally-specific methods of construction. While this study has shown that oftentimes the camps were not laid out with any regard to the regulations, others were; some officers even used surveying instruments to ensure that their camp conformed to the military standard. The deviations in camp layout can themselves contribute to our understanding of how Civil War soldiers' attitudes toward their duties and their feelings about the fundamental rationale behind the war.

Civil War campsites provide evidence of a generally brief occupation, by specific troops. This provides the archaeologist with a testing ground on which site-formation theories can be tested as well as new methods for site location, delineation, and excavation. Moreover, the archaeologist has the opportunity to devise new methods to

compensate for discrepancies caused or created by site looters. This information could prove useful on sites of all periods.

Proposing the use of Civil War sites as a playground on which to abandon tried and tested methodology would be foolhardy. Currently, however, these sites are being missed or overlooked. Action must be taken to protect these valuable resources and the information they possess. The effective management of Civil War sites is perhaps the greatest practical value of this study. Civil War sites themselves are under attack. Each and every Civil War site is threatened by relic hunters. Relic hunters using metal detectors, vintage bottle collectors excavating their loot from military sites, along with the ever-increasing push for land development, all seriously menace Civil War sites. Effectual management of these sites is of great importance, as the information each site contains can potentially contribute to our understanding of the nation's past.

Management of Civil War Sites

The effective management of Civil War sites begins with thorough historical research. The use of the term management refers not only to the effective and efficient excavation of these sites, but also to their protection and preservation. Although this step in itself presents a monumental task, in this day of computers and Internet resources the task has been substantially facilitated. For instance, the *Official Records of the Union and Confederate Armies* can be purchased on CD-ROM. This resource is fully searchable and eliminates the need for painstaking searches through tomes of records. More often than not local historical societies and Civil War enthusiast chapters have a good idea of sites in their area, and have collected documentation available. Research of

any area suspected of containing Civil War sites will be well worth the effort if that site is thereafter recognized and dealt with successfully.

The second step in managing Civil War sites is consultation with local relic-hunting groups. While archaeologists cannot endorse the effects of relic hunting, it would be foolhardy to overlook such a valuable resource as far as site location is concerned. Furthermore, most relic hunters have considerable knowledge of the military actions in their area. "Interviewing local collectors, in conjunction with archival research, will prove very valuable in delimiting Civil War sites" (Legg and Smith 1989:133). Jones (1998:49) speaks to the importance of information from relic hunters: "Proper management of such sites (Civil War) must involve input from relic hunters, however, since they often have considerable knowledge of the physical remains of Civil War sites at both the site-specific and regional scales of inquiry, by virtue of their specialized focus on such resources".

The third step in the efficient management of Civil War sites is standardization of investigation methodology, beginning with a metal detector survey. While the metal detector is typically looked upon with disdain by archaeologists because of its association with the relic hunting communities, it is an important tool for the recognition of Civil War sites. Legg and Smith advocate the use of metal detectors on Civil War sites because of their potential to locate dispersed features (1989:133). Jones (1998:53) offers a methodological technique that might prove useful to archaeologists on the field,

> the experience gained from this evaluation and the recommendations of interviewed relic hunters indicates that the optimal approach would be to have a road grader or tractor with a front-end bucket remove vegetation and the uppermost 5-7 cm of topsoil from representative portions of the site prior to conducting a metal detector survey. This would allow the

> metal detectors to sense artifacts that were previously beyond the depth range of these instruments, which would allow for a more reliable survey of horizontal artifact distribution (i.e., theoretically undisturbed by the impacts of previous relic hunting).

While shovel testing has been utilized during archaeological surveys, and is quite effective for that matter, on Civil War sites, particularly encampment areas, the use of 50 cm^2 units alternating with shovel tests may offer the opportunity to find features that would appear as slight, barely-perceptible soil color change. The trenches that were excavated around tents typically filled rapidly and may or may not contain solids significantly different enough to be recognized. The trench features at Fort Pocahontas would not have been perceptible in a shovel test, however a 50-cm^2 unit might have exposed their presence. A combination of shovel testing, excavation of 50 cm^2 units, and metal detection should be ample to locate and delineate a Civil War campsite.

A final methodological recommendation for Civil War sites is the mechanical stripping of the area of study. The removal of the plowzone or root mat/humus covering an area is a quick and effective means by which to find subsurface features. While preservation of any site is certainly advisable over excavation, if excavation is to be the end result, using heavy equipment to remove the topsoil will reduce field time considerably. This method was used effectively at Gloucester Point, Winchester, Sevierville Hill, Site 40LD211 in Loudon County, and should be the next logical step in excavations at Fort Pocahontas on the Promontory and in the Eastern Cleared Area. This method is also recommended by Legg and Smith (1989:133).

Future Work

In terms of archaeology, the Civil War site presents an almost untapped resource. This study focused on shelters constructed and used by Union soldiers, but a similar study could be done on Confederate shelters. Also, a distinct difference in construction methods from region to region was noticed in the course of this study; this is an avenue that should be considered in future work. Differences in the artifact assemblage of white and black soldiers should also be explored.

One of the most intriguing aspects of Civil War archaeology mentioned throughout this work is that of campground layout. Evidence suggests that layout depended on the officer in charge of the unit and the topography of the land. There is also reason to believe that certain factions of the army had campgrounds that were laid out according to regulations all of the time while others followed no set plans at any time. The Officers in charge of the USCT (United States Colored Troops) meticulously laid out the camps according to regulations all the time. "For instance, Major Fox, the officer in charge of laying out the winter camp of the 55th Massachusetts, even used surveying instruments" (Legg and Smith 1989).

Differences also existed between the regular army and volunteers; volunteers often exhibited a more laissez-faire attitude toward camp layout. Anecdotal evidence suggests that whereas the regular army followed the regulations wherever topography allowed, volunteers followed no set plan and laid out camps according to the dictates of their officers, which varied from place to place. " 'Camp Lincoln' is the camp of the corps at Lighthouse or Jordan's Point and vicinity, and it is becoming the 'A No. 1' of

camps. Matters are arranged a la regulars and we are becoming regulars as fast as possible" (Norton 1903:260).

The anthropological ramifications of future studies on Civil War sites are boundless. The Civil War period was a crucial era in the development of American thought. Women were taking on different roles, slaves were being freed, the industrial revolution was at hand, and transportation improvements were changing the way people traveled and how they saw the world around them. The Civil War is at the center of this period of social change and upheaval. What better arena for testing theories - a well-documented, virtually untapped period.

APPENDIX A

CAMP REGULATIONS

THE CAMPS

The United States government made specific provisions as to how the military should camp. Camp layouts were provided as well as positions of units with the camp, where officers and enlisted should be positioned, and where prisoners and horses should be located. The following is an excerpt from the Revised Regulations for the Army of the United States 1861. (pp. 74-82)

Camps

498. A camp is the place where troops are established in tents, in huts, or in bivouac. Cantonments are the inhabited places which troops occupy for shelter when not put in barracks. The camping-party is a detachment detailed to prepare a camp.

499. Reconnoissances should precede the establishment of the camp. For a camp of troops on the march, it is only necessary to look to the comfort of the troops, the facility of communications, the convenience of wood and water, and the resources in provisions and forage. The ground for an intrenched camp, or camp to cover a country, or one designed to deceive the enemy as to the strength of the army, must be selected, and the camp arranged for the object in view.

500. The camping-party of a regiment consists of the regimental Quartermaster and Quartermaster-Sergeant, and a Corporal and two men per company. The General decides whether the regiments camp separately or together, and whether the police guard shall accompany the camping-party, or a larger escort shall be sent.

501. Neither baggage nor led horses are permitted to move with the camping-party.

502. When the General can send in advance to prepare the camp, he gives his instructions to the chief of the Quartermaster's Department, who calls on the regiments for their camping-parties, and is accompanied, if necessary, by an Engineer to propose the defenses and communications.

503. The watering-places are examined, and signals placed at those that are dangerous. Any work required to make them of easier access is done by the police guard or Quartermaster's men. Sentinels, to be relieved by the guards of the regiment when they come up, are placed by the camping-party over the water if scarce, and over the houses and stores of provisions and forage in the vicinity.

504. If the camping-party does not precede the regiment, the Quartermaster attends to these things as soon as the regiment reaches the camp.

505. On reaching the ground, the infantry form on the color front; the cavalry in rear of its camp.

506. The Generals establish the troops in camp as rapidly as possible, particularly after long, fatiguing marches.
507. The number of men to be furnished for guards, pickets, and orderlies; the fatigue parties to be sent for supplies; the work to be done, and the strength of the working parties; the time and place for issues; the hour of marching, &c., are then announced by the Brigadier-Generals to the Colonels, and by them to the field officers-the Adjutant and Captains formed in front of the regiment, the First Sergeants taking post behind their Captains. The Adjutant then makes the details, and the First Sergeants warn the men. The regimental officer of the day forms the picket, and sends the guards to their posts. The colors are then planted at the center of the color line, and the arms are stacked on the line; the fatigue parties to procure supplies, and the working parties, form in rear of the arms; the men not on detail pitch the tents.
508. If the camp is near the enemy, the picket remains under arms until the return of the fatigue parties, and, if necessary, is re-enforced by details from each company.
509. In the cavalry, each troop moves a little in rear of the point at which its horses are to be secured, and forms in one rank; the men then dismount; a detail is made to hold the horses; the rest stack their arms and fix the picket rope; after the horses are attended to, the tents are pitched, and each horseman places his carbine at the side from the weather, and hangs his sabre and bridle on it.
510. The standard is then carried to the tent of the Colonel
511. The terms front, flank, right, left, file, and rank, have the same meaning when applied to camps as to the order of battle.
512. The front of the camp is usually equal to the front of the troops. The tents are arranged in ranks and files. The number of ranks varies with the strength of the companies and the size of the tents.
513. No officer will be allowed to occupy a house, although vacant and on the ground of his camp, except by permission of the commander of the brigade, who shall report it to the commander of the division.
514. The staff officer charged with establishing the camp will designate the place for the shambles. The offal will be buried.

Camp of Infantry

515. Each company has its tents in two files, facing on 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 and field 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 the 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 the companies may be pitched in single file-those of the division facing on the same street.

Camp of Cavalry

524. In the cavalry, each company has one file of tents-the tents opening on the street facing the left of the camp.
525. The horses of each company are placed in a single file, facing the opening of the tents, are fastened to pickets planted firmly in the ground, from 3 to 6 paces from the tents of the troops.
526. The interval between the file of tents should be such that, the regiment being broken into column of companies [as indicated in plate], each company should be the extension of the line on which the horses are to be picketed.
527. The streets separating the squadrons are wider than those between the companies by the interval separating squadrons in line; these intervals are kept free from any obstruction throughout the camp.
528. The horses of the rear rank are placed on the left of those of their file-leaders.
529. The horses of the Lieutenants are placed on the right of their platoons; those of the Captains on the right of the company.
530. Each horse occupies a space of about 2 paces. The number of horses in the company fixes the depth of the camp, and the distance between the files of the tents; the forage is placed between the tents.
531. The kitchens are 20 paces in front of each file of tents.
532. The non-commissioned officers are in the tents of the front rank. Camp-followers, teamsters, &c., are in the rear rank. The police guard in the rear rank, near the centre of the regiment.
533. The tents of the Lieutenants are 30 paces in rear of the file of their company; the tents of the Captains 30 paces in rear of the Lieutenants.

534. The Colonel's tent 30 paces in rear of the Captains', near the centre of the regiment; the Lieutenant-Colonel on his right; the Adjutant on his left; the Majors on the same line, opposite the 2d company on the right and left; the Surgeon on the left of the Adjutant.
535. The field and staff have their horses on the left of their tents, on the same line with the company horses; sick horses are placed in one line on the right or left of the camp. The men who attend them have a separate file of tents; the forges and wagons in the rear of this file. The horses of the train and of camp-followers are in one or more files extending to the rear, behind the right or left squadron. The advanced post of the police guard is 200 paces in front, opposite the centre of the regiment; the horses in one or two files.
536. The sinks for the men are 150 paces in front-those for the officers 100 paces in rear of the camp.

Camp of Artillery

537. The artillery is encamped near the troops to which it is attached, so as to be protected from attack, and to contribute to the defense of the camp. Sentinels for the park are furnished by the artillery, and, when necessary, by the other troops.
538. For a battery of six pieces the tents are in three files-one for each section; distance between the ranks of tents 15 paces; tents opening to the front. The horses of each section are picketed in one file, 10 paces to the left of the file of tents. In the horse artillery, or if the number of horses makes it necessary, the horses are in two files on the right and left of the file of tents. The kitchens are 25 paces in front of the front rank of tents. The tents of the officers are in the outside files of the company tents, 25 paces in rear of the rear rank-the Captain on the right, the Lieutenants on the left.
539. The park is opposite the centre of the camp, 40 paces in rear of the officers' tents. The carriages in files 4 paces apart; distance between ranks of carriages sufficient for the horses when harnessed to them; the park guard is 25 paces in rear of the park. The sinks for the men 150 paces in front; for the officers 100 paces in rear. The harness is in the tents of the men.

Bivouacs

540. A regiment of cavalry being in order of battle, in rear of the ground to be occupied, the Colonel breaks it by platoons to the right. The horses of each platoon are placed in a single row, and fastened as prescribed for camps; near the enemy, they remain saddled all night, with slackened girths. The arms are stacked in rear of each row of horses; the sabres, with bridles hung on them, are placed on these stacks.
541. The forage is placed on the right of each row of horses. Two stable guards for each platoon watch the horses.
542. A fire for each platoon is made near the color line, 20 paces to the left of the row of horses. A shelter is made for the men around the fire, if possible, and each man then stands his arms and bridle against the shelter.
543. The fires and shelter for the officers are placed in the rear of the line of those for the men.
544. The interval between the squadrons must be without obstruction throughout the whole depth of the bivouac.

545. The interval between the shelters should be such that the platoons can take up a line of battle freely to the front or rear.
546. The distance from the enemy decides the manner in which the horses are to be fed and led to water. When it is permitted to unsaddle, the saddles are placed in the rear of the horses.
547. In infantry, the fires are made in rear of the color line, on the ground that would be occupied by the tents in camp. The companies are placed around them, and, if possible, construct shelters. When liable to surprise, the infantry should stand to arms at daybreak, and the cavalry mount until the return of the reconnoitring parties. If the arms are to be taken apart to clean, it must be done by detachments, successively.

Cantonments

548. The cavalry should be placed under shelter whenever the distance from the enemy, and from the ground where the troops are to form for battle, permit it. Taverns and farm-houses, with large stables and free access, are selected for quartering them.
549. The Colonel indicates the place of assembling in case of alarm. It should generally be outside the cantonment; the egress from it should be free; the retreat upon the other positions secure, and the roads leading to it on the side of the enemy obstructed.
550. The necessary orders being given, as in establishing a camp, the picket and grand guards are posted. A sentinel may be placed on a steeple or high house, and then the troops are marched to the quarters. The men sleep in the stables, if it is thought necessary.
551. The above applies in the main to the infantry. Near the enemy, companies or platoons should be collected, as much as possible, in the same houses. If companies must be separated, they should be divided by platoons or squads. All take arms at daybreak.
552. When cavalry and infantry canton together, the latter furnish the guards by night, and the former by day.
553. Troops cantoned in presence of the enemy should be covered by advanced guards and by natural of artificial obstacles. Cantonments taken during a cessation of hostilities should be established in rear of a line of defense, and in front of the point on which the troops would concentrate to receive an attack. The General commanding-in-chief assigns the limits of their cantonments to the divisions, the commanders of divisions to brigades, and the commanders of brigades post their regiments. The position for each corps in case of attack is carefully pointed out by the Generals.

APPENDIX B

GENERAL ORDERS NO. 160

General ORDERS No. 160.

WAR DEPT., *ADJT.GEN.'S OFFICE,*
Washington, October 18, 1862.

The following regulations are established for army trains and baggage:

I. There will be allowed for headquarters' train of an army corps four wagons; of a division or brigade, three; of a full infantry regiment, six, and a light artillery battery or squadron of cavalry, three.

In no case will this allowance be exceeded, but always proportionably reduced according to the number of officers and men actually present. All surplus wagons will be turned over to the chief quartermaster, to be organized, under direction of the commanding general, into supply trains, or sent to the nearest depot. The requisite supply trains, their size depending upon the state of the roads and character of the campaign, will be organized by the chief quartermaster, with the approval of the commanding generals, subject to the control of the War Department. II. The wagons allowed to a regiment, battery, or squadron must carry nothing but forage for the teams, cooking utensils and rations for the troops, hospital stores, and officers' baggage. One wagon to each regiment will transport exclusively hospital supplies, under the direction of the regimental surgeon; the one for regimental headquarters will carry the grain for the officers' horses, and the three allowed for each battery or squadron will be at least half loaded with grain for their own teams. Stores in bulk and ammunition will be carried in the regular or special supply trains.

III. In active campaign troops must be prepared to bivouac on the march, the allowance of tents being limited as follows: For the headquarters of an army corps, division, or brigade, one wall tent to the commanding general and one to every two officers of his staff.

For the colonel, field, and staff of a fall regiment three wall-tents, and for every other commissioned officer one shelter-tent each. For every two non-commissioned officers, soldiers, officers' servants, and authorized camp followers one shelter-tent.

One hospital tent will be allowed for office purposes at corps headquarters, and one wall-tent at those of a division or a brigade. All tents beyond this allowance will be left in depot. IV. Officers' baggage will be limited to blanket one small valise or carpet-bag, and a moderate mess-kit. The men will carry their own blankets and shelter-tents, and reduce the contents of their knapsacks as much as possible.

The depot quartermaster will provide storage for a reasonable amount of officers' surplus baggage and the extra clothing and knapsacks of the men.

V. Hospital tents are for the sick and wounded, and, except those allowed for army corps headquarters, must not be diverted from their proper use.

VI. Commanding officers will be held responsible for the strict enforcement of these regulations, especially the reduction of officers' baggage, within their respective commands.

VII. On all marches quartermasters, under the orders of their commanding officers, will accompany and conduct their trains in a way not to obstruct the movement of troops.

VIII. All quartermasters and commissaries will personally attend to the reception and issue of supplies for their commands, and will keep themselves informed of the condition of the depots, roads, and other communications.

IX. All quartermasters and commissaries will report, by letter, on the first of every month to the chiefs of their respective departments at Washington, D.C., their station, and generally the duty on which they have been engaged during the preceding month.

By command of Major-Gerneral Halleck:

L.Thomas,

Adjutant-General.

(OR 15:263-264)

APPENDIX C

SANITARY COMMISSION CAMP INSPECTION FORM

1. DESCRIPTIONS AND GERNEARL CHARACTER OF BODY INSPECTED.

1. Name and locality of camp ?.....

2. State ? .....

3. Military department? .....

4. Date of conclusion of inspection? .....

5. Name of inspector? .....

6. Designation of the body inspected? .....
   whose brigade? .....
   whose division? .....

7. Name of its commanding officer? .....

8. Where recruited? Specifying counties,
   (if practicable) .....

9. Predominating nativity? .....
   American? .....
   Irish? .....
   German? .....
   Foreign, not Irish or German? .....

10. When recruiting began? .....

11. When mustered into U. States service? .....

12. At what places stationed since, and how
    long at each ?.....
    .....

13. How strong when mastered in? .....

14. Present strength? .....

II. CHARACTER OF CAMP SITE.

15. Who selected present camp site? .....

16. Had the site been occupied shortly before for the same purpose? .....
    If so, date when last evacuated? .....

17. Was the selection influenced by military? considerations which might overrule sanitary? .....

18. Situation of camp:
    upon a hill-top? .....
    " " hill-side? .....
    " " hill-foot? .....
    in a glen? .....
    on a plain? .....
    slightly elevated? .....

19. Is the site unshaded:
    " " in the shade of woods? .....

20. Is it sheltered by higher land? .....
    " " " woods? .....

21. From what quarter is the prevailing wind? .....

22. As to malaria, what is the reputation of the site? .....
    unknown? .....
    good? .....
    bad? .....
    very bad? .....

23. Local conditions presumptive of malaria:
    near a swamp? .....
    near a pond? .....
    near a river? .....
    near a river delta? .....

24. Soil of camp site:
    sandy? .....
    loose gravel? .....
    loose loam? .....
    firm loam? .....
    agglomerated, pebbles, gravel,
        or sand, (hardpan) .....
    impervious clay? .....

25. Sub-soil:
    sandy? .....
    loose gravel? .....
    loose loam? .....
    firm loam? .....
    agglomerated pebbles, gravel,
        or sand, (hardpan) .....
    impervious clay? .....

26. Is the site favorable for surface drainage? (as to inclination) .....

III. ARRANGEMENT AND CONDITION OF CAMP.

27. Is the camp arranged mainly in accordance with the "army regulations" .....
    more crowded? .....
    more open? .....

28. How far apart are the tents in the rows? .....

29. How is the artificial drainage? .....
    systematic and complete? .....
    partial, and with no general
        system? .....
    entirely neglected? .....

30. Are the drains mainly straight? .....
    Are the drains very sinuous? .....

31. About how deep are the drains generally? .....

32. About how wide at the top are the drains generally? .....

33. Are the drains kept clean? .....
" " foul or clogged? .....

34. Is there a good outlet for all drains? .....

35. Condition of the camp streets:
very clean? .....
moderately clean? .....
neglected and littered? .....

36. Edges of tents and spaces between tents:
very clean? .....
moderately clean? .....
neglected and littered? .....

IV. CHARACTER, VENTILATION, AND ARANGEMENT OF TENTS.

37. In what sort of tents are the privates
mostly: .....
Sibley, or conical, with ventilitor at top? .....
regulation wall-tents? .....
regulation "servants, " "common," or "wedge-shape" .....
If not of regulation pattern,
state form and size .....

38. Average number of men to each tent? .....

39. Is the ventilation of the tents looked
after by any officer at night? .....

40. Are the tents struck on certain days for
the purpose of a thorough cleansing
and airing? .....
if so, how often? .....

V. BEDDING AND CLOTHING.

41. On what do the men sleep: .....
rubber blankets? .....
wooden tent-floor? .....
straw, hay, or leaves? .....

blankets laid on the bare ground? .....

42. Do the men generally make any change
of clothing at night? .....

43. Are the men supplied with two shirts each? .....

44. Have they blankets? .....
1 each? .....
2 each? .....

45. Of what quality are they? .....
regular U.S.A.? .....
not regular, but good? .....
not regular, poor? .....

46. Have they overcoats? .....
how many are without? .....

47. Is the overcoat of fair quality
and in good condition? .....

48. Is the body coat or jacket of fair quality
and in good condition? .....

49. Are the trowsers of fair quality and in
good condition? .....

49. Is the regiment clothed in the regulation
uniform? .....

49. Is it equally neat and serviceable? .....

49. Do they take pride in it? .....

49. What the color of the coat? .....
" " " " " trowsers? .....

50. Are they required to regularly wash their
underclothing? .....
if so, how often? .....

51. Are they required to remove dust from and
otherwise cleanse their other clothing? .....

52. Is a careful and systematic inspection with
reference to these matters undertaken? .....
by whom? .....
how often? .....

53. Do you think it efficient, (judging by the
appearance of the men?) .....

VI. PERSONAL CLEANLINESS.

54. Do the men bathe frequently? .....

55. Are they required to bathe under the eye
of an officer? .....
if so, how often each man? .....

56. Does each man (as a rule) wash his head,
neck, and feet once a day? .....

57. Is evidence of neglect of this looked for
at inspections? .....

58. Are the men infested with vermin? .....

59. If so, has any application been made to
remove them? .....

VII. CLEANLINESS OF CAMP.

60. Do you observe scraps of food, bones, or
rubbish collected in the edges of tents? .....
in the drains? .....
in the camp streets? .....
between the tent? .....

61. Are refuse slop and food disposed of
systematically, so as not to be offensive? .....

62. Do you observe odors of decay in the
camp? .....

63. Do the men void their urine within the
camp? .....
at night? .....
both day and night? .....

64. How far is the men's privy from the tents
of the body of the camp, (in paces?) .....

65. Is there a sufficient pit or trench for the
purpose? .....

66. Is it provided with a sitting rail? .....

67. Is it provided with a screen? .....

68. Is earth regularly thrown in it daily? .....

69. Are disinfectants used in it? .....

70. Are the men forbidden to ease themselves
elsewhere? .....

71. Do you find this prohibition to have been
enforced? .....

72. Is there a separate sink for officers? .....
how far from nearest sleeping
tents? .....

73. At what distance from the tents are the
cattle or horses picketed? .....

74. What number? .....

75. Is there dung daily removed, or so placed
or covered as to be unobnoxious? .....

VIII. WATER, SOURCE AND QUALITY.

76. From what source is water procured? .....
surface springs? .....
wells? .....
pond? .....

ditch, slough, or puddle?.....

77. Is the water clear? .....

78. Does it seem to be of unwholesome quality? .....

79. Has it a reputation of being of unwholesome quality? .....

IX. RATIONS AND COOKING.

80. Do the captains make requisitions for the rations of their companies? .....

81. Do the captains generally look after the supplies of their companies, to see that they are not used too rapidly, and that they are properly served and cooked? .....

82. Is any officer required to examine and taste the food of the men before it is served at any meal, or is this done generally by the captains or other officers, either by order or voluntarily? .....

83. Are the rations found sufficient in quantity? .....

84. Are they generally considered good in quality, each of its kind? If not, mention what is alleged to be poor .....

85. Are you satisfied of the justness of this allegation? .....

86. About how often is fresh meat served? .....

86. About how often are fresh vegetables? .....
desiccated vegetables? .....
desiccated meats or soups? .....
dried fruits? .....

87. Is the cooking in most instances done with portable stoves? .....

with earth flues? .....
in trenches? .....
on the unbroken ground? .....

88. Is "the greatest care observed in washing and scouring cooking utensils? .....

89. Is most of the food of the regiment prepared by cooks who perform that duty regularly? (a) .....
or by men taking short terms at it, and who generally have no skill? (b) .....

90. How is it probable that the food is generally cooked-well? .....

91. Is the last question answered with the more confidence from personal observation? .....

92. Is tea sometimes drawn in the ration instead of coffee? .....

93. Is fresh bread served? .....

94. Is soft bread served? .....

95. Is it baked in the regiment at a general bakery? .....

96. Is it generally of good quality? .....

96. Have any companies been able to save from their rations? .....

X. COMPANY FUND.

97. Has the company fund arrangement been successfully established in any case? .....
with several companies? .....
will all? .....

XI. SUTLER.

98. Is there a regimental sutler? .....

99. Who appointed him? .....

100. Are the prices of articles on sale fixed in accordance with the army regulations? .....

XII. INTOXICATION.

101. Is ardent spirits sold? ..... wine or beer? .....

102. Do the men obtain spirits otherwise? .....

103. Is there much intoxication? .....

104. What is about the average daily number of men sent to the guard-house? .....

105. Are these cases chiefly from intoxication? .....

106. Are peddlers of eatables or drinks, allowed access to the men in camp? .....

XIII. ABSENCES FROM CAMP.

107. Are the men strictly and effectively kept within the camp, except those having leave of absence? .....

108. What is the largest number of the men ever allowed to be absent from camp except on duty? .....

109. What is the ordinary daily number of absences? .....

XIV. RECREATIONS.

110. Are the men generally in good spirits? .....

111. Are means systematically used to promote cheerfulness, by games, entertainments, & c.? .....

112. Is there a regimental band? .....

113. Is it maintained, in any degree, from a fund to which the men contribute? .....
by the officers? .....

113. Is there a regimental library? .....
if so, are the books mainly of a religious character? .....
is it maintained by contributions from the men? .....
if no library, is the regiment otherwise tolerably supplied with reading matter? Is there much reading? .....
is target-shooting regularly or frequently practiced? If so, how often does each man have his turn at it? .....

XV. BENEFIT SOCIETIES.

114. Are there any provident or mutual benefit societies within the regiment? .....

115. Do the men generally serve or send home a part of their wages? .....

116. How are the savings transmitted? .....
by mail or express? .....
by allotment roll? .....

XVI. DISCIPLINE.

116. Does the general discipline of the camp appear better or worse than usual? .....

116. Are the common military signs of discipline punctiliously enforced or practiced, as the salute between men and officers? .....

116. Are officers or soldiers on duty allowed to have their coats partially unbuttoned, or otherwise to follow personal inclinations in matters proper to be made uniform and regular? .....

116. Are the sentries alert and soldier-like in appearance? .....

116. Is the regiment frequently exercised in difficult field maneuvers? .....

116. Is the brigades exercised in brigade maneuvers? .....

XVII. MEDICAL INSPECTION ON ENLISTMENT.

117. Was there a medical inspection of the men on their enlistment? .....

118. If so, state by what official it was made? .....

119. Was it thorough? .....

120. Has there been any subsequent medical inspections? .....

121. If so, state by what official it was made, and when. .....

122. Was it thorough? .....

122. How many rejected on second inspection? .....

123. Has every man in the regiment been vaccinated since enlistment? .....

123. If not, state the number so vaccinated? .....
the number upon whom existed evidence of previous vaccination .....
of these state the number who had been vaccinated more than once .....
of primary vaccination, how many were successful .....
of re-vaccination, how many were successful .....

XVIII. MEDICAL OFFICERS.

124. Name of surgeon? .....

125. When appointed? .....

126. By whom? .....

127. At whose nomination or suggestion? .....

128. Was he previously examined and approved of by a State or other medical board? .....
superior medical officer .....

129. If so, give the title .....

130. What had been the nature of his preparation or previous experience? .....
where graduated in medicine, and when .....
general country medical practice (a) .....
general town medical (b) .....
limited hospital experience (c) .....

extensive (d) .....
surgical practice (e) .....
qualified only as a student (f) .....
no valuable experience or preparation (g) .....

131. Name of assistant surgeon? .....

132. By whom appointed? .....

133. Qualifications: (Answer by repeating the letter opposite the appropriate suggestion after question 130). .....

XIX. CAMP HOSPITAL, AMBULANCES, &C.

134. Is a camp hospital organized? .....

135. Non-combatant regimental nurses? .....
male? .....
female? .....
none? .....

136. Is there a moderate supply of medicines? .....

137. What important articles are wanting, if any? .....

138. How long since requisitions have been made for these? .....

139. Are the most essential field instruments processed? .....

140. What important surgical articles are wanting? .....

141. Is there a regimental ambulance, or more than one? .....
how many two-wheeled ambulances? .....
how many patients will each accommodate? .....

how many four-wheeled ambulances? .....
how many patients will each accommodate? .....

142. Are there any field stretchers? .....
how many? .....

142. Are there any horse litters? .....
how many? .....

143. How long since requisition has been made for any of the above articles which are wanting? .....

143. Is an ambulance corps organized? .....

143. Has the ambulance corps been drilled in its duty? .....

144. Is the large (regulation) hospital tent appropriated to its proper purpose? .....

145. Is the regimental hospital in a house temporary structure, or tent? .....

146. If in a house or temporary structure, is it fairly adapted to its purpose? .....

147. Is it fairly well ventilated? .....

148. If in a tent, is it well drained? .....

149. Is it well ventilated? .....

150. Is there a separate sink for hospital patients? .....

151. Is it well arranged? .....

152. Is it carefully and adequately deodorized? .....

153. Are there a few sheets and suitable hospital dresses? .....

154. Are there any special hospital stores, (delicacies and cordials?) .....

XX. SICKNESS AND MORTALITY.

155. What are the prevailing diseases? .....
.....
.....

156. How many patients from the regiment are now in general hospital? .....

157. How many patients are in the regimental hospital? .....

158. How many "sick in quarters?" (slight cases in their own tents) .....

159. Are there any serious cases in the regimental hospital? .....

160. If so, has it been impracticable to remove them to the general hospital? .....

161. Are there any contagious or infectious cases? .....

162. Are they kept in a separate tent or house from the others? .....

163. Are the discharges from the latter placed in the privy used by others? .....

164. What has been the daily average number on the sick list during the last two weeks, as by morning reports? .....
in general hospital? .....
in regimental hospital? .....
sick in quarters? .....

165. Have there been any deaths in that time? .....
how many? .....
from what causes? .....

166. Are the dead buried near the camp, and at what depth? .....

167. Is the general health of the regiment, improving or deteriorating? .....

XXI. PREVENTIVE DUTY OF SURGEON.

168. Does the surgeon understand that he is responsible for all condition of the camp or regiment unfavorable to health, unless he has warned the commanding officer of them? .....

169. Does the surgeon make a daily inspection of the camp, with reference to its cleanliness? .....

170. Does he inspect the food, and see how the cooking is done? .....

171. Does he report on these matters, and urge remedies upon the company officers, and, when necessary, upon the commanding officer? .....

172. Is anything administered to the well men to guard against the effects of malaria? (Prophylacties) .....

173. Is there a drill before breakfast? .....

174. If so, does the surgeon approve of it? .....

175. If not, has he remonstrated against it with the commanding officer? .....

176. What is the length of time the men are on drill daily? .....

XXII. ARMS AND ACCOUTREMENT.

177. What is their arm? .....

178. Have the men confidence in it? .....

179. Is there any limit placed upon the weight of the knapsack for heavy marching order? .....

179. If so, what? .....

180. Is the cartridge-box sustained only by a belt? .....

or, has it the additional support of a shoulder strap? .....

if, by belt alone, what effect has the surgeon observed, if any? .....

(USSC 1866-1871:1:19:1-15)

BIBLIOGRAPHY

Berwanger, Eugene H. (ed)
1988 *William Howard Russell: My Diary North and South.* Temple University Press, Philadelphia.

Besch, Edwin W.
n.d. *Action at Wilson's Wharf, 24 May 1864: "From the Accounts of Every officer the Negro Troops Behaved Most Splendidly."* Manuscript on file, William and Mary Center for Archaeological Research, Williamsburg, Virginia.

Billings, John D.
1888 *Hardtack and Coffee.* G.M. Smith and Company, Boston.

Black, Wilfred W. (ed.)
1961 Civil War Letters of E. N. Boots: Virginia 1862. In *The Virginia Magazine of History and Biography*, Vol. 69, No. 2 1961 pp. 194-219.

Catton, Bruce (nar.), James M. Mcpherson (ed.)
1996 *The American Heritage New History of the Civil War.* Penguin Books USA, Inc., New York

Crawford, Martin. (ed.)
1992 *William Howard Russell's Civil War: Private Diary and Letters, 1861-1862.* University of Georgia Press, Athens.

Creswell, Bradley C.
1998 *A Final Report on Archaeological Investigations in the Proposed Sugarlimb Industrial Access Road, Site 40LD211, Loudon County, Tennessee.* Transportation Center, The University of Tennessee, Knoxville, Tennessee. Submitted to Loudon County Industrial Committee.

Cromwell, James R. and Geier, Clarence R.
1985 *Pre-Mitigation Investigations at the Smith Site (44CF133), Chesterfield County, Virginia.* Occasional Papers in Anthropology no. 19, James Madison University. James Madison University Archaeological Research Center, Harrisonburg, Virginia.

Coggins, Jack
1962 *Arms and Equipment of The Civil War*. Doubleday & Company, Inc., Garden City New York.

Davis, William C. (editor)
1983 *Fighting for time: Volume Four of The Image of War 1861-1865*. Doubleday & Company, Inc., Garden City New York.

Davis, William C. (editor)
1985 *Touched By Fire: A Photographic Portrait of the Civil War*, Vol. 1. Little, Brown and Company, Boston.

Davis, William C. (editor)
1986 *Touched By Fire: A Photographic Portrait of the Civil War*, Vol. 2. Little, Brown and Company, Boston.

Davis, William C.
1989 *Rebels and Yankees: The Fighting Men of the Civil War*. Gallery Books, New York, New York.

Downing, Charles M.
1996 *Historical Investigations at Four Properties: Kennons, Lizard Hill, Oldfields, and Sturgeon Point, Charles City County, Virginia*. William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Harrison R. Tyler, Charles City, Virginia.

Dunlap, Leslie W. (ed.)
1978 *"Your Affectionate Husband, J. F. Culver": Letters Written During the Civil War*. Friends of the University of Iowa Libraries, Iowa City.

Eisinger, Larry (editor)
1961 *Best Photos of the Civil War*. Arco Publishing Company, Inc., New York.

Feld, Maury D.
1977 *The Structure of Violence: Armed Forces as Social Systems*. Sage Publications, Beverly Hills, California.

Frye, Susan W.
1990 "The boys are all busy fixing some kind of winter quarters": Civil War Campgrounds on Maryland Heights. *Upland Archaeology in the East: Symposium Number Four* 38:162-181. Richmond, Virginia.

Gardner, Alexander
1959 *Gardner's Photographic Sketch Book of the Civil War*. Dover Publications, INC., New York.

Glick, Edward B.
1971 *Soldiers, Scholars, and Society: The Social Impact of the American Military.* Goodyear Publishing Company, INC. Pacific Palisades, California.

Gould, R. A.
1980 *Living Archaeology.* Cambridge University Press, New York.

Guernsey, Alfred H., and Henry M. Alden
1866 *Harper's Pictorial History of the Civil War: Contemporary Accounts and Illustrations From the Greatest Magazine of the Time.* Fairfax Press, Crown Publishers Inc., New York.

Harwood, Jamison M., Megan E. Grow, Mary E. Lorenzo, and Ari Machida
1998 *Archaeology at Fort Pocahontas: Results from the 1998 Field Season.* Technical Report Series No. 29. William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Harrison Tyler, Sherwood Forest, Virginia.

Herberger, Charles F. (ed.)
1999 *A Yankee At Arms: The Diary of Lieutenant Augustus D. Ayling, 29th Massachusetts Volunteers.* University of Tennessee Press, Knoxville.

Higgins, Thomas F. III, and Charles M. Downing
1993 *A Phase II Archaeological Evaluation of Site 44GL355, Proposed Route 17 Toll Building Project, Gloucester County, Virginia.* William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Virginia Department of Transportation, Richmond.

Higgins, Thomas F. III, Charles M. Downing, Kenneth E. Stuck, Gregory J. Brown, Karl J. Reinhard
1995 *The Civil War At Gloucester Point: Mitigation of Site 44GL358 Associated with the Proposed Route 17 Coleman Bridge Project Gloucester County, Virginia.* Technical Report Series No. 19. William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Virginia Department of Transportation, Richmond.

Hoover, Lee B,
1962 *Civil War Camps In and About Chambersburg.* http//jefferson.village.virginia.edu/vshadow2/KHS/pa.fr.camps.html.

Hudson, Carson O.
1997 *Civil War Williamsburg.* Colonial Williamsburg Foundation, Williamsburg, Virginia.

Hume, Ivor Noel
1969 *Historical Archaeology*. Alfred A Knopf, New York.

Humphreys, Charles A.
1918 *Field, Camp, Hospital and Prison in the Civil War, 1863-1865*. Books for Libraries Press, Freeport, New York.

Jensen, Todd L., Elizabeth J. Burling, Sunyoon Park, Jessica A. Williams, Andrew A. Schmidt
1999 *A Tale of Three Centuries: 1999 Excavations at Fort Pocahontas*. William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Harrison Tyler, Sherwood Forest, Virginia.

Johnson, Rossiter
1898 *The American Soldier and Sailor in the War: A Pictorial History of the Campaigns and Conflicts of the War Between the States, from the first Bloodshed in the Streets of Baltimore to our Countries War with Spain: profusely illustrated with battle scenes, naval engagements and portraits from sketches by Forbes ... and other celebrated war artists: a complete history of our country in war and descriptive articles by Rossiter Johnson.* E. J. Stanley, New York, New York.

Jolley, Robert L.
1997 *A Metal Detector Survey of Camp Mason (44FK533) A CSA Winter Encampment Frederick County, Virginia.* Virginia Department of Historic Resources, Winchester.

Jones, Joe B.
1998 *An Archaeological Evaluation of Site 44FK533, Proposed Winchester Area Headquarters Project, Frederick County, Virginia.* William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Virginia Department of Transportation, Richmond.

Katcher, Philip R. N.
1992 *The Civil War Source Book*. Facts On File, New York.

Kim, Yong W.
1993 *The Sevierville Hill Site: A Civil War Union Encampment on the Southern Heights of Knoxville, Tennessee*, edited by Charles Bentz and Young W. Kim, Tennessee Anthropological Association Miscellaneous Paper No. 17. Transportation Center, The University of Tennessee, Knoxville.

King, Thomas F.
1998 *Cultural Resource Laws and Practice: An Introductory Guide*. AltaMira Press, Walnut Creek, CA.

Lang, Kurt
1972 *Military Institutions and the Sociology of War: A Review of the Literature with Annotated Bibliography.* Sage Publications. Beverly Hills, California.

Legg, James B., and Steven D. Smith
1989 *"The Best Ever Occupied..." Archaeological Investigations of A Civil War Encampment On Folly Island, South Carolina.* Research Manuscript Series 209. The South Carolina Institute of Archaeology and Anthropology, University of South Carolina.

Linebaugh, Donald W., Clifton A. Huston, Charles M. Downing, and Dennis B. Blanton
1994 *An Assessment of Archaeological Resources at the Bachelor Point Property, Charles City County, Virginia.* William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Harrison R. Tyler, Charles City, Virginia.

Livermore, Mary A.
1889 *My Story of the War: A Woman's Narrative of Four Years Personal Experience as Nurse in the Union Army, and in Relief Work at Home, in Hospitals, Camps, and at the Front, During the War of the Rebellion. With Anecdotes, Pathetic Incidents, and Thrilling Reminiscences Portraying the Lights and Shadows of Hospital Life and the Sanitary Service of the War.* A. D. Worthington and Company, Hartford, Conn.

Lord, Francis A.
1965 *Civil War Collector's Encyclopedia; Arms, Uniforms, and Equipment of the Union and Confederacy.* Castle Books, New York.

1995 *Civil War Collector's Encyclopedia: Arms, Uniforms, and Equipment of the Union and Confederacy.* Vols. III, IV, and V. Blue & Grey Press, Edison, New Jersey.

Miller, Francis Trevelyan (editor)
1911 *The Photographic History of the Civil War.* 10 vols. The Review of Reviews Co., New York.

Moskos, Charles C. Jr.
1970 *The American Enlisted Man : The Rank and File in Today's Military.* Russel Sage Foundation. New York, New York.

Neely, Mark E. and Harold Holzer
2000 *The Union Image: Popular Prints of the Civil War North.* University of North Carolina Press, Chapel Hill.

Nelson, Dean E.
1982 "Right Nice Little House[s]": Impermanent Camp Architecture of the American Civil War. In *Perspectives in Vernacular Architecture*, edited by Camille Wells, pp. 79-93. Image Graphics, Paducah, Kentucky.

Nasca, Paul M., Dennis B. Blanton, Charles M. Downing, and Veronica L. Deitrick
1998 *Archaeology at Fort Pocahontas: Results from the 1997 Field Season.* William and Mary Center for Archaeological Research, Williamsburg, Virginia. Submitted to Harrison R. Tyler, Charles City, Virginia.

Norton, Oliver Willcox
1903 *Army Letters 1861-1865. Being Extracts From Private Letters to Relatives and Friends from a Soldier in the Field During the Late Civil War, With an Appendix Containing Copies of Some Official Documents, Papers and Addresses of Later Date. By Oliver Willcox Norton, Private Eighty-third Regiment Pennsylvania Volunteers, First Lieutenant Eighth United States Colored Troops.* O. L. Deming, Chicago.

Official Records of the Union and Confederate Armies
1880-1891 *The War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies.* Government Printing Office, Washington. D.C.

Racine, Philip N. (ed.)
1994 *"Unspoiled Heart": The Journal of Charles Mattocks of the 17th Maine.* University of Tennessee Press, Knoxville.

Robertson, James I.
1988 *Soldiers Blue and Gray.* The University of South Carolina Press, Columbia, South Carolina.

Shannon, Fred A.
1928 *The Organization and Administration of the Union Army 1861-1865.* Vol. I. Arthur H. Clark Company, Cleveland.

Starr Steven Z. (ed.)
1978 Winter Quarters Near Winchester, 1864-1865: Reminiscences of Roger Hannaford, Second Ohio Volunteer Cavalry. In *The Virginia Magazine of History and Biography*, Vol. 86, No. 3 1978 pp. 320-328

Thomson, S. Millet
1888 *Thirteenth Regiment of New Hampshire Volunteer Infantry in the War of the Rebellion 1861-1865: A Diary Covering Three Years and a Day.* The Riverside Press, Cambridge.

United States Sanitary Commission
1865 *Bulletin.* 3 vols. New York, New York.

United States Sanitary Commission
1866-1871 *Documents of the U.S. Sanitary Commission.* 3 vols. New York, New York.

United States War Department
1863 *Revised United States Army Regulations of 1861.* George W. Childs, Philadelphia.

Wellikoff, Alan
1996 *The Civil War Supply Catalogue: A Comprehensive Sourcebook of Products From The Civil War Era Available Today.* Crown Publishers, New York, New York.

Wiley, Bell I.
1951 *The Life of Billy Yank: The Common Soldier of the Union.* The Bobbs-Merrill Company, New York.

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