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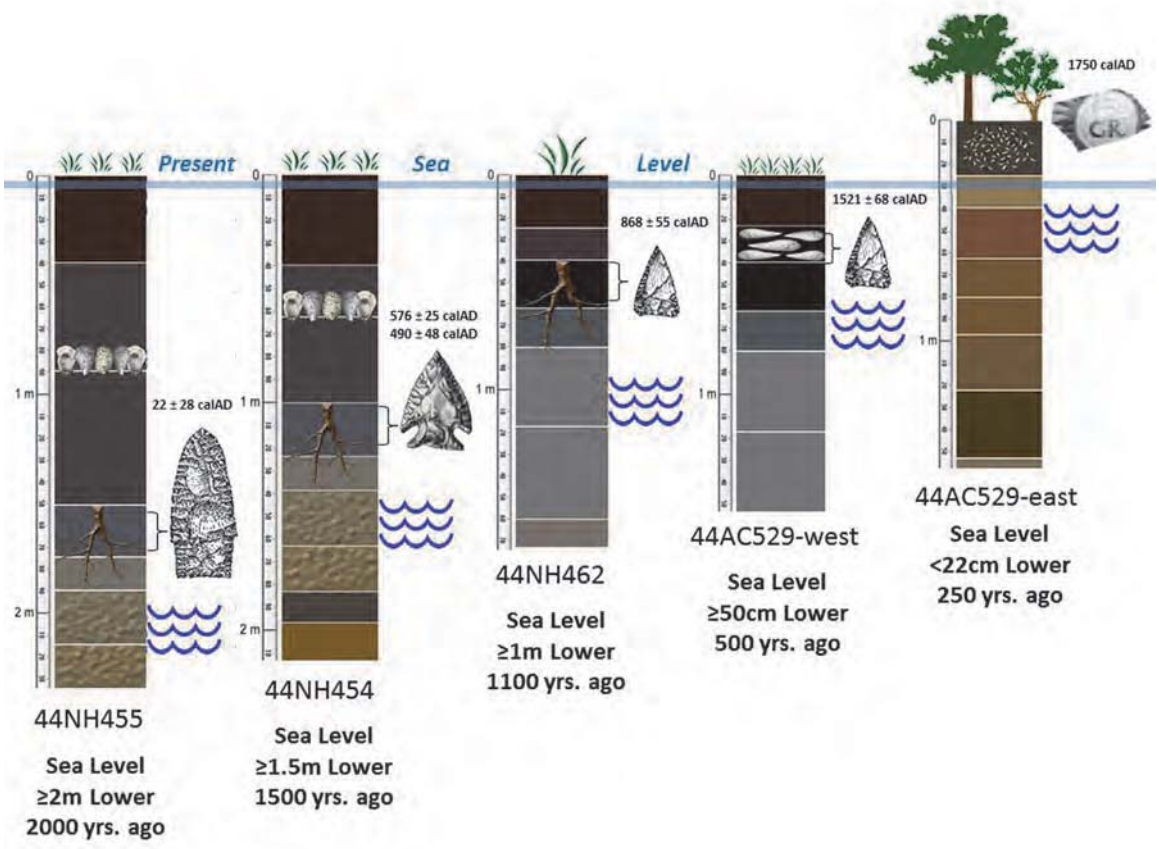

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HEALTH AND HYGIENE AT SHERWOOD FOREST PLANTATION (44ST615): CIVIL WAR AND POSTBELLUM

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ABSTRACT

Sherwood Forest Plantation (44ST615) in Stafford County, Virginia was occupied from the mid-19th century through the late 20th century. During the Civil War, specifically around the Battle of Fredericksburg, the Union Army used Sherwood Forest as a hospital, in addition to a general encampment. Through the University of Mary Washington field school during the summers of 2016 and 2017, we discovered a variety of evidence related to health and hygiene, including toothbrushes, lice combs, patent medicine bottles, and a tooth powder jar. Personal hygiene was a very important part of a soldier's daily regimen. In this paper, I will discuss the hygiene related artifacts found on the site and what this evidence can tell us about hygiene both during and right after the Civil War and how this information can be used to better understand how the soldiers and people occupying Sherwood Forest took care of themselves.

Since the summer of 2015, the University of Mary Washington has run a research program at Sherwood Forest Plantation (44ST615). This 800-acre antebellum plantation is located about five miles outside the City of Fredericksburg, Virginia. Led by Dr. Lauren K. McMillan in cooperation with the property owners, the Walton Group, University of Mary Washington students and volunteers have been working on the project to learn more about the plantation and those who worked, lived, and camped there.

Sherwood Forest sits on part of a 1600-acre land grant belonging to Joseph Ball in 1667. It was passed down through several generations of the Ball family until Mary Ball Washington, mother of founding father, George Washington, acquired 400 acres of the original grant. It is likely that this land was used as a quartering farm and not occupied by any member of the Washington family. In the 1840s, Jane and Henry Fitzhugh, descendants of the Washingtons and members of the local elite, built the standing brick house along with a still standing kitchen-quarter and extant slave duplex quarter (McMillan nd:2).

When the Union Army came knocking on their front door during the Battle of Fredericksburg in 1862, Henry Fitzhugh fled for the duration of the war while his wife and younger children remained on the property (Fuechsel *et al.* 2017:1-2). Between December 1862 and June 1863, the Union Army occupied Sherwood Forest, using the property as a field hospital, signal station, and reconnaissance station for launching hot air balloons (Fuechsel *et al.* 2017:2). The main house, as well as many of the outbuildings, were likely used by Union officers as housing, even though Jane and the children remained in the house during occupation (Fuechsel *et al.* 2017:2).

During the summers of 2015, 2016, and 2017, the University of Mary Washington's Archaeological Field School has found a plethora of artifacts related to Union occupation of Sherwood Forest in a largely intact midden feature near the standing duplex quarter and brick kitchen/laundry (Fuechsel *et al.* 2017:2) (Figure 1). The pit, which was densely filled with artifacts, revealed several health and hygiene related artifacts including those related to dental care, hair care, the surgeon corps, and self-medication. Those artifacts tell us the stories of how soldiers and officers in the Union Army took care of their bodies and what requirements and provisions were given to them by the United States government.

Good health and hygiene practices are vital for any army to function effectively. During the Civil War, both the Union and Confederate armies encouraged good hygiene to prevent the spread of disease

Figure 1. Civil War midden feature, summer 2016, facing northeast. Photograph by Lauren McMillan, 2016.

and illness. Twice as many soldiers died from disease than from any combat related injury (Wheat 2016). If the armies could keep their troops healthy, the more effective their soldiers would be in battle. Once they recognized the importance of cleanliness and sanitation, especially within camps, three out of every four soldiers would survive the illnesses they contracted (Wheat 2016). By the latter half of the war, both armies experienced good health since the weak had either died or went home, and the soldiers that remained had developed immunities to the many diseases thanks to either contracting the disease and surviving or vaccinations (Wheat 2016).

In order to encourage proper hygienic behavior, as well as regulate it in some way, Dr. William A. Hammond, the Union Surgeon General, published *A Treatise on Hygiene* in 1863. In the Preface, Hammond (1863:vii) mentions that, "If [he] had not believed that a great necessity existed for a treatise upon some of the principal subjects of hygiene, [he] certainly should not…have undertaken the task of preparing the present volume." Hammond (1863:vii) was convinced that hygienic measures and their influence on good health had gone neglected for too long and the Union Army was in desperate need to reinforce such behaviors. With the regulation and encouragement of certain hygienic practices, it would benefit not just the common soldiers, but officers as well.

One of the most important body parts for a soldier during the Civil War was his teeth. According to *A Treatise on Hygiene*, "no one can be healthy whose teeth are deficient or in bad condition; and soldiers of all other classes of men, require that these organs should be sound" (Hammond 1863:59). In order to tear cartridges for his gun as well as to receive nutrients through the proper mastication of food, a soldier needed most, if not all, of his teeth (Hammond 1863:59). Even with this being stated in a manual used during examination for service, dental hygiene was not a priority for the Union Army. As a result, only 2.4% of men examined for service were excused due to lack of teeth (Bollet and Damman 2008:41).

The Union Army entered the war without dental surgeons and did not supply toothbrushes to its troops (Hyson *et al.* 2008:29). Because of this, most soldiers had to provide their own toothbrushes. This also meant that soldiers needed to visit civilian dentists and pay out of pocket in the event that had a serious dental problem (Schroeder-Lein 2008:84). If a soldier or officer had smaller issues such as needing a tooth pulled, soldiers could visit the Army surgeon who would perform the task, no matter how unqualified he was to perform the job (Hyson *et al.* 2008:38). According to William Roberts, the coeditor of the *New York Dental Journal* at the time, "If the soldier could only take reasonable care of his teeth himself, he would get on much better, but a toothbrush is an article not in the regulations and sutlers don't supply them" (Hyson *et al.* 2008:44). This inaccessibility made toothbrushes hard to find and acquire unless the soldier made it by hand or had one sent from loved ones at home (Hyson *et al.* 2008:32). When looking at the two toothbrushes found at Sherwood Forest, the precise craftsmanship of the edges as well as the bristle holes tell us that these were manufactured toothbrushes that were either bought and sent from home, bought by an officer since he had a higher salary, or looted from another camp or storehouse.

The soldiers and officers in the Union Army were not the only ones struggling with dental hygiene issues and accessibility to toothbrushes. When the Confederate Army captured the railyard at Manassas Junction in 1862, the most common object the soldiers took were toothbrushes (Hyson *et al.* 2008:59). There was such a shortage in supplies due to Union blockades that all dental services and products in the South were expensive, resulting in the reuse of old toothbrushes as well as an increase in handmade ones (Hyson *et al.* 2008:59). Since most dental care and supplies were seen as a luxury, most Confederate soldiers had poor oral hygiene leading to an increase in dental issues.

Due to lack of numbers, the Confederacy could not afford to deny men entry into service if they had dental problems, therefore, they drafted dentists to take care of those who would have been rejected because of their teeth (Bollet and Damman 2008:42). This is where the Confederate Army rose above the Union. Even though they had a shortage of trained dentists, they showed an eagerness to employ dentists in the army so that they could provide care to soldiers (Hyson *et al.* 2008: 55). Because they drafted dentists, almost all of the large Confederate hospitals had at least one dental surgeon assigned to the staff (Hyson *et al.* 2008:66). The Confederacy's tactical approach to dentistry and access to dental hygiene services led to conservation of personnel and quick return of soldiers with any dental issues, a problem the Union Army continuously dealt with (Hyson *et al.* 2008:55).

At Sherwood Forest, we uncovered both a toothbrush head as well as a full toothbrush, both made of bone (Figures 2, 3) Both toothbrushes were found within Civil War era deposits. Originally, it was believed that the toothbrush head was made of rubber or gutta-percha because of its dark black color; however, further examination revealed striations indicating the material to be extremely burnt bone. Based on comparison with other toothbrushes from the period and a 19th-century toothbrush typology (Mattick 1993:164), I was able to date both toothbrush heads between either 1840 and 1850 or 1850 and 1860. Another partial toothbrush head was also recovered from the same master-context as the other two toothbrushes; however, there was not enough left of it to determine an accurate date range.

Figure 2. Burnt toothbrush head. Photograph by Author, 2017.

When taking a closer look at these two brushes, four holes could be seen along the top, rounded edges (Figure 4). These holes as well as the smooth back indicate that the method of trepanning was used to insert the bristles (Mattick 1993:163; Figure 5). For the process of trepanning, "the bristle holes are drilled only partway to the back of the stock. Instead of joining the holes with a slit, a hole was bored or

Figure 3. Full toothbrush. Photograph by Author, 2018.

Figure 4. Close-up of trepanning holes on full toothbrush. Photograph by Author, 2018.

Figure 5. Burnt toothbrush head. Photograph by Author, 2017.

trepanned from the end of the stock to form a 'tunnel,' which joined the holes" (Mattick 1993:163). A thread attached to the bristles would be sewn through each hole to attach the bristles almost inconspicuously into the head of the toothbrush, resulting in a smooth back instead of cutting slits to insert the bristles (Mattick 1993:163; Dechant n.d.).

It is hard to have toothbrushes without some sort of powder or paste to help clean your teeth. During the Civil War, toothpaste, commonly called dentrifice, could either be prepared at home or bought from pharmacies (Smith 2017). The primary ingredients were chalk and cuttlefish, but other ingredients such as powdered coral, rose pink, and dragon's blood, a bright red resin found in several different plants, could be added to provide color and sometimes flavor as well (Smith 2017). The base of a whiteware, toothpaste jar was recovered from the same master-context as the burned toothbrush (Figure 6). An officer or a soldier could have purchased this jar from the nearby town of Fredericksburg; however, it is also possible that it was a jar they had been carrying with them to be refilled with homemade dentrifice, a common practice in the 19th century. One of the most common types of tooth powder used by the Union Army was SS White Tooth Powder, which was developed by Dr. Samuel Stockton White in the late 1840s (Jones 2014:277).

Figure 6. Toothpaste jar base. Photograph by Author, 2018.

By the end of the Civil War, soldiers and officers on both sides recognized the need for better dental support and encouragement towards good dental hygiene practices (Hyson *et al.* 2008:75). Even though the Confederacy was more sympathetic and willing to provide dental care to soldiers, the overall lack of toothbrushes led to poor dental hygiene on both sides. Had toothbrushes been more accessible, it is possible that soldiers may not have suffered from as many dental issues and diseases as they did. In part, the lack of toothbrushes could be attributed to the need for mass production of the product, something that did not happen until after the war.

Hair hygiene was also just as important as dental hygiene in the eyes of the Union and Confederate Army. Besides soldiers and officers, camps were also occupied by lice (Capinera 2008:1817). Soldiers and officers at the time were allowed to have beards; however, they had to be short and neatly trimmed (Dorr and Borch 2012). Likewise, their hair was required to be combed, especially if going on transports (US War Department 2005:121). Since most people did not bathe or wash their hair frequently during the 19th century, it was of the upmost importance, especially for men, to find a way to remove dirt, oil, and bugs from not only their hair, but their beards as well (Sherrow 2006:90).

Fine-toothed combs, especially lice combs, were the easiest and most convenient way to clean and style hair. With the invention of hard-rubber in the 1850s by Charles Goodyear, the United States was able to produce hard-rubber combs: a more flexible, longer-lasting alternative to using wood for creating combs (Skrabec 2014:34; Figure 7). At the time of the Civil War, the two main producers of hard-rubber products, including combs, were India-Rubber Comb Company and American Hard-Rubber Company (Depew 1895:502). Producing hard-rubber combs as well as other items became a lucrative business during the Civil War since most, if not all, soldiers and officers carried combs in their packs as an essential hygiene item (Sherrow 2006:90). Unfortunately, like most personal hygiene related items, combs were not provided by either army. They could, however, be bought from sutlers (Jones 2014:135).

Figure 7. Hard rubber comb fragments. Photograph by Author, 2018.

Both soldiers and civilians during the 19th century styled their hair using hair oil or tonic (Sherrow 2006:269). Hair tonics were sold in both the United States and Europe and rose in popularity among men (Sherrow 2006:373). Many tonics were made from common ingredients with absolutely no special value for hair, making them a virtually useless hygienic product, but a useful styling tool (Sherrow 2006:373). Hair tonics could be used not only on cranial hair, but facial hair as well. For that reason, "many men also used some kind of hair tonic, hair cream or oil to groom their hair" (Sherrow 2006:365). It could be used to provide shine or form to an officer's hair, beard, or mustache; hence why the hair of officers in portrait pictures during the war appear shiny and well-kept.

Two hard-rubber comb fragments were found in the Civil War midden at Sherwood Forest and a bone brush handle was recovered from a transitional layer that appears to be related to the looting of the big house, just below the layer of army abandonment and above the antebellum layers. Both combs are fine-toothed, while the brush handle bears the inscription, "EXTRA FINE LONDON" (Figures 7, 8). The

Figure 8. Brush handle with Inscription, “EXTRA FINE LONDON.” Photograph by Author, 2018.

fragments of the hard-rubber combs are from two separate combs and were most likely regular hard-rubber combs; both most likely belonged to the Union officers occupying Sherwood Forest. The bone brush handle could have belonged to either Jane Fitzhugh and her family or the Union officers. Based upon the context in which it was recovered, it is most likely associated with the Union encampment and was an officer’s brush to be used for styling purposes along with hair tonic or cream. Nearby to the bone brush handle, an aqua bottle of Barry’s Tricopherus Hair Tonic was also found (Figure 9).

Figure 9. Fragment of Barry’s Tricopherus Hair Tonic bottle. Photograph by Author, 2018.

Created by Alexander C. Barry, a former wig maker and self-named "professor," in the late 1840s, Barry's Tricopherus Hair Tonic was one of the most famous tonics during the 19th century. The tonic's formula contained 97% alcohol, 1.5% castor oil, and 1% tincture of cantharids, also known as Spanish fly (Sherrow 2006:175). Barry's Tricopherus Hair Tonic was manufactured in New York City during the 1850s and 1860s. (Smithsonian Institution n.d.). It is also still manufactured today under the same name, but using a different formula. It was believed during the 19th century that by irritating the scalp with cantharids, one could increase circulation and thus, stimulate hair growth (Sherrow 2006:175). It was also believed that it would render the hair "beautiful, luxuriant and glossy, makes it curl, retain it in any desired position, and frees the scalp entirely from dandruff" (Smithsonian Institution n.d.). We know that a majority of the troops occupying Sherwood Forest during the Civil War were from New York due to the large number of New York produced liquor bottles and New York State troop buttons recovered, in addition to primary source letters written home from soldiers (Anonymous 1863). Therefore, it is understandable that the officers occupying Sherwood, as well as their families back home, would have access to Barry's Ticopherus Hair Tonic.

I cannot discuss hygiene and health without making mention to the Surgeon Corps that accompanied the soldiers and officers at each and every battle. For the most part, surgeons acted not only as surgeons, but also as general doctors and dentists. When they were not performing surgeries or amputations, surgeons would take care of and give medicine to the sick soldiers and officers. If a unit did not have a dentist, they would act in their place and perform any necessary tooth extractions. Based on historic documentation and letters, there was a corps of surgeons at Sherwood Forest during the Civil War (Rawlings 1863; Barnes 1883). This is also supported by the findings of several medical related artifacts.

Since surgeons were also in charge of providing medication to soldiers and officers, it is also important to make note of the self-medicating that would occur at many camps. Patent medicines, pain killers as well as alcohol were often used as a way to comfort the sick and wounded (Jones 2014:319-322). The pain killers, such as opium and quinine sulfate, would be carried by surgeons in their medicine chests, but bitters and tonics could be purchased from sutlers or local stores for personal use (Wheat 2016). When soldiers and officers were unable to purchase tonics and bitters, they would often make their own. For example, Confederate troops would create a tincture of dogwood, poplar, and willow bark mixed with whiskey as a substitute for quinine, a common medicine used to treat malaria (Hasegawa 2007:650-651). Alcohol, specifically whiskey, could also be carried in large quantities by surgeons; however, this was often subjected to theft and looting since soldiers knew exactly what was in the cask (Schroeder-Lein 2008:4). While homeopathic recipes and self-medication through alcohol became popular substitutes for more expensive medicines and pain killers, they were often not particularly effective (Schroeder-Lein 2008:258). Nonetheless, these substitutes were often tested and used at many major Union and Confederate hospitals, including several in Richmond (Schroeder-Lein 2008:258).

Even though the Union Army had better access to all types of medication, there was an unexpectedly low amount of medicinal related bottle glass found in the midden feature at Sherwood Forest (Fuechsel *et al.* 2017:22). There was, however, an abundance of both wine and whiskey glass found in the midden feature. This could be explained by the possibility of another midden existing on the site, containing solely medical waste in it (Fuechsel *et al.* 2017:19). This could also infer that troops and officers stationed at Sherwood Forest relied more on either self-medication through alcohol or homemade, homeopathic tinctures. Alcohols such as whiskey and rum were the most common ingredients in many bitters and tinctures, which could explain the high presence of whiskey glass at Sherwood Forest (Fuechsel 2017). In her paper, "Bitters and Libations: Bottle Glass and Sherwood Forest Plantation's Union Encampment," Melanie Fuechsel (2017) focused her research on 138 pulled glass fragments from the 2016 field season, 35 of which she was able to link to nine specific bottles. Of those nine bottles, four were alcohol flasks and bottles and two were medicine bottles (Fuechsel 2017). The more refined objects, such as the alcohol flasks, would have likely belonged to officers due to their luxurious nature (Fuechsel 2017). Since a majority of these identified bottles are alcohol related by nature, it speaks volumes about the common misuse and abuse of alcohol among soldiers and officers during the Civil War.

The biggest questions that stem from the health and hygiene related artifacts at Sherwood Forest are simple ones to answer. What do these things tell us about how soldiers took care of their bodies and what

did the Union Army want them to do in order to take care of their bodies? Simply put, it seems as if, most of the time, the soldiers and officers themselves cared more about their hygiene than the army did. If the army truly cared about the dental hygiene of its soldiers, we would be finding more toothbrushes and toothpaste jars because they would have been provided to soldiers and officers alike. While the Union Army often encouraged good hygiene and hygienic behaviors, the opposite was often found at many campsites which is a key factor as to why so many soldiers died from disease. The fact that Sherwood Forest was an encampment of mainly officers tells us it is probable that because of their higher socio-economic status, officers had better opportunities to buy the necessary hygiene related products, and had family who could send such items as needed. Hygiene products were not easy to find or buy due to lack of production and limited availability, making it expensive for the average person to buy; hence why looting and theft was such a large problem during the war.

Sherwood Forest Plantation has quite an interesting narrative behind it, especially during the years of the Civil War. The Union occupation of the plantation for an officer's encampment, reconnaissance post, and hospital allowed for the buildup of unwanted or no longer needed items in what we know as the Civil War Midden Feature. Those artifacts have granted us a closer look at the lives of the officers and soldiers that inhabited Sherwood Forest, even if it was only for a short period of time. We now have not only a better understanding of how the officers and soldiers at Sherwood took care of themselves, but also how soldiers and officers in general tried to maintain good health. While rudimentary by today's standards, the ways in which these men took care of themselves during wartime were advancements from typical health related behaviors at the time and encouraged better behaviors post-war.

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